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British Medical Journal

THE JOURNAL OF THE BRITISH MEDICAL ASSOCIATION.

INCLUDING

AN EPITOME OF CURRENT MEDICAL LITERATURE.

EDITED FOR THE ASSOCIATION BY

ERNEST HART.

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LONDON: SATURDAY, JULY 1, 1893.

CHOLERA:

WHERE IT COMES FROM AND HOW IT IS PROPAGATED.

Abstract of an Address delivered before the American Medical Association.

By ERNEST HART,

Editor of the BRITISH MEDICAL JOURNAL; Chairman of the National Health Society.

English Experiences.—Epidemic of 1831-33.—The Epidemic of 1848-9.—Epidemic of 1853-4: Broad Street Pump Experiences.—Epidemic of 1866.—Egyptian Experiences.—French Experiences.—Italian Experiences.—Spanish Experiences.—Russian Experiences in 1892.—Cholera at Hamburg in 1892.—Indian Experiences.

WHEN cholera first spread westwards from its home in India across Asia and Europe, its characteristics were so unusual that it was attributed to "telluric," "meteoric," "atmospheric," and such like mysterious influences; indeed, at the present day there are still many who attach undue weight to such views. For my own part, I think it is high time to put these old notions aside, and that the spread of cholera should be looked at practically in the light of the accumulated evidence afforded by all the great epidemics of the past. That accumulated, and unhappily still accumulating, evidence clearly shows that cholera is a filth disease, carried by dirty people to dirty places, and there spread by dirt and the use of dirty water. With pure water, pure air, pure soil, and pure habits, cholera need not be feared.

To Snow belongs the great honour of being the first to recognise water as a medium of disseminating cholera. His deductions to this effect from his observations of cholera in England between 1848 and 1854 were confirmed by the elaborate investigations of Farr and Simon, and in 1866, following in the same footsteps, I was instrumental in tracing the disastrous cholera epidemic of that year in East London to the distribution of polluted and partially filtered water from the River Lee by the East London Water Company. Since that startling experience I have been convinced that specifically polluted water is not merely an occasional or adjuvant cause, but the *causa causans* of almost every great epidemic of Asiatic cholera, and I have observed that when the use of the infected water has been abandoned or cut off the epidemic has ceased. These views have been fully borne out by a close observation of each successive cholera outbreak within the last thirty years.

A.—ENGLISH EXPERIENCES. EPIDEMIC OF 1831-3.

In England cholera first appeared in October, 1831, and until the summer of 1833 ravaged various parts of the kingdom. Its extension was so sudden and mysterious that it was popularly looked upon as a visitation of Providence beyond human control. The new disease was carefully studied, and its affinity for the poor, ill-fed, unhealthy parts of the population, and for the unclean, ill-ventilated, and crowded districts was fully recognised, but its relation to the water supplies seems to have received little thought. Yet the general circumstances of the water supplies of England at that time were deplorably bad, and Dr. Snow a few years later collected information which led to the presumption that, as in subsequent epidemics, contaminated water in 1832 played an important part.

THE EPIDEMIC OF 1848-9.

In 1848 occurred the next great visitation of England by cholera. The disease rapidly overran the whole country, and before it had disappeared in epidemic form, towards the close of 1849, 53,293 of the English people had died from it, and 18,887 had died from "diarrhœa," out of a population of some 17,564,656, living in a great variety of circumstances. It was in August, 1849, whilst this epidemic was running its course, that Snow propounded his theory that a most important way in which the disease may be widely disseminated is "by the emptying of sewers into the drinking water of the community." He had found that in most towns in which the malady had prevailed to an unusual extent this means of communication had existed, and he has recorded numerous instances in support of his opinion. He held that the cholera in 1848 was brought to London from Hamburg, that it was increased by infected persons, that the infected sewage matter found its way partly through the soil into the wells, and partly through sewers into the Thames and Lee, from which a portion of the water supply of London was derived. This theory was adversely criticised at the time in a report by Drs. Baly and Gull to the London College of Physicians, and, as Mr. N. C. Macnamara has well remarked, these physicians wellnigh nipped this doctrine in the bud, and thus did much to retard the progress of our knowledge of the etiology of cholera.

EPIDEMIC OF 1853-4: BROAD STREET PUMP EXPERIENCES.

Early in the summer of 1854 cholera had obtained a foothold in London, and the outbreak which occurred in St. James's, Westminster, in the neighbourhood of the public pump in Broad Street, is of historic interest, as it is the earliest important instance in which the agency of water as a disseminator of cholera was clearly demonstrated. The first death in the parish was recorded early in August, 1854, and throughout that month a few deaths occurred each week, but during the week ending September 2nd, 78 deaths were registered, in the next week there were 287 deaths, in the following week there were 67, and then the mortality as quickly subsided as it had risen. By the beginning of November there had been some 700 fatal attacks in this single parish; that is to say 22 out of every 1,000 persons living in the parish had died of the disease within three months. No satisfactory solution of this mysterious outbreak presented itself until Dr. Snow was called in to examine the water supplies. His published report shows the clearly marked incidence of the disease on those who drank the water of the parish pump. It shows how the workers in one particular factory, where the water was always used, suffered severely from cholera, whilst those in an adjoining brewery, where the water was never used, escaped, and numerous instances of fatal attacks of cholera following the use of the treacherously sparkling water from this pump are detailed. On the drains of the house adjoining the well being opened it was found that there was a cesspool under a common privy, within three feet of the well, and at a higher level than that of the water in the well; that, the walls of the cesspool being rotten, the contents leaked into the surrounding soil; that the walls of the well were also rotten, and that there was distinct evidence of the cesspool contents having for a long time leaked into the well. In the house itself a child, aged five months, had died on September 2nd of so-called "diarrhœa," but with distinctly choleraic symptoms.

In this case it was a well that was at fault: but in 1848 and 1853, as Mr.—now Sir John—Simon clearly showed in his reports to the General Board of Health, Londoners were also the subjects of gigantic experiments at the hands of some of

the water companies, who drew their supplies from the Thames and Lee at points where those rivers were grossly polluted with the sewage and outscourings of the rapidly-growing metropolis. Carefully gathered statistics show that the people who drank dirty river water suffered from cholera greatly in excess of those whose water supply was from less polluted parts of the rivers.

EPIDEMIC OF 1866.

The next choleraic invasion of England was in 1866, and is memorable for the terrible experiment which was unconsciously carried out by another of the London water companies, at the expense of some 4,000 lives in East London. Early in the outbreak I was struck by its incidence on the area supplied with water by the East London Water Company, and I felt confident it could only be due to a sudden specific pollution of the water supply. Acting on behalf of a great medical journal, I despatched the late Mr. J. Netten Radcliffe—who had not then become attached to the Medical Department of the Privy Council—to investigate the matter. After much trouble, the result showed that, owing to changes having been made in their filtering apparatus, the company had sent out for a few days unfiltered water, or water in a very partially filtered state, direct from the River Lee, which had just at that moment become infected with choleraic discharges from a cottage of which the sewers were connected with the river, and in which a family infected with cholera had come to reside.

During this epidemic many other parts of England besides London furnished similar evidence of the relation of water supplies to the spread of cholera.

Since 1866 sanitary improvement throughout England has grown apace, and concurrently Asiatic cholera has not been able to extend or even to establish itself in the country, though cases have reached our shores on numerous occasions. The London water supply is better filtered and of better quality to-day than formerly; but still it is open to criticism in so far as it is derived from the Thames and the Lee at points below where those rivers still receive sewage. The immunity of water companies in distributing poisoned water is a curious and serious anomaly.

B.—EGYPTIAN EXPERIENCES.

Since 1831 Egypt has been severely scourged by cholera at short intervals, but reliable data are not available earlier than the visitation of 1883, when cholera, appearing at Damietta in June, gradually invaded various towns of the Nile Delta, and reached Ghizeh and Cairo by July 16th. According to Dr. Sandwith, 58,511 deaths from cholera occurred throughout Egypt in 1883 amongst a population of 6,765,000. The definite origin of the epidemic has been much disputed, though there seems to have been ample opportunity for the introduction of the specific infection into Damietta. Once started, however, the condition of Egypt—especially as regards water supply—was, I can say from personal observations, exactly such as would favour the extension of the disease. The Nile is the main source of water supply to the country, and Dr. Sandwith, Sir W. Guyer Hunter, and others have fully shown the fearful extent to which that river has been and is habitually polluted with human and other filth. Great improvement in the condition of Egypt has taken place during the last ten years, but the question of providing Cairo with proper drainage is still in abeyance, and the water supply of the country is also still far from being satisfactory.

C. FRENCH EXPERIENCES.

Marseilles has earned an unenviable notoriety as regards cholera in recent years. In 1883 there were some concealed cases; in 1884, 1,777 deaths were recorded; in 1885 there were 1,039 deaths; in 1892 there were some 90 deaths; and in February, 1893, nearly 100 deaths. The insanitary state of the town is notorious, and there is much evidence (which limitations of space prevent me here from referring to in detail) that its public water supply, especially where derived from the sewage-polluted river Huveaune, has been responsible for the epidemics referred to.

Toulon also has suffered severely from cholera at various times, and both its sanitary state and its water supply have been by no means satisfactory.

In 1884 the disease spread from Marseilles throughout the southern and south-western departments of France, and, as the result of local investigations, Dr. Proust reported that water played an important part in its transmission.

A very detailed account of the cholera epidemic in 1884 in France has been written by Dr. L. H. Thoinot, of Paris, and a concise abstract of it is to be found in Dr. Shakespeare's report on Cholera in Europe and India. It shows that the disease spread from place to place by means of soiled personal effects, by small watercourses which had become contaminated with choleraic discharges, or the washing therein of soiled linen, and by the movements of persons experiencing an active or latent attack of cholera.

The Department of Finistère in the north-west corner of France furnishes a very vivid object lesson in the spread of cholera by dirt, sewage-polluted well waters, and specifically-contaminated public fountains, as is shown in the recent very able and interesting report on the subject by M. Henri Monod, who was formerly Prefect of Finistère, and also in the reports made by Dr. Proust, after local investigations on behalf of the Comité Consultatif d'Hygiène Publique de France.

In November, 1884, there was a sharp outbreak of cholera in the western suburbs of Paris, the mortality rising rapidly day by day, from 1 on November 3rd to 96 on November 10th, and then as rapidly declining, in the manner characteristic of water-borne epidemics, and I had excellent reasons for believing that the epidemic was due to the temporary distribution of a highly-polluted water to particular districts of the city.

Again, in 1892, Paris, more especially its western and north-western suburbs, was once more somewhat severely visited by cholera. Breaking out in April in a crowded prison at Nanterre, on the west of Paris, the disease soon spread through the neighbouring districts, and before the end of the year 977 deaths had been chronicled. There is a very general consensus of opinion that the consumption of the Seine water was at the root of this serious outbreak, as it has been at the root of previous epidemics. The suburban districts in the north and north-west—those districts, in fact, where cholera raged in 1892, and where it began in 1884—draw their water from the Seine after it has passed through Paris, and been fouled by steamer traffic, by the filth from the clothes and linen washed in its floating washhouses, by innumerable private sewers, and by the contents of the main sewers of Paris at Asnières and St. Denis. Happily, works have been undertaken to improve the Parisian water supply.

D.—ITALIAN EXPERIENCES.

It is to Marseilles and Toulon that Italy is indebted for the severe epidemic of cholera which swept over the country in the autumn of 1884. Breaking through the quarantines on the Italian frontier, the disease was carried by fugitive workmen throughout the country, and before the end of the year some 27,000 attacks of cholera and upwards of 14,000 deaths had occurred, at least 44 out of the 66 Italian provinces having been visited.

The severest outbreak occurred in Naples. Introduced there in August, 1884, from Marseilles, the attacks and mortality rose by rapid daily strides until September 11th, and then as rapidly fell. Between August 23rd and November 9th some 12,345 cases and 7,086 deaths occurred amongst a population of 492,908. At that period the water supply of Naples was mainly derived from trenches running from house to house underground, and was exposed to direct contamination not only by soakage of filth, but by the reckless practice of washing in the trenches linen soiled with choleraic discharges. In the following year Naples was supplied with pure water from a distant mountain stream (the Serino), and there followed a marked immunity of the city from cholera notwithstanding the presence of the disease in the neighbourhood. In 1887, however, an injury to the Serino water conduit led to a temporary return to the old system, and two sharp explosions of cholera at once ensued, but ceased on the resumption of the purer supply.

In September, 1884, the disease reached Genoa. After a few sporadic cases a sudden and widespread explosion occurred between September 21st and 24th, the rich and the

poor being indiscriminately attacked. Genoa has a fine supply of naturally good water, brought from a distance by three aqueducts. On close investigation it was observed that of the first 300 cases of cholera 93 per cent. were in houses supplied by one of those aqueducts (the Nicolay), and on following that aqueduct to its commencement, near the village of Busalla, thirteen miles distant, a colony of workmen was found encamped. Cholera had broken out in Busalla on September 14th, and inquiry disclosed the fact that the clothing of the workmen, both of the sick and of the healthy, was washed in the river Scrivia, which feeds the Nicolay Aqueduct. The supply of this water to Genoa was promptly stopped on September 28th, and the epidemic at once rapidly declined.

In 1885 the most severe epidemic occurred in Palermo in Sicily. Into this somewhat unsavoury town the disease was brought by sea, notwithstanding a stringent quarantine, and between the middle of September and the middle of November 5,535 cases, of which 2,959 were fatal, occurred amongst a population of about 275,000.

In Palermo the water is obtained partly from open trenches passing beneath the houses, as at Naples, partly from public fountains, and partly from wells which are exposed to the most filthy contamination. Apart from other pollutions, the water trenches are fouled through the very common custom of washing clothes in them. Dr. Albonesi was, at the time, director of the local sanitary council, and to his enlightened and vigorous administration, and prompt dealing with the dangerous water sources, is due the early termination of the epidemic.

E.—Spanish Experiences.

In 1885 Spain was the scene of a cholera outbreak of exceptional ferocity. Introduced into Alicante on the south-eastern coast, in spite of quarantine, in August, 1884, the disease slumbered through the following winter, and in April, 1885, burst into an epidemic at Jativa and Alcira, when, evading sanitary cordons, it was soon carried far and wide by the dispersing labourers. Between February 5th and December 31st, 1885, 2,247 local governments, having an aggregate population of 6,576,641, had been invaded, and 338,685 cases and 119,624 deaths had occurred.

Sanitation and domestic hygiene are of a very primitive description in Spain. Filth is allowed to accumulate, there is rarely any drainage properly so-called, and the water supply is for the most part derived from the open and unprotected rivers and streams. In a work published in 1886, Mr. George Higgin has, by comparative pictures of the facts respecting a number of typical towns, very clearly shown that the Spanish epidemic of 1885 was *par excellence* waterborne. He shows that the disease never became truly epidemic or dangerous in any Spanish city in which there was a pure supply of water, and where proper means were taken to guard against the sources being polluted from any specific choleraic poison. He shows how, in this way, the cities of Toledo, Seville, Malaga, and Madrid escaped comparatively lightly, whilst such places as Aranjuez, Saragossa, Granada, and Valencia suffered very severely.

F.—Russian Experiences in 1892.

The complete history of the fearful cholera mortality in Russia in 1892 still remains to be written, but what we know of it bears out previous experiences as to the influence of infected water. In a series of papers recently published in the *Lancet*, Dr. Frank Clemow, of St. Petersburg, has collected a large number of facts bearing this out.

A particularly instructive case is narrated by the United States Consul at Tashkent in Turkestan. At Ashabad, the cholera had already disappeared early in August, 1892, and the event was celebrated with much rejoicing. The Governor-General gave a dinner, but one-half of the guests died of cholera within twenty-four hours. Further, out of the 13,000 inhabitants of Ashabad, 1,300, or 10 per cent., died within forty-eight hours. The cause of this outbreak was traced to a small stream of water which supplied the town, and which it was found had been fouled by filth from a small Turcoman village on its banks where cholera had broken out four days previously.

G.—Cholera at Hamburg in 1892.

Cholera was officially announced in Hamburg on August 21st, 1892, but it had been present in the town for some days previously. The influence of the public water supply in disseminating the disease may be seen in the incidence of the disease respectively on Hamburg, Altona, and Wandsbeck, the three towns which make up the Greater Hamburg. Wandsbeck, with a population of 20,571, had 64 cases (3.1 per mille) and 43 deaths (2.0 per mille); Altona, with 173,279 inhabitants, had 572 cases (3.9) with 328 deaths (2.3); Hamburg State, with a population of 622,530, had 17,974 cases (28.8) and 7,611 deaths (12.2); or, taking only the infected parts, the town and suburbs of Hamburg, among 579,907 inhabitants there were 17,891 cases (30.8) and 7,582 deaths (13.0). Wandsbeck, which suffered less than the other two, is supplied with spring water, whereas Altona and Hamburg derive their water from the Elbe. Altona gets its water at Blankensee, but passes it through a good gravel filter, unlike Hamburg, which takes its water from the harbour, contaminated with sewage and absolutely unfiltered. Happily, steps have been taken to secure purer water to Hamburg in the future.

Indian Experiences.

India is generally referred to as the "home of cholera," the disease being established endemically throughout a wide area. This, however, is not, as most Indian authorities once believed and many would even now have us believe, due to any mysterious or unpreventable causes, but in virtue of conditions which may all of them be removed, and which in time I trust will be removed. In India, as elsewhere, water has been the chief nurse and disseminator of cholera, and I believe that if every town and village in India were provided with pure and properly protected water, the so-called "endemic area" would soon become indefinite. Dr. M. C. Furnell, who has had great experience as Surgeon-General of Madras, is firmly of opinion that the general method of the propagation of cholera in India is by means of specifically polluted water, and he has had no difficulty in finding masses of facts in support of his opinions.

The experiences of Calcutta, as observed by Dr. W. J. Simpson, the able health officer of that city, go to show that those persons who have an abundant and pure water supply, namely, the Europeans and better class of natives, escape cholera epidemics, except in isolated instances which can generally be accounted for; while the natives, who necessarily depend on tank water, suffer severely when a tank becomes polluted by the excreta of a cholera patient. It must be remembered that the natives bathe and wash their utensils and clothes in the tank, because it is the only available place for doing so, and that they use the water of the tank, contaminated as it is in addition by soakage and sewage, for cooking and drinking, because it is the only available water supply for domestic purposes. Dr. Simpson raises a very earnest cry against the scarcity of pure water. The first requisite for Howrah and the suburbs of Calcutta is a liberal water supply, whilst Calcutta itself needs an increased supply.

Madras also furnishes instructive experiences. Before the introduction of the Red Hills water supply Madras suffered each year severely from cholera; but, since 1872, when the water supply was first opened, the disease has practically disappeared from the city.

The experiences of Pondicherry, Gopaulpore, Nagpur, Salem, Peshawur, and other places may be quoted as showing a marked immunity from cholera when pure uninfected water has been in use.

Religious pilgrimages, also, are a fruitful means of spreading cholera in the East, owing to the habit of bathing in and drinking the water of the sacred wells and pools. Graphic descriptions of the Mecca pilgrimage of 1866, of the Ardhodoya Jog held at Calcutta in 1891, and of the Kumb festivals at Hurdwar in 1891 and 1892 are before me, and eloquently bear out this statement.

Under English rule much has been done in India in the way of sanitary reform, but very much still remains to be done, and I cannot but recognise the very heavy responsibilities which rest on England in regard to this matter. It appears to me that the sanitary administration of India requires to be radically remodelled, and I venture to submit that this could, without insuperable difficulties, be effected.

I would suggest that there should be: (1) an Imperial Sanitary Department attached to the Government of India; (2) a provincial sanitary department attached to each of the provincial governments; and (3) a local sanitary department attached to each municipality, district board, etc.

I have been unable within the space here at my disposal to attempt to give more than the merest indication of the mass of evidence which I have accumulated showing that water is the chief agency in the spread of cholera. With the scourge still close at our gates, let me once again urge upon every community and every responsible authority, before it is too late, to put their houses in order, and secure purity of water, of soil, of air, of habits. This is the best, the only successful, weapon wherewith to protect ourselves against cholera.

THE CROONIAN LECTURES

ON THE

PHARMACOLOGICAL ACTION AND THERAPEUTIC USES OF THE NITRITES AND ALLIED COMPOUNDS.

Delivered at the Royal College of Physicians of London.

By D. J. LEECH, M.D.Lond., F.R.C.P.,

Senior Physician to the Manchester Royal Infirmary; and Professor of Materia Medica and Therapeutics at the Victoria University, Manchester.

Lecture II.—Pharmacology of the Nitrites.

Influence of Nitrites on the Nervous System.—The nitrites depress the functions of the nerve centres and nerves, but not to the extent which might be expected from their influence on the muscles, vessels, and heart. When given in toxic doses they cause in both cold- and warm-blooded animals heaviness and apathy. In man, too, cerebral depression has been seen after toxic doses. Inhalation of the vapours of nitrous ether has been followed by stupor, and after nitrite of amyl in large quantities loss of consciousness has occurred. Such effects are probably due to the direct influence of nitrites on the cerebrum.

I have never seen a narcotic influence exercised by medicinal doses of the nitrites, but drowsiness after nitroglycerine, which acts like the nitrites, has been recorded.[1] This may be the outcome of the circulatory disturbance it causes; certainly no narcotic effect has to be feared from the use of nitrites. The sense of distension and throbbing in the head, the dizziness and the headache felt by some after amyl, ethyl, or sodium nitrites are manifestly due to circulatory changes; but the prolonged headache, which does not come on always immediately, but may last for twelve hours or more after some nitrites have been taken is probably not due to the same cause. It is most frequent after amyl and isobutyl compounds. I have felt it myself after both, and also after propyl compounds, but not after ethyl nitrite or sodium nitrite. I am inclined to think it is caused by the alcoholic radicles, and not by the nitrite element, for other amyl, isobutyl, and propyl compounds produce the same kind of long lasting headache.

Convulsions in the lower animals are rare after nitrites. They are said to have occurred in man after the injection of amyl nitrite.[2] I once saw twitching of the eye muscles accompany a syncopal condition which followed on the administration of nitrite of amyl. Brunton, too, alludes to the occurrence of a slight convulsive attack after the same drug. It seems likely that such attacks are connected with syncope or slight asphyxia rather than with a direct action of the drug on the brain, and considering the rarity of cerebral disturbance after any of the nitrites, and the entire absence of fatality when they have appeared, we may, I think, safely conclude that, though the nitrites may cause some unpleasant symptoms, yet their influence on the cerebrum is no bar to their use even in full medicinal doses.

The functions of the cord as well as of the muscles are in frogs depressed by nitrites, both its reflex and conducting power being diminished, the latter, according to Atkinson, much more slowly than the former. Dr. H. Wood says that the diminution of reflex activity caused by amyl nitrite is never preceded by functional excitement. In man other symptoms so far predominate that even from toxic doses no distinct indication of an effect on the spinal cord has been noticed.

We have no proof that the motor nerves are markedly influenced by the nitrites; nor are the nerve endings especially affected by them; at least, it can be shown that they are not more powerfully depressed than are the muscles. On exposing a muscle to a solution of 1 in 1000 of sodium nitrite, and recording the contractions produced by stimulation of the muscle and nerve alternately, I find that the relative effect of the strength of stimulation is continuously maintained until the death of the muscle. (See Fig. 6.) No evidence has been given that even in toxic doses sensory paralysis is produced, or that the application of sodium nitrite paralyses the sensory nerve endings.[3]

To determine whether it possesses any analgesic influence other than that which arises from its effect on the circulation, I have tried it locally and generally for the relief of pain. Locally applied I have not found it possess the slightest soothing influence. I have given it internally in doses of from 3 to 5 grains for the relief of pain in various ailments, but save in the case of pains of an anginal character, in headache, and very rarely in neuralgia, I have never found it of the slightest benefit. In all cases in which it was given with relief there have been grounds for thinking that the disappearance of the pain may have been due to circulatory changes or to suggestion. It has failed to relieve pains where the other analgesics have succeeded. A few cases are indeed recorded in which the local application of nitrite of amyl and nitro-glycerine are said to have removed the pain of toothache, and many where these drugs have relieved headache and neuralgia, but such ailments are so capable of relief by vascular alterations and mental influence that we cannot, in the absence of other indications, infer from their relief that amyl nitrite has a direct analgesic influence.

General Influence on the Circulation.—I have already alluded to the action of nitrites on the contractile tissue of the vessel walls and on the heart muscle, but the general influence on the circulation requires further notice. The most important feature of this influence is the lowering of arterial tension. Dr. Brunton[4] in 1870 showed that the lowering of tension was due to dilatation of the blood vessels, and from the fact that this dilatation occurred even after section of the cord, he came to the conclusion that the nitrites act on the muscular walls of the arterioles, influencing the muscle fibre directly, or through the local ganglia. This view was controverted by Filehne[5] on the ground that section of the sympathetic interferes with the vascular dilatation produced by the nitrite, and by Bernheim[6] because after arterioles are dilated by amyl nitrite, they may be made to contract by vasomotor stimulation.

The experiments of Meyer and Friedreich[7] supported the views which Brunton had expressed; they found that when the effect of nitrite of amyl is restricted to the brain it does not bring about a fall of pressure. The dilatation of the vessels by nitrites when the brain and spinal cord have been destroyed, and in separated organs, which can only result from their influence on the vessel walls, is of course much in favour of the view that they lower tension by their action on the peripheral vessels; and Cash[8] has advanced further evidence that the effect of nitrite in reducing tension is the result of its action on the vessels. Like Meyer and Friedreich, he finds that nitrite of amyl produces no effect on the circulation when its influence is restricted to the brain; but he has further shown that if the head of an animal be cut off from the circulation, inhalation of pure amyl nitrite causes a rapid fall of pressure, which cannot therefore be due to influence on the vasomotor centre. He also points out that

after reduction of tension by division of the sphlanchnic nerves, the nitrites cause a further fall of pressure.

Besides reducing the tension, the nitrites usually quicken the pulse, and this quickening is generally accompanied, if the dose be small, by such an apparent increase in force as to give the impression that a stimulant effect on the heart has been produced, for the pulse feels fuller and more distinct. Yet experimental evidence indicates that nitrites do not strengthen the actual force of the heart's beat, and that they are capable, even in comparatively small amounts, of weakening the cardiac contraction.

The question whether nitrites are, as Dr. Reichert strongly maintains, real cardiac stimulants or not is an important one, for we find nitrites recommended not only where tension is high and relief might be expected from drugs which lower it, but in syncope, heart failure from chloroform, and other conditions in which a stimulant is indicated rather than a tension reducer, and in which any drug which greatly depresses the heart might produce serious consequences.

It may be well if I state the main facts concerning the effect of nitrites on the heart which bear upon this question. As I have shown, nitrites in the isolated frog's heart cause acceleration of beat for a short time, though the contractions are rendered somewhat less powerful and afterwards slower. Atkinson employed 1 of nitrite to 10,000 of blood, and, using William's apparatus, noticed a rise in pressure for some minutes, which he attributes to a quickened action of the heart; it was followed by a slow fall and death in forty to sixty minutes.

With 1 in 20,000 the rise due to quickened action lasted ten to fifteen minutes. In no case has any actual increase in the force of the heart's contraction been observed. But the total work of the heart may be augmented by the increased rapidity of beat. We may presume that a quickening of the heart's action similar to that in frogs takes place in mammals from the direct action of the nitrite on the heart muscle, but here a further quickening is produced by the paralysing influence which nitrite can be shown to exercise on the vagus centre. In mammals, then, as in frogs, no evidence has yet been obtained that the individual beats of the heart are strengthened by nitrites, although at first, acting more rapidly, it may do more work in a given time. But the increase in rapidity does not make up for the weakened muscular power and dilatation of the vessels, and the tension falls. Only one observer, Reichert,[9] records a slight rise in tension after the introduction of nitrites into the circulation, and this for not more than half a minute.

If, as experiments seem to show, the effect of nitrites is only to quicken the heart's action and not to increase the force of its individual contractions, how are we to account for the markedly greater distinctness of the pulse which is so often noted after nitrites, and for the increased height in the upstroke—the so-called "percussion wave"—of the tracing which is almost invariably seen after small doses of nitrites? Probably two causes contribute to this: (1) Owing to the dilatation of the arterioles the collapse of the artery is more complete after a dose of nitrite than before it, and the difference between systole and diastole of the artery is more marked both to the finger and in the tracing. (2) The radial artery undergoes greater dilatation owing to the relaxation of its walls under nitrite influence. The pulse, therefore, becomes larger during systole, and the difference between the calibre of the artery in systole and diastole being augmented, it is felt to be more distinct and more full.

Pick many years ago suggested that arterial dilatation might in a reflex manner give rise to increased force of heart beat. If this were the case, we ought to find in the manometrical tracing taken from the carotid of a dog under the influence of a small dose of sodium nitrite that the fall in tension is accompanied by an increase in the excursions, corresponding to the individual heart beat; but this is not so, and until we have more evidence we must conclude that though the heart may do more work in a given time, the force of the cardiac contractions is not increased by nitrites.

Although we have no proof that nitrites will increase the force of the heart's beat, we have experimental evidence that they are competent to weaken it, and faintness is occasionally complained of after nitrites. The inhalation of amyl nitrite and large doses of sodium and ethyl nitrite are capable of producing it.

On one occasion I myself suffered from a very marked syncopal attack after taking a large dose of ethyl nitrite. Whilst my tracing was being taken I suddenly felt faint, the heart beat became slow and the excursion smaller; then a prolonged intermission occurred and faintness compelled me to lie down; the slow beat continued for some minutes after the faint feeling had disappeared.

I may mention in passing a curious result which followed from publishing in the British Medical Journal a warning with regard to this effect without stating that I was myself the subject of the experiment. A year or two after the record appeared, an anonymous novel was published, purporting to show that in consequence of vivisection being allowed hospital physicians and surgeons experimented upon their patients in a horrible manner; and subsequently an appendix called "Dying Scientifically" was issued, giving the sources from which had been culled the heart-rending illustrations of the barbarity of hospital physicians and surgeons with which the novel was filled.

Lighting accidentally upon this book some time afterwards, I was amused to find that the experiment upon myself was one of the bases of the attack made on hospital physicians and surgeons. "Who," it was asked, "were the patients on whom such experiments were tried; and where were they found if not in the.....infirmary?" And so the trial of the drug on myself was put down as proof of the dangerous experiments made by hospital doctors upon their patients. This is but another example of the way in which antivivisectionist writers get at the "facts" wherewith they try to influence the public mind.

I have never myself seen any tendency to syncope after 3-grain doses of sodium nitrite, although I have given this amount extensively. It has been known to occur after this and larger doses.

In deciding whether the nitrites can play the part of cardiac stimulants, it is well to bear in mind the resemblance and differences between their action on the circulation and that of alcohol. Both dilate the vessels. Alcohol, like the nitrites, increases the frequency and—to the finger—the force of the pulse; but though experimenters are not agreed as to whether it increases either the power of the heart's contraction or the amount of work it does, all hold that alcohol in large amounts decreases the heart's power. In these points there is considerable likeness between the action of alcohol and that of the nitrites. The difference between the two seems to be that the nitrites are far more rapid and seemingly more evanescent in their action. They quicken the beats more markedly, and dilate the vessels more quickly and completely. They far more readily depress the action of the heart. On the whole, it seems to me we must accord to nitrites in small doses a certain degree of that kind of stimulating power which we attribute to alcohol, but it is exercised much more quickly, passes away more rapidly, and is far more readily followed by decreased cardiac power than is alcohol.

There are several points of considerable practical interest to be noted with regard to the effects of nitrites on the tension and the rate of the pulse and on the regularity of the heart beat. The influence of nitrites in the relief of disease is closely associated with, if not dependent on, its tension-reducing powers. It is important, therefore, we should know how quickly the effects of the various nitrites on tension are produced, and how long we may expect them to last.

Changes in arterial tension are not often indicated by subjective phenomena, and their extent and duration can only be measured by the sphygmograph. With this instrument I have tried by means of tracings taken frequently to estimate the time at which it reaches its lowest point and its duration.

The influence of amyl nitrite on the pulse commences a few seconds after inhalation. (Fig. 17.) The tension is reduced to its lowest point in 40 to 60 seconds, and remains extremely low for 30 or 40 seconds, the pulse waves being reduced in size and sometimes irregular. Then it rises again, occasionally suddenly and in a minute and a half to two

minutes it is only a little lower in tension than it was before the inhalation. This slight lowering may continue for several minutes. Isobutyl and isopropyl nitrites when inhaled act almost like amyl nitrite.

Sir B. W. Richardson, to whom we are so much indebted for knowledge concerning amyl nitrite, has drawn attention to the fact that when amyl nitrite is taken internally its effects are much slighter, though more prolonged, than when inhaled. Instead of the tension falling at once and recovering in two minutes, it falls gradually for usually twenty to twenty-five minutes, remains low a short time, then rises to its normal height an hour to an hour and a-half after the dose has been taken. Because amyl nitrite is such a powerful agent when inhaled one drop is regarded as the proper dose, but this is a mistake; 3 to 5 minims may be required to produce about the same effect as that which follows 2 grains of sodium nitrite.

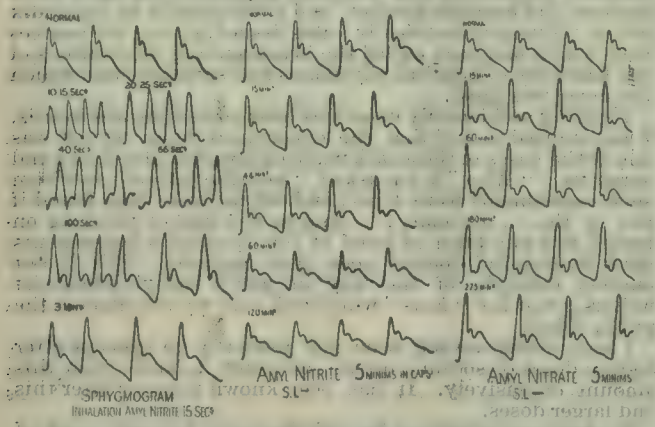


Fig. 17.—Effect of amyl nitrite when inhaled, and of amyl nitrite and nitrate when taken internally.

A small dose of sodium nitrite (2 grains) distinctly affects the pulse in two or three minutes, the point of lowest tension is usually reached in eight to forty minutes, and distinct influence on tension ceased in from one to three hours. Ethyl nitrite has much the same effect, and on the whole lasts as short a time.

I shall not here allude to the action of other metallic nitrites, since, with the exception perhaps of the strontium salt, they are unlikely to prove useful remedial agents. The combination of cobalt with potassium I once thought might prove useful, but its effects are unreliable, because its decomposition is so greatly modified by the condition of the stomach.

	Dose.	Action Commences.	Tension, Lowest.	Duration.	Rapidity of Pulse.					
					0	10 Mins.	20 Mins.	30 Mins.	60 Mins.	120 Mins.
	Grs.		Mins.	Mins.						
Sodium Nitrite	2	2 Mins.	35-70	155	66	81	—	90	87	78
	3	,,	8-40	170	66	74	75	75	68	63
	2	1 m. 40 sec.	16	75	84	90	98	92	92	70
	3	3 Mins.	17-85	175	78	96	100	93	81	74
	Drm.									
Ethyl Nitrite (2½ p. c. solution)	1	1 ,,	18-30	116	66	72	—	75	69	66
	1	2 ,,	15	70	75	75	78	75	75	—
	1	5 ,,	15-50	115	81	87	87	92	78	—
	1	3 ,,	15	80	69	75	75	—	69	—
	Grs.									
Nitro-Glycerine	1	2 ,,	5-20	50	84	84	78	78	84	74
	1	1½ ,,	3	105	69	72	69	72	64	—
	1	40 Secs.	3-6	80	70	68	72	72	74	57
	1	1½ Mins.	2-45	170	72	66	63	66	60	68

The table gives a general idea of the influence on pulse tension and frequency of the two nitrites and nitro-glycerine in small doses. Four observations on each drug have been selected from a large number to illustrate the variations which occur in their action.

I have used the term duration of action to signify the period between the time the drug is taken and the time at which the tracing first becomes normal, but this may not be the real limit of the action of nitrites on the vascular system. It is quite possible that some vessels, as for example those of the brain, may continue dilated after others have assumed their normal condition.

After the tension becomes normal it sometimes falls again slightly, and I have noticed small oscillations in tension for a short time. How long they last I do not know, for they merge gradually into those minor differences which are observed in normal pulse tracings. For practical purposes we may look on the influence of the nitrite as ended when the pulse first reaches its normal tension.

It has been suggested that after the lowering of tension by the nitrites, reaction may occur and the tension may rise above the normal. Though I have looked for such rise I have found no distinct evidence of it.

Many conditions influence the amount of fall in tension and its duration. In people with high tension pulses the fall is less in degree and duration than in those with a circulation of low tension, in those who constantly take nitrites the influence of the drug on the circulation, though not lost, is distinctly lessened.

Though people vary very much in susceptibility, I have never seen anyone entirely unaffected by such a dose as two grains of sodium nitrite or the inhalations of amyl nitrite, but when the tension is very high and sometimes during dyspnœic attacks the effect may be very slight.

The administration of 10 to 15 grains of bicarbonate of soda with the nitrite delays the appearance of decided lower tension for a few minutes (6 to 10) and seems to lengthen somewhat the time during which the drug acts.

A point of great interest in the action of the nitrites is the minuteness of the amount which will affect the circulation; one-sixteenth of a grain of nitrite of sodium produces a distinct effect on the pulse in most people.

The effect on the circulation does not increase so much as we should expect with the size of the dose. Two grains of sodium nitrite of course lower the tension more and for a longer time than $\frac{1}{16}$th gr., yet the influence is not proportionate to the difference in dose. Four to 6 grains, again, lowers the tension a little more, and sometimes for half an hour longer, than 2 grains, but here again the effects are not in proportion to the increased size of dose, and they commence no earlier.

The cause of the difference between the action of any nitrite when inhaled and when taken by the mouth probably depends upon the fact that when inhaled the whole nitrite of amyl molecule comes at once in contact with the vessel walls in the systemic system. Now amyl in very small doses dilates the vessels as a nitrite does, and quite possibly the amyl molecule accentuates the action of the nitrite molecule. Cash finds that the composition and constitution of the fatty molecules has a distinct effect on the tension reducing power of the corresponding nitrite.

The quickening of the pulse after amyl nitrite is very marked, a rise from 20 to 30 beats being common. After nitrite of sodium and nitrite of ethyl in small doses, there is usually slight quickening, but it is not always present. It is very difficult, however, to estimate the influence of a drug on the rapidity of the pulse, since the frequency of the heart's action is so easily influenced by slight circumstances. A decreased frequency of the pulse is sometimes seen after nitrites, but this, with small doses at least, is never considerable. After poisonous doses, marked slowing of the heart has been in some cases noted. This may be due to the direct influence of the drug upon the heart. It will be remembered that nitrites render the beat of the isolated heart slow after first quickening it.

Irregularity of the heart's action has been observed after the administration of nitrites, and in a few cases extreme irregularity has been reported after large doses of sodium nitrite and inhalation of amyl nitrite. Using small doses of the sodium compound, I have never seen any marked irregularity result. In two or three instances out of forty or fifty in which the pulse has been watched carefully for many

hours after sodium or ethyl nitrite, slight intermission and irregularity have occurred, which had not been recorded before the nitrite was given. Slight irregularity of the pulse is common after the inhalation of amyl, isobutyl, and propyl nitrite.

On the other hand, I have met with at least four cases in which an irregular action, fairly marked before the administration of nitrites, became distinctly less or disappeared entirely when nitrites were given. I have never seen it seriously increased, and I am quite sure the irregularity of the pulse is no bar to the administration of nitrites when for other reasons they are called for. Amyl nitrite markedly dilates the vessels of the face, neck, and upper part of the chest, but evidence of its cutaneous influence is not usually seen in other parts of the body.

Flushing of the face is not common after either sodium or ethyl nitrite, yet in some cases it occurs to a slight extent, and in one exceptional case I have known a slight diffused redness over the body as well as the face follow 3 grains of sodium nitrite.

Influence on Respiration.—Amyl and alkaline nitrites in the lower animals first increase the depth and frequency of the respiratory movements, though toxic doses paralyse respiration before the heart ceases to beat. We may assume, then, that medicinal doses will tend to stimulate respiration, so far at least as the respiratory centre is concerned. The manner in which the nitrites affect the pulmonary circulation requires further consideration. To ascertain the state of the pulmonary circulation after amyl nitrite, Filehne[10] made an opening in the chest wall, leaving the costal pleura, which in the rabbit is very translucent, intact. On giving nitrite of amyl he saw no congested condition of the lung, and came to the conclusion that the lung vessels are not affected by this drug. From this it would follow that the vessels of the lung are not influenced by a nitrite like those of the kidney, skin, and extremities. To determine whether this is so or not a cat was killed by chloroform, and immediately after death placed in a warm chamber; the chest was then opened, and an inflow tube fixed in the pulmonary artery, and an outflow tube in the left auricle. The inflow tube was connected with two reservoirs of blood, to one of which 1 part in 4,000 of nitrite of sodium had been added to pure blood, and the pure and nitrite blood were allowed alternately to pass through the lung tissue, the effluent blood from the pulmonary veins being measured by means of the tube placed in the left auricle. The pressure in the lungs was kept constant by attaching a tube on the trachea to a manometer and air reservoir. (Fig. 18.)

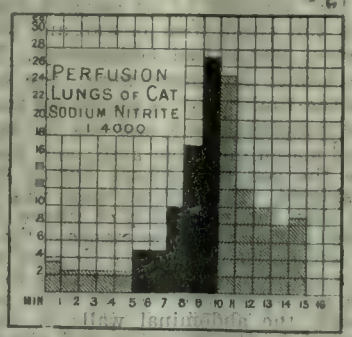


Fig. 18.—The figures at the base represent the number of minutes during which perfusion took place, those in the perpendicular line the number of c.c.'s of blood passing through the lung. The lightly-shaded squares represent the flow whilst pure blood was passing through the vessels, the dark squares whilst nitrite blood was flowing.

It will be seen from the diagram that whilst the rate of flow with normal blood was 1½ c.c. per minute, directly sodium nitrite was introduced an increase to 7 c.c. took place. On continuing the perfusion of the nitrite a rise to 27 c.c. per minute occurred; a change to normal blood brought the flow back again to 8 c.c. The nitrite caused the colour of the lung to change to a chocolate brown. I have repeated the experiment several times, with varied conditions as regards pressure, etc., but always with a similar result, and I think there can be no doubt that sodium nitrite influences the vessels of the lung like the other vessels of the body. Similar dilatation was produced in other experiments by introducing nitrite of amyl into the trachea. In all cases a second perfusion of the nitrite again increased the flow.

If, as we have every reason to suppose from these experiments, the administration of nitrites is followed by temporary dilatation of the vessels of the lung, the work of the right heart may be relieved by them, and it seems to me quite possible that some of the good results observed from nitrites in dyspnœic attacks may be the direct result of the relief thus given to the smaller circulation.

Digestive Organs.—The effect of nitrites on the digestive organs varies greatly in different individuals, usually after the ingestion of sodium or ethyl nitrite slight eructations of nitrous gas occur. To some, nitrites act as powerful gastric irritants, the smallest quantity causing sickness and diarrhœa. It is easy to understand the cause of stomach irritation when nitrites are taken by the mouth, for nitrous acid is always at once set free, and to some it acts as an irritant, though most people tolerate it in small quantities, and feel no discomfort from its temporary presence. Where even inhalation causes stomach irritation and diarrhœa it is probably due to excretion of nitrites by the gastro-intestinal tract.

Urinary Organs.—From the dilatation of the kidney vessels which nitrites cause we should naturally expect that increase in urinary secretions would follow their use, and doubtless such increase does at times occur. Murrell has seen, after the administration of nitro-glycerine (which acts like a nitrite) to a patient with epispadias, an immediate increase in the flow from the ureter, and nitrous ether has long had the repute of being a diuretic; nevertheless, neither in animals nor men can it be shown that any of the nitrites continuously or greatly influence the urine flow.

In some careful experiments made on animals Atkinson found that small doses of nitrite of sodium either do not affect the urine at all, or sometimes slightly diminish, sometimes slightly increase it, but large doses always decrease it. The urea and uric acid secretion were practically unaffected. In a series of cases I have tried to ascertain the influence of continuous doses of the nitrite of sodium on the kidneys in man.

In twelve non-febrile cases free from cardiac and kidney disease I noted the influence of 3 grains of sodium nitrite given three times daily on the excretion of water during one week, and compared it with the amount excreted in the week immediately preceding and the week immediately following the exhibition of the nitrite. Seven passed more when the nitrite was given, five rather less. In only one was the increase very distinct; here it amounted to 9 ounces per diem, and, as in the week following the nitrites the increased flow was in part maintained, it is not quite certain whether the nitrites were altogether responsible for it. In a second case there was a distinct but not very great augmentation, averaging 5 ounces daily, which was not maintained when the nitrites were stopped. In all the other cases the difference between the quantity passed before and during the administration of the nitrite was too slight to suggest that any influence was exercised by it. In three cases the amount passed the day following the nitrite was distinctly increased. In these two, and a third perhaps where the increase was distinct though less marked, it is probable a temporary effect was produced by nitrites, and I believe that under some conditions nitrites do increase for a short time the secretion of water.

The estimation of urea is open to many fallacies, unless every circumstance is taken into account. I have determined the amount in many cases, and compared the amount passed whilst nitrites were being taken with the amount passed before and afterwards, and the general result I have arrived at is that nitrites do not increase the excretion of urea.

A drug which in a state of health has but little influence on the urine flow may prove a diuretic in certain conditions of disease, but I have been unable to satisfy myself

that nitrite of sodium or ethyl can be relied on to act on the kidneys in the ailments for which diuretics are needed.

In some forms of chronic Bright's disease I have seen a considerable increase in the urine follow the administration of sodium nitrite and nitro-glycerine, yet it has never been prolonged. In cardiac dropsy I have not seen continuous diuresis produced.

Notwithstanding that I hold the nitrites in light esteem as diuretics, it is quite likely that a full dose of spirit of nitrous ether has at times a distinct effect in causing a temporary increased urine flow. Half an ounce of spirit of nitrous ether represents, perhaps, the same quantity of rectified spirit and a fair dose of ethyl nitrite. Such a compound is well adapted to act both on skin and kidneys. But I have great doubt whether the administration of spirit of nitrous ether in doses of 15 to 20 minims three times daily as a mixture can be of any service as a diuretic. Even at first the amount of nitrite present is probably too small to influence the circulation sufficiently, and the dissipation of the ethyl nitrite commences as soon as the mixture is made up. One advantage the nitrites certainly have—they do not irritate the kidney.

In the lower animals they have been found capable of producing glycosuria when inhaled or injected, and even in man such an effect is not unknown. Dr. Maragliano[11], who caused his patients to inhale forty drops of amyl nitrite for forty minutes four to six times daily for the cure of epilepsy, says he found sugar in the urine in most cases.

Temperature.—The influence of nitrites on temperature is not an important consideration in their therapeutic use. The quantity in which they are given medicinally is not likely to affect tissue change, but dilating the vessels as they do they at first slightly raise the external temperature. As they expose more blood to the surface they will tend subsequently to lower the body temperature, but the effect in either direction is inconsiderable unless toxic doses are given, which very greatly reduce temperature, perhaps by diminishing oxidation.

Perspiration.—For several centuries spirit of nitre has been a popular diaphoretic, and of its effects and influence in causing perspiration under some conditions there can be no doubt. After drachm doses of 2½ per cent. solution of ethyl nitrite in alcohol I have not infrequently seen in ten to twenty minutes the face bedewed with moisture. In this condition general perspiration has been readily brought on by the application of warmth. The same result has often followed 2 grains of sodium nitrite; in one subject perspiration usually occurred after small doses of any nitrite, even though he was not in bed. As a rule, however, no perspiration is produced by ethyl or sodium nitrites unless in conditions favourable for its occurrence. The diaphoresis is doubtless due to the dilatation of the cutaneous vessels which the nitrites cause, and is therefore but a passing effect. The value of the time-honoured cup of hot gruel, followed by half an ounce of spirit of nitrous ether, it is easy to understand; diaphoresis may result, but the diaphoretic value of 10 to 20 minims of spirit of nitre as usually given medicinally is very problematical.

Summary of Influence on Tissues.—The chief pharmacological characteristic of the nitrites is their power of temporarily affecting muscle tissue. Under ordinary conditions the amount of nitrite present in the tissues of the living body is not sufficient to disturb the functions of voluntary muscles, even though it has been shown that in solutions of 1-5,000 a marked effect on muscle. But the involuntary muscles and heart are affected by marvellously small quantities of the nitrites; whilst, however, their contractile power is impaired by these small amounts they are not really injured, for on removal or destruction of the nitrite molecules they rapidly resume their normal function, and no trace is left of their effects. If frequently exposed to these same molecules they seem to become less readily affected by them.

The tissues of the nervous centres seem to be less easily affected than the muscle tissue, but probably the influence of nitrites is here equally fleeting. Considering the very powerful action of nitrites on muscle tissue, their effects on other structures is very slight. In dilute solutions nitrite of sodium is not a tissue irritant, and is not very destructive to the lower forms of life. Solutions of 2 per cent. and upwards applied to mucous or raw surfaces or injected under the skin give rise to pain, but the same effect is produced by chloride of sodium solutions of the same strength.

References.

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(To be continued).

A CASE OF CÆSAREAN SECTION.

By SKENE KEITH, M.B., F.R.C.S.Ed.

It will be seen from the account of the following case that the extraction of a living child through the anterior wall of the uterus may be one of the most simple of operative procedures, unless the placenta be attached in front; in which case it is best to cut right through it without wasting time.

I was asked by Dr. Wilson to go to Leytonstone on March 11th, prepared to perform the Cæsarean operation, if, on consultation, we considered it to be necessary, on a patient 32 years of age. She had been married four years, and a year after marriage had been delivered of a small female child, after a long and difficult instrumental labour. There was a fracture of the skull, and the child, though completely paralysed on one side, lived for five weeks; a soft swelling on the side of the head becoming somewhat smaller shortly before death. The patient was a little, squat woman; the abdomen was large, with a comparatively small amount of liquor amnii, and the head was found to be lying in the common occipito-anterior position. It was calculated that the patient had completed at least thirty-seven weeks of gestation. On vaginal examination the os was found to admit one finger easily; the available conjugate was under 3 inches, probably little more than 2¾; the lateral space was diminished, and the descending rami of the pubes were fixed at a very acute angle. The parents were extremely anxious to have a living child. Dr. Wilson and I were agreed that it was useless to hope that the child could be born alive, and we were of opinion that the question to be decided was whether we should remove the child then, or wait and divide the symphysis pubis when labour had commenced. The points in favour of the former procedure were: the conjugate was almost outside the limit which is placed for the performance of a successful symphysiotomy, and was farther reduced by the exaggerated masculine pubic arch; and the difficulty of getting out to the country, perhaps during the night, had also to be considered. In addition, there was the advantage to the patient that the possibility of future impregnations could be avoided during the performance of the section. The matter being left entirely to us, we decided to remove the child by the Cæsarean operation rather than to delay.

It is futile to give exact directions as to the position of the incision through the abdominal wall; it must be made entirely in regard to the situation and size of the uterus, bearing in mind that the section of that organ is to extend downwards from close to the fundus. The external incision may therefore be situated partly above and partly below the umbilicus, or even wholly above; it will extend to from 4 to 6 inches, depending on the thickness of the abdominal wall. The umbilicus does not require to be avoided; the incision ought to be carried right through it, and it conduces to the exact stitching of the wound if one or two scores are made across the line of the incision with an aniline or nitrate of silver pencil. The peritoneum having been opened to the full extent of the wound, it is then necessary to be quite

certain that the uterus is not twisted upon itself, and this is done by inserting the finger and making out the position of the Fallopian tubes. One assistant then presses the uterus well forwards, so that there cannot be any escape of fluid or blood into the peritoneal cavity, and an incision of from 1 to 2 inches is made through the middle line of the uterus, commencing close to the fundus. The thickness of the uterine wall to be divided will be probably at least 1 inch, and the incision may be made to that depth with the first cut. As soon as the membrane is reached—and its appearance is unmistakable—the incision is to be extended downwards with scissors to the extent of about 4 inches, the exact length of the wound depending on the size of the child. When the uterine incision and the extraction of the child is done quickly—and a couple of minutes is ample to allow for the complete emptying of the uterus from the time of commencement of the making of the skin incision—it is of little moment whether the membranes are ruptured or not. If the incision has been completed without rupture, the head is to be grasped through the membranes, when they will rupture during the extraction of the child; should, on the other hand, the membranes be broken before the incision is finished, it is to be quickly completed and the hand passed into the uterus and made to grasp the head, when the child is extracted. As the child is withdrawn the collapsed uterus is pushed forwards by the assistant, who has been making steady pressure from the loins, and the upper and lower halves of the uterine incision are grasped by the right and left hands of the other assistant, as is recommended by Dr. Cameron, of Glasgow. Bleeding is thus entirely arrested. The cord is divided between two pairs of forceps, and the infant is handed over to the nurse, who ties the cord in the usual way. A large sponge is inserted into the upper part of the abdomen, so as to shut off the peritoneal cavity from all exposure; the hand is passed into the uterus, the assistant slightly relaxing the wall, and the placenta is removed.

Any sponging which may be necessary is now done. The uterus is now lying slightly outside of the abdominal cavity, and it is not necessary to draw it farther than is required for convenience in stitching; the plan of turning out the whole uterus before the child has been extracted is entirely unnecessary. The stitching of the uterus is begun, the peritoneal covering being turned inwards, and, if there be any difficulty in doing this, it may be slightly dissected off. Each stitch is tied as it is introduced, no clots being allowed to remain between the lips of the wound. About two or three deep stitches are required to the inch, and, if necessary, superficial ones may also be put in. Silk was used in my case. It was prepared by boiling in several waters, and was then soaked in a 1 in 20 solution of carbolic acid for twenty minutes. The stitches are to be passed deeply into the substance of the uterus without entering the cavity, and care must be taken to avoid the common mistake of tying them too tightly.

In this case the uterus contracted well, and after all the stitches had been introduced and tied, very little pressure was required to cause complete and firm contraction. The Fallopian tubes were ligatured, the ovaries not being interfered with. This is undoubtedly the proper course to pursue. The woman is thereby left exactly as she was before, and she also has not to undergo the disturbance which is entailed by the removal of the ovaries, and consequent change in her sexual life. The peritoneal cavity does not require to be sponged when the uterus has been kept properly forwards, the large sponge, which was introduced as soon as the uterus has been drawn forward, preventing any entrance of blood during the stitching of the uterine wound. The sponge is taken out, the uterus dried, and the abdominal wall closed; in my case nineteen deep sutures were introduced. By the time the patient was put back to bed one small clot, the size of a walnut, had passed from the vagina, and altogether the amount of blood lost was very much less than what is usual during a normal labour. The operation was completed in less than half an hour. The child weighed over 6½ pounds, and was well-developed. There was not any disturbance after the operation, the condition not varying from that of a natural birth.

When a child cannot be born on account of the want of proportion between it and the maternal passages, and where there is not any disease of the uterus requiring the removal of that organ, it does not appear to me that the Porro operation is to be considered for one moment. It is evident that there cannot be any difficulty in the removal of a pregnant uterus to the surgeon, but to the woman the risk is incomparably greater, and the advantages really nothing at all when future impregnations can be so easily prevented by closing the tubes.

The question now does not seem so much to lie between the Porro and the Cæsarean operations, but between the latter and the division of the symphysis; but here the comparison is only in a limited number of cases—those in which there is not any very great deformity, for with a conjugate of less than 2⅜ or 2¾, symphysiotomy is entirely useless.

To anyone accustomed to perform abdominal operations, the Cæsarean section must be one of the most simple of all operative procedures, and I have not any doubt but that I could perform a second operation in twenty or twenty-five minutes, even without any skilled assistance. Cleanliness and rapidity in operating are the essentials to success.

TWO CASES OF POISONING BY THE SELF-ADMINISTRATION OF "DIACHYLON"—LEAD PLASTER—FOR THE PURPOSE OF PROCURING ABORTION.

By FRANK M. POPE, M.B., M.R.C.P.,
Physician to Leicester Infirmary.

Two cases have come under my notice of the use of this substance. Both terminated fatally, and as it is probable that a practice exists in some places of taking the drug for the above purpose, it seems desirable to give publicity to the facts with a view to the prevention of similar tragic results.

Case I.—A. A., aged 33, a machinist, was admitted into the Leicester Infirmary on September 10th, 1890. She complained of pains in the bowels and loins. She was married, had four children, and had had no miscarriages. She had had similar attacks three times in the last twelve months. The present illness commenced with very sharp pain in the right iliac region, constipation, and vomiting after food. She was treated medically for this and the pain got better, but a feeling of soreness remained in the abdomen. The skin and conjunctivæ were yellowish; the tongue furred; the bowels confined. The catamenia had been absent six weeks. There was a distinct blue line round the gums; the hands were tremulous and the wrists very weak. There was pain in the abdomen and tenderness on pressure over the left iliac region. The legs ached; the reflexes were weak but normal. Sensation was normal; grasp was equal, and not sensibly diminished. She drank tap water from a constant service. A diagnosis of lead poisoning was made, and she was treated with iodide of potassium. Three days afterwards she became comatose, and died in a few hours without recovering consciousness.

Necropsy.—Beyond the fact that the intestines were contracted, no abnormal signs were discovered after a careful examination. The brain especially appeared quite healthy.

The coroner was communicated with and an inquest held. All efforts to trace the source of the lead poisoning failed. The water supply at the deceased's home was carefully examined. It was the usual excellent constant supply of the borough, and analysis failed to show any trace of lead. Information as to her usual diet did not indicate that she was in the habit of using substances liable to contamination with lead. The verdict of the jury was that the deceased died from lead poisoning, but that there was no evidence to show how the poison was taken. For my own satisfaction I incinerated a considerable portion of one kidney, and obtained unmistakable evidence of the presence of lead in the ash.

Many weeks afterwards the practitioner who had seen the deceased before her admission to the infirmary informed me that it had been reported to him in a roundabout and hearsay manner that the deceased had told someone that she had been advised to take diachylon, either to prevent conception or to procure abortion. This explained the case, if true, but as everybody concerned was extremely reticent, and as the coroner who had conducted the inquest had died in the interval, it was decided, rightly or wrongly, to take no steps to have the verdict of the jury revised. The above events were nearly forgotten, when in August, 1892, a patient was admitted who subsequently proved to be a victim to the same practice.

Case II.—A. W., aged 22, married, hosiery hand, admitted August 2nd, 1892. She was anæmic; the skin and conjunctivæ were of a yellowish

tint. She seemed of weak intellect, though not formerly so; had a fatuous expression, and would not speak above a whisper. She complained of pain in abdomen, principally in the right iliac fossa, and attributed her symptoms to a miscarriage which occurred in May last. Her health before her marriage, three years since, was good. She had had two children, both of whom died in infancy, and two miscarriages. At the last in May, 1892, she lost a good deal of blood, and since that time had been suffering from pains, and had had no return of menstruation. There were no abnormal signs in the lungs, heart, or abdominal viscera, and no signs of syphilis. There was pain on pressure over the hypogastrium. The bladder was distended. On vaginal examination nothing abnormal was found. The rectum was loaded with fæces. The urine (specific gravity 1015) was of a dark reddish colour, but contained no blood, albumen, bile, or sugar. The limbs were weak, but she could move them all; the deep reflexes absent; sensation was unimpaired. The bowels were relieved by enema, and the urine was then passed naturally. After remaining in about the same condition for a week, she had an epileptiform convulsion on the night of August 8th. The tongue was bitten; the bladder found again distended. On the morning of August 9th there was complete loss of power in the arms and legs, and fæces were passed involuntarily. The condition was thought to be due either to tuberculous meningitis or a cerebral tumour. On August 10th she had several more convulsive attacks, was continually crying out, and rolling her head from side to side. The paralysis had extended to the diaphragm; this caused suspicion that her condition might be due to peripheral neuritis, and inquiry was made from the friends as to the possibility of diphtheritic poisoning, but no history of sore throat could be elicited. The faradic current was applied to the diaphragm, but she died at 8.45 A.M. on August 11th.

Necropsy.—The brain was carefully examined, and nothing abnormal could be found. All the organs of the body were found healthy, with the exception of the intestines, which were contracted and contained a yellowish sticky fluid in considerable quantity. The uterus was of normal size, the lining membrane healthy. There was no corpus luteum in either ovary. There was a well-marked blue line round the gums, which had been inconspicuous before death.

Death was considered to have been due to lead poisoning, and an inquest was held. An aunt of the deceased gave evidence that some weeks before her death the deceased had pointed out a chemist's shop and said "That's where I get the stuff I take," and in answer to a further question as to what stuff she meant, replied, "Diachylon." Witness said, "I thought that was poison," and deceased answered, "Well, it does not poison me. I get two pennyworth and make it into pills, so I can swallow them." She also gave witness to understand that she took it with a view of producing abortion. Under the direction of the coroner the verdict of *felo-de-se*, by taking a drug for a felonious purpose, was returned.

It is not my intention to enlarge on these cases from a symptomatic point of view. The symptoms in the first case were fairly characteristic of lead poisoning, and in the latter, though less so, they yet present no very novel features. The striking point about the two cases is the occurrence of two deaths in a period of less than two years from the self-administration of a drug not usually employed as an internal remedy. I consider that it is probable that these two unfortunate women are by no means the only ones who have availed themselves of this supposed ecbolic, the presumption being that the occurrence of two such cases in one town points to a somewhat widespread superstition as to the powers of the drug, and from a public point of view chemists ought to be exceedingly careful in supplying this substance in future. It seems as reasonable indeed that all poisonous articles for whatever use intended should be labelled "poison," as that another class of commodities should be marked "made in Germany," and the sooner a regulation to that effect can be enforced the better for the public.

A more academic, but no less interesting, question raised by these cases is the following. How did diachylon come to have the reputation which led to its internal employment? For some time this appeared quite unanswerable. I am now, however, able to offer a suggestion on the point. The explanation does not seem to be entirely adequate, but it suggests a possible origin for the custom.

Diachylon is a plaster as old as Galen's time, and older, but it had not then its present simple constitution. It contained, in addition to litharge, marshmallow, linseed, and fenugreek, and may have had this composition till comparatively late times. Hippocrates recommends lint-seeds among other things as an emmenagogue, and Pliny and many others say that fenugreek is an ecbolic. Old superstitions die hard. Is it possible that we are dealing with one dating from the time when diachylon contained these drugs, and that it then had a reputation as an ecbolic which has been transferred to its successor in the *Pharmacopœia*? There is another plaster mentioned by Paulus Ægineta similar to diachylon, containing marshmallow, linseed, fenugreek, and in addition rosin, tears of ivy, and turpentine, but no litharge. Is it possible this was also known as diachylon, and, being comparatively harmless, was used as an emmenagogue?

I only desire that the publication of these sad cases shall lead to the recognition and exposure of this dangerous practice, and aid in preventing its continuance. I cannot believe that the unhappy victims had any idea of the extremely poisonous nature of the substance with which they were dealing; but I also fear that in this town, in common with other manufacturing places, the bringing on of premature labour is looked upon as a tolerably safe and easy procedure—a view too often followed by disastrous results.

THE CAUSATION OF ANÆMIA AND THE BLOOD CHANGES PRODUCED BY URIC ACID.

By ALEXANDER HAIG, M.D.Oxon., F.R.C.P.Lond.,
Physician to the Metropolitan Hospital.

Those who have read what I have written on this subject may remember that my clinical experience and researches have on several occasions suggested forcibly to my mind that an excess of uric acid in the blood was directly or indirectly the cause of such blood changes as might account on the one hand for paroxysmal hæmoglobinuria, and on the other for various forms of anæmia.[1]

I have also said, with regard to the researches of Dr. Hunter, Dr. Wright, Horbaczewski, and others, that the excess of uric acid found by them in the blood and urine was not the result of the blood changes—but their cause.[2]

I now desire to point out that it can be demonstrated that uric acid does produce just such changes in the blood as I have all along been inclined to attribute to it.

Following out the very close clinical resemblance between a uric acid storm as seen in the uric acid headache (migraine) and the symptoms which precede and accompany a paroxysm of hæmoglobinuria, it occurred to me that I ought to be able, by producing a uric acid storm, to produce at least some blood changes; and I proceeded to test the point.

Then some nine months ago I discovered that uric acid taken by the mouth passes almost directly into the blood, and in due time proportionately increases the excretion of the substance in the urine, and is not, as was previously supposed, converted into urea. I cannot go into this matter here, but my facts with regard to it will be published shortly in the *Journal of Physiology*.

This placed me in a position to increase the uric acid in the blood and urine by the simple process of taking it by the mouth, and I began to apply this power to the investigation of anæmia.

I took the fraction $\frac{\text{Hæmoglobin}}{\text{Red Cells.}}$ or rather the decimal representing this fraction, and with this I constructed curves which could easily be compared with the curves of urate excretion.

In my own case I found not only that by taking pure uric acid (gr. 2 to 4 ter) I could diminish the value of the blood fraction, and that it rose again when I left off the uric acid; but I also found that my blood responded in exactly the same way to the natural fluctuations in urate excretion, and the amount passing through the blood from day to day.

In chlorotic patients I first of all ran up the blood fraction by giving iron, and then after an interval gave them beef tea in which I estimated the uric acid.[3] This produced a fall of the blood fraction, which again was followed by a rise when it was left off; and I have now repeated these observations in several cases with results that are practically identical with my results in myself, and apparently proportional to the amount of uric acid taken.

I hope to read a paper and show some of the curves I have obtained at the Newcastle Meeting of the Association; and I believe that my facts will go far to prove that uric acid may cause both paroxysmal hæmoglobinuria and anæmia, and will furnish at the same time a very simple explanation of many points in the causation of these diseases.

[1] British Medical Journal, vol. i, 1890, p. 67, and *Uric Acid*, p. 215.
[2] *Lancet*, vol. i, 1892, p. 663, and *Transactions of the Medical Society*, vol. xv. p. 156.
[3] *Uric Acid*, p. 51.

A CASE OF MULTIPLE PEDUNCULATED EXOSTOSES.

(WITH HEREDITARY HISTORY.)

BY TOM ROBINSON, M.D.BRUX., L.R.C.P.LOND.

THE inheritance of this case is proved by the following notes supplied to me by the father.

The grandparents do not appear to have been the victims of any special proclivity.

The father, now aged 35, had a bone growing on the inside of the left knee, when about 10 years old. This has disappeared. He has at the present time a distinct outgrowth of bone on the head of the right tibia. His sister, aged 34, has a large formation of bone on the left shoulder blade, which first showed itself when she was 18 years of age. It is said to be painful at times and is said to be increasing in size. She always had weak ankles and wore irons in her boots when quite young. His brother, aged 32 (third child and second son), is quite free from bony overgrowth or outgrowth. His third brother (fourth child of the family), aged 30, has had eczema, but is free from any abnormal bone condition. His second sister (fifth child), aged 29, has a distinct exostosis on each tibia. His fourth brother (sixth child), aged 25, has a bony growth on his left shoulder blade.



The mother's family history does not demonstrate any special pathological drift. She had two children, the elder being the one portrayed in the photograph. The youngest child was born when the mother was suffering from rheumatic fever.

The father married a second time in 1883, one child has been the result, a girl, now aged 6. She has bony growths in several parts of her body.

A glance at the portrait of the boy, who was 12 years of age, will give a more rapid and useful idea of his condition than pages of letterpress. There was one bony growth on his left scapula, but none others beyond those shown in the photograph on the inner and outer aspect of the right humerus, on the lower border of the thorax, and at the upper and external aspect of the fibula. It may be desirable to notice that in the father's case the growths ceased with the time of life when the growth of the body had reached its summit, that he has not suffered from any inconvenience from his condition, and he considers his general state of health as uniformly good.

Sir James Paget relates a case in his *Lectures on Surgical Pathology*, page 538, in which a boy aged 6 was in Bartholomew's Hospital. This boy had symmetrical tumours on the lower ends of his radii, on his humeri, his scapulæ, his fifth and sixth ribs, his fibulæ, and internal malleoli; the only deviation from symmetry being a tumour on the ulnar side of the first phalanx of his right forefinger. This swelling was removed by Mr. Lloyd, and was found to consist of an outgrowth of healthy-looking cancellous bone full of medulla, and coated with a thin layer of compact tissue. The father, whom Sir James also saw, had as many, or even more, tumours than the son, but none of the man's direct ancestors or any other of his children had similar growths, but four cousins—one female and three male children—of his mother's sisters had as many of them as himself.

Three distinct characteristics stand out in the series of cases in the family of my patient:

(1) Their singular hereditary persistency.

(2) Their lack of symmetry.

(3) They have not attacked the bones of the skull.

One cannot resist the intellectual pleasure of wondering when and how and why this "sport" was first started in a family. If we could answer this, then we should be able to unlock many a pathological mystery.

THE FRESH AIR FORTNIGHT SCHEME AT ABERDEEN.—The fourth annual meeting of the subscribers to the children's fresh air fortnight was held recently in Aberdeen. The annual report indicated the highly gratifying results of this plan of giving the children of the poor a bath in sunshine and fresh air. During the year 1892, 510 children were sent into the country districts around the city, and in many cases the Committee extended the fortnight into a month, with most beneficial results. There cannot be the slightest doubt of the value of this scheme in lowering the mortality and diminishing disease amongst these poorer classes. And not only does the scheme minister to the development of a healthy body; it also touches the children on the sides of imagination and morality, developing "sweeter manners, kinder lives."

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

ON A METHOD OF RENDERING MILK DIET DIGESTIBLE BY A WEAK STOMACH.

The method is to put the milk into a seltzogene and aërate it. I was led to adopt this for a patient to whom a purely milk diet was essential, but in whom milk, even when slowly swallowed in 4-ounce doses every hour, invariably brought on an acute attack of purging and vomiting within twenty-four hours, while of the aërated milk he was able to take 5 pints daily without difficulty.

I have, however, delayed submitting this little discovery to the notice of the profession until other medical men should have tried it, so as to see if it were likely to be of general use. This trial has now been made, and, without taking up time and space in speculating upon the changes in the milk produced by the aëration, which, at any rate, seem to result in the avoidance of its clotting in the stomach, I will proceed to detail the method which I have followed for charging the seltzogene:

1. Boil the milk, and add a small quantity of bicarbonate of soda; when cool, pour into the lower globe of the seltzogene.

2. Insert the plug of the seltzogene, and pour into the upper globe successively (*a*) the tartaric acid in largish crystals (to procure gradual solution), (*b*) the bicarbonate of soda, and (*c*) about 4 ounces of water.

3. Remove plug, and screw on the top of the machine quickly.

Note.—If any milk finds its way into the upper globe the solution of acid and soda will bubble over into the lower chamber, and the whole of the milk will be spoilt.

The printed directions given with each seltzogene will tell the amount of ingredients required to charge each particular size. Of course the greatest care must be taken to wash out the machine after use. I have hitherto used a strong solution of washing soda for this purpose, and, after washing out the tube and tap by means of a syringe, I have filled the tube and the globes with solution, and allowed them to soak for several hours.

In the very hottest weather milk will not keep good in a seltzogene for quite twenty-four hours, so that it must then be prepared twice daily; at all other times, if prepared in the evening, it will remain good for the whole of the next day.

I may mention that my patient has had a couple of 5-pint seltzogenes in constant use for the last nine months, without the slightest drawback, although a scientific neighbour said that, speaking as a chemist, it would be impossible to aërate milk, and the seltzogene manufacturer said that it would spoil his machines to put milk into them; both have been proved to be quite wrong. The milk is quite ready for use four hours after being prepared; that which is first drawn off is quite still, though loaded with gas; the latter portion comes out as a light foam, about 2 ounces of which are equal to a little over an ounce of milk. An occasional gentle shaking increases the aëration.

If other practitioners will try this method, and then record their experiences, I think that aërated milk will be found to be of great value; at any rate, I cannot conceive that it can do harm to any case for which milk diet may be thought desirable.

S. J. Goldsmith,
Teignmouth, South Devon. Surgeon-Major (Retired).

APOPLEXY OF OVUM.

The following case seems of sufficient interest to record, because of the length of time which elapsed between the "blighting" of the ovum and the expulsion of the uterine contents. Mrs. E., aged 32, mother of five children, the youngest being 3 years old, menstruated last, early in March, 1892, after which period she thought she had become pregnant, all her previous accustomed symptoms manifesting themselves, including most persistent "morning sickness." In August she went to Scarborough, and was, to use her own words, "a rare size then." On her return "the waters broke away" just a little, but she did not seek advice, and from that date she "seemed to fall away and get gradually smaller." In October she became much troubled with severe headaches. Later on leucorrhœa manifested itself.

On March 27th she consulted me, and I prescribed a quinine and iron mixture and a vaginal douche daily, and told her to let me know as soon as the local condition was relieved, and I would call and make a careful examination. She did not do so, and on the morning of April 6th was seized with "flooding" without any pains, but it moderated when she lay down during the day. I found there was pretty free discharge going on, but no pains whatever. The vagina contained some clots; the os was dilated to the diameter of the little finger, and the cervix was rather elongated and hardish. Bimanual examination showed the uterus to be distinctly enlarged. I prescribed a mixture of ergot and opium every three hours, and directed a message to be sent for me when the pains came on. She did not send, however, and on calling early next morning I found there had been little hæmorrhage since she got the medicine, and that pains had come on during the night, but not sufficient, she thought, to need my attendance. A fleshy mass was lying partly in the vagina and partly within the os uteri; it was removed without any difficulty.

The specimen appeared to be a placenta which had not been completely detached from the uterine wall, and had, consequently, gone on developing. The membranes were intact, and just a little fluid escaped on section, but no trace of a fœtus was discovered. The whole of the fœtal surface of this "placenta" was studded with vesicles or little bladders of extravasated blood, varying in size from that of a split pea to a bean, and two larger ones about the size of a split walnut, presenting an appearance very similar to that illustrated at page 274 of *Playfair's Midwifery*. The mass weighed 5½ ounces, and measured 5 inches by 3. The patient made an excellent recovery.

Gateshead-on-Tyne. C. Stennett Redmond, L.R.C.P.I.

A CASE OF POISONING BY OPIUM AND BELLADONNA: GOOD EFFECTS OF PILOCARPINE.

On April 5th, 1893, about 2 P.M., Mr. J., aged 60, had administered to him by mistake a tablespoonful of a liniment which contained equal parts of linimentum belladonnæ and tinctura opii. In about an hour he began to get very sleepy, and I was sent for, and saw him about 4.30 P.M. He was then unconscious and could not be roused or made to open the mouth or eyes. The pulse was 140; the respiration rapid; the pupils dilated and very sluggish.

A hypodermic injection of apomorphine (B. W. and Co., tablet $\frac{1}{10}$ grain) induced vomiting within two minutes. The vomit consisted of curdled milk, possessing no smell of the liniment. Judging, by the dilated pupils, rapid pulse, and dryness of mouth and throat, that the belladonna was the more active poison, one-fifth of a grain of pilocarpine was given hypodermically, and stimulation by friction of the limbs, slapping with wet towels, etc., was commenced and continued throughout the night. At intervals the patient was induced to swallow small quantities of coffee and aromatic spirits of ammonia. Several hypodermic injections of pilocarpine ($\frac{1}{10}$ grain) were given without effect on the skin or pupil, but by midnight considerable improvement was manifest in the state of the pulse and respiration, and the patient frequently opened his eyes and also muttered words indistinctly. The supply of pilocarpine was now exhausted, and, although the same stimulating treatment was continued, in less than two hours it became evident to skilled and unskilled observers alike that the patient was lapsing into his former comatose condition, and he continued to do so till 6 A.M., when, a new supply having been obtained, the injection of pilocarpine was recommenced. About 1 grain of pilocarpine in all was injected between this time and noon. The patient rapidly improved, and could be walked about, and frequently muttered remarks the reverse of complimentary to those present. Throughout the night the bladder was frequently emptied by the catheter to prevent reabsorption of the poison, and large enemas were given two or three times.

Twenty-four hours after taking the poison he could recognise friends, partook freely of nourishment, the pupils were

active and slightly contracted, and all danger from the poison seemed over. About 6 P.M. he was raised up in bed to drink some beef-tea, when he suddenly fell back and expired. Dr. D. Buchanan Ross, who had assisted me with the case all through, tried every means of restoration in vain. This untimely and unexpected end was undoubtedly due to failure of the action of the heart, which was known to be in a state of chronic weakness. Several times previously he had had prolonged attacks of fainting.

The most interesting features of the case are: (1) The small dose of the ordinary linimentum belladonnæ which produced a condition of coma and fixedly dilated pupils; (2) the evident and rapid effects of pilocarpine as an antidote; (3) the amount of pilocarpine required to produce any effect on the skin—about 1¾ grain was injected without visible effect on skin or pupil.

Caersws, Mont. J. MUNRO CAMPBELL, M.B., C.M.

MEASLES: ANTISEPTIC INUNCTION.

AT midday on May 2nd Master A. A. sickened, and showed the first appearance of measles. On May 3rd I saw him. The rash was well out, and extended to all parts of the body. The skin was burning. The peculiar sickly odour of measles was present. The conjunctivæ were injected, and there was dread of light. There was incessant cough, and he complained much of dryness of throat. Some spots were to be observed on the palate; there was much thirst. The temperature was 101° F.; pulse, 110. On May 4th (third day of illness) I again visited him, and to my great surprise I found the rash disappearing from the forehead, cheeks, and neck, where it first appeared. On the chest, legs, and back it was much faded, injection of conjunctivæ had quite ceased, and he did not feel any discomfort from light; he was sitting up in bed amusing himself drawing figures. He had slept well; the cough was almost *nil*. The throat irritation was gone. The temperature was 98.4; pulse, 80. He felt "quite well." On the next day, with the exception of some copper-coloured mottling of the skin, there was not a trace of the illness remaining. He remained perfectly well, and was soon out of doors.

REMARKS.—What is the true explanation of this sudden decline and rapid disappearance of the attack? The illness only lasted for forty-eight hours. His father declares he never had an illness, and at present his appearance fully bears out this statement. He also states that the boy's grandfather had a similar experience, and died from "natural causes" at a ripe old age. Could this blessed idiosyncrasy be transmitted and under such circumstances? I doubt it, as it is contrary to all experience. I think the true explanation is to be found in the following circumstances. Four other cases of measles occurred in the house, the first beginning on April 9th, the others sickening on April 20th, and all passing through the usual illness, lasting from eight to ten days before convalescence was reached. With a view of carrying out thorough disinfection, this patient was smeared over each morning after his sponge bath with "oleusaban" (an oily preparation of eucalyptus globulus), the first application being on April 28th. This was continued until convalescence, and, in addition, the bedclothes and room were freely sprayed with this. Another sister who had daily communication, not alone with this patient but the others, was similarly treated, and escaped the disease. None of the other children who passed through the usual attacks were subject to this process of disinfecting. These facts impress me strongly with the belief that the procedure here mentioned had the effect of cutting short the attack in one and preventing it in the other. I am so strongly of opinion that this is the case that I shall, when another opportunity occurs, give the "oleusaban" a more extended trial, not alone with morbilli, but other allied diseases.

Caledon. R. D. PATTERSON, L.R.C.S.&P.I.

TORSION OF THE SPERMATIC CORD.

REFERRING to Mr. Gifford Nash's communication on torsion of the spermatic cord in the BRITISH MEDICAL JOURNAL of April 8th, I have now to add another to the list of cases already published.

The patient is a man of about 31, who, while I was attending him for another ailment, mentioned that about ten years ago he had "strained himself" in lifting a heavy weight. At the time he felt severe drawing pain in the left testicle, and soon afterwards noticed enlarged veins in its vicinity. He continued to suffer some pain in the organ, but took little notice of it until about a month after the accident, when, finding that the varicocele was enlarging, he consulted a doctor, who gave him a lotion and recommended a suspensory bandage.

The condition at the present time is as follows: The left testis is smaller than the right, is fully descended, but obviously displaced. The epididymis is in front, and the cord can be felt to arise from its upper instead of from its lower border. In front of the testis is a large mass of varicose veins. He wears a suspensory bandage, and suffers no pain or inconvenience.

No explanation appears to have been offered as yet of the manner in which the displacement of the testis is brought about. In Mr. Nash's two cases, and in the present one, the immediate cause appears to have been a muscular strain. Possibly the sudden drawing up of the testis during a severe strain may, owing to the peculiar insertion of the cord into the lower border of the epididymis, cause the organ to revolve on its axis.

Astley Bridge, Bolton-le-Moors. W. H. BRAZIL, M.D.Lond.

A PEDUNCULATED HYDATID CYST SIMULATING A PEDUNCULATED BROAD LIGAMENT CYST.

RECENTLY I was consulted by a lady from New Zealand on account of a "feeling of fulness in the abdomen" and of a constant but slight pain in the left ovarian region. Without much variation these symptoms had existed for two years. She was the mother of four children, the last having been born eight months before she came under my observation. During this pregnancy she had remarked that the abdomen was larger than it had been during her other pregnancies, but after her confinement it appeared to return to the size it had presented for at least seven months prior to her having conceived on this occasion. For three months after the last confinement there had been constantly a hæmorrhagic discharge from the vagina. Since this ceased she had menstruated every six weeks, and had lost less than usual.

The abdominal walls were flaccid. The lower abdomen was occupied by a small flaccid swelling which occupied a central position and was evidently cystic. Over an irregular area extending from the pubes to a line joining the two anterior spines of the iliac bones the percussion note was dull. By vaginal examination the uterus was found to be of normal size and in good position. A fulness was felt in the left fornix, and on careful bimanual examination this fulness proved to be a portion of the swelling previously felt abdominally.

As I considered the tumour was a broad ligament cyst I advised and received consent for its removal. On making the usual abdominal incision I found the cyst firmly and extensively adherent to the anterior abdominal wall from the pubes to two inches above the umbilicus. On separating the tumour from the parietes the omentum was found adherent to the cyst wall in the right flank. The omentum in its entire width was ligatured and cut. With these exceptions there were no other adhesions not even to pelvic structures. The cyst, which was of the shape of a Florence flask, was attached by the neck close to the right and lower border of the spleen. Before dealing with this the pedicle of the tumour, I evacuated the contents. The fluid which escaped was of a mixed character. It contained many curdy looking pieces of a yellow colour and many cleaner vesicles, some of which were as large as the yolk of an egg. The contents measured in all three pints, but the cyst was capable of containing at least five or six pints. The terminal portion of the cyst wall in the pedicle was readily felt. The pedicle, which was three and a-half inches in length and one and a half inch in width, was then transfixed and dealt with like an ordinary ovarian cyst pedicle. The patient recovered without a bad symptom. Dr. Dalton examined the broad cysts for scolices, but many of these had undergone fatty degeneration. The cyst wall was typically that of a hydatid.

Gordon Square, W.C. JAMES [illegible], M.D., F.R.S.Edin.

REPORTS

ON

MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

KING'S COLLEGE HOSPITAL.

AN EXPLORATORY LAPAROTOMY.

The introduction of the finger within the abdominal cavity is so often necessary that the exact method of its performance is a matter of interest to all. During a recent visit to King's College Hospital, our reporter witnessed the following operation by Mr. Watson Cheyne; and though there is nothing remarkable about the case itself, it illustrates the precautions which are now taken by those who follow strict antiseptic methods.

A man, aged between 50 and 60, had been suffering from attacks of jaundice, presumedly from gall stones, for many years. The last attack occurred at Christmas, since when the jaundice had persisted and got worse. When admitted three weeks ago, there was no fluid in the abdomen, but since then ascites had developed, and three days before the operation now to be described he was tapped. The liver was enlarged, especially the left lobe, and there was a sense of resistance over the position of the gall bladder, although no tumour could be felt. The question lay between gall stone and malignant growth, the ascites among other things pointing strongly to malignant mischief.

The patient was under chloroform when he was wheeled in. The abdomen and lower part of the chest were exposed, the clothes being covered by blankets, and these again by mackintosh, the edges of which were tucked in. The abdomen was well washed with soap and lotion (1 to 20 carbolic lotion containing $\frac{1}{60}$th part of corrosive sublimate), and scrubbed with a nailbrush, then it was washed with turpentine, and after that with the strong lotion again. The mackintosh was then covered with towels wrung out of carbolic lotion. Mr. Watson Cheyne and his assistants had previously scraped their nails, and used soap and water, nailbrushes, turpentine and strong lotion to their hands and arms up to the elbow. An incision 2½ inches long was made over the region of the gall bladder, parallel with the linea alba; a couple of strokes reached the peritoneum, which was then picked up and opened by a side stroke. A considerable quantity of yellow fluid poured out, and during its flow, the edges of the peritoneum having been secured by catch forceps, the finger was introduced so as to ascertain the condition of the liver, the gall bladder, and its duct. The gall bladder was thick but not distended, no gall stone could be felt, and the liver all around the site of the gall bladder was found to be nodular and hardened by malignant deposit. It was clearly not a case for further interference. The yellow ascitic fluid was still pouring away, but no attempt was made either to assist or retard it. The peritoneum was first closed by a continuous catgut suture, applied with a curved needle, the first stitch being knotted and the last ended off as a seamstress would do it. The divided muscle was united by four interrupted silk sutures, passed by a curved mounted needle, each being made to transfix both sides of the muscle, and then return in the same way to a point near to that of entry, and thus when tied to draw together the inner surfaces rather than the cut edges. Finally, the wound was closed by a continuous silk suture, the wound being all the time after the peritoneum was closed frequently irrigated by sublimate lotion (1 to 2,000) dribbling from a sponge. Two thickly-folded pieces of cyanide gauze about the size of the hand, wrung out of 1 to 4,000 sublimate lotion, were placed over the wound, after that many layers of the same gauze wrung out of 1 to 20 carbolic lotion, and over that again was laid some salicylic wool, the whole overlapping the wound widely in all directions, and being fastened by a round-and-round bandage, held in place by a final strap over the shoulders.

The patient suffered no ill effects from the operation. The only instruments used were the knife, the pressure forceps, and the needles. No one, however, ought to attempt an exploratory operation without being both mentally and instrumentally prepared for anything which may turn up.

SOUTHPORT INFIRMARY.

A CASE OF OPIUM POISONING FOLLOWED BY HYPERPYREXIA AND DEATH.

(Under the care of E. D. McNicoll, F.R.C.S.Ed.)

[Reported by H. Brunton Angus, House-Surgeon.]

F. B., aged 20, at 3 P.M. on April 5th took 10 drachms of tincture of opium (certainly not less than 40 gr. of opium). At 3.15 P.M. a neighbouring chemist gave him 10 gr. of zinc sulphate, which produced vomiting. At 3.45 P.M. Mr. McNicoll saw him, and washed out the stomach with warm water till the contents returned clear. At 4.5 P.M. the patient was admitted into the hospital. He was drowsy though sensible, pale and perspiring; the pupils were contracted, the pulse 120, and weak; he could walk with assistance. He was stripped to the waist, walked round the room by two men, and flogged with a wet towel for twenty minutes, during which time ¼ gr. of atropine was injected subcutaneously, producing in five minutes dilated pupils. He now became unconscious, and respiration ceased, the pulse remaining weak and frequent. Artificial respiration (Sylvester's method) was performed continuously for six hours before he made an attempt at respiration. He was so comatose that the pupils were quite insensitive to touch and light, and remained fixed and dilated. The body felt cold, and, save for the feeble but regular pulse, he resembled a corpse. During this period three hypodermic injections of strychnine ($\frac{1}{30}$ gr.) were given, without any noticeable effect, and the body below waist was surrounded with hot water tins. After six hours' artificial respiration the patient took a shallow inspiration, and breathing commenced, at first 6 to the minute, soon rising to 12, and ultimately to the normal, or rather beyond. The pulse was 126, weak but regular, and the corneal reflex returned. He was surrounded with hot water tins, wrapped in flannel to counteract the collapse, and every hour during the night he was given brandy and milk, which he swallowed; he opened his eyes when it was given to him.

About 5 A.M. his temperature rose to 109° (taken in axilla), and the pulse began to fail. He was treated by cold sponging, and 15 grains of quinine were given. The temperature fell to 106°, and then rose again to 108°; the pulse became imperceptible, and though ether and brandy were administered he died.

Remarks.—The case was very disappointing; after an apparent revival, he died of cardiac failure brought on by the hyperpyrexia. It was not due to respiratory failure, as his respiration remained good till the pulse failed. Some explanation of the hyperpyxrexia is required; nothing in his previous history throws any light on it as there was nothing save mental depression. Unfortunately no *post-mortem* examination was permitted.

BEDFORD GENERAL INFIRMARY.

ACROMEGALY AND HYPERTROPHIC PULMONARY OSTEO-ARTHROPATHY.

(By F. A. Field, M.R.C.S., L.R.C.P., Resident Surgeon, Bedford General Infirmary.)

The following case presents many points of interest, which make it, in my opinion, worth recording, especially after Mr. Thorburn's recent paper in the British Medical Journal of June 3rd:

W. M., male, born December 4th, 1891; was admitted on May 24th, 1893.

Family History.—His father and mother, both very healthy, presented no abnormality in the size of the hands or otherwise. Their only other child, a girl, now aged 5 years, had curved tibiæ at birth, but they had grown nearly straight, and she was otherwise well formed: she did not walk till she was over two years old; two or three years ago she had bronchitis, but was now in good health.

History.—The patient was a very healthy child, and grew quickly, becoming very fat. In June, 1892, his mother found that he required larger boots and shoes than most children of his age, but the feet were not considered very large in proportion to his general size. In August, 1892, he had whooping-cough and bronchitis severely, and had been subject to bronchitis ever since. From that date he had steadily wasted,

but the hands and feet had been growing larger and larger. He was brought to the infirmary first on May 10th, 1893, because of a left inguinal hernia, which frequently came down after his troublesome cough, but apparently never remained down long. He had phimosis, and the orifice was sore. He received some medicine for his cough, and the rupture did not recur. On May 24th he was admitted for circumcision, and was discharged on June 10th. The prepuce was adherent.

Condition on Admission.—He was emaciated, especially about the thighs and arms. The two sides of the body were symmetrical, with the exception of a slight difference in the knees. His length from scalp to soles was 27⅛ inches. The most marked feature of the head was the great development of the lower part of the face; both lips were very large and loose and partly everted, especially the lower one; the malar bones prominent; the pinna of the ear was 2½ inches long; the nose was not enlarged; there was no enlargement of the thyroid gland; the heart sounds were normal; there were slight bronchitic *râles* at the bases of the lungs, and he had frequent cough. The upper limb was very thin to just above the wrist. The hands, with the lower articular ends of the radius and ulna, were very large in comparison in every respect, the bones being much larger than normal, and the tissues covering them being full, firm, and healthy-looking, thus presenting a great contrast to the rest of the limb. The nails were slightly curved longitudinally as well as laterally. The length from the axilla to the bend of the elbow was 3½ inches; thence to the tip of the styloid process of the radius 4 inches; thence to the tip of the middle finger was 4¼ inches. The thighs were emaciated; the knees enlarged, much resembling in appearance strumous knees, but neither painful nor stiff; the circumference of the right knee was 6¾ inches; of the left knee 6⅝ inches. The feet, and, to a rather less extent, the ankles, were much enlarged, in the same way as the hands. The length from the cleft of the thighs to the soles of the feet was 11 inches; the length of the foot from the heel to the tip of the great toe was 4⅜ inches; the breadth of the sole of the foot was 2⅝ inches.

REMARKS.—The age of the patient was only 17 months when first seen last month. I do not know of any previous record of either acromegaly or hypertrophic pulmonary osteo-arthropathy in an infant. With the exception of the curved nails and the absence of hypertrophy of the nose, it is a most typical case of acromegaly. Considering the youth of the patient the nose may start growing later on. The curving of the nails, the marked enlargement of the knees, and the pulmonary history, all connect it with the interesting series in Mr. Thorburn's paper, and tend to show that there is an intimate connection between the two diseases.

REVIEWS.

PUBLIC HEALTH LABORATORY WORK. By HENRY R. KENWOOD, M.B. With Illustrations. London: H. K. Lewis. (Crown 8vo, pp. 482, 10s. 6d.)

THIS is a manual evidently compiled for the aspirants to a diploma in public health. The subjects dealt with in fewer than 500 pages are very numerous, for example, the analysis of water, of air, of soil, of coal gas, of foods—milk, butter, bread—the discrimination of good from bad meat, and the detection of poisons in foods; all this is followed by an essay by Professor R. Boyce on the methods employed in the bacteriological examination of air, water, and food.

The scheme is far too ambitious for the result to be happy. It is certainly true, that considering the object for which the work is written, that object is fully attained, and students who make themselves acquainted with the processes here described will, so far as the practical part of the public health examination goes, be likely to pass, but the standard of medical public health examinations is low, and not much stress is laid upon the absence of a sound practical knowledge of chemistry. The extreme condensation of the work nevertheless should not have prevented a description of the very best method of distinguishing copper from lead in water, namely, that based upon the fact that the sulphide of copper is soluble in potassic cyanide, lead sulphide insoluble. It is also curious that no mention is made of Thresh's nor of Winkler's method of estimating oxygen in water. Wolpert's simple method of estimating CO_2 in air the author is either not acquainted with or fails to appreciate. The best test for carbon monoxide, namely, the exposure of a mouse to air presumed to contain that gas and subsequent spectroscopical examination of the rodent's blood, is not described, but the student shakes up blood in a bottle instead—a test far inferior in delicacy.

The acetic acid test for the purpose of distinguishing margarine from butter, so extensively used by analysts, the author is silent upon; in speaking of baking powders, he also appears ignorant of the large trade in alum baking powders.

The descriptions of the processes given are for the most part clearly written and happily expressed. The book is profusely illustrated, and possesses three excellent lithographic plates representing the more common organisms found in air and in water; there are also many useful tables.

TRAITÉ DES MALADIES DE L'ENFANCE. Par le Dr. J. COMBY, Médecin des Hôpitaux. Paris: Rueff et Cie. 1893. (One vol. in-18 jésus, pp. 900 relié peau pleine. 12f.)

PRÉCIS D'HYGIÈNE DE LA PREMIÈRE ENFANCE. Par le Dr. JULES ROUVIER, Professeur à la Faculté Française de Médecine de Beyrouth. Préface du Dr. PIERRE BUDIN, Professeur-agrégé à la Faculté de Médecine de Paris. Paris: J. B. Baillière et Fils. 1893. (One vol. in-18 jésus de 500 pp. avec figures, cartonné. 6f.)

THE DISEASES OF CHILDREN, MEDICAL AND SURGICAL. By HENRY ASHBY, M.D., F.R.C.P., Physician to the General Hospital for Sick Children, Manchester, and G. A. WRIGHT, B.A., M.B., Surgeon to the same Hospital. Second edition. London: Longmans, Green, and Co. 1893. (8vo, pp. 780, 138 illustrations. 21s.)

THE reviewer, who is not prejudiced a little in favour of Dr. COMBY's book by its artistic appearance must be either very insensible to æsthetic influences, or possessed to a very rare degree of an abstract sense of justice. Happily the intrinsic merits of the book are great, and there is probably no volume of the same size which gives the reader as good an insight into the theories and teachings of the dominant French school.

The feature of the book which will most strike the English reader who is not well acquainted with the tendency of the modern French teaching will be the very prominent place assigned to infective processes of various types and in various regions, and to the influence of toxæmia—that is to say, the absorption of soluble poisons especially from the intestinal canal. We see here, no doubt, the influence of the admirable clinical studies rendered possible by the establishment of clinical laboratories, institutions almost unknown in this country. That there is a certain amount of fashion in the general adoption of theories of this kind may, perhaps, be true, but that there is a great deal of truth in such speculations, and that they are fruitful of good results in practice, is indisputable. Dr. Comby's treatise is systematic and complete, and we have not observed any omissions of importance. The subjects are treated in the usual order, beginning with infectious diseases, including tuberculosis, and then passing to the *maladies dystrophiques* (scrofula, obesity, asthma, migraine, diabetes, hæmophilia, anæmia, chlorosis, diseases of development, athrepsia, and rickets). The second part of the book, occupying rather more than half the number of pages, is devoted to local diseases, and its last section is a short but useful essay on diseases of the skin, a class of disorders which occupy a more prominent place in actual practice than in most works on children's diseases.

Dr. ROUVIER's book is a model of industry. He leaves no question which has any bearing on the preservation of infant life untouched, and his observations are founded on facts and statistics collected from almost every civilised country. The book is divided into three parts; the first deals with the peculiarities of the infantile constitution, and contains, in addition to much which is the common property of every writer on such subjects, a great deal of curious or useful in-

formation with regard to dress, bathing, mode of carrying, and the use of the *couveuse*. The second part deals with the great question of feeding. Here the frequency with which wet nurses are resorted to in France as compared with this country detracts somewhat from the value of many of the pages, but some of the facts are curious and interesting. In particular, it would seem that the chance of an infant being "changed at nurse"—an accident which used to be dear to a certain school of novelists—is a very real one in France. Once upon a time, not so very long ago, a gentleman confided his infant son to a foster mother in the country. Some months afterwards, wishing to have the whole of his family about him on some festive occasion, he sent for his son, and the company greatly admired the healthy and chubby appearance of the infant; the proud parent, gratified by this admiration, insisted that the infant should be undressed in order that the whole of his beautiful person might be admired, whereupon it appeared that his son was a girl! In this part of the book the selection of a wet nurse is fully discussed, and feeding bottles of all kinds are described, illustrated, and appraised; the conclusion is that all bottles with tubes are dangerous, and Dr. Rouvier figures a very ingenious and simple bottle which he has designed himself. A good discussion of all the questions which may arise in connection with syphilis as they affect the child, mother, or nurse follows, and this section of the book concludes with a chapter on weaning. The third part of the volume deals with the extent and causes of infant mortality, and fairly bristles with statistics, which appear to be drawn from the most authoritative sources. In discussing the high mortality of illegitimate infants, the author is able to demonstrate very clearly the unfavourable influence which the abolition of the liability of the father to contribute to the support of his illegitimate offspring has had in France and in other countries which have followed the French example. The regulation found its way into the Code, probably because Napoleon believed that it would have the effect of increasing the birth-rate, the only point to which, with a complete disregard of sexual morality, he attached any importance; in practice, however, it has worked to produce a diminution in the infant population, and has thus defeated the ulterior object with which it was enacted. M. Budin, in his preface, appears to think that Dr. Rouvier's work will be of special value to mothers, but we apprehend that its elaborate and highly scientific character will render it more useful to medical men, especially to those who are engaged in the public health services.

When the first edition of the handbook of Dr. Ashby and Mr. Wright was published we were able to speak of it in terms of high praise, and the second edition has been revised and in part rewritten. The work retains the features which ensured the success of the first edition. It is, so far as we know, the only work on the subject which is the joint production of a physician and surgeon. For this reason it is a more complete treatise than the majority of such books. A most valuable and useful feature is the systematic introduction of illustrations, in most instances, as would appear, sketched from photographs. They have been selected with much care, and are, as a rule, so thoroughly typical that they add very much to the practical value of the book. Owing to the moderate size of the volume, and the multitude of subjects discussed, no attempt at an exhaustive treatment of any department is made. Perhaps this is more true of the medical side, where Dr. Ashby has found it necessary to select his materials with severe impartiality, than of the surgical, where knowledge is more defined. As a whole, the one part is not inferior to the other in giving an excellent summary of the present state of knowledge; the main criticism which we would be inclined to offer is that in treating of such diseases as measles and pneumonia, as well as some others, hardly sufficient importance seems to be attached to the very large share which secondary infections have in increasing the mortality; the point is of great practical consequence, since the liability to such secondary infections is greatly increased by overcrowding, and these complications are therefore to a large extent preventable.

Professor Rivers has been chosen by the Berlin Municipal Council to succeed the late Professor P. Guttmann as Director of the Moabit Hospital in that city.

The Physiology of the Senses. By J. G. McKendrick, M.D., LL.D., F.R.S., Professor of Physiology in the University of Glasgow, and W. Snodgrass, M.A., M.B., C.M., Muirhead Demonstrator of Physiology in the same University. London: John Murray. 1893. (Crown 8vo, pp. 318; 127 illustrations.)

This little book is one of a series of University extension Manuals which Professor Knight is editing. It begins with a general introduction treating in an elementary way of the nervous system, and then proceeds to a discussion of the various senses one by one. The book is admirably suited for the purpose for which it is written, but we doubt not that it will obtain a wider circle of readers among other students of physiology. It is written in such a manner that it will be readily understood by those who have not dived deeply into physiology, especially if it is used in conjunction with practical demonstrations.

Professor McKendrick is well known as one who has the gift of putting clearly and forcibly scientific facts in order to render them intelligible to the non-scientific reader or hearer. He is also known as a physiologist who has made the senses his special study. It would, therefore, have been difficult to have found a more suitable writer for such a book as this. Dr. Snodgrass is mainly responsible for the sections on sight and hearing, and we can pay him no better compliment than to say that he has caught the spirit and style of his chief in a very striking manner.

Speculative questions of psychological interest are, as a rule, avoided, but the last chapter contains an attempt to elucidate the nature of the physiological basis of sensation. The views advanced contain an exceedingly thoughtful contribution to this difficult problem. The same views have already been brought forward in Professor McKendrick's *Physiology*. Put briefly, they show that consciousness cannot be explained on purely physical grounds, still less can it be regarded as a form of energy in the usual sense of that term. The book is admirably illustrated, and we wish it every success.

Lehrbuch der Pathologie des Stoffwechsel (Textbook of the Pathology of Metabolism). By Dr. Carl von Noorden. Berlin: A. Hirschwald. 1893. (Pp. 492, imperial 8vo, M. 13.)

The appearance of a book treating of pathological metabolism is an evidence of the great extent to which specialism in science in general, and in chemical physiology in particular, is now carried. The book is a valuable one. Dr. v. Noorden is himself a worker in this particular line of research, and he treats of the subject in a most instructive manner. Full references to literature are given. Though the title speaks only of pathology, the first third of the book is physiological. It treats of the various forms of nutriment, their digestion, absorption, and fate in the organism. The exchange of material, and the influence of muscular work, inanition, and other factors on this, and the closely related question of animal heat, are described fully.

The pathological section of the book describes the effect of fever and diseases of the respiratory, alimentary, circulatory, excretory, and other organs on the general metabolism, and on the special metabolic phenomena particularly affected.

There are interesting chapters on diabetes, gout, cancer, alkaptonuria, and cystinuria. We may take one or two instances of the way the subject is treated. In relation to obstructive jaundice, the influence of this condition is first described on the general weight, nutritive condition, and total exchange of material; special sections follows this on the influence of jaundice on the decomposition of proteid in the body, on the alterations in the digestive juices and their action, on the condition of the liver itself, on the changes in the blood, and the composition of the urine. In the chapter on anæmia we have first the influence of this condition on oxidation processes, on proteid metabolism, and the chemistry of the blood and other tissues; then follows a description of digestive processes and the condition of the urine in anæmia. In other words, the book before us treats of the chemical aspects of the most important diseases; and now that patho-

logical chemistry is coming to the fore in so marked a manner, we cannot but think that all workers in pathology will find this book of great assistance to them.

GRUNDRISS DER SPECIELLEN PATHOLOGIE UND THERAPIE. FÜR STUDIRENDE UND AERTZE. [Elements of Special Pathology and Therapeutics for Students and Practitioners.] Von Dr. JULIUS SCHWALBE, in Berlin. Stuttgart: Ferdinard Enke. 1892. (Demy 8vo, pp 763.).

THE rapidity with which books on medicine have been appearing of recent times shows as yet no signs of abatement. Here the object of the author (who was for many years one of the assistants in the Friedrichshain Hospital in Berlin), has been to present a short textbook which shall serve the purposes of the student in his hospital work, and the practitioner in the exercise of his profession. Sections on gynæcology (pp. 546 to 578), diseases of the male generative organs (pp. 578 to 604), and skin disease, have been added owing to purely practical considerations.

The classification is the one usually adopted. Diabetes, gout, obesity, and scrofula are grouped together as affections of metabolism ("Stoffwechsel"). under constitutional diseases. Tetanus is found among nervous diseases, and general tuberculosis among respiratory diseases, and not among the acute infective processes. Addison's disease is curiously placed among the vasomotor and trophic neuroses under nervous diseases. The account of the diseases of each system is preceded by a useful discussion on topical diagnosis. Under each disease the etiology and pathological anatomy are described under one heading, and then follow the clinical course, diagnosis, prognosis, and treatment. The importance of bacteriology in the causation of disease is duly acknowledged. Here and there the term idiopathic is still retained. With the ample recognition of the tetanus bacillus as the cause of the disease, the object of the division into tetanus rheumaticus, traumaticus, idiopathicus, and neonatorum is hardly apparent. Under the symptomatology any variations in the course of the more important diseases are separately described—an arrangement of much value. Under tuberculous meningitis the author says that he has himself seen two cases completely recover. One died of diphtheria six months later, but it is not stated whether a necropsy added any confirmation to this view. Nor are the points mentioned which would with certainty exclude other forms of meninigitis, such as that due to the pneumococcus infection.

There is room for some improvement as far as the sections on treatment of disease are concerned. At present it is hardly correct to say that the cure of infective tetanus with the serum of animals made immune against tetanus, has not yet succeeded in man, if the Tizzoni-Cattani treatment be included here, and no other reference is made to it. Acute and chronic myelitis are described under one heading, and no mention is made of the management of the bladder, or the prevention of bedsores in the acute disease. The treatment of tabes dorsalis is summed up in four lines. A reference is first given to the treatment of chronic myelitis, and the rest is taken up with the now antiquated suspension treatment. Nothing is said of the general management of the case, of the treatment of the pains, gastric crises, cystitis, etc. Under the so-called symptomatic or, perhaps more correctly, compensatory treatment of acute Bright's disease, the value of diaphoretics seems overstated. The treatment of tinea tonsurans and eczema recommended is quite inadequate, considering how obstinate these diseases may be. The views of the author in connection with surgical help are, we fear, at any rate in some diseases, somewhat optimistic, and especially in mediastinal tumours and suppurative nephritis apart from pyonephrosis.

With this important qualification the reader will find a concise and practical description of the diseases under consideration. An appendix containing an account of the chief forms of poisoning, a series of prescriptions, a list of health resorts, etc., adds to the completeness of the book.

DR. THEOPHILUS WILLIAM TREND has been appointed a justice of the peace for the town and county of the town of Southampton.

NOTES ON BOOKS.

Outlines of Practical Histology. By WILLIAM STIRLING, M.D., Brackenbury Professor of Physiology and Histology in the Owens College, Manchester. Second Edition, revised and enlarged. (London: Charles Griffin and Co. 1893. 8vo, pp. 419, 368 illustrations, 12s. 6d.)—Though Professor Stirling modestly calls this book *Outlines of Practical Histology*, it is exceedingly complete, and will give even advanced students all they want. The rapid appearance of a second edition has shown that the book has met a want in a very successful manner. It is considerably enlarged both in text and illustrations, the recent fruitful methods of Golgi, Ramon y Cayal, and Ehrlich being fully set forth. A perusal of the second edition fully confirms the favourable notice published when the first appeared. It would not be possible to find a better practical book on the subject in the English language, and we again congratulate Professor Stirling as an accomplished histologist and a successful writer.

Lehrbuch der speciellen Chirurgie für Aerzte und Studirende. [Textbook of Special Surgery for Practitioners and Students.] Von Dr. FRANZ KOENIG, ordentlicher Professor der Chirurgie, Director der chirurgischen Klinik in Goettingen. (Sechste Auflage. Band I. Berlin: August Hirschwald. 1893. Super royal 8vo, pp. 690, 139 woodcuts. M. 14.)—This is the first volume of a new issue of Koenig's well known textbook of special surgery, which in this—the sixth edition—has been much enlarged. Koenig's work has been so long before the profession and has gone through so many editions that it is now quite unnecessary to do more than to direct attention to this carefully revised form of one of the best and most characteristic specimens of German books on surgery. The author, as readers of former editions will anticipate, has kept pace with the recent progress of surgical work. It has been found advisable, in consequence of the many recent additions to the literature of abdominal and renal surgery, to postpone for a short time the publication of the second volume. The volume which has been already issued deals with injuries and diseases of the head, face, and neck.

The Disease of Inebriety; its Etiology, Pathology, Treatment, and Medico-Legal Relations. Edited by T. D. CROTHERS, M.D. (New York: E. B. Trent. 1893. Crown 8vo, pages 400, 11s.)—This elegant volume, which was compiled by Dr. T. D. Crothers at the request of the American Association for the Study and Cure of Inebriety, contains summaries of papers which have been read to the Society during the twenty-two years of its existence. Among the contributors whose views are here given are half a dozen English authorities, in addition to many other well-known European physicians. The scientific study of inebriety is in its infancy, and this book can be regarded as presenting only a few general principles, with suggestions for succeeding inquiries. The volume is full of striking theories and facts, but in the present stage of the study, though they amply sustain the teaching as to the physical phases of inebriate indulgence, they are not yet sufficient to warrant absolute deductions, except on a few fundamental points. The attentive reader will rise from a perusal of this work with the belief that the restoration of the drunkard and the repression of drunkenness will mainly depend on our increasing knowledge of the true causes of the protean phenomena of intemperance.

Die Sections-Technik im Leichenhause des Charité-krankenhauses. [The Method of Performing *Post-mortem* Examinations in Use at the Charité Hospital.] Von RUDOLF VIRCHOW. (Berlin: Hirschwald. 1893. Fourth Edition. Royal 8vo, pp. 114, M. 3.)—This admirable treatise still maintains the foremost place as the most complete and reliable guide for performing a *post-mortem* examination, not only in the dead-house of a hospital but also for medico-legal purposes. Thus the book is simply invaluable to men engaged in practice who are occasionally called upon to conduct a medico-legal investigation of a dead body. The methods of procedure, the necessary instruments, the order in which the organs should be examined, and details as to the manner of investigating them are given with great

care; the value of the book is enhanced by illustrative cases. The Prussian regulations for the guidance of medico-legal experts in conducting *post-mortem* examinations for forensic purposes forms an appendix.

Die traumatischen Neurosen. [The Traumatic Neuroses.] By Dr. H. Oppenheim. Second Edition. (Berlin: Aug. Hirschwald. 1892. Super-royal 8vo, pp. 253, M. 6.)—In the present edition of this excellent treatise the author has enlarged the chapter on semeiology, giving special consideration to symptoms that possess the value, so far as can be attained, of objective evidence. The importance of these for establishing the diagnosis is too obvious to need emphasising. Records of several additional cases are given, and a short chapter on pathological anatomy is added.

Dainty Dishes for the Sick and Convalescent. By A Physician's Wife. (Glasgow: J Calders and Co. Fcp. 8vo, pp. 24, 6d.)—Sir Walter Scott, in his amusing and excellent cookery book named after the famous "Meg Dods," says that "cookery as a domestic art contributing to the comfort and luxury of private life had made considerable progress in England before the Reformation, which event—I speak it with sorrow—threw it back some centuries." Since his days, however, the reaction has been great, and people seem to give much more time and attention to the art of cooking than used to be the fashion. The small volume before us contains a collection of recipes chosen with a view to their power of tempting the tardy appetite of the sick and convalescent. Many of the dishes, if properly cooked, would no doubt be good and savoury. The mixture of maltine with milk puddings, however, does not sound agreeable, and the amount of eggs and cream in a few of the recipes would be rather a severe test for weak digestions. The more simple recipes would be found useful in the sick room, and the low price of the book brings it within reach of that class to whom as yet the art of cooking is a sealed mystery.

Carlsbad: A Medico-Practical Guide. By Emil Kleen, M.D. (New York and London: G. P. Putnam's Sons. 1893. Fcp. 8vo, pp. 101, 3s.)—This is a popular rather than a professional guide to Carlsbad, and like most works of a similar nature it casts the net a little too widely. Such works are of little value to medical men, who are not concerned in attracting patients to a resort, but in being able to discriminate between who should and who should not be sent there. There is, however, a good deal of general information condensed into this small volume.

Fonctionnement de la Maison d'Accouchements Baudelocque. Clinique de la Faculté dirigée par le Professeur Adolphe Pinard, Année 1892. Par Dr. G. Lepage. (Paris: G. Steinheil. 1893. Demy 4to, pp. 107.)—This is a statistical account of the practice of the Baudelocque Maternity for 1892. The chief novelty it contains is a report of Dr. Pinard's cases of symphysiotomy; and also a case of pubo-ischiotomy for difficult delivery due to the obliquely contracted pelvis of Naegelé. Dr. Pinard's symphysiotomy record has already been published in English. The pelvis of Naegelé is so rare that we need not quote details of this new operation for such cases. Writers of monographs who want statistics will find this work useful, but with the exception of what we have mentioned little that is new is brought out.

Diagrams of the Mouth, Fauces, and Larynx: for Clinical Purposes. (London: J. T. Balcomb. 1s.)—These diagrams are intended, as stated on the title-page, "to exactly indicate the position of parts affected in diphtheria, granular pharyngitis, laryngitis, tonsillitis, etc." The diagrams are three in number, and include a view of the larynx from above, one of the mouth, tongue, and fauces from the front, and one of the posterior nares, tongue, and larynx from behind. These drawings are gummed on the back, and each of them can be separated from the others. They are certainly not artistic, and the view of the posterior nares, etc., is anatomically impossible, and even as a diagram incorrect. Nevertheless, the diagrams may be of use in the recording the position and extent of lesions.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

THE PREPARATION OF BLUE SUBLIMATE SOLUTION FOR DISINFECTING PURPOSES.

Dr. Murrell's letter on p. 1241 of the British Medical Journal of June 10th has brought us several suggestions and preparations.

Mr. Wm. Martindale (10, New Cavendish Street, W.) makes the following general observations: The most suitable "commercial aniline blue," and, I think, the one intended to be used, is pure soluble blue. Of soluble blues there are many shades and qualities in commerce, such as china blue, pilot blue, and "cotton" blues. These are all used for dyeing cotton goods. They consist of a mixture of the salts of triphenyl-rosaniline tri- and tetra-sulphonic acids. These colours have the advantage of being readily soluble in water, and of being decolorised by caustic alkaline solutions, soaps, and even by the lime salts in common water, if the solution be a weak one, hence the advantage of adding a little hydrochloric acid to the Local Government Board solution. A simple solution of pure soluble blue, of the strength of 5 grains in 3 gallons of Thames water, as ordered in the disinfecting solution, becomes all but decolorised in a short time, whereas, when the acid and sublimate are added, the colour becomes so heightened as to be objectionable. If 1 grain of this blue, of good quality, be added to 10 gallons of the solution (about one-sixteenth of the quantity ordered), it forms a distinctly blue solution, which could not easily be mistaken for a more innocent fluid. Cotton fabrics stained with this are easily decolorised by washing (boiling with soap or soda). At first the articles become of a puce colour, but this quickly vanishes. The other soluble aniline blues mentioned, such as Nicholson's fast blues or alkali blues, including Guernsey and navy blues, consisting principally of the salts of triphenyl-rosaniline monosulphonic acid, are not suitable, as fabrics stained with them have a fast colour, and are not easily decolorised by alkaline solutions, soap, or light. Nor are solutions of methylene blue (which is also freely soluble in water) admissible, as they are not decolorised by the above means. Bleu de Lyon (hydrochloride of triphenyl-rosaniline) and spirit or opal blues are practically insoluble in water; they also are therefore not admissible for colouring a disinfecting solution. It has been suggested to make a coloured solution of sublimate for use as a disinfectant by dissolving equal weights of permanganate of potassium and sublimate in water. This solution acts more quickly as a germicide because it is a powerful oxydiser also, but it is not suitable for linen or wearing apparel. Half an ounce of each salt should be dissolved in a pail of water. Unfortunately the solution does not keep well, oxygen is too readily evolved from it; still, solutions of the two salts in a concentrated form may be kept separately, and mixed and diluted as required, so as to form a cheap coloured solution for general distribution to the poor, which is both effective as a deodoriser as well as a destructive germicide. Wooden pails for these solutions are better than metal ones, unless the metal ones are enamelled.

Pastilles.—Mr. Martindale forwards a sample of alembroth wool stained a bright blue by "pure soluble blue," and a second example of the same wool almost completely decolorised by boiling in weak potash solution. He forwards also some compressed "sublimate pastilles" for making solutions. They consist of a mixture of perchloride of mercury with pure chloride of sodium. He states that if made with common salt they are apt to deliquesce, while if chloride of ammonium is used they are not perfectly soluble. One sample sent is stated, when dissolved in a tumbler of warm water, to give a stable solution of 1 in 4,500. He states that pastilles are also made for the use of surgeons, to give on solution a pint of pale blue solution of 1 in 500 parts. This may be diluted with from 1 to 3 or more parts of warm water before use as a lotion.

Soloids.—Messrs. Burroughs and Wellcome (Snow Hill Buildings, London, E.C.) have sent us specimens of com-

pressed discs to which they give the name "soloids." They state that they are prepared in accordance with the suggestion of Dr. Murrell, and that each "soloid" dissolved in a quart of water makes a solution of the strength and character recommended by the Local Government Board in the Memorandum of 1892. They claim for these soloids that they are portable, rapidly soluble in ordinary well water, and that their colour and the odour of turpentine with which they are impregnated obviate the risk of poisoning. We find that a soloid is soluble in a quart of cold well water in about two minutes with slight agitation. The resulting solution has a distinct blue colour, which it retains for some hours at least. White cotton fabrics soaked in it are stained a light blue, but this colour is so nearly discharged by rinsing in cold water that the value of the fabric is not deteriorated; the tint, in fact, is so faint as only to be detected by comparing a treated with an untreated specimen, and would probably be considered by a laundrymaid rather an advantage.

Cartridges.—From Messrs. Allen and Hanburys (Plough Court, Lombard Street, E.C.) we have received some "soluble sublimate cartridges." In this form the perchloride of mercury, mixed with a small proportion of chloride of sodium, is enclosed in a muslin case, to which a thread is attached. The cylinder is about 1½ inch long, and as thick as a stout cedar pencil. Each cartridge contains enough sublimate to make a gallon of disinfecting liquid of the strength recommended by the Local Government Board. The cartridge is suspended by the string in a bucket of water. Using cold well water we find that a gallon of disinfecting fluid can be obtained in this way in a few minutes; the fluid is a blue colour, which stains cotton fabrics a light blue, the colour being almost completely discharged by rinsing in cold water. The idea of the cartridges is ingenious, and they will be found extremely convenient for preparing corrosive sublimate solution for disinfecting purposes.

ASEPTIC POCKET CASE.

AN aseptic pocket case, designed by Dr. J. R. Leeson, has been made by Messrs. Down Brothers, 5 and 7, St. Thomas's Street, London, S.E. The special feature of the case is that everything about it has been designed to permit the strictest asepsis. The case itself is of thin nickel-plated metal, and the instruments also where possible are plated, to prevent rust; the whole case with its contents can be boiled, or placed in an antiseptic solution without injury. All the instruments can be taken apart for cleansing; the needles are carried in an asbestos cloth. It is evident that much thought has been expended on the case; thus the instruments have been arranged so as to be least liable to contaminate each other; the forceps, scissors, and probe, which are perhaps most liable to be impure, are placed as far as possible from the knives and needles. The number of instruments in the case has been reduced, as experience has shown the designer that some of those commonly found in pocket cases are not wanted on an emergency and have their proper place in the minor operating case. The aseptic case contains scissors, two pairs of forceps, eyelet probe, sharp spoon and director, trochar and cannula, scalpel, tenotomy knife, caustic-holder, needles, and a double shuttle for silk, and silver wire. The case is of convenient size for the pocket, and is likely to be found very convenient. The instruments are well designed and can be rendered thoroughly aseptic with ease and certainty.

AN IMPROVED HAT.

I SEND by the same post as this letter a hat, which I have designed (illustrated by the accompanying drawing) for the prevention of baldness. The idea is to prevent pressure on the arteries passing to the scalp and the veins passing therefrom by the application of pads to the leather of the hat in certain positions. You will observe three pads in front, one central and two lateral; between these there is an interval on each side in which the frontal artery and supraorbital nerve rest; passing backward the next interval forms a large interval for any variations of the temporal artery and its two branches, and the next interval is for the occipital artery. The small space betwee the two posterior pads is simply for the external occipital protuberance. On placing the hat on the head there is no constriction therefore cutting off the blood supply and causing atrophy of the scalp and hair, and further the head is thoroughly ventilated so that the hat feels much lighter than the same hat without the pads.



The pads are made of amadou, which has the advantages of being extremely light, capable of absorption, somewhat antiseptic, and velvety to the touch. They are fastened to the "leather" by means of a solution of india-rubber, which does not dissolve from the heat of the head or perspiration.

Leeds. WM. SUMMERSKILL, L.R.C.P., M.R.C.S.Lond.

URETHRAL IRRIGATORS.

MESSRS. W. B. HILLIARD AND SONS (65, Renfield Street, Glasgow) write: In the BRITISH MEDICAL JOURNAL of January 7th a new urethral irrigator is figured and described by Dr. Cotterell. We enclose print of an instrument exactly similar in design, invented by Dr. McVail, of this city, about ten years ago, and sold by us frequently up to this date. We always keep these urethral cages in stock. This is another case of the same invention, originating from different sources, which so frequently occurs in surgical instruments.

THE AMERICAN MEDICAL EDITORS' ASSOCIATION.

THE annual meeting of this Association was held at Milwaukee on Monday, June 5th, under the presidency of Dr. CULBERTSON, Editor of the *Journal* of the American Medical Association. He delivered an address, in which he discussed various questions affecting the conduct of medical journals, which he compared to post-graduate medical schools as educators of practitioners. A discussion ensued, in which various members took part.

MEDICAL JOURNALISM.

Subsequently Mr. ERNEST HART delivered an address[1] on medical journalism. He said that during the thirty years over which his experience extended, the functions, power, and duties of medical journalists had been largely transformed and magnified. Medical journalism now offered a career that required undiverted attention, and one that might fulfil high ambitions and subserve large usefulness.

GUIDING PRINCIPLES.

To be really useful, he said, and to be really powerful, two things which are almost synonymous, the editor of a medical paper must, in his public capacity, even more than other men in their special spheres, always govern his course and be prepared to justify it, by referring each individual case to a recognised basis and a logically defensible principle. He is a leader militant; he must be a standard bearer, and must have always a motto inscribed upon his flag. I long since chose mine. It is one to which many thousands of our profession in Great Britain have rallied, and I do not see any prospect of needing to change it for many years to come; my guiding principle has been and is "The government of the profession by the profession for the profession." You will recognise in this formula the altered words of one of your greatest statesmen. Of the medical press, even more than of the general press, may be used the words of one of the ablest of modern editors, that it should be at once the eye, the ear, and the voice of its readers, and especially of the lowly among them. It should be the visible speech—the

[1] This report is an abstract of a shorthand writer's report published in the *Medical News* of Philadelphia. We are indebted to the Editor of that journal for advance proofs.

phonograph of all ranks. It confers a chieftaincy which arises out of its being the servant of all. Among its great powers must be counted that not only has it the casting vote in many decisions—great and small—but it has also both initiative and power of closure. It can declare urgency, or shut down discussions. It is a Parliament always open, and of which the editor is not only chief orator, but he is also speaker and chairman of committee.

Powers, Privileges, and Pains.

With its privileges and responsibilities come many pains. Journalism entails much sacrifice.

An editor needs, and must have, many enemies: he cannot do without them. Woe be unto the journalist of whom all men say good things. A man, says Oliver Wendell Holmes, whose opinions are never attacked is beneath contempt. For every real thought on every real subject knocks the wind out of somebody. *Compesce mentem; durum sed lævius fit patientia quicquid corrigere est nefas;* which, freely translated, may be summed up in a few words: Bide your time, keep a cool head and quiet mind. Time cures all things, and patience softens hardships. Editorial work, like all other good work, is largely one of self-sacrifice. It is the grave of literary reputations and the despair of literary ambition. In writing leading articles, as Washington Irving found in voluminous correspondence, "your mind is torn from you in strips and ribbons," which are scattered to the wind, and your thoughts leak out in driblets which barely moisten the earth. Where is there a literary memorial of any, even the greatest among editors? Perhaps Addison might have survived by his *Spectator* alone, but he was an essayist rather than a journalist. St. Beuve has left a monument of literary criticism, but not, it is to be feared, "more lasting than brass:" but Delane, wise and great editor as he was, the brilliant Fonblanque, Hutton, philosopher and moralist, have but written, I fear, their names in sand, and that is the common lot of all journalists as such. In their works they shall live, but their names, hardly known even in their own day, shall speedily be forgotten. That is at once their glory, and the penalty in which they must rejoice. Their influence, far-spreading and enduring, their unseen power in the shaping of events, is the reward of their self-effacement.

An editor must quickly form opinions, and firmly express them, but he does well not to enter into controversy. "For controversy," it has been well said by Dr. Oliver Wendell Holmes, "equalises fools and wise men in the same way—*and the fools know it.*" Let every man have his say, let him contradict you, let him attack, provided he does so in the limits of courtesy and of good temper. Learn from him, and let others learn. Do not answer him, or put tags to his letter, unless some rectification of facts is necessary.

Reviews and Reviewers.

If now we may, in passing, linger for a moment in the field of technical details to speak of some special editorial difficulties, I will select as not the least trying that of the fair and kindly conduct of the department of reviewing. It is an obvious truism, often clothed in the millinery of epigram, that the author who sends a book for the candid opinion of the reviewer, as he says and believes, almost invariably expects it to be praised. Anything cooler than a warm shower of eulogy chills him; a lukewarm mixture of praise and blame makes him shiver: a rain of cold criticism is apt to make his teeth chatter—with rage; and for this there is great excuse. Of a book, even more than a child, the author is apt to say to himself: "it is a poor thing, but mine own." The condemnation outrages not only a man's self-esteem but his parental affection. It is well, then, to advise the younger reviewers, who are apt to be arrogant and satirical on small provocation, to temper justice with kindness; to seek out merits as well as defects; to endeavour to portray the character of a book when passing judgment, and to forego the savage joy of cutting up the product of the feebly well-intentioned. Rather pass their work over in silence. But there is a tribe of books, wares of the self-advertiser and the vulgar notoriety hunter, flags of the unscrupulous privateer who flies, without a warrant, the colours of the specialist; signboards of the masquerading quack. Of these it must still be said: "When the culprit escapes, the judge is condemned." But it is of literary quackery in high places, of the empty platitudes, of the ill-written inanities, of orations, discourses, and lectures by men who, having attained professional distinction, fail to set aside time for continuous intellectual culture—it is of these that it becomes the medical journalist to harden his heart and to be the unforgiving judge. He alone can venture fearlessly to do so, and he ought to do so, for they not only disappoint but they mislead. They lower the literary standard of medicine, which is already inadequate.

Organisation of the Medical Journal.

I have nothing to tell you which you probably do not know better and from more modern sources, and from your own experience on this subject; but I can, in a few words, lay bare to you one or two secrets of our press room, and leave you to value or to cast them away. Many of us here were educated in the old school of journalism, which relied chiefly on the permanent staff of leading article writers and reviewers, to whom were alloted from week to week, everything in their respective departments. The only system that seems to me adequate to the real needs of professional readers is that in which every unsigned editorial paragraph is written by a specially selected expert. That is the principle on which I have modelled the journal I have the honour to conduct. Every letter received, every paragraph, every cutting editorially dealt with, is referred to an expert having special knowledge, and being a recognised authority in the matter. The recent examination of our books shows that to fulfil the requirements of the comparatively few pages of our journal devoted to unsigned editorial matter, we need and employ the services of an effective staff of nearly 250 editorial writers; of these, upwards of forty contribute on an average to our pages every week—often only a few lines each, for our object is authoritative accuracy; our literary aim is brevity and fulness, and our difficulty is condensation. It is a laborious and difficult method, involving heavy daily correspondence and constant vigilance to guard against personal eccentricity or prejudice, or, that bugbear of journalism, unjustifiable censure; but that method may, I venture to think, be recommended as one that gives authoritative accuracy, reality, and trustworthiness to journalism. A medical journal, in order to rise to the height of extended usefulness, needs to be written from end to end by experts; and, so far as the Journal of the British Medical Association may be considered to have been a success, that success has, I believe, largely been due to the fact that no pains or necessary outlay has been spared to provide that every line in every department shall be written by persons who are themselves trustworthy experts; that it shall be free from padding, and in its smallest details real and true; worthy of confidence in statement of fact, and free from the rehash of second-rate opinions gathered from second-rate sources.

I may venture also to suggest that it is a great advantage to a journal and to the profession which it represents that it should be connected with living organisations, local or general. Energy becomes in itself a merit when otherwise it would be a fault; when there is an organisation that underlies and is capable of over-ruling it; when the journal is not only a voice—*vox et præterea nihil*—but also an undisguised personality, and associated with influential standing committees. A journal becomes thus an active, permanent, and ever-living power in the State, and it is from the combination of a journal with an association that the highest development of this form of professional and social influence, I believe, may be fairly demanded and expected; and our experience has shown that it is not always expected in vain.

Medical Etiquette.

A class of questions which give an editor frequent occupation for thought, and sometimes some passing trouble, are those known as questions of medical etiquette. Medical ethics are particular cases of general ethics. They constitute the bulwarks and the outer fortification of the central fortress. Do unto others as you would have them do unto you is the golden rule which is enclosed within the casket of general as of medical ethics. But society has found it necessary to formulate a vast number of accepted laws of conduct which are none the less necessary for daily use because they may all be found inscribed in the Ten Commandments.

The voice of the profession has been and is in the end the surest judge of right. In all such questions of general conduct and universal rights it is the rank and file of the profession with whom lie the duty, the power, and the privilege of decision; even in the face of opposition from those whom we delight with the title of leaders of the profession. That brings me to my final topic:

Leaders of the Profession.

No man attains that position nowadays without having earned it. No one should reflectively and consciously speak slightingly of the leaders; least of all could I. I have enjoyed the friendship and frequent opportunities of communication with men such as Austin Flint, Van Buren, Gross, Fordyce Barker, Marion Sims, Agnew, to speak only of a few of those of your leaders whose personality was best known to us in Britain, but who have, alas! gone over to the majority. No one could have known them without recognising the signs of nobility of mind and strength of character. So with us, it has been a liberal education to have spent a life in frequent communication at successive periods, and on many great and small occasions with men such as the sagacious Brodie; Sir Henry Holland, a philosopher and traveller, and a pioneer by intellect; Owen, the Cuvier of Great Britain; Watson, the Nestor of the last generation of medicine, and still a classic; Ferguson, lion-hearted and woman-handed; Syme, sturdily original and uncompromising; Simpson, a pathmaker in obstetric medicine and surgery; Christison, the type of prudence and candid research; Stokes, brimful of sagacity and humour; Corrigan and Porter, masters of the great Dublin school; and our own eminent leaders, such as Jenner, Lister, Andrew Clark, Paget, Quain, Spencer Wells, Henry Thompson, Hutchinson—all men who have risen by their own individual merits, and are known by their works. They have fruit as well as leaf.

It is not, therefore, in a cynical mood or snarling temper that I say: "Except in clinical scientific research—a great and never-to-be-forgotten exception—put not your trust in leaders."

In the great social movement of medicine; in its human progress; in the development of the newer and wider functions of medicine; its relation to public life; its organisation for the prevention of diseases, for the care of the sick poor by the State; for the organisation of out-relief of hospitals in such manner as to prevent abuse; in most of the great movements of our day we have for the most part found them lagging, cold, or indifferent; feeling little enthusiasm for such movements in Great Britain as those that resulted in the appointment of the sanitary commissions, and in that organisation of a public health system which laid the foundation of the new science of the prevention of diseases. It was Rumsey, Farr, W. H. Michael, who led the way, and whom I found the most active promoters of a system that since then has furnished the model for the civilised world. They were general practitioners, without hospital appointment. The General Medical Council of Education and Registration was created at the instance of the British Medical Association, led by Hastings, its founder; Bottomly, of Croydon; Waters, of Chester. Provincial practitioners were the founders of that Council which has rendered such vast service for the cause of education, was created and has been remodelled in the teeth of the active opposition and subsequent indifference of the leaders of medicine, ordinarily so called, who have, however, stepped in the leading places on it in virtue of their official positions.

So was it with the reformation of the workhouse hospitals and infirmaries, which are, with us, the hospitals of the State. That was, in its inception, the work of a medical journal—the *Lancet*—with which I was then editorially associated. It was carried out by Rogers, Carr, Anstie, and myself, with the aid of a vast body of lay support which we conciliated.

So has it been with the removal of the grievances of the army and navy medical officers. Until lately the whole of that great reform has been left in the hands of the Parliamentary Bills Committee of the British Medical Association. The battle has been successfully fought by that representative body of general practitioners, and by them alone, until last year, when the Royal Colleges united to secure the adoption of the recommendations of a War Office Committee, which, however, they had up to that date done little o·

nothing to obtain. I repeat, then: Rest not your hopes of any but purely scientific progress upon leaders, for the maintenance of growth in your organisations, and of your relations to the State and the people. The leading men are apt to join reluctantly in any new movement. This is not surprising. *Difficilis gloriæ custodia.* They have, for the most part, a great practice to attend to, which keeps them busy, and a great reputation to maintain, and to make a mistake might be a terrible thing. They are apt to be thinking *ex necessitate* of where they stand. Their tendency is to stand in the old ways, with which they have good reason to be satisfied. It is for us to take larger thought of where we are going.

THE AMERICAN MEDICAL ASSOCIATION.

President's Address.

The forty-fourth annual meeting of the American Medical Association was held at Milwaukee on June 6th, 7th, 8th, and 9th. After the Association had been welcomed by the Governor of Winconsin, the President of the Association (Dr. Hunter Maguire) delivered his address, a large part of which dealt with the aim and organisation of the Association. The object of the Association was to study the origin of disease, its nature and its course, to learn how to prevent it and how it might be cured. Much yet remained to be learned with regard to the endemic diseases of the various sections of the country. In particular many problems remained to be solved in connection with malarious disease. The police regulation of small-pox was a matter involving grave considerations for the general Government and for the several States in the Union. Notwithstanding the dissemination by antivaccination societies, of all sorts of misrepresentations, vaccination had been growing in favour, and now the great majority of the educated classes have become convinced of its importance. Compulsory laws have been put in force in the larger number of European countries, and especially in the German Empire, where not only the army but also the people at large are compelled to submit to vaccination at stated intervals—once every third year being the rule for the army. He said that one of the most important questions of the hour was quarantine, and in connection with this he sketched briefly the spread of cholera during last year and the occurrence of yellow fever in the Southern States at various times. A difficulty in dealing with infectious diseases in America was the rooted dislike to the curtailment of the personal liberty of the citizen for the benefit of the people at large. A further difficulty in the way of the enactment of general quarantine laws was the complex character of the maritime and railroad commerce and travel of the United States. Fully recognising the difficulties thus created, he yet held that all patriots, representing every shade of political opinion, should unite in demanding of Congress the passage of a law, strong, concise, and yet comprehensive, that will enable the Government to properly protect its citizens against disease whenever, in the discretion of its officers, the emergency may have arisen. There is as much reason why the power of the Federal Government should be invoked to aid in repelling the advent of pestilence as to aid in repelling the advent of a hostile fleet or army. He then touched upon the need for the organisation for a National Board of Health, and concluded by a reference to the progress which had been made by the *Journal* of the American Medical Association.

Mr. Ernest Hart was then introduced, and in a short speech stated that he brought a greeting to the American Medical Association from the British Medical Association.

Much of the time of the general meeting on this and the following days was occupied by the reception and discussion of various reports of committees.

Address in Medicine.

On June 7th Dr. H. A. Hare delivered the annual address on General Medicine, which he devoted to a review of Some Practical Advances in Medicine and Therapeutics. The address dealt with the broad facts illustrative of the present status of the non-surgical phases of advance in medicine. The increased scope, variety, and accuracy of diagnosis no longer left any excuse for empiricism; ailments previously considered specific were being recognised as due to some true causative, and therefore curable, disorder. As an example of

such evolution in the art of diagnosis, he instanced the case of anæmia; when by accurate microscopical devices it had become possible to count and measure the decrease and increase of blood corpuscles in number and size, then a basis for the test and proof of the value of arsenic for pernicious anæmia and of iron in chlorosis was obtained.

THE ADDRESS ON CHOLERA.

On June 8th Mr. ERNEST HART delivered an address to the Association on Cholera, Where it comes from, and How it is Propagated. An abstract of this address will be found on page 1. The conclusion of the address, which was listened to by a crowded audience, was received with loud applause, and upon the motion of Dr. WINDGATE, chairman of the Committee of Arrangements, a vote of thanks was carried by acclamation, and the address was ordered to be printed and copies forwarded to all members of the State Boards of Health.

THE ADDRESS IN SURGERY.

The address in Surgery was delivered by Dr. HENRY MUDD, of St. Louis, and was entitled Surgical Problems. The first problem to which he referred was the use of drainage. He said that recent advances had clearly defined a marked difference in the object to be obtained by primary and secondary drainage. While no intelligent surgeon would discard the use of secondary drainage in suppurating wounds, there were many who considered it unnecessary in fresh, clean wounds, whatever their extent. The second problem to which he turned was that of the radical cure of hernia. He thought that while the permanent cure might be hoped for in many cases in children by the use of a truss, such a favourable result in adults was most improbable, and should not influence the decision as to the propriety of operative relief. Permanent recovery followed operation in from 60 to 80 per cent. of the cases, and even the lower percentage justified continued operative efforts. The third problem upon which he touched was that of the treatment of appendicitis. He thought that the treatment of each case must be determined by individual consideration, but added that the anatomical and clinical investigations of the past few years had clearly demonstrated that the theory of the pathology of inflammation in this region which had arisen in America was a correct one.

THE ADDRESS ON STATE MEDICINE.

Dr. WALTER WYMAN, of Washington, read the address on State Medicine, taking for his subject The Extinction of Contagious Diseases. He observed that the history of the world showed that many races of animals had become extinct, and that certain diseases that once prevailed extensively as epidemics had lost their strength or had been so controlled during recent years as to warrant the belief that their histories were closed or fast closing. He pointed out that yellow fever, which had at one time been of frequent occurrence in Europe, affecting Spain in particular severely between 1801 and 1825, that the last epidemic in Europe had been that in Lisbon in 1857. In the same way in the United States the disease at one time had invaded not only the south, but the north, whereas to-day constant vigilance had caused it practically to vanish from the ports of the United States. Since the discovery of vaccination small-pox, though still a stubborn foe was under restraint, and it was a matter of choice whether or not an individual should be made absolutely proof against the disease. He quoted statistics to show the good effects of compulsory vaccination. Typhus fever, he said, had no permanent lodgment in the United States, and the measures instituted by the Board of Health of New York during the past winter to suppress the disease afforded a striking example of what might be accomplished by laws energetically executed and by disinfection scientifically applied. Finally, speaking of cholera, he foretold that the disease would shortly be eradicated from every English-speaking country by the energy and love of cleanliness characteristic to the Anglo-Saxon race. In conclusion, he touched upon the possible future benefits to be derived from protective inoculation in this and other diseases.

OTHER BUSINESS.

Our notes of the proceedings of the sections, which were of a varied and interesting character, must be deferred.

Before separating the Association elected Dr. James F. Hibbard, of Richmond, Indiana, as President of the next annual meeting; and on the motion of Dr. PARKINSON it was resolved that that meeting should be held in San Francisco in May, 1894.

MEDICAL NOTES FROM AMERICA.

BY ERNEST HART.

The American Medical Association.—The Annual Meeting at Milwaukee.—The Constitution of the American Medical Association.—Suggestions for its Amendment.—The City of Milwaukee.—Address on Epidemic Cholera.—The BRITISH MEDICAL JOURNAL *in America.—The American Medical Editors' Association.—The British and the American Medical Associations.*

THE Milwaukee meeting of the American Medical Association was a very interesting, well-ordered, and lively meeting; the attendance was over a thousand, and from every part of the States. New York, which is heretical on the question of consultations with homœopaths, still holds aloof, but the Association is strong enough in the support of the most active-minded professional men in the States to dispense easily with the adhesion of any particular section. In their strong upholding of the *Code of Medical Ethics* as the test of membership, the Association has taken up a firm and unassailable position. Since it has acted on the advice which I tendered some ten or twelve years ago, when consulted by Drs. Sayre, Post, Pack, and others on the subject of the best means of promoting the growth of the Association, the membership has more than doubled, and it is now five thousand. The weak point which I laid my finger on was the evanescent character of the membership, which then depended upon annual delegation from the respective State Societies, which are the constituent bodies, corresponding in that respect, but differing in others, from our Branches. There are still, however, some other defects of organisation, which I think could easily be remedied, but which hinder the growth of the American Medical Association. On some of these I have been in consultation with members of the executive, and have been asked to renew them in writing; they were meantime received with approval. The system of election of the governing body is capricious, and does not provide for stable and complete representation, but leaves room for much canvassing and wire-pulling, and by its elaborate incoherence raises opportunities for side issues and local contests quite irrelevant to the true objects of the Association. Some of the principles which at present govern the selection of matter for the *Journal* and the conduct of its editorial department are incompatible with the high scientific, professional, and literary attractions which it ought and might easily be made to present. All this might be altered without additional expense for the moment, and the *Journal* be made to serve the best interests of the Association and the profession, and to add largely to its resources, which could then be available for making its pages yet more attractive, so that it should—like the BRITISH MEDICAL JOURNAL—be the chief recruiting agent for the Association. This position, it is acknowledged on all hands, it does not at present occupy, faithfully and ably as it has been edited by Dr. Culbertson and his distinguished predecessors, among whom Dr. N. S. Davis, the founder of the Association, holds an honoured place.

My suggestions bear chiefly on the transference of the power of election of the governing body from the "fortuitous concurrence of atoms"—as it has been described in our columns by a correspondent—called a "general meeting" to the county societies, who are the constituent bodies and who should therefore be the elective power. From these representatives should be constituted the subcommittees for detailed work, who should act under and be governed by its authority. There are at present more than one separate controlling committee of "trustees," of "judicial action," of "nomination," etc., who act independently of each other, and are constituted hurriedly and by caucus influence at the general meeting—a system which might well injure any society, and which has more than once provoked deplorable and painfully mischievous schisms. It speaks highly for the inherent and unquenchable vitality of the principle of the

Association—"broad based upon the people's will"—and of the vigorous love of the profession and the Association which actuates the most respected members, that the Association has ridden successfully through all such storms. It survives and develops, but with maimed vitality throughout the year, and without that powerful influence on public affairs and professional progress which it might derive from better constituted committees of government, and of public and parliamentary administration, and from a more attractive and effective voice and tongue in its *Journal*. In saying this I speak of new things, and with none but the most appreciative and respectful spirit. The meeting was large and much of the work was first-rate.

Milwaukee is a city of lawns, gardens, and lake, beautifully situated on a bay of Lake Michigan, and with abundant open spaces, well-preserved for civic ornament and health. Within the memory of the present generation it was the haunt of the Red Indian; it has now a quarter of a million of inhabitants, with fine hotels—Pfester's Hotel, which was the headquarters of the Association, is one of the best in the world—public buildings and business palaces, electric lighting throughout the town, and electric tramways. It is the headquarters of lager beer brewers, and the wealthy citizens aided the profession to make the meeting one of generous and continuous hospitality.

In accordance with the invitation of the Association received in Europe, I delivered an address on the Prevention and Proximate Extinction of Epidemic Cholera in Europe—mainly by the purification of the water supply and strict procedure to ensure the purity of drinking water. The address, which was based upon an analysis of all European epidemics of the last thirty years, was received, as will be seen from the published reports, with great favour. It was ordered to be printed, and sent, with the endorsement of the Association as to the importance of its suggestions, to the Executives of all the States and to the State Boards of Health. That is a compliment which I value even more highly than the kindly enthusiasm and applause which greeted its delivery. At the close of the meeting I was presented by the Reception Committee with a gold badge enamelled with the initials of the American Medical Association and the year of meeting—a souvenir to which I shall attach a permanent value, and which will recall many pleasant incidents of the meeting, some of them too personally complimentary to relate.

It was particularly gratifying to find the JOURNAL held in such high esteem and so extensively read. It was constantly, and, indeed, without exception, referred to as the chief medical journal of the world; and its usefulness to the practitioner as a helper in his scientific knowledge and daily work was referred to by one medical editor after another at the medical editors' banquet, and by scores of medical colleagues, who specially introduced themselves, or were introduced to me for the purpose of thanking the British Medical Association for its JOURNAL. If our laws admitted of it, we could have some thousands more of members or associates among our English-speaking brethren on the American continent, while limiting ourselves to members of State medical societies legally constituted and of good ethical standing.

The banquet of the Medical Editors' Association was a most lively and original affair. In so vast a continent, where capitals are situated at often a thousand or two or three thousand miles distant, and with a population of more than sixty millions, it is natural that the astonishing literary activity of the nation should find a corresponding representation in the abundance of journals of all kinds. But I was hardly prepared to be the guest of 100 medical editorial colleagues—all of regular standing—with 300 more in reserve. I addressed them on Medical Journalism, in words of which I send a report—disfigured, however, by a great number of misprints and errors due to my "English brogue" and intonation worrying the reporters. I have only had time and patience to correct some of them, others I must leave to the indulgence of any readers of whatever text or part of the text may be published. It will be gathered from reports in the various medical papers what was the impression produced. It was applauded enthusiastically, and I was assured in all the complimentary speeches that followed, and by innumerable eulogists during the subsequent days, that it will not be without permanent usefulness. Of course I had nothing new to say, but even the scattered and desultory thoughts of however humble an orator gather some force from a lifetime of experience and from the disinterested desire of a stranger to be useful in the utterance of its lessons to himself.

Altogether, then, my visit to the Milwaukee meeting has, I hope, been useful as it has certainly been most pleasant, renewing and strengthening the bonds of mutual good will and esteem between the American and British Medical Associations, and promising to promote good understanding and fellowship with our English-speaking brethren in the United States. To me personally it has been a week of hard but happy work, and of much social satisfaction. I am loaded with friendly and pressing invitations to other cities, among them Boston, Philadelphia, Detroit, Cincinnati, Danbury, St. Louis, Louisville, etc., and could easily spend here an active and happy six months in hospitable hands; but as I must be home early in July to continue editorial and Parliamentary work—meantime in such excellent and able hands—I shall be unable to fulfil on this occasion more than a tithe of these proposed hospitable engagements, but shall hope to return later on.

THE ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A MEETING of the Committee of this Association was held on June 21st, 1893, Mr. GEORGE POLLOCK, President, in the chair. The meeting was mainly called for the purpose of discussing the agenda of the annual meeting. A list of officers for the ensuing year was agreed upon.

A discussion arose upon the question of the mode adopted by the Council of conducting the meetings of the Fellows separately from the Members, as was illustrated by the first meeting held at the College last year. It was unanimously agreed that steps should be taken to bring under the notice of the Council the desirability and expediency of framing the proceedings of these meetings in accordance with the rules which usually regulate the meetings of other public bodies.

The HONORARY SECRETARY reported that he had sent out a circular letter, which had been drawn up by the subcommittee appointed at the last meeting, to each Fellow of the College whose address was known. He also reported that a postcard bearing the following announcement had been forwarded to each member of the Association:

DEAR SIR,—The Committee of the Association of Fellows of the Royal College of Surgeons of England has invited Mr. Macnamara, Mr. A. T. Norton, and Mr. Mayo Robson to represent the Association at the Council election in July next. It is earnestly hoped that you will be able to record your vote in their favour. Voting papers should be applied for on or before Saturday, June 24th, and returned to the College not later than Monday, July 3rd, 1893. The annual general meeting of the Association will be held at the Medical Society's rooms on Thursday, June 22nd, at 5 P.M., Mr. George Pollock, President, in the chair.—Yours faithfully,

Signed (on behalf of the Committee), H. PERCY DUNN, Hon. Sec.

This concluded the business of the meeting, and the Committee adjourned.

THE ANNUAL MEETING.

The annual general meeting of the Association was held on June 22nd, 1893, at the Medical Society's Rooms. The chair was taken by Mr. W. ALLINGHAM, who in the course of his address reviewing the work of the Association during the past year referred, in the first place, to the unavoidable absence of the President of the Association, Mr. George Pollock, who had been summoned out of town. The chief feature, so far as the Association was concerned, which was worthy of notice since the last annual meeting, was the summoning of a meeting of the Fellows separately from the Members by the Council on July 7th, 1892. This meeting took place after the election of members to the Council, and was so far satisfactory that it showed that the Council had acknowledged the right of the Fellows to such separate meetings, but beyond that a good deal was to be desired, inasmuch as there was no agenda, nor any definite business drawn up for the Fellows to discuss. It was impossible to avoid referring to a very regrettable incident which occurred at the meeting, out of

which arose a long correspondence between the Association and the President of the College, a copy of which was forwarded to each Fellow of the College in the early part of the year. The gratifying success of Mr. Tweedy at the election last year was a positive proof of the progress which the Association was making in the confidence of the Fellows generally, and it was to be hoped that the three candidates—Mr. Macnamara, Mr. A. T. Norton, and Mr. Mayo Robson—who were representing the Association at the forthcoming election, would also be returned triumphantly. It must not, however, be forgotten that as there were no fewer than eleven candidates for four vacant seats, there would be a great variety of interests involved, and there might be a good deal of cross voting, which would necessarily render the issue doubtful. If, however, the members of the Association would loyally follow the lead of the Committee, there could be little doubt but that the result would be successful.

At the conclusion of Mr. Allingham's address, which was warmly applauded, the Honorary Secretary read the auditors' report for the past year. From this it appeared that by means of the subscriptions of the members with the assistance of donations, a satisfactory balance was in the hands of the Treasurer; as, however, further expenditure had been incurred in connection with the forthcoming election the hope was expressed that all those members of the Association who had not paid their subscriptions for the past and the current year would do so forthwith. The auditors' report having been duly proposed and seconded, was unanimously adopted.

The following resolution, proposed by Mr. George Helm (Truro) and seconded by Mr. C. B. Keetley, was unanimously carried:

That the Association of Fellows of the Royal College of Surgeons of England pledges itself to use its utmost endeavours to secure the return of the three candidates representing the interests of the Association, namely, Mr. Macnamara, Mr. A. T. Norton, and Mr. Mayo Robson, at the College election on July 6th, 1893.

This resolution was acknowledged by Mr. Norton, who expressed his thanks at the confidence which had been placed in him by the Association. He pointed out that before the Association was formed he formulated some points of reform, which the Association subsequently adopted, in the interests of the Fellows, and for the betterment of the government of College. He contended that the Association should never rest until the status of the Fellows of the Royal College of Surgeons was equal to that of the Fellows of the Royal College of Physicians.

Mr. Holmes said that he had listened with great pleasure and satisfaction to what Mr. Norton had said. The Council of the College of Surgeons was a body of great respectability, and such a body was slow to change. In order, however, to obtain the reforms for which the Association was striving, a numerical majority on the Council, pledged to support the views of the Association, was absolutely necessary. Nevertheless, even at the present moment, the Association had in the Council of the College a very influential following. It was quite a mistake to suppose that the changes for which the Association was working were radical ones, in a political sense. They were not radical, indeed they were of a highly conservative character, and he was quite certain that the Fellows as a body would not submit to any radical or organic change in the constitution of the College.

The following resolution was then proposed by Mr. C. B. Keetley, and seconded by Mr. Holmes:

That the Council of the Royal College of Surgeons of England be asked to arrange that the meetings of the Fellows, separately from the Members, be conducted on the lines of ordinary meetings, and furnished with agenda, minutes, etc.

To this an amendment was moved to the effect "that the meetings should be called at the discretion of the Fellows." In the course of the discussion which took place, Mr. Rivington said he could not vote for the amendment. He thought that the Council of the College could not be expected to agree to give up the control of meetings at the College, or to part with their authority and right to summon meetings of Fellows or Members. He would prefer a resolution in favour of organising meeting of the Fellows after the model of Convocation at the University of London. Convocation possessed its own chairman and clerk. Agenda were issued; the business transacted was printed and circulated, and Convocation appointed an annual committee which reported on all subjects of interest to the members of Convocation. It might be recollected that at the meetings of Fellows held last July at the College, one of the members of the Council, a graduate of the University of London, expressed an opinion in favour of an arrangement of this kind; and another member of the Council, also a graduate of the University, whose recent decease was a great loss to the Council, held similar views. To word the motion in the way he suggested would bring it into line with the circular letter just issued, and would give it a definite character which everybody would understand.

The mover and seconder having accepted the suggestion, the motion was amended and passed unanimously in the following form.

That the Council of the Royal College of Surgeons of England be asked to arrange that the meetings of the Fellows, separately from the Members, be summoned regularly and be properly organised after the model of Convocation of the University of London.

The following is the list of officers elected by the meeting for the ensuing year:

Officers for the Year 1893.—President: Mr. George Pollock. *Vice-Presidents*: Mr. Timothy Holmes and Mr. Walter Rivington. *Treasurer*: Mr. John Tweedy. *Auditor*: Mr. John H. Morgan. *Honorary Secretary*: Mr. H. Percy Dunn. *Committee*: Mr. W. Allingham, Mr. H. Allingham, Dr. Robert Barnes, Mr. Wickham Barnes, Mr. Vincent Bell, Mr. E. R. Bickersteth, Mr. Bruce Clarke, Dr. W. J. Collins, Mr. John Couper, Dr. Ward Cousins, Mr. Richard Davy, Mr. Alban Doran, Mr. F. J. Gant, Mr. George Helm, Mr. Victor Horsley, Mr. George Jackson, Mr. C. B. Keetley, Mr. Jordan Lloyd, Mr. A. T. Norton, Mr. J. J. Purnell, Mr. W. T. Square, Mr. Manley Sims, and Mr. C. Steele.

A vote of thanks to the Chairman, proposed by Mr. Wickham Barnes and seconded by Mr. Muirhead Little, was carried by acclamation.

THE FILTRATION OF PUBLIC WATER SUPPLIES: ITS RELATION TO CHOLERA.

Cholera to be Considered Practically as a Water-borne Disease.

Professor Koch has published an elaborate and very valuable essay on the effect of filtration on polluted water, with special reference to cholera.[1]

After guarding himself against the statement attributed to him to the effect that cholera can only be disseminated by water, and stating that it is occasionally transmitted directly from man to man or by other means, he points out the fallacy of the view of those who maintain that cholera is propagated by some mysterious condition of the soil or air, or spread habitually by those other means which he admits to be operative occasionally.

Altona Protected by Filtration in 1892.

He points out that the epidemic in the summer and autumn of 1892 affected severely Hamburg, but almost entirely spared Wandsbeck and Altona. The three towns form practically one city, but Wandsbeck obtained its water supply from a lake little liable to fæcal contamination, and filtered the water, while Altona and Hamburg drew their water from the Elbe. The water for Hamburg was drawn from the river above the town at a point where it was relatively pure, while Altona took water lower down where the river was very much fouler, owing to its having received the drainage of Hamburg. At Hamburg the water was delivered for consumption unfiltered; whereas at Altona it was filtered efficiently, and during the epidemic of 1892 Altona escaped almost entirely the visitation of cholera; 500 cases occurred there, but as to 400 it could be shown that they were imported from Hamburg, or had been contracted more or less directly owing to the business communications. One group of workmen's houses in Hamburg was completely spared by the epidemic. This group, and this group alone, was supplied with water from the Altona supply. The only other building in Hamburg supplied by the Altona water was a brewery.

Since the only difference which could be traced between the conditions under which the inhabitants of Hamburg and Altona were placed was the fact that the Altona water was carefully filtered, it was possible to set aside all cosmic and telluric influences, and all theories as to subsoil water and social circumstances. The value of filtration was brought out in the most striking manner.

[1] A French version appeared in the *Semaine Medicale* of June 21st. The German text is published in the *Zeitschrift f. Hyg. u. Infectionskrankheiten.*

Partial Failure in 1893.

In 1893, however, cases of cholera occurred in Altona, and inquiry showed that they were in all probability due to the water supply, and certain cases occurred in the St. Pauli district of Hamburg, which had recently been supplied with Altona water. It appeared, therefore, probable that something had occurred to diminish the efficiency of the filtration carried out at the Altona waterworks. The investigations made brought to light certain facts which are of great importance owing to the light which they throw on the general principles which govern the efficiency of sand and gravel filters.

The Need for Bacteriological Examination of Water.

Professor Koch expresses in very decided terms the opinion that the only trustworthy test of the efficiency of filters, and of the freedom of drinking water from disease-producing qualities is that afforded by the application of well-known bacteriological methods. Filtration is designed to remove particulate poisons, and chemical analysis, which deals only with soluble poisons, can give no information as to the efficiency of filtration. The method of extracting such efficiency by observing the variations in the colour of a long column of water gave more trustworthy results. Bacteriological examination, the counting, that is to say, the number of microbes in a given quantity of water by means of plate cultures, alone yielded accurate numerical results.

The Process of Filtration.

The process of filtration is then described. The impure water run into the filter deposits on the surface of the sand a layer of slime, by which, in fact, the suspended matter in the water is arrested. In order, therefore, that filtration should be efficient the layer of slime must form uniformly; it must not be disturbed during filtration, and it must be removed periodically when it has become too thick, and consequently not sufficiently permeable. The rapidity with which this layer of slime is formed varies directly with the quantity of mineral and vegetable substances contained in the water. With water containing much suspended clayey matter the layer may be formed in eight hours, whereas with water the impurity of which is due chiefly to vegetable matter twenty-four hours may be necessary. During the warm season the quantity of vegetable matter is high, and consequently the layer may become impermeable in a few days. Experience had shown that to obtain potable water of pure quality, the thickness of the sand filter must not be less than 30 centimetres, and the water must travel through it at the rate of about 100 millimetres an hour. The colour test showed that filtration failed when these two conditions were not fulfilled.

Bacteriological examination confirmed generally the conclusions drawn from the colour test, but had brought out the importance of the temporary defects in the filters due to disturbance of their surface or other causes. With filters acting properly it was possible to obtain water which never, under any circumstances, contained more than 100 living microbes in 1 cubic centimetre of water. During two years, beginning in the summer of 1890, the Altona water had been examined bacteriologically every week; the number of microbes in 1 c.c. was, as a rule, 20 or less, occasionally it was 50 or 70, but, with the exception of one short period in 1891, it had never exceeded 100. The ratio was at once affected by any disturbance of the filters and any acceleration of the rate of filtration.

The Source of the Microbes in Filtered Water.

When a filter bed is working well, the greater part of the small number of bacteria in the filtered water come, in Professor Koch's opinion, from the lower layers of the bed, the layers of gravel and shingle which, like all other surfaces continually moistened with water, become covered with microbes after a certain time. These aquatic microbes are innocuous. Fraenkel and Piefke, however, had shown that a small proportion of the microbes in filtered water were derived from the original water. Taking the data of a depth of 30 cm. of sand, and a rate of 100 millimetres an hour, which was the limit of practical filtration, it appeared that a certain proportion of microbes in the unfiltered water got through into the filtered water; but the number was very small, and the experience of Altona showed that there was little or no danger in using this water. The protection afforded by filtration "is not absolute, even under the most favourable conditions, but it can be made sufficient for practical purposes."

Typhoid Fever as an Index of Defects in Water Supply.

Typhoid fever and cholera were the chief, if not the only, diseases habitually spread by water; and a study of the epidemic prevalences of typhoid fever would afford indications of defects in the water supply. Altona was liable to outbreaks of typhoid fever which presented certain peculiar features. Spiegelberg had shown that these outbreaks were preceded by periods during which the number of microbes in the filtered water was very high, and Wallichs had pointed that epidemics of typhoid fever broke out after every period of more or less prolonged frost.

Defects in Filtration in Summer and Winter.

Early in 1893 cases of cholera began to occur in Altona while Hamburg was quite free, and it appeared probable that a few cases which occurred in Hamburg derived their infection from Altona. This occurrence immediately recalled the observations made in previous years as to the outbreaks of typhoid fever after frost, and their relation to an increase in the number of microbes in the filtered water. A systematic bacteriological examination of the water delivered to the inhabitants of Altona had been begun in October, 1892. A temporary increase in the number of microbes was found in the first week of December, but on December 30th the number began to increase, again reaching a maximum of 1,500 on January 12th; then there was a decrease, succeeded by another rise, which reached 1,400 in the last week of January. It was clear, therefore, that the filters were not acting properly, and it was resolved to proceed to a bacteriological examination of each separate filter, of which there were ten. A table is given of the results of these examinations for the month of February, from which it appears that the efficiency of the different filter beds varied very greatly, but that these might be entirely obliterated when the mixed water from all the filter beds was examined owing to certain filters acting particularly well. A further fact was brought out that the cleansing of the filters was followed by a period of several days to a week during which the filter did not act efficiently. The renewal of the sand caused a still greater deficiency in filtering power, which lasted for a longer period. One filter bed was conspicuous for its imperfect action at the beginning of February, and this, on examination, was found to be due to the fact that the surface had been exposed to frost; this had rendered the bed at first impermeable, but by degrees water began to pass through it, not apparently uniformly through the whole surface, but through certain points which had thawed. In consequence, though the filter as a whole was acting slowly, the rate of filtration through the parts which were permeable must have been very rapid. In summer also filters were rendered quickly impermeable by the accumulation of a thick layer of slime derived from vegetable materials. These two facts showed the importance in every filtering station of making the various filters independent of each other, so that the water of any bed which was temporarily out of order might not be sent into the supply. To ascertain when a filter was acting efficiently, reliance should be placed only on the results of bacteriological examination. Professor Koch also gives an account of the circumstances under which the filter beds of the lunatic asylum at Nietleben near Halle broke down. They fully confirm the observations made in the previous paragraphs.

Conclusions.

His general conclusions are:

1. That the rapidity of filtration ought never to exceed 100 millimetres an hour, and every filter should be provided with an apparatus for measuring and regulating the rapidity of filtration.

2. While in use the water from every filter bed ought to be submitted daily to bacteriological examination, and arrangements should be made for obtaining samples of water at the outlet from each filter.

3. Filtered water which contains more than 100 living microbes in the cubic centimetre ought not to be allowed to pass into the reservoir of filtered water.

For the purpose of bacteriological examination of filtered water gelatine plates, maintained at a temperature of 22° C., should be employed, but it might be possible, if necessary, to shorten the time by using plates of agar maintained at a temperature of 37° C.

INFECTIOUS DISEASES IN LONDON AND THEIR ISOLATION.

III.—THE POSITION OF THE LOCAL GOVERNMENT BOARD.

THE responsibility of the Local Government Board in regard to the isolation of infectious diseases in the metropolis is of a very different character and degree to that of the various bodies whose work it supervises.

The sanitary authorities and the managers of the Metropolitan Asylums Board, the two public bodies which have to do with the management of epidemics and infectious diseases, have each their own work, and when that is done their duty ends. They are both however ultimately, although in different degrees of directness, under the sway of the Local Government Board, which also is the means by which they are brought under parliamentary control. The position of this Board is, then, no sinecure. It has to control the actions, and, in case of default, to enforce the performance of the duties of various public bodies, by machinery which may not always be the best suited for the purposes of the moment; it has to watch over the interests of the ratepayers of the future, and to represent the general as distinct from the local public in matters of expenditure and the granting of loans; it has all along to remember that it is represented in Parliament, and that its chief is part of a party, open to every sort of question out of which political capital can be made, and liable if mistakes are made to involve his party in disfavour; and all the time it is a high scientific authority, constantly engaged by means of its medical department in the investigation of questions of public health, and bound, through all the vicissitudes of party and the changes of parliamentary head, to maintain something like consistency and continuity in the evolution of a system of sanitary administration.

It is not then to be wondered at that evil things should sometimes be said against it; its duties are too diverse, and the interests it touches are too numerous to leave it any chance of escaping criticism, and criticism may be true and yet unjust.

At the present moment the accusation is that, by hampering the Asylums Board in its choice of sites for new fever hospitals, it is throwing London back on the primitive method of treating fever in the homes of the poor, and risking a very large extension of the epidemic.

In reference to this it must not be forgotten that the Metropolitan Asylums Board is a curiously constituted body, semi-independent, partly nominated and partly elected by guardians, but never amenable to any single electorate, nor directly responsible to any body of ratepayers, either for the proper expenditure of its income or the due performance of its duties. It may in fact be said that, what with its large powers of raising money and its independence of all popular control, it would be entirely unfettered in its action but for the supervision and restraining influence of the Local Government Board, and that this makes the responsibility of the latter all the greater.

We may take it broadly that public institutions, as much as private individuals, tend to extravagance when they have free access to a boundless purse, and while everyone admits the admirable efficiency of a great deal of the work of the Asylums Board, people are to be found who do not hesitate to question its economy. Over expenditure for the acquisition of land, however, the Local Government Board has an absolute veto, and, in consequence, an absolute responsibility. It is, however, one of its misfortunes that this veto, if it is to be exercised at all, has mostly to be put in force at times when the necessity of extending hospital accommodation seems most urgent, and when the Asylums Board appears to the public in the position of the people's friend, only held back from giving them the requisite accommodation by the unreasonable obstruction of the Local Government Board; and yet the managers have almost forced on this Board the necessity and duty of interfering, by asserting the broad principle that, in choice of sites, their duty is only to their patients, and that they are not called upon to consider any other interests.

Much depends on point of view. The Asylums managers have nothing to do with the healthy public. Their duty begins with ambulances and ends with treatment; the pleasures and amenities of life are to them of small importance; the outside public exists only to provide patients and to pay the bill; questions of æsthetics, of public convenience, or even of expense, are matters of secondary consideration; and, feeling that the duty imposed upon them is to do the best they can for their patients, it seems only reasonable to them that they should have of the best to do it with, and that they should be allowed to pick and choose, and take possession of, such sites as seem good unto them. Nay, if rumour is correct, they do not hesitate to stand still and do nothing if they cannot do what they want, hoping that thus pressure will be brought to bear, and that they will gain their end; and in truth it is not easy to understand why, notwithstanding all the outcry about want of beds, not more than three sites should have been brought up for approval during the past three years, unless there were some grounds for this idea.

The Local Government Board has, however, to take a wider view. It sees the necessity of cutting its coat according to its cloth, recognising that there are other duties in life besides that of getting safely through the fever, and that this matter of hospitals is not the only one in which a second best is all that can be got. It represents interests which the Asylums managers scout as unworthy to enter into the question. Suburban residents, town artisans seeking for fresh air, and even such humble folk as ratepayers—all have to be considered; the future extension of the town and the preservation of open spaces have to be borne in mind; and questions of taste and appropriateness must be so dealt with as to bear the criticism of an exacting age.

These things may seem mere frippery to managers who see their duty plain before them; but they are as the breath in their nostrils to representative bodies who are responsible to Parliament, and through it to constituents, for all their doings.

We have every reason for believing that the Local Government Board fully recognises the admirable organisation of the managers of the Asylums Board, and the difficulties which stand in their way in regard to sites, and that it has no wish whatever to hamper or obstruct them in their efforts to cope with infectious disease in the metropolis. It is at the same time fully conscious of its own duties in the matter, and the fact that these have relation to the healthy as well as to the sick makes it regard things with a somewhat different eye.

The recent difficulties have evidently arisen from the question being regarded from different points of view by the two Boards which are responsible. Perhaps in the far future metropolitan affairs may become more simple than at present, and London may undertake for itself the care of its own sick.

THE FRENCH ANTI-TOBACCO SOCIETY.—The French Society for the Prevention of the Abuse of Tobacco has an imposing list of officers, including a general secretary, an assistant general secretary, a foreign secretary, four ordinary secretaries, a treasurer, an archivist (!), etc. Among the newly-elected vice-presidents we observe the names of Dr. Dujardin-Beaumetz and Dr. Hache, and Dr. Laurent is one of the secretaries.

RUSSIAN SANITARY STATISTICS.—Official statistics which have recently been published show that in 1890 the population of the Russian Empire was 116½ millions. The total number of births in the course of that year was 5,227,118, while the deaths numbered 3,790,681. The number of civilian medical practitioners was 10,805; that of the qualified "assistants," male and female, 11,959. There was, therefore, one doctor to every 10,800, and one assistant (*Feldscher*) to every 9,900, of the population. The sanitary condition on the whole showed an improvement as compared with previous years. Legal penalties were inflicted in 11,000 cases for violation of sanitary ordinances, and in 3,300 cases for falsification of articles of food or drink.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1893.

SUBSCRIPTIONS to the Association for 1893 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, JULY 1st, 1893.

INTERNATIONAL COURTESIES.

NUMEROUS reports and editorial articles in the leading American journals indicate that Mr. Ernest Hart's reception in the United States has been remarkably cordial and stirring. As the invited guest of the American Medical Association, and as specially delegated by the Council of the British Medical Association to the American Medical Editors' Association, Mr. Ernest Hart was, of course, sure of a hearty and hospitable welcome such as our transatlantic brethren so well know how to give. The welcome he received, however, has gone far beyond the bounds of formal official courtesies. It was a spontaneous expression of esteem for the individual and of the strong feeling of brotherhood which exists between the medical profession in this country and in the Great Republic.

The *Journal of the American Medical Association* had announced Mr. Ernest Hart's approaching visit as an event anticipated with great interest, and many other medical journals had made flattering references to the great part which he has played in the growth of the British Medical Association in his capacity as Editor of its JOURNAL, for the BRITISH MEDICAL JOURNAL has long been honoured with the esteem and admiring approval, often expressed, of the leading members of the profession of the United States, and has been the theme of appreciative estimates by its medical journalists.

The profession in Chicago, where Mrs. Ernest Hart's Donegal Industrial Village has created the liveliest sympathy and interest in the World's Fair, and the municipal officers of the city have vied with each other in extending courtesies to him. It appears also that he was expected by the daily press to express opinions on sanitary matters, especially on the prevention of cholera. Judging from the reports which have appeared, Mr. Ernest Hart, while expressing himself with great reserve and deprecating the tendency to exaggerate the possible dangers, has not hesitated to speak in decided terms as to the dangers which may arise from any neglect to protect the water supplies.

An abstract of his address upon this subject before the American Medical Association is printed in another column, and we refer to its teachings elsewhere in the present issue. We find that the municipal authorities of Chicago placed at his disposal the city steamboat, for the purpose of inspecting the water intakes from the lake. The expedition was conducted by the superintending medical officer of health, Dr. Reynolds, recently appointed, and the party, an account of which is given in the *Chicago Herald* of June 14th, numbered among its members the leading physicians of Chicago, Dr. Owens (the chief medical officer of the World's Fair), Dr. Ingalls, Dr. Love (St. Louis), Dr. Finkler (of Bonn), Professor Reimers (of Hamburg), Dr. Ranch (for many years medical officer of the State Board of Illinois), besides Professor Jürgens (of Berlin), Dr. Pott (of Vienna), and others, charged with the duty of official report to their invitation.

The results of Mr. Ernest Hart's observations on this occasion were to be communicated to a meeting of the Chicago Medical Society last week. We gather from the report in the *Chicago Herald*, however, that he was disposed to attribute the prevalence of typhoid fever last season to the use of the polluted water from the inshore intake, now happily closed, and that he warmly approved of the substitution of the new four-mile intake. The report in the *Chicago Herald*, which bears obvious indications of having been altered and dressed up *more Americano*, passes over the "little defects" with a very light hand, but makes Mr. Ernest Hart's compliments to that magnificent body of water, Lake Michigan, which has been so thoughtlessly fouled, and his observations that Chicago has "at its doors" the purest water supply in the world, the justification of such sensational head lines as "The Best Fluid on Earth," "Ernest Hart concludes that the Supply from Lake Michigan is the Purest in the World." These expressions are not entirely borne out by the text of Mr. Ernest Hart's statement, which only indicates that Lake Michigan is capable of supplying an unsurpassed body of pure water when the "little defects" which he has to point out are remedied.

The ostrich policy of hiding up the textual warnings by flashy headlines of an opposite significance is not very wise or dignified. To those accustomed to read between the lines the meaning of such devices is plain enough; but it is not everyone who will read between the lines. The *Chicago Herald* is one of the ablest and most influential journals in America, and it hardly does well to lull its fellow-citizens into a false security. It should rather stimulate them to accelerate necessary reforms.

Mr. Ernest Hart's address on Medical Journalism, extracts from which we publish elsewhere, was a more purely literary effort than that on cholera. It contains an account, which cannot but be found highly interesting, of thirty years' devotion to the development and consolidation of medical journalism as a power capable of being used as a weapon for the promotion of great medical and public interests. The address ranged over a wide field, touching the mainsprings of the "higher journalism," as contrasted with the perverted and, it may be hoped, ephemeral fashions of what is sometimes called the "new journalism."

On the whole, the results of the visit have their obvious international use in promoting international comity, the exchange of views and of greetings. Utterances so candid and fearless may be expected to provoke some wholesome criticism, tempering the chorus, thus far universal, of courteous praise and unqualified acquiescence; but that also is one of the objects and advantages of free speech and the interchange of ideas across the ocean. The universally gracious and complimentary reception tendered to the Editor of the BRITISH MEDICAL JOURNAL, and the admiration everywhere felt throughout the great American re

public for the aims, methods, and achievements of the British Medical Association, reviewed and studied from afar and therefore dispassionately and impartially, have found a voice on the occasion of Mr. Hart's visit. Its echoes will not soon die away, but will remain an enduring remembrance, and will form an agreeable and useful episode in the medical history of our time and of the English-speaking race.

THE ARMY MEDICAL VOTE.

In the present thunderous state of the political atmosphere it might almost be esteemed a breach of privilege to compare the House of Commons to the House of Bourbon, but the debate on Tuesday evening on the Medical Vote in the Army Estimates shows that there are some members who possess one characteristic of that famous family—they learn nothing and they forget nothing. They forget none of the old fallacies, they can learn none of the lessons of modern warfare or modern science. Mr. Hanbury mourns that medical officers of the army still "have a hankering after military titles, whereas it ought to be sufficient honour to them to bear the titles of their own profession;" Mr. Bartley wants the War Office to put down its foot and say there shall be no further concessions made to the Medical Department, as to whose "imaginary grivances" he professed to speak in a tone of authority; Mr. A. C. Morton was "astonished at the rage after titles in this service," and thought the title of doctor or physician much higher than that of field marshal;" Mr. Brodrick "entered his protest" against the medical profession as a whole sympathising with and supporting their brethren in the army. Sir G. Chesney, the engineer officer who, it may be remembered, not long ago gave a measure of his knowledge of modern warfare by committing himself to the implied opinion that the chief duty of the senior medical officer with a regiment in the field was the making of poultices, suggested that the only sense in which medical officers could be considered to belong to the army was that they were under the Mutiny Act, and were "subject to the military officer in command pretty much the same as nurses were." He also felt himself "degraded" by the concessions made to non-combatants!

Sir G. Chesney's further assertion that "in no case were they required to take part in active operations" is so far from the truth that we can only suppose that he was incorrectly heard, for it is impossible to suppose him ignorant of the fact that medical officers with the fighting line are as much exposed to the enemy's fire as the so-called "combatant officers." Not to go back to distant times, we may recall that the only officers who received the Victoria Cross for exceptional bravery during the last Burmese war were two medical officers who defended the wounded, not by calling themselves "doctor" or "physician"—titles for which the savage has perhaps less esteem than Mr. Hanbury—but with sword and revolver.

Dr. Farquharson had very little trouble in showing the fallacy of the arguments—to dignify them with that name—which were clearly founded upon the opinions of officers who have long left the service, and are out of touch with its needs and with the spirit of the age. Mr. Hanbury, who, though not one of the "fighting caste," made himself the mouthpiece of some of its most obsolete notions, appeared to desire to go back on the terms of the Warrant of 1879, and to return to the conditions which prevailed prior to its issue, when, as a matter of fact, medical officers could not be procured.

Members of Parliament who appeal to the honourable titles indicating status in the medical profession may be reminded, in the first place, that the title of "Dr." can only be legally assumed by graduates of a university, and that the question at issue is not the status of the officers of the Army Medical Department in the medical profession, but their status in the army. Their status in the army can only be officially determined by definite military rank and titles.

Several speakers alleged that medical officers of the army had combined to put further pressure on the Secretary of State for War with the view to obtaining further concessions. Upon this, as on so many other points, these members were entirely misinformed. No such combination exists or has existed. The question was taken up by retired officers, whose influence with their civilian brethren in the medical profession, acting through the Parliamentary Bills Committee of the British Medical Association, has been sufficient to convince the public of the justice of the demands made on behalf of the Army Medical Department. These demands were either made in the interests of the army at large or asked for the revocation of novel regulations which were felt to bear hardly on the officers of the department. Briefly the concessions asked for—which will not cost the country one penny—were the formation of the Army Medical Staff and Medical Staff Corps into one corps; the reduction of foreign service to the old rates; the alteration of the regulation requiring three years in a rank before being permitted to retire on the pension of that rank, which would be for the good of the service, by presenting constant change of administrative officers; the cessation of the extension of service of surgeon major-generals to the age of 62, which extension inflicts serious pecuniary loss on the next three grades, and is a breach of the Warrant of 1879, and finally the extension of that warrant to India. As Dr. Farquharson, in the course of his able and temperate speech, observed, all that is asked is the carrying out of the recommendation of the Camperdown Committee. He expressed his belief that the case of the army medical officers might be left with confidence in the hands of the Secretary of State for War, and we were glad to perceive that Mr. Campbell-Bannerman showed no disposition to re-echo the "Junker" views to which the House had been condemned to listen. He very clearly indicated his opinion that it was absurd to try to prevent discontent by treating legitimate claims as ridiculous, and diminishing retirements and pensions. He acknowledged the importance of the complaint as to the length of service in India, and stated that he was now looking carefully into the matter. We suspect from the tone of the observation which fell from him that some of the facts and statistics which have been laid before him, with the apparent intention of showing that the extended tour of service in India did not have an unfavourable effect upon the health of the officers of the department, will turn out to be founded on misconception. We trust that on a fuller inspection of all the facts, including those which have been brought to his notice by the Parliamentary Bills Committee, he may see his way to remedy a grievance which is felt to be one of the most serious character by the whole Department. This extended tour affects medical officers only and no other branch of the service, and we find that Mr. Campbell-Bannerman himself admitted that medical officers employed abroad were ex-

posed in a far greater degree to climatic dangers than other officers, since they were unable to protect themselves in any degree from dangers due to climate, and were in fact, owing to the nature of their duties, compelled to expose themselves to it.

We trust that his expressed intention to meet every substantial grievance in reference to the medical officers which has been brought under his notice will result in his being able to remedy this most serious grievance, and to recognise the essentially military duties of the Army Medical Department by defined military titles.

CHOLERA AND ITS PREVENTION.

The death of a seaman from cholera on a ship in the Tyne and the spread of the epidemic in the South of France are sufficient proof, if such were needed, that there must be no relaxation of the precautions which were taken last year, and which are again being enforced this year, to prevent the importation of the disease into this country. The publication of a circular from the Local Government Board to local sanitary authorities pointing out the need of these precautions, and insisting upon their observances, is proof that the central authority is fully alive to the danger which threatens us.

We publish this week two articles which throw valuable light upon the mode of dissemination of cholera and the methods to be followed to prevent such dissemination. The one is an address which Mr. Ernest Hart delivered by request before the annual meeting of the American Medical Association. It is a condensation of an essay which would have occupied some sixteen or seventeen pages of the British Medical Journal—an essay loaded with facts closely condensed and figures logically analysed. The abstract which we publish represents the extemporary address which Mr. Ernest Hart delivered from the material at his disposal. As will be seen from the report of the proceedings of the Congress published in another column, the full essay has been ordered to be printed, and copies sent to the executive officers of all the States and all the State Boards of Health, with the emphatic endorsement of the American Medical Association of the urgent importance of the precautions recommended and the steps advised.

The address was a systematised collection of evidence, drawn from all quarters of the world, proving that cholera is a waterborne disease, and that for practical purposes the very exceptional circumstances in which it has been occasionally transmitted in other ways may be neglected. The main conclusions of the address have been epigramatically expressed by its author in sentences which, we gather from the newspaper reports which have reached us, have caught the fancy of the American public. "Cholera is a filth disease, carried by dirty people to dirty places, and diffused by dirty water." "Cholera may be eaten or drunk, but cannot be caught." The great practical value of the teaching of which Mr. Ernest Hart is an ardent exponent, is now fully recognised by scientific men throughout Europe. As a result, Asiatic cholera in epidemic form has been excluded from every city of Europe which is provided with an adequate and pure water supply. The United States Government is, however, still much disposed to rely upon the broken reed of quarantine, and the elaborate statistics in Mr. Ernest Hart's address at Milwaukee, relating to waterborne cholera in the European, Russian, Egyptian, and Eastern epidemics, had therefore not only the force of a demonstration, but also much of novelty.

The second article to which we refer is the abstract of Professor Koch's long and important paper on "Filtration of Public Water Supplies." Basing his conclusions on facts and statistics drawn from official sources, he points the moral of the epidemic in Hamburg and Altona last year. A summary of the statistics is given in Mr. Ernest Hart's address. Professor Koch observes that the events in these two towns last autumn were practically an experiment which, in spite of the large scale on which it was conducted, fulfilled all the conditions as to precision which could be required in a laboratory experiment. The two towns are coterminous; "every condition was the same, except one, the system of water supply." Hamburg drew its water from the Elbe at a point above the town where it was "relatively little polluted," but did not filter it. Altona took its water from the Elbe, below Hamburg, and therefore, after it had been polluted by the excretions of some 800,000 people, but before distribution the water was filtered. This was the only difference to be detected—that Altona water was at its source fouler, but that it was practically pure when delivered to the consumer owing to efficient filtration.

An exceptional circumstance afforded a clinching piece of evidence. A group of workmen's houses in Hamburg received its water supply from the Altona waterworks. The inhabitants of this group of houses escaped, while all around people of the same class, engaged in the same occupations, were dying by hundreds. Cosmic, telluric, and social conditions were the same, but where there was a supply of well filtered water there was no cholera.

The conclusions which Professor Koch draws as to the conditions of filtration, upon which alone dependence can be placed, will be of the utmost importance to practical sanitarians, and the description of the investigations on which these conclusions are founded will be read with great interest.

It is impossible not to regard with some anxiety the extensive, though relatively mild, epidemic in Southern France. Many fatal cases have occurred at Alais, Cette, Montpellier, St. Hilaire, Marseilles, Toulon, Hyères, Frontignan, and rumours of cholera in certain western districts have reached us, though needing confirmation, and now we suddenly learn that Nantes is infected by the unpleasant appearance from that port in English waters of a vessel, the *Myrtle Branch*, with a fireman dead of the disease on board. In Paris, too, a death from cholera has occurred in an individual from Lyons. Still, there has been no great outburst of the disease in any one place, though the sanitary condition of many of the invaded towns is far from perfect. Measures of prevention are being enforced, and hopes are entertained that they may be successful in keeping the disease within bounds. But the important question arises as to how far we are acquainted with the whole facts as to cholera prevalence in France. The feeling is gaining ground that we do not know the whole truth. Any concealment cannot but act prejudicially to the best interests of the country, especially at the hands of Governments who will use it to impose restrictions on the trade, both seaward and overland, of France.

The total sum received on account of the Hospital Sunday Fund down to June 27th amounted to £31,500.

On account of the Hunterian Exhibition and the election of Council, the Library of the Royal College of Surgeons will be closed from July 3rd to 8th, inclusive.

By the formal and graceful courtesy of the Reception Committee of the Milwaukee meeting of the American Medical Association, Mr. Ernest Hart was presented with a badge of the Congress, in gold and enamel.

An Anthropological Society has recently been founded in St. Petersburg, having for its object the study of the ethnological characteristics of the Russian people and the general furtherance of anthropological science.

Dr. Mullen, Medical Superintendent of the Salford Sanatorium, Ladywell, was on June 20th presented with the certificate of the Royal Humane Society for bravery in saving the life of a boy, named George Aldred, who fell from a steam launch while steaming along the Bridgewater Canal.

Dr. Charcot and Dr. Brouardel, who had been specially nominated by the French Minister for Foreign Affairs to visit Dr. Cornelius Herz, were able after examination fully to confirm Dr. Frazer's report of June 17th to the effect that the patient was not in a condition to be moved, and that he could not be carried without danger from his own room to another.

The donations already received towards the erection of a suitable memorial to Sir Richard Owen now amount to £935 15s. 6d. The trustees of the British Museum have expressed their willingness to receive the marble statue which it is proposed to erect in the hall of the Natural History Museum. Donations may be sent to the Treasurer (Sir William H. Flower, K.C.B., F.R.S.), Natural History Museum, S.W.; to the Secretary (Mr. W. Percy Sladen), 13, Hyde Park Gate, S.W.; or to the Bankers (Messrs. Glyn, Mills, Currie, and Co.), 67, Lombard Street, E.C.

THE SANITATION OF DUBLIN.

The Committee which was formed a year ago to inquire into the causes of the outbreaks of typhoid fever in Dublin has drawn up its report. This document has been entrusted to the Lord Mayor, who will bring it before the Corporation for consideration.

MEDICAL MASTERS.

At the time of the appointment of Dr. A. Hill to the Mastership of Downing College, in the University of Cambridge, the statement was generally made that such a dignity had not previously been held by a medical man. Dr. W. R. Roper, of Cambridge, writes to us to point out that Thomas Denham, Doctor of Medicine, was elected Master of St. Peter's College on November 19th, 1500.

NEW RULES IN LUNACY.

We are glad to find that the Lord Chancellor has issued a new set of rules in lunacy which come into operation on July 1st. The chief provision is that on an application, under Section 116 of the Lunacy Act, 1890, the masters may, if they consider it desirable for the care of the person or estate of any lunatic or alleged lunatic, direct such person as they think fit to present a petition for an order for an inquisition, and if such direction be not complied with within ten days may direct such petition to be presented by the official solicitor, who shall present it accordingly.

THE BRITISH MEDICAL TEMPERANCE ASSOCIATION.

The annual meeting of the Irish Branch was held in the Royal College of Surgeons, Dublin, on June 22nd; Dr. McDowel Cosgrave, President, in the chair. The report stated that the members numbered forty, and the student associates twenty-three. The following gentlemen were elected officers for the ensuing year:—*President:* Dr. McDowel Cosgrave. *Vice-Presidents:* Dr. Collins, Dr. J. W. Young. *Honorary Secretary and Treasurer:* Dr. Wallace Boyce. *Council:* Dr. Ringrose Atkins (Waterford), Dr. Bradley (Drogheda), Dr. Cope (Dublin), Dr. Adcock, Dr. J. A. Scott, Dr. Delahoyd, Dr. Eustace, Dr. Joynt, Dr. S. M. Thompson, Dr. W. J. Thompson, Dr. Moreton (Nenagh), and Dr. Lawless (Sligo).

ACTION AGAINST A LUNATIC ASYLUM.

Last week in the Court of Exchequer, Dublin, Mr. Henry John Allen sued the Committee of the Bloomfield Retreat for assault and for illegal detention in that institution from 1875 to 1892. The plaintiff had been transferred from another asylum, and in 1890, having come into considerable property, the question whether he was sane was tried by a jury, who found in the affirmative. It was shown that the plaintiff was detained on the usual medical certificates, and evidence was given as to his behaviour in the asylum. The jury found for the defendants.

A COUNTY HOSPITAL FOR LONDON.

The Hospital Convalescent Home, opened recently at Parkwood, Swanley, provides accommodation for 120 patients—80 males and 40 females. The hospitals to which beds are allotted in this home, the inception of which is due to the princely generosity of Mr. Peter Reid, are the London, Guy's St. Thomas's, Middlesex, St. Mary's, and Westminster. A staff of fully trained nurses has been provided and it is the intention to admit even severe surgical as well as medical cases if the patients are considered to be strong enough to bear the journey of 17 miles.

THE LONDON UNIVERSITY COMMISSION.

We understand that Earl Cowper's Commission on University Education in London, which is now engaged in discussing its report, has practically decided against the proposal to create a second university in London. It is the intention of the Commission, we believe, to formulate in its report a complete scheme for the reconstitution of the University of London on broad lines, giving to the teachers their due place in the government of the reformed university. The expected prolongation of the present session will probably permit the report to be presented to Parliament before the autumn adjournment.

THE ROYAL SOCIETY ON TRADE TESTIMONIALS.

The President and Council of the Royal Society have transmitted to all the Fellows of the Society an "expression of opinion" which was adopted by them at their meeting on May 18th. The opinion is in the following terms:

The attention of the President and Council of the Royal Society has been called to certain advertisements appearing from time to time in the public newspapers and in various trade journals and circulars, containing certificates and statements signed by Fellows of the Society. These certificates and statements are not in all cases confined to mere analyses or simple matters of fact, but occasionally include expressions of opinion as to the subject matter of the advertisements, and laudatory passages which assume much of the character of an advertiser's encomium. The President and Council fully recognise the liberty of the Fellows to give, when consulted, authoritative statements on chemical analysis or any other scientific facts on which they are called upon to advise. They feel, nevertheless, that in some of the trade certificates already mentioned due regard has hardly been paid to the status and dignity of the Royal Society, and they are of opinion that the issue of such certificates tends to act injuriously upon the reputation of the Society. They are, however, confident that when attention is called to the subject all the Fellows will endeavour to express any statements relating to matters of trade or manufacture in such terms that no suspicion of mercenary motives or commercial partisanship can possibly attach to them.

HOLIDAYS FOR IRISH DISPENSARY DOCTORS.

IN reply to our request Dr. J. T. Elliott informs us that the Monaghan Board of Guardians have agreed to pay a substitute for each of their dispensary medical officers (5) and their union medical officer for fourteen days each year. Will some of those interested communicate the other cases without delay, as this information is urgently needed to strengthen other applications?

THE GUNNING PRIZE.

THE Victoria Jubilee Cullen Prize, of the value of £100, given every third year by Dr. Gunning for the most important contribution to practical medicine, has just been awarded to Dr. William Russell, Assistant Physician to the Royal Infirmary, Edinburgh, for his work on the etiology of cancer and for the stimulus his work has given to investigations in that field.

THE CHANCELLORSHIP OF THE UNIVERSITY OF LONDON.

THE formal announcement that the Queen has approved of the appointment of Lord Herschell (Lord Chancellor of England) as Chancellor of the University of London has now been made. As we ventured to indicate some time ago, this appointment will be peculiarly gratifying to the graduates of the University, since Lord Herschell is a graduate in Arts of the University of London. The present is the first occasion on which the highest office in the University has been conferred on one of its own graduates.

ANTICHOLERA INOCULATION IN INDIA.

WE learn from the *Bombay Gazette* that at the Huttar Manjil Club at Lucknow recently Major-General Sir R. Low, K.C.B., commanding the Oudh Division, presented to Dr. Haffkine a testimonial subscribed for by the residents of Lucknow and Aligarh, consisting of a silver bowl of Lucknow workmanship and a purse of Rs. 15,000. Dr. Haffkine, in a brief speech, expressed his gratitude for the compliment, and stated that during his visit to Lucknow he had, with the assistance of Mr. Hankin and Drs. Hooper and Crawford, inoculated 780 men of the European and native garrison, 250 school children, and 150 civilians.

A BRANCH JUBILEE.

As will be seen by a notice in another column, the East Anglian Branch of the British Medical Association will hold its jubilee meeting at Stowmarket on July 13th. The interest of the occasion will be increased by the fact that this meeting will be held under the presidency of Dr. Durrant, of Ipswich, who presided at the first meeting of the Branch held at Stowmarket fifty years ago. We may congratulate Dr. Durrant upon being fortunate enough to preside on two such interesting occasions, and the Branch upon the prosperity which has attended its half century of existence.

THE AMERICAN MEDICAL EDITORS' ASSOCIATION.

EVERYONE knows that medical journalism in the Great Republic has assumed astonishing proportions, and many of its leading journals are familiar to every student of medical literature, but it is surprising to learn that the American Medical Editors' Association, which is, we believe, confined to the United States of America, numbers some 400 members. The Association holds a meeting every year, and, as will be seen by a report in another column, Mr. Ernest Hart gave an address before it at its recent meeting in Milwaukee. Dr. H. A. Hare, editor of the *Therapeutic Gazette*, in some remarks which he made after the delivery of the address, ventured on the opinion that in many instances the very force of circumstances made the American medical editor turn out better work than he might achieve if the pressure on him were less. The fact, he added, that the BRITISH MEDICAL JOURNAL had become so successful an exponent of modern medicine would encourage the hope that journals might develop in America which would serve the profession in America as well as did the BRITISH MEDICAL JOURNAL the profession in the United Kingdom. The large numbers of the medical profession in America, nearly eight times that of the British Medical Association, rendered it reasonable to expect that this much desired end should be attained. It was the function of the medical journal in America not alone to sort out the pabulum for its readers, but to provide them with so large a bill of fare that they may select, as their wisdom decides best, those things which will agree best with their medical digestion, for practically it is for the working physician that the medical journal exists. Dr. C. H. Hughes, the editor of the *Alienist and Neurologist*, in acknowledging the honour done to him in electing him President for the coming year, after referring in graceful terms to the "words of solid wisdom and experience" by which they had been profitably entertained by their guest, who had come from the "metropolis and centre of practical medicine of the world," took occasion to dissent from the opinion that a journal was best conducted if independent of the making of money. Though Solomon had said get wisdom, the getting of money was not to be despised, since the surest way to independence of thought and policy in medical journalism was through financial independence.

ARMY MEDICAL EXAMINING BOARD.

THE complaints of the Irish licensing bodies regarding the constitution of the Board of Examiners for admission to the Army Medical Department was formally brought before the House of Commons on Tuesday, June 27th, in the debate on the Estimates. The case was very fairly put by Dr. Kenny. We are pleased to notice the conciliatory tone adopted by Mr. Campbell-Bannerman, who stated that he was willing to consider any fair proposal for the representation of the Irish and Scotch medical authorities on the Examining Board. He observed, however, that no complaints had been received from Scotland. Probably the hint will not be lost. The fair course would be to accord representation to each of the three divisions of the kingdom on the Board. The prize is a very big one, and competitors come from England, Scotland, and Ireland. It is not an ordinary licensing examination, in which the candidate himself chooses the place to which he goes. The claim now made has a good basis, and it is to be hoped that it may be acceded to with the least possible delay.

THE CONDITION OF THE RIVER LEE.

IT is satisfactory to learn that there is no present fear of a water famine in those districts which are supplied from the watershed of the River Lee. During the recent ten weeks practical absence of rainfall, no difficulty, we are informed, has been experienced by either of the water companies which derive a considerable volume of their supply from the River Lee, in respect to the required amount for the daily consumption of their customers. According to the water examiner's report for April, 29.96 of the total daily supply of all London was drawn the River Lee, a daily volume, on an average, during the month of 58,093,564 gallons. Yet there has not been any difficulty in keeping the water in the navigation up to head level. We have not been able to discover any diminution in point of purity of the water drawn from this source. These facts ought to go far towards reassuring those who fear that the River Lee is drying up, or likely to be converted into an "open sewer." In bringing about this favourable state of things, the heavy rainfall of February was a great factor. A good many letters are written from time to time as to the fearfully polluted condition of this much-abused river; they are written probably in ignorance of the fact that, in so far as water supply is concerned, there is no source of serious pollution above the intakes of the New River Company at Hertford, and the East London at Ponder's

End and Chingford Mill; and, further, that besides "sedimentation" in a large area of subsiding reservoirs, all the water is "efficiently filtered" before distribution. It is true that owing to the very large and rapid increase of the population pollution is evident in the lower parts of the river, but this does not affect the question of water supply. The drought largely increased the difficulty of treating sewage at the outfalls, whether by irrigation or chemical modes, and we may not unnaturally expect that this river below the water companies' intakes must to a certain extent be less pure than it ought to be; but a recent inspection of the lower portion of the river so far down as Old Ford Lock on the Lee navigation, and examination of a sample taken a hundred yards above the lock indicate a "fair sample of river water." The sample contained six-sevenths of the quantity of dissolved oxygen that is found in fully oxygenated water.

THE LATE DR. ALEXANDER HENRY.

IT is with the most sincere regret that we announce the death of Dr. Alexander Henry, for many years the sub-editor of this JOURNAL. The Association and the JOURNAL never had a more devoted and sincere servant; and it was while actually engaged in correcting the proofs of a weekly issue of the JOURNAL for the press that he was struck with the paralysis which brought his active life to an end. Since then he has lived in strict retirement, and the pension granted him by the Council of the Association in recognition of his long services contributed to enable him to pass his declining years in comfort. Dr. Henry was for many years one of the Secretaries of the Metropolitan Counties Branch. This Branch was founded in November, 1852. Dr. Ogier Ward was the first Secretary, and held that post until 1859. In 1857 Dr. A. P. Stewart was elected co-secretary with Dr. Ward; and in 1859 Dr. Henry was elected in Dr. Ward's place. Dr. Henry remained co-secretary until his illness in the autumn of 1886, a period of twenty-seven years; and during that length of time his services to the Branch were of the most important and unremitting character. His knowledge of the business and laws of the Association and the Branch was profound, and his devotion to the duties of the secretaryship and to the interests of the members was constant and beyond all praise. During his term of office the number of members in the Branch, which was 108 in 1859, rose to 921. How his services were recognised on his compulsory retirement from the secretaryship in 1886 is explained in our obituary notice at page 47.

THE ANTIVIVISECTIONIST COLLAPSE.

THE audience at the annual meeting of the Victoria Street and International Society for the Total Suppression of Vivi section, held recently, appears to have been composed chiefly of ladies, with a scanty sprinkling of the opposite sex. On the platform there was no person of note except Canon Wilberforce, who, in the chair, took the opportunity to repeat some of the misstatements of which he was convicted last year. Not a single bishop was present, not even Bishop Moorhouse or Bishop Barry, and it is significant that the list of absentees included Mr. Lawson Tait and Miss Cobbe. We observe that Canon Wilberforce professed to be satisfied with the work done by his followers, as they allege they are with their position. He did not allude, so far as we can gather, to the significant fact that not only were they deserted by their chief supporters on that very occasion, but that their President, the Earl of Strafford, had resigned since the exposure at Folkestone of the methods of the Society to which he had no doubt unwittingly lent his name. Neither did he refer to the fact that the Chairman of their Executive Committee had also resigned. We observe that the Society has issued a second so called "revised" edition of the now infamous *Nine Circles*. This second edition, which is edited by Mr. Berdoe, teems with misrepresentations. We ask, as we did last year, how leaders and teachers of Christian ethics can bear to support by their names and influence a society with a reputation thus sullied?

CHOLERA IN THE TYNE.

WE have ascertained on inquiry that the following circumstances attended a death which occurred on board ship in the Tyne. The steamship *Myrtle Branch*, with twenty hands all told, arrived in the Tyne on Sunday evening last, June 25th, from Nantes, having on board the corpse of a fireman, William Owen, aged 42, a native of Hull. The captain reported that the deceased had become ill at 5 A.M. on that day (June 25th), and had died at 2.30 P.M. on the same day. Dr. J. D. Dixon, the acting medical officer of health, satisfied himself that the man had undoubtedly died from Asiatic cholera. The ship was sent to the mooring station, the corpse removed to the floating hospital, the crew examined, the clothes, etc., of the deceased destroyed, and all necessary disinfection done. The corpse was buried at Jarrow Burial Ground on Monday, at 2 P.M. The ship was loaded with water ballast, which was disinfected and pumped out. The remainder of the crew are reported as all well.

SMALL-POX IN LEICESTER.

IN Leicester a medical man has been prosecuted by the sanitary authority for failure to notify a case of small-pox. The Bench were satisfied that the case had been one of small-pox, that the defendant had committed a great error of judgment, but that the evidence did not show that he had wilfully erred. The case was therefore dismissed. We have no doubt the sanitary authority, urged on by fear, will do its utmost to compel notification, and to punish culpable neglect. But in every epidemic there are bound to be a few errors in the diagnosis of modified small-pox, and the only way properly to limit the mischief which such errors may produce is to have the population so protected by vaccination that it can to a great extent defy infection from unrecognised cases. As long as Leicester chooses to continue in its present course, it must continue to pay some penalty for its craze, in spite of the vigilance of its sanitary authority, and in spite of the efforts of its medical officer of health to interpose a barrier of vaccination between the Leicester public and every case of the disease that occurs in the town. But we are glad to know that the additions to the vaccinated children of Leicester are now mounting into thousands. For the parents one can have little sympathy, but for the sake of the children, who though guiltless have to pay the penalty of parental neglect, we rejoice to hear even of these eleventh-hour conversions to the practice of the long-neglected prophylaxis.

THE SANITARY ADMINISTRATION OF LONDON.

IN the London County Council (General Powers) Act which, after passing the Commons, is now before the House of Lords, several additional powers are sought which touch on sanitary matters. The River Thames passes for twenty miles through the Administrative County of London, whose Council have various duties and obligations with regard to the banks, prevention of floods, and other matters, and yet the Council has no representation on the Thames Conservancy Board. This it is proposed to rectify by the addition of four conservators to be elected triennially by the Council out of their own body. It is also proposed to increase the representation on the Lee Conservancy. The Bill gives the Council power to make regulations in regard to the erection of houses on low-lying land. For the prevention of epidemic disease, the existing relations between the Council and the Local Government Board are not altogether satisfactory. Action cannot be taken against sanitary authorities until they make default, and further delay is apt to be caused by the inquiries instituted by the Local Government

Board; it is therefore proposed that this Board shall have power to assign to the Council certain powers if they are of opinion that a sanitary authority is likely to make default. The object of this alteration is to save time, which in such a case as the advent of cholera is the very key to the position.

DEATH UNDER CHLOROFORM.

A DEATH under chloroform recently occurred at the New Hospital for Women. The patient, a woman, aged 43, was admitted suffering from goitre, which occasioned some dyspnœa. She was carefully examined before operation by the chloroformist, who found no evidence of cardiac or respiratory disease. Chloroform was given from a fold of lint, the supply being obtained from Messrs. Duncan and Flockhart, and 3 drachms being used in all. The temperature of the room was maintained at about 80° F. The patient took the chloroform well, there was no struggling or sign of respiratory distress, or alteration in the pulse for 7 or 8 minutes after the commencement of the operation, which was for removal of the diseased portion of the thyroid, and proved straightforward and free from complication. At one time there was some pulling upon the trachea, which seemed to cause irregularity of the respiration, a condition which passed off when the traction ceased. Two or three minutes later the patient drew eight or ten rapid deep breaths, and the chloroform was promptly removed from the face. Respiration, however, stopped in spite of this, and although artificial respiration was carried out for three-quarters of an hour, the head being fully extended and the tongue drawn forward, the patient showed no signs of recovery. It should be added that air entered the lungs freely during artificial respiration. Ether and aromatic spirits of ammonia were injected hypodermically; brandy enemata were given, the præcordium stimulated, both by friction and faradism, and the legs raised, but all to no purpose.

THE PROPOSED CHOLERA HOSPITAL IN THE CITY.

AT the meeting of the City Commissioners of Sewers held on June 27th, a strong but unsuccessful effort was made by a deputation of the inhabitants of Upper Thames Street and the neighbourhood to prevent the establishment of a cholera hospital in their midst. When asked, however, whether the protest under consideration would not apply to any other spot in the City, the deputation could only answer, "We as representing three wards say, 'Don't put it here.'" And this is just what will be said all over the country when similar proposals are made, unless people can be driven to understand that a properly-managed cholera hospital is devoid of danger to neighbours. The question resolves itself into one of management. Cholera ill managed is a danger to every one, but with proper care and proper appliances it may be rendered practically harmless; and if there is any place which can afford perfect appliances for treatment of such a disease, it ought to be the City of London. We may remind those who advocate the removal of patients beyond the City boundaries that severe cases of cholera cannot bear transport for any distance; and that in proportion as hospitals are removed further to the outskirts, so will the proportion of cases increase which have of necessity to be treated in their own homes, and these are the cases which are especially dangerous to the community.

THE PROPOSED MEMORIAL TO MR. MARCUS BECK.

A MEETING was held at University College on June 22nd, under the presidency of Mr. Erichsen, to decide on the steps to be taken for the establishment of a memorial to the late Professor Marcus Beck. The largeness of the attendance testified to the regard in which the deceased surgeon was held by his colleagues, friends, and pupils. Mr. Erichsen opened the proceedings with a touching tribute to the great professional knowledge and rare personal qualities of Mr. Beck. In moving that a subscription list should be opened for the purpose of establishing a memorial to Mr. Beck, Mr. Christopher Heath bore testimony to the conspicuous excellence of his late colleague's teaching, and to the self sacrificing devotion to duty which he displayed while struggling for years against one of the most depressing of diseases. The motion was seconded by Dr. W. Price of Cardiff. Dr. Frederick Roberts proposed that the sum collected should be devoted to the erection of a suitable memorial tablet in one of the wards of the hospital, and towards the endowment of a bed. He said he felt sure that Mr. Beck would have wished that any memorial to himself should have taken this or some equally useful form, instead of a bust. Mr. Victor Horsley, in seconding the motion, said a bed and a tablet in Ward 2 was by far the most appropriate form that the memorial could take. Professor Thane put in a claim for some memorial on behalf of the college as distinguished from the hospital. Mr. Stanley Boyd suggested that the fund should be applied towards the endowment of the surgical registrarship. After some discussion the original motion, with the addition of the words "and in the college," was put and carried. The following gentlemen were invited to form a committee to carry out the objects of the meeting: Mr. J. Eric Erichsen, F.R.S. (chairman); Mr. Christopher Heath (treasurer); Dr. G. V. Poore, Dr. J. R. Bradford, Mr. E. C. Shoppee, Dr. J. E. Paul, with Messrs. Rickman J. Godlee (19, Wimpole Street), Raymond Johnson (20, Weymouth Street), and F. W. Wesley (University College Hospital) as Secretaries, to one or the other of whom all communications should be addressed.

THE MEAT POISONING CASE AT CHIPPING NORTON.

THIS case involved some interesting considerations from a medical point of view. According to the published report before us, a cow suffering from some acute malady, the nature of which did not appear, was killed on Easter Monday, and three quarters of the carcass sold all over the neighbourhood without any ill effect following. Twelve days after the death—twelve days be it remembered, of unusually warm weather—the fourth quarter was sold in various pieces, many of the pieces being eaten by persons without producing ill effects, but a certain portion sold in Chipping Norton was proved to cause illness in both dogs and human beings. In particular, a Mrs. Stanley purchased a large piece on Saturday, April 15th, ate of it in company with three other persons on the Sunday, Monday, and on the Tuesday, on which evening she was taken ill with violent pains, prostration, vomiting, and diarrhœa, and died on the Saturday following (April 22nd). All those who had eaten of the beef in this household were taken ill in the same way. One old lady, who did not eat any of the beef, escaped. The evidence went to show that the meat was healthy to look at, that meat of the same cow had been eaten by many persons without ill effects, that the pieces had been sold at a low—but not excessively low—price, that it was the produce of a cow that was not in good health, and that the eating of this meat caused the death of Mrs. Stanley. The vendor was prosecuted on the above facts at the Summer Assizes, and sentenced to eight months' hard labour. In the summing up, Baron Pollock laid stress on the question as to whether on the particular Saturday, April 15th, on which the vendor sold the meat, he knew that it was unfit for food, and the jury by their verdict answered in the affirmative. So far as the evidence goes, whatever the disease the cow suffered from, whether it was simply a "stoppage" as alleged, or whether it was some zymotic disease, the meat in its fresh state caused no illness, but after keeping some twelve days some portion of it was distinctly poisonous. This opens an interesting question which needs investigation, namely, under what circumstances animal flesh develops poisonous ptomaines. Such cases show the evils of our present system of meat supervision. Any person in England seems to be able to slaughter an animal in his back yard, dress it, bury

any evidence of disease in lungs or other internal organs, take it to the nearest market, and without any difficulty distribute the meat, bad or good, to the community, unless such a chain of evidence can be produced as in the Chipping Norton case.

THE REGISTRATION OF STILLBIRTH.

A return has just been presented to Parliament giving information of a varied description regarding stillbirth in England and other countries.[1] Registration of stillbirths is not required in the United Kingdom. France, Germany, Austria, Italy, Norway, Sweden, Denmark, New Brunswick and Ontario in Canada, Western Australia, and a considerable number of the States and cities in the United States all have compulsory registration of stillbirths, and wherever this is the case the registration is carried out by the same authorities who register the ordinary births and deaths. As regards the legal definition of a stillborn child there is considerable difference. In the United Kingdom there is no legal definition of the term, but it is generally understood to mean "not born alive." In France also there is no real legal definition, but in practice the term seems to include both those who are born dead and those who have died before their birth has been registered, that is, within three days. Italy regards as stillborn, not only children issuing dead from the mother's womb, but also children born alive, but with no power to live. Norway says: "A fœtus capable of vitality but born without life." Denmark is more exact; "a child born after the twenty-eighth week of gestation as dead, or as apparently dead, and not called back to life." But there are endless varieties of definitions, some so worded as to include abortions, such as that of Maryland, which runs thus: "Child born dead during any period of pregnancy," others excluding all before the time of presumed viability; others again, like that of Illinois, "Child not living more than 24 hours"; or that of Italy, already mentioned, definitely including cases in which there has been an independent existence. In some countries stillbirths are registered as births, in some as deaths, in some again as both, and in others, as with us, as neither, and in some under their proper name as stillbirths. In England, while procuring abortion may be punished by penal servitude for life, and while the infliction of an injury before birth which causes the child's death after birth ranks with murder, "the killing of a child in the act of birth, and before it is fully born, is not an offence by the present law." In other countries the penalties for criminally causing a child to be stillborn are as various as are the definitions of stillbirth, and range from death down to a fine not exceeding 1,000 dollars. There is also, in several instances, a punishment for giving information as to means of procuring miscarriage. In answer to the question, "Are midwives recognised by the State?" nearly all the European countries answer "Yes," but in the Colonies and the United States there is far less unanimity on the point.

CHOLERA PRECAUTIONS.

The Local Government Board has issued a circular letter to sanitary authorities in the metropolis pointing out that there is reason for sanitary authorities preparing in advance to prevent the extension of any cholera that may be imported into their districts during the ensuing season. Renewed attention is called to the powers granted by the Public Health Act 1875, and the London Public Health Act of 1891, to issue special regulations imposing upon sanitary authorities the duty of making arrangements for the prevention and treatment of cholera. Those arrangements would comprise the appointment of committees for the purpose of carrying out the regulations, the division of the sanitary district into special areas, the appointment of medical visitors for the visitation of the poorer houses and the detection of cholera and diarrhœa, the supply of medical attendance and nursing, and of medicine and disinfectants, and the provision of dispensaries and of such additional hospitals and places of refuge as might be necessary for the several parishes and districts, the hospitals being provided for the reception of those cholera patients who could not properly be treated in their own homes, and the places of refuge for the lodgment of those persons not actually sick whom it might be right to keep under observation or to accommodate while their homes were either under disinfection or were devoted to sick persons who could not properly be removed. Accompanying the circular letter is a memorandum signed by Dr. Thorne Thorne, pointing out that on previous occasions the disease has reached England from Continental ports on the North Sea and the British Channel, and that when this has been the case its incidence on this country has not been greatest during the first year, but on recrudescence of the infection in the second or even the third year. It is added that, though there is at present happily no indication of any general recurrence of cholera either in North Sea or Baltic ports, yet cases have occurred this year in Hamburg and Altona and in the French department of Morbihan; so that it is possible that the recrudescence of the disease may occur this year along the coast line of Western Europe at an earlier date than last year, which would involve danger to this country during a longer term of our summer and autumn season.

VAGRANTS AND INFECTION.

Dr. Armstrong has issued to the Newcastle Sanitary Committee a valuable report on the influence of vagrants on the spread of small-pox throughout England. He sent to the medical officers of health of 116 extra-metropolitan urban districts a series of queries to which he received replies from 72 districts, of which 9 had had no small-pox at the date of issue of the report. Of the 63 invaded districts, in 37 the disease was first introduced by vagrants, and in 19 by other means, the origin in the remainder being doubtful or unstated. In 7 of the 19 subsequent introductions were due to vagrants, so that in 72 per cent. of the 63 districts vagrants were responsible at one time or another, and on an average about five times for each town. Seventeen of the districts had put in force Section 83 of the Public Health Act to obtain returns of vagrants in common lodging houses with regard to the spread of small-pox, and the great majority of the medical officers of health approved of this being done. Nearly all were of opinion that when the disease appeared in a workhouse or common lodging house the sanitary authority should have the power of compulsory detention, revaccination, and disinfection of clothing of all vagrants exposed to infection. Various other suggestions are made and the whole report is very useful as a possible basis for future legislation. In some figures furnished to us by the Metropolitan Asylums Board we find further proof, if, indeed, proof were needed, of the overwhelming influence of our vagrant population in the dissemination of infectious disease. In the present small-pox epidemic the proportion of men, compared with women and children, has been much greater than has hitherto been the case, and, at any rate in the earlier part of the time, they were nearly all of the casual class. Out of 160 men in hospital on March 8th of the present year, no fewer than 108 are known to have come from shelters, refuges, and casual wards, and 11 from various institutions, only 41 possessing homes, showing how excessive was the incidence of the disease upon the vagrant class. It may be questioned, however, whether, in the matter of dissemination of disease, these homeless ones have not been more sinned against than sinning.

[1] *Stillbirths in England and other Countries*, Eyre and Spottiswoode, East Harding Street, Fleet Street, E.C. and Westminster, S.W.; or John Menzies and Co., 12, Hanover Street, Edinburgh, and 90, West Nile Street, Glasgow; or Hodges, Figgis and Co., Limited, 104, Grafton Street, Dublin. Price, 1s.

Dr. August Vogl, Professor of Pharmacology at Vienna, has been elected Dean of the Medical Faculty of that University for the academic year 1893-94.

OFFICIAL VIEWS OF SMALL-POX INFECTION.

[From an Occasional Correspondent.]

It would appear, from a recent statement in the *East Anglian Daily Times* that the Local Government Board have decided against the proposed site for a new workhouse at Ipswich, on the ground that it is in too close proximity to the borough fever hospital, where small-pox cases are at times admitted, and that they have absolutely declined not only to reconsider their decision, but even to receive a deputation on the subject.

The fever hospital, it is stated, has existed for over twenty years, although it has been rebuilt within that period. Eighteen years ago the borough asylum was erected on the opposite side of the road, an eighth of a mile away, and various houses have been built nearer still; and it seems that, although all sorts of fever, including small-pox, have been treated in the hospital, infection has never been known to spread either to the houses or the asylum.

The proposed site for the new workhouse is just under a quarter of a mile distant from the fever hospital, or nearly double the distance of the asylum, and perhaps it is not surprising that appeal should be made to experience on the spot and the question raised why the plans should be so peremptorily negatived; nor can it be a matter of surprise that other people similarly situated, with the hospital difficulty staring them in the face, should begin to ask themselves what is to be the end of the official acceptation of the theory of aërial dissemination of infection.

The plan of treating small-pox in the same hospital with other fevers, however carefully the arrangements for separation may be planned, is indefensible, but that is a totally different matter. The practical question to which sanitary authorities all over the country have to find an answer which can be immediately acted upon is, What is the zone of infectiveness of small-pox accepted in official circles?

The inquiries of Mr. W. H. Power and Dr. Barry, recorded in the reports of the medical officer to the Local Government Board, together with experience gained in various local outbreaks, all point conclusively to the fact that the presence of a small-pox hospital is an evil influence in any district, and that the incidence of the disease always tends to be greater in the immediate vicinity of a hospital than on more distant parts. What may be the mechanism of this influence it is most important and at the same time most difficult to decide. An attempt has been made to arrive at the truth by a process of elimination, and as it is found, after a most careful investigation into all known modes of infection that a large number of cases cannot be accounted for in any of the recognised modes, it is thought that they must be the result of some process of aërial dissemination of the contagion. This may be the case; at the same time very grave consequences follow the acceptance of the theory. The very greatness of the superstructure which is being raised upon it makes it necessary to inquire the more strictly regarding the foundations. Clearly they depend on the process of exclusion and are sure only so far as it is possible to eliminate entirely all other modes of distribution.

Aërial infection has always been a sort of refuge for the destitute, and there is hardly any epidemic disease which has not at one time or another been thought to have been disseminated by the air. The spread of plague, cholera, fever, and notably influenza, have all been attributed to it, and it is not so long since crowds were found willing to believe that this latter disease had been wafted into Europe from the far East of China in the dust from dried-up rivers. The very all-sufficiency of the explanation must raise a certain suspicion, especially when we see that in regard to other diseases increased knowledge has shown the tracks of infection to depend on the dull details and trivial incidents of human intercourse. Not until we can be quite sure that ordinary human communication and infection through short distances (probably aërial) can be eliminated, as causes of the admitted high incidence of small-pox around the hospitals, are we to be driven to accept in its entirety the theory of long-distance aërial dissemination which it would appear is now accepted officially. In fact, the evidence is not absolutely conclusive. The strongest case for aërial diffusion is the outburst of small-pox round the Fulham Hospital, when thirty-two patients were presumably infected between January 12th and 17th. But during that time there was a large number of outgoings of officers from the hospital, and of incomings of persons whether tradesmen or visitors, a number amounting to 439 in the six days; and who shall say that such a traffic was without influence in the dissemination of the disease? Then, as showing that the infection must have spread through the air, we are told that only nine patients out of the thirty-two were found to have been associated in any way with small-pox. This is 28 per cent. Can we in other diseases—in scarlatina, for example—trace the origin of more than a similar percentage of the cases? Are we to accept the theory of aërial diffusion at a distance as an explanation of those cases of scarlatina which cannot be traced to any other source?

If the theory is to be maintained it is as well that we should recognise at once how hard a thing it is and how much faith it requires for its due assimilation. It is no longer a question of great accumulations of hundreds of cases, so piling up the quantity of infection that, like a great conflagration, its influence can be felt afar. That, perhaps, would be more easy to understand. We are told that the evil influence was on one occasion exerted when only five acute cases were in hospital together. Why then not when three, or two, or only one case was there? Where is the difference between hospital and private house, except in the multiplicity of nurses, attendants, tradesmen, etc., and of chances of spreading the disease by human intercourse? Nor is it likely to be, as has been imagined, the result of the contagium increasing in virulence by rapid transmission through many patients, for the evil influence follows at once on the admission of acute cases. We are then to believe that ordinary cases in very moderate number can disseminate infection to a distance of at least a mile, independently of lines of human communication, and that this infection tends to spread equally in all directions. The infection, if it is particulate, must diminish in intensity according to the square of the distance. A man standing in the open air a yard from a small-pox patient would therefore receive 3,097,600 times as much infection as one a mile away. The calculation puts a severe strain on the theory.

The case for aërial dissemination of infection is very strong and exceedingly attractive, but it may be doubted whether it is yet proven. In the meantime, is it to be accepted as a guide for action, and is the Local Government Board prepared to rule that no small-pox hospital shall be erected within a mile of human habitations, or where is the line to be drawn? It would save an infinite amount of trouble to many sanitary authorities if an answer to this question could be given.

SMALL-POX IN GREAT BRITAIN.

Small-pox cases are decreasing rapidly in numbers now in London, the patients under treatment at the end of last week being only some 400, and the fresh occurrences in the fortnight somewhere about half that number of cases. Seventeen deaths were registered in the two weeks. In West Ham the record of the fortnight shows continued serious prevalence of small-pox in the district, other provincial towns chiefly invaded being Manchester, Oldham, Leicester, Birmingham, Halifax, Bradford, Wakefield, Middlesbrough, Blackburn, and Coventry. The deaths registered from small-pox last week included 4 in Bradford, 2 each in Birmingham, in Oldham, and in Halifax, and 1 each in West Ham, Birkenhead, and Manchester.

THE CHOLERA.

The outbreak of cholera in certain towns in the South of France has shown no decided decrease during the past fortnight, but the number of towns reported to be infected has not been much extended. Experts are engaged in an inspection of Toulon, 30,000 francs have been voted at Montpellier, and 10,000 francs have been collected at Alais, where also the military authorities have granted the use of the Sorbier Barracks for the use of cholera patients. These are but examples of what is being done to check the spread of the disease.

In Russia but little has come to hand of late concerning cholera there, though we still hear from time to time of one and another province returning fatal cases, Podolia, Kursk, and Bessarabia being those chiefly concerned. But in the East matters are indeed serious at Mecca. From June 16th to the 20th there were 830 deaths from cholera; on Sunday last the deaths were 455, and on the succeeding day no fewer than a thousand. And now we learn that the application of the measures adopted at the Venice Sanitary Conference eighteen months ago, and affecting as they do the proceedings of the Sanitary Council at Alexandria, is to be deferred until next November, so as to avoid any change in the midst of the prevailing cholera epidemic among the pilgrims. Nearer home, one death from cholera is admitted to have taken place in Italy, at Psozzo,

in the district of Mondovi, on June 11th, the victim having just come from Southern France.

The steamer *Myrtle Branch*, from Nantes, entered the river Tyne port sanitary district on Sunday night last, reporting a fireman dead in the afternoon of what was at once certified to be Asiatic cholera. Prompt measures of burial, disinfection, and the like were taken, the addresses of the crew ascertained (all else on board being well), and the vessel sent to the mooring station. No better prepared port could have been selected for the arrival of a cholera-infected boat than that under the charge of Dr. Armstrong, in whom every confidence may be placed. The occurrence is not without its lessons. Coming as it does after a long period of freedom from any similar experience, notwithstanding the presence of cholera near at hand, it should serve to show any half-hearted coast authorities that danger is ahead. It is hardly likely to be long a single incident, and should spur on all our seaboard towns to prepare for the same tax on their resources at any moment. With the break-up of the intense dry heat, and a return of warm, moist weather, it is not at all unlikely that we shall hear of larger outbreaks of cholera in Western Europe, whence the chief danger to our country will doubtless arise.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association, at No. 429, Strand (corner of Agar Street), London, on Wednesday, the 19th day of July next, at 2 o'clock in the afternoon.

June, 1893. FRANCIS FOWKE, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

The Library will be closed on July 5th and 6th, on account of the Royal Wedding and the consequent necessary fittings.

BRANCH MEETINGS TO BE HELD.

NORTH OF IRELAND BRANCH.—The annual meeting of the North of Ireland Branch will be held in the Museum, College Square N., Belfast, on Thursday, July 20th. Gentlemen wishing to read papers or to bring any other business before the meeting will kindly give notice as early as convenient to the Honorary Secretary, JOHN W. BYERS, M.D., Lower Crescent, Belfast.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The twenty-third annual meeting will be held at the Hospital, Swansea, on Wednesday, July 12th. Dinner at Langland Bay Hotel.—A. SHEEN, M.D., and D. ARTHUR DAVIES, M.B., Honorary Secretaries.

OXFORD AND DISTRICT BRANCH.—The annual meeting will be held on Friday, July 14th, at Fairford. Mr. Iles, the President-elect, has kindly invited the members to luncheon at 2 o'clock. Reply postcards will be sent to each member, and it is requested that they may be filled up and returned at once to the Honorary Secretary in order that Mr. Iles may make his arrangements.—W. LEWIS MORGAN, Honorary Secretary, 37, Broad Street, Oxford.

NORTH WALES BRANCH.—The annual meeting will be held at St. Asaph on Thursday, July 20th. Members having papers to read, cases to communicate, or specimens to show should intimate on or before July 12th to the Honorary Secretary, W. JONES MORRIS, Is-y-coed, Portmadoc.

EAST ANGLIAN BRANCH.—The Jubilee meeting of this Branch will be held at the Institute, Stowmarket, on Thursday, July 13th, under the presidency of Dr. C. M. Durrant, of Ipswich. Order of business:—11.45 A.M. Meeting of Council at Institute. 12 noon. General meeting at Institute. Agenda:—Read minutes and correspondence. Election of secretary for Essex District. Dr. Mead (Newmarket) has given notice as follows: "That I shall call attention to the manner in which the business of the East Anglian Division of the Association is carried on, and move resolutions thereon." Edgar G. Barnes, M.D.: Brief History of East Anglian Branch. 1.15 P.M. Luncheon at King's Head Hotel; tickets (exclusive of wine), 2s. 6d. each. 2.30 P.M. General meeting resumed. Agenda continued. The President: Short address. Cases will be shown by Mr. J. W. Harper (Stowmarket), W. W. Groome, M.B. (Stowmarket). Sir Frederick Bateman, M.D.: Criminal Anthropology in its Medical Aspects. Alban Doran, F.R.C.S. (London): Cases of Tuberculous Disease of the Uterine Appendages and Peritoneum. Sir Peter Eade, M.D.: On Albuminuria in relation to Life Assurance. Thomas H. Morse, F.R.C.S. (Norwich: Six Cases of Extrauterine Fœtation. Chas. Williams, F.R.C.S. (Norwich): On Filaria Sanguinis Hominis. 5.0 P.M. Afternoon tea, etc., by kind invitation of Mr. and Mrs. J. W. Harper at their residence, Station Road. All members of the profession, whether members of the Association or not, are cordially invited to be present at the meeting. Gentlemen intending to be present at the luncheon are requested to send notice to Dr. Barnes at least one week previous to the meeting, in order that the necessary arrangements may be made. The East Anglian Branch originated at Stowmarket in the year 1843, Dr. Durrant being the first president. It is hoped that this circumstance, which must be almost unique in the history of any Branch, will induce many members of the profession to attend this meeting. Gentlemen wishing to join the Association should communicate with one of the Honorary Secretaries.—EDGAR G. BARNES, M.D. (Eye), or MICHAEL BEVERLEY, M.D. (Norwich), Honorary Secretaries.

GLASGOW AND WEST OF SCOTLAND BRANCH.—A meeting of this Branch will be held at Aberfoyle on Wednesday, July 7th, on the arrival of the 1.45 train leaving Glasgow (Queen Street) at 1.40 P.M. Dinner will be served in the the Bailie Nicol Jarvie Hotel at 4.45 P.M., the President, Dr. Whitelaw, in the chair. The President will deliver an address entitled, A Brief Personal Sketch of the Medical Quadrennium—1857-61. Price of dinner ticket, 3s. 6d. Members who intend being present will please communicate with F. FERGUS, 3, Elmbank Crescent, Glasgow, or R. H. PARRY, 9, Balmoral Crescent, Queen's Park, Glasgow, Honorary Secretaries.

NORTH OF ENGLAND BRANCH. The annual meeting of the Branch will be held on Friday, July 14th, at 4.30 P.M., in the Infants School, Norton, Stockton-on-Tees. The President-elect, Dr. Blandford, will deliver the annual address, and the officers for the ensuing year will be elected. Dr. Blandford has invited the members of the Branch to dine with him after the meeting in the Grey Rooms, Norton, at 5.30 P.M., and it is particularly requested that members will answer the invitation as early as possible in order that the necessary arrangements may be made.—G. E. WILLIAMSON, F.R.C.S., Honorary Secretary, 22, Eldon Square, Newcastle-on-Tyne.

SYDNEY AND NEW SOUTH WALES BRANCH.

THE 105th general meeting of this Branch was held at Sydney on April 7th, Dr. RALPH WORRALL, President, in the chair. The following members were present: Drs. Fiaschi, W. Chisholm, Huxtable, Crago, Clubbe, Jenkins, Magginson, Rennie, Barkas, O'Reilly, Lyon, Money, Wright, Cohen, Steel, A. Jarvie Hood, Clay, Sheldon, Quaife, G. A. Marshall, Norrie, West, McKay, Morgan, Martin, Langhorn, Collins, Shewen, Bucknell, Coutie, Thring, McSwinney, Thomas Dixon, Bennett, Roth, Edwards, James Dick, A. Parker, Abbot, Pilkington, and the Hon. Dr. Creed, M.L.C. Drs. Huxtable and Harbison were present as visitors.

The New President.—The new President (Dr. RALPH WORRALL) thanked the members for his election as President for the ensuing year.

Minutes.—The minutes of the previous general meeting were read and confirmed.

New Members.—The PRESIDENT announced the election of Drs. C. J. Martin, Taylor, Fullerton, Hetherington, and Sutherland.

Delegate to Annual Meeting of the Association.—A letter from Dr. Philipson, relative to the appointment of one or more delegates to the annual meeting of the British Medical Association, was read, and Dr. E. Fairfax Ross was unanimously elected as the representative from this Branch.

President's Address.—The Hon. Dr. CREED, M.L.C. (the retiring President), delivered a valedictory address. He said that at the end of the past year the number of members was 173, of whom 23 were elected during its currency. None had died, but 1 had resigned and 3 had been removed from the roll in accordance with the rule which necessitates this course being taken on a member who neglects to pay his subscription for two consecutive years. The balance-sheet submitted by the Honorary Treasurer, Dr. Crago, was most satisfactory, as it showed a steady increase of the accumulated funds, which would enable the Association further to fulfil the purpose of its foundation by aiding original research. It was proposed to do this in the first instance by a vote in assistance of an inquiry by Dr. Martin, of the Sydney University, into the pathology of snake poisoning. The chemistry of the venom had been very ably worked out by that gentleman and Mr. McGarvie Smith, and reported to the Royal Society of New South Wales in a paper on August 3rd, 1892. The President then proceeded to deal with the relations of the medical profession to the friendly societies in the colony. All the grievances which had been pointed out by his predecessor in the presidential chair (Dr. Scot Skirving) still existed, and he feared would continue to exist until an organised effort was made to bring about reform. Dr. Creed went on to say that it was much to be regretted that no arrangement had yet been made between the colonies for the establishment of a well-considered system of federal quarantine. At present there was no uniformity in the treatment of vessels arriving at the various ports, as in some instances the medical inspection had been made by a layman. The expense to which the various Governments had been put during recent years by the introduction of overlooked small-

pox had been immense, and should act as a warning for the future. He had still to tell the same lamentable story with regard to vaccination. In no country in the world which had any just claim to be considered civilised was there such utter disregard of this inestimable prophylactic against variola as in that colony. For the year 1891 the successful cases of vaccination bore but the proportion of 3.96 per cent. to the births of that year, and it was certain that even some of these were performed on children born in previous ones. The fact that on the occasion of an outbreak of small-pox in 1881 the proportion of successful vaccinations to the births in that year was 211.21 per cent. proved that there was not any widespread objection to the operation, but that unless the danger was imminent the parents were careless. A humane and proper step was taken in 1890 in passing a law for the segregation of individuals suffering from leprosy. Under the provisions of this Act there were at present thirty-two persons in the leper quarters at Little Bay, of whom eleven were of European descent, two being boys under 16 years of age. Of the rest nineteen were Chinese, one Malay, and one Kanaka. After referring to the successful meeting of the third session of the Australasian Medical Congress, Dr. Creed expressed his satisfaction at the very general adoption of Dr. Mueller's treatment of snakebite poisoning by the hypodermic injection of strychnine. As showing the overcrowded state of the profession in Australia, Dr. Creed quoted some statistics collected by Mr. Bruck, a summary of which was recently published in the BRITISH MEDICAL JOURNAL. Dr. Creed proceeded to discuss the provisions of the Medical Bill now before the Legislative Assembly, and then went on to urge the superiority of cremation to other modes of disposing of the remains of the dead. In conclusion he referred to hypnotism, saying that during the last year he had made very considerable use of it in his practice, and he was thoroughly convinced that as an adjunct to the ordinary treatment of disease it was of the highest value.

Vote of Thanks.—On the proposal of Dr. FIASCHI, a hearty vote of thanks was passed to Dr. Creed for his address.

Officers and Council.—The following gentlemen were elected office-bearers for the ensuing year:—*President:* Dr. Ralph Worrall. *Vice-President:* Dr. W. H. Crago. *Honorary Secretary:* Dr. E. J. Jenkins. *Honorary Treasurer:* Dr. C. B. Clubbe. *Council:* Drs. Knaggs, Fiaschi, Sydney Jones, W. Chisholm, A. J. Brady, and Huxtable.

METROPOLITAN COUNTIES BRANCH.

THE annual general meeting of the Metropolitan Counties Branch was held at the Holborn Restaurant on June 20th; Dr. PAVY and, subsequently, Mr. HENRY POWER occupied the chair.

New Members.—The minutes of the preceding meeting having been read and confirmed, five members of the Association were elected members of the Branch.

Report of Council.—The annual report announced a considerable increase in the numbers of the Branch, which now amounted to 1,190. Among the many losses by death chronicled the most notable were those of Dr. Walshe, Dr. James Anderson, Dr. Aveling, Dr. Hadden, and Dr. Steele. A separate paragraph was devoted to the death of Mr. Sibley, who had retired a short time before his death. The steps taken by the Branch in furthering the settlement of the University for London question during the past year were set out in detail, and the resolutions of the general meeting of December 8th recapitulated at length. It was announced that a committee of the Council was prepared to take action, if necessary, immediately on the issue of the report of the Royal University Commission. The proceedings of the general meeting of March 8th, held to discuss the proposed Midwives Bill, were detailed. The question of the "wage limit," referred to the Branch by the Council of the Association, had been sent by the Council to the several district societies for discussion and decision. The proposed new code of laws was referred to. A recommendation was made that the Branch should invite the Association in the year 1896, and the usual formal announcements were made.—On the proposition of Mr. BUTLIN, seconded by Dr. BRODIE SEWELL, the report was unanimously received, adopted, and ordered to be entered on the minutes.

Election of Officers.—The result of the ballot for officers, councillors, and representatives was then announced, showing that the nomination list of the Council had been carried entire by 92 votes to 4, nine ballot papers being declared informal. The following is a list of officers: *President:* Mr. Henry Power. *President-Elect:* Dr. Leonard Sedgwick. *Vice-Presidents:* Dr. Cleveland and Brigade-Surgeon-Lieutenant-Colonel Myers re-elected, Dr. Pavy, and Mr. Victor Horsley. *Treasurer:* Mr. Eastes re-elected. *Honorary Secretaries:* Mr. Andrew Clark and Dr. Isambard Owen re-elected. *Councillors:* Mr. Frederick Durham, Mr. Reg. Harrison, Mr. Brindley James, Mr. Lucas, Dr. Sidney Phillips, Mr. Morton Smale, Dr. Thorowgood, and Dr. Wise, re-elected; Mr. Brailey, Mr. George Brown, Mr. Bruce Clarke, Dr. Goodhart, Dr. Henty, Dr. Handfield-Jones, Dr. Norman Kerr, Dr. May, Dr. Percy Smith, and Dr. Dawson Williams. *Representatives on the Council of the Association:* Dr. Bristowe, Mr. Andrew Clark, Dr. Radcliffe Crocker, Mr. Eastes, Mr. Noble Smith, Dr. Wallace, re-elected.

Treasurer's Report.—The report of the Treasurer.(Mr. Eastes) was then read. It was of a highly satisfactory character and showed an increasing balance. On the proposition of Dr. RAYNER, seconded by Dr. BRISTOWE, the report was unanimously adopted.

Draft of New Laws.—A draft of new laws for the Branch prepared by the Council and revised by the Solicitor to the Association was then submitted. On the proposition of Dr. RADCLIFFE CROCKER seconded by Brigade-Surgeon-Lieutenant-Colonel MYERS, it was unanimously resolved "That a general meeting be called at the discretion of the Council to consider the draft of new laws."

Votes of Thanks.—Dr. RADCLIFFE CROCKER proposed, Brigade-Surgeon-Lieutenant-Colonel MYERS seconded, and it was unanimously carried: "That the best thanks of the Branch be given to Dr. Pavy for his courteous and efficient conduct as President during the year, and especially for his able and judicious guidance and assistance in the consideration of those matters of professional importance which have been brought under the notice of the Branch." and Dr. PAVY replied.—Mr. NOBLE SMITH proposed and Dr. HENTY seconded a vote of thanks to the retiring Vice-presidents and other officers, which was also carried. Dr. CLEVELAND replied.

Presidential Address.—Dr. PAVY then yielded the chair to the newly-elected President (Mr. HENRY POWER), who proceeded to give his presidential address, selecting Diet in Schools as his subject. He said the diet in many boarding schools was at the present little different, if so good, as that of the Middle Ages. The morning meal was insufficient for the needs of the economy when much work was demanded, and the food at dinner might be more varied, better dressed, and of better quality, and the evening meal a little fuller; and all this at a comparatively slight increase in the cost, which cost should be borne by the master not by the parent. He was opposed to any mental work being required from boy or girl before breakfast. Much first-hand evidence as to the diet at modern schools was cited, and the subject was illustrated by numerous historical references.—On the proposition of Dr. PAVY, seconded by Dr. HOLMAN, the thanks of the meeting were given by acclamation to Mr. Power, and the meeting dissolved.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

THE annual general meeting of this Branch was held in the Library of the Medical Institute, Edmund Street, on June 22nd, 1893. The chair was taken by the Ex-President, Dr. J. HOLMES JOY, who introduced his successor, Dr. RICKARDS.

New Members.—The following members of the Association were elected members of the Branch: E. W. Bliss, M.R.C.S.; T. W. Beazeley, M.R.C.S.; R. B. James, M.R.C.S.; Albert Lucas, F.R.C.S.; G. T. Mockett; H. H. Tipping, M.R.C.S.

Medical Charities and the Wage Limit.—In answer to the inquiry from the Association Council, it was resolved to reply: "That the 'wage limit' (for hospital patients) for this district be as follows: applicant single, maximum wage 25s. per week; applicant, married, maximum wage 30s. per week; applicant, married, with family, maximum wage 40s. per week. Subject to the medical or surgical conditions of a case."

Election of Officers.—The following officers for the ensuing year were elected: *President-Elect:* Langley Browne, F.R.C.S.Edin. *Treasurer:* F.W. Underhill, F.R.C.S.Edin. *Hon.*

Secretaries: Gilbert Barling, F.R.C.S.; Frank Marsh, F.R.C.S. *Representatives in the Council of the Association:* Langley Browne, F.R.C.S.Edin.; Jordan Lloyd, F.R.C.S.; Robert Saundby, M.D.Edin. *Representative on the Parliamentary Bills Committee:* S. H. Agar, L.K.Q.C.P.I. *Council:* Country Members: W. Douglas, M.D. R.U.I.; Vincent Jackson, F.R.C.S.Edin.; J. M. McCarthy, M.R.C.S.; F. H. Messiter, M.R.C.S.; M. Moore, M.D.Dur.; E. N. Nason, M.B.Cantab.; T. W. Thursfield, M.D.Aberd.; T. E. Underhill, M.D.Edin. Town Members: A. H. Carter, M.D.Lond.; H. Eales, M.R.C.S.; W. A. Foxwell, M.D.Cantab.; W. F. Haslam, F.R.C.S.; Bennett May, F.R.C.S.; Thomas Savage, F.R.C.S.; R. M. Simon, M.D.Cantab.; Priestley Smith, M.R.C.S.

Annual Dinner.—The annual dinner, under the presidency of Dr. RICKARDS, was held in the evening at the Grand Hotel, about fifty members being present.

STIRLING, KINROSS, AND CLACKMANNAN BRANCH.

THE annual general meeting of this Branch was held at Stirling on June 22nd. Dr. LESLIE presided, and there were also present: Drs. Strachan, Haldane, Macpherson, Baird, McVail, Highet, and Lewis.

Minutes.—The minutes of the last meeting were read and signed.

Report of Council.—The report of the Council for 1892-93 was read.

Alteration of By-laws.—After discussion, it was resolved that By-laws Nos. 2 and 3 be altered to read as follows: No. 2. Members of the British Medical Association, on signifying in writing their desire to join the Branch, and being proposed and seconded by two members, may be elected by ballot at any general meeting of the Branch. No. 3. The Executive Council of the Branch shall consist of a president, vice-president, a treasurer, a secretary, and four members of Council; three to form a quorum, and the chairman to have a casting vote.

Financial Statement.—The HONORARY TREASURER (Dr. Macpherson) submitted his statement as to the finances of the Branch, which showed a balance in favour of the Branch of £8 10s. at May 31st, 1893.

Office-bearers.—The following were elected office-bearers for the ensuing year:—*President:* Dr. Currie, Tillicoultry. *Vice-President:* Dr. McVail. *Honorary Treasurer:* Dr. Macpherson. *Honorary Secretary:* Dr. Lewis. *Members of Council:* Drs. Joss, Griffiths, Mackintosh, and Fraser. *Representative on Council of Association and on Parliamentary Bills Committee:* Dr. J. Strachan, Dollar.

New Members.—Dr. J. Young, of Slamannan, was elected a member of the Association and of the Branch, and Dr. Alexander, of Denny, was elected a member of the Branch.

Meeting at Cupar.—It was resolved to join the Edinburgh Branch at a meeting at Cupar on July 7th, and to discuss thereat the action of certain drugs, about which the Therapeutic Committee of the Association has issued a circular.

The Parliamentary Bills Committee.—A resolution of the Lancashire and Cheshire Branch on this subject was read to the meeting, and it was resolved "that this Branch approves generally of the payment out of the funds of the Association of travelling expenses of members of Council when attending separate meetings of the Parliamentary Bills Committee."

Therapeutic Committee.—A circular of the Therapeutic Committee, referring to the use of antipyrin and other drugs, was relegated for discussion to the joint meeting on July 7th.

Next Meetings.—These were fixed to be held at Alloa and Larbert respectively.

Presidential Address.—Dr. LESLIE delivered his presidential address on A Method of Graphic Representation of the Hereditary Transmission of Disease.—On the proposal of Dr. STRACHAN, Dr. Leslie was thanked for his interesting address.

Exhibition of Instruments.—Messrs. Hilliard and Sons, of Glasgow, exhibited a selection of instruments.

Dinner.—After the meeting the annual dinner was served in the hotel.

WEST SOMERSET BRANCH.

The fiftieth annual meeting of this Branch was held at Dulverton on June 22nd, under the Presidency of Mr. R. J. COLLYNS. There were present eleven members and one visitor.

Vote of Thanks to the Retiring President.—The retiring President (Dr. CURRIE) having shortly addressed the meeting, gave up the chair to Mr. COLLYNS, who, after congratulating Dr. Currie on his very successful year of office, proposed a vote of thanks to him, which was carried by acclamation.

Minutes, Etc.—The minutes of the last meeting were read confirmed; and a letter from the Rev. H. J. Liddon, returning thanks from himself and the relatives of the late Mr. William Liddon for the kind expressions of sympathy and valuable testimony to his work contained in the resolution that was passed at that meeting.

Report of Council.—The report of Council first referred to the successful result of the action resolved upon at the last annual meeting—namely, that members from the neighbouring Bath and Bristol and the South Western Branches should be invited to attend at the autumnal meeting of this Branch to hear an address by Professor Gairdner on "The Future of Therapeutics." Over thirty visitors attended on the occasion, making, with members of the Branch, an audience of about fifty. At the spring meeting there was an attendance of twenty-one, and a very animated discussion on the diagnosis of rötheln took place. The number of members of the Branch was now sixty-two, larger than it had ever been. Since the last annual meeting the names of ten new members had been added; but, on the other hand, the names of four old ones had to be removed from the roll—one owing to death, two from having gone out of the district, and one from resignation. Allusion was made in feeling terms to the death of Mr. William Liddon, one of the most esteemed of the old members of the Branch.

Treasurer's Accounts.—The Treasurer's accounts, audited by Mr. Rigden, showed a balance in favour of the Branch of £5 15s. 6d.

On the motion of Mr. RANDOLPH, seconded by Mr. OLIVEY, the report of Council and Treasurer's accounts were received and adopted, and the thanks of the meeting were given to the Council and to the Treasurer for their services during the past year.

Next Annual Meeting and President-Elect.—It was decided that the next annual meeting should be held at Taunton, and that Mr. A. D. Willcocks be President-elect.

Intermediate Meetings.—It was resolved that the Council be requested to arrange for an autumnal and spring meeting of the Branch as usual.

Election of Officers.—The following were elected: *Representative of the Branch on the Council of the Association and on the Parliamentary Bills Committee:* W. L. Winterbotham, M.B *Council:* Mr. W. B. Cosens was elected in the place of Dr. Mead; Drs. Meredith and Winterbotham were re-elected; and Mr. Charles Randolph took the place of Mr. Willcocks, *Secretary and Treasurer:* Dr. Kelly was re-elected Secretary and Treasurer for the ensuing year.

President's Address.—The PRESIDENT delivered an address on "The Doctor's Horse and Stable."

Vote of Thanks.—A hearty vote of thanks was accorded to the President for his address. A short discussion followed, and Mr. COLLYNS replied.

Lunch and Excursion.—An excellent lunch having been disposed of, a most enjoyable excursion through charming scenery in lovely weather followed. A refreshing tea at Winsford, kindly provided by the President, was partaken of during the excursion.

NORTHERN COUNTIES OF SCOTLAND BRANCH.

THE Branch met at Nairn on June 14th, Dr. CAMERON, President, in the chair.

Election of Officers and Council.—The following were elected: *President:* Dr. Chas. Adam, Elgin. *President-elect:* Dr. Cruickshank, Nairn. *Vice-Presidents:* Dr. Turner and Dr. Cameron. *Council:* Drs. Mann, Milligan, Souter, Sellar, Fyfe, Ogilvie Grant. *Secretary and Treasurer:* Dr. Mackay. *Representative on the Council and the Parliamentary Bills Committee for 1893-4:* Dr. Ogilvie.

New Members.—Dr. Moir (Inverness), Dr. Geddes (Nairn), Dr. Ironside (Fochabers).

President's Address.—Dr. ADAM took the chair, and delivered an address on Typhoid Fever, its Pathology and Treatment, in which he advocated the use of the naphthol series of

remedies as being the most beneficial in his experience. A vote of thanks for the address was carried unanimously.

Death Certificates.—Dr. Ogilvie Grant brought forward the subject of death certificates, and proposed that the following minute should be sent to the Committee of the House of Commons now sitting on this matter, which was unanimously agreed to: The meeting having taken into consideration the large number of uncertified deaths which occur annually, and regarding which no inquiry takes place, in view of the fact that a Committee of the House of Commons has been appointed to consider the whole matter, resolve: 1. That the present system of requiring a certificate of cause of death before interment is carried out in a most lax and unsatisfactory manner, and that such certificate should in all cases be insisted upon before registration. 2. That when no such certificate can be produced registrars be instructed to bring the case before the authorities, who shall order inquiry. 3. That the known reluctance of the authorities to prosecute such inquiry, especially if it necessitate a *post-mortem* examination, is due to the parsimony of the Exchequer, who refuse, in most cases, adequate remuneration. 4. That a fee be payable for all death certificates by the authorities.

A vote of thanks to the directors of the Library Institute concluded the meeting.

SPECIAL CORRESPONDENCE.

PARIS.

Impure Ice.—Accidents in the Bois de Boulogne.—Obesity and Life Insurance.—General News.

The chemical experts insist that the water used for making ice should be previously boiled or distilled. This is all the more necessary because Paris is often supplied with Seine water, which contaminates the water pipes, and these are not disinfected before spring water is sent into them. The microbes deposited by the contaminated water serve to render impure the pure water. Unfortunately, notwithstanding the efforts of the Health Council, it is possible that the police prefecture may not take active measures before September or October next.

At the Bois de Boulogne there are now thoroughly organised First Aid stations, where sufferers from accidents are attended to. They are at the following localities: Porte Maillot, Pavillon d'Arménouville, Châlet des Lacs, Pavillon Chinois, Châlet des Isles, Porte de Passy (Maison du Garde), Porte de Boulogne, Châlet de la Grande Cascade, Pavillon du Garde, Chemin de l'Abbaye, Corps de Garde du Bois, near the lakes; this latter is the central post. Dr. Ramonat superintends these stations. The average number of persons injured in the Bois de Boulogne every year by carriages, horses, and skating is about 300.

Dr. Kirsch has studied the question of obesity in connection with life insurance. Ordinary obesity is not a reason for refusing a policy. If obesity is hereditary, if in the family history there has been diabetes mellitus or cerebral hæmorrhage, the medical expert should be cautious. If obesity is extreme the heart and urine should be carefully examined. Irregular pulse and bradycardia are bad signs. When intemperance coincides with obesity the probability of long life is small.

Dr. Pozzi has been commissioned to visit the United States and Chicago to study the organisation of surgical laboratories and the surgical instruments used.

BERLIN.

A Criticism of Koch's Bacteriological Diagnosis of Cholera.—Municipal Hospitals and Clinical Instruction.—Lectures on Cholera.

The meeting of the Berliner Medizinische Gesellschaft on June 21st was more than usually interesting by reason of a paper read by Professor Oscar Liebreich, entitled "Critical Remarks on the Methods of Examining Cholera Excreta." The gist of the paper was that Koch's methods cannot lay claim to the reliability in cholera diagnosis which is claimed for them. One by one the methods of examination as taught and practised by Koch and his followers, namely, the microscopic method, the culture method, the animal experiment method, and the cholera red reaction, were subjected to severe criticism, and clear proof of the insufficiency of all these methods was advanced. Liebreich, though he yields to none in his conviction of the importance of bacteriological research, nevertheless feels it imperative to make a stand against uncalled-for enthusiasm and hasty conclusions. He dwelt on the mistaken modern tendency to seek the source of cholera exclusively in external causes, ignoring Virchow's researches on the cell as the element which, by losing its power of resistance, predisposes to disease.

The municipal authorities of Berlin had been requested by the Prussian Cultus-Minister (Minister of Education) to throw open the municipal hospitals for clinical instruction, but the proposal has been met by a decided refusal.

A course of lectures on cholera for practitioners has been begun at the Koch Institute. About eighty medical men have entered their names. The introductory lecture was given by Koch himself.

CORRESPONDENCE.

THE POWERS OF THE GENERAL MEDICAL COUNCIL.

Sir,—Your correspondent "Lex" defines the powers of the General Medical Council in regard to advertising by professional men in a somewhat different way to the Master of the Rolls and Lords Justices Fry and Lopes in the case of "Partridge *v.* the General Medical Council." Their decision has not yet been upset, and it very decisively gives full and absolute power to the Council to construe advertising as conduct infamous in a professional respect. The Master of the Rolls said:

The Council were acting under Section 13 of the Dentists Act, 1878. The plaintiff had, on obtaining his diploma in Ireland, promised not to advertise while holding that diploma. That body considered that they should act fairly by each other, and ought not to advertise. Just as in our profession, where all are rivals against each other, a barrister is not allowed to advertise his superior talents, or that he will do his advocacy cheaper. I think if he did so I should consider it such disgraceful conduct that he ought to be immediately disbarred. No one need become a member of the dental profession unless he desires it. I say the authorities—this domestic tribunal—have a right to determine if it is within reason whether the conduct is or is not disgraceful professional conduct. In Ireland the defendant had promised not to advertise, and having given that promise, according to his own evidence he had spent more than £10,000 in advertising. This is his admission, and he continued to advertise after he had received a warning from the College in Dublin. This must be evidence of disgraceful conduct in a professional respect, and ample evidence upon which the Council might exercise jurisdiction.

Lord Justice Fry, in the course of his concurring judgment, says:

I say nothing as to whether mere advertising is disgraceful conduct, as the point is not before us, but my silence must not be considered as saying that it is not. [But it must be noted that the learned judge cannot help, by inference.] There is one point to which I must advert. Mr. Willis made a statement with regard to the Bar which I was surprised and grieved to hear. If what he suggested be true, it is high time that such things should be brought to the notice of the Inns of Court.

Mr. Willis, for the plaintiff, had said, in answer to Lord Justice Lopes, "Would it not be disgraceful conduct for a barrister to advertise?" "We often see notices in the paper that a barrister has joined a particular circuit, and conduct very like advertising." Surely a very mild advertisement, if true. Can you, Sir, imagine the condition of the learned judge if the barrister were to fill a column of a newspaper with self-laudation and portrait of himself in wig and gown, and state that he was the great American specialist in "jaw" work at the low fee of two and sixpence per speech—that expenses to assizes would be paid to clients and success guaranteed?

But, further still, Lord Justice Lopes said:

But for the fact of this being an important case I should not add a word. In this case the facts are all admitted. The plaintiff undertook not to attract business by advertising or any other conduct which would be considered unbecoming by his College. It is admitted that, in violation of this, he has largely and extensively advertised. If there were evidence the decision of the Council is final and conclusive. They are the sole judges. The plaintiff violated his solemn undertaking, and I am of opinion that this was clear evidence upon which the Council ought to find him guilty of disgraceful conduct in a professional respect. As to whether mere advertising would be such conduct, I do not dissent from the expression of opinion given by the Master of the Rolls. I must also add that I have heard with great pain certain words uttered by Mr. Willis as to the conduct of some members of the Bar.

I think these judgments are sufficient proof of the powers of the General Medical Council and of the determination of the highest judges in the land to support it in maintaining a high standard of professional conduct in the medical profession and its branches. Your correspondent threatens the General Medical Council with law should they interpret advertising as infamous conduct in a professional respect. I have given him law from the Court of Appeal. To whom, then, will he go?

I write in the interests of those dentists who are seeking to get the General Medical Council to strike off the *Dentists' Register* the names of those who advertise, or who are associated with those who do, as guilty of conduct disgraceful in a professional respect. Most, if not all, of these belong to no "medical corporation" whatever, and have no registrable degree, although they pretend to have. They cannot, therefore, be controlled in the way "Lex" suggests.

Many dental "institutes" and advertising dentists are not even registered, and yet medical men are found to support them by giving testimonials and administering anæsthetics for them. To meet their case, it will be necessary to amend the Dentists Act by making it illegal for persons to practise dentistry who are not registered dentists.

I should like to add, in conclusion, that the General Medical Council are doing a great deal to purify our *Dentists' Register* and elevate our profession. It has passed a resolution making "covering" illegal, and it has only last May refused to allow any more American degrees to be registered, or to give title to registration, on the ground that the professional education of the American dentist is so much inferior to that demanded of his English *confrère*.—I am, etc.,

Nottingham, June 25th. HENRY BLANDY.

GENERAL PRACTITIONERS AND THE SECTIONS AT THE ANNUAL MEETING.

SIR,—Many others as well as Dr. McNaught would be glad to know the principle on which the selection of papers to be read at the annual meeting is made. The reason why so little is heard from those of the greatest experience—the general practitioners—is not far to seek. I will, if you will permit, mention my own experience.

I devoted a large amount of time and trouble to the preparation of a paper for last year's meeting at Nottingham. Judging from the number of communications received from all parts of the world with reference to a previous paper on the subject (written in conjunction with Dr. Chamberlayne, of Stalybridge, another general practitioner, and published in the Manchester *Medical Chronicle*), the "treatment of chronic abscess and ulcers" was of considerable interest to general practitioners. Well, I sent my name, with title of paper, in May, yet at the meeting I had no place. I asked the local secretary how it was that my paper was "crowded out" in favour of others more recent in application? The reply was that the selection was made by "a committee in London."

The discussions take up most of the time. Year by year the same men read their "volumes," and there is no place for the general practitioner.—I am, etc.,

Saddleworth, June 26th. COLIN CAMPBELL.

THE MODE OF ELECTION OF BRANCH OFFICERS.

SIR,—From a report in the BRITISH MEDICAL JOURNAL for June 17th it appears that at a meeting held at Peterborough, said to be a meeting of the East Anglian Division of the British Medical Association, certain persons were appointed officers, etc., of this Division. Now the East Anglian Division consists of the counties of Norfolk and Suffolk and part of Essex, and does not include Peterborough, which is many miles distant from these counties. The legality of such election is more than questionable. For some time the affairs of the East Anglian Division have been conducted in a very irregular manner, but surely matters have come to a climax when a meeting is held miles away from the borders of the Division for such an important purpose as the election of officers. The general laws of the Association give no power to do this. I have four times applied for a copy of the by-laws of the Division, but not yet received one.

A meeting is to be held at Stowmarket on Thursday, July 13th, at which I hope to be present in order to call attention to these irregularities and move resolutions. Of this intention I have given notice, and claimed precedence on the ground of urgency. I am advised that at the present moment there are no legally appointed officers to act for the Division. I have brought the whole matter before the Council of the Association, who I hope at their next meeting will be able to consider fully the matter. In the meantime, I hope the members of the Division will attend the Stowmarket meeting, and help the endeavours which will be made to put matters on a proper and legal footing.—I am, etc.,

GEORGE B. MEAD, L.R.C.P.Lond.

Mentmore, Newmarket, June 20th.

SIR,—Will you kindly allow me to bring forward a matter relating to the mode of electing the officers and Council of the South Wales and Monmouthshire Branch? At the present time only those members who are fortunate enough to be able to attend the annual meeting can take any part in the election. Some will of course argue that it is only just and fair that those who take the trouble to be present should have the right to say who shall be elected. In answer to that I should like to point out that in a large constituency like this Branch there must necessarily be a large proportion of members who can neither afford the time nor the money to attend meetings which are held at a distance of nearly fifty miles from their homes. For example, to be able to attend the annual meeting at Swansea, members residing at Newport would have to give up the whole of their day's work, and would incur an expenditure of something like a sovereign—a sum which would not include the expense of dining. This may not be considered a serious matter by the elder members of the profession, but I maintain there are hundreds of the junior members who would not consider themselves justified in spending so much of their time and money on such an occasion. Under these circumstances many members are practically disfranchised, and consequently do not take such an active interest in the welfare of the Branch as they otherwise undoubtedly would do. To remedy this grievance I intend proposing that voting papers should be sent out to every member with the notice of the annual meeting, in order that every subscribing member shall have an opportunity of recording his vote. I do not know whether such a system exists in any of the Branches at the present time, but if it does, I should be glad to receive an account of how it is worked. I believe a system somewhat similar has been adopted by the Pathological Society of London. At all events, I think you will agree with me in thinking that it is one which might with advantage be discussed in your columns.—I am, etc.,

Cardiff, June 20th. T. GARRETT HORDER.

THE ANNUAL MEETING OF THE EAST KENT DISTRICT OF THE SOUTH-EASTERN BRANCH.

SIR,—May I be permitted to state, for the information of members of the East Kent District and others, the reason why the carrying *nem. con.* of Mr. Whitehead's Reid's resolution relative to Mr. Edward Berdoe was omitted from the report of our proceedings at Canterbury last month?

The fact is we learned shortly after the meeting that Mr. Berdoe had resigned his membership of the Association a few days before our meeting was held. It therefore appeared unnecessary that the resolution should again appear in the BRITISH MEDICAL JOURNAL.—I am, etc.,

THOS. F. RAVEN,
Honorary Secretary, East Kent District.

Barfield House, Broadstairs, June 24th.

ROYAL BRITISH NURSES' ASSOCIATION.

SIR,—I have only to-day seen the full text of the Royal Charter of incorporation granted to the Royal British Nurses' Association. Though I have no longer any official connection with that body, I venture, as one of the signatories to the petition for incorporation, to ask leave to make a personal statement. There is a clause in the charter which was not in the draft read at the meeting at which I was present, nor was it embodied in the petition which I signed. It is as follows:—(Purposes and Powers of the Corporation, Clause 2) "The maintenance of an office or offices for supplying information to persons seeking for nurses and to persons seeking for employment as nurses." This clause would never have received

my assent. It places the Association, which was originated as a professional union, in the position of a registry office or a nursing agency. If the Association intends to be a medium for supplying the public with nurses (and it is difficult to put any other construction on these words), it is undertaking a work for which it cannot be qualified. Neither the executive of the Association nor its "register or list" can guarantee the personal character and efficiency of a nurse; these qualities can be known only to those who have trained her and by whom she is personally known. The "register or list" as a guaranteed record of a nurse's training and subsequent experience will eventually recommend itself to the public, and all the sooner if its authors abate their claim to omniscience; but it is surely beneath the dignity of a professional body to become a medium for advertising its members. Trusting to your courtesy to insert this explanation—I am, etc.,

Percy Street, June 24th. CATHERINE J. WOOD.

THE COLLEGE OF SURGEONS, IRELAND, AND APOTHECARIES' HALL, DUBLIN, CONJOINT BOARD.

SIR,—Dr. Furlong's letter, which appears in the BRITISH MEDICAL JOURNAL of June 24th under the above heading, begins with the following sentence: "The error made by Dr. Atthill in his statement before the Council is likely to give a mistaken idea of the examination" conducted by the Board referred to. Allow me to point out that I made no "error." I quoted exactly the official returns made by the Board to the General Medical Council; if any error was made it was not made by me. The following extracts from the official returns are those which I quoted:

RESULTS OF PROFESSIONAL EXAMINATIONS HELD FOR QUALIFICATIONS UNDER THE MEDICAL ACT, ROYAL COLLEGE OF SURGEONS, IRELAND, AND APOTHECARIES' HALL, DUBLIN.

	Rejected.		Passed.
1889	0	1889	21
1890	15	1890	20
1891	8	1891	11
1892	0	1892	12

Since the publication of my last letter I have been unofficially told that four persons were rejected in the year 1892. Assuming this to be so, it indicates gross carelessness on the part of the officials, who obviously were aware that the number of candidates rejected should, if any, have been returned, they having done so in the previous years.

I desire to repeat what I said in the Council, that I have no feelings of hostility to either the College of Surgeons or Apothecaries' Hall, and that I only desire to see the standard of education maintained in Ireland.—I am, etc.,

Dublin, June 26th. LOMBE ATTHILL, M.D.

SUICIDE AND INSANITY.

SIR,—With reference to the case of the Hackney murderer (Morton) and the verdict of the coroner's jury of "temporary" insanity, it may interest your readers to know that on September 24th last year the man was sent to me by his medical attendant for an opinion. At that date (more than seven months previous to the murder) I diagnosed mental disturbance, and advised either an attendant at home or immediate removal to an asylum. At that date insanity was obvious, but such is the unprotected state of the profession under our Lunacy law, that I did not feel inclined to run my head into a noose by signing a certificate. Neither his medical attendant (Mr. Gimblett, of Hackney) nor myself were called at the inquest. Comment is needless.—I am, etc.,

June 24th. FRED. J. SMITH.

NAVAL AND MILITARY MEDICAL SERVICES.

THE NAVY.

THE following appointments have been made at the Admiralty:—HENRY MACDONNELL, Deputy-Inspector-General, to Malta Hospital; THOMAS H. KNOTT, Deputy Inspector-General, to Haslar Hospital; ALEXANDER F. HARPER, Surgeon, to the *Adventure*, undated; ELVINGTON F. S. MCKAY, Surgeon to the *Pioneer*, undated; GEORGE F. DEAN, Surgeon, to the *Mosquito*, June 21st; JOHN DOWSON, Surgeon, to the *Herald*, June 21st; EDWARD B. TOWNSHEND, Surgeon, to Haslar Hospital, June 21st; WILLIAM GRAHAM, Fleet Surgeon, to the *Rupert*, additional, for Pembroke Dockyard, undated; JOHN H. THOMAS, Surgeon, to the *Rupert*, undated; THOMAS E. HONEY, M.D., Surgeon, to the *Vivid*, June 27th.

ARMY MEDICAL STAFF.

SURGEON-COLONEL JAMES INKSON, M.D., is promoted to be Surgeon-Major-General, *vice* T. Rudd, M.D., retired, June 6th. Surgeon-Major-General Inkson was appointed Assistant-Surgeon October 19th, 1857; Surgeon, March 1st, 1873; Surgeon-Major, April 1st, 1873; Brigade-Surgeon, May 1st, 1883; and Surgeon-Colonel, September 4th, 1888. He was with the Baltic expedition of 1855, including the bombardment of Sweaborg (medal); in the Indian mutiny campaign in 1858, including the capture of Jugdespore and actions of October 17th, 18th, and 20th (medal); and with the Bhootan expedition of 1865 (medal with clasp).

Brigade-Surgeon-Lieutenant-Colonel W. T. MARTIN, M.D., is promoted to be Surgeon-Colonel, *vice* J. Inkson, M.D., June 6th. Surgeon-Colonel Martin's previous commissions are dated as follows: Assistant-Surgeon, April 14th, 1863; Surgeon, March 1st, 1873; Surgeon-Major, April 28th, 1876; Brigade-Surgeon, April 28th, 1876; and Brigade-Surgeon-Lieutenant-Colonel, May 5th, 1888. He served throughout the Abyssinian campaign, having been appointed to the exploring party sent to Abyssinia in September, 1867, and which he accompanied through various expeditions for discovering a practicable route for troops from the sea to the highlands; was afterwards secretary to the principal medical officer of the force, and present with the Head Quarters Staff at the capture of Magdala (mentioned in despatches and medal). He also served with the Burmese expedition in 1887 on the personal Staff of Sir Charles Arbuthnot (medal with clasp).

Surgeon-Lieutenant-Colonel C. F. POLLOCK, M.B., is promoted to be Brigade-Surgeon-Lieutenant-Colonel, *vice* W. T. Martin, M.D., June 6th. Brigade-Surgeon-Lieutenant-Colonel Pollock entered the service as Assistant-Surgeon, October 1st, 1867; became Surgeon, March 1st, 1873; Surgeon-Major, October 1st, 1879; and Surgeon-Lieutenant-Colonel April 1st, 1887. He was in the Egyptian war in 1882 with the Black Watch, and was present at the battle of Tel-el-Kebir (medal with clasp and Khedive's star).

INDIAN MEDICAL SERVICE.

SURGEON-CAPTAIN F. H. BURTON-BROWN, M.B., Bengal Establishment, is appointed to officiate as Professor in the Lahore Medical College.

The undermentioned officers, all of the Bengal Establishment, are appointed to the officiating medical charge of the regiments specified: Surgeon-Lieutenant A. O. HUBBARD, 3rd Bengal Cavalry; Surgeon-Lieutenant T. W. A. FULLERTON, 3rd Bengal Infantry; Surgeon-Captain J. M. CRAWFORD, 7th Bengal Infantry; Surgeon-Lieutenant E. V. HUGO, 20th Bengal Infantry; Surgeon-Captain E. W. HORE, 35th Bengal Infantry; Surgeon-Captain C. C. CASSIDY, 5th Punjab Cavalry.

Surgeon-Lieutenant H. M. EARLE, Bengal Establishment, has passed the examination in Hindustani by the higher standard.

Surgeon-Captain W. B. LANE is appointed to the medical charge of the 23rd Bengal Infantry.

Surgeon-Captain H. SMITH, Bengal Establishment, is transferred from the officiating medical charge of the 2nd Battalion to the officiating medical charge of the 2nd Battalion 1st Goorkha Rifles.

Surgeon-Lieutenant G. M'I. C. SMITH, Bengal Establishment, is transferred from the officiating medical charge of the 1st Battalion to the officiating medical charge of the 2nd Battalion 1st Goorkha Rifles.

Surgeon-Captain A. W. ALCOCK, Bengal Establishment, is appointed to the Committee of the Calcutta Zoological Gardens.

Surgeon-Major A. J. STURMER, Madras Establishment, is appointed District Surgeon of Kistna.

Surgeon-Captain F. J. CRAWFORD, M.D., Madras Establishment, officiating as Secretary to the Surgeon-General with the Madras Government, is appointed to act as Surgeon Second District, Madras, without prejudice to his own duties.

The services of Surgeon-Captain C. F. FEARNSIDE, Madras Establishment, are placed temporarily at the disposal of the Public Department.

Surgeon-Major J. P. GREAMY, M.D., Bombay Establishment, received charge of the office of Deputy Sanitary Commissioner, Southern Registration District, on May 15th.

The undermentioned gentlemen have leave of absence as specified: Surgeon-Lieutenant-Colonel J. WILSON, M.D., Bengal Establishment, Civil Surgeon of Hazareebagh, for six months, on medical certificate; Surgeon-Major A. DUNCAN, M.D., Bengal Establishment, Medical Officer Corps of Guides, to November 25th, on medical certificate: Surgeon-Captain A. O. EVANS, Madras Establishment, for eighteen months from April 12th; Surgeon-Major J. C. MARSDEN, Madras Establishment, for six months, on medical certificate, in extension: Honorary Surgeon T. J. O'DONNELL, M.D., Bangalore Rifle Volunteers, for six months from May 1st, on private affairs: Surgeon-Captain J. P. BARRY, M.B., Bombay Establishment, Superintendent of Matheran, privilege leave for two months and twenty-two days.

Brigade-Surgeon-Lieutenant-Colonel GEORGE THOMSON, Bengal Establishment, who entered the service as Assistant-Surgeon, October 2nd, 1865, is promoted to be Surgeon-Colonel, April 1st. He served in the Afghan war in 1878-79, was mentioned in despatches, and received the medal granted for the campaign.

The undermentioned Surgeon-Lieutenant-Colonels of the Bengal Establishment who entered the service as Assistant-Surgeons April 1st, 1868, are promoted to be Brigade-Surgeon-Lieutenant-Colonels from the dates specified: D. D. CUNNINGHAM, C.I.E., M.D., from October 24th, 1892; ARCHIBALD CAMERON, M.D., from April 1st, 1893; and J. C. G. CARMICHAEL, M.D., from April 2nd, 1893.

The promotion of Surgeon-Majors DAVID WILKIE, D. P. MACDONALD, M.D., OSWALD BAKER, and F. W. WRIGHT, D.S.O., of the Bengal Establishment, to be Surgeon-Lieutenant-Colonels, and which has been already announced in the BRITISH MEDICAL JOURNAL, has received the approval of the Queen.

Surgeon-Captain E. L. C. SMITH, of the Bombay Establishment, died on May 25th on board the *Persia*, on his way home from India on sick furlough. He was appointed Surgeon-Captain September 30th, 1889.

The promotion of the undermentioned Surgeon-Captains of the Bengal

Establishment to be Surgeon-Majors, which has been already announced in the British Medical Journal, has also received the approval of the Queen:—F. D. C. Hawkins, J. A. Cunningham, M.D.; H. C. Hudson, Alexander Silcock, Patrick Mullane, M.D., J. W. Rodgers, and J. F. Maclaren.

The Queen has likewise sanctioned the following promotions, which also have been already quoted in the British Medical Journal:—Madras Establishment: Surgeon-Majors W. R. Browne, M.D., and A. H. Leapingwell, to be Surgeon-Lieutenant-Colonels; Surgeon-Captains A. G. E. Newland, A. T. L. Patch, Ronald Ross, Charles Adams, J. K. Kanga; and A. J. O'Hara, to be Surgeon-Majors. Bombay Establishment: Surgeon-Captains Alexander Milne, R. J. Baker, M.D., W. A. Corkery, M. B. Braganza, S. T. Avetoom, and H. W. Stevenson.

First Grade Apothecary Henry Wells, Madras Subordinate Medical Establishment, is promoted to be Senior Apothecary First Grade, ranking as Honorary-Lieutenant, March 4th.

Brigade-Surgeon-Lieutenant-Colonel Robert Bowman, Bombay Establishment, who entered as Assistant-Surgeon March 31st, 1866, is promoted to be Surgeon-Colonel, April 8th.

The following retirements, which have been already cited in the British Medical Journal, have received the approval of the Queen:—Brigade-Surgeon-Lieutenant-Colonel William Center, Bengal Establishment; Brigade-Surgeon-Lieutenant-Colonel J. B. Thomas, Madras Establishment, and Brigade-Surgeon-Lieutenant-Colonel Wellington Gray, Bombay Establishment.

THE VOLUNTEERS.

Mr. Hugh Dickie, M.B., is appointed Surgeon-Lieutenant to the 1st Volunteer Battalion the Northumberland Fusiliers (late the 1st Northumberland and Berwick), June 17th.

Mr. William Smyth Crawford is appointed Surgeon-Lieutenant to the 1st Volunteer Battalion King's Liverpool Regiment (late the 1st Lancashire), June 17th.

Surgeon-Major R. B. Low, 2nd Volunteer Battalion Princess of Wales's Own Yorkshire Regiment (late the 2nd North Riding of Yorkshire) has resigned his commission, with permission to retain his rank and uniform.

Surgeon-Lieutenant P. Smith, who was appointed to the 2nd Volunteer Battalion South Wales Borderers (late the 1st Monmouthshire) in December last, is now appointed Second Lieutenant in the same corps, June 17th.

Surgeon-Major A. Wright, 1st Volunteer Battalion Essex Regiment (late the 1st Essex), has resigned his commission, retaining his rank and uniform.

Surgeon-Captain A. E Marsack, 1st Volunteer Battalion Queen's Own Royal West Kent Regiment (late the 1st Kent), has also resigned his commission.

Surgeon-Lieutenant D. S. Davies, M.D., 1st Gloucestershire Artillery, is promoted to be Surgeon-Captain, June 24th.

Surgeon-Lieutenant R. Williams, 1st Volunteer Battalion, Royal Welsh Fusiliers (late the 1st Denbigh), has resigned his commission, which was dated December 11th, 1875.

Surgeon-Captain W. Hallam, 1st (Hallamshire) Volunteer Battalion York and Lancaster Regiment (late the 2nd West Riding of Yorkshire), has also resigned his commission, which dated from February 1st, 1889.

Mr. Charles Thiselton Dyer Urquhart is appointed Surgeon-Lieutenant (supernumerary) to the Aberdeen Company of the Volunteer Medical Staff Corps, June 24th.

Surgeon and Hon. Surgeon-Major Thomas William Nunn, 5th (West) Middlesex Rifles, retired, has been awarded the Volunteer Officers' Decoration.

THE VOLUNTEER AMBULANCE SCHOOL OF INSTRUCTION.

The Order of the Hospital of St. John of Jerusalem has, with the approval of Her Majesty the Queen, been bestowed upon the following members of the staff of the School: Major A. MacClure, President, late London Scottish R.V.; Brigade-Surgeon-Lieutenant-Colonel G. S. Ellis-ton, Vice-president, Harwich I.V. Brigade; Surgeon-Captain H. F. Stokes, Senior Medical Officer Instructor, London Rifle Brigade; Surgeon-Captain R. R. Sleman, "Artists" R.V.

THE MEDICAL STAFF CORPS AT NORWICH.

The new headquarters and drill station for the Norwich Company Volunteer Medical Staff Corps, opened recently by the Mayor, comprises officers' rooms, stores, a lecture room 32 ft. by 24 ft., and a covered drill shed 70 ft. by 24 ft. Surgeon-Major Richardson sketched the growth of the corps from its formation in March, 1890. Since then 183 men have received training in ambulance work, and for some time the corps has been at its full strength. Much of the success of the corps has been due to the valuable assistance given by Surgeon-Captain Warlters. After the Mayor had declared the building, which has cost £1,500, open, the corps gave a display of ambulance drill.

THE VOLUNTEER MEDICAL STAFF CORPS.

Volunteer.—The headquarters of the Volunteer Medical Staff Corps are in Calthorpe-street, Gray's-inn-road, W.C. There are five companies in London, of which three are composed of medical students, and the remaining two are non-medical. The training of the men comprises infantry and stretcher drill, first aid and bandaging, and lectures on anatomy, physiology, hygiene, medical organisation in the army, etc. In addition to the London companies there are companies in Edinburgh, Woolwich, Manchester, Maidstone, Leeds, Aberdeen, Norwich, and Glasgow; fourteen companies in all.

RETIREMENT.

One more Correspondent (the forty-first) gives his adhesion to "Nitram's" scheme of retirement, and hopes its discussion will lead to the abolition or modification of the three years' rule.

Liable to Recall, referring to the New Pay Warrant, Part 2, pages 361-2, Art. 1098-9 (*b*) asks: 1. Does retirement, as applied to medical officers, mean final retirement at 55 years of age? 2. If not, surely twenty years' service, with liability to recall up to 55, ought to be sufficient to entitle a medical officer's family to the benefit of the pension fund? 3. Retirement by medical board at twenty years' service having been abolished, how is the "ill health" referred to recorded, and in what official documents? The regulations quoted are not likely to affect many, but are none the less an injustice to some.

**** We are not prepared offhand to interpret enigmatical clauses, especially of the Pay Warrant, which of all the regulations is often the most obscure. We invite the attention of some of our correspondents to the articles quoted with a view to their elucidation.

TITLES QUESTION.

A Correspondent sends us from India an envelope addressed to him by Colonel —— as follows:—"Surgeon-Major-Lieutenant-Colonel ——, M.D." The Colonel, he says, is an old friend incapable of saying, much less writing, anything to which exception could be taken. He, in fact, does not understand the new titles, and has got mixed with Brigade-Surgeon-Lieutenant-Colonel. Can anything better illustrate their absurdity?

**** Our correspondent's friend the Colonel may be all he says of him, but we should certainly hesitate to write down a man of his rank and standing such a fool as to be unable to grasp the new titles if he made the smallest effort. We conclude the Colonel was either chaffing his friend, or deliberately affecting ignorance on what there cannot be the smallest doubt or difficulty to any military man with a modicum of brains. Under any supposition the matter is not to the Colonel's credit.

A Valued Correspondent, writing from India, expresses himself glad to learn that the Secretary of State for India had consented to receive a deputation. He says there are some medical officers who want to get all they desire at a bound, and he warns all concerned against these well meaning but impulsive individuals. Circumspection must be adopted, and concessions accepted bit by bit, however small; gradually, and almost imperceptibly, all will be conceded. A rearrangement of titles should meanwhile be accepted, making the professional part of the composite title an affix instead of a prefix, thus—captain and surgeon, etc. Such, he is certain, pending the fulfilment of a corps, would be accepted by the majority of medical officers.

**** Our correspondent is a cautious man, who believes in evolution.

MILITIA MESSES.

Enquirer states he was lately dining at one of these messes, and was informed by the doctor that he was the only one at the table who did not get an allowance towards the mess expenses. The allowance, he said, was given to all officers engaged in drill and instruction of men, but did not include him Is the doctor correct, and, if so, is it not a monstrous injustice?

**** The doctor is "correct," and the injustice is "monstrous." This is an absurdity which has often been exposed in these columns. The doctor is possibly officially supposed not to require food in some remote militia camp, or, if he is, he is expected to "pig it" in his own tent.

ORDERLY DUTY.

Another Field Officer writes: To the ordinary military mind it seems absurdly ridiculous for field officers of nineteen years' service to be called upon to do daily orderly duty with lieutenants of six months' service. It is often remarked in military circles that junior medical officers show little respect for their seniors, which is not to be wondered at considering that most administrative medical officers make no distinction between men of nineteen years' and those of six months' service.

**** We, of course, are aware that it must often be difficult for administrative medical officers to grade the executive duties in their districts; but we are afraid it is too true that some of them show no regard for seniority at all.

MEDICAL STAFF IN INDIA.

A Correspondent says: The officers of the Medical Staff sent to India become completely at the mercy of the Indian Government, and, if wronged, can get no redress from the Home authorities. No wonder, as you say, they often come to grief between these "two stools," between them he himself was forced to resign his commission after sixteen years' service.

***** The position of the Medical Staff in India, and its relations to the Indian Government, are now likely to be completely threshed out.**

MEDICO-LEGAL AND MEDICO-ETHICAL.

QUEEN'S BENCH DIVISION, June 26th.

(Before Mr. Justice Collins.)

Allinson v. General Medical Council.

In this case the plaintiff asked for a mandamus commanding the General Medical Council to restore his name to the *Register*, they having, as he alleged, wrongfully removed it on May 28th, 1892, upon the ground that he had been guilty of infamous conduct in a professional respect. Two objections were taken: first, that the Court that investigated his case was improperly constituted in that one member who sat was also a member of the Medical Defence Union, who were in the position of accusers;

in the second place, it was said that the defendants really erased the name of the plaintiff because of his having adopted and advocated a theory in medicine or surgery as to vaccination that was not in accordance with the professional view.

Mr. Coleridge, Q.C., for the plaintiff, said that since 1870 the plaintiff had been a licentiate of the Royal College of Physicians and the Royal College of Surgeons in Edinburgh. The charge against him was that he advertised in a manner discreditable to the profession. For seven years he had been editor of the medical column of the *Weekly Times and Echo*. He gave general advice as to health, and answered a great number of correspondents. Objections had been taken to a pamphlet on vaccination, which had been withdrawn, and a work entitled *Golden Gates*. It had also been said that Dr. Allinson's name appeared all over London as recommending a particular kind of bread.

Mr. Justice Collins dismissed the action with costs.

THE LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY, LIMITED.

A meeting was held at The Limes, Atkins Road, Clapham Park, on June 23rd, to consider the advisability of establishing a division of the above Society for Clapham, Streatham, and Brixton Hill. It was unanimously resolved that the meeting approve of the establishment of a division. The following gentlemen were requested to form a provisional committee, with power to add to their number, to make the necessary arrangements, namely: Messrs. Bradshaw, Colyer, Charles D. Davis, Arthur Graham, Alfred D. Pocock, A. J. Rice Oxley, Harry Smith, J. Waghorn, and J. B. Wall. A deputation from the Central London Council attended.

COVENANTS (NOT TO PRACTISE) WITH MEDICAL AID ASSOCIATIONS.

Dr. Major Greenwood writes: The question as to the giving of a "bond" by medical practitioners to restrict temporarily their right to practise is a most important one, and doubly so since the rise of the medical aid system, which seems to be fraught with so much evil to the profession.

For my own part, I think that this bond should be allowed only between individual medical men, and I am disposed to think so for the following reasons:—(1) It is of vital importance for a medical man in practice to have such a bond from an assistant occasionally, for otherwise he might be deprived of half his living by means which would be little short of fraudulent, and in his case he has a distinct private right of property in his practice, which he ought to be able to protect in any legal manner. (2) It is to the public interest that he should be allowed to do so, otherwise the practitioner would at all hazards try to do his work without assistance, to the deterioration of his work and the consequent harm to the public.

With regard to public bodies such as medical aid societies, or even county hospitals (where also, I believe, a similar bond is often required, and which must come under the same category in this respect as medical aid societies), neither of these reasons could have much weight, for (1) these institutions have no private, or public, right in any medical practice which they might claim to protect; and (2) it is not for the public good at all that they should be allowed to fetter their medical officers in such a way; indeed, public policy would often incline quite the opposite way.

The next question is, Supposing a case could be made out justly against the above system, has the profession any power in itself of amending the same? I am of opinion that the General Medical Council has full power to do so if it thought fit.

The Act under which the General Medical Council derives its powers states clearly that the Council may order their Registrar to erase from the *Register* the name of any practitioner who, after due inquiry, shall be judged to have been guilty of conduct "infamous in a professional respect." The Council is made the sole judge of this, and the Courts have more than once stated their inability to question this jurisdiction, provided the inquiry into such conduct has been conducted in a suitable judicial manner.

If, therefore, the General Medical Council were to declare such bonds to be "infamous in a professional respect," as not a few members of the profession certainly consider them to be, any practitioner offending in this way would be liable to be removed from the *Medical Register*, and I think under these circumstances few would be found to offend and a practice injurious both to the profession and the public would be amended.

*** The cases of Allbutt *v.* General Medical Council (23 Q.B.D., 400), Leeson *v.* General Medical Council (43 C.D., 366), and Partridge *v.* General Medical Council (25 Q.B.D., 90), establish clearly the right of the General Medical Council to declare any particular conduct to be infamous, and that no tribunal can review their decision in such a matter. Whether they would so declare the entering into covenants with unqualified persons or bodies of persons not to practise is a point which might be settled were a distinct application made to them to so declare.

Such covenants are apparently against public policy, and we are advised that they would probably be held not binding in law. The matter was expressly left open by the Court of Appeal when deciding Davies *v.* Makuna (29 C.D., 596); but subsequent decisions make it probable that the Courts would hold that an association of unqualified persons were not entitled to the benefit of a covenant by a medical man not to practise in a particular district. A test case could easily be found and brought into court. If decided in the manner anticipated, the intervention of the General Medical Council would be unnecessary.

DOWNWARD COMPETITION.

X. Y. Z. has an old-established good middle-class practice. His visiting fees for years have been from 1s. 6d. to 5s., and consultations in consulting room 1s. 6d., 2s., and 2s. 6d. He is now surrounded by sixpenny men, doing much damage to his receipts. Would you advise him still to adhere to his old fees in hopes of the sixpenny system dying out, or lower his fees and take sixpences?

*** The question is a very difficult one to answer. The underselling complained of is of every-day occurrence, but we do not believe that on that account old-established practitioners have usually lowered their fees in order to compete with this class of practitioner, though doubtless from a pecuniary point of view they must often have been sorely tempted to do so. We are strongly of opinion that, where it is possible, a medical man should put up with a certain amount of loss rather than condescend to take remuneration which he feels to be degrading. It is well to bear in mind that in so doing he will be sure to reap some advantage, as the public is always ready to reckon the value of a man very much according to his own estimation of himself, and will be sure to regard such a one as professionally superior to his sixpenny competitor. Although the latter may be able to attract by the lowness of his fees a certain number of the former's patients, there will nearly always be left a residue sufficient to enable the former to maintain his position, if with temporarily diminished profits, at least with enhanced dignity, and with every prospect of triumphing over his less scrupulous rival in the long run.

FEES TO MEDICAL WITNESSES.

Member writes: A. is engaged as medical witness for defence on a capital charge. B. is called in in addition by solicitors for defence, attends office of solicitors and will have to attend assizes in town, twenty or thirty miles distant. B. wishes for information on the following points:

1. Does not B. hold position more or less of consultant or expert, as he is called in to supplement A.'s evidence, and if so is he not entitled to consultant's fees?

2. What fee can he legally claim for each attendance at solicitor's office (lasting at times for one or two hours); and what fee for each day at assizes, and are expenses included in such fees?

3. Are not the solicitors responsible for B.'s fees, and should he insist on payment before attendance at assizes, or could he recover fees afterwards?

The prisoner's relations are very poor and could not pay.

*** 1. The scale of fees for professional witnesses recognises no distinction between registered medical practitioners; the most that would be allowed by the taxing officer is one guinea per diem, and expenses on a very limited basis.

2. The fee for attendance at the solicitor's office is entirely a matter of arrangement. The taxing officer would probably allow nothing for it.

3. B. had better insist on payment of his fees before attending the court. Unless he has attended as a witness before the committing magistrates the court cannot order him any payment. The solicitors probably have been put in funds by means of a subscription among the prisoner's friends, and will pay any reasonable fees now. After the trial is over it will be difficult to get money from them.

CHANGING THE "DOCTOR."

M.B. writes: A. and B. are two medical practitioners. A. is called in to attend C. At the end of a week B. is asked to attend C., and B., though aware that A. was in attendance up to the previous day, nevertheless agrees to attend C. on the condition that a relative writes to A. telling him that he need not call again. Did B. act justly? Was his action in strict accordance with medical etiquette?

*** Although it is the indisputable right of a patient to change or to discard his medical adviser, it, like other rights, is limited by the legitimate claims of others; and, *a priori*, a medical practitioner is justly entitled to expect that he shall not, *sine causâ*, and without reasonable courtesy and explanation, be superseded in attendance on a case. Moreover, in such event the superseding practitioner is morally and ethically bound to take due care that the same courteous respect which he individually would exact be paid to the practitioner whom he supersedes, alike by himself and by those whom he has been called in to advise. Assuming, therefore, that the above statement conveys a fairly accurate version of the facts, the duty of B. under the circumstances related would be to decline attendance upon C. except in consultation with A.

UNQUALIFIED ASSISTANTS.

A Buchan Practitioner.—Professionally regrettable as we regard the persistence of practitioners in engaging unqualified assistants to be (especially after the General Medical Council's emphatic condemnation), we are also further inclined to view it as an injustice to the public, in so far as the uninformed community not unnaturally assume that the "doctors" to whom they entrust their lives are duly qualified. In relation to this it cannot be too generally known (and so act as a check to such engagements) that a registered practitioner cannot recover any charge in a court of law for professional services wholly rendered by an unqualified assistant.

With reference to the incompatibles contained in the prescription our correspondent refers to, we would fain believe that the error, inexcusable though it be, was a *lapsus calami*, and acid. hydrochloric dil. unintentionally written for acid. hydrocyanic. dil.

FEES UNDER THE INFECTIOUS DISEASES NOTIFICATION ACT.

SENEX writes: A is a medical officer to a colliery company, several clubs such as Oddfellows, etc., also a railway company. Is he entitled to a fee of two shillings and sixpence, or only to a fee of one shilling, under the Infectious Diseases Notification Act, when any member of his family requires the sending of a notification certificate to the medical officer of health?

*** We do not know whether the question has ever been taken into court and a decision given. The words of the Act are somewhat ambiguous; private practice is contrasted with "practice as medical officer of any public body or institution." It does not appear to us that this latter phrase includes medical clubs, and we hold that A. is entitled to the full fee of two shillings and sixpence in all the instances he mentions.

THE RIGHT TO BURIAL.

EQUITY.—It was decided as long ago as the year 1840, in the case of a pauper who died in St. George's Hospital, that (in the absence of adequate means belonging to the deceased) "the individual under whose roof a person dies is bound," at common law, "to carry the body decently covered to a place of burial." That decision has always been treated as good law since. It seems to follow, therefore, that the contractor, in whose hospital the man died, is the proper person to defray the expenses of burial. He would be entitled to recoup himself out of any effects which the deceased may have left.

A FOREIGN MODE OF ADVERTISEMENT.

ETIQUETTE.—Had our Vichy correspondent been a careful reader of the BRITISH MEDICAL JOURNAL he could scarcely have failed to note our repeated replies to questions analogous to the one he submits. The ethical rules by which the profession in this country is governed are those by which British practitioners on the Continent should be alike guided. The insertion of his name and residence, promised by the *Swiss and Nice Times* on condition of a yearly subscription to the paper, would in principle be tantamount to soliciting practice by advertisement, and therefore contrary to the rule laid down in the *Code of Medical Ethics*, chap. ii, sect. i, rule 3, to which we would refer him.

A MEDICAL TESTIMONIAL.

A CORRESPONDENT sends us a cutting from a Yorkshire newspaper containing an advertisement in which is embodied a letter from a gentleman who appends M.R.C.S. to his name. In this he gives a testimonial as to the benefit he had derived from wearing a certain electropathic belt. The letter is undated, and probably since then the writer will have seen the impropriety of his action in giving the testimonial in question. The symptoms from which he describes himself to have suffered are those of a common phase of disordered hepatic action. Such symptoms come and go under slight provocation, and afford no evidence of the value of the so-called electric belt.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

EXAMINATIONS FOR MEDICAL AND SURGICAL DEGREES, EASTER TERM, 1893.—First Examination:—

Part I. Chemistry and Physics.—Examined and approved: Ambrose, Cla.; Anderson, Trin.; H. L. Atkinson, B.A., Chr.; Bayly, Cla.; Bolland, Emm.; Boucher, Trin.; Bowen, Gonv. and Cai.; Bradley, Gonv. and Cai.; Brooke, B.A., Joh.; Browse, Cla.; F. E. Brunner, Gonv. and Cai.; H. N. Clarke, Gonv. and Cai.; J. S. Clarke, Gonv. and Cai.; Clarkson, B.A., H. Selw.; Darby, Trin.; Dobson, Pet.; Dore, Joh.; Edgell, King's; H. St. C. Elliott, Trin.; Fraser, Gonv. and Cai.; Garrood, Joh.; Green, Down.; Grünbaum, Trin.; Gutch, B.A., Chr.; Harmer, King's; Hartham, Jes.; Hedley, King's; Heilborn, Gonv. and Cai.; Helm, Magd.; A. C. Hill, Trin.; Hine, King's; Horne, B.A., Trin.; Houseman, Cla.; Kemp, Cla.; Leathes, B.A., Joh.; Le Cren, B.A., Chr.; Letchworth, Emm.; Mercer, Cla.; H. D. O'Sullivan, Emm.; J. A. O'Sullivan, Emm.; Pettinger, H. Selw.; Prest, Non Coll.; Pryce, Joh.; Reid, B.A., Joh.; Reissmann, Joh.; Rowland, H. Selw.; St. Leger, Gonv. and Cai.; Sanderson, B.A., Cla.; Scholberg, Trin.; Scowcroft, Gonv. and Cai.; Skrimshire, Joh.; Skyrme, Chr.; Slater, Trin.; Stabb, Down; Studd, Trin.; Sumner, Joh.; Sutcliffe, Emm.; Talbot, Trin.; W. H. A. Tebbs, Queens'; Turnbull, B.A., Gonv. and Cai.; Walker, Queens'; White, Chr.; R. J. Willson, Emm.; E. L. Wilson, Cla.; Wingate-Saul, Trin.; Worlledge, B.A., Trin. H.

Part II. Elementary Biology.—Examined approved: H. L. Atkinson, B.A., Chr.; A. P. Baker, Chr.; Barham, Gonv. and Cai.; Barnes, Chr.; Bateman, Down; Bemrose, Joh.; Borradaile, Gonv. and Cai.; Bowen, Gonv. and Cai.; Bradley, Gonv. and Cai.; F. E. Brunner, Gonv. and Cai.; H. N. Clarke, Gonv. and Cai.; Denyer, Queens'; Dobson, Pet.; Downer, Gonv. and Cai.; Edgell, King's; Ellis, Pet.; Fayrer, B.A., Trin.; Garrood, Joh.; Goode, Gonv. and Cai.; Griffith, Cla.; Grünbaum, Trin.; Harmer, King's; Harthan, Jes.; Harwood, Trin.; Hay, Gonv. and Cai.; Hedley, King's; Heilborn, Gonv. and Cai.; Helm, Magd.; A. C. Hill, Trin.; P. A. Hill, Gonv. and Cai.; Hine, King's; Kemp, Cla.; Knight, Emm.; Leathes, B.A., Joh.; Letchworth, Emm.; Lucas, Cla.; Micklethwait, Trin.; Mills, Jes.; Nelson, B.A., Cla.; Orme, Gonv. and Cai.; H. D. O'Sullivan, Emm.; J. A. O'Sullivan, Emm.; Pettinger, H. Selw.; Plachecki, Chr.; Prest, Non Coll.; Prout, Down; Pryce, Joh.; J. F. Ralli, Gonv. and Cai.; Reissmann, Joh.; St. Leger, Gonv. and Cai.; Sanderson, B.A., Cla.; Sanderson, Jes.; Schreiner, Down; Sewell, Pemb.; Skyrme, Chr.; Slater, Trin.; H. M. H. Smith, Gonv. and Cai.; Sumner, Joh.; Sutcliffe, Emm.; Talbot, Trin.; Taylor, King's; B. N. Tebbs, Queens'; W. H. A. Tebbs, Queens'; Upward, Chr.; Walker, Queens'; Ware, Pemb.; Warren, Joh.; White, Chr.; Wilcock, Gonv. and Cai.; R. J. Willson, Emm.; Winton, Cla.; Worlledge, B.A., Trin. H.

Second Examination.

Part I. Pharmaceutical Chemistry.—Examined and approved: Abercrombie, Gonv. and Cai.; Allfrey, Trin.; Baker, M.A.; Boulton, Cla.; Bradford, Emm.; F. H. Burton, Cla.; Butler, Joh.; Chapman, B.A.; Corp. Chr.; Corner, Sid. Suss.; Daniel, Emm.; A. H. Donaldson, B.A., Gonv. and Cai.; Ellis, Gonv. and Cai.; Glasier, Emm.; Golby, Joh.; Gostling, Gonv. and Cai.; Gregory, Joh.; Halahan, B.A., Corp. Chr.; Hale, Chr.; Hunt, Trin.; J. Lea, B.A., Gonv. and Cai.; Levick, Jes.; Lobb, B.A., Gonv. and Cai.; F. McCleary, B.A., Trin. H.; E. B. Marriott, B.A., Cla.; Nix, B.A., Pemb.; Parsons, B.A., Corp. Chr.; Porter, Emm.; Powell, Emm.; Rose, B.A., Joh.; P. W. G. Sargent, Joh.; Hon. G. H. Scott, B.A., Trin.; Shewell, Trin.; Tallent, Joh.; Troup, B.A., Pemb.; Tucker, Gonv. and Cai.; E. A. Wilson, Gonv. and Cai.; Yeld, Trin.

Part II. Human Anatomy and Physiology.—Examined and approved: J. L. Allen, B.A., King's; Biss, B.A., King's; Cornaby, B.A., Non Coll.; Dashwood, B.A., Magd.; Eardley, M.A., Joh.; G. L. Edwards, B.A., Trin.; Gaine, Emm.; L. S. Gaskell, B.A., Chr.; F. A. Godson, B.A., Joh.; Grummitt, B.A., Gonv. and Cai.; Haslam, B.A., Gonv. and Cai.; Hayward, B.A., Gonv. and Cai.; Heywood, Emm.; Higgins, B.A., Non Coll.; Holmes, Joh.; Hyde, B.A., Cla.; Lance, B.A., King's; Lillie, Joh.; McDougall, Joh.; Macnamara, B.A., Pet.; Manners-Smith, B.A., Down; Maturin, B.A., Gonv. and Cai.; May, B.A., Cla.; Mills, B.A., Cla.; Molesworth, Gonv. and Cai.; Muir, B.A., King's; Muriel, Down; Newstead, B.A., Chr.; Nix, B.A., Pemb.; Parker, Gonv. and Cai.; Pearce, B.A., Trin.; Pearse, B.A., Trin.; Penny, B.A., Pemb.; Pentreath, B.A., Queens'; Prince, Gonv. and Cai.; Hon. G. H. Scott, B.A., Trin.; Sing, B.A., Chr.; M. H. Smith, B.A., Pet.; Somers, B.A., Pemb.; Stead, B.A., Gonv. and Cai.; K. S. Storrs, Emm.; Sturrock, B.A., Gonv. and Cai.; Turner, B.A., Emm.; Twigg, B.A., Chr.; Tyson, B.A., Gonv. and Cai.; A. B. Ward, B.A., H. Selw.; Wills, B.A., Gonv. and Cai.; Woodhouse, B.A., King's; Woolley, B.A., Chr.; Worthington, B.A., Pemb.

Third Examination.

Part I.—Examined and approved: Allen, B.A., Chr.; Barber, B.A., Gonv. and Cai.; Blandford, B.A., Pemb.; Blumfeld, B.A., Gonv. and Cai.; Bottomley, B.A., Gonv. and Cai.; Bowes, B.A., Gonv. and Cai.; Broadbent, B.A., Trin.; Budden, B.A., Gonv. and Cai.; Collcutt, B.A., Gonv. and Cai.; Cuff, B.A., Joh.; F. N. Day, B.A., Gonv. and Cai.; Dufton, B.A., Gonv. and Cai.; Hayne, B.A., Gonv. and Cai.; Henry, B.A., Joh.; H. B. Hewitt, B.A., Cla.; Hood, B.A., Down.; Kirby, B.A., Trin.; B. H. Lees, B.A., Joh.; F. H. Lewis, B.A., Joh.; McCardie, B.A., Gonv. and Cai.; Master, B.A., Gonv. and Cai.; Menzies, B.A., Jes.; Mitchell, B.A., Queens'; Moysey, B.A., Gonv. and Cai.; Nicholls, M.A., Pet.; Ord, B.A., Gonv. and Cai.; Peck, B.A., Trin.; Sandall, B.A., Joh.; Saw, B.A., Trin.; A. Shillitoe, B.A., Trin.; A. A. Shillitoe, B.A., Trin. H.; Stewart, B.A., Chr.; Tatham, B.A., Gonv. and Cai.; Wingate, B.A., Jes.; Woodrooffe, B.A., Gonv. and Cai.; Wright, B.A., Non Coll.

Part II.—Examined and approved: Alston, B.A., Cla.; Broadbent, B.A., Trin.; R. C. Brown, B.A., H. Selw.; J. R. Carver, B.A., Chr.; Christopherson, B.A., Gonv. and Cai.; Colby, B.A., King's; C. E. Cooper, B.A., Gonv. and Cai.; Dodgson, B.A., Emm.; C. H. Evans, B.A., Emm.; Fish, B.A., Chr.; Garratt, B.A., Trin.; J. H. Godson, B.A., Joh.; Gooding, B.A., Gonv. and Cai.; Grünbaum, B.A., Gonv. and Cai.; W. J. Harris, B.A., Chr.; Hart, B.A., Jes.; Hill, B.A., Trin.; E. B. Hill, B.A., Cla.; Hobart, B.A., Gonv. and Cai.; Hoffmeister, B.A., Gonv. and Cai.; Joyce, B.A., Queens'; Kempson, B.A., Gonv. and Cai.; P. Langdon-Down, B.A., Trin.; C. E. M. Lewis, B.A., Joh.; F. H. Lewis, B.A., Joh.; Locket, B.A., Chr.; Luce, B.A., Chr.; Melsome, M.A., Queens'; Moore, B.A., H. Selw.; Nowell, B.A., Cath.; Ransome, B.A., Trin.; Rogers, M.A., Gonv. and Cai.; Roper, M.A., Cla.; Russell, B.A., Down.; E. H. O. Sankey, M.A., Joh.; Still, M.A., Gonv. and Cai.; Swainson, B.A., Gonv. and Cai.; Willson, B.A., Emm.

UNIVERSITIES (SCOTLAND) ACT, 1889.

UNIVERSITY OF GLASGOW.

THE following are the chief points relating to Glasgow in the final draft of the university ordinances recently issued:

From the sum provided by Parliament, Glasgow is to receive £500 annually for the maintenance of buildings.

From the Parliamentary grant and from the grant under the local taxation account Glasgow is to receive £12,180 and £8,700 respectively. These sums are to be placed to the account of the General University Fund.

The fees are to be placed to the Fee Fund account. Endowments are to constitute a third fund account—the Salaries account.

The fees to be paid to Professors in the Medical Faculty are as follows:—

Professor of	Anatomy	£1,200*
,,	Physiology	£1,100*
,,	Chemistry	£1,100*
,,	Pathology	£1,100*
,,	Natural History	£800*
,,	Botany	£800*
,,	Medicine	£800
,,	Surgery	£800
,,	Midwifery	£700
,,	Materia Medica	£700
,,	Forensic Medicine	£600

* These are debarred from private practice. The Professors of Anatomy and Medicine are the only two who have official residences.

These salaries are called in each case the "normal salary," made up by the amount paid into the Salaries account to the credit of each chair, *plus* such a sum to be taken from the Fee Fund as is needful to make up the normal. Should the Fee Fund, however, be insufficient in any year to make good the normal, each Professor shall suffer a reduction proportionate to his normal salary.

The present Professors of Anatomy, Chemistry, Physiology, Botany, Natural History, Materia Medica, Medicine, and Forensic Medicine, however, shall be entitled to receive out of the General University Funds, if necessary, such sums as shall bring up their total income to £1,645, £1,300, £910, £806, £783, and £522 respectively.

Similarly, the salaries of the present Professors of Clinical Medicine and Surgery are specially regulated, namely, £432 and £320 respectively.

In no case are the total emoluments of a professor to fall below either a sum of £500, or a sum equal to three-fourths of the normal salary. This does not apply to the Professors of Clinical Medicine and Surgery. After the date of the ordinance, no professor is liable to make any payments in respect of assistants or class expenses.

The salary of the Principal is fixed at £1,100.

The Court is to set aside annually a sum of £4,000 to form a pension fund to provide pensions for existing or retired professors who had right to pensions prior to the passing of the Education Act. This is to be done till the whole of the pensions have expired or till the fund is sufficient to provide for all still payable.

In the above-noted ordinance provision is made for a Professor of Pathology, and a special ordinance provides for the foundation of this professorship. The University Court is to nominate four curators, and the Directors of the Western Infirmary three, who continue in office for three years. By the curators the appointment is made as soon as arrangements satisfactory to the Court are made by the Infirmary directors for teaching facilities.

As regards pensions, the scale is fixed by one of the recently issued ordinances. An annual allowance, equal to twenty-sixtieths of the annual emoluments of his office, is to be paid to a Principal or Professor who has served for ten but under eleven years. After eleven and under twelve the scale is twenty-one-sixtieths, and so on—an additional sixtieth for each additional year of service till an annual allowance of forty-sixtieths is granted, which is the maximum. In no case must the maximum emoluments on which the calculation is based be taken as exceeding £900.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

ELECTION OF EXAMINERS.—The following gentlemen have been elected examiners for the Conjoint Examination of the College and the Apothecaries' Hall:—Anatomy: M. A. Ward. Surgery: A. Chance. Physiology, Histology, and Biology: G. B. White. Pathology: C. Coppinger. Ophthalmology: F. Odevaine.

SOCIETY OF APOTHECARIES OF LONDON.

PASS LISTS, June, 1893.—The following candidates passed in

Surgery.—H. E. W. Andreae, University College; H. W. Beedham, London Hospital; H. C. M. Brett, King's College; J. H. Busteed, Guy's Hospital; B. E. Church, St. Bartholomew's Hospital; J. Davies, St. Mary's Hospital; F. V. Denne, Westminster Hospital; W. H. Dixon, Guy's Hospital; G. H. Grace, St. Bartholomew's Hospital; T. Jones, London Hospital; W. Loades, Middlesex Hospital; F. W. Mawby, Guy's Hospital; C. Stewart, Durham University; J. Thornton, London Hospital; J. Unsworth, Liverpool; W. B. Welch, St. Bartholomew's Hospital; W. H. G. Wilkes, Birmingham.

Medicine, Forensic Medicine, and Midwifery.—H. C. M. Brett, King's College; W. H. Dixon, Guy's Hospital; H. P. Job, University College; G. H. Jones, St. Thomas's Hospital; C. H. Stewart, St. Thomas's Hospital; A. G. Tribe, St. Thomas's Hospital; J. Unsworth, Liverpool; W. Wyllys, St. Bartholomew's Hospital.

Medicine and Forensic Medicine.—S. Gresswell, St. Bartholomew's Hospital.

Forensic Medicine and Midwifery.—S. E. Price, London Hospital.

Forensic Medicine.—E. C. Adams, St. Bartholomew's Hospital; R. W. Prentice, King's College.

To Messrs. Adams, Brett, Church, Dixon, Grace, Jones, Loades, Prentice, C. Stewart (Durham), Tribe, Unsworth, and Wilkes was granted the diploma of the Society entitling them to practise Medicine, Surgery, and Midwifery.

ST. BARTHOLOMEW'S HOSPITAL AND COLLEGE.

THE following prizes and scholarships have recently been awarded: The *Lawrence Scholarship and Gold Medal* to A. S. Blackwell, M.B., B.S., B.Sc. Lond. The *Brackenbury Medical Scholarship* to H. L. Brooksbank, M.B., B.A.Cantab. The *Brackenbury Surgical Scholarship* to J. S. Sloane. The *Matthews Duncan Medal and Prize* to (1) J. Morrison, (2) F. A. Bowes. The present is the first occasion on which the Matthews Duncan Medal and Prize, which was founded by subscription in memory of the late Dr. Matthews Duncan, has been awarded.

AT the annual meeting of the London School of Medicine for Women, Mr. A. T. Norton, F.R.C.S., the hon. treasurer, made a satisfactory financial statement, and stated that various sums had been received for the establishment of prizes in the school, as well as the Pfeiffer bequest of £3,000 towards the building fund. The Dean, Mrs. Garrett-Anderson, read the list of prizes and certificates. Miss Rachel Mackenzie was announced as Dufferin scholar, Miss Latham as Gilchrist scholar, and Miss Bertha Webb as St. Dunstan's scholar.

BEQUEST.—The late Mr. Solomon Beyfus, of Bedford Square, by his will bequeaths £40 to the Jews' Hospital at Norwood; £10 each to the London Hospital and the Metropolitan Free Hospital, and £20 to the Jewish Lying-in Hospital.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS, Thursday, June 22nd.

The Metropolitan Asylums Board and Fever Cases.—Mr. COHEN asked the President of the Local Government Board whether his attention had been drawn to the statement made by the Chairman of the Metropolitan Asylums Board on June 10th to the effect that at the present time, on the average, about 50 per cent. only of the persons requiring admission could be dealt with; and whether he could state the reason for this inability, seeing that the number of persons under treatment for fever and small-pox was only 2,929 and 479 respectively, as compared with the 4,389 cases of fever and diphtheria only which were received at one time in 1892, whilst the accommodation for fever and diphtheria patients at the disposal of the managers was increased in 1892 to 4,663 beds.—Mr. H. FOWLER said he had been in communication with the managers of the Metropolitan Asylum district, and was informed that the statement made by the chairman had reference only to scarlet fever and diphtheria patients. The number of beds available for these patients was less than in 1892. Last year the small-pox hospital at Gore Farm, which was intended for convalescent small-pox patients, was free for use for fever patients, and furnished 836 beds. There were now, however, 260 small-pox patients in this hospital, and consequently it was not now available for fever cases. There had also been a reduction in the accommodation in consequence of certain old temporary wards having been demolished to make way for permanent buildings which were now in course of erection, and there were others where works of repair, etc., which were postponed last year, were being carried out, but were not yet quite finished. He understood also that it had not been thought by the several medical superintendents expedient or safe to place so many patients in some of the wards as was done for a short time in 1892. It might, perhaps, be found possible before long to again admit convalescent cases to Gore Farm.

Monday, June 26th.

The Metropolitan Asylums Board.—Mr. H. FOWLER, in reply to Mr. TALBOT, said he was aware of the anxiety that was felt in regard to poor persons being kept in their crowded homes suffering from infectious disease in consequence of there being no room for them in the hospitals of the Metropolitan Asylums Board. It was the desire of the Local Government Board in every way to assist the Board managers, and they would do everything in their power to give them facilities for carrying out either temporary or permanent arrangements for the accommodation of patients suffering from infectious disease. The matter rested with the Asylums Board, and not with the Local Government Board.

SUPPLY.

The Naval Estimates.—On the vote of £133,000 for medical establishments and service, some conversation took place as to the lunatic asylum for patients of the Navy at Great Yarmouth.

Sir U. KAY-SHUTTLEWORTH said that there were 140 naval and 60 Indian patients in the asylum. The cost of the establishment was about £12,000 a year, of which India contributed £5,500. The members of the Board of the Admiralty proposed to visit the asylum to inquire into the subject.

The vote was then agreed to.

Tuesday, June 27th.

SUPPLY.

The Army Estimates: the Committee of Supply.—On the vote of £288,200 for medical establishments, pay, etc., Mr. HANBURY, in the course of a general criticism, said that the pay of medical officers ran up to very nearly £300,000, and the total vote for the medical service would amount to £700,000 a year. He complained that the non-effective vote ran up to as much as 75 per cent. of the effective vote. This was due to the exceptional conditions on which medical officers were allowed to go on retired pay. After ten years' service a man was allowed to retire with a gratuity of £1,250, which was a large sum in addition to the pay he had received. After twenty years' service a medical officer could retire on a pension of £365 a year, and at a later period on a much larger pension. In these years of service a medical man acquired much information and experience of which the country ought to have the benefit in times of emergency. In addition, he found that the men who made this exceedingly good bargain had open to them seventy-one good home berths with incomes of £150 a year. It was not fair that, depriving their country so early of their services on good pensions, they should be allowed to have these good berths too; and he hoped the system would be put an end to. He then asked why the recommendations of the Camperdown Committee as to the financial saving which might be effected by a more reasonable distribution of the work had not been carried out. He feared that medical officers of the army were by no means efficiently trained in field hospital and bearer company work. The responsibility for this rested upon the War Office. He then touched upon the alleged insanitary condition of camps and barracks. He then went on to recommend the reversion to the old system of regimental hospitals. He admitted there was a strong feeling of discontent with regard to the anomalous and unsatisfactory position of the medical department in relation to the executive, and regretted that the medical officers had a great hankering after military titles, as if it were not sufficient honour for them to bear the titles of their own profession. We should have chaplains by-and-by calling for military rank, and commanding people while they were at church.

Dr. FARQUHARSON said Mr. Hanbury had not done full justice either to the army medical officers or to the late Secretary of State for War, who

had brought forward a large vote for the reconstruction of barracks and he hoped that in a few years the evils of former days would become things of the past. With regard to the pressure brought to bear on the Secretary of State, he would ask how were members of Parliament to discharge their duty if they were not to make use of the information they received in order to obtain redress for grievances? He was happy to say that he had taken some part in transmitting the views of his friends outside to his friends inside the House. He denied that medical officers were too largely paid. Good men could not be got unless you paid them well. He would join his hon. friend in asking the Secretary of State for War to bestow some attention on the recommendations of the Camperdown Committee. If young medical officers were to be attached to regiments for a certain number of years and others to be attached occasionally, it would be a great advantage. We were now going on in a process of evolution which must land us in another state of development. He hoped the respectful requests of the army medical officers to be constituted into a Royal corps, like the Engineers, would be duly considered. The combined titles which had been given to them, though cumbrous, had afforded them great satisfaction. The army doctor was no longer a mere doctor, he had to command a large number of men. There were now under the actual command of medical officers more than 6,000 men, a number greater than that of the Royal Engineers, and it was rightly thought that in commanding these men officially they should have full army titles. But there was another point to which they attached far greater importance, and that was to the shortening of the period of continuous foreign service. Formerly the medical officer had to serve five years in India, he had now to serve six, which was a great strain upon his physical and mental capacity. Out of 25 medical officers who went to India 17 died or were invalided, and out of 8 survivors 2 were so ill that they had to be removed to the hills, while nearly all the others returned home in considerably impaired health. The greatest breakdown occurred in the fourth year of service, and that of course left a small balance of those who had to serve the remaining two years; and it was impossible to estimate damage of this kind merely by figures. Medical officers came back shattered and debilitated, many of them carrying the misery of their impairment of health down to their graves. The military officer could get frequent leave to go to the hills, and was always able to arrange his work so as to keep out of the heat of the sun, but the doctor was at everyone's beck and call at every hour of the day, conditions of work which were peculiarly harassing and exhausting. He left the case of the army medical officers with confidence in the hands of his right hon. friend.

Major RASCH said he did not think the medical department had much to complain of.

He was followed by Mr. BARTLEY, who, as a lay member of the Camperdown Committee, expressed the opinion that Mr. Stanhope had done all that was possible to satisfy the demands of the medical profession. He was surprised that the titles given were not sufficient, and feared that further alleged grievances were about to be brought forward. He thought the time had come when the War Office must put its foot down and say there would be no more concessions to the medical department. The non-effective service amounted to fully 75 per cent., and in fact that branch was as costly as the effective branch. He objected to the present facilities for early retirement.

Dr. KENNY asked whether any conclusion had been come to with regard to the recent alterations in the appointment of examiners to the medical service of the army. He suggested that the Dublin and Edinburgh Colleges should each be allowed to send two members to the Medical Examining Board, thus bringing the total number of members to eight.

Mr. A. C. MORTON thought the medical service, which cost nearly half a million a year, contained too many ornaments who drew high salaries and did very little work. He was astonished at the rage after titles in this service. He thought the title of doctor or physician was much higher than that of field-marshal; the one was associated with the saving of life, the other was associated with slaying.

Mr. PLUNKET pointed out that a large number of those who entered the service came from Ireland and Scotland, and he thought that the medical authorities of those parts of the countries ought to be represented upon the examining board either by the appointment of additional examiners or of assessors.

Mr. JEFFREYS stated that there must be some prizes in every profession. The position of an army surgeon was a very poor one compared with medical men in other walks of life, and for that reason he thought it desirable that some official rank should be given to him. Besides, surgeons were not connected with any particular regiment, but formed a corps of their own, and unless they had some rank in the field they could not properly carry out their duties. In time of war the country wanted the best medical men, and it could only obtain them by offering sufficient salary and conferring some rank on those appointed.

Colonel LOCKWOOD, while hoping that there would be no further increase in the vote, said the stress of the work of medical men in India was so great that the term of service in India ought to be shortened.

General GOLDSWORTHY also testified to the special strain of the work in India, and said that medical men ought to have extra leave to recruit themselves in the hills.

Mr. CAMPBELL-BANNERMAN said he had been asked to attempt the impossible task of preventing combination in a discontented service by treating claims as ridiculous and diminishing the retirements and pensions. He was not aware there was any disposition on the part of the department to allow medical officers to occupy positions in which the duties were light. He held a subordinate position at the War Office when the regimental system was put an end to and the hospital system was adopted. The change was distasteful to regimental officers and men imbued with old traditions, but it was cordially supported by the more progressive officers and members of the medical service. No doubt in the old days it was a pleasant thing for the colonel of a regiment to have with him medical officers who looked upon the regiment as their home; but that was incidental to the long-service system and disappeared with the short-service system. Would anyone justify the state of things which formerly existed, when a medical man in a hospital would attend to a man of his own regiment and pass by the men of other regiments, however urgent their claims might be? By remaining in one regiment a medical man lost touch of the progress of medical science and of public spirit. The medical man of the present time might not be so good a soldier, but he was a better doctor. As to the lack of experience in field duty, before a medical man joined the medical staff he must go for a certain period for special instruction in field work. He admitted that it was rather a weak point that there should be no practical experience of what might occur in war, and there was a general opinion that something might be done to remedy that, not necessarily in connection with the autumn manœuvres. It was thought that in some way or other a week or a fortnight's practice might be given. As to the questions affecting the medical officers, raised by his hon. friend the member for Aberdeenshire, the most important was the length of service in India. There were only two ways of shortening the period of service in India—either by shortening the time of service at home or by increasing the medical staff. It was suggested that there would be less invaliding and that money would be saved in that way. He was now looking carefully into that point. He had just received a report as to the percentage of invaliding and of death in the first, second, third, fourth, fifth, and sixth years of service, and the figures of that report, which were founded on actual fact, did not bear out the complaints made of the extreme effect upon the health of their long service. The result of the figures was rather singular. The West Indies, Bermuda, China, Straits Settlements, Ceylon, and Mauritius—all of which were called unhealthy stations, and in which the period of service was only four years—had been more healthy during the last ten years than stations not treated with that exceptional indulgence. That showed that the matter required very carefully looking into. As to the question of medical officers' titles, he held an entirely open mind. He was not surprised that gentlemen with so many words before their names should desire to drop a few of them, but he was reluctant to see the medical character of the army doctor merged in the military, though, no doubt, there was something to be said in favour of their having a military title. He would be most reluctant to see the good old, homely, and honourable title of doctor merged in some other title not distinctive of the man's duties. As to the question of examinations which had been raised, there was no desire to do anything in the least degree unfair to the medical schools outside London. On that question his position was this—he was quite willing to consider anything that would prevent unfairness to either Scotland or Ireland, but he would rather wait for complaints from Scotland. His fellow-countrymen were not backward in crying out when they were hurt, and he had no complaints from Scotland. Until he heard that Scotchmen shared the views of Irishmen on this matter, he was disposed to leave the matter alone. As to those officers who had been described as highly ornamental members of the medical staff, he could only say that the officers at the head of that portion of the service were extremely hard worked. When the medical officers were employed abroad they were exposed in a far greater degree to climatic dangers than the combatant officers were. The latter could protect themselves in some degree against those dangers, but the duties of the medical officers required them to expose themselves to them. He greatly regretted that there should be any spirit of discontent prevalent in the medical branch of the service, and he could assure those hon. members who had an interest in the matter that he would do his best to meet every substantial grievance in reference to the medical officers that was brought under his notice.

Mr. BRODRICK said he wished to enter his protest against the combination of the whole medical profession for the purpose of bringing pressure to bear upon the Government in connection with this subject.

Sir G. CHESNEY said no doubt the medical staff in all parts of the world amounted to a considerable number, to several thousand men, but they were only a military body in the sense that they were under the Mutiny

Act and were subject to the military officer in command, pretty much as nurses were. But in no case were they required to take part in active operations, and there was no justification for regarding them as part of the combatant service, so that the youngest subaltern must be chosen to command before them. He would remind the Secretary for War that in the combatant branch of the army there was a strong feeling against what they considered a degradation in the wholesale way that concessions were made to non-combatants.

The vote was then agreed to.

Precautions against Cholera.—The Chancellor of the Exchequer, in reply to Mr. H. S. Foster, said that the officers of the customs had been instructed to render all assistance in their power in respect of the visitation of ships which would largely reduce the cost to the local authorities. There seemed no ground upon which, as regarded expenditure, the case of cholera could be distinguished from that of small-pox, scarlet fever, or other dangerous diseases which were liable to be communicated from one place to another. There were no Imperial funds available for dealing with the case of cholera without increased taxation. The taxpayers had recently been charged with an additional sum of four millions a year for the relief of local taxation, and it appeared to him that the moderate occasional expenditure for purposes of that character should, if necessary, be defrayed from that source.

OBITUARY.

ALEXANDER HENRY, M.D.St.And., M.R.C.S., L.S.A.,

Formerly Sub-Editor of the British Medical Journal.

Dr. Henry, one of the most amiable of men and a most faithful officer of the Association and its Journal, died on June 24th at Newport Pagnel, aged 71.

Alexander Henry, the son of Lieutenant-Colonel Alexander Henry, 58th Foot, a Peninsular veteran, was born at Winsor House, six miles from Kingsbridge, Devon, in 1822. His uncle, Lieutenant-Colonel Hugh Henry, also fought in the Peninsular war. Dr. Henry was educated at Chudleigh and Kingsbridge, and on leaving school he spent four years as apprentice to Messrs. Toms and Elliott, surgeons at Kingsbridge. He afterwards studied at University College, London, and took the old "double qualification" of College and Hall in 1845. During his studies he resided at Putney with Dr. Rose Cormack. After qualification, he acted as *locum tenens* at a Liverpool hospital during the Irish famine years.

Dr. Henry became assistant to the late Sir J. Rose Cormack from 1850 to 1852, when the latter was practising at Putney. He never, however, could cultivate a taste for practice, for Nature meant him to be a literary student, and he followed his instincts. At that period he assisted Sir Benjamin Ward Richardson at microscopic and other scientific work, and spent much time in the study of the classics and modern languages. Although an excellent Greek and Latin scholar, and not unacquainted with Hebrew, he was chiefly distinguished for a marvellous facility in learning to read modern European languages. He could freely translate articles in French, German, Dutch, Danish, Swedish, Roumanian, Spanish, Italian, Portuguese, modern Greek, and Polish medical newspapers. On account of his natural taciturnity it was wittily said of him that he was silent in fifteen languages.

His literary abilities were soon discovered by the profession, and it was not long before they were utilised. He was made Sub-Editor of the British Medical Journal, and held that appointment for thirty-four years. He began his duties at a date of great significance in the history of this paper. The annual meeting was held at Oxford in the year 1852, when Dr. Cowan, of Reading, proposed that the Journal should no longer be published fortnightly at Manchester, but be issued weekly, and edited and published in London. The proposition was carried, and Sir J. Rose Cormack and Dr. Henry were respectively appointed Editor and Sub-Editor of the Association Medical Journal.[1] From 1852 till 1886 Dr. Henry applied himself with unremitting diligence to his duties, which included a very strict attention to the reporting of the annual meetings, of which he attended all, from the date of his appointment in 1852 to the Cardiff meeting in 1885 inclusive. His health had begun to fail shortly before his visit to Cardiff, and though he was as enthusiastic and industrious as ever for a year longer, he suffered greatly from headache and tremors, which interfered with his duties. For the first time in 1886 he missed an annual meeting. On Thursday, September 16th, 1886, when engaged in preparing the week's issue of the Journal for the press he was seized with left hemiplegia. A week later he had a yet more severe stroke, and remained unconscious for many days, his life being despaired of; yet he rallied, and, though he never recovered the use of his left side, he enjoyed life after his fashion very fairly afterwards, his one idea of pleasure being literary and philological study. In this he was favoured by almost phenomenally perfect eyesight, unimpaired by thirty-four years of hard labour at small print and proof sheets, often perused in close imperfectly-lighted rooms. Yet on his forced retirement he needed no glasses. He lived for a time at his house on Highbury Hill, but afterwards removed to Newport Pagnel. He enjoyed fair health till the beginning of this year, since when he suffered greatly, but bore his sufferings with characteristic patience.

Dr. Henry's character as Sub-Editor was distinguished by superlative modesty and discretion combined. He seemed to delight in self-effacement, and disliked the most well-deserved compliments.

Perhaps the most remarkable of Dr. Henry's literary feats, and certainly that which will be of the greatest permanent use to the Association, is the valuable *Historical Sketch of the British Medical Association from its Foundation in 1832 to the Present Time*, which is preserved in the Journal, vol. i, 1882, beginning at page 847; it was published when the fiftieth year of the Association was celebrated. This compilation employed its author for over a year, but it must be remembered that the record later than the year 1851 was not a mere matter of compiling, for from that date onward Dr. Henry had, so to speak, lived in the body to which he thus served as the historian, and thus he writes his own testimony of the progress of the Association for over thirty years. When our centenary comes to be celebrated in 1932 the task of the future historiographer will be greatly lightened by Dr. Henry's admirable *Historical Sketch*; moreover, and greatly through the energy of the deceased, the records of our body after 1882 are far more complete than in earlier days.[2] His zeal for the Association was intense; in its early days he served it for a very small stipend, declaring to his friends that "they cannot afford to give me more yet," and he rejoiced greatly as it grew in size and influence.

Universal sympathy was felt throughout the Association for Dr. Henry when it was known that his retirement was due to ill health. In January, 1887, a testimonial fund was started, and, thanks to the popularity of its object and the energy of Dr. Dickson, who acted as Treasurer, and Drs. Eastes and Grigg, who were the Honorary Secretaries, over £300 was collected. Conformably with his wishes, fine library editions of the works of Shakespeare and Walter Scott were presented to him in July, 1887, with the balance in the form of a cheque for £286. The gift was made "in grateful recognition of the eminent services rendered by Dr. Henry to the Metropolitan Counties Branch of the British Medical Association, of which he was for more than twenty-six years Honorary Secretary."

During the long period of his sub-editorship Dr. Henry did much independent literary work. In 1861 his *Glossary of Scientific Terms for General Use* was published. He assisted many distinguished physicians and surgeons in the preparation and indexing of their treatises and textbooks. At different times he acted as sub-editor to several monthly medical and scientific serials, and as secretary to the Volunteer Accident Fund and other institutions. Yet notwithstanding these duties joined to his more laborious cares as Sub-Editor of the Journal and Secretary to the Metropolitan Counties Branch of the Association, he found time for much independent study.

Dr. Henry was a figure most familiar to all who took an active part in the work of the Association and the Journal

[1] The former "Provincial Medical Association" assumed its present name in 1856. The Journal first appeared as "British Medical" in January, 1857, five years after Dr. Henry was first associated with it.

[2] The history of the Branches of the Association, also prepared by Dr. Henry, with the assistance of the local Secretaries, will be found in the same volume, page 956, and in the succeeding volume (vol. ii, 1882), page 42.

during his long connection with them. None who ever saw him will forget his venerable appearance, his long white hair and short white beard, his ruddy complexion, his bright blue eyes undimmed by nearly half a century of study, his geniality, and his constitutional shyness. The very few who were intimate with him were astonished to find so much sagacity, humour, and deep literary knowledge in a man of so unassuming a character. He could tender excellent advice, and hence was known to his friends, even when young, as the "silent monitor." The finest part of his character was his deep and faithful affection to those near to him. He never married, but had during his last years the consolation of the society of several near relatives, by whom he was profoundly beloved. He was, says an eminent physician, the soul of simple goodness, and from our profession no sweeter memory than his could pass into the shades.

The funeral took place on June 29th, at the pretty rural cemetery attached to Newport Pagnel Parish Church.

WE regret to announce the death of Mr. John Potts, which took place on June 7th, at his residence in Sunderland. The deceased was born in Bishopwearmouth in 1813, and in 1836 he took the diplomas of M.R.C.S.Eng. and L.S.A. In the same year he commenced practice in Darlington, where he remained for seven years, and then removed to Sunderland. He was elected a member of the Sunderland Town Council in 1854, and in June, 1874, was elected an alderman, and subsequently mayor. Mr. Potts was appointed a J.P. for the borough in 1870. His funeral, which took place on June 13th, was largely attended.

THE Australian papers report the death of Mr. W. W. Spencer, of Bathurst, New South Wales, which took place on May 1st. The deceased, who was born in Liverpool in 1846, entered as a student the College of Medicine, Newcastle, and took the diploma of M.R.C.S. in 1867, and L.S.A. in 1868. In 1870 he emigrated to Australia and settled in Sydney, where he secured a lucrative practice. He was compelled, however, to seek a warmer climate, and settled in Bathurst, where for years he did service on the honorary medical staff of the hospital. He became a member of the municipal council, and in due time alderman and mayor. He leaves a widow and one child to mourn his loss.

THE death is reported of Mr. R. C. Heslop, at the advanced age of 76. He took the diploma of L.R.C.S.Edin. in 1841, and the degree of M.D.Edin. in 1842. The deceased practised for many years in Preston, but some years ago he retired and went to reside at West Liss, Hants. Dr. Heslop was on a visit to Preston when he died.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,258 births and 4,377 deaths were registered during the week ending Saturday, June 24th. The annual rate of mortality in these towns, which had increased in the preceding four weeks from 17.5 to 19.4 per 1,000, further rose to 22.1 during the week under notice. The rates in the several towns ranged from 11.5 in Norwich, 12.8 in Huddersfield, 14.4 in West Ham, 14.6 in Brighton, and 15.8 in Nottingham to 26.1 in Birkenhead, 26.6 in Manchester, 26.9 in Salford, 28.9 in Preston, and 32.9 in Liverpool. In the thirty-two provincial towns the mean death-rate was 21.8 per 1,000, and was 0.8 below the rate recorded in London, which was 22.6 per 1,000. The 4,377 deaths registered during the week under notice in the thirty-three towns included 924 which were referred to the principal zymotic diseases, against 473 and 676 in the preceding two weeks; of these, 496 resulted from diarrhœa, 128 from measles, 95 from whooping-cough, 86 from diphtheria, 54 from scarlet fever, 41 from "fever" (principally enteric), and 24 from small-pox. These 924 deaths were equal to an annual rate of 4.7 per 1,000; in London the zymotic death-rate was equal to 5.0 per 1,000, while it averaged 4.4 in the thirty-two provincial towns. No death from any of these zymotic diseases was registered last week in Huddersfield; in the other towns they caused the lowest death-rates in Swansea, Sunderland, and Oldham, and the highest rates in Salford, Liverpool, Birkenhead, Leicester, and Preston. Measles showed the highest proportional fatality in Plymouth, Bradford, Manchester, Newcastle-upon-Tyne, Cardiff, Blackburn, and Preston; scarlet fever in Norwich and Burnley; whooping-cough in Leeds, Hull, and Plymouth; and diarrhœa in Cardiff, Sheffield, Bolton, Salford, Liverpool, Preston, Birkenhead, and Leicester. The mortality from "fever" showed no marked excess in any of the large towns. The 86 deaths from diphtheria included 68 in London, 3 in Croydon, and 3 in Manchester. Eleven fatal cases of small-pox were registered in London, 4 in Bradford, 2 in Birmingham, 2 in Oldham, 2 in Halifax, and 1 each in West Ham, Birkenhead, and Manchester; 410 small-pox patients were under treatment in the Metropolitan Asylum Hospitals and in the Highgate Small-pox Hospital on Saturday last, June 24th, against numbers declining from 570 to 490 at the end of the preceding six weeks; 59 new cases were admitted during the week, against 110, 80, and 105 in the preceding three weeks. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital was 2,699, against numbers increasing from 2,024 to 2,681 on the preceding ten Saturdays; 309 new cases were admitted during the week, against 313, 290, and 264 in the preceding three weeks. The 252 deaths referred to diseases of the respiratory organs in London were 38 above the average, and were equal to an annual rate of 3.0 per 1,000.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday, June 24th, 971 births and 621 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 21.1 and 20.2 per 1,000 in the preceding two weeks, rose again to 22.0 during the week under notice, and almost corresponded with the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the lowest rates were 11.7 in Leith and 17.7 in Edinburgh, and the highest rates 24.1 in Dundee and 34.8 in Greenock. The 621 deaths in these towns included 127 which were referred to the principal zymotic diseases, equal to an annual rate of 4.5 per 1,000, which was slightly below the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Edinburgh, Glasgow, and Greenock. The 309 deaths registered in Glasgow included 31 from diarrhœa, 29 from measles, and 4 from diphtheria. Seventeen fatal cases of measles were recorded in Greenock. The death-rate from diseases of the respiratory organs in these towns was equal to 3.5 per 1,000, against 3.0 in London.

HEALTH OF IRISH TOWNS.

IN sixteen of the principal town-districts of Ireland the deaths registered during the week ending Saturday, June 17th, were equal to an annual rate of 24.2 per 1,000. The lowest rates were recorded in Newry and Drogheda, and the highest rates in Dublin and Galway. The death-rate from the principal zymotic diseases averaged 3.0 per 1,000. The 189 deaths registered in Dublin were equal to an annual rate of 28.2 per 1,000 (against 27.3 and 23.7 in the preceding two weeks), the rate during the same period being 19.1 in London and 17.2 in Edinburgh. The 189 deaths in Dublin included 21 which were referred to the principal zymotic diseases (equal to an annual rate of 3.1 per 1,000), of which 9 resulted from whooping-cough, 4 from measles, 3 from typhoid fever, 3 from diarrhœa, and 2 from scarlet fever.

VACCINATION IN IRELAND.

DURING the March quarter 15,634 persons were successfully vaccinated; in 3,612 cases the operation was postponed, and twenty children were reported as insusceptible of vaccination. The deaths of 1,625 unvaccinated children during the quarter under 3 months old were registered, making a total of 20,891 children with regard to whom particulars as to vaccination were ascertained.

AN INFECTIOUS HOSPITAL FOR FELIXSTOWE.

THE resolution to provide an infectious hospital at Felixstowe was not recorded without some opposition. The old argument as to the health of the district not calling for an infectious diseases hospital was brought forward, as well as the question of rash expenditure of public funds. It is satisfactory, however, to know that the large majority of the local board had apparently concluded that the best mode of securing a continuance of immunity from disease prevalence is to be prepared to deal promptly with the first cases of infectious sickness; this being, moreover, a measure of true economy in every sense of the word. The proposal to borrow the needed sum at the hands of the Local Government Board will ensure the erection of buildings of good design.

CERTIFICATES OF FREEDOM FROM INFECTION.

VARIOLA asks for enlightenment on the following case: A vagrant is treated for small-pox, isolated, etc. When considered by the medical officer of health, who is also his medical attendant, to be free from infectiveness, is it customary or part of his duty to certify in writing to that effect, in order to enable him to travel by public conveyance, and can a railway company refuse to allow him to travel without such certificate?

*** The question is couched in very general terms, and we must refer our correspondent to Sections 126 and 127 of the Public Health Act. It is not clear why our correspondent should be concerned in the matter at all in his capacity as medical officer of health. If, as would appear to be implied, he was the Poor-law medical officer in charge of the case, and was satisfied the patient was free from infection, there seems to be no reason why he should not have certified to that effect. In view of the responsibility incurred, under Section 127 of the Act, by the owner of a public conveyance in which a person suffering from a dangerous infectious disorder is conveyed, the railway company can scarcely be deemed to have acted unreasonably in making inquiry as to whether or no the patient was free from infection.

PRESENTATION.—Upon the occasion of the distribution of certificates to the successful students of the Tyldesley Miners' Ambulance Class, Dr. Neech was presented by the class with a handsome pair of bronze ornaments in appreciation of his services as instructor.

MEDICAL NEWS.

DR. JAMES WILLIAMS, F.R.C.S., has been appointed a deputy lieutenant for the county of Brecknock.

DR. HALE WHITE has been appointed one of the Honorary Secretaries of the Clincal Society of London, in the room of the late Dr. Hadden.

THE New Laboratories and Dental School Buildings of Guy's Hospital will be opened by Sir John Lubbock, Bart., M.P., F.R.S., on Monday, July 17th, at 1.30 P.M.

THE University of Tomsk (Russia) conferred the degree of Doctor of Medicine for the first time in March of the present year.

DONATIONS.—Her Majesty the Queen has sent a donation of £25 to the Royal Hospital for Diseases of the Chest, City Road. H.S.H. Princess May has also sent £5.

DR. M. A. DONNELLY has been entertained at dinner by some of his friends on his appointment to the surgeoncy of the Lock Hospital, Dublin.

AN international exhibition of objects, methods, apparatus, etc., connected with food supply, the care of the sick, the saving of life, etc., will be held at Vienna in 1894.

THE LEWISHAM FEVER HOSPITAL.—We understand that, after due inquiry, the Local Government Board has given its consent to the acquisition of the Hither Green site by the Metropolitan Asylums Board as a fever hospital.

CITY OF DUBLIN HOSPITAL.—Although the accounts have not yet been closed, it is expected that the proceeds of the bazaar in aid of the building fund of this hospital will amount to nearly £9,000.

PRESENTATION.—Dr. Harrison, who is leaving Devonport, was on June 24th presented by a few of his patients and friends with a handsome flower bowl, as a mark of the respect and esteem in which he is held.

PROFESSOR ADAM POLITZER, of Vienna, has been appointed by the Austrian Cultus-Minister a scientific delegate to the Medical and Hygienic Exhibition, to be held at Chicago in connection with the World's Fair.

DR. A. M. MAKEJEW, late Professor of Midwifery in the University of Moscow, has bequeathed 200,000 roubles (£20,000) for the erection of a church in connection with the various clinics of that University.

DR. H. BITTER, *Privat-docent* and Assistant in the Hygienic Institute of the University of Breslau, has been appointed Director of the Hygienic Institute newly established at Alexandria.

DR. VON EISELSBERG, First Assistant in Professor Billroth's Clinic at Vienna, will probably be offered the Chair of Surgery in the University of Utrecht, vacant owing to the lamented death of Professor Salzer.

HOSPITAL FOR CONSUMPTION, BROMPTON.—Dr. Tatham, who recently resigned the office of Physician to the Hospital for Consumption and Diseases of the Chest, Brompton, has been appointed Consulting Physician. In consequence of the vacancy thus created, Dr. Percy Kidd, the Senior Assistant Physician has become Physician, and Dr. S. H. Habershon has been elected Assistant Physician.

DOM SANTON, a Benedictine monk, who has had a medical training, has been commissioned by the French Government to make a special study of leprosy in Scandinavia, Finland, Turkey, Asia Minor, Greece, and Egypt. When his investigations are complete, he will return to Paris, where he will lay his results before M. Pasteur, with a view to the possible discovery of a remedy.

THE WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—The annual dinner of this society was held on June 21st, at the Criterion Restaurant, under the presidency of Mr. Swinford Edwards, F.R.C.S. After the usual loyal toasts, Mr. H. Morris proposed the toast of the evening, and alluded in highly eulogistic terms to the success of the Society. Mr. Keetley proposed "The Guests," for which Dr. Luxmore Drew was deputed to reply. Mr. Reginald Harrison proposed "The Officers of the Society," for which Mr. J. H. Menzies, Senior Secretary, replied. Altogether the evening's proceedings gave much satisfaction to those present.

THE ENLARGEMENT OF THE CHILDREN'S HOSPITAL.—The new wing of the Hospital for Sick Children in Great Ormond Street was opened on June 26th by the Prince and Princess of Wales, in the presence of a large number of visitors. The hospital was founded in 1852, having then twenty beds. In 1872 provision was made for 127 beds, and the extension now opened brings up the total number to 192. The present addition, however, does not consist entirely of accommodation for patients. The new wing contains four wards; extra accommodation for out-patients; additional dormitories for nurses and servants, and various domestic offices.

IMPENDING RESIGNATION OF PROFESSOR HENOCH.—Professor Henoch, Director of the Clinic of Children's Diseases in the Charité Hospital, Berlin, has intimated his intention of resigning his chair at the end of the current semester. Professor Henoch, whose name is known throughout the medical world as the author of a standard treatise on the diseases of children, is 73 years of age, and has held his present appointment for forty-three years. The names of Professor Kohts, of Strassburg; Soltmann, of Breslau; and Heubner, of Leipzig, are mentioned in connection with the chair which will be left vacant by Professor Henoch's retirement.

MEDICO-PSYCHOLOGICAL ASSOCIATION.—The next examination for the certificate in psychological medicine will be held in England at Bethlem Hospital, London, on July 18th, at 11 A.M.; in Scotland at the Edinburgh, Glasgow, and Aberdeen Royal Asylums on July 20th, at 10 A.M. The examination for the Gaskill Prize will take place at Bethlem Hospital at 11 A.M. on July 19th. Candidates should give notice to Dr. Fletcher Beach, General Secretary, 11, Chandos Street, Cavendish Square, if they wish to be examined in England, and to Dr. Urquhart, Honorary Secretary for Scotland, Murray's Asylum, Perth, if they desire to be examined in Scotland.

NATIONAL HOSPITAL FOR PARALYSIS AND EPILEPSY.—The annual festival dinner of the National Hospital for the Paralysed and Epileptic (Albany Memorial), was presided over by the Earl of Dudley, who strongly urged the claims of the institution to public support, pointing out that it was in truth a national hospital for supplying a long felt national want. Patients had been admitted to the hospital from over 1,500 different towns, and many had come from beyond the confines of Great Britain. Canon Duckworth, in responding for "The Hospital," said that it was the headquarters of the study of nervous disease in this country. The toast of "The Chairman" was proposed by Dr. Russell Reynolds, and that of "The Medical and Surgical Staff" was given by Sir J. Crichton Browne, and acknowledged by Dr. Buzzard. At the end of the proceedings, Lord Dudley announced subscriptions to the amount of £1,595, adding, however, that to commemorate the saving of his brother from the *Victoria* disaster, he and his family desired to subscribe £1,000 in addition, to endow a bed in the hospital.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are Dr. E. Vidal, the distinguished dermatologist, a member of the Paris Academy of Medicine, physician to the St. Louis Hospital, formerly President of the Paris Medical Society; Dr. Felice Baroffio, Maggior-Generale Medico in the Italian Army, President of the Military Sanitary Board of Inspection, member of the Superior Council of Public Health, and President-elect of the Fourteenth Section of the forthcoming International Medical Congress, aged 68; Dr. Enrique Calzada, President of the Medico-Pharmaceutical Association of Baltanás (Spain), aged 38; Dr. William Lee, for many years librarian of the American Medical Association, formerly Professor of Physiology in the Medical Department of the Columbian University, and for a time editor of the *National Medical Journal*, aged 52; Dr. J. Esseiva, of Fribourg, Switzerland, the oldest practitioner of that canton, and formerly President of the Temperance Association known as the League of the Cross, aged 76; Dr. Pleindoux, Chief Surgeon

of the Hospitals of Nîmes, an eminent surgeon and an artist of no mean talent, aged 66; Dr. Nickermann, of Cilli, in Steiermark, for many years Burgomaster of that town, and formerly a member of the Austrian House of Deputies; Dr. C. Carroll Tower, of Weymouth, Massachusetts, U.S.A., grandson of Abraham Tower, one of the famous Boston Tea Party of revolutionary times, aged 60; and Dr. Asa Millet, a well known practitioner in Plymouth County, Mass., and some time Vice-President of the Massachusetts Medical Society, aged 80.

AMERICAN JOTTINGS.—Dr. David W. Cheever has been appointed Emeritus Professor of Surgery in the University of Harvard.—Dr. Goodell has resigned the Chair of Gynæcology in the University of Pennsylvania, and has been succeeded by Dr. C. B. Penrose.—Dr. L. Webster Fox has been elected Professor of Ophthalmology in the Medico-Chirurgical College of Philadelphia.—The library of the late Dr. James Aitkens Meigs, Professor of Physiology in the Jefferson Medical College, has been presented by his father to the Academy of Natural Sciences of Philadelphia. The library is one of the most valuable private medical libraries ever collected in Philadelphia, and numbers nearly 5,000 volumes.—A citizen of Brooklyn has it is stated, offered to bear half the expense of erecting a building, estimated to cost 100,000 dollars (£20,000) for the housing of the various medical societies in that city, provided the societies themselves devote an equal sum to the same purpose. Several of the societies are considering what steps they can take to accomplish the object.—The Massachusetts Emergency and Hygienic Association has undertaken the training of what may be called a lower-grade nurse to attend on chronic invalids, aged persons, convalescents, and sickly children. Such cases, it is thought, are hardly worthy of the steel of trained nurses, who, moreover, are expensive luxuries which many invalids cannot afford. The "trained attendants" are to be put through a course of instruction in the means and methods of ventilation, foods for the sick, the laying of dust, the bathing of weakly persons and children, the hygiene of the bedroom—including, it may be hoped, the noiseless making up of the fire, the manipulation of newspapers without rustling, and the art of moving about the room without "creaking" or shaking, elementary chapters of the nursing drill book in which many highly "trained" and otherwise excellent persons are very far from being proficient. A school for the training of "attendants" is already at work in Boston. The curriculum consists of thirty lectures, and an examination has to be passed at the end. Successful candidates will be entitled to a certificate.

MEDICAL VACANCIES.

The following vacancies are announced:

BOROUGH OF CREWE.—Medical Officer of Health; doubly qualified. Must reside in the borough, and devote his whole time to the duties of the office. Salary, £200 per annum. Applications to Frederick Cooke, Town Clerk, Municipal Offices, Exchange Street, Crewe, by July 12th.

BRISTOL DISPENSARY, Castle Green, Bristol.—Vacancy in the Medical Staff; doubly qualified. Applications to the Secretary by July 7th.

BRISTOL HOSPITAL FOR SICK CHILDREN AND WOMEN.—Honorary Physician and Surgical Registrar. Applications endorsed respectively "Physician" or "Surgical Registrar" to the Secretary by July 5th.

CAERPHILLY LOCAL BOARD.—Medical Officer of Health. Salary, £40 per annum. Applications to David Lewis, Clerk to the Board, Caerphilly, by July 19th.

CENTRAL LONDON OPHTHALMIC HOSPITAL, 238A, Gray's Inn Road, N.W.—House-Surgeon. Rooms, coals, and light provided. Applications to the Secretary by July 10th.

CHARING CROSS HOSPITAL, W.C.—Assistant Surgeon, must be F.R.C.S.Eng. Applications to the Chairman of Committee by July 24th.

CHELSEA HOSPITAL FOR WOMEN, Fulham Road, S.W.—Pathologist-Physician to Out-patients. Applications, on forms to be obtained at the Hospital, to the Secretary by July 8th.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Assistant Physician; must be Fellows or Members of the Royal College of Physicians of London. Applications to the Secretary at the Office, 24, Finsbury Circus, E.C., by July 5th.

COOKHAM UNION.—District Medical Officer. Salary, £25 per annum. Applications to Robert Arthur Ward, Clerk to the Guardians, Broadway, Maidenhead, by July 4th.

EAST LONDON HOSPITAL FOR CHILDREN, Glamis Road, Shadwell, E.—House-Surgeon. Board and lodging provided. Applications to the Secretary by July 6th.

ESSEX AND COLCHESTER GENERAL HOSPITAL, Colchester.—House-Surgeon; doubly qualified; unmarried or widower without a family. Salary, £100 per annum, with board and lodging. Applications to the Committee before noon on July 8th.

GENERAL HOSPITAL, Birmingham.—Assistant House-Surgeon. No salary; residence, board, and washing. Applications, with registration certificate, to the House Governor by July 1st.

GENERAL LYING-IN HOSPITAL, York Road, Lambeth, S.E.—Visiting Physician. Applications to the Secretary by July 5th.

GLENTIES UNION.—Dungloe Dispensary. Medical Officer. Salary, £100 per annum, with £15 as Medical Officer of Health, exclusive of registration and vaccination fees. Applications to Mr. Hammond, J.P., Honorary Secretary, Lackbeg House, Burtonport. Election on July 4th.

HOSPITAL FOR EPILEPSY AND PARALYSIS, 32, Portland Terrace, Regent's Park, N.W.—Physician. Applications to the Secretary, H. Howgrave Graham, by July 15th.

JERSEY GENERAL DISPENSARY AND INFIRMARY.—Resident Medical Officer; unmarried; doubly qualified. Salary, £120 per annum, with furnished lodgings, attendance, coal, and gas. Applications to the Secretary, 20, Aquilla Road, St. Heliers, Jersey, by July 6th.

LIVERPOOL DISPENSARIES.—Assistant Surgeon; unmarried. Salary, £80 per annum, with apartments, board, and attendance. Applications to R. R. Greene, Secretary, by July 24th.

MIDDLESEX HOSPITAL MEDICAL SCHOOL, W.—Lecturer on Chemistry. Applications to the Dean by July 1st.

NEWBURN DISTRICT LOCAL BOARD.—Medical Officer of Health. Salary, £30 per annum. Applications, marked "Application for Appointment of Medical Officer of Health," to George Wilkinson, Clerk to the Board, 27, Mosley Street, Newcastle-upon-Tyne, by July 1st.

QUEENSBURY LOCAL BOARD.—Medical Officer of Health. Salary, £30 per annum. Applications to Jos. Richardson, Solicitor and Clerk to the Board, 24, Bridge Street, Bradford, by July 4th.

ROYAL PIMLICO DISPENSARY, 104, Buckingham Palace Road, S.W.—Attending Medical Officer. Applications to the Secretary by July 3rd.

ROYAL VICTORIA HOSPITAL, Bournemouth.—Ophthalmic Surgeon. Applications to the Secretary by July 1st; and a House Surgeon-Secretary. Salary, £100 per annum and board for the latter. Applications to the Chairman of Committee by July 1st.

TUNBRIDGE WELLS GENERAL HOSPITAL.—Resident House-Surgeon; unmarried. Salary, £100 per annum, with board, furnished apartments, gas, firing, and attendance. Applications to the Assistant Secretary by July 6th.

UNIVERSITY COLLEGE, London.—Assistant Surgeon. Applications to the Secretary by July 4th.

WANTAGE UNION.—Medical Officer for the Rural Sanitary District. Salary, £50 per annum. Applications to Edward Ormond, Clerk to the Rural Sanitary Authority, Wantage, by July 3rd.

THE YORKSHIRE COLLEGE, Leeds.—Demonstrator of Anatomy. Particulars from the Registrar.

MEDICAL APPOINTMENTS.

ADAMS, Joseph Dixon. M.D.St.And., M.R.C.S.Eng., appointed Medical Officer for the First (B) District of the Langport Union.

ECCLES, Geo. Tolcher, M.A., M.B., B.C.Camb., late House-Surgeon to the West London Hospital, appointed Medical Officer to the Workhouse of the Braintree Union, *vice* Thomas Taylor, M.R.C.S.Eng., resigned.

EDGEWORTH, F. H., M.B., B.B.Cantab., B.Sc.Lond., appointed Assistant Physician to the Bristol Royal Infirmary.

ELLIS, W. H., M.R.C.S., L.S.A., appointed Certifying Surgeon for the Shipley District, *vice* Newstead, deceased.

GOLDIE, Mr. E. M., appointed Assistant Medical Officer of the Poplar and Stepney Sick Asylum District.

HABERSHON, Samuel Herbert, M.A., M.D.Camb., appointed Assistant Physician to the Brompton Consumption Hospital, *vice* Percy Kidd, M.A., M.D.Oxon.

HARTLEY, Herbert, L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Norton District of the Malton Union.

HARRIS, John Wm., L.R.C.P.Lond., L.S.A., appointed Medical Officer for the Cranbrook and Frittenden Districts and the Workhouse of the Cranbrook Union.

HEMMING, Charles Walter, L.R.C.P., L.R.C.S.Edin., appointed Medical Officer of Health for the Glyncorrwg Urban Sanitary District.

HODGSON, Mr. H., appointed Medical Officer for the Blisworth District of the Towcester Union, *vice* Wm. Arnold, M.R.C.S.Eng., L.S.A.

HOLDEN, J. S., M.D.Irel., L.R.C.S.Edin., reappointed Medical Officer of Health for the Borough of Sudbury.

KAUFFMANN, Otto Jackson, M.D.Lond., appointed Medical Officer of the Workhouse Infirmary of the Parish of Birmingham.

KERR, James, M.A., M.D., D.P.H.Camb., appointed Medical Superintendent to the Bradford School Board.

KIDD, Percy, M.A., M.D.Oxon., F.R.C.P.Lond., M.R.C.S.Eng., appointed Physician to the Brompton Consumption Hospital, *vice* John Tatham, M.D.St.And.

LAKE, Wellington, D.P.H.Camb., M.R.C.S.Eng., appointed Medical Officer of Health for the Guildford Rural Sanitary Combined Districts, *vice* E. L. Jacob, B.A.Lond., M.R.C.S.Eng., resigned.

MARTIN, Mr. J. M., appointed Assistant Medical Officer of the Infirmary of the Greenwich Union.

MILLER, Jas. Thos. Roger, L.S.A., appointed *pro tem.* Medical Officer of Health to the Norton Urban Sanitary District of the Malton Union, *vice* Wm. Mackay, L.R.C.P.Edin.

MORTON, Charles A., F.R.C.S.Eng., appointed Demonstrator of Anatomy in the Bristol Medical School.

MORTON, Dr. W. A., appointed Medical Officer for the Shillington District of the Ampthill Union.

MUNDEN, Charles, M.R.C.S.Eng., L.S.A., appointed Medical Officer for the Third (C) District of the Langport Union.

PETERS, Albert E. D. R., M.R.C.S.Eng., L.R.C.P.Lond., appointed Medical Officer of the Workhouse of the Midhurst Union.

PIGGOTT, Edward Alfred, L.R.C.P., L.R.C.S.Edin., L.S.A., appointed Medical Officer and Public Vaccinator for the Parish of Stoke-next-Clare, Suffolk.

PURCHAS, Frank Utten, M.D.Edin., reappointed Medical Officer for the Llanllwchaiarn District of the Newton Union.

RANDOLPH, Charles, L.R.C.P.Edin., M.R.C.S.Eng., appointed Medical Officer of Health for the Rural Sanitary District of the Wellington (Somerset) Union, *vice* T. E. P. Prideaux, L.R.C.P.Lond., deceased.

READ, S. W., L.D.S., R.C.S., appointed Assistant Dental Surgeon to the National Dental Hospital.

RENTON, George, M.D.Edin., reappointed Medical Officer of Health for the Leadgate Urban Sanitary District.

SPICER, W. T. Holmes, M.A., M.B., F.R.C.S., appointed Ophthalmic Surgeon to the Metropolitan Hospital.

STEPHENSON, Frederick, L.F.P.S.Glasg., L.R.C.P.Edin., reappointed Medical Officer of Health to the Prestwich Urban Sanitary District.

STOCKER, Edwd. Gaved, L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer for the Third District of the Daventry Union.

TATHAM, John, M.D.St.And., F.R.C.P.Lond., appointed Consulting Physician to the Brompton Consumption Hospital.

TAYLOR, F. R. P., M.B., B.S.Lond., M.R.C.S.Eng., L.R.C.P.Lond., appointed Third Assistant Medical Officer to the London County Asylum at Claybury.

TEMPLE, Thos. Cameron, M.R.C.S.Eng., L.S.A., appointed Medical Officer for the Gravenhurst District of the Ampthill Union.

THOMSON, Wm. Arnold, F.R.C.S., L.R.C.P.I., reappointed Medical Officer for the Hurley District of the Cookham Union.

WALDO, Frederick Joseph, M.D.Cantab., M.R.C.S.Eng., D.P.H.Eng., appointed Medical Officer of Health for the Middle Temple Sanitary District of the County of London.

WILLIAMS, Richard Thomas, L.R.C.P., L.R.C.S.I., L.F.P.S.Glasg., appointed Medical Officer of Health for the Porthcawl Local Board.

YEARSLEY, P. Macleod, M.R.C.S.Eng., appointed Assistant Demonstrator in Anatomy to the Westminster Hospital Medical School.

DIARY FOR NEXT WEEK.

WEDNESDAY.

OBSTETRICAL SOCIETY OF LONDON, 8 P.M.—Specimens will be shown by Dr. William Duncan, Dr. Maclean, and others. Dr. Giles: Sickness of Pregnancy. Dr. Addinsell: Note on the Effect of the Influenza Poison upon the Lying-in Woman.

FRIDAY.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM, 8.30 P.M.—Patients and Card Specimens at 8 P.M. Mr. Holmes Spicer: A case of Ectopia Pupillæ. Mr. H. Work Dodd: A case of Pemphigus of the Conjunctiva. Messrs. Richardson Cross and Treacher Collins: Tumour in the Anterior Chamber following the Implantation of an Eyelash. Mr. Batten: Some points in the Diagnosis and Prognosis in Pathological Myopia. Mr. Simeon Snell: Two cases of Palsy of the Third Nerve associated with Migraine. After the ordinary meeting the annual general meeting will be held.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY, West London Hospital, 8.30 P.M.—Annual general meeting. Election of new Officers and Council, and other business. The President's valedictory address.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

CHAMBERS.—On June 3rd, at Hanover, Cape Colony, the wife of T. Stewart Chambers, F.R.C.S.E., etc., of a daughter.

HEATH.—On Sunday, June 25th, at Eastcombe Villas, Blackheath, the wife of Charles J. Heath, F.R.C.S., of a son (prematurely).

O'DWYER.—On June 26th, at Mildmay Lodge, Dover, the wife of Surgeon-Colonel T. F. O'Dwyer, Army Medical Staff, Principal Medical Officer South-Eastern District, of a son.

MENZIES.—On June 15th, at Cambrian Villa, Worksop, Notts, the wife of James Menzies, L.R.C.P., L.R.C.S.Edin., etc., of a daughter.

WATERHOUSE.—On June 26th, at 81, Wimpole Street, W., the wife of Herbert F. Waterhouse, F.R.C.S., of a daughter.

DEATH.

BIGGAM.—On June 21st, at Prospect House, Upper Gornal, Dudley, Jessie Houstoun, third daughter of J. Biggam, M.D., M.A., aged 7½ years.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager at the Office, 429, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

THE CLEANING OF HYPODERMIC NEEDLE.

MEMBER writes: A hypodermic needle has been used in a doubtful case of abscess, which turns out to be pyæmic. Can such a syringe be used again with safety?

*** Either boil the needle and the syringe, or, if leather washers are present, fill it with 1 to 20 carbolic solution, and leave it immersed in the solution for at least twenty-four hours. All infective material will be destroyed.

ANSWERS.

M. W.—The statement is *ex parte*, and it would be unfair to publish it without affording the body against which the charge is made the means of identifying the case and of replying. It is obvious that such a course is impossible in a public journal.

HEALTH RESORTS OF THE BRITISH ISLES.

IN reply to Dr. O.'s query, Dr. Symes Saunders (Exminster), recommends *British Health Resorts, Seaside and Inland*, price 2s., published by Upcott Gill. Mr. C. Roberts (London) recommends *Where Shall we Go?* by A. N. Hope Moncrieff, 12th edition, published by Adam and C. Black; and Dr. Percy Boulton recommends the chapters on Climates for Invalids and Mineral Waters in *Tanner's Index of Disease.*

PRISON MEDICAL SERVICE.

M.A.CANTAB.—Prison appointments (medical) are made nominally by the Home Secretary, actually by the Chairman of Prison Commissioners. Applications should be made to the "Secretary to Chairman of Prisons Board," Home Office, Whitehall, when a form of application is forwarded for the candidate to fill up. There are very rarely vacancies now, as the service is rather over-officered, owing to the closing of two or three large prisons lately. The appointments are made practically "during good behaviour," that is, they are practically permanent.

MEDICAL EXAMINATIONS FOR FRIENDLY SOCIETIES.

J. A. A.—The question of the remuneration for examination of applicants for assurance in friendly societies is a difficult one to settle. It is manifest that the fee should bear some sort of proportion to the first year's premium, as in cases in which the latter does not amount to a pound, it would be impossible to pay 10s. 6d. for the medical examination. If the society can afford no larger fee than 2s. 6d. for examination, it should send the applicant at a convenient time to the examiner's residence, so as to diminish his labour as much as possible in consideration of the smallness of the fee. Under these circumstances a medical man might make the kind of examination he is accustomed to do for admission of applicants into clubs. It could not be expected that he should write out an elaborate report, or make an examination of the urine.

NOTES, LETTERS, Etc.

DURING 1892, 154 persons, of whom 28 were women, died in St. Petersburg of alcoholism and delirium tremens.

CORRECTIONS.

DR. GEORGE FERDINANDS (Aberdeen) was incorrectly described in the BRITISH MEDICAL JOURNAL of June 24th as assistant to the ophthalmic surgeon of the Royal Infirmary, Aberdeen, an appointment which he resigned some time ago.

THE block to illustrate Dr. H. Lewis Jones's article on "The Physiological Effects of Electrical Currents of High Frequency," in the BRITISH MEDICAL JOURNAL of June 24th was kindly lent by the editor of the *Electrical Review.*

LADY FIREWOMEN.

MR. CONRAD W. THIES, Secretary, Royal Free Hospital, has received the following letter:

"258, Gray's Inn Road, London, W.C., June 24th, 1893.—Dear Sir,—We shall feel obliged if you will convey to the members of the staff of the Royal Free Hospital, including the lady students, and if you will also accept yourself our sincere thanks for the valuable service rendered by all on the occasion of the fire at our premises on Saturday last.—We are, dear Sir, yours faithfully (signed), W. CUBITT AND CO."

THE INFLUENCE OF EAST WINDS.

DR. JOHN ROBERT WILLIAMS (Penmaenmawr), writes: Probably it is not universally known that east winds have a remarkable effect on some individuals, whereas they derive perfect immunity when the wind emanates from other quarters, however cold or boisterous it may be. The following case which came under my notice illustrates this fact. The patient, a young quarryman, consulted me some time ago as to his swollen face, the eyelids being markedly suffused, but there was complete absence of pain or tenderness on pressure. This condition he had been subject to from time to time, but as a rule it rapidly disappeared without treatment. Recently, however, it was more persistent. I examined him carefully, and found, as far as I could judge, no trace of organic mischief in any organ; the urine was normal, and contained no albumen. I was thus puzzled to find a cause for the œdema, which was absent everywhere except in the face. The family history was excellent, and he has on the whole enjoyed throughout life fairly good health, but, when a child, was subject to epileptic fits. He is not a total abstainer, but very temperate in his habits, and the general surroundings as regards home healthy. During work in the quarries he is occasionally considerably exposed to inclement weather. East winds are prevalent at certain periods, and, strange to say, he is subject to this troublesome condition at those specified times only. I believe it is frequent in those who have suffered from erysipelas of the face for slight œdema to develop when exposed to a strong east wind, but here there is no such history. Now, how are we to account for this phenomenon, and the reason some (especially those of a rheumatic diathesis) are so highly sensitive to its influence? Might I suggest that an east wind occasionally carries with it (from some malarial district maybe), a kind of miasm which is capable of producing some localised vasomotor disturbance. As regards the treatment of my patient, I merely gave him simple saline mixtures.

DENHOLM TESTIMONIAL FUND.

THE following subscriptions have been received since the publication of the "first list" in the BRITISH MEDICAL JOURNAL of May 6th, 1893.

The object of the fund is to present Dr. Denholm with a tangible expression of the sympathy of his professional brethren with his conduct in the matter of the action Denholm *v.* Tait. Dr. Denholm's costs in the action, which terminated by mutual consent in the withdrawal of a juror, amounted to over £300.

Further subscriptions will be received by either of the honorary secretaries to the fund: Chas. Fegen, Esq., M.R.C.S., Brandon, Suffolk; and Alex. G. R. Foulerton, Esq., M.R.C.S., 122, Brompton Road, London, S.W. Cheques and postal orders should be made payable to the "Denholm Testimonial Fund," and crossed "Messrs. Gurney and Co." Subscriptions may also be paid in direct to the "Denholm Testimonial Fund," at Messrs. Gurney and Co., Thetford, Norfolk (or at any other branch of the same bank).

Amount already acknowledged, £28 4s. 6d.

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LECTURES
ON
INJURIES TO THE EPIPHYSES AND THEIR RESULTS.

Delivered at the Royal College of Surgeons.

BY JONATHAN HUTCHINSON, JUNR., F.R.C.S.,
Professor at the College,
Assistant Surgeon and Demonstrator of Practical Surgery at the London Hospital.

LECTURE I.

THAT the rarity of the occurrence of injuries to the epiphyses of the long bones has been exaggerated by some writers may be judged from the fact that this review is based upon the collected records of about 350 cases, excluding many doubtful and ill-reported ones. Of the total number nearly 150 have not previously been published, and I am greatly indebted to my senior colleagues at the London Hospital for the opportunity of observing and recording many of these.[1]

SEPARATION OF THE EPIPHYSES.

The following points make this accident worthy of special study: (1) The possibility of more or less complete arrest of growth in the injured bone; (2) the frequent errors of diagnosis which separation of certain epiphyses have caused, errors often perhaps due to the insufficient and inexact teaching on the subject in the standard works on surgery; (3) complete separation of an epiphysis is almost invariably accompanied by stripping of periosteum from a large area of the shaft, much more than is met with in simple fracture; hence arises a somewhat greater tendency for such injuries to be followed by suppuration and necrosis, and still more to the formation, during repair, of an excessive amount of callus; it will be understood how prejudicial this may be to the movements of the joints concerned—for example, in the case of the lower epiphysis of the humerus; (4) in many cases detachment of an epiphysis implies at the same time an injury to the joint which it helps to form, a point of interest as regards both prognosis and treatment; (5) in detachment of certain epiphyses—for example, the lower femoral one and the upper one of the humerus, unusual difficulty may be experienced in obtaining reduction and keeping the bone in good position, difficulties comparatively rarely met with in the case of fracture of the shafts.

THE EPIPHYSIAL DISCS.

In speaking of the layer of modified cartilage cells which connects the epiphysis to the shaft, I think the best term to use is that of "epiphysial disc," exactly corresponding to the German "*Epiphysenknorpelscheibe*," but fortunately briefer and more euphonious. Microscopically its anatomy may be here illustrated by a specimen taken from one of the experiments which I performed on animals.

[1] EXPERIMENT I.—Rabbit, aged about 3 months, anæsthetised, and lower epiphysis of femur detached by direct hand pressure and lateral movement of the leg. The animal was then killed, and after suitable decalcification sections were obtained, which are illustrated in the drawing. The epiphysis was fully ossified, and from the bony edge a direct continuity of tissue can be traced to the trabeculæ of the epiphysial disc; these trabeculæ are widest and strongest towards the epiphysis, hence in cases of detachment the disc will almost invariably remain with the epiphysis. Further, it may be noted that the cells of the disc are arranged in regular columns between the trabeculæ; towards the epiphysis they are small, flattened, and closely packed one on each other, towards the diaphysis they are larger and round or oval.

I have made a number of observations on the cadaver, but do not think it necessary to allude to them in these lectures except in so far as they help to clear up disputed or doubtful points. With regard to some epiphysial separations, for instance, the lower radial one, we have such abundant evidence from actual cases that *post-mortem* experiments would be needless. With regard to others, such as the upper epiphyses of the femur, these experiments have been most useful. They have shown, for instance, that by strong abduction of the limb it is quite possible to detach the epiphysis of the femoral head in young infants. They prove also the occurrence at nearly every site of epiphysial separation without rent of the periosteum; in fact we may say that the latter is probably the strongest means of union between the shaft and epiphyses. Thus, after the periosteum opposite the epiphysial disc has been carefully divided all round, a weight will suffice to detach the epiphysis one-fifth that required under other circumstances.

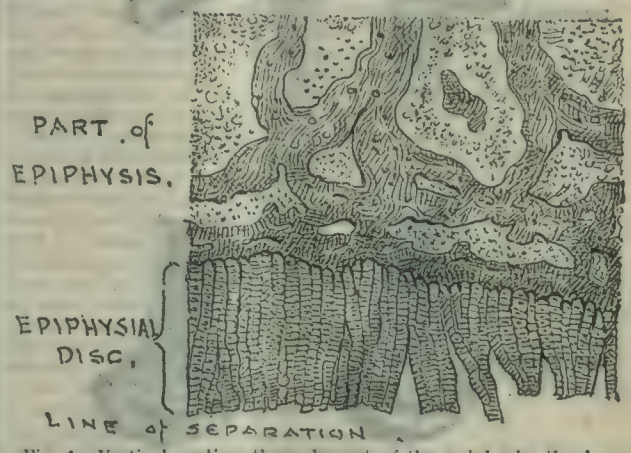


Fig. 1.—Vertical section through part of the epiphysis, the lower limit of the figure showing the edge of the epiphysial disc at which separation has taken place. The columns of cells in the disc are indicated, and the supporting trabeculæ between them appear as fine black lines.

One by-result of the observation on the *post-mortem* table was to show that the exact dates given for the ossification and fusion of the various epiphyses are not infrequently deviated from. We must expect the chronometer of life to be sometimes fast and sometimes slow.

Having regard to the delicate structure of the epiphysial disc, one might expect that either the violence necessary to detach the epiphysis or the reaction attending subsequent bony union would always suffice to obliterate it and to check further growth. This, fortunately, is not the case; indeed, the epiphysial disc shows a remarkable power of resistance. Thus, in several experiments on rabbits, I found that after the lower epiphysis of the femur had been completely detached and then fixed in position by a steel peg or by other means growth continued in a normal manner. Further, when the animal had been killed a considerable time afterwards, the bone decalcified and microscopic sections made, the disc was found to be unaltered except just where the peg traversed it. The same held true when the end of the diaphysis had been excised, though here of course there was always some shortening. Ollier's experiments confirm this strength of resistance on the part of the epiphysial disc. Were it not so we may point out that Ogston's operation for genu valgum would have fallen into discredit much sooner than really happened. It will be remembered that in this operation the epiphysial disc is cut across somewhat obliquely and the two halves separated. Nevertheless, occasionally arrest of growth did occur, as the following case proves: A child aged 3½ underwent Ogston's operation on one femur in the London Hospital. No signs of inflammation followed, and the immediate result was most satisfactory, but a limp slowly developed, and when I examined the case at the age of 10 years there was shortening in the femur to the extent of quite 2 inches. Before adult life was attained this shortening would probably amount to 4 or 5 inches.

I have been able to follow up six cases of undoubted separation of the lower epiphysis of the radius for a considerable time after the accident, in only one (in which some backward tilting persisted) was there decided shortening.[2] Many specimens could be adduced showing that in spite of old fractures close to the epiphysial discs of various bones, sometimes even accompanied by vertical splits of the epiphysis, the disc itself has remained unimpaired. On the other hand, it must be admitted that arrest of growth is a fairly frequent result of detachment of the epiphysis. We may consider it as almost inevitable if the latter remains displaced and only

connected by the periosteal new bone to the diaphysis. One

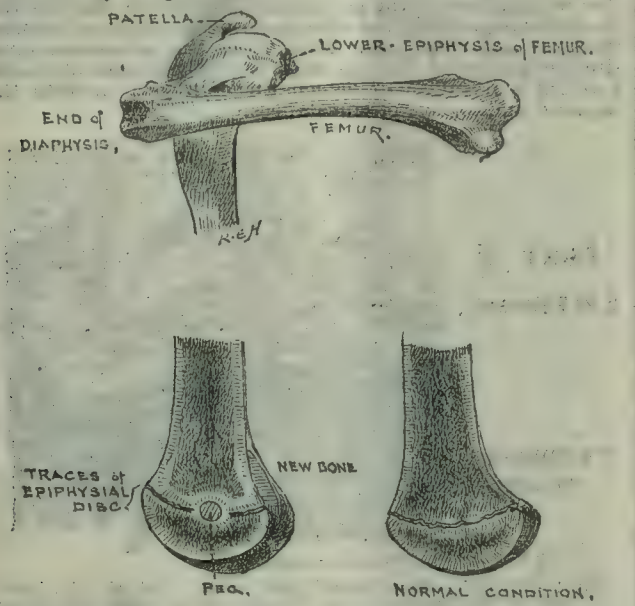


Fig. 2.—The upper drawing shows the diaphysis displaced and allowed to remain so. At the end of eight days it was impossible by ordinary force to replace the bone. The epiphysial disc was undergoing atrophy. The lower drawing shows the result one month after separation of the lower femoral epiphysis and erosion of the epiphysial disc. Good union has occurred, and there are still traces of the disc. The section traverses an ivory peg used for fixation

or two of my experiments on rabbits proved that under such conditions the disc very rapidly underwent atrophy, and even when the detachment has been unattended by decided displacement or when the latter has been completely overcome, we know that arrest of growth sometimes occurs. Mr. Bryant has called attention to this in the case of the lower epiphysis of the tibia, when originally the accident has been diagnosed and treated merely as a sprain of the ankle. We may suggest that such a result is due to the subject being encouraged to walk before union has occurred, and to the prejudicial action of the body weight stimulating the disc to premature fusion. The same author has published some interesting examples of complete arrest of growth following injury to the upper epiphysis of the humerus. The differing importance of the various epiphysial discs as regards growth is well known, and will be alluded to later.

ARREST OF GROWTH.

Arrest of growth after epiphysial injury is, perhaps, most prejudicial when it affects only one of the bones of either forearm or leg. Then the companion bone—usually the fibula or ulna—will continue to grow, will push the foot or hand over to the opposite side, and distort the ankle- or wrist-joint. I could quote at least eight examples of this occurrence in each situation. Some of these have called for surgical interference.

In a recent case of epiphysial separation with displacement the prompt and accurate reposition of the displaced bone, the careful avoidance of rough manipulation in so doing (much aided by the use of an anæsthetic) and the employment of cold applications to check inflammation are incumbent upon the surgeon. Whether he should warn the patient's friends of the risk of shortening is a question of medical ethics too delicate for me to attempt to answer. There is little doubt that in certain cases of injury to the epiphyses during the first year or two of life arrest of growth at the affected disc is followed by more or less impairment of development in the whole limb. Sometimes comparative disuse of the limb may fairly be given as the explanation, as in the case of excision of the knee (including a large part of the femur and tibia) recorded by Mr. Pemberton. The operation had been performed at the age of 12; six years later the whole limb was 6 inches short, and the foot 1½ inch shorter than the opposite one.

The main difficulty met with in reduction of separated epiphyses is generally due to the interposition of soft parts, and especially of the sleeve of periosteum through which the expanding diaphysial end has been thrust. Occasionally, as in the case of the lower epiphysis of the radius, one or more tendons have become locked between it and the shaft, entirely preventing reduction.

It is most important to effect reduction as soon as possible for the following reasons: 1. The rapid occurrence of swelling will make the diagnosis and correction of the exact displacement more difficult. 2. The connecting bridge of periosteum quickly thickens and shortens: from this cause, at the *post-mortem* examination of a rabbit whose lower epiphysis of the femur I had detached and allowed to remain displaced, I found it quite impossible by any reasonable force to effect reduction, although only eight days had elapsed since the experiment. 3. The more prompt the replacement, the less will be the risk of exuberant callus, of interference with growth, and possibly also of suppuration and necrosis.

The stripping of periosteum from the shaft which occurs with displacement of the epiphyses is sometimes extraordinary in extent. Thus, in connection with traumatic detachment of both the lower and upper epiphyses of the humerus the periosteum has been found to be loosened from the shaft as far as the insertion of the deltoid. Some authorities have attached much importance to this extensive periosteal stripping as the chief factor in determining suppuration. But some apparently insoluble problems meet us here. Why should detachment of certain epiphyses be more often followed by suppuration than that of others? For example, amongst the twenty-four cases of detachment of the lower humeral epiphysis (not complicated by wound) suppuration did not once occur; out of the ten cases in which the great trochanter was concerned, it followed in six. Again, one or two cases are on record in which several epiphyses were separated at the same time, and round only one did an abscess form. When, after a severe injury to the hip or knee-joint of a young adult, suppuration comes on, and it is ultimately proved that the epiphysis was completely separated at the time of operation or death, who can decide whether the detachment followed the suppurative process or *vice versâ*?

The more important any one epiphysial disc is as regards the growth of the bone—in other words, the more active the nutritional forces at that spot, the greater is the risk of suppuration following in non-compound cases of separation of the epiphysis. Without laying too much stress on this rule, we may instance the fairly numerous cases in which it has occurred after simple detachment of the lower epiphysis of the radius, of the femur, and of the upper epiphysis of the humerus. But how explain the great trochanter cases? Is it because direct violence has frequently played a part in the causation of the detachment, and the micrococci of suppuration have obtained access through the damaged skin?

It may incidentally be mentioned that it is an easy matter to distinguish, in a vertical section of a long bone, which is the most important epiphysial disc as regards growth, for the latter is always the broadest and most defined in its borders.

It is a matter of importance to distinguish between traumatic suppurative epiphysitis and acute multiple periostitis, for the gravity of the latter disease is much the most pronounced. The essential difference consists in the former showing no tendency to involve other bones than the one injured. Nevertheless, the prognosis is serious enough in the case of acute epiphysitis of a single bone, owing to the possible sequence of pyæmia, of necrosis, or of the suppuration spreading to the neighbouring articulation. It is worth while noting that in only one of my experiments on animals (fifteen in number) did any suppuration occur, although the injuries were generally made compound. The wounds invariably healed by first intention, and in the one suppurating case the pus was very small in amount, and practically confined to a cheesy abscess in the popliteal space. The animals were mainly rabbits born and reared in London, and of rather feeble vitality.

THE STERNAL EPIPHYSIS OF THE CLAVICLE.

We pass now to the consideration of the individual epi-

physes, commencing with one of the most anomalous in the whole body, that of the sternal end of the clavicle. For about eighteen years after birth the clavicle has no true epiphysis, merely a thin plate of cartilage, and there is never a well-marked epiphysial disc. At two years this cartilage is barely 1 mm. thick, at three years it is practically the same; after this it gradually increases, so that by the time ossification begins in it, during the seventeenth or eighteenth year, it has attained the thickness of 4 mm.—that is, less than ⅛ inch. About the twenty-fifth year it finally fuses with the shaft. Looking at the short life this epiphysis enjoys and its insignificant size, two questions arise, What is the use of its separate existence, and is it conceivable that it should ever be detached from the diaphysis? Three undoubted cases of the latter occurrence are on record—one, aged 20 (M. Verchère[2]); one, aged 14 (Mr. Christopher Heath[4]); the third, aged 17, at the London Hospital under the care of Mr. Rivington, now recorded for the first time.

The Upper Epiphysis of the Humerus.

Although the ossification of this epiphysis takes place by two or sometimes three nuclei, we may conveniently disregard this fact; from a surgical point of view there is but one epiphysis, which includes the head and both tuberosities. The cases in which this epiphysis is divided by violence into two parts corresponding to the separate ossific centres for the head and great tuberosity, or in which the latter is alone displaced, are so extremely rare that they may be left out of consideration.

The epiphysial line is a remarkably sinuous one, the more so the older the child grows, and the sinuosity follows the curve of the upper surface of the bone; it is best seen in vertical sections, which show that the depth of the epiphysis is rarely more than from 2 to 3 centimetres. Almost the whole of the capsular ligament is attached to the epiphysis and the following important muscles—the supraspinatus, infraspinatus, teres minor, and subscapularis. In cases of detachment, owing to these firm connections with the scapula, the epiphysis invariably remains in the glenoid cavity. There is also a tendency for the epiphysis to be abducted. The epiphysial disc is far more important than the lower one with regard to growth in length of the humerus. Fusion with the shaft usually occurs in the twenty-first year, though it is sometimes delayed until twenty-four, as a dissected case of von Bruns' demonstrates, and Uffelmann asserts that it may be postponed to the thirtieth.

In most cases of detachment, the shoulder-joint is probably not opened, and this is the more likely the younger the patient. It is sufficiently accurate, and a point of practical importance, to say that separation of this epiphysis before the age of about 20 takes the place of dislocation of the shoulder-joint.[5] How much trouble in treatment and discredit to the practitioner might have been saved if this fact were generally admitted! Time after time the doctor called in to a case of separation of this epiphysis has pronounced it to be one of dislocation, has employed various methods of reduction, and has been mortified by the tendency to recurrence and the very indifferent result obtained. The same variety in the violence employed is met with in the two cases. Traction on the arm, as in the manœuvres of childbirth, strong abduction, a violent wrench or twist of the humerus, a fall or blow on the shoulder, may all be responsible for separation of the epiphysis. And as in dislocation, the displacement of the diaphysis is in most cases (about 60 per cent.) inwards—towards or under the coracoid process. In the minority the diaphysis is driven forwards or outwards, whilst in some cases there is a diastasis without any displacement, the two fragments being held in apposition by the untorn periosteum. The younger the patient the more common are these cases of simple detachment without displacement—cases of extreme difficulty perhaps in diagnosis, but of great importance from the possible arrest of growth which may result. Whether muscular action alone may produce separation of the epiphysis, as it undoubtedly can dislocation of the humerus, is very doubtful.

Analysing the records of sixty-six cases of separation of this epiphysis (thirteen of which were under my own observation), I find six occurring at birth, and four during the first year of life. Omitting these, the average age at which the detachment occurred was 13 years, in no fewer than seventeen was the patient 15 years old or more. Sufficient evidence exists from *post-mortem* examination or operation (in all, eleven cases) to enable us to say that the separation occurs in probably nearly all of the cases exactly at the epiphysial line. The strong curve of the latter, due to the upward projection of the top of the diaphysis about its centre, has already been noted, and is of practical interest. An American surgeon named Moore claimed that when the diaphysis is displaced it hitches (so to speak) against the outer and under part of the epiphysis; hence the difficulty in reduction, to be met by a manœuvre dignified by the name of "Moore's method," which simply consists in carrying the humerus forwards and upwards, then making slight extension whilst the arm is brought down to the side, and there fixed. Moore regards this locking of diaphysis and epiphysis as of constant occurrence, and that "no plan of treatment" (except his own) "is likely to succeed." The whole contention is a fallacy. In the case of displacement of the diaphysis, here, as in other parts of the body, the main difficulty in reduction, if any exists, is due to interposition of soft parts, and especially of the tense periosteal sheath, through which the expanding end of the diaphysis has been driven.

The following are the chief points in the diagnosis of separation of this epiphysis:

1. The age of the patient—under about 20 years.
2. The arm is comparatively helpless, the elbow often directed a little outwards or backwards.
3. Abnormal mobility just below the shoulder-joint, best made out by abducting the humerus.
4. Rapid swelling about the shoulder, some shortening if the diaphysis is wholly displaced.
5. Muffled crepitus on replacement.

Dislocation is diagnosed in at least 50 per cent. of the recorded cases; a thorough examination under an anæsthetic is important. If once brought fairly back under the epiphysis the sinuous nature of the junction will tend to keep the diaphysis in place. Steady traction on the arm, slight abduction, aided by rotary movement, or by direct pressure, is the most likely to attain this end. There is probably no harm in trying "Moore's method," provided that no violent jerking movement is allowed. What should be done if the diaphysis protrudes just under the skin, and prolonged efforts at reduction fail? Here (with every precaution as to asepsis) the end of the diaphysis should be exposed, the opening in the periosteal sheath enlarged, or the rent in the other soft tissues held open, and the bone returned to place. This has been done with success even at an interval of several weeks from the accident, but it is then usually necessary to resect part of the diaphysis.[6] The same course should be followed in the cases of compound separation, where the diaphysis protrudes through the skin. In five such cases resection of the diaphysial end was performed, and the bone returned to place, all ultimately recovering with a very useful arm. In two reduction was obtained without resection, but in one of these 2 inches of the bone subsequently necrosed.

Amongst the rarer complications we have to note injurious pressure on the axillary artery or plexus of nerves, the former in two cases—Clark's and Hamilton's—having caused gangrene of the whole arm. Suppuration is exceptional in the non-compound cases, and should rarely occur after reduction of the compound ones; but it has more than once led to the death of the patient. Noting also that bony ankylosis of the shoulder, from some cause difficult to explain, followed in four of my collected cases—in one suppuration had occurred—we come finally to the important question of arrest of growth in the humerus, and even in the whole arm (with or without paralysis), following detachment of this epiphysis. Striking examples have been published by Bryant, P. Vogt, Bruns, and Humphry. In this case, as in practically every one where the arm has been more or less paralysed and non-developed, the accident which was to blame occurred at a very early age.[7] Whether the brachial plexus is torn as well as pressed on by the displaced diaphysis in these cases we cannot at present decide.

The necessity for thorough examination, correct diagnosis, and gentleness in manipulation in every case of detachment

of this epiphysis must be emphasised. Nothing will so certainly be followed by arrest of growth as roughly rubbing the fragments together, even if reduction is effected, and so destroying the delicate epiphysial disc of cartilage.

A very important question arises as to how far an operation is justifiable in a case where the diaphysis has remained partly or wholly displaced and the patient comes under care some weeks or months after the accident. What bad results have we to expect if nothing is done? First, arrest of growth, since the epiphysial disc almost certainly remains with the epiphysis. But the nearer the subject approaches adult age the less need we think of this; further, if by operation we replace the diaphysis it is by no means certain that we can prevent shortening occurring. Secondly, impaired movement at the shoulder-joint, especially in the direction of abduction and rotation. If these are much limited an operation is probably advisable, and still more so if there is evidence of pressure on the axillary vessels or the brachial plexus (both, however, rare). Thirdly, ankylosis of the shoulder. Much will depend on the peculiar circumstances of the case and the operative zeal of the surgeon, but the example of Bruns's two cases and of Smith's is very encouraging in the direction of operation. In one case (a recent compound one) the diaphysis was fixed in place of a steel needle (Helferich), with good result. If the diaphysis remains displaced to a considerable extent a very fair result may in many cases be expected (although shortening will probably occur—this is shown in the cases recorded by Puzey, Hamilton (two), and in one of my own. In all these, firm union occurred, and movements at the shoulder-joint were very good. Owing to ossification in the connecting bridge of periosteum, we have little cause to fear non-union between the diaphysis and epiphysis. However, in two cases (both occurring at birth) recorded by Bertrandi and Durocher, a false joint appears to have formed.

In recent cases, after reduction, care must be taken that the humerus be not rotated on its vertical axis, especially in the inward direction. The epiphysis tends, as already said, to be somewhat abducted, but not to be materially rotated. It is inadvisable to use a bulky axillary pad, and a neatly fitting poroplastic shoulder cap is one of the best forms of of retentive apparatus. Weight extension can but rarely be required.

REFERENCES.

[1] Time will not allow of an introduction dealing with the history and literature of the subject. It must suffice to say that during the last forty years no one has more contributed to our knowledge of injuries to the epiphyses than my father, and I should be pleased if the present work were regarded as in any way supplementary to his. Bruns, Vogt, and Bardenheuer, in Germany; Ollier, Manquat, and Salmon, in France; Bryant, Humphry, and Hamilton, amongst English writers, should be named among the chief authorities on the subject. [2] Goyrand followed up three other cases; in neither did shortening result. [3] *Bulletins de la Soc. Anatomique*, 1888. [4] Clinical Society, November 10th, 1882. [5] Out of 207 cases of true dislocation, only two were in subjects under 20 years of age (Krönlein, Stimson). [6] Bruns, two cases; W. J. Smith, one case; operated on four weeks, five weeks, and two months after the accident. In all, reduction and a good result were obtained. [7] In Professor Humphry's case at six months; in two of Vogt's cases at birth; in Malgaigne's "at an early age."

MEDICAL STUDENTS IN GERMAN UNIVERSITIES.—According to Ascherson's *Universitäts-Kalender* just issued, the total number of students in the universities of the German empire in the current summer semester is 27,500. Of these, 8,575 are students of medicine, a falling off of 263 as compared with the corresponding semester last year.

PROFESSOR KUNDT, of Berlin, and Professor Kekulé, of Bonn, have been elected Knights of the Peace, or Civil, Class of the Prussian Ordre pour le Mérite. This distinction, which was valued even by that arch-enemy of shams, Thomas Carlyle, is reserved for men of the very first rank in science and literature.

MEDICAL EDITORS IN SPAIN.—The editors of the medical journals published in Madrid recently dined. The gentlemen taking part in this interesting Agapemone were Dr. Serret, of the *Siglo Medico*; Drs. Quintana and Aycart, of the *Revista de Sanidad Militar*; Dr. Ulecia, of the *Revista de Medicina y Cirugia*; Dr. Larra, of the *Revista de Terapeutica*; Dr. Navarro, of the *Boletin de Medicina Naval*; Dr. Pinilla, of the *Medicina Contemporanea*; Dr. Marin y Sancho, of *La Farmacia Española*; and Dr. Valledor, of the *Revista Dosimetrica*.

THE CROONIAN LECTURES

ON THE

PHARMACOLOGICAL ACTION AND THERAPEUTIC USES OF THE NITRITES AND ALLIED COMPOUNDS.

Delivered at the Royal College of Physicians of London.

BY D. J. LEECH, M.D.LOND., F.R.C.P.,

Senior Physician to the Manchester Royal Infirmary; and Professor of Materia Medica and Therapeutics at the Victoria University, Manchester.

LECTURE II.—*(Concluded).*

THE NITRATE GROUP 

I PASS on to the pharmacology of the nitrate group before dealing with the therapeutics of the nitrites, because the organic nitrates, about which I shall have most to say, have in some respects a similar physiological action to the nitrites, and it will be convenient to deal with their therapeutic uses together. The similarity seems to arise from the fact that under certain conditions the NO_3 molecule of organic nitrates is reduced to NO_2, and not from any likeness in the action of the two molecules. I do not propose to do more than indicate a few points of special interest in connection with the metallic nitrates.

I have already pointed out the very marked difference in toxic influence on skeletal muscle between the groups NO_2 and NO_3, when combined with a metal of small physiological activity like sodium. I have shown that whilst nitrite of sodium is a powerful muscle poison, the nitrate tends to preserve muscle vitality. The striking contrast between the action of these two salts can only depend on the difference between the physiological properties of the group NO_2 and NO_3. This difference can be traced in all the metallic compounds of the two groups.

The nitroxyl ONO gives evidence of its influence in every compound into which it enters. The nitrate group ONO_2 plays a neutral part, and does not seem to interfere with the physiological activity of the metals with which it combines.

I have already shown this with regard to the sodium salts, and have only to add that in dilute solutions of the nitrates of potassium, barium, calcium, and strontium, the physiological influence of these metals on the skeletal muscles is as well seen as in the corresponding chlorides.

Dilute solutions of nitrate of sodium are as little irritating to the mucous membranes and raw surfaces as they are to muscular tissue. It is commonly thought that the nitrates of potash and soda are irritants; as a fact, however, their solutions when dilute are not more irritating than a solution of sodium chloride of corresponding strength, and their presence in water up to a certain amount prevents the irritation of mucous membranes which water itself causes.

A solution containing under 2 per cent. of either chloride or nitrate coming into contact with the Schneiderian membrane, the conjunctiva, or raw surfaces gives very little discomfort, if, however, left long in contact with a raw surface it gives rise to severe pain and a stronger solution of either salt is at once painful.

By the stomach mucous membrane a 10 per cent. solution of sodium nitrate is well borne, but if more concentrated and in considerable quantity, it may cause great irritation like other strong saline solutions.

The organic nitrates to which I shall allude are glyceryl trinitrate, $C_3H_5(ONO_2)_3$ (nitro-glycerine); ethyl nitrate, $C_2H_5ONO_2$; propyl nitrate, $C_3H_7ONO_2$; isobutyl nitrate, $C_4H_9ONO_2$; isoamyl nitrate, $C_5H_{11}ONO_2$. In these organic nitrates two effects have to be considered: (1) the actions of the compounds themselves; (2) that resulting from the products of their decomposition.

Nitro-glycerine.—I shall speak of nitro-glycerine first because

of its great therapeutic importance. Professor Hay has shown that nitro-glycerine, in the presence of alkalies and their carbonates or of sodium phosphate, is decomposed, about two-thirds of the ONO_2 being reduced to ONO and uniting with the alkali to form a nitrite; the remaining third forms a nitrate with the alkali. It is even decomposed under some conditions by contact with water.

When nitro-glycerine is taken into the stomach it probably undergoes little or no change there, but is absorbed unaltered and quickly converted in part or altogether into sodium nitrite. Any part which is not thus destroyed is excreted by the kidneys, and when large doses are given to animals by the mouth nitro-glycerine has been recovered from the urine and the blood. After large medicinal doses in man it has been detected in the urine. On the skeletal muscles the vessels and the excised frog's heart dilute solutions of nitro-glycerine act exactly like solutions of sodium nitrite of similar strength. The gastrocnemius of a frog in normal saline containing one part in 1,000 of nitro-glycerine dies in 20 to 40 minutes, as it would do in the same strength of sodium nitrite, and it gives when contracted a similar muscle tracing. The dilatation of the vessels of the tortoise when weak solution of nitro-glycerine is perfused through them, is just as great as with sodium nitrite. Inasmuch as nitro-glycerine is decomposed to some extent in the experiments, nitrite being formed, it is impossible to say how far the effects are due to the nitro-glycerine itself.

When given internally the effects of nitro-glycerine are almost identical with those of sodium nitrite, but in a few points the action of the two substances differs somewhat. Nitro-glycerine tends to stimulate the spinal cord and medulla, and in the lower animals, especially the frog, may cause tetanic spasms. Sodium nitrite has no such effect.

In man the only difference observed, so far as regards the nervous system, between nitro-glycerine and sodium nitrite is that the former much more often causes headache, which, when induced, is at times of longer duration than that caused by sodium nitrite.

The throbbing headache felt immediately after nitro-glycerine may be due to the direct effect on the circulation of the nitrite into which the trinitrate of glyceryl is converted. But it at times lasts many hours after the circulatory effects have apparently passed away, and it seems possible that the nitro-glycerine headache is not entirely due to the nitrite effect, but that the nitro-glycerine molecule, or it may be certain compounds, due to decomposition of the glyceryl, take some part in its production. There can be little doubt that the tetanus produced in the lower animals is due to the nitro-glycerine molecule itself.

The difference between the effects produced in the circulation in man between sodium nitrite and nitro-glycerine though small are yet of some practical importance. From the table I have shown (British Medical Journal, July 1st, 1893, p. 6) it will be seen that the action of nitro-glycerine is more rapid than that of sodium nitrite or ethyl nitrite.

Not only is the action of nitro-glycerine distinctly evident earlier than that of the nitrites of sodium and ethyl, but the point of the lowest pulse tension is also earlier, as seen in the table which I have given. I have not, however, found the influence of a minim of nitro-glycerine usually quite as prolonged as the influence of 2 grains of nitrite of sodium, but there is no important difference. The minute amount of nitro-glycerine which will affect the pulse is very marvellous. One-sixteenth of a minim of liquor trinitrini will, in some, distinctly lower tension. The effect of small doses is more remarkable when we consider the very large doses which the circulation will bear without suffering injury. Dr. Murrell records that on one occasion he gave a patient 10 minims eight times daily, the only effect being to relieve anginal pain and cause some headache. I have only to add the explanation which Hay has given of the more powerful influence of nitro-glycerine than nitrite of sodium. The glycerine compound is absorbed into the blood and then forms a nitrite. The sodium nitrite undergoes decomposition by the acids of the stomach, and though the nitrous acid set free is in part absorbed, there is naturally considerable loss by escape of the acid vapour and by its decompositionn.

The Fatty Nitrates.—The nitrates of ethyl, propyl, butyl, and amyl are all stable bodies very slightly soluble in water and not disagreeable to smell or taste. The boiling point of the series increases with the molecular weight, nitrate of ethyl boiling at 190° and nitrate of isoamyl at 296°.

Unlike nitro-glycerine, the nitrates of ethyl, propyl, butyl and amyl do not readily decompose even when mixed with an alkaline fluid. When I added 0.2 c.c. of these nitrates to 10 c.c. of a 5 per cent. solution of sodium carbonate, and kept the mixture at 38° C. no trace of nitrate could be detected in 30 minutes. On leaving the mixture for several hours the tests indicated the presence of a trace of nitrite, but it was not till 6 days had elapsed that any considerable quantity of nitrite was present. On adding 2 per cent of ethyl nitrate to blood methæmoglobin does not immediately appear, but on keeping the mixture at 38° C. the characteristic band can be detected by the spectroscope in about 30 to 40 minutes. The nitrates of the higher members of the series isobutyl and amyl do not under similar conditions show the presence of methæmoglobin for many hours. I have several times dialysed the mixture of nitrates and blood in which methæmoglobin has been produced without detecting the presence of nitrites in the dialysate, though on keeping the compound for 24 to 36 hours at 38° a nitrite reaction is obtained from it; manifestly, however, the fatty nitrates do not readily yield nitrites as easily as nitro-glycerine does.

Although the nitrates seem to be decomposed into nitrites with some little difficulty outside the body, it seems probable that in the living body the change takes place more readily, since, as I shall show, an effect on the circulation somewhat like that caused by nitrites is produced by giving the nitrates, but this nitrite effect is less quickly produced and longer lasting than when nitro-glycerine is given.

When a muscle is exposed to a mixture of 1 of ethyl nitrate in 1,000 of normal saline solution the contractions diminish in height somewhat more rapidly than with normal saline, but vitality is well maintained and the muscle lives as long as in normal saline; 1 in 500 causes a somewhat rapid fall in the height of the muscular contractions, but a muscle will live in the solution over three hours.

Propyl nitrate diminishes the irritability of muscle more powerfully than ethyl nitrate, but the muscle will continue to live in a solution of 1 in 1,000 of normal saline, and give contractions at the end of 24 hours.

Isobutyl nitrate, of the strength of 1 in 1,000, greatly decreases the contractile power of muscle. At the end of about three hours it will only contract as a rule with strong stimulation.

Amyl nitrate is far more fatal than any of the other nitrates. If the muscle is immersed in 1 of 1,000 of amyl nitrate the contractions rapidly fall and the muscle dies in about an hour, contracture being often seen. The relative influence of nitrates as shown by their action on muscle bears out the well known fact that the toxicity of alcoholic radicles increases with their atomic weight.

The effect of the fatty nitrates on the vessel walls does not quite run parallel with their effect on skeletal muscles. Ethyl nitrate in the strength of 1 in 1,000 dilates the vessels, as shown in a perfusion experiment with a tortoise.

Ethyl nitrate increased the flow through the vessels of a tortoise by 50 per cent., but propyl nitrate in the same amount still more powerfully dilates the vessels, and if a solution of 1 in 5,000 be used extraordinary dilatation takes place. (Fig. 19.)

I shall point out when I come to speak of nitro substances that with them, too, the propyl compound seems to possess the strongest dilating power.

Isobutyl nitrate, in the strength of 1 in 1,000 of normal saline contracts the vessels. But in a strength of 1 in 5,000 to 1 in 10,000 it dilates them very distinctly.

Iso-amyl nitrate very markedly contracts the vessels in a strength of 1 in 1,000 of normal saline, the flow through them being very greatly decreased. Dilute solutions, even 1 in 10,000, do not dilate the vessels, but very weak solutions, 1 in 30,000, have a slight dilating effect.

It is interesting to notice the rise and fall of the dilating influence due apparently to the alcoholic radicles.

Nitrate of ethyl renders the action of the isolated frog's heart slightly quicker and weaker when in the strength of 1 in 1,000. The other nitrates have much the same effect as the ethyl compound, but are more toxic.

The chief interest in the action of the nitrates centres on the powerful and long-lasting influence they exert on the circulation in man. If 5m. of ethyl nitrate be taken internally the pulse tension falls in three or four minutes, but usually not

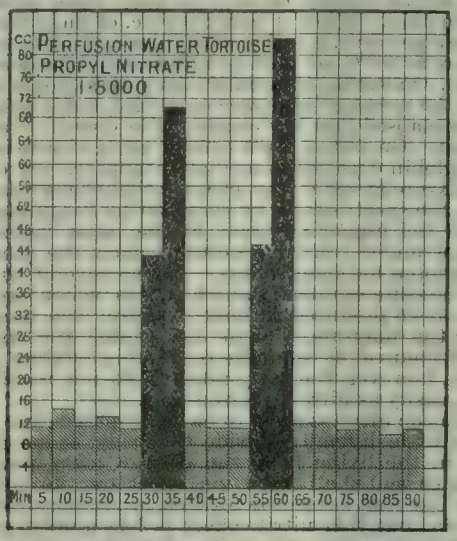


Fig. 19.—As in fig. 18, the figures at the base represent the number of minutes during which perfusion took place; those in the perpendicular line the number of c.c. passing through. The light squares show the flow when normal salt solution passed through the vessels; the dark squares when 1 in 1,000 of propyl nitrite was used.

ery considerably. It continues to fall, and reaches its owest point in thirty to sixty minutes; sometimes it is very ow for a longer time than this. The effects of ethyl nitrate on the pulse can often be distinctly seen four or five hours after a dose has been taken. (See Fig. 20A.)

As after nitrites, the pulse is somewhat quickened, but this effect is by no means marked. One minim has a distinct effect on the pulse. Propyl, isobutyl, and amyl nitrates all act in a similar manner, and as far as I have examined their action, they depress the tension for a longer time than the corresponding nitrites. Fig. 20B shows the effects of isobutyl nitrate on the man from whom the tracings after amyl nitrite and nitrate were taken.

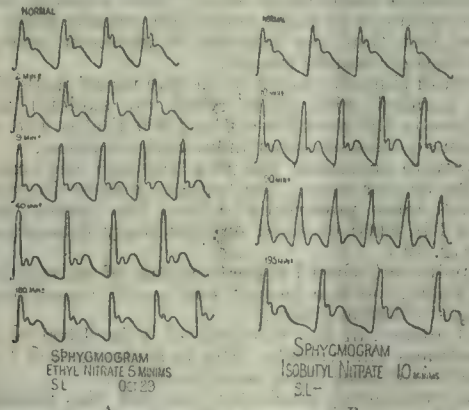


Fig. 2

The inhalation of the nitrates very slightly lowers tension. The long-lasting action of the nitrates is doubtless due to the fact that, unlike nitro-glycerine, they are somewhat difficult of decomposition. I have found the nitrate of ethyl useful in various ailments for which nitrites are usually given. There is one drawback to its use. It seems to cause a headache more often than ethyl nitrite; this headache does not always come on immediately the drug is taken; it may not appear for four or five hours. The other nitrates also tend to cause more headache than the corresponding nitrites.

NOTES ON MEDITERRANEAN OR MALTA FEVER.

I.—Its Bacteriology.

By Surgeon-Captain DAVID BRUCE, A.M.S.,
Assistant Professor of Pathology, Netley.

In this paper I do not intend to enter into the clinical features or treatment of this fever, but to confine myself to the results of the bacteriological investigation of cases of the disease, which I hope will throw some light on its etiology, and help to establish the fact that here we have to do with no local variety of typhoid or malaria, but with a definite specific disease.

The Presence of a Definite Micro-organism in Malta Fever.

To detect the presence of micro-organisms in the bodies of those suffering from a given disease, two methods may be employed—either the microscopical examination of the blood during life and the tissues after death, or the planting of small quantities of blood or particles taken from the various organs in artificial nutrient media. In Malta fever the first method is not readily applicable, as the micro-organisms are not found in the blood,[1] and being very minute, are difficult to detect in coverglass preparations, or sections of the organs. On the other hand, the method of establishing their presence by means of artificial cultivations is easily carried out. These cultivations are most successful when made from the spleen.[2]

The test tubes containing the inoculated medium should be placed in an incubator at the temperature of the blood. This necessitates the use of a nutrient medium such as agar-agar, which remains solid at this temperature; and it is most essential that the medium should be as nearly neutral as possible, since any excess of alkalinity completely inhibits growth. The following is a list of the cases in which the presence of a definite micro-organism has been established by means of such cultivation experiments.

Case I.—H. D., aged 24; duration of illness twelve days. Eight tubes of agar-agar nutrient jelly were inoculated from the spleen shortly after death, and remained at the ordinary temperature of the air (about 25° C. until the following day at 11 A.M. Six of the tubes were then placed in an incubator kept at 37° C., while two were left at the ordinary temperature of the room. Minute white colonies appeared on the surface of the agar-agar in the six tubes after a period of 84 hours, and in the two others at the end of 168 hours. (See chart.)

Case II.—A. B., aged 24; duration of illness 15 days. As this case happened out of hospital I had no opportunity of making a *post-mortem* examination. I succeeded, however, in making inoculations into six tubes containing agar-agar in the following manner. Seven hours after death, having previously cleansed the skin over the region of the spleen by means of a strong solution of corrosive sublimate and absolute alcohol, I drew off a small portion of the splenic pulp by means of a sterilised trochar and cannula. Next morning five of these test tubes were placed in the incubator, and one left at the ordinary temperature of the air. No growth appeared in the tubes in the incubator until the end of 84 hours, when the same growth was observed. In the sixth tube, which had been left at the ordinary temperature, the colonies appeared at the end of 110 hours.

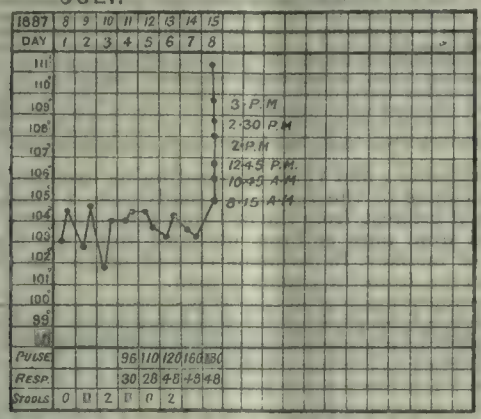
Case III.—B. E., aged 23; duration of illness eight days. Six tubes of agar-agar were inoculated from the spleen and placed in the

[1] Surgeon-Captain Hughes informs me he has succeeded in one instance in cultivating the micrococci from blood taken from the heart of a monkey dead of the disease.

[2] This organ ought to be removed from the body as soon as possible after death, protected from contamination by being wrapped in a cloth saturated with a solution of corrosive sublimate (1 in 1,000), and taken to the room set apart as a laboratory. In transferring traces of the splenic pulp to tubes containing the nutrient material, certain precautions should be taken. Three extensive cuts, the second in a plane at right angles to the first, and the third at right angles to the second and parallel to the first, are made with three knives previously thoroughly sterilised by heat. A platinum needle heated to redness before each inoculation is then used to convey a small portion of the pulp from the depth of the third cut to the solid nutrient jelly.

incubator. In these the characteristic growth appeared after 67 hours. The following chart illustrates the course of the disease.

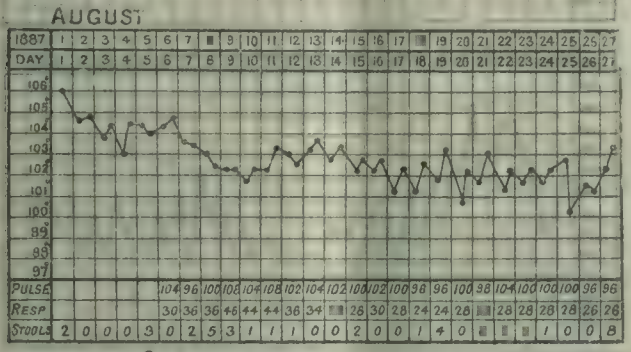
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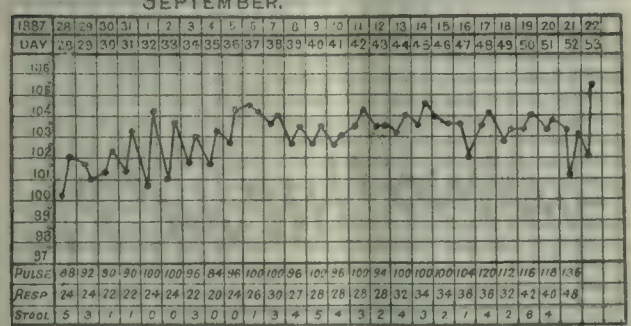
CASE IV.—J. C., aged 22 years; duration of illness twenty-four days. The six tubes inoculated from the spleen showed the usual growth after the usual time. (See chart.)

CASE V.—G. W., aged 23; duration of illness fifty-three days. Inoculations were made from the liver, kidney, and spleen, but all remained perfectly sterile except one, in which the usual growth appeared after several days. I can only account for this scarcity of the micro-organisms by supposing that most of them had died out owing to the long duration of the case. The following chart illustrates the course of the disease.

AUGUST



SEPTEMBER.



CASE VI.—T. G., aged 23; duration of illness eight days. This case resembled one of typhoid very closely. The stools throughout were fluid and yellow, the abdomen tympanitic, and the tongue dry and brown. The *post-mortem* examination showed the organs congested. The spleen weighed 19 ounces; no enlargement or ulceration of Peyer's glands or other glands of the small intestine; large intestine normal. Six agar-agar tubes were inoculated from the spleen, and showed the characteristic growth of Malta fever on the fourth day. (See chart.)

CASE VII.—L. G., aged 22; died after a few days' illness. The spleen was 22 ounces in weight. Five agar-agar tubes were inoculated and placed in the incubator. The characteristic growth appeared in all the tubes on the morning of the fourth day.

CASE VIII.—C. D., aged 28; died on the eighth day of illness. Body that of a strong muscular man; mesenteric glands not enlarged; large and small intestines showed no appearance of glandular enlargement or ulceration. The spleen weighed 19 ounces, and was soft and pulpy. Six agar-agar tubes were inoculated from this organ and placed in the incubator. After four days the characteristic growth appeared in all. (See chart.)

CASE IX.—M. K., aged 21. Duration of illness thirty-four days. *Post mortem* appearances: Body much emaciated. Heart normal. Right lung adherent to the chest wall throughout; the adhesions evidently of long standing; substance of lung intensely congested, but no approach to consolidation. Left lung normal in appearance, except for some congestion at the base. Liver enlarged and congested. No trace of ulceration throughout the whole length of the alimentary tract. Mesenteric glands normal. Spleen enormously enlarged and congested; weight 25 ounces. Although this seemed to be a typical case of Malta fever, none of the inoculations made into agar-agar tubes gave any result. Afterwards it was discovered that the nutrient medium used was excessively alkaline in reaction, which accounted for the negative results.

To these nine cases may be added nine examined by Surgeon-Captain Hughes and two by Surgeon Gipps, R.N., in all of which the same micro-organism, shortly to be described, was demonstrated.

From the foregoing twenty fatal cases of this disease it will be seen that in nineteen one and the same micro-organism was found. I further made the attempt while in Malta, during the autumn of 1891, to grow this micro-organism from the tissues of the living subject by splenic puncture. Eight attempts in all were made, and of these two were successful, but the six failures were due to the use of an excessively alkaline nutrient medium in which the micro-organism would not grow.

From the foregoing considerations I think the constant occurrence in the disease of a particular micro-organism can be held as proved.

In regard to its non-occurrence in other diseases, I may mention that while in Malta I made inoculation experiments from several fatal cases of typhoid fever, and in each case cultivated a bacillus corresponding in size and manner of growth to the one described by Eberth and Gaffky. In these test tubes a copious growth appeared on the agar-agar at the end of twenty-four hours, being in marked contrast to the extremely slow growth of the micrococcus of Malta fever. In the same way dysentery, tuberculosis, pneumonia, and in fact every fatal case that occurred was made into a control experiment, but in no instance was there at any time cultivated a microbe bearing the most distant resemblance to that found in the disease under consideration.

MORPHOLOGY AND CULTURAL CHARACTERS OF THE MICROCOCCUS OF MALTA FEVER.

The Micrococcus Melitensis is round or slightly oval in form, and measures in dried preparations about 0.38μ. in diameter. It is therefore a very minute organism, and requires a magnifying power of 1,000 or 1,500 diameters. Viewed in a drop of water, unstained, the microbes are seen as bright points in active molecular movement, the great majority of them single, a few in pairs, but never in chains.[3] Like most micrococci, they possess no power of spontaneous movement. They can be readily stained in a watery solution of gentian violet, but Gram's method is not applicable, as they become decolorised in the process. Treating specimens with alcohol at once removes all colour from the micro-organisms, even after fixing them with osmic acid, corrosive sublimate, or tannic acid. In nutrient peptonised broth, kept at 37° C., no change can be seen for the first few days, but after some time the fluid becomes decidedly cloudy, without any formation of pellicle on the surface.

The best medium for the cultivation of this species is ordinary 1.5 per cent. peptonised agar-agar beef jelly. In stab cultures no change takes place for several days. Then the growth appears as minute pearly white spots scattered round the point of puncture, and minute round white colonies are also seen along the course of the needle track. After some weeks the colonies on the surface grow larger, and join to form a rosette-shaped colony, while the needle track becomes strongly marked, solid-looking and yellowish-brown in colour, with serrated edges. After the lapse of some months the growth remains restricted in area, and its colour deepens to buff.

When growing on the sloping surface of agar-agar and examined by transmitted light, the appearance of the colonies is somewhat different. At the end of nine or ten days, if kept at 37° C., some of the colonies are as large as No. 4 shot. They are round in shape, with an even contour, raised above the surface of the agar, smooth and shining. On holding up the tube and examining such colonies by

[3] Surgeon-Captain Hughes writes me that he has succeeded in growing this microbe into short chains in hanging drop cultures.

transmitted light, the centre of each is seen to be yellowish in colour, while the periphery appears bluish-white. On looking at the same colonies by reflected light no appearance of yellow can be seen; they then simply appear to be milky white in colour. The separate colonies on the surface of the agar-agar do not extend indefinitely, and after a couple of months are found to be no larger than hemp-seeds.

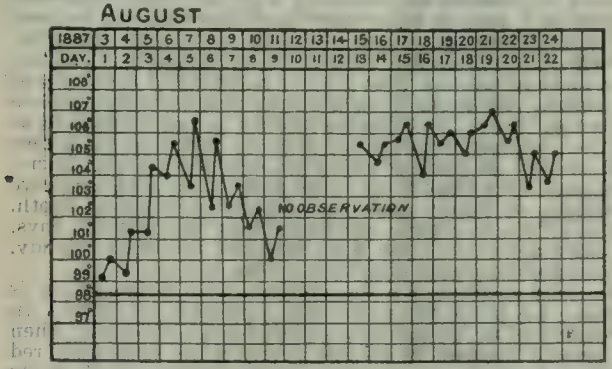
The time which elapses before the colonies of this micrococcus can be seen by the naked eye on the surface of the nutrient medium is fairly constant, and is a valuable character for the identification of the species. Kept at a temperature of 25° C. this period may be stated to be seven days, at 37° C. about half that time. When stab cultivations are made into 10-per cent. nutrient gelatine, and kept at 22° C., little or no growth takes place. After a month the needle track has become slightly developed, and on the surface can sometimes be seen a minute smooth white growth not larger than a pin's head. No liquefaction of the gelatine takes place.

Plate cultivations in gelatine of this species have not been satisfactory on account of the extreme slowness of its growth at the temperature at which this medium remains solid. Planted on boiled potato, and kept at blood temperature, no apparent growth takes place.

ON THE TRANSMISSION OF MALTA FEVER TO ANIMALS.

The effect of the subcutaneous injection of small quantities of pure cultures of the micrococcus of Malta fever were first tried on mice, guinea-pigs, and rabbits, but with altogether negative results. With monkeys, however, the results were more successful, as the following experiments will show:

EXPERIMENT I.—Monkey No. 1, male, species bonnet. The temperature of this monkey for a fortnight before inoculation ranged between 99° F. and 100° F. He ate well, was very active, and to all appearance healthy. The material used for inoculation was a portion of a colony removed from an agar-agar tube by a platinum needle, and rubbed up with a small quantity of sterilised distilled water. This was injected under the skin of the monkey's left forearm by means of a sterilised hypodermic syringe. The tube from which the material was taken was a cultivation from Case I, and had been growing outside the body for nearly a month. The monkey's temperature went rapidly up, reaching 107° F., and after a severe illness which lasted twenty-one days he died. On *post-mortem* examination the lungs showed no signs of tuberculosis; the liver was congested, the spleen enormously enlarged, and the mucous membrane of the intestines free from ulceration. Six tubes of agar-agar nutrient jelly were inoculated from the spleen and two from the liver. In all the spleen and one of the liver tubes the growth characteristic of the micrococcus of Malta fever appeared after the usual time. In the second liver tube no growth of any kind took place. The following chart shows the temperature curve.

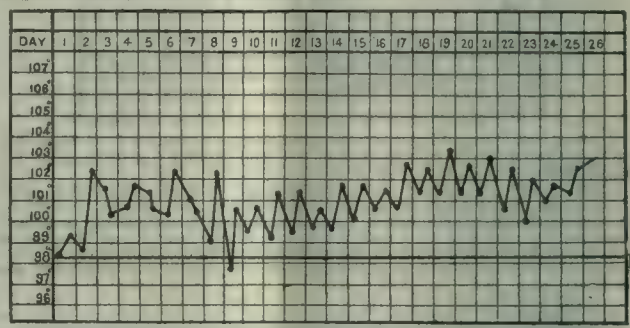


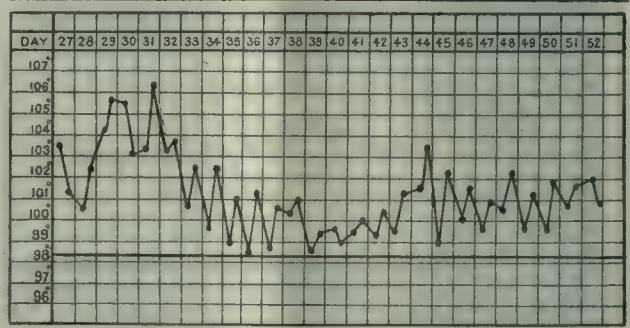
EXPERIMENT II.—Monkey No. 2, male, species unknown; inoculated in the same manner as in the last experiment. This monkey remained to all appearances in good health; his temperature, however, ran up to 104° F., at which it remained, with slight variations, for sixteen days. Some slight inflammation and pus formation occurred at the point of injection, but this passed off and the monkey recovered his usual health.

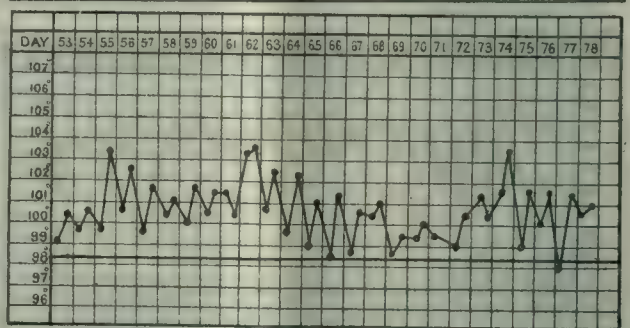
EXPERIMENT III.—Monkey No. 3, male, species bonnet. In this case the same material was used for inoculation as in the last experiment. The growth used was one from the surface of an agar-agar tube of the second generation, which had been growing for one month. This was mixed in the usual way in sterilised broth, and injected into the left arm. This monkey's temperature also ran high, and he died after thirteen days' illness. Inoculations made from the spleen into agar-agar tubes showed the first appearance of the micrococcus of Malta fever after four days.

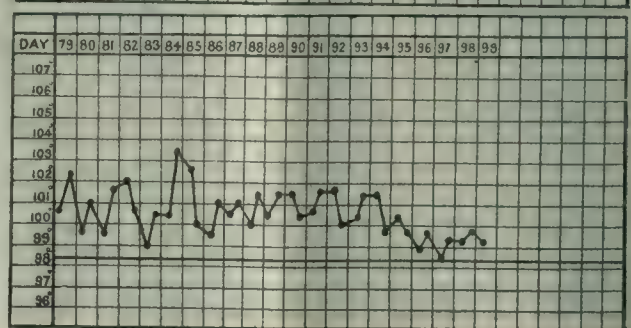
EXPERIMENT IV.—I am indebted to Surgeon-Captain Hughes, A.M.S., for notes of the following three cases. Monkey No. 4, male, species bonnet. This monkey was under observation for two months, during which time his appetite was good and his temperature normal. He was inoculated by injecting 1 c.cm. of sterilised broth, in which had been rubbed up a small quantity of growth from an agar tube. This culture was obtained from Case X, H. H., and was 24 days old. The injection was made into the left forearm, the skin being previously shaved and thoroughly cleansed. The temperature went steadily up, reaching 106° on the fifteenth day of illness. For the first ten days the monkey was lively, and continued to eat his food, but after this time he began to lie about and refuse his food. Death occurred sixteen days after inoculation. *Post-mortem Examination.*—The body was fairly well nourished; heart, apparently normal; lungs, some sero-purulent exudation in the bronchi, otherwise the lungs appeared healthy; liver, enlarged and congested; intestines, some congestion at ileo-cæcal valve, otherwise normal; spleen, much enlarged and congested. Immediately after death the viscera were examined, and inoculations made into agar-agar from the spleen and other organs. The characteristic growth took place in the tubes inoculated after the usual time.

Experiments V and VI are interesting as exemplifying the chronic course of the fever as usually seen in man. They are also of interest from the fact that these monkeys were inoculated from pure cultures obtained from the blood and spleen of monkey, Experiment IV, and not, as in the other experiments, from the organs of man.









EXPERIMENT V.—Monkey, male, species bonnet, was under observation for three months previous to inoculation. Two days after the injection of a pure culture of the Micrococcus Melitensis obtained from the blood of Experiment IV he developed pyrexia, which lasted 2¾ months, and ended in recovery. The temperature chart is very similar to that of Experiment VI, and is withheld on account of want of space.

EXPERIMENT VI.—Monkey, female, species bonnet: inoculated with a pure culture obtained from the spleen of Experiment IV. She suffered for more than three months from a very typical attack of this fever, ultimately recovering completely. The foregoing chart illustrates the chronic course of the disease, and is remarkably similar to what obtains in man.

From these experiments it will be seen that the injection of pure cultivations of the Micrococcus Melitensis into monkeys gave rise to a disease bearing a strong resemblance to that found in man, and caused death in three experiments out of six. Further, it will be noted that from the three fatal cases the same micro-organism was again recovered in a state of pure culture.

From the above considerations sufficient evidence has, in my opinion, been brought forward to show that in all probability the micrococcus above described is the proximate cause of Malta fever, and is the strongest evidence yet adduced to show that this disease is a specific fever, quite distinct from typhoid or malaria.

In regard to the important question as to how this micro-organism gains access to the human subject, whether by the air, in the drinking water, or in the food, absolutely nothing is known up to the present, and on account of the high temperature required for its growth, the length of time which elapses before the colonies appear, and the absence of any well-marked morphological or cultural characteristics, the search for it outside the body will be found very difficult.

II.—ITS BEHAVIOUR AT MALTA.[4]

BY SURGEON-CAPTAIN M. LOUIS HUGHES, A.M.S.,
Malta.
(In charge of Military Analytical Laboratory, Valletta.)

"MEDITERRANEAN, Malta, or rock fever," officially returned in the army statistics as "simple continued fever," presents far larger admission and invaliding rates in certain Mediterranean garrison towns than any other disease.

I. *Quantity.*—The Maltese suffer proportionally less from it than British troops, but it is said to be increasing in frequency among the civil population of Valletta. It does not, however, appear to show that special predilection for newcomers that is so commonly noticed in the case of enteric fever. In quantity it has, however, on the whole, slowly but steadily decreased among the troops in Malta during the last seventy-five years, owing, doubtless, to the constant sanitary improvements in barracks. While the admission rate per 1,000 for enteric fever has during the last thirty-three years remained fairly constant, except at certain periods when some definite and widespread cause has been at work, that of simple continued fever has regularly risen and fallen in seven-year cycles between the maximum of 269.5 per 1,000 of strength in 1859, and the minimum of 71.2 in 1888. Marston, as quoted by Bruce, has mentioned an alternation of this fever with enteric fever, in epidemic form; but, speaking generally for Malta, I do not find this borne out by statistics; and though it has occurred in individual barracks, yet the epidemics have little relation to one another.

II. *Quality.*—The case mortality has decreased from 3.08 in the sixties to 2.60 in the seventies, and 0.93 per mille in the eighties. Epidemics of note have become rare since 1873, and rapidly fatal cases are in the present day few. The admission and mortality rates during each seven-year cycle have risen together to a maximum, but the death-rate has fallen earlier and faster than the admission-rate. Finally, the admission-rate for rheumatic affections (in most instances the characteristic sequelæ of Mediterranean fever) has, as far as quantity is concerned, shown the same variations and general decrease as the fever in question.

III. *Seasonal Prevalence.*—Though ague (that is intermittent fever) does not exist as an endemic disease in Malta yet the seasonal prevalence of Mediterranean fever exactly corresponds to that of the so-called malarial poison. Becoming fairly prevalent in April the attack-rate reaches a maximum in July, August, and September, the hottest and driest months, and then falls until, in the wet and cold months of December, January, and February, a few sporadic though often extremely fatal cases occur. Enteric fever, on the other hand, becomes most prevalent after the first heavy rains, continuing during the autumn and early winter months.

IV. *Localisation.*—It has always been distinctly endemic in (1) the barracks, houses and hovels built by the Knights between the beginning of the sixteenth and end of the eighteenth centuries—all these buildings have for years been in an overcrowded and insanitary condition though at present subject to yearly improvements; (2) in the ships at anchor in the harbours of Malta.

The fever is certainly not contagious from man to man, and both in localisation and general clinical characters it has a close analogy to enteric fever. In one instance lately three fatal cases of fever were admitted from a barrack containing eighty men, though no cases of fever had occurred there during the preceding twelve months. Clinically they were somewhat analogous, but the *post-mortem* appearances and bacteriological tests clearly indicated that one was enteric and the other two Mediterranean fever.

Bacteriological facts in no way negative the theory of fæcal transmission of infection, and hygienic authorities and my own experiments point to a suitable reaction of fæces sewage, and more especially of rock and sea water contaminated by sewage, for the growth of the special micro-organism of this fever, though owing to the high temperature necessary and the length of time elapsing before the colonies appear, the specific growth has not as yet been isolated definitely. In the harbours of Malta, in spite of recent improvements by which most of the sewage is pumped out to sea, large sewer outlets exist in the Quarantine Harbour, and the excreta of some 5,000 to 8,000 sailors employed on ships of war and mercantile vessels, are being continually poured into the enclosed and tideless harbours, converting their basins into one large cesspool, which is never cleaned out, and must hold the accumulations of ages. The offensive state of the water becomes apparent to both sight and smell at the sewer-outlets at all times, and in the enclosed creeks and docks on rough days, yet in summer soldiers and sailors may be seen bathing daily all round these very places. Moreover, this same water is used for washing down decks, etc., so that when drying it has ample opportunity of giving off in an enclosed space such miasmata as it may contain.

There is no evidence in favour of infected food or drinking water having any causal connection with this fever, and the introduction of a pure water supply under pressure has not lessened its prevalence in Valletta. The facts point distinctly to a probable air-borne virus on shore, as does the following account of a recent epidemic:

A regiment was quartered on a small island in the Quarantine Harbour, Valletta, from January 2nd, 1892, until October 10th of the same year, during which period it suffered severely from "simple continued fever," 197 cases being admitted from a strength of 760 men. The regiment had suffered severely from this fever elsewhere during its first year's service in Malta, had been seasoned by a three years' residence, and was composed of men whose ages were not below the average of the station, yet their fever rate for 1892 far exceeded that of any other regiment. Of these men, 480 were quartered in wooden huts, and the remaining 280 in an old fort close by, which had been built by the Knights in 1725. A careful analysis of the fever admissions divides them into two classes:—

1. Cases of true Mediterranean fever.

2. Relapses and slight cases of the same fever (the latter possibly due to special individual power of resistance), cases of simple ardent fever (febricula), and other obscure but slight febrile ailments. The last class of cases were in hospital but a short time, and there is little to note of consequence except that the numbers were higher than those from other barracks, and that in proportion to strength the number of admissions from the fort was double that from the huts. The admission rate per mille for true Mediterranean fever in Valletta district (strength 3,511, including the island in question) in 1892 was 52.2, while those of the huts and fort in question were 46.3 and 178.6 respectively, showing that some local cause of fever must exist in the fort. In the fort, 38 men, 2 women, and 5 children of this regiment were affected, and of the men, 1 died, 6 were invalided, 14 were sent to the sanitarium, and 17 returned to duty straight from hospital, the average stay in hospital being 99.3 days.[5] The majority of these rooms are dark, close, and damp, and were never intended for barracks. Round the back of the rooms ran large channels, cut in the extremely porous rock, and passing on each side of the fort down to the sea. From 1870 these channels were

[4] Abstract of a paper read to the Malta Branch of the British Medical Association.

[5] Since the above was written news has come from Gozo that some of these men have suffered from relapses, and even been invalided home, accentuating the seriousness of this outbreak.

used as sewers, until the substitution in 1885 of the present dry-earth system. Mediterranean fever occurred in the fort during this period, being epidemic in 1870 and 1872, but not excessive in 1885-91. From 1885 to 1891 a quantity of sewage remained boxed up, with the result that the stone became soaked with sewage, even through the walls and flooring to the adjacent rooms. Recent analysis of portions of the walls of the channels and rooms showed not only a larger percentage of chemical constituents of sewage with the presence of much organic matter and large numbers of putrid and non-pathogenic organisms, but also a neutral or faintly alkaline reaction as compared with clean newly-quarried and similar stone, which is highly alkaline, thereby forming theoretically a suitable nidus for the minute micrococcus of this fever. Between September and December, 1891, a thorough overhauling of the drains took place, these channels being cleaned and converted into surface-water drains, gratings being placed at intervals almost on a level with, and adjacent to, or even opposite, the windows of the barrack rooms. Owing to their situation and construction there was a varying yet constant current of air from the sea travelling up these channels and passing out of the gratings into the fort, the porous walls at the same time being wet or dry according to the state of the atmosphere and the amount of rain. There was ample opportunity for miasmata to pass from the rock channels into the barrack rooms, and it is a sufficient fact that these 45 cases slept in beds grouped in close and definite relation to the rock-channel gratings and sewage-soaked walls, and were in direct proportion to the dampness present. The first case was admitted on February 4th, four days after the cessation of the heavy rain. There was no other apparent cause for the outbreak; obvious sanitary improvements resulted in a cessation of the fever, and it has not broken out again this spring.

The drainage of Valletta would seem to have some relationship to the reported increase of this fever among the civil population. The drains originally consisted of very large, deep channels, cut by the Knights in the porous rock, with faulty gradients and no flushing. In these the sewage was semistagnant, keeping a fairly average level during the dry months, at the same time soaking for years into the porous walls. Between 1879 and 1885 new sewer pipes of a suitable size, and well ventilated, were accurately laid at the bottom of these channels, the upper part being used as a surface and storm water drain. This upper part is wet in the rainy season, but dry and suitable during the hot months for the escape of miasmata, which by the way of the ventilators and numerous traps (also at this time dry) must pass into the houses. At the same time, on account of the hilly nature of the ground on which Valletta is built, many even of the more modern ventilators, though carried high above the roof, are yet on a level with the windows of houses across the street. Whether from insufficient flushing or other causes, their smell is often offensively perceptible in summer, and the writer has frequently come across cases of Mediterranean fever occurring in persons sleeping in rooms near such ventilators. This increased prevalence therefore may be due to an increase in the mechanical means of diffusion of the virus. Again in Gibraltar, where the rock is less porous and less absorbent than in Malta, this fever is less prevalent and milder in type.

If the foregoing facts have led us to correct conclusions, there is every chance of our being able in the future to lessen the prevalence of this fever. If we have acted in ignorance of its nature in the past, let us improve in the future, by careful attention to sanitation, by regulated bathing places, by providing suitable air space and ventilation for the diffusion of the poison in old and dangerous barracks, and while cutting off and avoiding old sources of infection, prevent fresh pollution of the rock, harbours, and air dwellings; the last by improving the height and situation of drain ventilators, and possibly by the introduction of modern sewer-gas destructors.

In conclusion, I would point out that this fever, allied as it is to enteric fever, yet belongs distinctly to the mobile group, characterised by an uncertain duration, a tendency to relapses, and a feeble power of conferring immunity from subsequent attacks, and is a link between enteric fever and the so-called malarial marsh fever (intermittent ague).

III.—Certain Complications.

By Surgeon-Captain SINCLAIR WESTCOTT, A.M.S.

Ordinary Course of the Fever.—The onset may be insidious or sudden, with fever of remittent type, simulating that of enteric fever; but the temperature soon becomes irregular, and, generally towards the end of the second week, the concomitant constitutional symptoms commence to disappear, the tongue cleans, the appetite returns, the mental condition improves, and we hope that convalescence has commenced; but the temperature remains high, and at any moment the patient is liable to suffer from a complication resembling rheumatic fever; the joints swell and become painful, and the constitutional symptoms of fever return, but the characteristic perspiration of rheumatic fever is absent, and there is evidently no relation to it. This complication, like every symptom of this disease, is of most uncertain duration and degree; it may attack only one or two joints and last only a day or two, or it may cause permanent joint disease.

Local Paralysis and Atrophy of Muscles.—Local paralysis occurs frequently. The extensor muscles of the feet are those almost exclusively affected; the extensor proprius pollicis is more completely paralysed than the others, and the big toe drops in a most characteristic manner. I have seen two cases in which the muscles of the shoulder and arm were affected, but they were exceptional. This symptom is a late manifestation, seldom appearing within four months, but in one case it occurred as early as the end of the second week of the disease. The paralysed muscles atrophy slowly, and recover their proportions long after power has returned to them. The alterations in the electrical reactions are both quantitative and qualitative. Diminution of the muscular response is the only quantitative alteration I have noticed. The qualitative alterations are both modal and serial; the former consists in a sluggish contraction with marked duration of tetanus; in some cases this is the only change, but in those of long duration there is an overtaking of the cathodal closing contraction by the anodal closing contraction. Recovery is generally complete, but it takes place slowly.

Rheumatoid Pains: Neuralgia.—Rheumatic pains, especially in the back and lower extremities, and neuralgia, particularly of the sciatic nerve, accompany the disease, and are symptoms which persist during the long convalescence.

Anæmia.—Anæmia is always present, and it does not seem to be influenced by the administration of iron.

A CASE OF TYPHOID FEVER FOLLOWED BY PERFORATION AND RECOVERY.

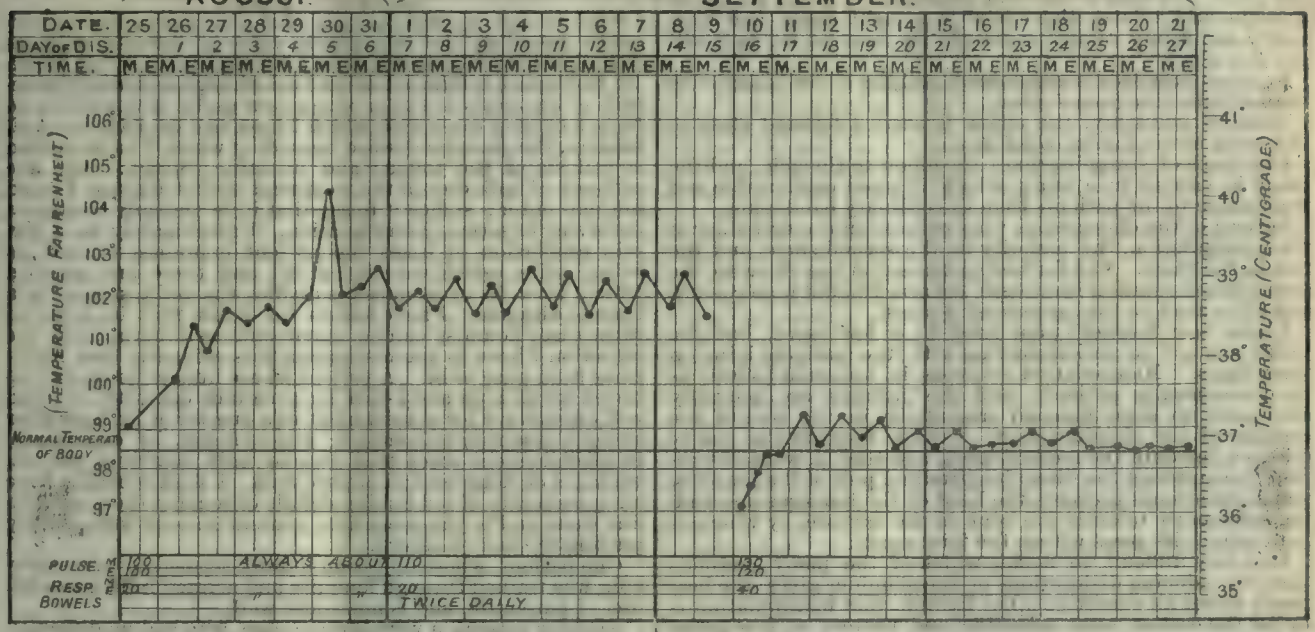
By ANTHONY McCALL, M.B., C.M.,
Conisborough.

Mrs. W., aged 34, a thin, "wiry" woman, complained of general *malaise*, headache, muscular tremors, etc., on August 25th, 1892. As she had been nursing her son who was recovering from an attack of typhoid fever she was at once ordered to bed, and a calomel and rhubarb powder given with the usual typhoid diétary, and salol in 5-grain doses every three hours. The fever pursued a typical but mild course until the fifth day, when the temperature reached 104.4°. On inquiry it was found that the salol powders had not been given since the previous evening. 10-grain doses every two hours were then ordered, and by evening the temperature was 102°. The rash appeared on the eighth day.

On the morning of the fifteenth day of the fever the patient's temperature was 101.6°, and she was not visited again that day as her progress was so satisfactory.

Early on the morning of September 10th (the sixteenth day) she was visited in answer to an urgent call, and found in a state of collapse. She was propped up in bed, breathing hurriedly, evidently in great pain, vomiting every few minutes; beads of perspiration stood out on the forehead; the features were pinched and dusky, and she presented all the symptoms of impending death. Her temperature was 97°, the extremities cold; there was marked tympanites, and great tenderness over the cæcum. The collapse was treated by repeated small doses of stimulants, the extremities packed round with hot bricks wrapped in flannel, and a mixture containing tinct. opii ♏20, spt. ammon. aromat. ♏15 given every hour. She took fluid nourishment in small quantities and gradually improved. The temperature was 98.6° at 8 P.M.

On September 11th vomiting was still troublesome; there was a considerable area of dulness over the cæcum, and slight dulness in both flanks. The circumference of the abdomen at the umbilicus was 35 inches, 7 inches more than normal. A 2-pint enema of hot water was used, and the bowels acted well.



On September 12th vomiting was less, and she was able to recline slightly; the opium mixture was now given every three hours.

On September 13th sulphate of magnesia 30 grs. and tinct. opii m 20 were given every three hours, and the bowels acted the same day. The circumference at the umbilicus was reduced to 33 inches.

On September 14th the local dulness over the cæcum was becoming more defined, and on September 16th the dulness in the flanks was disappearing and the patient able to lie down. Sulphate of magnesia, iron, and strychnine were ordered three times daily. The bowels were moved twice daily and nourishment was taken well. In the dulness over the cæcum, which was an irregular circle 6 inches in diameter, fluctuation was detected about September 25th, and under the influence of poultices gradually pointed.

On September 27th the patient stated that she passed about an eggcupful of matter *per rectum*.

On October 3rd 18 ounces of a bad-smelling purulent fluid —specific gravity 1026—were drawn off from the area of cæcal dulness with an ordinary aspirator under antiseptic precautions. There was a quantity of gas drawn off at the same time, and this was probably already in the fluid, as the needle was not moved about either before or after the pus began to flow.

On October 9th she was aspirated again and 8 ounces of pus drawn off. After this she made an excellent recovery, has enjoyed perfect health ever since, and is able to look after her household duties, including washing.

REMARKS.

Jenner declared perforation to be always fatal. In this case the perforation was due to some half-dozen unripe plums the patient had surreptitiously obtained from a child, and eaten on the afternoon of September 9th. At 10 o'clock that evening she was seized with violent pain and vomiting, which grew worse during the night. Among other points of interest, the following are worthy of notice:

1. The sudden elevation of temperature when the salol was inadvertently stopped, and the sudden fall when recommenced.

2. The harmlessness of giving sulphate of magnesia with opium three days after perforation and the probable good effects it had on the effusion in the flanks.

3. The abrupt termination of the course of the fever after the perforation, the temperature not reaching 99° after the seventeenth day.

4. The comparative good health and appetite existing even with more than a pint of pus in the abdominal cavity.

5. The good results following aspiration without drainage.

A CRITICAL ANALYSIS OF THIRTY CASES OF DISLOCATION OF THE SHOULDER TREATED BY MANIPULATION.

BY JOHN LYNN THOMAS, F.R.C.S.ENG.,
Cardiff.

THE majority of the thirty cases were treated by me whilst house-surgeon at the Cardiff Infirmary under favourable conditions to try various adjuncts when simple means failed. The time it took to reduce the dislocation varied from fifteen seconds to six minutes; when the latter time was exceeded other means had been resorted to. Twenty-four cases were reduced without any trouble at the first attempt on the day of the accident; they were dislocations into the axilla, four in females, and the rest in men of various occupations requiring fairly strong arms—coal trimmers, masons, carpenters, common labourers. The method employed was a modification of that described by Professor Kocher, of Bern, at the International Medical Congress of 1881.

Of the six failures at the first attempt, No. 1 was of eight weeks' standing; various methods under chloroform narcosis failed, and the patient was discharged with a useful movable false joint. Nos. 2 and 3 were recent dislocations in spare non-muscular men; manipulation repeatedly failed, and the heel method was at once successful. In No. 4 manipulation, heel method, and circumduction failed; under chloroform narcosis reduction by manipulation was effected in thirty seconds. In No. 5, after the patient was anæsthetised, manipulation again failed, but the heel method was successful. In No. 6 repeated manipulation failed; traction with the patient's arm round the operator's waist was successful.

Of the twenty-four successes two deserve notice. One was that of a circus performer, and the most muscular man I ever treated. Reduction took place in less than two minutes, although there was much muscular irritability; the other case was of three days' standing, in a man aged 60, with much bruising of the axillary folds from repeated attempts at reduction with the heel in the axilla by competent practitioners. It was reduced in 45 seconds in the first stage of manipulation.

The method employed was the following. With the patient lying on his back the operator grasps the patient's hand in

one hand, lays hold of the arm immediately above the elbow with the other, flexes the elbow to a right angle, and then gently and firmly rotates outwards the arm as far as it will go (*first stage*).

Rotation outwards is maintained, and the elbow is carried to the patient's side (*second stage*).

Then, if necessary, the elbow is carried forward close to the curve of the thorax (*third stage*).

One piece of strapping fixes the elbow to the side, and the hand is carried in a sling, which is more comfortable and wholesome to the patients than the ordinary bandaging.

Several of the dislocations were reduced in the first stage of the manipulation, the majority in the second stage, and the rest in the third. The further movement of the elbow to the sternum and rotation inwards of the arm I found unnecessary and of no avail in the unsuccessful cases.

I have seen Kocher's plan tried in a few cases, but the result was not so satisfactory as with the patients lying on their backs. Manipulation succeeds in muscular as well as in non-muscular patients, and the failures are generally attributed to some unusual irregularity in the rent of the capsule of the shoulder-joint. I think they are also partly due to a defect in the method itself, and that is, want of traction to counteract the direct longitudinal pull of the muscles, which sometimes prevents the head of the humerus descending sufficiently towards the rent in the capsule, by which it is to retrace its steps within the joint again.

It is very difficult to decide which of the many methods used for reducing dislocations of the shoulder gives the best result under all conditions, but I think that manipulation is by far the easiest, most scientific, and neatest, as it requires no special preparation of the patient, operator, nor surroundings, whilst the probability of success[1] at first attempt is high.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

THE POSITION OF THE PATIENT DURING EXCISION OF TUMOURS OF THE RECTUM.

A WEEK ago I removed a tumour of the rectum, about 1½ inch by 1 inch, or rather larger, situated so high up the bowel that it was impossible without enlarging the anus to estimate either its exact size or position. Instead of placing the patient in the lithotomy position I turned him on his face close to the side of the table; the right thigh was extended, but the left hip was flexed, the thigh hanging over the side of the table, and the knee resting on a chair.

The ease with which the operation was performed, as compared with the difficulties which are experienced when the patient is in the lithotomy position, prompts me to ask you to insert this note, because, as far as I know, the latter is the most common, if not the invariable one used, at present. The operation consisted in making a mesial incision as far as the level of the third foramen of the sacrum, removing the coccyx, and separating the attachment of the sacrosciatic ligaments as far as the third foramen on the left side. The rectum was then slit up from behind, and the growth pulled down and removed with scissors. An opening of considerable size was made in the peritoneum, but as this could be perfectly well seen it was stitched up with the greatest ease. All bleeding vessels could be at once picked up without difficulty, and all the steps of the operation could be accomplished with much greater precision than I have ever found possible in the lithotomy position.

Those who have not adopted this plan will, I am sure, find it worthy of a trial, and if it has been put in practice by others I hope that the absence of any account of it in the textbooks will be sufficient excuse for thus drawing attention to it.

Wimpole Street, W. RICKMAN J. GODLEE.

[1] In Braithwaite's *Retrospect of Medicine*, vol. c, Dr. Powers, of New York, gives 77 per cent.

AËRATED MILK.

I WISH to add my testimony to that of Surgeon-Major Goldsmith regarding the therapeutic value of aërated milk, as described in the BRITISH MEDICAL JOURNAL for July 1st. When Dr. Goldsmith informed me some months ago regarding the details of his method, I at once saw how useful it was likely to be in a class of cases with which I have had occasion to deal, namely, the climatic disease, regarding which I have written as psilosis of the tongue and intestine (Sprue). Into the *rationale* of milk diet in the treatment of that disease I need not now enter; suffice it to say that it is the only treatment deserving of serious consideration. Unfortunately in a certain proportion of cases the patient expresses himself as being quite unable to take milk; and there are cases in which, when he overcomes his dislike, the milk seems for a time to disagree. I have known for years that in some of these cases koumiss can be taken and well borne; but the objection I have to koumiss is that it is evidently less nutritious than pure milk. A patient whose hunger pangs are relieved for an hour and a-half by a certain quantity of milk, will often crave for nourishment in a quarter of an hour after an equal quantity of koumiss. I have found, by experience, in several recent cases that aërated milk combines the advantages of koumiss and of pure milk. I shall probably have an opportunity of publishing details of some of these cases in due time, and in the meantime content myself with simply putting the fact on record.

One patient, whose objection to milk seemed to be insuperable, was trained through koumiss and aërated milk into a full diet of pure milk, and is now quite well.

Another patient, a very chronic case, who had no difficulty in taking milk, but in whom diarrhœa continued unchecked, lost the diarrhœa within three days on aërated milk, which she has continued to take with satisfactory results for six weeks.

A nurse who has taken charge of two of my patients tells me that it is very necessary to have two seltzogenes, in order that one may be thoroughly soaked and cleansed while the other is in use.

Surgeon-Major Goldsmith's method will, I believe, be found to be of great practical value in the varied class of cases in which the nearest approach to rest for the intestinal canal is given by keeping the patient alive on an exclusive milk diet.

Queen Anne Street, W. G. THIN, M.D.

LIGATURE OF THE BROAD LIGAMENT.

PERHAPS the two following cases may be of interest to those of your readers who have followed the correspondence on "Ligature of the Broad Ligament."

CASE I.—Mrs. C., aged 33, consulted me in January, 1891. She was suffering from excessive menorrhagia, the periods occurring every three weeks or oftener, and being attended with severe pain. She had lost weight and was too weak to do her own housework. Her father had died of cancer of the neck, and one of her brothers of cancer of the tibia. By vaginal examination the uterus was found to be somewhat enlarged and immovably fixed. On February 19th, 1891, I opened the abdomen, expecting to find double salpingitis with extensive adhesions, but instead I found a rounded tumour (the uterus) densely adherent at its base and growing to the rectum and Douglas's pouch. Its removal was impossible, and looking upon it as a case of cancer, with a view of arresting the hæmorrhage and retarding growth I tied the right broad ligament; the left I could not find. Up to the present the operation has fully answered its purpose. On looking up my patient this morning, she told me that since the operation she had been stronger and able to do her work. Her periods come on regularly every four weeks and last six days, the first four days being rather free. She had quite lost the severe pains she used to have. The tumour had extended to within an inch of the umbilicus, and filled the left side of the pelvis.

CASE II.—Mrs. H., aged 47, was sent to me by Dr. Dyson, of Honley, with a view to hysterectomy for epithelioma of the cervix. Her history was that since Christmas, up to which time she had been quite well, she had had a continuous blood-stained watery discharge. Examination revealed a

cauliflower growth invading the vaginal walls. As the disease seemed too far gone for hysterectomy, I determined to tie the broad ligaments. On May 19th, with scissors and Volkmann spoon I cleared away the growth and made a clean surface in its place. Ten days later I opened the abdomen, and tied the broad ligaments with stout silk ligatures. The ligatures were placed in position by means of an aneurysm needle threaded with fine silk, passed through the lowest parts of the broad ligaments close to their junction with the uterus. The vaginal discharge has quite ceased. It is, of course, too early too pronounce upon the effect of the operation.

In cases of cancer occurring before the menopause it is a question whether it would not be advisable to remove the ovaries in addition to tying the broad ligaments.

Huddersfield. T. Kilner Clarke.

CHLOROSIS.

The causation of chlorosis has been brought nearer elucidation by Dr. Stockman's very interesting investigation on the utility of iron and its mode of action. There are two theories to account for chlorosis. One is that ptomaines are formed in the bowels, and act directly on the organic iron of the food in such a way as to prevent its absorption. If this theory be true, in cases of chlorosis no iron can accumulate in the liver, etc., or be found in the urine. A cure would be brought about by giving any form of iron, even organic iron, in sufficiently large quantities to ensure the absorption of some. Small doses of organic iron would be useless if given by the mouth (as the ptomaines would act upon it), but ought to cure if injected subcutaneously. The other theory postulates that the organic iron of the food is absorbed, but the cause of chlorosis is a derangement of the metabolism of the blood-forming organs preventing proper use being made of the organic iron, which therefore accumulates in the liver or other organs, or is excreted in the urine. If this theory be true, organic iron cannot cure cases of chlorosis, whether given by the mouth or hypodermically. Assuming the correctness of this theory, there are three ways of accounting for the abnormal metabolism:

(1) The disease may be regarded as a neurosis allied to hysteria, the splanchnic nerves being affected, and the deranged metabolism is a consequence of the mental state.

(2) Or an absorption of ptomaines occurs from the bowel as a consequence of congestion of the bowel, and this affords an explanation of the occurrence of the disease in girls about the age of puberty, for then pelvic hyperæmia occurs.

Or (3) the theory of a neurosis can be combined with the ptomaine theory by holding that the mental state affects the nutrition of the bowel directly, and permits of toxin absorption. If the somewhat speculative theory that ptomaines are normally absorbed from the bowel and destroyed in the liver be adopted, the entrance of ptomaines into the circulation must be conceived as taking place in the liver.

If chlorosis be regarded as a neurosis and a simple derangement of the metabolism leading to the inability to make use of organic iron, inorganic iron would cure by acting as a nervine tonic, and directly improving metabolism. Why organic iron cannot do so is a matter for investigation. If, on the other hand, ptomaines be looked upon as the cause, then inorganic iron must either act as an antiseptic, or so affect the mucous membrane of the bowel as to prevent absorption of intestinal toxins. The treatment of chlorosis by intestinal antiseptics does not seem to have been tried by Dr. Stockman. It is reasonable to hold that other drugs besides inorganic iron can cure chlorosis, for it is certain that inorganic iron is not required to supply iron to the corpuscles. It acts by making the red cells take up organic iron, and it must do so before it is converted into organic iron in the liver.

The objection to the ptomaine theory is that ptomaine poisoning or auto-infection is now being put forward to account for several diseases. An intestinal toxin cannot produce all sorts of diseases; and if we assume the existence of several toxins and the absorption of only one at a time, the matter becomes very complicated.

Henry Alston, M.B., C.M.,
Trinidad Medical Service.

THE PREVENTION OF PROLAPSE OF THE INTESTINE AFTER INGUINAL COLOTOMY.

The following device will, I believe, be found of service in checking the tendency to prolapse after inguinal colotomy. It is so very simple that in all probability it has already occurred to others; but if it has I have been unable to find any record of it.

The operation is performed through the usual incision, slitting the aponeurosis of the external oblique and merely separating the fibres of the subjacent muscles with the handle of a scalpel, so as to avoid injuring them. When the loop of intestine which has been selected is drawn out, the aponeurosis on the inner side of the wound is lifted up for about an inch from the internal oblique, and an incision made in the direction of its fibres that distance nearer the middle line. The intestine is then slipped under the isolated strip, brought out through the second opening (the first being closed again with a suture) and fastened by transfixion of the mesentery in Maydl's and Reclus's fashion, or in any other way that the operator prefers. By doing this the opening is made valvular, the muscles are placed in a position to acquire a certain constricting power over it, and the last inch or so of intestine is made to lie at an angle with the part above. I have tried this where the mesentery was long, and found it effectual. It is not so thorough as Mr. Allingham's plan of removing the whole of the projecting loop, and might not answer so well in the case of a loose, pendulous abdomen, with flabby muscles; but it certainly is much less severe.

Wimpole Street. C. Mansell Moullin.

CHOLERA CAUSED BY A FLY (?)

On reading in the British Medical Journal of June 3rd Sir William Moore's article referring to the propagation of cholera, etc., by flies, I am reminded of a remarkable case which occurred when I was in medical charge of a battery of artillery at Nusserrabad in 1846. The victim was a gunner's wife. It was in the month of August; flies were exceedingly numerous; and cholera was epidemic throughout the cantonment and neighbourhood, being particularly fatal in the battery. The poor woman—apparently in perfect health before the occurrence—about 10 A.M. swallowed a fly which flew into her open mouth. Within a few minutes she vomited, and symptoms of cholera rapidly appeared. She died the same evening. At the time I looked upon the intruder's incursion as simply a mode of developing the disease which was in her system, and which doubtless would shortly have been developed in some other way. According to present views the fly, migrating between cholera-stricken persons and diseased evacuations and so being gorged with cholera bacilli, would, on becoming disintegrated by the gastric fluid of the stomach, liberate scores of these germs, who would quickly originate an attack.

Charles R. Francis, M.B.,
Spencer Park, S.W. Indian Medical Service (Retired).

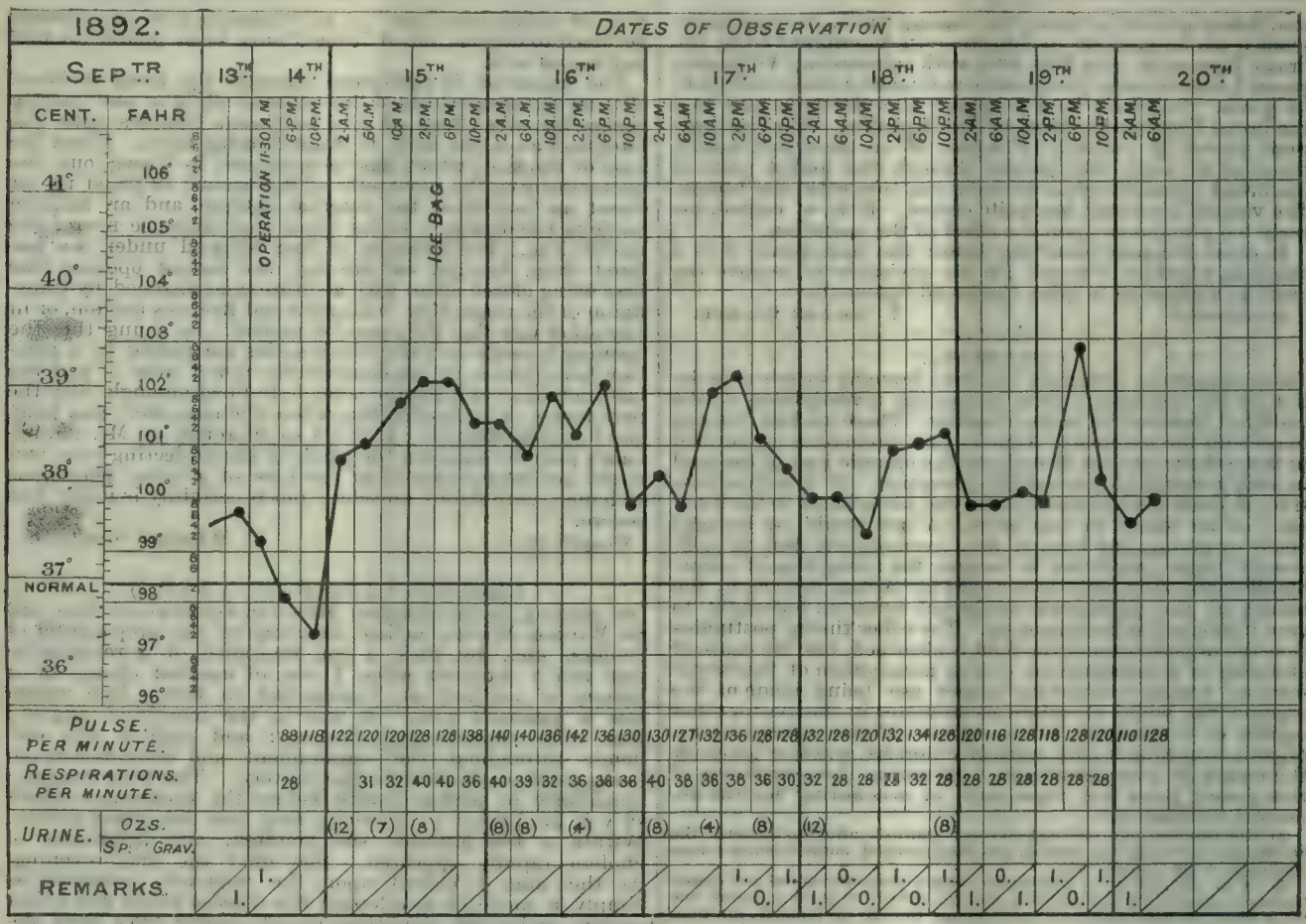
REPORTS
ON
MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

GENERAL INFIRMARY, NORTHAMPTON.

STRICTURE OF PYLORUS: LORETA'S OPERATION.

(Under Dr. Buszard. Operation by Mr. Percival.)

A.M., aged 19, was admitted on July 23rd, 1892, under the care of Dr. Buszard. The patient stated that for the last eighteen months he had been suffering from pain in the abdomen, nausea, loss of appetite, and constipation, and that he had also lost a great deal of flesh. He had been advised by Mr. Durrant, his medical man, to come to the infirmary. The pain was not severe as a rule, and was situated just to the right of and below the epigastrium, but on one or two occasions it had been very severe. The nausea usually occurred very soon after taking food. There was no vomiting. The stomach was dilated. Constipation was a constant symptom; he had to have an enema every night, and after this he always passed a good motion.



On palpating the abdomen a small rounded tumour could be felt in the region of the pylorus; it was tender on pressure, and about the size of a pigeon's egg. He stated that this tumour would at times disappear entirely, and at other times would increase in size until it became as large as a small orange. When the tumour increased in size then the acute attacks of pain came on. He was very emaciated, but no evidence of phthisis existed. The urine was neutral, specific gravity 1020, and contained no albumen. He was ordered ext. opii gr. $\frac{1}{8}$, ext. belladon. gr. $\frac{1}{4}$ ter die, and a variable diet consisting generally of pounded meat, eggs, beef tea, milk and brandy, without vegetables. He improved, and in the beginning of August he got up and for a few days went into the garden, but caught a slight attack of bronchitis. About this time he was seized with a severe attack of pain and vomiting, with cold perspiration. On examining the abdomen the tumour was found to be much increased in size; it was as large as an orange, and raised above the anterior abdominal wall. Morphine, gr. $\frac{1}{4}$, was given subcutaneously, and an opium pill, gr. $\frac{1}{2}$ ter die. The pain and tumour disappeared after a few hours, but he was very weak for some days afterwards. He said he had been in the habit of having acute attacks like this at intervals of six weeks or a month, and that they always made him feel very weak for some time afterwards.

On August 17th his weight was 7 stone. He could eat solid food, and was up and walking about during the day. The bowels were only moved after an enema. He never passed any blood with the motions, and the bowels were not distended. The pain in the epigastrium after food was constant and occasionally very severe, but there was no sickness. The swelling in the epigastric region varied, and at times could not be felt at all.

From that date he steadily went down hill up to the time of the operation. His weight fell to 6 stone 7 pounds. It was determined to accede to his wish, and an exploratory operation was decided upon. This was performed on September 14th, by Mr. Percival, at 11.30 A.M. Half a pint of peptonised milk was given to him on waking in the morning, with one tablespoonful of brandy; no food was taken after this. Antiseptic precautions were taken.

An incision was made in the median line, about 3 inches long, with its centre midway between the xiphoid cartilage and umbilicus through the various structures, and after securing the vessels the peritoneal cavity was opened to the extent of the incision. The stomach immediately presented, and on tracing it to the under surface of the liver, a dense hard mass was felt in the region of the pylorus. The stomach was considerably dilated and a good piece of it was drawn out through the wound, whilst sponges were placed round it in the abdominal cavity and others on the skin, to support it and soak up any fluid that might drain from the incision. Some very large vessels on the stomach wall presented where the incision should have been made, so a small opening was made just to the left of these vessels, and apparently an inch and a-half from the pylorus. The index finger was thrust through this opening and passed to the pylorus. The pyloric orifice was contracted to the size of a No. 6 catheter, and with some difficulty the index finger was gradually pushed through it. The opening in the stomach wall was then enlarged with scissors, so as to allow the index and middle fingers to enter, and these two fingers were then, but with considerable difficulty, passed through the pylorus, dilating it thoroughly. The wound in the stomach was then sewn up with fine silk sutures. Curved needles passed through the mucous membrane so as to tie internally, were first applied, and then Lembert sutures with ordinary round needles were passed through the peritoneal and muscular

coats. A great many sutures were required. The stomach was then well sponged with salufer lotion and returned into the peritoneal cavity; the inside sponges were removed (they were scarcely stained) and the outer wound was sewn up in the ordinary way and dressed with salol and alembroth gauze kept in place by wide strips of strapping. There was not the least hæmorrhage during the operation. He took the ether badly and twice was very sick, in fact on one of these occasions he seemed almost moribund, and I fear some of the vomit must have entered the trachea. Chloroform was substituted for ether during the latter part of the operation. After the stomach was opened and especially during the sickness there was some trouble with a very acid liquid, slightly mixed with flakes of coagulated milk, which then came through the wound, but with care it was all soaked up by the surrounding sponges.

He was placed in bed, and ordered to have only a teaspoonful of water by the mouth occasionally, whilst nutrient injections were given every four hours, and an injection of a pint of tepid water once daily.

As regards the operation, he went on afterwards extremely well. He never had the least pain in the abdomen, and could bear it pressed even over the site of the wound. His diet was gradually increased. He was given Brand's essence of beef on September 16th, peptonised milk on September 18th, egg and brandy on September 19th.

I saw him on the evening of September 19th, and thought him progressing very favourably, but he died at 7 A.M. on September 20th quite suddenly. The unfavourable symptoms noticed during life were:—

1. His temperature was uniformly high, but except on one occasion, on the 19th, we thought it was showing a downward tendency. (The temperature chart taken every four hours after the operation is given on page 66.)

2. His breathing was very quick, and he always complained that the ether had affected him so that he could not get his breath. At the time this difficulty was chiefly attributed to the ether, but partly also to probable interference with the pneumogastric nerve, as Treves quotes two cases where there was dyspnœa with abundant mucous expectoration and disturbance of the circulation, which passed off in a few days. There was naturally a disinclination to sit him up or roll him about much to examine the back of his lungs for fear of disturbing the stomach wound, and it was only the day before his death that he complained of pain in his left side, but the other symptoms were then favourable, and he was beginning to enjoy his food.

Post-mortem Examination.—The external wound had completely healed, and, on opening the abdominal cavity, there was not the least trace of peritonitis; it looked perfectly healthy, and the stomach was less dilated than at the time of the operation. The wound in the stomach had healed over and the stitches were buried. There was very little ecchymosis about the wound, but it was somewhat thickened, and from the contraction of the dilated stomach, appeared much nearer the pylorus than at the time of the operation. There were a few slight adhesions between the stomach and under surface of the liver. On opening the stomach the wound was found throughout to be perfectly united and very firm. It would have required some amount of force to break through it. The pylorus was slightly contracted, and at its posterior aspect was a round smooth surface about the size of a sixpence, evidently the remains of an old ulcer. The stomach was sent to Dr. Shaw at Guy's Hospital, who writes:

> There can be no doubt, I think, that the narrowing of the pylorus was due to the contraction of fibroid inflammatory material developed round a chronic small ulcer. The exact situation of the ulcer is difficult to define, but it appears to be upon the posterior wall and lesser curvature of the stomach, and to be limited distinctly by the pyloric ring. The ulcer has completely destroyed the wall of the stomach, and its base is formed by the exposed pancreas, which is firmly adherent to the exterior of the stomach. I have no doubt that the ulcer is not carcinomatous. The undilated condition of the stomach suggests that the operation was quite successful in removing the pyloric obstruction.

All the other organs, except the lungs, were healthy. The posterior lobe of the left lung was quite solid; all parts of it sank in water, and, on cutting into it, it was found to be in an advanced stage of broncho-pneumonia. There were also many old tough pleuritic adhesions, but no trace of old phthisis. A considerable part of the posterior portion of the right lung was also found affected in the same way, and there can be no doubt that death was due to the lung trouble.

REMARKS.—The operation in itself was perfectly successful and quite justifiable, as the patient could not have lived much longer without some relief. Whether it would have been a permanent cure is another matter. My own opinion is that it would not, but that these cases would be better treated surgically by gastro-enterostomy, performed with the help of Senn's plates. The fatal result was due to broncho-pneumonia, and two factors probably contributed to this result: (1) The administration of ether, which caused sickness and nearly produced death on the operating table, whilst perhaps some of the vomited matter got down the trachea. (2) His feeble state, want of rallying power, and inability to take much food. The very firm union that had taken place in the stomach wound renders it doubtful whether in these cases food might not be given by the stomach at a more early date.

WILLESDEN COTTAGE HOSPITAL.

DISLOCATION OF THE STERNAL END OF THE CLAVICLE.

(By W. J. EAMES, Inspector-General Royal Navy.)

DISLOCATION of the sternal end of the clavicle upwards, being an accident of such extremely rare occurrence that in 1879 only eight cases had been placed on record, it may be of interest to state that an example of this injury recently came under my observation. It occurred in the person of a man who was thrown from a furniture van, at the same time sustaining fracture of fifteen ribs by the wheels of the van passing over his chest; the lung was penetrated, death resulting in a few hours from internal hæmorrhage.

The extent of the injury could not, of course, be immediately determined, so it was deemed advisable to reduce the dislocation as soon as possible. This was done without much difficulty in the usual manner, and a figure-of-8 bandage with a pad applied over the head of the bone to keep it in position. A *post-mortem* examination revealed the extent of injury and cause of death.

REVIEWS.

SELECTED MONOGRAPHS ON DERMATOLOGY. By UNNA, NIELSEN, DUHRING, BRONSON, BLANC, BERGER, PRINCE-MORROW. London: The New Sydenham Society, 1893. Demy 8vo, pp. 613, two lithographs.)[1]

THE selection of the monographs on dermatological subjects which are contained in this volume has been judicious; and their publication in this form will serve a useful purpose.

The first 150 pages consist of translations—for the most part in abstract—of papers by Dr. UNNA, for which DR. Abraham is responsible. Dr. Unna's name is familiar to all readers of medical journals, and is associated with unusual and many-sided activity. His researches on the methods of staining micro-organisms and on the fungi of the skin entitle him to a prominent position amongst bacteriologists; whilst his views on the physiology and general pathology of the skin are often ingenious and always suggestive. His name, it is needless to say, has been long associated with various convenient appliances for the treatment of skin affections, some of which have become well known, both from the advantages which they possess and from the enterprise of Beiersdorf and Co., of Hamburg, whose catalogues of "Dermato-therapeutischer Praeparate und Apparate nach Dr. Unna" have been well circulated. Although there is no doubt that the multiplicity of these preparations and even the energy with which they have been pushed might be calculated to produce in some minds a certain amount of perplexity, yet the experienced practitioner will find many of them of value. The salve mulls and gutta percha medicated plasters are not likely to pass soon out of use. The composition and manner of using these various preparations are given in the papers with sufficient fulness. No fewer than twenty-two of Dr. Unna's papers are abstracted, and the abstracts are followed by a complete list of his contributions

[1] The annual subscription to the New Sydenham Society is one guinea, and the agent Mr. H. K. Lewis, Gower Street, W.C.

to dermatology. Some of these papers will be found useful to the general practitioner, and all of them bear the evidence of much work and study. The very necessary labour of condensation has been satisfactorily performed.

In a short paper of eight pages, by Dr. LUDWIG NEILSEN, of Copenhagen, the association of the appearance of herpes zoster with the administration of arsenic is discussed, and a synopsis of ten cases in which this occurred is given by the translator.

Next there follows a series of contributions of very great value, consisting of a collection of seventeen papers on dermatitis herpetiformis, by Dr. DUHRING, published between 1883 and 1891. Though they take up 120 pages of the volume, the space allotted to these papers is not too great. Dr. Duhring has described, and endeavoured to establish as a separate entity, a special form of dermatitis in which the lesions are stated to be sometimes vesicular and bullous, sometimes pustular, and sometimes bullous and pustular combined. There are also varieties in which the lesion is simply erythematous or papular. In these papers the grounds on which the disease is separated from eczema, ecthyma, and pemphigus are clearly set forth. Many experienced dermatologists fully accept Dr. Duhring's definition, although assent is not yet by any means universal. We believe that he has done great service to dermatology by his careful observations. He at one time considered the very rare and fatal disease, described by Hebra as impetigo herpetiformis, as one of the manifestations of his dermatitis herpetiformis; but in consideration of a recent paper by Kaposi he is content to consider the question of their identity still an open one.[2]

An ingenious and suggestive paper on itching, by Dr. BRONSON, follows; and a case of mycosis fungoides by Dr. BLANC, with two lithographs. After a short paper on pellagra by Dr. BERGER, Dr. PRINCE-MORROW'S work on drug eruptions is reprinted, occupying 176 pages. The value of this paper is much increased by the careful editing of Dr. Colcott FOX, who has enriched it by valuable notes. This part of the volume may be considered to be a complete work on the subject up to the present time, all the forms of drug eruptions known in medical literature being described.

The volume concludes with an interesting paper on psoriasis, by Dr. Nielsen, of Copenhagen, translated by Dr. Barendt, in which the obscure points and the pathology of that common disease are skilfully handled. The author considers that, although Lang's statements regarding its parasitic nature have not been confirmed, the treatment should consist in the energetic use of antiparasitic remedies. He considers internal treatment by arsenic and iodide of potassium only an auxiliary measure.

All the papers referred to as composing the volume are well worth reprinting in a work of this kind, and Dr. Duhring's and Dr. Morrow's papers alone, as not being otherwise readily accessible, would constitute ample justification for its publication.

TRAITÉ DES RÉSECTIONS ET DES OPÉRATIONS CONSERVATRICES QU'ON PEUT PRATIQUER SUR LE SYSTÈME OSSEUX. Par L. OLLIER. Paris: G. Masson. Tome i: Introduction, Résections en Général, in-8vo. de 664 pages avec 167 figures dans le texte. 1885. (16 fr.). Tome ii: Résections en Particulier; Membre Supérieur. 614 pages et 165 figures. 1888. (16 fr.). Tome iii: Membre Inferieur; Tête et Tronc. 1032 pages et 225 figures. 1891. (22 fr.).

THIS work has more than a single claim to a favourable reception in this country. Its author is both an eminent surgeon and a distinguished man of science, and his treatise, as it has been written since the commencement of the antiseptic era and deals in a very practical spirit with the treatment of a common class of affections, will surely retain abiding value as a source of information and suggestion. The present work is a repetition, though much extended and elaborated, of a previous treatise on *Regeneration of Bone*. The conclusions expressed in the earlier book, which were derived mainly from experimental studies, are here shown to have been confirmed by the results of long and extensive surgical experience.

OLLIER'S methods of resection are, as is well known, based on his views on the osteogenetic function of the periosteum. Believing thoroughly in the capability of this membrane to form, and to mould into proper shape, masses of callus, he insists strongly on its preservation in operations for the removal of injured or diseased bone. He insists, also, in resections of joints, on the importance of preserving in their continuity all the periarticular ligaments and tendons, so that the ends of the bone when detached, are removed through a slit formed in a compact sheath of fibrous structure—the so-called capsulo-periosteal sheath. A full explanation of his subperiosteal method, and of the details of its application to actual practice, together with an earnest testimony to its merits, are the main objects to which this treatise is devoted. In his own country, and, indeed, in most parts of the Continent, Ollier's practice has been readily adopted, but most British surgeons, though much more careful now than formerly to preserve ligamentous and tendinous structures whilst resecting joints, are disposed to regard with some impatience the more precise and tedious details of this particular method. It must be confessed that in subperiosteal surgery, as understood by Ollier, there are difficulties and doubts to be overcome. Certainly the membrane which surgeons and pathologists call periosteum is capable, even when transplanted to a distance, of forming new bone, but this function is often exercised in a very capricious and uncertain manner. In some instances, too much callus is formed, in others too little or none at all. It is not always an easy process to separate periosteum from the bone; and in the cadaver, as most teachers of operative surgery know, it is very often impossible. In children there is, as a rule, but little difficulty in preserving a large extent of bone-forming membranes, but in adults the surgeon often fails to separate any more than thin and barren shreds of fibrous tissues. In disease the periosteum is thicker, more vascular, and less closely attached, but in tuberculosis it is doubtful whether the very conservative method of subperiosteal resection is compatible with complete removal of morbid material. There can be no doubt, however, that the method advocated by Ollier presents some great advantages, as, by its adoption in suitable cases, resection may be performed with decreased risk to the patient, and with improved prospects of preserving a freely movable and very useful limb.

The first volume is devoted to a discussion of general principles and fundamental rules; the second to resections of the articulations and bones of the upper extremity. Notwithstanding the relative rarity of disease of the shoulder, Ollier is enabled to furnish from his own experience some instructive data respecting the value of pathological resections of this joint. Here the conditions, and particularly the conformation of the joint, would seem to be most favourable to the subperiosteal method, the main object of which is to avoid subsequent ankylosis, and to preserve a freely movable limb. The results of resection of the shoulder, however, have not, in the majority of cases, been very satisfactory from the author's point of view. The operation in itself is not a dangerous one, as only in a single case out of thirty did it result directly in death, but although some few cases are reported in which the functions of the shoulder were almost completely restored, it is questionable whether in the majority of the author's patients any condition tantamount to that of an actual enarthrodial joint was established. In advanced osteo-arthritis, by which disease resection of the shoulder is most frequently indicated, the restoration of free mobility after the operation is, it is stated, likely to be prevented both by incurable degeneration and atrophy of the surrounding muscles, and by the formation of rigid cords of scar tissue along the tracts of old fistulæ. The most favourable cases for the operation are held to be those of early osteo-arthritis and of injury, especially gunshot wounds, of the joint. The statistics of resection of the shoulder, and, indeed, of the other large joints in military surgery, have hitherto been far from satisfactory, and it is very doubtful whether, in future campaigns, they are likely to be improved by attempts, which must often be made under unfavourable

[2] The writer of this review, who is familiar with Dr. Duhring's disease, once had the opportunity of seeing a case of Hebra's impetigo herpetiformis, and, in the light of that limited experience, is not disposed to consider the two maladies as closely associated.

conditions, to perform protracted operations, and to carry out careful and stringent methods of dressing.

Almost half the second volume is taken up by resection of the elbow. The indications and results of this beneficial operation are discussed at full length, and an elaborate analysis is given of cases of old injury to the joint, in which resection, complete or partial, is regarded as suitable. In this joint the results of the subperiosteal method are especially well marked, since here, as a rule, much new bone is thrown out, which more closely resembles in this than in other joints the original conformation of the articular ends of the long bones. Whether such results are likely to prove useful in the case of this particular joint is very questionable.

The third and concluding volume begins with a very instructive chapter—conservative operations at the hip. The plan of resection preferred by Ollier in most cases is one in which the great trochanter is separated from the femur and turned upwards together with the attached soft parts, this process being subsequently either removed, or replaced and fixed by sutures according to the extent of the disease. This operation, we are informed, is not a difficult one, and it has the advantages of exposing to full view every part of the diseased region, of permitting free drainage, and of leaving the periarticular muscles intact. Ollier confesses that he has never practised the anterior operation on the living subject, and he is probably influenced by the fact that when attempted on a sound joint in a cadaver it is usually found a very difficult and an almost impracticable procedure.

The results of resection of the hip for disease in Ollier's practice have not been very striking, for though since the introduction of the antiseptic method, his primary mortality has been reduced by 10 per cent., the secondary mortality has remained very high. It is held, however, that where there are no positive indications against the operation, resection is much less dangerous than expectant treatment, for although it may prove fatal in 30 per cent. of cases, it will very probably save or prolong life in the other 70 per cent. When successful, resection of the hip by the subperiosteal method is followed in most instances by better functional results than those usually attained by other methods.

By the use of antiseptic dressings, particularly iodoform, and also by restricting the operation to certain cases when dealing with active disease of the knee, Ollier has reduced the mortality after resection of this joint from 85 to 7.8 per cent. The operation is now practised in cases of disease which formerly would have been treated by expectant methods, and is, as a rule, rejected in those cases in which at first it was applied far too freely and indiscriminately. Ollier advocates resection in cases of tuberculosis of the knee, in which the disease is in an early stage, and signs of local suppuration and of remote infection are absent. Advanced disease of the knee in an adult he would consider an indication for amputation. The former operation he would perform without hesitation on any phthisical subject in whose case there might be good chance of improvement from surgical intervention. With regard to the relative gravity of amputation of the thigh and resection of the knee, Ollier states that the former operation is less serious than the latter in cases of suppurating and diffused articular disease, with extension of tuberculosis to the adjacent muscles and the shaft of the femur or tibia. In cases of ankylosis and distortion from old injury or worn-out disease, amputation and resection, it is held, are about equal as regards gravity. In deciding, in young subjects suffering from strictly localised and, as yet, non-suppurating disease of the knee, between resection and expectant treatment, Ollier is guided by the degree of flexibility in the joint. He would refrain from operating as long as there is a chance of recovery with a movable leg, but would resect the knee whenever the morbid changes in the articular structures are so far advanced as to render ankylosis inevitable. Synovectomy and articular abrasion are opposed by Ollier as being in most instances imperfect operations, and liable to leave some of the diseased structures, and thus to expose the patient to the risk both of local relapse and of generalised tuberculosis.

In the chapters on resections of the wrist and ankle, Ollier presents the results of a very wide experience of operative measures which seem to have lately lost favour amongst surgeons in this country. In resection of the wrist, which he has performed 58 times with 5 deaths, he has sought—in many cases with complete success—to prevent ankylosis and establish free flexion and extension of the hand. Resection of the ankle, which Ollier has performed on 48 patients in the course of six years, is not, he states, a fatal operation in itself, but is very liable, when practised for tuberculous disease, to accelerate general infection. In such cases amputation is regarded as the safer operation.

Although we have devoted an unusual amount of space to this important work, we have only been able to touch upon points of more general interest. The detailed discussions of many practical points, and the observations on uncommon operations which it contains render it a work which every operating surgeon should study with care.

Diagnostik der Bakterien des Wassers [Discrimination of the Bacteria of Water]. Von Professor A. Lustig, with a preface by Professor P. Baumgarten. Jena: Gustav Fisher. Turin: Rosenberg and Sellier. 1893. (Super royal, pp. 128. M. 4.50).

Water analysis in the present state of our knowledge must be considered both incomplete and unscientific without a qualitative and quantitative bacteriological examination. Though but few infective organisms have been found in water, among those that do occur are some which may prove of extreme danger to the health of the community, notably the germs of typhoid fever and cholera. Water, also, which contains enormous quantities of microbes should be condemned, since this fact implies the possibility of the presence of some infective organism not detected on account of the great difficulty of separating it from the myriads of other germs.

Professor Lustig has ably collected most that is known of "water bacteria," and arranged the whole critically in a form suitable for analytical research, so that anyone acquainted with the fundamental rules and methods of water examination will find great assistance in the differential diagnosis of the various organisms likely to occur in any sample of water. We fully endorse the laudatory remarks by Professor Baumgarten in the preface to this excellent little book.

The bacteria are arranged in tabular form; herein the author has used Eisenberg's well-known tables as a model. He gives us the characters of the bacteria according to shape and arrangement, mobility, spore formation, and so forth. He naturally begins with the organisms pathogenic for man, among which he mentions the staphylococcus pyogenes aureus, bacillus pyocyaneus, saprogenes, tuberculosis, typhosus, and choleræ. His remarks on the two latter are extremely valuable and complete, embodying also a short historical review. Under the heading of typhoid bacilli he discusses the differential diagnosis of the various organisms closely resembling Eberth's bacillus, of which he mentions nine. After an enumeration of the water organisms pathogenic to animals though harmless to man, the remainder of the tables is devoted to a brief but concise and accurate description of 160 non-pathogenic bacteria, carefully classified according to structure and their action on gelatine. The arrangement is excellent, and we have not been able to detect any serious error in the tables which we have examined. We are confident that anyone called upon to make a scientific bacteriological analysis of water will find these tables extremely valuable as a trustworthy guide in the determination of the nature and species of the organisms found.

NOTES ON BOOKS.

The Care of the Sick. Notes on Home Nursing. By Annesley Kenealy, Lecturer on the Staff of the National Health Society; Lecturer for the Councils of Technical Education; late Sister at the Hospital for Sick Children, Great Ormond Street, and at St. Bartholomew's Hospital. (Published for the National Health Society, 53, Berners Street, W., by Allman and Son, Limited, 67, New Oxford Street, London, 3d.)—This pamphlet contains a great deal of information especially adapted to those whose vocation brings them into

contact with home nursing; it supplies a want continually felt, the lack of appliances to be found, particularly where it is the object of the nurse to save the often not too well filled pocket of her patient. Many ways are suggested of utilising the ordinary furniture and utensils for extraordinary purposes; such, for instance, as using a teapot as a feeding bottle, a chair as a bed rest, a child's trumpet over a kettle spout as a steam kettle. The little book contains also some simple receipts for a sick diet. The directions for making poultices and preparing disinfectants at home will also be found useful. The instructions as to the nursing of cases of infectious diseases and the precautions to prevent the spread of infection are trustworthy, though perhaps it would have been better had the probable duration of infectiousness after measles not been suggested as about two weeks. This is a point which ought to be left to the medical attendant to decide, in this as in other diseases.

Transactions of the American Gynæcological Society. (Vol. 17 for 1892, royal 8vo, pp. 493.)—This volume comprises a number of papers on various subjects and of unequal value. The most ambitious paper is a very complete monograph on Tuberculosis of the Female Genital Organs, by Dr. Whitridge Williams. The most startling piece of practice is a case (reported by Dr. Parish) of uterine suppuration after labour successfully treated by cutting out a large piece of the uterus, in which the focus of suppuration lay (together with the ovaries and tubes), and bringing together the cut edges of the uterine wound by suture.

Popular Information concerning Infectious Diseases. (By Horace Sworder, L.R.C.P., M.R.C.S., L.S.A. (Renshaw, London, 1893. Cr. 8vo, pp. 82, price 2s. 6d.).—Mr. Sworder has for many years been medical officer of health for Luton, and, like many of his brethren, he has found reason to regret the lack of accurate information as to the scientific basis of preventive medicine among the public. The present work is an attempt to place before them some of the leading points in an intelligible and interesting form, omitting the medical technicalities which make the ordinary textbooks too dry, diffuse, and often obscure for non-medical readers. The first part is devoted to a clear little sketch of each of the principal zymotic diseases, including the routine measures of precaution necessary in infected households; and we are glad to see that the author lays emphasis on the grave risk of trusting to other than skilled nursing in diphtheria, enteric fever, or cholera. The second and longer portion consists of a popular exposition of the broader questions involved in the causation and prevention of these diseases. This part is even better done than the first, and its interest and value are enhanced by the liberal use of well-chosen quotations from various authorities, especially Sir John Simon and Dr. Thorne Thorne. It is a book to be commended, although it has no index.

THE SANITARY CONDITION OF LONDON THEATRES.[1]

[By our Special Commissioner.]

V.

Court Theatre.

The present building in Sloane Square, which replaces the old Court Theatre, was opened in September, 1888; its seating capacity is 639. The greatest care has been exercised that both before and behind the curtain nothing should be wanting to make the sanitary condition as nearly perfect as it is possible to have it. One slight improvement in the ventilation of a cloakroom which we suggested was at once carried out.

Tivoli.

Here also the sanitary arrangements are satisfactory. The ventilation of the waterclosets in the pit might be somewhat improved, but otherwise there is little cause for complaint.

London Pavilion.

The sanitary arrangements at this music hall, if not of quite so modern construction, are in a satisfactory condition, and are well looked after. Off the ladies' cloakroom are two waterclosets ventilated into the open air, but the window is 3 feet below the ceiling; it might be well to insert an air brick at a higher level in the wall. In the lavatory set aside for waiters are three waterclosets built in the same room and ventilated into it. They are apparently not used for the purpose intended, and should therefore be disconnected from the drain. The kitchen contains a sink, the waste pipe of which requires to be trapped. This and several other rooms in the building require limewashing.

Theatre Royal, Drury Lane.

This well-known theatre is apparently nearing its end, at least in its present form, as the County Council is reported to have adopted the following recommendation of its Theatres and Music Halls Committee:

That the owners be informed that, though the Council considers the present condition of the theatre unsatisfactory, it recognises the fact that their lease has only a short time to run, and is therefore unwilling to proceed with the question of the structural alterations; but if the lease of the buildings be renewed to them (or to any other person), it will be necessary to reopen the matter; and further, that the freeholder be informed that if, when the present owners vacate the premises, they be again leased, or the site used for a theatre, the Council will require the house to be altered, or new premises built to its satisfaction.

The sanitary authority in whose district the theatre is situated has inspected the building, and we understand certain necessary works have been executed; in view thereof the owners did not consider it necessary that there should be any further examination on behalf of the British Medical Journal.

Daly's Theatre.

This new theatre has been designed with considerable attention to sanitary fitness. The dressing rooms are well ventilated to the open air, and, besides being provided with electric light, each contains a small gas stove for the purpose of heating water, curling tongs, etc. This is a recognition of the fact that some convenience of this kind was required by actors, and explains the objection some of them have to electric light in their rooms instead of gas. Each dressing room is fitted with a lavatory basin, both hot and cold water being laid on. The plumbing work is of a high class description; but it would have been better had the urinals discharged into a grating-covered channel with a trap at the end than into a lead pipe below, however well the plumbing has been done. The urinal stalls are similar in description to the public ones at Trafalgar Square, but the slope of the floor is rather less. The parts of the house for public use are of good design and construction. A new feature has been introduced here by the provision of a *foyer* without a bar or buffet where it is hoped ladies as well as gentlemen may promenade between the acts.

Postscript.

In concluding this series of reports, I have to add that at the majority of the theatres any suggestions that were made with a view to improving the sanitary conditions have been readily adopted by the proprietors, to whom and to the managers thanks are due for the facilities they so freely gave for the examination of their houses. In several instances, it is only fair to state, the work was so quickly put in hand that it was completed by the time the report appeared in print. Notably was this so in the case of the Britannia Theatre, Hoxton, where extensive alterations were undertaken, placing that theatre in first class sanitary condition. Proprietors in every case expressed their anxiety to remedy any fault which might be detected.

[1] The other articles of this series appeared on March 25th, May 6th, May 27th, and June 10th.

Presentations.—On the occasion of the distribution of certificates to the members of the ladies nursing and men's first aid ambulance classes, on June 30th, Dr. Ringwood, of Kells, co. Meath, was presented by the members of the ladies' class with a silver revolving soup tureen, and by the members of the men's class with a handsome wrought metal floor lamp, as tokens of their appreciation of his instructions.

The first Russian Exhibition of Hygiene was formally opened recently at St. Petersburg. The exhibition, the organisation of which is largely due to the Russian Public Health Society, is under the protection of the Grand Duke Paul Alexandrovitch.

THE REGISTRATION OF MIDWIVES.

Select Committee of the House of Commons.

Evidence of Mr. Braxton Hicks, Dr. Henry Bott, and Dr. J. Emmerson.

On Friday last, June 30th, the Select Committee of the House of Commons sat for the first time to take evidence respecting the registration of midwives. The Committee consists of Mr. Fell Pease (Chairman), Dr. Farquharson, Sir Frederick FitzWygram, Sir Henry Howorth, Messrs. Albert Bright, Tatton Egerton, Priestley, Rathbone, Stephens, and A. Williams.

Mr. Braxton Hicks (Coroner of the South-Western Division of London and the Kingston Division of Surrey) was the first witness called. He said it was the usual practice for a motherly old person in a locality to act as midwife, her only qualification being that she had attended a certain number of deliveries. He thought registration would imply responsibility, and would be a check upon such cases. Poor people did not go to a certified midwife because they could not afford it.

Dr. Farquharson: Do you think the present system needs reform?—Yes; some rigid reform. These persons should not act as midwives unless they have some experience.

Witness, continuing, said the great difficulty was a financial one. A registered midwife should only be a person to attend births, and it should not lie in her power to give certificates of death. As he had said at a previous Committee, a woman told him she had given many certificates in the cases of children who had lived several days, and they had always been accepted by the registrar.

In reply to Mr. Priestley, the Witness said it was not an uncommon practice for local registrars to accept such certificates. In the country some registrars accepted almost anything. The registration law was at present a farce. It should be illegal for a midwife to attend another person after attending a case of puerperal fever. He had once sent such a case for trial, but the woman could not be convicted of manslaughter. There should be some penalty.

The Chairman: Have you known stillbirths caused by the attendance of the midwife?—Yes, by suffocation.

Have you had any cases where you supposed this was done purposely?—I have had suspicions.

We had evidence last year showing that there were such cases.—I have no doubt about it, but juries would not convict. It is allowing a child to die in the womb before delivery.

Witness said further that there should be registration of stillbirths, as without that there would be no means of checking midwives, and no certificate of stillbirths should be accepted unless it was verified by a registered medical man. Before the Committee on Death Certification he suggested that the coroner should have the assistance of a medical assessor, who could attend such and other cases.

Dr. Bott, of Brentford, said that Brentford was a town of 14,000 inhabitants. About half the confinements were attended by certified midwives, but there were two or three old women who went about attending cases. They charged very small fees, but it was difficult to find out that they did anything wrong, as they worked so quietly. He had no doubt that it frequently happened that children's lives were lost through the ignorance of such women. He thought if midwives had a certificate and were registered it would be a great help to the poor people.

In reply to Mr. Priestley, the Witness said the inducement to have an unregistered midwife was that the fee was smaller. The great importance of midwives amongst the poor was that they acted as nurses as well.

The Chairman: Have you seen ill effects from unqualified persons?—I have had grave suspicions but have never fixed one. In our parish the registrar accepts the certificates of a qualified midwife. I do not think a doctor would be justified in attending to verify cases of stillbirth without a fee. I do not think our uncertified midwives give certificates of death. The infant mortality in the town—children under one year of age—is steadily increasing.

Mr. Williams: Does the general death-rate increase?—No; that gradually improves.

The Chairman: Does insurance account for it?—I am not able to say that, although all the children are insured.

Mr. Williams: It would be interesting if you can ascertain that the growth of mortality is due to want of proper attendance at birth.—It would be difficult to find out.

Mr. Priestley: Do you object to state what your own opinions on the matter are?—Well, it is a complex question, and probably due to the customs of the place. The women work in the fields and leave the children in charge of a woman, and the woman in charge, having work to do, allows the children to sit in open doors and such like, and they gradually drop off.

Mr. Williams: Then you do not say that this increase of infant mortality is due to want of proper attendance at birth?—I could not say that; but many children die within a few hours of their birth, and I always have grave doubts whether these lives would not have been saved if properly looked after at birth. Midwives should pass a proper examination before a board of medical men, appointed, perhaps, by the College of Surgeons, after they have been in a lying-in hospital.

Dr. J. Emmerson, of Biggleswade, Bedfordshire, said he had been parish doctor in that district for fourteen years. It was an agricultural district. He described several cases which had come under his knowledge where the effects had been serious through the ignorance displayed by a woman who attended as midwife. One case which occurred some years ago was described in the British Medical Journal. He consulted a magistrate with regard to the woman as to whether a warning could not be given her, but was informed that the magistrate had no power to do so. The uncertified midwives charged about 2s. 6d. a case, and, as the wages earned were low in the district, the inhabitants could not afford to pay for a medical man.

In reply to Mr. Priestley, the Witness said he believed that the women in the district had more faith in a doctor, but they could not afford to pay for one. The midwife also acted as nurse, although as a rule some neighbour did the nursing. There was no feeling in his parish about getting a parish order. In fact they looked upon it almost as a right.

By Mr. Williams: There were six or seven unqualified midwives in his district.

The Chairman: Don't you think if there were registered midwives the doctors' practice would suffer?—No, I do not think so. Where the difficulty would come in is that a woman who has been properly trained would command a better remuneration.

Mr. Priestley: Don't you think that if the State wish to preserve infant life they should provide State aid in the matter?—That is the only way.

Mr. Williams: A great many people are attended by these women?—Yes, and, as a rule, they do it well.

Do you consider the present system satisfactory?—Well, no; the women at present engage doctors and don't pay them. It is morally bad now. The question of expense seems to me a very big bar to any alteration.

Mr. Bright: Is there any difficulty in getting parish orders?—A woman rarely gets an order in her first confinement.

The Committee then adjourned until the following Friday.

SMALL-POX AND VACCINATION IN 1892-93.

[Special Weekly Report to the British Medical Journal.]

VII.—Liverpool.

Dr. Stopford Taylor, in his annual report on the Health of Liverpool during 1892, embodies a tabular statement prepared by Dr. Walker, the Resident Physician of the Small-pox Hospital, as to the admitted cases during the year with reference to their condition *qua* vaccination. The information furnished in the table is summarised in the following statement, from which we have omitted the facts concerning the amount of scarring, for the reason that Dr. Walker does not mention anything as to quality and area of scars, neither does he distribute the deaths among the different classes of vaccination. We are thus unable to test the differing amount of protection against death witnessed in Liverpool small-pox

of one and another degree of scarring; but the facts given are significant of the value of vaccination.

PARK HILL HOSPITAL.

Small-pox Cases Admitted during 1892.

Age Periods.	Vaccinated.					Unvaccinated.				
	Discrete.	Confluent and Semiconfluent.	Hæmorrhagic.	Total Number of Cases.	Deaths.	Discrete.	Confluent and Semiconfluent.	Hæmorrhagic.	Total Number of Cases.	Deaths.
0-5	1	—	1	2	1	3	3	—	6	5
5-10	5	—	—	5	—	2	3	—	5	—
10-25...	71	12	—	83	2	2	5	—	7	3
25-45...	51	14	2	67	1	1	3	1	5	1
45+	11	1	1	13	2	1	—	—	1	—
	139	27	4	170	6	9	14	1	24	9
	170					24				

It is here seen that the admissions numbered 194, with fifteen fatal results, the death-rate being 7.7 per cent. of cases. This rate is composed of (170 cases, 6 deaths) 3.5 among the vaccinated patients, and (24 cases, 9 deaths) 37.5 among unvaccinated patients.

Total sufferers	194	Total deaths, 15 =	7.7 per cent.
Vaccinated ditto	170	,, 6 =	3.5 ,,
Unvaccinated ditto	24	,, 9 =	37.5 ,,

Now, if the death-rate obtaining among the vaccinated had not been exceeded among the unvaccinated, this latter class would have furnished, not 9, but barely 1 death (0.8). Had the death-rate obtaining among this last-named class been found in the vaccinated, the 170 cases would have furnished, not the actual 6, but 63 deaths.

At the several age groups enumerated in the table, the mortality rates in the two classes are as follow:

Age Periods.	Vaccinated.			Unvaccinated.		
	Cases.	Deaths.	Per Cent.	Cases.	Deaths.	Per Cent.
0-5	2	1	50.0	6	5	83.3
0-10	7	1	14.4	11	5	45.5
10-25	83	2	2.4	7	3	42.9
25-45	67	1	1.5	5	1	20.0
45+	13	2	15.4	1	—	0.0

With reference to the character of the attack, we find as follows in percentages of total attacks of each class:

	Vaccinated.	Unvaccinated.
Discrete	81.8	37.5
Confluent and semiconfluent ...	15.9	58.3
Hæmorrhagic	2.3	4.2

These are striking results, and are for all ages. Comparing the two classes at ages under 10 years, and dealing with very small figures, we have:

	Vaccinated.	Unvaccinated.
Discrete	85.6	45.5
Confluent, etc.	0.0	54.5
Hæmorrhagic (one case)	14.4	0.0

In regard to the low death-rate among the vaccinated as opposed to the unvaccinated class, we may note that the first-named section had scars in the following percentages of their total, namely:

Scars.	One.	Two.	Three.	Four and more.
Percentages ...	18.9	37.6	23.5	20.0

Thus the city of Liverpool during 1892 has furnished facts amply testifying to the efficacy of vaccination to protect both against severity and fatality of attack by small-pox.

THE CHOLERA.

Cholera in the Tyne.

We learn that the steamship *Myrtle Branch* left the Tyne on July 3rd for Stockholm with a cargo of coal. She carries the same officers, but a fresh crew. Seven of the men who came from Nantes on June 25th are staying in the neighbourhood of Newcastle for the present; the three others have already left the Tyne for Cardiff and Scotland. All officers and men when they left Newcastle appeared to be in good health.

France.—The public records of cholera in France during the past month have reference to 19 different towns and localities, and account for the occurrence of nearly 150 fatal cases, including 37 deaths at Alais, 36 at Cette, and 31 at Montpellier. The news of last week in respect of these three places is to the effect that cases still occur, but in smaller numbers, the disease being regarded as at an end at Alais. But in the village of Luc-sur-Aude, which contains fewer than 200 persons, an outbreak of cholera, attributed to bad water, is reported to have carried off 12 victims, leaving 15 patients under treatment. Toulon figured conspicuously in last week's returns, and cases and deaths were reported from Hyères and Seyne, both newly invaded.

Austria-Hungary.—A statement emanates from Buda-Pesth to the effect that during several weeks past there have been suspicious cases of a choleraic nature in the cities, declared by the health officers to be intestinal catarrh.

Algeria.—A slight epidemic of a choleraic character is reported from Bisora during the later days of June and the early part of this month.

Mecca and Jeddah.—Cholera has now fatally invaded Jeddah, where 76 deaths from the disease took place on the last day of June. At Mecca there were 455 cholera deaths on Sunday of last week, 999 on the Monday, 650 on the Wednesday, and 440 on the Friday, making a total of over 5,000 deaths among the pilgrims during the month of June. News of Sunday last, however, speaks of a decrease in the mortality. The return of the pilgrims has now commenced, and their arrival in Alexandria will be the signal for strict quarantine, the postponement of the Venice Conference propositions leaving the health authorities there a freer hand during the present cholera season.

Russia.—The official cholera bulletin for the week ended June 23rd gives the deaths in the province of Podolia as 33, with 112 fresh attacks, thus recording a recrudescence in that district. In the Don territory there were 10 cases, 4 deaths; Government of Bessarabia, 16 cases, 3 deaths; and Kuban, 1 fatal case.

Spain.—It is reported that at Palafrugell, a village in the province of Gerona, near the French frontier, cholera has occurred and has caused four deaths down to July 3rd.

European Quarantine Restrictions.

Spain.—Great precautions continue to be taken in Spain at the ports of the Peninsula, against all vessels arriving from French Mediterranean ports. Not only so, but railways are being watched, passengers from France having to submit at Irun to medical inspection, rugs, woollen articles, soiled linen, and the like being detained twelve hours for fumigation, entailing on passengers a similar detention or loss of these articles.

Malta.—The quarantine of ten days imposed last week on arrivals from any port in France, Algiers, or Tunis, and from any port, without a clean bill of health, has now been increased to 21 days, for both vessels and passengers.

Gibraltar.—Vessels from suspected ports in the Gulf of Lyons are not admissible unless seven days out; then only if good health on board, and bill of health certifies that port of sailing is free from epidemic disease.

We do not learn that England has yet signed the Dresden Conference convention.

LITERARY INTELLIGENCE.

We are requested to state that the firm of Messrs. Percival and Co., to whose enterprise we owe the publication of several valuable medical works, will henceforth be known as Messrs. Rivington, Percival, and Co.

Under the direction of the Redactions-Comité of the *Wiener klinische Wochenschrift* a series of monographs is to be published with the title of "Beiträge zur klinischen Medicin und Chirurgie." The first part is by Dr. Norbert Ortner on "Die Lungentuberculose als Misch-Infection."

A second edition of the Catalogue of the Library of the Ophthalmological Society of the United Kingdom has just been published, under the supervision of Mr. Adams Frost, the Honorary Librarian. It is proposed in future to issue a list of the additions to the Society's Library with each volume of the *Transactions*, so that each member may keep his copy of the catalogue up to date,

THE HUNTER CENTENARY.

WAS JOHN HUNTER A STUDENT IN THE UNIVERSITY OF GLASGOW?

BY JAMES FINLAYSON, M.D.,
Physician to the Glasgow Western Infirmary, and to the Royal Hospital for Sick Children; Honorary Librarian to the Faculty of Physicians and Surgeons, Glasgow, etc.

IN Mr. Luther Holden's "Hunterian Oration" for 1881, a circumstantial looking account is given of John Hunter's matriculation at the University of Glasgow as a student of natural philosophy in 1745. I would be only too glad if it were possible to claim this distinction for our university. The entry quoted by Mr. Holden shows, no doubt, the name of one John Hunter as matriculating in that year, but it happens to be very easy to prove that this name does not represent the great surgeon. Mr. Luther Holden's quotation of the entry is:

Novr. 1745.
Nomina discipulorum classis quintæ (Nat. Phil.) qui hoc anno academiam intrarunt.
Joannes Hunter filius Johannis Hunter (Natu secundus) mercatoris quondam Glasgoviensis.

Mr. Holden lays stress on John Hunter's being entered as student of natural philosophy in his first year—a most improbable occurrence—and he tries to explain it. He also attempts a very forced explanation of his being entered as "Natu secundus," when he was, as he says, "not the *second* but the *tenth* child of his parents." Both of these laboured explanations are quite exploded by a simple inspection of the records, which Mr. Holden does not appear to have examined for himself, being (as he tells us in his Oration) "not sceptical by nature," although, curiously enough, doubting the current statements as to John Hunter's early life. The records were kindly shown to me by Professor Stewart, Clerk of the Senate, and his assistant, Mr. Addison. The words in brackets "(Nat. Phil.)" in Mr. Holden's extract are interpolated; they do not exist in the entry. The names of the students are indeed correctly given as of the fifth class—"classis quintæ"—but this number indicates not the highest but the lowest in the faculty of arts. In the University Album, under 1745, we have first "Classis Physica," then "Classis Ethica," with their respective professors named;[1] then comes "Classis 3ta," with the name of the professor of logic; next "Classis 4ta," with the name of the professor of Greek; and last of all "Classis quinta," with the name of the professor of humanity,[2] as Latin was then and still is called.

The "John Hunter" who matriculated in 1745 began, therefore, as most of the arts students did, with Latin; and all the explanations given by Mr. Holden as to the entry in the natural philosophy class showing John Hunter's "predilections just in the very direction which we should have anticipated," are based on the erroneous interpolation of "(Nat. Phil.)"—however this may have been introduced; this blunder, again, probably arose from the fifth class being taken for the highest, instead of the lowest, in the arts faculty. The explanation of "Natu secundus" advanced by Mr. Holden is that the great surgeon may have been so entered, because at that date, 1745, he was "the second *surviving* son," or because he was "the second son who bore the name of John in the family," inasmuch as the eldest child in the family, who died young, had also been named John—no doubt after his father, who was likewise John.

An inspection of the matriculations for 1745 shows at once why the "John Hunter" there enrolled was called "natu secundus," for his elder brother—expressly called "natu maximus"—was in the very same class, matriculated in the same year, and entered seven entries back. The entries are in the alphabetical order of the Christian names, and his name was James.

The following is the entry:

A.D. MDCCXLV.
Nomina discipulorum classis quintæ qui hoc anno Academiam Intrarunt sub præsidio Magistri Georgij Rosse H. L. P.

[Ninth entry] Jacobus Hunter filius Joannis Hunter quondam Mercatoris Glasguensis, Natu maximus.

[Sixteenth entry] Joannes Hunter filius Joannis Hunter (natu Secundus) Mercatoris quondam Glasguensis.

It is well known that the surgeon had a brother named James, but he died before this year, as Mr. Holden himself mentions. The John Hunter, of the matriculation entry, was, therefore, clearly not the surgeon, for the precision of the designation of the father in both entries—John Hunter, lately merchant in Glasgow—stamps the James and John Hunter, who signed the University Album in 1745, as brothers. The word "quondam," as applied to the father, in the matriculation entry, does not, so far as I can gather, indicate "deceased," as Mr. Holden would read it, but simply that the person had ceased to be a merchant in Glasgow.[3] There are several entries in the records of the Merchants' House of Glasgow of the names both of James and John Hunter; two of these seem worthy of notice as it is conceivable that they refer to the father of the students, namely, the entry of a donation in 1738, from "John Hunter, merchant," and an entry on joining the Merchants' House, of "John Hunter," in 1712. Extracts from the MS. records of the Merchants' House were kindly sent me by the clerk, Dr. W. H. Hill.

If the matriculation entry referred to by Mr. Holden had not happened to be so conclusive, from there being two brothers in the same Latin class, one would have further inquired how the surgeon's father could possibly be designated as "lately a merchant in Glasgow." He is not designated as a Glasgow merchant in the entry of William Hunter's matriculation in the University of Glasgow, which runs:

MDCCXXXI.
Nomina discipulorum classis quintæ qui hoc anno academiam intrarunt sub præsidio magistri Andreæ Rosse.[4]

Gulielmus Hunter: F. Johan. Hunter, Inter dominos de Lang Calderwood.

The designation, "inter dominos," is to be construed, apparently, as one of the lairds or proprietors in Long Calderwood.

If it had been possible I would have pursued the matter further by searching the University class lists, to see what other classes, if any, John Hunter actually took, but there are no class lists preserved prior to 1794, and the matriculation entry was made by a student in the University Album once for all. No graduate of the name of John Hunter appears in the lists, but many students, although completing their course at the University did not proceed to graduation. Dr. William Hunter, for example, only appears in the list of graduates as M.D., 1750, long after he settled in London.

This statement of facts appears to me so conclusive as to the entry quoted by Mr. Holden not referring to John Hunter, F.R.S., that it seems quite superfluous to test the matter further by a comparison of the signature in the Glasgow Album with signatures known to be authentic, but as a matter of curiosity I had photographs taken of these entries and have sent copies to the Royal College of Surgeons in London.

[1] It seems these first two classes were entered by their names—physics and ethics—as it was a matter of high dispute which of them should have precedence or be called "the first;" this plan evaded the difficulty. The others were given by numbers, as no dispute arose in their case.

[2] "H.L.P." = Humaniorum Litterarum Professor.

[3] So that at least Dr. W. H. Hill, clerk to the Faculty of Physicians and Surgeons and to the Merchants' House, reads the entry, and his knowledge of our records in Glasgow is well known to be extensive.

[4] There were two Professors of Latin of the name of Rosse—Andrew Rosse, 1706-1735; and George Rosse, 1735-1754. (Compare matriculation quoted from year 1745.)

THE late Mr. Albert Levy, of Grafton Street, Piccadilly, has by his will bequeathed £200 to the Margate Cottage Hospital, £200 to the Royal Sea-Bathing Infirmary, Margate, and £1,000 for such purposes of charity as his trustees may think most advisable.

THE board, staff, past and present students, and nurses of St. Mary's Hospital, Paddington, of which H.R.H. the Duke of York, K.G., is President, have presented to him a wedding present consisting of a silver lamp of elegant design, bearing a suitable inscription.

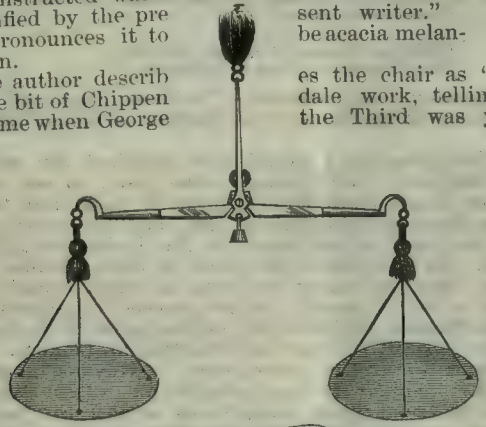
EXHIBITION OF HUNTERIAN RELICS AT THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

To mark the centenary of the death of John Hunter an exhibition of relics connected with the great surgeon was held in the library of the Royal College of Surgeons on July 5th.

In addition to the articles belonging to the College many valuable exhibits were lent by their present possessors, with the result that a most interesting collection was brought together.

The articles of furniture were arranged on the north side of the library. Amongst these may be noticed a handsome combined Chippendale bookcase and writing table, lent by Professor Chiene. The upper part was filled with books and manuscripts relating to Hunter from the College collection. This bookcase was sold by Sir Everard Home to Mr. Clift in 1821. At Clift's death it came into the possession of Professor Goodsir. Three of Hunter's chairs were exhibited, one lent by Professor Chiene and two by Mr. Edmund Owen. The wood from which these chairs were made was brought home from New Holland by Captain Cook; it was presented to Hunter by Dr. Solander. The chair lent by Professor Chiene is the one described by Dr. R. A. Goodsir in an interesting pamphlet called *Only an Old Chair*. Dr. Goodsir says: "It is a curious fact that the name of the tree producing the wood of which the chair is constructed was unknown until it was identified by the present writer." He pronounces it to be acacia melanoxylon.

The author describes the chair as "a choice bit of Chippendale work, telling of the time when George the Third was young."





In this brochure is given a good account of Mrs. Hunter's "receptions on Thursdays." There was another chair of quite a different character, a heavy piece of furniture with two shut-up shelves in the back—these when let down make a very convenient stand for preparations. A mahogany escritoire, a set of shut-up steps, his dissecting table and chair, and a looking glass, may be noted amongst interesting



furniture once the property of Hunter. Standing together were the sofa on which he breathed his last at St. George's Hospital, and a chair made from his bedstead at Leicester Square; it was on this bedstead that Hunter lay when carried home dead from the hospital.

The portraits were very interesting. Of John Hunter himself, in addition to the Reynolds which belongs to the College, there were two portraits in oils by Robert Home, the brother of Sir Everard, one being lent by the Royal Society and the other by Mr. Hunter Baillie; another portrait was lent by the Rev. R. Owen. Sharp's celebrated engraving of Reynolds's picture was represented by a set of three portraits showing the picture in different stages: a very interesting engraver's proof, before all letters and before the plate was finished; this proof was taken before the lettering on the two books lying on the table was engraved. The fine impression lately presented to the Royal Medical and Chirurgical Society by Mr. Seymour Haden was lent by the Council of the Society for exhibition. In addition to these there were several other engravings from Sir Joshua's picture. The series of family portraits included John Hunter, the father; William Hunter; Dorothea, the sister of John, and her husband, the Rev. James Baillie; Dr. Matthew Baillie and Agnes and Joanna Baillie, the son and daughters of Dorothea Baillie; and Anne Hunter, the wife of John, and their child, Agnes, afterwards Lady Campbell. Most of these pictures were kindly lent to the College by Mr. Hunter Baillie.

On a table in the middle of the room a series of letters by Hunter were exhibited. These included his letters to Jenner which are printed in Ottley's *Life*. One interesting letter to Dr. James Johnstone is printed in full in the catalogue of the exhibition. In this letter he writes, "Your theory of the lymphatic glands I do not subscribe to." It was Dr. Hunter's some time before he died, to which I had then my objections,

but these are only opinions; but I have a fault to find with you in your quotations, where it is not opinion but facts—you place Dr. William Hunter after Monro and Hewson. Dr. William Hunter was the founder of the system of lymphatics being absorbents. Dr. Monro claims also the discovery, but Dr. Hunter must be alowed to be a discoverer, because he was prior to Dr. Monro many years, and therefore it is possible Dr. M. may have learnd it from Dr. H., but it is absolutely impossible Dr. H. could have learnd it from Dr. M. several years before Dr. M. discovered it."

In one of his letters to Jenner, Hunter states that he was at his club till 12. There is an interesting paragraph in the *Memoirs of R. L. Edgeworth*, published in 1820, which probably throws some light on what club this was. He says, "I was introduced by Mr. Keir into a society of literary and scientific men, who used formerly to meet once a week at *Jack's* Coffee House in London, and afterwards at *Young Slaughter's* Coffee House. Without any formal name, this meeting continued for several years to be frequented by men of real science and of distinguished merit. John Hunter was our chairman. Sir Joseph Banks, Solander, Sir C. Blagden, Dr. George Fordyce, Milin, Maskelyne, Captain Cook, Sir G. Shuckburgh, Lord Mulgrave, Smeaton, and Ramsden, were among our members." The letter of Hunter to the Corporation of Surgeons, in which he urges them to form a surgical library, was also exhibited. The other Hunterian MSS, which belong to the College, were all on view.

An attempt was made in preparing the material for this exhibition to throw some light on Hunter's residence at Oxford. A facsimile of his signature in the Matriculation Book was shown, and is reproduced on the preceding page. The books of St. Mary Hall were also thoroughly examined; these latter show that Hunter entered as a gentleman commoner; he thus escaped a matriculation examination; had he not been able to do this it is quite certain that the examination would have been a bar to his entering the University. The spelling of the name of his Hall in the entry appears to show his want of classical knowledge.

The books show that he did keep one term, but they afford no other information except that the residence was not within the Hall itself. This is shown by the fact that under the heads of "Chamber Rents," "Reading Prayers," "Gubernation," "Pro Rebus," and "Bedmaking" there is no charge against Hunter's name. He is, however, charged "Cook's Salt" and "University Dues." This looks as if he dined in the Hall but lived outside. An examination of these books has perhaps explained why St. Mary Hall was chosen for Hunter. There is every reason to believe that John went to Oxford at the advice of his brother William. Dr. William Pitcairn, who was private tutor to the Duke of Hamilton at Oxford, had the M.D. degree granted to him by that University, and entered at St. Mary Hall. Dr. Pitcairn and William Hunter were friendly; it is therefore very probable that it was Pitcairn who recommended St. Mary Hall for John Hunter.

By the kindness of Dr. Finlayson photographs of the entries of the John and James Hunter, who matriculated at Glasgow in 1745, were exhibited.

Of relics of Hunter's practice may be mentioned his pocket scales, made by "Henry Neale at ye Corner of St. Bartholomew Lane near the Royall Exchange, London;" a set of lancets in a tortoiseshell case; a spatula, a pair of scissors, his ring instrument for tightening ligatures; his lithotomy knife, and a pair of dressing forceps. The last three and the scales are figured on the opposite page.

Several relics of Earl's Court House were lent by Mr. J. J. Merriman. There were also a series of photographs of the house, the ordnance map showing its exact position, the copper in which the giant's body was boiled, and the sale catalogue of the building materials of the house.

An annotated Catalogue of the exhibition was prepared by the College Librarian, so that a permanent record of this interesting collection will remain.

Mr. J. M. Hughes, M.B., C.M.Edin., Mayor of Ruthin, has, on the recommendation of the Lord Lieutenant of the county of Denbigh, been appointed to the commission of the peace for the county.

ANNUAL EXHIBITION OF RECENT ADDITIONS TO THE MUSEUM OF THE COLLEGE OF SURGEONS.

The annual exhibition of specimens which have been recently added to this museum in its various departments was opened on July 1st, and will remain on view during next week. From the Conservator's report it appears that an increasing amount of pathological material has been received in the workroom, and each year there has been an additional number of medical practitioners who have availed themselves of the privilege accorded by the College of sending specimens to be dissected, examined, and reported upon by the Pathological Curator of the Museum. From this material a selection is made for the purposes of preservation, and all preparations of which no adequate clinical history can be obtained are rejected, with very few exceptions, such as those exhibiting rare lesions, or where the information intended to be conveyed by the specimen is complete in itself. In this particular the additions of late years compare very favourably with those of the past; for though the later specimens not infrequently display a pathological condition which in the main is similar to that already represented, yet the clinical notes with which they are accompanied, together with the reports of their minute structure, are such valuable contributions to their interest and usefulness that the above statement needs not to be defended. The occasional mounting of duplicate preparations may be further justified by the consideration that in a future edition of the Pathological Catalogue, probably those specimens only to which a full description was attached would be retained.

Among the donations for the past year the following are of special interest: Symmetrical dry gangrene of the toes occurring in a young woman, with many of the clinical symptoms of Raynaud's disease (No. 223c); the bones of the leg from a remarkable case of hydatid disease in which the femur was reduced to a mere shell filled with cysts, and when the limb was amputated the hydatid fluid flowed from the cut end of the bone like a waterspout (No. 1,700a); a sarcoma of a child's bladder, which fungated through the wound made by a suprapubic cystotomy, and formed a large sloughy tumour on the abdominal wall (No. 3,693a); an intractable form of ulceration of the glans penis occurring in a man of 30, which began as a soft sore, and for two years gradually extended in spite of the various modes of treatment to which it was subjected (No. 4,439a). Beside these there are interesting specimens of thrombosis of the renal vessels, different forms of malignant disease affecting the bladder, a typical example of placenta prævia, an epithelioma of the external ear, and the skullcap and brain from a case of subdural cyst resulting from injury.

To the department of human anatomy some valuable dissections have been added: The muscles on the under surface of the tongue, particularly the chondro-glossus; the pharyngeal surface of the soft palate showing the muscles; an œsophagus exhibiting bands of longitudinal muscular fibres passing to the pleura, and two special fibrous bands connecting it with the lower end of the trachea; preparations illustrating the sinuses of the pericardium and its reflections upon the walls of the great vessels; the bifurcation of the trachea and the chief subdivisions of the bronchi; and some very complete dissections of the female pelvic viscera.

The biological series has been enriched by further illustrations of symbiosis and commensalism skilfully prepared by Professor Stewart, and numerous dissections of the muscular systems of the lower organisms. Mr. H. O. Forbes has presented the original specimen described and figured by him of a leaf with the web of a spider on its upper surface. The spider lies on its back fixed to the web by spines on the first joints of its legs. The resemblance of the spider and web to bird's dung induces butterflies to settle on it, and so fall a victim to the deception. The train of a peahen which had assumed male characters, given by Mr. G. N. Douglas, is perhaps a unique specimen. The bird was 33 years of age at the time of death, and the change in its aspect had been gradually taking place for some years. Remarkable modifications of the respiratory organs in fish, and of the eyes and eyelids in snakes; the complicated system of Eustachian

tubes in crocodiles, and the peculiar mode of nutrition of the embryo ray by means of trophonemata or food secreting villi upon the interior of the uterus, may be mentioned as a few examples of the subjects illustrated in this more than usually interesting exhibition.

THE JUBILEE OF THE FELLOWSHIP OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

Meeting of the Fellows.

A Meeting of the Fellows of the Royal College of Surgeons was held at the College on July 6th.

The President, Mr. Thomas Bryant, in opening the proceedings, said that it was most appropriate that the Fellows should celebrate the jubilee of the foundation of the Fellowship. The Council, being the delegates of the Fellows in the management of the College, which was the guardian and promoter of surgical science, had the control of its examinations, through which the larger body of the profession sought their introduction to practice, and also had charge of the Hunterian Museum, which since the death of its founder had been sedulously tended and enlarged by the labours of its distinguished curators, Sir R. Owen, Sir W. Flower, and Professor Stewart. With its unique museum was also its admirable and well used library, which rendered the College an object of admiration of the scientific world. Mr. Bryant then sketched the motives which induced the Council of the College more than fifty years ago to seek to establish the Fellowship, and showed in what degree those efforts have been successful, and how, guided by experience gained in the past, the Fellows of to-day should guide their conduct and shape their future course. The Fellowship diploma was established by charter granted to the College on September 14th, 1843; and the College was thenceforth known as the Royal College of Surgeons of England. The Council was at the same time enlarged from 21 to 24 members, of whom 3 were to retire annually in July, the vacancies thus created being filled up by the Fellows from the Fellows. The Court of Examiners was no longer to be composed of members of the Council, but was to be recruited from Fellows of the College not on the Council; and examiners were henceforth to hold office only during the pleasure of the Council. Life examinerships, as well as life memberships of the Council, were done away with. Palpable evil had arisen from the government of the College by a Council composed of 21 self-elected life members, from which the Court of Examiners was always drawn. The Fellowship was, therefore, established to make a constituency from which the Council of the College should be composed; and, in the words of the Charter, "more effectually to promote and encourage the study and practice of the said art and science of surgery," or, as the Council of that date put it, "to promote a spirit of emulation among surgeons; to afford additional inducements to exertion in the cultivation of science, and thus to increase the utility and elevate the character of the surgical profession."

This radical reformation of the government of the College came from within its own body. At Council meetings held in 1832, eleven years before the Charter of 1843 was granted, the idea of extending the elective franchise to Members of the College under certain restrictions was entertained; but no mention of the term Fellow occurred before April 16th, 1835, when it was resolved by the Council "That Members of the College of five years' standing, not having within that period practised pharmacy, and not being Fellows, Licentiates, or members of any other medical corporation granting licences to practise, shall be entitled to vote for a member of the Council;" "that a register of voters should be kept;" and "that all those Members of the College above described and proposed as eligible to be voters for and members of the Council shall have the additional and honorary distinction of Fellows" of the Royal College of Surgeons in London. Orders were at the same Council meeting given "that a draft of a supplemental Charter embodying these resolutions should be drawn up by the legal adviser of the College. This was done; but the Charter was not then applied for, as a Parliamentary inquiry in reference to the medical profession generally was being held.

For seven years no mention was made of the new Charter or its objects, but at a special meeting of the Council on February 28th, 1842, "a communication of the 21st instant was read from Sir James Graham, Secretary of State for the Home Department, stating that from his confidential letter the President (G. J. Guthrie) would have learned that it was the intention of Her Majesty's Government to propose a measure to Parliament whereby the power and privileges of this College as an examining body will be greatly increased; and he, therefore, recommended that this Council should take into consideration their existing Charter, in order to inquire whether, under these circumstances, it might not be expedient to prepare the draft of a new charter to be referred to the law officers of the Crown before the measure to which he had alluded is submitted to the consideration of Parliament." The above-mentioned draft Charter prepared in 1835 was consequently taken into consideration. The two following resolutions were also passed: "That in future there be two classes in the College—Fellows and Members." "Candidates for the Fellowship to undergo a special examination after having attained their 25th year, in such manner and after such study as this Council shall direct." On June 9th, 1842, a draft of the proposed Charter was laid before the Council and considered, and on June 22nd it was approved by the Council, and a committee was appointed to draw up some of its provisions.

On September 14th, 1843, the Charter was granted during the presidency of J. Andrews and vice-presidency of Sir B. Brodie and Samuel Cooper. By this Charter the Council had power to appoint within three months no fewer than 250 or more than 300 Members of their College to be Fellows, and also power to appoint within one year other Members to be Fellows. On December 11th, 1843, 300 Members were appointed, by one general diploma, Fellows, and their names were entered in a schedule attached to the Charter. On August 26th, 1844, 242 more Members were appointed Fellows, this additional number of Fellows being made, at the instigation of the Government, in order to satisfy the cravings of certain Members. This act, however, did not appease Members who had not been created Fellows. Agitation persisted, and the Council sought for, and obtained on March 18th, 1852, a supplementary Charter which gave them power to appoint to the Fellowship, without examination, on the payment of 10 guineas (1) Members of fifteen years' standing on September 14th, 1843, the date of the former Charter; and (2) Members who were Members on September 14th, 1843, and shall have attained the standing of fifteen years at the time of such appointment. The Council was also enabled to admit annually to the Fellowship, without examination, two Members of twenty years' standing on payment of 10 guineas. Thus the Fellowship question was originated, and gradually developed into its present position.

The creation of the body of Fellows as the constituency of the Council had effected much good in substituting for the old co-optative method of election of the Council the new method, under which the Council was elected by a constituency numbering about 800, and is renewed about every eight years. The advantages of the present over the former system of government were unquestionable. As to whether the means adopted for the primary establishment of the Fellowship were the best possible, whether it was wise to make a second large batch of Fellows, or, in 1852, to obtain powers to make Members of fifteen years' standing Fellows, without examination, the President considered it futile at this period to discuss. At present, judging from the steadily increasing constituency of Fellows admitted by examination (averaging fifty annually during the last five years against twenty-six some ten years before), from the high class of the examination, and from the estimation with which the Fellowship diploma was regarded by the profession and the public, the constituency seemed quite satisfactory, and not to require revision.

In reference to the promotion and encouragement of the study and practice of the art and science of surgery, the Fellowship had without doubt proved a great success. The Fellows were amongst the most active members of the profession in all public posts, whilst the rapid progress of operative

surgery proclaimed the wider distribution of applied surgical skill. Indeed, the success of the Fellowship from the professional point of view had been nothing less than astonishing. In May, 1844, the Council argued thus: "If the changes introduced by the Charter are to have the effect of elevating the character of the surgical profession generally, it will be in the next rather than in the present generation; and if the elder class of practitioners are interested in these changes, it is less on their own account than on that of their sons and successors. The hopes of those days had been amply realised. Again, the great mass of the profession who fifty years ago were chiefly apothecaries (under the Charter of the Apothecaries' Society of 1815) had in increasing numbers sought the diploma of Member of the College of Surgeons, and the advantages of various kinds which that diploma conferred. The only privileges not open to the Members were those of taking part in the government of the College, and of voting, which remained in the hands of the Fellows. This jubilee of the Fellowship, therefore, fully justified the wisdom of those who founded the distinction. It had provided a highly educated and steadily increasing constituency, and promised, as time went on, to become a still greater success. The establishment of the Fellowship by examination had been a potent force in promoting the science and art of surgery, in promoting a spirit of emulation among surgeons, and in increasing the utility and elevating the character of the surgical profession." The President therefore congratulated the Fellows on the progress and present position of the College. "Let the constituency of this College," he said, "work with the Council in a constitutional way; the Council, fully alive to its duties as the executive, and the constituency equally alive to its responsibilities as a consulting body. Above all, let us be true to one another, nor set down aught in malice. Let us discuss measures calmly, and with the view of making them useful all round, and not to the few. We may then be confident that when another fifty years shall have passed, and the progress of this College has to be reported, continued progress will be the record, and increased prosperity the result."

Sir George M. Humphry said he would have liked to propose a vote of thanks to the President for his address, but he rose for another purpose. The College was a Royal College, it had been recognised by the Sovereign, and the Prince of Wales had been present more than once at their functions. This was also a right royal day; an auspicious event was at that moment occurring which it was hoped might in future be as blessed in memory as it was blessed in promise. Under these happy circumstances, he would propose that the Council should be requested, at such time and in such terms as to them might seem fit, to present a congratulatory address to the Prince and Princess of Wales on the great and auspicious event of that day. Doubtless the Council would have done this *proprio motu*, but it was better that the suggestion should come from the whole body of Fellows. The address would be post-dated; but it might be notified that the resolution to send it was passed whilst the Royal marriage was being solemnised. He then proposed a resolution to that effect.

Mr. C. Steele, Clifton, in seconding the resolution, said that the whole British race was to-day interested in this auspicious event, and that all nature seemed smiling in unison. The status of the Fellowship was rising from year to year, the hospitals throughout the kingdom now wisely insisting that their surgeons should be Fellows of one of the three Colleges in the various divisions of these islands.

The resolution was then put to the meeting by Sir G. M. Humphry, and carried unanimously and with acclamation. The President stated that he would convey the wishes of the Fellows to the Council at its meeting on the morrow; and the Council would doubtless carry out with entire cordiality the loyal desires of that meeting.

Conversazione.

A *conversazione*, in honour of the jubilee of the Fellowship, was held at the College on Wednesday evening. The guests, who numbered some 1,800 or 2,000, were received in the new large museum by Mr. Bryant, the President, and Mrs. Bryant; Mr. Christopher Heath and Mr. Arthur E. Durham, the Vice-Presidents; and Mr. Trimmer, the Secretary. The whole of the museum, recently completed, was thrown open for inspection, the collections in all the rooms being illuminated with the electric light. The band of the Royal Engineers from Chatham played an admired selection of music.

Banks of flowers, tastefully arranged, made the library and some other parts of the building highly attractive. Microscopes and slides of various natural history specimens were on view in the council room. Never before have the fine proportions of the museumitself and its magnificent specimens been so well exhibited. But the main object of attraction was the very fine exhibition of Hunterian relics in the library, which is described in another column. An excellent catalogue had been prepared by Mr. J. B. Bailey, the Librarian to the College. The collection was examined with deep interest by the company of ladies and gentlemen who were present, and who comprised nearly all the members of Council, the lecturers, examiners, and other officials of the College, a representative gathering of Fellows, and a goodly array of Members, both from London and the provinces, most of whom were accompanied by ladies.

ROYAL COLLEGE OF SURGEONS.

Council Election.

The ballot for the election of members of Council began at 2 P.M., immediately after the conclusion of the meeting of Fellows. The ballot was closed at 4 P.M.

The result was as follows:—

Mr. A. W. Mayo Robson	241
Mr. N. C. Macnamara	239
Mr. Oliver Pemberton	229
Mr. H. Morris	171
Mr. A. Trehern Norton	169
Mr. J. N. C. Davies-Colley	145
Mr. W. Anderson	118
Mr. H. M. Page	110
Mr. J. McCarthy	105
Mr. W. H. Bennett	74
Mr. J. A. Bloxam	66

The President, Mr. Bryant, declared Messrs. Mayo Robson, Macnamara, Pemberton and Morris, duly elected. There were 390 valid voting papers (over 450 were sent out on application), and 134 personal votes.

The Sale of Chlorodyne.—It is surprising that, after the publicity which has been given to the prosecutions for the sale of this preparation by unqualified persons, medical men should be in any instance under the impression that it is a "patent medicine," or that it "can be sold by anyone and obtained by anyone." Yet that is the purport of the evidence given by a medical man in a case where a woman was charged with attempting to poison herself with chlorodyne at Exeter. The report of the case in the *British and Colonial Druggist* does not state how the chlorodyne was obtained. The *Chemist and Druggist* reports another case of attempted suicide with chlorodyne at Portsmouth, and a fatal case at Rotherhithe. The same journal also reports two cases of poisoning with laudanum, in one of which the woman poisoned purchased the poison from three different chemists within one or two hours. It certainly seems that there is still far too much facility in obtaining poisonous preparations.

Deaths in the Profession Abroad.—Among the members of the profession in foreign countries who have recently passed away are Professor Wilhelm Zuelzer, of Berlin, author of numerous valuable publications on the etiology of typhus fever, the pathology and treatment of small-pox, etc., aged 58; Dr. T. Antisell, of Washington, U.S., distinguished as a teacher of chemistry and a writer on chemical subjects, aged 75; Dr. Gard, an ophthalmic surgeon practising at Toulouse; and Dr. Festraerts, of Liége, editor of *Le Scalpel*, which he founded nearly half a century ago, and in the direction of which he continued to take an active part almost to the time of his death.

Professor Kaposi, the well-known dermatologist of Vienna has been named an officer of the French Legion of Honour.

THE DROUGHT AND URBAN WATER SUPPLIES.

SINCE our last note upon this subject the drought has in many parts of England been broken by thunderstorm rains, but it will take much larger amounts than have yet fallen to put a full supply into the reservoirs of the many cities and towns dependent upon gathering grounds.

The following list of reports does not indicate any material increase in the acuteness of the situation, and with the partial rains which have fallen we may perhaps hope that the worst is past. But the worst ought not to occur. Why are towns to be put on short supply at the very time when plenty of water is most needful? Doubtless the authorities of Ashton-under-Lyne were wise in ordering that the water in the public swimming bath should not be changed until rain came, but the undesirability of having to issue such an order is obvious. We are glad to see that as a rule our health resorts have been well supplied, and, as in all other cases, the deficiency has solely arisen through so-called economy not developing their works in proportion to the increase of population, we hope that ere the next dry period comes the authorities will have realised the unhealthiness and discomfort resulting from short supply, and will have arranged to secure for their populations that which London has enjoyed—an unstinted supply of excellent water.

Ashton, June 16th.—The Bath Committee decided that until rain came the water in the swimming bath could not be changed. June 20th.—Special engines to be obtained to lift water into the higher reservoir, this will enable 200,000 persons to be supplied about three weeks longer.

Bath, June 19th.—In consequence of the drought and heat, the yield of the springs has fallen off, and the city officials have announced that from this day the supply would be cut off from 6 P.M. to 8 A.M.

Birmingham, June 22nd.—Street watering has had to be reduced by half, as the springs are lowering rapidly.

Bolton, June 21st.—Supply ample, has not been in the least restricted, and there are 600 million gallons in the reservoirs.

Bradford, June 20th.—Low level supply will last about 100 days, and high level supply about 40 days.

Budleigh Salterton, June 16th.—Supply from Sherbrooke reservoir keeps up well.

Halifax, June 16th.—The Corporation works still contain 766 million gallons, but the store is decreasing 52 million gallons a week, and is 344 million of gallons less than on this day in 1892.

Harrogate, June 19th.—Ample supply in store.

Heckmondwike, June 19th.—The Board of Health resolved to issue notices cautioning the public against the waste of town's water.

Honiton, June 19th.—Unlimited supply.

Huddersfield, June 20th.—Total storage reduced to that of 65 days, but notices as to waste have been issued, and no difficulty is anticipated.

Ilfracombe, June 16th.—Water supply abundant.

Liverpool, June 20th.—Have ample supply, the Vyrnwy reservoir alone containing enough to last eighteen months.

Llanelly, June 15th.—Water in reservoir so very low that the supply for trade purposes had to be shut off, and one firm employing 1,000 hands had to close their works.

Manchester, June 21st.—Streets are being watered from private wells; water in store reduced to 45 days, but a supply could, if needed, be obtained from Liverpool. June 26th.—The reservoirs have benefited by the rains, but there is only forty-four days' supply in store.

Newcastle and Gateshead, June 20th.—In spite of the drought, it has not yet been necessary to limit the supply.

Ripon, June 19th.—Six months' supply in reservoir.

St. Columb, June 19th.—Supply beginning to run short, and water carts sent round the town.

Thirsk, June 16th.—The water company has issued a circular respecting waste of water.

INDIA AND THE COLONIES.

NEW SOUTH WALES.

AMONG ten students on whom the University of Sydney recently conferred the degree of Bachelor of Medicine two were ladies.

THE QUESTION OF "KISSING THE BOOK."—Dr. W. H. Goode, of Sydney, in a recent action in the Supreme Court, before his honour Sir George Long Innes, was allowed to take the oath with uplifted hand according to the Scotch form, instead of kissing the book, to which he objected on sanitary grounds.

LEPROSY.—Mr. Edmund Sager, Secretary to the Board of Health, states in his last report on Leprosy in New South Wales that on January 1st, 1892, 21 persons remained under detention at the leper lazaret. During the year 21 cases were notified to the Board as suspected of suffering from leprosy. On investigation 9 of these were found to be suffering from some other disease, and the remaining 12, who were proved to have leprosy, were placed in the lazaret; of these 2 were natives of New South Wales of European descent; 1 was a native of England who had been in the Colonies since 1862; 1 was a native of Fiji of European parentage, and 8 were Chinese. The number of lepers remaining in the lazaret on December 31st, 1892, was 30. The total number admitted since 1833 was 43, of whom 3 were females, all natives of New South Wales. The total number of cases of leprosy officially recorded in Australia during the past ten years is given as 73, of whom 54 were natives of China.

HOSPITAL AND DISPENSARY MANAGEMENT.

THE WARRINGTON INFIRMARY AND DISPENSARY.

WE are indebted to Mr. Ernest E. Bowden, senior house-surgeon, for the following particulars of the alterations and additions made to this infirmary during the last three years. The accommodation for in-patients has been increased, and the out-patient department removed to a dispensary entirely separated from the infirmary. The dispensary contains a waiting room 31 feet by 24 feet, an accident room, a consulting room, a room for the examination of special cases, and a dispensing room; the basement is fitted up as a washhouse and laundry. In the infirmary the old out-patient department has been converted into wards, and a new ward has been built; the number of beds now available is forty. The wards are heated and ventilated by Benham's central fireplaces, which replace the ordinary fireplaces at the sides. A new operating room, 20½ feet by 17½ feet, has been built, with tiled floor and walls; a hand-power patient's lift has been provided, and a low pressure hot water system introduced. New lavatories have been built, and the old ones remodelled; all waste pipes, soil pipes, etc., have been disconnected, and a large intercepting chamber has been placed in connection with the sewer. These extensions have been carried out at a cost of nearly £6,000, of which about £1,500 has still to be raised. The number of in-patients treated last year was 269, and of out-patients 4,757

THE Lancashire Asylums Board have purchased Winwick Hall estate on which to erect a new county asylum. At the same time they are contemplating an expenditure of £32,000 on an extension of Whittingham Asylum.

IT will be remembered that Baron Nathaniel de Rothschild offered his castle and park near Reichenau as a country hospital for consumptive patients in Vienna. Owing to objections raised in the locality on the ground that the country hospital might be a source of infection the offer had to be withdrawn. Baron de Rothschild has now agreed that a lottery should be started with the castle and park as the one great prize, the proceeds to be given to the hospital.

THE ROYAL PROCESSION.—The Volunteer Medical Staff Corps, under Surgeon-Lieutenant-Colonel Norton, distributed along the route of the Royal procession on Thursday, were enabled to render most valuable assistance, both to the public and to the regular and volunteer forces. Owing to the heat of the day and the enormous crowds numerous cases of heat-exhaustion and faintness occurred. Prompt assistance was given in all cases.

SOCIETY FOR THE STUDY OF INEBRIETY.—At the quarterly meeting, held under the presidency of Dr. Norman Kerr on Tuesday last, a very cordial congratulatory reception was accorded to Sir Benjamin Ward Richardson, M.D., F.R.S., a Vice-President of the Society, by a full and representative meeting of advocates of temperance, medical and lay. Mr. McIlwraith read a paper on the Law of England as it Affects the Habitual Drunkard. He thought that possibly in the future it might regard habitual drunkenness as raising a presumption of legal irresponsibility. Magistrates should have the power, when satisfied that an offence was immediately due to the inebriety of the offender, to commit such an one compulsorily to the reformatory institutions, whose foundation had been suggested by the departmental Committee.

CHARING CROSS HOSPITAL MEDICAL SCHOOL.—The prizes of the summer session 1892, and the winter session 1892-93 gained by the successful students at Charing Cross Hospital Medical School were distributed by Baron Henry de Worms, M.P., on July 4th. The Dean, Mr. Stanley Boyd, in the course of his annual report, observed that the school had every reason to be congratulated upon its success during the past year. Though no course of instruction in psychological medicine would be compulsory before 1896, Dr. Hack Tuke had given an honorary course of lectures and demonstrations, which had been highly appreciated by his class. Attendance upon lectures and demonstration on hygiene and public health given by Dr. Whitelegge had for some years been obligatory in the school, and recently arrangements had been made for giving a laboratory course of instruction in chemistry, physics, and bacteriology required for the diploma of public health. During the year ninety-two students had entered the College, of whom forty-four were general students. The Llewellyn Scholarship had been gained by Mr. W. J. Robertson, the Golding Scholarship by Mr. J. R. Langley, and the Pereira Prize by Mr. P. J. Probyn.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1893.

Subscriptions to the Association for 1893 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, JULY 8th, 1893.

PRECAUTIONS AGAINST CHOLERA IN LONDON.

In view of the fact that cholera is so near our shores, it will not be uninteresting to show how our lines of defence are being put in order. The first line, our port sanitary authorities, has remained in full activity ever since its good services of last year. The second consists of the hospital accommodation provided by the Metropolitan Asylums Board. In organising this service the Board has gone on the principle that cholera patients cannot bear removal to a distance, and it has therefore made arrangements for the use of a large number of beds in the metropolitan hospitals, in the workhouses, and in the Poor-law infirmaries. The first cases would no doubt be taken to the general hospitals, and, while the beds there available were being filled up, a general clearance would be made of such wards in the work houses and infirmaries as had been arranged for in the scheme, their occupants being either given outdoor relief, or transferred to country workhouses, or boarded out. A very large number of beds would be thus provided, together with nursing appliances, and a certain, although far from sufficient, supply of nurses.

All these arrangements are being worked out by the Metropolitan Asylums Board, which will be the authority to which the different institutions will look for payment for such services as they may render. The various local institutions will receive and treat the cases, using their own staff, and engaging what assistance they may require, and the Metropolitan Asylums Board will pay the bill, thus throwing the expenses on the whole area of the metropolis.

The third line of defence lies in the sanitary authorities, or in other words, with the vestries, which, with varying degrees of energy, are arranging for sites on which to erect further accommodation in case the second line should fail. This is a duty which many of them are taking up with good will, but it is not an obligation. The duty has, however, been urged upon them with considerable insistence for many months by the County Council and its medical officer of health, and the Local Government Board has lately been pressing for returns regarding their action in the matter. Considerable progress in this direction has been made of late; as an example we may mention that in Whitechapel not only has a site been obtained, but the necessary connections with the sewer have been put in, so that, if the necessity should unfortunately arise, all is ready for the immediate erection of tents or huts at the shortest notice.

As always happens in a crowded city, the question of sites has been a difficulty. Fortunately, however, the County Council happens to possess a considerable number of plots of land in different parts of London, acquired under the Artisans' Dwellings Act, and for other purposes, and these it has offered to lend to the sanitary authorities for use as sites for temporary cholera hospitals if occasion should arise.

The ambulance service, which will include the placing of hand ambulances at convenient stations, is also being organised by the Metropolitan Asylums Board who have appointed an officer who will be specially responsible for that department. Already 130 stations have been arranged which will mostly be under the command of members of the Volunteer Medical Staff Corps, fifty of whom as an instalment have been engaged by a retaining fee to be ready at forty-eight hours' notice, and broadly we may state that, much as remains to be done, London was never so well prepared to meet an outbreak of cholera as at the present time.

We wish we felt equally sure that everything possible was being done to strengthen our defence on the other side—that thin line of sand by which our drinking water is filtered, and which would alone stand between us and cholera were the upper Thames Valley once to become infected. As a general rule the London water is fairly good in quality, although badly and grudgingly distributed; but, good as it may be at times, whenever it varies in its quality it is clear that filtration has failed, and there is no doubt that it does vary. It is admitted that filtration removes a certain percentage—a large percentage—of the organisms in the water, but so long as the number of organisms per gallon in the filtered water varies according to the number per gallon in the river, even though 97 in every 100 be removed, we cannot feel content that the filtration is really good or equal to such an emergency as a heavy rainfall following such a long drought as we have had.

THE ARMY MEDICAL DEPARTMENT AND ITS DIFFICULTIES.

The question put by Mr. A. C. Morton to the Secretary of State for War on July 4th, raises a point of vast importance, and one which has recently led to a great deal of correspondence in the military journals. Some of the letters there published from medical officers, evidently of much experience, have pointed out that the Army Medical Department is far from being prepared for war. The story told of the conditions under which a field hospital was sent on active service during one of our late campaigns recalls some of the worst instances of confusion recorded during the earlier stage of the Crimean War. Officers and men were gathered from all parts of the United Kingdom, totally unknown to each other, and quite unaccustomed to working together, while the stores were sent out without organisation in a different ship from the officers and men, mixed up when landed with hundreds of other packages, and only got into order after some three weeks' work. Even then it was discovered that the cases were too heavy to be carried by mules or camels, the only method of transport available. The appeal of the medical officers to be allowed to practise annually with their field hospitals and bearer companies is one which must commend itself to every man of common

sense, and we are glad to see that Mr. Campbell-Bannerman has made up his mind that some additional opportunity should be afforded to the Medical Department for special training in field duties.

It is to be hoped that no opposition may at the last moment arise in the quarter in which other proposals for the greater efficiency of the Army Medical Department have so often encountered obstruction. That a very bitter feeling exists was shown recently in a rather curious manner by a long article published some weeks ago in the *Broad Arrow*, under the title "Military Trades Unionism." A note was prefixed to this article, in which the editor stated that "neither the tone of, nor the arguments expressed in the following article are in harmony with the traditions of this journal." We fear, however, his further surmise is more or less correct—it is borne out by the utterances of certain speakers on the medical vote in the Army Estimates—that the sentiments in the article are still held by not a few—shall we style them combatant reactionaries?—in the service. We altogether repudiate, however, the suggestion that they are also the views of any considerable—much less any influential—section of the medical department itself.

The writer begins by formulating the legitimate question how far military officers are justified in combining for redress of grievances; but instead of discussing it in an abstract fashion, he speedily shows it is merely introduced as the groundwork of an utterly unfair and embittered attack on medical officers; partly for presuming to have any grievances at all, much more for daring to ventilate them through the intervention of such representative bodies as the Medical Schools, or the Parliamentary Bills Committee of the British Medical Association.

We have no intention of examining or refuting his assertions and misrepresentations in detail, and, indeed, would not notice them at all did they not curiously forecast the tone adopted by certain speakers in the subsequent debate on the Estimates. They unfortunately but too clearly show the inner feeling of a certain section of the service towards medical officers, not that the arguments are new, for they are of a type familiar in this very controversy twenty or thirty years ago, but which we hoped had by this time finally disappeared under the influence of a broader and juster criticism. But nothing dies so hard as class prejudices, especially when crystallised in military life. It is worth while, however, while avoiding details, to glance once again at the creed or theory from which these unreasoning and unworthy prejudices spring, and which both animates and vitiates the arguments by which they are sought to be defended. It dates from the era of stiff stocks, pipe clay, and drill square soldiering, a time when an army was not considered a varied and complicated organisation, but a mere collection of fighting units, men with muskets, somehow self-existent and independent of departments to feed, pay, clothe, transport, and, above all, keep them in health. The officers of these departments, it is considered, may be under the Mutiny Act, may share in all the duties and dangers of service both in peace and war, but are in no sense soldiers or entitled to military status. The necessities of modern warfare, the demands of civilisation, and a juster appreciation of the rights of individuals have emancipated the army departments one by one from such mediæval ideas. But our military Bourbons are still fighting in the last ditch of privilege and prejudice in opposition to the claims of medical officers for due army status. At one time they almost equally opposed the Commissariat, Pay, and Transport officers, until these departments became recruited from ex-regimental officers. If by any possibility medical officers could likewise be recruited from the same sacred "fighting caste" all opposition to them would doubtless also cease. But that cannot be; and therefore, argue these gentlemen, medical officers can have no genuine grievances because they have no real army rights; but in any case, reasons the writer in the *Broad Arrow*, whether grievances are real or supposed, attempts to obtain redress is mere trades unionism, which should and could be summarily suppressed, "for the fact will always remain that, schools or no schools, a resolute Secretary of State could crush the agitation in ten minutes if he liked."

Practically, although not so bluntly, these antiquated and absurd sentiments found expression in the debate on the medical vote. The resolute Minister of the desired type has, however, not yet appeared, nor is he likely to appear; bu the wish to invoke him shows the lengths the opponents of the medical officers would go did they but have the power. We can assure all such opponents, be they military or civil, that no combination exists or can exist among medical officers which can by any misnomer be called military trades unionism. They can and do individually represent their grievances to their friends and to the public in a perfectly legitimate fashion; and it is the duty of their friends, if they think them wronged, to seek redress at the hands of those who have the power to give it. Are they to grin and bear any sort of invidious injustice out of deference to the prejudices of a section of the army? As an integral part o the military machine they claim such army status as is their clear due, and such as is necessary for the proper performance of important military duties above and beyond, although intimately connected with, the duties of their civil profession. They complain that if such be granted in what the writer calls "panic-stricken warrants," ever so guardedly or tentatively, a section of the army immediately does everything it can to set aside and minimise such concessions. It is from no love of self-assertion that army medical officers are constantly called upon to maintain an attitude of defence of their rights; and that if he and his class would only do to medical officers as they would like to be done by, "pernicious agitation" and "hateful deputations" would stop of themselves, without violence at the hands of a "resolute Secretary."

If the charge of military trades unionism could be maintained, as it cannot, against medical officers, it might well be thrown back in the teeth of the writer, for what of the indiscriminate black-ballings of medical officers, simply because they are medical officers, at certain military clubs? What sort of military combination is that? The secret ballot can possibly be defended if used against admittedly obnoxious individuals, but its wholesale employment against a class, and that body an essential and integral part of the national army, is nothing less than a public scandal and offence. It is useless to say that such military trades unionism is the work of a contemptible few, for the manly many must share the discredit, and the reputation of the club suffer while they fail to put it down. What more than surprises us is that, rather than grant the Army Medical Department proper military status, there is a faction who would in

their pitiful spite destroy it altogether, at whatever risk and cost to the service at large. The threat to put the medical care of Her Majesty's troops at home and abroad up to contract and the lowest bidder, however disgraceful, is one we have heard before. Surely the force of unreason can no further go. We tell the writer he has to reckon in such mad proposals with the public, who demand, quite irrespectively of his prejudices and prepossessions, a highly organised and thoroughly equipped regular medical service, for both peace and war, as a duty towards their soldiers. The days of barbaric warfare are over; and a scratch or irregular medical service can never be tolerated by any civilised nation.

DIET IN SCHOOLS.

THE question of diet in schools, taken by Mr. Henry Power as the subject of his presidential address at the recent annual meeting of the Metropolitan Counties Branch of the British Medical Association, is one of great and indeed national importance. It is equally interesting, though from different points of view, to parents, to schoolmasters, to medical men, and last, but not least, to the rising generation. Mr. Power certainly cannot be accused of prophesying smooth things, for he says that at the present day, "whilst the children of all above the class of artisans, and perhaps even among them, have for breakfast meat of some kind or eggs or fish, and at dinner meat varying from day to day in its nature, and alternating with poultry, and followed by pudding or tart, the diet in boarding schools remains but little different, if so good, as that of the Middle Ages." This sweeping indictment is based on the results of a fairly extensive inquiry among the scholastic youth of both sexes who were invited to give their experiences, nothing extenuating nor setting down aught in malice. In weighing the evidence thus obtained, Mr. Power is careful to make due allowance for the "personal equation," but on the facts before him he sums up as follows: "In looking over the diet of many schools, however—Protestant, Catholic, and Jewish; English, French, Swiss, and German—I think the quantity is in many instances rather below what is required, whilst the quality is often condemned with such vigour that I am strongly of opinion sufficient care is not taken by the purveyors, and that the complaints made are not due to the fastidiousness of the child." In particular he points out that in many places the morning meal is insufficient for the needs of the economy when much work is demanded, while the food at dinner might with advantage be more varied, better dressed, and of better quality, and the evening meal more liberal. The rapid growth which often takes place between the 14th and 17th years makes it of the greatest importance that both the quantity and the quality of the food should be attended to. Breakfast should be a good substantial meal; but Mr. Power's informants are almost unanimous in describing it as a very bad one—"wishy-washy tea; milk and water, very poor; bread and butter roughly served in chunks; all extras paid for by the pupils."

Mr. Power speaks strongly of the conduct of schoolmasters who thus stint their young charges "for a paltry 2 or 3 pence per head," and he pleads eloquently for "a sausage, a slice or two of ham, of bacon served hot, a few fried potatoes, some fish, some good eggs, some rice with a little meat, or something to fill the belly"—all to be covered by the ordinary fees. There is no sound reason why this should not be so, and if schoolmasters understood their own interests a little better it would be so. Though the race of Squeers is now happily extinct, however, and the voice of the physiologist makes itself more or less heard in the land, the *auri sacra fames* in the breast of the schoolmaster, who after all smacks of mortality, still sometimes makes him less sympathetically alive than altruistic feeling should make him to the pangs of a more literal kind of hunger in the stomach of his pupils. If Mr. Power succeeds in bringing the "free breakfast table" just described within the sphere of practical politics, he will deserve to be remembered as a benefactor, not only of schoolboys, but of those who have the privilege of paying for their board.

Mr. Power's zeal for the better feeding of the schoolboy extends also to the cooking of his food and to the nature and quality of his drink. He condemns the practice of making young people work before breakfast, or take part in games involving violent physical exertion immediately after the mid-day meal. It will, we fear, be long before the stream of tendency in things athletic will allow itself to be controlled by physiology.

Mr. Power's address was illustrated by historical references to school life in England and elsewhere in the Middle Ages. He quotes the rules drawn up by Sir Nicholas Bacon for the bringing up of wards in the Court of Wards and Services, which may be summarised as an intolerable quantity of work to a poor pennyworth of play and apparently an irreducible minimum of food. We wish Mr. Power success in his crusade on behalf of a class that often cannot, and still more frequently will not, make effective complaint on its own behalf.

SIR W. H. BROADBENT, BART.

THE announcement that the Queen has been pleased to confer the honour of a baronetcy upon Dr. William Henry Broadbent will be received with the greatest satisfaction by the whole profession. Dr. Broadbent, who won his scientific spurs by his contributions to neurology and to our knowledge of fevers, achieved a great reputation as a clinical teacher, and has been for some years physician in ordinary to the Prince of Wales. Dr. Broadbent was a student of St. Mary's Hospital, and has been officially connected with it throughout his career. He has frequently taken a prominent part in the work of the British Medical Association at its annual meetings, and his clinical studies have done much to further our knowledge of the diagnostic indications afforded by the pulse, and of the therapeutic management of obscure affections. Never has a distinction been more worthily earned, and the time of its announcement could not have been more appropriately chosen.

ACTION AGAINST A LUNATIC ASYLUM.

IN a paragraph headed as above, published in the BRITISH MEDICAL JOURNAL of July 1st, p. 30, the name of Mr. Henry John Allen was substituted for that of the plaintiff in the case referred to. Mr. Allen, as a member of the Managing Board of the Bloomfield Retreat, was in fact one of the defendants in whose favour a verdict was recorded. We regret the mistake, which was due to an unfortunate clerical error of a correspondent, and trust that it may not have caused Mr. Allen any annoyance.

A MEDICO-LEGAL INSTITUTE.

It is proposed to establish a medico-legal institute in Paris. The building will be in immediate communication with the Morgue by means of an underground passage (said to be a transformed sewer, but that is a detail), in which there is a tramway for the transport of bodies. The institute will comprise a toxicological laboratory, a work room, a lecture room, a library, a museum, a *post-mortem* room with a small waiting room for relatives, and a room in which suspected persons can be confronted with their supposed victims.

VOLUNTEER BEARER COMPANIES.

The War Office have now under consideration a new scheme for the formation of bearer companies with each volunteer regiment. Hitherto the men composing the bearer companies had to qualify as efficient volunteers in the ranks before being allowed to draw the capitation allowance for the corps. Under the new scheme, each regiment will have a company of bearers, about twenty strong, who will only be required to qualify in bearer duties, and will be dressed in a different uniform. The scheme is at present in its infancy, but no doubt it will be worked out, and must very much increase the efficiency of the medical staff of the volunteers.

THE LATE CHANCELLOR OF THE UNIVERSITY OF EDINBURGH.

A marble bust of the late Chancellor of the University (Lord Justice General Inglis) was on June 30th presented to the University by a number of subscribers. The formal ceremony took place in the Senate Hall. Professor Sir Douglas Maclagan spoke on behalf of the donors and as a schoolfellow and lifelong friend of the Chancellor; and Professor Sir William Turner (who acted as chairman of the meeting) accepted the bust on behalf of the University, undertook its safe custody, and returned thanks. Both speakers referred to the long and valuable service rendered to the University by the late Chancellor. The bust is by Mr. Charles McBride, of Edinburgh, and is an excellent likeness. It was shown at the last Royal Scottish Academy Exhibition.

CHOLERA PANICS.

The state of excitement into which Cardiff has been thrown by reason of the news that a cholera-infected vessel last sailing from Malta is expected at Penarth appears to be entirely uncalled for. In the first place, the latest news of the ship reported all well on board, although two deaths had occurred prior to her arrival at Malta. In the second place, to create a panic and attempt to secure that the ss. *Widdrington* shall not be allowed to enter Cardiff is not the way to safeguard the commercial interests of the port. If it be feared that the shipping trade will be interfered with by reason of the entry of a cholera-smitten vessel, owing to the action of foreign consuls stationed at Cardiff, we are afraid the town will be kept in a state of ferment during some months to come, looking to the fact that France is infected in so many parts. It will be wisest for all our ports to act quietly under the standing cholera regulations. In the case of Cardiff the interception of vessels in the Penarth Roads affords a very favourable opportunity for keeping the foe from the dock gates.

THE UNIVERSITY FOR LONDON.

Mr. Stanley Boyd, in the course of his annual report as Dean of the Charing Cross Hospital Medical School, in referring to the question of teaching and the University of London, observed that the summary treatment which the Gresham University received in the House of Commons had been a source of great disappointment to many of its supporters. At the same time he thought that it was probable that many of them would now agree that the course adopted was a wise one, and that the prolonged and far-reaching inquiry of the new Royal Commission should result in a scheme more adapted to the needs of the metropolis and more likely to result in the development of a great university such as London ought to possess. The report of the Commission was awaited anxiously, because it was recognised that there were many difficulties in the way of the establishment of such a university as was desired, and because it was feared that, in dealing with the many interests concerned, compromise might be allowed to weaken the plan which might appear to the Commissioners best, but which would require some high-handed dealing to carry it out. Should the present Commission fail to produce a practicable plan, there was too much reason to expect that the matter would be shelved for years—than which nothing could be more undesirable from the point of view of general education in London. Medicine had less to gain than any other faculty, for medical education was already organised on university lines; yet medicine in London would derive manifold advantages from the consolidation of its scattered institutions in the medical faculty of one great university. Mr. Boyd referred to a paragraph published in the British Medical Journal of July 1st, and observed that it seemed to contain a promise of two things of main importance: first, that there should be only one university in London, and that it would bear the name which alone was suitable for such an institution; and secondly, that an Act of Parliament would be proposed to constitute the new University, and thus at once override the opposition which Convocation of the University of London was sure to offer to any changes calculated to make the University that which its name would seem to imply.

THE QUEEN VICTORIA NURSING INSTITUTION, WOLVERHAMPTON.

From the report of the Committee of this institution, of which Mr. Vincent Jackson, F.R.C.S., is Chairman, presented to the recent annual meeting, we learn that the staff now numbers 33, including 26 institution nurses, 2 district nurses, and 5 probationers in training at the Wolverhampton, Derby, and Shrewsbury General Hospitals. The Institution is fulfilling the twofold pledge, given at its inauguration, not only to supply trained, efficient nurses to the well-to-do, but also to undertake the philanthropic work of tending the sick poor in their own homes; this, together with nursing eight patients at reduced fees—whose circumstances could not enable them to bear the whole expense of a private nurse—had this year entailed the cost of £80 to the Institution, which all but absorbed the whole of its annual subscriptions. A special appeal was made for funds to enable the committee to erect a suitable nurses' house, the present building being too small for the increased staff which the success of the Institution had rendered necessary. The nurses had attended 840 cases under the care of 66 medical men in 180 different families. In addition, the district nurses had paid some 6,500 visits to over 400 separate patients.

THE NEW FORM OF OATH.

We have received further complaints, even after the issue of the Home Office circular, of the vexatious conduct of petty judicial officers concerning the administration of the oath at the choice of witnesses without the formula of kissing the book. It is really preposterous that after all the publicity which has been given to the subject those whose special business it is to administer oaths in courts of justice should continue to be ignorant or contemptuous of the law. The last complaint we have received is contained in the following extract from a letter, to which we beg to call the attention of those who are responsible for the regularity of the proceedings before the grand jury:

> On the 27th inst. I had to attend the Surrey Sessions, and when before the grand jury claimed to be sworn in the statutory way without kissing the book. The official informed me I might affirm if I wished, but that they knew nothing of such a manner of administering the oath. I re

monstrated and referred him to the Government circular, but of it he said he knew nothing and that I must take the oath in the usual way or affirm. Seeing that if I held out I would only cause delay, and being anxious to get away, I kissed the book, but with some reluctance, having noticed that one of the previous witnesses was suffering from a sore on his lip.

If there are any of our readers who consider that the old custom was immaterial and that there is no reason for insisting upon the new statutory reform we invite their attention to the following case which has just been brought to our notice by a legal correspondent:

Before the various offices of court were concentrated in the new Law Courts there existed in Lincoln's Inn an office belonging to the Exchequer, where those who had issued writs which were undefended used to search for an entry of appearance and then to make oath if there was a default, in order that they might at once "sign judgment." The ancient officer in charge was obliged to provide a book in order that the multitude of clerks who daily attended might duly kiss it. But long before he and his office came to an end the book became so absolutely rotten that it had to be tied up in various directions with red tape. When remonstrance was made to the owner of this precious relic he blandly replied that he was not paid for supplying books.

Probably the same abuse is still being repeated in various holes and corners of the law. Our correspondents, therefore, are not only well justified but are bound, for public reasons, to insist upon their statutory right to be sworn with uplifted hand without touching any book at all and without any inquiry as to their religious belief. Such an oath, as we have frequently said, is not an affirmation and no one has any right to compel or even to invite such a witness to affirm. If an officer of the court refuses to do his duty it is a well known principle of law that an action will lie against him. We hope, however, that full particulars of any case of really vexatious refusal will be promptly communicated to us and we shall do our best to bring the acts of the offending officials to the notice of their superiors.

THE DOCTOR'S HORSE.

AT the recent annual meeting of the West Somerset Branch of the British Medical Association, Mr. R. J. Collyns made what Americans call a "new departure" in selecting as the subject of his presidential address that useful and long-suffering *servus servorum Dei*, the doctor's horse. He discussed the animal's housing, bedding, food, work, and repose with a thoroughly practical knowledge of his needs and a tender concern for his wellbeing and comfort, which Ouida and other "zoophilists" would do well to note. Mr. Collyns pleaded for the efficient ventilation and drainage of stables, and he pointed out that horses are much more likely to take harm from exposure after leaving a hot stable than a cool one. He considers peat moss litter more economical than straw, but it has the disadvantage of softening the feet of some horses so much that they are more liable to be damaged by the roads. With regard to feeding, Mr. Collyns said the art of keeping a horse in condition is to maintain a just balance between food and work, and as horses, like their masters, differ in appetite and capacity for work, the owner must make it his business, as it is his interest, to become acquainted with their peculiarities of constitution. He strongly recommended maize, given in the proportion of one part to two or three of oats by weight; horses fed in this way are, he said, kept in harder condition and at less cost than when fed on grain consisting of oats alone. He further advised that some hay or chaff should be given with each feed of corn, as this makes the animal masticate the latter more thoroughly. He also insisted on the advantage of portioning out the food by weight rather than by measure. Mr. Collyns had also much to say about shoeing; his remarks on this subject were interesting, and his criticisms showed clearly that in order to shoe a horse properly a man should have some elementary idea of the structure of the animal's hoof. Had smiths any tincture of anatomy they would not pare away the "bars," the two firm ridges which act as buttresses to prevent the "wall" of the hoof from being driven inwards by the superincumbent weight, as many of them are by way of doing now. Are there no courses of technical education for smiths? Goodsir, predecessor of the present distinguished incumbent of the Chair of Anatomy at Edinburgh, once said, "I love the horse; I have dissected him three times." We do not know whether Mr. Collyns has shown his love in the same way, but he has evidently made careful study of the animal, his structure, his ways, and his wants, which has borne fruit in his excellent Presidential address.

DUBLIN SANITATION.

AN angry correspondence is just now in progress between Sir Charles Cameron, Superintending Medical Officer of Health, and Mr. Thornley Stoker, Vice-President of the College of Surgeons, regarding the working of the public health department of the Dublin Corporation. At the annual meeting of the Sanitary Association, which is a body of citizens who are endeavouring to promote sanitary reforms, Mr. Stoker said, "the administration of the public health department of the city was not what it ought to be." To this rather mild criticism Sir C. Cameron retorts that Mr. Thornley Stoker "should have waited before advertising his crude and valueless observations until he had heard the address of Mr. O'Brien Furlong, the president." He then goes on to show that "in 1892 the convictions for breaches of the sanitary laws in 49 British and Irish towns, with a total population of 8,676,913, were, in round numbers, 5,000, as against 3,000 in Dublin with a population of 245,001. Does this indicate sanitary inactivity? Our fever death-rate, formerly appallingly high, has for some years past been less than the average rate in British towns." Mr. Stoker's reply is very lengthy, but he points out that "the annual report of the Association, which was supplied in proof at the meeting, dealt with this and other unpleasant circumstances, and included a table of the death-rates of fifteen of the principal towns in the United Kingdom since 1871, which showed not only that Dublin at present exceeds them all in its mortality, but, what is even more sad and alarming, that whereas every town mentioned in England and Scotland has, under capable administration, steadily diminished its death-rate, Dublin has practically the same enormous mortality as in 1871—that is to say, for Dublin city in 1892 the mortality was 31.9 per 1,000, as compared with 31.6 in 1871. This much the report teaches any one who reads as he may run. The great point the citizens have to consider is (to use the words of the report of the Sanitary Association), 'that the rate in Dublin last year was 28.4 as compared with 25.5 in 1891. In the city there was an increase from 28.5 to 31.9, whilst in the suburbs the rate of mortality rose from 18.5 to 20.2. It is most unsatisfactory to note that, whereas in all the towns in England and Scotland enumerated in the tables, there has been a decrease, in the cities of Dublin and Belfast there has been an increase, but especially in Dublin, of a marked character. This increase in Dublin alone, put into figures, means 1,019 deaths in 1892 over 1891, and 559 deaths over the average for the last five years.'" Mr. Stoker admits that the Corporation has done a great deal, but as a proof that the public health department needs improvement he instances the filthiness of the Dublin dairy yards and the want of proper ambulances for the sick.

COUNTY MEDICAL OFFICERS OF HEALTH.

A CONFERENCE on sanitary administration in the county of Bucks was held at the Paddington Hotel on July 3rd, when Sir Douglas Galton gave an address on the advantages and best methods of co-operation among sanitary authorities, showing how essential it was to the full efficiency of the sanitary service that there should be some central organisation in each county, so as to ensure uniformity of reports,

proper distribution of information, and amalgamation in regard to isolation hospitals, and urging the great advantage which accrued from the appointment of medical officers by county councils for this purpose. It would seem, however, that there is a certain dread in the minds of some of being placed under an officer of the county council, who, it is thought, would not be sufficiently far removed from party prejudice aud influence, a preference being expressed for the just and gentle, albeit somewhat distant, rule of the Local Government Board. The idea that a committee could among them do as well as a medical officer of health appears to be an attempt to please everyone. The susceptibilities of the local authorities, it is said, would not be irritated, and the salary of the county medical officer would be saved. The certainty that any economy would be effected is doubtful. It is not readily apparent how the education of a succession of amateurs by practical experience, and no doubt by a due proportion of failures, at the ratepayers' expense can be cheaper than the employment of an expert. Mr. Fosbroke, County Medical Officer of Health for Worcestershire, told the Conference that notwithstanding the small legal powers which he possessed, his time was fully occupied chiefly in advising, helping, and consulting with the medical officers of the districts, and that he was continually being made use of by them to draw attention to nuisances and defects in regard to which local circumstances made it difficult for them to set their authorities in action. None of these things could a sanitary committee do, and seeing the first-class men who offer themselves for such appointments, it is difficult to understand why county councils hesitate to avail themselves of their services, especially when the necessity of some central organisation is admitted by the appointment of an active sanitary committee—surely a rudderless ship in which to explore the difficult problems of sanitary science.

THE SALE OF MEDICINAL PREPARATIONS CONTAINING POISON.

THE *Pharmaceutical Journal* of last week reports a case of prosecution by the Pharmaceutical Society under the Pharmacy Act, which appears to raise an important question in regard to the sale of preparations containing poison. The defendant was a drysalter in Manchester, and the offence with which he was charged was that, being unqualified to sell poisons, he had sold a preparation called "licoricine," which contained morphine. Evidence was given as to the presence of this poison in the article sold, and the fact was not disputed. But the analyst had not determined the amount of morphine, and it was alleged for the defence that the quantity was too small to render the preparation poisonous. In the absence of proof that the preparation contained a substantial quantity of morphine, the judge therefore held that no case had been made out. Upon that view, judgment was given for the defendant, but with leave to appeal upon the point of law, contended for by the plaintiff, that the presence of any morphine whatever in the preparation rendered the defendant liable under the Pharmacy Act. It may therefore be expected that the difference of opinion as to the construction of the Pharmacy Act will again be brought under the notice of the law courts. In the case decided in the Bloomsbury County Court the actual amount of poison in the article sold was not so much relied upon for the defence as the proposition that when a poison is an ingredient of a compound it ceases to be a poison within the meaning of the Act. That proposition Judge Bacon distinctly refused to accept, because he held that "it would allow the whole mischief which was intended to be prevented by the Act." In the appeal against his judgment that view was sustained by the justices, but the question as to the amount of poison that would bring a preparation within the Act, though referred to incidentally, was not fully considered. On that point Mr. Justice Lawrance said, in his judgment, "it might be ridiculous if a medicine which contained only an infinitesimal portion of poison should be labelled 'poison.' But, at all events, no harm would be done. There must be a point at which it becomes dangerous and a point at which it is not dangerous. It does not seem to me that it was intended that the Act should be frittered away in that way." Mr. Justice Collins also said: "I do not think it necessary to lay down any rule which would cover every possible case where some infinitesimally small amount of poison enters into a larger compound," and he held that the object and "main scheme" of the Act was "to secure, in the case of compounds into which poison enters, that such things shall only be dispensed by persons who have a technical knowledge of their properties." But, if a distinction is to be made between preparations which are unquestionably poisonous and others which contain poison in comparatively small amount, it is difficult to see upon what principle that can be done or by what authority such a distinction can be made. The question was put to the Privy Council shortly after the Act was passed, and the reply given through Sir John Simon, then the medical officer to the Privy Council, was that "it is not feasible to define the precise proportion of poison in any preparation which may bring it within the Pharmacy Act." And it must be remembered that the question to which that answer was given had relation only to the business transactions of persons specially qualified to deal with poisons, not to the sale of preparations containing poison by persons who have no such qualification. That, as we understand the Pharmacy Act, is absolutely prohibited; but it is to make such sales possible that the attempt is made to distinguish between preparations which are poisonous and others which are supposed not to be poisonous. Practically, the result of such a distinction, if it could be made, would be to destroy the value of the Pharmacy Act as a means of protection for the public. If a preparation containing a small actual quantity of poison may be sold without regard for the requirements of the Act, while one containing a large quantity would be subject to those requirements, it would follow that a small bottle might be sold by anyone, and a larger bottle could only be sold by qualified persons. Then, if one small bottle can be lawfully sold by a grocer, half a dozen small bottles might also be sold by him at one time, although the sale of a single large bottle would be unlawful. These are consequences that would necessarily result from a definition of the quantity of poison which might be sold by unqualified persons. They would open the door to no end of mischief by virtually superseding the Pharmacy Act, and, after all, who would undertake the responsibility of defining the conditions under which poison should be obtainable in such an indiscriminate manner?

JOHN HUNTER AS A CANNIBAL.

MR. HERBERT RENDELL, of St. John's, Newfoundland, has drawn our attention to an interesting incident in the life of John Hunter recorded in Cartwright's *Journal of Transactions and Events during a Residence of nearly Sixteen Years on the Coast of Labrador*. 3 vols., 4to. Newark, 1792. The reference in question is in vol. i, p. 271. On Cartwright's return from his visit to Labrador he brought home with him a small party of Esquimaux. These were all evidently invited to Hunter's house to dinner, as the following extract shows:

> Being on a dining visit with that excellent surgeon and anatomist the ingenious John Hunter; in the afternoon Attuiock walked out of the room by himself, but presently returned with such evident marks of terror that we were all greatly alarmed, fearing [some] accident had happened to him, or that he had met with an insult from one of the servants. He seized hold of my hand, and eagerly pressed me to go along with him. I asked the cause of his emotion, but could get nothing more from him than "Come along, come along with me;" and he hastily led me into a room in the yard, in which stood a glass case containing many human bones. "Look there," says he, with more horror and consternation in his countenance than I ever beheld in that of man before, "are those the bones of Esquimaux whom Mr. Hunter has killed and eaten? Are we to

be killed? Will he eat us, and put our bones there?" As the whole company followed us, the other Indians had also taken alarm before the old priest had finished his interrogatories; nor did any of them seem more at ease by the rest of us breaking out into a sudden and hearty laugh, till I explained to them that those were the bones of our own people who had been executed for certain crimes committed by them, and were preserved there that Mr. Hunter might better know how to set those of the living, in case any of them should chance to be broken, which often happened in so populous a country. They were then perfectly satisfied, and approved of the practice, but Attuiock's nerves had received too great a shock to enable him to resume his usual tranquillity till he found himself safe in my house again.

The above amusing incident took place in the year 1773. In the list of subscribers to Cartwright's book, "John Hunter, of Leicester Square," is down for a large paper copy.

DUST DESTRUCTORS.

DURING the course of a recent inquiry some interesting statistics have been furnished showing the quantity of dust collected in a year by the various authorities of London. It is found on an average that about 260 tons of dust per 1,000 of the population are collected in a year. It is only since 1876 that dust destructors of a modern type have been employed, but their use in London has not yet become general. The time has now come when London must have them in general use, for the days are gone by when the refuse from ashbins and other sources can be shot into excavations, filled in, and dwellings reared thereon. There are four types of dust destructors now in use, each of which is more or less successful when properly used in effecting the desired purpose. Some forty sanitary authorities throughout the country have wholly or partially substituted for the older system the method of disposal by fire, and in London the City Commissioners of Sewers, the Vestry of Battersea, the District Board Whitechapel, the Vestry of Hampstead, and the Woolwich Local Board have erected destructors. The medical officers of health in whose districts destructors have been erected find that complaints of smell or dust have not continued in the majority of instances. The medical officer of the London Council and the chief engineer of that body regard the use of forced draughts as a most effective means of preventing nuisance by decomposing the offensively smelling compounds. No one will dispute the fact that destructors properly worked are a great improvement on the existing alternative systems of dust disposal.

ANTIRABIC VACCINATIONS.

M. POTTEVIN[1] gives a short account of the antirabic vaccinations which have been carried out at the Pasteur Institute during 1892; 1,793 persons were treated with a total mortality of only seven (0.39 per cent.). Of these seven three developed hydrophobia less than fifteen days after the completion of the treatment, and as these should be disregarded in judging of the efficiency of the treatment, the death-rate among the remaining 1,790 persons were only four, or 0.22 per cent. The mortality is the lowest on record; in fact, the death-rate has steadily declined since 1886, when it was less than 1 per cent. Since 1886 the total number of patients treated has been 12,782—with only sixty-eight deaths—the mortality being 0.52 per cent. of the total cases treated. The cases are divided as usual into three categories, and also classified according to the seat of the injury. As before, the latter classification serves to show the extreme gravity of bites inflicted about the head; and these cases are especially liable to develop rabies while undergoing the treatment. Of the 1,793 persons treated, 1,584 were from France or Algeria; Portugal, among other foreign countries, afforded the largest number of cases, and England comes next on the list. Among foreigners treated was a Sister of Charity from Madeira; this disease is said to have been imported from Portugal by a dog which bit several others of its kind. In France the disease appears to be very unequally distributed in the various departments, there being very little in the western and central departments, while the southern and south western districts, the valley of the Rhone, and the Mediterranean coast furnish a considerable number of cases. M. Pottevin recommends that the sanitary authorities should take rigorous measures in order to lessen this sacrifice of human life, and to prevent the serious losses to agriculturists which result from its occurrence among horses and cattle. In the Department of the Seine the number presenting themselves for treatment has been increasing for the last three years—in 1890 113, in 1891 225, in 1892 343 presented themselves for treatment. Measures taken by the police on May 9th, 1892, appear, however, to have somewhat checked this increase. Most cases of hydrophobia in France occur during the spring, and the cases are fewest in the autumn.

[1] *Annales de l'Institut Pasteur*, April, 1893.

STRYCHNINE POISONING OR ALCOHOLISM?

OUR attention has been drawn to an inquest recently held on the body of a publican named Hoy, who died at Kilrea, near Belfast, with symptoms suggestive of strychnine poisoning. Dr. James Lennox testified that he had been called to the deceased five minutes after the first convulsive fit, and saw him in several subsequent seizures in which there was clenching of the hands and flexion of the wrists, but no trismus. The intermission was complete, and during it the patient could drink and speak. He died five and a-half hours after the first seizure, and on *post-mortem* examination there was found congestion of the membranes of the brain and spinal cord; the heart was empty and flabby. There were some old pleural adhesions on the left side, the liver and kidneys were somewhat congested, but showed no structural changes, and there was no natural cause of death found. Dr. S. J. Bolton, who had seen deceased during life, and also been present at the *post-mortem* examination, entirely agreed with the evidence given and opinion expressed by Dr. Lennox. The viscera were examined by Sir Charles Cameron, but no strychnine was found. It should be noted, however, that the deceased had vomited once just before the doctor saw him, and the vomited matter had been thrown away; and at the examination the stomach was found to be empty. The failure to find strychnine is, of course, no proof that none had been taken; as is well known, in the body of Cook (Palmer's victim) no strychnine was found. It is, therefore, a matter for some surprise that Dr. Hegarty, who was present at the *post-mortem* examinations, should, in the face of the clinical history, have expressed his opinion that death had been due to alcoholic poisoning. The jury, in consequence of this divergence of professional opinion, returned an open verdict.

MEDICAL CLUBS AND FRIENDLY SOCIETIES IN AUSTRALIA.

THE Hon. Dr. Creed, in his valedictory address as retiring President of the New South Wales Branch of the British Medical Association, dwelt on the danger to the future development of the medical profession, due to the increase of so-called friendly societies which engage the services of medical men for annual capitation fees. He quoted statistics showing that in an important suburb of Sydney, which had a population of 24,000, the Friendly Societies' Dispensary had over 2,300 members; as the wives and children of members were attended it appeared that fully 10,000 persons were under the medical charge of two medical men, who divided between them £600 a year, a sum equivalent to 1s. 2½d. a head a year. Another lodge in the same suburb charged the members 15s. a year to include midwifery. Even in sparsely populated Western Australia lodges secured medical officers to give medical attendance and drugs for £1 a year for each family. As a rule, in the small towns £1 6s. was paid, to include medical attendance, teeth extraction, drugs, and bottles, but in the towns the rate was 12s. 6d. to £1. As a rule, an

extra fee was paid for midwifery. In Australia, as at home, the system is not only bad in itself, but is abused by well-to-do people, shopkeepers, manufacturers, M.P.'s, and officials, who joined the lodges when poor, remaining members. Unfortunately great competition exists for such appointments. Dr. Creed expressed the opinion that the conditions were unjust not only to the practitioners but the members of the societies who, for the inadequate remuneration offered, could scarcely hope to get other than the most perfunctory attendance in sickness from "a man who, unless possessed of the disposition of an angel, cannot help being soured and rendered cynical by the injustice of his relations with them, and whose professional intercourse with such patients must be devoid of that kindly sympathy so essential to successful treatment." The societies did not realise that it was really to their interest to ascertain the highest amount they could afford to pay, and choose the practitioner of the highest professional character and ability willing to enter into an engagement with them; they acted upon the so-called "commercial principle" of engaging the practitioner who professed his willingness to render the largest service for the least remuneration. He thought that something might be done by forming a fund from which a practitioner, unfairly ousted by some medical man who offered to work for smaller remuneration, might be subsidised to such an extent as would enable him to continue his practice in the district. In this way, Dr. Creed thought, the newcomer could hardly hope to do much private practice, and from the inadequate pay of the society he would quickly be obliged to leave the field.

THE DEATH OF LOUIS XVII.

IN the autumn of 1891 we noticed some remarkable researches made by Dr. Cabanès into the medical evidence on the death of the Dauphin, titular Louis XVII, in 1795. The same authority has searched into more documents since 1891, and is yet more convinced that the child who died in the Temple at Paris was not the Dauphin. The wife of Citizen Simon (the evidence that this ill-reputed couple really maltreated the Dauphin is doubtful), testified before Talleyrand, in 1816, that she had seen a rachitic child sent into the Temple after she left, and the cook at that prison knew that a "substitution" occurred. The sudden deaths of Desault, Chopart, and Doublet, who expressed doubts about the identity of the child found in the Temple after Thermidor, are well known. The day that Desault presented his report, he was invited to a dinner by some members of the Convention, and was taken very ill on his way home, dying speedily. His pupil, Abeillé, wisely got away to America at once, feeling sure that there had been foul play. Drs. Pelletan, Lassus, and two others, afterwards made the necropsy, when the child died. They certified about the body "said to be that of the defunct Louis Capet," and recognised "by two of us as the child attended to a few days since." Napoleon dwells on these suspicious expressions in his *Memoirs*. The report is complete, yet there is no note of a hernia, of the scar of a bite from a rabbit on the lip, and of a crescentic inoculation mark, by which the real Louis XVII could have been recognised. Lassus had been physician to Mesdames de France, the Dauphin's aunts, and had often seen the Dauphin before the revolution. Dr. Valentin believed that the report was otherwise faulty, as it did not explain that death was due to sublimate poisoning. When Bonaparte became First Consul, the Vendean Comte de Frotté, who knew too much about the disputed identity, was shot. After the Restoration, the Abbé Dubois told Louis XVIII that he did not feel sure that the child buried as the Dauphin was really that unhappy boy at all. The reverend gentleman mysteriously started for Italy at once, and died in a fit at the first posting station. Pelletan was more discreet, as he saw that under Republic, Empire, or Monarchy, it was dangerous to express doubt. He declared to Louis XVIII that he had stolen the Dauphin's heart at the necropsy whilst the three other doctors, a gaoler, and a civil commissioner had retired from the table to chat near the window. Dr. Pelletan kept the heart and wished to palm it off on Louis XVIII. The other doctors quarrelled with Pelletan, and the gaoler, also living, said that he had watched him all through the necropsy and would never have allowed him to pocket the heart. The King accepted the heart, but it was not allowed the honours of a State funeral at St. Denis. Louis XVIII never doubted the vigilance of revolutionary functionaries over the corpses of princes. The apocryphal heart, preserved by Pelletan, who had signed a report containing the two doubtful expressions, fell into the hands of Archbishop Quélen, and was thrown into the Seine when his palace was looted by a mob early in 1831.

THE CHESS MEMORY.

M. ALFRED BINET has published in the *Revue des Deux Mondes* a very interesting study of chess memory, founded mainly on communications made to him in reply to a set of questions by many of the most eminent living blindfold chess players, supplemented in some instances by actual observations made in the psychological laboratory of the Sorbonne. He comes to the conclusion that the player relies mainly on visual memory, but partly also on verbal memory; the more accomplished the player, the less distinct is the mental picture of the board and the pieces. Such a picture appears to be formed by all, but the verbal memory seems to be of little importance, and, as a matter of fact, the players rely less upon a mental picture or echo than upon a recollection of the relative position of the pieces which are recalled, not as possessing a particular form or a particular name, but as being endowed with certain powers. This is confirmed by the experience of several players, who state that when engaged in playing several games at once they distinguish between them by recollecting the character of the opening. When called upon to move in a particular game the act of memory is described by Dr. Tarrasch, the German champion, who is a medical man, somewhat as follows: He is told that in game number so-and-so his adversary has moved, and the nature of the move. At first his mind is chaos, the one fact which stands out being the nature of his adversary's move. Then he recalls the whole game, the first fact being the nature of the opening. "Ah," he says to himself, "that is the knight's gambit in which the opponent defended according to custom until such-and-such a move"; then he runs over each move that has been made until he comes to the last move just announced to him, which then fits into its place; then he has a dim image of the board with the pieces in their proper places. How far this process is a matter of verbal memory is not very clear. It is really the recalling of a series of incidents linked together by a chain of reasoning, and M. Binet adds the interesting fact that the blindfold player is very apt to forget, or to have difficulty in recalling, isolated or purposeless moves of his adversary. A good player will remember every move in an interesting game for a long time—months or years. Mr. Paul Morphy, for instance, on one occasion dictated from memory—not as a feat but in order that they might be published—eight or ten games that he had played eight months earlier. A blindfold player must have a good memory, but it is a very different sort of memory from that of the calculator Inaudi, who can recall long strings of unconnected numbers which he has heard recently. His memory is, however, short. M. Binet found on trial that Inaudi could recall 300 numbers; these had all been heard within the two previous days. Numbers heard earlier had been entirely forgotten. The difference in retentiveness is, no doubt, due to the fact that in Inaudi's case there was no connecting link to bind the series of figures together, whereas the chess player's memory is not a memory of mere sensations, but of ideas.

REPORT ON CASES OF POISONING AT FOREST GATE DISTRICT SCHOOL.

By GEORGE C. BELL, L.R.C.P., M.R.C.S.,
Medical Officer of the School.

ON June 23rd, at 9 A.M., it was reported to me that about 30 of the boys in the school had been vomiting. At 11 A.M., when seen by me, these children were in bed. They all complained of frontal headache, vomiting, pain in the epigastrium, and in some cases of diarrhœa. In about 10 cases the temperature was raised to 101°, and these patients had rather dry brown tongues, and a pulse of from 100 to 120. The remainder of the children had normal temperature, a clean tongue, and the pulse was about 80. In 3 cases the vomiting was very severe, but there was no sign of collapse. About 20 girls were seen at the same time, but the attacks were apparently less severe than in the boys. During the day of June 23rd about 30 more children were put to bed, but none of them were severe cases. On June 24th there were about 25 more children attacked. These were, on the whole, the most severe cases, about 10 of them showing signs of collapse. On June 25th 15 more cases, 2 severe, occurred; on June 26th about 8; and on June 27th 7 more cases, none severe. Since then there have been cases resembling the ordinary summer diarrhœa in children, about 2 or 3 a day. Two children died.

E. P., aged 14 years, was seized on June 23rd, and was one of the most severe cases. When seen by me he had been vomiting very freely. Temperature 101°, pulse 110, full; tongue brown, moist. He sat up in bed and said he felt better. During the afternoon he was sitting up in bed reading. The vomiting had ceased. In the evening he had some cocoa. When seen at 10 P.M. he had some water and said he felt better. He was found dead at 5.30 A.M., June 24th. I was sent for, and saw him at 6.30 A.M. The body was still quite warm, the limbs flaccid, the features calm, jaws tightly clenched, and some bloody foam coming from the mouth.

Post-mortem Examination (fifty-four hours after death).—Blood vessels in brain congested, rather more fluid than normal in ventricles, brain matter soft. Lungs congested, no sign of disease. Heart: ventricles firmly contracted, empty; valves normal. Stomach: signs of fairly severe inflammation over the whole of its surface, no erosion. The same appearances were seen in the intestines as in the stomach extending over a considerable portion of the small intestine. The liver, kidneys, and spleen congested, but healthy.

H. F., aged 14, was attacked on June 24th with severe frontal headache, vomiting, purging, and pain in the epigastrium. Temperature normal. Tongue dry and brown. Pulse 140, very feeble. She was seen at once by me, and removed to the infirmary. A special nurse was in attendance. In her case the vomiting was very severe, and the girl collapsed. Small doses of iced water were at once vomited, and small nutrient enemata with brandy returned. Two hypodermic injections of morphine gr.$\frac{1}{4}$ and atropiæ sulph. gr.$\frac{1}{75}$ stopped the vomiting; brandy, ether, and liquor strychniæ were injected by hypodermic syringe, but the girl did not rally, and died June 27th. For the last two days the temperature was subnormal, and the girl very restless; the pupils were large and sluggish to light.

Post-mortem Examination (twenty-eight hours after death).—Brain congested, but less marked than in the case of E. P. Lungs normal. Heart healthy, ventricles pale, non-adherent clot in left ventricle. The stomach and intestines presented the same appearances as in the above case. Liver and kidneys normal. Spleen rather enlarged.

About 140 children in all complained of being ill, and were put to bed, but at least 40 showed no signs of sickness or any illness whatever. About 80 children were sick two or three times, and then said they were quite well again. In 20 there were signs of serious mischief; the vomiting and purging were excessive, and there were signs of collapse. The treatment adopted was rest, water, and milk and water until the sickness abated, and the action of the bowels either increased or quieted as seemed necessary. In a few of the cases small doses of hydrocyanic acid, sodium bicarbonate, and aromatic spirits of ammonia seemed to do good. Brandy by the mouth and rectum was given were necessary.

The whole of the children except the two mentioned are well, and have returned to their ordinary duties and diet. In all the cases the vomiting was green bilious. No blood in any vomit or stools. The diet for the school was:

On Wednesday.—Breakfast and tea—Bread and butter or dripping, and milk and water and cocoa made with milk. Dinner—Salt meat (cold), bread, and water.

Thursday.—Breakfast and tea as on Wednesday for whole school. Dinner for boys and girls (over 7 years)—Soup made of stock from the salt boiled beef of the previous day and bones from the officers' dinners of previous day, flour, onions, water. Infants' dinner, bread pudding.

None of the infants were attacked—chiefly the elder boys and girls. None of the children in the infirmary who had the soup suffered at all. The boy E. P. had his dinner at the lodge, and it consisted of meat (salted by the lodge-keeper), potatoes, and blackcurrant jam; he had no soup. The girl H. F. had soup with the school.

The meat is sent daily by a London contractor, is inspected thoroughly by the superintendent, and at once cooked. I have on many occasions been present at the inspection of the meat, and have always, so far as the eyes and nose can tell, found it good. The superintendent had a portion of the salt meat cooked for his own table, and has suffered no inconvenience whatsoever from its consumption.

The above are the chief features of the case, and I think the immunity of the infants from any gastric or intestinal trouble, and the difference in their diet on the Thursday, a most important one.

The abdominal viscera and their contents have been sent for analysis.

In only 20 cases were there any severe symptoms, and in only one case, that of H. F., was I apprehensive of a fatal result. The children attacked all denied at the time of their sickness having had anything whatsoever except their ordinary diet. The soup is cooked in an iron copper.

MEDICO-PARLIAMENTARY.

HOUSE OF LORDS, Tuesday, July 4th.

Adulterated Butter.—The Duke of ST. ALBANS asked whether the Danish Government had proposed a conference with the view of framing a convention to deal with the international trade in adulterated butter?—The Earl of ROSEBERY said a proposal of the kind was made, but owing to the doubt expressed in the departments principally interested, Her Majesty's Government did not embrace it with any great alacrity. The correspondence was still proceeding.—Lord RIBBLESDALE said that the Board of Agriculture had considered the question from the point of view of the producer and not of the consumer or distributor. The Board thought the end in view could be much better secured by Parliament than by the philosophic and scientific inquiry recommended, but they would be glad if the Danish Government made a practical suggestion on the subject, and they would see how far they could embody it in a Bill.

HOUSE OF COMMONS, Monday, June 26th.

Medical Officers and Foreign Service.—Dr. MACGREGOR asked the SECRETARY OF STATE FOR WAR, in view of the fact that there were now fifty-three surgeon-lieutenants of the Army Medical Staff, whose commissions dated from January 30th, 1892, to January 30th, 1893, who had completed their courses of instruction at Netley and Aldershot, and were therefore eligible for foreign service, whether it was intended to send as many of these officers as were required for the reliefs to India during the next trooping season, or whether it was proposed to send back to that country surgeon-captains who had returned home within the last two or three years after a tour of six years in India.

Mr. CAMPBELL-BANNERMAN said that about one-fourth part of the annual army medical relief for India was composed of junior surgeon-lieutenants. The Indian Government objects to a larger proportion, as these young officers have not sufficient experience for many of the duties required. They are, further, more susceptible to enteric fever than their seniors.

Thursday, June 29th.

Accommodation for Fever Patients in London.—Mr. FOWLER, in answer to Mr. COHEN, said he was informed by the managers of the Metropolitan Asylums District that the number of beds available at the present moment for small-pox patients was 1,100, for cases of scarlet fever and enteric fever 2,459, and for diphtheria and other cases 238. All scarlet fever and diphtheria beds were occupied.

Monday, July 3rd.

Importation of Milk.—Mr. H. FOWLER, in reply to Mr. W. LONG, said he was informed by the Board of Customs that during the present year the value of the liquid milk and cream imported into the country was £630. Of that, £613 represented the value of milk of Holland, and £17 from Denmark and Sweden.

The Use of Variolous Lymph.—Sir W. WEDDERBURN, for Mr. HOPWOOD, asked the Secretary of State for India whether Surgeon-Major-King had been punished for vaccinating with lymph variolous, or small-pox in fact, inoculated into the cow, and thence taken to vaccinate human beings? Whether he was aware that it was recommended in the *Manual for Vaccination* in use for pupils in the Madras Vaccination Department, printed at the Fort Press, and issued under the authority of the Indian Government? Whether the Government was aware that such lymph was in circulation to a large extent throughout England by reason of the experiments of Mr. Badcock, many thousands in number, and of Mr. Ceely and others; that it was approved by Sir John Simon and Mr. Marson before the Committee of this House in 1871, and by others; and, why it was now prohibited, and a practitioner like Surgeon-Major King, so misled, punished.—Mr. RUSSELL said Surgeon-Major King was censured and transferred from civil to military duty for having used, without authority from the Government of India, a form of lymph not sanctioned by the Government for use among the native population. The Secretary of State had not seen the *Manual for Vaccination*, said in the question to be used by the pupils in the Madras Vaccination Department, and is not aware that the use of lymph variolous is recommended in it. He is aware that the lymph has been used in this country, but the Government having decided that a particular form of lymph should be used, Surgeon-Major King was transferred for having used without permission another form of lymph.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association, at No. 429, Strand (corner of Agar Street), London, on Wednesday, the 19th day of July next, at 2 o'clock in the afternoon.

June, 1893. FRANCIS FOWKE, *General Secretary.*

NOTICE OF QUARTERLY MEETINGS FOR 1893. ELECTION OF MEMBERS.

MEETINGS of the Council will be held on July 19th and October 25th, 1893. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, October 4th, 1893.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeing election by a Branch Council should apply to the Secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election. FRANCIS FOWKE, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

BORDER COUNTIES BRANCH.—The annual meeting will be held at the County Hotel, Carlisle, on Friday, July 21st. Dr. Somerville, the retiring President, will take the chair at 1.30 P.M. Business: To consider the report of Council and elect officers for the ensuing year. Dr. Mitchell, of Cockermouth, will deliver his presidential address. All notices to be sent to the Secretary as soon as possible.—JAMES ALTHAM, Honorary Secretary, Penrith.

PERTHSHIRE BRANCH.—A special meeting of this Branch will be held in the Rooms of the Literary and Antiquarian Society, George Street, Perth, on Friday, July 14th, at 4.30 P.M. Business: To consider report of Committee in reference to medical officers of health and death certificates. To receive proposals for the election of twenty-three gentlemen as members of the Branch.—A. R. URQUHART, Honorary Secretary, James Murray's Royal Asylum, Perth.

NORTH OF IRELAND BRANCH.—The annual meeting of the North of Ireland Branch will be held in the Museum, College Square N., Belfast, on Thursday, July 20th. Gentlemen wishing to read papers or to bring any other business before the meeting will kindly give notice as early as convenient to the Honorary Secretary, JOHN W. BYERS, M.D., Lower Crescent, Belfast.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The twenty-third annual meeting will be held at the Hospital, Swansea, on Wednesday, July 12th. Dinner at Langland Bay Hotel.—A. SHEEN, M.D., and D. ARTHUR DAVIES, M.B., Honorary Secretaries.

OXFORD AND DISTRICT BRANCH.—The annual meeting will be held on Friday, July 14th, at Fairford. Mr. Iles, the President-elect, has kindly invited the members to luncheon at 2 o'clock. Reply postcards will be sent to each member, and it is requested that they may be filled up and returned at once to the Honorary Secretary in order that Mr. Iles may make his arrangements.—W. LEWIS MORGAN, Honorary Secretary, 37, Broad Street, Oxford.

NORTH WALES BRANCH.—The annual meeting will be held at St. Asaph on Thursday, July 20th. Members having papers to read, cases to communicate, or specimens to show should intimate on or before July 12th to the Honorary Secretary, W. JONES MORRIS, Is-y-coed, Portmadoc.

EAST ANGLIAN BRANCH.—The Jubilee meeting of this Branch will be held at the Institute, Stowmarket, on Thursday, July 13th, under the presidency of Dr. C. M. Durrant, of Ipswich. Order of business:—11.45 A.M. Meeting of Council at Institute. 12 noon. General meeting at Institute. Agenda:—Read minutes and correspondence. Election of secretary for Essex District. Dr. Mead (Newmarket) has given notice that he will move the following resolutions: (1) "That the minutes of a meeting held at Peterborough in May last be not confirmed, the said meeting being illegal, not having been held within the division for which it assumed to act, and the election (so-called) of officers consequently null and void; (2) That a committee be formed to sit at Bury St. Edmunds to prepare proper by-laws for the East Anglian Division, for the regulation of its business." Edgar G. Barnes, M.D.: Brief History of East Anglian Branch. 1.15 P.M. Luncheon at King's Head Hotel; tickets (exclusive of wine), 2s. 6d. each. 2.30 P.M. General meeting resumed. Agenda continued. The President: Short address. Cases will be shown by Mr. J. W. Harper (Stowmarket), W. W. Groome, M.B. (Stowmarket). Sir Frederick Bateman, M.D.: Criminal Anthropology in its Medical Aspects. Alban Doran, F.R.C.S. (London): Cases of Tuberculous Disease of the Uterine Appendages and Peritoneum. Sir Peter Eade, M.D.: On Albuminuria in relation to Life Assurance. Thomas H. Morse, F.R.C.S. (Norwich): Six Cases of Extrauterine Fœtation. Chas. Williams, F.R.C.S. (Norwich): On Filaria Sanguinis Hominis. 5.0 P.M. Afternoon tea, etc., by kind invitation of Mr. and Mrs. J. W. Harper at their residence, Station Road. All members of the profession, whether members of the Association or not, are cordially invited to be present at the meeting. Gentlemen intending to be present at the luncheon are requested to send notice to Dr. Barnes at least one week previous to the meeting, in order that the necessary arrangements may be made. The East Anglian Branch originated at Stowmarket in the year 1843, Dr. Durrant being the first president. It is hoped that this circumstance, which must be almost unique in the history of any Branch, will induce many members of the profession to attend this meeting. Gentlemen wishing to join the Association should communicate with one of the Honorary Secretaries.—EDGAR G. BARNES, M.D. (Eye), or MICHAEL BEVERLEY, M.D. (Norwich), Honorary Secretaries.

NORTH OF ENGLAND BRANCH. The annual meeting of the Branch will be held on Friday, July 14th, at 4.30 P.M., in the Infants' School, Norton, Stockton-on-Tees. The President-elect, Dr. Blandford, will deliver the annual address, and the officers for the ensuing year will be elected. Dr. Blandford has invited the members of the Branch to dine with him after the meeting in the Grey Rooms, Norton, at 5.30 P.M., and it is particularly requested that members will answer the invitation as early as possible in order that the necessary arrangements may be made.—G. E. WILLIAMSON, F.R.C.S., Honorary Secretary, 22, Eldon Square, Newcastle-on-Tyne.

LANCASHIRE AND CHESHIRE BRANCH.

THE fifty-second annual meeting of this Branch was held at Chester, on June 28th; Dr. SHUTTLEWORTH, President, in the chair. Seventy members were present.

Minutes.—The minutes of the last annual meeting held at Lancaster, and of the intermediate meeting held at Preston, were read and confirmed.

Installation of New President.—Dr. SHUTTLEWORTH introduced his successor Mr. TAYLOR, of Chester, who then took the chair.

President's Address.—Mr. TAYLOR delivered his inaugural address on "The Profession in Some of its Relations to the Public." On the motion of Dr. CARTER, seconded by Dr. WATKINS, a hearty vote of thanks was accorded to the President for his interesting and instructive address.

Report of the Council.—The report of Council, after alluding to the continued general and financial prosperity of the Branch, stated that an intermediate meeting was held at Preston at the end of November, 1892, at which meeting a resolution was carried, affirming the desirability of paying the first-class return railway fares of the members of the Parliamentary Bills Committee, and also of circulating the resolution among the Branches, asking them to express their opinions on the subject; to this only a limited number of replies had so far been received. A number of papers of surgical and medical interest were brought before the meeting. The number of members had slightly diminished owing to an exceptionally large number of deaths and removals from the district; forty-three names had thus been removed from the list, while thirty-eight new members had been elected, showing a net loss of five. The total number of members was now 844. Regret was expressed that Dr. Leech, owing to the pressure of other work, had been obliged to withdraw from his post as a representative on the Council of the Association. Dr. Glascott having completed ten years of service in the office of honorary Secretary, resigned his position in favour of Dr. Barr, who had worked efficiently as his co-secretary during the last twelve months. The Council, recognising the value of Dr. Glascott's eminent services to the Branch, suggested that a subcommittee should be appointed to sider and carry out some means of acknowledging the same, and recommend that the following be appointed members of the subcommittee: Dr. Barron, Dr. Barr, Dr. Leech, Mr. Taylor, Dr. Rayner, and Dr. Shuttleworth. A cordial invita-

tion had been received from the medical profession in Stockport to hold the next annual meeting in that town. The Council had provisionally accepted the invitation, and recommend such acceptance to the annual meeting for confirmation. —The report was adopted.

Financial Statement.—The statement of account showed a balance in the bank in favour of the Branch on December 31st, 1892, of £477 16s.

Next Annual Meeting.—It was decided that the next annual meeting should be held at Stockport in June, 1894.

Officers and Council.—The following gentlemen were elected office-bearers and Councillors for the ensuiug year:—*President:* James Taylor, F.R.C.S. *President-Elect:* Edwin Rayner, M.D. *Vice-Presidents:* A. Davidson, M.D., and A. C. E. Harris, M.D. *Honorary Secretary:* J. Barr, M.D. *Representatives on Council of Association:* G. B. Barron, M.D., J. Barr, M.D., E. H. Dickinson, M.D., Charles E. Glascott, M.D., James Taylor. *Council.*—W. Armstrong, *W. Bain, M.D., W. C. Barnish, E. H. Beaman, *W. Berry, E. Stanmore Bishop, H. W. Boddy, M.D., J. R. Bradshaw, M.D., J. J. Bride, John Brown, M.D., H. A. G. Brooke, M.D., J. E. Burton, W. M. Campbell, M.D., *C. G. Campbell, William Carter, M.D., *R. Crean, M.D., J. N. Cregeen, *J. E. Dunn, *J. E. Garner, M.D., A. Godson, T. B. Grimsdale, M.B., *F. M. Granger, A. Hamilton, *James Hardie, E. W. Hope, M.B., *J. M. Hunt, Leslie Jones, M.D., T. Jones, M.B., J. Lambert, M.D., *D. J. Leech, M.D., H. March-Colley, M.D., J. M. H. Martin, M.D. (Local Secretary), B. J. Massiah, M.D., E. D. McNicoll, R. Patrick, H. Laird Pearson, Chauncey Puzey, C. J. Renshaw, M.D., R. R. Rentoul, M.D., D. Lloyd Roberts, M.D., *G. Shuttleworth, M.D., *W. J. Sinclair, M.D., *Smith T. Starkie, M.D., C. T. Street, Charles Thorp, G. E. Walker, William Walter, M.D., J. W. Watkins, M.D., *W. W. Wingate-Saul, M.D., A. H. Young, M.D. *New nominations, being gentlemen who were not ordinary Members of Council within the last twelve months. (Rule 7.) *Auditors:* Dr. Cregeen and Dr. Rentoul.

The Intercommunication of Branches.—Dr. SHUTTLEWORTH drew the attention of the meeting to the correspondence in the BRITISH MEDICAL JOURNAL with reference to the resolution passed by the Branch at Preston as to the payment of the travelling expenses of the Representatives on the Parliamentary Bills Committee. In the discussion which followed Dr. RAYNER, Dr. GLASCOTT, Dr. COLIN CAMPBELL, and Dr. RENTOUL took part. On the motion of Dr. SHUTTLEWORTH, seconded by Dr. RAYNER, it was unanimously resolved: "That, in the opinion of this meeting, the intercommunication of Branches is not 'unconstitutional.'"

Communications.—The following papers were read and specimens exhibited:—Mr. ROGER WILLIAMS: The Curability of Cancer of the Female Breast by Thorough Operations.—Dr. SHUTTLEWORTH: Specimens illustrative of the Pathology of Idiocy and Imbecility.—Mr. STANMORE BISHOP: The Radical Cure of Hernia.—Dr. BRIGGS showed the Specimens and briefly mentioned: (1) The complete fusion of two Ovarian Tumours into one mass; diagnostic difficulties with close double uterine attachments. (2) The removal in sequence of Eight Polypi from the body of the Uterus at one operation. (3) Simple and Malignant Uterine Corporeal Adenomata (microscopic sections).—Dr. ERNEST S. REYNOLDS: Remarks on the Diagnosis and Treatment of Neurasthenia.—Dr. LESLIE ROBERTS: Some Points in the Etiology and Treatment of Ringworm.

Notices of Motion.—On the motion of Mr. HARRISSON, seconded by Dr. HARRIS, the following notices of motion, which were on the agenda paper by Dr. Rentoul, were referred to the Council for consideration:

That the members of the Lancashire and Cheshire Branch of the British Medical Association request that any amendment of the Births and Deaths Registration Acts shall provide—

(*a*) That only one form of the medical certificate of the cause of death be used; that it be illegal to use any other form than that issued by the Registrars-General; and that it be a medical certificate of the fact and the cause of death, and of the identity of the deceased.

(*b*) That such certificate be transmitted direct by the practitioner to the registrar, and within twenty-four hours after death.

(*c*) That it be illegal for a registrar to accept such certificate if signed by any other person than a registered practitioner.

(*d*) That each registrar be supplied yearly with a copy of the *Medical Register*, and at the public expense.

(*e*) That every dead body—stillbirths included—be inspected by the practitioner before he furnish the registrar with this certificate.

(*f*) That a fee of 2s. 6d. be paid to the practitioner when he sends this certificate concerning a death which has occurred in his private practice; and a fee of 1s. when the death has occurred in a public institution; that such fee be paid to the registrar out of the imperial or local funds; and that each certificate be stamped with a halfpenny stamp.

(*g*) That no registrar register a death until he has received this medical certificate, or an order from the coroner; that no order for burial be issued by the registrar until the death has been registered by him, and that it be illegal to bury any body until such death has been so registered.

(*h*) That only registered practitioners be appointed to act as registrars of deaths.

(*i*) That all stillborn children which have completed the fourth month and upward, of intrauterine life be registered as deaths, that their age, sex, and legitimacy be noted on the certificate, as well as the name of the person who conducted the confinement; that each be inspected before burial by a registered practitioner; that it be illegal to bury a stillborn child until so inspected; and that the above mentioned fees be paid for the certificate.

(*j*) That every illegitimate child be registered within twenty-four hours after birth, both with the registrar of the district in which the birth occurred, and also with the registrar of the district in which the mother was born; and that the practitioner or person who conducted the confinement shall notify, forthwith, the birth of every illegitimate child to the registrar.

(*k*) That it be compulsory on the part of registered practitioners to conform with the printed "Suggestions" issued by the Registrar-General: and to use the names of diseases as given in the book: *Nomenclature of Diseases*, as issued by the Royal College of Physicians, London.

(*l*) That it be made illegal for a registered practitioner to employ as his agent any unregistered person to act as medical practitioner.

(*m*) That the Medical Council be requested to direct that students shall receive an efficient education and examination in the Births and Deaths Registration Acts, and in the granting of certificates of death.

That the Honorary Secretary be instructed to forward a copy of this resolution to Sir C. Cameron, M.P.

Vote of Thanks.—A vote of thanks to the President brought the proceedings to an end.

Luncheon.—Gentlemen attending the meeting were entertained at luncheon by the members of the Branch in Chester and district.

Dinner.—Sixty members and guests dined together in the evening at the Town Hall, under the presidency of Mr. TAYLOR. The vice-chairs were occupied by Dr. HARRIS, of Birkenhead, and Mr. HAMILTON, of Chester.

MALTA AND MEDITERRANEAN BRANCH.

A MEETING of this Branch was held at Valletta on April 4th, Brigade-Surgeon-Lieutenant-Colonel MACARTNEY, M.S., in the chair. Ten members and seven visitors were present.

Mediterranean Fever.—Surgeon-Captain HUGHES, M.S., read a paper on Mediterranean, Malta, or rock fever, which is published on p. 61.—In the discussion which followed, Fleet-Surgeon ELLIS, R.N., expressed his concurrence with Surgeon-Captain Hughes as to the probable cause of the fever, namely, overcrowding and sewage emanations in the station.—Dr. CAMANA SCICLUNA, Sanitary Inspector for Malta, said the fever in question was decreasing amongst the troops, but it seemed on the increase amongst the civil population, particularly so in the overcrowded towns. He could not, however, prove this by statistics, as the regulations compelling the medical men in Malta to report infectious diseases came only in force in 1892.—Professor DEBONO asked Surgeon-Captain Hughes whether it was a fact that the fever in question was not conveyed by means of water, as stated in his paper, while in his experience and in that of other practitioners 80 per 100 of the cases occurred in houses where the water was found to contain organic matter.—Surgeon-Major MANCHÉ, R.M.A. (Secretary to the Branch) asked whether the micro-organism supposed to be the cause of the Mediterranean fever had ever been found in the polluted water of wells at Malta, in the sea water of the harbours, or in the air coming out of the drain ventilators. There was no medicine which could cut short the fever; all medicines seemed to aggravate cases by irritating the digestive system. The treatment generally adopted in Malta was to lower the temperature when over 103°, by means of cold ablutions or the wet sheet, to keep the patient in places where the sanitary conditions were good, to nourish him with a liquid diet, and to allow him change of air from one place to another in the station, or a change of climate on the Continent.—Surgeon-Captain HUGHES, in reply, said he could not find in the literature on this fever that it was proved had it ever been conveyed by means of the water, as it was the case with enteric fever. He had found that the micro-organism freshly taken from the spleen could not be cultivated on alkaline agar, but subsequent cultivations

(after education) succeeded well on alkaline media.—The CHAIRMAN, in presenting a vote of thanks (warmly accepted by all the members present) to Surgeon-Captain Hughes for his very interesting paper, remarked that now there seemed to be a general consensus of opinion that this fever was *sui generis*, and he thought the most suitable name for the disease would be "Pseudo-enteric."

Branch Representative.—Surgeon-Colonel O'DWYER, M.S., was nominated representative of the Branch at the next annual general meeting of the British Medical Association.

New Members.—Six Maltese medical men, already members of the Association, were elected members of the Branch.

Naval Secretary.—In accordance with By-law 9 of the Branch, Surgeon J. Bagnall Oakeley, R.N., was elected Secretary to the Fleet serving in the Mediterranean, in lieu of Surgeon Woore, R.N., who had left the station.

Vote of Thanks.—A vote of thanks to the Chairman brought the meeting to a close.

SHROPSHIRE AND MID-WALES BRANCH.

THE annual meeting of this Branch was held at the Salop Infirmary on June 27th, Mr. H. NELSON EDWARDS, President, in the chair. Twenty-four members were present.

The late Mr. Francis Whitwell.—A vote of condolence was passed with the widow and family of the late Mr. Francis Whitwell, of Shrewsbury, and former President of the Branch.

Election of Office-bearers.—Mr. J. McC. McCarthy was chosen President-elect, and Dr. H. Willoughby Gardner was appointed Honorary Secretary and Treasurer, *vice* Mr. J. Gray, resigned.

New Members.—The following new members were elected: Dr. Albert Bradshaw, Wattlesboro'; Dr. Ed. Hugh Octavius Sankey, Boreatton Park; Dr. J. D. Williams, Shrewsbury.

Communications.—Dr. C. W. SUCKLING read a paper entitled Hints in Diagnosis.—Mr. J. McC. MCCARTHY showed a specimen of Adeno-Carcinoma of the Transverse Colon.—Mr. R. T. CÆSAR showed a case of Internal Ear Deafness cured by the prolonged use of hypodermic injections of pilocarpin.

Dinner.—The members and several friends afterwards dined together.

BRITISH MEDICAL ASSOCIATION.

SIXTY-FIRST ANNUAL MEETING.

THE sixty-first Annual Meeting of the British Medical Association will be held at Newcastle-on-Tyne, on Tuesday, Wednesday, Thursday, and Friday, August 1st, 2nd, 3rd, and 4th, 1893.

President: JOSEPH WHITE, F.R.C.S.Edin., Consulting Surgeon, Nottingham General Hospital.

President-Elect: GEORGE HARE PHILIPSON, M.D., D.C.L., F.R.C.P., Professor of Medicine in the University of Durham.

President of the Council: W. WITHERS MOORE, M.D., F.R.C.P., J.P., Consulting Physician, Sussex County Hospital.

Treasurer; HENRY TRENTHAM BUTLIN, F.R.C.S., Surgeon to St. Bartholomew's Hospital, E.C.

An Address in Medicine will be delivered by DAVID DRUMMOND, M.D., Physician and Pathologist, Royal Infirmary, Newcastle-on-Tyne.

An Address in Surgery will be delivered by GEORGE HALLIBURTON HUME, M.D., F.R.C.S.Edin., Surgeon to the Royal Infirmary, Newcastle-on-Tyne.

An Address in Obstetrics and Gynæcology will be delivered by CHARLES JAMES CULLINGWORTH, M.D., F.R.C.P., Obstetric Physician and Lecturer on Midwifery and Diseases of Women, St. Thomas's Hospital.

The scientific business of the meeting will be conducted in eleven Sections, as follows, namely:

A. MEDICINE.

Medical Theatre—College of Medicine.

President; W. MILLER ORD, M.D. *Vice-Presidents:* HENRY BARNES, M.D.; HENRY HANDFORD, M.D. *Honorary Secretaries:* JAMES ALEXANDER LINDSAY, M.D., 37, Victoria Place, Belfast; JAMES LIMONT, M.B., 3, Queen's Square, Saville Place, Newcastle-on-Tyne.

The following subjects will be discussed in this Section:

Wednesday, August 2nd, at 10 A.M.—Chronic Glycosuria in Middle Life, introduced by Sir Dyce Duckworth, M.D., LL.D. Professors Clifford Allbutt, Gairdner, Grainger Stewart, Drs. Lauder Brunton, A. H. Carter, Stephen Mackenzie, F. W. Pavy, R. Saundby, and Shingleton Smith will take part in the discussion.

A demonstration on Myxœdema will be given by Dr. George Murray, Professor Oliver, and others.

Thursday, August 3rd, at 10 A.M.—The Pathology and Distribution of Atrophic Paralysis, introduced by David Ferrier, M.D., LL.D., F.R.S. Drs. Julius Althaus, A. G. Barrs, Alexander Bruce, Judson Bury, F. W. Mott, Alexander Robertson, and R. Saundby will take part in the discussion.

Dr. David Drummond will give a demonstration on Aneurysm.

Friday, August 4th, at 9.30 A.M.—Concussion of the Spine, more especially in its Relationship with Railway Accidents and Injuries, introduced by Byrom Bramwell, M.D. Professor Clifford Allbutt, Dr. J. O. Brookhouse. Professor Victor Horsley, Professor Cuming, Dr. Buzzard, Mr. Frederick Page, Dr. Alexander Robertson, and Mr. Wheelhouse will take part in the discussion.

The following papers are announced:

COLEY, F. C., M.D. Chlorosis.

GIAMPIETRO, Professor D. E. (University of Naples). Aphasia in its Relations to Lesions of the Auditory Centres.

REDMOND, C. S., M.D. The Cool Bath Treatment of Enteric Fever.

SOLLY, S. E., M.D. (Colorado, U.S.A.) Effects of Heredity in the Progress of Phthisis.

SMITH, Wilberforce, M.D. The Weighing Machine in Consulting Room Practice: Cases, with Clinical Charts.

B. SURGERY.

Anatomical Theatre—College of Medicine.

President: W. C. ARNISON, M.D. *Vice-Presidents:* R. J. GODLEE, M.B.; F. PAGE, M.D. *Honorary Secretaries:* J. RUTHERFORD MORISON, F.R.C.S., 14, Saville Row, Newcastle-on-Tyne; JAMES ERNEST LANE, F.R.C.S., 46, Queen Anne Street, W.

A discussion on the Radical Cure of Hernia will be introduced by Dr. Halstead, Surgeon to the Johns Hopkins Hospital, Baltimore, U.S.A., and the following gentlemen intend to take part in it: Jordan Lloyd, Mayo Robson, Professor Annandale, Bowreman Jessett, C. B. Keetley, A. E. Barker, Professor Macewen, Hume, Damar Harrisson, Ward Cousins, Gilbert Barling, Dr. Crawford Renton, Mr. Stanmore Bishop, Rushton Parker, Mr. Bennett May, Dr. Mitchell Banks, Mr. Pye-Smith, Mr. R. C. Chicken, and W. Alexander.

The discussion on the Surgical Treatment of Cerebral Tumours will be introduced by Professor Victor Horsley, M.B., F.R.C.S., who will illustrate his paper by lantern photographs and specimens, and Professor Macewen, Dr. Ferrier, Dr. Drummond, Damar Harrisson, Dr. Crawford Renton, Dr. MacDougall, and Rushton Parker will take part.

Dr. Frederick Page will introduce a discussion on the Treatment of Intestinal Obstruction. Messrs. Jonathan Hutchinson, Jordan Lloyd, Mayo Robson, Professor Annandale, Messrs. H. W. Allingham, Bowreman Jessett, Hume, Dr. Drummond, Harrison Cripps, Ward Cousins, Gilbert Barling, Dr. Crawford Renton, Rushton Parker, D. Lowson, Mr. Bennett May, Mr. Pye-Smith, and W. Alexander will take part in the discussion.

The following papers are announced:

ALEXANDER, W. M. D., F.R.C.S. (Liverpool). Some Results of Trephining in Epilepsy.

ALLINGHAM, H. W., F.R.C.S. The Surgical Treatment of Incontinence of Fæces sometimes following Operations on the Rectum.

BARKER, A. E., F.R.C.S. On the Treatment of Acute Intussusception in Young Children.

COLLIER, Mayo, M.B., F.R.C.S. (London). A paper with illustrative specimens on the Surgery of the Frontal Sinuses.

HASLAM, W. F., F.R.C.S. Some Points in the Surgical Treatment of Simple Ulcer of the Stomach.

JONES, Robert, F.R.C.S. Papers on Amputation in Senile Gangrene. The Treatment of Chronic Sprains of Foot and Ankle.

LANE, W. Arbuthnot, M.B. The Fallacy of the Vertical Foot Piece, the Applicability of the Parting Tool or Angular Gouge to the Surgery of the Skull.

MORISON, A. E. A Patient after Gastroenterostomy.

MORISON, Rutherford, M.B., F.R.C.S. 1. Specimens illustrative of Gastrointestinal Surgery. 2. A New and Easy Method of Intestinal Resection.

PARKER, Rushton, M.B., B.S., F.R.C.S. (Liverpool). 1. The Radical Cure of Hernia, based upon over 270 Operations. 2. A Case of Two Attacks

of Acute Intestinal Obstruction recovering the First Time under Palliative Treatment, the Second after Abdominal Section.
STOKES, Sir William. Bone Tunnelling and Drainage in the Early Stages of Tuberculous Arthritis.

Mr. Coppinger, of Dublin, will exhibit a case of Subclavian Aneurysm treated by Ligature of the Innominate and Carotid Arteries, and will give a full report of his case.

Demonstrations of patients and of operations will be arranged at the Royal Infirmary, at the Children's Hospital, and at other institutions.

C. OBSTETRIC MEDICINE AND GYNÆCOLOGY.

Chemical Theatre—Durham College of Science.

President: JAMES MURPHY, M.D. *Vice-Presidents:* W. GOWANS, M.D.; D. BERRY HART, M.D. *Honorary Secretaries:* A. D. LEITH NAPIER, M.D., 67, Grosvenor Street, Grosvenor Square, W.; R. C. BENINGTON, M.D., 59, Osborne Road, Newcastle-on-Tyne.

A discussion on Puerperal Septicæmia will be opened by Dr. Barnes, and the following intend to speak: Drs. Cullingworth, Lovell Drage, Jardine, Herman, Hern, Boxall, Fancourt Barnes, Bell, Sloan, Elder, Byers, Professor Oliver, Reid, Smyly, Aust-Lawrence, Swayne, and Cameron.

Professor Pozzi will open a discussion on the Conservative Treatment of the Diseases of the Uterine Appendages. The following members will speak: Drs. Cullingworth, More Madden, Sloan, Tait, Handfield-Jones, A. Martin, Mayo Robson, Fancourt Barnes, Elder, Bell, Smyly, Aust-Lawrence, Swayne, Cameron, Travers, and Jessett.

The following papers are announced:

AUST-LAWRENCE, A. E., M.D. *Post-Partum* Ovariotomy.
BALLANTYNE, J. W., M.D. Summary of the Results of the Examination of 100 Cases of Fœtal Deformity and Disease.
BARNES, Fancourt, M.D., F.R.S.Edin. Case of Lithotomy in the Female Bladder.
BELL, R., M.D. Treatment of Displacement of the Uterus.
BISHOP, E. S., F.R.C.S., First Thirty Ovariotomies.
BRAITHWAITE, James. On Acute Anteflexion of the Uterus in the Later Months of Pregnancy.
DUKE, Alex., F.R.C.P. The Value of Crude Boracic Acid in the Treatment of Chronic Endometritis.
EDIS, A. W., M.D. Some Typical Cases of Puerperal Septicæmia.
HANDFIELD-JONES, M., M.D., M.R.C.P. The Treatment of Adhesions after Pelvic Peritonitis.
HART, D. Berry, M.D. The Extraperitoneal Development of Extrauterine Gestation, with remarks on its Treatment.
HAULTAIN, F. W. H., M.D. The Constant Current in Uterine Disease Practically Considered.
JESSETT, F. B., F.R.C.S. On the Treatment of Advanced Uterine Cancer.
MADDEN, More, M.D., F.R.C.S.Edin. On Puerperal Fever and Septicæmia.
MARTIN, A., M.D., Berlin. (Title not announced.)
MARTIN, C., M.B., F.R.C.S. On the Nerve Theory of Menstruation.
NAPIER, A. D. Leith, M.D., and SCHACHT, F.F., M.D. Series of Cases of Ventrofixation of the Uterus.
POZZI, Professor. The Technique of Laparotomy.
PURSLOW, C. E., M.D. The Treatment of Retroversion of the Gravid Uterus.
WEBSTER, J. C., M.D. The Etiology of Ectopic Gestation.

Dr. Murdoch Cameron will show a New Pair of Axis Traction Forceps for application in the conjugate diameter at the brim.

D. PUBLIC MEDICINE.

Hall of Geographical Society.

President: H. E. ARMSTRONG, D.Hy. *Vice-Presidents:* GEORGE EASTES, M.B.; THOMAS EUSTACE HILL, M.B. *Honorary Secretaries:* F. P. WIGHTWICK, M.D., 5, Curlew Street, Horsleydown, S.E.; W. TURNBULL, M.B., South Shields.

The following papers are announced:

ARMSTRONG, Henry E., D.Hy. (M.O.H. Newcastle-on-Tyne). Cholera Precautions in the North of England. Specimens of Proposed Wrapper and Hood for the Use of Medical Practitioners attending Cases of Infectious Disease.
CLARK, F. W., M.D. (Newcastle). The Duties and Difficulties of Port Medical Inspectors.
DAVIES, Sydney, M.D. (M.O.H. Plumstead). The Causes of the Increase of Diphtheria in Urban Districts.
DE'ATH, G. H., L.R.C.P. (M.O.H. Buckingham Rural and Urban Sanitary District). The Housing of the Working Classes in Rural Districts.
FOWLER, Trevor. District Medical Officers as Medical Officers of Health.
HILL, T. E., M.B. (M.O.H. Durham County Council). Diphtheria.
KERR, Norman, M.D. The Shelters and Dissemination of Small-pox.
LAWS, C. U., M.B. Arrangements for Sterilisation of Cholera Dejecta, etc., at the Temporary Cholera Hospital at Newcastle-upon-Tyne.
MASON, J. W., M.B. (M.O.H. Hull). Cholera: Quarantine as a Preventive Measure.
MUNRO, A. C., M.B. (Renfrew County Council). The Notification of Measles.
PRINGLE, R., Brigade-Surgeon, M.D. Cholera: Quarantine as a Preventive Measure.
RENTOUL, R. R., M.D. (Liverpool). Proposed Registration of Stillbirths.
RIDGE, J. J., M.D. The Diet of Infants and Young Children.
RING, C. G., L.R.C.P. (M.O.H. Keswick). 1. Prevention of the Spread of Infectious Diseases by Combined Action between Medical Officers of Health. 2. Tramps and Small-pox.
WILLOUGHBY, E. F., M.D. The Control of Dairies.

E. PSYCHOLOGY.

Durham College of Science.

President: T. W. MCDOWALL, M.D. *Vice-Presidents:* ALEX. REID URQUHART, M.D.; C. NORMAN, F.R.C.P.I. *Honorary Secretaries:* J. T. CALLCOTT, M.D., City Asylum, Gosforth, Newcastle-on-Tyne; ROBERT JONES, M.D., London County Lunatic Asylum, Claybury, Woodford, Essex.

The President (T. W. McDowall) will introduce for discussion the subject of the Effect of the Recent Change in County Government on Asylums and the Insane.

Discussions will be opened on the Alleged Increase of Insanity, by Dr. D. Hack Tuke; on the Detached Asylum Hospital, its Uses and Advantages, by Dr. Clouston; on State Aid for Poor Private Insane Patients, by Dr. Yellowlees.

The following have promised to take an active part in the proceedings of the Section: Sir J. Crichton-Browne, Dr. John Sibbald, Dr. T. Outterson Wood, Dr. Robert Smith, Dr. John Merson, Dr. John A. Wallace, Dr. P. W. MacDonald, Dr. Carlyle Johnstone, Dr. John Macpherson.

The following papers are announced:

CAMPBELL, Harry, M.D. Claustrophobia.
CLOUSTON, Dr. The Mental Symptoms of Myxœdema and the Effects of Treatment by Thyroid Glands.
IRELAND, Thomas, L.R.C.P., etc. (Public Asylum, Berbice). Insanity from the Abuse of Indian Hemp.
KEAY, John, M.D. On the Use of Hypnotics and Sedatives.
MIDDLEMISS, Dr. Adolescent General Paralysis: its Pathology and Symptoms.
NORMAN, Conolly, M.D. The Criminal Law Amendment, 1885, in Relation to the Protection of Female Patients.
RAYNER, H., M.D. Notes from the Out-patient Department for Mental Diseases at St. Thomas's Hospital.
ROBERTSON, Dr. On Massage of the Brain, a New Principle in Cerebral Therapeutics.
WHITWELL, Dr. Exhibition of a Series of Incised Slates for use in the Post-mortem Room.
URQUHART, Dr. 1. Current Opinion on Psychological Questions in Germany. 2. Notes of a Conversation with Professor Meyer, of Göttingen.

F. ANATOMY AND PHYSIOLOGY.

Physiological Laboratory—College of Medicine.

President: THOMAS OLIVER, M.D. *Vice-Presidents:* R. W. REID, M.D.; W. D. HALLIBURTON, M.D. *Honorary Secretaries:* R. HOWDEN, M.B., University of Durham College of Medicine, Newcastle-on-Tyne; A. THOMSON, M.B., Museum, Oxford.

The following discussions have been arranged for:

1. Wednesday.—On the Structure, Functions, and Pathology of the Thyroid, to be opened by Victor Horsley, F.R.S.

2. Thursday.—On the Delimitation of the Abdomen, to be opened by William Anderson, F.R.C.S.

3. Friday.—On the Sensori-motor Functions of the Cortex Cerebri, to be opened by F. W. Mott, M.D.

Discussions 1 and 3 will be combined with the Section of Pathology, No. 1 being held in the Section of Pathology, and No. 3 in the Section of Anatomy and Physiology.

The following papers are announced:

BOYCE, Rubert, M.D. Ablation of Cerebral Hemispheres in Mammals.
BRODIE, T. Gordon. A New Method of Studying the Elasticity of Muscle or any Tissue.
BROOKS, H. St. John, M.D. On the Morphology of the Peroneal Group of Muscles in the Monotremata.
BRUCE, Alexander, M.A., M.D., F.R.C.P.E. Lantern Demonstration on the Minute Structure of the Hind Brains.
FAYRER, Sir J., F.R.S. Cardiac and Pulmonary Thrombosis.
GAMPIETRO, Professor Dott. Eduardo (University of Naples). Classification of the Auditory Centres in Relation to Articulate Language.
GIBSON, G. A., M.D., F.R.C.P.E., and GILLESPIE, A. Lockhart, M.D. On some Points in Relation to the Development of the Heart.
HALLIBURTON, W. D., M.D. Intravascular Coagulation.
HORSLEY, Victor A. H., M.B., F.R.C.S., F.R.S., and BEEVOR, C. E., M.D., F.R.C.P. On the Movements of the Tongue and their Representations in the Cortex.
KANTHACK, A. A., B.A., B.Sc., F.R.C.S. The Relation of the Epiglottis to the Velum Palati in Various Animals.
KENT, A. F. Stanley. Further Researches on the Structure and Functions of the Mammalian Heart.
MOTT, F. W., M.D. The Sensori-motor Functions of the Rolandic Area of the Cortex Cerebri.
OLIVER, Thomas, M.D., F.R.C.P., and GARRETT, Mr. F. C. Analysis of the Gases of the Blood in Chloroform, Ether, and Bichloride of Methylene Anæsthesia.
PATERSON, A. M., M.D. The Distribution of the Nerves to the Lower Limb.
PATON, Diarmid Noël, M.D. Sugar Formation in the Liver.

SHERRINGTON, C. S., M.B., L.R.C.P. Experimental Note on the Knee-jerk.
STARLING, Ernest H. Absorption from and Secretion into the Serous Cavities.
SYMINGTON, Johnson, M.D. Observations on the Development of the Human Brain.
RUSSELL, J. S. Risien, M.B. Ablation of Cerebellum in Mammals.
WEBSTER, J. C., M.D. Embryological Studies in Tubal Gestation.

A special Anatomical and Physiological Museum will be arranged in the room adjoining the Section.

G. PATHOLOGY.

Physical Theatre—Durham College of Science.

President: C. S. ROY, M.D., F.R.S. *Vice-Presidents:* T. C. SQUANCE, M.D.; J. L. STEVEN, M.D. *Honorary Secretaries:* F. W. MOTT, M.D., 84, Wimpole Street, W.; GEORGE R. MURRAY, M.B., 2, Saville Place, Newcastle-on-Tyne.

Wednesday, August 2nd. Introductory Address by the President. Communications and demonstrations on the Pathology and Pathological Anatomy of the Circulatory and Glandular Systems.

Thursday, August 3rd. Communications and demonstrations on other branches of Pathology and Pathological Anatomy.

Friday, August 4th. Bacteriological papers and demonstrations.

The Section will be held in the Physical Lecture Theatre of the Durham College of Science, Newcastle-on-Tyne. This room is fitted with a powerful electric lantern, and provision will be made for lantern demonstrations, the projection of spectra, chemical experiments, and microscopical exhibitions. Arrangements may also be made for informal demonstrations of experiments or specimens in the Museum of the Section in the afternoons. It is hoped that as many papers as possible will be accompanied by specimens, illustrations, lantern slides, or demonstrations.

There will be an exhibition of specimens, recent and preserved, bacteriological cultures, models, diagrams, and instruments for pathological research in the Museum attached to the Section.

The following papers are announced:

*ANDRIEZEN, W., M.B. On the Form and Significance of the Hypophysis Cerebri in the Evolutionary History of the Brain.
BOKENHAM, T. J., L.R.C.P., and FENWICK, Soltau, M.D. The Pathological Action of some Substances obtained from the Spleen of Patients dead of Scarlatina.
*BOYCE, R., M.B. 1. On the Action of Absinthe on the Nervous System. 2. On the Path of Degeneration following Ablation of a Cerebral Hemisphere.
CATTLE, Chas., M.D. Observations on the Cell Enclosures met with in Cancer.
CLARKE, J. Jackson, M.B. Psorosperms.
COATS, Professor J., M.D., and AULD, A. G., M.D. A Preliminary Communication on the Pathology of Aneurysms and its Relations to Atheroma.
COPEMAN, Monckton, M.D. Experiments on Vaccinia and Variola.
DELÉPINE, Professor S. Tuberculosis.
GALLOWAY, J., M.D. Psorosperms.
GIBSON, G. A., M.D., and MUIR, Robert, M.D. Condition of Nerve Centres and Thyroid Gland in Graves's Disease.
GRIFFITHS, J., F.R.C.S. Retained Testis in Man and some of the Lower Animals.
HAIG, A., M.D. The Causation of Anæmia and the Blood Changes produced by Uric Acid.
HARLEY, Vaughan, M.D. Experimental Diabetic Coma.
HORSLEY, Professor V., F.R.S. On Transplantation of the Thyroid.
*HORSLEY, Professor V., F.R.S., and KRAMER, Dr. Demonstration of the Effect of Gunshot Injuries of the Brain.
KANTHACK, A. A., M.D. Immunity.
KELYNACK, T. N., M.B. 1. Appendicitis. 2. Heart Failure in Alcoholism.
KENT, Stanley. 1. On the Supposed Occurrence of Psorosperms in a Tapeworm. 2. On the Structure and Function of the Mammalian Heart. 3. Effects of Thyroidectomy.
KRAMER, Dr., and BOYCE, R. Upon the Action of the Serum of Vaccinated Calves.
LANG, Dr. On the Nature of the Muscular Movements in Cachexia Thyreopriva in Dogs.
LEVY, Dr. On the Elasticity of the Brain Substance.
MACKENZIE, Hector, M.D. Thyroid Secretion.
MACKENZIE, J., M.D. Thyroid Secretion.
MOTT, F. W., M.D. On the Sensory Function of the Rolandic Area of the Cortex Cerebri.
MURRAY, George, M.D. Thyroid Secretion.
PARSONS, J. Herbert, M.B. Effects of Thyroidectomy on Metabolism.
POWER, D'Arcy, M.B. Some Effects of Chronic Irritation upon Living Tissues, or First Steps in a Rational Study of Cancer.
ROY, Professor C. S., F.R.S., and CORBETT, E. E., M.B. Pathology of Collapse.
*RUSSELL, Risien, M.D. The Effects of Lesions of the Cerebellum.
RUFFER, A., M.D., and PLIMMER, Dr. On Relation of Protozoa to Disease.
*SHERRINGTON, C. S., F.R.S. Experimental Note on the Knee-jerk.
SMITH, J. Lorrain, M.B. The Function of the Thyroid.
SNOW, Herbert, M.D. The so-called Parasitic Protozoa of Mammary Carcinoma.
STEVEN, J. Lindsay, M.D. The Pathology of Fibroid Degeneration of the Heart.
STEWART, Professor Grainger, and GIBSON, G. A., M.D. Atrophy of Heart Muscle in consequence of Obstruction of the Coronary Artery.
THOMSON, John, M.D. The Treatment of Three Cases of Sporadic Cretinism by Thyroid Extract.
WOODHEAD, G. Sims, M.D.
WILSON, T. Stacey, M.D. Anæsthesia due to Disease of the Central Cortex.

*** The papers marked with an asterisk will be communicated at a combined meeting of the Sections of Physiology and Pathology.

Preference will be given to communications accompanied by demonstrations, but as far as possible the above communications will be taken in the order which is found most convenient.

H. OPHTHALMOLOGY.

Materia Medica Room—College of Medicine.

President: G. E. WILLIAMSON, F.R.C.S. *Vice-Presidents:* JOHN WALTON BROWNE, M.D.; G. HARTRIDGE, F.R.C.S. *Honorary Secretaries:* A. N. GODBY GIBBS, L.R.C.P., 27, Chandos Road, Redland, Bristol: A. S. PERCIVAL, M.B., 16, Ellison Place, Newcastle-on-Tyne.

The President, Mr. Williamson, will give a short opening address.

Dr. Buzzard will open a discussion on Optic Atrophy as a Symptom of Chronic Disease of the Central Nervous System, and another discussion is being arranged.

The following papers are announced:

ANDERSON, Tempest, M.D. Railway Servants' Eyesight.
DRAKE-BROCKMAN, Brigade-Surgeon-Lieutenant-Colonel. Case of Double Proptosis.
KNAGGS, R. Lawford, M.D. Reflex Amblyopia during Pregnancy.
MACKAY, George, M.D. The Optical Treatment of Conical Cornea.
OLIVER, Charles, M.D. (Philadelphia, U.S.A.). Clinical History of a case of a Successful Extraction of a Piece of Steel from an Iris.
STEPHENSON, Sydney, M.B., F.R.C.S. Congenital Ectropion of the Uvea: and will show the latest model of Expression Forceps for Trachoma.
WILLIAMSON, G. E., F.R.C.S. Sections and Drawings from a case of Primary Spindle-cell Sarcoma of the Iris.

Papers have also been promised by Drs. Bickerton, Cross, and Johnston Taylor.

I. DISEASES OF CHILDREN.

Durham College of Science.

President: T. BARLOW, M.D. *Vice-Presidents:* NOBLE SMITH, F.R.C.S.Ed.; W. C. BEATLEY, M.D. *Honorary Secretaries:* W. E. A. CUMMINS, M.D., 17, St. Patrick's Place, Cork; W. G. BLACK, F.R.C.S.Edin., 24, Ellison Place, Newcastle-on-Tyne.

At the forthcoming meeting some portion of each of the three days on which the Section meets will be devoted to the discussion of the following subjects:

Abdominal Tuberculosis in Childhood and its Treatment. To be opened by Dr. Fred. Taylor and Mr. Howard Marsh; Mr. A. E. Barker and Mr. Lawford Knaggs intend to take part.

The Treatment of the Enlarged Cervical Glands, opened by Dr. Clifford Allbutt and Mr. Pridgin Teale.

Heart Disease in Childhood and its Treatment, to be opened by Dr. H. Ashby and Dr. F. C. Coley; Dr. J. W. Byers and Dr. E. R. Townsend intend to take part.

J. OTOLOGY.

Durham College of Science.

President: H. B. HEWETSON, M.R.C.S. *Vice-Presidents:* R. ELLIS, F.R.C.S.Edin.; A. BRONNER, M.D. *Honorary Secretaries:* J. MACKENZIE BOOTH, M.D., 367, Union Street, Aberdeen; S. MACAULAY, L.R.C.P., 49, Jesmond Road, Newcastle-on-Tyne.

The President, Mr. Hewetson, will give an opening address.

A discussion will take place upon the Surgical Treatment of Mastoid Disease and its Complications. The following have signified their intention of taking part in this discussion: Professor William Macewen, M.D., Glasgow; Victor Horsley, F.R.S., London; A. Ogston, M.D., Aberdeen; Charles Warden, M.D.; Dr. Nunneley, Leeds; Dr. Guye, Amsterdam; and H. E. Jones.

A discussion on Pathogenic Organisms of the Naso-pharynx and Ear will be opened by Dr. Macintyre, Glasgow. The Otological Museum will be placed in a room adjoining the Section.

The following papers are announced:

AMFRIELY, Professor (Naples). The Dangers and Limitations of Politzer's Method.

Ellis, Richard, F.R.C.S.Ed. Results of an Examination of 2,000 School-children in Newcastle-on-Tyne and District as to their Hearing, etc.
Lane, W. A., M.B. The Symptoms of Septic Thrombosis of the Lateral Sinus due to Disease of the Middle Ear as illustrated by Eight Cases, Seven of which were treated successfully.
Macaulay, S. L.R.C.P.Edin. Some Observations on an Examination of 100 Deaf Mutes.
Metcalfe, G., M.B., B.S. On the Use of Pilocarpin in Aural Affections.
Robertson, Wm., M.D. 1. A Series of Cases of Antrectomy by a New Method. 2. A Series of Cases of Deafness arising from Intranasal Conditions; for example, Rhinoscleroma, Intranasal Diaphragms, Polypi. 3. Cases demonstrating Eustachian Synechiæ.

K. Dermatology.

Durham College of Science.

President: W. Allan Jamieson, M.D. *Vice-Presidents:* George Thin, M.D.; T. Colcott Fox, M.B. *Honorary Secretaries:* Phineas S. Abraham, M.D., 2, Henrietta Street, Cavendish Square, W.: V. H. Rutherford, M.B., 12, Eldon Square, Newcastle-on-Tyne.

A discussion will take place on Ringworm, to be opened by Dr. Colcott Fox, in which the following gentlemen will take part: Mr. H. Alder-Smith, Dr. Leslie Roberts, Dr. George Carpenter, and Dr. Alfred Eddowes.

A discussion will take place on Psoriasis, to be opened by Dr. Radcliffe Crocker, in which the following gentlemen will take part: Dr. Dale James, Dr. Mapother, Dr. Stewart Stirling, and Dr. P. S. Abraham.

A discussion will take place on Lupus, to be opened by Mr. Jonathan Hutchinson, in which the following gentlemen will take part: Dr. P. G. Unna, Dr. Norman Walker, Dr. H. Handford and Dr. G. G. Stopford Taylor.

The following papers are announced:

Bidwell, L., F.R.C.S. On the Surgical Treatment of Lupus.
Eccles, A. Symonds, M.B. Massage in Certain Diseases of the Skin.
Eddowes, Alfred, M.D. Note on Tuberculous Eczema.
Fox, Dr. Colcott, and Carpenter, Dr. George. On Syphilitic and Tuberculous Cutaneous Gummata.
Stirling, Stewart, M.D. Clinical Note with Drawings of a Case of Seborrhœa Psoriasiformis.
Walker, Norman P., M.D. On Rodent Ulcer.
Walsh, D., L.R.C.P.&S.Edin. On Metastasis as a Factor in Certain Skin Inflammations.

Water-colour drawings, casts, and microscopic specimens will be shown by Dr. Stopford Taylor, Dr. Norman Walker, Dr. Colcott Fox, Dr. Leslie Roberts, Dr. Geo. Carpenter, and Dr. P. S. Abraham.

Honorary Local Secretary: G. E. Williamson, F.R.C.S., 22, Eldon Square, Newcastle-on-Tyne.

Honorary Treasurer: W. C. Beatley, M.D., 10, Jesmond Road, Newcastle-on-Tyne.

Programme of Proceedings.

Tuesday, August 1st, 1893.

9.30 A.M.—Meeting of 1892-93 Council.
11 A.M.—First General Meeting. Report of Council. Reports of Committees; and other business.
3 P.M.—Sermon by the Bishop of Durham.
8.30 P.M.—Adjourned General Meeting from 11.30 A.M. President's Address.

Wednesday, August 2nd, 1893.

9.30 A.M.—Meeting of 1893-94 Council.
10 A.M. to 2 P.M.—Sectional Meetings.
3 P.M.—Second General Meeting. Address in Medicine.
4 P.M.—Garden Party by the Sheriff of Newcastle at Highfield House, S. Gosforth.
4 P.M.—Garden Party by Mr. Charles Mitchell at Jesmond Towers.
8.30 P.M.—*Conversazione* by the Mayor and Corporation in the Natural History Museum.

Thursday, August 3rd, 1893.

8.30 A.M.—Medical Missions Breakfast at the New Assembly Rooms, Lower Hall, Barrass Bridge.
9.30 A.M.—Meeting of Council.
10 A.M. to 2 P.M.—Sectional Meetings.
3 P.M.—Third General Meeting. Address in Surgery.
4.30 P.M.—Reception by the Schools and Charities Committee of the Newcastle-on-Tyne Corporation at the Home for Incurables on the occasion of its inauguration.
7 P.M.—Public Dinner of the Association in the Banqueting Hall, Jesmond Dene.

Friday, August 4th, 1893.

9.30 to 11 A.M.—Sectional Meetings.
11 A.M.—Concluding General Meeting. Address in Obstetrics and Gynæcology.
3 P.M.—Convocation at Durham for Conferring Honorary Degrees.
4 P.M.—Garden Party and Reception by the Warden and Senate of the University.
8.30 P.M.—*Conversazione* in the Art Gallery.

Saturday, August 5th, 1893.

Excursions.
Ambulance Review in the Gosforth Park.

The Annual Museum.

The Museum in connection with the sixty-first annual meeting of the British Medical Association will be arranged in the following sections:

Section A.—Food and Drugs, including Prepared Foods, Chemical and Pharmaceutical Preparations, etc. (Honorary Secretary, Dr. George R. Murray, 2, Saville Place, Newcastle-on-Tyne.)

Section B.—Pathology, comprising Models, Casts, Naked-Eye and Microscopic Preparations, Diagrams, etc. (Honorary Secretary, Dr. A. S. Percival, 16, Ellison Place, Newcastle-on-Tyne.)

Section C.—Anatomy and Physiology, including Dissections, Methods of Preparation, Models, Drawings, Naked-Eye and Microscopical Specimens, Microtomes, New Physiological Apparatus, etc. (Honorary Secretary, Dr. John Clay, Durham University College of Medicine, Newcastle-on-Tyne.)

Section D.—Surgical Instruments and Appliances, Books, and Microscopes, including New Books, Diagrams, Medical and Surgical Instruments and Appliances, Microscopes, etc. (Honorary Secretary, Mr. W. G. Richardson, F.R.C.S., The Dispensary, Newcastle-on-Tyne.)

Section E.—Sanitary and Ambulance Appliances, comprising Appliances connected with the various branches of Sanitation, Ambulance Apparatus, etc. (Honorary Secretary, Dr. Samuel Macaulay, 49, Jesmond Road, Newcastle-on-Tyne.)

Section F.—Otology, comprising Models, Casts, Drawings, Anatomical and Pathological Specimens, new Aural Instruments, etc. (Honorary Secretary, Mr. Walter Ridley, F.R.C.S., 6, Ellison Place, Newcastle-on-Tyne.)

Sections A, C, and D will be held in the College of Medicine, Northumberland Road; Section E in the Cambridge Hall, Northumberland Road (opposite the College of Medicine); Sections B and F will be accommodated in the College of Science, Barrass Bridge.

N.B.—Exceptionally central and well-lighted rooms have been reserved for the commercial part of the Museum (Sections A, D, and E).

For Section A (Food and Drugs) the examination hall of the College of Medicine has been sent apart. This fine room measures 90 by 35 feet, and is splendidly lighted by windows 14 feet high, while it opens directly out of the reception room.

The room reserved for Section D (Surgical Appliances, Books, and Microscopes) measures 70 feet by 30 feet, with roof and east lights, and in immediate proximity to the Sections of Medicine, Surgery, Ophthalmology, and Anatomy and Physiology.

The Cambridge Hall, which has been secured for Section E (Sanitary and Ambulance Appliances) will afford about 4,000 square feet of floor space, and is situated immediate opposite to the College of Medicine.

Exhibitors (other than members of the medical profession) will be charged for the space occupied in the different Sections.

Communications on general matters connected with the Museum, or respecting advertisements in the Museum Catalogue, should be addressed to Robert Howden, M.B., University of Durham College of Medicine, Newcastle-on-Tyne.

Robert Howden, M.B.,
University of Durham College of Medicine, Newcastle-on-Tyne.
W. G. Richardson, F.R.C.S.,
The Dispensary, Newcastle-on-Tyne.
Honorary Secretaries to the Museum Subcommittee.

Short Excursions.

An excursion will be made to Tynemouth on Thursday, when some 200 or 300 members will be entertained at luncheon by the Mayor and Corporation of Tynemouth. The *J. C. Stevenson*, a large and fine steamboat, has been specially lent by the River Tyne Commissioners for the occasion, and will convey the party down the river. A rocket practice has been arranged by the Life Brigade, to demonstrate the method of using the apparatus for the saving of life in shipwrecks.

On Friday afternoon there will be an excursion to South Shields, when the Mayor and Corporation of the town will entertain 200 to 300 of the members at luncheon. Afterwards a visit will be made to the park, to the pier, and to the curious

Marsden Rocks and Caves. The life brigade will also give a rocket drill. South Shields is situated at the mouth of the Tyne, on the south side, and fine cliffs and bays, with stretches of sand, extend southwards along the coast to Sunderland.

A garden party will take place at Durham after the convocation on Friday.

An excursion to Saltburn, a seaside watering place, devoted almost exclusively to the reception of visitors, will take place on Friday. There will be a lunch, and a dinner in the evening, followed by a display of fireworks.

LONGER EXCURSIONS.

Wynyard Park.—On Saturday there will be an excursion to Wynyard Park, the seat of Lord Londonderry, who has kindly promised to be present on the occasion with Lady Londonderry, to receive the members.

Warkworth and Alnwick.—After visiting Warkworth the party will drive to Alnwick Castle, where they will be entertained by the Duke of Northumberland. The castle is a fine, stern-looking old fortress, where the beauty and comfort of the interior contrast well with the strong and somewhat grim walls. Its gates open on the one side into the streets of Alnwick, and on the other into the gardens and park, which are among the most extensive in the country.

Rothbury and Cragside.—Lord Armstrong, who is an honorary member of the Association, will receive a party at Cragside, Rothbury, in the beautiful valley of the Coquet. The grounds and the house are justly and widely celebrated for their beauty. The landscape gardening, which has taken advantage of every peculiarity of a rocky mountain site, is unique of its kind. After lunching at Cragside the visitors will drive to Morpeth, a quaint old county town, where they will be entertained at tea by the medical men residing there.

The Chesters.—Mr. N. G. Clayton, whose residence is at Chollerford, will receive a party to visit the Roman wall and the excavations of a large Roman camp which have been made in his grounds. After lunching at Chollerford the party will proceed to Swinburne Castle, where they will be entertained by Dr. William Murray.

PLACES OF INTEREST IN THE NEIGHBOURHOOD.

Tynemouth.—Tynemouth is a large watering-place at the mouth of the river Tyne, with plenty of accommodation for visitors, and with good railway and steamboat communication. It has fine broad sands, stands well at the mouth of the river, and is celebrated for the beautiful ruins of its ancient priory. Sea bathing here is excellent, together with boating and sea fishing. There are several smaller and quieter watering-places north of Tynemouth—namely: Cullercoats, Whitley, Newbiggen, Warkworth, Bamborough, and Alnmouth. South Shields, and Roker, near Sunderland, are also pleasant seaside places to stay at. Near South Shields are the celebrated and picturesque Marsden Rocks and Caves.

Hexham and Corbridge.—There are beautiful places west of Newcastle, but it will scarcely be convenient to go further than Corbridge or Hexham during the meeting. Hexham is a picturesque old town, chiefly interesting on account of its fine old abbey church. The Roman wall can be conveniently visited from Hexham or Chollerford.

Durham.—This city is situated on the main line south of Newcastle, and the quick trains run there in about twenty minutes. It is a quaint old town, its chief beauties being the Cathedral (a magnificent Norman church) and the Castle, both picturesquely situated on two of seven hills on which Durham is built. The river winds round the base in a sharp curve between well-wooded banks. Finchale Abbey is a fine ruin on the river Wear, three miles from Durham.

Morpeth.—This is a pretty, quiet country town, half an hour's railway journey north of Newcastle, with good lodging accommodation. Near to it is Rothbury, a delightful place with pure and bracing air.

PRESENTATION.—Mr. William Odell, F.R.C.S., has been presented with a handsomely bound set of Darwin's works and an illuminated address by the members of the First Aid and Nursing Classes held at Upton, Torquay, in token of their appreciation of his valuable and painstaking instruction.

NOTICES OF MOTION.

NOTICE is hereby given that at the Annual General Meeting of the Association to be held at Newcastle-on-Tyne on Tuesday, the 1st day of August, 1893, at 11 o'clock in the forenoon, the following motion will be proposed on behalf of the Council:

That the resolution of the Council dated the 19th day of April, 1893, be and the same is hereby confirmed.

That the name of James C. Ady, of Barr Street, Rangoon, L.R.C.P., M.R.C.S., be struck off the list of members of the Association.

Dr. J. H. GALTON hereby gives notice that he will move:

That By-law 1 be altered by expunging the words "provided that the power of such Council or Branch Council shall only extend to the election of male persons."

Mr. PARKINSON hereby gives notice that he will move that By-law 29 be altered to read as follows:

The three elected members who shall have been longest in office shall retire annually; and if, owing to two or more having been in office for the same period, there shall be any doubt as to which shall retire, the matter shall be decided by (1) number of attendances, and (2) ballot. All elected members who have not attended at least half the meetings of the Committee during the preceding year shall also retire. Members retiring shall be ineligible for re-election for the ensuing twelve months.

Dr. INCE hereby gives notice that he will move:

That the books of accounts shall be open to the inspection of members during the hours of business at the office of the Association, subject to such reasonable restrictions as to time and manner of inspecting the same as may be imposed by the Association in general meeting.

July 6th, 1893. FRANCIS FOWKE, *General Secretary.*

CORRESPONDENCE.

PRESSURE ON SPACE.

Notice to Correspondents and Authors of Communications.

IN view of the great and constantly-increasing pressure on our space, we would urgently request correspondents and authors of communications to assist us in endeavouring to place their views before our readers by condensing their communications to the utmost extent.

ROYAL BRITISH NURSES' ASSOCIATION.

SIR,—The statements which have been made respecting the effect of the charter granted to the Royal British Nurses' Association render it necessary that the members of the various hospitals and nurse training schools should clearly understand their position under the charter.

We, therefore, as representing the chief hospitals and nurse training schools of the metropolis which have taken part in opposing the charter, think it right to call public attention to the important limitations which have been placed upon the powers originally sought for.

No opposition has at any time been raised to the incorporation of the Association for the purpose of promoting such benevolent schemes for the benefit of nurses as are now set forth in the charter, as the first of the objects of the Association. The opposition was directed mainly against the attempt to create a "list or register," which would be regarded by the public as a legally authorised "register of trained nurses."

The charter, as granted, substitutes for the "list or register of nurses" a "list of persons who may have applied to the corporation to have their names entered therein as nurses, and whom the corporation may think fit to enter therein from time to time, coupled with such information about each person so entered as to the corporation may from time to time seem desirable."

It is important, in order to prevent misunderstanding, and to avoid misconstruction, that the following points should be clearly borne in mind:

1. No professional privilege will be obtained by the nurses whose names appear upon the list.
2. The list will have nothing in common with legal registers of the medical or other professions, but will simply be a list of nurses published by the Association.
3. No nurse whose name appears on the list will have any right to use the title of registered nurse.

It is desirable to add that a comparison of the draft charter, as submitted to the Privy Council, with the charter as granted, clearly shows that the Privy Council have recognised the evils which might directly or indirectly have been

occasioned by the establishment of a chartered register as originally proposed.—We are, etc.,

FLORENCE NIGHTINGALE.
WESTMINSTER, K.G., Chairman Metropolitan and National Nursing Association.
J. G. WAINWRIGHT, Treasurer of St. Thomas's Hospital.
HENRY BONHAM CARTER, Secretary of the Nightingale Fund.
J. S. BRISTOWE, M.D., F.R.S., Consulting Physician to St. Thomas's Hospital.
SEYMOUR J. SHARKEY, M.D., F.R.C.P., Physician to St. Thomas's Hospital and Lecturer to Nurses.
L. M. GORDON, Matron of St. Thomas's Hospital and Superintendent of the Nightingale Fund.
E. H. LUSHINGTON, Treasurer of Guy's Hospital Training School.
THOMAS BRYANT, F.R.C.S., Honorary Surgeon Guy's Hospital.
E. C. PERRY, Medical Superintendent Guy's Hospital.
FLORENCE C. NOTT BOWER, Matron Guy's Hospital.
RUTHERFORD ALCOCK, K.C.B., Vice-Chairman Westminster Nursing Home.
J. TROUTBECK, D.D., Honorary Treasurer Westminster Nursing Home.
MARY E. THYNNE, Honorary Secretary Westminster Nursing Home.
W. H. ALLCHIN, M.D., F.R.C.P., Physician to Westminster Hospital.
THOMAS BOND, F.R.C.S., Surgeon to Westminster Hospital.
MARY J. PYNE, Matron to Westminster Hospital.
JOHN H. HALE, Chairman of the London Hospital.
FREDERICK TREVES, F.R.C.S., Surgeon of the London Hospital.
A. ERNETT SANSOM, M.D., F.R.C.P., Physician to the London Hospital.
E. C. E. LUCKES, Matron of the London Hospital.
HENRY WACE, D.D., Chairman of Committee of Management King's College Hospital.
JOHN CURNOW, M.D., F.R.C.P., Lecturer to the Nursing Staff, and Dean of the Faculty of Medicine, King's College Hospital.
C. AUSTIN LEIGH, Vice-Chairman King's College Hospital.
KATHERINE H. MONK, Matron King's College Hospital.
JOHN B. MARTIN, Treasurer Charing Cross Hospital.
FREDERICK WILCOCKS, M.D., Physician to Charing Cross Hospital and Lecturer to Nursing Staff.
H. A. C. GORDON, Matron Charing Cross Hospital.
W. A. MACKINNON, K.C.B., Director-General Army Medical Department.
JOHN R. LUNN, F.R.C.S.E., Medical Superintendent and Lecturer to Nurses St. Marylebone Infirmary.
ELIZABETH VINCENT, Matron St. Marylebone Infirmary.
WILLIAM RATHBONE, M.P.
A. MARSDEN, M.D., Royal Free Hospital.

SIR,—I beg leave to state that the clause in the Royal Charter of Incorporation, which has been granted to the Royal British Nurses Association, on which my former colleague, Miss Wood, has expressed certain strictures in the BRITISH MEDICAL JOURNAL of July 1st, was introduced quite spontaneously by the Lords of the Privy Council, as were also other provisions, the effect of which is to enlarge the powers for which petition was made.

It is, therefore, a mistake to assume that they disclose either a claim to omniscience, or any design on the part of the Corporation to establish an agency for the employment of nurses.

I am, etc.,
W. BEZLY THORNE,
Oxford Circus Avenue, July 4th. Hon. Sec.

*** The purposes of the corporation are in the charter stated to be as follows:

1. The founding and maintenance of schemes for the benefit of nurses in the practice of their profession, and in times of adversity, sickness, and old age.
2. The maintenance of an office or offices for supplying information to persons seeking for nurses, and to persons seeking for employment as nurses.
3. The maintenance and publication of a list of persons who may have applied to the Corporation to have their names entered therein as nurses, and whom the Corporation may think fit to enter therein from time to time, coupled with such information about each person so entered as to the Corporation may from time to time seem desirable.
4. The promotion of conferences, public meetings, and lectures in connection with the general work of the Corporation.
5. The doing anything incidental or conducive to carrying into effect the foregoing purposes.

The mode in which these purposes are to be attained is left almost completely to be determined by by-laws, which, before coming into force, must be approved by the Privy Council.

SUICIDE AND INSANITY.

SIR,—Dr. Frederick Smith's letter in the BRITISH MEDICAL JOURNAL of July 1st, with reference to the case of Morton, who recently killed his wife and stepson at Hackney, and then committed suicide, is not only very interesting but is also most valuable. The statement which it contains, to the effect that the man's insanity was obvious as long ago as the month of September of last year, affords the strongest possible confirmation of the view that he was also really insane when he committed the acts which formed the subjects of the inquests; and that, therefore, whatever may be the general feeling as to the desirableness or otherwise of the usage according to which coroner's juries express opinions with respect to the mental condition of persons who commit suicide, it would appear to be only fair to regard the present instance as one in which the opinion expressed by the jury on this matter was substantially right. The term "temporary," however, to which Dr. Smith so justly takes exception, is a term which it is almost needless to say one would be most thankful to see banished. In a recent statute, which gives directions as to the trial of lunatics for criminal offences, the instructions prescribe that, when the circumstances so warrant, the jury are to say, by their verdict, that the accused "was insane at the time when he did the act," etc. It is essential that the words "at the time" should be used, in order to conform to the terms of this statute; and, although this particular statute does not apply to coroner's juries, one might, perhaps, venture to suggest that it would be a graceful act on their part if they would consent to adopt the words of the statute, and if, instead of saying, as they have hitherto been in the habit of doing, that the subject of their inquest was "temporarily" insane, they would agree to merely say that he was "at the time" insane. No doubt coroner's juries think it less painful to the feelings of relatives for them to say that a person was "temporarily" insane, than it would be to say plainly and bluntly that he was insane; but it may be suggested that perhaps accuracy, as well as the natural and laudable desire to be considerate, might both be fulfilled by the use of the words "at the time."

Dr. Smith's letter possesses great interest from another point of view, inasmuch as it brings into prominence the fact that, although Morton's insanity was obvious seven months before the date of the murders and the suicide, no effectual steps were taken to protect either the public or the individual himself, thus adding one more to the long list of instances, including the celebrated case of McNaghten, in which life has been sacrificed owing to the inadequacy of the provisions which exist for the protection of the public against the acts of insane persons, even when their insanity is obvious. Half a century ago Lord Campbell, when commenting on the McNaghten case in the House of Lords, expressed the hope that it might be found possible to take measures for apprehending persons who, by reason of their mental condition, were a danger to the public. And yet again, only the other day, at the Central Criminal Court, Mr. Justice Grantham had reason to observe, during the course of the trial of Townsend for threatening the life of the Prime Minister, that it was a great misfortune that, in consequence of the disinclination of doctors to sign certificates although he did not say that such disinclination was not quite justifiable under the circumstances there were a number of persons at large who ought to be under control and care.—I am, etc.,

Lexham Gardens, W., July 1. W. ORANGE.

GENERAL PRACTITIONERS AND THE SECTIONS AT THE ANNUAL MEETING.

SIR,—In reply to Dr. Colin Campbell's letter in the BRITISH MEDICAL JOURNAL of July 1st, may I record for his information the facts that the name of the author and title of a paper, while possibly both may carry much weight, are hardly sufficient to justify the expectation that the paper will be read? The number of papers is so great that only those which are most likely to be regarded as not only of general interest, but containing new points of practical importance to the profession at large, can be given preference to. The extreme length of some papers lessens their chances of being read.

Authors are requested to send short abstracts of their papers to the Secretaries of Sections. So far as my experience goes, this is very rarely attended to.

The selection of papers is made by the President, Vice-Presidents, and Secretaries. It is notoriously difficult to please every one, but as the sectional office-bearers are responsible for the popularity of the Sections they try their best to do so.—Yours, etc.,

July 1st. A SECTIONAL SECRETARY.

THE MODE OF ELECTIONS OF BRANCH OFFICERS.

SIR,—Dr. Mead, in a letter on this subject in the BRITISH MEDICAL JOURNAL of July 1st, says: "I have four times applied for a copy of the by-laws of the Division, but have not yet received one." He does not add, as he ought in fairness to have done, that he has received a reply from each of us, as secretaries, to the effect that so far as we are aware, no by-laws have ever existed, so it is impossible for us to send what we do not possess.

The election of officers was carried out exactly in accordance with precedent, and with the custom of other Branches as well as the East Anglian.

A comparison of the subjoined list of officers for 1892-93 and 1893-94, will perhaps be interesting.

	1892-93.	1893-94.
President	Dr. Amsden	Dr. Durrant
,, Elect	Dr. Durrant	Mr. Mayo
Representatives on Council of Association	Dr. Elliston	Dr. Elliston
	Mr. Crosse (deceased)	Dr. Beverley
Representative on Parliamentary Bills Committee	Dr. Mead	Dr. Manby

We are, etc., EDGAR G. BARNES, MICHAEL BEVERLEY, } Honorary Secretaries.

SIR,—In reply to the letter of Mr. Horder in the BRITISH MEDICAL JOURNAL of July 1st, I enclose the two rules which refer to the election of the Council and other representatives in the South Eastern Branch. It will be seen that the election by voting papers has been in force since 1884.

Government of the Branch.—4. There shall be an Executive Council, which shall consist of the officers of the Branch (including the Secretaries of the Districts), the officers elect, the members of the Branch who are elected annually to the Executive Council of the Branch; and the representatives of the Branch at the Council of the Association, who shall be chosen at the annual meeting of the Branch; together with six gentlemen to be nominated annually by the Branch Council, who shall reside in or near the town selected for the next place of meeting.

Mode of Electing Members of the Executive Council of the Branch and the Representatives at the Council of the Association.—9. The Secretary shall annually send to each member a voting paper to enable the member to vote: (*a*) For such persons as they may select to fill the office of members of the Executive Council of the Branch; for every 20 members one Representative shall be elected. (*b*) And for the members to represent the Branch at the Council of the Branch, namely, one for the Branch and one for every complete 200 members of which it may consist. NOTE.—That candidates for the office of Representative of the Branch at the Council of the Association should be nominated by any two members of the Branch before the 15th day of April, and their names sent to the Honorary Secretary. The voting papers shall be returned to the Secretary not less than three days before the annual meeting; and he shall, with the assistance of two scrutineers, to be appointed by the Council, examine the votes and report to the general meeting. In case of equality of votes, precedence shall be given in alphabetical order. [Revised May 15th, 1884.]

The plan works well; for, although but a small proportion of our members avail themselves of their voting power—feeling satisfied with the Council as it stands, or not knowing sufficiently the respective merits of members to make a selection—still it does give an opportunity for the introduction of new blood from time to time, and leaves less ground for any such complaint as is made by Mr. Horder. The officers of the Branch are elected at the annual meeting by those present, and the District Secretaries at District meetings.—I am, etc.,

T. JENNER VERRALL,
Brighton, July 1st. Honorary Secretary, South-Eastern Branch.

SIR,—The letter of Mr. T. Garrett Horder *re* the mode of election of Branch officers is one with which very many practitioners will cordially agree. I have often wished to attend annual meetings myself, and would not so much mind the expense were it not for the loss of time and the difficulty of getting to so-called "cross-country" places when one has to go by loop lines the trains of which scarcely ever fit in. I therefore think the system of voting papers is to be recommended, and I am glad such a system exists in the Branch of the Association to which I now belong. Quite recently I had notice of the annual meeting, at which I was unable to be present, yet nevertheless filled up my voting paper which I received at the same time.—I am, etc.,

Crowborough, Sussex, July 3rd. PERCY NEWELL.

SIR,—From letters in the BRITISH MEDICAL JOURNAL of July 1st it would appear that all over there is an irregularity in the election of officers the Branches. The Border Counties Branch, to which I belong, is composed partly of English and partly of Scotch members. The representative to the General Council has always been an English member; and when three years ago it was proposed that there should be a Scotch representative for a change, and because there was Scotch business before Parliament of great importance, the proposal was considered an insult to our representative by the English members, and the meeting being in England we were voted down. The result of this has been that many of our best members have ceased to take an interest in the work of the Branch. I have a motion for our next annual meeting which proposes that no one can act as representative for more than three successive years.—I am, etc.,

Hawick, July 6th. JOHN R. HAMILTON, M.D.

AMENDMENT OF THE BIRTHS AND DEATHS ACT.

SIR,—When giving evidence before the Select Committee on Death Registration, I suggested that medical practitioners should act as registrars of deaths. I take it that eventually such registration will be placed in the hands of local health authorities. The following will show that the present registrars might be gradually superseded, and that, considering the technical work done, this could be more carefully performed by practitioners. It is pleasing to note that already there are 72 practitioners in England and 792 in Ireland acting as registrars of deaths. In England, of 2,108 registrars, 786 are relieving officers, 145 solicitors and solicitors' clerks, 124 farmers, 38 schoolmasters, 38 chemists, 69 grocers, 27 tailors, 8 blacksmiths, 4 butchers, 5 plumbers, 54 insurance agents, 8 bootmakers, 2 carpenters, 6 joiners, 1 sexton, 1 hairdresser, 1 funeral furnisher, 3 ale and porter merchants, 2 dressmakers, 1 goods porter, 1 dispenser of medicines, 1 marble mason, 2 doctors' assistants. In Scotland, of 1,056 registrars, 1 is a manure agent, 1 mason, 1 maltster, 4 blacksmiths, 1 gamekeeper, 1 forester, 1 slate quarrier, 6 crofters, 10 joiners, 1 carpenter, 8 chemists, 2 saddlers, 1 weaver, 2 shoemakers, 9 grocers, 2 tailors, 9 drapers, 1 shepherd, 1 candle maker, 2 bakers, 2 millers, 2 cabinet makers, 3 factors, 3 estate managers, 3 ironmongers, 1 painter, 1 cartwright, 2 watchmakers, 20 farmers, 32 postmasters, 5 ministers, 30 merchants, 34 teachers, 462 schoolmasters, 157 inspectors of the poor, 28 clerks, 3 school board clerks, 3 commission agents, 11 bank agents, 5 solicitors, 12 booksellers, and 3 ground officers. In Ireland, of 800 registrars, there are 19 farmers, 23 relieving officers, 9 school teachers, 6 clerks, 2 postmasters, 4 rate collectors, 2 drapers, 2 bakers and tailors, 1 editor, 1 master of workhouse, 1 merchant, 1 blacksmith, 1 chemist, and 1 dispensary porter.

An analysis of the list of deputy registrars shows these to be even a more "mixed" quality. Neither do I give a list of the occupation of the superintendent registrars. I cannot see how these registrars and subregistrars can fully understand technical terms, nor how they can possibly make a correct registration when the relative of the deceased does not bring a medical certificate of the cause of death, or where such certificate is suppressed owing to it containing an incriminating statement. There are about 4,500 Poor-law medical officers in England and Wales. Why do these not act as registrars? I notice that in the official Estimates the sum of £14,833 is voted for fees to superintendent registrars. This sum is augmented by votes out of the local rates. If the local health authorities acted as registrars a considerable sum would be saved in fees to registrars, while health officers could directly draw up their returns without waiting for these from the district registrars. Hoping this point will receive due attention, I am, etc.,

Liverpool, July 2nd. ROBERT R. RENTOUL.

THE QUALITY OF NILE WATER.

SIR,—In his exhaustive address on cholera Mr. Ernest Hart observes: "The Nile is the main source of water supply to the country."

This statement requires a little amplification. With the exception of imported beverages there is not a drop of water in Egypt that is not derived from the great river. Were the stream to dry up, or be diverted from its channel, the land would speedily become an arid desert, and the inhabitants would perish from thirst. As far as I am aware there is no other country in the world where the population is dependent on a single river for its water supply. Every effort ought to

be made to keep that supply pure, but, so far, nothing has been done. The Nile "has been and is habitually polluted with human and other filth," and the labours of the Irrigation Department have unhappily tended towards augmenting the evil by the concentration of the poisonous masses. When the current gets slack in the summer months the people die like rotten sheep—especially the young children. This has been pointed out over and over again, but the authorities will not move in the matter.

There is talk of constructing dams in the bed of the river itself in order to have water for summer irrigation. Such a measure would no doubt exercise a beneficial effect to a certain extent, but it is not one to be advocated by a true sanitarian. The dammed-up water would be subject to the same fouling as at present. It would serve admirably for raising crops, but it would nevertheless be poisonous to human beings.

According to the Wady Raiyan scheme the surplus flood water would be impounded, while still pure, in the midst of the desert far away from all danger of pollution. It is really quite inconceivable why opposition should still be offered to this project, which has been pronounced feasible by the highest engineering authorities. Is the public health a thing of naught? Must the slaughter of the innocents go on unchecked? Out of 1,000 children born in Egypt 496 die before the age of 5 years. Almost half! Would it not be worth while to try to diminish this hecatomb? Last year, according to the published returns, the deaths per 1,000 born among infants less than 12 months old, amounted to 263. Upwards of a quarter of the wretched infants died in their first year, chiefly—as I believe—on account of the bad water.

—I am, etc.,

Southsea, July 3rd. H. R. Greene.

NAVAL AND MILITARY MEDICAL SERVICES.

ARMY MEDICAL STAFF IN INDIA.

A further memorandum on questions relating to the duties, pay, allowances, and regulations regarding leave, etc., of officers of the Army Medical Staff serving in India, with suggestions for remedial adjustment, has been drawn up and forwarded to the Secretary of State for India. The memorandum is designed especially to meet the principle involved in Lord Kimberley's statement to the deputation which waited on his lordship on Monday, May 15th, that "Where additional work was performed, it accorded with his notions that additional pay should be given." The Chairman of the Parliamentary Bills Committee of the British Medical Association has received in reply the following letter:—

India Office, Whitehall, London, S.W., July 1st, 1893.—Sir,—I am directed by the Secretary of State for India in Council to acknowledge the receipt of your letter of June 26th, and to acquaint you in reply that a copy of your letter of June 20th, with the memorandum now furnished, will be forwarded to the Government of India for their consideration in connection with the previous papers which have been transmitted to them, relative to the position of army medical officers in India.—I am, Sir, your obedient servant, O. R. Newmarch, Major-General, Military Secretary.—The Chairman, British Medical Association Parliamentary Bills Committee, 429 Strand, W.C.

THE INDIAN PRINCIPAL MEDICAL OFFICERSHIP.

An Indian Medical Officer writes: Officers of the Indian Medical Service in military employ would be much obliged if some explanation were given of the statement in Section 5 of the Memorandum presented to Mr. Campbell-Bannerman (British Medical Journal of May 20th, p. 1048), that the difficulty of finding a Principal Medical Officer for India could be got over by making a rule that the appointment must be given to an officer of the Medical Staff. The difficulty has arisen solely from the fact that promotion in the Army Medical Department is so slow that it is impossible to find a Surgeon-Major-General sufficiently young to be able to serve a five years' tour in India without the extension which works such injustice to others. As no Indian officer has ever held the appointment (though declared by regulation to be eligible for it), the Indian Medical Service must be acquitted of any share in the creation of the difficulty, which will only be perpetuated instead of "got over" by excluding them from the appointment. It would be "got over" at once by appointing an Indian medical officer at the next vacancy. There are already three Surgeon-Colonels with from seven to nine years between them and the age of compulsory retirement, and several additional officers will be promoted to the rank next year.

The assertion at the end of the paragraph that because the Indian Medical Department has a Surgeon-Major-General already "it has no possible equitable claim" to the Principal Medical Officership is a *petitio principii* of the most misleading description. The Surgeon-Major-General in question is the head of the civil medical administration, and as such deals with civil hospitals, lunatic asylums, medical colleges and schools, sanitation, and many other subjects which do not come into the experience of a military medical officer. But the Indian Medical Service is primarily a military service, and many of its members spend their whole lives in military employ. They are not eligible for the Civil Surgeon-Generalship, and as they are nearly as numerous as the members of the Army Medical Department serving in India, they consider that they have an equal right to the only Surgeon-Major Generalship for which they are eligible, namely, the Principal Medical Officership.

THE INDIAN MEDICAL SERVICE.

Surgeon-General Sir W. J. Moore, K.C.S.I.E., writes: In former days comparatively few Indians were educated to be medical and surgical practitioners; but, confining myself to Bombay, after the establishment of the Grant Medical College there has been a gradual increase of well educated Indian medical men, many of whom have taken British as well as Indian diplomas, and some also competing for, and obtaining entrance into, the Indian Medical Service.... Some of these are desirous of occupying the professorial chairs at the Grant Medical College, and it certainly cannot be asserted that none of them are fitted for such posts. But, unfortunately, there are fatal objections to such concessions. The College, when established some forty years back, was also charged with the education of warrant medical officers for the army, who passed, as now, a three years' curriculum under commissioned officers of the Indian Medical Service, as all the professors and officers of the College must be in accordance with the regulations, with the exception of one minor professorship.....The possibility of obtaining one of these posts has been brought forward as an inducement to young medical men to enter the Indian service, and has always been so regarded by aspirants.....If filled by Indians, the Indian Medical Service would be shorn of one of the few remaining claims it possesses to be regarded as a suitable career for young medical men. Considerable and not altogether misplaced sympathy has been expressed with Indian practitioners who aspire to these posts. But the door is open to them through the commissioned ranks of the Indian Medical Service.....But from recent correspondence it would appear that Indian practitioners desire to obtain the positions in question without taking the preliminary step of becoming members of the commissioned Indian Medical Service. A similar claim might be made by any medical man in this country with almost equal justice. The Indian medical is a military service, although largely in civil employ, and all, including professors in the colleges, are liable to recall to military duty on an emergency. They thus constitute a reserve for military purposes; and to fill the chairs with civilians would deprive the Government in the military department of a number of highly-skilled officials available in emergencies. The position is doubtless anomalous, but it is consequent on that greater anomaly—the British rule in India.....Reflections have been made in the controversy on the inefficiency of the teaching by commissioned professors, but the case of the civilians will not be served by certain acrimonious correspondence which has appeared. The best evidence that the teaching has been good is the existence of the gentlemen who themselves have been students, and now animadvert on the teaching.....Personally, I should rejoice to see Indian practitioners holding the posts they covet; but this could not be effected without great injustice to the present members of the Indian Medical Service, and very radical alterations in the constitution and supervision of the College. Moreover, it would be a costly arrangement.....It may be questioned whether the inducement to Indians to take professorships on the same terms as the majority of professorships and hospital appointments are held in this country would be attractive.

RANK AND TITLES.

I. V. R. C. points out that the titles of medical officers of the United States Army are not surgeon and lieutenant, surgeon and captain, etc., and in no way hybrid, but definite, with clear expression of military rank, as Major Jones, surgeon. Military rank was given to the States Medical Service in February, 1847, by presidential decree. The result has been so satisfactory, that the following statement by the Surgeon-General, United States Army, should be widely known:—"No difficulty whatever, either in theory or practice, has arisen from the fact that the medical officers have real rank; but, on the contrary, the wisdom by which it was effected has been satisfactorily established. It is an undoubted fact that the law giving medical officers the same military status as other officers has done much to enhance the *esprit de corps*, and to increase efficiency in the army medical service." Words like these are of great importance, and the common sense of the American War Department may well be copied in England. Give our medical officers the same and the result will be increased efficiency, more defined internal discipline, higher organisation both in peace and war, the best men will be attracted to the service.

*** According to the party, which showed its hand so ingenuously in the late discussion on the army estimates, the way to improve and content the Army Medical Service is not to follow the lead the United States gives, but to summarily suppress all complaints, representations, and deputations, cut down numbers, pay, and retirement, and in a general way sit upon and reduce it to impotence. With such a pre-

posterous programme one would think common sense ought to have a chance.

I. M. S., writing from India, says in consultation with others he has arrived at the following conclusions:—1. The new titles have caused no inconvenience, but, on the contrary, been beneficial; even that of brigade-surgeon-lieutenant-colonel, although from its length the subject of joke, seems to carry weight, but would be improved by making the rank brigade-surgeon-colonel, or brigade-surgeon and colonel, or colonel-brigade-surgeon. 2. Officers of that rank appointed to administrative duties should have the rank of brigadier-general and be called inspectors-general of hospitals, which would correspond to colonels in the army appointed adjutant, or quartermaster general, or to the command of a district.

*** It has been pointed out with much force that to give brigade-surgeons the rank of colonel would create far too great a disproportion of the rank in the department compared with that in other branches of the army.

A CORRESPONDENT sends us a bill from a large retail house in London in which he is addressed as Sergeant-Colonel ....., Medical Staff. We have been informed of similar mistakes before; not even the volunteer movement has yet sufficiently popularised military titles; the ignorance of them among a great number of civilians is truly amazing.

THE NAVY.

FLEET-SURGEON E. J. SHAROOD, M.D., has been placed on the retired list, with permission to assume the rank of Deputy-Inspector-General of Hospitals and Fleets, June 25th. He was appointed Surgeon October 13th, 1862; Staff-Surgeon February 19th, 1876; and Fleet-Surgeon June 16th, 1883.

Surgeon REGINALD T. A. LEVINGE has been appointed to the *Rupert*, lent temporarily; and M. DANIELL O'DRISCOLL to be Surgeon and Agent at Crookshaven, June 30th.

ARMY MEDICAL STAFF.

SURGEON-MAJOR-GENERAL W. M. WEBB has retired from the service, which he entered as Assistant-Surgeon March 24th, 1854; he became Surgeon January 15th, 1864; Surgeon-Major March 1st, 1873; Brigade-Surgeon November 27th, 1879; Deputy-Surgeon-General July 5th, 1881: and Surgeon-Major-General from December 31st, 1887. He served with the 19th Regiment in the Crimean war in 1854-55, and was present at the affair at Bulganak, at the battles of Alma and Inkerman, and at the siege and fall of Sebastopol (medal with three clasps, and Turkish medal). He was Assistant Professor of Military Medicine in the Army Medical School at Netley from 1873 to 1878, and, after serving at Gibraltar, was Deputy-Surgeon-General of the Meerut Division, Bengal, from 1881 to 1886. He was afterwards Principal Medical Officer in Scotland, at York, and at Aldershot, and was appointed Principal Medical Officer of the Bombay Army in 1879.

Surgeon-Captain F. J. W. STONEY, who is serving in the Bengal Command, has passed the examination in Hindustani by the lower standard.

Surgeon-Major R. P. HETHERINGTON, M.B., doing duty at the station hospital at Bhamo, is directed to do duty at the station hospital at Wellington, Madras Command.

Surgeon-Captain T. DALY, doing duty in the Secunderabad District, Madras Command, is appointed to the medical charge of the station hospital at Bhamo, Burmah.

Surgeon-Captain H. C. THURSTON, doing duty in the Belgaum and Bangalore Districts, Madras Command, is appointed to the medical charge of the station hospital at Bernardmyo, Burmah.

Surgeon-Captain J. C. CONNOR, M.B., who is serving in the Madras Command, has been granted leave to England for six months, on urgent private affairs.

Surgeon-Captain B. F. ZIMMERMANN, doing duty in the Secunderabad District, Madras Command, is ordered to do duty in the Mandalay District, Burmah.

Surgeon-Captain M. KELLY, M.D., doing duty at the station hospital at Bernardmyo, Burmah, is ordered to do duty in the Secunderabad District, Madras Command.

Surgeon-Captain J. S. GREEN, M.B., doing duty in the Mandalay District, Burmah, is ordered to do duty in the Belgaum and Bangalore Districts, Madras Command.

Surgeon-Captain E. D. FARMAR-BRINGHURST, on the expiration of his sick leave, is directed to do duty in the Secunderabad District, Madras Command.

THE VOLUNTEERS.

SURGEON-CAPTAIN C. F. WEBB, M.D., 1st Volunteer Battalion the Hampshire Regiment (late the 1st Hampshire), has resigned his commission, July 5th.

Surgeon-Lieutenant R. STIRLING, M.D., 4th (Perthshire) Volunteer Battalion Royal Highlanders (late the 1st Perthshire), is promoted to be Surgeon-Captain, July 5th.

Mr. GEORGE COLVILLE MILLIGAN, M.B., is appointed Surgeon-Lieutenant to the 3rd (Morayshire) Volunteer Battalion Seaforth Highlanders (late the 1st Elgin).

MEDICO-LEGAL AND MEDICO-ETHICAL.

COUNTY WEXFORD INFIRMARY.

AN action was heard last week against the governors of the County Wexford Infirmary. It was brought to restrain the defendants from paying to Mr. Hadden, who was appointed surgeon in September, 1879, a larger salary than the amount which the grand jury had power to present for, namely, £94 a year. The governors paid Mr. Hadden £120 a year, the difference between that amount and the amount presented for by the grand jury being provided out of the dividends of a fund known as the Cullimore Fund, the proceeds of a donation of £1,000 for the benefit and use of the institution. It was contended, on behalf of the plaintiff, that the governors had no power to devote this money, or any money in excess of the grand jury presentment, to the payment of the salary of the surgeon. The Vice-Chancellor held that it was within the powers of the governors to do so, but that they could not increase the salary of the surgeon out of public funds, but that it was perfectly competent for them to do so out of private benefactions unless the donors otherwise directed.

MEDICAL DEFENCE UNION, LIMITED.

A COUNCIL MEETING was held at the rooms of the British Medical Medical Association, London, W.C., on June 28th; Mr. Victor Horsley in the chair. Twenty-two new members were accepted. Dr. Bateman reported that he had demanded an apology for a member who had received abusive telegrams and letters from a patient, and that this apology had been tendered. Attention was called to the statement that a limited liability company, called the General Council of Safe Medicine, Limited, was issuing licences purporting to give qualification to practise medicine. The matter was referred to a committee. Eighteen minor applications were received and dealt with, including complaints of unqualified practice, covering, and unprofessional behaviour.

FEES TO MEDICAL WITNESSES ON CIVIL CASES.

GENERAL PRACTITIONER writes: I am the principal witness in a probate case, which will be tried in London next month, and shall feel obliged if you will advise me in the correspondence column of the BRITISH MEDICAL JOURNAL as to the amount of fee I can demand before leaving home, so as to ensure not being out of pocket?

*** In civil cases witnesses are entitled to reasonable remuneration, and are not tied down by an illiberal scale as in criminal cases. If an important witness stipulates *beforehand* for any sum which is not clearly exorbitant, the party requiring the evidence will probably agree to pay it. The agreement should be in writing, or else the money paid down, so as to avoid disputes after the action is disposed of. The amount which may properly be charged depends on so many circumstances that it is impossible to answer more precisely without knowing them all.

DOCTORS' DRUG SHOPS.

M.B., C.M.GLASG.—In view of the fact that our correspondent is, so to speak, a public representative of a scientific profession, and not of a trade, it can scarcely be necessary to remind him that as such in "opening a drug shop in England would not only be considered *intra dignitatem*," but, in the absence of the L.S.A., might possibly subject him to the penalties of the Pharmacy Act. Be that as it may, we note with acute regret his assertion that "it is a common custom in Scotland for practitioners to keep a drug shop selling everything." For the honour and dignity of the profession we fain would hope that the allegation is not founded on fact, otherwise it would tend to denote extreme laxity on the part of the degree and diploma granting authorities in enforcing their disciplinary laws and vindicating the honour of the medical faculty.

"A CARD."

J. R.—In view of the fact that our opinion relative to the notification of a change of address being published through the medium of the lay press instead of the usual legitimate professional channel, having been repeatedly recorded in the BRITISH MEDICAL JOURNAL, we would, in referring to Mr. Kilbride's "card of removal" which appears in the *Bradford Observer*, simply express our regret that an old member of the profession should have had recourse to so reprehensible trade-like a proceeding.

INTRODUCING A PARTNER.

NOBLESSE OBLIGE.—There is not, so far as we are aware, any prescribed general rule relative to the introduction of a partner, seeing that it must more or less depend upon the nature and locality of the practice, as for instance in the case of a rural or mining population, in which a high class practice is scarcely attainable, and personal introduction of the new comer would probably be regarded as inexpedient. The nature of the locality, however, in which our correspondent resides leads us to the conclusion that the most unexceptionable mode would be to transmit an autograph note, or a carefully executed *fac simile* thereof, to the *bonâ fide* patients of the vendor, simply intimating the fact of the accession of a partner, and his local address.

A. R. B., Boreham.—Either from more or less obtuse perception, or other cause, we fail to grasp the purport of A. R. B.'s communication, unless it be to deprecate our "temperate letters of remonstrance" with ethically erring practitioners, and to substitute therefor more emphatic censure. To enable us therefore to effectively respond thereto, we would request our correspondent to clearly define the matter in plain English rather than in metaphorical language.

OBITUARY.

ANDREW MARSHALL, M.D.GLASG.

WE regret to have to report the death of Dr. Andrew Marshall, of Preston, which took place on July 18th. The deceased, who was in his 53rd year, studied and graduated at Glasgow, taking the degree of M.D. there in 1864. He went to Preston

to practise some thirty years ago. He took a warm interest in the Preston and County of Lancaster Royal Infirmary, of which at the time of his decease he was honorary consulting medical officer. In July, 1886, he was placed on the commission of the peace for the borough of Preston. Dr. Marshall, who died after a few hours illness, leaves a widow, one son, and a daughter. A *post-mortem* examination was made by Dr. Carter, pathologist to the Whittingham County Asylum, which revealed calcareous degeneration of both coronary arteries, fatty degeneration of the heart, and atheromatous patches in the aorta.

JOHN SEGAR, M.D.ABERD.

WE deeply regret to announce the death of Dr. John Segar, which took place at his residence in Birkdale on June 9th. The deceased was born at Ainsdale on March 8th, 1824, and in his early life commenced the study of medicine, taking the diploma of M.R.C.S.Eng. in 1853, and the degree of M.D. Aberd. in 1854. He commenced his practice at Bolton, but some thirty-five years ago he became surgeon to the Southport Infirmary and Dispensary, and, on retiring from the post of senior surgeon to this institution in 1879, he was presented with a testimonial as a mark of the esteem in which he was held. Dr. Segar entered the Southport Town Council in 1867, and in 1871 he became an alderman, and finally withdrew from municipal services in 1877. He retired from the practice of his profession at the end of last year, and took up his residence in Birkdale. Owing to failing health, however, he was unable to enjoy fully the retirement which he had so well earned. During the last nine months his donations to charitable institutions amounted to no less than £20,000. The deceased was a member of the British Medical Association. About a month previous to his death Dr. Segar was overtaken by an attack of pneumonia, and gradually sank and died. The deceased was never married.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE PUBLIC HEALTH (LONDON) ACT.

WE understand that the proposal to amend the Public Health (London) Act, 1891, has fallen through and that the Bill introduced with that intent will not be proceeded with. As was pointed out in a memorandum prepared for the Parliamentary Bills Committee the measure did not appear to be the outcome of any special demand either by the local sanitary authorities or by the London County Council, and was not likely to have much chance of success. It contained much contentious matter. One clause, which practically transferred the liability for the payment of the water rate from the occupier to the owner, leaving the latter to recover it with his rent, was one which not only touched large interests but might well be considered inopportune at a moment when a Commission on the water supply was still sitting. The third clause, by which it was proposed to extend the power of compulsory removal to hospital of patients suffering from infectious disease, would have been certain to excite active opposition unless it had been coupled with defining clauses, which would have been very difficult to draft with anything like completeness.

As the law stands at present a person suffering from any dangerous infectious disease who is "without proper lodging or accommodation," may on medical certificate be removed to a hospital by order of a justice. The wording of this section leaves it doubtful to some minds whether a person who is not isolated, but is properly lodged as far as his own welfare is concerned, is removable. It has, in fact, been decided in a court of law that the word "proper" refers exclusively to the necessities of the patient; but the object of the proposed amendment was to make it clear that if he is a source of public danger he is removable. It ran thus: "A person who is not provided with lodging and accommodation in which proper precautions can be taken to prevent the spreading of the dangerous infectious disease from which such person is suffering shall be deemed, for the purposes of this Act, to be without proper lodging or accommodation." The proposal was obviously loaded with causes of difference and points for dispute. According to the views of the sanitary authorities and the idiosyncracies of the police magistrates the measure accepted as "proper" in different parts of the metropolis would vary, ranging probably from a carbolised sheet in one parish to absolute and rigid removal of all cases in another. For the latter alternative public opinion is not yet ripe, nor, in fact, is the necessary machinery yet in existence. Before a law is passed enabling any medical officer of health of extreme views who happens to have in his district a magistrate of like mind to enforce compulsory removal to hospital of every case of fever the Metropolitan Asylums Board must be able not only to receive them, but to arrange a system of classification according to social habits or position which at present they are utterly unable to provide.

Perhaps the Bill has served a better purpose as an indication of the way the wind is blowing in sanitary matters than it would have done as a piece of practical legislation.

FLUSHING WATER IN LONDON.

AFTER much consideration and careful inquiries by the Local Government Board, the London County Council, and the sanitary authorities of London it has been decided that the regulation enforced by the Metropolis Water Act, 1871, providing that every water-closet cistern shall have an efficient waste-preventing apparatus, so constructed as not to be capable of discharging more that two gallons of water at each flush, is not sufficient, and that it should be three gallons. In addition it is proposed that the requirements as to the supply of water to water closets should apply equally to the supply of water to sinks used for receiving any solid or liquid filth, and that a regulation shall be enforced which shall prevent cisterns being brought into use for supplying water for domestic purposes, or for food for beasts so long as they directly supply any water-closet or sink used for receiving any solid or liquid filth, and that in all cases where any premises have a constant water service one or more taps should be provided from the rising main for the supply of water for drinking purposes. This last requirement will be made retrospective, but the others will not. On and after January 1st, 1901, it is intended to put the new regulations in force. The water companies are opposed to the new regulations, as they will involve an enormous increase in the quantity of water to be provided. Edinburgh and Bradford have recently decided to allow three gallons instead of two, whilst at Leeds two and a-half gallons is already allowed in certain cases.

THE SANITARY CONDITION OF INVERNESS-SHIRE.

THE second annual report, that for 1892, of Dr. Ogilvie Grant, health officer for the county of Inverness, shows that the county council have within the area of their jurisdiction communities living under conditions of a widely differing sort, and demanding much thought and tact in regard to the measures necessary to secure a remedy for the evils that now exist, particularly as regards the islanders, whose surroundings form such an interesting subject for description by Dr. Grant. He has visited these out-of-the-way islands under all sorts of difficulties, and has made those visits serve as the text for much in his report that is well worth perusal by those desirous of learning something of the home life of our northern insulated labouring classes.

THE SANITARY CONDITION OF BAKEHOUSES.

THE sanitary condition of bakehouses is a matter so important, and at the same time so often neglected, that we gladly accepted an invitation from Messrs. W. Hill and Sons to inspect what they describe as their "thoroughly hygienic machine bakery" in James Street, S.W. All the rooms in which the processes of bread making are carried on were light and airy, they were all above ground, the water used was filtered, the mixing and kneading of the dough were done by machinery, and throughout the building cleanliness was conspicuous. Still, if one had not been familiar with the condition of affairs in so many bakeries, one might well have wondered what we had been asked to see. It would seem so reasonable, so right, so necessary that an important article of diet like bread should be made amid cleanly surroundings, that the presence of cleanliness would not have seemed surprising had one not known how frequently it is absent. Mr. Lakeman, Inspector of Factories, and various medical officers of health who were present, and who knew the usual conditions met with in metropolitan bakehouses, were strong in their praises of what they had seen.

DUAL NOTIFICATION.

AT Rotherham Police Court the keeper of a common lodging house has been fined for breach of the 34th section of the Public Health Act, 1875, he having failed to give notice of the existence of a case of small-pox in the house. A fine of 10s. with costs was imposed, and it was stated by the bench that a heavier penalty would be exacted in future.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,583 births and 4,496 deaths were registered during the week ending Saturday, July 1st. The annual rate of mortality in these towns, which had increased from 17.5 to 22.1 per 1,000 in the preceding five weeks, further rose to 22.7 during the week under notice. The rates in the several towns ranged from 12.6 in Oldham, 14.2 in Brighton, 14.6 in Bristol, and 15.3 in Halifax to 28.8 in Plymouth, 29.5 in Manchester, 30.1 in Birkenhead, 37.0 in Liverpool, and 41.6 in Preston. In the thirty-two provincial towns the mean death-rate was 23.1 per 1,000, and was 0.9 above the rate recorded in London, which was 22.2 per 1,000. The 4,496 deaths registered during the week under notice in the thirty-three towns included 1,108 which were referred to the principal zymotic diseases, against numbers increasing from 415 to 924 in the preceding four weeks; of these, 713 resulted from diarrhœa, 96 from measles, 93 from whooping-cough, 88 from diphtheria, 63 from scarlet fever, 42 from "fever" (principally enteric), and 13 from small-pox. These 1,108 deaths were equal to an annual rate of 5.6 per 1,000; in London the zymotic death-rate was equal to 5.3 per 1,000, while it averaged 5.8 in the thirty-two provincial towns. No death from any of these zymotic diseases was registered last week in Huddersfield; in the other towns they caused the lowest death-rates in Oldham, Halifax, and Bristol, and the highest rates in Bradford, Liverpool, Birkenhead, Leicester, and Preston. Measles showed the highest proportional fatality in Gateshead, Manchester, Preston, and Blackburn; scarlet fever in Norwich; whooping-cough in Birkenhead, Brighton, and Norwich; "fever" in Burnley; and diarrhœa in West Ham, Sheffield, Manchester, Salford, Cardiff, Bradford, Liverpool, Birkenhead, Leicester, and Preston. The 88 deaths from diphtheria included 64 in London, 4 in Manchester, 3 in West Ham, and 3 in Croydon. Three fatal cases of small-pox were registered in London, 3 in Bradford, and 1 each in West Ham, Leicester, Birmingham, Manchester, Oldham, Halifax, and Hull; 397 small-pox patients were under treatment in the Metropolitan Asylums Hospitals and in the Highgate Small-pox Hospital on Saturday last, July 1st, against numbers declining from 570 to 410 at the end of the preceding seven weeks; 76 new cases were admitted during the week, against 80, 105, and 59 in the preceding three weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospitals was 2,775, against numbers increasing from

2,024 to 2,699 on the preceding eleven Saturdays; 364 new cases were admitted during the week, against 290, 264, and 309 in the preceding three weeks. The 250 deaths referred to diseases of the respiratory organs in London were 40 above the average, and were equal to an annual rate of 3.0 per 1,000.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday, July 1st, 980 births and 607 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 20.2 and 22.0 per 1,000 in the preceding two weeks, declined again to 21.5 during the week under notice, and was 1.2 per 1,000 below the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the lowest rates were 14.7 in Leith and 16.6 in Paisley, and the highest rates 22.8 in Glasgow and 34.0 in Greenock. The 607 deaths in these towns included 135 which were referred to the principal zymotic diseases, equal to an annual rate of 4.8 per 1,000, which was 0.8 below the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Paisley, Glasgow, and Greenock. The 297 deaths registered in Glasgow included 35 from diarrhœa, 21 from measles, and 4 from diphtheria. Thirteen fatal cases of measles were recorded in Greenock. The death-rate from diseases of the respiratory organs in these towns was equal to 3.2 per 1,000, against 3.0 in London.

HEALTH OF IRISH TOWNS.

In sixteen of the principal town-districts of Ireland the deaths registered during the week ending Saturday, June 24th, were equal to an annual rate of 22.9 per 1,000. The lowest rates were recorded in Sligo and Lurgan, and the highest rates in Armagh and Drogheda. The death-rate from the principal zymotic diseases averaged 3.4 per 1,000. The 170 deaths registered in Dublin were equal to an annual rate of 25.4 per 1,000 (against 28.2 and 25.4 in the preceding two weeks), the rate during the same period being 22.6 in London and 17.8 in Edinburgh. The 170 deaths in Dublin included 21 which were referred to the principal zymotic diseases (equal to an annual rate of 3.1 per 1,000 ,of which 9 resulted from diarrhœa, 6 from measles, and 3 from enteric fever.

INFECTIOUS DISEASES NOTIFICATION ACT.

Nemo asks whether he, as district medical officer, is justified in charging the fee of half-a-crown when certifying to measles occurring in the children of parents who could probably obtain a parish order if they applied for it, "the relieving officer not being very particular on that score." He adds: Does the fee of 1s. apply to parish paupers, or only to patients in a workhouse or institute?

*** Our view is that the last question must be answered in the affirmative, and we advise "Nemo" not to claim the half-crown fee unless he is clear that the cases occurred in his private practice and that he was not called in in his capacity as district medical officer. It is, of course, assumed that measles has been added by the sanitary authority concerned to the list of notifiable diseases. "Nemo" does not specifically state that such is the case.

THE NOTIFICATION OF INFECTIOUS DISEASE.

A correspondent writes that a girl, a domestic servant, came into his surgery some weeks ago and he found her to be suffering from scarlet fever. On going back to her employer she was sent home in his carriage to a parish about four miles distant. The girl herself wished to go home. The case was duly notified to the medical officer of health, and the place of residence of the patient was stated as being her mother's home. Our correspondent subsequently received a letter from the Board of Guardians pointing out that he should have explained the circumstance of the removal of the patient in the certificate, and intimating that he should have done his best to dissuade the girl's employer from sending her home.

*** As regards the first point, there appears to be no escape from the conclusion that our correspondent should have fully explained matters in his certificate, giving the address of the employer in whose house the patient was residing at the time of development of the disease. The Act indeed imposes the duty of notification upon the householder as well as upon the medical man, and though this dual notification is not usually carried out, it is clear that the medical man's certificate should set forth the address of the premises at which the patient was residing when the disease was detected. As regards the second criticism of the Guardians, our correspondent appears to us to have some cause for complaint. Provided that all due precautions were taken and that the patient was in a condition to bear removal, it is not clear why it should be urged that his duty was to dissuade the girl's employer from sending her home. The question was one for the discretion of the medical man in attendance, and no other opinion can be of value without full knowledge of all the circumstances in connection with the case.

BRINGING UNSOUND FOOD INTO COURT.

We gather from occasional short paragraphs in inconspicuous parts of the daily papers that it is a common practice in the police courts, metropolitan and provincial, to bring diseased and unsound meat into court in order to have it condemned. Surely this is altogether an undesirable method of procedure. Under Section 116 of the Public Health Act, 1875, any medical officer of health or inspector of nuisances may at all reasonable times inspect and examine any animal, carcass, meat, etc., exposed for sale or deposited in any place for the purpose of sale or of preparation for sale and intended for the food of man, and if found to be diseased or unsound, or unwholesome, or unfit for the food of man he may seize and carry away the same by himself or by an assistant in order to have the same dealt with by a justice. The following section (117) empowers the justice, if it appears to him that the animal, carcass, meat, etc., so seized is diseased or unsound, or unwholesome, or unfit for food of man to condemn the same and order it to be destroyed, and punish the owner with fine or imprisonment. The statutory powers as regards unsound food for the metropolis contained in Section 47 of the Public Health (London) Act, 1891, are similar.

There is nothing in either of these Acts to excuse the bringing into court of unwholesome and offensive food. On the contrary, the inspector, having seized and carried away unsound meat, should take it at once to the cool cellar or outbuilding granted him for such purpose by the sanitary authority, and then get a justice to look at it forthwith in order that it may be seen exactly as it was when seized. If afterwards it be decided to prosecute the owner, he can be summoned, and any justice having jurisdiction in the place can convict.

In one recent case the meat was seized on the morning of June 18th, and yet the meat was not brought to the court to be examined till the morning of the 19th. After twenty-four hours of such hot weather as was experienced on June 18th and 19th, meat, poultry, fish, etc., might be very much altered for the worse. The result of the inspector keeping the meat he seizes till the sitting of the magistrate, and then bringing the stuffit o the court, is to prejudice the owner and his case, and ordinarily to inflict an effluvium nuisance on all who have business in the court.

The condition of the atmosphere in many police courts is often bad enough owing to overcrowding, inefficient ventilation, and the presence of unclean persons. At least it is reasonable to demand that it be not further polluted by sanitary inspectors bringing into court the unsound food they seize.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF DUBLIN.

At the Comitia Æstiva, held in Trinity Term, on Thursday, June 29th, 1893, the following degrees in Medicine, Surgery, and Midwifery, were conferred in the theatre of Trinity College, by the University Caput, in the presence of the Senate:

Honoris Causâ: Doctor in Medicinâ.—J. Little.

Baccalaurei in Medicinâ, in Chirurgiâ, et in Arte Obstetricâ.—G. D. Collen, J. C. Collins, B. I. D'Olier, F. C. Ellison, G. W. Enstace, C. Griffin, A. B. Hamilton, J. Henderson, G. W. Kendall, W. A. E. Leary, H. R. Pakenham, M. H. Pearson, W. F. Pim, J. Power, B. H. Steede, E. B. Steel, C. G. Tench.

Baccalaureus in Medicinâ.—R. D. R. Sweeting.

Doctores in Medicinâ.—F. W. Dobbin, E. J. Doyle, F. C. Ellison, G. Faris, J. G. Gibbon, H. A. Gray, H. R. Griffith, F. H. Maberley, A. J. M'Farland, M. A. Rynne, J. A. Scott, E. A. Seale, E. W. W. White.

THE VICTORIA UNIVERSITY.

Saturday, July 1st, was degree day in Victoria University, and the function took place in the Free Trade Hall, Manchester. The Vice-Chancellor said that the University showed a record of unabated growth, the number proceeding to degrees at the present congregation being eighty-seven. The candidates entering for the June examinations exceeded 500, and this did not include the entries for medical examinations in March and July. The registered day students of the three colleges exceeded 2,000.

The following medical graduates were "capped":

Doctors of Medicine.—E. M. Brockbank, Owens; A. J. Chalmers, University; W. J. Howarth, Owens; T. N. Kelynack, Owens; and J. H. Lightbody, University.

Bachelors of Medicine and of Surgery.—Honours: F. J. Woods, University. Pass List: W. E. Barker, Owens; A. Byers, Owens; P. R. Cooper, Owens; H. B. Dickinson, University; J. L. B. Dixon, Owens; C. C. Garfitt, Owens; J. Healey, Owens; and C. R. Jones, University.

A. J. Chalmers, M.D., and T. N. Kelynack, M.D., were also presented and received from the Vice-Chancellor the gold medal awarded them in respect of a dissertation for M.D.

UNIVERSITIES (SCOTLAND) ACT, 1889.

The Commissioners under this Act have just issued four new draft ordinances. Three of these have a bearing on medical education:

1. General No. 14 (Institution of Boards of Studies in the Faculties of Medicine and Science).—This board in regard to medicine is to consist of the medical professors, of such other professors in other faculties whose subjects qualify for graduation in medicine, and of such lecturers and additional examiners as the Senatus may from time to time select. The Dean of the Faculty of Medicine shall be the convener of the board. The board shall consider the number of meetings of which the various courses of instruction shall consist, in what cases two half courses shall be deemed equivalent to a full course. The professors and lecturers shall submit to the board at the end of each winter session a scheme of their lectures, demonstrations, examinations, and tutorial work, and shall transmit that scheme to the Senatus with such observations as they may think fit, and the Senatus in turn shall transmit the scheme (with their observations) to the University Court.

2. General No. 15 (Regulations as to Examinations, Supplementary to to Ordinance formerly issued) makes some alterations in the composition of the Joint Board of Examiners, giving a greater representation of professors and lecturers.

3. General No. 17 (Supplementary Powers of University Court).—This ordinance sets forth that on the occurrence of a vacancy in any professorship founded either before or after the passing of the Act of 1889 the Court shall have power to revise and adjust the terms of the Commission to be next issued, and any appointment made by the Crown or any other

patron shall be deemed to be made subject to such revisal, etc., intimated within four weeks after the occurrence of the vacancy. In the case of new professorships founded by the University Court, it shall be competent for the Court to appoint a professor to hold office for a term specified in the Commission and renewable at the pleasure of the Court, provided that it shall be in the power of the Court to insert in the commission a provision that such professor shall have no right to pension or shall have such conditional right to pension as may in the commission be set forth. Before proceeding to the foundation of any new professorship the Court shall ascertain whether there are sufficient means for its endowment, what probable contribution to the fee fund the professorship will make and the contingent claim of the new professor to a pension.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.

THE following gentlemen passed the Second Examination of the Board at a meeting of the examiners on Saturday, July 1st:—

Passed in Anatomy and Physiology.—W. H. Drury and W. W. Walker, Yorkshire College, Leeds; E. M. Stockdale, H. Hughes, and T. W. N. Barlow, University College, Liverpool; H. E. Darlington, H. C. Wolfenden, A. W. Haines, and N. W. Eley, Mason College, Birmingham; C. F. Steele and J. C. MacWatters, University College, Bristol; A. B. Sibson and R. A. Stevenson, Owens College, Manchester; W. H. Lee, Sheffield School of Medicine; G. E. J. A. Robinson, Royal College of Surgeons of Ireland, Dublin; and R. Joyce and P. J. Dempsey, Medical School, Catholic University, Dublin.

Passed in Anatomy only.—J. Barton, F. W. Joynes, and S. W. May, Owens College, Manchester; T. Sansome and A. E. Hancock, Mason College, Birmingham.

Passed in Physiology only.—W. E. Heal, Yorkshire College and Surgeon's Hall, Edinburgh; F. L. Sessions, Owens College, Manchester; J. D. W. Beavis, University College, Bristol; and T. Priestley, Sheffield School of Medicine.

Four gentlemen were referred in Anatomy only, 5 in Physiology only, and 10 in both subjects.

Monday, July 3rd:

Passed in Anatomy and Physiology.—R. Campbell, Queen's College, Belfast; C. E. Morris, University College, Liverpool; W. W. Griffin, University of New Zealand and London Hospital; and G. H. Warren, London Hospital.

Passed in Anatomy only.—C. R. Dearden and H. England, Sheffield School of Medicine; A. V. Moreton, Owens College, Manchester; A. J. Thomson, Mason College, Birmingham; T. A. Barron, W. M. McDonald, M. W. Coleman, and W. Wrangham, St. Bartholomew's Hospital; J. C. R. Braine-Hartnell and M. K. Tebay, Middlesex Hospital; R. T. Brown and C. G. Burton, Guy's Hospital; A. Baker and F. H. Sturdee, St. Thomas's Hospital; H. Chatterton and A. M. Connell, University College, London; R. A. Draper, Cambridge University and St. Mary's Hospital; W. C. Stanham, London Hospital; and H. Hilliard, Charing Cross Hospital.

Passed in Physiology only.—R. Kay, Guy's Hospital; G. R. Smith and A. A. P. Moffatt, Owens College, Manchester; E. H. Birchall, University College, Liverpool; W. J. Thomas, E. K. Herring, and C. J. Armson, Middlesex Hospital; F. R. M. Heggs, J. C. Kneale, Mason College, Birmingham; Wilbye Cooper, Yorkshire College, Leeds; F. Anthony, University College, Bristol; F. H. Geryis, C. E. Durrant, and P. R. Browning, St. Thomas's Hospital; Q. H. Miller, Charing Cross Hospital; E. W. M. Westcott, University College, London; T. Crompton, J. F. Fernie, St. Bartholomew's Hospital; G. P. U. Prior, King's College; J. Winder and J. G. Heath, St. Mary's Hospital; and C. B. Garman, London Hospital.

Four gentlemen were referred in Anatomy only, 4 in Physiology only, and 9 in both subjects.

Tuesday, July 4th:

Passed in Anatomy and Physiology.—S. R. R. Matthews, St. Mary's Hospital; B. Dyball, A. A. Montague, and E. H. Cobb, St. Thomas's Hospital; J. F. McCone, University of California and St. Bartholomew's Hospital; W. R. S. Miller, D. J. Drake, and J. R. Evans, St. Bartholomew's Hospital; A. H. Spencer, Guy's Hospital; R. Tuxford, University College, London; B. E. Porter and D. C. Rees, of Charing Cross Hospital.

Passed in Anatomy only.—S. R. Walker, Westminster Hospital; H. E. Fryer, W. B. Maurice, and J. Clarke, St. Mary's Hospital; S. G. Layman, Guy's Hospital; J. H. F. Nunn, B. Rowlands, and M. J. Ryan, St. Bartholomew's Hospital; H. H. P. Johnson, A. E. Walker, D. B. Beecroft, Charing Cross Hospital; H. White and T. G. King, London Hospital; and E. R. Grazebrook, King's College.

Passed in Physiology only.—G. H. Ransome, St. George's Hospital; T. E. Rice, T. A. Hawkesworth, and O. F. Pritchard, King's College; G. E. O. Taylor and P. H. Collingwood, St. Thomas's Hospital; C. S. Murray and E. H. Sweet, St. Mary's Hospital; F. R. Baker and J. P. Prell, London Hospital; A. Granville, L. F. Marks, J. C. Powell, and F. V. Bice, St. Bartholomew's Hospital; W. R. Penny and H. R. F. Towne, Westminster Hospital; H. L. Porteous and T. Thomas, Middlesex Hospital; and H. Leader, Guy's Hospital.

Four gentlemen were referred in Anatomy only, 4 in Physiology only, and 4 in both subjects.

THE SOCIETY OF APOTHECARIES OF LONDON.

THE following gentlemen were elected on the Court of Examiners on June 20th, 1893, for the ensuing year:

In Medicine.—J. C. Thorowgood, M.D.Lond., F.R.C.P.; R. J. Lee, M.D. Cantab., F.R.C.P.; F. de H. Hall, M.D.Lond., F.R.C.P.; H. R. Crocker, M.D.Lond., F.R.C.P.; F. Warner, M.D.Lond., F.R.C.P.; Sir H. R. Beevor, Bart., M.B.Lond., M.R.C.P.; A. P. Luff, M.D.Lond., M.R.C.P.

In Gynæcology and Obstetrics.—A. H. N. Lewers, M.D.Lond., M.R.C.P.; T. V. Dickinson, M.D.Lond., L.R.C.P.

In Surgery.—W. J. Walsham, F.R.C.S.; A. Clark, F.R.C.S.; W. A. Lane, F.R.C.S.; W. A. Frost, F.R.C.S.; A. T. Norton, F.R.C.S.; B. Pitts, F.R.C.S.

In Chemistry.—H. F. Morley, D.Sc. M.A.Lond.; F. J. M. Page, B.Sc., Lond.

In Materia Medica and Pharmacy.—C. Y. Biss, M.D.Cantab., F.R.C.P.; S. Phillips, M.D.Lond., F.R.C.P.

In Anatomy.—C. C. Lockwood, F.R.C.S.; F. G. Parsons, F.R.C.S.

In Physiology.—J. B. Sutton, F.R.C.S.; J. W. Washbourn, M.D.Lond., M.R.C.P.

MEDICAL NEWS.

THE anniversary festival of the Earlswood Asylum for Idiots was held on June 28th. At the conclusion the secretary announced subscriptions to the amount of nearly £2,000.

A MEETING of the Workhouse Nursing Association is to be held at Lady Wantage's residence in London on July 11th, under the auspices of the Princess Christian.

SANITARY ASSOCIATION OF SCOTLAND.—An examination in sanitary science was held in Edinburgh, on June 28th, by the Sanitary Association of Scotland. A certificate of competency was awarded to five candidates.

PRESENTATION.—After the annual display and dinner of the Aston Fire Brigade, Dr. R. R. Hoare was presented with a handsome massive silver inkstand, in recognition of his services as honorary surgeon to the brigade.

BEQUESTS.—The late Mr. William Francis Harvey, of Farlington, Hants, who died on April 23rd, has by his will bequeathed £100 each to the Lincoln Hospital, the Bradford Infirmary, and the Wakefield Dispensary and Clayton Hospital.

DR. GIACINTO PACCHIOTTI, Professor of Surgery in the University of Turin, whose death was recently announced in the BRITISH MEDICAL JOURNAL, has left his fortune—estimated at 1,000,000 lire (£40 000)—to various educational institutions in that city. Professor Pacchiotti's money was made in the practice of his profession.

PRIZES.—The Spanish Medico-Chirurgical Academy offers two prizes of 350 pesetas (£14), with the title of corresponding member, for the best essays on the following subjects: 1. Clinical Demonstration of the Contagiousness of Tuberculosis. 2. Pathogenesis, Clinical, and Therapeutical Investigation of Asthma in its most Important Varieties. The prizes are open to competitors of all nations. Essays must be sent to the Secretary of the Society by September 15th, 1893.

ST. MARY'S HOSPITAL.—A festival dinner in aid of the fund for building the Clarence Memorial Wing took place at the Hôtel Métropole on July 1st. The Duke of Cambridge, K.G., was in the chair. Cardinal Vaughan, Canon Duckworth, General Lowry, Sir J. Crichton Browne, the Rajah of Bobbili, the members of the medical and surgical staff, and many others were also present. The Chairman proposed the usual loyal toasts, and then gave especially "The Health of the Duke of York," the President of the Hospital, alluding in graceful terms to his approaching marriage. In proposing the toast of the evening the Chairman alluded to the wants of the hospital, its small endowment, and an expenditure which last year exceeded the income from subscriptions, donations, and interest on investments by £9 000. The special collection for the new Clarence Wing now amounted to £11 000, and a considerably larger sum was wanted. The building of the wing would also necessitate a larger annual outlay than was at present required. Subscriptions amounting altogether to £2 982 were announced by the Secretary. Sir J. Crichton Browne, Canon Duckworth, Mr. E. Owen, and Mr. Field also addressed the company.

MEDICAL VACANCIES.

The following vacancies are announced:

BANGOR PROVIDENT DISPENSARY.—Dispenser, qualified. Knowledge of Welsh desirable. Salary, £52 per annum, with unfurnished house, coal, and gas. Application to H. O. Hughes, 53, Garth Road, Bangor, North Wales.

BOROUGH OF CREWE.—Medical Officer of Health; doubly qualified. Must reside in the borough, and devote his whole time to the duties of the office. Salary, £200 per annum. Applications to Frederick Cooke, Town Clerk, Municipal Offices, Exchange Street, Crewe, by July 12th.

CAERPHILLY LOCAL BOARD.—Medical Officer of Health. Salary, £40 per annum. Applications to David Lewis, Clerk to the Board, Caerphilly, by July 19th.

CENTRAL LONDON OPHTHALMIC HOSPITAL, 238A, Gray's Inn Road, N.W.—House-Surgeon. Rooms, coals, and light provided. Applications to the Secretary by July 10th.

CHARING CROSS HOSPITAL, W.C.—Assistant Surgeon, must be F.R.C.S.Eng. Applications to the Chairman of Committee by July 24th.

CHELSEA HOSPITAL FOR WOMEN, Fulham Road, S.W.—Pathologist-Physician to Out-patients. Applications, on forms to be obtained at the Hospital, to the Secretary by July 8th.

CHELSEA HOSPITAL FOR WOMEN, Fulham Road, S.W.—Lady Dispenser. Salary, £60 per annum. Applications on forms to be obtained at the Hospital to the Secretary by July 17th.

ESSEX AND COLCHESTER GENERAL HOSPITAL, Colchester.—House-Surgeon; doubly qualified; unmarried or widower without a family. Salary, £100 per annum, with board and lodging. Applications to the Committee before noon on July 8th.

GENERAL INFIRMARY, Leeds.—Resident Medical Officer. Salary, £100 per annum, with board, washing, and lodging. Applications to Mr. Littlewood, Secretary to the Faculty, Infirmary, Leeds, by July 21st.

HOSPITAL FOR EPILEPSY AND PARALYSIS, 32, Portland Terrace, Regent's Park, N.W.—Physician. Applications to the Secretary, H. Howgrave Graham, by July 15th.

LIVERPOOL DISPENSARIES.—Assistant Surgeon; unmarried. Salary, £80 per annum, with apartments, board, and attendance. Applications to R. R. Greene, Secretary, by July 24th.

MANCHESTER ROYAL INFIRMARY.—Resident Medical Officer, not less than 25 years of age, and unmarried; doubly qualified. Appointment for one year, but holder of office may be re-elected. Salary, £150 per annum, with board and residence. Applications to the Chairman of the Board by July 20th.

STAFFORD GENERAL INFIRMARY, Stafford.—Assistant House-Surgeon. Board and residence provided. Applications to the House-Surgeon by July 20th.

THE YORKSHIRE COLLEGE, Leeds.—Demonstrator of Anatomy. Particulars from the Registrar.

UNIVERSITY COLLEGE, London.—Assistant Obstetric Physician. Applications to J. M. Horsburgh, M.A., Secretary, by July 18th.

WIRRAL CHILDREN'S HOSPITAL, Woodchurch Road, Birkenhead.—Resident House-Surgeon. Salary, £50 per annum, with board, lodging on the premises, and washing. Applications to P. W. Atkin, Honorary Secretary, 25, Lord Street, Liverpool, by July 19th.

MEDICAL APPOINTMENTS.

BARKER, Wm. James T., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer for the 2nd District of Streatham of the Wandsworth and Clapham Union.

BEATTIE, James, L.R.C.P., L.R.C.S.Edin., L.F.P.S.Glasg., appointed Medical Officer for the Staindrop District of the Teesdale Union, *vice* Francis Hamilton Homfray, L.R.C.P.Edin.

BEDELL, Mr. William, appointed Assistant Medical Officer to the Infirmary of the Parish of St. Leonard Shoreditch.

CAHILL, Mark F., L.R.C.P., L.R.C.S.I., appointed Assistant Physician to the Children's Hospital, Dublin.

CRESSY, C. J., L.R.C.P., M.R.C.S., appointed Medical Officer for the Third District of the Highworth and Swindon Union.

DRYLAND, Leslie Winter, M.R.C.S.Eng., L.R.C.P.Lond., appointed House-Surgeon to the Northampton General Infirmary.

ECCLES, W. McAdam, M.B., B.S.Lond., F.R.C.S.Eng., appointed Assistant-Surgeon to the West London Hospital.

FULLER, Courtenay Jas., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer for the East Woolwich District of the Woolwich Union.

GOODING, Matthew Richard, L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer of Health to the Bideford Local Board, *vice* William Hy. Aland, M.D.St.And., resigned.

GOSSAGE, W. Herbert, M.R.C.S.Eng., L.R.C.P.Lond., appointed House-Surgeon to the Westminster Hospital.

GRANT, Frederick, L.R.C.P.Edin., M.R.C.S.Eng., reappointed Medical Officer of Health for the Market Harborough Urban Sanitary District.

GRATTE, Charles Brooke, L.R.C.P.Lond., M.R.C.S.Eng., reappointed Medical Officer for the Marshfield District of the Newport Union.

HALL, George, M.D.Edin., reappointed Medical Officer of Health for the Hambledon Union.

HARRIS, Howard, L.R.C.P.Edin., M.R.C.S.Eng., appointed Medical Officer for the Brandwood District of the Rochdale Union.

HAYCROFT, Charles Hy., M.R.C.S.Eng., L.S.A., reappointed Medical Officer for the Colebrook and Coldridge District of the Crediton Union.

HOLLIS, Harry, M.B., B.C.Camb., appointed Assistant House-Surgeon to the Northampton General Infirmary.

HUTCHINSON, Joseph Armstrong, M.D.Durh., M.R.C.S.Eng., appointed Medical Officer of Health for the Northallerton Urban Sanitary District.

JAMIE, Robert W., M.B., C.M.Edin., appointed Medical Officer for the No. 5 District of the Ashby de la Zouche Union, *vice* Joseph Hatchett, M.D.St.And., resigned.

JOHNSTON, G. H., L.R.C.P., L.R.C.S.Edin., appointed Junior Assistant Medical Officer to the North Riding Lunatic Asylum, Clifton, York.

KERSHAW, H. W., M.R.C.S., L.R.C.P., appointed Senior Assistant Medical Officer to the North Riding Lunatic Asylum, Clifton, York.

LIVESAY, William, M.D.Edin., appointed Medical Officer for the Sudbury District of the Uttoxeter Union.

MCARTHUR, Duncan R., M.D.Edin., appointed Medical Officer for the East District of the Luton Union.

MCNIDDER, James, M.B., C.M.Edin., appointing Visiting Surgeon to the Hull and Sculcoates Dispensary.

MARTIN, Robert, L.R.C.P., L.R.C.S.Edin., L.F.P.&S.Glasg., appointed Medical Officer to the Banford Sick Fund Society.

MOORHEAD, Gustave H., appointed Medical Officer of Health for Hunsworth Rural Sanitary District, *vice* S. Lodge, M.D., resigned; and Surgeon to the Oddfellows' Lodge, Pride of Westgate Hill, No. 420, Bradford.

MORSE, Thos. Herbert, F.R.C.S.Eng., L.R.C.P.Edin., appointed Honorary Medical Officer to the Cromer Cottage Hospital.

MORTON, John, M.B.Lond., M.R.C.S.Eng., reappointed Medical Officer of Health for the Guildford Urban Sanitary District.

MOXON, Jas. Burdett, M.R.C.S.Eng., L.S.A., reappointed Medical Officer of Health to the Brigg Rural Sanitary Authority.

NODES, John D. S., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer for the No. 2 (Worthing) District of the East Preston Union.

OSBORN, E. Collett, L.R.C.P.Lond., appointed Senior House-Surgeon to the Westminster Hospital.

OWEN, Harold E., L.R.C.P., appointed Medical Officer of Health for the Kingsbridge District Local Board.

PERRY, Charles Edward, M.D.Brux., L.R.C.P.Edin., reappointed Medical Officer of Health to the Sandgate Local Board.

SHAW, G. H., M.R.C.S.Eng., appointed Honorary Secretary of the Sheffield General Infirmary.

SHORTRIDGE, Thos. Wood, M.D.Brux., L.R.C.P., L.R.C.S.Edin., reappointed Medical Officer of Health for Honiton.

STOCKS, Walter Woodley, M.R.C.S., L.R.C.P.Lond., appointed Medical Officer for the Second District of the Hendon Union.

SPICER, Robert Hy. Scanes, M.D.St.And., L.R.C.P.Edin., M.R.C.S.Eng., reappointed Medical Officer for the East and West Anstey Districts of the South Molton Union.

SPOKES, Sidney, M.R.C.S., L.D.S., appointed Dental Surgeon to University College Hospital, *vice* C. J. Hutchinson, M.R.C.S., L.D.S., resigned.

STOCKWELL, Frederick, M.D.Lond., M.R.C.S.Eng., reappointed Medical Officer of Health for the Wincanton Rural Sanitary District.

VOELCKER, Arthur Francis, M.D.Lond., appointed an Assistant Physician to the Hospital for Sick Children, Great Ormond Street, *vice* H. B. Hadden, M.D., deceased.

WARREN, Edwin Charles, L.R.C.S.Edin., L.M., L.S.A., reappointed Medical Officer of Health to the Gillingham Local Board.

WILLIAMS, Henry W., M.D. (late Physician) appointed Consulting Physician to the Infirmary for Consumption and Diseases of the Chest and Throat, Margaret Street, W.

WHITESTONE, Augustus M., M.B.Dub., B.Ch., appointed Assistant Medical Officer to the Hollingbourne Union.

WINCKWORTH, Wadham B., M.R.C.S.Eng. L.R.C.P.Lond., appointed House-Physician to the Westminster Hospital.

YOUNGER, Edward Geo., M.D.Brux., M.R.C.P.Lond., late Visiting Physician, appointed Physician to the Infirmary for Consumption and Diseases of the Chest and Throat, Margaret Street, W., *vice* H. W. Williams, M.D., appointed Consulting Physician.

DIARY FOR NEXT WEEK.

THURSDAY.

BRITISH GYNÆCOLOGICAL SOCIETY, 8.30 P.M.—Dr. Heywood Smith: Appendages and Dilated Oviducts. Dr. Travers: Ruptured Tubal Gestation. Dr. Schacht: Ruptured Tubal Gestation. Report on Dr. Spanton's Specimen of Ruptured Tubal Gestation. Dr. Holland: Treatment of Fibromyomata complicating Pregnancy, with a typical case.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

MARRIAGES.

MANN—SKELTON.—July 4th, at St. Bride's Church, Glyn-Ceiriog, by the Rev. Thomas Skelton, B.D., Canon of Southwell, uncle of the bride, assisted by the Rev. R. Jennings, M.A., Vicar of Glyn, and the Rev. S. Cooper Scott, Rector of St. John's, Chester, Alfred Mann, M.D., of Chester, youngest son of the late C. Wharton Mann, Esq., M.R.C.S., to Lilian, third daughter of Wm. Skelton, Esq., Lakenham, Norwich. No cards.

RILEY—SYRÉE.—On June 20th, at St. Mary's, Chartham, Kent, by the father of the bride, assisted by the Rev. Eric Austen, Roland John Riley, M.R.C.S.I., Cannock, to Gertrude, younger daughter of the Rev. P. J. Syrée.

DEATHS.

CARROLL.—On June 28th, at Nottingham General Hospital—the result of an accident—Marguerite, eldest daughter of Joseph Carroll, M.B., Ilkeston, aged 5½ years.

SHEARMAN.—On June 27th, at Somerville, Irlams-o'th-Height, near Manchester, William Millar Shearman, M.R.C.S., L.R.C.P.Edin., aged 44 years.

WHITWELL.—June 25th, at his residence, 27, Castle Street, Shrewsbury Francis Whitwell, M.R.C.S., L.R.C.P.Edin., aged 78 years.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

H. M., who has a wife with rheumatism and a child 5 years old with attacks of bronchial asthma, asks to be recommended a suitable locality with some educational advantage.

BANKRUPT PATIENTS.

INQUIRER writes: A man, recently declared a bankrupt, consults me professionally, and is running up a heavy account. His examination is likely to take place in a few weeks. My patient's wife is reputed to be wealthy. Can I, and if so how can I, ensure myself being paid in full?

*** Professional charges prior to the date of adjudication are debts provable in the bankruptcy. The trustee is not liable for debts incurred subsequent to that date. The bankrupt might possibly be made liable criminally for obtaining credit while bankrupt, but a prosecution would not secure payment of the fees. Cash payments should be insisted on as a condition of further attendance, unless the wife will give a *written* acknowledgment that the debt is hers, and a promise to pay out of her separate estate.

ARMY MEDICAL OFFICERS AND CIVIL PRACTICE.

G. P. sends the following string of questions:

1. Are military surgeons either in England, or India, or Colonies, allowed to engage in civil practice? 2. Can they so engage in civil practice without being interfered with by their superior officer? 3. Is civil practice formally allowed by the regulations, or is it merely tolerated? 4. Have complaints been made at any time by civil practitioners or medical societies against military surgeons for engaging in civil practice? 5. If so, with what results? 6. What differences exist in India with regard to civil practice between the Indian and the army medical services?

1. Yes, provided it does not interfere with their military duty. 2. Yes, subject to above. 3. Yes, in India. It used to be specifically allowed in the home regulations, but reference to it is now not made. 4. Private practice is seldom looked for or obtained by full pay officers, as they are too short a time in a station, but retired pay officers, employed on military duties, take it without question. 5. See reply to No. 4. 6. In India it is clearly laid down that medical officers in military employ may take private practice so long as it does not interfere with military duty. In India officers of the Indian Medical Service are regularly appointed as civil surgeons. They do no military duty, and naturally get most of the practice.

ANSWERS.

X. Y. Z. (Kent) who desires to find an institution for a young woman of unsound mind with practically no income should apply to the County Asylum, Barming Heath, near Maidstone.

AJAX.—An action for slander need not necessarily be very expensive, and if the plaintiff succeeds he ought to get all reasonable costs from the defendant. No course except bringing an action seems to be open here.

THE M.D. DEGREE R.U.I.

M.CH.R.U.I. writes, in reply to "M. B., R. U. I.": For the M.D. *Bristowe's Treatise on the Theory and Practice of Medicine* (Churchill and Co.), *Taylor's Manual of the Practice of Medicine* (Churchill and Co.), and *Quain's Dictionary of Medicine* (Longmans, Green, and Co.), are the usual books.

CLIMATE OF COLORADO.

C. E. will find some particulars as to the climate and general conditions of Colorado in Dr. C. Theodore Williams's Lumleian Lectures, published in the BRITISH MEDICAL JOURNAL on March 18th, 25th, and April 1st, 1893.

HOME FOR EPILEPTICS.

MEMBER might apply to the Manor House, Maghull, near Liverpool, which might be found a suitable place for the case to which he refers. The institution, we understand, finds occupations for its inmates.

MEDICAL DEPARTMENT OF THE ROYAL NAVY.

H. N.—The examination is conducted by written papers and by practical and *viva voce* examination. The examiners are physicians and surgeons of London hospitals, who have no connection with the Navy. We believe that no special examination is held in midwifery. A slight degree of myopia would not disqualify a candidate. No special text-books are recommended. Copies of recent examination papers have been forwarded to our correspondent.

THE DIPLOMAS OF THE ROYAL COLLEGE OF PHYSICIANS.

F.W.C.—The action between the Royal College of Physicians of London and the General Medical Council was heard in the Queen's Bench Division on March 3rd, and a report will be found in the BRITISH MEDICAL JOURNAL of March 11th. The plaintiffs claimed a declaration that they were entitled at the passing of the Medical Act, 1886, to grant diplomas conferring the right of registration in respect to medicine and surgery, to hold independently qualifying examinations in medicine, surgery, and midwifery, and to confer on their Members and Licentiates who had passed such examinations the right of registration. The Court held that the College was a body legally qualified to grant diplomas in medicine and surgery.

NOTES, LETTERS, Etc.

DIAGRAMS OF FAUCES AND LARYNX.

WITH reference to a notice of certain diagrams of the fauces and larynx, which appeared in the BRITISH MEDICAL JOURNAL of July 1st, Mr. Lennox Browne sends us specimens of diagrams of a similar kind designed by him which he states have been in use at the Central London Throat, Nose, and Ear Hospital for fifteen years, and which are figured in the last three editions of his work, *The Throat and Nose, and their Diseases*.

MEASLES: ANTISEPTIC INUNCTION.

M.D. writes: Dr. Patterson (Caledon) describes a case of "measles" in the BRITISH MEDICAL JOURNAL of July 1st, and adds to the description some remarks that are interesting. I hope he will pardon me for suggesting that the case was one of rötheln, and, if so, the apparent capricious course of the illness was nothing unusual, and "olcusaban," whatever that may be, will have to seek another field whereupon to attain fame.

THE LATE MR. JOWERS.

C. E. writes: The following anecdote testifying to the kindness of the late Mr. Jowers, of Brighton, may further endear his memory to those friends in his profession who mourn for him: A lady came to Brighton incurably ill, and needing constant and skilful care. She consulted a friend as to the choice of a doctor, and was advised to send for Mr. Jowers, who attended the invalid during the last months of her life. Before her death she thanked her friend once more for her advice, and added these words: "I had no idea that any man could be what Mr. Jowers has been to a dying woman."

AN IMPROVED PIPE.

IF we may judge by observations made after dinner, the majority o the members of the medical profession are by no means averse to the use of tobacco. We may therefore mention a patent pipe designed and manufactured by Mr. Keble, the proprietor of *Keble's Gazette*, Margate. The special feature of the pipe is that a flat nickel-plated metal ribbon is attached to the distal end of the mouthpiece, and when in position runs up the stem of the pipe, its point projecting slightly at the bottom of the bowl. In withdrawing the mouthpiece the stem is automatically cleared by the metal ribbon, upon which also the moisture containing much foul matter is deposited. The pipe, to which the name "The Press Pipe" has been given, is simple in construction, and presents certain evident advantages.

A CASE OF UNUSUAL ACQUIRED TOLERANCE TO NITRO-GLYCERINE.

WHETHER heroic treatment is often or ever desirable save as a last resource must be left to individual judgment, but if cases often occur similar to one reported by Reading[1] under the above heading it is high time that something were done to curb the experimental spirit in dosage of potent drugs. The patient, aged 57, was complaining of severe vertigo, such that on assuming the erect position she would fall unconscious. These attacks had been going on for two years associated with signs of dyspepsia, but treatment had failed to afford relief. Dr. Reading found that the patient rose at night to pass water and also that during 24 hours she had passed as much as five quarts. A sample tested was free from albumen, colourless, and odourless, and of specific gravity 1002. He thereupon made a diagnosis of chronic interstitial nephritis, and gave nitro-glycerine, 1-100th grain, before meals, and chloride of gold and sodium, 1-20th grain, after meals. The physiological effect of this dose of nitro-glycerine soon wore off and the patient was made to increase the dose rapidly, and in the course of three months she was taking as much as a grain daily. Not satisfied, a stronger solution was obtained, and the dose still further increased until at length a 10 per cent. solution was used largely diluted. In less than a year the patient was swallowing a teaspoonful of this concentrated solution at a dose, or 18 grains of the solid drug daily, and this dosage is still maintained. Dr. Reading is apparently only restrained from increasing this dose from fear of the effect of such an acrid fluid on the stomach. According to him, however, the effect on the kidneys has been marvellous; the

[1] *Therap. Gaz.*, May, 1893.

patient has now to pass only four pints of urine daily of normal colour and appearance, she has lost her dyspepsia and also her vertigo, attends to her own housework and takes in washing. But still, in spite of this astounding result, may we not justly ask ourselves—why was nitro-glycerine given in such a case? why did it not as usual increase instead of diminish the quantity of urine? and why should it be desirable in such cases of nephritis to push the action of the drug to the utmost limit of tolerance?

THE VALUE OF CARBOLIC ACID AS A GERMICIDE.

BRIGADE-SURGEON W. ALEXANDER, M.D., (Glencorse) writes: The following accident is interesting, and may be useful in proving the power of carbolic acid as a germicide. A short time since I had occasion to vaccinate eighteen men, but having only one square of lymph, sufficient for fifteen persons, I proceeded to dilute it by adding three drops of what I considered to be pure water from a vessel placed at hand to receive the points as they were used. On inspecting the arms on the eighth day, I was surprised to find that all had failed with three exceptions, one being a previously unvaccinated person, and each of these presented a single modified pustule.

On making inquiry as to the possible cause of so many failures, I remembered the incident of diluting the lymph, and learned that what I considered pure water was a very weak solution of carbolic acid, 1 part in 120, thus showing that $\frac{1}{120}$th of a drop of carbolic acid was sufficient to render almost innocuous the infecting element of fresh vaccine lymph.

Sixteen of these men have since been revaccinated with the following results: eleven perfect, two modified, three failed, two of whom had each a single modified pustule on the previous vaccination, showing that even these were a sufficient protection.

BONESETTERS.

VERAX writes: We hear a great deal concerning medical aid associations and clubs, and we are fully aware of the grievances they cause, but there is yet another evil to contend with, that is the quack who styles himself the bonesetter. Recently in this neighbourhood an old woman, a parish patient, sprained her wrist. She was carefully attended to by the parish doctor, but, being advised by some of her friends, she went to the local bonesetter. He tells her that the small bone of her wrist is out, and proceeds "to put in again," which he does for the fee of a sovereign, which he charges. This fee is paid willingly.

In the same neighbourhood, a man lying in bed at night feels a pain in his knee. He consults the bonesetter, who tells him that he has ruptured his knee-cap. He bandages the knee, tells the victim to get up and walk, and charges him a sovereign. Comment is superfluous.

SURGEON-APOTHECARY.

DR. SPENCER SMITH, F.R.C.S. (Southampton) writes: The new L.S.A. now holding a full qualification, thereby entitling him to registration, might certainly be designated Surgeon-Apothecary, thus distinguishing him from the L.R.C.P. who takes the title of Physician and Surgeon, certainly without any claim whatever, in addition to "Doctor," as so many are now doing.

Mr. Upton, clerk to the Society of Apothecaries, states the general position of the whole question of medical titles is unsatisfactory, and, at an early date, it is the intention of the Society to approach the General Medical Council, with a view of having the matter placed on a firm and intelligible basis. The *quæstio vexata* requires early settlement, which might be done at the next meeting of the General Medical Council.

Medical Titles.—M.D.—Doctor. M.B.—Mr. ——. M.B. F.R.C.P. and M.R.C.P.—Doctor by Courtesy; Consulting Physician. L.R.C.P.—Physician and Surgeon. F.R.C.S., M.R.C.S. and L.R.C.S.—Surgeons. L.S.A.L.—Surgeon-Apothecary. L.S.A.Irel.—Apothecary.

EPIDERMIC MASSES PLUGGING THE EXTERNAL AUDITORY MEATUS.

SURGEON W. EAMES, R.N. (H.M.S. *Cruiser*, Malta) writes: In reference to the article, No. 493 in the EPITOME in the issue of the JOURNAL of June 17th, by Albespy, dealing with the subject of epidermic masses plugging the external auditory meatus, I would observe that I have found dry desquamative external otitis, such as described, yield most readily to a 10 per cent. solution of Barff's boro-glyceride, used in the form of instillations, three times daily, the canal being almost filled with the solution, which is retained in it by a plug, gentle syringing being carried out before each fresh instillation. By the use of this compound the hardened scales of epidermis are softened by the glycerine, whilst the raw dermic surface beneath, which forms the painful element in this affection, heals most readily under the antiseptic and healing properties of the boric acid. From personal experience alone I can testify to the value of this form of treatment.

ON A METHOD OF RENDERING A MILK DIET DIGESTIBLE BY A WEAK STOMACH.

F. T. B. writes: A correspondent in the BRITISH MEDICAL JOURNAL of July 1st describes a method of rendering milk digestible by aërating it in a gazogene. It is curious that it should not have suggested itself to him to mix aërated water from the gazogene with the milk. If he has not tried this simple device, he will find on doing so that it acts just as well as the more cumbrous process of introducing the milk into the gazogene.

CHOLERA AND INDIAN WATER SUPPLIES.

SURGEON-CAPTAIN D. G. CRAWFORD (Edinburgh), writes: The cause of the great mortality during the Orissa famine was not so much that private efforts were relied on to meet it, as that the Government failed to realise in time the gravity of the situation. When they did awake to the extent of the necessity for relief, they tried to pour supplies into the famine districts, but it was then too late to save great numbers from starvation. Sir William Hunter, in his work on *Orissa* (vol. ii, pp. 186 and 187), gives the mortality as one-fourth of the whole population; while the Government spent £8,426 in relief works, and £135,788 on grain for distribution. Since that date there has been in Northern India no famine on an equal scale. But in all subsequent famines, I believe, famine relief operations have been undertaken in time, and have fulfilled their purpose in relieving famine in the affected tracts and in keeping alive the distressed population. It is difficult to see how any "facilities for the organisation of labour and its direction to any point of the compass" could obviate or remedy a famine affecting an area of thousands of square miles, and a population of millions—men, women, and children.

LETTERS, COMMUNICATIONS, ETC., have been received from:

(A) Ajax; Mr. R. K. Archer, Worthing; Dr. J. Abercrombie, London; Mr. A. Allen, Bath; Dr. J. Adams, Eastbourne; Professor Clifford Allbutt, Cambridge; Messrs. Allen and Hanburys, London; Mr. R. P. Anderson, Bury St. Edmunds; Aracan; Dr. F. J. Allan, London; Dr. R. Atkins, Waterford; Apothecaries Society, the Secretary of, London. (B) Dr. J. Biggam, Dudley; Miss J. Bullen, London; Mr. J. S. Battams, London; Dr. Fletcher Beach, London; Mr. L. Browne, London; Mr. T. Blair, Leeds; B.; Dr. J. Barr, Liverpool; Mr. R. Bird, Burnham. (C) C. L. W.; Mrs. M. A. Core, M.B., London; Mr. T. W. Collingwood, Devonport; Mr. G. H. Case, Fareham; Mr. D. G. Crawford, Edinburgh; Church Member; Dr. L. Connop, Detroit; Dr. J. Clark, Lichfield; Mr. J. E. Cooney, London; F. G. Clemow, M.B., Cronstadt; Dr. J. Coats, Glasgow. (D) Mr. R. C. Daly, Ringaskiddy; J. D. Dixon, M.B., Newcastle; Messrs. Down Brothers, London: Disgusted. (E) Dr. Ewart, London; W. M. Eccles, M.B., London. (F) Dr. A. F. Fergus, Glasgow; Dr. W. Frazer, Bournemouth; W. W. E. Fletcher, M.B., London; Fairplay; Mr. A. Fuller, Weymouth. (G) Dr. A. Graham, London; General Practitioner; Mr. W. H. Gossage, London; Dr. H. W. Gardner, Shrewsbury; Mr. C. A. Gordon, London; Mr. F. Gibbs, Maidenhead; Messrs. Grindlay, Groom, and Co., Bombay; Mr. C. Gurrood, Clifton; R. J. Godlee, M.B., London; Mr. E. C. Greenwood, London; Dr. H. R. Greene, Portsmouth; Mr. J. H. Gornall, Warrington. (H) Mr. H. Hollis, Northampton; H. N.; Mr. J. A. Hughes, Holywell; Dr. W. H. Hamer, London; Mr. T. Hoskin, London; Mr. C. H. Haycroft, Bow; Dr. E. Hamilton, Dublin; Dr. J. Hamilton, Hawick; C. O. Hawthorne, M.B., Glasgow. (I) Dr. C. R. Illingworth, London; Inquirer; Mr. F. E. Ingall, Ashford; An Indian Medical Officer. (J) Justitia; Mr. G. S. Johnson, London. (K) Mr. T. O. Kelly, Chipping Norton; Mr. A. Kelly, Parkstone; Dr. R. Kirk, Glasgow; Dr. J. S. Keser, London. (L) Dr. J. Lennox, Londonderry; Mr. H. Limebeer, London; Mr. C. Leak, London. (M) Mr. N. C. Macnamara, London; Mr. R. Martin, Gilford; Mr. G. B. Millett, Penzance; Mr. G. H. Macnamara, East Grinstead; Dr. E. Morton, Redditch; Dr. T. S. Meighan, Glasgow; Dr. J. W. Moore, Dublin; Mr. S. Mathews, Crawley; M.D.; J. MacGregor, M.B., London; Mr. S. B. Mason, Pontypool; Dr. C. J. R. McLean, Yeadon; Dr. D. MacGregor, London. (N) Mr. K. Nicholls, Ilfracombe; J. H. Nicoll, M.B., Glasgow; Mr. A. S. Norman, Havant; Mr. P. Newell, Crowborough. (O) Mr. E. A. Onyon, Eye; Messrs. Oliver and Atcherley; Manchester; Dr. W. Orange, London; Messrs. Oppenheimer and Co., London. (P) Dr. G. H. Philipson, Newcastle-on-Tyne; Dr. F. L. Phillips, Birmingham. (Q) Mr. A. Quacke, Edinburgh. (R) Mr. J. R. Robinson, Bradford; Mr. D. Robins, London; Mr. C. W. Robinson, Sheffield; Dr. J. S. R. Russell, London; Mr. S. Rickards, Birmingham; Dr. A. Robinson, Rotherham; Mr. F. W. Rudler, London; Dr. M. K. Robinson, Dover; Dr. Rosenau, Bad Kissingen; Mr. L. Roberts, Deal. (S) Mr. W. Storr, London; Mr. F. Steele, Kidsgrove; Mr. T. H. Summerhill, Rhyl; Dr. J. Shoolbraid, Aldershot; Mr. A. F. Sieveking, London; Dr. G. H. Savage, London; Dr. W. Scheppegrell, New Orleans; St. Peter's Hospital, the Secretary of the, London; Dr. J. M. Smith, West Calder; Dr. S. Smith, Southampton; Dr. R. S. Smith, Bristol; Dr. F. F. Schacht, London; Senex; J. F. J. Sykes, M.B., London; A Sectional Secretary. (T) W. H. Turton, M.B., Heanor; Mr. J. Taylor, Nottingham; Mr. B. L. Tandy, Haverhill; Mr. C. B. Turner, Grimsby; Dr. S. A. Tidey, Montreux. (V) Mr. T. J. Verrall, Brighton; Mr. F. W. Verney, London. (W) Miss C. J. Wood, London; G. E. Williamson, M.B., Newcastle-on-Tyne; Dr. Hale White, London; Mr. W. W. Wingate, Tonbridge; Mr. F. Whitwell, Shrewsbury; Mr. R. Williams, Leominster; Mr. R. C. Worsley, Uxbridge; Mr. G. Weller, Beckenham; Mr. R. T. Wright, Shahjahanpur; Sir Spencer Wells, London; Dr. F. J. Waldo, London; Mr. J. G. Wainwright, London. (Y) Mr. P. M. Yearsley, London; Dr. J. Young, Glasgow; Dr. E. Younger, London; etc.

BOOKS, ETC., RECEIVED.

Work and Overwork in Relation to Health in Schools. By Dr. C. Dukes. London: Percival and Co. 1893. 1s.

The Law of Cremation. By Aubrey Richardson. London: Reeves and Turner. 1893.

Jahrbuch für pratische Aerzte. Von Dr. P. Guttmann. Berlin: August Hirschwald. 1893.

Mountaineering. By Claude Wilson, M.D. London: George Bell and Sons. 1893. 2s.

The Physiologist's Note Book: a Summary of the Present State of Physiological Science. By Dr. Alex Hill. London: Charles Griffin and Co. 1893. 12s. 6d.

ABSTRACT OF LECTURES
ON
THE SURGERY OF THE AIR PASSAGES AND THORAX IN CHILDREN.

Delivered at the Royal College of Surgeons of England.

BY BERNARD PITTS, M.A., M.C.CAMB., F.R.C.S.,
Assistant Surgeon to St. Thomas's Hospital, and Surgeon to the Hospital for Sick Children, Great Ormond Street.

LECTURE I.

[THE lecturer began by saying he would confine his remarks as far as possible to those conditions to which his attention had been specially attracted in the course of hospital practice.]

SCALDS OF THE THROAT AND LARYNX.

Scalds of the throat and larynx are of common occurrence amongst the young children of the poorer classes. In a table of 78 cases admitted to St. Thomas's Hospital from 1872 to 1893, the average age is a fraction over 3 years. In nearly all there was some difficulty in respiration. The cause of the accident in 67 cases was inhaling steam or attempting to drink boiling water from the spout of a kettle. In 4 the cause is noted drinking from a teapot spout. In 3 the cause is not stated. Drinking hot cocoa, 1 case. Hot potato in mouth, 1 case. Hot tallow, 1; and pepper forced into the throat, 1 case. The latter would more strictly come under the heading of irritant.

There were 15 deaths, and in 12 of these tracheotomy was performed. Included in this fatal list are 3 cases where intubation was first tried, and later tracheotomy performed. Of the 78 cases, 23 came to tracheotomy or intubation. Some of the cases were admitted more by way of precaution, but the majority were severely scalded and required careful watching. Eight cases recovered after tracheotomy, and 8 after intubation. Details of these cases were given. Neither tracheotomy or intubation was performed unless the difficulty in respiration was serious and likely to prove fatal. Many of the cases which recovered without operation had noisy and laboured respiration, with some retraction of the lower ribs. Most were treated with steam spray and tent bed, but a few had ice applied to the throat, and did equally well.

The average age of the cases fatal after tracheotomy was 2 years and 9 months. The average age of the successful cases after tracheotomy was 3 years; so that age had little to do with the result. Amongst the fatal tracheotomy cases are included 3 in which intubation was first done and failed to relieve. Only 1 case treated by intubation and tracheotomy recovered. The 3 cases treated successfully by intubation were aged respectively 1 year and 7 months, 2 years and 8 months, and 3 years and 3 months.

Scarification of the fauces and glottis does not appear from the notes to have been much tried, and no doubt it is not at all easy to practise scarification in the inflamed and tender throats of young children without an anæsthetic.

Intubation will probably take the place of tracheotomy in certain cases of œdema from scald, when the scald is confined chiefly to the glottis, and the surgeon is practised in the art of passing intubation tubes and can do the operation quickly and without using force. The swelling of the parts must make the manipulation somewhat difficult, and tracheotomy must be done immediately if relief is not afforded. The rapidity with which an intubation tube can by a practised hand be introduced—without chloroform and, in emergency, without the consent of the friends—makes it absolutely necessary for every surgeon to become familiar with the manipulations.

In 4 of the cases of scald treated at St. Thomas's membrane was seen on the fauces; well-formed membrane is occasionally seen in traumatic cases. Dr. Fagge, in the *Guy's Hospital Reports* for 1877, recorded 16 cases of membranous inflammation of the air passages due to traumatic causes, namely, scalds, foreign bodies, and cut throat.

One of the chief difficulties in the diagnosis of the medical and surgical affections of children is that history has to be obtained from the friends, and is often unreliable. On one occasion a mother brought her child to St. Thomas's Hospital with all the signs of a diphtheritic throat, yet she stated positively that the child had scalded itself by drinking from a kettle. She confessed afterwards that she had invented the story to get the child admitted, since she was under the mistaken impression that diphtheria cases were not eligible for admission. The prognosis, even in severe cases of scald of larynx, is not so gloomy as many writers have stated. Tracheotomy or intubation to be successful must be done before the child is exhausted and the blood has become imperfectly aërated.

Looking through the cases which recovered without tracheotomy at St. Thomas's, the most striking feature is the improvement shown soon after admission. When the breathing is obstructed, unless such improvement quickly results from general treatment, intubation or tracheotomy ought to be done. Burns affecting the larynx are much more rare than scalds.

FRACTURE AND LACERATION OF THE LARYNX.

Cases of fracture or laceration of larynx or trachea are very unusual in children. The lecturer cited cases reported by Garrod, Godlee, Liston, and Atlee.

COMPRESSION OF THE TRACHEA.

Compression of the trachea in the neck may be caused in children by abscess, by enlarged glands, by goitre, or by a foreign body impacted in the œsophagus. Abscess in the neck producing compression of the trachea or inflammatory œdema of glottis is most likely to be post pharyngeal in position.

The advantage of opening a post-pharyngeal abscess by incision in the neck and not within the mouth is now fully recognised, particularly if the abscess is dependent on vertebral disease, and the discharge is likely to be continuous. If the difficulty of breathing is urgent, and the dissection from the neck likely to be too prolonged, tracheotomy will be advisable as a first step. Intubation would seem to be contra-indicated by the possible alterations in the relations of the larynx and trachea. If, however, the abscess is small, and there seems a difficulty in getting at it from the side of the neck, then a vertical incision may be made from the mouth, but care should be taken to bend the child's head quickly forward so that the pus may run out of the mouth. If radical treatment is postponed pressure symptoms may become urgent, or rapid œdema of glottis arise, or the abscess burst spontaneously, and death take place by suffocation, particularly if the abscess burst whilst the child is asleep. In children under 1 year old these abscesses do not often depend on cervical caries, but arise from causes which produce similar abscess elsewhere, such as inflammation around the lymphatic glands in front of the vertebræ, or they are secondary to tonsillitis, disease of the ear, or after catarrhal conditions of the posterior nares and fauces. In 204 cases recorded by Bokai as occurring in the Children's Hospital at Pesth, only 7 were secondary to caries of the vertebræ. Examples were given from the lecturer's own practice and that of other surgeons.

SOME CONGENITAL DEFECTS OF THE LARYNX.

The lecturer showed a specimen of a small tense cyst arising from the crico-thyroid membrane in the median line. Before the larynx was opened the glottis appeared to be blocked up by it. It was taken from a child aged 14 days, admitted into Great Ormond Street Hospital in 1881. It had always had difficulty in breathing and never been able to cry. Tracheotomy unfortunately was not done on account of the tender age, and the infant died of suffocation. This case was reported by Dr. Abercrombie in vol. xxxii of the *Pathological Transactions*. Another case of cyst on the laryngeal aspect of the epiglottis in a child was reported by Durham in vol. xlvii of the *Medico-Chirurgical Transactions*. Hoffa reports a case of congenital web in a female aged 16. Another case, also a female aged 16, was under treatment at St. Thomas's Hospital.

It would seem from these and other recorded cases of congenital web that interference is not advisable unless there is actual difficulty in breathing. Looking at the difficulty at-

tending the treatment of a congenital web of the fingers, and how nothing short of a careful plastic operation is of the least use, it can hardly be expected that any good can be effected in the case of laryngeal web without division of the thyroid.

Papillomata of Larynx.

In the history of a fair proportion of cases of papillomata of larynx, a little difficulty of breathing will be found to have existed from birth, or to have come on in very early life. Not infrequently, however, little is noticed specially about the child beyond some loss of voice, until serious interference with respiration occurs, calling for immediate relief. Tracheotomy has to be performed, and the diagnosis is not arrived at until the cause of the difficulty in leaving out the tube is investigated. Before considering further these cases of papillomata of larynx an interesting condition occasionally met with in newborn infants may be referred to—where inspiration is accompanied by a curious croaking noise—the cry sound being quite clear. The croak continues during sleep, and even when an anæsthetic is given; it is, however, variable in degree, and occasionally the distress in breathing is considerable, and is accompanied by some recession above the sternum. These conditions appear to depend upon a recurved and rigid state of the epiglottis, and never seem to be attended with fatal results, but tend to get well as the child grows.

These cases are to be distinguished from laryngismus stridulus, the attacks of which come on suddenly, often in the night, and do not continue during sleep; they generally depend on reflex, and particularly gastric, disturbance, and are usually benefited by general treatment, such as purgatives and emetics. Two conditions which not infrequently occasion difficult respiration must also be remembered, namely, adenoid vegetations, and nasal obstruction from specific rhinitis. The results of nasal, or naso-pharyngeal obstruction in early infancy are very serious, because compensating mouth breathing is difficult, and in the case of some children during sleep impossible. Nasal intubation does good in certain of these conditions.

Nasal obstruction, even catarrh from cold, is always serious in infants. If obstruction interfere with sleep, intubation is of value as a temporary measure. In cases of laryngismus, the nose and pharynx should always be examined. Adenoids should be removed however young the patient; naso-pharyngeal intubation being only a temporary measure.

Well marked adenoids producing nasal obstruction in children a few weeks old are occasionally met with—the adenoids being evidently congenital in origin. Mouth breathing is an acquired habit, and it follows therefore that infants with serious naso-pharyngeal obstruction cannot live, unless the condition is relieved by surgical interference.

Compound papillomata of the larynx are often of congenital origin, but frequently no marked symptoms are noticed till the child is some years of age. It will generally be found on careful inquiry, that however acutely the urgent symptoms may have arisen, there has always been something wrong to be noticed previously, either in the voice or breathing. The only certain method of diagnosis is by the laryngoscope, and in young children the obstacles to a proper examination are very great in consequence of the narrowness of the fauces, enlargement of the tonsils, and the great amount of mucous fluid which is poured out when examination is attempted. Indeed it is exceptional for even persons skilled in the use of the laryngoscope to be able to make a very satisfactory examination.

The treatment of compound papillomata in children may be considered under the following heads:

1. Endolaryngeal removal.
2. Intubation.
3. Tracheotomy, allowing the patient to wear the tube for a considerable time, in the hope of spontaneous disappearance of the growths.
4. Tracheotomy, followed by thyrotomy with removal of growths.
5. Tracheotomy and thyrotomy at the same operation.

The endolaryngeal removal of papillomata is not often possible or, indeed, advisable in children. The difficulty of complete removal is very great—and speedy and active recurrence would be likely—for this form of warty growth is almost always multiple in children, and some of the growth would be out of sight with the laryngoscope.

A very expert and practised operator might possibly deal in this way with very favourable cases—where the growths are limited in number—and the child is of an age and temperament to allow of frequent and satisfactory examination.

Treatment by intubation is never advisable, the growths are likely to bleed, or to be irritated and inflamed, and made more difficult of subsequent removal.

It has been held by some that if tracheotomy is done, and the tube worn for some months or years, so that the larynx is at rest, the tendency to the formation of these growths will die out and they will undergo spontaneous cure. This plan the lecturer had seen tried on a number of cases, but never with any satisfactory result; indeed, when the larynx has been at length opened, it has been found full of growths. A few cases of supposed spontaneous disappearance have been recorded, and some of them were briefly referred to.

There does not seem to be sufficient evidence that by the performance of tracheotomy alone laryngeal papillomata (except in rare instances) will vanish. In the case of very young children, after tracheotomy has been done for the relief of symptoms it will often be wise to postpone any radical measure for the removal of the growths, and to wait until the larynx is more fully developed.

If it is considered desirable to remove papillomata by division of the thyroid cartilage it is best to do a preliminary tracheotomy; when, however, the operation is required for recurrent trouble, and the child has been previously accustomed to the use of a tracheotomy tube, the tracheotomy and exploration of larynx may be combined in one interference. Thyrotomy is a simple operation, and if carried out with care involves little additional risk to an ordinary tracheotomy. Blood must not be allowed to get down the trachea, and the division of the cartilage must be made exactly in the median line and if possible not quite so far as the upper border. With care in the after adjustment of parts there need be no fear as to the maintenance of the parallel position of the cords, and the after condition of the voice depends on the amount of tissue which has to be removed and not on the mere exploration. No elaborate tampon tube is necessary for the trachea—it is difficult in young children to get one which will act efficiently. All bleeding in external parts must be stopped before the larynx is actually opened. By having a number of small pieces of sponge with strings attached ready for use an assistant can easily keep the trachea above the tube packed so that no blood can pass down, and with suitable retractors an excellent view of the cords is obtained when about four-fifths of the cartilage has been divided. Cocaine freely applied from time to time prevents spasm during manipulation, and with fine scissors curved on the flat the growths can be accurately trimmed away. The most difficult ones to remove are those situate between the bands and on the under surface of the epiglottis. By passing the finger from the mouth through the larynx the more concealed growths are better brought into view.

The curette does not act very efficiently, it often passes over the surfaces of the growths and leaves their bases untouched. A fine point of Paquelin's cautery may be passed over the points of section and seems to act more locally and exactly than caustic—such as chromic acid—however carefully it be applied. The two halves of the cartilage are then adjusted by a couple of sutures, and the external soft parts carefully brought together. The tracheotomy tube can generally be dispensed with after two or three days.

When operating on recurrent papillomata and the larynx has to be opened for the second or third time it has been my practice not to suture the cartilage hoping that a more roomy larynx will thus be obtained. The results, so far as voice is concerned, have been just as satisfactory as when more close approximation was aimed at.

Granulation outgrowths caused by the presence of the tube sometimes occur after tracheotomy, and may occasion difficulty in dispensing with the tube. Tracheal polypus consecutive to tracheotomy for diphtheria occurring after the cannula has been left out and the wound cicatrised has been recorded by Revilliod, of Geneva, and other writers.

TRACHEOTOMY IN CHILDREN.

Tracheotomy in children can only be briefly referred to in these lectures. It has of late had a rival in intubation, but seems likely to hold its place as the operation in most of the conditions of laryngeal obstruction. The results obtained by tracheotomy during the last few years have been more satisfactory, and the surgeon in recommending the operation has more confidence of saving his patient. In looking through the accounts of obstructed breathing twenty or thirty years ago, tracheotomy seems to have been reserved as a last chance; and leeches, mercurial and other drugs administered, and operation done when the strength of the patient was exhausted, and the aëration of the blood considerably interfered with. The operation was often done in a hurry, without proper precautions as to cleaning of the neck, tube, or instruments. Rapidity in opening the trachea was aimed at, and little attention paid to bleeding until the tube was inserted. The tracheotomy tubes in use were so constructed as to make ulceration of the trachea very probable.

Under exceptional circumstances any surgeon may be called upon to open the trachea after this fashion, time not allowing of a deliberate dissection; but in the great majority of cases the respiratory difficulty comes on gradually, and if the operation is undertaken before the patient is asphyxiated all this hurry and want of attention to detail is unnecessary, and increases the risks very considerably. Early operation is particularly necessary in the case of diphtheritic obstruction, and relief should be afforded so soon as there is evidence of retraction of the ribs. There is rarely any great degree of mechanical obstruction in children without the soft and yielding framework of the thorax showing signs, certainly long before the rigid framework of an adult would be affected.

The high operation is now almost universally practised in England for children suffering from œdema of larynx from scald, simple inflammation or diphtheritic inflammation of larynx, difficult breathing due to papillomata, or for foreign body impacted in the larynx—the low operation being reserved for cases of foreign body in trachea or bronchus, and possibly for certain tuberculous and syphilitic affections of the larynx.

Unless contraindicated by the condition of the patient, a little chloroform should be given, since its administration assists the operator considerably, and is not dangerous to the child, if it be given sparingly and with judgment. The surgeon should have by him, not the regulation two pairs of compression forceps, but half a dozen, just as if he was going to do any ordinary operation. After the skin and fascia have been divided, the point of the knife is not necessary until the pre-tracheal fascia is reached, which must be divided, so as thoroughly to expose the tracheal rings. Keeping exactly in the mid-line, the tissues are easily separated with the metal handle of the knife (as now constructed). I fully agree with Whitehead that an ordinary director is too sharp an instrument, and likely to cause bleeding, but the use of a special elevator is unnecessary, and might induce the operator to use undue force, and press upon the soft and yielding trachea, and it is obviously an advantage not to change from knife to elevator. The trachea having been freely opened, and dilating forceps introduced, the operation is at an end, if hæmorrhage has been previously arrested by the compression forceps; at least there is no necessity for the hurried attempts to introduce a tube.

Having had the opportunity of watching a great many house-surgeons in their earlier tracheotomies, the chief dangers have seemed to me to arise from too small an opening into the trachea, and too great a hurry to introduce the tube.

Sometimes the edges of the trachea opening are bent in, the tube perhaps passed into a space in front of the trachea, or between the cartilages and their mucous covering, or the tube passed into the trachea carries membrane before it. Time is then wasted in artificial respiration, and all is excitement and anxiety; the very efforts made to relieve the child only increase the respiratory difficulty. Occasionally the tube is not at hand, and the operator's thoughts are directed to the tube instead of the patient. After making the incision into the trachea, either the dilating forceps should be introduced or the sides of the opening held apart by hooks, and the operator should make absolutely certain that he has opened the trachea, and that it is not blocked by membrane or foreign body. Blood should be permitted to escape by coughing, and any imprisoned contents removed. The tube can then be inserted with gentleness and deliberation. Before commencing it is important to have the legs and arms sufficiently controlled by bandages, so that the struggles of the child during the later stages of the operation, and when the chloroform effect has ceased, may not interfere with the manipulations. The arms should, however, be secured in such a way that they can be instantly released for the purposes of artificial respiration. Many of the details of the operation need not be referred to, since they are given at length in all textbooks. Retractors may be used at the discretion of the operator. If he has good assistants who will use them properly, and not pull the trachea out of place, they may be employed with advantage; but with unskilled assistants the surgeon had far better trust to his finger and thumb on either side of the incision. The isthmus of the thyroid may require division, and this in children gives rise to no trouble if clamped on either side by forceps.

The tube in general use at St. Thomas's Hospital is that devised by Durham, and since its adoption the ulceration on the anterior wall of the trachea, which formerly was constantly found at the *post-mortem* examination, is of rare occurrence. Parker's tube is more simple and less expensive, and is in general use at the Children's Hospital, Great Ormond Street. Morrant Baker's rubber tube may be substituted a few days after operation if the secretions are normal, and in diphtheria if membrane has ceased to form.

The great increase of late years in the number of cases admitted into hospitals suffering from diphtheria is very striking, more especially since the various fever hospitals now take in a considerable number of cases.

The table shows the great increase in the number of children under 12 years of age with diphtheria admitted of late years to St. Thomas's:

Year.	Admitted.	Tracheotomy.	Recovered after Tracheotomy.	Recovery Per Cent.
1880	15	10	3	30.0
1881	12	11	4	36.4
1882	24	15	4	26.7
1883	26	11	5	45.5
1884	57	40	9	22.5
1885	49	38	14	36.9
1886	90	46	10	21.7
1887	107	38	3	7.9
1888	97	46	11	23.9
1889	164	71	21	25.4
1890	92	15	6	46.7
1891	88	29	9	28.6

Total number of tracheotomies, 371, with 99 recoveries, or 26.7 per cent.

The table for cases admitted to Great Ormond Street Hospital during the corresponding years does not show the same variation, but the accommodation is limited, and only the more urgent cases admitted.

Year.	Admitted.	Tracheotomy.	Recovered after Tracheotomy.	Recovery Per Cent.
1880	49	20	4	20.0
1881	52	10	0	Nil.
1882	47	27	8	29.6
1883	34	13	2	15.4
1884	25	8	5	62.5
1885	20	15	3	20.0
1886	51	20	9	45.0
1887	51	28	7	25.0
1888	58	21	1	4.9
1889	51	25	8	32.0
1890	48	11	4	36.3
1891	59	20	2	10.0
1892	68	21	13	61.9

Out of a total of 239 tracheotomies, 66 recovered, or 27.6 per cent.

The great variation in the mortality, according to the severity of the epidemic, renders the statistics of results after tracheotomy or intubation most misleading, unless given for

a number of years in succession. For months together the results may be discouraging in the extreme; at another time, under the same conditions of operation and nursing, recovery will be the rule rather than the exception. One house-surgeon commences his experience with a dozen fatal results, whilst another has five or six recoveries running. Success in tracheotomy for diphtheria depends very largely on the treatment after operation.

In a depressing disease like diphtheria it is most important to keep up the powers of the patient, and nasal feeding is far more efficient than the giving of nutrient enemata. Much of the treatment advocated in textbooks is apt to be overdone, particularly the routine employment of the tent bed and steam spray.

It is quite pitiable to see children fighting for their lives under such enervating conditions. The air of the room should be kept pure and at an even temperature of 65°; above all, the bed should not be placed near a hot fire, with the spray from a kettle constantly playing over the face and body. A sponge kept warm and moist should be always over the tube, and the inner tube changed every hour, or even oftener, whilst the discharges are thick. A great deal of harm may be done by a too zealous nurse, especially by the constant introduction of a feather to clear the tube, and by attempts to thus extract membrane from the trachea. If actual obstruction takes place it is better for the surgeon to take the tracheotomy tube out altogether, and examine the trachea before replacing it.

When membrane is present on the fauces or pharynx, the use of perchloride of mercury by means of a hand spray appears to be more beneficial than solutions of bicarbonate of soda, borax, or phosphate of soda.

At the Great Ormond Street Hospital a mercury solution, of the strength of 1 in 1,000, has been employed by Dr. Collier in some seventy cases, without producing any signs of irritation or evidence of mercurialism. Concerning the details, he writes to me as follows:—"In using the hand spray it was found necessary to use a tongue depressor, because, however willing the patient was, the solution did not thoroughly reach the posterior pharyngeal wall unless the tongue was depressed. Each spraying procedure lasted from two to four minutes, including a pause for a few seconds at the end of each half minute, and the quantity of solution used was about ʒj. While membrane continued to be evident, the application was made every three hours; it was then continued for a day or two, at intervals of six hours.

"In nasal cases the nose was douched with warm boracic solution every three hours, and was sprayed with mercury solution after each douching.

"The tracheotomy wounds were sprayed every two hours with the mercury solution, care being taken that no solution entered the tube."

Emphysema is not so common a complication after tracheotomy, since the high operation has become the established practice, and the wound is left freely open.

When the opening was made in the lower part of the neck and the more separated layers of fascia opened up, emphysema, by spreading to the anterior mediastinum, was sometimes a serious complication, both by its mechanical effects and by preparing the way for a diffuse inflammation.

Diphtheritic invasion of the wound may lead to extensive sloughing, both of the soft parts and the tracheal rings, the tube should then, if possible, be dispensed with and warm antiseptic dressings applied. If recovery take place it is likely to be attended with troublesome stenosis of the trachea from after-contraction of the cicatricial tissue.

Extensive hæmorrhage after tracheotomy for diphtheria is now fortunately of rare occurrence. The old fashioned, greatly curved tube, inserted low down in the trachea, frequently caused ulceration of its anterior wall, and the large vessels in the neighbourhood were endangered.

(To be continued).

WE are requested to state that the inspection of the London companies of the Volunteer Medical Staff Corps under Surgeon-Lieutenant-Colonel Norton will take place at Chelsea Barracks, on Saturday, July 15th, at 5.30 P.M. The inspection will be held by the Principal Medical Officer of the Home District.

THE CROONIAN LECTURES
ON THE
PHARMACOLOGICAL ACTION AND THERAPEUTIC USES OF THE NITRITES AND ALLIED COMPOUNDS.

Delivered at the Royal College of Physicians of London.

BY D. J. LEECH, M.D.LOND., F.R.C.P.,

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LECTURE III.—THERAPEUTIC USES OF THE NITRITES AND NITRATES.

IN considering the bearing of the pharmacological action of the nitrites on their therapeutic application there are three points worthy of note. The first is the minute quantities which may influence the vascular system, and, as a consequence, certain functions of the body. An eighth of a grain of sodium nitrite, a small but uncertain fraction of a minim of ethyl nitrite, or the sixteenth-hundredth of a grain of nitro-glycerine will in many distinctly affect the circulation.

A second point is that, notwithstanding their potency, even large quantities of the nitrites and nitro-glycerine do not readily cause death. Although unpleasant and even alarming results have been known to follow comparatively small doses, there has been, as far as I know, only one case recorded in which a fatal result has been attributed to their medicinal use. This is the more worthy of notice since these drugs have been commonly given in serious cases. I do not know of an instance in which ethyl nitrite or sodium nitrite have proved fatal, though very large doses of the latter have been administered. Amyl nitrite has been swallowed by the dessertspoonful, yet recovery has, I believe, always occurred, and severe though the symptoms are which follow its inhalation no harm has ever accrued from its employment, save in one instance, a case of phthisis, where death followed the inhalation of 7 drachms. Considerable quantities of nitro-glycerine have been taken with impunity, so far at least as concerns a fatal result; only in few instances have very large amounts, taken accidentally or for suicidal purposes, caused death.

A third point which it is important to bear in mind is the evanescence of nitrite action. When nitrites advantageously alter functions their direct influence for good usually soon ceases; on the other hand, their evil effects are also short lived; there is no cumulative influence.

The pharmacology of the nitrites and nitro-glycerine indicates the class of cases in which these drugs will be of the most utility—namely, those in which the heart is embarrassed in its work owing to a want of due relationship between its power and the calibre of the vessels through which it transmits blood.

Angina pectoris is the most conspicuous ailment of this class. It would be out of place here for me to discuss its pathology and its various forms, but there are one or two points to which I must allude, because they are intimately connected with the use of nitrites. Angina pectoris has been defined by Sir Richard Quain as an affection of the chest accompanied by severe pain, faintness, and anxiety, occurring in paroxysms connected with disorders of the pneumogastric and sympathetic nerves and their branches, and frequently associated with organic disease of the heart.

It is manifest that for the production of angina as thus defined, a variety of pathological conditions may suffice. Alterations in the cardiac nerves and plexuses due to intrinsic structural changes, or to their involvement in diseased conditions of adjacent organs, may lead to periodic neuralgic attacks similar to those which we see in other parts of the body when nerves or plexuses are similarly affected. Neuralgic pains referred to the heart may be the outcome of

reflected irritation originating elsewhere, as, for example, in the abdominal organs. Hysterical pains may be felt in the cardiac region as well as in other parts. All these causes may perhaps lead to paroxysmal pain apart, or almost so, from circulatory changes connected with alteration in tension. But clinical observations do, I think, indicate that a large proportion of anginal attacks are directly caused by a rise in tension, and there seem to me good grounds for believing that this rise is due to a temporarily decreased calibre of the systemic or pulmonary vessels, and a consequent suddenly increased call on the propelling action of a heart the walls of which are more or less altered in structure.

In some cases, as Dr. Douglas Powell has so well pointed out,[1] the call may be made upon a diseased heart (angina pectoris gravior); in others there is more or less cardiac reserve power and integrity (angina pectoris vaso-motoria); but in both forms the symptoms are due to the fact that the heart is unequal to the work it is called on to perform.

With a view of removing the high tension ensuing from this contraction, Dr. Brunton first made trial of amyl nitrite in angina pectoris, and discovered its wonderful power of relieving the cramp-like pain which accompanies this ailment. Of late, however, doubts have been raised as to whether high tension is really the cause of pain; and it has been suggested that nitrites relieve, not because they lower tension, but because they act as analgesics, and remove the pain which causes high tension. It seems to me that for this theory there is but little foundation; experiments, as I have said, give no indication that nitrites are direct analgesics; in poisonous doses, indeed, they depress the functions of all portions of the nervous system, but the afferent portion is the last which is affected. So powerful an analgesic as morphine not infrequently fails to relieve the pain which a minute dose of amyl nitrite at once removes, and there is, I hold, no warrant for the assumption that nitrites or nitro-glycerine have a special analgesic influence on the cardiac plexus. I cannot see sufficient ground in what has so far been advanced, for calling in question the opinion that increased tension is the cause of suffering in a large proportion of cases in which paroxysmal pain is referred to the heart; and that in the treatment of angina pectoris it is important, in the first place, to lower this tension as speedily and efficaciously as possible.

In the reduction of tension by nitrites we have three objects in view: (1) to relieve pain as rapidly as possible, (2) to avert a fatal termination, (3) to prevent the recurrence of pain. The second object is for the time attained when the pain is removed.

The pain of angina varies greatly in duration; generally it is short in the earlier stages of the disease and abates quickly when the immediate cause, usually some movement, has ceased. Not infrequently, especially towards the termination of a longstanding case, atrocious pain is present for many minutes, sometimes for many hours. But, whether the duration of pain be short or long, those nitrites are manifestly, in the first instance, called for which act most quickly.

What I have stated with regard to the time at which the influence of the various nitrites on the circulation is first distinctly perceptible points clearly to the drugs which may most advantageously be used during anginal pain. It has been shown that propyl, isobutyl, and amyl nitrites reduce the tension in a few seconds, whilst sodium nitrite takes from two to five minutes to act, and ethyl nitrite about the same time. Even nitroglycerine, which affects the circulation in from forty seconds to two minutes, acts much less rapidly than do the fatty nitrites when they are inhaled.

Manifestly then to relieve urgent pain and its concomitant danger, the fatty nitrites should be inhaled. Hitherto an impure nitrite has been chiefly used for this purpose. The nitrite of amyl of the *British Pharmacopœia* is a mixture of many nitrites, and contains likewise amyl alcohol, and oxidation products such as valeric aldehyde, valeric acid, and amyl valerate. Dunstan and Woolley, in one specimen found less than 40 per cent. of the amyl nitrite, and in another 50 per cent., but in addition 10 per cent. of isobutyl nitrite.[2]

Even the impure amyl nitrite now used is a most valuable drug, but considering the importance of the influence required, it seems desirable that a more definite compound should if possible be introduced. Of late isobutyl nitrite has been employed occasionally as a substitute for amyl nitrite. Cash finds isobutyl and secondary propyl nitrites somewhat more active in reducing tension than the amyl compound. It has appeared to me, too, that isobutyl nitrite more certainly relieves anginal pain than does the official amyl nitrite.

The inhalation of amyl nitrite sometimes fails to relieve the pain of angina pectoris; this failure may arise from several causes:

(1) The paroxysms may be due to neuralgia of local origin, or it may be reflected or hysterical, and circulatory changes may take but little part in its production. In such conditions nitrite inhalations can do no harm, yet they may fail to relieve pain.

(2) In some cases the nitrite does not remove pain because of the short duration of its action. It does not break the spell of the vessel contraction. There may be relief, but it is not complete, and when in a minute or two the effect of the drug passes off, the wave of contraction returns, and with it the pain.

(3) Some are curiously insusceptible to the influence of amyl nitrite. In such people full inhalations may succeed when slight ones fail, though this is not very common. If a certain measure of success is not obtained with ordinary inhalation, it is not often that a more copious use of amyl nitrite completely removes anginal pain.

(4) Lastly, in very advanced cases where the attacks of pain continue long, amyl nitrite may entirely fail to relieve the pain, though in an earlier stage it proved useful for this purpose.

If from any of these causes amyl nitrite does not remove pain, one of the nitrites whose effects are more persistent should be tried. Of the official preparations, nitro-glycerine is by far the best. On referring to the table it will be seen that it reduces tension more quickly than sodium nitrite, more quickly, too, than ethyl nitrite. Beginning with one drop of liquor trinitrini, the dose may be gradually increased until either the pain is relieved or unpleasant physiological effects as throbbing in the head or palpitation show that no more can be borne. In pain of hysterical or reflected origin this physiological limit is often quickly reached; in other cases very large doses may be given before relief is obtained.

Dr. Murrell, to whom we owe the introduction of nitro-glycerine as a remedy for angina pectoris, has given, as I have said, 110 minims eight times daily. Some are very insusceptible to nitrites, especially when passing through a dyspnœic attack, and it is worthy of note that the same individual may be more susceptible at one time than another.

A patient, L., from whom several of the tracings I show have been taken, came into the infirmary with intense dyspnœa and cyanosis, and some cardiac dilatation. The nitrites of amyl and ethyl seemed to have no effect in relieving the dyspnœa, and the ordinary effect of the amyl compound he did not feel. Nothing was of service except free venesection, which at once relieved him. The next day even his pulse was somewhat refractory to nitrites, ordinary doses of sodium and amyl nitrites only affecting his circulation slightly. The pulse tracing, taken a month later, showed that he was then fairly susceptible to 2 grains of sodium nitrite; then he commenced to take the nitrites regularly, and in another month I found the tension of his pulse but little influenced by this dose, though by stronger doses it was readily brought down. As I have before said, people with high tension are less affected by nitrites than those with low tension. I have several times had occasion to gradually raise the dose of liquor trinitrini to 20 minims: it not infrequently happens that larger doses are required as a case progresses, and I believe it is far safer to employ somewhat large doses of nitro-glycerine than to resort to morphine injections, which in the later stage of angina pectoris generally fail to give relief, and I suspect, at times, hasten the fatal termination. Let me say here that I look on the injections of morphine in severe paroxysmal cardiac pain as by no means devoid of danger. It is quite true that they often give relief in anginal attacks, and are not usually followed by dangerous symptoms, but I have myself twice seen death occur shortly after subcutaneous injection of morphine in a prolonged anginal attack, and in the experience of others I find a fatal termination so frequently a sequence of an injection of morphine that it

savours strongly of cause and effect. From the use of nitrites I can find no evidence that fatal results appear to follow, notwithstanding the large doses in which they have been given, and the critical condition of many of the patients who have taken them. On the other hand, I have several times seen reason for believing that life has been shortened owing to the want of nitrites or their use in too niggardly a fashion, and on more than one occasion it has seemed as if the immediate cause of death has been an unreplenished nitrite bottle.

Every person who suffers from angina pectoris, and who has derived relief from nitrites, should have immediately at hand amyl nitrite, or the tabellæ or liquor trinitrini.

To prevent the recurrence of anginal attacks amyl nitrite is, of course, of no service, but nitro-glycerine is as useful in preventing attacks as in relieving them. A sufficient dose should be given a few minutes before an exertion which is likely to cause an attack of pain. The amount which is sufficient can only be determined by the effect on the patient; sometimes one drop will suffice to ward off attacks for two or three hours; oftener larger doses are required. One patient, for example, finds not less than twenty-five drops necessary in order to enable him to perform light work for some hours, and for six months has, by the aid of this dose once or twice daily, been enabled to live and earn a livelihood in fair comfort. Danger, I believe, arises not from the size of the dose or from its frequent repetition, but from too great fear of the drug.

In those in whom the anginal pains are connected with serious cardiac degeneration the time at length arrives when severe cardiac pain, which may be long continued, comes on without apparent cause; the end is then usually near at hand. Here the frequent use of large doses of liquor trinitrini will not suffice either to prevent or ward off all pain, but it is the most effective means we possess, and if it does not prevent suffering, it at least mitigates it without adding to danger. Nitro-glycerine is so quickly absorbed in the stomach that subcutaneous injection is, as a rule, not necessary; but in cases of urgency, where there is fear that the absorptive power of the stomach is in abeyance, it may be resorted to. At times nitro-glycerine is not well borne, owing to the headache which it causes; sodium or ethyl nitrite may then be tried, especially for the purpose of preventing paroxysms. The sodium compound may be used, beginning with 2-grain doses, but I do not think it usually agrees so well with patients as nitro-glycerine when large doses are required. A $2\frac{1}{2}$ per cent. solution of ethyl nitrite in absolute alcohol I have often used, giving doses of one or two teaspoonfuls. The solution should be mixed with water immediately before being taken, otherwise the nitrite rapidly escapes.

Of late I have employed the ethyl nitrate, which has distinctly a longer lasting influence in reducing tension than the nitrite, and in some ten or twelve cases in which I have used it the testimony in favour of its prolonged beneficial action has been satisfactory. A medical man, who has been under my care for angina pectoris, has at my request compared on himself the effects of various nitrites, and places the nitrate of ethyl distinctly above the others in the length of time it wards off the attacks. In another case a woman, aged 28, who had suffered from anginal attacks for three or four months, and who found relief during the attacks both from nitro-glycerine and the inhalation of amyl nitrite, I found nitrate of ethyl give more continuous relief than nitro-glycerine. For two or three days she took 3-minim doses of the ethyl nitrate at intervals of three or four hours; in this quantity the attacks, though not prevented, were lessened in frequency. As the heart's action seemed quickened, she returned to the occasional use of the nitro-glycerine, but soon afterwards the attacks became more frequent and less amenable to relief by this drug. One morning, in the absence of one of my colleagues, I saw her, and found her with severe cardiac pain, which had lasted an hour and which nitrite of amyl and nitro-glycerine in small doses had failed to relieve. A drachm of a 10 per cent. solution of nitrate of ethyl, the last I happened to have at the time, was then given to her. In ten minutes the tension was lowered as shown by the tracing, and the pain entirely disappeared.

A few hours later it recurred. Nitro-glycerine gave slight relief, but only for a very short time, nitrite of amyl failed entirely to remove the pain. A subcutaneous injection of morphine guarded by atropine was now cautiously given, only two doses of the eighth of a grain being injected with an interval of half an hour. Hardly the slightest relief followed, the pain continued for three hours. Then she became cyanotic, and died somewhat suddenly. At the *post-mortem* examination the aortic valves were insufficient; one of the coronary arteries was found small, and the other almost obliterated. My experience of the use of nitrate of ethyl in angina pectoris and other ailments is not sufficiently large to enable me to form a definite opinion as to its value as compared with nitrites, but the long period during which it lowers tension in healthy subjects, and its very definite effects in the few cases of angina in which I have tried it lead me to think it may prove of value. The nitrate of propyl, isobutyl, and isoamyl are as effective in lowering tension as nitrate of ethyl, but the tendency to cause headache, which is I think even more marked with the nitrate than the nitrite of ethyl is a still more prominent feature in the action of the propyl, isobutyl, and isoamyl compounds, and I have not used them medicinally.

Although I regard the nitrites and the organic nitrates as of the greatest value in relieving and preventing anginal attacks, and in helping to ward off the fatal result in which any attack might terminate, I cannot rank them high as curative agents.

Doubtless, when attacks of angina are warded off and rendered less severe by the use of tension depressors, recovery does at times take place, as Dr. Murrell has well shown in some of the cases which he has so graphically described in his book on *Nitro-glycerine*. The relief from pain and suffering may tend to prolong life, and when regularly given the heart's work may be so decreased that its nutrition may improve. Perhaps, too, the vessel walls gain some advantage from the fact that under the influence of the nitrites their continued contest with the blood current is somewhat lessened. But I am by no means satisfied that the recoveries from angina pectoris which have been reported after nitrites and nitro-glycerine are really due to these drugs. Their employment is only one element, though an important one, in the treatment of angina. It should be accompanied by the use of those agents calculated permanently to improve the condition of the vascular system, among which I believe iodide of potassium and arsenic hold a foremost place.

Cardiac Dyspnœa.—Next to the relief of angina the nitrites are of most service in the prevention of dyspnœa connected with other forms of cardiac and with pulmonary disease. The theories which have been broached to account for cardiac dyspnœa are many in number, but hyperdistension of the pulmonary vessels is regarded in most cases as the immediate cause of the continued shortness of breath associated with cardiac dilatation and valvular lesions. The heart is at times unable to send the blood on its way through the system, because, owing to the weakening of its walls or the narrowing of the vessels, there is a disproportion between the power of the heart and the obstacle it has to overcome; from these causes or from a defective valve the pulmonary vessels may be kept constantly overful.

The dyspnœal paroxysms may depend immediately on many causes, but most frequently they are due to sudden increase in the difficulty which the heart experiences in driving the blood onwards through the systemic system, either from a passing increased narrowness of the arterioles or from a temporary failure of cardiac power. Paroxysms of dyspnœa in cardiac disease may likewise occur from exacerbations of pulmonary hyperæmia and œdema. Unfortunately it is not always possible to determine whether attacks of dyspnœa with which we have to deal are due to heart failure, vascular contraction, or some other cause; often, indeed, more causes than one are present, hence the difficulty of coming to any conclusions as to the cases in which tension reducers may be of service, but in certain forms of cardiac trouble they are usually of special value.

In the dyspnœic attacks which so often accompany cardiac dilatation connected with alcohol, gout, etc., I have seen nitrites of ethyl and sodium and nitro-glycerine give much relief. By dilating the vessels for a time they enable the

heart to do its work, and thus relieve the congestion of the lung vessels. The question arises, If the dyspnœic attacks are connected with cardiac failure, can they do harm in virtue of their cardiac depressant influence? I believe large doses might work evil, but in small quantities, such as 1 to 2 drops of nitro-glycerine, 1 to 2 drachms of the 2½ per cent. solution of nitrite of ethyl, or 2 grains of sodium nitrite, the action is always in favour of the heart. These small quantities can powerfully dilate the vessels, but they do not, in an important measure, depress the heart. Experiments on animals, as I have pointed out, show that very small quantities increase rather than decrease the amount of work a heart can do. I have given the doses I have named in a very large number of cases, and never seen the slightest indication pointing to possible evils. The amount administered may be cautiously increased without any risk if the relief be insufficient, or the efficacy first noticed seems afterwards to fail.

In the case of nitrites, increase of danger is not proportioned to increase of dose. When relief is not obtained by a small dose, and when no physiological effects follow, such as throbbing in the head or palpitation, I find it quite safe to repeat the dose in half an hour. It is desirable, when the larger doses are given, or when the drug is given more frequently, that the patient should rest. Discomforts which have arisen after small doses of the nitrite, such as 3 grains of sodium nitrite, have for the most part occurred in those who have been pursuing their ordinary avocations.

I am not deterred from giving nitrites in dyspnœa by irregularity or weakness of the pulse, for I find that in dyspnœa they do not tend to cause syncope or lead to heart failure. Dr. Sansom has published a case in which a patient with an extremely weak and irregular heart's action was in the habit of taking six to twelve nitro-glycerine tablets daily without medical advice. I have met with one or two similar instances in which people with very dilated hearts have found such relief from nitro-glycerine tablets that they have continued to take them for months, and I have no doubt that many sufferers take them habitually without advice. I can easily conceive that grave mischief might arise, but, so far, I have met with no record of it. Fortunately, there seems to be a special tolerance of nitrites in such cases. When with cardiac dilatation moist sounds at the base give evidence of bronchitis or lung œdema, the nitrites generally fail to relieve but by no means always. Partial relief is indeed not uncommon, and a few doses of a nitrite are always worthy of trial.

In the paroxysms of dyspnœa which occur in many valvular diseases of the heart the nitrites are sometimes of great service. But here, as in simple cardiac dilatation, they often fail when there are abundant moist sounds at the bases of the lungs. They will fail to remove dyspnœa, too, as all other remedial agents fail, in very advanced conditions of cardiac disease, yet even in the most unpromising cases they are at times of the greatest value in the relief of distress, so much so that patients will often beg for the repetition of the dose which has given so much comfort.

The nitrites are naturally most useful in mitral disease, since here paroxysmal dyspnœa is more frequent than in aortic troubles, but aortic incompetence is no bar to the use of nitrites in small quantities when the breathing is oppressed. In valvular disease as in simple dilatation, weakness and irregularity of the heart's action need not be taken into account in giving small doses of the nitrites for dyspnœic attacks; such doses do no harm even if they do no good. In a few cases, as I have already said, I have known irregularities cease under their employment.

Against the utility of nitrites in cardiac dyspnœa it might be urged that as their vascular influence is but transitory, so also will be the relief they give, and this is true; but here, as in the case of other remedies, we find that relief is not limited to the period during which the medicine directly acts. When unduly contracted arteries are dilated, they do not forthwith resume their contracted condition as soon as the effect of the nitrite on the vessel wall has passed away. Whether the dilatation of the pulmonary vessels by nitrites is one factor in the relief they give in cardiac dyspnœa we cannot say, but the very marked effect they can be shown experimentally to produce in dilating these vessels seems to render it likely that, besides increasing the calibre of the systemic vessels and easing the left heart, they at the same time, by widening the lung vessels, relieve the strain on the right heart.

Since paroxysmal cardiac dyspnœa has many causes, some of which are not influenced at all by vascular dilatation, it follows that sometimes no relief is obtained from nitrites, but, as a routine remedy for this dyspnœa, I believe there is nothing better.

For the past two or three years nitrites have been resorted to habitually in my wards of the infirmary at Manchester in all forms of dyspnœa. Comparing their effects with those obtained from ether and ammonia in paroxysmal attacks of cardiac dyspnœa, I have no hesitation in saying that the nitrites are by far the most beneficial. I have used a solution of nitrite of ethyl in absolute alcohol, but nitro-glycerine or nitrite of sodium with alcohol might be in some respects perhaps better since they are more stable.

For the permanent short-breathedness of cardiac disease the nitrites are, I believe, less useful than for dyspnœic attacks. Occasionally the measure of relief may be given to the heart's work by them which is doubtless beneficial to this organ, but I do not think it possible to keep the tension permanently low, either by nitrites or nitro-glycerine, for by persistent administration at short intervals their vascular dilating power lessens somewhat, and, with large continuous doses, methæmoglobin might be produced. I have found some patients with weak dilated hearts, and suffering from dyspnœa on slight exertion, experience great relief from a few small doses daily of nitro-glycerine, and I think I have seen some permanent advantage derived from this treatment. In some other special conditions connected with cardiac disease the nitrites have been found of service, as, for example, in aortic insufficiency with hypertrophy and severe headache.

We often meet with patients just past the middle period of life, stout, and with some evidence of fatty cardiac change, who feel a sense of discomfort on any exertion and are therefore unable to take exercise, and who at times have somewhat smart attacks of dyspnœa from slight causes. In these cases I think the nitrites not only useful in the attacks, but also in giving comfort when taken regularly. A tablet or two of nitro-glycerine, when taken twice daily, will often remove long-standing discomforts due to the readiness with which dyspnœa is excited, and a permanent improvement at times ensues, because, with the aid of the nitro-glycerine, patients are able to take a certain amount of exercise.

Even in advanced fatty changes I have no hesitation in giving small doses of the nitrites, both to relieve and prevent dyspnœa. I question whether the heart in this condition is weakened by them at all, but of this I am quite sure it is much relieved and aided in its work.

Syncope and Cardiac Failure.—A difficult question to decide is whether nitrites should be used in syncope and cardiac failure.

The flushed face produced by amyl nitrite led to the idea that it might be of service in syncope, for which purpose indeed it was proposed in the first paper on its action, by Guthrie in 1859. In 1871 Dr. Goodhart again suggested its use in sudden failure of the heart's action, and in the same year Dr. Talfourd Jones gave it with apparent advantage to a patient who had fainted. Since this time it has often been recommended and given in cases of apparent heart failure from various causes, including cardiac failure due to chloroform, and so far as I am aware no evil consequences have ever appeared to result from its employment; on the contrary, distinct and immediate improvement in the patient's condition is said to have followed its use.

Nitro-glycerine, too, has been given in syncope and collapse, and in one case of collapse during the passing of gall stones; and when the patient was pulseless it is recorded that ten drops of a 1 per cent. solution of nitro-glycerine were injected with advantage.

Reichert especially has claimed the nitrites as valuable cardiac stimulants, and in support of his contention has marshalled a series of cases of heart failure, in which they seemed to prove useful. As I have indicated when speaking of the pharmacology of the nitrites, there is ground for thinking that the initial influence of small doses of nitrites on the circulation is a stimulant one, notwithstanding that

they are so capable in large doses of weakening the heart's action. Syncope is the result of a failure of the heart to supply the cerebrum with a due amount of blood, and to this failure arterial dilatation and lowered tension sometimes contribute. When this is the case it would appear that the administration of nitrites might be gravely dangerous since they so powerfully lower tension. But spasmodic contraction of the arterial vessels is probably in some cases one cause of the insufficient supply of blood which leads to syncope, and here for increasing the cerebral supply, nitrites would be of service.

When, too, sufficient blood is not driven into the brain, owing to deficient power in the heart itself, nitrites may be useful by their direct influence on this organ, and indirectly by dilating the vessels, and thus relieving the heart of some portion of its work.

Whilst then in some forms of syncope harm might be done, and even a fatal result brought about by full doses of nitrites, it seems very probable that in others good results will follow from their employment, and since no bad effect has yet been recorded from the use of nitrites in syncope, whilst in many cases great advantage have followed their use, the employment of small doses of nitrites in syncopal conditions seems to be well justified.

In cardiac failure, too, there is evidence that good results have followed both from the use of amyl nitrite and nitroglycerine, and it seems to me that these are grounds for the use of the drugs in small quantities. A failing heart will under their influence beat more quickly, and will be relieved of a certain portion of its work by the dilatation of the vessels. But the difficulty is to graduate the amount of nitrite to the necessities of the heart. If any nitrite were by inhalation thrown into the blood in large quantities, it might stop the action of a failing heart.

Pulmonary Dyspnœa.—For the relief of dyspnœa due to asthma and bronchitis, the nitrites and nitro-glycerine have been occasionally used since Dr. Talfourd Jones, in 1871, recorded the beneficial effects of the inhalation of amyl nitrite during an asthmatic paroxysm. Five years ago Professor Fraser published the results of his investigations on the influence of the nitrites of amyl, ethyl, and sodium in the dyspnœa connected with asthma and bronchitis.[3] He found that in asthmatic paroxysms the inhalation of these nitrites was capable of completely relieving the respiration, and removing the adventitious lung sounds. Usually the rhonchi returned when the effect of the nitrites passed away; at times the relief was permanent. With the nitrites of ethyl, sodium, and nitro-glycerine he generally noted in half a minute a decrease of the adventitious sounds, and lessened dyspnœa, and relief in three to five minutes. As might be expected, the effects were more prolonged than after nitrite of amyl. In 61 observations made on 25 patients suffering from bronchitis, in some cases accompanied with dyspnœic paroxyms, the nitrite in 48 removed every vestige of rhonchus or sibilus for various periods of time. In 10 the sounds were lessened, but they were not altogether silenced; in 3 the effects were slight or negative, and in these the dyspnœa was not relieved. I cannot say my experience of the use of nitrites in asthma and bronchitis has been as favourable as that recorded by Fraser. Nevertheless, I have seen a large measure of relief afforded in pulmonary dyspnœa by them. In typical asthma I have often seen complete and rapid relief afforded, yet in some cases hardly the slightest benefit arises either from inhalation of amyl nitrite or from the administration of large doses of the other nitrites. In the less severe asthmatic attacks, which are apt to come on from time to time in nervous people subject to slight bronchitis, the attack is almost always cut short by nitrites; and where marked bronchitis symptoms are permanently present and asthmatic exacerbations also occur, the nitrites give relief to the urgent dyspnœa in a large proportion of the cases, yet by no means in all. The disappearance of the rhonchi in bronchitis under the influence of the nitrites I have often seen, but it does not in my experience occur so frequently as in the cases observed by Fraser.

Where abundant moist sounds are present owing to a large amount of secretion in the bronchial tubes, the nitrites generally are of little service. But in dyspnœa with bronchitis, indicated by abundant sibilant and sonorous rhonchi, and also in asthmatic paroxysms, amelioration is at least the rule; at times paroxysmal dyspnœa is cut short by a single dose of one of the nitrites, and may not recur for hours. In bronchitic dyspnœa the duration of the relief varies, but usually lasts as long as the influence on the circulation. From this Fraser thinks that the nitrites produce their effect by relaxing the muscles of the bronchial tubes, in the same manner as they relax the contraction of the blood vessels, and that this effect is the essential cause of the relief nitrites give in dyspnœa. From the marked effect of nitrites in some cases of asthma and bronchitis, and from the evidence we have of the influence which nitrites exert on involuntary muscle fibre, it certainly seems probable that they are capable of increasing the lumen of bronchial tubes when narrowed by contraction of muscular fibre which surrounds them; but it by no means follows that such contraction is the sole cause of asthmatic paroxysms or the exacerbations of dyspnœa in bronchitis. There is a want of uniformity in the action of nitrites which I should hardly expect if paroxysmal dyspnœa depended entirely upon contraction of the bronchial muscles alone. Moreover, dyspnœic attacks are at times relieved by nitrites without any marked alteration in the auscultatory signs.

It seems to me likely that some alteration takes place in the bronchial mucous membrane more or less coincident with spasmodic contraction of the bronchial muscles.

Sir Andrew Clark[4] has suggested as a cause for asthmatic paroxysms a sudden hyperæmic swelling of the mucous membrane of the bronchial tubes comparable to the changes which occur in the skin in urticaria. Fraser is of opinion that the relief afforded by the nitrites in asthma is opposed to such a theory, because the dilating action on the vessels which he supposes occurs in the bronchi, as in all the other vessels of the body, would increase or prolong the paroxysms instead of controlling or checking it. With this view I cannot coincide. For if the tumidity of the mucous membrane connected with asthmatic attacks resembles that which occurs in urticaria, it is probable that it is associated with spasm; at least in urticaria antecedent spasm is held as probable. It is not likely that vascular dilatation would be present at any one time over the whole mucous membrane affected; it is more probable that spasm and dilatation would coexist in different portions of the mucous membrane. Such a condition the administration of nitrites would tend to relieve. By decreasing spasm they would tend to restore the mucous membrane to its normal condition. It is just possible, too, that the dilating influence exerted on the pulmonary vessels by the nitrites may to some extent relieve the bronchial vessels.

As a rule nitrites are well borne by dyspnœic patients, and large doses may be safely given if experience shows they are needed. I have administered 1 drachm of a 2½ per cent. of ethyl nitrite solution every ten minutes, until 3 or 4 drachms have been taken. Sodium nitrite is at times borne better in pulmonary dyspnœa than ethyl nitrite, and sometimes the reverse is the case.

The spiritus ætheris nitrosi of the *Pharmacopœia* would be equally serviceable if it always contained a definite amount of the ethereal nitrite, but the rapid deterioration in the strength of this ingredient, which at times takes place, renders it uncertain in its influence. Perhaps the best preparation would be liquor trinitrini combined with a small quantity of rectified spirit. Headache, however, seems to me more common after trinitrine than after nitrites. Of late I have used ethyl nitrate in doses of from 5 to 10 minims, and find that it is quite as efficacious as ethyl nitrite, and that its influence lasts longer. Amyl nitrite acts for too short a time to be of service.

The nitrites must not be looked on as curative agents in bronchitis; they are capable often of relieving dyspnœa, and by dilating the vessels of the lung they may possibly temporarily relieve the right heart. But in the ordinary forms of bronchitis their regular administration does not, as a rule, prove very advantageous. It is for the relief of dyspnœic conditions they should be reserved, and even then they often fail when abundant moist sounds indicate that the difficulty of breathing is connected with accumulation of bronchial mucous rather than with spasm of the tubes or vessels. By

some the nitrites have been used in pneumonia, lung œdema, and many other lung ailments. It is quite possible that they may give relief at times, but I question whether they can be looked on as curative.

Uræmic Dyspnœa.—In uræmic dyspnœa I have been at times disappointed in the use of nitrites. Scattered through the journals are many records of the utility both of nitro-glycerine and amyl nitrite in this condition. I also have found them advantageous, yet they have often failed. They are indeed well borne in large doses, but the relief they give is usually transient. Perhaps it may be that uræmic dyspnœa owns another cause besides those which are the chief factors in cardiac and pulmonary lesions. Huchard is of opinion that even in that altered condition of the arterial walls which often so long precedes renal disease (and which may indeed terminate life by the cardiac troubles it induces, apart from renal disease), toxic products may accumulate in the blood, because the kidney is unable from the changes in its vessels to eliminate them. He adduces in support of his views the non-toxic effect of the urine in these cases, and he looks on the dyspnœa which occurs as the result of the reaction on the body of toxines which would have been eliminated had the kidney been perfectly healthy. In Bright's disease this toxic material must be often present, and it seems possible that in some cases it may exert its influence so strongly as to neutralise the effects of the nitrite molecule, as I have shown barium neutralises it outside the body. There must be great variations in the amount of toxic material present at various times, and it may be this variation accounts for the different effects produced by nitrites under apparently the same conditions. Nitrites and nitro-glycerine cannot be relied upon to combat the high tension which is often present long before renal disease declares itself. They act quickly, but not continuously, for they are easily eliminated. There is reason to believe, too, the tissues get accustomed to them if they are given frequently, and become less influenced by them; hence I believe their frequent administration is not desirable in this condition, which, as Huchard and others have pointed out, should be met by milk diet and eliminants. But to relieve some of the discomforts arising from high tension—as headache, heaviness, and dyspnœa—the administration of liquor trinitrini or the nitrites is often of great service, and in the dyspnœic paroxysms which accompany the heightened tension from arterial changes when cardiac dilatation has commenced, these drugs are of the greatest value if given in sufficient doses.

Let me lay stress on the word "sufficient." The doses in these cases must usually be large, and an amount which will dilate the vessels ordinarily very fully may have too slight an effect to be of service in chronic Bright's disease. Yet, even in this ailment, full doses at times produce alarming symptoms, and even moderate amounts may give rise to discomforts. It is never wise to commence the administration of nitrites and nitro-glycerine with large doses.

Cheyne-Stokes Respiration.—Filehne many years ago noticed that the inhalation of amyl nitrite will remove the Cheyne-Stokes respiration, and attributed its result to its effect on the vasomotor mechanism. Gibson, however, finds that though it has this effect in some cases, owing, he thinks, to its stimulating effect on the central nervous structures, it produced no influence in others.[5]

Migraine and Headache.—For the relief of headache the nitrite and nitro-glycerine have been much employed, and considerable success has been recorded from their use. Amyl nitrite has been specially credited with the power of relieving migraine, and sometimes curing it. That it will at times cut short an attack, no one who has used it extensively as I have done can doubt, but in my hands its failures have far outnumbered its successes. Even if, as has been suggested, the immediate cause of suffering in some forms of migraine is connected with local vascular contraction, it is not likely that a very temporary dilatation of the vessels could be relied on to restore a normal condition. We know, however, how suddenly tension may fall, and inhalation of amyl nitrite coming at the right time may be the final cause of relief, the dilatation which it causes not being followed by contraction. But perhaps, as Pick long ago suggested, it is sometimes probably a kind of "surprised influence," which immediately takes away the pain when nitrite of amyl is inhaled, just as any other influence, physical or mental, may have the same effect. It not infrequently happens that after amyl nitrite inhalation has succeeded once or twice, it subsequently quite fails to give relief. The drug, indeed, has not maintained its promise, the utility attributed to it in the account of earlier reporters has not been borne out by frequent use. It does not seem likely that nitrite of amyl can permanently cure migraine.

Nitrite of amyl has been used to combat slight forms of headache; and here, too, it is sometimes successful in giving relief, but, as it at times greatly intensifies the pain, its general employment has fallen into disrepute. Nitro-glycerine is probably a far more effective remedy than amyl nitrite. Dr. Hammond and many others have borne strong testimony to its utility in migraine. It is naturally most useful in those attacks in which the face is pale and the radial artery tense. A drop or two of nitro-glycerine in these conditions I have sometimes seen give rapid and long lasting relief, yet this effect is by no means always seen, and in neurotic patients and those with low tension and an easily excitable circulation discomforts may be considerably aggravated. I believe, however, that nitro-glycerine might with advantage be more frequently used for the relief of migraine and headache generally, if care were taken to employ it only where the circulatory conditions point to some degree of high tension. That migraine and other forms of headache have permanently disappeared under its use I do not doubt; it is by no means so certain that this effect has followed because of its use. The dose of nitro-glycerine given for the relief of headache should always be in the first place small. Even a single drop, if the case be not suitable, may prove very unpleasant for the patient. It is sufficient in doubtful cases, at least, to commence with half a drop of liquor trinitrini. If slight relief or no relief ensue in half an hour, a drop may be given, and later on, if necessary, larger doses.

REFERENCES.

[1] *Practitioner*, vol. xlvi, p. 255. [2] *Pharm. Journ.*, 1888, p. 489. [3] *Trans. Ed. Med.-Chir. Soc.*, vol. vi. [4] *Int. Journ. of Med. Sci.*, 1886, p. 105. [5] *Practitioner*, vol. xxxviii, p. 86.

THE FORFARSHIRE MEDICAL ASSOCIATION.—Dr. Rorie, the President of the Forfarshire Medical Association, delivered an address at the thirty-fifth annual general meeting of this Association, recently held at University College, Dundee. His thesis was a defence of the theory of vitalism in opposition to the chemico-physical theory of mere metabolism, which he contended was insufficient to explain the phenomena of life. The officers for the year were then elected: Dr. Russell, of Arbroath, being chosen President; Dr. Rorie and Dr. Dickson, Vice-Presidents; and Dr. McGillivray, Treasurer. The following local secretaries were appointed: Drs. Key (Montrose), Laing (Arbroath), Cable (Forfar), and Leishman (Brechin). Dr. Mackie Whyte, the retiring treasurer, was cordially thanked for his services during his seven years of office. A donation of five guineas was voted to the British Medical Benevolent Fund. The members subsequently dined together, and among the guests were Professor Fraser (Edinburgh), Professor M'Call Anderson (Glasgow), Professors Frankland, D'Arcy Thompson, and Geddes (University College), Dr. Douglas, (Cupar), Dr. Murray (H.M.S. *Unicorn*), and Mr. Walter Campbell.

MEDICO-CHIRURGICAL SOCIETY OF GLASGOW.—The following officers for the year 1893-94 were elected at the recent annual general meeting of this Society:—*President:* Dr. Hector C. Cameron. Section of Medicine: *Vice-President:* Dr. Middleton; *Councillors:* Dr. Auld and Dr. W. A. M'Lachlan: *Secretary:* Dr. C. O. Hawthorne. Section of Surgery: *Vice-President:* Dr. W. J. Fleming; *Councillors:* Dr. Dalziel and Dr. MacPhail; *Secretary:* Dr. John Barlow. Section of Pathology: *Vice-President:* Dr. Charles Workman; *Councillors:* Dr. John Brown and Dr. T. K. Monro; *Secretary:* Dr. R. M. Buchanan. Section of Obstetrics: *Vice-President:* Dr. M. Cameron; *Councillors:* Dr. Lapraik and Dr. Jardine; *Secretary:* Dr. Lawrence Oliphant. *Treasurer:* Mr. Henry E. Clark. *General Secretary:* Dr. Walker Downie.

BACTERIOLOGICAL NOTES ON A CASE OF TROPICAL ABSCESS OF THE LIVER.

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Professor of Bacteriology, College of State Medicine, London.

NUMEROUS researches have abundantly proved that in a large number of cases of dysentery amœbæ are to be found in the intestine. Similar amœbæ have also been found in the liver abscesses of dysenteric cases. Dr. Kartulis, of Alexandria, found amœboid organisms in more than 500 cases of dysentery.[1] The amœbæ were likewise found by him in dysenteric liver abscesses. In 13 cases of liver abscess a bacteriological examination was made. In 3 of the cases staphylococci were isolated from the pus; in 1 case the bacillus fœtidus, and in another the proteus vulgaris. The remaining cases gave negative results. Kartulis suggests that the amœbæ and the bacteria find their way into the liver through the portal vein, and that the pyogenic bacteria excite suppuration in the liver as a result of the lesions previously induced by the amœbæ.

Osler[2] found large numbers of amœbæ in the pus of a liver abscess, and in the dysenteric evacuations of the same patient. The disease had been contracted in Panama. The organisms were similar to those described by Kartulis. Another case of dysentery is recorded by Dr. Lafleur,[3] of Baltimore, in which amœbæ were present, not only in the stools, but also in the liver abscesses. An abscess in the lower lobe of the right lung contained amœbæ. They were also found in the sputum; no doubt as a result of the lung infection. A number of cases that yielded similar results might still be quoted. These instances will suffice to show that in tropical dysentery and its complications amœboid organisms are so constantly met with that they may possibly be the factor, or one of the factors, in the causation of the disease. Kartulis believes that the amœbæ found by him are the cause of tropical dysentery. Osler, in the paper already cited, quotes the following remarks of Baumgarten on Kartulis's observations:

> We regard it as unlikely that the amœbæ could cause all of the conditions in the dysenteric processes. We have no analogy to show that amœboid parasites can induce ulceration, and we rather believe that the pyogenic organisms, well known as exciters of ulcerative processes, are concerned with the amœbæ in the causation of tropical dysentery.

Cunningham and Grassi do not ascribe any pathogenic action to the amœbæ found in the diseased digestive tract; amœbæ have also been found in the normal intestine. In the absence of trustworthy animal experiments one cannot yet say whether the organisms are pathogenic and the cause of the disease or simply harmless parasites.

Councilman and Lafleur,[4] in a paper entitled "Amœbic Dysentery," furnish a very full and complete discussion of this question. In addition to their own investigations a most complete bibliography is given. They hold that the pathology, etiology, and clinical history of amœbic dysentery separate it from other affections in the intestine, with which it has hitherto been classified under the general name of dysentery. The ulcers in the colon generally differ from those found in any other forms of dysentery. The ulceration is produced by infiltration of the submucous tissue and necrosis of the overlying mucous membrane. The ulcers have in consequence an undermined form. In the lesions, unless complicated by the action of bacteria, there is an absence of the products of purulent inflammation. Abscess of the liver, with or without lung involvement, is a more frequent complication than in other forms of dysentery. The amœboid organisms were found at the bases of the ulcers. As regards the liver abscesses the lesions differed from those produced by bacteria, and no pus organisms were found. The abscesses, on the other hand, contained amœbæ unassociated with any other organism. This is the form of dysentery commonly called tropical dysentery, and its cause, according to Councilman and Lafleur, is the amœba dysenteriæ. In all the investigations mentioned above in which amœbæ were found in the liver abscesses, there were also dysenteric lesions of the intestine. The amœboid organisms had wandered from the intestine to the liver, and produced, according to Councilman and Lafleur, a secondary infection of that organ. But the so-called tropical abscess of the liver may be unaccompanied by any dysenteric affection of the intestine (Murchison, Fayrer); and Councilman and Lafleur remark that "Whether or not amœbic organisms are capable of producing the abscesses of the liver so often met with in the tropics without any ulceration of the intestine, must still remain *sub judice*."

A case that I had an opportunity of examining may perhaps aid in the elucidation of the point. I have to thank Dr. G. Thin for kindly drawing my attention to the case, and also Mr. Knowsley Thornton for placing the material at my disposal. The case was that of a gentleman invalided home from India. The diagnosis was made by Dr. Thin of a large hepatic abscess, and an operation decided upon. There were no dysenteric complications, nor could any history of dysentery be traced. The abscess, which was opened by Mr. Thornton, was a large single one, situated in the right lobe of the liver. When it was opened samples of the pus were collected in sterilised tubes, and immediately examined. The pus had a pinkish tinge, and contained liver tissue *débris*, blood cells and pus cells.

A careful microscopical examination was made for amœboid organisms, but the results were entirely negative. On the other hand, the fresh and stained specimens that were made contained numerous staphylococci. They were the only organisms detected in the pus. Plate cultures were at the same time made from the pus. The pus was also directly smeared on potato and on agar-agar, and the tubes so inoculated were kept at blood heat. On the gelatine plate cultures numerous liquefying colonies developed. The macroscopic and microscopic appearance proved that they were colonies of the staphylococcus pyogenes aureus. The potato and agar-agar tube cultures also gave a pure growth of the same organism. Finally, an animal experiment that was made conclusively proved that the organism was the pyogenic staphylococcus aureus.

The examination of this case of tropical abscess of the liver gave, therefore, the following results. The pus contained no amœboid organisms. The only organism found in the pus was the staphylococcus pyogenes aureus, and from the pus pure growths of the staphylococci were obtained on the culture media. There being no history of dysentery in this case, the bacteria did not probably find their way to the liver through the portal vein. They may have gained access to the liver through the bile channels, helped perhaps in their progress there by some diseased condition of the bile duct.

If the above results are confirmed by further examination of similar cases, we may then regard such forms of liver abscess as due not to amœboid organisms, but to a simple invasion of the liver by pyogenic micrococci.

Under Mr. Thornton's care the patient made a perfect and uninterrupted recovery, and has continued in good health.

[1] *Virchow's Archiv*, vol. cxviii.
[2] *Johns Hopkins Hospital Bulletin*, 1890.
[3] *Ibid.*, 1891.
[4] *Johns Hopkins Hospital Reports*, 1891.

FATAL CASE OF SNAKE-BITE IN SOUTH WALES.

By P. P. JENNINGS, M.B.,
AND
R. C. FRASER, M.R.C.S., L.R.C.P.,
Llwynypia, Glamorgan.

THE interest attaching to snake-bites in general, and the comparative rarity of the occurrence of fatal effects from the bites of snakes peculiar to this country, will doubtless prove sufficient apology for the publication of the following case:

A. B., aged 11½ years, whilst playing on the side of a mountain in Glamorganshire on June 3rd, 1893, was bitten by a snake. He saw a bird resting on a fern, fluttering its wings; for the purpose of capturing it he extended his hand, and was immediately bitten by a reptile lying concealed. The bite was at once sucked by someone who had witnessed the incident, and the boy ran homewards.

He was seen professionally within three-quarters of an hour following the receipt of the bite. At this time he presented two distinct punctures, situated about one-tenth of an inch apart, on the middle phalanx of the right index finger. There was no swelling, no tenderness on pressure, no complaint of pain in the part. The case was regarded as a bite from an ordinary "mountain snake," and was treated accordingly. The boy appeared to be of particularly robust physique for his age.

At 5 P.M.—an hour and a half after being bitten—he was decidedly drowsy, and gave evidence of great pain in the affected finger on being roused; vomiting had taken place; his temperature in the axilla was normal; the right hand was swollen, but did not pit on pressure. The pupils were widely dilated and reacted to light.

At 8 P.M. the hand and forearm were very dark, swollen, and brawny; there was excessive tenderness on pressure; extension to the arm was evident. The pulse, temperature, and respiration were normal; mydriasis was present, and he was still vomiting. His drowsiness had completely passed off, the mental faculties being wholly undisturbed; he complained of great thirst, and of severe pain at the site of the initial wound.

At 8 A.M. it was found that there had been progressive extension of swelling, and duskiness of the involved tissues during the night. The whole of the limb and a portion of the right side of the chest and the side of the neck were implicated; tenderness and pain were aggravated. The surface of the body was cold, the pulse at the wrist very compressible and small, the temperature in the opposite axilla normal, and respiration normal; he vomited all ingesta. There was no tendency towards delirium.

At 2 P.M. the upper part of the abdomen on the right side had become affected. He was cyanotic, the countenance pinched and anxious, and the surface covered with clammy perspiration. No pulse could be felt in the radial artery; precordial pulsation was extremely faint. The temperature in the opposite axilla was 98° F., in the axilla of the affected side 101.5°F. Mentally the boy was still quite undisturbed. The respirations were lowered. The pupils were still dilated and reacting to light.

At 7 P.M. information was received to the effect that he was "very much better, and that the parts were not so black." When seen, however, this improvement was found to be fallacious. There was less discoloration of tissue, but much more œdema: all symptoms were aggravated, but his mind was still perfectly clear. The respirations were lowered in frequency.

From this time towards midnight he continued much the same. Death occurred at 1 A.M. Consciousness was retained almost up to the moment of his decease. During no part of his illness had convulsions occurred.

REMARKS.—The recorded fatal cases of snake-bite in this country are comparatively rare. Naturally the main interest in this connection is as to the determination of the exact type of the reptile. Presumably it belonged to the adder species. The respiratory and cardiac centres appear to have been rapidly and progressively affected, while the sensorium remained free. The question arises as to whether the fatal result was due to the toxic action of the specific virus itself or to poisoning of a ptomainous character. In any case, the extreme vascular depression primarily, and the subsequent lowering of respiratory function, coupled with the absence of mental disturbance markedly shown throughout, are facts of great interest.

A SPANISH MEDICAL ASSOCIATION.—A medical association for the protection of the interests of the profession and the fostering of professional brotherhood has been founded in Madrid, under the title of "Asociacion del Colegio Medico de Madrid." The constitution and by-laws of the Association were agreed upon at a meeting recently held at Madrid, under the presidency of Dr. Julian Calleja, Dean of the Faculty of Medicine, and a member of the Spanish Senate. Among the members of the provisional committee of management are the Marquis de Guadalerzas, the editor of the *Siglo Medico*. Dr. Angel Pulido, the well-known medical publicist, and most of the leaders of the profession in the Spanish capital.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

HEART DISEASE DUE TO BICYCLING.

LAST year a patient came under my observation on account of a feeling of discomfort in the region of the heart following any severe or prolonged exertion. The interest of the case lies in the fact that there is a definite organic lesion consequent on bicycling, and for that reason it seems worth recording.

A. K. C., aged 34, a clerk, had had no previous illness with the exception of influenza two years before; he dated his cardiac affection from that. He also complained of occasional indigestion and "pins and needles" in the feet. For the last five years he had gone in largely for bicycling, and though he had not attempted competitive races, for his own amusement he had raced against time, trying weekly in how short a time he could ride down from London to Brighton. Previous to taking up bicycling he had never indulged in any violent form of exercise, and had lived a regular, sedentary life. His habits were temperate; he smoked moderately. There was a family history of phthisis; none of morbus cordis, rheumatic affections, or gout.

He was well nourished and well developed. The heart's apex beat was in the sixth space in the nipple line; the impulse was diffused, slow, and heaving; the first sound was prolonged. A diastolic musical murmur was heard over the second left intercostal space close to the sternum; it was conducted down the left edge of the sternum as far as the fifth space, and gradually diminished in intensity downwards; the pulse was 54, regular, and rather sudden.

I have no doubt that the cause of this condition is overstrain, giving rise to partial rupture of one of the aortic valves. No doubt the fact that he took up bicycling comparatively late in life, especially after living previously a distinctly sedentary life, had a good deal to do with it. It is also probable that the attack of influenza debilitated him considerably, and that he is quite justified in dating the cardiac affection from that illness.

In conclusion, I think the case indicates that most serious results may ensue from bicycling, and that such results are most likely to occur in the class of men who so largely depend upon this form of amusement for their weekly exercise; I mean the large body of clerks, living a sedentary life during the week, and attempting to gain health and strength by over-violent exertion on Saturdays and Sundays. All such men ought to be warned to be moderate in their exercise, and more especially, not to attempt racing or long distance rides.

Upper Brook Street, W. EDMUND CAUTLEY, M.D.Cantab.

COMMUNICABILITY OF FOOT AND MOUTH DISEASE FROM CATTLE TO MAN.

HAVING lately had under my notice several cases in which foot and mouth disease has been communicated from the contaminated animal to human beings, I think that a short statement regarding the mode and progress of the disease will be of some interest.

In all the cases I have seen the virus has been imbibed through drinking milk from some cow suffering from the disease, and could be directly traced to that source. The first noticeable symptoms are pain in the mouth and throat, with œdematous swelling of the gums and enlargement of the tonsils and submaxillary glands. The processes of swallowing and mastication are attended with much pain and difficulty. The tongue at first appears red and slightly swollen, followed by the formation of a white false membrane over the whole surface of the organ, small pustular eruptions appearing at the tip and along the margin. Small irregular and superficial ulcerations now form, scattered over the interior of the mouth, the roof and floor, and both surfaces of the gums being alike affected, as well as the mucous membrane of the lips. Thus the whole mucous lining of the mouth and fauces is in a state of much inflammation, accompanied by numbers of small ulcerating points, thus causing

considerable pain and inconvenience. The system generally is also affected, as the disease is attended by febrile symptoms more or less marked, and a general feeling of *malaise*.

The peculiar point in connection with this affection, in which it differs from that of cattle, is that the trouble seems confined to the mouth and throat alone, no abnormal appearances of the feet having been noticed.

The disease yields readily to treatment, a wash for the mouth and throat of chlorate of potassium, along with the application of borax honey, being in all cases successful in producing a cure when combined with general tonic treatment by iron and quinine.

G. TRAFFORD TUKE, L.R.C.P. and S.E., L.F.P.S.G.
Bultfontein, Orange Free State, South Africa.

A CASE OF ASCARIS LUMBRICOIDES CAUSING MARKED CONSTITUTIONAL DISTURBANCE.

[Communicated by the DIRECTOR-GENERAL OF THE MEDICAL DEPARTMENT OF THE NAVY.]

G. C., aged 18, seaman, was placed on the sick list on September 19th, 1884, complaining of occasional rigors followed by much heat of skin and pain in the epigastric region; the breathing was hurried, the pulse full and rapid, the tongue coated thickly with a dirty white fur, and the breath fœtid; there was much thirst and anorexia, but no headache or vomiting. The temperature was 103.4°; the respirations 22; and the pulse 120.

The patient stated that he first felt ill on the evening of September 17th, feeling a chill whenever he went to lie down, but this did not prevent him doing his usual work. On September 18th the cold chills continued when lying down, and he felt for the first time a pain in the epigastric region.

On admission a careful examination was made of the back and front of the chest; air was found to enter both lungs freely, and no dulness on percussion was discernible anywhere; the heart's action was rapid, the sounds perfectly normal. The rigors, high temperature, and hurried breathing led one at first to suspect "pneumonia." At 9 P.M. the temperature was 102.4°.

On September 20th the patient still complained of epigastric pains, the rigors had ceased, the temperature was 100°; there was less heat of skin, the pulse was quieter, 86; the tongue continued coated; there was no appetite; the bowels were irregular. He was ordered ol. ricini ℥vjss and mist. quiniæ bis die. At 9 P.M., when the temperature was 103°, the bowels had been freely open, and he had taken a little food during the day; the body felt warmer, and the skin was acting well.

On September 21st the temperature was 99.8°, and the pulse 100. The patient stated that he felt better. At 11.30 A.M. he felt a peculiar choking sensation in his throat; on spitting, he spat up a fair-sized "ascaris lumbricoides," alive and of a bright red colour. An emetic was administered, thinking there might be another worm or a part of one. He vomited most freely, but no signs of another intruder of the above character were evident; shortly after this he lost all pain in the epigastrium, felt very much better, and commenced to eat his food heartily.

On September 22nd the temperature was 98.4°, the pulse 80, and he complained only of being weak. He was taking food well; the tongue was cleaner; there was no thirst or sweating; he was, in fact, free from all febrile symptoms.

During the few following days the patient rapidly got stronger, and was finally discharged to duty on September 25th, feeling in perfect health.

Remarks.—The points of interest about this case are, first, the well-marked febrile symptoms at the onset of the disease, leading one at first very naturally to suspect some congestion of the lungs, or the commencement of one of the eruptive fevers; and, secondly, the rapid decline of temperature and almost immediate abatement of all the severe symptoms and gradual return to health and vigour on the passing of an entozoon.

The late Dr. Spencer Cobbold, F.R.S., with whom I corresponded relative to this case, kindly sent me the following statement, with full permission to make use of it: "There is no parasite so capable of producing anomalous symptoms as "ascaris lumbricoides." This arises from its well-known erratic habits. Quite a multitude of cases have been published where the worm has either passed through or lodged itself within the pharynx, mouth, and nasal passages; many instances are also on record where the worm has passed into the larynx, the trachea, and even into one or other of the bronchi. The urgent symptoms in the cases in which the air passages happened to be invaded were commonly hurried respiration, acceleration of the pulse, dyspnœa, convulsions, and more or less rapid asphyxia; but neither in these, nor in those more numerous cases where the gullet alone was invaded is there, so far as I am aware, any record of the occurrence of severe febrile disturbance such as you describe in your patient's case; at all events, chills and rigors are not mentioned. Clinically, therefore, I think the case of much interest."

ALFRED T. CORRIE,
Fleet-Surgeon, R.N.

A CASE OF POISONING BY BELLADONNA, OPIUM, AND CONIUM.

ON the evening of November 8th I was called to Mrs. B., aged 79, who had had administered to her inadvertently a tablespoonful of a liniment intended for outward application. The tablespoonful she had swallowed contained 10 grains of extract of belladonna, 10 grains of extract of conium, and 80m of tincture of opium. It was 5 P.M. when this happened, and it was not till 6 P.M. that the mistake was discovered by her stupor and comatose condition. On arriving at 7 P.M. I found the following symptoms: Total insensibility and coma, stertorous breathing, pupils largely dilated and irregular, cold hands and feet, pulse 130, exceedingly feeble and intermittent, hurried respiration, and ptosis of both eyelids.

The stomach pump was immediately used, bringing away a quantity of black grumous-looking fluid. The stomach was thoroughly washed out, and strong coffee injected. Mustard poultices were applied to the nape of the neck, calves of the legs, and over the region of the heart, galvanism was kept up for an hour, and cold-water flipping and friction with a rough towel over the chest and limbs.

The first symptoms of consciousness were noticed about 10 o'clock, three hours after I arrived, and five hours from the time of the accident. If left alone for a few seconds she would again lapse into unconsciousness, so the treatment was continued till 3 A.M., when she was allowed to rest. On visiting her again at 9 A.M. she was perfectly sensible, but extremely exhausted. The temperature was 103°, pulse 120, the tongue and throat dry and parched. She took nourishment fairly well, but gradually sank forty-eight hours after taking the dose. Although she apparently recovered from the direct effect of the poison, her death must be attributed to exhaustion owing to the shock the system had received.

Beckenham. GEORGE WELLER, M.R.C.S.Eng.

RECURRENT SPINDLE-CELLED SARCOMA OF LOWER JAW: EXCISION: CURE.

C. M., aged 51, came under my care in November, 1886. Six months previously an epulis had been removed from the gum, together with several teeth; immediate recurrence had taken place, and the disease was now advancing very rapidly. The whole body of the lower jaw was greatly thickened, the gum being ulcerated. From the symphysis a large hard nodular tumour projected backwards under the tongue, which was healthy. On both sides were several tender and enlarged lymph glands adherent to the preceding. Superficially the disease almost exactly resembled epithelioma advancing from the floor of the mouth, and infiltrating the bone; had it been the latter an operation would have been futile and worse. The history, absence of pain, and good general health proclaimed, however, a sarcoma, and the mass was accordingly excised by median incision, the jaw being divided on the left side immediately below the coronoid process; on the right, a little lower. The microscope proved the lesion spindle-celled sarcoma; there were no myeloid corpuscles. Rapid recovery followed; and there has been no further recurrence, the patient being last seen in the best of health on July 3rd, 1893. An interesting point in illustration of the remedial powers of Nature was that for several months after the operation the saliva continuously dribbled from the mouth, and a sponge apparatus had to be worn. A ridge was

then formed in the mucous membrane of the floor, which completely stopped this troublesome symptom.

Herbert Snow,
Gloucester Place, W. Surgeon Cancer Hospital, Brompton.

REPORTS

ON

MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

WEST RIDING ASYLUM, WAKEFIELD.

TRANSIENT MOTOR AND SENSORY DISTURBANCES FOLLOWING UPON TREPHINING IN A CASE OF GENERAL PARALYSIS OF THE INSANE.

(By Edwin Goodall, M.D.Lond., B.S., M.R.C.P., Assistant Medical Officer and Pathologist.)

The after-history of this case was marked by certain events of interest which it is proposed to note here, without, for the present, entering into the theory of the operation performed, or the effect produced by it upon the patient's disease. The operation was undertaken quite early in the second stage of the disorder. At the time the patient was working actively in the ward; she had had no fits. I trephined the skull at the right side at a point 1½ inch behind the centre of the external auditory meatus, on Reid's base line, and 2½ inches above this line. On turning aside the dura mater, incised crucially, a sulcus of considerable size was seen, running about horizontally from before backwards, rather below the centre of the trephine hole. The other objects visible were two gyri above and below the sulcus respectively, and much more could be seen of the superior than of the inferior. From experience on the dead body the writer concluded that the exposed portions of brain formed part of the superior and middle temporo-sphenoidal gyri towards their posterior extremity; the sulcus was the first temporo-sphenoidal. Its size precluded the supposition that it was a minor sulcus, and operations on the cadaver at this site had never brought into view the Sylvian fissure or the second temporo-sphenoidal sulcus. The pia-arachnoid over the lower half of the superior gyrus was torn up, and a director passed beneath it into the sulcus; thus a large vein in the arachnoid bridging the latter was avoided. Sufficient space was cleared, and a rather large horsehair drain inserted into the sulcus. The fluid which escaped on incision of the lepto-meninges was quite insignificant in amount. The subdural fluid, also, was scarcely noticeable. The bone was not replaced. The wound was dressed with boracic lint.

The patient went on well until the fifth day. The evening temperature on the day following operation was 102°, but afterwards the temperature was never more than 100°. On the morning of the fifth day her articulation was noticed to be considerably slurred; before operation but little speech defect was noticed. On the following day the speech was so defective that it was quite impossible to understand most of what she said. She spoke like a person in an advanced stage of general paralysis, though not so slowly. There was no aphasia, sensory or motor; the articulation alone seemed at fault. Mentally there was no change. On the morning of this (sixth) day she had a convulsion, not seen by the writer. The nurse in charge said the spasm involved the whole left side of the face and the left limbs. She appeared throughout to be conscious. The attack lasted, perhaps, one quarter of an hour. The writer saw her directly after it, when she was in her normal state. On the evening of the same day the seizure recurred, and was seen by the writer. The lower part of the left side of the face and the tongue were involved in a series of short sharp twitches. The mouth was drawn over to the left. The upper part of the face and the eyes were unaffected, so also were the limbs. The patient was quite conscious. The twitching lasted one quarter of an hour. Speech was still very defective. The horsehair drain was removed. On the following day the twitching recurred (seen by writer). It involved the whole left side of the face; spasmodic movements of the tongue were also present. The patient was conscious. The duration of twitching was as before. Speech was now much clearer.

Twitching came on again the next (eighth) day, lasting the best part of one hour. It was said by the nurse to be localised precisely as before. The patient remarked that it was preceded by a "numb feeling" in the tongue and a "bitter taste." This had been the case with each attack. Speech by this time was nearly as good as before operation. There was slight twitching of the same parts again on the eleventh day; this soon passed off. No more occurred. The speech was not again defective. On the twelfth day the patient spoke of a "singing noise" in the left ear, which troubled her a good deal; it was presently experienced in the right ear as well. After persisting in both ears simultaneously for two or three days it disappeared. There was never a more highly elaborated aural hallucination than this. No delusion arose out of it. The patient recovered from the effects of the operation without further symptoms.

Remarks.—The events described (the localised convulsions, the articulatory defect, the aural hallucinations) one naturally accounts for on the theory of irritation, by a spreading congestive, possibly inflammatory, process of the cortical centres connected with the parts involved in disturbance. A temporary defect of articulation may no doubt arise from a one-sided affection of the cortex, or path from it. The accidental motor disturbances were quite unexpected, as it was with the object of avoiding interference with the motor functions that the part operated on was selected. In view of the site of operation, it seems strange that the local spasms were preceded by subjective sensations in the tongue always, and never by aural hallucinations. The singing in the ears did not, indeed, come on until the day after the spasms finally disappeared. This last occurrence is of much interest, as the posterior portion of the first temporo-sphenoidal gyrus was involved in the operative procedure.

In order to gain thorough access to the sulcus below the gyrus, the pia-arachnoid was incised along the centre of the latter, and torn up for a length of about one-half inch; in this proceeding the subjacent cortex was unavoidably injured. In making a space in the sulcus for the horse-hair drain slight additional injury was doubtless inflicted. The drain itself possibly acted as an irritant. The fact that the singing was heard in the right ear as well as in the left—in which it was first experienced—is intelligible on the consideration that each auditory nerve is connected with both hemispheres.

NOTTINGHAM GENERAL HOSPITAL.

FOREIGN BODY IN THE NOSE FOR TWENTY-SEVEN YEARS.

(Under the care of Dr. Handford.)

[By Alfred Waring, M.B., House-Physician.]

J. A., aged 31, nursemaid, was admitted on May 20th, 1893, suffering from nasal obstruction and a discharge from the left nostril. It was said to have followed an attack of influenza. A watery discharge from the left nostril was first noticed 2½ years ago after the attack of influenza, which continued until Christmas, 1892. Since then it has been thicker and "yellow, like matter," having an extremely offensive smell, recognised even by those standing at a distance, but only slightly by herself. On forcible expiration through the nose the left side proved to be completely obstructed, and the right side moderately free. The patient was a healthy and intelligent woman, with no sign of organic disease. There was no history of tubercle or syphilis. She appeared to have undergone the routine course of constitutional and local treatment, and said that on two occasions her doctor removed pieces of bone from her nose.

On May 22nd, the patient having been placed in a suitable position for examination by strong sunlight, the interior of the mouth and pharynx were first examined and found normal. A nasal speculum was then passed into the left nostril, well dilated, and held *in situ*. The appearance presented by the nasal cavity was that of a decaying or necrosing condition of the mucous membrane, with yellow and grey sloughy patches, combined with hyperæmia around and a

reddened vascular appearance about the roof and outer sides of the cavity. The opening was blocked by this conglomerate of decaying material and reddened vascular membrane. On passing a probe into the cavity a grating sensation was felt on the outer side and also posteriorly, obstructing the passage of the probe towards the pharynx. By means of a straight serrated forceps small spicules of dead bone and sloughing tissue were grasped and removed piecemeal from the outer side and floor of the cavity, as well as several polypoid growths of somewhat firmer consistence than clotted blood. Having removed these from the interior a movable mass of what felt like dead bone (sequestrum) was sounded almost in a direct line backwards situated about the posterior nares. With some difficulty and manipulation this movable mass was grasped in the forceps, and forcibly drawn out through the left nostril. It presented an irregular gritty surface, in shape was somewhat oval, and about the size of a filbert nut. On being broken up it was found to have for its nucleus a cherry-stone in perfect condition, around which was encrusted a layer of calcareous matter one-third of an inch in thickness, making the whole mass one inch in its longest diameter. A good deal of bleeding followed, but was stopped by irrigation with a solution of tannic acid. The right nasal cavity was examined, and presented nothing abnormal except some slight congestion and thickening of the mucous membrane. There was never any discharge from the right side.

On making further inquiries into the history of the case, the patient states that she is said to have passed three or four cherry stones into her nose when four years old; and this statement is corroborated independently by both the parents, who give a lucid and positive account of the occurrence having taken place at that age, when two cherry stones had to be removed. The patient, moreover, declares she has never suffered from a discharge or other symptoms of irritation which one would have expected previously to the onset of this affection 2½ years ago, so that the absence of symptoms or of any discomfort from the presence of such a foreign body over so many years is of peculiar interest.

A rapid recovery followed, and the patient was discharged in a fortnight completely cured.

REPORTS OF SOCIETIES.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

Henry Power, F.R.C.S., President, in the Chair.

Friday, July 7th, 1893.

Epithelial Pearl Tumour in the Iris, following Implantation of Eyelash in the Anterior Chamber.

This paper, by F. Richardson Cross and E. Treacher Collins, was read by the latter. J. C., aged 8, presented himself for loss of sight in the right eye, seven months after the eye had been wounded with a piece of wire. On examination, the eye was free from inflammation, tension normal, traumatic capsular cataract, with posterior synechiæ. At the upper inner segment of the anterior chamber was a small nodule, from which an eyelash passed downwards in front of the iris. An operation was undertaken to remove the eyelash, and if possible the small nodule, which was diagnosed to be an epithelial implantation cyst growing from the root sheath of the cilium. The eyelash was readily removed, but the cyst was closely adherent to the iris, which was in its turn so fixed by adhesions, that it could not be extracted, but came away piecemeal in the forceps. The wound healed well. Two months afterwards the tumour had commenced to grow again. The patient then disappeared for nearly a year, when he returned with great irritability, lachrymation, and photophobia of the right eye. The tumour had much increased in size, and as the left eye was sympathetically irritated, and the former operation had been so difficult, the eye was enucleated, and sent to Mr. Treacher Collins, who reported the tumour to be surrounded by pigmented iris tissue, and free of cornea, vitreous and ciliary body. The mass situated in the iris was a cyst with opaque white contents lined by laminated epithelium, the cells in contact with the iris tissue being the best developed, the innermost ones being flat and scaly; the contents of the cavity consisted of fat globules and polyhedral cells in which no nucleus was stained. They were probably epithelial cells undergoing degeneration. The papillary border of the iris was united by newly-formed fibrous tissue to the anterior capsule of the lens. Seven analogous cases were quoted as showing that the histology of the tumours was similar to this, and that all had resulted from a long residence of an eyelash in the anterior chamber. In contradistinction the successful result of early removal of eyelashes from the anterior chamber was mentioned, and the immediate diagnosis of such a condition and its prompt treatment insisted on.

Dr. Rockliffe (Hull) referred to a case he had reported to the Society,[1] in which a cystic growth in the anterior chamber followed the implantation of an eyelash. Since that date he had had another case under care in which one eyelash, perhaps two, had been carried into the anterior chamber through a corneal wound by a piece of wire.

Mr. Ernest Clarke had reported a case two years ago. He had been able to remove the eyelash.

Mr. Snell (Sheffield) referred to a case now under his observation. He had operated on the patient for cataract fourteen years ago; there was now a cyst in the anterior chamber, which he thought might be of the same nature as that described by the previous speakers.

The Diagnosis and Prognosis of Pathological Myopia.

Dr. Rayner D. Batten read this paper, and after reference to a former paper, in which he maintained that myopia was frequently the result of constitutional disease,[2] he said that the object of the present communication was to show that a diagnosis of the constitutional cause of myopia might be made from the condition of the fundus. Physiological myopia should be confined to a simply refractive condition, in which there was no fundus change of any kind. Pathological myopia was not necessarily a refractive condition, and might even be associated with emmetropia or hypermetropia, and was characterised by the formation of crescents, the stretching and distortion of the vessels, the presence of staphylomata, local and general disturbance of pigment. At present physiological myopia was not distinguished from pathological myopia in its early stages, but only when the latter was far advanced. Pathological myopia might be acute, chronic-progressive, or stationary. The acute might end in arrest, or become chronic, and might be the result of various constitutional diseases. In the chronic form a diagnosis might be made between myopia due to cardiovascular conditions, struma and inherited syphilis, and unhealthy occupations. Pigmentary changes are associated with myopia, marked pigment change at the margin of the crescent was a sign of acute myopia, and in the chronic form a distinction was made between a thin choroid, rendering the choroidal vessels visible and occasionally associated with a very fine dust-like retinal pigment change, and a choroid in which the pigment appeared divided into islands; the former was attributable to cardiovascular conditions; the latter, to strumous or specific disease. Staphylomata, four classes: (1) That in which the staphyloma was in the macular region; (2) that in which it occurred on the nasal side; (3) that in which the optic disc formed the deepest part of the staphyloma; and (4) that in which it took place towards the periphery. In all cases except the first the refractive condition at the optical axis was no measure of the extent of the myopia. Peripheral myopia was a cause of astigmatism, by causing distortion of the lens and cornea. Distortion of the vessels, three forms: (1) When the vessels were drawn from their normal course in relation to the optic disc; (2) when they appeared stretched and straightened; (3) when they emerged by separate branches from the optic disc. The direction of the distortion of the vessels depended on the position of the staphyloma. This was particularly marked in cases of nasal staphyloma, the vessels being drawn to the nasal side of the optic disc, and the macular branches having to bend back in order to supply that region. Distortion of the

[1] *Oph. Soc. Trans.*, 1883.
[2] *Oph. Rev.*, January, 1892.

vessels was one of the early signs of commencing myopia. The direction of the distortion pointed to the position of the staphyloma, and the degree of the distortion or stretching of the vessels was an important factor in the prognosis. Central (physiological) cupping of the optic discs, was a form of the staphyloma, and an early manifestation of commencing myopia, and responsible for the exit of the vessels from the optic disc in numerous branches, the main trunk of the vessels having been drawn into the staphyloma. The early premonitory signs of myopia were central cupping, distortion of the vessels, commencing crescents, and astigmatism.

Recurrent Third Nerve Palsy associated with Migraine.

Mr. Snell (Sheffield) related two cases; one was in a young man, aged 27. Migraine had existed since the age of 10, but only for the last seven years had the eye been closed with the attacks. The attacks, at first at intervals of about eight weeks, now recurred every two or three weeks; they lasted three or four days. The palsy of the third nerve was practically complete; ptosis and paralysis of the ocular muscles including dilated pupil and palsy of accommodation. The attacks commenced with vomiting and headache. The ocular palsy in the interval did not completely pass off, and the latest accounts, two years after he had last been seen, indicated that the drooping of the lid was becoming more permanent. The second case was in a girl, aged 18. She had two attacks at intervals of four years, though migraine outbreaks continued in the interval. Each time she had made a perfect recovery, though the third nerve was not, at the worst, as completely involved as in the first case. Recovery was much longer in taking place. Mr. Snell gave additional particulars of a similar case he had brought to the notice of the Society some years ago. He remarked that the shorter the interval the more rapid appeared the recovery in these cases, and also that the affection was always monocular, and showed no disposition to affect the other eye.

Living and Card Specimens.

Mr. Work Dodd: Pemphigus of Conjunctiva.—Mr. Holmes Spicer: Ectopia Pupillæ.—Dr. Batten: Pigmentary Moles in Retina.—Mr. MacKinlay: Hyperostosis of Skull.—Mr. Lawford: Microscopic Sections of Sarcoma of Conjunctiva.—Mr. Adams Frost: (1) Retinitis Proliferans, (2) Papillary Growth of Cornea.

Election of Officers.

At the conclusion of the meeting the annual general meeting of the Society was held for the election of officers for the ensuing session, and to receive the report of the Council. The following officers were elected: *President:* D. Argyll Robertson, M.D. *Vice-Presidents:* Edgar A. Browne (Liverpool), George Lawson, Stephen Mackenzie, M.D., William M. Ord, M.D., D. C. Lloyd Owen (Birmingham), Henry Power, Simeon Snell (Sheffield), John Tweedy. *Treasurer:* George Cowell. *Secretaries:* Charles E. Beevor, M.D.; Gustavus Hartridge. *Librarian:* W. Adams Frost. *Others Members of Council:* Ernest Clarke, M.D.; F. Richardson Cross (Bristol); J. Mackenzie Davidson, M.B. (Aberdeen); Robert W. Doyne (Oxford); A. Hill Griffith, M.D. (Manchester); J. R. Lunn; Joseph Nelson, M.D.; J. A. Ormerod, M.D.; W. C. Rockliffe, M.D. (Hull); A. E. Sansom, M.D.; G. H. Savage, M.D.; A. Quarry Silcock. After the customary vote of thanks to the retiring officers, the Society adjourned till October.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Wednesday, July 5th, 1893.

Joseph Bell, M.D., F.R.C.S.E., President, in the Chair.

Cases.

Dr. Andrew Smart showed (1) a case of Hysterical Paralysis in a girl of 13. (2) Two cases of Spastic Disease, one in a miner of 28, who also had nystagmus, and the other in a young man of 22. The former case was apparently not a pure case, since there were also present certain ataxic features; it was a case of ataxic paraplegia. The second case was notable in that symptoms began to come on at the age of 20 months, when he had as an infant a sharp attack of scarlet fever. Certain features suggested Friedreich's disease.—Mr. Alexis Thomson referred to a case of Extraperitoneal Rupture of the Bladder in a miner, aged 21, on whom a mass fell in the mine, injured the thigh, and caused an anterior vesical rupture (slit-like). After apparently emptying the bladder there remained an area of dulness, sharply defined, above the pubes. This was cut into and drained, and the man had recovered from that part of his injury, though he was still under treatment for the condition of his thigh.

Treatment of Anæmia and Chlorosis.

Dr. Smart read a paper on the treatment of anæmia and chlorosis by the chief iron preparations commonly in use. He objected to Bunge's hypothesis as to the causation of anæmia by the occurrence of sulphuretted hydrogen in the alimentary canal, that this attacked the organic iron normally found in food stuffs, and led to starvation. This theory was at variance with his (the speaker's) clinical experience. He had never been able by any preparation of iron to get the hæmoglobin of the blood to a higher percentage than 90, though he had constantly found the red blood corpuscles much in excess of the normal 5,000,000. He grouped the iron preparations in the order of their effectiveness in anæmia and chlorosis, thus:—(1) ferri sulphas; (2) ferri carbonas saccharata; (3) ferri protochloridum; (4) ferri phosphas; (5) ferri peroxidum hydratum; (6) mangano ferri peptonas; (7) bipalatinoids equivalent to Blaud's pills; (8) ferri citras.

Dr. Gillespie quite agreed as to Bunge's erroneous theory. As to the protochloride of iron disagreeing, he thought if Dr. Smart would try the glyceride or the simple protochloride itself, he would find much less disagreement.

A New Urethral Instrument.

Mr. A. G. Miller read brief notes on a new urethral instrument, which was a combination of the ideas of Syme, Spence, and Lister, and he claimed for it in tight and difficult strictures: (1) that because it was rigid it could be carefully guided; (2) that it had a fine probe point which enabled it to enter a stricture; (3) that it was heavy, and no force was needed; (4) that it had a powerful wedge on the shaft, and that after its use a good sized bougie or catheter could be immediately passed. It very rarely drew blood.

Ruptured Kidney.

Dr. W. A. Finlay read notes of a case of ruptured kidney, with recovery after lumbar incision and drainage, which has already been referred to in the British Medical Journal of June 17th.

EDINBURGH, AND STIRLING, KINROSS, AND CLACKMANNAN BRANCHES OF THE BRITISH MEDICAL ASSOCIATION.

Conjoint Meeting.

Friday, July 7th, 1893.

G. W. Balfour, M.D., in the Chair.

Phenazone, Acetanilide, and Phenacetin.

A discussion on the alleged ill effects following the administration of phenazone, acetanilide, and phenacetin, was opened by Dr. Stockman, who began by explaining that these three substances, like salicylic acid, were all derivatives of phenol. Their chief action was on the nervous system (chiefly on the brain and spinal cord), and on the hæmoglobin of the red blood corpuscles. Because these drugs had in some cases caused unpleasant or even serious symptoms, that was no reason why they should be entirely dropped. In health, a moderate dose (5 to 10 grains) gave rise to no symptoms save a stimulation of the central nervous system, but this was not felt unless one were tired. Larger doses depressed. Of the three drugs antipyrin was the most stimulating, phenacetin next, and antifebrin the least so. Their effect on the blood was to convert the hæmoglobin into methæmoglobin, with the result that dyspnœa was induced. Further, there was a destruction of corpuscles, next to nothing in the healthy, but in feverish, cachectic, or anæmic states, pretty considerable. In these states antifebrin was more toxic than the others. The effect on respiration was depression through the brain centres and through the blood. All three drugs acted on the vasomotor system, depressing

the centre in the medulla. When a person was poisoned, a slight case merely showed a small degree of cyanosis, and in many cases faintness. In more severe cases a marked degree of cyanosis was seen, eruptions appeared, palpitation, extreme depression, convulsions, and death. Various eruptions were caused by the drugs, and sometimes œdema of the lips and face was noticed. Neuralgia was often intensified by pressure of the dilated vessels. Antipyrin was most powerful in producing these vasomotor symptoms. Cyanosis was most marked after antifebrin. The temperature often suddenly fell below normal, and collapse might ensue. This was more marked in phthisis, and also in typhus and typhoid fevers. Collapse depended not so much on the dose as on the fall of temperature. Sometimes there was a rise of temperature; this was due to the action of the drug on the vasomotor centre. The heat centres were controlled by antipyrin, etc., but if the vessels going to these cells were powerfully affected very high temperature resulted. The thermic cells were stimulated through the vessels. This seemed to occur most with antipyrin. All three drugs were irritating, and sometimes nausea and vomiting were produced, but chiefly in the feeble. In kidney disease poisoning might occur if excretion did not go on. Finally, one had to remember the possibility of the formation of an antipyrin habit. There were regular antipyrin customers at all the chemists', and phenacetin was nearly as much used as antipyrin.

Dr. DON (Dunfermline) had never seen any ill effects from antifebrin. He was not so favourably disposed towards antipyrin, and phenacetin he considered a mere toy.

Dr. ORR (Tayport) had seen great cyanosis for twenty-four hours, but the case was one of aortic stenosis.

Dr. W. RUSSELL (Edinburgh) said the effect of antifebrin on himself was, on one occasion, most profuse and painful perspiration. He believed in its good effects on children. For antipyrin he had only praise, and he highly valued phenacetin in supra-orbital headaches.

Dr. J. RITCHIE (Edinburgh) considered phenacetin a safe hypnotic. Antipyrin was of great value in headache. He had seen a few cases where an extension of pneumonia was one of the ill effects of antipyrin. He thought the drug should never be used in influenza.

Dr. TUKE (Edinburgh) said that in sthenic cases of mental excitement, antipyrin was most phenomenal in its effects.

Dr. SPENCE (Burntisland) had seen cyanotic effects from antifebrin prolonged for several days. He considered phenacetin very safe in moderate doses.

Dr. ELDER (Edinburgh) used antipyrin freely, never gave more than 10 gr., did not repeat too often, had never any ill effects. It was of great value in the head symptoms of influenza, and was contraindicated in kidney disease.

Dr. MACDONALD (Cupar) and Dr. MCNAB (Dysart) had seen cyanosis, erythema, and œdema from antipyrin.

Dr. LUNDIE (Edinburgh) had never seen any alarming effects. He always began with small doses. Excessive perspiration in weakly subjects seemed to him the most frequent ill effect.

Dr. R. W. PHILIP (Edinburgh) read a letter from Dr. Ronaldson (Haddington), mentioning a case of eruption almost like erysipelas after antipyrin. In Dr. Philip's own experience in the depression of phthisis these drugs were unsafe because of the excessive perspiration, and because the tendency of such persons to eruptions was very great.

Dr. STOCKMAN replied.

COUNTY AND CITY OF CORK MEDICAL AND SURGICAL SOCIETY.

Wednesday, April 26th, 1893.

N. GRATTAN, M.D., President, in the Chair.

OSTEOCLASIS.

THE PRESIDENT read notes of a series of cases in which he had operated by means of his special osteoclast:—Knock-knee (femur fractured), 71; (legs fractured), 6 = 77; club feet (legs fractured and rotated), 21; (tarsi crushed), 10 = 31; curved legs, 43; others, 2; total, 153. He exhibited to the Society the latest form of his osteoclast, which he has improved in many ways.—In the course of the discussion which ensued, Dr. CORBY expressed himself in favour of osteotomy.—Drs. COTTER, MORIARTY, and WOODS spoke in favour of osteoclasis as performed by the President.

OLD UNUNITED FRACTURE OF THE PATELLA TREATED BY WIRE SUTURE.

Dr. COTTER read notes of a successful case in a man, aged 30. The bones were sutured with strong silver wire sutures, the fragments being drilled obliquely not to injure the articular cartilages. The limb ankylosed in a straight position, which had not been interfered with. The patient was now able to walk about with the greatest confidence, and could follow his avocation of horse trainer without difficulty.

REVIEWS.

THE NEUROSES OF DEVELOPMENT. Being the Morison Lectures for 1890. By T. S. CLOUSTON, M.D., F.R.C.P. Edin., Physician Superintendent to the Royal Edinburgh Asylum. Edinburgh: Oliver and Boyd. London: Simpkin, Marshall and Co. (Demy 8vo, pp. 146, 9 plates, 7s. 6d.)

THE lectures before us are eminently readable and are full of suggestive thought. The general physician and surgeon will find plenty in them to study, while for the alienist there is food for prolonged digestion. Dr. CLOUSTON has an eloquent, persuasive, and forcible way of putting things which enables his readers to grasp and carry away his ideas. The first of the three chapters, representing the three lectures, is concerned with the periods of development and the errors which may arise in the development of mind and body at the various periods; these defects are classified and arranged.

Then follows a consideration of the three factors of development: age, onset of function, and heredity. The occasions which bring out the defects are then noticed; the correlation of functional development is carefully studied. This is succeeded by one of the best pieces of Dr. Clouston's work—the investigation of speech development in relation to mind. Those who have had much to do with insanity and have been able to trace family histories among their patients are always struck by the stammering speech met with among the neurotic, and speech defects may be considered as almost gauges to the state of mind growth. All this Dr. Clouston exemplifies.

In the second lecture a piece of excellent original work is that concerning the palate and its relation to mental defect. Already Langdon Down and Claye Shaw, in England, have published interesting monographs on the form of the palate among the feeble minded; these authors differ somewhat in their results, and Dr. Clouston has taken more pains than either in taking moulds of the palate in many classes of persons of various ages and of various moral and intellectual grades. It is interesting to find in the results here set forth that in all the classes in which there is moral or intellectual defect not only is there a correlated defect in the palate, but also that there are distinctly defective forms of palate beside the small, namely, the malformed and the neurotic, this last being a sign of hereditary weakness which may be of real value in prognosis among the sufferers from adolescent insanity.

We are glad to find that Dr. Clouston objects to the idea that degeneracy is necessarily a reversion to savage types; as he points out the deformed and the neurotic palates are found in the degenerate and not in the savage. Notwithstanding this, he makes use of Langdon Down's terms, such as the "Kalmuc" type of idiot, etc., which connote an association which may be misleading. We should like to have had space to quote the full and elaborate summing up on the whole question of the palate and its relations to mental defect, but must refer readers to the work itself. Dr. Clouston agrees with Dr. Ireland in thinking that traumatism has been given too much weight as a cause of idiocy; as he observes, it is a way of getting over the probably neurotic heredity. We think it would have been better not to have used the term "infantile paralysis" as equivalent to paralysis occurring in children, for the term has a special connotation in general use.

In the chapter on "Developmental General Paralysis" we have the most original part of the book. This disease has till recently been overlooked. Dr. Clouston believes the origin of this premature decay of the nervous system to be in many cases congenital syphilis; this is the more interesting, as in his *Manual* he has hardly accepted syphilis as a cause of insanity. We think, too, in this connection that he might have made more of the special influence of syphilitic parentage on the developmental neuroses. The relationship of defective development with epilepsy is very carefully studied, though Dr. Clouston is not prepared to accept the changes in brain cortical cells, as described by Bevan Lewis, as the true cause of the epilepsy.

"Hereditary Insanity of Adolescence" is another subject which is well treated; but it is not easy to accept the estimate of recoveries at 50 per cent., for many of these would certainly break down again. It is probably true that very many of these cases can only be looked upon as cases in which decay was inevitable, or, as Dr. Clouston puts it, that they are cases of delayed idiocy, but more notice might under this head have been taken of those hereditarily unstable people who are neither subject to delusions nor weakminded, but who are never stable on the level of sanity; they are up in the clouds, or else in a will-less apathetic state. Such persons may become subject to recurring mania, or they may remain eccentric and unstable for years, or even for life.

We have said enough to show that the small book before us is eminently readable and well fitted for a companion during the holidays, for it is pleasantly written, and is just of that suggestive type that sets one pleasantly thinking over partly forgotten experiences.

MOUNTAINEERING. By CLAUDE WILSON, M.D., Member of the Alpine Club. With Illustrations by Ellis Carr, Member of the Alpine Club. London: George Bell and Sons. 1893. (Crown 8vo, pp. 215, 2s.)

IT is impossible to explain or to justify the practice of mountaineering. "It is a fine day, come let us kill something," may be a fairly true satire on the state of mind of a large proportion of Englishmen (for a still larger proportion the question of weather hardly arises when there is a prospect of killing something), but for many it would be as true to say that their thought is "Here is a hill; come let us climb it." Various excuses are advanced by mountaineers for mountaineering. The most ordinary and specious is a devotion to the sciences of geography, or geology, or meteorology. Nobody is deceived by these excuses; a man climbs because he likes climbing; it is as much a sport as dry fly fishing, and may require very nearly as much skill on occasions. It is a somewhat dangerous sport, perhaps nearly as dangerous as fox-hunting, and the unskilful climber endangers not only his own life but that of every member of the party to which he belongs.

Dr. CLAUDE WILSON frankly admits that mountaineering is a sport. "There is," he says, "an indescribable charm in climbing, which appeals to certain natures." His book is written for the instruction of the beginner; it tells him how to obtain a suitable outfit, how a climbing expedition is organised, it enumerates the dangers of the sport, and points out how they may be avoided. Dr. Wilson counts up sixteen several sources of danger, but he will not admit that more than two "are sometimes unavoidable." These are sudden storms (including thunderstorms), and falling stones. Some of the others are, however, only to be avoided by a combination of good guiding and some skill in the amateur. Dr. Wilson's advice is thoroughly practical, and he has succeeded in writing a book from which, probably, as much may be learnt as can be learnt from reading. The "Hints Medical and Surgical" are plainly and simply written, and appear to be thoroughly sound; perhaps it would have been better to have been more chary of recommending a particular proprietary application and a particular chemist, but, on the whole, this section of the book is written with good judgment. The chapter on outfit is in every way excellent, and the advantages of clothes made throughout of wool are very properly insisted on. The book contains a short Alpine glossary, an excellent index, and numerous cross references in the text.

VORTRÄGE ÜBER BAU UND THÄTIGKEIT DES GROSSHIRNS UND DIE LEHRE VON APHASIE UND SEELENBLINDHEIT. [Lectures on the Structure and Functions of the Brain and on the Theory of Aphasia and Mind Blindness.] Von Dr. Med. HEINRICH SACHS. Breslau: Preuss und Jünger. 1893. (Demy 8vo, pp. 290, illustrations 80, M. 10.)

THIS book does not claim to be an original work, but a compendium of our knowledge of the subjects of which it treats. It is well abreast of the recent discoveries, and considerable judgment has been displayed by the author in choosing the more important facts and properly emphasising them, in putting together what he has to say in a clear and lucid manner, and in infusing much interest into his subject. It is not difficult to believe the statement in the preface, that the lectures which formed the basis of the book were very well received by those to whom they were given.

The first eighty-five pages are occupied with a description of the histological and naked eye anatomy of the brain, which is illustrated by a large number of figures. The histological section is especially interesting and correct. The second half deals with the physiology of the brain. The first section treats of physiological psychology, and will well repay careful reading. This is clearly the branch of the subject in which the author is particularly at home. He next gives an account of removal of the whole and parts of brain. This he has made very interesting by contrasting *seriatim* the results of removal of the whole brain in different classes of animals, and he gives an excellent account of the curiously various effects which are obtained in different groups of fishes. Aphasia and mind blindness are next described, and the book concludes with an account of the physiology of the front half of the cerebrum. In this the description of the basal ganglia strikes us as very meagre.

Most of the facts in the book can be found in English textbooks, but this volume is so clear and concise that no doubt it will be welcomed by persons who read German.

A TEXTBOOK OF THE THEORY AND PRACTICE OF MEDICINE. By American Teachers. Edited by WILLIAM PEPPER, M.D., LL.D., Provost and Professor of the Theory and Practice of Medicine and of Clinical Medicine in the University of Pennsylvania. In two volumes. Illustrated. Vol. I., Philadelphia: W. B. Saunders. 1893. (Roy. 8vo, pp. 922, published by subscription, cloth, 5 dollars each volume).

THE preparation of large works on medical and surgical subjects on the co-operative principle—a co-operation of authors on the one side and of subscribers on the other—appears to be very popular at the present time in America. The volume before us is the latest example. It is edited by Dr. WILLIAM PEPPER, who has already had considerable experience in such undertakings. The contributors are all physicians having experience in teaching, and the general tone of the book is didactic rather than scientific. As is inevitable, the various articles vary much in style and in practical value.

The volume opens with a well-written and easily-read sketch of the bearings of hygiene on practical medicine, by Dr. Billings. Thereafter we are presented with a series of articles on the fevers which do not appear to call for any special comments. They are sound without being brilliant; their tendency is to err, when they do err, on the side of over-conservatism both in the observations on pathology and treatment. The chapters on acute tuberculosis and on scrofula are disappointing, as is also that on cholera, which fails to insist upon the overshadowing importance of water contamination as the main mode of dissemination of cholera; it is stated to be "essentially a filth disease," and that "its chief victims are found in the slums and dirty tenements of the over-populated quarters of large cities," the obvious inference being that the poverty and overcrowding are in some way the determining cause of the cholera.

Of the later articles in the present volume—those on nervous disease, by Drs. Horatio C. Wood and William Osler—it is possible to speak in terms of unstinted praise. Though brief, they contain all that is essential to the subject, and are so admirably compiled and written that they do not appear overloaded with detail, a common fault when a

large and complicated subject has to be treated in a small space. Dr. Wood's introductory chapter on the General Symptomatology of Diseases of the Nervous System is a model in its way of terse writing and succinct statement. The same may be said of that part of Dr. Osler's article on organic disease of the brain which deals with localisation; indeed it would be no exaggeration to apply it to the whole of the article.

The volume contains a good many misprints, but on the whole it may be commended, since the articles are written in a practical spirit, and fairly reflect the present state of medical knowledge.

Practical Observations on the Harrogate Mineral Waters. By A. S. Myrtle, M.D., and J. A. Myrtle, M.D. 4th edition, with additions. Harrogate: Robert Ackrill. 1893. (Cr. 8vo, pp. 242, 2s.)

A new edition of Dr. A. S. Myrtle's valuable work on the waters of Harrogate will be welcome to the profession, enriched as it is with the results of his extended experience, and further enhanced in value and rendered more complete in its details by the co-editorship of his son, Dr. J. A. Myrtle. The fruits of the long experience of so acute and careful an observer as Dr. A. S. Myrtle is known to be, collected and arranged in so readable and convenient a form, compose a work which members of the profession will find of great help to them in selecting cases that are suitable for treatment in this, perhaps the most important of our English spas.

Harrogate not only enjoys an exceptional richness in the number and variety of its mineral springs, but it possesses also a fine open situation and a bracing and invigorating climate, which undoubtedly promote in no small degree the curative and beneficial action of its waters.

The first part of the work is devoted to a description of the various classes of mineral waters represented by the Harrogate springs—the strong and mild sulphur springs, the saline chalybeate ones, and the pure chalybeates. Then follows the more practical and therapeutic part of the work, and in a few thoughtfully and pleasantly written chapters the authors treat: (1) of skin diseases generally, (2) of eczema and psoriasis, (3) of nettle rash, (4) of acne, and (5) of specific eruptions.

The views expressed in this part of the work are independent and original. They will no doubt receive the consideration they merit. Numerous cases illustrative of the value and applications of the Harrogate springs to the treatment and cure of chronic diseases of the skin, stomach, and liver; of cases of chronic gout and rheumatism, neuralgia, anæmia, and many other forms of chronic diseases, including what the authors term "jaded brain," are concisely related, and a useful chapter on "massage" concludes the volume.

We can recommend this work as being what it professes to be—a sound and trustworthy practical guide to the selection and use of the important mineral springs of Harrogate.

NOTES ON BOOKS.

A Pocket Casebook for Practitioners and Students. By Alex. Theodore Brand, M.D., C.M., Medical Officer, Driffield Cottage Hospital. (London: Baillière, Tindall, and Cox. 8vo, 30 cases, 4s.)—This casebook, which is of convenient size for the pocket, bound in limp leather, is intended for the use of general practitioners. Four pages are devoted to each case. The first two of these pages, facing each other, are devoted to the "present state," the various heads of which are supplied. The two following pages are designed for further remarks and for notes of the subsequent progress of the case; they contain also a temperature chart and outline diagrams of the anterior and posterior aspects of the thorax and abdomen. Prefixed to the volume are some Suggestions for Note Taking which are likely to be very useful, and the author suggests some signs and abbreviations which will be found convenient. The volume has an index, and altogether Dr. Brand may be congratulated on having produced a very compact and portable casebook.

Uber den Ausgang der cyanotischen Induration der Niere in Granularatrophie. By Dr. Hans Schmaus und Dr. Ludwig Horn (Wiesbaden: J. F. Bergmann. 1893, royal 8vo, pp. 102, three plates.)—This short brochure consists of two essays, the first by Dr. Hans Schmaus and the second by Dr. Ludwig Horn, both descriptive of work done in the Pathological Institute at Munich. The authors have issued them in the form of a book in order to present it to Professor Bollinger to celebrate his fiftieth birthday. The object of both investigators was to see what relation the kidney indurated from long-standing backward venous pressure, as in heart disease or lung disease, bears to kidneys that have undergone ordinary granular atrophy; in other words, whether long-standing venous congestion can cause granular kidney. This, as is well known, is a very difficult question both clinically and pathologically, the diagnosis of "primary heart" or "primary kidney" being one of the most difficult, in many cases, in medicine. Any contribution, therefore, to the subject is valuable, especially if it is as careful a piece of work as that here presented. The authors certainly support the view that long-standing venous congestion can cause granular kidney. The only criticism we would urge against their arguments is that they have laid rather too much stress on the fact that all intermediate forms can be found between the two extremes. This is a favourite argument in pathology, and if used with judgment is often very valuable, but it is not in itself conclusive. In this particular case it should not be applied indiscriminately. In the great majority of cases of heart disease the kidneys are enlarged, congested, dark coloured, with an india-rubber feel. In extreme cases this long-standing congestion leads to the development of fibrous tissue, and consequently there may be a slightly granular condition of the surface, but just as very long-standing congestion of the liver, however severe the nutmeg condition may be, only produces a slight increase of fibrous tissue, which never renders the organ comparable to a liver markedly cirrhotic from alcohol, so even very long-standing congestion of the kidneys does not make them at all like the organs seen in an advanced stage of chronic Bright's disease. It does not follow that, even if all sorts of intermediate cases can be found, long-standing congestion can cause definite well-marked granular kidneys.

Mental Nursing: A Textbook for Asylum Attendants and Nurses. By William Harding, M.B. (London: The Scientific Press Limited. 1893. Demy 8vo, pp. 150. illustrated, 2s. 6d.)—The regular system now adopted in most institutions for the insane of giving courses of lectures to nurses and attendants upon the duties they are called upon to perform in regard to the nursing and care of the insane has created a demand for textbooks dealing with the various subjects included in such courses of instruction. The book before us is intended to meet the requirements of the case, and if somewhat limited, deals clearly and carefully with the practical side of the subject. There are chapters on elementary anatomy and physiology, illustrated by woodcuts, and followed by a brief chapter on the nervous system. These form a fitting introduction to the rules laid down for the guidance of nurses and attendants in the management of wards, feeding of the patients, care of different classes of insane persons, the conducting of entertainments, day and night nursing (especially what is more strictly "sick-room" nursing) although the latter is dealt with in only six pages. The book is clearly printed, and it is written in a pleasant, readable, and taking style, suitable for the class of persons for whom it is written.

The Victorian Tourists' Railway Guide. Written and compiled by Francis Myers and Trant Chambers. (Issued by agreement with the Commissioners of the Victoria Railways. Melbourne: Fergusson and Mitchell. Cr. 8vo, pp. 160, 1s.)—This volume contains a description of the Victorian railway system, of the towns which it serves, of the scenery through which it passes, and of interesting excursions which may be made from certain stations. The book contains a great deal of useful information and a great deal of "fine writing." As there is no index it is very difficult to find the information. The absence of an index is a defect in any book; in a guidebook it is absolutely inexcusable.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

A NEW OBSTETRIC BINDER.

We have received a Leicester Antiseptic Binder, made by St. Dalmas and Co., Leicester, at the suggestion of Dr. F. Gillett Cory, of Bournemouth. In appearance it is a binder of the ordinary kind, secured by safety pins. Its peculiarities are that it is made of a specially woven material—soft, light, pliable, and yet strong, with selvage edges, so that it does not need hemming, does not tear, and does not chafe. It is said that it is "rendered thoroughly aseptic"; we are not told how. It is 4 feet long and 14 inches wide. It is washable. The price is 1s. 6d.

WHOLE WHEAT FLOUR.

We have received and examined a sample of whole wheat flour, made by Mr. L. Rawsthorn, of Green Bank Corn Mill, Preston. It is claimed that the flour contains the hypophosphites of lime, soda, and iron in the proportions of 2 grains of the two former and one-half grain of the last named to the pound. We have put these claims to the proof, as far as possible, and we are satisfied that they are practically justifiable; but we are not able to state the lime, soda, and iron were in the form of hypophosphites, although there is no reason to doubt it. The flour itself is a germinal wheaten flour, and we think it may be well to call attention to the preparation.

AN INSTRUMENT FOR DELICATE DISSECTIONS.

The accompanying drawing shows an instrument which I have found of great value in cases where fine dissection is wanted, more especially in separating tuberculous glands which are closely adherent to veins, or in enucleating glands from the midst of important structures, for example, from the parotid gland. One end is really a fine probe, and is a copy of an instrument which is employed in delicate vivisection experiments with the view of exposing small nerves, vessels, etc. By means of it, once the sheath of the jugular vein, for example, is opened, the vein can be readily pushed aside throughout the whole area without injury. The other end is flattened out and curved, but blunt, and where there is no peri-adenitis it can be readily slipped inside the capsule of the gland, which is thus rapidly and harmlessly isolated, and can be lifted out. This answers much better than the larger instruments, such as periosteum detachers, which are frequently used for this purpose. This dissector is also of great value in many other delicate operations, for example, in isolating the veins in operations for varicose veins and in exposing small nerves such as the spinal accessory in operations for nerve stretching, neurectomy, etc. It has been made for me by Messrs. Down Brothers.



W. Watson Cheyne, F.R.C.S.

SMALL-POX IN GREAT BRITAIN.

Indications are not wanting to show that small-pox is generally greatly on the decline. The admissions to hospital in London have numbered only some 140 in the last week of June and the first of July, with 12 deaths, leaving less than 400 cases under treatment last Saturday. In West Ham 24 cases occurred in the fortnight, with 2 deaths. In Manchester only 1 case has been reported in each of two successive weeks; Salford has suffered but little, whilst Oldham is not yet by any means free of the disease. Many cases have also been chronicled during the fortnight in Birmingham, Leicester, and Bradford, whilst Halifax seems to have got rid of the malady. On the whole, despite the fact that not a few towns have had single and multiple attacks during the two weeks in question, there can be no doubt that, so far as the present season is concerned, the prevalence of small-pox, which commenced some nine months back, is decidedly on the wane.

EXTENSION OF SANITARY POWERS TO COUNTY COUNCILS.

A Special Report for the Use of the Parliamentary Bills Committee, prepared by the Chairman.

The relation of county councils to all matters affecting the public health is a subject of vast and ever-growing moment. I have, therefore, with the aid and counsel of some leading authorities, prepared the following memorandum on matters of the highest public importance in relation thereto, which will call for early legislation. The public interest in all that concerns the sanitary well-being of the community has never been so thoroughly aroused as at the present moment, and accordingly the anomalous position which county councils now occupy may well claim attention at the hands of those who see reason in the advance that is being made in sanitary science for the extension to these county bodies of powers which shall place them in a sphere of usefulness hitherto denied them. Situated as they are to-day, county councils are placed intermediately between the Local Government Board on the one hand and urban and rural sanitary authorities on the other, and possess the powers of neither. It is not to be expected of course that the councils should have vested in them all that now pertains to the central governing body, but it seems essential to their adequate fulfilment of any useful purpose in health matters that they should be armed with weapons as powerful as those of the numerous and lesser sanitary bodies, the area of whose jurisdiction is so much smaller in the unit than that of the county councils. Indeed, it may reasonably be contended for these councils that they are entitled to powers much in excess of those now in the hands of sanitary authorities, and the powers needed are all of them such as can be granted without in any wise lessening the proper control of the central government over the councils or over their constituent sanitary authorities. In short, the end to be aimed at is the constitution of three centres of administration of the public health statutes; the first being the local sanitary authority (be it urban, rural, or port); the second being the county councils, having general supervision—county by county—over the local bodies; and the third and supreme head being the Local Government Board.

What are the powers which it is desirable to extend to county councils it is now my business to point out; but before passing to the discussion of the main question, I wish to dispose of one argument against any such extension that has been not infrequently put forward. I refer to the non-use by councils of powers which already belong to them. Or, rather, I should perhaps say, the non-adoption of one optional clause of the Local Government Act of 1888, from which springs much of the usefulness of councils in counties where advantage has been taken of the benefits accruing from the adoption of the clause. Blame has been cast upon councils which have not availed themselves of the advice of a permanently appointed county health officer; and I cannot myself withhold a measure of blame in the matter. The question of county health officership is not one which can lightly be set aside, and so I propose to deal with it at greater length at a later stage; but I would here express my regret that all counties have not long ere this proceeded to make such an appointment. It is undoubtedly one weak point in the position that additional powers are necessary. But, on the other hand, many county councils already have health officers whose usefulness has been fully proved; and it is these councils equally with, and indeed more than, all the rest that are pressing for added powers. Then, again, counties still needing health officers are not without excuse—however feeble—for their present attitude, since they advance the plea that such an officer would, in view of his restricted sphere, be of little value beyond that of a skilled statistician or the like, performing functions which, as matters stand, can be provisionally discharged by a lay member of the Council; and they go on to say that when Parliament has endowed them with the powers that they deem lacking, then will come the time to look to it that their staff of sanitary officers is placed on a proper footing. Such an argument I hold to be untenable. We have but to look to the nature of the services rendered by the health officers of

the counties of London, the West Riding of Yorkshire, Worcester, and Lancashire, among others, to see how utterly untenable is the stand taken by officerless counties. Contrast for one moment the advance made in sanitary matters in the West Riding since Dr. Whitelegge's appointment with the stagnant condition of Cornwall, where the opinion seems to obtain currency that the end and aim of a health officer's existence is to collate annually certain facts and data from the reports of the district sanitary authorities. The two examples are incomparable; or, if not really altogether so, at least lend truth to the old adage that comparisons are odious. While we admit, then, that counties possessing no health officer have misinterpreted the scope of usefulness which already pertains to the post, and while willing to believe that in many cases there is a desire to at once elect such an officer on the granting of powers such as those which I am about to set out, I cannot but think that all counties will do well if they proceed without further delay to secure for themselves the services of a fully qualified and experienced medical sanitarian.

Notification of Infectious Diseases.

This is the first point to which, in this connection, I would direct attention. Notification of infectious disease is a matter of paramount importance in all endeavours to safeguard the public health; the smooth working of the system, now so general, is evidence that its extension need raise no great amount of opposition. I find that in March of last year compulsory notification was in force in districts of England and Wales having an aggregate population of no less than twenty-four out of the twenty-nine millions of persons enumerated at the last census. With the single exception of the metropolis, the system had been voluntarily adopted either by local Act or under the Infectious Disease (Notification) Act of 1889. In the twelve months that have intervened many additional districts have adopted the general Act, so that I shall not be far wrong if I regard the system as operating in districts comprising nine-tenths of the entire population of England and Wales. Even in the city of Leeds the long-delayed approval of the principle of compulsion seems to have been given, and the adoption is likely soon to be effected. Here, then, is reason for insisting that the small minority of districts not at present possessing the hitherto optional powers of compulsory notification shall no longer lack the benefits which result from use of the system. The absence of such compulsory adoption of the Act works danger not only to the health of the districts themselves, but it is a distinct menace to the health of adjacent localities, and would seem to be in almost all instances the result of a parsimony which is penny wise and pound foolish. Time and again have instances arisen which have gone to show how an unreported case of disease has formed the nucleus of a serious outbreak. The experience of Plymouth last year, owing to non-adoption of the Notification Act in the Plympton St. Mary rural sanitary district, is a case in point. Especially during the present prevalence of small-pox has the absence of notification been a matter of no small regret and hindrance to sanitary officers in their efforts to stay the progress of the disease; but no arguments seem necessary to convince the great majority of persons of the wisdom of infectious disease notification, and the addition week by week of sanitary authorities to the numbers enforcing the Act is evidence of itself of the growth of public feeling. Hence it seems folly longer to delay the framing of a Bill compulsorily extending the system to all districts, in the same manner as was done in the case of London when the Act of 1889 came into operation.

In connection with any such Bill, it seems very desirable to give to county councils the power of a sanitary authority in regard to the addition to the list of notifiable diseases, such as is now vested in the London County Council by Section 57 of the Public Health (London) Act of 1891; the addition being for a whole county or any part of it, and, of course, invalid until sanctioned by the Local Government Board. This power would place the councils in the same position in regard to the county as a whole as the local sanitary bodies in regard to their individual districts, and it can easily be conceived that circumstances might arise in which county action of this sort would prove speedily effective. Again, the notification of infectious disease is by no means a matter of local concern only. It has in it much that affects the community at large, and a county may well be considered as a "district" for the purposes of illustrating this point. Two sanitary areas at widely separate parts of a county may have especially intimate relations the one with the other, in which case the outbreak of infectious sickness at either would have serious interest for both. It seems essential that the county council should have the function of at once making the one sanitary district aware of the danger to which it is exposed by reason of disease in the other. And here arises the necessity for returns, at regular and frequent intervals, being made by district authorities to county councils, these returns comprising, let us say, a weekly list of the total of cases of each notifiable disease arising in every separate sanitary district in the country. Such returns are already made in several counties. For example, Staffordshire issues a weekly return; the West Riding and Essex, monthly returns; Lancashire, Durham, Derbyshire, quarterly returns. But the Local Government Board receive from upwards of one hundred towns weekly returns of cases notified, which are compiled at Whitehall into one summarised table and distributed to every health officer from whom returns have been received.

This partial scheme has now been in operation for some time, having grown from a smaller return instituted by Drs. Tatham, Whitelegge, and a few others; and its success warrants the carrying into effect of a general return of the same character. But it has been found that district health officers, not being bound by any specific regulation, occasionally break a series of valuable data by omitting to forward the necessary figures, and thus in submitting the desirability of the county councils being the recipients and distributors of weekly returns, I think that power to require them at the hands of every health officer should be granted; each health officer being bound to send to the council of his county a return of notified cases of disease from, say, noon of Saturday to Saturday, the return to reach the council by Monday morning, and to be by them summarised and got ready for distribution the same day. No difficulty need arise, since by some simple multiplying process the returns could be cheaply struck off. The distribution could easily be arranged so as to cover each district in every individual county, and each district abutting on a county. Thus, throughout England and Wales, no district would be without information on each Tuesday of the existence of notifiable disease in the next adjoining sanitary area. In districts possessing one health officer in common, the returns could be sent to the clerks or inspectors. The Local Government Board should receive weekly a return from all county councils, to be issued, if practicable, as a weekly return to all health officers, and also as a quarterly or annual statement of disease prevalence in each county and sanitary district. Failing such general weekly return, some system of exchange between counties would seem very desirable. I, of course, have in view the requirement of each county borough to notify to the county council in the same way as any urban or rural sanitary authority, so as to preserve intact the data for the geographical county. In the West Riding of Yorkshire the health officers of the county boroughs already send to Dr. Whitelegge the data necessary to complete his monthly record.

There is one other point which I deem worthy to mention, namely, the question of payment of fees at present made by local sanitary authorities to notifying practitioners. Since the notification system is not a matter of local concern entirely, I think all expenses incurred in maintaining it should be paid out of county funds.

Hospital Isolation and Disinfection.

Following naturally upon notification, comes the even more important matter of accommodation for the isolation in hospital of the infectious sick. The provision of such accommodation, with the single exception of London, has devolved upon sanitary authorities, who have, generally speaking, made niggardly use of the optional power granted them under the Public Health Act of 1875. It is true that there are districts, very many, that have been awake to a sense of the usefulness of infectious disease hospitals, and that have, either singly or in combination with adjacent localities, provided the means of properly isolating infected persons. But there are many more that, having made some sort of pro-

vision, have rested satisfied either with accommodation totally inadequate in amount, or altogether unfitted to the permanent needs of the area to be catered for, whilst there remain a third, and still more numerous class of districts possessing no hospitals whatever. We may justly feel proud of such an institution as the model hospital belonging to the city of Newcastle; and of the floating hospital provided by the River Tyne Authority for port sanitary purposes; as also of the hospital belonging to the Warwick and Leamington Joint Board. And many another institution could be named—as at Barnsley, Hornsey, and so forth—properly equipped and ably administered. But what shall be said of other, and many other, of our so-called hospitals? Again and again have sanitary authorities erected some miserable structure, wood, iron, or the like, in a bad situation, and of a sort to be condemned, and such as no sanitarian who had the good of his district at heart would dream of providing. And yet such enormities have been made to serve the permanent requirements of a community, and have been obstacles in the way of reform in hospital provision. Why? Can it be wondered at if ill-constructed, ill-regulated, badly-administered places such as these have not proved attractive to the populace? Contrast the experience of districts possessing hospitals of a sort to be imitated; well placed, and rendered home-like and inviting. Here we find no need for any exercise of powers of compulsory removal; but a willingness on the part of patients to seek the skilled nursing and medical care at their disposal. Just take Huddersfield during its scarlet fever outbreak in the latter half of 1892. No less than 95 per cent. of the attacks were isolated in its hospital.

As for the attempts made to provide hospitals on a cheap basis, the results have been in many instances lamentable. What can be thought of districts such as those of Gomersal and its neighbourhood, having before them even a proposal to erect a hospital of fifty beds at a cost of £2,000, inclusive of site? Or of certain of the Isle of Wight sanitary bodies, having in view a hospital of sixteen beds at an outlay of £1,000, and fearing to go the Local Government Board for sanction to a loan lest the proper views of the experts at Whitehall should demand increased expense? Or again, of Castleford proposing to erect an iron building, instead of a permanent brick structure, because the latter would involve loan, and possible condemnation of site and addition to the few hundred pounds to be expended? Yet we read of these things in the daily press. But I need not multiply examples of this sort. Their name is legion.

The small-pox prevalence of 1892-93 has again illustrated the disadvantage arising from provision of hospital accommodation in a time of panic. Take Yorkshire; much money has been misspent in temporary arrangements of an indifferent character only to delay much needed permanent means of isolation. The few instances where good hospitals have been ready beforehand have resulted in the prevention of outbreaks from becoming serious epidemics. The history of small-pox—not alone in Yorkshire—is a record of unpreparedness for the isolation of the disease in a large number of sanitary areas. Of the county of Lancaster Dr. Sergeant, the health officer, writes, in the early part of this year, "The spread of small-pox and other infectious diseases in the county is greatly assisted by the inadequacy of hospital accommodation, which in 1891 was reported to be less than one-fourth the amount required, and much may be attributed to the unsatisfactory condition in which many of the existing hospitals are usually kept." Of Derbyshire Dr. Barwise, the county health officer, reporting in 1892, states that only one district—Buxton—is "thoroughly equipped for preventing the spread of infectious disease." Then just to name a few of the individual districts found to be without hospital at a time of disease invasion last year, I may note, as being in different geographical situations, the case of Lymm, in Cheshire, where small-pox led first to the use of certain cottages, given up later as being a menace to the health of the neighbourhood; Rushden; Chesterfield Rural Sanitary District, despite repeated advice; Sedgefield, in the extreme north; St. Albans, in the south. But enough has doubtless been said to evidence the large failure of the system hitherto in force whereby small sanitary bodies have been allowed optional powers of separately providing for the isolation requirements of their districts. It cannot, I think, be gainsaid that they have found themselves, as a whole, incompetent for the duty.

In these circumstances it seems desirable that county councils should have assigned to them the power of county hospital organisation. They should be charged with the duty of adequately providing beforehand for the isolation needs of the county as a whole, and for all parts of the county, subject to the sanction of the Local Government Board in the matter of schemes. And herein would lie the advantage of economy coupled with efficiency. A county council, ably assisted by Local Government Board expert officials, skilled and experienced in all that pertains to the matter, could carry out works in a manner impossible to disjointed and often petty sanitary bodies, with, for example, a minimum staff, capable of being transferred from one centre to another in ordinary times as call for their service was made. And, since the isolation of a patient is as much for the benefit of the community as his own, and tends to lessen danger of widespread disease, misery, and death, so the expenses attaching to such isolation would seem best met by contribution from some general fund, seeing that the safety of any community is a matter of general concern. Thus the provision by a county council of hospitals in amount and position suited to the needs of the county could best be met by cost borne by county funds, the council taking the entire control and management of the institutions, as is done to-day by a Central Hospital Board in the county of London. In regard to buildings already in existence, local authorities might be allowed the choice of two methods of procedure: to cede them to the county council at a valuation, or to retain and administer them at local cost. But against the latter suggestion is the important consideration that the hospitals are commonly such as not to come up, in all probability, to the standard requirement, either in amount or kind, which the council have in view for the district served.

Another important matter is that, thus administered by the county council, all hospitals could be made free to ordinary patients. We have testimony elsewhere from many health officers that to ensure the most successful working of the hospital system isolation must be free of charge to the patient and his relatives. It is so in London and in many provincial towns. I would quote the cases of Manchester, Sheffield, Southampton, and Leicester. Indeed, it is a matter on which all health officers seem agreed, so far as concerns the ordinary run of patients. And the fees charged are so paltry beside the total outlay that it seems a great pity to partially wreck an undeniably important item in disease prevention for results so small. At the same time I think that sanitary authorities should be called upon to pay part maintenance of patients; else those authorities which care little for the sanitary well-being of their districts, or for ameliorating conditions which tend to foster the spread of disease, would benefit at the expense of the county, while far from deserving to do so.

The Infectious Hospitals Bill, introduced anew by Lord Thring into the House of Lords this year, covers much of what is here laid down, and could be amended and widened to include all the points requisite to be treated. It may be that hospitals for the isolation of small-pox patients will need to be considered apart from those for the other infectious fevers, as in the case of London, seeing that they possess distinct danger to the localities around them, though a practical method of constructing such hospitals in a manner suggested by the Royal Commission of 1881 may come to be known as the result of due inquiry into the subject.

There is one other point I would name before passing from the subject. I have proposed that the notification and hospital authority should be central in each county, the duties being discharged by the county council, as the public health authority. I venture to think that London holds an anomalous position in these respects: whilst it has a county council with a department of public health charged with administering the sanitary laws, there have not been given to that body two of the most important elements concerned with the public health, those relating to disease notification and isolation. It would be only reasonable that these likewise should be matters with which the London County Council should be charged, looking to the intimate relation which

they bear to the rest of the functions performed by the Council.

In the matter of the provision of disinfecting apparatus, which is at present voluntary, I also find the provision of efficient means of disinfection of clothing, bedding, etc., almost invariably ignored. Where means have been provided, they are oftentimes of a useless type—hot air apparatus, or sham steam apparatus—and this in the face of well known principles, whereof the use of steam under pressure forms the most prominent feature. As instancing the incompetency of sanitary authorities adequately to deal with the point, I need not go further back than, or do more than quote from, the recent report of Dr. Sergeant, to which I have already referred. He says of Lancashire that "in 100 districts apparatus is wanting for efficient disinfection of clothing, bedding, etc., so that reliance has to be placed on the most inefficient methods; only 31 districts have appliances, but less than half of them are really satisfactory." Lancashire is not exceptional in this respect, and the matter is one of much importance. Hence here, as in the case of hospitals, county councils should have the power of setting up proper apparatus in localities needing them; preferably of course in connection with infectious hospitals themselves.

(To be continued.)

THE NEW MILITARY HOSPITAL AT ROME.

By SURGEON-COLONEL J. B. HAMILTON, M.D.,
Principal Medical Officer Home District.

THE new Roman Military Hospital is situated to the left rear of the Colosseum, at a distance of about half a mile. The entrance is through a handsome gateway, inside of which a fine flight of broad stone steps leads to the offices and administrative portion of the hospital.

The Medical Director, Colonello-Medico Cav. Eugenio Franchino, personally conducted us round the administrative block, and showed us the bacteriological and microscopical rooms fitted up with every modern convenience and appliance for the investigation of disease. We were shown cultivations and microscopical preparations of the cholera bacillus, as also those of other diseases; the care with which they had been prepared proving that much attention is paid to these studies by Italian medical officers. We were next shown the waiting and diagnosing rooms, in which the fresh admissions are seen and examined. In the latter there were ophthalmoscopes, lenses, etc., of the latest patterns; in fact, all improvements up to date were to be seen therein.

The hospital contains 500 beds, and is constructed on the block system; eight blocks, four on either side of a central corridor, roofed in but open at the sides. At the end of this corridor there is a block containing operating rooms, etc. In addition to these eight blocks there is a detached block for the accommodation of sick officers, each of whom has a neatly furnished separate room, with a common sitting room, baths, waterclosets, etc. This portion of the hospital was very neat and clean, and evidently a most valuable institution in a place like Rome with its garrison of 12 000 men.

We were next shown the kitchen, which was under the charge of Sister nurses, who issued the various diets to the cooks, men of the Sanitary Corps. The Sisters had also charge of the wines, spirits, extras, etc., and issued them according to the orders on the diet sheets. The diets are arranged somewhat on the plan in use in English military hospitals—namely, entire, three-quarters, half, and quarter, with fish, fowl, milk, puddings, etc., as extras. The meat was fairly good, but certainly inferior to that provided in English hospitals. The fowl, fish, etc., were also fairly good. The diets appeared to be well cooked, and, when ready, were put into heated waggons that run on rails to the different blocks; thus, in the coldest weather the sick get their food hot. These wagons were, we were informed, procured from England. Dining rooms are provided for all men able to go to them.

We next visited the operating block, and were shown a room devoted to treatment by galvanism and electricity, all the most modern appliances being available. The instrument room, a model of neatness and completeness, contained a magnificent collection of surgical instruments, all of the most improved and modern patterns. None of the instruments had either wooden or ivory handles, all being of metal, silver, or nickel-plated. The instruments were arranged on glass shelves in air-tight cabinets, so that at a glance their condition could be seen, and the necessary ones selected. In the same room was an iron cabinet for sterilising instruments before and after use. This is done by means of air heated by gas, so that they can be raised to any desired temperature in a few minutes.

The operation room is semi-circular in shape, and is lighted from above by means of skylights, with a splendid gaslamp and reflectors for use at night. The back of the room is a wall, the semi-circular portion being glass windows, so that there is light from every direction but behind. Curtains are provided outside for shading when the sun falls on any particular section or window. In this room practically everything is glass. The floor is thick glass, and the walls, up to about 8 feet from the ground, are covered with thick plate glass bent to the shape of the walls. We were informed that the glass alone in this room cost 10,000 lire (£400). The operating table is of iron, perforated with holes for drainage and flushing, and movable in every direction by means of simple mechanism. From the back wall protruded six pipes from which indiarubber tubing carried hot and cold water, two strengths of corrosive sublimate solution and two of boric solutions. The tanks containing these are high up on the wall in the outer room, so as to give considerable pressure. During and after an operation the parts can be flushed with hot or cold water, and with such aseptic solutions as may be desired, and when the operation is completed the pressure is sufficient to allow of the walls being washed down, and the floor flushed if considered advisable.

The general wards are clean, airy, well ventilated, and cheerful. The heads of the beds are fully 2 feet from the wall, allowing passage behind them. At the foot of each bed there is a wire net in which the patient's clothes are kept folded when not in wear, and any little personal articles may be deposited therein. The wire netting permits of easy inspection, and no dust can possibly accumulate. Small convenient tables are provided on which men confined to bed can take their meals.

The means of ventilation are ample. Large windows, opening nearly down to the ground, permit of the sick looking out into the well-kept gardens, not, as is too often the case in military hospitals in this country, confining the sick man's view to the bare walls of the ward. Of course the conditions of climate must be taken into consideration; but in a modified form this plan is worthy of imitation. There were also openings about 2 feet from the ground, to admit fresh air through gratings, and others near the ceiling—all being provided with simple means for closing. The baths are numerous and clean; provided with hot and cold water. The waterclosets are simply marble slabs with circular holes, so placed that a person must squat on his heels to make use of them. This appears a bad system, especially for weakly men, but nightstools are provided for such cases. These waterclosets are automatically flushed every twenty minutes. Not a very satisfactory system. They were, however, all sweet and in good sanitary order. The nursing in the general wards is carried out by Sisters of religious orders, the men of the Sanitary Corps performing the same duties as our Medical Staff Corps.

The chief disease under treatment was, as with us, venereal, but the numbers were not nearly so large as might be expected from the size of the garrison. The infectious portion of the hospital is entirely cut off by a high boundary wall and gate, and contains separate wards for enteric fever, small-pox, scarlet fever, etc. The nursing of the sick seemed well carried out, and everything possible appeared to be done for their comfort.

In the mortuary and *post-mortem* room the arrangements are admirable. The building consists of two storeys, in the upper being the *post-mortem* room itself, and a chamber off it in which the bodies lie from the time they are taken from the wards till the necropsy is made. The *post-mortem* tables are most ingenious, and well worthy of imitation, especially in tropical climates. Each table is provided with a movable top, perforated with holes about half an inch in diameter, quite close to one another. The under portion is hollow, and

has an arrangement for draining off fluids that may run through. The hollow portion of the table below terminates in a large tube about ten inches in diameter, and this passes under the floor through the wall into a furnace outside. When a *post mortem* is being conducted the furnace is lit, and being supplied by air entirely through the ten-inch tube creates a draught from the corpse downwards through the numerous holes. Thus in the hottest weather a *post mortem* can be conducted without any unpleasant odour, as the air is drawn from the operator down through the perforated table. In India such a system would be invaluable, not only in military hospitals in hot weather, but more especially in civil stations, where in cases of murder *post-mortem* examinations have frequently to be conducted on corpses in the last stage of putridity, brought long distances from the surrounding district.

The disinfecting chamber is a large room containing a furnace, a boiler, and the disinfecting apparatus. The latter is a large iron cylinder lying lengthways, the end of which forms the door. Two sets of rails are laid down, one over the other, on which two small trucks run on wheels. The bedding, clothes, etc., are packed on these trucks, the end of the cylinder is opened, the two trucks are run in, and steam, superheated to 280° F., is admitted. When the articles are considered to be thoroughly saturated with steam, the door is opened, the trucks drawn out, and the articles allowed to cool. Leather articles are washed and fumigated with sulphur.

Telephones run all through the hospital. The grounds are very prettily laid out with shrubs and flower beds, and garden seats are provided for the patients. A fine block of quarters with stabling for the mounted officers exists in the enclosure, and they are all arranged most comfortably.

The staff of this hospital consists of: one tenente-colonello-medico; one adjutant-major, tenente-medico; and ten medical officers. There are also fifteen Sisters who carry on the nursing and diet duties, and 150 men of the Sanitary Corps. There are also four civil apothecaries who attend daily to make up medicines. The men of the Sanitary Corps seem to be well selected, fine broad-chested, able men, well qualified to carry wounded men out of action, and they compare most favourably with the men of the Medical Staff Corps enlisted under the present regulation of a standard between 5 ft. 3 in. and 5 ft. 5 in., with a chest of 38 in.

During a career of over thirty-three years in every part of the world, I have never seen anything so completely equipped and in such perfect order as this military hospital. In conclusion, I desire to place on record my sense of the great courtesy and kindness shown to Brigade-Surgeon Jazdowski, R.P., and myself by Colonello-Medico Cav. Eugenio Franchino and his staff during our visit.

THE REGISTRATION OF MIDWIVES.

SELECT COMMITTEE OF THE HOUSE OF COMMONS,

Letter from Mr. Braxton Hicks.—Evidence of Dr. Williams, Miss A. M'Call, M.D., Miss Leah Garratt, and Mrs. Beddingfield.

At the resumed sitting of the Select Committee of the House of Commons on the Registration of Midwives on Friday, July 7th, under the chairmanship of Mr. FELL PEASE, a letter was read from Mr. Braxton Hicks, who gave evidence at the last sitting, supplementing his evidence by stating that there was another point to which he wished to call attention in regard to the registration and supervision of midwives. There was a certain class of women who professed to be midwives who started establishments for lying-in. What went on inside those establishments was to him a matter of very grave suspicion. He thought they were responsible for the newly-born dead babies found, and something should be done to register and supervise them.

Dr. WILLIAMS (Cardiff) medical officer for a division of the county of Glamorganshire, stated that he wished to call attention to the abnormal number of cases of puerperal fever in the district, the Ogmore Valley, with 13 000 population, where all the cases were attended by midwives. He had reported on the matter to the County Council. From May, 1888, to June, 1893, there were 32 deaths from puerperal fever and peritonitis. The women who attended these cases had received no training, and were entirely ignorant of the value of antiseptics, and, after attending a fatal case of puerperal fever, they went and attended another confinement. Three months ago the County Council took steps, and, he believed, until then, the midwives were not aware of the danger of carrying infection. He recommended that midwives who attended a case of puerperal fever should be prohibited from attending another case for two months. Instruction should also be given to midwives with regard to their disinfecting themselves and the clothes and bedding. The training of midwives should also be encouraged. It was not the custom of doctors to attend midwifery cases in the district except when specially called in. He believed there was a class for the teaching of midwifery being started in connection with the union workhouse, but it was only just lately. As long as a woman proved herself competent, he would not make any distinction as to her being certificated. He believed a properly trained and qualified woman was more likely to call in a doctor at the proper time, for at present a good many women did not know when they should be called in, and, consequently, did not try to get a medical man until it was too late. Students should have sick-bed training in a lying-in hospital; he believed a kind of school could be added to the workhouse infirmary, although, perhaps, there would hardly be enough work. He would have women better instructed in the use of antiseptics.

By Mr. STEVENS: As a rule, a doctor, after attending a case of puerperal fever, would leave his practice for some weeks. He would not have midwives attend another case of confinement for two months after attending a case of puerperal fever, and he supposed that should apply to the medical officers as well.

Sir F. W. FITZWYGRAM: But supposing a surgeon, directly after an absence of six weeks, attended another case of puerperal fever, and so on, how would he live?—The best way he could, I suppose.

Further examined, Witness said he believed midwives were vehicles for puerperal fever. Putting other considerations aside, he thought it would be a good thing if midwifery was dissociated from general medical practice.

Miss ANNIE MCCALL, M.D., visiting medical officer to Clapham Maternity Hospital, and director of the Clapham School of Midwifery, said that at that hospital they charged the women 5s., which had to be paid before admittance. They also had about 300 cases a year at the patients' own homes. Altogether they had had about 3,000 cases, and had had only one death. They had no man doctor connected with the institution. Many of their confinements were first cases of labour. They were very strict about antiseptics, and trained students from the first to use them. She believed the reason they had so few fatal cases was that directly the students saw anything going wrong they called in the assistance of the medical officers. She thought a midwife should be certified at the place she was trained at, and then pass an examination before being registered. She did not think such a system would hurt the practice of medical men. She believed women preferred a woman to attend them apart from the payment of fees. Their students did not nurse, although at the Battersea branch of the hospital they were taught to wash the baby, etc. In London there was no difficulty in getting cases, and she thought students should have experience in out-patient and in-patient work. As far as the time required for the training of ordinary midwives was concerned, that depended upon the amount of the intelligence of the person, but three months would be the minimum in the case of well-educated women. In districts where they had trained nurses the old untrained ones were disappearing. It might be that if midwives became more educated the medical men might feel it in their practice, but she could not help thinking that the higher trained they became the more likely they would be to call in the doctor in serious cases.

Miss LEAH GARRATT, late district nurse (Gotherington, Gloucestershire), said she had attended confinement cases in the rural district. She thought it was because of the cheapness of midwives that women preferred them to medical men. Where there were skilled midwives, the untrained ones were disappearing. She thought every midwife should be a trained nurse.

Mrs. BEDDINGFELD, nurse matron of the Garrison Women's Hospital, Shoeburyness, said the institution was not a Government one, and the soldiers' wives were not bound to go there. She had been a certified midwife since 1878, and had practised in other towns and in South Wales. She had known cases attended by untrained midwives, and not only had disinfectants not been used, but not even soap and water. She knew a woman go straight from laying out a corpse to a confinement without even washing her hands. The trained midwife could do more than an untrained one, and although she had practised since 1878, she had never had a case of puerperal fever. If there were properly qualified nurses in every district, they would soon supersede the untrained. Some of the untrained nurses had very queer notions as to how a child should be fed; and displacements, lacerations, etc. were caused by their unskilful treatment. Another point was the habits of intemperance which existed amongst those women. The reason people did not employ fully-qualified persons was because they did not know whether they were qualified or not. She thought schools for training might be attached to workhouse infirmaries at a lower charge than at the hospitals. A status to the profession would be given by registration, and no one should be allowed to take the name of midwife unless properly qualified. Should the Bill be passed, she would not make it come into operation for six months, to allow those now practising who cared to go in for an examination to get a certificate. She would like to see it made a penal offence for an unqualified person to practise midwifery.

The Committee then adjourned till Friday.

ROYAL COLLEGE OF SURGEONS.

A QUARTERLY council was held at the College on Friday, July 7th.

The PRESIDENT reported the result of the meeting of Fellows for the election of four members of Council, and, after the formal declaration, the newly-elected members took their seats upon the Council.

The minutes of the last meeting of the Council were then read and confirmed.

Sir William Turner was introduced and formally admitted a Fellow of the College.

Reports from the Museum and Library Committees were received and adopted. On the recommendation of the General Purposes Committee, a small expenditure upon painting and cleaning certain parts of the College buildings and museums was authorised.

Mr. WILLETT moved that the following amended resolution be placed at the end of the Regulations of the Council, instead of that adopted by the Council on August 9th, 1886:

> In the opinion of this Council it is desirable that no one who has been elected a member of the Court of Examiners should, at the expiration of his period of office, be eligible for immediate re-election, but that this resolution do not apply to the existing members of the Court of Examiners.

The motion was lost by 16 to 7 votes.

Mr. R. J. Godlee was elected a member of the Court of Examiners for the period of five years, subject to the provisions of the charter; and Mr. John Howard Mummery was elected a member of the Court of Examiners in Dental Surgery, in the vacancy occasioned by the expiration of Mr. S. J. Hutchinson's period of office.

The following appointments for the ensuing year were made:—Professors of Surgery and Pathology: Pickering Pick, William Thorburn, Raymond Johnson, and Treacher Collins. Professors of Comparative Anatomy and Physiology: Charles Stewart and C. B. Plowright. Arris and Gale Lecturer on Anatomy and Physiology: E. H. Starling. Erasmus Wilson Lecturer: James Henry Targett.

The Committee of Management were authorised to let the rooms and theatre in the Examination Hall buildings for such purposes as they may think fit.

On the recommendation of the Laboratories Committee it was resolved that, with a view to greater economy in the working expenses of the Laboratory, a notice should be sent to every worker that he would be required to provide at his own expense and keep in order the surgical instruments required for his work, including knives, scissors, forceps, needles, injection syringes, etc.

A letter was read from Mr. Roger Beck, thanking the Council for their resolution of condolence on the death of his brother, Mr. Marcus Beck.

It was announced that the Morton Lecture on Cancer and Cancerous Diseases would be delivered at the College by Mr. S. G. Shattock in March, 1894.

The Council accepted with thanks the offer made by Mr. F. G. Stephens of a cast of a bust of Carpue by Thomas Woolner, R.A.

Mr. J. W. Hulke was elected President and Sir William Mac Cormac and Mr. N. C. Macnamara were elected Vice-Presidents for the ensuing year.

The date of the next ordinary meeting of the Council was fixed for July 27th.

PROFESSOR VON PETTENKOFER'S JUBILEE.

ON July 1st Professor Max von Pettenkofer celebrated the fiftieth anniversary of his graduation as Doctor of Medicine amidst salvoes of congratulation from his innumerable friends and admirers. One of these who modestly disguises his identity under the initials "A. W.," has been moved to lyrical expression of his enthusiasm in rhymed Latin verses to the following effect:

Macte nobilis scrutator,
Audax experimentator
Qui edisti "commata."

Omnia quæ tetigisti
Omnia illustravisti
Ardua problemata.

Mentis acie perspexisti
Humum atque reclusisti
Pestilentiæ latebras.

Studio tuo reparata
Urbis fama maculata:—
Te salutat civitas!

The city in question is, of course, Munich, whose hygienic fair fame certainly stood much in need of restoration. Although declined into the vale of years, the venerable hygienist is still, we are pleased to note, in spite of natural infirmities and dangerous flirtations with the cholera vibrio, able to enjoy life in the way most congenial to him, that is to say, in unceasing intellectual work. Dr. von Pettenkofer, who is now 75 years of age, was, it appears, originally intended for the pharmaceutical profession, and a considerable part of his earlier scientific work lay in the province of medical chemistry. In 1853 he was named Extraordinary Professor at Munich, where his whole career has been spent. Turning his attention to hygiene, he gradually became absorbed in it, and in 1865 he was appointed to the chair of that subject in his Alma Mater. There he has remained ever since, in spite of repeated tempting invitations from the University of Vienna. In acknowledgment of his patriotic determination to stay at Munich, the Hygienic Institute of that city, the first of the kind established in Germany, was erected for him. Of his services to the cause of sanitary progress we need say nothing; his praise is in the mouths of all competent to judge his work.

We are sure we are expressing the feelings of all in this country who are interested in the great work of making human life not only larger, but healthier, happier, and more productive, in wishing Professor von Pettenkofer *In plurimos annos.*

AMERICAN WELCOME TO BRITISH MEDICAL GUESTS.

British Textbooks and Journals.

AT a banquet given by the Practitioners' Club of Chicago on Saturday, June 17th, to the foreign medical guests of distinction present in Chicago, there were present: Mr. Ernest Hart; Brigade-Surgeon-Lieutenant-Colonel Notter, Netley; Mr. H. Burdett; Professor Finkler, Bonn; Professor Jurgens, Berlin, first assistant to Professor Finkler; Professor Reimers, Hamburg; Professor Kurz, Vienna; Dr. Rust, Toronto; and many other medical representatives of distant cities.

The toast of "Our Guests" was proposed in an eloquent address by Dr. NICHOLAS SENN, Colonel and Surgeon-General of the National Guard of the United States, Illinois, one of the most distinguished and original of American surgeons, and a prominent resident in Chicago, who, to his other qualities, unites that of high and courteous eloquence. We extract the reference to English textbooks of medicine and surgery, and

the British Medical Journal. Dr. Senn addressed the visitors from England as follows: The great and busy city of Chicago has cast away for this year the working dress, and has attired herself in festive garb to receive and entertain the guests of all nations. The city, noted for its push and enterprise, has been transformed from a business centre into a great cosmopolitan city representing all nationalities. It has become the Mecca of those who seek knowledge and the betterment of mankind. To the medical profession of this city the great World's Fair has an additional interest—the opportunity to come in contact with and to make the personal acquaintance of distinguished medical men from near and abroad. In extending to our guests for this evening a cordial welcome, I wish to congratulate the members of the Practitioners' Club at the same time on having the opportunity to meet on this occasion so many representative members of our profession from abroad. Mr. Ernest Hart, to you we extend a special welcome. You have the world for your lecture room and the entire medical profession as your audience. You have not limited your ability and energies to the building up of the greatest and most influential medical journal in the world; you have devoted much of your precious time to the noblest mission of the physician—the prevention of disease. Your voice on matters pertaining to sanitation has been heard in the distant East, and your views on the prevention of cholera have done much towards diminishing the fear of this dreaded disease both in Europe and America. We owe much to the country you represent. The first textbook on military surgery used by our surgeons during the bloody conflict for liberty and independence was written by an English author. For more than one hundred years most of the textbooks used in our medical colleges have come from England. Several generations of students have been charmed by the silent eloquence of Watson, the deep learning of Paget, the accuracy of Gray, the beautiful illustrations of Maclise, the profound knowledge of Kirke. The success of our practitioners has been largely due to the literary labours of Reynolds, Bristowe, Simpson, Erichsen, Holmes, Wells, Bryant, Walsham, and Treves. Fortunately, we are now, and soon certainly shall be, more independent in the selection of our textbooks; and ere long we hope to be able to return to our mother country all we have borrowed, with compound interest. It is not egotism on my part when I express the hope that the time is near at hand when your teachers of medicine and surgery will be more liberal in the selection of textbooks written by American authors. When you have completed your journey and re-entered your editorial sanctum, I pray you to extend our cordial greetings to our professional brethren on the other side of the Atlantic. The War Department of England is most worthily represented here this evening in the person of Colonel Notter of the great school of Netley. He is no stranger in this country. His fame as a military surgeon and teacher of hygiene has reached our shore long ago. He is a patriotic Briton, a true soldier, and a successful teacher. Aside of the distinguished gentlemen that I have alluded to we have with us this evening a layman from the same country richly endowed with noble aspirations. Mr. Burdett, editor of the *Hospital*, is known wherever hospitals are erected for the benefit of suffering humanity. Although not a physician, the noble work he is engaged in is so near akin to the healing art that we feel he belongs to us; and I can assure him that wherever he may go the profession will greet him warmly, and extend to him the unostentatious hospitality so characteristic among medical men. Honoured guests! May you enjoy your visit in this city, and when you return to your distant homes, may you carry with you pleasant remembrances of Chicago, the Great Exposition, and the Practitioners' Club.

Scientific Missions.—Dr. Darier has been commissioned by the French Government to visit Germany for the purpose of studying the methods of treating diseases of the eye and the provision for the clinical teaching of the subject.—Dr. Chaumier, of Tours, has been commissioned to investigate the causes of the prevalence of rickets in Italy.

Typewriting.

We are asked to state that a staff of typewriters (Remington), under the direction of Mrs. M. Marshall, of Cambridge, will be in the Reception Room at the annual meeting at Newcastle for the convenience of members.

THE CHOLERA.

The *Times* correspondent at Alexandria, telegraphing on July 6th, says that the number of deaths from cholera at Mecca since June 7th is over 7,000, and at Jeddah since June 29th 1,450. The deaths on Friday, July 7th, numbered 110 at Mecca and 136 at Jeddah.

A Reuter's telegram from Alexandria, under date of July 7th, states that a Turkish vessel with 850 pilgrims on board has arrived at the quarantine station at El Tor. Many cholera cases, of which 20 terminated fatally, occurred during the passage. An Egyptian vessel bringing 500 pilgrims had 5 suspicious cases on board.

The *Standard* Madrid correspondent, telegraphing on July 9th, reports that 2 cases of cholera have occurred on board the British steamer *Dante*, which is undergoing quarantine at the Mahon Lazaretto because she had come from Marseilles. The authorities of the Balearic Islands impose thirty-six hours' observation on all arrivals from Barcelona. The Government medical inspectors at Madrid have declared that a woman who died at the District Hospital, and a soldier of the Marine Infantry conveyed to the military hospital, did not present symptoms of Asiatic cholera, as was stated by the first doctors who examined these two cases. It is also reported that in the Hungarian Szathmar there have been two further cases that are suspected of being Asiatic cholera. Several other suspicious cases have also been notified to the Hungarian Home Minister from Dees in Transylvania.

Reuter's agent in Berlin reports that the number of bacteriological stations in Germany has been increased, and 117 cholera specialists have been appointed, who, moreover, may be employed to assist the local authorities in carrying out the sanitary measures that may be determined upon. The service of watching over the rivers, notably the Vistula, and the river traffic, has already been taken up. In connection with this service a new bacteriological station has been erected at Dantzic, and a similar establishment will be provided at Bonn.

The *Times* correspondent, telegraphing from Alexandria on July 9th, states that the medical delegate to Mecca of the Egyptian Quarantine Board gives a horrible account of the condition of the pilgrims. The deaths from cholera have been double the number officially reported. In the valley of Mouna it became impossible to bury the dead, and between Mecca and Mouna the road was strewn with corpses. In Mecca the victims lay decomposing where they died, and when the order was given for interment several days elapsed before its execution for want of a sufficient number of grave-diggers.

There are 5,000 pilgrims now due at the quarantine establishment of El Tor, where the earliest arrivals have already brought cholera. As many as 50,000 in all are expected, but as El Tor provides accommodation, provisions, and water only for 11,000 at a time, the Quarantine Board has refused permission to land any pilgrims in excess of this number; these must, therefore, remain aboard, as they can neither land on Egyptian territory nor pass through the Suez Canal before performing fifteen days' quarantine at El Tor. The Government provides food for the poorest pilgrims, and is doing its utmost to protect Europe from cholera.

Dalziel's agent at Cannes, under date of July 9th, reports that several cases of cholera had been reported at Vallauris, in the Alpes Maritimes. The troops in garrison at Antibes are confined to barracks in consequence of the outbreak.

The Vienna correspondent of the *Times*, under date of July 11th, states that, according to accounts from Buda-Pesth, there can no longer be any doubt as to some of the suspicious cases that have occurred in North and East Hungary being really cholera. A bacteriological examination in connection with a death that occurred at Dees, in Transylvania, on July 5th, seems to have removed all doubt on this head. The Government has sent a commissioner to the district, where 3 more deaths have since taken place. In his opinion the present outbreak is due to germs which have remained dormant since the epidemic last year. Measures have been taken by the Government to prevent the export of food or clothing. Deaths with suspicious symptoms have also attracted atten-

tion in other localities, but, so far, the existence of the epidemic has not been established elsewhere. It is thought probable by some that the outbreak in East and North Hungary may have arisen through infection originating in the Russian province of Podolia.

In consequence of the appearance of cholera in the South of France, the German Imperial Government has issued a circular to the medical authorities of the various federal States enjoining a strict sanitary control of all persons arriving in Germany from the harbours on the south coast of France.

The *Standard* correspondent at Buda-Pesth telegraphs on July 11th that sporadic cases of cholera were reported from the counties between the Theiss and the eastern frontier, and in Northern Transylvania.

The Moscow correspondent of the *Standard* reported on July 11th that since June 30th 32 cases and 11 deaths from cholera had occurred in that city.

Reuter's agent at St. Petersburg, telegraphing on July 10th, states that several cases of cholera have recently occurred at Kieff.

Cholera is reported to be spreading among the villages along the Dneiper and Dneister. The strictest precautions are being taken to prevent it reaching Odessa.

Reuter's agent at St. Petersburg reports, under date of July 11th, that the last weekly official report shows that, during the seven days covered by it, there were in the province of Podolia 310 cases of cholera and 100 deaths; in Bessarabia 35 cases and 15 deaths; in Orel 32 cases and 12 deaths; in Kherson 18 cases and 9 deaths; and in Toula 8 cases and 3 deaths. It also announces several suspicious cases of illness in Moscow.

A Reuter's telegram from Alexandria, dated July 12th, states that 85 cases of cholera have been admitted to the hospital at the quarantine station at El Tor, and there have already been 40 deaths.

Five cases of cholera are reported to have occurred in the town and suburbs of Toulon, with 4 deaths.

The Vienna correspondent of the *Standard* reports, under date of July 12th, that the malady which has broken out in the district of Bereg in Hungary proves to be genuine Asiatic cholera. Two fresh cases were reported on July 11th. Two fresh cases are reported to have occurred in the infected districts on the banks of the Szamos.

ENGLAND.

THE steamship *Widdrington* arrived in Penarth Roads from St. Louis du Rhone, *vid* Malta, on July 9th, reporting 2 deaths from cholera on board since leaving France on June 6th. The crew of 21 hands were all well on arrival, and the vessel has been sent to the Flat Holm mooring station for disinfection under the cholera orders. Now that this long and anxiously expected ship has actually come, surely Cardiff will have learned to look for future arrivals of a like sort with calmer mind. Nothing less than a sheer desire to hinder the shipping trade of the port could lead the most fastidious Consulate to class Cardiff as an infected port under the present circumstances, and the town will do well to cultivate this view of the matter.

FRANCE.

Cholera news from France in respect of last week is of the most meagre description. We hear of some dozen cases at Toulon, with 3 deaths, and of single deaths at Salliespont and La Seyne. But Spain is looking askance at all who cross the frontier, and the Chief Sanitary Council at Vienna have decided on greater vigilance in regard to suspected persons from cholera infected districts and southern parts of France; but we do not read this as necessitating any detention of the healthy by Austria.

SPAIN.

It is admitted that cholera has broken out in the village of Palafurgell, in the province of Gerona, on the frontier, and that the mayor of the place concealed the fact for eight days. He is to be prosecuted. There has also been a fatal case at Irun on the eastern frontier, and a suspicious case—locally pronounced to be enteritis—at Los Pasages, close by.

RUSSIA.

The reappearance of cholera at Moscow is announced. A fresh epidemic is feared. Three cases of cholera on a British steamer from Marseilles, in quarantine at Mozornin, are reported from Constantinople; and the disease is also stated to have broken out in St. Louis, Senegal, and Podor, Senegambia.

TRAINED NURSES FOR CHOLERA CASES.

It is proposed, in the event of an outbreak of cholera in this country, to make use of the workhouse infirmary in some districts. It is interesting, therefore, to note that the Local Government Board, in a communication to the Bandon Union, have pointed out the necessity of providing a sufficient number of efficiently trained nurses. The Board further suggests that it might be advisable to make use of the infirmaries for the purpose of training young women for nurses in view of the contingency. We have, in another part of this issue, referred to the great demand which exists at the present time in these institutions for efficiently trained nurses. It seems to us a matter for regret that the larger infirmaries are not more often used for the purpose of educating suitable young women in the theory and art of nursing.

PERSONAL IDENTIFICATION.

WE are glad to learn that the Council of the British Association for the Advancement of Science has, at the instance of the Anthropological Section over which Professor A. Macalister, of Cambridge, presided, at the Edinburgh meeting last year, called the attention of the Government to the anthropometric method of personal identification which is successfully in operation in France, Austria, and other Continental countries, and which has been found very effective in the identification of habitual criminals, and consequently in the prevention and repression of crimes. The recommendation has taken the following form, which has been sent to the Secretary of State for the Home Department, Army, Navy, India, and the Colonies. "Considering the recognised need of a better system of identification than is now in use in the United Kingdom and its dependencies, whether for detecting deserters who apply for re-enlistment or old offenders among those who are accused of crime, or for the prevention of personation, more especially among the illiterate, the Council of the British Association express their opinion that the anthropometric methods in use in France and elsewhere deserve serious inquiry as to their efficiency, the cost of their maintenance, their general utility, and the propriety of introducing them, or any modification of them, into the criminal department of the Home Office, into the recruiting departments of the army and navy, or into Indian and Colonial administration."

On this subject Mr. Francis Galton has recently addressed letters to the *Times* and *Nature*, showing its importance, and the various considerations which might assist the objects of Government investigation, and the advantages to be gained by adding to measurements of the body impressions of the palmar surfaces of the ends of the fingers. Everyone will admit that, however a man or woman may change his expressions and general appearance, by no possibility can he change the length or breadth of his head and of those parts of his body the dimensions of which are fixed by his osseous framework. The measurements of these parts must therefore (if they can be measured accurately) prove of great use for purposes of personal identification. It is interesting and important to learn from such extensive data as Mr. Galton possesses that impressions of the finger pulps are likewise a very easy and definite means of identification. Even when these impressions are indifferently made by being blurred, faint or imperfect, their general contour or pattern may be identified and determined with practical unanimity by different persons. By more minute examination of details in a good impression of the ridges of a single finger, it is possible to say with certainty whether another impression taken, it may be, years previously, is that of the same finger, unless, of course, the whole of the skin of the finger has been destroyed in the interval. If these impressions of all the fingers are obtained, the chances of all of them having been injured so as not to be recognisable is greatly diminished. This certainty of identification from the finger impressions should to a great extent, if not altogether, do away with the need of photographing prisoners, besides being much simpler, less expensive, and much better adapted for classification and subsequent reference. While we have given prominence to the evidence which Mr. Galton has advanced of the importance for purposes of personal identification of finger impressions, it must not be supposed for an instant that we consider these should alone be employed. The mensuration of definite anatomical parts must, we believe, always be the fundamental starting point and basis of any true scientific system of personal identification.

There is reason to hope that our Association, through its Parliamentary Bills Committee, will not be behind the British Association in taking up this matter, and using its influence to impress on the Government the importance of establishing anatomical methods of personal identification.

BRITISH MEDICAL ASSOCIATION.

SIXTY-FIRST ANNUAL MEETING.

THE sixty-first Annual Meeting of the British Medical Association will be held at Newcastle-on-Tyne, on Tuesday, Wednesday, Thursday, and Friday, August 1st, 2nd, 3rd, and 4th, 1893.

President: JOSEPH WHITE, F.R.C.S.Edin., Consulting Surgeon, Nottingham General Hospital.

President-Elect: GEORGE HARE PHILIPSON, M.D., D.C.L., F.R.C.P., Professor of Medicine in the University of Durham.

President of the Council: W. WITHERS MOORE, M.D., F.R.C.P., J.P., Consulting Physician, Sussex County Hospital.

Treasurer: HENRY TRENTHAM BUTLIN, F.R.C.S., Surgeon to St. Bartholomew's Hospital, E.C.

An Address in Medicine will be delivered by DAVID DRUMMOND, M.D., Physician and Pathologist, Royal Infirmary, Newcastle-on-Tyne.

An Address in Surgery will be delivered by GEORGE HALLIBURTON HUME, M.D., F.R.C.S.Edin., Surgeon to the Royal Infirmary, Newcastle-on-Tyne.

An Address in Obstetrics and Gynæcology will be delivered by CHARLES JAMES CULLINGWORTH, M.D., F.R.C.P., Obstetric Physician and Lecturer on Midwifery and Diseases of Women, St. Thomas's Hospital.

The scientific business of the meeting will be conducted in eleven Sections, as follows, namely:

A. MEDICINE.

Medical Theatre—College of Medicine.

President: W. MILLER ORD, M.D. *Vice-Presidents:* HENRY BARNES, M.D.; HENRY HANDFORD, M.D. *Honorary Secretaries:* JAMES ALEXANDER LINDSAY, M.D., 37, Victoria Place, Belfast; JAMES LIMONT, M.B., 3, Queen's Square, Saville Place, Newcastle-on-Tyne.

The following subjects will be discussed in this Section:

Wednesday, August 2nd, at 10 A.M.—Chronic Glycosuria in Middle Life, introduced by Sir Dyce Duckworth, M.D., LL.D. Professors Clifford Allbutt, Gairdner, Grainger Stewart, Drs. Lauder Brunton, A. H. Carter, Stephen Mackenzie, F. W. Pavy, R. Saundby, W. R. Thomas, and Shingleton Smith will take part in the discussion.

A demonstration on Myxœdema will be given by Dr. George Murray, Professor Oliver, Dr. T. M. Allison, and others.

Thursday, August 3rd, at 10 A.M.—The Pathology and Distribution of Atrophic Paralysis, introduced by David Ferrier, M.D., LL.D., F.R.S. Drs. Julius Althaus, A. G. Barrs, Alexander Bruce, Judson Bury, F. W. Mott, Alexander Robertson, and R. Saundby will take part in the discussion.

Dr. David Drummond will give a demonstration on Aneurysm.

Friday, August 4th, at 9.30 A.M.—Concussion of the Spine, more especially in its Relationship with Railway Accidents and Injuries, introduced by Byrom Bramwell, M.D. Professor Clifford Allbutt, Dr. J. O. Brookhouse, Professor Victor Horsley, Professor Cuming, Dr. Buzzard, Mr. Frederick Page, Dr. Alexander Robertson, Dr. Chauncy Puzey, and Mr. Wheelhouse will take part in the discussion.

The following papers are announced:

COLEY, F. C., M.D. Chlorosis.
GIAMPIETRO, Professor D. E. (University of Naples). Aphasia in its Relations to Lesions of the Auditory Centres.
REDMOND, C. S., M.D. The Cool Bath Treatment of Enteric Fever.
SOLLY, S. E., M.D. (Colorado, U.S.A.) Effects of Heredity in the Progress of Phthisis.
SMITH, Wilberforce, M.D. The Weighing Machine in Consulting Room Practice: Cases, with Clinical Charts.
WADE, Willoughby F., F.R.C.P. On a Morbid Condition of the Local Nerves as a Factor in Gout.

B. SURGERY.

Anatomical Theatre—College of Medicine.

President: W. C. ARNISON, M.D. *Vice-Presidents:* R. J. GODLEE, M.B.; F. PAGE, M.D. *Honorary Secretaries:* J. RUTHERFORD MORISON, F.R.C.S., 14, Saville Row, Newcastle-on-Tyne; JAMES ERNEST LANE, F.R.C.S., 46, Queen Anne Street, W.

A discussion on the Radical Cure of Hernia will be introduced by Dr. Halstead, Surgeon to the Johns Hopkins Hospital, Baltimore, U.S.A., and the following gentlemen intend to take part in it: Jordan Lloyd, Mayo Robson, Professor Annandale, Bowreman Jessett, C. B. Keetley, A. E. Barker, Professor Macewen, Hume, Damer Harrisson, Ward Cousins, Gilbert Barling, Dr. Crawford Renton, Mr. Stanmore Bishop, Rushton Parker, Dr. Mitchell Banks, Mr. Pye-Smith, Mr. R. C. Chicken, and W. Alexander.

The discussion on the Surgical Treatment of Cerebral Tumours will be introduced by Professor Victor Horsley, M.B., F.R.C.S., who will illustrate his paper by lantern photographs and specimens, and Professor Macewen, Dr. Ferrier, Dr. Drummond, Damer Harrisson, Dr. Crawford Renton, Dr. MacDougall, and Rushton Parker will take part.

Dr. Frederick Page will introduce a discussion on the Treatment of Intestinal Obstruction. Messrs. Jonathan Hutchinson, Jordan Lloyd, Mayo Robson, Professor Annandale, Messrs. H. W. Allingham, Bowreman Jessett, Hume, Dr. Drummond, Harrison Cripps, Ward Cousins, Gilbert Barling, Dr. Crawford Renton, Rushton Parker, D. Lowson, Mr. Pye-Smith, and W. Alexander will take part in the discussion.

The following papers are announced:

ALEXANDER, W. M. D., F.R.C.S. (Liverpool). Some Results of Trephining in Epilepsy.
ALLINGHAM, H. W., F.R.C.S. The Surgical Treatment of Incontinence of Fæces sometimes following Operations on the Rectum.
BARKER, A. E., F.R.C.S. On the Treatment of Acute Intussusception in Young Children.
COLLIER, Mayo, M.B., F.R.C.S. (London). A paper with illustrative specimens on the Surgery of the Frontal Sinuses.
HASLAM, W. F., F.R.C.S. Some Points in the Surgical Treatment of Simple Ulcer of the Stomach.
HERN, J., M.D. The Effect of Repeated Tappings on Hydrocephalus.
JONES, Robert, F.R.C.S. Papers on Amputation in Senile Gangrene. The Treatment of Chronic Sprains of Foot and Ankle.
LANE, W. Arbuthnot, M.B. 1. The Fallacy of the Vertical Foot-Piece. 2. The Applicability of the Parting Tool or Angular Gouge to the Surgery of the Skull.
MORISON, A. E., M.B., F.R.C.S.Ed. A Patient after Gastro-enterostomy.
MORISON, Rutherford, M.B., F.R.C.S. 1. Specimens illustrative of Gastrointestinal Surgery. 2. A New and Easy Method of Intestinal Resection.
PARKER, Rushton, M.B., B.S., F.R.C.S. (Liverpool). 1. The Radical Cure of Hernia, based upon over 270 Operations. 2. A Case of Two Attacks of Acute Intestinal Obstruction recovering the First Time under Palliative Treatment, the Second after Abdominal Section.

Mr. Coppinger, of Dublin, will exhibit a case of Subclavian Aneurysm treated by Ligature of the Innominate and Carotid Arteries, and will give a full report of his case.

Demonstrations of patients and of operations will be arranged at the Royal Infirmary, at the Children's Hospital, and at other institutions.

Dr. F. Page will show a Man upon whom two operations of Pyloroplasty was performed 14 months ago.

On Wednesday, Thursday, and Friday demonstrations on Surgical Cases will be given at the Infirmary at 5 o'clock in the afternoon by the surgical staff.

C. OBSTETRIC MEDICINE AND GYNÆCOLOGY.

Chemical Theatre—Durham College of Science.

President: JAMES MURPHY, M.D. *Vice-Presidents:* W. GOWANS, M.D.; D. BERRY HART, M.D. *Honorary Secretaries:* A. D. LEITH NAPIER, M.D., 67, Grosvenor Street, Grosvenor Square, W.; R. C. BENINGTON, M.D., 59, Osborne Road, Newcastle-on-Tyne.

A discussion on Puerperal Septicæmia will be opened by Dr. Barnes, and the following intend to speak: Drs. Cullingworth, Lovell Drage, Jardine, Herman, Hern, Boxall, Fancourt Barnes, Bell, Sloan, Elder, Byers, Professor Oliver, Reid, Smyly, Aust-Lawrence, Swayne, and Cameron.

Professor Pozzi will open a discussion on the Conservative Treatment of the Diseases of the Uterine Appendages. The following members will speak: Drs. Cullingworth, More Madden, Sloan, Tait, Handfield-Jones, A. Martin, Mayo Robson, Fancourt Barnes, Elder, Bell, Smyly, Aust-Lawrence, Swayne, Cameron, Travers, and Jessett.

The following papers are announced:

AUST-LAWRENCE, A. E., M.D. *Post-Partum* Ovariotomy.
BALLANTYNE, J. W., M.D. Summary of the Results of the Examination of 100 Cases of Fœtal Deformity and Disease.
BARNES, Fancourt, M.D., F.R.S.Edin. Case of Lithotomy in the Female Bladder.
BELL, R., M.D. Treatment of Displacement of the Uterus.
BISHOP, E. S., F.R.C.S., First Thirty Ovariotomies.
BRAITHWAITE, James. On Acute Anteflexion of the Uterus in the Later Months of Pregnancy.
BREWIS, N. T., M.B. Some Unusual Forms of Hyperplasia of the Cervix Uteri.

DUFF, Alex., F.R.C.P. The Value of Crude Boracic Acid in the Treatment of Chronic Endometritis.
EDIS, A. W., M.D. Some Typical Cases of Puerperal Septicæmia.
HANDFIELD-JONES, M., M.D., M.R.C.P. The Treatment of Adhesions after Pelvic Peritonitis.
HART, D. Berry, M.D. The Extraperitoneal Development of Extrauterine Gestation, with remarks on its Treatment.
HAULTAIN, F. W. H., M.D. The Constant Current in Uterine Disease Practically Considered.
JESSETT, F. B., F.R.C.S. On the Treatment of Advanced Uterine Cancer.
MADDEN, More, M.D., F.R.C.S.Edin. On Puerperal Fever and Septicæmia.
MARTIN, A., M.D., Berlin. (Title not announced.)
MARTIN, C., M.B., F.R.C.S. On the Nerve Theory of Menstruation.
NAPIER, A. D. Leith, M.D., and SCHACHT, F. F., M.D. Series of Cases of Ventrofixation of the Uterus.
POZZI, Professor. The Technique of Laparotomy.
PURSLOW, C. E., M.D. The Treatment of Retroversion of the Gravid Uterus.
WEBSTER, J. C., M.D. The Etiology of Ectopic Gestation.

Dr. Murdoch Cameron will show a New Pair of Axis Traction Forceps for application in the conjugate diameter at the brim.

D. PUBLIC MEDICINE.

Hall of Geographical Society.

President: H. E. ARMSTRONG, D.Hy. *Vice-Presidents:* GEORGE EASTES, M.B.; THOMAS EUSTACE HILL, M.B. *Honorary Secretaries:* F. P. WIGHTWICK, M.D., 5, Curlew Street, Horsleydown, S.E.; W. TURNBULL, M.B., South Shields.

The following papers are announced:

ARMSTRONG, Henry E., D.Hy. (M.O.H. Newcastle-on-Tyne). 1. Cholera Precautions in the North of England. 2. (Exhibit) Medical Visiting Coat and Head Cover for Infectious Diseases.
LAWS, C. U., M.B. Arrangements for Sterilisation of Cholera Dejecta, etc., at the Temporary Cholera Hospital at Newcastle-upon-Tyne.
CLARK, F. W., M.D. (Newcastle). The Duties and Difficulties of Port Medical Inspectors.
MALCOLMSON, J. A., M.D. (M.O.H. Middlesbrough). The New Floating Hospital of the Middlesbrough Port Sanitary Authority (with plans).
MASON, J. W., M.B. (M.O.H. Hull). Cholera: Quarantine as a Preventive Measure.
PRINGLE, R., Brigade-Surgeon, M.D. Cholera: Quarantine as a Preventive Measure.
HILL, T. E., M.B. (M.O.H. Durham County Council). Specific Throat Affections.
DAVIES, Sydney, M.D. (M.O.H. Plumstead). The Causes of the Increase of Diphtheria in Urban Districts.
RING, C. G., L.R.C.P. (M.O.H. Keswick). Prevention of the Spread of Infectious Diseases by Tramps.
KERR, Norman, M.D. The Shelters and Dissemination of Small-pox.
MUNRO, A. C., M.B. (Renfrew County Council). Notification of Measles.
RIDGE, J. J., M.D. The Diet of Infants and Young Children.
RENTOUL, R. R., M.D. (Liverpool). Proposed Registration and Inspection of Stillborn Children.
WILLOUGHBY, E. F., M.D. The Control of Dairies.
DE'ATH, G. H., L.R.C.P. (M.O.H. Buckingham Rural and Urban Sanitary Districts). The Housing of the Working Classes in Rural Districts.
FOWLER, Trevor, L.R.C.P. (Epping). District Medical Officers as Medical Officers of Health.

E. PSYCHOLOGY.

Durham College of Science.

President: T. W. MCDOWALL, M.D. *Vice-Presidents:* ALEX. REID URQUHART, M.D.; C. NORMAN, F.R.C.P.I. *Honorary Secretaries:* J. T. CALLCOTT, M.D., City Asylum, Gosforth, Newcastle-on-Tyne; ROBERT JONES, M.D., London County Lunatic Asylum, Claybury, Woodford, Essex.

The President (T. W. McDowall) will introduce for discussion the subject of the Effect of the Recent Change in County Government on Asylums and the Insane.

Discussions will be opened on the Alleged Increase of Insanity, by Dr. D. Hack Tuke; on the Detached Asylum Hospital, its Uses and Advantages, by Dr. Clouston; on State Aid for Poor Private Insane Patients, by Dr. Yellowlees.

The following have promised to take an active part in the proceedings of the Section: Sir J. Crichton-Browne, Dr. John Sibbald, Dr. T. Outterson Wood, Dr. Robert Smith, Dr. John Merson, Dr. John A. Wallace, Dr. P. W. MacDonald, Dr. Carlyle Johnstone, Dr. John Macpherson.

The following papers are announced:

CAMPBELL, Harry, M.D. Claustrophobia.
CLOUSTON, Dr. The Mental Symptoms of Myxœdema and the Effects of Treatment by Thyroid Glands.
IRELAND, Thomas, L.R.C.P., etc. (Public Asylum, Berbice). Insanity from the Abuse of Indian Hemp.
KEAY, John, M.D. On the Use of Hypnotics and Sedatives.
MACLEMISS, Dr. Adolescent General Paralysis: its Pathology and Symptoms.
NORMAN, Conolly, M.D. The Criminal Law Amendment, 1885, in Relation to the Protection of Female Patients.
RAYNER, H., M.D. Notes from the Out-patient Department for Mental Diseases at St. Thomas's Hospital.
ROBERTSON, Dr. On Massage of the Brain, a New Principle in Cerebral Therapeutics.
WHITWELL, Dr. Exhibition of a Series of Incised Slates for use in the Post-mortem Room.
URQUHART, Dr. 1. Current Opinion on Psychological Questions in Germany. 2. Notes of a Conversation with Professor Meyer, of Göttingen.

F. ANATOMY AND PHYSIOLOGY.

Physiological Laboratory—College of Medicine.

President: THOMAS OLIVER, M.D. *Vice-Presidents:* R. W. REID, M.D.; W. D. HALLIBURTON, M.D. *Honorary Secretaries:* R. HOWDEN, M.B., University of Durham College of Medicine, Newcastle-on-Tyne; A. THOMSON, M.B., Museum, Oxford.

The following discussions have been arranged for:

1. Wednesday.—On the Structure, Functions, and Pathology of the Thyroid, to be opened by Victor Horsley, F.R.S.

2. Thursday.—On the Delimitation of the Abdomen, to be opened by William Anderson, F.R.C.S.

3. Friday.—On the Sensori-motor Functions of the Cortex Cerebri, to be opened by F. W. Mott, M.D.

Discussions 1 and 3 will be combined with the Section of Pathology, No. 1 being held in the Section of Pathology, and No. 3 in the Section of Anatomy and Physiology.

The following papers are announced:

BOYCE, Rubert, M.D. Ablation of Cerebral Hemispheres in Mammals.
BRODIE, T. Gordon. A New Method of Studying the Elasticity of Muscle or any Tissue.
BROOKS, H. St. John, M.D. On the Morphology of the Peroneal Group of Muscles in the Monotremata.
BROWN, Macdonald, M.D., F.R.C.S. 1. The Attachments of the Ascending Colon. 2. Variations in the Position and Development of the Kidney.
BRUCE, Alexander, M.A., M.D., F.R.C.P.E. Lantern Demonstration on the Minute Structure of the Hind Brains.
FAYRER, Sir J., F.R.S. Cardiac and Pulmonary Thrombosis.
GIAMPIETRO, Professor Dott. Eduardo (University of Naples). Classification of the Auditory Centres in Relation to Articulate Language.
GIBSON, G. A., M.D., F.R.C.P.E., and GILLESPIE, A. Lockhart, M.D. On some Points in Relation to the Development of the Heart.
HALLIBURTON, W. D., M.D. Intravascular Coagulation.
HORSLEY, Victor A. H., M.B., F.R.C.S., F.R.S., and BEEVOR, C. E., M.D., F.R.C.P. On the Movements of the Tongue and their Representations in the Cortex.
KANTHACK, A. A., B.A., B.Sc., F.R.C.S. The Relation of the Epiglottis to the Velum Palati in Various Animals.
KENT, A. F. Stanley. Further Researches on the Structure and Functions of the Mammalian Heart.
MOTT, F. W., M.D. The Sensori-motor Functions of the Rolandic Area of the Cortex Cerebri.
OLIVER, Thomas, M.D., F.R.C.P., and GARRETT, Mr. F. C. Analysis of the Gases of the Blood in Chloroform, Ether, and Bichloride of Methylene Anæsthesia.
PATERSON, A. M., M.B. The Distribution of the Nerves to the Lower Limb.
PATON, Diarmid Noël, M.D. Sugar Formation in the Liver.
SHERRINGTON, C. S., M.B., L.R.C.P. Experimental Note on the Knee-jerk.
STARLING, Ernest H., M.D. Absorption from and Secretion into the Serous Cavities.
SYMINGTON, Johnson, M.D. Observations on the Development of the Human Brain.
THOMPSON, W. H., M.D. 1. The Absorption of Fat from the Intestine. 2. The Nature of the Work of the Kidney as shown by the Effects of Atropine and Morphine on the Secretion of Urine.
RUSSELL, J. S. Risien, M.B. Ablation of Cerebellum in Mammals.
WEBSTER, J. C., M.D. Embryological Studies in Tubal Gestation.

A special Anatomical and Physiological Museum will be arranged in the room adjoining the Section.

G. PATHOLOGY.

Physical Theatre—Durham College of Science.

President: C. S. ROY, M.D., F.R.S. *Vice-Presidents:* T. C. SQUANCE, M.D.; J. L. STEVEN, M.D. *Honorary Secretaries:* F. W. MOTT, M.D., 84, Wimpole Street, W.; GEORGE R. MURRAY, M.B., 2, Saville Place, Newcastle-on-Tyne.

Wednesday, August 2nd. Introductory Address by the President. Communications and demonstrations on the Pathology and Pathological Anatomy of the Circulatory and Glandular Systems.

Thursday, August 3rd. Communications and demonstrations on other branches of Pathology and Pathological Anatomy.

Friday, August 4th. Bacteriological papers and demonstrations.

The Section will be held in the Physical Lecture Theatre of the Durham College of Science, Newcastle-on-Tyne. This room is fitted with a powerful electric lantern, and provision will be made for lantern demonstrations, the projection of spectra, chemical experiments, and microscopical exhibi-

tions. Arrangements may also be made for informal demonstrations of experiments or specimens in the Museum of the Section in the afternoons. It is hoped that as many papers as possible will be accompanied by specimens, illustrations, lantern slides, or demonstrations.

There will be an exhibition of specimens, recent and preserved, bacteriological cultures, models, diagrams, and instruments for pathological research in the Museum attached to the Section.

The following papers are announced:

*ANDRIEZEN, W., M.B. On the Form and Significance of the Hypophysis Cerebri in the Evolutionary History of the Brain.
BOKENHAM, T. J., L.R.C.P., and FENWICK, Soltau, M.D. The Pathological Action of some Substances obtained from the Spleen of Patients dead of Scarlatina.
*BOYCE, R., M.B. 1. On the Action of Absinthe on the Nervous System. 2. On the Path of Degeneration following Ablation of a Cerebral Hemisphere
CATTLE, Chas., M.D. Observations on the Cell Enclosures met with in Cancer.
CLARKE, J. Jackson, M.B. Psorosperms.
COATS, Professor J., M.D., and AULD, A. G., M.D. A Preliminary Communication on the Pathology of Aneurysms and its Relations to Atheroma.
COPEMAN, Monckton, M.D. Experiments on Vaccinia and Variola.
DELÉPINE, Professor S. Tuberculosis.
GALLOWAY, J., M.D. Psorosperms.
GIBSON, G. A., M.D., and MUIR, Robert, M.D. Condition of Nerve Centres and Thyroid Gland in Graves's Disease.
GRIFFITHS, J., F.R.C.S. Retained Testis in Man and some of the Lower Animals.
HAIG, A., M.D. The Causation of Anæmia and the Blood Changes produced by Uric Acid.
HARLEY, Vaughan, M.D. Experimental Diabetic Coma.
HORSLEY, Professor V., F.R.S. On Transplantation of the Thyroid.
*HORSLEY, Professor V., F.R.S., and KRAMER, Dr. Demonstration of the Effect of Gunshot Injuries of the Brain.
KANTHACK, A. A., M.D. Immunity.
KELYNACK, T. N., M.D. 1. Appendicitis. 2. Heart Failure in Alcoholism.
KENT, Stanley. 1. On the Supposed Occurrence of Psorosperms in a Tapeworm. 2. On the Structure and Function of the Mammalian Heart. 3. Effects of Thyroidectomy.
KRAMER, Dr., and BOYCE, R. Upon the Action of the Serum of Vaccinated Calves.
LANG, Dr. On the Nature of the Muscular Movements in Cachexia Thyreopriva in Dogs.
LEVY, Dr. On the Elasticity of the Brain Substance.
MACKENZIE, Hector, M.D. Thyroid Secretion.
MACKENZIE, J., M.D. Thyroid Secretion.
MOTT, F. W., M.D. On the Sensory Function of the Rolandic Area of the Cortex Cerebri.
MURRAY, George, M.D. Thyroid Secretion.
PARSONS, J. Herbert, M.B. Effects of Thyroidectomy on Metabolism.
POWER, D'Arcy, M.B. Some Effects of Chronic Irritation upon Living Tissues, or First Steps in a Rational Study of Cancer.
ROY, Professor C. S., F.R.S., and CORBETT, E. E., M.B. Pathology of Collapse.
*RUSSELL, Risien, M.D. The Effects of Lesions of the Cerebellum.
RUFFER, A., M.D., and PLIMMER, Dr. On Relation of Protozoa to Disease.
*SHERRINGTON, C. S., F.R.S. Experimental Note on the Knee-jerk.
SMITH, J. Lorrain, M.B. The Function of the Thyroid.
SNOW, Herbert, M.D. The so-called Parasitic Protozoa of Mammary Carcinoma.
STEVEN, J. Lindsay, M.D. The Pathology of Fibroid Degeneration of the Heart.
STEWART, Professor Grainger, and GIBSON, G. A., M.D. Atrophy of Heart Muscle in consequence of Obstruction of the Coronary Artery.
THOMSON, John, M.D. The Treatment of Three Cases of Sporadic Cretinism by Thyroid Extract.
WOODHEAD, G. Sims, M.D.
WILSON, T. Stacey, M.D. Anæsthesia due to Disease of the Central Cortex.

*** The papers marked with an asterisk will be communicated at a combined meeting of the Sections of Physiology and Pathology.

Preference will be given to communications accompanied by demonstrations, but as far as possible the above communications will be taken in the order which is found most convenient.

H. OPHTHALMOLOGY.

Materia Medica Room—College of Medicine.

President: G. E. WILLIAMSON, F.R.C.S. *Vice-Presidents:* JOHN WALTON BROWNE, M.D.; G. HARTRIDGE, F.R.C.S. *Honorary Secretaries:* A. N. GODBY GIBBS, L.R.C.P., 27, Chandos Road, Redland, Bristol: A. S. PERCIVAL, M.B., 16, Ellison Place, Newcastle-on-Tyne.

The President, Mr. Williamson, will give a short opening address.

Dr. Buzzard will open a discussion on Optic Atrophy as a Symptom of Chronic Disease of the Central Nervous System, and another discussion is being arranged.

The following papers are announced:

ANDERSON, Tempest, M.D. Railway Servants' Eyesight.
DRAKE-BROCKMAN, Brigade-Surgeon-Lieutenant-Colonel. Case of Double Proptosis.
KNAGGS, R. Lawford, M.D. Reflex Amblyopia during Pregnancy.
MACKAY, George, M.D. The Optical Treatment of Conical Cornea.
OLIVER, Charles, M.D. (Philadelphia, U.S.A.). Clinical History of a case of a Successful Extraction of a Piece of Steel from an Iris.
STEPHENSON, Sydney, M.B., F.R.C.S. Congenital Ectropion of the Uvea; and will show the latest model of Expression Forceps for Trachoma.
WILLIAMSON, G. E., F.R.C.S. Sections and Drawings from a case of Primary Spindle-cell Sarcoma of the Iris.

Papers have also been promised by Drs. Bickerton, Cross, and Johnston Taylor.

I. DISEASES OF CHILDREN.

Durham College of Science.

President: T. BARLOW, M.D. *Vice-Presidents:* NOBLE SMITH, F.R.C.S.Ed.; W. C. BEATLEY, M.D. *Honorary Secretaries:* W. E. A. CUMMINS, M.D., 17, St. Patrick's Place, Cork; W. G. BLACK, F.R.C.S.Edin., 24, Ellison Place, Newcastle-on-Tyne.

At the forthcoming meeting some portion of each of the three days on which the Section meets will be devoted to the discussion of the following subjects:

Abdominal Tuberculosis in Childhood and its Treatment. To be opened by Dr. Fred. Taylor and Mr. Howard Marsh; Mr. A. E. Barker and Mr. Lawford Knaggs intend to take part.

The Treatment of the Enlarged Cervical Glands, opened by Dr. Clifford Allbutt and Mr. Pridgin Teale.

Heart Disease in Childhood and its Treatment, to be opened by Dr. H. Ashby and Dr. F. C. Coley; Dr. J. W. Byers and Dr. E. R. Townsend intend to take part.

The following papers are announced:

LANE, Arbuthnot. The Treatment of Talipes.
SMITH, Noble. The Treatment of Spinal Caries.
VICKERY, W. H. Case of Mastoid Disease with Ligature of Interna Jugular (with patient).

J. OTOLOGY.

Durham College of Science.

President: H. B. HEWETSON, M.R.C.S. *Vice-Presidents:* R. ELLIS, F.R.C.S.Edin.; A. BRONNER, M.D. *Honorary Secretaries:* J. MACKENZIE BOOTH, M.D., 367, Union Street, Aberdeen; S. MACAULAY, L.R.C.P., 49, Jesmond Road, Newcastle-on-Tyne.

The President, Mr. Hewetson, will give an opening address.

A discussion will take place upon the Surgical Treatment of Mastoid Disease and its Complications. The following have signified their intention of taking part in this discussion: Professor William Macewen, M.D., Glasgow; Victor Horsley, F.R.S., London; W. Milligan, M.D.; A. Ogston, M.D., Aberdeen; Charles Warden, M.D.; Dr. Nunneley, Leeds; Dr. Guye, Amsterdam; and H. E. Jones.

A discussion on Pathogenic Organisms of the Naso-pharynx and Ear will be opened by Dr. Macintyre, Glasgow. The Otological Museum will be placed in a room adjoining the Section.

The following papers are announced:

BRONNER, A., M.D. Notes on Sixty Cases of Mastoid Disease in which the Antrum was Opened.
ELLIS, Richard, F.R.C.S.Ed. Results of an Examination of 2,000 School-children in Newcastle-on-Tyne and District as to their Hearing, etc.
GIAMPIETRO, Professor (Naples). The Dangers and Limitations of Politzer's Method.
LANE, W. A., M.B. The Symptoms and Treatment of Septic Infection of the Lateral Sinus as illustrated by Ten Cases.
LODGE, Samuel, junr., M.D. On a Case of Pharyngomycosis.
MACAULAY, S. L.R.C.P.Edin. Some Observations on an Examination of 100 Deaf Mutes.
METCALFE, G., M.B., B.S. On the Use of Pilocarpin in Aural Affections.
MILLIGAN, W., M.D. 1. The Treatment of Chronic Suppuration of Middle Ear Disease by Excision of the Auditory Ossicles. 2. On a New Intra-tympanic Syringe.
ROBERTSON, Wm., M.D. 1. A Series of Cases of Antrectomy by Recent Methods of Operating. 2. A Series of Cases of Deafness arising from Intra-nasal Conditions; for example, Rhinoscleroma, Intra-nasal Diaphragms, Purulent Ethmoiditis, Diseases of the Antrum of Highmore, etc. 3. Cases demonstrating Eustachian Synechiæ.

K. DERMATOLOGY.

Durham College of Science.

President: W. ALLAN JAMIESON, M.D. *Vice-Presidents:* GEORGE THIN, M.D.; T. COLCOTT FOX, M.B. *Honorary Secretaries:* PHINEAS S. ABRAHAM, M.D., 2, Henrietta Street, Cavendish Square, W.; V. H. RUTHERFORD, M.B., 12, Eldon Square, Newcastle-on-Tyne.

A discussion will take place on Ringworm, to be opened by Dr. Colcott Fox, in which the following gentlemen will take part: Dr. H. Alder-Smith, Dr. Leslie Roberts, Dr. George Carpenter, and Dr. Alfred Eddowes.

A discussion will take place on Psoriasis, to be opened by Dr. Radcliffe Crocker, in which the following gentlemen will take part: Mr. Dale James, Dr. Mapother, Dr. Stewart Stirling, and Dr. P. S. Abraham.

A discussion will take place on Lupus, to be opened by Mr. Jonathan Hutchinson, in which the following gentlemen will take part: Dr. P. G. Unna, Dr. Norman Walker, Dr. H. Handford and Dr. G. G. Stopford Taylor.

The following papers are announced:

Bidwell, L., F.R.C.S. On the Surgical Treatment of Lupus.
Eccles, A. Symonds, M.B. Massage in Certain Diseases of the Skin.
Eddowes, Alfred, M.D. Note on Tuberculous Eczema.
Fox, Dr. Colcott, and Carpenter, Dr. George. On Syphilitic and Tuberculous Cutaneous Gummata.
Stirling, Stewart, M.D. Clinical Note with Drawings of a Case of Seborrhœa Psoriasiformis.
Walker, Norman P., M.D. On Rodent Ulcer.
Walsh, D., L.R.C.P.&S.Edin. On Metastasis as a Factor in Certain Skin Inflammations.

Water-colour drawings, casts, and microscopic specimens will be shown by Dr. Stopford Taylor, Dr. Norman Walker, Dr. Colcott Fox, Dr. Leslie Roberts, Dr. Geo. Carpenter, and Dr. P. S. Abraham.

Mr. Jonathan Hutchinson, Dr. Radcliffe Crocker, Dr. Allan Jamieson, and Dr. Colcott Fox, will exhibit drawings, etc., of Diseases of the Skin.

Dr. Norman Walker will give a lantern demonstration on Rodent Ulcer in connection with the Section one afternoon.

Honorary Local Secretary: G. E. Williamson, F.R.C.S., 22, Eldon Square, Newcastle-on-Tyne.

Honorary Treasurer: W. C. Beatley, M.D., 10, Jesmond Road, Newcastle-on-Tyne.

Programme of Proceedings.

Tuesday, August 1st, 1893.

9.30 A.M.—Meeting of 1892-93 Council.
11 A.M.—First General Meeting. Report of Council. Reports of Committees: and other business.
3 P.M.—Sermon by the Bishop of Durham.
8.30 P.M.—Adjourned General Meeting from 11.30 A.M. President's Address.

Wednesday, August 2nd, 1893.

9.30 A.M.—Meeting of 1893-94 Council.
10 A.M. to 2 P.M.—Sectional Meetings.
3 P.M.—Second General Meeting. Address in Medicine.
4 P.M.—Garden Party by the Sheriff of Newcastle at Highfield House, S. Gosforth.
8.30 P.M.—*Conversazione* by the Mayor and Corporation in the Natural History Museum.

Thursday, August 3rd, 1893.

9.30 A.M.—Meeting of Council.
10 A.M. to 2 P.M.—Sectional Meetings.
3 P.M.—Third General Meeting. Address in Surgery.
4.30 P.M.—Reception by the Schools and Charities Committee of the Newcastle-on-Tyne Corporation at the Home for Incurables on the occasion of its inauguration.
7 P.M.—Public Dinner of the Association in the Banqueting Hall, Jesmond Dene.

Friday, August 4th, 1893.

9.30 to 11 A.M.—Sectional Meetings.
11 A.M.—Concluding General Meeting. Address in Obstetrics and Gynæcology.
3 P.M.—Convocation at Durham for Conferring Honorary Degrees.
4 P.M.—Garden Party and Reception by the Warden and Senate of the University.
8.30 P.M.—*Conversazione* in the Art Gallery.

Saturday, August 5th, 1893.

Excursions.
Ambulance Review in the Gosforth Park.

NOTICES OF MOTION.

Notice is hereby given that at the Annual General Meeting of the Association to be held at Newcastle-on-Tyne on Tuesday, the 1st day of August, 1893, at 11 o'clock in the forenoon, the following motion will be proposed on behalf of the Council:

That the following addition be made to the by-laws:

3A. Any member of the Association who shall have been convicted in a court of justice of any criminal offence, or whose name shall have been erased from the *Medical Register* on account of infamous conduct in any professional respect, shall *ipso facto* cease to be a member of the Association, but any such member shall be eligible for re-election in the event of his name being restored to the *Medical Register*.

Dr. Ince hereby gives notice that he will move:

That the acceptance of any kind of payment or remuneration for attendance by members of the Council or any of the Committees is alike alien to the spirit and to the dignity of this our fraternal and professional Association, and should, therefore, be at once discontinued.

July 13th, 1893. Francis Fowke, *General Secretary.*

LITERARY INTELLIGENCE.

A new medical periodical, entitled *Boletin de la Academia de Hygiene de Cataluña*, has recently appeared at Barcelona. It is to be the organ of the Catalonian Academy of Hygiene.

We have received Part iv of the *Sheffield Medical Journal*, which has now completed the first year of its existence. The contents include a vigorous paper on the Influence of Prejudice and Criticism on the Progress of Gynæcology, by Dr. W. Japp Sinclair; one on Hernia in Childhood, by Dr. Sinclair White; one on Synchronous Movements of the Upper Eyelid and Lower Jaw, by Mr. Simeon Snell; cases of Myxœdema treated by Thyroid Feeding and Injection of Thyroid Extract, by Dr. Cocking and Mr. T. Lewis Owen, etc. The *Sheffield Medical Journal* has fully justified its existence, and the editor, Mr. Simeon Snell, and his able collaborators may be congratulated on the successful result of their labours.

The Weismann-Spencer controversy is continued in the *Contemporary Review* for July. Mr. Romanes criticises Mr. Spencer's views as to the fallacy of Weismann's theory of panmixia, and contends also that proof of the influence of a previous sire on the progeny of a subsequent one by the same dam would not constitute valid evidence against Weismann's theory of germ plasm. Mr. Herbert Spencer replies very briefly, traversing the arguments in support of panmixia. Professor Marcus Hartog follows with a criticism of Weismann's theory, in which he points out that the German professor has frequently modified his theory, the last and not least important change having been made within the last year.

In the *Westminster Review* for July, Mr. St. John Hankin, in a somewhat paradoxical article, argues that criminals are such either by accident or by defective constitution; that the former ought not to be punished by incarceration, but by fine, which is a very old-fashioned doctrine, and that the former should be isolated from the rest of the community and placed under treatment, moral and medical, until he is better. "Beginning by restoring the health (and therefore the vigour) of the criminal," each case must be thoroughly treated, "and the patient must not be dismissed till, in the opinion of his medical advisers, he is cured." Failing cure, Mr. Hankin appears to suggest that the only alternative is euthanasia.

The June number of the *Bristol Medico-Chirurgical Journal*, in addition to several articles of exceptional interest on subjects belonging to general surgery and medicine by Mr. F. R. Cross, Mr. Arthur Barker, Dr. George Parker, and Mr. Karkeek, contains an interesting little paper by Mr. Augustin Prichard entitled "One View of Heredity." Discussing the question of the inheritance of physical and mental characters in its relation to habitual criminals, Mr. Prichard agrees with a medical friend who, he tells us, "propounded, perhaps not quite seriously, the doctrine that the right treatment and punishment for the habitual criminal.....would be the operation of castration." Mr. Prichard seems to be unaware of the fact that the idea has been propounded in all seriousness by several writers, among whom may be mentioned Dr. Hammond, of New York. Mr. Prichard, however, has unearthed an earlier document on the subject than any previously known to us in "a little parchment-bound duodecimo volume, being an account of Scotland, Ireland, and Scandinavia, 1627; *Scotiæ Hiberniæ et Svetiæ Descriptio*, Lugd. Bat. ciɔiɔxxvii." In the description of the Highlanders of old there occurs the following passage: "Men who had been found after much inquiry to be suffering from epilepsy, idiocy, mania, or any similar disease which could easily be transmitted to their offspring, were castrated that the race might not be contaminated by foul contagion by those who might be born to them; and women who were found to be infected with any of these diseases or with leprosy were kept far away from any association with men; but if one of these were found to have conceived, she was buried alive with her unborn child; and to prevent disgrace to their country, gluttons, unnatural feeders, and gormandisers, and habitual drunkards were punished in a mild way (*mitisupplicio*), being first allowed to eat and drink as much as they liked, and then drowned in the river." The ancient Highlanders had evidently anticipated the teachings of modern science on the hereditary transmission of disease. From their treatment of the women, however, it is clear that latter day gynæcologists might have taught them a milder way than live burial.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1893.

SUBSCRIPTIONS to the Association for 1893 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, JULY 15TH, 1893.

PRESS NOTICES AND QUACK REMEDIES.

THE case of Alabone *v.* Morton, which was decided by Mr. Justice Wright on July 8th, has drawn prominent attention to a matter closely affecting the reputation and best interests of the British press.

The action was brought by Mr. Edwin W. Alabone (whose name was in 1886 removed from the list of Members of the Royal College of Surgeons and from the *Medical Register*) for an injunction to restrain Henry E. Morton, a former clerk or assistant of the plaintiff, from continuing to publish a book entitled *The Prevention and Cure of Consumption*, on the ground of infringement of the plaintiff's rights in relation to a book written by him on the same subject; and Mr. Justice Wright, in granting the injunction which he did, is reported to have expressed the hope that the proper authorities would take steps to enforce the Apothecaries Act against both parties, and would also consider whether proceedings of another kind should not be taken against the said defendant, whose fraud and false pretences were established by the evidence in the case, so far as that evidence could be relied on.

What, however, is of the gravest importance as affecting the public interest arises in connection with the press notices appearing in Mr. Alabone's book, giving rise to the suggestion that they were not independent notices, but were actually made by way of bargain in return for advertisements to be inserted in the newspapers by which they were alleged to be written.

Mr. Justice Wright, in his interlocutory judgment on June 17th last, in referring to this subject, is reported to have said "the plaintiff's book is designed to puff an alleged specific for consumption which, it is not uncharitable to suppose, is inert if not injurious. It is recommended by so-called opinions of the press, and by statements of cases of alleged cure and by alleged testimonials from patients. The alleged 'opinions of the press' have every appearance of being not independent or real notices, but paid or arranged notices or advertisements. The alleged cases do not appear to correspond with the casebooks from which they are said to have been taken. The alleged testimonials are no doubt in some cases written by patients in good faith, but many of them have a highly suspicious character, and are suggestive of concoction or purchase."

The newspapers referred to by Mr. Justice Wright are in our opinion bound to take the promptest action to clear themselves from the serious imputation which at present rests upon them.

We have repeatedly referred to the insertion of advertisements of these secret nostrums by a section of the press as being derogatory to the honour and interests of journalism; more especially in cases where proof has been given of their worthless character.

With regard, for instance, to the Harness electropathic belt, notwithstanding that it has been distinctly proved in law courts and by the highest scientific evidence of the day that this so-called electropathic belt is absolutely ineffectual to remedy the ills it is advertised to cure, we find many newspapers still flooded with advertisements, and praises of its curative properties, supported by testimonials of the very same character as those which the remarks of Mr. Justice Wright in the Alabone case are specially directed to.

The press which continues to admit in its columns advertisements of remedies proved to be utterly worthless, or inserts flattering notices of such remedies in consideration of receiving the advertisements of them for insertion, acts, we venture to opine, unworthily of the highest and best traditions of journalism, and in a manner calculated to bring an honourable profession into disrepute.

THE EPIDEMIC OF SMALL-POX IN WARRINGTON.[1]

WE are glad to see that Dr. Gornall in his inquiries as to small-pox in Warrington tends to follow the lines laid down by Dr. Barry, in his Sheffield report, where he showed exactly how much valuable information can be obtained by the competent investigation of a single epidemic. Beginning by a collation of some local bills of mortality, from 1773 onwards, a table is given which shows how utterly contemptible are our modern small-pox outbreaks compared with those of prevaccination and optional vaccination times. Of course in last century records the data usually exclude nonconformists, but the omission in no way affects the percentage of deaths from small-pox to deaths from all causes. In the epidemic year 1773 44.6 per cent. of the registered deaths were due to small-pox, and in the epidemic year 1892 only 4.3 per cent.

In recent years the medical officer had repeatedly pointed out how incomplete was the available hospital accommodation in Warrington, but when the outbreak came in July, 1892, the town was still unprepared for it. Ultimately a hospital was improvised out of an old ironworks, and much of the interest of the report is connected with the influence of this hospital on the spread of the disease. We cull from Dr. Gornall's report the following statistics. The total number of attacks from the beginning of the epidemic up to the end of March, 1893, was 598. As to age incidence, of 530 vaccinated 4.5 per cent. were under 10 years, and 95.5 per cent. were over 10. Of 68 unvaccinated 48.5 per cent. were under and 51.5 per cent. over 10 years. The total fatality was 10 per cent., made up of 6 per cent. among the vaccinated, and 41 per cent. among the unvaccinated. Under 10 years old of 24 vaccinated cases none died, and of 33 unvaccinated 14 died. It is satisfactory to find that in recent years the proportion of children with four marks shows a very distinct increase. The unvaccinated were about 7 per cent. of the whole.

[1] *The Epidemic of Small-pox in Warrington, 1892-3*, by J. Guest Gornall, M.A., M.B.Cantab.

Regarding liability to attack under exposure to small-pox by residence in invaded houses, of 606 vaccinated children under 10 years, only 18 (or 2.9 per cent.) were attacked, and 1 died. Of 57 unvaccinated children similarly exposed, 33 were attacked, and 13 died. Over 10 years of age the percentage of attacks among the unvaccinated remained almost unchanged, but among the vaccinated the attack rate increased to 27.1 per cent., and the fatality rate to 1.8 per cent. Of 113 persons said to have previously had small-pox, and living in invaded houses, 12 were attacked, but Dr. Gornall doubts the evidence as to some of the previous attacks. A useful table is given, which shows that among the vaccinated the great majority of the attacks were discrete, and among the unvaccinated confluent. Of 17,000 persons revaccinated since July, 1892, not one took small-pox unless the disease was already incubating. In a factory employing 2,180 men, and situated quite close to the small-pox hospital, a number of attacks occurred soon after the hospital was opened. In consequence, it was resolved to grant no more sick pay to anyone who got small-pox after ten days from a fixed date, thus allowing time to get revaccinated. Not more than 20 remained unrevaccinated, and among this number every one of 13 subsequently notified cases occurred. No case took place among either postmen (117) or policemen, all having been revaccinated, nor among 23 of a revaccinated hospital staff. The control experiment consisted of the cases of a nurse and a kitchenmaid, both of whom took small-pox, the one being revaccinated too late, and the other not at all.

One of the most interesting parts of Dr. Gornall's report is that in which he discusses the much vexed question of the aërial spread of infection from small-pox hospitals. He begins by showing that as a matter of fact the disease did prevail very excessively round his new hospital. Then he considers the various possibilities of conveyance, through direct contact by the hospital staff, by tradesmen, by the ambulance man, by patients, by visitors; and ultimately he arrives at the conclusion that the "statistics as to the relative incidence upon the specially afflicted area and its several parts most clearly agree with what we should expect with *air-borne infection* as the explanation of our difficulties." The affected area is depicted in a series of spot maps showing, for successive periods, the incidence of the disease in ten concentric zones, each 100 yards wide, with the hospital for a common centre. The Hope Hospital was opened on September 19th, and a large number of cases were at once admitted—82 within the first 11 days. At the date of opening there were only 4 infected houses within the inner half of the 1,000 yards area, and 35 within the outer half. With 5 exceptions in the outer half, all those cases were removed to hospital. The first spot map shows the state of affairs in these 11 days. The next pictures the condition in October, after the lapse of the incubation period following the opening of the hospital, and the difference is certainly very striking, whatever be the explanation. The disease was 7½ times more prevalent in the special area than in the rest of the town. Then, under the influence of revaccination, and of the weeding out of the most susceptible persons, the ratio within the area for November fell to twofold that of the rest of Warrington. It is not possible, from mere perusal of a report, to weigh the various facts as they presented themselves to Dr. Gornall, in favour of the theory of air-borne infection as against that of direct contact. Perhaps both agencies may have been at work, but the report must take its place as a contribution to the literature of the subject, and as adding to the data on which the decision of an important question will ultimately be based.

THE REPORT OF THE LEPROSY COMMISSION IN INDIA.

IN commenting on the Indian Leprosy Report,[1] we recognised that it would have to run the gauntlet of criticism, "pungent and from many quarters." The conscientiousness and ability with which the Commissioners had done their work invited comment, as, apart from the nature of the conclusions at which they arrived, they have published a collection of data which are open to examination by every reader. Naturally the parts of the world from which comment might be expected are those in which leprosy is endemic, and in which governments or local authorities find themselves called upon to deal with the ever-rising questions of contagion and segregation.

We have before us the comments of the *Uitenhage Times*, in which the diametrically opposite opinions of the Indian Commission to those accepted by a committee at the Cape are naturally brought into great prominence. A number of medical men in South Africa, whose evidence has frequently been alluded to in recent medical literature in this country, have pronounced in the most decided way in favour of the contagiousness of leprosy; and it is natural that some excitement should have been produced in the colony when they read that the Commissioners sent to India have decided that although leprosy must be classed amongst the contagious diseases, yet "the risk of contagion is so small that it may be disregarded." The writer in the *Uitenhage Times* very naturally remarks that if leprosy is not transmitted by either vaccination, heredity, predisposition, or contagion, we are driven to ask how it is perpetuated, and he makes the very pertinent query, "If the fear of contagion is to be disregarded, is it not cruel to segregate these poor people, and to send them away from their families to Robben Island, as was recently done with a waggon load from Hankey?" The editor naturally adds that if the Commissioners are correct, and if the disease in India is the same as at the Cape, the pitiable band at Robben Island ought to be disbanded and set free to ramble where they like.

There is no doubt that the doctrines and practice at the Cape are irreconcilable with the opinion of the Commissioners; and if much importance is to be attached to the Report of the Leprosy Commission in India, it can only mark the beginning of another stage in the controverted question of the contagiousness of leprosy and the segregation of lepers. It ought at once, therefore, to be brought into prominence that the conclusions of the Leprosy Commissioners have not been accepted by the majorities of the Executive and Special Committees. It would be difficult to find words more emphatic than those chosen by the Special Committee to express their dissent.

The Commissioners express their belief that neither com-

[1] BRITISH MEDICAL JOURNAL, May 6th, 1893.

pulsory nor voluntary segregation would at present effectually stamp out the disease, or even markedly diminish the leper population, under the circumstances of life in India. We invite the attention of the editor of the *Witenhage Times* and other public men in colonies where lepers exist to the comment of the Committee on this statement. "Your Committee," they remark, "having already expressed their inability to accept the reasoning upon which the Commissioners have based the above conclusions, are equally unable to accept the corollary that segregation in any case of leprosy in India is either impracticable or undesirable. They entertain a precisely opposite opinion, and would be sorry if the Government of India were encouraged by the report of the Commissioners to refrain from taking the necessary steps in the direction of such segregation of lepers as may be found possible." The members of the Committee who have signed this unequivocal expression of opinion are Mr. Curzon (Under-Secretary for India), Mr. Edward Clifford, Sir Dyce Duckworth, Dr. Heron, Mr. Jonathan Hutchinson, and Mr. Macnamara. Sir Dyce Duckworth and Mr. Hutchinson, however, write separate memoranda, qualifying their adhesion to this document and deprecating the theory of contagion, and disapproving of compulsory segregation. But that still leaves Mr. Curzon, Mr. Clifford, Dr. Heron, and Mr. Macnamara committed to strong dissent from the opinion of the Commissioners. The question is, therefore, in so far as the Report is concerned, left an open one, and opinions regarding the contagiousness of leprosy and the means of suppressing it must be based upon such facts as are obtainable in this report and elsewhere.

The wide difference of opinion prevailing on the points in question acquires great prominence from a statement of the medical members of the Executive Committee. Sir Andrew Clark, Sir W. Guyer Hunter, Sir James Paget, Sir Joseph Fayrer, and Mr. Jonathan Hutchinson have expressed their dissent from the opinion expressed in the body of the Report of the Special Committee on the subject of the contagion of leprosy, believing that the evidence of the spread of the disease by contagion is not sufficient to justify the compulsory segregation of lepers, and even seeing no sufficient reason for prohibiting the marriage of the leprous. It is very clear, therefore, that so far as the Report is concerned anyone who wishes to form a conclusion regarding the contagiousness of leprosy must read it carefully for himself, and draw his own conclusions from the facts stated; and having done so, he must still further extend his studies to the reports and statements regarding leprosy which have been made during the last twenty years by the Norwegian physicians, who have made it a subject of their life study. It is necessary to emphasise in such a matter the necessity for studying the writings of the Norwegian authorities.

Without in any way depreciating the value of the Commissioners' work in India, to which we have already done justice, it is as well to point out that it is possible to expect too much from the Report. The time at the disposal of the Commissioners was not sufficient in a question of this kind definitively to determine the chief questions to which they applied themselves. They have done excellent work in compiling valuable statistics regarding the distribution of lepers in India, and have constructed tables of great permanent interest, and they have been able, even in the short time allotted to them to do much to brush away many of the superstitions connected with the etiology of the disease; but their opportunities are not to be compared with those enjoyed by men like Hansen in Norway, who has been able to devote continuous work to the subject over a long period of years, with ample material and every assistance from his Government, and with a knowledge of the habits and idiosyncrasies of the population which it is impossible for Europeans to obtain in a country like India. Nothing is to be found in the Report which can invalidate Hansen's conclusions regarding contagiousness; and they have been much strengthened by the Commissioners, who, whilst bearing him out regarding the non-hereditary nature of this disease, have been able to suggest no tangible theory which might take the place of contagion in explaining the undoubted existence of leper families. Having in fact admitted that leprosy can be propagated by contagion and inoculation—for we presume that when they state that the extent to which it is so propagated "is exceedingly small" they must admit that there are cases in which it is so propagated—it becomes incumbent on them to show in what way the cases which they suppose to originate *de novo* differ from those which originate by contagion. This they have not attempted to do. Practically their statements amount to this: a small number of cases of leprosy are caused by contagion, the majority of cases do not arise by contagion, but we do not know how they arise. It is almost impossible to take seriously the *de novo* theory, with its "sequence or concurrence of causes and conditions related to each other in ways at present imperfectly known."

The Commissioners have admitted that leprosy is a microbic disease, and they have admitted that in a few cases the microbe is conveyed by contagion, presumably contact with a leprous individual. What practical difference does it make if we assume, as they do—a perfectly gratuitous assumption, of which they give no proof—that the microbes first get into space, and thence in some unexplained way into a human being? Even according to the statements of the Commissioners, if the microbe of leprosy can be destroyed, or its access to human beings prevented, leprosy would cease to exist. We do not wonder, therefore, that men of the world like Mr. Curzon and Mr. Clifford should have agreed with Dr. Heron and Mr. Macnamara in hoping that the Government of India would take such steps to segregate lepers as may be found possible; for so far as we yet know, the sole habitat and manufactory of the leprosy microbe is the body of the leper, and if we can segregate the leper and disinfect the discharges from his ulcers, we diminish the possibility of the spread of leprosy.

In making these remarks, we specially have in view the desire to prevent the authorities in our colonies where leprosy prevails being discouraged by the Report in their laudable desire to diminish leprosy by segregation. They must examine such evidence as is open to them, and base their action upon that, and not upon the opinions expressed in any reports. We have in a previous article expressed our sense of the merit of the work done by the Commissioners; and we would now specially call attention to the great value of that part of the Report which so effectually bears out Hansen's demonstration that leprosy is not a hereditary disease.

Nothing that has happened in recent years can more effectually encourage investigators to search for themselves

and form independent opinions than the effective way in which Hansen and the Commissioners in India have disposed of this doctrine of heredity—a doctrine which has held a firm footing in medical dogma, and to a large extent influenced human action, for a great number of years. We consider that if the Commissioners had done nothing else in India than complete the destruction of this theory, the expenditure of time, and the fatigues of the journey would have been amply compensated.

Above all, we would earnestly urge all those interested not to be satisfied with abstracts of this interesting Report, but to study it carefully as a whole. It is only in this way that they will be able to judge for themselves how far Dr. Heron and Mr. Macnamara are justified in stating that they entertain "a precisely opposite opinion" to that expressed by the Commissioners regarding the interpretation of the facts set out in the report.

A "LIST" OF NURSES.

We trust that the correspondence relating to the charter of the British Nurses' Association may cease. That Association has received its charter, and will have its "List" unprotected and conferring no legal privileges. It is further burdened with the humiliation of a newspaper controversy, in which Miss Florence Nightingale, the Duke of Westminster, and the representatives of a number of great hospitals—in words bearing a similar sense to the warnings which we uttered beforehand—point out that the "List" carries no legal value, cannot be protected, and is therefore as likely in the end to mislead the public as to be of any value. Some "leaders of the profession" have lent a hand in favouring the application, and are about, we observe, to congratulate the Nurses' Association on its "success."

Their congratulations contrast strangely with the remonstrance of Miss Nightingale, who may be supposed to know better what is in the true interest of the nursing profession and the public in such a matter than the courtly physicians who agree to join in this ceremony. How much better would it have been if all the different bodies interested in the general question, namely, the rival nurses' associations and the various nurses' training schools, had united heartily together in the formation of one association for the pecuniary benefit, the due training, and the proper registration of nurses under regulations which would guarantee their efficiency to those who employ them? Is it too late to hope that this may even now be brought about? Meanwhile, the opposition which the new Association has encountered has succeeded in imposing on it two restrictions, neither of which would, we think, have been necessary had it been really representative of all interested in the profession of nursing. In the first place, the corporation is not allowed to publish a "register" by which its diplomates would be entitled to the same relative rank in the nursing profession that is the property of a registered practitioner in our own. All that it can do under the charter is to publish a list of persons who have applied to have their names entered therein as nurses, and whose demand has been granted, together with such information about each person as the corporation is able to obtain and deems desirable to publish. And in the second place, the by-laws do not come into force till approved by the Privy Council—that is to say, the opponents of the new corporation will have the power of objecting to any by law (regulating, let us say, the terms on which a nurse is entitled to be put on the list), and opposing its sanction by the Privy Council. No doubt, as the matter stands, some such power of objecting is necessary for the protection of the public, if the corporation is regarded as one of two or more rival bodies which might be tempted to seek their own advancement by lowering the qualification for membership or fixing a standard which would exclude, say, the Queen's Jubilee nurses. But if the new corporation had comprised the whole body of persons interested in nursing, it might have had powers analogous to those of the General Medical Council, both to keep a register, which would have given a definite standing to the persons registered, and to regulate the terms on which registration could be had. All we can now hope is that success may attend all the parties, and that their rivalry may be exercised less in mutual opposition than in strenuous efforts to raise the standard of practical education among nurses, and to promote their well-being in every way. The incorporation of Princess Christian's Association may, we hope, prove to be a step in that direction. If the new corporation is wisely managed it may yet go far to secure the general object in which the public is so deeply interested. But it will have to abate some of its pretensions to take its place among truly representative bodies, and set to work fairly and squarely to place itself on that basis and to obtain Parliamentary powers. We pointed this out from the first, and all parties must, we imagine, be pretty well convinced by this time of the accuracy of our criticisms and suggestions, which the present disagreeable issue of the "success" before the Privy Council confirms beyond cavil or doubt.

TREATMENT OF PERFORATED GASTRIC ULCER.

The treatment of perforated gastric ulcer has recently excited a good deal of attention on account of the evident possibility of successful interference in some cases. During the present session the attention of the Clinical Society has been twice called to it by papers by Drs. Penrose and Lee Dickinson, and by Mr. Warrington Haward. These, with the papers of Mr. Gifford and Mr. Barling, published recently in this Journal, deal with both the medical and surgical aspects.

The condition can be separated clinically into the three following heads: (1) Acute perforation; (2) perforation in connection with subphrenic abscess, but without general peritonitis; and (3) perforation and subphrenic abscess with general peritonitis.

In the first class the diagnosis is not easy on account of the indefiniteness of the physical signs. But with a history of long-continued indigestion, and especially if there have been evidences of the existence of a gastric ulcer, the onset of sudden pain in the left hypochondriac, epigastric, or umbilical regions, with acute febrile symptoms, in a subject in whom it appears possible to exclude mischief of other abdominal and pelvic viscera, the above condition should be borne in mind. Such a case was the one reported by Mr. Haward. Through an incision of the abdominal wall in the

median line above the umbilicus he was enabled to detect an opening in the anterior wall of the stomach, which he converted into a gastric fistula, not closing it on account of the infiltrated condition of the tissues of the stomach wall around the ulcer. The subsequent history of the case, so far as the stomach and abdomen were concerned, was satisfactory enough; but some three weeks after the operation the patient's temperature became hectic. She expectorated considerable quantities of pus, and the mischief appeared to be at the base of the left lung.

At the necropsy the condition of the abdominal viscera, except for a few adhesions around the gastric fistula and between the spleen and the under surface of the diaphragm, was found to be normal. Between the diaphragm and the left lung there was an empyema, which had perforated and riddled the lower lobe of the left lung, and which was evidently the source of the pus which had been expectorated during life. This case seems to offer encouragement from the satisfactory condition of the abdominal organs after the operation. It is difficult to see how the thoracic complication could have been prevented. It was apparently directly connected with the perforation, and Drs. Penrose and Lee Dickinson have shown that the left lung and pleura are very liable to become involved, no doubt from some pyogenic material finding its way through the diaphragm along the lymphatics.

In the second group, in which there is a subdiaphragmatic abscess, cut off by adhesions between the stomach, liver, and anterior abdominal wall from the general peritoneal cavity, the history is far less definite than in the former class. There are generally, however, certain more or less definite physical signs, the most prominent of which is an abnormal area of dulness or of hyper-resonance in the left hypochondriac or epigastric region; if hyper-resonance a bell note can usually be elicited over the area. In addition there are usually evidences of consolidation of the lower lobe of the left lung, with possibly fluid in the left pleura. The heart's apex may be slightly displaced upwards, and there have been in most cases the usual signs of fever, with pain in the upper part of the abdomen. The above signs appear to be sufficiently definite to warrant surgical interference, in which case an incision above the umbilicus in the middle line appears to be the most satisfactory. The subsequent drainage of the abscess cavity is evidently a source of great difficulty on account of the frequent presence of a deep pocket in the neighbourhood of the spleen. In the third class of cases, in which there are undoubted signs of general peritonitis, the recognised surgical treatment of that condition should be pursued.

As Mr. Barling points out, it is of the utmost importance that the cases should be recognised as early as possible. That the condition is not one of excessive rarity is shown by the fact that at one hospital alone no fewer than ten cases have occurred within the last six years.

Hyperpyrexia in Datura Poisoning.—Dr. H. de Latour reports in the *New Zealand Medical Journal* (April, 1893) the case of a boy, aged 4, who died about thirteen hours after eating a considerable quantity of the fresh fruit of datura stramonium. After a period of sleeplessness he became very restless and excitable, with flushed face and dilated pupils. His temperature about half an hour before death was found to be 109°, ten minutes later it was 110° F., but sank in ten minutes more to 108°.

We understand that the total cost of providing bedding, maintenance, and repairs in connection with the small-pox epidemic at Oldbury was £1,700 8s. 11d. We shall be glad to receive particulars as to the cost of epidemics at other places.

BEHIND THE VEIL.

The letter from Mr. Rhodes, which we publish in another column, with regard to the Victoria Street Antivivisection Society and the *Nine Circles*, lifts the corner of the veil, but it is very desirable that it should be completely raised, in order that fuller revelations should be made of the methods and ethical proceedings of the Society. We hope that Mr. Rhodes will see his way to make a full statement of the grievances at which his letter only partially hints.

POISONOUS SNAKES IN INDIA.

In a recent article we suggested that much advantage might accrue if the Government of India were to consent to reprint and issue widely throughout India the admirable coloured lithographs of poisonous snakes which illustrated Sir Joseph Fayrer's great work on the *Thanatophidia of India*. We have since learned that the Government of India have decided to reproduce six of these plates, with suitable accompanying letterpress.

THE SOUTH AFRICAN BACTERIOLOGICAL INSTITUTE.

The Bacteriological Institute, of which Dr. Alexander Edington is the director, has now become a South African Institution, the Transvaal Free States and Natal having arranged to make contributions. Already, from one vaccine alone, between 15,000 and 20,000 cattle have been inoculated, and it is expected that a vaccine lymph department would be in full swing during the course of the present month.

SALARIES OF INFIRMARY OFFICERS IN IRELAND.

On June 30th the case of Gibbon *v.* the Governors of the Wexford Infirmary was heard. The question at issue was a peculiar one. The late surgeon, Dr. Boxwell, received £94 from the grand jury, and £100 (Irish) provided for by the 5th George III, chap. 20. The latter sum was abolished by the Medical Charities Act on the death of the incumbent, and the governors advertised for a successor, offering a salary of £120 a year. Dr. Hadden was appointed. In 1889, after the election, a Mr. Cullimore left £1,020 to the endowment fund of the hospital, and the interest of this the governors gave Dr. Hadden so as to increase the allowance of £94 from the grand jury. The plaintiff asked for an injunction to restrain the defendants from this course. The Vice-Chancellor held that the Governors were not prohibited by the Acts from increasing the salary of their surgeon in this way, and dismissed the action with costs.

A SORRY ALTERNATIVE.

In view of the difficulty of finding accommodation for cases of scarlet fever and the danger of leaving them unisolated in the homes of the poor, Lord Portman has given to the sanitary authorities of Marylebone two houses in the centre of the parish to be used for cases of the sort. This has drawn forth the warmest thanks of the vestry, and the press is unanimous in its praises of an act of such great liberality and such practical philanthropy. Nevertheless, while we accord to Lord Portman full honour for the beneficence of his deed and the goodness of his intention, we would draw attention to the fact that if we refuse to strengthen the hands of the Asylums Board, or of whatever Board is to manage the infectious diseases of the metropolis, this is the

alternative: a couple of houses (in a street hedged in by houses all round), in which to isolate our fevers. If the Asylums Board is not to be allowed to provide a larger number of beds, the forty, or so, sanitary authorities to whom these affairs are entrusted will have to set up little hospitals of their own, and London will find itself dotted over with fever centres, houses converted from their very proper use as dwellings for the healthy to a use for which they are probably utterly unfitted—hospitals for the sick. Is this an alternative which can be accepted as a solution of the difficulty, and are the inhabitants of London willing to allow little vestry hospitals to arise all over the town, each of which will be quite as efficacious as a big one in spreading the disease, while not nearly so effectual in curing it?

THE SURFACE WELLS OF LONDON.

When water is required it seems so natural to turn a tap, and the payment of water rates appears so obvious a duty to the ordinary law-abiding householder, that it will probably come with a certain shock of surprise to many to find that there still exist in London a considerable number of surface wells. All experience points so strongly to the danger of these contrivances in thickly-populated districts that we cannot but consider that a great responsibility attaches to those sanitary authorities which permit the continued use in modern London of such antique survivals of an effete sanitary individualism.

THE INDIAN MEDICAL BOARD.

The Queen has been pleased to approve the appointment of Deputy Surgeon-General S. B. Partridge to be a Companion of the Order of the Indian Empire on the occasion of his retirement from the post of member of the Indian Medical Board. Surgeon-General Partridge is succeeded by Brigade-Surgeon-Lieutenant-Colonel Kenneth Macleod, a distinguished officer of the Indian Medical Service, who has recently returned to this country. Dr. Macleod was for some years editor of the *Indian Medical Gazette*, and won a high reputation as a surgeon in Calcutta.

A DOCTOR'S CERTIFICATE.

On several occasions recently medical men have made very unfortunate appearances in the courts owing to laxity in giving certificates of illness. In one instance a certificate of inability to attend the court was produced, but it was stated that the man was well enough to be about his business, and the medical man a little later had to admit that he had fallen into error in certifying. In another case it appeared that a medical man had signed a very large number of School Board certificates. Correspondents inform us that certain medical men are in the habit of issuing such certificates for which they receive a small fee. While it is quite justifiable to require a fee, it is clear that great discrimination should be exercised in discharging what is a public function; and, moreover, that it is contrary to medical etiquette to give such certificates to persons who are under the care of a brother practitioner. It is not surprising, under such circumstances, that judges have grown to look with considerable suspicion on medical certificates produced in regard to the health of jurymen who wish to be excused attendance; and it would be a reflection on the whole profession if cause were given for the extension of this suspicion.

DRY WEATHER AND THROAT DISEASES.

Mr. Wynter Blyth, in a recent report, commenting upon an increase of diseases of the throat coinciding with deficient rainfall, suggests that this may be due to two causes. First, from the superficial layers of the soil becoming dry, pathogenic organisms, which would under other circumstances adhere to the earth, are sucked up into the houses in the form of minute dust by currents of the ground air, which ever forms a portion of the atmosphere of ordinary houses, and, secondly, that large quantities of sewage, which in time of heavy rainfall would be swept out of London, remain in the miles and miles of large old-fashioned sewers and there ferment and decompose. The view that under dry conditions of soil all kinds of pathogenic organisms are carried by upward movements of the ground air receives support by the researches of the botanist Nägeli, who suggests that it is to the different states of moisture of the earth that some part of the distinct periodicity of zymotic diseases is due. It is obvious also that a pavement like the wood pavement, by giving off an organic dust composed of irritating particles, may assist in producing throat diseases by causing slight injuries to the mucous membranes, thus opening the door as it were to the invading hosts. Lastly it is to be remembered that both wood and asphalte pavements are practically impervious to air, consequently houses built without concreted basements on the great lines of traffic, and fed with ground air, will not only be fed from the ground on which they stand, but possibly draw from the reservoirs of impure air retained from diffusion under battened hatches of wood and asphalte. Such reservoirs are likely to contain leakages from sewers, from drains, and from gas pipes.

ASPHYXIA IN THE HOUSE OF COMMONS.

The ventilation arrangements of the House of Commons have been put to a severe test this session, and it must be highly satisfactory to Mr. Prim and his staff to observe that not even the searching criticism of new members has been able to find any serious fault with the quality of the air supplied to the debating chamber itself. But the cramped and crowded state of the division lobbies is undoubtedly a cause of much inconvenience, if not of positive danger. Night after night, at short intervals, unhappy senators are crammed into these inconvenient corridors in numbers hopelessly out of proportion to the avail able space, and compelled to endure the depressing symptoms of the earlier stages of suffocation. Serious structural difficulties stand in the way of an effectual remedy, but Mr. Shaw-Lefevre is not the man to be easily discouraged, and we hope to be able to record before long his success in dealing with this admitted evil. We are also glad that his attention has been directed to the sewers in the neighbourhood of the Houses of Parliament. The gratings at the ground level close to the sources of air supply for the use of the Lords and Commons, are now actively engaged in the discharge of sewer gas, and effective ventilation is urgently needed. The County Council is responsible for this state of matters, and recommendations were made to them by the Select Committee in July, 1891. The delay in carrying out the suggested improvements may be unavoidable, and we hope that progress may be quickened by the terms of Mr. Shaw-Lefevre's reply in answer to Sir H. Roscoe.

TYPHOID SUPER MARE.

Typhoid fever has, we regret to state, been prevalent at Worthing recently, several hundred cases having, we hear, been notified. It had nearly died out, but during recent days has shown serious recrudescence. Locally it is attributed, probably with accuracy, to that old offender, the water supply. Request has been made to the Local Government Board for assistance in the attempt to arrive at the exact cause of the outbreak; Dr. Thomson has accordingly commenced inquiry into the subject on behalf of the Medical Department. The local medical practitioners are greatly concerned at the recent turn of events; the whole matter is, particularly at this season, of serious importance to this favourite seaside "health resort," and it is to be hoped that the cause of complaint and suffering will speedily be discovered and set right. The Mayor of the borough and the sanitary authorities of Worthing are now able to declare that the out-

break of enteric fever which began about the close of April, was due to the pollution of the water supply, and how brought about involves a very serious fact. To obtain an increased supply of water, men in April last were employed by day and night. Some of these workmen, belonging exclusively to the night gang, in the most reprehensible manner contaminated the water supply, and 284 persons suffered from the fever specified. This scandalous want of consideration for the health and lives of others suggests to corporations the vital necessity of protecting the sources of water supply from such pollution, not only on an occasion of this kind but at all times.

A PRIVATE COFFIN.

Public mortuaries are institutions of great utility, and, for the sake of health and decency, every effort should be made to encourage the poor to make far greater use of them than they do at present. It is hardly likely, however, that much progress will be made in this direction until some means are found of putting an end to the unseemly differences which now exist between the vestries and guardians as to their responsibility in regard to burial. The tale comes from Clerkenwell of a man dying in poverty, being coffined by an undertaker and sent to the mortuary, but, as no further funds were available, being left there, until after twelve days the corpse became so offensive that the vestry at last ordered burial. The poor man's misfortune seemed to be that his friends provided him with a private coffin. If instead of doing this they had bought whisky with the money, and had held a "wake," the guardians would willingly not only have buried the man but have found a coffin free. A pauper in a private coffin was, however, a contingency they were nor prepared for, and the sanitary authorities could not abate a nuisance before it became manifest, so there he waited in the mortuary until he became a nuisance.

THE SANITARY RULE OF THREE IN INDIA.

The *Indian Daily News* (Calcutta), in a series of able articles founded on the last report of the Sanitary Commissioner with the Government of India, draws attention to the sanitary defects of military cantonments, as indicated by the great prevalence of typhoid fever and other diseases due to insanitary conditions. On the principle employed by Bishop Butler in arguing from the known to the less known or unknown, the writer reasons that, if the accurate statistics registered in military cantonments and civil stations, which are under the immediate observation and control of military and civil authorities, reveal a lamentable amount of preventable sickness and mortality among soldiers and prisoners, what must be the condition of the civil population in towns, villages, and rural hamlets, whose vital events and sanitary condition are comparatively unknown and uncared for, and occupy but a small fraction of the report under consideration. The simple fact that in the year 1891, 601,603 persons died of cholera within the bounds of the Indian empire, is of itself, our contemporary contends, sufficient to justify the pronouncement of the American writer who called India "a monstrous germ incubator." How long shall the inhabitants of this vast country be permitted to "wallow in filth" and constitute a perpetual menace and "colossal nuisance among the nations of the earth"? The writer contends that the Sanitary Executive is ridiculously weak, and advocates the formation of a strong sanitary organisation on the model of England to deal effectually with the grave and universal sanitary shortcomings of rural and urban India. As regards this contention, we venture to differ with our contemporary. What is really wanted is not a huge and costly imperial or official establishment, which India in the present state of its finances cannot afford, but the education, development, and stimulation of those local bodies—municipal, urban, and rural—which were called into existence under Lord Ripon's scheme of local self-government. These bodies must be taught what sanitary reforms are required, and pressure must be brought to bear upon them to employ sufficient agency and expend enough money to accomplish these. It is no easy matter to procure the alteration of the habits—domestic and civic—of Indian people; but if the alteration is to be made this can only take place by the spontaneous or induced efforts of the people themselves.

"SIBERIAN LEPER FUND."

A correspondent of the *Daily News* travelling through Eastern Siberia, and writing from Irkoutsk, June 6th, says: "Considering the fuss which has been made in England about some mission of relief to the lepers in these provinces, it is somewhat surprising to find that, not only in the provinces under the Irkoutsk Government, but in Siberia as a whole, leprosy is an exceedingly rare disease. It appears to be limited to a few localities, and the total number of lepers registered in this vast province is sixty-six. Not only are the lepers few, but they are well provided for. A Russian medical inspector—Dr. Smernoff—had visited them all, and made what arrangements were deemed necessary for their comfort before any English lady thought of doing so. They are quite as well off as the average Siberian peasant, and if, as the doctors tell us, leprosy is not a disease of increased sensibility, but the reverse, they are, perhaps, quite as contented. They eat good Siberian bread, wear good Siberian clothes, live in good Siberian cottages, and even possess good Siberian cattle. If money is to be subscribed again for a mission of relief to lepers, let it not be a mission to the few and comparatively well-to do lepers of Siberia, but to the thousands and tens of thousands of their destitute fellow-sufferers in the countries of Southern Asia and other parts of the world." We have already given a warning in this direction more than once. But the leper mission fund is now being boomed in Chicago, and probably will make the tour of the world.

"WE CALL IT SUBSTITUTION."

Several grocers were fined last week for selling "substitutes" for coffee and chicory without a label attached. There is something peculiarly pleasing about this word "substitute," and honest withal, for it is a confession that adulteration of the old style is going out of fashion; we no longer let things down with sand or water or what not, but we substitute some entirely different compound. Brewers have long thriven on the scientific use of substitutes for malt, and all forms of adulteration of butter paled before the simple plan of selling margarine in its stead. Obviously, now that margarine has obtained a legal footing, what is wanted is a "substitute" for margarine, and no doubt it will come before long. Coffee seems already to have arrived at that second stage in its downward progress; it is bad enough to buy it adulterated with chicory, but now we find this itself replaced by a "substitute" which goes by the name of "German chicory."

VILLAGE NURSES: A PRESSING BUT DIFFICULT PROBLEM.

We note at a meeting of the Essex County Council on July 4th, 1893, a letter was read from Dr. Thresh urging that the question of training a number of suitable women as nurses should be taken up by the Technical Instruction Committee. He had received the names of several women who were desirous of being trained. He was anxious to see eventually one or more such nurses in every village in the county. The Chairman said it was an admirable idea. Dr. Thresh and the other medical officers were, he understood, preparing a detailed scheme, and he hoped it would be carried out. Alderman Buxton said the Technical Instruction Committee did not object to considering the matter. The letter was then referred to that Committee. We may, however, observe in passing, while applauding every effort to solve this problem, that the question of village nursing is bristling

with difficulties. The highly-trained nurse of the hospital is out of her element in the country village; the district nurse, working on the itinerary system, would spend more time on the road seeking her patients than in the actual nursing of them. The rural nurse in the three months of her training can hardly be efficiently equipped for all cases that may come under her care. The best solution of the difficulty seems to be grouping of villages into districts containing one or more village towns of average size, one of which to be selected as the nursing centre of the district. A cottage hospital as the base of operation will be an essential part of the scheme, with its four, six, or more nurses. Each nurse should be responsible for a group of villages, and teach the most capable of the villagers elementary nursing, and supervise their work.

ABANDONMENT OF THE PROPOSED CITY CHOLERA HOSPITAL.

At the last meeting of the City Commissioners of Sewers the Sanitary Committee again reported on the subject of hospital accommodation in the City for cholera patients, stating that the authorities at St. Bartholomew's Hospital having met the Commission in a most generous way and promised all necessary assistance, it became unnecessary to continue the arrangements for providing a temporary hospital in Upper Thames Street, or elsewhere, as had been proposed. So far so good. By abandoning the Thames Street site the City is saved from temptation, and will cease to urge the Thames Conservators to grant permission to place a hospital on the river; meanwhile, we should like to know how the City authorities propose to meet their statutory duty to provide shelter or house accommodation, with attendants, for families who are obliged to leave their dwellings while these are being disinfected; for this, be it remembered, was the ostensible reason put forward for the purchase of the Thames Street site. We should have been sorry to see a cholera hospital placed upon the river; at the same time it must not be lost sight of that this decision of the Commissioners, however welcome it may be to the inhabitants of Upper Thames Street, in no way helps to increase the cholera accommodation in the City. If cholera were really to come upon us, there can hardly be a doubt that a great institution like St. Bartholomew's Hospital would do the utmost that it could to help the citizens of London, and that its beds would be filled in any case. The responsibility of a sanitary authority as to hospitals comes in when other accommodation is exhausted, of what avail then will be these promised beds when they are already full, and what does the City propose to do in regard to its third line of defence?

THE EDINBURGH PUBLIC HEALTH CONGRESS.

Some features of novelty will be found in connection with the annual Congress of the British Institute of Public Health which opens at Edinburgh on July 27th. It may be regarded as significant that in the ancient capital city of Scotland the capital cities of England and Ireland will be represented in the persons of the Lord Mayor of London and the Lord Mayor of Dublin, who will attend to meet the delegates of the chief municipal corporations and county sanitary authorities. The subjects enumerated for discussion are important and well selected, and it is announced that they will be so grouped as to admit of convenient consideration, and the opinions of the Congress being so formulated and recorded as to render them serviceable in strengthening the hands of authorities and directing the course of future sanitary legislation and administration. A list of the papers to be read, it is announced, will be issued shortly; but the discussion of questions in which the representatives of the authorities can take part and give expression to their views in a form indicating consensus of opinion on some of the chief public health question now occupying public attention should be of greater immediate value than the ordinary system of reading papers, with which the time of congresses is frequently occupied to the exclusion of useful discussion. Another feature of novelty in the proceedings is a general meeting of the Volunteer Medical Staff, to confer on the ambulance equipment of Volunteer regiments and brigades, recruiting of bearer companies, and the better organisation of the Volunteer Medical Service generally. Since the War Office Committee's report, doubtless some progress has been been made in these matters, but years of experience have disclosed defects in the existing system, which may usefully be considered at a general conference of representatives of the medical staff. The entertainments of the Institute are on a liberal scale, the College of Physicians giving a banquet in their hall, followed by a reception by the College of Surgeons. Lord Provost Russell, being the first representative of the medical profession, has naturally taken a keen interest in the organisation of the Congress, and a banquet is announced to be given by him in the Council Chamber. The full programme of the proceedings will be issued next week.

MORPHINOMANIA AMONG MEDICAL MEN.

Some statistics as to the prevalence of morphinomania in France, recently published by M. Lacassagne, show that that destructive habit finds a large proportion of its victims among members of the medical profession. Of 545 morphinomaniacs as to whom he was able to procure information, 289 were doctors. It is well known that several of the most distinguished men of the profession in Germany who have died in recent years were devotees to the fatal drug.

DR. KEELEY'S TREATMENT FOR INEBRIETY.

An article under the heading of "The Keeley Cure at Copenhagen" appeared in the BRITISH MEDICAL JOURNAL of June 10th, page 1238, and an article under the heading of "The Gold Cure at Copenhagen" appeared in the JOURNAL of June 24th, page 1335. The latter was an explanatory article, showing that Dr. Keeley's name had been inadvertently introduced into the first article, but as it appeared under a different title the index to the JOURNAL for the half-year ending June 24th, 1893, gave no indication of this; and this statement is published in order that the index may be corrected.

CHICAGO AND ITS WATER SUPPLY.

Mr. Ernest Hart made a startling preliminary statement as to the results of examination of the Chicago water supply in an address delivered by invitation before the Chicago Medical Society on June 19th. Dealing first with arguments for the healthy state of the city founded on the vital statistics published or furnished to him in manuscript, he stated that they were calculated to give a false feeling of security. The low death-rate on which so much reliance was placed was fallacious, inasmuch as the mean age of the population was not taken into account. The population of Chicago, recruited by immigrants in the early prime of robust life, consisted largely of adults. It was hardly possible to have a high death-rate in such a population, even under the worst sanitary conditions. By the use of spot maps, which were newly constructed, Mr. Hart showed that the continuously high death-rate from typhoid fever, which exceeded that of any other great city in the world, was due to extraordinary prevalence of the disease in the districts supplied from certain intakes of the Lake Waterworks. From a series of bacteriological examinations of the water supplied in the grounds of the World's Fair, he found that since May 1st the number of bacteria in the cubic centimetre varied from 500 to 2,500. It may be remembered that the limit of safety assigned by Professor Koch in his recent article[1] is 100 to the cubic centimetre. The lowest point touched at Chicago, according to these hitherto unpublished observations, was 167, the highest was even over 2,500. The most startling discovery,

[1] BRITISH MEDICAL JOURNAL, July 1st, page 25.

however, was that the water labelled "sterilised water" supplied in the World's Fair grounds was no better than the ordinary drinking water, owing, as he suggested, to some failure in the process, of which the managers had not become aware. Professor Finkler stated in a speech made on the same occasion that his bacteriological observations confirmed fully those narrated by Mr. Hart. The meeting was attended by some 300 physicians, and the statements made at it have, according to the special correspondent of Reuter, from which we have borrowed the above account, produced a great sensation in Chicago. Their accuracy has not been disputed by the health officers of the city.

PROPOSED EXTENSION OF THE EDINBURGH INFECTIOUS HOSPITAL.

At a meeting of the Edinburgh Town Council held on Tuesday last, the Public Health Committee recommended the general approval of a plan of proposed additions to and alterations of the City Hospital, and asked for a remit to prepare plans and take estimates. The proposal is to increase the number of beds from 212 to 366, giving 2,000 cubic feet per patient. It was estimated that, calculating the charges at £200 per bed, allowing for cost of nurses' home and price of buildings which they had already acquired, the total cost would be somewhere about £62,000. The principle was to be the pavilion one. The Lord Provost (Dr. Russell) severely criticised the proposals of the committee; he thought they proposed to provide additions to the hospital in a way that would simply be throwing away money. He thought the committee had deliberately refused an excellent offer of an admirable site, which had since been bought for £12,500, and they now proposed to spend £50,000 or £60,000, or it might be twice that sum. Their proposals meant 400 beds to the acre as against 20 in the most modern English hospitals, and 10 in the Belvidere Hospital in Glasgow. He disliked these high storeyed buildings, and he would not be a party to the plans before them. The Dean of Guild, Treasurer, and several others criticised the plans, and the general feeling was that they should be sent back to the Committee for further consideration. The Treasurer thought these alterations would cost at least £80,000. Ultimately it was found that there was barely a quorum present, and the Council rose, leaving the matter unsettled.

DEATH UNDER CHLOROFORM.

Dr. W. A. Murray, of Southend, has sent us the following report of a case of death under chloroform: On the morning of June 24th, at 10 A.M., I went with my partner, Mr. Deeping, to operate on the patient, W. T. The operation was for the removal of necrosed bone from the left forefinger, the result of a crush some time previously. I personally had never seen the patient before. He seemed to be a very nervous child, about 6 years old (his real age was 7), and cried with fright as soon as we entered the room. On inquiry I learnt that he had had his last meal at about 6 A.M., that is to say about four hours previously. I examined his chest, but found nothing abnormal with heart or lungs. I then proceeded to anæsthetise him, using the A.C.E. mixture dropped into a capped shape sponge. The mixture was from a bottle which I had successfully used before and have used since. The excitement stage was short, and the patient went under very well. After about ten minutes I allowed him to come nearly out, and he struggled a little; so finding the operation was not quite completed I gave him some more of the mixture and he became quiet again, the pupils being contracted and the conjunctival reflex abolished. I then removed the sponge and simply watched the patient, keeping a finger on the temporal artery. Suddenly, without any flickering, the pulse ceased, and at the same time the pupils dilated widely, though the respiration continued. We immediately inverted the child, forcibly drew the tongue forward and practised artificial respiration; at the same time the nurse, who was present, administered a hypodermic injection of whisky, the only spirit at hand. But in spite of all our endeavours, persisted in for at least three-quarters of an hour, the pulse never beat again. Respiration continued quite half a minute after the pulse stopped. The total quantity of A.C.E. used was about 2 drachms. The operation had only lasted about ten minutes and was nearly completed, and the hæmorrhage was trifling. No *post-mortem* examination was obtained. I may add that I gave all my attention to the anæsthetic and did not assist in any way at the operation. At the inquest, held on Monday, June 26th, the jury returned a verdict of death from syncope, due to the administration of an anæsthetic.

SCARLATINA: MILK EPIDEMIC IN BRADFORD.

On July 9th and 11th fourteen new cases of scarlet fever came to the notice of the medical officer of health for Bradford (Dr. Evans). Seven of these were due to ordinary causes, but the remainder were the result of the recent outbreak at Manningham, and they were confined to the houses in which the epidemic first made its appearance through the use of contaminated milk. Some of them are second and even third cases in the same family. The latest sufferers are mostly young people, and they have all been removed to the hospital at Scholemoor. Dr. Evans is of opinion that the primary infection from the milk has ceased, and that the inmates of houses have contracted the disease from one another. He does not think that the original area of infection has been enlarged. The temporary structure at Scholemoor is now quite full, the thirty-three beds in it being occupied by fever patients. In addition to these cases a considerable number of sufferers are under treatment at home, and are attended by their own doctors. Dr. Evans has, of course, direct supervision of the hospital patients, who are visited by him daily, but he is not directly concerned in attendance at private houses. The disease germs were distributed at Manningham through the medium of milk, and one of the most distressing of the fatal cases that have occurred is to be traced to this source. On June 30th an additional supply of milk being needed at 18, Oak Lane, a pint was obtained from one of the two milkmen who were found to be suffering from scarlatina while delivering milk. The only son, a child aged 4 or 5 years, to whom some of the milk was given, contracted the disease, and died on July 10th. The milk was bought from one of the milkmen in question, who happened to be delivering at the house of a neighbour. The total number of cases that have up to the present come to the knowledge of Dr. Evans is about 120, and of these three have proved fatal. The figures relate to the period since the outbreak at Manningham was made known.

LATAH.

A writer in the *Pall Mall Gazette* of July 10th gives an interesting description of the curious psychosis called "latah," to which certain people among the Malays are subject. It seems to be allied in its nature to those singular and numerous forms of mental perversion which were so common in the Middle Ages in Europe, and which, in one shape or another, are to be met with in all barbarous, semi-civilised, and superstitious peoples. Latah assumes many forms. In some it shows itself as an irresistible impulse to imitate the words or actions of those around; in others it takes the form of intense excitement—usually fear—when a particular word is mentioned, or sight or sound perceived. The manifestations may occur only at long intervals, or they may be capable of being induced at the will of the provoker. A case is mentioned of a woman who was introduced as a latah. At first she appeared to be perfectly sane and

mentally normal. In her case the action which induced an attack was the throwing off of a coat. On this being done in her presence, she would suddenly pass into a state of frenzy, strip herself of her clothes, and conduct herself in other indecent ways, whilst all the time she kept abusing the instigator of what she regarded as an outrage. Another instance is mentioned. "The ship's cook of one of the local steamers happened to be a pronounced sufferer from the disease, and, as but too commonly happens in such cases, was continually victimised by his shipmates. On the occasion in question the cook was dandling his baby on the forward deck. One of the men noticing this, picked up a billet of wood, and, standing in front of the latah, commenced nursing it in the same way as the latter was dandling the baby. Presently he began tossing the billet up to the awning, the cook imitating his motions with the baby. Suddenly the sailor opened his arms, and the billet fell to the deck; the unfortunate latah did the same, and the child, falling on the planking, was instantly killed." In other respects the subjects of latah are mentally quite sound. With some the mere mention of a name will induce the most wild and unreasonable fear, whilst the thing itself may have no such terrors for the latah. Thus should someone shout *rimau* (tiger) the latah will bolt, and yet the same man may be ready to hunt and face the tiger in its haunts. Doubtless this particular psychosis is allied to that excitable nervous condition which prompts the Malay to run "amok." The same twist of mind which in this people produces latahism produced the witch of Europe. There is in the first place a widespread belief in the reality of the thing; next, circumstances lead to someone being credited with it; then the reputation for such a possession and love of notoriety lead to a desire and effort to keep up the reputation thus acquired; finally the impostor becomes himself a believer in the reality of his powers, and, from at first merely acting, becomes the character. Exactly the same psychological process manufactured the witches of Europe in bygone days, and in more modern times Cagliostros and other arch-quacks.

THE INCIDENCE OF THE COST OF SANITARY IMPROVEMENTS.

MODERN sanitary requirements frequently impose on property fresh charges to which it was not originally subject. The scheme of legislation, both for the country at large and also for the metropolis, is that such charges, which presumably benefit the property, are to be paid by the owner, who in the course of time will be recouped out of the increased value arising from the expenditure. Where, however, house property is let on lease, it is usual for the tenant, as part of the consideration which he gives for the occupation, to covenant to defray rates, dues, etc., payable in respect of such house. Such covenants are not forbidden or in any way interfered with by Parliament; and where they are contained in a lease the question as to whether the landlord or the tenant is to pay for the necessary improvements has to be determined from the words used in the particular lease. The forms of these covenants vary considerably, and consequently the legal decisions on the question of which party has to pay are by no means uniform, or easy to reconcile with one another. The last case on the subject was one in which the old antagonists, Smith and Robinson, again met in the forensic arena. The tenant had covenanted to pay "all rates, taxes, and charges which might be charged, assessed, or imposed on the demised premises, or on the lessor in respect of those premises." The landlord was required by the sanitary authority to make good some defective drains, and claimed under the covenant to have this expenditure paid by his tenant. A county court judge, and on appeal two judges of the High Court have held this claim to be well founded, as the intention of the parties, shown by the lease, was that the landlord should receive his rent free from all deductions, and consequently that they must be paid by the tenant and not by him. Should a similar covenant have to be construed by another court, the result will probably be the same. Intending tenants should now, more than ever, be careful to see that their leases contain only such stipulations as they intend to be bound by. Of course, in theory, the more onerous the covenants which a tenant takes on himself the lower should be the money rent which he pays. But, in practice, would-be tenants are apt to look chiefly to the rent which is asked, without fully considering the other expenses to which they may make themselves liable. When a bargain has been made it is too late to complain of its terms; but while negotiations are proceeding onerous conditions may often be modified.

THE SURGEONS OF H.M.S "VICTORIA." NARRATIVE OF THEIR ESCAPE.

FROM a private letter received in this country from one of the medical officers serving on board the *Victoria*, we are enabled to extract the following interesting passages. After speaking of the "terrible national calamity which has cost the country the lives of so many gallant officers and men," he continues: "But if it is a terrible thing to think of, it has one bright recollection that we survivors can never forget, and that is how in the supreme moment of trial, when the huge ship was on the point of turning over, the most perfect discipline prevailed, and British blue-jackets remained true to the glorious traditions of the past. Not a man left the ship until she was in the act of turning over, not a cry of alarm was heard. There was a curious quiver just before she lifted with an angle on the quarter deck of less than 30°, and as the men on the port side of the quarter deck turned round instinctively to grasp the side of the ship, I heard the 'Steady, men, steady,' from our most excellent chaplain, who is lost; and then, as the port screw came lifting out of the water, still revolving, a cheery cry of 'Now my lads, now,' from a petty officer. A large proportion of those saved were men who succeeded in getting over the port side, and many and wonderful are the escapes that we continue to hear of. The ten minutes and a-half that elapsed between the collision and foundering of the ship was sufficient to get all the sick on deck. Fortunately in the sick bay there were no men who were not able to help themselves. I myself got over the port side aft as the ship was turning over, but before I had time to dive from the glacis there the turn was made. I was carried up into the air holding on, and entered the water head downwards on what had been the starboard side. Down I went into the blackest depths at what seemed a tremendous pace for about ten seconds, with no thought of possible escape. A languor seemed to spread over my brain, when suddenly I was conscious of what I took to be a rush of volumes of air past me, and felt myself change my direction. Hope returned, and I came up to the surface like a bubble in a soda-water bottle. A violent commotion agitated the sea, and a boiling surge of air and water swept again over my head. After that I managed to get to an overturned cutter, and was picked up after about a quarter of an hour in the water." One poor fellow had his leg broken in his mess by the collision, and was taken to the sick bay. Thence he was carried by Surgeons Minter and Moon on to the upper deck, when the position was seen to be growing desperate, but he went down with the ship. Several other men who were injured were, however, saved, among them a chief engine-room artificer, with fracture of both legs, and several men with broken ribs. The medical officers on board were Fleet-Surgeon Herbert Mackay Ellis, Surgeon Ernest Denman Minter, and Surgeon Joseph Agnew Moon.

From a letter written by an officer of the Royal Marines, which we have been permitted to see, we learn Fleet-Surgeon Ellis nearly lost his life in attempting to save an officer whose strength had been greatly reduced by fever. In the fearful maelstrom which accompanied the sinking of the ironclad, however, no man was able to exercise the slightest control over his movements, and the result of life or death appears to have been very much a matter of accident, if the term may be allowed.



MEDICAL SCHOOL, UNIVERSITY OF SYDNEY.

SYDNEY:

Its Medical School and Hospitals.

By J. R. WOLFE, M.D., F.R.C.S.Edin.

The beautiful city of Sydney, the capital of New South Wales—founded by Governor Phillip in 1788—now covers an area of about 2,500 acres. The town is irregular in form, and the great defect of the streets is their narrowness. Some of the public buildings are magnificent, but do not show to the greatest advantage.

Port Jackson, the magnificent harbour of Sydney, is world renowned. The sea runs up in various bays and coves, indenting the land all round the city, and forming a unique and beautiful frontage to the numerous suburbs on the shores of the bay.

The medical school of the University of Sydney was commenced in 1883 with four undergraduates. The number has now increased to 100. The first professor was Dr. Anderson Stuart, who taught both anatomy and physiology until 1888, when Dr. Wilson was appointed to the chair of anatomy. To Professor Stuart fell the task of organising the school, planning and securing funds for the buildings, and generally of fostering it to its present state of efficiency. He had a free hand in all the arrangements. The school buildings are extensive, and include, on the ground and upper floors, lecture room and museum accommodation for each of the departments, as well as a general museum of normal and morbid anatomy, and, in the basement, a refectory, lavatories, and smoke room, with separate accommodation for women undergraduates. The dissecting room is a fine hall, 52 feet long by 42 feet broad, and 25 feet high. The five theatres, named respectively the Vesalian, Harveian, Hunterian, Cullenian, and Hallerian, have galleries seated for 150 to 300 students. The corridors have numerous busts on the walls, and the windows are filled with stained glass, recalling, by means of portraits, coats of arms and names, the history of medicine down to the present day. These were provided by private subscriptions from medical men in Sydney. The physiological department is very extensive. The practical classroom is fitted for 24 students working simultaneously, each of whom goes through a complete course of histological and chemical work. I saw some induction coils and other necessary instruments, which had been made in the workshops of the department. The anatomical museum—now under a curator—already possesses a good collection, considering the short period of the school's existence. Chemistry, biology, and physics are taught in separate laboratories, each of them complete in itself. The present distinguished Professor of Chemistry (Dr. Liveridge), who is the founder of the Sydney Royal Society, takes an active part in the organisation of the school. Near the biological museum stands the Macleay Museum of Natural History. Within the University grounds there is also the Prince Alfred Hospital, in which are the University clinics. The number of beds is at present 250. All the medical officers are appointed by a conjoint board, which consists of the governing bodies of the University and the hospital. Other hospitals are recognised as places where clinical instruction may be carried on, subject to the control of the University, such as the Gladesville and Callan Park Hospitals. There are now about 50 graduates in medicine who have been entirely educated in Sydney.

Sanitation of Naples.—The sum of £262,546 has been spent during the year 1892 by the Society for the Sanitation of Naples on the expropriation of property required for the improvements of the new quarters, which, added to the expenditure on this head of previous years, brings the total to £1,782,646. In the lower sections of the town 23,373 square metres of houses have been demolished, the total demolishment since 1889 being 123,528 square metres. On the other hand, 19,864 square metres of new buildings have been erected in the east end of the town, making a total of 86,665 square metres since the commencement of the Society's operations, exclusive of 87,886 square metres of dwellings for the poorer classes; 27,194 inhabitants have had to quit the demolished quarters since 1889, of whom 14 590 are occupying the new dwellings; 1.170 apartments remained unoccupied at the end of 1892, also 450 apartments in the new better class dwelling houses. In the work of the new drainage system in connection with the great sanitation scheme of Naples considerable progress can be reported, more than one-third of the whole project having been executed. Of the original sum for which it was contracted, namely, £1.676,695, £321,018 have been paid for works executed up to the end of the year 1892.

ENGLISH IMPRESSIONS OF THE MEDICAL PROFESSION IN AMERICA.

The American Medical Association: Its Annual Meetings; Remedial Defects and Sterling Merits of its Constitution.—Sectional Congresses.—Elements of Scientific Development in the United States.—The Chicago Exhibition, the Greatest and Best Worth Seeing, and the only Reasonable Autumn Holiday Resort for the Present.

Mr. Ernest Hart writes from the ss. *Campania*:

I am returning from my short visit to the United States as the guest of the American Medical Association, with a mind richly stored with pleasant memories and new impressions. The frank and cordial greetings of such large bodies of representative members of the profession from all parts of this vast continent, their self-respecting originality, their marked regional individuality, the friendly but distinctive competition for progress and leadership of north, south, east, and west leave upon the mind a succession of vivid pictures which no words or anything short of observation can convey and impress.

New York, with its wealth of clinical material, its largely developed hospitals and schools, and its prosperous practitioners and consultants, has a certain leadership which some think too self-confident, with its roots not yet deeply set. Boston cultivates with proud reserve and academic polish traditional thoroughness and a high university culture. But neither Boston nor New York were well represented at the Milwaukee Congress; from causes which have some interest beyond the American continent, and of which I propose to make a further study before undertaking to discuss them in detail. Before they can be removed—and all agree that in the interest of professional union they ought to be removed—some constitutional changes will be obviously needed. The present is rather a critical period in the development of professional life in America; there is a tendency to sectional caucussing and special "congresses," which is threatening to limit the usefulness of much scientific activity, it deprives the "physicians," the "surgeons," the "laryngologists," and so forth, of the power for good which comes from mutual and common intercourse, and the cultivation of a sense of unity and affection, amiable criticism, and common effort at the united congress, in which work is carried on in sections, but on one foundation. So much sectional difference has been aroused, and the organisation of the annual sectional congresses all over the States has been so assiduously developed, that some difficulty may be found in restoring unity of sentiment and action. Nowhere, however, could the results be more valuable than in America of a common understanding on the relations of the profession to the public, and of their duties to each other. Nowhere does there exist a stronger need or a more useful sphere for medical thought and knowledge in guiding municipalities and executive officers in questions of public health and the government of public institutions, the endowment of science and the maintenance of adequate standards of education and examination. The future of the higher life in America and the development of culture and mental progress, the struggle against commercialism, and the blinding and corrupting worship of the dollar, lies largely with the professional classes. The medical tradition is essentially a protest and an antidote against this curse of new communities. The most superficicial observer from without must see that this great attribute of medicine and this high duty and privilege are recognised and brought into play in very different degrees in the various centres of the United States. The newest settlements and States are far from being the least developed in this respect. Chicago is laying wide and deep the foundations of its literary and scientific education. Two great and richly endowed public libraries—one with a limitless supply of medical literature—are already endowed with munificent incomes. The Rush College is of ancient fame, but is being largely extended; the Armour Institute and the Chicago University are springing into great efficiency and importance. Chicago has one of the best, if not the best, schools of pharmacy in America. Three thousand college students already throng her gates, and the munificence of her citizens is fast supplying them with solid and complete means of study and incitement to research.

In the South, Baltimore has model institutes and typical hospitals to boast; Philadelphia, which aims at rivalling New York on a quite separate eminence, is not likely to be left behind. The Californian is the "man of the future," and is coming every year more to the front.

From the federation of these great forces, from their mutual and generous intercommunication, and their variety in unity, may be expected a hitherto unexampled development of professional usefulness and vigour in inspiring social action, in modifying further administration of health matters, in raising and purifying the standards of life, as well as in the advance of the art of healing. There have been of late years some distracting influences which have marred the expected progress. It would be presumptuous in an individual to hope to do anything important towards amending this. But sometimes an experienced outside observer may give a useful hint, and when I return, as I hope to do, for an autumnal vacation visit to the States, it will be with a desire to find a way of being probably useful in this direction, as well as to renew the the profoundly pleasurable experiences of my mission of the last few weeks.

The evidence that the words of an outside visitor have sometimes an incidentally vivid effect—due to a variety of more or less obvious accessory reasons—has been afforded by the happy results of my last act in Chicago—in an address on the Health of Chicago and its Relation to the Water Supply. I was able to demonstrate an undeniable relationship between the preventable diseases of the city and its pollution of the lake, and to demonstrate some incredible shortcomings in this matter which have greatly moved public opinion. A Municipal Committee has been appointed to carry out remedies, and so far Chicago and its visitors will, I hope, benefit by my short but most interesting sojourn in the great capital of the West. No one could spend a more instructive and pleasurable holiday than at the World's Fair during the autumn. It is a great misfortune that the International Medical Congress at Rome will divert many from the never-to-be-renewed and great lesson of this vast display of the energies, capabilities, resources, and developments of a congress of nations or of united states, an English-speaking, English-loving people, and having on all hands that to show us which must make all Englishmen proud and happy to see; unexampled vigour, unlimited resource, matchless natural marvels, a race of lovely girls, rapidly developing scientific institutions, and a growing passion for research, a continent in which lies the future of the world peopled by an Anglo-Saxon race. The Englishman abroad feels at home in the United States, and everywhere friendly voices and hearty grasps of the hand give him the assurance that he may feel so. It is idle and foolish for any British doctor who has the leisure and the moderate means at command to think of spending his autumn elsewhere than in America.

As to the means of transit they are of marvellous facility, ease, and comfort, and comparatively inexpensive. A steamship, for example, such as the *Campania* is a marvel of modern maritime achievement, but, as a floating hotel, it is hardly to be distinguished in comfort or stabilily from the finest hotels of the metropolis. It "takes little or no notice" of even a heavy sea. During my journey out and home I saw hardly an empty chair even in a tolerably heavy sea. I was "delivered" at Chicago within eight days of leaving London, without any sense of having moved out of a first-class hotel from door to door, for the New York Central "flyer," which bridges the distance between New York and Chicago in nineteen hours, is a drawing-room train, with a first rate restaurant, smoking cars, writing room, sleeping parlours—in fact, one's own house on wheels. The difficulties and costs of travel to and in America are purely fictitious bugbears. Travel is cheaper in America than in England, if reasonable good sense be used in arranging it. Between London and Chicago it goes by clockwork.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association, at No. 429, Strand (corner of Agar Street), London, on Wednesday, the 19th day of July next, at 2 o'clock in the afternoon.

June, 1893. FRANCIS FOWKE, *General Secretary.*

NOTICE OF QUARTERLY MEETINGS FOR 1893. ELECTION OF MEMBERS.

MEETINGS of the Council will be held on July 19th and October 25th, 1893. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, October 4th, 1893.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeing election by a Branch Council should apply to the Secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election. FRANCIS FOWKE, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

BORDER COUNTIES BRANCH.—The annual meeting will be held at the County Hotel, Carlisle, on Friday, July 21st. Dr. Somerville, the retiring President, will take the chair at 1.30 P.M. Business: To consider the report of Council and elect officers for the ensuing year. Dr. Mitchell, of Cockermouth, will deliver his presidential address. Dr. Hamilton, of Hawick, will propose, and Dr. Muir, of Selkirk, will second the following motion: "That the Representative to the General Council of the Association be appointed annually, and that the appointment cannot be held by any member more than three years in succession." All notices to be sent to the Secretary as soon as possible.—JAMES ALTHAM, Honorary Secretary, Penrith.

NORTH OF IRELAND BRANCH.—The fifteenth annual meeting will be held in the Museum, Belfast, on Thursday, July 20th, at 11.30 A.M. Business: (1) Consideration of Secretary's Report and Treasurer's Statement: (2) Election of Office-bearers; (3) Appointment of Representatives of Branch on the Council of the Association, and on the Parliamentary Bills Committee; (4) the President (Dr. Walton Browne) will show a Case of Arthrectomy of the Ankle-joint; (5) Professor Sinclair will show a Case in which he Excised Meckel's Ganglion; (6) Dr. E. C. Thompson (Omagh) will read notes on Some Interesting Cases; (7) Dr. William Calwell will show some Specimens of Diseased Hair under the Microscope, including bulb of hair removed by electrolysis, lepothrix, moniliform hair, favus, etc. (the microscopic specimens will be arranged for inspection during the half hour preceding the meeting); Dr. Calwell will also contribute a paper on Localisation of Cerebral Lesions—some recent statistics; (8) Dr. St. George (Lisburn) will show a Case of Fractured Patella treated Successfully by Ligature; (9) Dr. S. Alexander will read a paper on Uterine Hydatids, with Notes of an Illustrative Case.—JOHN W. BYERS, M.D., Honorary Secretary, Lower Crescent, Belfast.

NORTH WALES BRANCH.—The forty-fourth annual meeting will be held at St. Asaph on Thursday, July 20th. At 11.30 A.M. there will be a service in the Cathedral, at which the Lord Bishop of the Diocese will deliver a short address. At 2, after the usual preliminary business, papers as follows will be read:—J. Lloyd Roberts, M.B.: Diabetes. W. Griffith, M.B.: The Therapeutic Value of Alcohol. Lawson Tait, F.R.C.S.: Vaginitis. William Alexander, F.R.C.S.: Some Interesting Cases of Operative Surgery. Hugh Jones, M.B.: Puerperal Scarlatina with Hyperpyrexia. Judson Bury, M.D.: The Prominent Symptoms of Chronic Alcoholism. Richard Jones, M.D.: A Clinical Contribution to the Etiology of Typhoid Diseases. J. L. Kendrick Davies, M.B.: Hydatid Mole. Pathological Specimens:—By A. Emrys Jones, M.D.: (1) Sarcoma of Choroid; (2) Glioma of Retina; (3) Lupus affecting Front of Eye. By Hugh E. Jones, M.B.: Extradural Abscess due to Ear Disease. The annual dinner will be held at the Plough Hotel at 5 P.M.; tickets 5s. each.—W. JONES-MORRIS, Honorary Secretary, Is-y-coed, Portmadoc.

READING AND UPPER THAMES BRANCH.—The annual meeting of this Branch will be held in the Library of the Royal Berks Hospital, Reading, on Thursday, July 20th, at 2 o'clock. The retiring President (Mr. R. Birch) will take the chair and introduce Dr. Moody Ward, the President for the coming year, who will deliver an address. Luncheon will be served at the Queen's Hotel immediately after the meeting.—H. HEYGATE PHILLIPS, Honorary Secretary, 45, London Road, Reading.

SOUTHERN BRANCH: ISLE OF WIGHT DISTRICT.—The quarterly meeting of this District will be held at the Royal Pier Hotel, Ryde, on Thursday, July 20th, at 4 P.M. Gentlemen desirous of reading papers or bringing other business before the meeting are requested to communicate with the Honorary Secretary, ROBERT ROBERTSON, M.D., Ventnor, Isle of Wight.

SYDNEY AND NEW SOUTH WALES BRANCH.

THE 106th general meeting was held at Sydney on May 5th, 1893. Dr. WORRALL, President, in the chair. There were present Drs. Sydney Jones, Fiaschi, Clubbe, Crago, Milford, Jenkins, Pockley, William Chisholm, Langhorne, Huxtable, Jamieson, Roth, Martin, Jarvie Hood, Maher, Edwards, T. M. Kendall, Newmarch, Foreman, Lloyd, McKay, Clay, Arthur, Bennett, Wright, Traill, Todd, Hankins, Brady, Quaife, A. Parker, Lennhoff, Steel, Thring, Coutie, Money, The Hon. Dr. Creed, M. L. C., Drs. G. A. Marshall, West, McMurray. Drs. Weild and Murray Wills were present as visitors.

Minutes.—The minutes of the previous meeting were read and confirmed.

New Member.—The PRESIDENT announced the election of Dr. Keenan, College Street, Sydney, as a member of the Branch.

Communications.—The Hon. Dr. CREED read notes of a case of Asthma Treated by Hypnotism. The patient was exhibited. Drs. ARTHUR, W. CHISHOLM, and WORRALL, discussed the case.—Dr. POCKLEY read notes on a case of a Chip of Steel in the Vitreous Humour, removed by Electro-Magnet.—Dr. THRING read a paper on the Value of Alexander's Operation in certain Displacements of the Uterus. A discussion ensued in which Drs. McKAY, FOREMAN, and WORRALL took part; and Dr. THRING replied.

BATH AND BRIS[illegible]NCH.

THE annual meeting of this B[illegible]eld in the Medical Library of University College, Bristo[illegible]ne 28th. In the absence of Mr. J. B. Goss, the retir[illegible]resident, Mr. F. POOLE LANSDOWN, occupied the chair; and[illegible]ty-five members were present.

New Members.—The following gentlem[illegible] were elected members: Messrs. J. S. Griffiths, M.[illegible].S., L.R.C.P., Clifton; A. S. Wohlmann, M.D., B.S.Lond.[illegible]ath; and C. J. Whitby, M.D., B.A.Cantab, Limpley Stoke.

Installation of New President.—Mr. LANSDO[illegible] then resigned the chair to Dr. SHINGLETON SMITH, who delivered the Presidential Address.—A vote of thanks to the President for his interesting and valuable address was moved by Mr. AUG. PRICHARD, seconded by Dr. SPENDER, and carried by acclamation.

Report of Council.—Dr. E. MARKHAM SKERRITT, Honorary Secretary for the Bristol District, read the report of the Council, which stated that the total number of members was now 256; 16 new members had been elected during the year—7 in the Bath section and 9 in the Bristol; there had been no resignations in the former district and two in the latter. Two members had been lost to the Branch by death: Mr. W. D. Husband, F.R.C.S., of Clifton (to whose personal character and ability and services to the Association a warm tribute was paid); and Mr. N. H. Lower, of Olveston. Twenty-four communications had been made at the ordinary meetings during the session, many of them illustrated by the exhibition of patients and pathological specimens; and the meeting at Bath on February 22nd was devoted to a valuable discussion on hypnotics, which was most ably introduced by Dr. Goodridge. Certain modifications in the rules of the Branch had been adopted, and confirmed by the General Council, whereby the alternation between the two sections of the nomination to the Presidency had been abolished, and the number of ordinary meetings had been

increased from six to seven. The following gentlemen had been elected to fill the vacancies on the Council: *Bath Section*, Drs. A. E. W. Fox, J. K. Spender, and H. G. Terry; *Bristol Section*, Mr. Augustin Prichard, Drs. J. G. Swayne, G. F. Rossiter, and Bonville Fox, and Mr. L. M. Griffiths. The financial condition of the Branch was satisfactory, the balance-sheet showing a balance in hand of £29 5s. 0d. The Council therefore recommended a donation of ten guineas to the British Medical Benevolent Fund, and a donation of five guineas to the Royal Medical Benevolent College.—On the motion of Dr. FYFFE, seconded by Dr. WIGAN, it was resolved unanimously: "That the report and financial statement now read be received and adopted."

Election of Officers.—On the motion of Dr. MARSHALL, seconded by Dr. BRABAZON, Mr. Nelson C. Dobson, F.R.C.S., was appointed President-Elect by acclamation.—On the motion of Dr. STOCKWELL, seconded by Dr. WALDO, Mr. R. S. Fowler, of Bath, and Dr. E. Markham Skerritt, of Clifton, were unanimously elected the representatives of the Bath and the Bristol sections respectively on the Council of the Association; and on the motion of Dr. J. G. SWAYNE, seconded by Mr. J. TAYLOR, Dr. A. J. Harrison was unanimously elected the representative of the Branch upon the Parliamentary Bills Committee of the Association.

Votes of Thanks.—A vote of thanks to the retiring President, Mr. J. B. Goss, for his courteous and able conduct in the chair during the past year, was proposed by Mr. FOWLER, seconded by Dr. SHAW, and carried by acclamation; and a vote of thanks to the Council and the Honorary Secretaries for their services during the year, with a request to the latter to continue in office, was proposed by Surgeon-General HERBERT, seconded by Dr. MICHELL CLARKE, and carried unanimously.

Proposal to Admit Women to Membership.——Mr. HARSANT then brought forward a motion, seconded by Dr. E. L. Fox, to alter the rules of the Branch in such a way as to admit women to the membership and the Presidential Chair of the Branch.—After a discussion, in which the following gentlemen took part, Dr. FYFFE, Surgeon-General HERBERT, Mr. BUSH, Dr. MARKHAM SKERRITT, Mr. L. M. GRIFFITHS, Dr. FLEMMING, Mr. DOBSON, and Dr. MICHELL CLARKE, the resolution was not carried.

Dinner.—The members of the Branch afterwards dined together at the Cliff[illegible] Hotel.

EDINBURGH, [illegible]IRLING, KINROSS AND CLACKMANNAN [illegible]CHES: CONJOINT MEETING.

A CONJOINT me[illegible] of these Branches, along with several unattached me[illegible]rs in the county of Fife, was held at Cupar Fife on [illegible]uly 7th. About thirty gentlemen were present. In th[illegible]bsence of Professor Annandale, Dr. G. W. BALFOUR, one [illegible] the Vice-Presidents of the Edinburgh Branch, was ca[illegible]d to the chair.

Minutes.—The minutes of the last conjoint meeting in Edinburgh were [illegible]ad by the Secretary, Dr. PHILIP, and confirmed.

[A report of the scientific part of the proceedings is published at page 119.]

Drive.—The next part of the afternoon's proceedings was a delightful drive of some eight miles by the old church of Dairsie and Dura Glen.

Dinner.—On returning to Cupar dinner was served in the Royal Hotel. Dr. G. W. Balfour presided; and Dr. Don (Dumferline) and Dr. Turnbull (Cupar) acted as croupiers. After the usual loyal and patriotic toasts, Dr. BALFOUR proposed "The British Medical Association," and Dr. W. RUSSELL replied.—Dr. STOCKMAN gave "The Fife, Stirling, Clackmannan, and Kinross Members;" Dr. SPENCE "The Croupiers;" Dr. TUKE the toast of "Dr. Stockman;" and Dr. DON "The Chairman."—Dr. PHILIP intimated apologies from many members of the Edinburgh Branch. Several songs were given, and a most enjoyable day was brought to a close by the toast of "Floreat Medicina."

BEQUEST.—The Right Hon. Carolina Rosa, Countess Dowager of Buchan, who died in April last, has by her will bequeathed £300 to Dr. Elizabeth Garrett-Anderson in fulfilment of a promise made to her to pay for a bed at the New Hospital for Women, Marylebone Road.

SPECIAL CORRESPONDENCE.

MELBOURNE.

The Hospitals and the Financial Crisis.—Proposed Reform in the Mode of Election of Hospital Staffs.—What-nots in Quarantine.

OWING to the general depression the different charities in Melbourne are finding themselves in desperate conditions. The Government, retrenching wherever it can, threatens a reduction of its grant. With the exception of three banks, all the others have suspended payment, and so money is locked up, and very little is in circulation. Such a financial condition as we are experiencing now has seriously affected not only commerce, but also the professions, and more particularly our charitable institutions. The Women's Hospital made an urgent appeal to the public, and by the aid of various amusements, bazaars, and a week of general self-denial, to which a large number of the public voluntarily submitted themselves, the respectable amount of £6,000 was obtained. The Alfred Hospital is in sore straits from lack of public support, and has been forced to reduce its accommodation. For the eight months ending in February the subscriptions to the Melbourne Hospital amounted to £2,308 14s., compared with £3,618 13s. 6d. for the corresponding period of 1891-92, showing a shrinkage of £1,209 13s. 6d., while the sum received from the last Hospital Sunday collection was £1,193 below that of the previous year. The committee of management is naturally anxious, and is applying to the public and to the treasurer for assistance. Owing to the dearth of employment the working classes are unable to maintain their connection with their benefit societies, and they and their families are compelled to get help from the hospitals. The State pays away about £120,000 annually in aid of the charities, but has no direct control in the distribution of the money. Three years ago the wretched inadequacy of such a system to meet the needs of the country was so pronounced that a Royal Commission was appointed to investigate the whole subject. The cost of the inquiry came to £3,000, but Parliament, it appears, has been until now unable to turn the labours of the Commission to profitable account.

The present system of electing the honorary medical officers to the Melbourne and Women's Hospitals having been proved unsatisfactory and cumbersome, an attempt is being made to introduce an amended scheme which will be more workable and at the same time less objectionable. The plan of election as it now exists is similar to the old plan of election by the general body of governors, who are here termed subscribers. Candidates have to undertake a regular canvass, copies of testimonials are circulated broadcast, cabs are hired, votes are touted for, and distinguished members of the profession are to be seen adopting all the tactics and personal effusiveness which are regarded as the distinctive attributes of the aspirant for political honours. The election was not a test of medical skill, but rather of personal popularity, knowledge in electioneering advertising, and self-puffing. It will therefore be easily understood that very strong reasons existed for urging the adoption of a more suitable mode of election. An amended scheme has been drawn up between the committee and the members of the honorary staff. The scheme provides for the election of the outdoor staff by the governors of the institution, and for the election of the indoor staff by the committee, who shall be limited in their choice to members of the outdoor staff of at least four years' experience in that capacity. The indoor staff shall be elected for a period of five years, which may be continued for two consecutive periods of that duration. It is not to be expected that so sweeping a reform will be quietly consented to by either the lay or professional public. It is, in fact, suggested that the indoor staff may be kept in office for fifteen years, while beginning with an outdoor appointment it means practically a tenure of office for twenty years. Not only the lay press, but also some of the profession have publicly raised their voices in opposition to the scheme. The proposal is regarded as unfair, but as the term of office of the present members of the staff does not expire for another two years, ample time for discussion is allowed.

I have had an opportunity of inspecting the quarantine station at Point Nepean, and was agreeably surprised at the extent of the accommodation, the comforts of the habitations, and the picturesque character of the immediate surroundings. The buildings are mostly two storeys, each class inhabiting separate buildings, which are built on the beach facing the bay, while the back is sheltered from the ocean winds by high dunes covered with Ti scrub and bracken. The whole of the arrangements are under the immediate supervision of Dr. John Browning, who by his genial manner and exercise of great tact has invariably succeeded in dispelling the gloom usually connected with being quarantined. But what strikes the visitor on entering these palatial residences, perhaps first of all, is the quantity of what-nots in all kinds of designs and in various kinds of woods which are indiscriminately dispersed over the buildings. Such consideration, one would think, on the part of a Government augurs well for a regard for the comforts of the unfortunate visitors. But the explanation quickly dispels such a delusion. Some few years ago, before the advent of Dr. Browning, there was a rather unexpected demand for accommodation, owing to more than one large passenger steamer being sent into quarantine at the same time. The number of bedroom utensils was found inadequate to supply the wants of the inmates, and it was deemed necessary to wire for an additional supply from Melbourne. The medical officer was in a difficulty; the telegraph operator who would have to forward the message was a lady. A brilliant idea struck him; he ordered the following telegram to be sent: "Forward at once to quarantine station 100 what-nots." In those days, anything ordered for the station was sent, no matter at what cost, and the what-nots were supplied by a contractor at a very short notice, at £6 each. And thus it occurred that, owing to the extreme delicacy of the profession, the apartments are so luxuriously furnished.

PARIS.

Overcrowding of the Paris Medical School.—Disinfection of Public Sale Rooms.—Notification of Infectious Diseases.

THE Paris medical faculty is sorely puzzled how to solve a problem that apparently is insoluble. While the number of medical students increases every year, the accommodation remains *in statu quo*, and the number of subjects for dissection decreases. Formerly the dead bodies of hospital patients, if not claimed by relations, were sent to the dissecting room, but since the Municipal Council has accorded this right to friends of hospital patients, there are much fewer subjects. The professors suggest several means of remedying this evil. Among them it is proposed to establish an entrance examination in order to limit the number of students by elimination of the unfit. There are, however, many serious objections to this plan. The examination for the *Bachelier-ès-Science* already constitutes such an examination, and to have another would be tantamount to a radical change in the organisation of the Faculties. One of the most eminent professors considers that the centralisation existing at Paris is to be deplored both for pupils and professors, but the remedy is difficult to find. The solution of the problem is largely a question of money. If provincial professors were adequately remunerated, and laboratories of provincial schools decently endowed, scientific provincial centres would be called into existence, where students could study and professors carry on research without the fear of starvation. At present the provincial schools are empty for the most part, with the result that the Paris medical schools are crowded to plethora.

The Paris Medical Health Society is uneasy about the danger of public sale rooms and the part they play in spreading epidemics. It urges that the sale rooms of the Hôtel des Ventes should be swept and watered every day with an antiseptic substance; furthermore, that all doubtful articles of furniture, etc., sent for sale should be disinfected in a disinfecting oven. At the Mont de Piété this is already done.

The following contagious illnesses should, according to the decision of the Comité Consultatif d'Hygiène, be notified by medical men: Cholera and choleraic affections, typhoid fever, epidemic dysentery, typhus, erysipelas, purulent puerperal infection, diphtheria, croup, small-pox, measles, scarlet fever, whooping-cough, *suette*, and purulent ophthalmia of newborn children.

ST. PETERSBURG.

The Vital Statistics of Russia; Estimated Population, Death-Rate, and Birth-rate.—Prevalent Infectious Diseases.—Spread of Vaccination and Decrease of Small-pox.—Leprosy.—Venereal Disease.—Medical Aid.—The Three Sewered Cities of Russia.—Impure Urban Water Supplies.—Local Sanitary Authorities.

THE annual report upon the health of the Russian Empire during the year 1890 has just been published by the Medical Department of the Ministry of the Interior. The total population in 1890 was reckoned at 116,652,610; the birth-rate was 46.1, and the deaths 33.5 per 1,000. The natural increase in the population was 12.6 per 1,000. These figures show a marked falling off in the natural growth of the population. In 1887 it was 15 per 1,000, in 1888 it was 16.6, and in 1889 it was 14.3 per 1,000. The figures are approximate only. No general census has been taken since 1857, and the population in subsequent years has been obtained by a calculation based mainly upon the "natural increase" or preponderance of births over deaths. In some parts of Russia (for example, the territories in Central Asia, acquired since 1857) the inhabitants have never been counted, and their numbers have only been estimated by indirect means. A fresh census is, it is stated, to be taken this year.

The death-rate in European Russia in 1890 was 34.2 per 1,000. The corresponding figures in the years 1887, 1888, and 1889 were respectively 31.8, 31.4, and 33.4 per 1,000. The increase in death-rate in 1890 is attributed to the greater prevalence of typhoid fever, whooping-cough, measles, phthisis, dysentery, cholera nostras, gastro-intestinal catarrh, and some other diseases, and to the epidemic of influenza. The greatest incidence of the influenza epidemic in Russia was undoubtedly in the preceding year, but the disease was still prevalent in 1890, and must have had considerable influence in maintaining the high death-rate. In 1889 just under 700,000 cases of influenza were reported as under treatment in hospitals, and of this number 2,876 proved directly fatal, while in 1890 the numbers were just under 200,000 cases and 1,645 deaths. The indirect influence of the epidemic is probably indicated in the increased number of deaths from croupous pneumonia, consumption, and other pulmonary diseases. Among the infectious diseases only 4 show a diminution upon the average records of the three preceding years, namely, influenza, typhus fever, recurrent typhoid, and small-pox. The recurrent variety is the only form of typhoid fever which does not show a very marked increase.

The diminished prevalence of small-pox may be attributable, in part at least, to the annually spreading practice of vaccination, which is not compulsory in Russia. In 1890 the number of children vaccinated amounted to 3,164,000. This figure, if compared with the annual average of births in the three years ending in 1890, indicates that about 63 per cent. of children born in Russia are vaccinated.

Leprosy would appear to be slightly on the increase. In 1890 the number of cases reported was 839, against 664 in 1888 and 792 in 1889.

Venereal diseases not only show a distinct increase over previous years, but appear to prevail to a disastrous extent in many parts of the country. They are worst in the Caucasus and the Governments of the south and east. The explanation offered is that hundreds and even thousands of farm labourers flock to these districts at the time of the harvest. Their conditions of life during this period are such as to allow of unchecked and wholesale promiscuous intercourse. Returning to their homes, the peasants carry with them any disease they may have thus contracted. In this way syphilis and other diseases are widely disseminated throughout the country. Each case becomes a fresh centre of infection, both by ordinary and by sexual intercourse. One instance is mentioned in which a peasant thus infected in the course of four months no fewer than twenty-three persons. The general measures adopted to check the spread of venereal disease in Russia are mainly the registration and examination of prostitutes; the periodical examination of workmen in factories

and various trade institutions, of soldiers, and of labourers returning to their own Government; the examination in some villages (at the request of the inhabitants) of every person in the village; isolation and treatment of patients with venereal disease in general or special hospitals; and the distribution of tracts explaining the infectiousness of venereal diseases, and the necessity of having recourse to treatment.

In European Russia there was, in 1890, 1 hospital bed to every 1,600 persons, in the Caucasus 1 to 12,500, in Siberia 1 to 3,000, and in Central Asia 1 to 16,000. The number of medical men was in European Russia 1 to 9,200 of the population, in the Caucasus 1 to 11,600, in Siberia 1 to 9,100, and in Central Asia 1 to 48,500. These figures do not take into account the military hospitals nor the army medical staff. In Central Asia, certain parts of the Caucasus, and the territory of the Cossacks the population is wholly under military control, so that the figures quoted above do not fully represent the amount of medical aid available. There is in addition a body of 11,959 *feldschers* or medical assistants, male and female, who receive a certain amount of medical education, and undergo four years' practical training in hospital. It is not infrequent to find large districts provided with no other medical aid than that of a single *feldscher*.

The sanitary condition of inhabited localities in Russia is far from satisfactory, as described in the present report. Sewers are in use in only three towns—Warsaw, Odessa, and Yalta. Elsewhere the cesspool system is the one usually employed.

The water supply is very generally condemned, as in previous reports. Out of 86 towns forming the centres of Governments, only 46 possess waterworks. Of these, 9 distributed water of impure quality, and in 22 both the water provided by the waterworks and that derived from natural sources were of bad quality. The sanitary condition of the public baths, slaughterhouses, schools, and other institutions, and also of the streets, squares, and yards of houses is described separately in the report for each Government throughout the empire.

The remainder of the report is devoted to accounts of the local sanitary commissioners, or boards of health, which exist in every town of any size; of the quarantines enforced in 1890; of the "Pasteur stations" for the treatment of persons bitten by animals—seven such "stations" existed in Russia in 1890; of the Russian watering places and of the main diseases treated at each; and of some other matters of medical and general interest. The report closes with a description of the medico-legal matters of importance which occurred during the year, and with a list of the Government orders relating to medical affairs which were issued in 1890.

SHEFFIELD.

The Telephone Difficulty.—The Opening of the Medical School.—Extension of the Fever Hospital.

Mention was made, in a former letter, of the action taken by the medical profession in this city in consequence of what they considered the arbitrary treatment a leading physician had been subjected to by the Telephone Company. A committee of three was appointed at the meeting of the profession immediately held to consider the relations of the medical men to the Telephone Company, and more particularly the form of agreement that the company were desirous that subscribers should sign, but to which many objected. At an adjourned meeting the committee were in the pleasing position of being able to report that the telephone authorities, both locally and at headquarters, had received their representations most courteously, and with a desire to meet, as far as they could, the views of the profession, and they were able therefore to put before the meeting such alterations in the agreement as in their opinion the medical subscribers could well accept. The united front which the profession presented on this question was most gratifying, and enabled the committee to act with authority, which was of signal service.

The Opening Address of the Medical School, in October next, is to be delivered by Sir James Crichton-Browne, and a good attendance both at the lecture and at the dinner subsequently is looked forward to.

It is suggested three new wards should be erected at the Lodge Moor Fever Hospital, for small-pox and isolation cases. They will be built on the model of the existing buildings.

LEEDS.

The Health of the City.—Hydrocephalus as a Show.

The official report of the health of Leeds during the year ending January 2nd has just been presented to the Sanitary Committee, and, so far as is indicated by the number of deaths to the estimated population, it shows great improvement. There were 7,403 deaths in the borough during the year, of which 129 were persons not belonging to the city. The gross deaths, therefore, were 19.78 per 1,000 of the estimated population, as against 22.91 and 22.71 in the years 1891 and 1890 respectively. Much has been done during the past year to improve the health of the borough, but the Sanitary Committee have yet many projected improvements to carry out.

A case of considerable medical interest came before the Leeds stipendiary during last week, when a showman named Norman and a woman named Charrington were charged with cruelty to a child. The child, which was suffering from hydrocephalus, was being exhibited by the defendants, who kept it in a room with a bright light, and quite near it played a rasping barrel organ. The evidence given in the case was very conflicting, as on several previous occasions in other towns the local authorities had declined to interfere; but Mr. Bruce gave it as his opinion that it was a monstrous and a cruel thing to exhibit the child in this way, and fined the male defendant £5 and costs, and the female 20s. and costs.

CORRESPONDENCE.

THE ROYAL BRITISH NURSES' ASSOCIATION.

Sir,—We are instructed by the Executive Committee of the Royal British Nurses' Association to reply to the attack made upon the Association in a letter which appeared in the *Times* on July 3rd, and to request as a favour this reply may be inserted.

We propose to deal in the first instance with the substance of the attack, and afterwards with the persons whose signatures were appended to it. The writers of the letter to which we refer assert that they "think it right to call public attention to the important limitations which have been placed upon the powers originally sought for" by the Association. They do not specify what these limitations are, and our reply is that there are none. The statement that limitations have been placed upon the powers sought for by the Association is untrue absolutely and entirely, and as it can be disproved in five minutes by an examination of printed documents it is untrue without any shadow of justification or excuse.

The writers go on to say that "no opposition has at any time been raised to the incorporation of the Association for the purpose of promoting such benevolent schemes for the benefit of nurses as are now set forth in the charter as the first of the objects of the Association. The opposition was directed mainly against the attempt to create a list or register which would be regarded by the public as a legally authorised 'register of trained nurses.'"

As a matter of fact, the opposition was to the grant of a charter absolutely, and the petition of the opponents set forth that "your petitioners submit that the purposes stated in the draft charter other than the maintenance of the register aforesaid, although desirable and beneficial, can be effectually accomplished by an unincorporated association." This assertion was, of course, nonsense, on account of the difficulties which an unincorporated association would experience in obtaining or in dealing with the necessary funds, but the authors of the letter must not now be suffered to escape from their published statements.

The letter continues that "the charter so granted, substitutes for the list or register of nurses," a clause which is correctly quoted, but upon which it is implied and almost

stated that the power granted differs from the power which was sought. We will therefore place the two in parallel columns.

Powers Sought.	Powers Granted.
The maintenance of a list or register of nurses showing as to each nurse registered her name and address and the name of the hospitals or other places at which she has been trained, and the length of training which she has received.	The maintenance and publication of a list of persons who may have applied to the corporation to have their names entered therein as nurses, and whom the corporation may think fit to enter therein from time to time, coupled with such information about each person so entered as to the corporation may from time to time seem desirable.

It will be observed that there is here no limitation at all, but simply a grant in wider and more general terms than that which was asked for; and it is worthy of note that the Privy Council went out of its way to express special approval of the proposed list by introducing the following clause into the preliminary recitals of the charter.

"And whereas it appears to Us that a permanent Association formed for the purpose of maintaining a closer connection among persons practising as nurses, and thereby ensuring mutual counsel, comfort, and support, and for the purpose of disseminating to the public at large information respecting such persons, is likely to prove of much public benefit, etc."

The writers of the letter go on to say that the following points should be clearly borne in mind:

"1. No professional privilege will be obtained by the nurses, whose names appear upon the list."

The reply is that a nurse whose name appears upon the list will gain the highly important privilege of being able at any time to establish, by reference to a book published under the authority of a chartered corporation, her indefeasible claim to the title which she assumes; and that she will not be liable to be confounded with the half-trained probationers who, to the great detriment of the sick, are now sent out by various public and private institutions. This privilege is one which will increase in value and importance year by year, as its true meaning comes to be more and more fully understood by the medical profession and by the public.

"2. The list will have nothing in common with legal registers of the medical or other professions, but will simply be a list of nurses published by the Association."

This, in a sense, is not only true, but obvious. The Privy Council has no power to authorise the publication of a compulsory or "legal" register, which could only be established by an Act of Parliament. There can be little doubt, however, that experience of the value of the Association register will in due time lead to such an Act being obtained. In the meanwhile the list will be a book containing information of great importance not easily accessible elsewhere, and rendered trustworthy by the character and position of the corporation from which it proceeds.

"3. No nurse whose name appears on the list will have any right to use the title of registered nurse."

This is absurd; every nurse whose name appears on the list will have a right to describe herself as "registered by the Royal British Nurses' Association," and would be likely to prefer this explicit statement to anything more vague. The letter concludes by an assertion that a comparison of the draft charter with that which was granted "clearly shows that the Privy Council have recognised the evils which might directly or indirectly have been occasioned by the establishment of a chartered register as originally proposed."

The only differences between the draft charter and the charter as granted are to be found in the explicit approval of the principle of the register which we have already quoted, in a change in the order of succession of some of the clauses; and in the fact that the original wording has in two places been so altered as to possess a more general character, but in both so as to extend and enlarge, and not to curtail, the privileges which the Association sought to obtain.

From the substance of the letter we pass to the signatories. They are thirty-three in number, and twenty-six of the thirty-three are officials of the following hospitals—namely, the London, St. Thomas's, Guy's, the Westminster, King's College, and Charing Cross—all, or nearly all, of these being institutions which make or endeavour to make profits by sending out nurses to private houses. The first principle of the Royal British Nurses' Association is that no nurse should be considered fit for the responsibilities of private nursing, as these are now understood, until she has received three years' training in a hospital or hospitals of approved efficiency; and this view has been accepted and endorsed by the Lords' Committee on Hospitals. Now the London Hospital habitually sends out probationers of only one year's training, pays them as probationers, charges for them as skilled nurses, and has derived from the difference between the wages of the nurses and their earnings a net profit of as much as £1,700 in a single year. Charing Cross Hospital is, we believe, only beginning to send out nurses, and we do not know the character of the arrangements, although, from the company in which we now find its officials, we fear that these arrangements leave much to be desired. The Westminster Hospital has for a long time sent out so-called nurses after only one year's training. Guy's Hospital sends them out after only eighteen months'. King's College Hospital conceals the accounts of its private nursing department even from its subscribers, and its course of action can only be conjectured. Finally, St. Thomas's Hospital "registers" its probationers privately as trained nurses at the end of one year, although its authorities object, professedly on principle, to the issue of a public register.

Twenty-six of our thirty-three critics are therefore persons who are engaged more or less in maintaining a vicious system, which it is one of the objects of the Association to reform; and we can only thank them for having, in their feeble way, directed the attention of the public to the gulf which separates their aims from ours.

Finally, we are bound to recognise that among the twenty-six signatories, as well as among the remaining seven, there are persons who would not knowingly attach their names to statements which are untrue in fact and injurious in intention. Such persons must, of course, have been misled by defective information, and we may fairly call upon them to read both the proposed and the actual charter for themselves, and then to take such action as may seem good to them.—

Yours, etc., W. Bezly Thorne, M.D. } Honorary
Grace Gordon } Secretaries.
July 6th. Daisy Robins, Secretary.

DEATH UNDER CHLOROFORM.

Sir,—In the report of a death from chloroform in the British Medical Journal of July 1st it is stated that the patient drew eight or ten deep breaths shortly before respiration ceased. In the *Birmingham Gazette* of June 27th another fatality is recorded, and in this case also the remark is made that the patient "breathed very deeply, and his heart ceased to beat." The same has been observed in numerous other cases, and Dr. Lawrence Turnbull, of Philadelphia, has well remarked: "When the breathing becomes very rapid danger is near."[1]

What is the cause of this rapid, deep, or heaving respiration? Certainly not an overdose of chloroform. A patient may, by partly voluntary efforts, breathe rapidly and deeply for perhaps the first minute, but scarcely longer, and the only cause of deep respiration beyond this time is the stoppage of the inhalation, which, at too early a stage of the administration, immediately gives rise to heaving respiration. If it be objected that there is no evidence that this took place in the two above cases, it may be answered that neither was there any evidence to the contrary.

In the case you report 3 drachms of chloroform had been used, and the operation had been going on for seven or eight minutes. This illustrates well the difference in the practice of various administrators. I have never been able, with a towel, to anæsthetise a child of 5 years of age in less than five minutes, or with less than 5 drachms of chloroform. Within the last week I administered, for Dr. Fergus, in the Eye Infirmary of this city, chloroform to a child 2½ years of

[1] Deaths from Chloroform and Ether since the Hyderabad Commission, *Journal of Amer. Med. Assc.*, August 15th, 1891.

age, and I expended on a towel 12 drachms of the liquid in ten minutes, the patient inhaling a continuous atmosphere all this time, with the exception of half a minute when the operation was commenced. It is well that differences of opinion on this subject should be strongly accentuated. I believe that the great majority of deaths from chloroform would have been prevented by the administration of from five to ten times more of the liquid.—I am, etc.,

Glasgow, July 3rd. ROBERT KIRK, M.D.

SIR,—May not the discrepancy in the condition of the heart after death by chloroform, referred to by Dr. Kirk in the BRITISH MEDICAL JOURNAL of May 20th, be due to the different ways in which chloroform is administered by the "open method"? One administrator pours three or four drachms, others from one-half to three drachms of chloroform upon the towel or cap to commence with, to which more is added in a minute or two, varying in amount with each administrator. Others again sprinkle the chloroform drop by drop upon a piece of lint or flannel, after the manner, as they believe, advocated by the dosimetric school, who teach that the utmost safety is ensured, yet manage to consume one or more drachms of chloroform without inducing any anæsthetic effect, and suddenly, and quite unexpectedly, respiration and pulse cease. Thus not two patients are narcotised in the same way by the "open method," and one may expect the heart's condition after death under chloroform to vary in accordance to the manner in which the chloroform had been given. To expect uniform results a uniformity in the administration must be adopted. Many of the earlier experimenters and writers on anæsthetics have directed attention to this fact, and one quotation will suffice to show that it ought to be generally known. In Druitt's *Surgeon's Vade-Mecum*, published in 1878, it is stated:

"The manner in which life is extinguished by chloroform is not always the same. First chloroform may kill by apnœa, or suffocation, by interfering with the passage of the blood through the lungs, by giving the blood such a quality that the pulmonary capillaries refuse a passage to it, or by acting upon the medulla oblongata in such a way as to stop the reflex act of respiration. This mode of death seems to occur often in the case of animals poisoned experimentally, sometimes in man. Possibly spasm of the glottis may be produced by a concentrated vapour. In such a case the symptoms would be those of congestion of the head and face, staring eyes, turgid veins, struggling or convulsive spasm, ineffectual efforts to expand the chest, preceded by a sense of choking and an irresistible propensity to struggle against further inhalation. After death congestion of the lungs and fulness of the right side of the heart would be found. It has been suggested that in some cases the chloroform has been impure, in others that the administration was hurried or careless, and this is no doubt true. The administrator, puzzled or annoyed by the persistence of the second or intoxicating stage, gives a sudden increase and the heart stops."

Meanwhile I beg to express the conviction that "A.S.V.G." is right in his suggestion as to the cause of death in the majority of fatal cases of chloroform administration.—I am, etc.,

Belfast, June 15th. HEALTH.

THE VOYAGE TO AUSTRALIA.

SIR,—In the BRITISH MEDICAL JOURNAL of June 3rd you reply to a query concerning the best route to Australia, and say: "The Cape route would, at this season of the year (between May and October) be the better." That is, better than *viâ* the Suez Canal. Unless the sick man referred to in the inquiry possessed the nature of a salamander, the route by the Cape would unquestionably be better than by the Red Sea; but there is another route, quicker, better, and far more enjoyable than either of those you allude to, which seems to have escaped your notice, namely, the route of the Canadian Pacific Railway and the connecting Canadian-Australian line from Vancouver. A passenger reaches Sydney, Australia, in about thirty-four days from Liverpool, and has the pleasure of traversing the continent of America, seeing *en route* the great wheat fields of Manitoba, the celebrated buffalo and ranching plains of the Sascatchewan, and the magnificent ranges of the Rocky Mountains, which tourists and sightseers come from all parts of Europe, America, and the Antipodes to admire. For an invalid, such as the gentleman you refer to in your answer, this route has particular advantages, because of the opportunity of stopping at the hot springs of Banff, loitering under the shadow of the Selkirks and the Great Glacier, and varying the rate of travel at his own discretion, while living in luxury in the chalet hotels that are provided by the railway company. I should imagine, Sir, that few people will now dream of going to Australia *viâ* the Cape, when they have the option of crossing the plains, the mountains, and the Pacific.—I am, etc.,

D. MCNICOLL,
General Passenger Agent Canadian Pacific Railway Company.

Montreal, June 28th.

*** The route by the Canadian Pacific Railway is one of unsurpassed comfort and even luxury, and the scenery is of matchless magnificence. It is a journey of inexpressible beauty, perfect comfort, and one which every Briton must be proud and happy to be able to take.

THE MODE OF ELECTION OF BRANCH OFFICERS.

SIR,—The correspondence on the above subject seems to show that members confound the mere act of voting with the more important act of nomination of candidates for the Council of the Association, for the Branch Councils, and for the Parliamentary Bills Committee. I think almost all the Branches send a list of proposed Council to members. Some ask that this list, or voting paper, should be handed in personally and at the meeting, while others arrange for members posting it to the Branch Secretary. Both systems should be combined, members choosing as suitable. But the most important point is the power of nomination of candidates for the Councils. Usually each Branch Council nominates their successors. I think this should only be done when the Branch members fail to nominate a sufficient number of candidates to fill the vacancies. My idea is that we should follow the example set by the Medical Act 1886, as to the nomination and mode of election of the Councils. The College of Surgeons, the General Medical Council, Irish Medical Association, etc., have this mode of nomination and election. Those interested in the subject will find, in the BRITISH MEDICAL JOURNAL of December 12th, 1891, page 1288, a code of "model" rules relating to such nomination and election, by me.

The greater part of the success of our Association will be due to that system which allows all members to take an active interest in its work, without needlessly calling members away from their day's work. It is for this reason that I, in 1891, brought forward this system of nomination and election, and it was for the same reason that Dr. H. Woods and I tried to bring about the system of proxy voting on important matters. The above system of voting for the Councils is known as voting *in absentiâ*.

Hoping each Branch will adopt it, and so place our Association on a wide, firm basis, and that Dr. Horder and others will persevere, I am, etc.,

Liverpool, July 8th. ROBERT R. RENTOUL.

GENERAL PRACTITIONERS AND THE SECTIONS AT THE ANNUAL MEETING.

SIR,—I should like to suggest that the best way would be to have a day set apart for papers by general practitioners. The sphere of hospital men is limited. The general practitioner meets with and has to cure (or lose his practice) cases that the hospital man never sees. Seeing that the bulk of members are general practitioners, and that these have founded the important parts of the Association—as you point out in your splendid address in America—such a day would prove both valuable and popular.—I am, etc.,

Menstone, Leeds, July 1st. A. H. FREBE, M.B.

AMENDMENT OF THE BIRTHS AND DEATHS ACT: MEDICAL REGISTRARS.

SIR,—I would beg to point out to Dr. Rentoul that, by the Births and Deaths Registration Act in Ireland, medical officers of Poor-law districts are *ex-officio* registrars of births and deaths and of Roman Catholic marriages for their districts; and that the clerks of unions are also appointed

superintendent-registrars for their unions. Dr. Rentoul also states that 792 medical men are registrars in Ireland out of 800; so where do we find room for the 73 men of other occupations which he enumerates, unless doctors in Ireland employ their spare time—of which the district officers have very little—as school teachers, rate collectors, postmasters, blacksmiths, and the like?—I am, etc.,

Chester, July 8th. R. E. BURGES, M.D.

SIR,—I am medical officer of health for a large rural district, and receive monthly returns from six different district registrars, and my experience leads me to support the proposal of making the district medical officers the registrars in the future. The present registrars are incapable in many ways. It is no uncommon thing for me to have two or three instances in the death returns of ailments quite unknown to the medical profession, there being a gross ignorance of technical terms among rural registrars. I hope that the Commission now sitting will consider it advisable to make district medical officers the registrars, for none else are capable capable of doing the work effectually.—I am, etc.,

July 9th. A MEDICAL OFFICER OF HEALTH.

THE POSITION OF PATIENT DURING EXCISION OF TUMOURS OF THE RECTUM.

SIR,—I notice in the BRITISH MEDICAL JOURNAL of July 8th a note from Mr. Godlee with reference to the position of the patient during the removal of tumours of the rectum. I have for several years made use of a position very similar to that he describes. I have long discarded the lithotomy position in these cases, and I am inclined to think that most surgeons who, like myself, are in the habit of excising the coccyx, with or without part of the sacrum, preparatory to removing rectal tumours, use the prone position.—I am, etc.,

Liverpool, July 8th. F. CHARLES LARKIN.

TROPACOCAINE IN OPHTHALMIC PRACTICE.

SIR,—I have read with interest Dr. Ferdinands's article on Tropacocaine in the BRITISH MEDICAL JOURNAL of July 24th, and notice that he claims for the new anæsthetic that it exerts no noxious action upon the epithelium of the cornea. That repeated applications of cocaine render this delicate pellicle hazy has been for long a commonplace of ophthalmology. It has, however, been shown recently that the action depends upon the fact that cocaine lessens the frequency of winking, and, the epithelium being thus freely exposed to the air, dries, and becomes cloudy. The truth of this explanation is readily verified. One never observes haziness of the epithelium provided the lids are kept closed between successive instillations of the drug.—I am, etc.,

Welbeck Street, W., June 26th. SYDNEY STEPHENSON.

THE LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY.

SIR,—The accounts of the London and Counties Medical Protection Society, Limited, have come into my hands, and I trust you will pardon me encroaching on your space with a few words on the same.

I do not know whether this Society has any great reputation among the members of the medical profession, but it seems to me that however good its reputation, it would do better to publish its accounts in such a manner as to enable its subscribers to see how their money has been expended during the year. For instance, the "organisation expenses" of £124 17s. 4d. incurred by Dr. Mead does not give the subscribers any information as to how the money was spent, nor does the account of Messrs. Tyndall and Company, printers, of £168 8s. 4d. help them in that respect. A most important omission is the want of information as to the expenditure of the numerous branches. An allowance is made to the branches up to 2s. 6d. per member, but the accounts do not state what sum of the total has been expended in this manner. Further, a most important point is, Has the expenditure of each branch up to April 30th, 1893, been incorporated in the accounts? Does "sundry accounts outstanding" include balances due to the branches, or have the auditors satisfied themselves that there was nothing at all owing to the branches at April 30th, 1893?

One thing, however, seems quite clear from the accounts, namely, that the expenditure has been solely on organisation, and that nothing has been spent on the protection benefits for which the Society was formed.

It is true that the balance sheet shows on the face of it a balance in favour of the Society of £15 6s. 11d., but this is only arrived at by taking the office furniture at almost its full value and estimating "stationery and printed matter" at £50. This latter may be a valuable asset for the purposes of the Society, but it is a point on which it is to be hoped the auditors have fully convinced themselves, as on it turns the solvency of the Society. I have no doubt that the gentlemen who are acting as auditors have satisfied themselves on this point, and otherwise verified the statement of accounts and balance sheet. But I think it would inspire more confidence in those gentlemen by whose subscriptions the Society is kept alive if at least one of the gentlemen auditing the accounts were by his professional knowledge qualified to certify to them.—I am, etc.,

HUGH LIMEBEER,
11, Queen Victoria Street, E.C., June 28th. Chartered Accountant.

MEDICAL AID BRANCHES OF INSURANCE SOCIETIES.

SIR,—Dr. Leslie Phillips and others who have written about medical aid associations have not, I think, noticed the fact that medical aid branches of insurance societies are worked on somewhat similar principles, and are subject to the same abuses as medical aid associations. I have had some experience of one, and that one of the most flourishing of these societies. The members of this society are guaranteed medical attendance free, and are insured for a certain sum at death; their medical officers are paid something less than four shillings per member per annum. Good profits are, I believe, made out of the society, but the agents assert that the medical aid branch only pays the expenses of the doctors, canvassers, etc. In face of this assertion the fact remains that the great inducement for people to join the society is—and this is the chief one held forth by the canvassers—namely, that they can secure medical attendance free on becoming members of the society. If they had not a medical aid branch, I doubt if such societies could compete with larger insurance societies that also have not a medical aid branch, and insure for death at as low rates. I therefore think that the medical aid branch does pay, and pays well. In this city (one of the largest in the North of England), a large percentage of practitioners are attached to this society, and many of them in good-class practice.

It is the custom for agents to canvass the different districts, house to house, and tout for members in a most objectionable manner (in a professional point of view), extolling the great advantages to be derived by securing the services of any, and some in particular, of the various medical officers of the society. Some of the medical officers have told me that in many instances they have known the agents to have called on people who were able to pay the ordinary fees, and who had formerly been private patients, representing the Society as Dr. So-and-so's club, and thus securing members. I know a town having a population of something less than 10,000 people, where a local medical man was induced to take up the society; he soon found that a lot of his patients (well-to-do people) joined the society, as it was represented to them as his club. He resigned, and the other medical men agreed not to take it up. I have since heard that the society have introduced a new man. I know one medical man the society asked to go there, they held out great inducements to him, offered to canvass all over the place for the society, and of course indirectly it would mean touting for other men's patients. They actually guaranteed to pay him a certain sum for some time.

In my opinion it is not a creditable thing for medical men to give their services under such conditions; they can neither take any interest in their own work or do justice to themselves or their patients. It is a matter of vital importance to the practitioner, and I hope some remedy will be found to abolish the abuses of medical aid associations, and also of medical aid branches of insurance societies.—I am, etc.,

June 23rd. JUVENIS.

"CONTAGIOUS CYNANCHE."

Sir,—In the "Medical News" column of the British Medical Journal of June 17th you quote a report of Dr. Reginald Dudfield, Medical Officer of Health for Eastbourne, to the effect that of 59 cases of diphtheria notified in the borough of Eastbourne in the year 1892, only 8 could be discovered to have any sort of connection with each other. This experience is so directly contrary to my own, and the obvious deduction from it is in my opinion so fraught with danger, that I ask permission to make a few comments upon this point. I may also add that I believe the records of the Local Government Board would show that it falls to my lot to investigate annually certainly as large a number of cases of diphtheria as any health officer in England.

In the first instance, Dr. Dudfield seems to have confined himself to notified cases of diphtheria, and this may not improbably go some way towards explaining his want of success in tracing sources of infection, as the connecting links have not been notified. In my experience, a larger proportion of cases of diphtheria go unnotified than in connection with any other disease. To take my experience during the present year only, and confining my remarks to four well marked epidemics of diphtheria in different parts of the country and in localities miles apart from each other, in each of these four epidemics the dissemination was most distinctly traceable to personal infection through school agency and mild cases, and only a small proportion of cases were medically attended and notified. I have etiological notes of 135 cases in the four epidemics, and of these 21 only (15 per cent.) were notified as diphtheria. Now had I confined my attention to the notified cases only, I may possibly have arrived at a somewhat similar conclusion to Dr. Dudfield, but it would have nevertheless been most erroneous.

I avoid the use of the word diphtheria as far as practicable, finding it more useful and less liable to cause controversy if I use the term "infectious sore throat;" though as these cases had all been distinctly connected with typical cases of diphtheria, the use of either term would be equally justifiable. In practice I classify together as the same disease all cases which are obviously connected with each other, either as sources or results of infection, and I feel justified in calling them diphtheria when some of the cases have had sufficiently definite symptoms to lead to their being diagnosed as typical diphtheria, and I consider that during such an outbreak the requirements of preventive medicine can only be efficiently met by considering all cases to belong to a prevailing epidemic in which the symptoms are definitely marked, and which are obviously connected with each other, or which have given rise to other cases by infection; or, although having suffered very mildly from the throat affection, have subsequently developed well-marked symptoms of diphtherial paralysis. Only yesterday I investigated a fatal case of diphtheria in a family in which the first child who had introduced the infection had not been in bed an hour or even confined to the house, and it is most remarkable in how many of these mild cases careful subsequent inquiry will bring to light well-marked instances of diphtherial paralysis.

Space will not allow me to discuss the various probable vehicles of infection, nor the interesting question as to whether in diphtheria we may not occasionally see instances in which the whole cycle of evolution of a specific disease seems accomplished in a short series of cases under favourable conditions, though this is certainly not the rule; but from the practical point of view of preventive medicine the two points of most importance are the presence of the infectious germ and the condition of personal susceptibility of the individual, and our duty is to circumvent the infection and to counteract the personal susceptibility. In towns the susceptible condition of the mucous membrane of the throat which is produced by drain emanations is much more readily counteracted than the susceptible condition of throat which is most usually met with in the country, and which is frequently the result of conditions which, though to a large extent controllable, are intimately connected with broad climatic conditions difficult to counteract.

If this communication has not already exceeded its due limit, I should like to repeat a recommendation made by me fifteen years ago: that it would very much assist the prevention of the spread of the disease in question if medical men, instead of using the term "diphtheria"—which is too often held to imply the presence of a "diphthera" or membrane—would return to the old English name for the disease, namely, "contagious cynanche."—I am, etc.,

Shrewsbury, June 20th. W. N. Thursfield, M.D.

THE PREVENTION OF PROLAPSE AFTER INGUINAL COLOTOMY.

Sir,—I venture to think that the best way to prevent prolapse after this operation is to aim at making the opening in the abdominal wall as small as possible, and that nothing more is required.

In the last dozen or so of inguinal colotomies falling to my lot, I have proceeded as follows, and have seen very little tendency to prolapse.

The usual incision in the skin is made for about two inches. Then the fibres of the external oblique are torn apart rather than cut for about 1½ inch. The underlying muscular fibres are similarly dealt with. When all bleeding has ceased the peritoneum is incised, and the bowel drawn out until its mesenteric border is well beyond the skin. Here it is secured to the latter by from 6 to 12 silk sutures, in such a way that it shall not slip back, and the skin wound is sutured so as to embrace it closely. After a few days the loop of gut is cut away flush with the skin. It is then seen that both arms of the tube coming through a small muscular opening are quite parallel and cannot communicate, and being tightly embraced by muscle fibres which have been separated rather than cut. Mr. Mansell Moullin's interesting suggestion to meet the same end is probably of value in so far as it reduces the size of the muscular opening, which is really the most important point. But I have no doubt that the excellent results which have followed most of my latest operations as regards *non*-prolapse of the bowel have been due in a considerable measure to the adoption of Mr. Greig-Smith's suggestion not to draw the parietal peritoneum out over the edges of the opening in the muscles, but to let the serous coats of the bowel come directly into contact with the muscle and skin. This not only saves time, but I believe fixes the bowel more firmly to the abdominal wall as Mr. Greig-Smith's claims.—I am, etc.,

Harley Street, July 11th. Arthur E. Barker.

THE VICTORIA STREET ANTIVIVISECTION SOCIETY AND THE *NINE CIRCLES*.

Sir,—In connection with the controversy relating to the *Nine Circles*, Mr. Victor Horsley, in a letter to the *Echo* of March 21st, made a statement which I regarded as a libel on my wife. I at once commenced proceedings against him independently and solely on my own account; the Victoria Street Society came forward with offer of aid. In common everyday language we "didn't hit it," the Victoria Street Society and I, and eventually I wrote them the following letter:

> I have asked my solicitors to stay the proceedings against Mr. Horsley, and as, without an explanation, the reason for this step would be misinterpreted, I intend to state the cause—namely, that the incidents which have arisen since I took action have made me see the matter in a different light, and that without ceasing to condemn Mr. Horsley's violent terms, I am forced to agree with him that the ways of your Society call for censure.

I sent a copy of this letter with a few lines of explanation to the editor of the *Echo*, but he did not see fit to insert it. Thus, the public aspersion cast upon my wife's reputation was left unanswered. To remedy this I brought an action against the Victoria Street Society in the Westminster County Court with regard to their offer of aid, hoping to secure a ventilation of the facts. The Victoria Street Society, however, beat me there by paying my claim at the last moment, though, technically, I had not a leg to stand upon.

You see, Sir, the fix I am in. I cannot fight Mr. Horsley, and the Victoria Street Society decline a fight. May I therefore beg that these circumstances be borne in mind, and that in any further development of the *Nine Circles* controversy my wife's name may be left out?—I am, etc.,

Cheyne Court, Chelsea, S.W., July 13th. Thomas Rhodes.

PULSUS PARADOXUS IN ACUTE LARYNGITIS.

Sir,—I was astonished on reading Dr. Brockbank's interesting and able article on the above subject to find that a symptom so common in the laryngeal stenosis of children was not

mentioned in our standard English works. During the many years I was resident medical officer to the East London Hospital for Children it was my very frequent and difficult task to decide on the necessity or otherwise of tracheotomy in cases admitted with laryngeal obstruction. During that time we had considerably over 100 cases of tracheotomy, so that my experience in this connection is rather large.

I look upon any marked and progressive diminution in the volume of the pulse, and especially its complete intermission during inspiration, as one of the most important of a group of symptoms indicating the necessity for tracheotomy. I find that this symptom is noted in the large majority of cases on which I have operated.

It occurs in cases which recover without operation, and, as far as my experience goes, this condition of the pulse has no great diagnostic value. As a rule, no doubt the extent to which the pulse disappears during inspiration varies directly with the amount of obstruction to the entrance of air. And, as cases in which the obstruction is most pronounced and sudden are said to be rather favourable for operation, the pulsus paradoxus may have some prognostic value.

Whether pulsus paradoxus is the most convenient and appropriate term to apply to this condition of pulse, and whether Dr. Brockbank's scientific explanation as to the cause of its production is correct, I must leave others to say. To me this symptom has merely indicated an embarrassed heart, and I always thought that the chief difficulty lay in the right side. I find that in three cases I have noted that "the heart stops during inspiration." At this distance of time I cannot say precisely what I meant by this.—I am, etc.,

Lavender Hill, June 28th. J. SCOTT BATTAMS.

NAVAL AND MILITARY MEDICAL SERVICES.

THE NAVY.

THE following appointments have been made at the Admiralty: JOHN A. KEOGH, B.A., M.B., Surgeon, to the *Plover*, July 7th; MICHAEL J. MCCARTHY, M.D., Staff-Surgeon, to Esquimalt Hospital, August 3rd; HUBERT HOLYOAKE, Surgeon, to the *Pembroke*, July 11th.

ARMY MEDICAL STAFF.

SURGEON-MAJOR M. F. MACNAMARA, who is serving in the Madras Command, is appointed to be Civil Surgeon of Shwebo, Burmah, in addition to his military duties, *vice* Surgeon-Lieutenant R. K. Mitter, who has been transferred.

Surgeon-Captain E. D. FARMAR-BRINGHURST, who is serving in the Madras Command, is granted an extension of leave from June 7th to November 6th for the recovery of his health.

Surgeon-Cartain R. E. R. MORSE, who entered the service February 5th, 1881, is promoted to be Surgeon-Major, July 12th. He was in the Egyptian war of 1882 (medal, and Khedive's bronze star), and in the operations on the Soudan frontier in 1889, including the engagements at Arquin and Toski; for this latter campaign he was mentioned in despatches, awarded the 3rd class of the Order of the Medjidie, and received a clasp to his Egyptian medal.

Quartermaster HENRY COPPING retires on retired pay, July 12th. He was appointed Lieutenant of Orderlies, March 15th, 1879; made Quartermaster Medical Staff, July 1st, 1881; and granted the honorary rank of Captain, March 15th, 1889. He served with the Nile Expedition in 1884-85, receiving the Egyptian medal, with clasp, and the Khedive's bronze star.

ARMY MEDICAL RESERVE.

SURGEON-CAPTAIN WALTER HALLAM, having resigned his Volunteer appointment, ceases to be an officer of the Army Medical Reserve of Officers, July 12th.

The Christian names of Surgeon-Lieutenant CRESWELL, whose appointment appeared in the *London Gazette* of May 30th, should have been described as WILLIAM GEORGE.

MILITIA MEDICAL STAFF.

SURGEON-MAJOR THOMAS CARTER, 4th Battalion Princess of Wales's Own Yorkshire Regiment (formerly the North York Militia), is promoted to be Surgeon-Lieutenant Colonel, June 2nd.

INDIAN MEDICAL SERVICE.

BRIGADE-SURGEON-LIEUTENANT-COLONEL A. STEPHEN, M.B., Bengal Establishment, is appointed to officiate as Inspector-General of Civil Hospitals, Punjab.

The services of Surgeon-Captain W. VOST, M.B., Bengal Establishment, Medical Officer of the Mushkaf-Bolan State Railway, are placed temporarily at the disposal of the Government of the North-West Provinces and Oude.

The services of Surgeon-Colonel J. CLEGHORN, M.D., Bengal Establishment, Inspector-General of Civil Hospitals, Punjab, are placed temporarily at the disposal of the Military Department.

Surgeon-Captain C. C. CASSIDY, Bengal Establishment, has passed the examination in Pushtu by the higher standard.

Surgeon-Captain A. J. MACNAB, Bengal Establishment, has passed the examination in the Parvatiya (colloquial) language.

Surgeon-Captains A. L. DUKE, E. H. HORE, G. F. W. EWENS, and B. C. OLDHAM, and Surgeon-Lieutenants T. W. A. FULLERTON and H. A. SMITH, all of the Bengal Establishment, have passed the lower standard examination in Hindustani.

Surgeon-Lieutenant G. Y. C. HUNTER, Bengal Establishment, is appointed to the officiating medical charge of wing of the 13th Bengal Infantry.

Surgeon-Lieutenant W. H. OGILVIE, Bengal Establishment, is appointed to the officiating medical charge of the 24th Bengal Infantry.

Surgeon-Lieutenant B. R. CHATTERTON, Bengal Establishment, is appointed to the officiating medical charge of the Bengal Sappers and Miners, *vice* Surgeon-Captain D. G. Marshall. The appointment of Surgeon-Lieutenant Chatterton to the officiating medical charge of the 24th Bengal Infantry is cancelled.

Surgeon-Captain F. O'KINEALY, Bengal Establishment, Officiating Civil Surgeon of Nuddea, is appointed to act as Resident Surgeon of Eden Hospital.

Surgeon-Captain C. R. M. GREEN, Bengal Establishment, Officiating Resident Surgeon of Eden Hospital, is appointed to act as Resident Surgeon of the Medical College Hospital, Calcutta, and as Health Officer of the Port of Calcutta, during the absence of Dr. W. Forsyth, in addition to his own duties.

Surgeon-Captain D. M. MOIR, Bengal Establishment, Resident Surgeon of the Medical College Hospital, Calcutta, is appointed to act as Second Resident Surgeon of the Presidency General Hospital during the absence of Surgeon-Captain H. W. Pilgrim.

Surgeon-Lieutenant-Colonel H. HYDE, Madras Establishment, is appointed District Surgeon of Trichinopoly.

The services of Surgeon-Captain F. J. DEWES, Madras Establishment, are placed at the disposal of the Government of India, Home Department.

Surgeon-Captain R. J. BAKER, M.D., Bombay Establishment, on return to duty under the Bombay Government, is appointed to act as Civil Surgeon of Shikarpore during the absence of Surgeon-Major A. F. Ferguson, on leave on urgent private affairs.

The services of Surgeon-Colonel G. THOMSON, M.B., Bengal Establishment, Administrative Medical Officer and Sanitary Commissioner of the Central Provinces, are placed at the disposal of the Military Department.

Surgeon-Colonel J. G. ROSS, Bengal Establishment, is appointed to officiate as Administrative Medical Officer and Sanitary Commissioner of the Central Provinces.

Surgeon-Lieutenant C. E. WILLIAMS, appointed to the Bengal Establishment, reported his arrival at Bombay on May 14th.

Surgeon-Lieutenant D. R. GREEN, Bengal Establishment, Officiating Civil Surgeon of Saugor, Central Provinces, is appointed to the executive and medical charge of Saugor Gaol.

Surgeon-Colonel W. H. ROBERTS, M.D., Madras Establishment, is permitted to retire from the service from July 1st. He was appointed Assistant-Surgeon July 23rd, 1858, and Surgeon-Colonel from July 1st, 1888. He was with the Burmese Expedition in 1886-87, was mentioned in despatches, and received the Frontier Medal with clasp.

Surgeon-Colonel C. SIBTHORPE, Madras Establishment, Principal Medical Officer, is transferred from Rangoon to Secunderabad District, July 1st.

Surgeon-Colonel S. B. HUNT, Madras Establishment, Principal Medical Officer, is transferred from Secunderabad to Rangoon District, July 1st.

Surgeon-Lieutenant-Colonel C. W. MACRURY, Bombay Establishment, who entered the service as Assistant-Surgeon April 1st, 1869, is promoted to be Brigade-Surgeon-Lieutenant-Colonel from April 12th, *vice* Brigade-Surgeon-Lieutenant-Colonel W. Gray, retired.

The undermentioned gentlemen have leave of absence as specified:—Surgeon-Major P. de H. HAIG, Bengal Establishment, Medical Officer 1st Punjab Cavalry, for six months to Japan and the East, on private affairs; Surgeon-Major R. MACRAE, Bengal Establishment, for six months, on medical certificate, in extension; Brigade-Surgeon-Lieutenant-Colonel A. STEPHEN, Bengal Establishment, Sanitary Commissioner, Punjab, privilege leave for two months, from May 1st; Surgeon-Lieutenant-Colonel W. R. BROWNE, M.D., Madras Establishment, privilege leave for three months, from July 1st; Surgeon-Major A. F. FERGUSON, M.B., Bombay Establishment, Civil Surgeon of Shikarpore, special leave for six months, on urgent private affairs; Surgeon-Major C. MONKS, Bombay Establishment, Port Surgeon at Aden, for eight months, from June 3rd; Surgeon-Colonel J. G. PILCHER, Bengal Establishment, Inspector-General of Civil Hospitals, Bengal, privilege leave for three months, from June 20th; Brigade-Surgeon-Lieutenant-Colonel A. S. LETHBRIDGE, C.S.I., M.D., Bengal Establishment, privilege leave for two months and twenty-nine days, from July 19th; Surgeon-Captain E. JENNINGS, Bengal Establishment, from April 28th to October 27th, to Ootacamund, Madras, and, if necessary, to Australia, on medical certificate; Surgeon-Lieutenant-Colonel W. E. GRIFFITHS, Bengal Establishment, from May 1st to October 31st, to Cashmere, on medical certificate; Surgeon-Major J. SHEARER, M.B., Bengal Establishment, from May 15th to August 15th, to Dalhousie, on private affairs; Surgeon-Lieutenant-Colonel J. A. LAING, M.D., Madras Establishment, for eighteen months, from August 14th, on private affairs; Surgeon-Major J. C. MARSDEN, Madras Establishment, for six months, on medical certificate.

The services of Surgeon-Captain F. J. DEWES, Madras Establishment, are placed temporarily at the disposal of the Chief Commissioner of Burmah.

Surgeon-Lieutenant C. B. PRALL is appointed to the officiating medical charge of the 36th Bengal Infantry, *vice* Surgeon-Captain F. C. Clarkson.

Surgeon-Lieutenant T. A. C. LANGSTON, Bengal Establishment, is appointed to the officiating medical charge of the 5th Punjab Cavalry, *vice* Surgeon-Major C. B. Hunter.

Surgeon-Captain W. VOST, M.B., Bengal Establishment, is appointed a Supernumerary Civil Surgeon of the 2nd Class, and is posted to the civil medical charge of the Bahraich District.

Surgeon-Major W. P. CARSON, M.B., Bombay Establishment, is appointed to act as Port Surgeon at Aden during the absence of Surgeon-Major C. Monks.

Surgeon-Lieutenant R. H. ELLIOT, Madras Establishment, is appointed to the officiating medical charge of the 16th Madras Infantry.

Surgeon-Lieutenant-Colonel G. G. MACLAREN, M.D., Bengal Establishment, is promoted to be Brigade-Surgeon-Lieutenant-Colonel from May 1st; he is also permitted to retire from the service from June 27th. He was appointed Assistant Surgeon April 1st, 1868.

The services of Brigade-Surgeon-Lieutenant-Colonel G. C. Ross, Bengal Establishment, Civil Surgeon of Rawul Pindi, are placed at the disposal of the Government of India, Home Department, for employment as officiating Administrative Medical Officer and Sanitary Commissioner, Central Provinces.

Surgeon-Captain J. M. CRAWFORD, M.B., Bengal Establishment, whose services have been placed at the disposal of the Government of the North West Provinces and Oude, is appointed a supernumerary Civil Surgeon, Second Class, and is posted to the charge of the Azimghur District.

Surgeon-Major C. C. VAID, Bengal Establishment, is transferred from Azimghur to Bara Bantei.

Surgeon-Captain D. SIMPSON, M.B., Madras Establishment, Second Surgeon Madras General Hospital, is appointed to act as Resident Surgeon Madras General Hospital, and as Professor of Pathology and acting Professor of Pharmacy and Materia Medica, without prejudice to his own duties.

Surgeon-Major J. MAITLAND, M.D., Madras Establishment, is permitted, at his own request, to resign his appointment as Honorary Surgeon Nilgiri Volunteer Rifles.

Surgeon-Captain H. J. YOUNGER, Bombay Establishment, has been appointed to the medical charge of Baroda Residency, in addition to his duties as acting medical officer of the 1st Bombay Infantry.

Surgeon-Major P. J. DAMANIA, Bombay Establishment, has been granted an extension of his leave for two months on private affairs.

Surgeon-Major P. W. DALZELL, Bengal Establishment, officiating Inspector-General of Gaols, Burmah, is granted privilege leave for three months and fifteen days.

Surgeon-Captain W. L. PRICE, Bengal Establishment, is granted privilege leave for three weeks in extension.

The *London Gazette* of Tuesday last contains the announcement of the appointment of Deputy-Surgeon-General SAMUEL BOWEN PARTRIDGE, retired, Medical Department, Bengal, to be a Companion of the Most Eminent Order of the Indian Empire.

THE VOLUNTEERS.

SURGEON-CAPTAIN W. A. E. HAY, 1st Volunteer Battalion the Dorsetshire Regiment (late the 1st Dorsetshire), is promoted to be Surgeon-Major, July 8th.

CHANGES OF STATION.

THE following changes of station among the officers of the Medical Staff of the Army have been officially notified as having taken place during the past month.

		From	To
Surg.-Colonel	A. C. Gaye	Kussowlie	Bangalore.
,,	T. Maunsell		Rawul Pindee.
,,	R. P. Ferguson	Allahabad	Umballa.
Brig.-Sg.-Lt.-Col.	J. W. Maxham, M.D.	—	Gosport.
Surg.-Lt.-Col.	M. M. Gallwey, M.D.	Woolwich	Bombay.
,,	J. Riddick	—	Bengal.
,,	R. D. Bennett	Cirencester	Devonport.
,,	J. G. Williamson	Gosport	Dover.
Surg.-Major	J. F. Brodie, M.D.	Madras	Bombay.
,,	A. A. Lyle	York	Strensall Camp.
,,	E. H. Myles, M.B.	—	Bombay.
,,	R. H. Forman, M.B.	—	Madras.
,,	J. M'M. Bolster	—	Bengal.
,,	W. J. Macnamara, M.D.	Hilsea	Portsmouth.
,,	R. W. E. H. Nicholson	—	Bengal.
,,	C. J. Addison	—	Bombay.
Surg.-Capt.	A. M. Davies	—	Bengal.
,,	E. M. Wilson	Beaumaris	Chester.
,,	W. G. Birrell	—	Madras.
,,	C. E. Nichol, M.B.	—	Bengal.
,,	R. Kirkpatrick, M.B.	—	Bombay.
,,	E. V. A. Phipps	—	Bengal.
,,	A. Baird, M.B.	—	,,
,,	G. Nelis	—	Bombay.
,,	A. E. Tate	—	Bengal.
,,	T. B. Winter	—	,,
,,	H. P. Birch	—	,,
,,	L. E. Anderson	—	,,
,,	S. F. Freyer, M.D.	—	,,
,,	R. S. F. Henderson, M.B.	—	Bombay.
,,	J. D. Moir, M.B.	—	Chatham.
,,	R. Caldwell	Dublin	Galway.
,,	A. De C. Scanlan	—	Bengal.
,,	H. D. James	—	Madras.
,,	W. T. Swan, M.B.	—	Bengal.
,,	W. H. Bean	—	Madras.
,,	N. C. Ferguson, M.B.	Dublin	Longford.
,,	M. L. Hearn	Madras	Netley.
,,	J. H. Greenway	Dublin	Dover.
,,	R. G. Hanley, M.B.	—	Bengal.
,,	P. C. H. Gordon	—	,,
,,	J. H. Brannigan	—	Madras.
,,	P. B. Skerrett	Castlebar	Dublin.
,,	T. Daly	—	Madras.
,,	M. J. Sexton, M.D.	Dublin	Sligo.
,,	H. T. Baylor	Cork	Limerick.
,,	L. P. Mumby, M.B.	—	Bengal.
,,	F. A. Saw, M.B.	Chester	Blackpool.
,,	T. G. Lavie	Chester	Manchester.
,,	H. H. Brown, M.B.	Hamilton	Lanark Muir.
,,	R. J. D. Hall	Colchester	Landguard Fort.
,,	J. J. C. Watson, M.D.	—	Bengal.
,,	H. T. Knaggs	Dublin	Bombay.
Surg.-Capt.	W. Dowman	Bengal	Dublin.
,,	W. C. Poole, M.B.	—	Bengal.
,,	J. D. Ferguson	St. Lucia	Barbadoes.
,,	T. B. Beach	—	Bengal.
,,	E. E. Powell	Woolwich	,,
,,	F. J. W. Porter	—	,,
,,	C. E. G. Stalkartt, M.D.	—	Bombay.
,,	T. W. Gibbard, M.B.	—	Madras.
,,	C. H. Burtchaell, M.B.	Portsmouth	Bengal.
,,	H. J. M. Buist, M.B.	—	,,
,,	F. J. Wade-Brown	—	Bombay.
,,	W. E. Hardy	—	Bengal.
,,	J. E. Brogden	—	,,
,,	G. W. Tate, M.B.	—	,,
,,	N. Faichnie, M.B.	—	Bombay.
,,	T. J. Lenehan, M.B.	—	Bengal.
,,	F. M'Dowell	—	,,
,,	F. W. Begbie	—	,,
,,	J. L. E. Austin	—	Madras.
,,	J. J. Gerrard, M.B.	—	Bengal.
,,	J. C. Jameson, M.B.	—	,,
Surg.-Lieut.	J. Hennessy, M.B.	Thames District	Gravesend.
,,	C. B. Martin, M.B.	Alnwick	York.
,,	G. S. Crawford	Aldershot	Madras.
,,	J. D. Alexander, M.B.	Dover	Bengal.
,,	J. G. M'Naught, M.B.	Curragh	Newbridge.
,,	H. S. Thurston	Gosport	Portsdown Hill.
,,	G. S. Walker, M.B.	Cork	Wexford.
,,	G. A. Moore, M.B.	Fermoy	Kilkenny.
,,	N. Marder	Templemore	Cork.
,,	G. S. Mansfield, M.B.	Colchester	Worley.
,,	C. E. Pollock	Portsmouth	Gosport.
,,	W. J. Taylor, M.B.	Dover	Brighton.
,,	B. W. Longhurst	Winchester	Portsmouth.
Quartrmstr.	D. O'Connor	Curragh	,,
,,	G. J. Lane	Portsmouth	Netley.
,,	C. Bere	Natal	Curragh.

MEDICAL SERVICE IN INDIA.

AN Indian medical officer sends us some of his late experiences, which are anything but hopeful. He considers it absolute cruelty to compel officers of the medical staff to serve in India for six years at a stretch, having regard to the very heavy, continuous, and trying nature of their duties. In the matter of leave, he says, it has been suggested that the civil surgeons of stations and the medical staff should mutually assist and accommodate each other. Much as they would like to do so, the six years' tour operates against it, as is illustrated by the following instance: In 1890 he, as a civil surgeon, wanted privileged leave, and although there were three officers of the medical staff in the station, and his *locum tenens* would have drawn upwards of Rs. 200 a month extra pay, they all declined, on the score of inability, to undertake more duty in their then debilitated state of health. That this was no fiction was shown by the fact that one soon died, another was invalided to the hills on six months' leave, and the third was prostrated by overwork and the death of his wife. In 1892 an officer of the medical staff in the same station was invalided home, but no one was sent to succeed him, and the whole work fell on a junior, and he presently succumbed to fever; and although recommended by the civil surgeon to be sent to the hills, the Principal Medical Officer and General Officer Commanding could not do it, because thirteen out of the twenty-six medical staff officers in the district—and that a favourite and healthy one—were already on the sick list or on sick leave. The poor fever-stricken fellow had, therefore, simply to languish in his bed, signing papers, while the civil surgeon did his work.

The Indian Medical Service are supposed to save and adapt themselves to the climate by furlough. The writer, with many years' service, had never been able to get any leave except on medical certificate, and he actually dropped at his work. He and many others look forward to £500 a-year pension, which is far preferable to Rs. 1,000 a month in India, with the present depreciated rupee. India is becoming not good enough for Europeans. Eurasians and domiciled Anglo-Indians are being medically educated in India so cheaply that Europeans cannot compete with them, more especially under a five years' curriculum of study at home.

THE RANK AND TITLES QUESTION.

A CORRESPONDENT expresses his sense of the general obligation due to us for advocacy of medical officers' rights. He says the present social and military "evolution" of these rights involves much pain and discomfort to those serving. The slights, social and official, inflicted on medical officers have their origin, he fears, in high quarters. Increased discourtesy on the part of combatant officers has been observed since the recent discussion on the Estimates. He thinks such is all with a view to bring back the regimental system. The outside public, he thinks, are mostly on our side, while the majority of army officers seem against us. Rank, of course, means power, and unless we have the former we cannot wield the latter, as will be disastrously seen in the medical conduct of the next campaign.

ANOTHER CORRESPONDENT, writing from India, would attach great importance to the interpolation of the word "and" between the professional and military title, as "Surgeon *and* Lieutenant." He trusts there will be no delay in constituting a corps with titles as above.

FAIR PLAY writes: Mr. Campbell-Bannerman spoke the honest truth when he stated, with reference to the proposed simplification of medical titles, that "a comparison with other branches of the service might often be misleading." But this is the crux of the whole business, because people continually living together will make comparisons, and the recent change only increased the mode of odious comparison, as every medical officer knows to his cost.

ANOTHER EVOLUTIONIST writes: I cordially agree in deprecating hastening reforms too quickly, more especially concerning military titles. We have public opinion and sympathy with us, and these might be

jeopardised by too hasty demands. The ardour of some has to be restrained.

*** We have much belief in and general sympathy with gradual but steady evolution. But that does not mean relaxation of effort, or "pegging away," as General Grant defined persistency. Meanwhile, however, we cannot be deaf to the cry of another correspondent that the process involves much pain and discomfort, as we can well suppose, to those now serving. It is the nature of evolution, which means struggle with environment, to involve present suffering; but there is no help except to grin and bear in the hope of better things.

MILITARY TITLES: SOME PLAIN SPEAKING.

A Military Dr. writes: "Long Suffering" avers in your issue of May 27th that the new titles are never used. He is quite wrong. They are frequently used, both with and without the qualifying "Surgeon," as the enclosed specimens of letters prove. No doubt one is occasionally "miscalled," as the Scots say, but as a rule this is either from harmless chaff or ignorance. Personally I answer to whatever name is given to me, without suspecting insult when mistakes are made; and I think when we have so many real grievances it is a pity to waste time over one that is to a great extent imaginary. An English medical journal is sent to me regularly addressed to "Brigade Square;" my ticket at a recent Association meeting was addressed to "Sergeant-Major." This proves the ignorance of the clerks, but does not touch my dignity; and instead of saying with Antient Pistol and "Long Suffering" "All hell shall stir for this," I was rather amused than otherwise. We cannot claim to be called captains, majors, and colonels *tout court*, but as a matter of convenience these titles are already being used, and will be more extensively used as people become accustomed to their strangeness as applied to doctors; but those who get them last are the men who clamour for them the loudest.

*** Our correspondent sends us four letters received the same day from military officers and ladies, all addressing him by his military title, without the qualifying "Surgeon."

THE DEPUTATIONS.

Virtus in Arduis writes: The marked courtesy awarded to the deputations by the Ministers bodes well for the advance of reforms. That of a consolidated corps with simple military titles would remove most of the disabilities complained of, whether of a military or social kind. It is the absence of defined rank and title which so much tells against medical officers. On many public occasions when military are present the medical services are never enumerated, they are deliberately ignored. And this social ostracism is carried into official life; let the position assigned to the principal medical officer with an army in the field witness.

SICK LEAVE.

Bengal writes: A recent correspondent of yours states: "Invaliding for one year counts as tour of Indian service, with all expenses paid." Allow me to correct him. A medical officer in this station was lately invalided for six months for disease induced by tropical service, which was extended at home for another six months. On return to India he was informed the extension beyond the first six months must be made good in India.

The injustice of this ruling is apparent in the fact that his comrades did his duty during his absence, and no relief expense to Government resulted.

PATRONAGE IN INDIA.

A correspondent complains of the way patronage is carried out by the heads of the medical department in India. He gives instances, which of course we cannot quote, where juniors are placed in civil appointments over seniors. We are afraid we cannot help our correspondent. Patronage, we would remind him, is something like kissing—goes by favour: it will always go hand-in-hand with what may be called favouritism. But, so long as the public service does not suffer, rules are not violated, and personal injustice done to individuals, the power of selection cannot well be denied to heads of departments in India and elsewhere.

THE INCOME TAX ON PENSIONS.

R. A.—Under the Act 5 and 6 Vict., cap. 35 (Schedule E), income tax is payable on pensions, and where such pensions are payable at any public office or by any of Her Majesty's receivers or paymasters, or by any agent in that behalf, the income tax is to be stopped out of the pension. Where the pension exceeds £400 per annum no abatement can be claimed. The amount deducted from the pension and depôt income referred to by our correspondent appears to be correct. Where any premium on a life policy is payable by the receiver of a pension, a return, or abatement, of income tax can be claimed on the amount of such premium.

MILITIA MESSES.

A Militia Surgeon Pure and Simple writes: If the medical officer attached for training to a militia regiment had received the allowances peculiar to militia regiments, he might have been called upon to pay subscriptions towards the maintenance of the mess and band. He escaped all this. My subscriptions amounted to fourteen days' pay this year.

VOLUNTEER MEDICAL ASSOCIATION.

The competition for the Challenge Shield of this Association will take place at Wellington Barracks (Headquarter Battalion Parade Ground) this day (Saturday, July 15th) at 5.30 P.M.

EDUCATION OF M.P.'S.

A correspondent suggests that the late debate on the Medical Vote showed that many honourable members were in need of education touching the grievances of medical officers. It should be impressed on them that military rank is needed simply to enable medical officers to do their duty. Especially is this needed in sanitary work. Medical officers are at present sometimes afraid to make sanitary recommendations, dreading the consequences. Mr. Hanbury confused our position with naval medical officers, who he said did not want rank; the naval and military medical services are in no way comparable; the former live on board ship, and are not weighted with executive duty, as the army medical officers necessarily are. Copies of papers sent to the War Minister on the rank question and other grievances should also be sent to members of Parliament.

*** Members who take any interest in these matters usually have ample opportunities, directly or indirectly, of studying the literature of the army medical controversy. It is their own fault if they display ignorance afterwards. We fear it is less ignorance than prejudice that has to be overcome.

MEDICO-LEGAL AND MEDICO-ETHICAL.

QUEEN'S BENCH DIVISION.—July 6th, 1893.

(Before Mr. Justice Collins and Mr. Justice Kennedy.)

Keeley *v.* Wakley.

This was an appeal by the defendants from an order of Mr. Justice Mathew at Chambers allowing a commission to proceed to America to take the evidence of the plaintiff. Sir E. Clarke, Q.C., and Mr. Lewis Coward appeared for the defendants in support of the appeal, while Mr. Finlay, Q.C., and Mr. G. White opposed it on behalf of the plaintiff. Sir E. Clarke, in support of the appeal, said this was an action brought by the plaintiff, who described himself as a doctor of medicine and a surgeon, against the proprietors and publisher of the *Lancet*, to recover damages for an alleged libel. The plaintiff was the discoverer of "Keeley's double chloride of gold cure"—a preparation for the treatment and cure of persons suffering from inebriety and opium eating—and he complained of an alleged libel contained in the report of a meeting of the Society for the Study and Cure of Inebriety, at which Dr. Norman Kerr and others were present. The defendants pleaded that the alleged libel was a fair and accurate report of the proceedings of the quarterly meeting of the Society. He (the learned counsel) submitted that the defendants were entitled to cross-examine the plaintiff at the trial, and that the order for a commission ought to be discharged. Mr. Finlay, in opposing the appeal, said the defendants refused to admit that the plaintiff was a medical man practising his profession in America at the time the libel was published, and therefore it was necessary for the plaintiff to take out a summons for a commission to America. When the case came before the Court on the last occasion it was adjourned in order that the plaintiff's diploma might be produced. This diploma was now in Court, but his learned friend insisted upon bringing the plaintiff over to this country. He (the learned counsel) submitted the questions affecting the plaintiff's professional qualifications and standing could be better investigated in America than in this country. Sir E. Clarke, in answer to Mr. Justice Kennedy, said if the plaintiff was produced at the trial his clients would not insist upon the technical verification of documents. Mr. Justice Collins asked Mr. Finlay if he would undertake to produce the plaintiff at the trial. Mr. Finlay said he could give no such undertaking. Their lordships allowed the appeal, and set aside the order for a commission.

SUICIDAL STRANGULATION.

An inquest was recently held at Hastings on the body of a middle-aged female who, as the evidence conclusively showed, had committed suicide by strangulation—a most unusual method. The deceased was a servant, and was found in the morning in the nursery, two doors locked on the inside having to be forced open before the body was discovered. The deceased was found lying on the floor close to the fireplace, face downwards, with her hands beneath her. There was blood oozing from her mouth, and she was quite dead. List was bound round her throat, and tape was over the list. There were two yards of list then three yards of tape, not tied at all, simply wound evenly round the throat below the cricoid, layer upon layer. The tip of the tongue was protruding from the mouth. Deceased had only her nightdress on, and the windows were shut and fastened on the inside of both rooms. There was a blanket by the side of her on the floor. It appeared to have been wrapped round the lower part of her body.

Mr. Charles Arthur Coventon, a surgeon, deposed that on Friday, about half-past one, he was called to 48, Pevensey Road, and found the body in the position above described. He could discover no signs of a struggle. Deceased had been dead some hours, and was quite stiff and cold. He could see no marks of violence as distinct from the marks of strangulation. He thought it improbable that anyone could have strangled her with the list without some struggle. He made a *post-mortem* examination, and could find nothing conducive to death with the exception of strangulation. His opinion was that death was caused through strangulation, and judging from all the surroundings it had been self-inflicted, although it must have required an immense amount of resolution to accomplish it. He expected that the blood on the pillow of the bed in her bedroom came from the nose, and was similar to that in the nursery. She was a very strong woman, and could have resisted any assault. He thought possibly she commenced strangling herself in her bedroom, and after bleeding, had proceeded to the nursery, where she had effected her object. There was reason to think that deceased may have been the victim of religious mania.

CHANGING THE "DOCTOR."

EXCEPTION having been taken by "B." to "A.'s" statement of the case related in the BRITISH MEDICAL JOURNAL of July 1st, p. 43, under the above heading, we give insertion to the former's (B.'s) version of the facts without comment, as the ethical principle involved therein remains unaffected.

B. is unable to accept A.'s account as conveying a fairly accurate version of the facts, owing to two important omissions: (1) That B., at the time he was called to the house, did not know that A. was in attendance; that he found the patient in such a state of excitement concerning what he supposed was a wrong done him by A. that argument or the suggestion of a consultation would have been futile. The patient flatly refused to have anything more to do with A., and expressed a hope that he should never see A.'s face again—a wish which has since been met with the rejoinder from A. that he hoped so, too, and did not care a "brass farthing," shaking his gloves as he spoke in the patient's face! (2) A. and B. are both surgeons to a club which covers a considerable district; they live some one and a-half hour's drive from one another, and the members have a right to choose their own doctor, this usually resolving itself into a question of distance—except in the case of the village in which C. resides, which is midway between the two. B. thinks it may be worth while to state that the case was one of influenza, which A. had declared fit for work in spite of the man's declarations to the contrary, and which was followed within the next two or three days by subacute rheumatism, with effusion into some of the joints; and further, that the rules of the club necessitate a certificate from one of the surgeons of the club to enable a member to continue on its funds.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF EDINBURGH.

FINAL EXAMINATIONS FOR THE DEGREES OF M.B. AND C.M.—Of some 320 candidates who presented themselves, the following have passed the Final Examination, and will on August 1st be formally admitted to the degrees:

W. Anderson, W. C. Anderson, M.A., G. J. Auburn, R. Ballantyne, J. T. Balmford, H. P. Barlow, W. D. Barrow, D. H. Beegling, B.A., *W. B. Bell, H. P. Bennett, W. T. Blackledge, J. Blyth, M. R. Bow, A. S. Boyd, C. W. Brand, A. H. Buchan, M.A., J. M. Buist, J. C. Caldwell, A. W. C. Cameron, P. Campbell, F. Cargill, H. W. Case, *J. G. Cattanach, W. Catto, M.A., W. R. Center, J. E. A. Chatelier, C. Christy, J. Clark, T. A. Cliach, G. A. Cohen, G. P. Coldstream, D. M. Conacher, R. A. G. Constantian, J. N. Craig, G. P. Crarar, C. Crerar, D. B. Crerar, D. R. Crow, N. C. Das, A. Denison, G. R. Denton, C. B. Dobell, J. K. Drysdale, J. B. Duff, R. C. Dun, J. D. Duncan, R. W. Duncan, T. Dunlap, J. C. Dunn, G. H. Dubont, A. M. Easterbrook, E. C. Edwards, S. Evans, D. M. Ferguson, J. L. Ferris, P. D. Fick, D. Findlay, A. M. Fleming, W. E. Foggie, M.A., A. W. Forrest, A. Foster, *W. E. Fothergill, M.A., B.Sc., J. A. Foulis, D. P. Foulkes, R. A. Fox, A. M. Fraser, J. G. Fraser, A. Gardner, H. B. Gladstone, J. H. Glover, S. D. Graham, J. T. Grant, H. Grey, A. Gwyther, W. T. Hall, W. C. Hamilton, R. Hanton, C. Hardcastle, F. P. Hearder, T. B. Hearder, G. Hodges, C. A. Hogg, R. Hoggan, C. W. Holme, J. Hume, G. P. Humphrey, *R. Hutchison, J. W. Hyslop, E. W. J. Ireland, R. C. Jameson, T. J. Jehu, R. Kenyon, C. Kerr, C. T. C. Kingdon, J. Kippie, W. C. C. Kirkwood, L. F. E. B. Knuthsen, F. W. Langton, B.A., J. A. Lee, E. S. Lewer, G. O. M. Lunt, G. A. Macdonald, H. M'Donald, A. W. J. M'Fadden, G. MacGibbon, J. A. Mackenzie, A. Macintosh, J. D. P. M'Lutchie, J. D. Maclean, J. D. M'Millan, J. G. M'Naughton, R. H. Makgill, J. Marsh, R. B. Martin, A. C. Matchett, R. M. Matheson, J. C. Maxwell, M.A., W. Millar, T. B. Moore, B.A., J. M. Morris, M.A., C. G. Murray, D. Murray, D. G. Newton, J. D. Noble, L. S. Norman, G. W. Park, C. H. Papman, *J. V. Paterson, M.A., F. R. Patterson, J. Pearse, J. Penny, G. Phillips, J. C. Potter, R. H. Price, G. L. H. Pringle, S. W. Prowse, B.A., E. B. Purdon, G. M. Rae, M. B. Rae, J. Reiach, R. Rendall, A. Robertson, W. Robertson, E. Robinson, L. N. Robinson, F. W. H. Robson, J. E. Rogers, R. Rosie, W. A. Rutherford, S. M. J. Saliba, C. E. Salt, M. Sandeman, M.A., H. Schmitz, T. G. Scott, H. Scott, W. E. Scott-Moncrieff, W. M'D. Selby, J. P. Silver, B.A., A. H. H. Sinclair, A. A. Scot-Skirving, G. Smith, M.A., T. Smith, J. Sorley, M.A., St. J. Stanwell, A. P. Steavenson, J. Steed, J. W. Stenhouse, C. P. Stewart, D. W. Sutherland, J. M. Sutter, J. Tennant, M.A., G. St. C. Thom, D. Thomas, M.A., E. S. Towert, W. B. Turnbull, H. W. Vaughan-Williams, H. Walker, M.A., J. G. Walker, H. S. Walsh, E. E. Waters, F. H. Watling, R. H. Watson, M.A., T. Watson, W. T. Wearing, D. A. Welsh, M.A., B.Sc., T. R. Williams, T. Yeates, J. B. Yeoman, and Y. M. Yorab.

* Those names marked with an asterisk have passed "with distinction."

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.

THE following gentlemen passed the Second Examination of the Board at a meeting of the Examiners on Wednesday, July 5th:

Anatomy and Physiology.—F. R. Orella, student of Cooper Medical College, San Francisco; F. M. Seal, H. A. Günther, and J. Shardlow, University College, London; C. Bramwell and H. Dingle, King's College; H. W. Silver and W. Wallis, Charing Cross Hospital; P. A. Palmer, St. Bartholomew's Hospital; R. A. Cooper, St. George's Hospital; H. E. Haymes and J. T. Vulliamy, St. Thomas's Hospital; F. H. Hardy, T. W. Stanton, and W. W. Farnfield, Guy's Hospital; C. W. Seccombe and E. G. Grove, St. Mary's Hospital.

Anatomy only.—C. G. Moffitt, University College, London; R. G. Knox, King's College; A. Woollcombe; A. E. Hodgkins and P. W. James, St. Bartholomew's Hospital.

Physiology only.—G. E. Gardiner and H. Clarke, St. Bartholomew's Hospital; F. Golding-Bird, Guy's Hospital; H. O. B. Browne-Mason, St. Mary's Hospital; W. D. Perry, Middlesex Hospital.

Three gentlemen were referred in Anatomy only, six in Physiology only, and eleven in both subjects.

Thursday, July 6th:

Anatomy and Physiology.—N. S. Bickford, Charing Cross Hospital; H. Cardin, P. G. Temple, and W. R. Davies, Guy's Hospital; A. Tenison, F. A. St. John, and F. J. Pearson, St. Mary's Hospital; W. H. Thorman, Cambridge University and St. Thomas's Hospital; H. M. Cooper, St. George's Hospital; J. V. Worthington, London Hospital; J. A. P. Barnes and S. L. Box, St. Bartholomew's Hospital; E. G. D. Pino, University College; G. P. Ambrose, Westminster Hospital.

Anatomy only.—J. A. Alston, University College; F. E. Mead, Yorkshire College, Leeds, and St. Bartholomew's Hospital; and E. L. Ward, Middlesex Hospital.

Physiology only.—F. H. Nimmo and H. G. Berry, St. Bartholomew's Hospital; G. J. Hynes and J. G. Wallis, London Hospital; and W. H. Pearse, Middlesex Hospital.

Three gentlemen were referred in Anatomy only, 3 in Physiology only, and 15 in both subjects.

Friday, July 7th:

Anatomy and Physiology.—H. W. Evans, London Hospital; H. E. Irzart, F. W. Ta Bois, A. Earnshaw, and C. E. S. Watson, Guy's Hospital; J. H. Murray and A. C. J. H. Hackney, University College; F. Bennetts, St. Mary's Hospital; J. H. Jones and A. J. Ridett, Middlesex Hospital; D. G. Kennard, Westminster Hospital; D. H. F. Cowin and R. S. C. Edleston, St. Bartholomew's Hospital; C. J. W. Grendrod, St. George's Hospital.

Anatomy only.—P. M. Brittain, St. Bartholomew's Hospital; A. J. Wernet, B. Instone, and C. H. Murray, Guy's Hospital; J. W. Fordham, London Hospital; N. H. Austin and E. W. Herrington, St. Mary's Hospital.

Physiology only.—W. L. Hughes, R. Hedden, and E. S. Hall, Guy's Hospital; F. A. H. Clarke and E. J. Deck, St. Bartholomew's Hospital; P. Wykesmith and C. A. Ljunggen, St. George's Hospital; and E. E. Lloyd, St. Mary's Hospital.

Five gentlemen were referred in Anatomy only, 7 in Physiology only, and 8 in both subjects.

Monday, July 10th:

Anatomy and Physiology.—T. O'N. Roe, University College; T. C. Last, St. George's Hospital; C. Farrant, Westminster Hospital; H. Weeks, J. H. Tomlinson, E. G. Simmons, N. E. Grosvenor, and E. Lloyd, St. Bartholomew's Hospital; E. L. N. Hopkins, Middlesex Hospital; H. Alexander and T. Davies, Guy's Hospital; M. M. Bernstein, Imperial University of Moscow; W. A. Montgomery, St. Thomas's Hospital; J. B. Reid, Trinity College, Toronto.

Anatomy only.—A. H. Finch and E. A. Prebble, Guy's Hospital; E. A. Weber and H. J. Godwin, St. Bartholomew's Hospital; W. B. Price, St. Thomas's Hospital and Mr. Cooke's School of Anatomy and Physiology; and J. H. Fergusson, St. George's Hospital.

Physiology only.—E. Millais and G. H. Alcock, St. Thomas's Hospital; H. E. Goulden and W. J. A. Kirby, Middlesex Hospital; T. J. A. Tulk-Hart and W. F. Reckitt, Guy's Hospital; S. V. H. Underhill, St. George's Hospital; W. W. Walker, St. Mary's Hospital; and H. Jackson, Yorkshire College, Leeds, and St. Mary's Hospital.

Eight gentlemen were referred in Anatomy only, 7 in Physiology only, and 9 in both subjects.

ROYAL COLLEGE OF SURGEONS.

AT the quarterly meeting of the Council of the College, Mr. Leonard Parker Gamgee, L.R.C.P.Lond., of Mason College and General Hospital, Birmingham, having previously passed the necessary examinations and having now attained the legal age of 25 years, was admitted a Fellow.

SOCIETY OF APOTHECARIES OF LONDON.

PRIMARY EXAMINATION, PART I. July, 1893.—The following candidates passed in:

Chemistry, Materia Medica, Botany, and Pharmacy.—M. Fenoulhet, Zurich; M. Paine, Royal Free Hospital.

Biology.—F. M. Cooper, Royal Free Hospital; M. Joyce, Royal Free Hospital; M. Paine, Royal Free Hospital.

Chemistry.—A. T. Griffiths; M. Joyce, Royal Free Hospital.

Materia Medica, Botany, and Pharmacy.—D. Hamilton, Royal Free Hospital; E. H. Kenny, Manchester.

Pharmacy.—M. H. Cruikshank, Royal Free Hospital.

PRIMARY EXAMINATION, PART II. July, 1893.—The following candidates passed in:

Anatomy and Physiology.—C. Adams, Royal Free Hospital; E. G. Adams, Royal Free Hospital; E. C. D. Bascombe, Middlesex; H. L. Billett, Royal Free Hospital; F. Butcher, Royal Free Hospital; E. L. Colebrook, Royal Free Hospital; M. H. Cruikshank, Royal Free Hospital; H. S. Desprez, Guy's Hospital; D. Hamilton, Royal Free Hospital; M. H. Harris, Royal Free Hospital; M. K. S. Holst, Royal Free Hospital; J. G. Horwood, Royal Free Hospital; C. E. Long, Royal Free Hospital; E. Millais, St. Thomas's Hospital; J. T. Newton, Birmingham; V. A. Settle, Middlesex Hospital; J. K. H. Smyth, St. Mary's Hospital; M. M. Townsend, King's College; C. S. Vines, Royal Free Hospital; Von Himpe, Royal Free Hospital; C. H. Williams, St. Bartholomew's.

Anatomy.—A. M. Browne, Royal Free Hospital; A. N. Clemenger, St. George's Hospital; M. S. S. Coghill, Royal Free Hospital; J. W. A. Cooper, King's College; H. G. C. Dring, St. Bartholomew's Hospital; C. G. Etches, Leeds; F. H. Fawcett, London Hospital; H. E. Forty, Middlesex Hospital; E. M. Gough, Royal Free Hospital; F. C. Gould, Birmingham; E. J. Gruchy, London Hospital; A. J. Hayes, Middlesex Hospital; G. P. Y. Hulbert, Birmingham; J. Jacob, King's College; C. A. K. Renshaw, Cambridge University, and Manchester; R. P. H. Whitmarsh, St. Thomas's Hospital; T. H. Wilkins, Charing Cross Hospital.

Physiology.—C. C. Bulmore, University College; P. J. Curtis, Guy's Hospital; C. A. S. Fitter, Royal Free Hospital; W. J. Henson, Guy's Hospital; H. Jackson, St. Mary's Hospital; E. J. Macgowan, Royal Free Hospital; J. C. McWalter, Dublin.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Tuesday, July 4th.

The Instruction of Army Surgeons in Field Exercises.—Mr. A. C. MORTON asked the Secretary of State for War whether representations had been made to him on the part of the army surgeons as to the sufficiency of their powers to properly carry out their duties to the sick and wounded in the field and that they did not receive the assistance and protection of the authorities in time of peace in properly carrying out their sanitary duties towards the rank and file of the army; what training did army surgeons and their corps receive in time of peace to enable them to efficiently carry out their duties on the field of battle?—Mr. CAMPBELL-BANNERMAN: No representations such as are referred to in the first paragraph of the hon. member's question have been received from army medical officers. There are two courses of instruction for medical officers on joining the service: (*a*) At Netley, in hospital organisation and routine for peace and war, and the study for special tropical diseases, military surgery, and hygiene. (*b*) At Aldershot, in military duties, medical staff corps and ambulance work generally, such as they would have to perform on the battlefield. They are instructed in the practical duties of bearer company and field hospital work, and for this purpose the equipment of the field hospital and the bearer company is kept at the Medical Staff Corps Depot, Aldershot. As I stated a few days ago, it was intended that one additional opportunity shall be afforded for special training in field duties.

Thursday, July 6th.

Tests for Colour Blindness.—Dr. MACGREGOR asked the President of the Board of Trade whether his attention had been drawn to a report presented to the Board last summer by the Council of the Royal Society on the best methods of testing for colour blindness among railway servants and mariners; whether he had also seen a report, which was sent to the Board in June, 1892, by the Council of the British Medical Association, showing the inefficiency of the methods of sight testing employed on most of the railways of the United Kingdom; and whether the Board had taken, or was about to take, any steps to secure a more efficient control of the eyesight of such seamen and railway-men as were responsible for the safe conduct of traffic.—The PRESIDENT OF THE BOARD OF TRADE said that the attention of the Board of Trade had been called to the reports referred to in paragraphs 1 and 2, and the matter was receiving attention. With regard to seamen, steps were being taken for a revised system of colour tests; and as regards railway servants, a circular letter on the subject had been addressed to all the railway companies, and as soon as the correspondence was complete the Board would consider whether it could be usefully laid before Parliament.

Monday, July 10th.

Vaccination and Tuberculosis.—Mr. HORWOOD asked the President of the Local Government Board whether the department supplied calf lymph for vaccination purposes, whether it could guarantee the public against the inoculation of tuberculosis from that source, and whether tuberculosis had been communicated to animals by vaccination in experiments by Mr. Wilson Fox and others.—Sir WALTER FOSTER said the Local Government Board supplied calf lymph for vaccination purposes. The Board had no information of tuberculosis having been communicated through such lymph, and, until science had taught them that, the Board were not prepared to issue a guarantee as asked for by the hon. member, which was superfluous.

Adulterated Butter.—Mr. JOHN ELLIS asked the Under-Secretary for Foreign Affairs whether a proposal had been received from the Danish Government for the meeting of a conference with a view of dealing with the international trade that now existed in adulterated butter, and what course the Government proposed to take in the matter.—Sir E. GREY said that the Danish Government had made such a proposal, and, after consultation with the various departments concerned, a reply had been returned to the effect that Her Majesty's Government would not feel justified in taking the initiative in the international action proposed, but would be glad to consider any further practical suggestion which the Danish Government might have to make.

Tuesday, July 11th.

Rivers Pollution Prevention Bill.—This Bill passed through Committee, and was then read a third time and passed.

Police and Sanitary Committee. The Select Committee on Police and Sanitary Bills, held their final sitting for the session on July 11th, having disposed of fifteen measures during the forty-three days of inquiry. On the motion of Mr. WALTER LONG, the chairman, it was agreed to present a special report to the House, suggesting the appointment of an official adviser of the Committee, occupying a post in relation to the Committee analogous to that of parliamentary agent to promoters of the Bills referred to the Committee. It was also decided to recommend that a circular should be issued by one of the departments, such as the Local Government Board for England and Wales, and the Scotch Office in the case of Scotland, to every local authority conveying the precise terms of the instructions of the House of Commons, and calling the attention of these local authorities to the necessity of confining their proposals within the limits which Parliament has expressly laid down. The Committee believe that if local authorities were by some such means made fully aware of the position in the matter, it would lend to the saving of much time and money, which is now wasted when Bills are presented containing proposals which the Committee feel that they are debarred under the instruction from entertaining.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

ANNUAL REPORT TO THE ESSEX COUNTY COUNCIL.

AN abstract of the report prepared by Dr. Thresh on the reports of the local medical officers of health within the administrative county of Essex has been compiled by a subcommittee of the Essex County Council. This abstract, though brief, sufficiently indicates that the report is a comprehensive one, and it is gratifying to note that it is to be printed in full. During the year a circular letter was sent to local sanitary authorities asking that certain definite information should be furnished in the annual reports of the several medical officers of health. In this manner Dr. Thresh has been enabled to give an epitome of the water supplies, systems of sewerage, hospital accommodation, etc., in the various districts of the county. Attention is drawn to the fact that the death-rate in the rural districts continues year after year to be markedly higher than in the urban districts of Essex. In many of the rural districts the systems of sewerage and drainage are still very defective. The Notification Act is now in force throughout the entire county, but the hospital accommodation is stated to be most inadequate. The County Council in any case appears to be fully alive to its responsibilities, and determined to do all in its power to bring about a high standard as regards public health administration in Essex.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 5,786 births and 4,702 deaths were registered during the week ending July 8th. The annual rate of mortality in these towns, which had increased from 17.5 to 22.7 per 1,000 in the preceding six weeks, further rose to 23.8 during the week under notice. The rates in the several towns ranged from 11.8 in Derby and in Oldham, 13.5 in Norwich, and 15.0 in Plymouth and in Huddersfield, to 32.0 in Bolton, 32.1 in Leicester, 32.2 in Manchester, 34.9 in Liverpool, and 42.1 in Preston. In the thirty-two provincial towns the mean death-rate was 24.8 per 1,000, and was 2.5 above the rate recorded in London, which was 22.3 per 1,000. The 4,702 deaths registered during the week under notice in the thirty-three towns included 1,197 which were referred to the principal zymotic diseases, against numbers increasing from 415 to 1,108 in the preceding five weeks; of these, 816 resulted from diarrhœa, 112 from measles, 85 from whooping-cough, 76 from diphtheria, 54 from scarlet fever, 41 from "fever" (principally enteric), and 13 from small-pox. These 1,197 deaths were equal to an annual death-rate of 6.0 per 1,000; in London the zymotic death-rate was equal to 5.2, while it averaged 6.6 per 1,000 in the thirty-two provincial towns. The lowest rates for these zymotic diseases were recorded in Bristol, Plymouth, Huddersfield, and Halifax, and the highest rates in Birmingham, Liverpool, Blackburn, Bolton, Leicester, and Preston. Measles showed the highest proportional fatality in Liverpool, Cardiff, Burnley, Blackburn, Preston, and Newcastle-upon-Tyne; scarlet fever in Bolton; whooping-cough in Birkenhead, Blackburn, and Gateshead; "fever" in Burnley, Huddersfield, and Sunderland; and diarrhœa in Sheffield, Wolverhampton, Manchester, Liverpool, Birmingham, Bolton, Leicester, and Preston. The 76 deaths from diphtheria included 54 in London, 5 in Manchester, and 4 in West Ham. Nine fatal cases of small-pox were registered in London, 2 in Birmingham, 1 in West Ham, and 1 in Bradford, but not one in any other of the thirty-three towns; 381 small-pox patients were under treatment in the Metropolitan Asylums Hospitals and in the Highgate Small-pox Hospital on Saturday last, July 8th, against numbers declining from 570 to 397 at the end of the preceding eight weeks; 68 new cases were admitted during the week, against 105, 59, and 76 in the preceding three weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital was 2,885, against numbers increasing from 2,024 to 2,775 on the preceding twelve Saturdays; 362 new cases were admitted during the week, against 264, 309, and 364 in the preceding three weeks. The 235 deaths referred to diseases of the respiratory organs in London were 36 above the average, and were equal to an annual rate of 2.9 per 1,000.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday, July 8th, 841 births and 607 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 22.0 and 21.5 per 1,000 in the preceding two weeks, was again 21.5 during the week under notice, and was 2.3 per 1,000 below the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the lowest rates were 16.1 in Aberdeen and in Leith, and 17.3 in Edinburgh, and the highest rates 25.2 in Glasgow and 25.7 in Greenock. The 607 deaths in these towns included 132 which were referred to the principal zymotic diseases, equal to an annual rate of 4.7 per 1,000, which was 1.3 below the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Edinburgh, Glasgow, and Greenock. The 328 deaths registered in Glasgow included 43 from diarrhœa, 20 from measles, 15 from whooping-cough, and 6 from diphtheria. Ten fatal cases of measles were recorded in Greenock. The death-rate from diseases of the respiratory organs in these towns was equal to 3.1 per 1,000, against 2.9 in London.

HEALTH OF IRISH TOWNS.

IN sixteen of the principal town districts of Ireland the deaths registered during the week ending Saturday, July 1st, were equal to an annual rate of 24.9 per 1,000. The lowest rates were recorded in Sligo and Lurgan, and the highest rates in Galway and Drogheda. The death-rate from the principal zymotic diseases averaged 5.0 per 1,000. The 206 deaths registered in Dublin were equal to an annual rate of 30.7 per 1,000 (against 28.2 and 25.4 in the preceding two weeks), the rate during the same period being 22.2 in London and 22.0 in Edinburgh. The 206 deaths in Dublin

included 35 which were referred to the principal zymotic diseases (equal to an annual rate of 5.2 per 1,000), of which 22 resulted from diarrhœa, 7 from whooping-cough, and 4 from enteric fever.

FEES UNDER THE NOTIFICATION ACT.

A Medical Officer of Health writes: Four cases of scarlet fever arise in a tradesman's house. I am notified by him. On my requesting him to send for his own doctor he declines for fear of publicity. I decline to attend as the doctor, but advise parents as to all sanitary precautions, etc. Must I certify each case, and charge half-a-crown fee for each of them?

*** As our correspondent points out, the words of the Act are "every medical practitioner attending on, or called in to visit, the patient shall forthwith, on becoming aware, etc., send to the medical officer of health of the district a certificate." Inasmuch as our correspondent visits the patients in his official capacity on the notification of the parent, and declines to act as their private medical attendant, we advise him not to claim any notification fee.

HOSPITAL AND DISPENSARY MANAGEMENT.

THE HOSPITAL CONVALESCENT HOME AT SWANLEY.

The beds in this home are allotted as follows:—London Hospital, 30 beds; Guy's Hospital, 30 beds; St. Thomas's Hospital, 20 beds; Middlesex Hospital, 20 beds; Westminster Hospital, 15 beds; and St. Mary's Hospital, 15 beds. The nursing staff consists of matron, assistant matron, two charge nurses, and six assistant nurses. The home has been built and will be maintained out of a gift of £100,000 from Mr. Peter Reid, supplemented by £50,000 from an anonymous donor. The chapel is the gift of Mr. Ebenezer Homan.

COLNEY HATCH ASYLUM.

The conduct and demeanour of the patients at Colney Hatch were, says the *Daily News*, found by the Commissioners of Lunacy, on their recent visit of inspection, to be very good on the whole, and no serious complaints of rough usage were made. It does not appear, however, that the patients have become reconciled to the disuse of beer as a beverage at dinner, and many complaints on the subject reached the Visitors. As it had been so long the custom to give it here, the Commissioners think it was a pity to introduce the change, the benefit of which to the cause of temperance they "very much doubt," while it has, in their opinion, certainly rendered the patients less contented.

OBITUARY.

The death is reported of Mr. John Paxton, of Norham-on-Tweed, at the age of 81. The deceased took the diploma of L.R.C.S.Edin. in 1833, and that of L.R.C.P.Edin. in 1863. Mr. Paxton was one of the oldest medical practitioners on the Borders, he having been fifty-six years at Norham, where he had an extensive practice.

MEDICAL NEWS.

Miss Balfour, who will be accompanied by her brother, Mr. A. J. Balfour, will open the Willesden Cottage Hospital, built by Mr. Passmore Edwards, on July 18th.

The London Hospital Club Union have received a new recreation ground at Lower Edmonton. The ground was opened recently with some ceremony by Lady Clark.

The foundation stone of the first homœopathic hospital in Russia was laid at St. Petersburg on June 24th. It is estimated to cost £20,000.

Semmelweiss Memorial.—Dr. Elischer, treasurer of the fund for the erection of a memorial to Semmelweiss, has published a statement showing that to the present the amount collected for the purpose is 2,039 gulden (about £170).

Medical Magistrate.—Mr. S. Macmillan Challinor, L.R.C.P., M.R.C.S., of Askam, Barrow-in-Furness, has been placed on the Commission of the Peace for the County of Lancashire.

Presentation.—The members of the Cookham St. John Ambulance Class has presented Dr. Mason with a handsome silver-mounted riding whip, as a token of their appreciation of his services in giving the lectures.

Night Shelters and Infectious Disease.—The prosecution instituted by the Vestry of St. George, Southwark, against the officer in charge of the Blackfriars Salvation Army Shelter has not yet been terminated, and last week, on the application of the defendant's solicitor, a further adjournment for two weeks was granted upon payment of certain costs by the defendant.

The Professorial College of the University of Vienna has recommended Professor Bernhard Naunyn, of Strassburg, as successor to the late Professor Kahler in the Chair of Medicine. Professor Erb, of Heidelberg, to whom it was first offered, felt himself compelled to decline the invitation.

Dr. Vallas has published a paper on ether as an anæsthetic in the *Revue de Chirurgie*. He states that the Lyons School of Surgery, after an experience of fifty years, has declared in favour of ether, as being, on the whole, the best and safest anæsthetic. It is admitted that chloroform has advantages in the case of young patients, but otherwise with them ether holds the field.

Poplar Hospital for Accidents.—Sir Donald Currie, M.P., has contributed £500 towards the £3,000 needed to complete the building fund of the Poplar Hospital far Accidents, with a strong expression of opinion that a hospital for accidents is an absolute necessity in that district.

Medical Aid for Indian Women.—The annual meeting of the United Kingdom branch of the Countess of Dufferin's Fund for supplying medical aid for the women of India was held on July 12th, Sir A. Lyall presiding. The annual report stated that the work of the association now extended from the camps in Beloochistan to Rangoon in Burmah, and from Lahore to Tinnivelly. There were eleven provincial branches under the central committee, and 120 local and district branches. More than 12 lakhs of rupees had been spent in the erection of buildings specially adapted to afford medical relief to native women. The number of women who had received medical aid during the past year was 466,000. Nine lady doctors with English qualifications, and thirty-two assistant-surgeons and female medical practitioners, were working in connection with the fund. The United Kingdom branch brought the aims of the association before the public raised subscriptions and selected lady doctors for India.

Lip Reading.—The annual meeting of the Association for the Oral Instruction of the Deaf and Dumb was held on July 12th in the Grafton Galleries, when Her Royal Highness the Duchess of Fife presented prizes to the successful students of the school. The Duke of Fife, who took the chair, in moving the adoption of the report, said he could hardly exaggerate his admiration for a system which enabled those who had been less fortunate than the generality of mankind not only to converse among themselves, but to communicate with the outside world almost as freely as those whose hearing was perfect. Before the prizes were distributed a short demonstration of some points in the system was given by Mr. Van Praagh and the teachers in the school. It was exceedingly interesting to observe the care with which each individual child had been trained to produce the elementary sounds of the language, to combine them into words—words which the poor children had never heard—and to attach meanings to the various combinations of muscular movements involved in the operation. The lip reading itself is clearly a much more simple process, and is, in fact, but a refinement to a high degree of a faculty we all make use of in ordinary conversation; everyone can follow a speaker better when he can see his face.

The Deep Wells in the City.—The report of Dr. Sedgwick Saunders, the City analyst, in regard to the water derived from the deep water-bearing strata under the city, shows that there is a remarkable agreement in the composition between that raised at the different artesian wells at Queen Victoria Street, Broad Street House, the Manchester Hotel, and the Artizans' Dwellings, indicating that the supply is all drawn from the same beds. It is stated to be softer than the water supplied by the companies, also that it is occasionally turbid from the presence of a little suspended argillaceous matter, and of course it is of a very uniform temperature. The point of interest in all these deep well undertakings is the amount of water they can be trusted to supply continuously, and this can only be determined by steady pumping. That consideration of the movement of underground

water has already been set up by the increased calls upon it seems to be indicated by the occasional appearance of turbidity.

Dr. R. T. Plimpton has been appointed Lecturer on Chemistry in the Middlesex Hospital Medical School.

English Subjects in the Oxford and Cambridge Local Examinations for Juniors.—At a conference held recently at Oxford the committee of the Head Masters' Association reported that in their opinion the several periods in English history being felt to be too long, there should be three divisions of the whole subject, one being set each year, and that the period for special study be abolished. This is a matter we endorsed in this Journal on April 25th, 1885, and we now hope that the authorities at Oxford and Cambridge who have the management of the local examinations will carry out this needful reform, and so prevent as far as possible unnecessary and injurious cramming.

St. John Ambulance Brigade and the Royal Procession.—Too much praise cannot be accorded to the members of the St. John Ambulance Brigade for the excellent way in which they carried out their arduous duties on the occasion of the great assemblage which took place to witness the Royal Procession on July 6th. The number of cases treated at Buckingham Gate was 300, at Broad Street 250, and at St. James's 125. The zeal with which medical officers, nurses, and ambulance officers and men worked won the warm admiration of the vast crowds among whom they mingled in the exercise of their Samaritan duties. Altogether 1,500 cases were treated, and many of the men were on duty from 6 A.M. on July 6th until 2 A.M. on July 7th. The cheerfulness with which these arduous services were rendered deserves, and we hope will receive, the warmest recognition from the public.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently died are Dr. Nils Gustaf Kjellberg, Professor of Psychological Medicine in the University of Upsala, and the leading authority on the subject in Sweden, aged 66; Dr. Benjamin Georg von Lange, the oldest medical practitioner of Riga, formerly a distinguished military surgeon who served in the Crimean war, in the Polish campaign of 1863, and in the Russo-Servian war, and author of a small work on cholera, of which he had seen several epidemics, aged 81; Dr. Juan Vilanova y Piero, formerly Demonstator of Anatomy in the University of Valencia, afterwards Professor of Geology and Palæontology in the University of Madrid, author of numerous valuable works on these subjects, a member of the Royal Spanish Academy of Medicine and of all the leading scientific societies in Spain, Commander of the Order of Charles the Third and of the Crown of Italy, etc., aged 72; and Dr. Beniamino Luzzatto, Professor of Medicine in the University of Palermo, and author of treatises on Auscultation and Percussion, Diseases of the Circulatory Apparatus, etc., aged 44.

West London Medico-Chirurgical Society.—At the annual general meeting of the above, held on July 7th, F. Swinford Edwards, F.R.C.S., President, in the chair, the report of the secretaries showed the Society to be in a highly satisfactory condition. The average attendances during the past session had amounted to forty-three; thirty-four new members had been admitted, while the Society regretted the loss of five by death—H. C. Andrews, M.D., C. E. Cotes, M.B., F.R.C.S., W. B. Hadden, M.D., J. Ingleby Mackenzie, M.D., and Charles Vasey. Under the able treasurership of Dr. Gunton Alderton, the funds of the Society were shown to be in a most favourable state. The officers elected for the ensuing year are as follows:—*President:* *Dr. Donald W. C. Hood. *Vice-Presidents:* Mr. Keetley, Dr. Travers, Dr. Campbell Pope, Mr. T. Gunton Alderton, Dr. Charles Wells, *Mr. Swinford Edwards, Mr. Leonard Mark, Dr. Symons Eccles, *Mr. Bruce Clarke, *Mr. J. Herbert Menzies. *Council:* Dr. Abraham, Dr. J. B. Ball, Dr. Banning, Mr. W. Steer, Dr. C. W. Chapman, Dr. Clippingdale, Mr. H. P. Dunn, *Dr. W. T. Gardner, Mr. Rickard Lloyd, Dr. Masters, Dr. Schacht, *Dr. Henry Sutherland. *Treasurer:* Mr. T. Gunton Alderton. *Secretaries:* Dr. A. Clemow, *Mr. Richard Lake. *Librarian:* Dr. Schacht. Those marked * hold this office for the first time.

Trained Nurses in Workhouses Infirmaries.—In connection with the work of the Association for Providing Trained Nurses in Workhouse Infirmaries, a meeting was held on July 11th at Lady Wantage's residence, 2, Carlton Gardens, which was largely and influentially attended. Among those present were Dr. Savill, Mr. Bousfield, Sir Douglas Galton, and Mr. Ernest Hart, and many ladies of distinction. Princess Christian had been expected to preside, but she wrote regretting that, owing to indisposition, she was unable to keep the engagement. She assured Lady Wantage of her deep sympathy with the work. Lord Wantage spoke of the excellent results achieved by the Association, and of the appreciation and sympathy which their efforts had met with. It was pointed out that up to the present time the Committee have been largely dependent on the services of nurses trained by other institutions. The Committee, therefore, had made an earnest appeal for a sum of £2,000 to form a training fund. Lord George Hamilton, M.P., in moving a resolution urging the establishment of such a fund, dwelt on the fact that while good nursing was always within reach of the well-to-do, it was not always possible to the poorer classes, to whom health was of most vital importance. Miss Twining narrated the history of the movement. It was impossible to meet the many and growing demands made upon the Association with their inadequate income. The provision of the nursing staff of the Hampstead Workhouse Infirmary, St. George's in the East, Cardiff, Hartlepool, and Norwich Union Infirmaries have been entrusted to the care of the Association. Besides these, twenty-eight boards relied entirely on the Association for their supply of nurses, and over one hundred boards had applied to them, but many applicants have had to be refused, owing to want of funds. During the year 1892, 132 applications were made for nurses, of which it was only possible, for want of funds, to respond to seventy, as compared with 82 in the preceding year. The funds of this institution are extremely well administered, the expenditure is kept at the lowest possible level, and altogether the Association is worthy of every support.

MEDICAL VACANCIES.

The following vacancies are announced:

ASYLUM FOR IDIOTS, Earlswood, Redhill, Surrey.—Assistant Medical Officer. Salary, £150 per annum, with board and residence. Applications, in envelope marked "Assistant Medical Officer," to the Secretary, 36, King William Street, London Bridge, E.C., by July 25th.

BRAINTREE UNION RURAL SANITARY AUTHORITY.—Medical Officer of Health. Salary, £100 per annum. Applications to Fred. Smoothy, Clerk, by July 18th.

CAERPHILLY LOCAL BOARD.—Medical Officer of Health. Salary, £40 per annum. Applications to David Lewis, Clerk to the Board, Caerphilly, by July 19th.

CHARING CROSS HOSPITAL, W.C.—Assistant Surgeon, must be F.R.C.S.Eng. Applications to the Chairman of Committee by July 24th.

CHELSEA HOSPITAL FOR WOMEN, Fulham Road, S.W.—Lady Dispenser. Salary, £60 per annum. Applications on forms to be obtained at the Hospital to the Secretary by July 17th.

COUNTY ASYLUM, Lancaster.—Assistant Medical Officer; unmarried. Salary, £100 per annum, increasing £25 annually to £200 per annum, with furnished apartments, board, etc. Also Clinical Assistant. No salary; board, lodging, etc., provided. Applications to Dr. Cassidy, Medical Superintendent, by July 24th.

GENERAL HOSPITAL FOR SICK CHILDREN, Pendlebury, Manchester.—Junior Resident Medical Officer; doubly qualified. Salary, £80 per annum, with board and lodging. Applications to the Chairman of the Weekly Board by July 20th.

GENERAL INFIRMARY, Leeds.—Resident Medical Officer. Salary, £100 per annum, with board, washing, and lodging. Applications to Mr. Littlewood, Secretary to the Faculty, Infirmary, Leeds, by July 21st.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway Road, N.—House-Surgeon. Salary, £60 per annum, with board and lodging in the hospital. Applications to William T. Grant, Secretary, by July 24th.

GREAT YARMOUTH HOSPITAL.—House-Surgeon; doubly qualified. Salary, £90 per annum, with board and lodging. Applications to Richard F. E. Ferrier, Honorary Secretary, by August 1st.

HEREFORD COUNTY AND CITY ASYLUM.—Locum Tenens. £2 2s. per week, with board and lodging. Applications to the Medical Superintendent.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident Medical Officer; doubly qualified and not under 25 years of age. Salary, £200 per annum, with board and residence. Applications to Henry Dobbin, Secretary, by July 26th.

HOSPITAL FOR EPILEPSY AND PARALYSIS, 32, Portland Terrace, Regent's Park, N.W.—Physician. Applications to the Secretary, H Howgrave Graham, by July 15th.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, Bloomsbury, W.C.—Assistant House-Surgeon (Non-Resident); appointment for six months. Salary, £20. Applications to the Secretary by July 26th.

KIDDERMINSTER UNION.—Medical Officer for the Bewdley District. Salary, £100 per annum and vaccination fees. Applications to Mr. F. Burcher, Clerk, Workhouse, Braintree, by July 24th.

LIVERPOOL DISPENSARIES.—Assistant Surgeon; unmarried. Salary, £80 per annum, with apartments, board, and attendance. Applications to R. R. Greene, Secretary, by July 24th.

LONDON SCHOOL OF MEDICINE FOR WOMEN, 30 Handel Street, Brunswick Square, W.C.—Lectureship of Midwifery. Applications to the Secretary by July 21st.

MACCLESFIELD GENERAL INFIRMARY.—Junior House-Surgeon; doubly qualified. Salary, £70 per annum, with board and residence. Applications to the Chairman of the House Committee by July 22nd.

MANCHESTER ROYAL INFIRMARY.—Resident Medical Officer, not less than 25 years of age, and unmarried; doubly qualified. Appointment for one year, but holder of office may be re-elected. Salary, £150 per annum, with board and residence. Applications to the Chairman of the Board by July 29th.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, N.E.—Resident Clinical Assistant. Applications to the Secretary, 27, Clement's Lane, E.C., by July 22nd.

NOTTINGHAM AND BOROUGH ASYLUM.—Second Assistant Medical Officer; unmarried. Salary, £100 per annum, with apartments, board, and washing. Applications to the Medical Superintendent by July 25th.

PONTYPRIDD RURAL SANITARY AUTHORITY.—Medical Officer of Health. Salary, £50 per annum. Applications to E. C. Spickett, Clerk, by July 27th.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—Assistant Physician. Applications to the Secretary by July 31st.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—Physician and Assistant Physician; must be Fellows or Members of the Royal College of Physicians of London. Applications to the Secretary by July 15th.

ROYAL PORTSMOUTH, PORTSEA, AND GOSPORT HOSPITAL.—Assistant House-Surgeon; appointment for six months. Board, residence, and washing, and an honorarium of £15 15s. Applications to J. A. Byerley, Secretary, 137, Queen Street, Portsea, by July 27th.

ROYAL SOUTH HANTS INFIRMARY, Southampton.—Assistant House-Surgeon. No salary; board and rooms provided. Applications to T. A. Fisher Hall, Secretary, by July 31st.

STAFFORD GENERAL INFIRMARY, Stafford.—Assistant House Surgeon. Board and residence provided. Applications to the House-Surgeon by July 20th.

STOCKPORT INFIRMARY.—Junior Assistant Surgeon; appointment for six months. Board and residence provided, and an honorarium of £10 after satisfactory service. Applications to Lieutenant-Colonel S. W. Wilkinson, Honorary Secretary, by July 25th.

THE YORKSHIRE COLLEGE, Leeds.—Demonstrator of Anatomy. Particulars from the Registrar.

UNIVERSITY COLLEGE, London.—Assistant Obstetric Physician. Applications to J. M. Horsburgh, M.A., Secretary, by July 18th.

WHITEHAVEN AND WEST CUMBERLAND INFIRMARY, Whitehaven.—House-Surgeon; doubly qualified. Salary, £120 per annum, and £30 per year for dispensing, with furnished apartments and attendance. Applications to Tyson Kitchen, Secretary, by July 29th.

WIRRAL CHILDREN'S HOSPITAL, Woodchurch Road, Birkenhead.—Resident House-Surgeon. Salary, £50 per annum, with board, lodging on the premises, and washing. Applications to P. W. Atkin, Honorary Secretary, 25, Lord Street, Liverpool, by July 19th.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton.—Honorary Gynæcologist; doubly qualified. Applications to the Chairman of the Weekly Board by July 24th.

MEDICAL APPOINTMENTS.

APTHORP, Frederick Wm., L.R.C.P.Edin., M.R.C.S.Eng., appointed Medical Officer for the No. 5 District of the Cuckfield Union.

BARKER, Dr. W. J. T., appointed Medical Officer for the No. 2 (Streatham) District of the Wandsworth and Clapham Union.

BARRINGTON, Frederick Albert, L.R.C.P., L.M., L.R.C.S.I., appointed Assistant Medical Officer of Health to the Lynn Town Council.

BOTHWELL, George Granville, M.B., C.M.Aberd., appointed Assistant House-Surgeon to the Infirmary, Halifax.

BRANDER, Thomas, M.B., C.M.Aberd., appointed Medical Officer to the Lossiemouth Parochial Board.

BROWNE, Ralph H., L.R.C.P.Lond., M.R.C.S.Eng., appointed Physician to the Chelsea, Brompton, and Belgrave Dispensary, *vice* R. Haynes Lovell, M.R.C.S., L.R.C.P., resigned.

BRYAN, Thomas Leigh, M.B.Durh., appointed Medical Officer for the Borough District of the East Ward Union.

DRAKE, Alex. T., M.B., L.R.C.S.I., appointed Medical Officer for the No. 4 (Deptford) Sanitary District of the Greenwich Union, *vice* G. P. Rogers, L.R.C.P.Edin., L.R.C.S.I.

GODSON, A. H., B.A., M.B., B.C.St.John's,Cambridge, and of Guy's Hospital, appointed House-Surgeon to the Croydon General Hospital, *vice* T. A. Dukes, M.B., B.S., M.R.C.S., L.R.C.P., resigned.

GOODING, Matthew Richard, L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer of Health to the Bideford Urban Sanitary District, *vice* William Henry Ackland, M.D.St.And., resigned.

GRIFFITHS, William Hughes, M.R.C.S.Eng., L.S.A., reappointed Medical Officer of Health for the Hinckley Urban Sanitary District.

HARWOOD, Charles, M.D., L.R.C.S.Edin., reappointed Medical Officer of Health for the Shardlow Rural Sanitary District.

HICKEY, William Lacy, M.D., B.Ch.Dub., appointed Medical Officer for the Gainsford District of the Teesdale Union.

HILLYAR, Dr. Cecil B., appointed Medical Officer for the Milton Abbot District of the Tavistock Union, *vice* J. T. Hislop, L.R.C.P., L.R.C.S. Edin.

HODGSON, Harold, M.R.C.S.Eng., L.R.C.P.Lond., appointed Medical Officer for the Blisworth District of the Towcester Union.

HOGARTH, Andrew Allison, M.B., C.M.Glasg., appointed Medical Officer for the Third District of the Cheltenham Union.

HUSBAND, Charles, M.R.C.S.Eng., L.S.A., reappointed Medical Officer of Health for the Ripon City.

KNOTT, John, M.D., B.Ch., M.R.C.P., F.R.C.S.I., appointed Medical Officer to the Society for the Prevention of Cruelty to Children, Dublin.

LAWSON, Thomas C., M.R.C.S.Eng., appointed Medical Officer for the Warboys District and Wistow Districts of the St. Ives Union.

LEACHMAN, A. W., M.D.St.And., M.R.C.S., D.P.H.Camb., appointed Medical Officer of Health for the Horsham Urban Sanitary District.

LOGIE, James, M.B., C.M.Aberd., appointed Public Vaccinator for Woolwich.

LOYND, William, M.R.C.S.Eng., L.R.C.P.I., reappointed Medical Officer of Health to the Church Local Board.

MAIR, L. W. Darra, M.D.Lond., D.P.H.Lond., M.R.C.S., L.R.C.P., appointed Medical Officer of Health of the Croydon Rural Sanitary Authority.

MAURICE, George Thelwall Kindersley, L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer for the First District and the Workhouse of the Marlborough Union.

MUDGE, James, L.R.C.P., L.M.Edin., M.R.C.S., reappointed Medical Officer for the Phillack Urban Sanitary District of the Redruth Union.

OGDEN, Charles, L.R.C.P., L.M.Edin., M.R.C.S.Eng., reappointed Medical Officer of Health for the Milnrow Urban Sanitary District of the Rochdale Union.

PALMER, Ambrose M., L.R.C.P., L.M.Edin., M.R.C.S.Eng., appointed Medical Officer of Health to the Whittington Local Board.

RICHARDS, Harold Meredith, M.B., B.S.Lond., M.R.C.S.Eng., appointed Medical Superintendent to the City Hospital, Birmingham.

ROBERTS, A., F.R.C.S.Edin., M.R.C.S.Eng., reappointed Assistant Surgeon to the Royal Berkshire Hospital, *vice* Oliver C. Maurice, M.R.C.S.Eng.

ROSS, Mr. Charles A., appointed Medical Officer for the Tenbury District and the Workhouse of the Tenbury Union.

THOMPSON, Mr., appointed Medical Officer for the Abbotsham District of the Bideford Union.

TUCKER, Robert Goldsworthy, L.R.C.P.Edin., M.R.C.S.Eng., appointed Medical Officer for the Third District of the Dartford Union.

WATERHOUSE, Herbert F., M.D., C.M.Edin., F.R.C.S.Eng., appointed Surgeon to Out-patients, Victoria Hospital for Sick Children.

WEIR, George Wetherall, M.D., M.Ch., D.P.H.Camb., reappointed Medical Officer of Health for Jarrow-on-Tyne.

WHICHER, Alex. Hastings, M.R.C.S.Eng., L.S.A., appointed Medical Officer of Health for the Midsomer Norton Urban Sanitary District.

WIGGINS, Dr., appointed Deputy Medical Officer and Public Vaccinator to the Bacup District of the Haslingden Union.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

SIBLEY.—On July 9th, at 7, Harley Street, Cavendish Square, Georgina Marie, the wife of W. Knowsley Sibley, M.A., M.D., B.C., M.R.C.P., of a son.

TOWNSEND.—On July 7th, at Ivy House, Normanby, Yorks, the wife of Francis E. Townsend, M.D., of a son.

MARRIAGES.

COOK—MACDONALD.—On July 5th, at the Cathedral of St. Ninian's, Perth, by the Lord Bishop of Argyll and the Isles, assisted by the Dean of St. Andrew's, Philip Inkerman Cook, M.D., etc., son of the late Dr. John Cook, of Glais, Swansea Valley, to Miss Caroline Burns Macdonald, daughter of the late Mrs. Macdonald, of Glencoe, and A. Burns Macdonald, Perth.

FOLKER—ASHWORTH.—On July 5th, at Shelton Church, Hanley, by the Rev. Prebendary Plant, of Weston-on-Trent, cousin of the bridegroom, assisted by the Rev. Percival Saben, of Bradford, Herbert Henry Folker, M.R.C.S., L.R.C.P., to Eliza Georgina, younger daughter of Taylor Ashworth, Esq., J.P., of Sunny Bank House. No cards.

MORISON—APPLEBY.—At St. John's Church, Greatham, co. Durham, on July 3rd, by the Rev. W. W. Morrison, M.A., and Rev. R. Waters, M.A., Albert E. Morison, M.B., C.M., F.R.C.S.Edin., of Hartlepool, to Etta, eldest daughter of T. Appleby, Esq., J.P., of Ashfield House, Greatham.

VAN ROOYEN—VANDERSTRAATEN.—On July 6th, at St. Mary's, West Kensington, Glanville St. Clair Van Rooyen, L.R.C.P.& S.Edin., District Surgeon, Lindulla, Ceylon, to Ursila, eldest daughter of Dr. J. L. Vanderstraaten, Colonial Surgeon, Colombo. Ceylon papers please copy.

DEATH.

GRAHAM.—On June 25th, on board the steamship *Thermopylæ*, George Graham, M.D., of Richmond, Melbourne. Buried at sea.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

Communications for the Current Week's Journal should reach the Office not Later than Midday Post on Wednesday. Telegrams can be Received on Thursday Morning.

Communications respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the Journal, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

In order to avoid delay, it is particularly requested that all letters on the editorial business of the Journal be addressed to the Editor at the Office of the Journal, and not to his private house.

Authors desiring reprints of their articles published in the British Medical Journal are requested to communicate beforehand with the Manager, 429, Strand, W.C.

Correspondents who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

Correspondents not answered are requested to look to the Notices to Correspondents of the following week.

Manuscripts forwarded to the Office of this Journal cannot under any circumstances be returned.

Public Health Department.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* British Medical Journal *are devoted will be found under their respective headings.*

QUERIES.

Member asks for information concerning the Cartwright Prize for 1893, usually awarded in June.

S. desires to find a home (South) for a washerwoman aged 38, suffering from labioglosso-laryngeal palsy. Possibly 8s. to 10s. 6d. could be subscribed for a maintenance.

Treatment of Night Sweats.

Sudamina asks for advice in the treatment of night sweats in a woman who is nursing a child aged two months. The sweating began before the confinement. The usual remedies have been tried.

Removal of Gunpowder Stains.

A. M. S. asks for advice as to the best mode of removing gunpowder stains from the face. I have a patient now under treatment who received the full charge of powder from a blank cartridge in the face, and he is a good deal disfigured from it. I have removed some of the marks by scarifying the skin and rubbing in carbolic oil; but it is a tedious process, with results not very brilliant.

Fæcal Incontinence in Childhood.

M. F. C. asks for advice in the following case. A child, aged 8 years, who for the last four years has been constantly troubled with threadworms, seems to have little or no control over the sphincter ani, passing fæces once or twice a day involuntarily; otherwise he is a perfectly healthy boy. The usual remedies for worms have been tried—santonin, calomel, and injections of quassia, quinine, turpentine, and castor oil.

Diarrhœa in Gas Poisoning.

W. writes: Have any of your readers noticed diarrhœa or a catarrhal condition of intestines occurring in young children resulting from the escape of ordinary gas passing through the side of a thin gutta percha tubing used for its conduction to a lamp on the table? Three cases of the above occurred some time ago in a large well-ventilated nursery, and I could not trace them to any error in diet; the weather certainly has been hot, but I rather doubt if this has been the entire cause. The drains have been recently looked to, and are in good condition.

Income Tax.

J. R. M. writes: Last year I took a diploma in public health, which cost me one way and another about £60. When I made up my income tax return in April I put this down as an "expense" necessary to my profession. The registrar wrote me and says it cannot be allowed.

*** We have referred this question to the Income Tax Repayment Agency, 25, Colville Terrace, Powis Square, London, W., who state in reply that the question, What are allowable deductions, is not one for the surveyor of taxes to decide. It is one for the decision of the District Commissioners. Whether they will allow the deduction mentioned is a moot point; as often as not they are mere tools in the hands of the surveyor.

Insurance Companies and Professional Secrecy.

Aracan asks: Can a private individual or an insurance society compel me to disclose, by tendering a fee, what is probably a professional confidence?

*** It would not be proper to disclose any professional confidence without the explicit sanction of the patient or, in the event of his death, of his legal representatives. The insurance company can, of course, refuse to pay the amount claimed unless it receives a satisfactory statement from the deceased's medical adviser. If the latter is requested by the representatives of the deceased to answer the questions of the insurance society, he is bound to give the whole truth. Should the matter be carried into a law court, the medical man will have to state on oath what he knows, and the English law recognises no such things as professional secrets. We do not think that "Aracan" is "in equity and morally bound" to tell the insurance society anything unless he is requested by the representatives of the deceased or is called upon to do so in a court of law.

ANSWERS.

Enquirer (Leeds) has omitted to enclose his name,

Popular Vaccination Literature.

Dr. James Adams.—There is a very brief leaflet on vaccination issued by the Local Government Board under date of February, 1888. A pamphlet entitled *Facts concerning Vaccination for Heads of Families*, issued by the National Health Society, and to be purchased from Allman and Son, 67, New Oxford Street, London, W., is a very convenient publication for distribution. A somewhat more elaborate but brief pamphlet is Dr. E. J. Edwardes's on *Vaccination and Small-pox*, published by J. and A. Churchill, price 1s.

The Hunter Centenary.

R. C. H.—"Arm. Fil." is a contraction for "Armigeri Filius," the son of an esquire, or, as Slender defines it, "a gentleman born, master parson, who writes himself *armigero*; in any bill, warrant, quittance, or obligation, *armigero*." Hunter entered at St. Mary Hall as a gentleman-commoner, and the cabalistic symbols which puzzled our correspondent are an indication of the fact. The definition of the precise hagiological significance of the terms "Beatus" and "Sanctus" hardly comes within our province.

NOTES, LETTERS, Etc.

English Medical Practitioners in Switzerland.

Dr. Stuart Tidey (Montreux) writes: The translation of the word "*froisser*" given in parentheses in my letter on English practitioners in Switzerland should be rendered by "injuring" or "hurting," not "cooling," as translated by me.

The Annual Meeting.

Church Member writes: The service in the cathedral on the opening day of the meeting is fixed for 3 o'clock. Many members of the Association will probably travel by the train leaving King's Cross at 10 A.M., and reaching Newcastle at 3.42 P.M. Many, like myself, travelling by that train, would be sorry to miss the Bishop of Durham's sermon. Would it be possible to alter the hour of the service from 3 to 4?

*** We learn that it is unfortunately not possible to arrange a later hour than 3 o'clock. If the passengers arriving at Newcastle at 3.42 were to attend the service, it would have to be at 4.30 to give them time to call at their rooms, and that hour is found to be too late.

The Revenge of the "Referred."

A distinguished Professor in the Medical Faculty of the University of Valladolid was, it appears from the Spanish papers, thrashed with sticks the other day by some students who had been "referred," and looked upon him as the cause of their misfortune. Their conduct, though perhaps "natural" (in Mr. Pecksniff's sense), was not only wrong but foolish. It is seldom politic to bandy arguments of any kind with an examiner, and even the *argumentum baculinum* must ultimately prove a boomerang that will come back on the plucked one's own head. Unkind persons might suggest that this would be in accordance with the eternal fitness of things, for, in the case put, is it not the head what Dr. Johnson would call the peccant part?

Measles: Antiseptic Inunction.

Dr. R. D. Patterson (Caledon Dispensary) writes: With reference to "M.D.'s" remarks *re* above, I would be glad to know by what power of intuition or process of reason he concludes and suggests that I mistook my case of measles for one of rötheln—a pardonable error, no doubt. Still I would suggest that in future he should take pains to make himself more acquainted with the facts before volunteering an adverse criticism. As to the nature and therapeutic properties of "oleusaban," I would refer him to Dr. J. Brendon Curgenven's published essays on "The Treatment and Disinfection of Scarlet Fever by Antiseptic Inunction," by which he will be much enlightened.

England at the International Medical Congress at Rome.

Dr. H. J. Johnston-Lavis (Harrogate and Naples) writes: As a member of the organising Committees of both Congress and exhibition, perhaps I may be permitted to draw the attention of my English colleagues and the numerous manufacturers of pharmaceutical, surgical, sanitary, and other materials to one or two points of importance. The Italians intend to give their foreign *confrères* a most hearty welcome, and the Government itself is using every effort to make the Congress a great success. No fewer than 6,000 names have already been sent in as adherents. During the Medical Congress a Balneological Congress will meet, and in combination there will be an exhibition, which will be held in the fine Palazzo degli Belli Arti, placed at our disposal by the Italian Government. The exhibit of objects relating to Balneology and Hydrotherapeutics will undoubtedly be the finest brought together, and the show of most other manufactures related to medicine promises to be unique. My colleagues in Rome have just informed me that, whereas Germany has appropriated very much space in all sections, England is practically unrepresented.

Great Britain so far has stood pre-eminent in sanitary science, and leads in the production of sanitary apparatus. Steel surgical instruments still bear the traditional reputation of being the best; yet both

these branches are to be almost unrepresented and be ousted by German, French, and Austrian productions. England is only equalled by the United States in her pharmaceutical preparations, but even here applications for exhibit space is too small.

Italy is just in the early febrile stage of sanitation. I can remember the time when the first English waterclosets that were introduced by me into Naples and the Lina Hospital were looked upon as curiosities, and many are the curious anecdotes I could recount thereon, but now dozens are being put in weekly. The same may be said of our pharmaceutical preparations.

My friend, Dr. Sambon, of Rome, has written to several of our leading hygienists begging them to use their efforts for the success of the exhibition. Almost every spa of any importance on the Continent will be represented by a show, and I hope that Harrogate, Bath, Strathpeffer, Woodhall, etc., will not fail to put in an appearance. The vested interests of our fellow-countrymen, the superiority of sanitation, of our methods of douching, etc., are no encouragement to our physicians to send their patients to our spas. At such a suggestion they reply: "The change does the patient good,' but they are silent when confronted by the fact that French physicians do not see the necessity of sending their patients to England for a like reason, and the same remark applies to the Germans.

The Physiological Effects of Currents of High Frequencies.

M.B.(Aberd.). writes: In his paper on this subject in the British Medical Journal of July 1st Dr. Lewis Jones says: "It is well known that for alternating currents the resistance of a conductor is greater than it is for steady currents." I have always understood the very reverse to be the case, as regards the human body at all events, and it may fairly be classed as a "conductor," although an imperfect one. The late Dr. W. H. Stone compared in the same individual the R. to an alternating and direct C., and found the former to be half of the latter.[1] In this case an induction coil was the source of the alternating C., and the voltage was considerably in excess of that of the continuous C. In a paper read before Section A of the British Association meeting at Leeds, September, 1890, by Mr. J. Swinburne experiments on a large number of persons are recorded, and the R. to an alternating C. at 18 volts found to be much less than to a continuous one at 50 volts. It may be that with a continuous C. the body acts as a secondary battery, setting up an E.M.F. in an opposite direction to the primary and the increased R. thus be more apparent than real. An alternating C. is generally looked upon as more dangerous than a continuous one of the same voltage, and Dr. Fred. Peterson, of New York, from his experiments on animals, came to the conclusion that, "providing the alternations of the current are multiplied, a very small E.M.F. is effectual, a rapidly alternating C. being more deadly than a continuous one of double the pressure."[2] Regarding the body as a condenser, W. Korthals[3] found by calculation that if the difference of potential at the terminals in Tesla's apparatus be 70,000 volts, the capacity was only 0.118 of a microfarad, and the pressure lowered to 100 volts. Is it not possible that when currents of high frequencies are made to traverse an imperfect conductor like the human body, a C. in one direction has not time to pass before it is neutralised, in whole or part, by the succeeding impulse in an opposite direction? In telegraphy a current of opposite sign is often sent into a cable with the object of sweeping out the charge left behind from a previous signal.

Biting the Nails a Sign of Degeneracy.

Biting the nails is an uncleanly habit which, in some people, takes the place of that "whittling" in which some New Englanders find relief for their superfluous energies, and in the villains of Adelphi melodramas is an expression of baffled rage, or some of the other volcanic passions which consume them. M. Bertillon, whose anthropometric system of identifying criminals has made his name so well known in connection with the outward and visible signs of inward abnormality, now tells us that biting the nails—or, to give it its scientific name, "onychophagy"—is a signs of degeneracy. As such he ranks it with incontinence of urine, etc. Long ago Dr. Maudsley pointed out that punning might be an early symptom of insanity, and in that opinion we are inclined to agree with him, at least if the vice is habitual and suggestive of irresistible impulse; but it seems hard that one should be convicted of degeneracy on the strength of ragged nails. What about other unconscious or semi-conscious habits? Is a well-known politician to be called degenerate because he ruthlessly twists his moustache, or the late Lord Palmerston because (if we may accept the evidence of Mr. *Punch*) he habitually sucked a straw? It is dangerous to have a trick of any kind in these days when the criminal anthropologist is among us "takin' notes," and when rubbing the nose or cracking the fingers may, to the seeing eye, be as fraught with mystic meaning as Burleigh's shake of the head.

Pressure on Space.

Notice to Correspondents and Authors of Communications.

In view of the great and constantly-increasing pressure on our space, we would urgently request correspondents and authors of communications to assist us in endeavouring to place their views before our readers by condensing their communications to the utmost extent.

LETTERS, COMMUNICATIONS, Etc., have been received from:

(**A**) Mr. J. P. Aston, Eccleshill; Mr. H. J. Allen, Dublin; Dr. J. Althaus, London; Messrs. Arnold and Sons, London; J. Adam M.B., Hamilton; Messrs. D. Appleton and Co., London; A.M.S.; A. Ashby, M.B., Reading; Apothecaries' Society, Secretary of the, London; Dr. P. S. Abraham, London; Dr. W. Alexander, Glencorse. (**B**) Dr. F. T. Bond, Gloucester; Mr. G. C. Bell, London; Mr. R. Bevan, Lydd; Dr. J. Barr, Liverpool; Dr. E. G. Barnes, Eye; Messrs. Baillière, Tindall, and Cox, London; Mr. G. F. Blake, Dublin; Dr. R. E. Burges, Hoole; Dr. C. E. Beevor, London; Messrs. Burroughs, Wellcome, and Co., London; Mr. T. Brown, London; Mr. A. Barker, London; Dr. J. W. Byers, Belfast; Mr. R. H. Browne, London. (**C**) Mr. J. E. Cooney (London); E. Cautley, M.B., London; J. Carroll, M.B., Ilkeston; Dr. A. H. W. Clemow, London; Mr. S. M. Challinor, Askam-in-Furness; Mr. H. S. Cooper, Brightlingsea; Mr. R. J. Collyns, Dulverton; Mr. A. Cooper, London; Miss E. G. Clarke, Walton. (**D**) J. D. Dixon, M.B., Newcastle; Mr. G. W. Daniell, Blandford; Mr. G. H. De'Ath, Buckingham; Mr. M. B. Dodds, Stockton-on-Tees; Mr. R. A. Dove, Gateshead. (**E**) Mr. C. Evans, London; Evolutionist; Mr. R. Edwards, London; Mr. J. B. Emerson, Bombay. (**F**) A. H. Frere, M.B., Leeds; Mr. T. Fisher, Clifton; Dr. G. H. Fitzgerald, Newcastle; Dr. D. Ferrier, London; Mr. J. A. Fisher, Garston; Mr. F. Fielding, Blandford; Mr. E. H. Freeland, London. (**G**) Messrs. Charles Griffin and Co., London; Dr. J. Gairdner, Crieff; Dr. H. R. Greene, Portsmouth; Mr. J. Gillingham, Chard. (**H**) Mr. A. Hope, London; Messrs. Hertz and Collingwood, London; Dr. W. H. Hamer, London; Mr. R. Hargrave, Elgin; Dr. L. Henry, Melbourne; Mr. J. Lawrence-Hamilton, Brighton; Mr. R. Harvey, Sydney; Dr. Herman, London; Health. (**I**) Indian Experience; Inquirer. (**J**) Mr. J. Jones, Croydon; Mr. E. H. Jones, Ruthin; Mr. B. Jacob, London; Mr. G. S. Johnson, London; Dr. H. J. Johnston-Lavis, Naples; C. E. James, M.B., Kilkenny; Mr. R. Jacques, Leicester. (**K**) Dr. J. T. Kitchin, Whitehaven; Dr. T. N. Kelynack, Manchester; Mr. E. C. Kingsford, London. (**L**) Mr. B. Lewis, St. Louis; Dr. D. J. Leech, Manchester; Mr. F. C. Larkin, Liverpool; Dr. Liddell, Harrogate; Sir J. Lister, London. (**M**) Mr. E. R. Morgan, Perth; Dr. D. McGregor, London; Mr. M. Marshall, Cambridge; W. A. Murray, M.B., Southend; A Medical Officer of Health; Mr. T. W. O. McGachen, Rugby; Dr. J. Murphy, Sunderland; Mr. J. Moir, Plaistow; Mr. S. B. G. McKinney, London; A. McCall, M.B., Conisborough; M.D., M.R.C.S.; M.D. (**N**) Mr. W. D. Newton, London. (**O**) Mr. W. Oldright, Toronto; Mr. G. C. Osborn, London; Mr. D. A. O'Sullivan, Burnley; Mr. M. J. O'Connor, Wexford; Mr. W. Odell, Torquay. (**P**) Mr. L. W. Pockett, Alford; Mr. E. Palmer, Bridport; Dr. G. K. Poole, London; Dr. H. H. Phillips, Reading; Dr. J. Priestley, Leicester; Perplexed; J. A. Potts, M.B., Broseley; Mr. R. D. Patterson, Caledon; Prestonian; Mr. H. Pope, Todmorden; Mr. H. Phelps, Aberdeen; Dr. R. S. Peart, North Shields. (**R**) Mr. J. Richards, Treherbert; Miss D. Robins, London; Mr. W. H. Richardson, Manchester; R. C. N.; Mr. C. Roberts, London; Mr. J. A. Russell, Glasgow. (**S**) F. A. Southam, M.B., Manchester; Mr. W. N. Shearman, Manchester; Mr. S. Spokes, London; Dr. G. H. Savage, London; Dr. H. Snow, London; Spero; Mr. G. J. Symons, London; Dr. E. M. Skerritt, Bristol; Mr. E. B. Stephens, March; Miss C. Smith, Southsea; Dr. R. S. Smith, Clifton; Surgeon-Lieutenant-Colonel A.M.S.; Mr. A. Snowdon, Yarm; Mr. W. L. Symes, Kiltegan; Surgeon R.N.; Dr. J. B. Sanderson, Oxford; Senex; Mr. P. Selby, Sittingbourne; Sudamina. (**T**) Mr. W. H. Thompson, London; Dr. W. B. Thorne, London; Dr. F. E. Townsend, Middlesbrough; Mr. B. Thornton, Margate. (**V**) Veritas. (**W**) Dr. A. E. Wright, Netley; J. S. Wallace, M.B., Glasgow; Dr. T. Wallace, Cardiff; Dr. W. Hale White, London; Dr. G. E. Williamson, Newcastle; Lady Wantage, London; Dr. H. F. Waterhouse, London; Dr. T. J. Walker, Peterborough; Mr. J. R. Wolfe, Elie; Mr. C. A. Wakefield, London; Mr. T. Webb, Margate; Mr. T. A. Welton, London; Mr. V. H. Wingrave, London; Dr. A. M. Wedderburn, Forfar. (**Y**) Miss M. Yates, London, etc.

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[1] Lumleian Lectures, British Medical Journal, vol. i, 1886; *Elec. Rev.*, vol. i, 1886.

[2] *Electrical Review*, vol. iii, 1888.

[3] *Electrotechnische Zeitschrift*, *Elec. Rev.*, trans., October 14th, 1892.

BOOKS, Etc., RECEIVED.

Tooth Extraction: A Manual on the Proper Mode of Extracting Teeth. By John Gorham. London: H. K. Lewis. 1893. 1s. 6d.

A Textbook of Medicine for Students and Practitioners. By Dr. A. Strumpell. London: H. K. Lewis. 1893. 28s.

Die Harnsäurediathese. Von Dr. F. Levison. Berlin: August Hirschwald. 1893.

Manual of Bacteriology. By Dr. S. L. Schenk. Translated from the German by Dr. W. R. Dawson. London: Longmans, Green, and Co. 1893. 10s.

Uber Gasphlegmonen. Von Dr. E. Fraenkel. Hamburg: Leopold Voss. 1893. 4 marks.

Practical Dentistry, Surgical and Mechanical. By A Dental Surgeon. London: The *British and Colonial Druggist* Office. 1893.

Chorea, or St. Vitus's Dance in Children. By Dr. O. Sturges. London: John Bale and Sons. 1893. 5s.

*** In forwarding books the publishers are requested to state the selling prices.

CLINICAL REMARKS
ON
INTRAVASCULAR COAGULATION AND PULMONARY THROMBOSIS.

BY SIR JOSEPH FAYRER, K.C.S.I., M.D., F.R.S.

ABOUT thirty years ago I began to call attention in India to the formation of clots and fibrinous coagula in the heart and great vessels as a source of danger, and frequently of death, not only to persons who were suffering from various forms of disease, but also to those who had sustained injury or undergone surgical operations, in many cases where they seemed to be otherwise progressing favourably. I remarked the apparent influence of dyscrasia and cachexia depending on malarial infection and splenic disease and on conditions arising out of various other forms of toxæmia, in producing the state of blood in which this intravascular clotting is apt to occur.

I was unable then to give more than a general account of or to offer more than somewhat vague suggestions as to the nature of the cause, but the light which has been thrown on the subject by the recent researches of pathologists in Britain and on the Continent, and which were so well expounded in the Goulstonian Lectures of 1893 by Dr. Halliburton, F.R.S.—his own contributions to the subject being of great interest and value—has now furnished a solution which goes far to explain that which has hitherto been obscure, and offers also reasonable ground for hope that a death cause often so terrible in its sudden onset and rapidly fatal termination may be in some instances mitigated, if not altogether prevented, and may prove amenable to remedies which chemico-physiological investigation has demonstrated to possess the power of controlling this abnormal tendency to intravascular coagulation.

I venture in the following communication to recur to observations made by me many years ago, and to relate briefly a few cases which illustrate the pathological conditions referred to. I would repeat my opinion that among the conditions which tend to determine this dangerous state of the blood, that which is so prevalent in tropical and malarial climates, more especially when any splenic complication exists, is a fertile cause of clotting, and that it frequently induces death by pulmonary thrombosis, not only in cholera, fever, and other diseases, but after surgical operations, not infrequently even where the progress of the sufferer appeared otherwise to be favourable.

The very lucid explanation given by Dr. Halliburton in his recent lectures and the account of his researches, as well as those of Wooldridge, Wright, W. L. Dickinson, E. H. Hankin, Green, Ringer, Sainsbury, Shore, Hardy, Schmidt, Hammarsten, Virchow, Brücke, Arthus, Pagès, Pekelharing, Grusbach, Löwit, Lilienfeld, Daremberg, into the nature and pathological causes of the processes by which it is brought about appear most conclusive, and are a striking example of the great practical value of researches conducted in the patient, persevering, and scientific spirit characteristic of those recorded and acknowledged by Dr. Halliburton in the lectures above referred to.

I am glad to find that the impression made on me by former experience of this disease, to wit, that the depraved state of the blood in malarial and splenic cachexia, in which the leucocythæmic condition is productive of danger by its tendency to cause intravascular clotting, thus receives explanation and confirmation from these pathologists, and I feel that to them are due grateful thanks for the light thrown on an important and hitherto obscure cause of suffering.

When listening with deep interest to Dr. Halliburton's lectures, I heard him refer to a particular case of pulmonary artery thrombosis which occurred in this country; my thoughts immediately reverted to many such cases which had happened in my own experience. I have therefore offered the following contributions to the subject, and I believe that Dr. Halliburton will find in them illustrations of the views which his most valuable researches have developed, and I would repeat what I have said on other occasions, that I believe intravascular coagulation with pulmonary thrombosis to be a more frequent cause of death, in this country as well as in India and the tropics, than is generally supposed. I would by no means be understood to imply that this is due only to malarial influences. I merely wish to point out that I believe that a condition of the blood which may be induced by many causes is more prone to occur in climates where such influences exist.

I have little doubt that physicians and surgeons, looking back over former experiences, will recall cases where death has occurred owing to this condition, in which necropsy has revealed the presence of a clot in the pulmonary artery as the only cause to which the fatal termination may be assigned.

The above remarks refer chiefly to clotting in the venous system, but the arterial side of the circulation is by no means exempt from it, and this I have described in the paper, "Gangrene from Arterial Embolism," p. 131 of *Clinical and Pathological Observations in India*, where I have given illustrations of it as manifested in gangrene or other lesions resulting from plugging of the main arteries of the limbs or other parts of the body.

In this paper reference is made chiefly to thrombosis of the pulmonary artery, and the following examples are given where the right ventricle, the pulmonary artery, and its extreme branches have been found, after death, to be plugged by a firm, white, fibrinous clot, which had rapidly proved fatal.

CASE I. *Ligature of the Femoral Artery for Elephantiasis of the Leg; Death from Fibrinous Coagula in the Pulmonary Artery.*—A Bengali, aged 30, was admitted on February 22nd, 1865, with elephantiasis of the right leg of seven years' duration; otherwise he was healthy looking, with no symptoms of disease elsewhere. The femoral artery was tied at 9 A.M. on the 25th, near the apex of Scarpa's triangle. He did well until March 4th, when he had slight fever; this recurred at intervals of a day or two, without, however, affecting the foot until the 14th, when he felt a burning sensation in both legs. On the 13th pyæmic symptoms had set in, with a rapid pulse and hurried breathing. These symptoms were worse on the 15th, and he died on that day at 2 P.M. The wound had looked healthy all the way through.

Post-mortem Examination.—The liver and spleen were healthy; the kidneys were infiltrated with pus. The iliac veins appeared healthy, but the right contained a clot. The lungs contained numerous patches of dead tissue, one as large as a small orange. There was also purulent effusion into the cavities of the pleuræ. The pericardium contained a quantity of yellow serum. The right ventricle was completely filled with a firm decolorised clot, which had moulded itself in the cavity and extended far into the pulmonary arteries. There was no sign in the condition of the femoral artery of any pathological change that would have given rise to mischief. There was no phlebitis in the femoral vein.

CASE II. *Operation for Elephantiasis; Pulmonary Thrombosis; Death.*—A Mahomedan, male, aged 50, admitted January 26th, 1866, with elephantiasis of scrotum. On February 1st tumour was removed. There was much bleeding from the wounded vessels. The pulse was very weak; the wound looked healthy throughout. On the 8th he had pain in the right hypochondrium, with hurried breathing, and died on the 9th.

Post mortem, there were whitish decolorised clots in the right auricle and ventricle of the heart, extending into the pulmonary artery and all its minute ramifications in the lung. Pulmonary veins were plugged with similar clots, which extended into their branches and filled the left auricle. Other organs were healthy.

CASE III. *Operation for Elephantiasis; Pulmonary Thrombosis; Death.*—J. H., aged 45, admitted on August 24th, 1866, with scrotal tumour of two years' duration. Tumour removed on September 3rd; lost much blood; temperature rose; pulse small and weak; became delirious; breathing hurried; died on the 10th.

Post mortem, a firm, whitish clot in the upper vena cava was found extending into the right auricle, which was nearly filled by it. Clot extended into the right ventricle, through the tricuspid valve, and thence into the pulmonary artery and all its branches. Pulmonary veins filled with similar clots, which passed into their ramifications and filled up the left auricle; the left ventricle was empty. There was a clot in the aorta, which was adherent to the valves, and ended in a free extremity beyond the origin of the left subclavian artery, where it was floating loose within the calibre of the vessel. The lungs were blanched, and seemed rather shrunken; other organs healthy, except the kidneys, which were pale and flabby.

CASE IV. *Opening of a Deep Sinus; Pulmonary Thrombosis; Death.*—A Hindu, male, aged 38, was admitted on March 27th, 1867, suffering from a deep sinus running under the gluteal muscles. A counter opening was made. Had fever for the next three or four days. An incision below the great trochanter gave exit to some fœtid pus and gas. Fever ceased on 31st. Pulse weak; breathing very hurried; discharge fœtid and thin; incision enlarged; died on April 2nd.

Post-mortem Examination.—The left lung was found much congested; right lung contained a small tuberculous cavity at its apex; no pyæmic patches, no pleuritic effusion. Right auricle and ventricle of heart completely stuffed with firm fibrinous coagula, extending into the pulmonary arteries. Left lobe of liver much enlarged; its substance soft and fatty; spleen much enlarged; kidneys flabby, and their capsules easily detached. The sinus ran under the gluteus maximus, and had no communication with the bone. The tissues in the neighbourhood were in a state of decomposition.

The formation of fibrinous coagula in the cavities of the heart, or in the great vessels, is a condition which we know is liable to occur in the later stages of numerous diseases, and probably it is the actual cause of death in many, being itself due to the altered condition of the blood; perhaps to some extent to the diminished vitality of the tubes and cavities in which the blood circulates, and to altered or defective nerve force. It is not only to its occurrence under these circumstances that I now allude, but to the fact that it is a danger to be apprehended after any severe—indeed not always severe—operation or injury, and may occur independently of those signs which indicate the toxæmic state of the blood we so frequently see in hospital patients in large cities, where not only are the hygienic conditions defective, but the people themselves are anæmic and wanting in vital energy. It is right, therefore, that this source of danger should be borne in mind, and that in any case where a tendency to exhaustion or anæmia exists, particular attention should be paid to the diet, and administration of such remedies as may tend to counteract the disordered condition, which we may fairly assume to exist when these symptoms appear. In the preparation of patients for an operation, as well as in their treatment afterwards, it should be borne in mind that iron and nutrients should be freely given to improve the condition of the blood. Hyposulphites, according to Polli; alkalies, according to Richardson and others, are indicated; the former to limit the development of poison germs, the latter to obviate the tendency in the blood to clot.[1] Above all, plenty of fresh air, to oxygenate the blood and tissues. Such, no doubt, are the measures of a therapeutic and dietetic nature from which we may hope to derive benefit. In many cases, the supervention of this obstructed condition of the right side of the heart is the precursor of speedy death, but not necessarily always so; and doubtless a certain amount of clotting is frequently recovered from, or its effects are seen in a secondary form in the changes which occur in the lungs as the result of the capillary embolism to which its *débris* may give rise. In those cases wherein it proves fatal, the end is speedily brought about by the rapid and sudden withdrawal of blood from the pulmonic circulation, syncope or cardiac apnœa closing the scene.

The earliest symptoms of weakness, failing pulse, coldness of the extremities, with rapid action of the heart, pallor or lividity and hurried respiration, should receive due attention; and in some cases I believe that, provided no other changes have occurred in the viscera, as a result of septicæmia, the timely administration of remedies such as I have indicated may avert the danger and save life.

Case No. IV is an example of the conditions I have been describing. It is true there were *post-mortem* evidences of visceral changes of a chronic nature, but they were principally such as tend to induce the condition in which fibrinous clots are most likely to form, by interfering with the due elaboration and development of healthy blood; for if there be any one condition more than another unfavourable to such development, it is that disordered state of the blood-making organs so frequently found in malarious countries. It is, I believe, only right that in estimating the respective influences of the various causes by which life may be endangered or lost, after surgical operation, that we should take into consideration the malarious state of the climate, and its effects; and whilst I admit that much of the mortality may be due to intrinsic causes, I feel more strongly than ever the paramount necessity of having healthy, well-ventilated hospitals.

Case V. *Amputation of Arm; Pulmonary Thrombosis: Death.*—A Hindu, aged 40, admitted May 6th, 1867, with lacerated wound on inner aspect of left elbow-joint, inflicted with a pickaxe. Pus formed in the wound, he did not do well, had rigors and fever, indications of pyæmia appeared, so amputation was performed through the lower third of the humerus. Fever continued; complained of pain in the left side of the chest; respiration hurried; temperature high, more rigors; died June 5th.

Post-mortem Examination.—The lungs were found to be œdematous and emphysematous, pale, but right lung congested posteriorly. Left lung had three pyæmic patches of dead lung tissue, saturated with puriform sanies. Left pleural cavity contained about 5 ounces of serous fluid, with flakes of lymph. Upper lobe of left lung covered with thick layer of lymph. Firm decolorised clot in right auricle and ventricle, extending far into pulmonary artery. Liver pale and slightly enlarged; spleen considerably enlarged. Bone contained pus infiltrated throughout medullary cavity. Other organs healthy. Death occurred from pyæmia, but immediate cause was cardiac thrombosis, interrupting pulmonary circulation.

Case VI. *Injury to the Scalp; Pulmonary Thrombosis; Death.*—A native, aged 25, admitted May 13th, 1867, for severe injury to scalp. Bone in right frontal region laid bare to extent of 4 by 2 inches. Pericranium removed, but bone itself not injured. Did well for first week. After that had much pain in head, rigors, fever, sweating, inclination to vomit, rapid pulse, and high temperature. Trephine applied over centre of denuded portion of bone, which had dull and dry appearance. On reaching the diploë, a large quantity of fœtid pus was evacuated; no pus between bone and dura mater. No improvement resulted; breathing became more hurried; became unconscious; died the same evening.

Post-mortem Examination.—The frontal bone was found in complete state of diffused osteomyelitis, diploë being infiltrated with fœtid pus. Large quantity of thin pus under dura mater, diffused over surface of that side of the brain, but none between the skull and the dura mater. There was one small pyæmic patch on the surface of the middle lobe of the right lung, and another on the left lung. The right auricle and ventricle were plugged with firm, adherent, fibrinous clots, extending into the pulmonary artery. Liver, kidneys, and spleen healthy. The cause of death in this case was undoubtedly interrupted pulmonary circulation, as proved by the clots in the heart and blanched and emphysematous condition of portions of lungs. Small pyæmic patches in lungs were quite incipient.

Case VII. *Amputation of the Leg; Pulmonary Thrombosis; Death.*—A Hindu, aged 21, admitted June 24th, 1867; right knee injured by an agricultural instrument. Wound was found to communicate freely with the joint; sanious discharge; increased much, became puriform and fœtid. Amputation performed at the lower third of the thigh on July 2nd. Did not do well. Symptoms of toxæmia appeared and progressed rapidly, and on July 4th amputation at hip-joint was performed. Pulse and temperature high; delirium; rapid breathing; no hæmorrhage from stump. Died on July 5th, breathing having become very hurried.

Post-mortem Examination.—The right ventricle contained firm, flattened, and adherent decolorised clot, extending far into ramifications of pulmonary artery. Right auricle stuffed with firm white clot, supplemented by a more recent one. Lungs blanched, some portions being quite exsanguine, others containing a little blood; both emphysematous and œdematous. No structural change in any of the viscera. Nothing remarkable in stump; medulla infiltrated with pus. The immediate cause of death appears to have been coagula. Absence of structural change in the viscera points to the fact that recovery might have taken place had coagula not formed.

Case VIII. *Injury to the Rectum and Bladder; Pulmonary Thrombosis; Death.*—Conductor H. was admitted on December 16th, 1868, suffering from effects of an accident which had happened eight months previously. He had slipped down a hill a few feet on to a stake, which pierced the right gluteal region and penetrated the bladder. He was in great pain for the first day or two, but after then until July 11th he did well. On that day a great deal of blood came away through the wound. The bladder and urethra became very irritable, and he suffered much from tenesmus. Under treatment the symptoms improved, and when he was admitted, on December 16th, he seemed in fair general health, but complained of an increased desire to pass water, with much pain at the neck of the bladder. Calculus was detected, and on January 7th the lateral operation was performed and a friable calculus removed. Had frequent attacks of fever and diarrhœa, and twice incisions were made in the inguinal canal and deep-seated pus evacuated. On February 9th, when apparently convalescing, he went home for change of air. He returned on February 27th much worse; had had severe rigors and fever; pulse feeble and rapid; respiration gasping and hurried. On February 20th the breathing became much more rapid and gasping, and intense cardiac apnœa preceded death.

Post-mortem Examination.—The lungs were found to be much congested posteriorly. Firm decolorised clots in the right cavities of the heart, extending far into the ramifications of the pulmonary artery. Liver enlarged; contained very numerous pyæmic patches of the size of peas. Spleen congested and softened; kidneys somewhat congested.

This was an exceedingly interesting as well as instructive case from the beginning. His recovery from so grave an accident, in the first place, was very remarkable. A stake driven through the gluteal region and rectum into the bladder might well have proved rapidly fatal, and the result wonderfully illustrates the reparative power inherent in the constitution of a man in the vigour of health. He had so far recovered in about seven months as to be able partly to resume his duty. The formation of the calculus may be accounted for, no doubt, by the condition of the bladder injured by the wound; a nucleus having formed, determined by the roughened and irregular surface of that part of the bladder where the fistula opened, and perhaps by the entry of some hard substance from the rectum, the concretion rapidly gathered round it and produced the calculus detected on his admission. No part of the stake with which he was injured could be found in the bladder, though carefully looked for. His subsequent condition was not less remarkable. There can be little doubt, I think, that the train of unfavourable events which preceded his death were mainly due to the influence of malarious poisoning. The fever that supervened after the operation was most probably of malarious origin, and the blood, already thus poisoned, was more readily affected by the toxic conditions excited by the operation. The fibrinous coagula in the heart, which were the immediate cause of death, were no doubt due to the same causes. That the absorption of septic matter in this case took place mainly

[1] Drs. Halliburton and Wright suggest other remedies for the purpose.

through the portal circulation is indicated by the state of the liver, which was studded with local deaths of tissue; and the enlarged spleen tends to support the theory that malarious poisoning was much concerned in inducing a state of the blood generally which finally accelerated the fatal result by determining the formation of fibrinous coagula in the right cavities of the heart.

Case IX. *Contusion of the Leg; Pulmonary Thrombosis; Death.*—A Bengali, male, aged 20, was admitted on April 15th, 1870, with contusion on the right leg. Had been suffering from malarious fever and enlarged spleen for five months previously. Leg and knee were œdematous. The bruised portion, just below the knee-joint, looked as though it were becoming gangrenous. Temperature low; pulse small and feeble. Remained in this state for two days. Respiration began to be hurried on the 18th; became more gasping and hurried; died at midnight on the 20th in a state of extreme cardiac apnœa.

Post-mortem Examination.—The spleen was found to be much enlarged. The lungs were somewhat congested hypostatically, and a portion of the lower lobe of the right lung was consolidated. In the heart a firm fibrinous coagulum was found extending from the right auricle, where it was reddish, into the ventricle, where it was straw-coloured, and thence firm and fibrinous into the pulmonary artery and its minute subdivisions. A similar one was found in the left cavities, extending into the aorta. The integument was gangrenous for several inches down the leg. The knee-joint was not compromised; and, on being laid open, its structures were found to be normal.

There was certainly not sufficient in this case, in the mere gangrene of the integument of the leg, to account for death in an ordinary individual; but in a person suffering from malarial blood poisoning and enlargement of the spleen, it was more than sufficient. Probably in no condition of the disease is the formation of fibrinous coagula more likely to occur, on the least disturbance, than in splenic or malarious cachexia. In a marked case, such as this, where the spleen was four or five times its natural size, it may be said that there is nothing remarkable in its termination; for do we not see such almost daily in the cases of cancrum oris, sloughing ulceration, and necrosis, that are unhappily so common in Bengal, and probably in other localities wherever malarial influences are rife? The imperfect condition of the blood-making organs, and the impoverished character of the blood they elaborate, are amply demonstrated in the leucocythæmia, and in the great tendency to disintegration and death of the soft tissues and bones. The evil results of thrombosis, when it occurs in the arterial circulation, are seen in the limbs or other parts of the body, which become gangrenous, or, still worse, in the multiple deaths of portions of the viscera, which are so frequently observed in the so-called pyæmic conditions generally met with after wounds and injuries, though by no means infrequently, idiopathically.

I have repeatedly called attention to the subject as one of great importance in a surgical point of view, for it is not only in cases where an enlarged spleen renders almost any operation impossible, and causes almost any wound to prove fatal, but in many others, whether of wound or injury, where there is no obvious disease of the spleen, and where all seems to be doing well, that this may and often does supervene, and rapidly carry off the sufferer. The condition is one most common in exhaustive diseases, and it is, no doubt, often one of the latest pathological phenomena manifested by the moribund, but it is more than this, for, as I have said, it may set in where there is no appearance of exhaustion, when repair and nutrition are going on satisfactorily, and within twenty-four or forty-eight hours carry off the patient, whose body presents no solution of the cause of death beyond a firm, white, adherent clot in the right auricle or ventricle, or it may be just at the ostium of the pulmonary artery, which is indeed the janua vitæ.

This condition taking place in the right side of the heart or in the pulmonary artery is one of the dangers that the subject of a surgical operation, wound, or injury has to encounter, and not merely as the last act of a series of pathological processes, the result of exhaustive or prolonged disease, but as an original and dangerous consequence of some blood change. What the nature of this change may be I am uncertain; it may perhaps arise out of the presence of matters retained in the blood that should have ministered to the nutrition of the part removed in cases of amputation or ablation of parts of the body, a condition somewhat analogous perhaps to the retention in the body of a secretion that should have been eliminated; or, in cases where no removal of parts has occurred, it may be due to some disturbed condition in which the blood is prone to coagulation. I have a strong suspicion that climate is not without influence in originating this dangerous state. In Bengal all are more or less under the influence of malaria; it is true, happily, that in a large majority of persons its effects are not generally perceptible.

I do not regard this as altogether due to a malarious condition of the blood; I know that, although it may not have been noticed as a result of surgical operations, Dr. Richardson long ago pointed out its tendency to occur in exhaustive diseases; but I cannot help thinking that a pathological state capable of producing so many important changes as malarial infection does, may have something to do with this one also.

Case X. *Catheterism; Urethral Fever; Pulmonary Thrombosis; Death.*—An English sailor, aged 39, applied for relief from retention of urine on June 20th, 1870. He said he had suffered from slight stricture for the last five or six years. A catheter passed and urine drawn off without difficulty. Returned in the afternoon, very ill, in great distress about the stomach; pain across abdomen or lower part of the chest. Had passed some urine tinged with blood after his return home. On May 21st the pain seemed to localise itself in the right hypochondriac region, and there was excessive tenderness on pressure over the liver. Breathing hurried. No urine had been passed since admission; dulness on percussion over the base of the right lung; breathing hurried and gasping; distress increased, and he complained that something was choking him. At about 10.30 he passed water, but no improvement resulted, and he died at midnight "in a sudden fit of gasping." Struggle for breath was most distressing to witness.

Post-mortem Examination.—The lungs were hypostatically congested, the right most so; one portion of the middle lobe was solidified; lower lobe was also hepatised. There were one or two very small patches of tuberculous deposit in the apices of the lungs; with this exception they were healthy and crepitant. Heart was normal, but its cavities contained firm, adherent, fibrinous clots; that in the left side extended from the auricle into the ventricle and into the aorta for about 3 inches; that in the right was larger, and extended from the auricle through the ventricle into the finer ramifications of the pulmonary artery; the pleuræ were normal. The kidneys were congested; the other viscera and peritoneum were healthy. The bladder was somewhat thickened, and the urethra was slightly strictured in front of the bulb; there was no wound and no false passage.

Case X is very instructive. A man in the prime of life, in good health, with the exception of a slight stricture, a steady, intelligent, and temperate person, suffers from retention of urine, due to a slight excess a day or two previously. He is relieved at once by the passage of a No. 8 catheter. He returns home, feels chilly, has rigors, rapidly followed by fever and delirium; he passes urine tinged with blood after his return home. The fever is attended with intense restlessness and distress; severe pain in the right hypochondriac region and pit of the stomach follows. Rapid, deep, and gasping breathing, with the greatest præcordial distress, increase and go on getting worse and worse, until the patient dies in great agony of breathlessness about forty hours after the catheter had been passed. His intellect was perfect to the last; urine was secreted and voided not long before death. It is clear, therefore, that the symptoms were neither due to uræmic or cholæmic poisoning, nor to any cerebral disorder. There was no exhaustive disease. Air entered the chest freely, and his voice was natural to the last. There was neither heart disease, peritonitis, nor other acute inflammation. What, then, was the cause of death?

The *post-mortem* examination revealed some congestion at the base of each lung. The pleuræ were healthy, and the pericardium contained a small quantity of fluid. None of these conditions were sufficient to cause death. The abdominal viscera were not absolutely healthy, for the liver was slightly enlarged, and the kidneys were congested. The bladder, prostate, and the tissues about its neck were generally healthy.

The bladder was somewhat thickened in consequence of a slight stricture situated just in front of the bulb of the urethra. Through this an instrument had been passed. There was nothing in the abdomen to account for death; but on opening the heart, it was evident that the formation of coagula had destroyed life. They were firm, decolorised, and adherent, and on the right side not only obstructed the auricular, ventricular, and arterial openings, but extended far into the subdivisions of the pulmonary arteries, ramifying like the branches of a tree.

I have repeatedly noticed this condition as a cause of death, but I have never seen a more striking example than this. I have before mentioned my suspicions that malaria has much to do with inducing the condition of blood in which this coagulation occurs. In this case, the simple act of pas-

sing a catheter through a slightly strictured urethra was the exciting cause. The patient cannot be said to have been, strictly speaking, in a healthy condition, although he appeared in perfect health, and no lesion was discovered that would account for death. Sufficient, however, existed to suggest how, with the addition of the shock of the operation, and the consequent urethral fever, the blood change and consequent cardiac thrombosis were brought about.

Something was said about his having recently suffered from intermittent fever, but he had none of the appearances of malarial cachexia. But no one in Bengal can be said to be exempt, especially at that season of the year; and I am convinced that this malarious influence, which affects all more or less, is in persons of irritable constitution, and especially in those suffering from stricture, a predisposing cause of that dangerous condition—urethral fever—in which, under certain conditions, fibrinous coagulation is likely to occur.

It has long been known that death may occur rapidly from this cause in puerperal patients, and that in diphtheria, croup, cholera, and other exhaustive diseases, it is not by any means infrequent; and in such cases, where the blood must necessarily be in an altered condition, and the muscular fibre of the heart weak, although the precise nature of the change may be unknown, it is not difficult to understand why the fatal result should occur. But in cases such as the preceding, and in others where fatal cardiac thrombosis has supervened after surgical operations, when the patient appeared to be doing well, the explanation is more difficult. That it occurs in persons in whom there are no obvious indications of cardiac disease is the more reason why, in a hot and exhausting climate, it should take place in those who are the subjects of fatty degeneration, or when the heart is loaded with fat externally, or where there are either pleuritic or pericarditic effusions, or the ventricles are dilated, and the muscular fibre atrophied. In such persons, indeed, the presence of fibrinous concretion may not be needed to bring about the fatal apnœa. The temperature of a night in May or June in a tropical climate such as Calcutta, the shock or after-effects of an operation, may be sufficient; and the patient, after a short and distressing struggle of breathlessness, perishes.

CASE XI.—*Malarial Poisoning; Pulmonary Thrombosis; Death.*—On August 6th, 1871, I saw a case of supposed irreducible hernia with symptoms of strangulation. The patient was a young Englishman, aged 28, with a swelling in the left groin below Poupart's ligament, painful on pressure, with general abdominal tenderness; smaller swelling in the other groin, less painful. Was feverish, and had been so during the night, with severe pain, nausea, and vomiting. He was easier in the morning, but was sent to the hospital. At about 2 P.M. the symptoms of the night recurred, and at about 4 P.M., breathing, which had been hurried before, became more so; cold sweats covered his body, and all the indications of collapse set in; breathing was painfully gasping and hurried; face and lips dusky and livid; he was conscious to the last. Sank soon after 4 P.M.

Post-mortem Examination.—It was seen that there was no hernia; the swellings in the groins consisted of thickened areolar tissue around a cluster of indurated glands, and had been present for months if not years. The lungs were intensely congested, especially at the back, and contained numerous patches of pulmonary apoplexy throughout their structure; they were œdematous, and the bronchial mucous membrane was deeply congested and covered with frothy mucus. The heart was normal and firmly contracted; both sides contained small, firm, decolorised clots extending into the aorta and pulmonary artery; all else was normal.

This is a very interesting as well as a somewhat obscure case. It is an example of the rapidly fatal effect sometimes produced at this season of malarious poisoning, the weather at the time being hot, damp, and replete with malarious influences. The symptoms were such as not unnaturally, considering the state of the groins, suggested strangulated hernia; indeed so much so that I was tempted to cut down on the swelling to remove all doubt. But when I saw him after removal to the hopital, the collapse was so complete that I did not do so. Death was due to the pulmonary engorgement accelerated by the formation of fibrinous coagula in the right side of the heart. The overwhelming action of the malarious poison can only account for the rapidly fatal phenomena. The patient was a healthy and temperate man, his organs were sound, and he had not been ill for months before the day on which this illness commenced. A certain amount of enlargement of the scrotum, combined with hydrocele, together with swelling in the groins, suggested the existence of an elephantoid taint; although in other respects he was free from disease.

CASE XII. *Carbuncle; Pulmonary Thrombosis; Death.*—A Lascar aged 28, was admitted October 20th, 1871, with a carbuncular swelling on the right cheek, involving lips and lower eyelids. The corresponding mucous membrane lining the cheek was covered with a croupous-looking exudation. Disease attributed to slight cut whilst shaving. General health much impaired by malarious enlargement of liver and spleen. Small incisions were made in cheek and lip, from which purulent matter found exit. Patch of exudation removed from the cheek. On October 22nd, pulse feeble, no fever, respiration very hurried; delirium; more punctures made. On October 23rd he was worse; breathing excessively gasping and hurried; died at 3 P.M.

Post-mortem Examination.—The lungs were hypostatically congested. No pyæmic changes. There was found a firm fibrinous clot in right ventricle, extending from the auriculo-ventricular opening into the finer ramifications of the pulmonary arteries. Smaller clot occupied the left ventricle, extending into the aorta. Liver and spleen both enlarged; other viscera appeared normal.

CASE XIII. *Carbuncle; Pulmonary Thrombosis; Death.*—A native (male), aged 27, was admitted January 8th, 1872, with carbuncular swelling of the left cheek, the lining membrane of lip on that side being affected with a diphtheritic exudation. Commenced eight days previously with a small pimple at the entrance of the nostril. Health impaired by malarious enlargement of the spleen. Incisions made, but only thin sanious fluid evacuated. On January 9th there was slight fever. Next day he was worse, respiration being very rapid and hurried. Sank and died of apnœa.

Post-mortem Examination.—The muscular structure of the heart was pale and flabby. A large coagulum, partially decolorised, occupied the right auricle and ventricle, and extended into the pulmonary artery. Dark deposits, varying in size from a walnut to a pea, were found scattered through the substance of the lungs. Malarial enlargement of liver; spleen also somewhat enlarged.

CASE XIV. *Injury to the Head; Pulmonary Thrombosis; Death.*—An English boy, aged 4½, fell on July 15th and cut the back of his head slightly. It bled freely, and his mother applied a piece of sticking plaster. For a week after he was considered to be in his usual health and spirits. In the night, about a week afterwards, he was feverish, restless, and sick. In the morning still feverish and light headed, with a peculiar twitching of the muscles. When examined, the wound was found to be deep, the scalp round it was swollen, œdematous, boggy, but not red; there was no positive evidence of pus. He rapidly became worse; was violently convulsed; became silent; respiration became excessively hurried; was quite unconscious; pupils widely dilated; died at 4 P.M.

Post-mortem Examination.—The scalp was reflected. All round the wound it was infiltrated with a dark red serous, and probably partially purulent, fluid. This occupied an area of an inch in each direction; beyond this and down to the neck it was infiltrated with turbid serum. All this part of the scalp was œdematous. The wound itself was healthy, and reached nearly, not quite, to the pericranium, which was unwounded. The pericranium was detached from the bone for about a square inch, corresponding to the wound. The bone was bare but did not appear dead. The bones of the cranium were healthy; the section revealed no suppuration in the cancellated textures. The longitudinal and other sinuses were distended with blood, and contained coagula. The brain was much congested on the surface; the vessels between the convolutions were engorged; the surface of the base, especially over the wound, was slightly ecchymosed under the arachnoid. There was no meningitis, nothing suggestive of tuberculosis. The brain substance, the ventricles, and the membranes were healthy; lungs pallid, almost blanched; heart firmly contracted; pericardium natural; right auricle and ventricle contained a peculiarly tough decolorised fibrinous clot, firmly wedged in the auriculo-ventricular opening; did not extend into pulmonary vessels; pleuræ were natural, viscera healthy.

CASE XV. *Splenic Cachexia; Pulmonary Thrombosis; Death.*—A young officer, about 23 or 24, returned from India after suffering severely from repeated attacks of malarial fever, complicated with excessive enlargement of the spleen, and a profound state of splenic cachexia. Under the influence of proper care and the use of quinine and sulphate of iron he was making slow, but apparently satisfactory, progress. His condition of debility had been complicated by occurrence of hurried respiration with a weak and irregular pulse. He had been enjoined to observe perfect rest and quiet, and to avoid all attempts at muscular exertion. One day, being attracted by a sudden noise in the street, he rose from his bed, hurried to the window, and made an effort either to close or open it. He was immediately attacked with hurried and gasping respiration, staggered back to his bed, on to which he fell prostate. The symptoms continued, and within a period of an hour or so he died. To a clot already existing a fresh accretion had taken place, which rapidly brought his life to a close.

CASE XVI. *Cholera; Pulmonary Thrombosis; Death.*—A civil officer of high rank, middle-aged, was attacked with cholera in Calcutta. He passed into a state of collapse, and his life was in great peril for some hours. By aid of treatment and careful nursing he was recovering. The vomiting and purging had entirely ceased; the urinary secretion, which had been entirely suspended, was restored. He was regarded as being in a favourable condition, with every prospect of recovery, when symptoms of pulmonary obstruction supervened. His respiration became gasping and hurried, and he died in a few hours. A clot had formed in his pulmonary artery, which was the cause of death. There can be little doubt that had this untoward condition not supervened, his recovery might have been complete.

The cases here recorded proved fatal, but death does not always result; many recover, some quickly, some after protracted suffering. But recently I have had the opportunity of observing in consultation with Surgeon-Lieutenant-Colonel Platt a case in which clotting had occurred in both the arterial and venous circulation. Both femoral arteries had been compromised, whilst life had been several times in extreme peril from symptoms of coagula in the right side of the heart. Recovery is now slowly, but apparently satisfactorily, progressing.

The cases noted sufficiently illustrate the dangerous and fatal effects of cardiac and pulmonary thrombosis. Others have occurred in my experience of which I have kept the notes, but it seems needless to multiply them. It is to be noted that however much or little these cases may be referable to malarial causes, septic conditions were then very rife in Indian hospitals.

THE CROONIAN LECTURES

ON THE

PHARMACOLOGICAL ACTION AND THERAPEUTIC USES OF THE NITRITES AND ALLIED COMPOUNDS.

Delivered at the Royal College of Physicians of London.

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LECTURE IV.

THERAPEUTICS OF THE NITRITES AND NITRATES.

Neuralgia.—In neuralgia, especially of the fifth nerve, the administration of nitrite of amyl and nitro-glycerine has been followed by relief. Considering the trivial circumstances which seem at times both to bring on and to remove neuralgic pain, we can hardly be surprised that agencies which so powerfully affect the circulation should have a distinct influence in this ailment. In the majority of cases both amyl nitrite and nitro-glycerine have in my hand failed to give relief, and it has appeared to me probable that where they have removed pain their success has been due to circulatory influence, to what I have called a "surprise" effect, or to suggestion.

Strychnine Poisoning and Tetanus.—Dr. H. C. Wood has proved that amyl nitrite depresses the reflex influence of the cord, and it has been suggested that this power might be utilised in strychnine poisoning. Experiments have been made which seem to show that in the rabbit nitrite of amyl antagonises to some extent the lethal influence of strychnine;[1] but, as Dr. H. A. Hare points out,[2] to be of service its full physiological action must be continuously present, and inhalation will not suffice. I do not see how this drug can be of any practical use in strychnine poisoning in man, nor is it likely that in tetanus it will prove an available remedy, although some cases have recovered after its use. The long-lasting effect of the tetanus poison cannot, it seems to me, be effectively antagonised by the fleeting action of nitrite of amyl or other nitrites.

Epilepsy.—In epilepsy nitrites of amyl and sodium have been extensively tried, but the testimony as to their value is by no means uniform. Their employment rests to some extent on pharmacological grounds, for the nitrites in large doses depress the functions of the cerebral cells; they likewise dilate these vessels, the contraction of which is a concomitant—and some have thought a cause—of epileptic seizures. Moreover, it has been shown by Sir J. Crichton-Browne that when the brain of a rabbit rendered epileptic by artificial means is stimulated, convulsions will not follow in the usual manner if amyl nitrite be inhaled.[3] In favour of the utility of nitrite of amyl we have had the testimony of Sir J. Crichton-Browne and Dr. Weir Mitchell. The former found it specially serviceable in the "status epilepticus." Others say they have seen nitrite of sodium advantageous, whilst Osler thinks he has used nitro-glycerine with a certain amount of success. But many capable observers believe that the nitrites are of no avail in epilepsy. It seems to me unlikely that substances having such temporary influence on functions and tissues as the nitrites can be of any great benefit. Personally I have not seen good arise from their employment, though I have given them a fair trial. It is, however, possible that the inhalation of amyl nitrite, when an attack is immediately impending, may ward it off. In the case of nitro-glycerine and sodium nitrite, dilatation of the vessels does not, if ordinary doses be given, last more than two or three hours, and even during much of this time the arteries are contracting after their dilatation. Unless, then, nitrites are given at very short intervals, the protective effect must be transient. I do not anticipate that the nitrites will ever play an important part in the treatment of epilepsy.

Tinnitus Aurium.—Some evidence has been given that both nitrite of amyl and nitro-glycerine are at times of benefit in tinnitus aurium. I have seen some relief given by nitrites in this ailment, but have not had sufficient experience of its use to speak definitely of its advantages.

Bright's Disease.—I have already given my views as to the diuretic value of nitrites when speaking of their pharmacology; I propose now to allude to their employment in Bright's disease. In acute Bright's disease it is very difficult to determine the effects of a diuretic. Spontaneous increase in the urine flow is as much a part of the natural history of the disease as is the termination of pneumonia by defervescence. In ten cases of acute nephritis, the course of which was not influenced by medicine, I found that in all diuresis set in between the ninth and twenty-first day. I have certainly seen a great increase in the urine flow follow the administration of the nitrites of ethyl and sodium and of nitro-glycerine in many cases of acute nephritis. But, on the other hand, this result by no means always follows, and I know of no means by which it can be determined whether, when a diuresis occurs in acute nephritis after a nitrite, it is *post hoc* or *propter hoc*. General impressions are not of great value, but it certainly has seemed to me that a minim of liquor trinitrini or two grains of sodium nitrite every four hours occasionally expedites the advent of the diuresis which precedes recovery. Such medication, too, may tend to decrease headache and other discomforts present in acute Bright's disease, and I believe there is the advantage that it is incapable of doing harm. No evidence has yet been given that nitrites can inflict any injury even on an inflamed kidney. As I have not found diuresis follow in a very early stage of acute Bright's disease, I do not give them in the earliest stage unless symptoms are present which seem to render their administration desirable; but in the doses I have mentioned they may be useful as adjuncts to other methods of treatment if, after a week or more has elapsed, no critical diuresis supervenes.

In the large white kidney and in mixed forms of chronic nephritis the difficulty of judging of the value of a remedy, though not so great as in acute Bright's disease, is still considerable, for here, too, we not infrequently meet with spontaneous diuresis which is apt to be put down to any medicine that has been given. It has been claimed that nitrites in chronic Bright's disease decrease the total amount of albumen passed whilst they increase the amount of water passed. I have been unable to determine the regular decrease in albumen which some have seen, though decrease at times occurs, nor have I been able to note so great an alteration in the amount of water passed as would lead me to believe that they have a pronounced effect on its excretion. I have indeed at times known profuse diuresis occur under their use. But as in acute Bright's disease I have not always been satisfied that it has taken place because of their use. I have indeed often observed a temporary increase lasting a day or two, and comparing the amount of urine excreted during the periods in which nitrites have been given with the amount passed before and after the administration of nitrites, I find in a series of cases in which the data are fairly reliable, a slight increase in the amount of urine excreted under nitrites. It has seemed to me that under the influence of small doses of nitrites three or four times a day patients have been on the whole more comfortable, the skin acting better, and dyspnœic discomforts, if present, becoming less prominent.

My impression, then, is in favour of a use of nitrites in Bright's disease; I do not hold them to be curatives, but they seem to give relief.

In the contracted form of chronic Bright's disease, the

[1] St. Clair Gray, *Glasgow Medical Journal*, 1891, p. 166.
[2] *Boston Medical Journal*, vol. cxi, p. 481.
[3] *West Riding Lunatic Reports*, vol. iii, p. 168.

nitrites are often of great value, especially in the later stages. In the earlier stages, when the chief symptoms are failing health and high tension, I have not seen them of service, but when there is dyspnœa, and the heart's action begins to fail somewhat, a minim of trinitrin solution given three times daily will often add greatly to the patient's comfort, and I believe tend to prolong life, even though it may fail to subdue dyspnœic storms. It is said to be of service in uræmic convulsions; I have not seen definite advantage from it in the few cases in which I have employed it.

Other Diseases of the Genito-urinary Organs.—In dysmenorrhœa nitro-glycerine has been found of service, and it is certainly worthy of a trial. In *post-partum* uterine contractions there are records of advantages gained by its use, but its vascular influence renders it a remedy of doubtful value in these cases.

Sea-sickness.—In the relief of gastric disturbances the nitrites can play but little part; utility has been claimed for them in enteralgia, and they have been given in sickness and the vomiting of pregnancy, like every other conceivable remedy. But it is not easy to see how they can be of service in gastro-intestinal irritation, for neither nitrous acid nor nitro-glycerine are sedatives. The claim of nitrite of amyl and nitro-glycerine for the relief of sea-sickness seems to stand on firmer ground; giddiness from anæmia of the brain is one of the troubles of *mal de mer*, and this may be relieved by nitrites. The pathology of sea-sickness is not sufficiently known to enable us to say that the nitrite influence on the circulation is likely to combat the conditions which give rise to nausea and sickness; only experience can determine their value. It seems to me, however, that the balance is in favour of the occasional efficacy of vaso-dilators, and one or two tabellæ of nitro-glycerine are worthy of trial. The inhalation of amyl nitrite seems to be the most objectionable form in which nitrites can be given for sea-sickness.

I do not propose to deal further with the numerous ailments in which the nitrites and nitro-glycerine have been employed. They are credited with the cure of ailments differing very widely in character, as for example ague, cholera, chorea, and whooping-cough, but a knowledge of their pharmacological properties makes it probable they can only relieve certain symptoms connected with circulatory conditions which may be present in these ailments.

Administration and Dosage.—Before I finish with the therapeutics of the nitrites I should like to make a few remarks on the employment of the official compounds, and especially with regard to the spiritus etheris nitrosi. When nitrite of sodium was first employed medicinally it was found to be very impure, sometimes containing more than 50 per cent. of the inert nitrate, even now impure specimens are occasionally dispensed. It is important therefore that the purity of the drug used should be inquired into if it does not give the relief sought for. With regard to dose, I believe it is well to begin with 2 grains. I have myself never seen discomforts from even 3 grains. But severe throbbing of the head has been recorded after this amount, and when given regularly, in a very few instances slight blueness of the lips has been reported. Much larger doses may be given if neither physiological effects nor relief follows from the smaller doses; I have raised the dose to 3 or 4, rarely to 6 grains, without seeing evil follow, but occasionally even small doses cause slight stomach discomforts. Solutions of sodium nitrite in the form of mixtures seem to keep fairly well.

The tabellæ trinitrini and the liquor trinitrini are excellent preparations of nitro-glycerine. It should be remembered, however, that nitro-glycerine will under some conditions decompose. In distilled water it undergoes no change, but in the presence of alkalies, nitrite of the alkalies is formed, and when any salt is present some decomposition may occur. It is best therefore to order the liquor trinitrini in distilled water. One minim forms an average dose to commence with, but may be gradually raised without fear of injury to 20 minims or more, provided no discomforts follow from its use. A small dose of nitro-glycerine may be repeated if it fail in ten or fifteen minutes to produce a perceptible effect, for in that time its full influence has been usually exerted. A somewhat longer time should be allowed to elapse after sodium nitrite. Nervous and hysterical people often feel throbbing in the head, or even severe headache after small doses of either compound. It is rarely necessary to resort to subcutaneous injections, since nitrite of amyl acts so quickly when inhaled, and nitro-glycerine when taken by the mouth. On one occasion, however, I saw a patient, after severe and prolonged anginal pain, lapse into semiconsciousness. After the failure of amyl nitrite relief seemed at once to follow the injection of 2 minims of liquor trinitrini. I find that nitro-glycerine is preferable to sodium nitrite for subcutaneous injection.

Concerning the value of spiritus etheris nitrosi there is much difference of opinion. As a household remedy it is much believed in and largely used; as a medicine it is employed usually rather as a routine remedy than because much faith is placed in its action. When in proper strength it contains an amount of nitrite of ethyl sufficient to enable it to reduce tension, yet its proneness to decomposition renders it an unreliable remedy for the purpose. The lack of appreciation of its value is, however, to some extent due to the method in which it is ordinarily employed; it consists of rectified spirit containing in solution about 2 to 2¾ per cent. of nitrite of ethyl, an uncertain amount of aldehyde, and minute proportions of ethyl nitrate and other compounds.

I shall point out shortly that aldehyde possesses properties which are in some measure antagonistic to those of ethyl nitrite; it contracts vessels, whilst nitrites, as we have seen, dilate them. Ethyl nitrate acts in the same direction as ethyl nitrite, but it is to the latter compound that spirit of nitrous ether owes its influence to the circulation. Now spirit of nitrous ether, when not exposed to the air, does not undergo rapid change in constitution, but kept, as it often is, for dispensing purposes, it rapidly loses some of its nitrite element. I found, for example, a half-filled bottle, which, on the day I first examined it contained the official amount of ethyl nitrite, lost in thirteen days 16 per cent.

Many cases have been mentioned in which spirit of nitrous ether has been found to contain less than one-tenth of normal amount of nitrite. But, owing to the method in which it is usually given, it becomes still more unreliable as a remedial agent. Under any circumstances, a considerable portion of the nitrite of ethyl which it contains (about 50 per cent.) is at once dissipated, but, on keeping the mixture, the loss continues until all the ethyl nitrite is dissipated or decomposed. If, for example, half an ounce of spiritus etheris nitrosi is mixed with 4 ounces of water, about half of the active ingredient—the nitrite of ethyl—is usually at once dissipated. But it will be found that on the next day 30 to 50 per cent. of what was left has gone, and on the third day the mixture will probably contain a very small amount of the ethyl nitrite. The rapidity of disappearance varies greatly according to temperature and other circumstances, but it is manifest that, under these conditions, mixtures containing spirit of nitrous ether soon lose any medicinal value which when first dispensed they may have. To be effective, spiritus etheris nitrosi should be taken immediately it is mixed with water. A mixture becomes less effective with each dose taken.

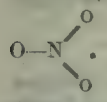
An alkali, or the acetate or citrate of ammonia, prevents, to a large extent, this loss of nitrite. It is on this account, perhaps, that the old-fashioned fever mixture, containing acetate of ammonia and spirit of nitre, has justly maintained for so long a time its reputation as a diaphoretic and diuretic.

In combining spirit of nitrous ether, or the nitrites, with other medicines the short period of their activity must be remembered. It has been suggested that the contraction of the vessels due to digitalis might be counteracted by combining it with the nitrites. Undoubtedly the contraction caused by digitalis may for short periods of time be annulled, but the prolonged action of digitalis on the vessels cannot be fully antagonised by substances like the nitrites.

The Nitro-Compounds.

The group  , in which nitrogen is probably a pentad, as it is in the nitrate group, is capable of replacing a molecule of hydrogen in both fatty and aromatic

compounds, and it seems of interest to determine whether this group plays an active part in the compounds into which it enters like the nitrate group (O—N=O) with which it is isomeric, or a more passive part like the nitrate group



. I have examined the action of the following paraffinic nitro-compounds on muscles, on vessels, and on the heart: Nitro-methane CH_3NO_2, nitro-ethane $C_2H_5NO_2$, nitro-propane $C_3H_7NO_2$, and nitro-pentane $C_5H_{11}NO_2$. The nitro-paraffins are colourless compounds boiling above 212°, slightly soluble in water, and very stable. They break up in the presence of alkaline carbonates, nitrites of the metals being formed.

Professor Dunstan[1] has pointed out that when nitro-ethane is mixed with potassium carbonate half its nitrogen appears as nitrite of potash; it is decomposed by the carbonates even in the cold. The higher compounds are much less easily decomposed by alkalies than the lower.

Action on the Muscles.—I find that nitro-methane has but little effect in interfering with the contractile power or life of muscle. If one part be added to 500 of normal salt solution the contractions do not seem in any way interfered with. Nitro-ethane is equally free from toxic effects, a muscle put up in a normal salt solution containing 1 in 500 of nitro-

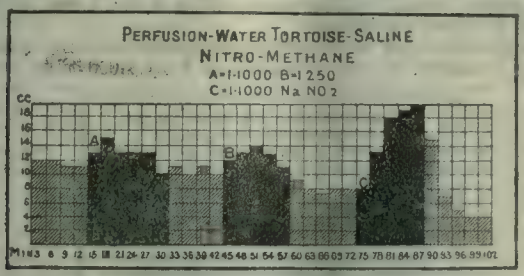


Fig. 21.—Effect of nitro-methane on vessels. After dilating twice with nitro-methane solution, sodium nitrite caused much greater dilatation. (As before, the horizontal figures represent number of minutes during which fluid was perfused, the vertical figures the number of c.c. flowing through, the darkly shaded part the period during which the poisoned blood was flowing.)

ethane was contracting well at the end of 290 minutes. In 1 in 1,000 a muscle was living and would contract to stimulation after twenty-six hours. Nitro-propane is slightly more toxic than nitro-ethane; 1 part of nitro-propane in 1,000 parts of normal salt solution causes the contractions to fall somewhat at the end of 270 minutes, but the muscle will live twenty-four hours. One part of nitro-pentane is not soluble in 1,000 parts of salt solution, but is distinctly more toxic, for the muscle will not contract in a saturated solution more than six hours. Moreover, a certain amount of contracture is sometimes produced, as in the case of many of the amyl compounds.

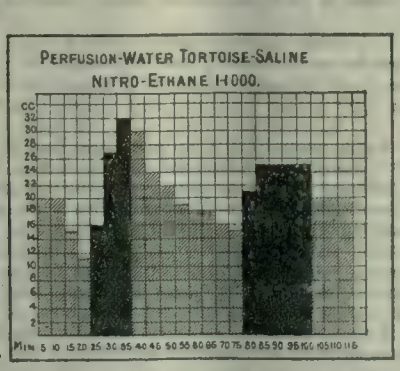


Fig. 22.—Effect of nitro-ethane on vessels; the same strength was perfused twice.

[1] *Journal of Chemical Society*, 1891.

Action on Vessels.—In a strength of 1 in 1,000 nitro-methane always dilates the vessels of the tortoise slightly. In a typical experiment a flow of 11 c.c. through the vessels was increased to 15, an increase of 36 per cent. (see Fig. 21).

With nitro-ethane I got some rather contradictory results. In one case, from causes which I cannot explain, contraction occurred; on other occasions always dilatation. But the amount of this dilatation varied; sometimes it was not greater than with nitro-methane, in other cases the flow increased to more than 100 per cent. (see Fig. 22).

On the whole, the dilating power of nitro-ethane was distinctly greater than that of nitro-methane. Nitro-propane always very markedly dilated the vessels, the increased flow exceeding 100 per cent. (see Fig. 23). Nitro-pentane is very

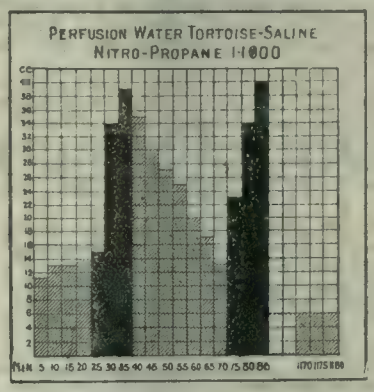


Fig. 23.—Effects of nitro-propane on vessels. After two perfusions of nitro-propane saline pure saline was allowed to run through vessels, but no measurements were taken until the following morning.

insoluble in water, the very minute quantity which is soluble (probably not more than 1 in 5,000) dilates the vessels, but not so much as nitro-propane.

On the heart of the frog nitro-methane in the strength of 1 in 1,000 has practically no effect. It may, perhaps, beat a little more quickly, but this is the only influence exerted. Nitro-ethane quickens the heart's action, and renders the

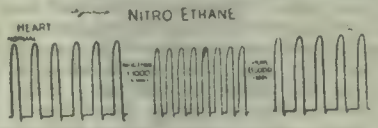


Fig. 24.—Tracing taken from excised frog's heart with Kronecker's "Froschherzmanometer."

beat less forcible. Nitro-propane, 1 in 1,000, often doubles the speed of the heart beat, and weakens it considerably. It is impossible, as I have said, to dissolve 1 in 1,000 of nitro-pentane, for it is more insoluble than the other nitro-compounds, but a saturated solution both quickens and weakens the heart's action.

Effects on Circulation.—The effects I have so far noticed on the vessels, muscles, and heart are due directly to the nitro-compounds themselves. The saline solution in which the muscles have been contracted, and the fluid which has passed through the vessels in the perfusion experiments, have always been tested for nitrites before and after each experiment but no trace of nitrites has been found, nor has the blood used for the heart experiments shown by the presence of methæmoglobin that nitrites have taken any part in the production of increased rapidity and decreased power. No nitrite is formed immediately when nitro-compounds are mixed with weak alkaline solutions in the cold, but when heat is applied nitrites are in time produced. On mixing, for example, one part of each of the four nitro-compounds with 50 of a 5 per cent. solution of sodium carbonate I detected no nitrite immediately, nor did I find any after keeping the mixture at 38° for 40 minutes, but in a few hours the presence of a nitrite was detected in all.

When nitro-ethane is mixed with blood at ordinary temperatures, methæmoglobin is not formed until decomposition sets in, but if the mixture be kept at 38° it appears after some hours.

As in the case of nitrates, it seems possible that nitrites are more readily produced after absorption into the circulation, at least an effect on the tension, somewhat like that caused by nitrites, follows. When 15 minims of nitro-ethane is given by the mouth and the tracing is continuously watched, no distinct change is perceived for about a quarter of an hour, then a slight lowering of tension occurs. In 30 minutes this is distinct, hence onwards for nearly four hours the lowered tension continues, but I have not found the same extent of fall produced as after either nitrites or nitrates; on the other hand the fall is much more prolonged, and may not reach its lowest point until three or four hours after the drug has been given (see Fig. 25). Sometimes at

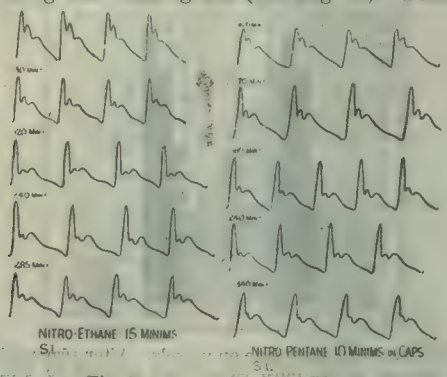


Fig. 25.

Fig. 26.

the end of five hours the tension is still lowered, at other times it has risen to its normal height in four hours.

Nitro-propane, in a dose of 15 minims, has much the same effect as nitro-ethane; for a short time it seems to have but little influence on the pulse, but in three or four hours the tension has become distinctly lowered, and it is five or six hours before the pulse regains its normal condition. After 10 minims of nitro-pentane I noticed the first fall of tension about thirty minutes, but it was seventy minutes before any distinct fall took place. Between three and four hours after the drug had been taken the tension reached its lowest point, and the pulse had not quite regained its normal condition in six hours. (See Fig. 26.) Very slight effect is produced on the frequency of the pulse by the fatty nitro compounds; sometimes, but not always, during the lowered tension it is raised 5 to 10 beats per minute. No headache has been complained of by those who have taken these drugs, and no subjective symptoms have been noticed, but my experience of their effects is not yet sufficiently wide to say that headache and palpitation may not in some be produced.

I have not so far proved that in the living body nitro-compounds can be decomposed and nitrites produced; the changes which take place both when nitrates and nitro-compounds are mixed with blood is a subject I propose to investigate further; but either from the gradual development of nitrites, or from the action of the whole molecule itself, the fatty nitro-compounds possess a power of slowly depressing tension and keeping it down for a lengthened period, which may be found useful in therapeutics provided no bar to their utilisation appears. For the relief of angina pectoris, of course, they can be of no service; to prevent attacks in this ailment, and for the relief of some conditions connected with rise in tension, they may prove of value.

The NO_2 group does not give a toxic influence to the fatty compounds into which it enters. It differs completely in this respect from the ONO group, and resembles the ONO_2 group. Dr. Brunton has made experiments to determine its action in nitro-benzine, in which compound NO_2 replaces an atom of hydrogen. When benzine, C_6H_6, is injected into the frog it causes some lethargy, and renders the spinal cord more excitable, as shown by tremor on movement, eventually paralysing it. Nitro-benzine, $C_6H_5NO_2$, caused the same symptoms; the tremor secured a little greater and the reflexes were abolished a little earlier, but the experiment showed that, so far as the aromatic compound benzine was concerned, the nitro-group plays almost as passive a part as it does in the compounds of the fatty series.

Nitrosamine Group.

In the nitrosamine group (=N−N=O) an atom of nitrogen replaces one of the atoms of oxygen in the nitroxyl group, and has two links left free for junction with two other groups. It seemed interesting to determine what effect this group would have as compared with the group −O−N=O, when joined to fatty radicles. The effect of the junction is to produce a series of liquids extremely unpleasant to smell and taste, soluble in alcohol, and also slightly in water.

I have experimented with the dimethyl-nitrosamine, diethyl-nitrosamine and di-isobutyl-nitrosamine compounds. The action of the NNO group in no way resembles that of the ONO group, and, notwithstanding their nauseous smell and taste, the nitrosamines are not poisonous to the tissues.

Dimethyl-nitrosamine, $\begin{matrix}CH_3\\CH_3\end{matrix}\!\!>\!N-N=O$, is not fatal to muscle in the strength of 1 in 1,000, and the diethyl-nitrosamine is equally innocuous, but when the butyl element takes the place of methyl or ethyl the resulting compound, di-isobutyl-nitrosamine, will, in the strength of 1 in 1,000, kill the muscle in about two hours.

The diethyl- and dimethyl-nitrosamines have no influence on the vessels; in the strength of 1 in 1,000 they do not

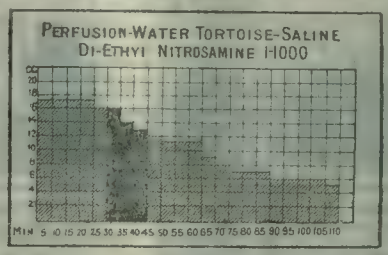


Fig. 27.

either contract them or dilate them (see Fig. 27). They slightly quicken the isolated heart, and then weaken it in the strength of 1 in 1,000, but this organ bears the presence of the ethyl and methyl compounds quite well.

I have not tried the effect of the nitrosamine compounds on the general circulation: their nauseous character renders it manifest they can never be of practical therapeutic importance, and whilst I have had volunteers willing to take nitrate, nitrite, and nitro-compounds, no one after once tasting the nitrosamines desired to go further. The chief point of interest in connection with their action on the various tissues is their harmlessness. The butyl compound killed muscle rapidly, but this is to be expected where there are two butyl molecules.

The Hyponitrite Group.

In most books on chemistry the existence of hyponitrites is alluded to, and hyponitrous acid is represented as having the formula HNO, the sodium salt being represented as Na NO.

It would have been highly interesting, had this been the case, to have ascertained the difference of the influence of the group NO and ONO in the respective compounds they form with sodium and the fatty radicles. Zorn, however, from his investigations on hyponitrous ether, has come to the conclusion that the hyponitrites are, as I have said in my first lecture, diazo-compounds, consisting of two molecules of the group NOH, the nitrogens of which are united by a double link. It seemed to me, nevertheless, of interest to determine, if possible, the comparative effect on tissues even of this double group as compared with the group ONO. Unfortunately the sodium hyponitrite is extremely unstable, solutions readily decomposing free soda being left in the solution, which becomes very alkaline. It is very difficult, therefore, to judge how far the effect produced by sodium

hyponitrite is due to the hyponitrite molecule or to free soda. I find that 1 of sodium hyponitrite in 1,000 of normal salt solution will kill the gastrocnemius of a frog in an hour. When perfused through the tortoise the vessels contracted so strongly as entirely to stop all fluid passing through them. The beats of the heart were rendered irregular and slow when 1 of sodium hyponitrite in 1,000 of blood was passed through it. The experiments I have made are, however, of doubtful value, because of the free alkali present. The solution neutralisation by hydrochloric acid of the hyponitrite saline solution altered the shape of the muscle tracing, which, with the alkaline hyponitrite solution, had the appearance usually seen after alkaline solutions, but did not materially diminish toxicity.

THE OXIME GROUP.

Of late years a large and chemically interesting group of compounds have been produced called "oximes," which contain the group NOH united by a carbon element either to two fatty radicles or to one fatty radicle and a hydrogen. Aldoxime $\begin{matrix} CH_3 \\ \diagdown \\ C{=}NOH \\ \diagup \\ H \end{matrix}$ is one of the best known examples of this group.

If CH_3 is replaced by ethyl C_2H_5, propyl aldoxime is formed. Isobutyl and other homologous oximes can in the same manner be produced by replacing C_2H_5 by higher members of the fatty series. At my suggestion two years ago Dr. Pomfret, at that time one of the Berkeley Fellows in Pharmacology, investigated in my laboratory at Owens College the effect of a series of these oxime bodies with a view of ascertaining how far they possess any pharmacological type which can be referred to the presence of this group in their structure. I propose to refer briefly to the action of three of them in order to illustrate the influence of the NOH group.

Aldoxime or ethyl aldoxime is a colourless fluid miscible in all proportions with water; it is remarkably free from all poisonous action on skeletal muscle. The gastrocnemius of a frog will live in a mixture 1 part of aldoxime in 200 of normal salt solution for twenty-four hours. In solution of more than 1 per cent. contracture is produced, but even in 1 in 50 a muscle will live more than two hours. Propyl aldoxime (C_3H_6NOH) acts on skeletal muscle like ethyl aldoxime, but contracture is produced by more dilute solutions. It is also more toxic. In a solution of 1 in 200 a muscle lived over four hours.

Isobutyl (C_4H_8NOH) aldoxime is still more toxic to muscle. A muscle dies in 1 part of this compound to 200 of normal salt solution within an hour. Contracture comes on more quickly, and is more marked than with either the ethyl or propyl compounds.

On the blood vessels of the tortoise the effects of ethyl aldoxime vary with the strength of the solution: 1 in 1,000 always increases its flow; stronger or weaker solutions usually cause a primary contraction followed by slight secondary dilatation.

Propyl aldoxime invariably dilates the vessels. The dilatation is much greater than that brought about by ethyl aldoxime. Isobutyl aldoxime in weak solutions also dilates the vessels. In the perfusion of organs of warm-blooded animals Pomfret noted that a different effect is produced on the vessels according to the time which elapses between adding aldoxime to the blood and perfusing it. When blood is mixed with aldoxime shortly before perfusion a primary contraction of the vessel is invariably obtained. If the blood and aldoxime stand in an open vessel for two or three hours dilatation at once results. This fact led him to make an examination of the effects of aldoxime on blood, and he then found that though on adding aldoxime to blood no change at first takes place, after standing for a few hours the blood darkens, and the spectroscope shows that this darkening is due to the presence of methæmoglobin. At the temperature of the body methæmoglobin is produced in 15 to 20 minutes. From further examination he found that aldoxime, when mixed with blood, breaks up into hydroxylamine and aldehyde. Hydroxylamine has been shown to form in alkaline fluids a nitrite of the alkaline metal, and thus the addition of aldoxime to blood leads to the formation in it of aldehyde and nitrite of sodium. Pursuing his research he investigated the physiological properties of the aldehyde group, and discovered that aldehydes have a directly opposite effect to that of the nitrites; they stimulate muscles and contract vessels. When the perfusion of warm blood containing aldoxime through an organ takes place soon after the aldoxime is mixed with the blood, the presence of aldehyde causes the vessels to contract. If some time is allowed to elapse the aldehyde, being volatile, escapes, and the nitrites which have been formed dilate the vessels.

The action of propyl and isobutyl aldoxime on the vessels of warm blooded animals does not materially differ from that of aldoxime. On the heart aldoxime has very little effect; there is an increased rate of beat and an increased heart tonus. Strong solutions sometimes arrest the heart in systole, sometimes in diastole, the varieties being due to the same decomposition which has been noticed in the perfusion of blood. The longer the aldoxime remains in contact with the blood, the less is the tendency to systolic contraction, the greater the tendency to diastolic arrest. The other oximes, propyl and isobutyl, also produce acceleration of the rhythm, but have slightly depressant action. Strong solutions, 1 in 200 of propyl aldoxime did not diminish the amplitude of beat after three hours. Isobutyl aldoxime was much more poisonous.

On the circulation generally aldoxime has but a slight effect. The increased tone which is produced by it in the isolated heart of the frog is not seen in warm-blooded animals because of the formation of hydroxylamine and nitrites, but instead a slight lowering of tension is seen about twenty to thirty minutes after the drug has been taken.

The NOH molecule also joins with or enters into aromatic groups. Dr. Pomfret has investigated the action of quinoxime (C_6H_4ONOH) of salicyl aldoxime ($C_6H_4OHCHNOH$) and benzaldoxime (C_6H_5CHNOH). He finds that the effect of the group NOH in producing contraction of the muscle is seen in these aromatic groups, and that all dilate the vessels.

I have given a very brief account of the results obtained from an examination of the fatty compounds containing the NO, N—NO, and NOH groups, because though what has been noted concerning them is interesting as giving an indication of their influence, the compounds themselves are not likely to prove of any therapeutic value. It is quite possible, however, that amongst the aromatic compounds which contain the oxime group, we may find substances of some utility, but these I have not myself examined.

Summary.—The investigations I have so far made with the view of determining the influence of the groups containing nitrogen and oxygen are, as I said in my first lecture, only preliminary. To determine accurately the action of a group of molecules, we must compare the effects of a large number of compounds containing them, both in the fatty and aromatic series, and we must compare these effects too, not only on muscles, vessels, and heart, but on all the tissues and organs of the body. This is a work which involves very large expenditure of time. I have ventured, however, to bring forward the results so far obtained.

It has long been known that the influence of certain elements in a compound varies according to the number of affinities by which they are united with other elements in the compound, and the groups I have alluded to seem to furnish an example of this.

For reasons into which I need not enter here, chemists are of opinion that in the nitroxyl or nitrite group nitrogen is a triad element, whilst in the nitrate and nitro groups it is pentad. It may be to this, as well as to the different manner in which two oxygens combine with the nitrogen in the nitrite and nitro groups respectively, that we must attribute the marked difference in their effects. It will be noted that there is some evidence that the hyponitrite group, in which nitrogen also plays the part of a triad, is distinctly toxic, like the nitrite group. The instability of the two triad nitrogen groups may enter to some extent into the causation of their toxicity, but for reasons which I have given it seems to me that, in the case of the nitrite group at least, the molecules of the group itself in some way or other play a definite part in the physiological effect which the compound containing them produces. The addition of another nitrogen to the group NO completely changes the influence which the

group NO has by itself, or when associated with another atom of oxygen. The addition of a hydrogen element to the NO group seems equally to modify its influence. The nitrosamines, so far as they have been examined, affect the tissues very slightly. The oximes, at least those of the fatty series, are singularly free from poisonous properties, but the NOH group shows a peculiar influence on muscle contraction. Throughout the experiments the increasing toxicity of the fatty series as the weight of the molecule increases has been very marked. The toxic action of the pentane and butane compounds has been always distinct.

A very remarkable feature has been the influence which compounds containing propyl have in dilating vessels. Nitrate of propyl has singular power in this respect; nitropropane dilates more than any other of the nitro-compounds, and Dr. Pomfret found that of the aldoximes, propyl aldoxime was the most efficient vessel dilator. Butyl and amyl compounds, if used in the same strength as the propyl compounds, contract instead of dilating vessels; they seem to act as irritants to muscular tissue unless in very dilute form, and the contracture which I have noticed as often occurring with amyl compounds shows that an analogous effect is produced on voluntary as well as on involuntary fibre.

In conclusion, let me say it has not been in any way my purpose to search for new remedial agents, but it seems possible a use may be found for some of the compounds I have examined. I allude to the nitrates and the nitro-compounds. They resemble in their powers the nitrites which we have so long been accustomed to use; probably, indeed, their influence is due to the development of nitrites from them. Yet if they possess the pharmacological properties which, from the examination I have so far made, they seem to have, they may possibly be advantageously employed when we want to influence the vessels more or less markedly for a long time.

It has been said with truth that what is now wanted is not a further supply of new remedies, but a better knowledge of the way in which to use the old ones. It seems to me, however, that if therapeutic knowledge is to advance, we must acquire more information than we now possess as to the exact method in which these older remedies act, we must know how they break up in the body, and we must know, too, the new and often simpler combinations they are capable of forming and how these act. The exact method in which the complex compounds of the organic kingdom influence the body we have not yet sufficient knowledge to comprehend; it is with the simpler compounds we must commence investigations, but a wider and deeper knowledge of the effect of these simpler compounds will surely open the way for the acquirement of further information with regard to the more complex ones. At present, even concerning the simple ones our knowledge is very small. It was with the hope of making some slight addition to this knowledge that the work on which these lectures I have had the honour of being invited to give was commenced. For this honour let me again thank you.

An inquest was held at Hunmanby, near Bridlington, on July 12th, on the body of Mr. Henry Hick, aged 31, surgeon, practising at Hunmanby, who died on the previous day from the effects of opium poisoning. It appeared that the deceased had previously been unwell and depressed. The jury returned a verdict of "Death from opium poisoning during temporary mental derangement."

Professor Virchow's Seventieth Birthday.—The committee appointed to carry out the arrangements for the celebration of Professor Rudolph Virchow's 70th birthday, which fell on October 13th, 1890, has recently published an account of its stewardship. The total amount subscribed was 42,311 marks (about £2,115). Of this sum 20,622 marks (about £1,030) was expended on a large gold medal) 180 millimetres in diameter, and weighing 2.3 kilogrammes, presented to the professor, a reproduction of it in silver for his wife, and sixty-eight in bronze for members of his family and others. The balance was handed to Professor Virchow to be applied as he might think fit, and he has added it to the fund for the endowment of research which bears his name. The report of the committee includes a list of the subscribers, more than 2,000 in number.

ABSTRACT OF LECTURES
ON
THE SURGERY OF THE AIR PASSAGES AND THORAX IN CHILDREN.

Delivered at the Royal College of Surgeons of England.

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Lecture II.
Intubation.

Intubation is invaluable as a help in the treatment of chronic stenosis, and O'Dwyer's tubes are undoubtedly the best adapted for the purpose. Intubation may also be of value in cases where the condition of acute obstruction is likely to be of short duration, and when there is no reason to think previous ulceration of the larynx existed. It may be of use also as a means of diagnosis when it is uncertain whether the dyspnœa arises from obstruction in the upper air passages, or to some condition affecting the tubes lower down, for example, pressure from mediastinal tumour, bronchitis, etc.

Intubation for laryngeal diphtheritic obstruction does not seem to make much progress in general favour in England. It is not my intention to go through the oft repeated arguments as to the respective merits of intubation and tracheotomy, but rather to point out some of the causes which have prevented intubation from a more extensive trial in this country. The treatment of diphtheria (in its surgical aspect) in our hospitals is for the most part carried out by the resident staff, and every six months or a year this staff is changed. Students are taught nothing about intubation in most of the textbooks; not unnaturally the operation of tracheotomy, concerning which they have heard and thought a good deal, presents many attractions. How many tracheotomies have you done? is a common question asked of the outgoing house-surgeon, and it is generally thought not kind or fair to add: And with what result?

In America and in many parts of the Continent, however, intubation has been very largely tried by the medical officers in continuous charge of the diphtheria hospitals, and with results which certainly command grave attention. The operation of passing an intubation tube in a young child without chloroform, with a swollen and inflamed condition of the parts is not an easy one, and requires constant practice, and much thought and attention to detail. Without special study tracheotomy is undoubtedly the safer operation. It is not however the difficulty, but rather the want of familiarity with the use of the instruments which often determines the hospital resident against intubation. In young children the epiglottis is not always easy to feel, but the arytenoid cartilages can always be defined. When intubation first began to be practised it was thought that it might be tried in all cases; and if the progress was unsatisfactory tracheotomy could be substituted, and in fact converted into an easy operation, with the intubation tube as a guide to cut down upon.

The mortality after such secondary tracheotomies was so terrible that not unnaturally operators became discouraged and wished they had performed tracheotomy in the first instance; and this has had a great deal to do with the present lack of confidence in intubation. It does not, however, by any means follow that this mortality is consequent on the previous intubation, but rather on the fact that cases which are sufficiently progressive or malignant as to be unrelieved by intubation are pretty certain to die under any circumstances. At St. Thomas's Hospital out of 18 cases of intubation followed by tracheotomy, only 2 recovered.

Taking the fatal results: in 6 tracheotomy was done within a few hours of first intubation, and in 10 after an interval varying from one to nine days; so that all died, when intubation was at first followed by improvement, and tracheotomy was performed later.

The cases in which intubation alone was done were 35 in number, with 10 recoveries, or 29 per cent. If we add to these the 18 in which tracheotomy had subsequently to be performed, we have 53 cases with 12 recoveries, or a little over 23 per cent.

There were during the same period 110 treated by tracheotomy alone, with 32 recoveries, or rather more than 29 per cent.; or, adding the 18 cases which were first intubated, 128 tracheotomies with 34 recoveries, or 26 per cent.

When considering the position of intubation in 1890, I could point to 30 cases at St. Thomas's with 40 per cent. of recoveries. I then stated that from so small a number it was impossible to speak with any confidence, but that this method ought to receive most serious attention, and I maintain still that we are justified in giving an extended trial to intubation in diphtheria. With increased experience and better selection of cases suitable for intubation treatment there is every reason to hope for better results.

Examination of the *post-mortem* notes of the cases fatal after intubation alone shows 1 case of slight ulceration of larynx, 2 of extensive ulcers, and 1 a healed ulcer of trachea. In 11 membrane was found to extend from trachea to small bronchi; in 3 membrane was found in larynx and trachea alone. Broncho-pneumonia or collapse of lung found in all except the case of gangrene of lung.

For the sake of comparison I have looked through the *post-mortem* notes of 18 cases of diphtheria in which tracheotomy alone was done; the cases are not selected, but consecutive ones in the years 1890 and 1891. In 14 membrane was found from larynx to small bronchi; the lungs either collapsed or in condition of broncho-pneumonia in 11, and stated to be normal in one; emphysema of neck and anterior mediastinum in 1; in 1 wound infected and membrane from wound to small bronchi; in 1 membrane in larynx and pus in trachea and bronchi; membrane in larynx and trachea, 1 case.

I was quite prepared to find that in the tracheotomy cases membrane would have been less in evidence, from the better chances afforded for its escape. It is, however, quite clear that the main cause of death in diphtheria is extension of membrane downwards, whether the treatment be by tracheotomy or intubation.

After a careful consideration of the *post-mortem* records of uncomplicated cases of diphtheria—treated by intubation at St. Thomas's Hospital, Great Ormond Street, and the Victoria Hospital for Children—I am satisfied that extensive ulceration is quite exceptional. I have heard of a case in a provincial town, where, although recovery took place (after subsequent tracheotomy), permanent occlusion of the larynx resulted. This condition of complete occlusion has, however, followed recovery without any intubation.

At Great Ormond Street Hospital for Children the first trial of intubation in diphtheria was very unfortunate. Eleven cases were intubated in 1890, with 1 recovery. It is only fair to add that, owing to the bad results obtained at first, intubation was reserved for those cases which seemed least likely to recover. During 1891 and 1892 no diphtheria cases were intubated, but lately the method has been tried again with considerable success.

In the second series we have 11 intubations with 3 deaths, or over 72 per cent. recovery. In 2 of the cases, however, there was no certain evidence of diphtheria, but in 1 intubation was only done just before death, to relieve the distress of dyspnœa; and in the other 2 fatal cases tracheotomy had also been performed. If to these we add the 11 intubated in 1890, we have a total of 22 cases with 9 recoveries, or, notwithstanding the unfortunate commencement, over 40 per cent. recovery return. This shows that the trial has been fully justified, and I do not wish to prove more. My own feelings are in favour of tracheotomy as a routine operation for the relief of obstructed breathing in diphtheria, but I believe that equally good results can be obtained by intubation, and that the nature of the case, the surrounding conditions, the age of the patient, and the previous experience of the surgeon, and the consent of the friends, must be the chief factors in determining the choice of method.

1. *The Nature of the Case.*—Cases of a very malignant type, particularly those which arise in the course of scarlet fever or measles, are unsuitable for intubation, chiefly from the great tendency of the larynx to become ulcerated by pressure of the tube. In all cases where membrane is very extensive in the mouth, and there is a suspicion of extension below the larynx, early tracheotomy would seem advisable.

2. *The Surrounding Conditions.*—Several of the American writers advocate intubation for cases in private practice, particularly amongst the poor, and when good nursing is not to be had, on the ground that, the intubation tube once introduced, the child is in comparative safety; and if the tube gets blocked with membrane, it will probably be coughed out, and there will be a reasonable interval before dyspnœa recurs, sufficient to allow the medical attendant to arrive. Unfortunately, as we have seen by Dr. Turney's experience, there are exceptions; and I should be unwilling to intubate in private unless a medical man was living in the house competent to deal with any emergency. It is most unsatisfactory to have to do tracheotomy with unsuitable surroundings, but any intelligent person can be given instructions what to do if the tube gets blocked.

3. *The Age of the Patient.*—Tracheotomy under 2 is so very fatal that intubation would seem to offer the better chance if the larynx only is affected. In the Great Ormond Street cases 3 of the children were under 18 months old, and yet 2 recovered.

4. *The Previous Experience of the Surgeon.*—It is most important that he should have thought carefully over the whole method of intubation, have previously practised it on the dead subject, and, better still, have had an extended experience on the living. Intubation is much more likely to be satisfactorily done by a good hospital resident than by one of the visiting surgeons.

5. *The Consent of the Friends.*—Consent might be obtained, when permission to perform tracheotomy had been refused, or if permission has not been asked, it would be right to give the preference to intubation.

Since writing these remarks, I have asked Dr. Collier, who has been responsible for part of the first series and all the second series of intubation cases at Great Ormond Street, to give me his views from the experience gained, and he has kindly given me the following clear and definite statement:

Intubation of larynx is not a suitable procedure when laryngeal diphtheria is accompanied by diphtheria of pharynx or of naso-pharynx.

1. The air thus supplied to the lungs, passing over the diseased surfaces, is impure, often foul, and, if not producing diphtheritic bronchitis, may produce broncho-pneumonia of the type of "cut-throat lung."

2. The obstruction is often not only laryngeal, but supra-laryngeal also.

3. The local treatment of the nose and pharynx is very difficult owing to choking.

4. It is in this class of cases that the feeding of a laryngeal intubation case is so difficult.

Intubation of the larynx is not to be done when one believes that there is membrane in the trachea.

1. Here apparently easy breathing usually results for a time; but, while inspiration is relieved, the membrane acts like a valve over the end of the tube during expiration, and in this way extraordinarily rapid acute insufflation of lung is likely to occur. I have seen a chest become, in the course of eight hours, extremely barrel shaped, with cardiac dulness quite hidden.

2. The expelling of membrane is extremely difficult, and usually attended by ejection of the tube.

Dr. Collier would prefer to do intubation in all cases of primary laryngeal diphtheria unaccompanied by supra-laryngeal obstruction, and without evidence of existence of membrane in the trachea; in all such cases, indeed, as were called until recently "membranous croup." Sometimes a case presents itself with signs of acute laryngeal obstruction sufficiently urgent that immediate interference is required, but without any evidence of membrane. Such a case usually turns out to be diphtheritic, but it may be a non-membranous laryngitis from measles, or perhaps from cold or other cause. Notwithstanding the length of these remarks on intubation, I have purposely omitted many points, especially the more theoretical arguments, for and against the measure. I have not, for instance, referred to the supposed danger of pushing membrane before the tube; the accident rarely occurs, and

is no strong reason against the adoption of intubation in selected cases. Any surgeon who intubates must be prepared to do tracheotomy at once if necessary.

[Reference was then made by the lecturer to the more recent results and opinions on the subject in America and on the Continent.]

ULCERATION OF THE LARYNX.

Ulceration of the larynx in children may be due to tubercle, syphilis, typhoid, scarlet fever, or measles, or it may be the result of the impaction of a foreign body, or occur without obvious explanation as to its cause. Illustrative examples were cited.

FOREIGN BODY IN THE AIR PASSAGES.

The symptoms attending the introduction of a foreign body into the air passages, and its lodgment there, are so well known that a recapitulation of them is unnecessary. On most occasions the diagnosis is clear, but occasionally, in the absence of history, and from special peculiar features in the case, it is very difficult to arrive at any certain conclusions. On the other hand, the history of swallowing a foreign body may be imaginative on the part of the friends, and have nothing to do with the case under consideration. When we remember how constantly children are running about at play with some foreign body in their mouths, and how often they laugh or cry quite suddenly in the midst of eating their food, it is remarkable that the accident does not more frequently occur.

When a foreign body is impacted in the larynx after the initial paroxysm has subsided, the symptoms may be very slightly marked, though usually there is alteration of voice, some cough and dyspnœa, with pain and tenderness about the larynx. The difficulty of diagnosis in very young children may be very great. Occasionally even in children the foreign body may be seen with the laryngoscope. If a foreign body remain in the larynx it may at any time prove fatal by giving rise to inflammatory œdema of the glottis, or, as shown by cases narrated, the ulcer may occasion pneumonia. The body may be expelled by coughing, or change its position, and pass into the trachea or one of the bronchial tubes. If it remains for a prolonged period in the larynx the voice is likely to be permanently affected, and such stenosis of the larynx may result as to necessitate the wearing of a tracheotomy tube.

When a foreign body is lodged in the trachea there are usually signs of its presence on auscultation, and the recurrent attacks of dyspnœa, as the body changes its position, are very characteristic.

A small smooth body, especially if heavy, is more prone to descend into one of the bronchial tubes than an uneven light body, which is likely to remain in the trachea. The tendency of the body to pass into the right bronchus rather than the left has generally been ascribed to the fact that the septum at the bifurcation is somewhat to the left of the middle line. Dr. Alby, of Rome, has demonstrated that the right bronchus more closely follows the line of the trachea than the left. It is probable that foreign bodies find their way into the left bronchus much more often than is generally supposed. There appears to be a good deal of difference of opinion amongst the compilers of statistics as to which bronchus has the preference.

When a foreign body enters one of the bronchi, the symptoms produced must vary with its size, position, and character. Thus, if it completely blocks the main bronchus, the proper respiratory sounds are absent. If it partially obstructs, then a loud musical sound is likely to be heard, with diminished breathing in the lung of the affected side. There is generally pain, cough, and perhaps some blood-tinged expectoration. The affected side is at first resonant on percussion. If the body be impacted in one of the secondary divisions, then only a limited area of the lung will at first be affected.

If a foreign body remain impacted in a bronchus, inflammatory symptoms generally supervene, and may be localised or general. The results are very variable. Both the bronchi can be easily explored from a low incision in the trachea, and many cases are on record where various substances have been thus removed successfully in children, and much ingenuity has been exercised to meet the mechanical difficulties in particular instances. Death may result both after the removal by operation and after its spontaneous ejection. In several recorded cases where an unsuccessful search has been made, the tracheotomy wound has been left open and the body ejected at a later period. When an abscess forms in the lung, recovery is very rare. The usual mode of death with obstruction of bronchus by foreign body is pneumonia with abscess or gangrene. Death may, however, take place quite suddenly from the body getting displaced from the obstructed to the sound side.

ON A CASE OF POLIOENCEPHALOMYELITIS WITHOUT ANY ANATOMICAL LESIONS.

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THE following case affords an example of polioencephalitis. The affection commenced with paralysis of the eye muscles, which disappeared after some months, reappeared after some years along with symptoms of bulbar paralysis and while the eye muscles regained their power, the bulbar symptoms, along with symptoms of weakness in some of the spinal muscles persisted till some years after; somewhat suddenly there appeared again complete ophthalmoplegia externa with almost complete paralysis of all the motor cranial nerves and of the upper cervical nerves, with atrophy of some of the affected muscles, whilst there were no sensory disturbances of any kind. At the necropsy a most careful examination of the peripheric and central nervous system showed nothing to account for the symptoms observed during life:

M. A. H., a widow, aged 36, was admitted into the Manchester Infirmary on November 19th, 1891, when the following notes were taken by Mr. C. E. McCarthy, M.B.Vict., then Clinical Clerk.

History.—Up to fifteen years ago she was a strong and healthy woman; she then was attacked with drooping of both eyelids, for which she attended the Manchester Eye Hospital, and in about six months completely recovered. For the next five years she remained in good health, when she had a second attack of double ptosis with diplopia; almost simultaneously she began to have difficulty in talking and swallowing, and experienced weakness in her arms. The eye symptoms again improved in about nine months (she was an inmate then of the Workhouse Hospital), but her ability to talk or swallow did not improve, and as regards these symptoms she says that it took her a long time to eat her meals, and the food used to lodge in her mouth between the teeth and the inside of the cheek; she would have to stop eating at times because her jaws ached, and she had to support them with her hands, the swallowing also became difficult; she had difficulty in speaking, as she could not pronounce some letters; she had not been able properly to open her mouth or to protrude her tongue, nor was she able to whistle, whilst before she could whistle well: the weakness in the arms, or rather shoulders, also persisted. In spite of these symptoms she was able to work first as a dressmaker, and latterly in a bakehouse, till five weeks before admission, when she became worse: the eyelids suddenly drooped and she could only see by raising the lids with her fingers; the swallowing became very difficult, and her speech so indistinct that she was not easily understood; the shoulders and arms also became much weaker. All these symptoms gradually grew worse, and latterly she began to suffer from difficulty of breathing, she then sought admission into the hospital. There was no history, and there are no signs of syphilis. As regards her social history, she stated that ever since her marriage (fifteen years ago), she had led a hard life; her husband had been a careless, lazy man, of drunken habits: he died of phthisis five years ago. She had had five children: four born alive, and one (the fourth) stillborn: three of her children were alive and in good health, one died of consumption of the bowels. Her father died, aged 48, cause of death not known; her mother was alive and well; she had three brothers and five sisters, all in good health.

Condition on Admission.—The patient was propped up in bed, as, owing to the dyspnœa, she could not lie in the recumbent position. She had a worn, languid, and (owing to the ptosis) a sleepy appearance (facies Hutchinson). She was very emaciated; the skin was dry and wrinkled: temperature 97.8° F. There were no enlarged glands and no œdema. There were no signs of any mental disturbance; she appeared a very intelligent person; there was no vertigo, no headache, no pains in any part of the body. Whilst there was no affection of the special-sense organs or of the sensory nerves, there was marked paralysis of all the motor cranial nerves. Smell, taste, hearing, and vision were perfectly normal, and an ophthalmoscopic examination showed a normal fundus. The internal muscles of the eye were normal; the pupils were equal and reacted to light and accommodation. The external muscles supplied by the third nerve were nearly all completely paralysed: the inferior rectus of the right eye acted slightly, as did the left levator palpebrarum. The right internal rectus and the right levator palpebrarum and the inferior and superior rectus on each side were completely paralysed. The fourth and sixth nerves on both sides were completely paralysed. Of the fifth nerve the motor portion only was affected. The masseters and pterygoids and temporals were much weakened, though not completely paralysed. Of the facial nerve both the upper and lower branches were affected: the patient could not close either eye; she could not wrinkle the forehead or

frown; the lips could not be pressed together, and the patient could not smile; whistling was equally impossible. The azygos uvulæ and platysma were also paralysed. The tongue lay on the floor of the mouth, and was somewhat atrophied. It could not be protruded beyond the oral orifice, and its movements in the mouth were very limited; the patient could not touch the roof of the mouth with its tip, nor remove the food from between the gums with it; the depressors of the hyoid, though not completely paralysed, were very weak. The other cranial nerves—glosso-pharyngeal, pneumogastric, and spinal accessory—were also affected in a marked degree. The soft palate was paralysed, and the palate and fauces showed no reflex movements on being touched or tickled. Swallowing was very much impaired; mucus and saliva collected in the fauces and posterior nares, and, to get rid of the accumulation, the patient closed the nostrils with her fingers and made quick respiratory efforts. The sensation of the mucous membrane of the oral cavity was not impaired. Articulation was very much affected. The words uttered were so indistinct that the patient answered most of the questions put to her by writing, and the voice was low pitched and weak. Laryngeal examination was carried out with great difficulty; it showed the abductors to be weak, as seen on deep inspiration. The sterno-mastoid and trapezius, though thin and somewhat atrophied, acted with some force. The pulse was 130, regular, but weak. The diaphragm acted slightly, the respirations were 40, shallow, and short; the deltoids were atrophied and almost completely paralysed. The muscles of the upper extremities were emaciated, but there was no paralysis and no specially-marked atrophy of any group of muscles. There were no fibrillary twitchings. The various sensations in the upper extremity were normal. The wrist, the radial, and the triceps reflexes were markedly increased; there were no contractures. The muscles of the trunk and of the lower extremities showed no paralysis or atrophy, and the various sensations were normal throughout. No fibrillary twitchings. The superficial and deep reflexes were present, but not exaggerated; there was no ankle clonus, and no signs of any contractures. The examination of the lungs showed extensive bronchial catarrh. The heart sounds were feeble; the heart was not dilated nor hypertrophied. The examination of the abdominal organs showed nothing abnormal. The urine, specific gravity 1020, was free from sugar and albumen.

Progress of the Case.—November 20th. Patient was worse. The diaphragm moved very little, and the patient suffered much from dyspnœa. She was only able to swallow very small quantities of milk, and this with difficulty. The pulse was 135, the respiration 40, and the temperature 97° F. Electrical examination of the facial nerve showed absence of degenerative reaction. The muscles responded to a weak faradic current with quick contractions, and on the application of the galvanic current KCC } ACC, and the contractions were quick. On November 22nd the patient was much worse. There was marked cyanosis. The respiration was of a spasmodic character, and the dyspnœa very great; the diaphragm had ceased to act; swallowing was quite impossible; there was no longer true articulation; the patient could only produce a faint, grunt; the pulse was at times intermittent, very weak, and thread-like. During the night of November 22nd the breathing became more and more laboured, the temperature rose to 99.5° F., and the patient gradually sank and died.

Post-mortem Examination (by Dr. Kelynack, Pathological Registrar).—There was commencing hypostatic pneumonia and generalised bronchitis, a white clot in the pulmonary artery, early atheroma of the aorta, slightly granular kidney, and a small dermoid cyst of the ovary. The muscles appeared healthy and of normal colour. The macroscopic appearance of the membrane of the brain and of the brain itself showed nothing abnormal, the ventricles were not dilated, and the brain substance on section showed no increased vascularity. Sections through the pons and medulla showed, both as regards colour, consistency, and vascularity, nothing abnormal; the several cranial nerves at the base of the brain appeared of normal colour and thickness. The spinal cord and its membranes showed to the naked eye a perfectly normal appearance.

Microscopical Examination (by Dr. Williamson).—The whole of the brain, pons, medulla, and cord were carefully hardened for microscopic examination. Serial sections were made of the pons, medulla, and upper part of the cord, and stained with the various staining agents, most of them after Weigert's method. The sections were carefully examined both by him and by myself, and compared with sections from a normal specimen. Without entering into a detailed description I may say that no changes either in the ganglia cells, or in the nerve fibres, or the neuroglia cells were found. In a few specimens the walls of the blood vessels appeared thickened, and showed slight cellular infiltration in the perivacular spaces, but no hæmorrhages; no degeneration of nerve fibres or atrophy of the ganglia cells could be seen. The nuclei of the third, fourth, and sixth, as well as the nuclei of the other cranial nerves, showed the ganglia cells in all their integrity with their processes, and in some places the network of fibres. Some of the cranial and spinal nerves were examined both fresh and hardened, and showed nothing abnormal. Of the motor cortex and of some parts of the basal ganglia sections were made and stained, and on examination gave equally negative results as to any pathological changes. Unfortunately no muscles had been preserved for microscopic examination.

The case is by no means isolated. A number of similar cases have been published, though perhaps none in which the paralysis of all the motor cranial nerves was so complete as in the above case, and in all those where a *post-mortem* examination was made no lesions were found to account for the symptoms. Hoppe[1] records one case, and quotes cases observed by Wilks, Eisenlohr, and Oppenheim where the necropsy gave negative results. In Oppenheim's case there was, however, no external ophthalmoplegia, and in Wilks's case the ophthalmoplegia was very incomplete. Senator[2] records a case in which symptoms of bulbar paralysis—without ophthalmoplegia—and of right hemiplegia came on suddenly, and persisted more or less for four months, when the patient died, and here again the examination of the nervous system and of the muscles showed no changes.

Eichhorst[3] relates the case of a girl, aged 19, who for some months suffered from left facial palsy and diplopia; this was followed by mental troubles, bilateral paralysis of the hypoglossus, paralysis of the glosso-pharyngeus and vagus, ophthalmoplegia externa, and progressive muscular atrophy. Four days after leaving the hospital she was attacked with severe dyspnœa and died suddenly. The brain and spinal cord were found healthy on macroscopic examination. The microscopic examination had not been made at the time of publication.

Bernhardt[4] briefly relates a case in which there was double ptosis and paresis of some of the other ocular muscles, with bulbar paralysis and atrophy of some of the muscles of the back of the neck which terminated fatally, but where no necropsy could be obtained.

Other similar cases—which at the time of publication were still under observation, and about the further history, as far as I could make out, nothing has yet appeared—are given by Seeligmüller,[5] who was the first to use the term 'polioencephalomyelitis,' and whose patient, a female, aged 28, had been affected for some years with weakness of the extremities, wasting of the triceps, deltoid, sterno-cleido mastoid, and vastus externus of each side, with almost total ophthalmoplegia externa, and with affections of the facialo motor portion of the trigeminus, the hypoglossus, glosso-pharyngeus, and spinal accessory; by Schaffer[6] and by Guinon and Parmentier[7] in a series of papers entitled 'External Ophthalmoplegia combined with Glosso-labio-laryngeal Paralysis and Progressive Muscular Atrophy.' These authors give two cases observed in Charcot's clinic, in one of which, besides the ophthalmoplegia and the muscular atrophy, there were bulbar symptoms, difficulty of deglutition and slight affection of speech.

It is certainly most singular that in those fatal cases so far recorded no anatomical lesion has been found, though the paralysis of the muscles implicated is so very marked. There can be little doubt that some lesion does exist, though it at present has escaped our methods of investigation. Hoppe and Senator are inclined to place the lesion in the higher centres of the brain. I believe, however, that the lesion exists in the nuclei of the cranial nerves either in the ganglia cells or in the fine network of fibres and processes which connect these cells with the nerve fibres. That the primary cause be some toxic agent is not very probable, though such a cause cannot be altogether excluded; yet one would expect, if such were the case, some recognisable changes, considering the chronicity of the disease.

I regret that the affected muscles in my own case were not examined microscopically, yet it is highly improbable that the affection is a myopathic one, for atrophy was noticed only in a few muscles in my own cases, whilst in Hoppe's case the muscles were not atrophied; and in Senator's case the muscles were carefully examined and showed no noteworthy changes. It will be seen that the case which I observed and those which I quoted, with the exception of Oppenheim's and Senator's case, present, although they differ both as regards the onset and as regards the degree of the paralysis, the same principal features, namely, a combination of polioencephalomyelitis superior with polioencephalomyelitis inferior and with spinal paralysis, and more or less atrophy.

It is well known that ophthalmoplegia externa may occur in combination with other nervous affections, thus we may have it combined with polioencephalomyelitis inferior alone, of which several cases have been recorded, or with spinal atrophy or locomotor ataxy. In some of these latter cases distinct changes in the nuclei of the several cranial nerves and fibres have been found, as in those published by Buzzard, Ross, Gowers, Westphal, etc. It is needless for me to refer to these various combinations as an exhaustive account of them has been given by Guinon and Parmentier in the papers quoted above.

REFERENCES.

[1] *Berliner klin. Wochensch.*, 1892, p. 332. [2] *Neurolog. Centralbl.*, 1892, p. 198. [3] *Corresp. Blatt f. Schweizer Aerzt.*, 1889, p. 432. [4] *Neurolog. Centralb.*, 1892, p. 189. [5] *Ibid.*, 1889, p. 153. [6] *Centralbl. f. Nervenheilkunde*, 1891, p. 193. [7] *Nouvelle Iconographie de la Salpêtrière*, vols. iii and iv.

ON THE TREATMENT OF EMPYEMA.

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DURING the last ten years I have opened and drained the chest for empyema in seventeen cases, in all of them with success. I propose to describe the method employed by me, to discuss shortly certain theories which have been advanced as to the place of incision, and to mention one or two cases and features of interest.

The suggestion of a suppurative fever, as evinced by alternate hectic and sweating, should lead us to examine the chest for dulness, absence of fremitus and breath sounds, and displacement of organs. If some of these be present, even over a small area, such part should be explored by an aspirator. Early recognition is all-important as an element of success. The trocar should have previously been boiled, and should be laid before using in 1 to 40 carbolic solution. The skin, after being well washed with warm soap and water, should preferably be soaked for two hours with a cloth saturated with 1 to 80 carbolic. Just before puncturing, the skin should be rubbed with carbolic oil 1 to 40. A small incision should be made previously to using the trocar, to save the otherwise heavy thrust on its insertion. This wound having been dusted with iodoform, the trocar is slipped immediately over the rib, and passed suddenly through the parietal pleura. If there is pus the chest should then and there be opened and drained; and here is a point upon which I insist, and a point which I have not seen discussed in the accounts of the operation. It is that the incision should be made through and include the channel left by the trocar. Especially should this be the case if the pus is stinking, for such pus seems to be so poisonous as to destroy the vitality of connective tissue almost as rapidly as a corrosive. If the incision is made elsewhere, pus may enter into the trocar channel and burrow amongst the connective tissue planes of the chest wall, with the most troublesome and possibly disastrous results. But if it be a rule that the incision should extend through and include the puncture, the question as to where the aspirating puncture should in the first instance be made becomes all-important. I do not know that this point has been taken into consideration in determining the seat of puncture. But in my opinion it is an exceedingly important point which should not be overlooked, for the trocar puncture has to be made wherever dulness is found, particularly where it is most marked.

The considerations advanced by the late Professor Marshall in determining the spot for incision are, I think, misleading, notwithstanding their interest. (1) We would not aspirate "immediately outside and below the junction of the fifth rib with its cartilage" to explore the nature of a dulness occurring at the back of the chest. (2) Even if this spot be the least covered, and that after long suffering to the patient, the accumulation of pus ultimately selects this outlet (which is not always the case), this should not influence us in the selection of a site for opening the chest in the earlier stages, during which the accumulation may be let out from the back. (3) The consideration as to the advancing lung blocking up the outlet, if this be made behind, is not found to be valid in practice. I have never known it occur. (4) If pus flows out over the edge of a wound made in the anterior part of the chamber containing it, it has a tendency to get between the layers of the cut edges, and to burrow backwards along the intercostal depressions, downwards in the abdominal wall, or elsewhere. In one such case, opened anteriorly, I have had to insert drainage tubes in three distinct strata of connective tissue, at different depths, and extending from the axilla to the crest of the ilium.

Further, it is stated in Erichsen's *Surgery* (eighth edition): "A patient suffering from empyema usually does not lie flat upon his back, but inclined towards the affected side, so as to allow the freest possible play for the sound lung." I believe this to be a purely theoretical statement, but it is quite beside the mark when we are considering whether a patient will lie upon an emptied side, sore with a wound. I can without hesitation state as a fact that he does not do so, and will not do so if requested. He prefers to lie on his back, tending slightly to the sound side, and can with difficulty be coaxed to lie at all on the side of incision. My experience, moreover, with regard to the original statement is at variance with it. I believe that even with one side of the chest full of fluid, a patient prefers to lie on his back, and this especially if the accumulation is on the left side. The rule, then, should be that, (1) as there is always a preliminary puncture over the maximum seat of dulness, the incision should be also over this region, to include the puncture; and (2) both should be made as far back as possible, to ensure more complete drainage, and avoidance of burrowing in the chest walls. In practice, the most frequent spot we are guided to, if we take this as our principle, is about the upper edge of the ninth or tenth ribs in a line with the angle of the scapula.

It has been objected that here the ribs lie so closely together as to cause a difficulty with the drainage tube. I have only found this to be a real difficulty in one instance, and with regard to obviating it I employ a simple procedure which I have not seen discussed. The usual recommendation is that an inch or more of rib should be resected. This may be altogether avoided by simply dividing the rib. The two ends do not remain in juxtaposition, and the additional space gained is amply sufficient for a drainage tube of the usual size.

The incision should not be "dissected" down; it should be made by two clean cuts, the first, 1½ to 2 inches in length, made firmly on to the ribs, the skin being slightly drawn down. The resulting wound is powdered with iodoform before opening the pleura. At the second incision the knife is thrust directly into the pleural cavity at the anterior edge of the wound, just over the rib and flat to it, with the cutting edge turned to the spine. Keeping it close to the ribs, it is carried backwards to the posterior part of the wound, and the handle of the knife is here inclined backwards so as to leave a bevelled edge, with no "bag" in which pus could possibly collect.

The aperture made should be large enough to admit two fingers, which should always be inserted as far as possible, in order to break up any obstructing adhesions or flakes of fibrinous material. The patient may be rolled or lifted into various positions in order to facilitate the exit of all discharges while this is being done. A good deal of force is sometimes necessary to get the fingers well inside the pleura if the ribs are close together, but the result is complete drainage, and from time to time during the progress of the case it is of the first importance that the fingers should be reinserted, especially should the temperature not fall in a day or two to normal, or should it rise again subsequently. A finger should be inserted once a week during the subsequent dressings, even if all appears to be going on well. I have never once found a counter opening to be necessary.

The only entirely satisfactory tube is the simple one described by Baxter, never more than 3 or 4 inches in length, and this to be soon shortened by degrees at each dressing. The drainage tube should have thick walls, and be stiff, so as not to be easily bent upon itself. The piece of macintosh sheeting through which it passes, which forms its shield, should be also of stout quality, and not more than 2½ inches square. If these points are not observed the drainage tube will be found, again and again, lying out upon the dressing. It will never come out if it is made properly, and if it is kept in position by tapes sewn to the four corners of the shield. Of these, two pass over the opposite shoulder, the two lower round the waist. The only disturbance of the tube now possible is by whatever friction may be caused against the shield by a rotatory movement of the whole dressing, and this is easily prevented by carrying a turn of the flannel binder, or bandage which retains the dressing, over the opposite shoulder, and fixing it by a safety pin. Before inserting the drainage tube it is dusted over with iodoform, and the wound is powdered with the same; a piece of lint, with a slit cut in it, is soaked in 1-80 carbolic oil, and slipped round the tube, so as to interpose between the wound and the shield. The discharges are received into several layers of salalembroth wool, and the whole is retained by two or three turns of a broad flannel

bandage, fixed by safety pins in the manner described. No spray is used at any time.

A rapid cure should be expected in uncomplicated cases if the patient is young. The first of my last three cases, a young man from whom I removed 93 ounces of purulent fluid at the commencement, was perfectly well, and the wound completely healed, in thirty-three days. In this case no general anæsthetic was given, but two or three drops of an 8 per cent. solution of hydrochlorate of cocaine were injected at the point of incision. No pain was felt during the incision.

The last two cases are striking examples of the success of the methods here described.

CASE I.—An apparently dying lady, aged 61, with a temperature of 103°, was operated on on January 17th, 1892, and the tube was finally removed on February 14th. Temperature normal on February 7th. The expulsive power was so weak that the patient had to be lifted up occasionally above the bed by two assistants, with the wound dependent. In that position the finger was inserted into the chest, and the patient was made to cough. A quantity of fibrinous material, and pus which had been blocked up behind it, came away on January 27th by this method. She is now (March 6th, 1893) in excellent health.

CASE II.—J. C. P., aged 30, dark lank hair, cadaverous appearance. In June, 1891, had severe attack rheumatic fever, lasting ten weeks. In February, 1892, a slighter attack. About middle of September, 1892, began to have pain left side of chest; no cough. After a week or two began to lose appetite. Continued at work with increasing dyspnœa; still no cough. Began to feel sick on October 1st. Pain in side worse night and morning, and always increased by lying down. Continued out of doors till October 4th, when the pain grew acute. On the 8th, midnight, there being marked dulness, with displacement of the heart, and great increase of pain, he was aspirated over the spot of maximum dulness, in this case at the upper border of the tenth rib below the angle of the scapula. Pus was obtained, most horribly fœtid. The needle and the metal parts of the aspirator were blackened by contact with the pus and its gases. Early on the 9th the chest was opened at the upper border of the tenth rib, in the manner described. A rise of temperature from October 26th to the 30th was due to the drainage tube coming out; this was prevented by obtaining a thicker sheeting material for the shield. Another rise on November 6th was caused by the wound having closed up too rapidly and the tube becoming compressed. The wound was freely dilated with the finger and a drainage tube of stouter material procured. The wound was again dilated with the finger when the temperature rose on the 15th. The patient suffered from a very troublesome and offensive diarrhœa on October 25th, and also on November 7th, which was not entirely controlled until November 19th. From this time convalescence was uninterrupted. The drainage tube was finally removed, and the wound allowed rapidly to heal, on December 7th. At the time of operation the patient was dusky in hue, the pulse almost imperceptible, and he was apparently moribund. He again was brought to the verge of death by the profuse diarrhœa. He is now (March 6th) in good health, though the breath is slightly short sometimes. There is no sensation of pain or dragging on the affected side; no cough; appetite thoroughly good. The dulness is but slight, though at the aspiration more than 80 ounces of pus were removed. The heart's apex beat is 2½ inches below and ½ an inch outside nipple. A horizontal measurement 2 inches below nipple gives for the right side 15.4 inches, for the left 14.5. A result which is certainly very satisfactory.

These three cases all occurred in the practice of Dr. Fitzsimons, of Hereford. The early suspicion of their nature was due to him; and to this fact, and to his care, they owe their recovery.

DO PARASITES EXIST IN CANCEROUS TUMOURS?

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THE answer to this question cannot as yet be given by a simple yes or no. As a contribution towards an affirmative answer I beg to offer the following memoranda.

So long as the organisms accounted parasitic have not been cultivated, so long as inoculation experiments have yielded nothing of moment, the opinions of those who deny the presence of parasites in cancer are entitled to the greatest possible respect. While fully admitting the *experimentum crucis* has yet to be made, I venture to regard many of the cell inclosures met with as parasitic organisms, basing my opinion on a careful study of what has been written by others on the subject, and a patient investigation for myself of the differences between tissue cells, epithelial and other, and the bodies which have every appearance of being foreign importations. It is the conflict of auto- and hetero-genesis over again.

Failing three out of four of the conditions laid down for establishing the pathogenic character of any micro-organism, pathologists are at present engaged in a careful study of the life history of the supposed parasite as it can be traced in the tissues, and especially in attempts to demonstrate a reproductive process. It is to the latter process that my remarks chiefly relate. I am well aware appearances have been described by Foà and Soudakewitch, Dr. Ruffer, Mr. J. J. Clarke, and others, which they believe to indicate a reproductive process. I append drawings from my sections, but have had no opportunity of comparing them with any others professing to depict sporulation, etc.

When I first recognised the parasite in stained sections, the majority of forms appeared to measure about 8 to 12 μ in diameter. After a time I became aware of extreme variations in size. Connected by imperceptible stages the size of the parasite may be traced from a mere speck, seen under a high power, to a large cyst-like body 20 μ or more in diameter. The nucleus of the parasite also varies in size relatively to the surrounding protoplasm. In some of the medium-sized bodies it may be only just visible, while in others no larger it may almost fill the capsule. I am unable to say whether the small-nucleated forms pass into the large-nucleated ones; it is only in the latter that I have observed anything resembling a "sporing" process, but it is possible that the former undergo simple division like other unicellular organisms.

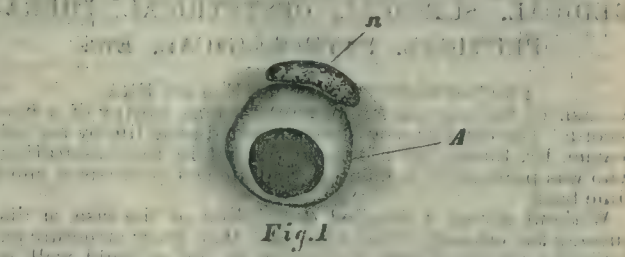


Fig. 1

n. Nuclei of epithelial cells. A. Large parasite with well-defined capsule, containing large homogeneous nucleus. (⅛" ocular 2. The same power for all the drawings.)

The bodies to which this description relates can be seen both in stained and unstained sections; they are not dissolved out by soaking in ether, or blackened by osmic acid 1 per cent. In the majority of the parasites the nucleus is structureless and homogeneous. When the organism is about to multiply it becomes converted into a finely granular refractile mass (Fig. 2). This mass may either fill the outer capsule, or be

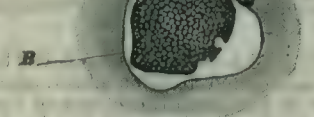


Fig. 2

B. Contour of parasite irregular, nucleus large, finely granular, almost filling capsule ("sporing" stage).

separated from it by a clear space. Smaller masses may be seen detaching themselves from the main mass, and finally subdividing into refractile micrococcus-like particles. These spore-like particles may commence to grow while still within the parent cyst, or may escape while still very minute (Figs. 3 and 4). They may be seen in the interior of newly infected

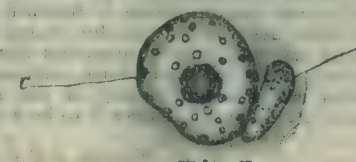


Fig. 3

C. Capsule containing in the centre a large nucleus, and a number of young parasites developing within the parent cyst.

cells, or lying free near the cyst from which they emerged. Very frequently no breach can be seen in the cyst wall, hence

it is possible the particles escape by diapedesis through the thinned-out wall.

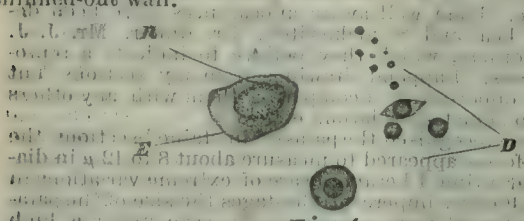


Fig. 4

D, Young forms to be found in the neighbourhood of "sporing" cysts. E, Epithelial cell containing "spores."

In conclusion, I beg to express my obligations to the writings of others who have worked at the subject.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

TRANSPOSITION OF THE VISCERA.

A case of this curious abnormality seems worthy of a bare record. The condition was recognised during life by my colleague, Dr. Eurich, in a female patient in this institution, who was profoundly demented, and died of phthisis a short time back.

Without giving a detailed description of the case, or discussing the etiology, it may be said that every structure exhibited a "looking-glass" position, as far as could well be ascertained in the course of an ordinary necropsy. The examination included an inspection of the viscera, the main vessels (venous and arterial), the œsophagus, thoracic duct, renal and ovarian veins. In every case the transposition was perfect. The only point of any doubt was the opening of the vena azygos major, which ran up on the left side of the vertebral column, and turned somewhat to the right before opening into the superior cava. This is figured in *Gray's Anatomy* as occurring in the case of the normally larger right azygos vein. The latest edition of *Quain's Anatomy*, however, describes it as turning to the left. The left hemisphere of the brain weighed 15 grammes less than the right. The patient was right-handed.

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PLEURAL EMPYEMA OPENING AT UMBILICUS.

Some weeks ago I was called to see a child, aged 18 months. I found a free flow of pus from the centre of the umbilicus. I was told that it had burst quite suddenly that morning. Examination of the abdomen revealed nothing. The parents told me that the child had been suffering from bronchitis and pleurisy some weeks previously, and I found evidence of fluid in the left pleura. To confirm this diagnosis I made an exploratory aspiration between the fifth and sixth ribs on the left side, and drew off a syringeful of pus. The discharge continued to flow freely from the umbilicus for three or four days and then ceased. By this time all signs of fluid in the pleural sac had disappeared, and the child made a good recovery. The exact course which the pus pursued in its journey from the pleural sac to the umbilicus is difficult to trace, but most likely it found its way out of the thorax through the interval caused by the deficiency of muscular fibres in the attachment of the diaphragm to the ensiform cartilage. As I cannot find a similar case quoted in any of the standard works on medicine at my disposal, I take it to be a very rare occurrence.

Ilkeston. J. G. Willis, L.R.C.P.& S.

HÆMORRHAGE FROM POSTNASAL GROWTHS.

In the British Medical Journal of June 24th, Dr. Drinkwater communicates a case of hæmorrhage from postnasal growths. I have just had a similar case in my practice at the Farringdon General Dispensary. The patient, a girl aged 8 years, has evidently been suffering for some time from the adenoids, as she is puny and ill-developed, and has left suppurative otitis media. Her mother, like the rest of her class, has systematically neglected the ear, and only brought her to me because she had considerable bleeding for a fortnight, for which I could find no cause beyond the postnasal growths. I removed the growths by scraping, and she has had no hæmorrhage since.

I have never found Lowenberg's forceps or any other instrument needed for adenoid vegetations, a good finger nail being all that is required. P. Macleod Yearsley,
Surgeon to the Farringdon General Dispensary.

TRIPLETS.

On June 30th a poor woman was confined at Crawley of triplets, two boys and a girl. Though remarkable in itself, it seems to be further noticeable from the facts that all three were vertex presentations, and that each had an absolutely separate placenta, the births occurring: child, child, one placenta, child, second placenta, third placenta. The children are alive and the mother doing well.

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Crawley, Sussex. Late House-Surgeon Women's Hospital, Brighton.

REPORTS

ON

MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

LOURCINE-PASCAL HOSPITAL, PARIS.

(Service of Dr. Pozzi.)

Curetting and Plastic Operations on the Cervix, Vagina, and Perinæum.—Vaginal Hysterectomy for Fibrous Tumours.—Vaginal Hysterectomy for Pelvic Suppuration or Inflammatory Lesions of the Uterine Appendages.—Abdominal Hysterectomy for Fibrous Tumours.—Abdominal Hysteropexia or Ventrofixation.—Laparotomy for Lesions of the Appendages.—Operations on the Kidney (Nephropexia: Nephrectomy).

This hospital is the only one in Paris entirely devoted to gynæcology. It consists essentially of large wooden barracks, erected in the garden of the old Lourcine Hospital. These barracks are very old and in a somewhat bad condition, and are shortly going to be pulled down, to be replaced by light buildings in brick, on the model of those already erected in the Baudelocque Maternity Hospital and in the Cochin Hospital. This transformation is found to be necessary in view of the growing importance of the gynæcological department since it was established by M. Pozzi ten years ago. As the last statistics of the Assistance Publique show, this hospital is, of all those in Paris, that in which most laparotomies are performed. It may be added that it is the one in which the statistics are the best. At the Lourcine-Pascal Hospital inflammatory lesions of the ovaries and Fallopian tubes are met with in considerable number. The last series, published by M. Pozzi in the *Bulletin de la Société de Chirurgie*, April 13th, 1892, gave for one period of two years a series of 108 operations for tubo-ovaritis with or without suppuration. There were only 4 deaths, all in cases of pyosalpinx or pelvic abscess; 54 cases of suppurative lesions had been operated on with only these 4 deaths, all cases of disease of exceptional severity; the 64 other operations for inflammatory non-suppurating lesions of the appendages all ended in cure. In the year which has just elapsed the activity of the service has been still greater. The details will be published next spring in the *Bulletin de la Société de Chirurgie*.

M. Pozzi calls attention to this very noteworthy fact, namely, that for the three months since he has again resumed the duties of his appointment after the holidays, starting from October 1st, there has not been one single case of death in the very large number of operations which he has performed. On an average 5 or 6 laparotomies or

hysterectomies are performed every week, without counting minor gynæcological operations.

The service consists of 45 beds, distributed in two wards, with four isolation rooms. As soon as they have been operated on the patients are placed in one of the latter, and remain there at least eight days. There is a large operating theatre, simple but very well equipped for ordinary operations and for courses of instruction. A special room is devoted exclusively to laparotomies. In a former article in the BRITISH MEDICAL JOURNAL some of M. Pozzi's special methods of procedure were described. These are, moreover, described in his *Treatise of Gynæcology*, recently translated by the Sydenham Society. It need only be recalled that he is an adherent of antisepsis associated with asepsis. He makes great use of corrosive sublimate and iodoform in the dressing, and uses carbolic acid only for his instruments. These are disinfected by being left in a dry oven at a temperature of 120° C. for an hour. The dressings (cotton wool, compresses, bandages, etc.) are disinfected in the wet apparatus of Lauterschläger, of Berlin. M. Pozzi never uses sponges for laparotomy, but makes great use of fine muslin compresses, folded several times and sterilised in the oven.

He operates with great rapidity and lays great stress on making his incisions as small as possible, so as to avoid exposing the intestines to the air. Unless in very exceptional cases, his incisions for lesions of the uterine appendages, and even for pyosalpinx, do not exceed 6 centimetres. Moreover, his incision is no larger for cysts of the ovary, which are first emptied, the sac then being drawn out through the little opening. The abdominal wound is brought together through the little opening. The abdominal wound is brought together by three superimposed planes of suture, uniting, in the first place, the peritoneum, then the musculo-aponeurotic layers, and, lastly, the skin. The flushing of the peritoneum and drainage are only carried out in exceptional cases. For drainage M. Pozzi only uses capillary drainage with weak iodoform gauze, which he much prefers to the glass tubes generally used in England. It is found as a matter of fact that the capillarity of the gauze produces a constant aspiration of the liquid.

We will now proceed to follow the head of the service through his wards, stopping with him at the bedside of the most interesting patients. But, for the sake of brevity, we will group the cases in classes, according to the nature of the operations which have been done.

Curetting and Plastic Operations on the Cervix, Vagina, and Perineum.—In treating the different kinds of metritis M. Pozzi, as a rule, uses curetting, sometimes associated with amputation of the cervix. It may be said that it was he who reintroduced in France this operation of curetting invented by Récamier, an operation which had fallen into disrepute in its native country, whilst it came into favour in Germany during the antiseptic period. M. Pozzi uses a blunt curette, which he handles with considerable force, whilst the neck of the uterus is firmly held down. He performs extemporaneous dilatation of the cervix by means of a dilator with two parallel branches. He uses laminaria stems to prepare the way for the metallic dilator, but only in exceptional cases. This operation is always performed under anæsthesia, and its results in the hands of M. Pozzi are excellent, and no accident has occurred.

In prolapse of the vagina associated with weakness of the perineum colpo-perineorrhaphy is performed at the Lourcine-Pascal Hospital by Hegar's procedure, silver wire being used; with it is often associated anterior elytrorrhaphy by Sims's procedure, and in this last operation two superimposed layers of catgut sutures are employed, a method which has the advantage of dispensing with the necessity of seeking for the wires through the vaginal opening which has just been narrowed by the colpo-perineorrhaphy. As a rule these two operations are preceded by curetting, which is intended to combat the accompanying metritis; by amputation of the cervix, which lessens the weight of the uterus, which in such case is usually more or less prolapsed; lastly, there is sometimes added to it shortening of the round ligaments, whilst the prolapse and retroversion of the uterus are well marked and reducible. Thus, at the same sitting five successive operations are performed on the same patient. We were shown a patient who had been so treated—with the exception of Alexander's operation—with complete success.

Vaginal Hysterectomy for Fibrous Tumours.—A patient in the service operated on a fortnight earlier in the manner described was on the way to recovery, without fever. The operation was performed under M. Pozzi's direction by his *interne*, M. Albert Martin. It is the custom of the head of the service to make his principal assistants operate thus every year. The patient in question had a fibrous tumour of the fundus and posterior wall of the uterus, of the size of two fists, giving rise to abundant hæmorrhage. There was this peculiarity in the case, that the patient had been very frequently pregnant (eighteen times); the last deliveries had been impeded by the fibrous tumour. Her first eleven pregnancies had gone on to term, whilst the seven last ended in abortion, more and more near the time of conception. Finally, this patient had confirmed disease of the heart (tricuspid inadequacy, with pulsation in the jugular veins); but this fact did not appear to be a contraindication of anæsthesia or of operation. In cases where the fibrous tumour does not extend beyond the umbilicus M. Pozzi prefers vaginal to abdominal hysterectomy. Thus performed, the operation is less severe, although it sometimes presents very great difficulties. The *technique* of the operation which is employed has been definitely fixed by Péan. It comprises the use of two special procedures: 1, preventive hæmostasis by the use of forceps placed on the broad ligaments after the two surfaces of the uterus have been separated from the adjoining tissues; 2, *morcellement* and emptying of the uterus and removal of the tumour with long bistouries and scissors. It is thus possible to remove bit by bit tumours as large as a fœtal head at full term, and even larger. It is especially when the tumours are fixed in the lower pelvis, and when they have invaded the supra-vaginal part of the cervix, that this operation is valuable. But it requires great experience and patience. Recently M. Pozzi with success performed such an operation, which lasted not less than three hours; and as in that case the vagina and the vulva were very narrow he did not hesitate to make two large lateral incisions. On account of the great vascularity to which the fibroma gives rise, one is often obliged to apply a very large number of forceps—some twenty or so. After the operation the dressing consists in the introduction of a plug of iodoform gauze into Douglas's pouch for the purpose of drainage. Next the vaginal walls must be protected against the action of the forceps by the introduction of strips of iodoform gauze, all round the bundle formed by the instruments. Lastly, a catheter *à demeure* is placed in the bladder, since owing to the urethra being compressed the urine could only pass with great difficulty, or else would contaminate the dressing. The forceps and the catheter are withdrawn at the end of forty-eight hours, and after that the vagina is washed out twice a day, this being followed by the introduction of a piece of iodoform gauze. Frequent cleansings are here necessary, as the eschars caused by the forceps come away. Antiseptics, however, must be employed in very weak doses on account of the extreme facility with which they are absorbed.

Vaginal Hysterectomy for Pelvic Suppuration or Inflammatory Lesions of the Uterine Appendages.—The very great extension which has been given in recent times to vaginal hysterectomy by M. Péan and his pupils is well known. They defended the procedure at the Congress of Gynæcology recently held at Brussels. They have come to practise as a rule extirpation of the uterus in all cases of bilateral inflammation of the Fallopian tubes or of the ovaries, even when there is no suppuration. Thus for them laparotomy in cases of salpingitis and ovaritis becomes the exception; they maintain that even when the uterus alone can be extirpated and when the surgeon is obliged to leave behind the appendages the cure is more radical and the operation is less severe. M. Pozzi has been the chief opponent in France of this extreme procedure, as the discussions of the Society of Surgery prove. He upholds the superiority of extirpation of the appendages by laparotomy in the immense majority of cases, that is to say, when it is possible to enucleate the tumour even with some difficulty. Nevertheless the surgeon of Lourcine-Pascal accepts hysterectomy for lesions of the appendages in a certain number of cases of a well defined character, namely, pelvic abscesses which cannot be enucleated, and in which the surgeon must confine himself to evacuation and cleans-

ing of the focus as is the case in certain old-standing cases of pyosalpinx which have become adherent all round, and in certain cases of parametritis, chronic inflammatory lesions of very old standing, and very adherent to the uterus, so as to form one mass with it, especially when they bind it to the pelvic walls, filling up the whole of the lower pelvis with a kind of wooden mass. Then indeed in performing laparotomy the surgeon may find himself face to face with insuperable adhesions, the separation of which would be attended with serious risk. On the other hand, hysterectomy may effect a cure by the following mechanism: It creates in the centre of the inflammatory regions a kind of tunnel through which iodoform gauze can be introduced; in this way gradual resolution is obtained as the result of the combined action of the *débridement* and antisepsis, although the inflamed tubes and ovaries may necessarily have been left behind. Lastly, M. Pozzi performs what may be called complementary hysterectomy when, after incomplete extirpation of the appendages by laparotomy, there remains either a fistula (abdominal, vaginal or rectal) or inflammatory remnants causing pain.

At the time of our visit to M. Pozzi's wards there were in them examples of these three classes of hysterectomy for lesions of the appendages. A patient had been operated on for suppurating perimetrosalpingitis. The fever at once ceased after the operation, and the patient was convalescent. Another patient had had her uterus removed on account of an old standing inflammatory mass filling the lower pelvis, but not suppurating, which surrounded it. There had been no reaction, but the operation was extremely difficult owing to the fusion of the uterus with the neighbouring parts and its great vascularity. Lastly, another patient had undergone "complementary" hysterectomy for an abdominal fistula following incomplete extirpation of an adherent pyosalpinx by laparotomy. (The operation had been done by another surgeon.) M. Pozzi was able some time after the extirpation of the uterus to place a drain *en croix* whereby drainage through the vagina was secured, and this led to the complete drying up of the secretion of the abdominal fistula which is now in course of cicatrisation.

Abdominal Hysterectomy for Fibrous Tumours.—We saw two patients who had undergone supravaginal hysterectomy for large fibromata of the uterus, in whom cicatrisation was almost complete. Both had been treated by ligature of the pedicle held up outside which is the procedure preferred by M. Pozzi. We were greatly struck by the smallness of the abdominal incision in these two cases, it being altogether out of proportion to the volume of the tumour. In order to get the mass outside through an abdominal buttonhole, which does not exceed in size two-thirds of the vertical measurement of the solid mass, M. Pozzi employs the following procedure. He has the edge of the incision widely separated, whilst one of his hands introduced behind the tumour makes it turn on its own axis and pulls on it, making it present by its smallest diameter; at the same time an assistant introduces three fingers into the vagina and pushes the uterus firmly upwards and forwards. By means of these combined manœuvres of traction and propulsion the fibromatous uterus is, so to speak, enucleated out of the abdomen by an opening small enough to prevent the escape of the intestines. The elastic ligature is applied very conveniently by means of a special *ligateur* invented by M. Pozzi.

Abdominal Hysteropexia or Ventrofixation.—Two patients in the service had undergone this operation, one for prolapse, the other for adherent retroflexion. In each case the operation was done as a complementary procedure to laparotomy for lesions of the appendages. In one case the appendages were removed for hydrosalpinx with chronic ovaritis. In the other the surgeon had to deal with chronic double ovaritis, without lesions of the tubes; for this M. Pozzi used a procedure which he has lately employed, namely, ignipuncture of the ovaries. On this operation he proposes to publish a report at an early date. The operation of fixing the uterus to the abdominal parietes is very expeditious. The fundus of the uterus is seized with a bullet extractor, and whilst an assistant pulls it up high and keeps it there, the surgeon passes three points of silk continuous suture through the musculo-aponeurotic layers of the abdomen and the superficial layers of the anterior wall of the uterus. When it has been necessary to break down adhesions in Douglas's pouch, a large piece of iodoform gauze is placed in the *cul de sac* behind the uterus and left there two days. This gauze comes out through the abdominal opening at the level of the fundus, which it serves to support. In using a continuous suture in hysteropexia instead of an interrupted suture like other surgeons, M. Pozzi's object is to avoid the presence of knots, which are sometimes badly borne by the patient, and may be eliminated after a greater or less delay.

Laparotomy for Lesions of the Appendages.—Many patients of the service had undergone this operation either for parenchymatous salpingitis, or for hydrosalpinx or for hæmosalpinx, arising from an extrauterine pregnancy. Among the special points of the operative procedure we again remarked the smallness of the incision. At first M. Pozzi does not extend it beyond 5 or 6 centimetres, just sufficient to allow room for the introduction of four fingers. He then seeks for and frees the appendages solely by touch, the parts being out of sight. As soon as the appendages have been liberated, he introduces into the pelvic cavity one or two compresses of aseptic gauze, so as to make a tampon sufficient to check the oozing of blood caused by the breaking down of the adhesions. These compresses which are half inside and half outside the abdomen, form a bed on which the operator proceeds to the ligature of the pedicle, then to cauterisation of the cut surface. For the ligature of the pedicle, the surgeon employs Czerny's flat silk, boiled in a strong solution of carbolised water. He has completely given up Lawson Tait's knot, which he looks upon as untrustworthy, however moderate in thickness the pedicle may be. He generally makes the ligature with two crossed threads, and if the pedicle is broad he makes a chain suture. A principle on which M. Pozzi lays great stress is as far as possible to avoid exposing the intestine to the air; in the great majority of his laparotomies one does not see a single loop. Nevertheless, when the adhesions of the tumour to the intestine are very close, as was the case in a patient still in the hospital, M. Pozzi draws the whole mass outside the abdomen in order to dissect the intestinal loop with the aid of vision. He showed us a patient on the point of being discharged cured in whom he had thus freed with the scissors and the thermo-cautery the sigmoid flexure which was bound to a pyosalpinx. So close was the adhesion, that part of the muscular coat was removed, and it was necessary to apply a Lembert suture at the part of the wall thus weakened. No untoward effect, either local or general, followed. Trendelenburg's position, which has been much used recently, should, in M. Pozzi's opinion, be reserved for exceptional cases; he uses it but very seldom, and then without a special table. He confines himself to having the patient raised during the time that is necessary, her flexed legs being placed over the shoulders of two assistants of equal height. The operator himself stands on a stool. As soon as the difficulty to be overcome is past, the patient is easily replaced in the horizontal position. M. Pozzi always operates standing between the legs of his patient, with an assistant on the right and another on the left. The patient is laid on Trauhorn's table, used by Martin, of Berlin. Before each operation this table is sterilised by flaming with alcohol.

Operations on the Kidney (Nephropexia; Nephrectomy).—The close relationship which exists between displacement of the kidney and disorders of the genito-urinary apparatus is well known. Thus many women suffering from uterine displacements are also the subjects of downward displacement of the kidney or floating kidney, which makes them suffer really more than the uterus, on which their attention is concentrated. A patient in the service is an excellent example of this kind of morbid hybridity; she is a woman suffering intense dysmenorrhœa, with pelvic and stomach pains, connected at the same time with retroversion of the uterus and downward displacement of the right kidney. It was proposed in this case to perform nephropexia and hysteropexia successively. But the first operation sufficed to cause all the morbid symptoms to disappear. The patient suffered no pain, even at her periods, which had not been the case with her for many years. She will doubtless leave the hospital cured without having had hysteropexia performed, and the operation is henceforth useless. Another patient, who had nephrectomy performed under circumstances of special in-

terest, has lately come into the hospital again. She was first operated on for a large retroperitoneal colloid cyst, filling the abdomen and extending deeply into the right hypochrondrium. At the end of the operation it was perceived that the ureter, which adhered firmly to the tumour, had been torn about 2 inches below the brim of the pelvis. In order to seek for the upper end of this canal tube it was necessary to make a complete evisceration. In this way it was possible to find the upper end of the ureter, and it was made to issue from the abdomen by passing it through a buttonhole in the lumbar region. This procedure seemed preferable to immediate nephrectomy, having regard to the exhausted state of the patient. At the end of three months, during which she had a urinary fistula in the loin, nephrectomy was performed. The patient recovered completely, and was able to resume her occupation. Quite lately she has begun to feel pain in the region of the lumbar cicatrix, with serous oozing through a tiny orifice. M. Pozzi, suspecting that the symptoms were caused by one of the silk ligatures, made a deep incision, through which he removed an old ligature, which had been there for nearly two years, and which had without appreciable cause begun to set up irritation. The wound healed by first intention, and the pain ceased.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

G. E. HERMAN, M.B.Lond., F.R.C.P., President, in the Chair.

Wednesday, July 5th, 1893.

SPECIMENS.

THE following specimens were shown: Dr. DUNCAN, for Dr. LEDIARD, of Carlisle: Fibromyoma of Supravaginal Cervix, Removed by Laparotomy.—Dr. BALLANCE: Anencephalic Fœtus.

ETIOLOGY OF THE SICKNESS OF PREGNANCY.

Dr. GILES read this paper. With a view to discovering the chief factors influencing the occurrence of ordinary morning sickness during pregnancy, he had analysed the records of 300 cases at the General Lying-in Hospital, and came to the following conclusions: (1) About one-third of the pregnant women were free from sickness throughout pregnancy, 45 per cent. were free from sickness during the first three months. Hence, absence of sickness could not be regarded as of much weight in the early diagnosis of pregnancy. (2) When sickness occurred it began in 70 per cent. of cases in the first month; a few began in the second, third, and fourth months; the fifth and sixth were nearly free, and about 9 or 10 per cent. began in the last three months. The duration varied from a few days to all through. Sickness was most frequent during the second month, as found also by Horwitz. (3) Sickness occurred rather more frequently in the last six months among single women. (4) Between the ages of 20 and 25 sickness was least frequent; 90 per cent. of primiparæ over 25 suffered from sickness. (5) There was less sickness in the third than in other pregnancies; and the sickness that occurred both in this and in later pregnancies was frequently in the later months or throughout. In the first two pregnancies there was much more sickness in the first three months. Comparing primiparæ with multiparæ sickness in the early or middle portion was more common among the former by 13 per cent.; sickness all through was more common in multiparæ by 9 per cent. (6) Sickness in the later period and throughout increased markedly with the weight of the child and placenta; but the mother's sickness did not interfere with the child's nutrition. (7) Women who habitually menstruated painlessly and scantily suffered much less from sickness than those who suffered much pain and lost abundantly. The degree of pain had a more marked influence than the quantity lost. (8) Generally speaking, scanty menstruation was associated with little or no pain; and profuse menstruation with more or less severe pain. Pain before the onset of the menstrual flow was more apt to be sacral, suprapubic pain being more frequent during the flow. Sacral was oftener severe than suprapubic. In reviewing the subject generally the author agreed with those who did not regard sickness in any form as physiological. Founding largely on the analogy of eclampsia, the author regarded vomiting as chiefly one mode of manifestation of nervous instability, and so dependent on the interaction of three main factors: (1) The increased nervous irritability of pregnancy. (2) A local source of irritation. (3) A ready efferent channel for nervous energy (the vagi). The relative influence of these factors was discussed. The general irritability varied according to age, class, race, and parity, and might manifest itself not only by vomiting, but by chorea, eclampsia, hysteria, or mania. The mode of action of factors associated with menstruation was difficult to explain; it might be by its influence on either general or local conditions. The local irritation might act in the earlier or later months of pregnancy; if the latter, it was often closely connected with great distension of the uterus, as indicated by twins, or by a heavy child and large placenta. The fact was recognised that mild and severe vomiting might alike come on from causes quite unconnected with pregnancy. (The paper was illustrated by tables and charts.)

Dr. HORROCKS thought that the sickness of pregnancy in the great majority of cases began after the first period was missed. He considered the sickness purely physiological, and that the cases in which it was absent, should be looked upon as abnormal. The cause of the sickness of pregnancy was not definitely known. He looked upon it as a reflex phenomenon, the pregnant uterus being the exciting cause, the nervous system the conductor, and the stomach and vomiting apparatus the part affected.

Dr. LEITH NAPIER mentioned excess of the liquor amnii as a cause. He suggested that all cases of simple sickness of pregnancy came under one of two classes: (1) reflex irritability; (2) abnormal uterine conditions, which might be extra- or intrauterine. He had found much benefit from the administration of menthol in gr. jss. doses.

Dr. DAKIN was glad to find the author had not given the supposed "distension" of the uterus by the normally growing ovum to be one of the causes of the vomiting of pregnancy, as the uterus was not distended by, but grew with, the developing ovum. No deductions could be drawn from the results of treatment, seeing that the vomiting ceased of itself at the end of the third month in half the cases. Far more value was to be placed as regards the onset of vomiting on the large number of cases observed by the author than on any general impressions.

The PRESIDENT considered the paper a most valuable one, as (*a*) it was based on a larger number of cases than any other he was acquainted with and (*b*) the author had analysed these cases in an impartial, unbiassed way. The author had brought out some important, novel, and interesting facts. First, that the patients who suffered pain when they menstruated were more liable to vomit when they became pregnant; and this was not hard to understand, for patients whose nervous systems were very sensitive were those liable to pain and also to vomiting from slight causes. Secondly, the concurrence of vomiting at the end of pregnancy, with unusual distension of the uterus; this he (the President) thought might be a local effect due to the pressure on the stomach. Thirdly, as the late Dr. Matthews Duncan had shown that the most favourable age for child bearing was 25, and that as a rule the third child was the best specimen of a family, so it was precisely in these patients—as shown by the author—that the vomiting was least.

Remarks were also made by Drs. GRIFFITH and HEYWOOD SMITH.

Dr. GILES replied.

EFFECTS OF THE INFLUENZA POISON UPON THE LYING-IN WOMAN.

Dr. ADDINSELL read this paper. He described several cases which had been under his care, and showed how they differed from puerperal septicæmia. He also cited the case of a lady who suffered from dengue in her confinement, and its effects on the lochia and milk, pointing out the strong resemblance between this disease and influenza. He considered influenza attacked the weakest spot, and he quoted instances of several patients seized with the disease at the time of menstruation who suffered, and continued to do so, from ovaritis traceable to that time. He finally threw out the suggestion that the nervous symptoms so often seen in

puerperal septicæmia, and which were very marked in the most severe of his series of cases, might be due to the necrotic elements of the endometrium not being carried off in the usual lochial discharge, and thus being absorbed and carried into the cerebral circulation.

The PRESIDENT had seen two cases of febrile illness—one consisting of repeated febrile attacks following delivery, the other of a febrile attack interrupting recovery after the opening of a pelvic abscess—and he had concurred with the doctors in attendance in ascribing these cases to influenza, rather because no other cause was found than because there was anything distinctive in the illness.

Drs. HORROCK and SPENCER made remarks, and Dr. ADDINSELL replied.

REVIEWS.

GUIDE TO HEALTH IN AFRICA, WITH NOTES ON THE COUNTRY AND ITS INHABITANTS. By THOMAS HEAZLE PARKE, Hon. D.C.L., Hon. F.R.C.S.I., etc., Surgeon-Major A.M.S. With a Preface by H. M. STANLEY. London: Sampson Low, Marston, and Co. 1893. (Crown 8vo, pp. 186, 5s.)

ANYTHING would be read with interest from the pen of a surgeon who has done so much to enhance the honour of his profession, and to leave a record of typical heroism, tenderness, and dutiful devotion which is a possession for all time. Those services have not received the official recognition which they merited, and for which the unanimous voice of his countrymen and his profession marked them out. It may be gathered even from parts of the text that Dr. PARKE'S path since his return has not been altogether free from official thorns which may have recalled the physical pains of the underwood of the forest of Darkest Africa. But the same reticence and modest devotion to duty which he showed in the Dark Continent should stand him in good stead in threading the obscure labyrinth of British officialdom.

The profession and the public have before now wondered at the ways of the War Office in dealing with army medical officers, and one may well ask how it is that while Lieutenant Stairs who had not Surgeon-Major Parke's record of service in war and in cholera epidemics, received early promotion on his return from the Stanley Expedition, no such recognition of his gallantry, devoted and unsurpassed heroism, has yet been recorded to one who, although he was only a surgeon, was able to render services of the highest value which Mr. Stanley has generously and even enthusiastically endorsed and affirmed. We ask again, Why? It would be satisfactory if an answer were forthcoming.

Those chapters of this little book which deal with the physical geography, meteorology, natives, fauna and flora of Africa are admirably done, and form, in a very limited space, a readable and popular presentation of the main facts of the extensive subjects of which they treat. Much, too, of what the author writes concerning the diseases of Africa, their symptoms, and treatment, is commendable. It is clear, concise, practical, and contains many useful hints which cannot fail to be of service to future travellers. We remark one or two omissions and mistakes which might have been avoided. For example, Dr. Parke recommends oil of male fern as the most effective vermifuge in Egyptian chlorosis. This drug is now considered very much inferior to thymol, by which, we understand, it has been entirely superseded in the treatment of the anchylostomum duodenale. At page 132 occurs the following. He says, speaking of mosquitoes, "That they are sometimes the agents for introducing, through the punctures which they make for extraction of blood, a minute, but very mischievous, parasite into the body (bilharzia hæmatobia), which afterwards gives rise to very serious symptoms." We suspect Dr. Parke has mistaken bilharzia for filaria sanguinis, which is not introduced, as he says, but is abstracted, through the puncture the mosquito makes. The book concludes with many excellent hints on the preservation of health in the tropics, outfit, cooking, transport, disinfection, embalming, and a short note on small-pox.

A TREATISE ON NERVOUS AND MENTAL DISEASES. By L. C. GRAY, M.D. Philadelphia: Lea Brothers and Co. 1893. (Demy 8vo, pp. 687, illustrations 168, 5 dollars 50 cents.)

THIS book may be read with great interest, for throughout it is clear that Dr. GRAY is happy in being able to draw upon a very large clinical experience. He excels more in clinical neurology than in the literature of nervous diseases and their pathology. The book opens, like most other books on diseases of the nervous system, with an account of the structure of the central nervous system. Dr. Gray is here to be particularly commended for having described and drawn the brain for himself from actual brains instead of simply copying the descriptions of others. One of the best pages in the book—except those dealing with clinical descriptions—is that giving a brief summary of our knowledge of the functions of the cerebral cortex, but the account of the spinal cord is not so good as that of the brain.

The chapter on electricity contains an excellent description of its uses in nervous diseases, though it may strike an English reader that more reliance is placed in it on the other side of the Atlantic than in this country. The only thing we have to find fault with is that the account of the reaction of degeneration is not nearly full enough, and it is not sufficiently clearly brought out that when the disease is primarily in the muscle there is no reaction of degeneration. In this chapter surely it is hardly necessary to have repeated the same figure on pages 89, 97, and 106.

In the chapters on the general symptomatology of nervous diseases the account of vision and of the eye is the best. The only points that seem to call for criticism are that it would have been clearer if Dr. Gray had not—like, it is true, many other writers—attempted to draw a distinction between hemiopia and hemianopsia; if he had pointed out that the dividing line is generally a little curved in its centre, and if he had devoted more attention to the ophthalmoscopic appearances in various nervous disorders.

Among nervous diseases themselves, that first described is neuralgia, and the description is excellent. Perhaps the best parts of it are those which treat of diagnosis and treatment, and we are glad that Dr. Gray is reluctant to advise surgical interference. The account of multiple neuritis is very disappointing; it is far too short considering the great importance of the disease. It is essentially a malady of which a good clinical picture is wanted, so that the student may recognise it in all its manifold forms, but the description given by the author is cramped and meagre. The account of the etiology is not very satisfactory. The first group of causes is "toxæmia from such poisons as alcohol, arsenic, lead, bisulphide of carbon." The word "such" appears to imply that there are other similar poisons left out; if so, they ought not to have been omitted. Then, again, the student is not told that lead and alcohol are quite common causes for peripheral neuritis, each producing a different clinical picture, while the other poisons are excessively rare causes. In the same way, diphtheria and variola are lumped together under the heading "such diseases," as if they were equally common causes. Lastly, syphilis is given as a cause without any indication of the fact that multiple peripheral neuritis is one of the very rarest sequelæ of syphilis.

It is interesting to note that in the treatment of myelitis, as in other diseases of the spinal cord, Dr. Gray is very fond of ergot—a remedy which has not generally been found of much use. The author includes under the heading "progressive muscular atrophy" maladies such as the peroneal type of muscular wasting, which is probably a variety of peripheral neuritis and Erb's type of upper arm paralysis, the causes of which are various. This is contrary to the common use of the term "progressive muscular atrophy," which is usually reserved for cases in which the symptoms are due to chronic disease of the anterior cornua. Dr. Gray is more hopeful as to the results of treatment of locomotor ataxy than are the majority of physicians.

It would be impossible in the space at our disposal to criticise all the accounts of neuroses and psychical disorders. As with the articles we have already mentioned, so with these: some are too brief to be of much value, others are excellent.

The Law of Cremation. An Outline of the Law Relating to Cremation, Ancient and Modern, together with the Rules and Regulations of Various Societies at Home and Abroad. By Aubrey Richardson, Solicitor. London: 1893. (Cr. 8vo, pp. 187. 5s.)

The full title given above is a very correct description of this useful book; a book very much wanted just now, as new cremation societies are springing up and their officers need just such information as Mr. Richardson has furnished them with. Most people know that although the recent revival of the ancient mode of disposal of the dead by burning has never been officially recognised as legal, it is not illegal in this country and can only be stopped if carried out in such a manner as to be a nuisance, or likely to incite to a breach of the peace. Beyond this, common knowledge does not extend. But Mr. Richardson has industriously and ably gathered together many fragments of ancient and mediæval history, and modern regulations of burial societies at home and abroad, which may be studied with interest and profit. We recommend his book to the careful perusal of medical officers of health, of the profession at large, and of all concerned in advocating cremation and discouraging earth burial.

The Surgical Aspect of Traumatic Insanity; presented for the Degree of Doctor of Medicine. By Herbert Powell, M.A., M.D., M.Ch.Oxon, F.R.C.S.Edin. Oxford: At Clarendon Press. London: H. K. Lewis. 1893. (Demy 8vo, pp. 49; 2s. 6d.)

This essay, which is much above the ordinary graduation thesis, is well worth the perusal of both surgeons and physicians. The history of surgical interference in cases of mental disorder is considered sufficiently, and the development of surgical treatment treatment is carried up to the present day. A most interesting record of cases is added in an appendix which gives the successful results as recorded in British and foreign journals. The whole subject, though still in the empirical stage, is slowly settling into some definite shape, and we are glad to welcome the careful record which Dr. Powell provides. He recognises that hitherto the records from asylums are not trustworthy, and he points out the causes of error. It is common for surgeons to see cases of head injury, and it is common for alienist physicians to have patients under their care in whom there is a history of some injury to the head, but the tracing of any causal relationship is very difficult. If the inquirer wants to find an injury to the head, it is not difficult to discover some fall in infancy or some blow in youth which may or may not have had something to do with a later breakdown in mind. Every case of reported injury to the head received into an asylum has to be considered very critically, and unless some evidence of depression of bone or the like is found, we should not pay much attention to the history of a blow unless there has been loss of consciousness for a time (ever so short). We think enough attention has hitherto not been paid to the importance of temporary loss of consciousness in these cases.

Dr. Powell accepts the evidence from idiot asylums that many cases of idiocy or only partial development of mental faculty may arise from blows, and he also recognises that after injuries there may be temporary states allied to delirium which may apparently pass off, and yet which may lead to mental destruction later. He is distinctly not one who expects to do good by surgical operations in general paralysis of the insane.

Dr. Powell points out that after injuries to the head the chief defect may be moral rather than intellectual, and he gives cases from the convict prisons of moral perversion which have been relieved or cured by operation. Our author seems more inclined to follow Duret than anyone else in believing that the causes of disorder may be of reflex origin, associated with the sensory nerves of the dura mater. The opinion of the author is clearly given in the annexed quotation. "All principles of surgical procedure, to be sound, must rest on a sound pathological basis. It it not enough that in a certain number of cases an operation of a certain kind, more or less tentatively undertaken, has met with an amount of success perhaps unlooked for. Definite ideas of lesions likely to be encountered and their mode of morbid action must be entertained if a definite result is to be expected from interference. The manifold forms of possible lesions are already enumerated, and in the complex and sensitive nervous organisation of the dura mater has been sought the agency through which the irritating body initiates and keeps in action the consequent morbid process. If the dura mater can in truth be considered as the agent, the operation for the relief will be placed at once upon another, and less dangerous level."

That epilepsy and consequent insanity might be relieved when the origin was traumatic, or that loss of memory and partial motor or mental defect may be got over by operation we were prepared to learn, but that many forms of insanity of many years' standing should be cured almost at once, just as if a spring which has been held back had been suddenly released is surprising; we accept the cases with confidence, but the evidence brought together has been sought far and wide, and one must not expect to meet with many similar cases; but physicians will be induced to seek more earnestly for some traumatic cause, and thus relieve or restore some apparently incurable cases. The appendix, containing the short record of 67 cases, is full of the most cheering and instructive information.

Der Diabetes Mellitus auf Grundlage zahlreicher Beobachtungen dargestellt. Dritte Umgearbeitete und Vermehrte Auflage [Diabetes Mellitus described on the Basis of Numerous Cases. Third revised and enlarged Edition.] Von Dr. J. Seegen. Berlin: August Hirschwald. 1893. (Royal 8vo, pp. 446, M. 11.)

Dr. Seegen is well known as one of the oldest practitioners at Carlsbad, as the author of this monograph, which now has reached its third edition, and as an indefatigable investigator who has endeavoured to solve the difficult problem of the pathology of diabetes. That he has done so we cannot with truth admit; nay, more, it is doubtful whether his results, so opposed to the general meaning of the experiments and clinical observation of the last forty years, do not actually for the moment make the acceptation of any of the current explanations even more than ordinarily difficult. Dr. Seegen began some thirty-seven years ago as a follower of Pavy, but he has long since broken away and started views of his own. The most important of these are (1) that the formation of sugar is a normal function of the liver, the quantity so found being as much as 1,000 grammes for a man weighing 80 kilos, the sugar being decomposed in the body; (2) that sugar is formed, not from glycogen, but from peptone. Diabetes is, therefore, due either to over-production or to non-destruction of sugar, the more severe cases being of the latter kind. Of course these theories do not affect the value of the excellent clinical account of diabetes which the book contains, based on a large experience and on numerous cited cases. This is undoubtedly the best part of the book. The section on treatment is overshadowed by the author's belief in the efficacy of Carlsbad water over every other therapeutic means. He takes very sensible views about gluten bread, that is to say, he condemns it as commonly containing a large amount of starch, while he points out the greater advantage in this respect of articles made from almond flour, though he admits they are less digestible; but in recent times they have been so much improved in the hands of Callard, Clark, and others, that this is not a serious objection, premising that occasions may arise in the course of any case of diabetes, when it may be advisable to stop their use. He also condemns the common practice of ordering diabetic patients toast and brown bread as less harmful than white and untoasted bread. The book is worthy of the great experience and reputation of its author, who shows himself to be a clinician of the greatest ability.

Die Praxis des Chemikers [Analyst's Practical Work]. Von Dr. Fritz Elsner. Fifth Edition. Hamburg and Leipzig. 1892. (8vo, pp. 622, with 148 woodcuts, 10s.)

A review of Parts I and II of this important handbook of practical analytical chemistry especially applied to food

adulteration has already appeared in the British Medical Journal of January 28th, 1893. The entire work consists of eight parts, now complete. As previously stated, the work appeals almost exclusively to skilled analysts; at the same time it may be found useful as a work of reference even by those who are not specially versed in the *technique* of the laboratory. In Parts III and VIII the chief matters treated of are beer, wine, spirits, cocoa, tea, water, bacteriology, the urine and toxicological chemistry. A table of the chief falsifications of beer is quoted from Husson, among which we read picric acid, aloes, rhubarb, and colocynth, not one of which has been found by English analysts; it is indeed doubtful whether brewers have attempted to bitter beer with anything more injurious than a small addition of so-called "hop substitute," most of which consists of mixtures of quassia, gentian, and other vegetable bitters, and certainly never contains picric acid or aloes or rhubarb or colocynth. Wine has had no systematic attention in this country, the inspectors under the Sale of Food and Drugs Act have not received orders from the authorities to systematically purchase samples of wine; to make a satisfactory analysis of wine the analyst requires at least a bottle, so that every sample taken under the Act would necessitate the purchase of three bottles, these would have to be uncorked in the presence of the seller mixed together, and then a third of the sample given to the vendor, a third retained by the purchaser, and a third given to the analyst; an expense which no inspector would care to take on his own initiative. Lastly, few English analysts have special experience as to wines and if samples were purchased, in the absence of definite standards, it is questionable whether a good many sophisticated wines would not be returned as 'pure.' In this work will be found full directions as to wine analysis. Dr. Elsner has added examples of trade circulars sent to the wine trade extolling various essences for the purpose of giving to wines fictitious flavours.

The article on water is weak, and does not contain various improved processes for the estimation of dissolved oxygen, for determining carbon and other matters; 26 pages are devoted to bacteriology, 21 pages to forensic chemistry, and 20 pages to the examination of the urine. These subjects are more thoroughly and better treated in special monographs. The work contains a good index, is profusely illustrated, and is indispensable to anyone engaged in analytical practice.

The Mother and other Poems. By S. Weir Mitchell, M.D., LL.D. Boston: Houghton and Co. 1893. (Crown 8vo, pp. 69.)

It is with a feeling of some reluctance that the reviewer takes in hand a volume of poems by so distinguished a physician as Dr. Weir Mitchell. The Muse is a jealous mistress, and she claims her votaries all in all or not at all. Poetry can be no by-play; if the fire of it take hold of a man, it consumes him for all else. We could, therefore, have felt almost angry in our hearts that Dr. Weir Mitchell had yielded to this avocation, and put us to the duty of saying sweetened nothings about his poems. But now that we have read Dr. Weir Mitchell's poems, as we were told to do, our embarrassment is less than we anticipated; for if these poems be not poetry, they come very near it. We would call them truly poetry, and their author even a poet, for he moves not only in the sphere of culture and sensibility, but also in the sphere of passion. He can interpret passion for us as one who knows it, and he has some mastery of expression and of form. It is cruel to drag lines from their context, be it for praise or blame, but in "The Mother," with some lines which reveal no more than culture and sensibility, and others which barely avoid banality, the following are truly poetical:—

Oh the pretty wonder of it, when was born the art to smile,
Or the new, gay trick of laughter filled my eyes with tears the while,—
Helpful tears, love's final language, when the lips no more can say,
Tears, like kindly prophets, warning of another, darker day.

Of the more serious poems "The Roman Campagna" is the best; it contains some really fine thoughts, a little spoiled in expression here and there by weak or mechanical phrases, but such lines as:

Weighting the twilight with some vague distress.

Or again:

Love hath no morn for memory's failing prime.

Or these:

Unreal as dreams
Dreamed within dreams, and ever further seems
The sound of human toil, while grass and flower
Bend where the mercy of the dew doth fall.

are born of the Muses.

"Dreamland" is the best poem in the book; it is pitched in a lighter key, a key in which continuous success is more easily won. It is a charming little piece, and we feel quite sorry that our space will not allow us to quote from it.

An author with a fine ear may by habit miss weak places and dissonances in his own work; this pretty volume would have been the better had the proofs been submitted to some accomplished friend, who would have indicated a few lines for the closer use of the file.

NOTES ON BOOKS.

Les Fermentations [*Encyclopédie des Connaisances Pratiques.*]—Par Emile Bourquelot, Docteur ès-Sciences, Professeur Agrégé à l'Ecole Supérieure de Pharmacie de Paris, Pharmacien en Chef de l'Hôpital Laënnec. (Paris: Société d'Editions Scientifiques. 1893.)—In this small volume M. Emile Bourquelot has collected in accessible form much of the information that at present exists regarding various ferments and different methods of fermentation. After a short historical sketch and a series of definitions, which might with advantage have been more full, a short account is given of the soluble ferments, of which a number are mentioned, and the methods of their action outlined. The book would have been more interesting, and probably more useful, had a little fuller description of the enzymes or zymases been given, as many readers will feel on reading this chapter that the author puts his facts forward in such a lucid and interesting fashion that a fuller account in the same form would have been very acceptable. M. Bourquelot divides the fermentations by organised ferments into four groups: Fermentation (1) by splitting up—lactic fermentation; (2) by hydration—fermentation of urea; (3) by reproduction—butyric fermentation; (4) by oxidation—acetic fermentation. He then gives an account of the various forms of ferments, moulds, yeasts, and bacteria, followed by an account of the alcoholic fermentations. There is, perhaps, not much that is new in the book, but the whole subject is set forth so clearly, and the matter is so well arranged that we can cordially recommend it those who wish to make themselves acquainted with the principles of fermentation as at present understood.

Disinfectants and Antiseptics: How to Use Them. By E. T. Wilson, M.B. (London: H. K. Lewis. 1s. a dozen).—These cards, which are sold in packets of twelve, contain in a concise form much practical information. Their popularity is borne witness to by the fact that the present edition is inscribed "twenty-fifth thousand." It would be advantageous if under the heading "How to Use Them" some indication as to the amount of disinfectant to be employed were given. Moreover, undue importance seems to be attached to the virtues of antiseptics placed in saucers. In other respects the information given is exact and full, a remarkable amount of knowledge being compressed within a little room.

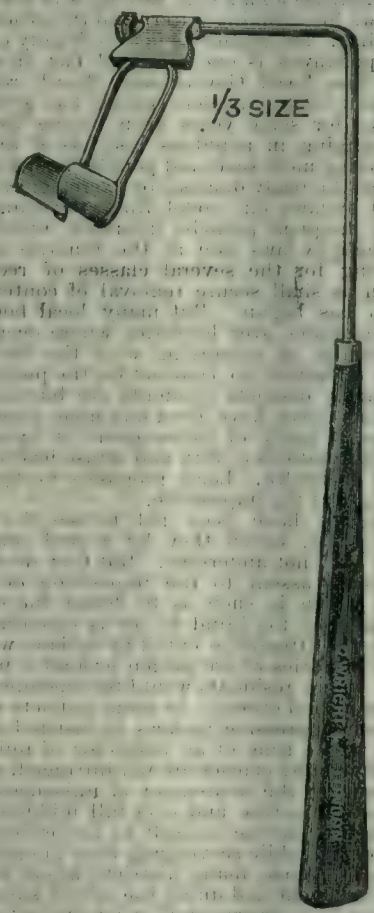
Die Therapeutischen Leistungen des Jahres 1892. [The Therapeutic Progress of the year 1892.] Von Dr. Arnold Pollatschek. (Wiesbaden: J. F. Bergmann. 1893. Royal 8vo, pp. 266, 5 marks.)—This annual publication is one of the numerous excellent periodicals which are published in Germany, and give a full and complete account of the progress during the year of the branch of medicine to which they refer. The volume before us is the fourth annual issue, and fully maintains the excellence of the series. It is suitable for those engaged in the daily practice of medicine, surgery, and obstetric medicine. All the articles, which are arranged alphabetically, are essentially practical in character and deal chiefly with treatment. Some of the most important are those on actinomycosis, alcoholism, anæmia, balneotherapeutics, Asiatic cholera, intestinal disorders, diabetes mellitus, diseases of the gall bladder, dietetics, immunity, influenza, diseases of the stomach, and tuberculosis. All these are well

up to date, and at the end of any especially important article there is a short bibliography of the subject. Each of the new drugs has a separate heading, under which all that is valuable in recent knowledge will be found. As instances of new drugs we may mention that analgen, cantharidin, cactus glandiflorus, euphorin, lipanin, and losophan are well described. There is an excellent index and a full list of authors' names. We can heartily commend the volume to English readers.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

IMPROVED NASAL SPECULUM.

THE adjoining woodcut illustrates an improvement I have had made by Messrs. C. Wright and Co., 108, New Bond Street, of Thudichum's nasal speculum. The advantage I claim for it is that when cauterising the mucous membrane of the nasal passages, or removing polypi, the handle is held by the patient, thus giving the operator both his hands free



to guide and manipulate his polypi snare or electric cautery. In the illustration the speculum is shown in position for operations on the right nostril, and by taking it out of the holder and placing it in reversely it can be used for the left nostril, and it can be fixed at any angle by simply tightening the little screw.

Hertford Street, W. LENNOX MOORE.

EXTENSION OF SANITARY POWERS TO COUNTY COUNCILS.

A Special Report for the Use of the Parliamentary Bills Committee, prepared by the Chairman.

(Continued from page 185.)

WATER SUPPLIES.

I WOULD touch next upon the large question of water supplies, the law at present being in a condition inflicting great hardship upon certain sections of the community. As a rule water schemes are put forward by wealthy companies and by corporations, experienced in litigation and able to produce an array of experts, and to engage the best counsel when circumstances require. On the other hand, however much the interests of small districts may be threatened by such schemes—and there are many cases of the kind—the authorities of these petty districts are without the knowledge or the ability to fight for their rights. Only recently a hamlet was deprived of its water supply by a large scheme, and is now entirely dependent upon rain water. Herein would lie the power of a county council armed with functions at present lacking. It could fight on equal terms with any company for the rights and interests of constituent districts. Indeed, gratuitous intervention of one county council, that of the West Riding of Yorkshire, in connection with a Water Bill, has already established the important principle of continuous flow of compensation water, so necessary on sanitary grounds, in order to ensure that streams shall not run dry or low during non-working days; and, alike in the West Riding and in Derbyshire, similar intervention has secured due provision in local Acts for supplying water at reasonable charges to districts through or near which it is carried.

But to my mind county councils should be empowered to go far beyond this; should, indeed, have notice of all Bills seeking power to convey water to, from, or through any part of their county, whether for domestic or trade purposes, and should have a voice in deciding the details of the Bills in so far as they affect or threaten to affect injuriously any part of the county. Thus injustice to small or weak districts would be prevented by a body able to foresee dangers which a sleepy local authority had failed to realise. Then again county councils should have power to take action against water authorities failing to carry out statutory obligations to supply districts within the limits of their jurisdiction. There are many instances where water companies having the sole right to supply certain districts, have failed to do so in parts where the return would not be remunerative, and the injustice is allowed to continue because of the inability of small communities and individuals to press their claims. But further, the county councils stand in need of powers of inspection of all waterworks supplying any portion of their county. Recently a sanitary authority was detected supplying unfiltered water drawn from a river ten miles below a water-closet town draining to the river. And, indeed, instances are not rare in which water from obviously polluted rivers and streams is used for domestic purposes. In other cases danger of causation of disease is often present. It is not pleasant to contemplate the result to Newark of the advent of cholera on the banks of the Trent above that town at certain times of the year. And only last year two special reports were published on outbreaks of disease clearly traced to contaminated water ways, the one having reference to the pollution of the river Tees with consequent widespread prevalence of enteric fever among consumers of the water drawn from the river; and the other a report on an outbreak of enteric fever at King's Lynn due to pollution of the Gaywood River, from which the borough derived its supply of drinking water. Pressure of county councils would be invaluable where corporations or companies fail to exercise due care as to the purity of their water supplies. There was published also last year an exhaustive report on a prevalence of enteric fever affecting Rotherham, Rawmarsh, and Greasbrough, in Yorkshire, and due to contamination of the water service in the hands of the Rotherham corporation; the water having also, apparently in time past, had concern in undue prevalence of fever in the districts served. The power of insistence on the part of the county councils on the abandonment of dangerous

sources of supply would be productive of much good to communities so situated.

But what of districts where the supply of water is obviously inadequate or improper? Such are by no means uncommon. We learn of localities taking water from canals, roadside ponds, streams in close proximity to cesspools, which are covered in times of flood, surface wells, and such like abominations; whilst in other instances, of which Filey and Sutton Bridge may be taken as examples, year after year improper supplies continue to be used to the exclusion of all other. In such cases default of sanitary authorities should be made the basis of action, at local cost, by the county council. But of such power I shall speak later. Sufficient doubtless has been said to show the urgency of added powers in respect of water supply.

RIVERS POLLUTION.

Closely allied to this subject comes the matter of rivers pollution. County councils are, indeed, empowered to act, but they have no duty enforced upon them in relation to such pollution. Neither do they possess powers of entry upon sewage works, and the like, for purposes of inspection, save by special Act in Lancashire, and even there the powers are very limited. At present there is no general provision of any kind for the supervision of sewage works, many of which are notoriously bad, whilst very few are properly conducted; and local authorities down stream but rarely interfere, being as a rule themselves offenders. County councils alone of all district authorities have clean hands in the matter, and can move unfettered by local considerations; and most of them are willing and competent to assume control, but are precluded from doing much for lack of power of inspection. If permission to inspect needs to be sought, this Act itself robs inspection, which should be unannounced to be effective, of most of its reason. Clearly it should be made the duty of county councils to maintain inspection of all rivers in the area of their jurisdiction for the purpose of enforcing the Acts relating to the prevention of river pollution, such duty to include inspection of all sewage purification works, with powers of entry of county officers for the purpose. Then with regard to weirs and other obstructions to flow of water, the councils should have power to take any needed action, and to levy local rates for the purpose. Examples of the result of obstructed flows are to be met with in Staffordshire, where several flat districts are kept waterlogged by the raising of subsoil water as a result of the maintenance of rivers above their natural level by means of weirs; and where rivers are polluted weirs create settling ponds which become very foul and offensive. At present local authorities can rarely be got to combine for the purpose of dealing with such matters, whilst county councils are enforcedly idle. With the conference of powers upon these latter bodies there should also be united the duty of reporting annually to the Local Government Board in regard to the action taken in connection with the whole subject of river pollution.

Having intimate relation with the state of our rivers is the matter of trade effluents. In regard to these, the Rivers Pollution (Prevention) Act of 1876 is admittedly a failure. The instances of the rivers Aire and Calder furnish in themselves ample evidence of this. What seems needed is the compulsory registration of works of specified classes deemed liable to pollute rivers, and of means of purification, the county councils to be the registration authority. This would render control practicable, when combined with right of inspection. There is abundant precedent in regard to the Alkali Acts and certain offensive trades, attended with success. The processes, treatment, or precautions relied upon for the prevention of pollution should be specified by the county councils in writing from time to time, with such detail as may be prescribed; notice of discontinuance should be demanded; and enforcement of penalty for omitting or suspending the registered purification processes, thereby polluting streams or rivers, should be provided for. No registered means of prevention should be admissible as a bar to proceedings under the Rivers Acts. When registered, the inspection of works and the working of purification processes and of effluents would be simple and conclusive.

The power of entry given to county council officers should be limited to the hours of work—including, of course, inspection of all details of precaution against pollution; and the annual report by the county council to the Local Government Board in regard to rivers pollution work should include record of action in respect of trade effluents.

SCAVENGING.

I now turn to a subject of pressing importance, to small towns and villages especially. It is that of scavenging. The matter is one which does not receive at the hands of sanitary authorities the attention which undoubtedly it deserves and requires. One has but to look at the annual reports of local health officers to learn how universally the scavenging of districts is a matter entirely neglected by the authorities and left to the caprice of occupiers and the mercy of farmers who remove the contents of privies, ashpits, and other receptacles for filth and refuse as it suits or pays them. In the harvesting days utter neglect of the duty, even when cast upon farmers by agreement, is by no means uncommon. But despite the attitude adopted by local bodies to the question, the relation which scavenging bears to the comfort and health of the community is a very close one; and again and again we find reference made to unhealthy emanations from decomposing filth stored in improper places—against houses, in the roadways prior to removal, in huge and infrequently-emptied privy-pits open to the rain, admitting of fouling of their surroundings; often below the level of the ground adjoining, and not seldom close to wells. Indeed, it has been said that in country districts a man digs two holes in his garden—from one he draws his drinking water, into the other he pours his household filth. The picture is not too highly coloured, since the scene portrayed is one of actual fact in only too many localities. The Local Government Board, recognising the serious import of the neglect which has grown up in the matter, have for some years been urging the adoption of public scavenging in populous districts of England, and in localities having more scattered populations, with sufficiency of ground for the ready disposal of excrement and refuse, the adoption of by-laws on model lines, throwing the onus of removal, at frequent periodic intervals, upon occupiers of houses. These by-laws aim at the removal at intervals of time differing for the several classes of receptacles, and always such as shall secure removal of contents before decomposition has begun. But many local bodies, although having jurisdiction over localities where occupiers find the utmost difficulty in complying with the by-laws, will not themselves undertake to contract for the public scavenging. Hence in many districts residents are burdened by a duty which should never have been laid upon them. The result can only be a laxity of enforcement of by-laws, and consequent accumulations of filth and refuse leading to nuisance and danger to health. Local proposals for by-laws, indeed, oftentimes aim at the impossible.

The authority have been led to see the necessity for frequent removal, which they by a staff could effect, but which they will not undertake. But they do not hesitate to try and secure assent to the imposition of a task upon individuals which is such as to defeat the end which the authority are not too blind to see is essential. Such, for example, is the attempt to entail by by-laws weekly removal of refuse in localities where garden ground is non-existent or small, and where residents would be dependent on the good will of farmers and others. In some districts where enforcement of such oppressive by-laws is insisted on, it requires almost the whole time of an inspector of nuisances to see that the scavenging clauses are not infringed, and in looking for and securing the abatement of nuisances arising from accumulations of refuse and over-full middens. The officer would be free to devote himself to his ordinary inspectoral duties if orderly public scavenging were in operation.

There are, of course, many districts where excrement and refuse removal is effected under the direct supervision of the authority and by their own staff, or by efficient contractors, in a way that leaves nothing to be desired, so far as removal goes, but the final disposal of the material is another matter. Of a district so large as Oldham, I have recently observed the Lancashire county health officer speaking in strong terms on account of the situation of the "tip" or depôt at Chadderton, placed as it was, when he saw it, within 300 yards of the vast majority of houses attacked by small-pox in the last few

months (not that he directly connects small-pox with the depôt nuisance); and in many districts of the West Riding of Yorkshire I read of scavenging being greatly neglected. Since there is necessity for much greater stringency in the matter, I cannot conceive of any reason why the duty of showing cause for, and finally of exercising, compulsion wherever requisite should not be given to county councils. They would assuredly use such power freely, and the results would be beneficial, and not by any means necessarily achieved at any greater cost to the community than when expense is borne by individuals. The abatement of recurring nuisances, the removal of frequent cause of pollution of water supplies, and the general freedom of the atmosphere around houses following upon the adoption of a proper system of scavenging would be among the benefits accruing. The power of compelling local authorities to secure remodelling of privy middens and other crude methods of excrement disposal causing nuisance, would greatly facilitate matters in this direction. And, again, doubtless very often, the requirement of frequent removal of contents of the abominations now persisting in many districts, such as huge open privy middens, cesspools, and the like, would soon lead the sanitary authorities to see to it that the systems in vogue in their districts were made to approximate to modern ideas.

By-laws.

Another important function which has been entrusted to sanitary authorities is the framing, adoption, and enforcement of by-laws on numerous matters affecting public health. In this they have been greatly assisted by the promulgation of model series compiled by the Local Government Board, whose assent must be obtained before the by-laws have legal force in a district. But, notwithstanding this incentive, a large number of authorities have ignored the matter; others have by-laws of years ago, which are faulty in many respects, and in some cases almost worthless in the face of the present needs of localities; whilst others, again, have by-laws which are allowed to be infringed with impunity in one and another direction, and at times are not enforced at all. A typical illustration of by-laws faultily administered is the case of Lepton, one of the Yorkshire districts, where there was recently reported to be grave neglect on the part of the local board in this respect. But, save in a few such instances, little is known of the working of by-laws in the provinces. I cannot doubt that comprehensive inquiry into the matter would bring to light many glaring instances of non-enforcement of by-laws, if we may judge by the results of visits paid to localities in reference to other questions. More especially would this be found in connection with building by-laws, which, perhaps more than any other, are reported by local health officers as demanding careful watching. Take the case of Pudsey, wherein, as the health officer points out in his annual report for 1892, the conditions laid down in the by-laws demand minute and constant inspection on the part of the sanitary officers in order to secure compliance. Dr. Hunter gives illustrations in support of his statement.

Seeing, then, how matters stand, it seems reasonable that county councils should have powers given them for compelling adoption of proper by-laws where this has not been done, or where existing codes are defective, subject, of course, to the assent of the Local Government Board. Powers of enforcement of local by-laws should also be granted to councils, but of this I shall speak later.

(To be continued.)

POLICE SURGEONS' ASSOCIATION.

The following circular letter is being sent to all police surgeons throughout the kingdom. Should any police surgeon not receive a copy, he is requested to communicate with Mr. Nelson Hardy, 129, Dulwich Grove, London, S.E.; Mr. Fredk. W. Lowndes, 40, Knight Street, Liverpool; or Mr. H. Culliford Hopkins, 6, Bladud Buildings, Bath.

UNITED KINGDOM POLICE SURGEONS' ASSOCIATION.

129, Dulwich Grove, London, S.E., July, 1893.

Dear Sir,—On the other side I send a copy of a table of police surgeons' salaries, fees, etc., a portion of which has already appeared in the medical journals. If the particulars of your police appointment are not included, or are incorrectly given, I shall be much obliged for such information as will enable me to make the table more complete. It is hoped that by circulating this information among police surgeons, those who are at present badly remunerated for their police work will have a substantial basis to work upon in asking for increase of pay. You will observe that while one police surgeon is paid at the rate of £1 per head per annum, another is only paid at the rate of 3s. per head; and that while some are paid 3s. 6d., 5s., or 7s. 6d. for visits to sick prisoners, others are paid nothing extra for similar services.

I am told, also, that in some places the coroner arranges to refer all cases in which an inquest becomes necessary to the police surgeon, if there has not been any other medical man called in during life, while in many places no such arrangement exists; and the two proposals now before the Certification Committee of the House of Commons, that all cases of uncertified deaths should be referred either (1) to the medical officer of health, or (2) to the police surgeon, seem to show the necessity of our having a representative body to look after our common interests.

I have, therefore, consented to receive the names of all police surgeons willing to join in forming a United Kingdom Police Surgeons' Association, and enclose a form to be filled up and returned to me, should you desire your name to be added to it. Mr. Frederick W. Lowndes, of Liverpool, and Mr. H. Culliford Hopkins, of Bath, have agreed to act as Honorary Secretaries until the members have an opportunity of choosing their own officers.—I am, dear Sir, faithfully yours, H. Nelson Hardy.

To ——— Police Surgeon.

At ———

Table showing Strength of Police Force, Number of Surgeons, Salaries, and Fees of Surgeons in the following Places:

Name of Force.	Strength.	Number of Surgeons	Salary of Surgeons.	Fees for Visits to Prisoners, etc.
Bath	86	1	£50	Nil
Blackburn	126	1	£100	,,
Bolton	119	1	£40	,,
Burnley	80	1	£40	,,
Brighton	178	1	£100	5s. day, 7s. 6d. night
Chester	46	1	£30	3s. 6d. to 10s. 6d.
Gateshead	85	1	*	3s. 6d. day, 7s. 6d. night
Gloucester	40	1	£12	—
Halifax	84	1	£34 10s.	Nil
Hastings	62	1	£12	,,
Liverpool	1,600	4	£120 to £150	—
Manchester	—	2	£125 each	—
Metropolitan	14,000	over 150	†	3s. 6d. day, 7s. 6d. night
Middlesbrough	76	1	£85	—
Newcastle-on-Tyne	—	1	£300 to £400	3s. day, 5s. night
Newport	68	1	£68	—
Northampton	71	1	£50	Nil
Oldham	132	1	£58	,,
Preston	105	1	3s. a head	3s. 6d. day
Reading	76	1	£52 10s.	Nil
Rochdale	73	1	£30	,,
St. Helen's	74	1	£30	Not fixed
Southampton	80	1	£120	Nil
Shrewsbury	35	1	£30	,,
Stockport	74	1	£40	3s. 6d. day, 5s. night
Walsall	69	1	£30	Nil
Wigan	62	1	£25	Not fixed
Wolverhampton	82	1	£40	—
York	72	1	£30	Nil

* 6s. a year per man. † 10s. a year for inspectors, 6s. for men.

THE BRITISH DENTAL ASSOCIATION.

The Western Branch of the British Dental Association held its annual conference at Cheltenham on July 14th and 15th. Amongst those present were Messrs. J. L. Robertson (Cheltenham), the President; Gatrell (Penzance), the retiring President; F. A. Goard (Exeter), Secretary; W. H. Nicholls (Abergavenny); W. Helyar (Bristol); Frederick Richards (Birmingham), President of the British Dental Association, and others. There were also present Dr. Dudley Buxton (London), Dr. Stack (Dublin), Mr. Pearsall (Dublin), and Mr. Blandy (Nottingham).

The report was a favourable one, showing that the finances were sound, and the resignation of three members was far more than outbalanced by thirteen new members.

Mr. A. Kendrick (Taunton) was nominated President-elect, and it was decided to hold the next annual conference in that town.

Mr. Booth Pearsall introduced a discussion in which he condemned the action of the College of Surgeons, Ireland, in deciding to omit the three years' apprenticeship from its curriculum, and two resolutions were passed, one of remonstrance, and the other urging the Business Committee of the Association to use its utmost efforts to bring about a restoration of the apprenticeship clauses.

The President-elect, in the course of his address, thought

that dentists should be appointed, as medical men were appointed, in the army and navy, and by school boards and other public institutions.

Dr. Dudley Buxton gave a technical address on "Anæsthesia," and Mr. Blandy (Nottingham) read a paper on "Advertising."

The proceedings also included one or two excursions and a banquet, at which Mr. J. T. Agg-Gardner, M.P., the Hon. B. Bathurst, Colonel Chester-Master, Alderman E. Wethered, F.G.S. (Deputy-Mayor), the Rev. W. Bazley, the Rev. Dr. Hecker, and others were present.

DENHOLM TESTIMONIAL FUND.

The Honorary Secretaries of this fund write to us: The following additional subscriptions have been received in favour of the above fund. The object of the fund is to present Dr. Denholm with a tangible expression of the sympathy of his professional brethren with his conduct in the matter of the action Denholm *v.* Tait. Dr. Denholm's costs in the action, which terminated by mutual consent in the withdrawal of a juror, amounted to over £300. As it is intended to close the fund shortly, the Honorary Secretaries, Mr. Fegen, M.R.C.S., 2, Mornington Road, Bow, and Mr. A. G. R. Foulerton, M.R.C.S., 122, Brompton Road, S.W., will be glad if those who propose to subscribe will send in their names as soon as possible. Cheques and postal orders should be made payable to the "Denholm Testimonial Fund," and crossed "Messrs. Gurney and Co." Subscriptions will be received by either of the Honorary Secretaries, or may be paid in direct to the Denholm Testimonial Fund at Messrs. Gurney and Co., Thetford, Norfolk, or at any other branch of the same bank.

	£	s.	d.
Amount already acknowledged	45	9	0
Mr. Henry Bank	0	5	0
Mr. Bruce-Clarke	0	10	0
Dr. George Heron	1	1	0
Dr. David Little	1	1	0
Mr. T. B. O'Connor	0	10	6
Dr. Armand Routh	1	1	0
Dr. Hinsley Walker	0	10	6

ROYAL COLLEGE OF PHYSICIANS.

A special Comitia of the Fellows was held on Friday, July 14th; Sir Andrew Clark, Bart., President, in the chair.

After the business for which the College was specially summoned had been concluded, a communication was received from the Medical Board of Trinidad. This was an application for the issue of sealed papers for the examination in that Colony of a graduate of Paris as a candidate for admission to the Board. It appeared that in 1873 the College had agreed to examine by sealed papers medical gentlemen not holding a British qualification who were desirous of practising in Trinidad, such gentlemen, in the event of a favourable report from the examiners, being eligible for the Medical Board of Trinidad, and, if elected, becoming thereby legally qualified to practise in the island. It was decided to issue, for this occasion, the sealed papers as requested, but to refer the whole question to the Council for reconsideration and report.

Alterations in two of the by-laws relating to the Membership were approved for the first time.

Communications were received from the Royal Society, thanking the College for having drawn its attention to the advertisement of a laudatory testimonial given by a Fellow of that Society, and stating the steps which had been taken to abate the evil; and from the Foreign Office, inquiring as to the facilities afforded in London for medical study by American medical practitioners.

GUY'S HOSPITAL.

Opening of New Laboratories and Dental School; Distribution of Prizes.

The new laboratories and dental school buildings, of which a description was published in the British Medical Journal of October 8th, 1892, p. 800, were opened by Sir John Lubbock, Bart., M.P., F.R.S., on July 17th.

The Governors and members of the staff and principal guests were entertained at luncheon in the Governor's Court Room, under the chairmanship of Mr. H. Hucks Gibbs, the President of the Hospital. Two toasts only were proposed, that of "Sir John Lubbock" and "The Visitors."

Sir John Lubbock, in reply, said he had, probably, been invited to open the new laboratories owing to the fact that he represented the University of London in Parliament. He felt a special interest in the dental school, having had the honour of carrying the Dental Bill through the House of Commons. The new laboratories are not only fitted up with all modern requirements, but will afford the necessary space for some years to come.

The Chairman next proposed "The Visitors."

Professor Odling, in reply, observed that practical chemistry was not included in the subjects that comprised the medical student's curriculum until 1851. He was the first appointed to teach it at Guy's Hospital, but the laboratories in which it was taught were roughly furnished; and, looking at the well-equipped laboratory in which Guy's now rejoiced, he could not forbear the thought that the present position of practical chemistry contrasted with its position in 1851, was comparable to the superiority of the laboratory of to-day when contrasted with the laboratory of forty years ago.

Sir Edwin Saunders said that what they had seen to-day marked a new department and departure in the management of the large hospitals, and might well form a subject of sincere congratulations to Guy's Hospital men.

Sir John Lubbock subsequently distributed the prizes to the successful students of the Medical and Dental Schools of Guy's Hospital. In addressing the students he said that every man must expect to have doubts and difficulties, but intellectual life lifts man to regions of thought above all mere personal anxieties, and study was so entrancing that, to many men, and especially to the highest natures, exercise becomes a difficult duty. But yet the temptation to neglect exercise was one which must be resisted. If they wished to be well they must, according to Abernethy, live on 6d. a day and earn it. There was a well-known proverb that there is nothing so good for the inside of a man as the outside of a horse. In the noble profession which they were entering it would be their privilege to soften suffering, to relieve pain, to restore health, and, when that was impossible, to soften the hand of death. The medical profession was a learned profession, but it was more than that. Medical men had always stood high, not merely in knowledge, but in character, and never more so than at the present time.

SMALL-POX AND VACCINATION IN 1892-93.

[Special Reports of the British Medical Journal.]

VIII.—Montrose.

The report of the Medical Officer for Montrose tells the usual story of protection by vaccination and revaccination, and of attack and death through omission of the prophylaxis. Eighteen cases occurred, mostly mild, but with one death in a woman aged 39, who had never been vaccinated. Many in the town were revaccinated, and none of these were infected by the disease. All the cases were among flax-workers or their relatives and neighbours, and as the flax comes from Russia the inference is that it has been the vehicle of infection, especially as this is not the first outbreak traceable to the same source. It is to be hoped that the owners of the flax mills will in future take the advice of the medical officer of health, and "render it imperative on all applicants, old and young, for admission into their service that they should produce certificates from duly-qualified medical practitioners of having undergone efficient revaccination." It seems that the medical officer acted also as physician to the temporary small-pox hospital. He is, of course, entitled to payment for this work in addition to his ordinary official salary, which, if we mistake not, is inadequate even for routine work.

The cases of small-pox under treatment in London at the close of last week were the smallest in number for many weeks past, being some 370, against 410, 397, and 381 on the preceding three Saturdays. The admissions last week were about 60, whilst the registered deaths were 4 in number. In the West Ham union 5 deaths took place, and nearly a score of cases were recorded. In the provinces we learn of multiple attacks at Walsall, Birmingham, Leicester, Hull, Bradford, and Oldham; whilst many other towns had single occurrences. An alarming outbreak of small-pox has taken place in the district of Cuckney, and much concern is felt by the residents, as there is no hospital accommodation available. Tents are to be used, and the Worksop board of guardians have been considering other measures of prevention.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1893.

SUBSCRIPTIONS to the Association for 1893 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, JULY 22ND, 1893.

QUACK ADVERTISEMENTS AND THE BRITISH PRESS.

THE *Pall Mall Gazette* comments on our article of last week as follows:

"There is much force in the opinion expressed by the BRITISH MEDICAL JOURNAL in a leading article upon the Alabone *v.* Morton case, heard before Mr. Justice Wright last week, that 'the newspaper which continues to admit in its columns advertisements of remedies proved to be utterly worthless (certain electropathic belts, for example), or inserts flattering notices of such remedies in consideration of receiving advertisements of them for insertion, acts unworthily of the highest and best traditions of journalism, and in a manner calculated to bring an honourable profession into disrepute.'"

We observe that the *Pall Mall Gazette* no longer publishes the advertisement of Harness and the Electropathic Institution. The *St. James's Budget*, the *Westminster Gazette*, the *Graphic*, and other papers appear, however, with advertisements printed in the style of reading columns, and not headed "Advertisement," in which the most egregious puff of the Harness establishment is made.

The *Times* led the way in refusing to assist in putting off on the public wares, and pretensions as to their usefulness, decisively condemned by Courts of Law; and the proprietors of these wares have not ventured to dispute the statements published by the electrical journals and ourselves, which, if untrue, were obviously libellous. Not only have the proprietors, who continue by the aid of public newspaper advertisements to solicit public patronage, not ventured to meet the evidence given in the courts as to their uselessness, and consequently the deceptive character of these advertisements, but they have preferred to submit to heavy pecuniary loss, and made payments amounting to some thousand pounds rather than have the matter openly discussed in courts of law.

Mr. Harness may have been wise in his generation in allowing his action against the BRITISH MEDICAL JOURNAL to be dismissed with costs, and thereby declining to try in open court the question whether he did or did not carry on a "disreputable trade or business," such as we alleged. Indeed it may be a matter of astonishment why any of the various ingenious persons who trade on the credulity of hypochondriacs and invalids should ever be willing to expose the peculiarities of their business in a court of law. But we cannot profess to regret that Edwin W. Alabone, whose name was removed from the *Medical Register* in 1886, and Henry E. M. Morton, whose name was never on the *Register* at all, should have brought their domestic differences under the consideration of Mr. Justice Wright, and thereby provided the public, for once, with an honest and instructive advertisement of the true nature of the quack Manual as to the cure of consumption, out of which both these worthies are anxious to make their fortune. There is a charming simplicity about the story. Mr. Alabone does not appear to have the excuse of absolute ignorance. We say this not altogether because he describes himself as an M.D. of Pennsylvania, but because it appears that in 1870 he qualified in medicine and surgery from Guy's.

It is clear that after his name was struck off in 1886 for a quack advertisement, he continued to push with vigour, by the ample use of advertisements and notices in the press, his trade of pretending to cure consumption by a patent method of his own. The defendant in the action was his clerk. As Mr. Justice Wright declined to believe Mr. Morton on his oath, we cannot rely upon the interesting details as to the management of the business, which led to the suggestion in court that both parties should be prosecuted for a criminal conspiracy. It may, however, be of use to the credulous public to know that, although the pretence of novelty depended on the imaginary qualities of *Lachnanthes*, the use of strychnine appeared to be the one point in which both these precious practitioners agreed. According to Mr. Morton's account, he became, after the disqualification of Alabone, a sort of practical manager and blind for Alabone's illegal trade. What is very certain is that they carried on between them a large and lucrative correspondence, and that the bogus remedy went out and substantial fees came in very merrily through the ready medium of the post. In an evil hour they quarrelled. Mr. Morton calmly made use of the substance of his master's book, and sufficient equipment of the press notices and testimonials, and set up as a doctor on his own account, to tap the folly of the customers and their friends.

Strangely enough, Alabone had the hardihood to ask for an injunction. We had thought that it was considered necessary to come into equity with clean hands, and that it was not possible to invoke the aid of the Chancery Division successfully in aid of an illegal business. Mr. Justice Wright, after much doubt, decided in favour of the plaintiff, but he took care to recommend the proper authorities to proceed against both parties in another jurisdiction, which doubtless will be promptly done.

Our present object, however, in referring to the case is rather to call attention to the significant remarks which the judge felt bound to make about the assistance which the press had consciously or unconsciously afforded to this, as to so many other, unlawful and most mischievous enterprises. The question arose over certain so-called "press notices," which formed an important part of the stock-in-trade appropriated by "Dr." Morton. Even the plaintiff was so ashamed of these that he withdrew his application for an injunction so far as they were concerned, and Mr. Justice Wright broadly indicated to his counsel that he regarded some, if not most, of them as a swindle.

We hope, for the interest of both the press and the public, that those who are responsible for the conduct of honest journalism will take some steps to control the growing evil of quack advertisements of this kind.

It will be remembered that our own successful litigation with Mr. Harness arose out of the circumstance that we called attention to the fact that the *Times* had refused a high-priced four-column advertisement from his establishment. It would be well if the leading newspapers could arrive at some understanding as to excluding quack advertisements of this class altogether. The revenue that is obtained from them savours not a little of a partnership in a very discreditable traffic.

At least there is one thing which should be done at once. It ought to be made quite clear that no respectable newspaper will insert for gain a paragraph ostensibly containing its own opinion in favour of these quack remedies, when the "opinion" is, in fact, only the last ingenious dodge of the proprietor. Unless such a notice is written independently, it ought, in justice to the public, to be made clear that it is paid for.

We shall be very willing, if we receive support from our colleagues of the press, to take immediate steps to arrive at a reasonable understanding on the subject. It would be absurd, of course, to attempt to limit by any artificial rule the freedom of advertisement which is so vital to the modern press. There are certain advertisements, however, which no respectable journal would knowingly insert, and, after the disclosures before Mr. Justice Wright, it ought to be possible to include in that category the bogus press opinions of the quack.

EUROPEAN QUARANTINES.

The pages of the *London Gazette* devoted to the issue of notices by the Harbour Department of the Board of Trade respecting the regulations in force at one and another place, with a view of preventing the introduction of cholera, are well worth perusal by others than those immediately interested in shipping. Some of the notices are altogether beyond comprehension. Thus we find Portugal declaring Russian ports to be suspected of cholera from May 1st, though why that date is selected does not appear; and be it noted that cholera sems never to have been wholly absent from Russia since June of last year.

France, of course, is bearing the brunt of the imposed quarantines at the present moment. Spain is eagerly watching the overland traffic, and imposing disinfection of certain classes of luggage; and dealing rigorously as well with maritime trade. But already we hear of cholera east and west near the French frontier, in Gerona province, and at Irun and Los Pasages. Bulgaria has imposed three days' quarantine on arrivals from Marseilles, with chemical disinfection of luggage, unless vessels have been detained in Turkish waters; whilst Turkey, Greece, and Cyprus place vessels from French Mediterranean ports under quarantine of five days, Cyprus having previously imposed three days' quarantine on Marseilles. Gibraltar goes further, and will not admit vessels from the Gulf of Lyons, so far as concerns suspected ports, unless they are seven days out, and imposes eight days' quarantine on vessels arriving from the port of Marseilles; Alexandria contenting herself with a quarantine of seven days on that port dating from date of vessels' departure; Malta, which had regarded it as necessary to subject to seven days' quarantine vessels from any part of France unless they have sailed twenty-one days prior to arrival, has now increased the period to ten days; and Cyprus and Turkey look on the Spanish littoral from the French seaboard to Barcelona as calling for a quarantine of five days' duration, medical inspection sufficing for all other Mediterranean ports of Spain, Italy, Austria-Hungary, and Egypt. With reference to the epidemic of cholera among the Mecca pilgrims, we find Greece imposing ten days' quarantine on vessels coming from Arabian Red Sea ports; and the Alexandrian Sanitary Board subjecting pilgrims to fifteen days' quarantine at El Tor, a station capable of accommodating 11,000 poor souls who will be huddled together during that period on their return. When this number is reached, the remainder of the 50,000 pilgrims expected will have to remain on board their ships till space is available.

It is refreshing to turn from records like the above and note the present attitude of the Austro-Hungarian Marine Board in relation to the ports of Arabia. Vessels will only be deemed infected if cholera be actually found on board, or has occurred within seven days past. Vessels having had cholera during a period more distant will be regarded as "suspected" only; and vessels, even from infected ports, having had no cholera prior to sailing or during the voyage, will be granted free *pratique*. In no case will detention of healthy passengers on an infected vessel, or of the boat herself, be for more than five days, the needful disinfection, changing of drinking water, and emptying of bilges taking place during those days. These rules are "being imposed according to the decision of the Sanitary Conference of Dresden," and Austria-Hungary is to be congratulated on having thus early, and in face of the serious state of affairs in Arabia, undertaken to remodel her methods of procedure on the lines laid down at Dresden. Those lines follow very closely in many ways our own practices, and serve to show that the Austrian Empire at least will adopt the English regulations. It is difficult to imagine that Spain will conform to our rules, looking to her present attitude towards France; yet it is much to be desired that all the Mediterranean and Black Sea countries should act in concert, with the view of securing a uniform minimum interference with traffic, seaward and landward. Doubtless, now that England has signed the Convention, in common with other Great Powers, there will be much done towards this end, and France must now needs feel the force of the argument that the freedom of trade will more than compensate for fancied protection when the present useless quarantine restrictions are made to conform more nearly to English procedures. When we learn that a single case of cholera in a British port calls for a quarantine of twenty-one days by a South American Republic, it seems high time to amend matters. Nearer home we have seen during last autumn the course adopted by Spain towards certain of our own ports, notwithstanding that imported cholera cases were limited to the patients actually seaborne. But, after all, it seems pretty safe to gauge the internal sanitary condition of a quarantining country by the nature of her coastline cholera precautions.

Mrs. Thomas, of Pontypridd, has promised to contribute £1,500 to the funds of the proposed Pontypridd Cottage Hospital, and, in conjunction with Miss Thomas, of Llwynmadoc, to give a site for the necessary buildings.

THE PLEA OF INSANITY IN THE LINCOLN MURDER.

The trial of Christopher Barker for the murder of Crosha J. Creasey took place at Lincoln on July 11th, 1893, before Mr. Justice Williams, and the plea of insanity which was raised was rejected by the jury. As their judgment may possibly be wrong, it may be well to place the details of the crime before our readers.

Barker, a man of 59, coming of a highly neurotic family, lost his wife in 1890. The murdered man lived with him for a time as well as a niece; and he began to suspect something wrong between them; troubles arose and they both left the house; whether the suspicions were groundless or not does not appear from the report of this trial, but they may possibly have been delusions. Creasey then went to live next door to the prisoner, and there seems to have been a coldness between them for a time, but nothing more, and even this passed away, till early in May of this year Barker again got it into his head that Creasey was in immoral relations, this time with his landlady, and he became abusive and slanderous. He is said also to have had the idea that the two were in some way annoying him, and were against him, but he never seems to have been able to say in what way they were injuring him. The result of this feeling was the use of very abusive language, and a summons was taken out against him. On receipt of this he seems to have been very much disturbed, and to have tried to get into the next house where his two persecutors were. The night was a restless one with him, and the next morning he got over into the next garden when the landlady was there, and, after some angry words, he shot her; then went into the house and shot and killed Creasey. He knew well enough what he was doing, he knew the nature and quality of the act, and he did not act on impulse, yet he acted, we believe (from the evidence), on what was probably an insane delusion, and, if this is the case, we are inclined to think that, like the Leamington parricide, who acted on similar motives, he ought not to be hanged.

The trial itself was interesting medically from the fact that there was some apparent conflict of medical evidence, but we are inclined to think that the expert evidence, when carefully considered, comes to the same conclusion, for whereas Dr. Murray Lindsay, with his very large and varied asylum experience, supported by the special asylum experience of Dr. Russell, was convinced from what he saw of the prisoner, from what he heard of the heredity, and from what he heard in court, that the prisoner was suffering from the mania of persecution, Dr. C. Bastian admitted that his opinion was first formed from the examination of the prisoner, and before he had heard fully as to heredity, and as to other facts, that it was possible that the act was the result of unfounded suspicions which might not be easily separated from delusions.

The only uncompromising witness to sanity was the prison surgeon, and there is a prevailing impression that the special experience of these gentlemen leads them generally to take an adverse view of the prisoner's case.

In this case the judge, according to newspaper reports, took a considerable share of the cross-examining of the medical witnesses, and we cannot help thinking he was unjust in some of his comments on the evidence of Dr. Lindsay, who seems to us to have been perfectly right, from a clinical standpoint, in all he said. Dr. C. Bastian, according to the reports, attributed a great deal of importance to the fact that Barker was malignant chiefly against one man, and not against a large number, and also because he was malignant against one with whom he had quarrelled. This seems open to the criticism that persons suffering from mania of persecution generally, as a result of delusions or as a result of exaggeration of facts, take special dislike to persons with whom they quarrel, and it is these very persons whom they would causelessly injure, just as they have, without reason, abused them. The addresses of the counsel were good, and need not be referred to here. The judge laid it down that the prisoner was naturally to be considered as sane unless clear evidence was brought forward showing that he was either ignorant of the nature and quality of the act, or that in doing it he did not know that he was doing wrong. He also said that "personally he thought that the fact that the prisoner contemplated suicide was far from being evidence that he knew he was doing wrong." The judge impressed the jury with the fact that they must not be led by medical evidence, but must use their own judgment; and the result was a verdict of "guilty."

In conclusion, the medico-legal points are as follows: A man (a widower) past middle life, of sober industrous habits, living alone, belonging to a neurotic family, had ideas of a sexual nature in relationship to a certain man; the man leaves his house, and later similar sexual ideas arise in connection with this man and another woman; he also believes that he is being annoyed and persecuted by this man, and he takes the law into his own hands and wounds the woman and kills the man, whom he suspects of annoying him.

If this is a just description of the case we cannot help thinking, whether there were some grounds to suspect immorality or not, that the act appears more like the insane act of a lunatic than that of a revengeful but sane man.

PROFESSIONAL CIVIL SERVANTS AND THE HOME RULE BILL.

The question of how professional civil servants serving in Ireland may be affected should the Home Rule Bill become law has seriously engaged the attention of the Parliamentary Bills Committee. From all that has occurred in the House of Commons during the discussion on the first reading of the Bill, and of Clause 28, which immediately affects the status of civil servants serving in Ireland, it is clearly possible, and many think probable, that the passage of the measure into law will necessitate the retirement, either voluntarily or compulsorily, of many of these civil servants.

The good qualities of these public officers have been generously acknowledged by both sides of the House, and by none more strongly than Mr. Morley himself. It appears to us that neither the members on the Government side of the House nor the Opposition seemed fully to understand, though they both fully admitted the gravity, of the situation in which the civil servants might be placed on the Home Rule Bill becoming law. We are not individually concerned with civil servants who are not members of our own profession, but we may remark that members of the legal profession engaged in the Civil Service in Ireland will be in exactly the

same position. We have no wish to minimise the severity of the blow which may fall on the non-professional civil servants, but we can scarcely exaggerate the loss to which professional men may be subjected who may be required to retire under the Bill. The non-professional civil servant does not abandon anything in becoming a Government official, but the professional civil servant abandons much—he has already established himself in his profession before he enters the service of the Government; he has prospects of a larger income than he will ever attain to as a Government official. He abandons these for the certainty of Government pay and State pension in old age. He may under this Bill have his career cut short, with no other compensation than the abolition terms conceded to him under the ordinary superannuation Acts. In former days these Acts provided added years to the number of those to be counted as years for pension in addition to his years of actual service. This small boon was given on account of the fact that if he had not already earned some years' experience, that he was worth having; so in this way Government paid a low price for this experience. Under the Bill he gets no more, except the right conceded to all civil servants to count the five years of what is termed the "transitional years"—that is, the period between the Act coming into force and the whole business of the Civil Service of the Crown in Ireland being handed over to the new Irish Government. But this is not all, for the seven added years for professional civil servants can only be added for those who occupied professional posts established prior to the year 1889. Since this period the allowance has not been made. There are some members of our profession and many lawyers who have entered under this new system, and their pension will be only that under the Superannuation Act of 1859, with the five years of "transitional period." In other words, three years' actual service, three years' abolition years, and five years transitional period (all of which he may have actually to serve and earn); in other words, he will be allowed eleven-sixtieths of his pay as compensation for abandoning his profession and all its prospects. In other cases where the seven years' professional allowance is made it may amount to less than one-third of his income, after his arrangement and contract had been made for dealing with an income of more than three times the amount.

The total amount received on behalf of the Hospital Sunday Fund up to July 19th was £37,500.

The total amount received up to Wednesday on behalf of the Hospital Saturday Fund for the present year reaches nearly £10,000.

The Laboratory of the Marine Biological Association at Plymouth has still a few tables unoccupied for the summer vacation. Applications for admission to work there should be sent in without delay to the Director.

The Greenwich Hospital pension of £50 a year, for ship surgeons, rendered vacant by the death of Deputy Inspector-General of Hospitals and Fleets, Charles T. S. Kevern, has been conferred on Fleet-Surgeon James D. Cronin, M.D.

CHOLERA AND THE IMPORTATION OF RAGS.

To carry out one of the provisions of the Dresden Sanitary Convention, now signed by the British representatives, it will be necessary to remove the existing restrictions on the importation of properly packed rags, new cuttings, etc., and no doubt the Local Government Board will hasten to do so.

EXCURSIONS AT THE FORTHCOMING ANNUAL MEETING AT NEWCASTLE-ON-TYNE.

We are requested to state that three-quarters of the tickets for the excursions will be reserved for visitors from a distance, and the remaining quarter will be distributed amongst members residing in or near Newcastle. In consequence of this arrangement no tickets will be sent out previous to the opening of the reception rooms during the week of the meeting.

REGISTRATION OF MIDWIVES.

The Select Committee of the House of Commons, which, under the chairmanship of Mr. Fell Pease, has been sitting to take evidence on the advisability of there being some system of registration of midwives, have, we are informed, now nearly arrived at the end of their labours, and met on Friday, July 14th, privately, to consider the report to be presented.

SOCIETY OF PUBLIC ANALYSTS.

The summer meeting of the Society of Public Analysts was held in the College of Surgeons, Dublin, on July 18th. Sir Charles Cameron, the President, occupied the chair. Papers were read: by the President on "The Results of the Working of the Adulteration Acts in Dublin;" by Professor Tichborne, on "Some Recent Improvements in the Babock Machine;" by Mr. A. W. Allen, on "Vinegar: its Nature and Manufacture." A number of papers were also taken as read. In the evening the Society dined in the Sherborne Hotel.

RENEWED OUTBREAK OF YELLOW FEVER AT SANTOS.

Yellow fever is reported to be raging to an alarming extent at Santos, and thousands have been stricken with the disease. Forty-five ships are lying in Santos River without crews; twenty of them have lost their captains. During June the death-rate was nearly 200 a day, and hundreds of corpses were afloat in the river in all stages of decay. Three large hospitals have been specially erected by the Government, and are crowded to their utmost capacity.

A NOVEL MODE OF ELECTRICAL TREATMENT.

M. D'Arsonval has proposed to the Académie des Sciences a new plan of treating patients by electricity. The subject is enclosed in a large coil of wire through which alternating currents are passed, and the patient's body thus becomes the seat of alternating induced currents which correspond in frequency with those which circulate in the coil. When rapidly alternating disruptive discharges are passed through the coil, it is possible to demonstrate the presence of the induced currents in the patient by placing an incandescent lamp in circuit between his hands, as it is brought to incandescence, though the patient feels nothing. The influence of the treatment upon the processes of nutrition are considerable, the absorption of oxygen and the elimination of carbonic acid gas being largely increased.

HEALTH RESORTS AND SICKNESS RETURNS.

We are drawing near to the time when systematic returns of infectious sickness will become recognised as an essential part of our national vital statistics. The partial and tentative efforts in that direction, which are already being made by the Local Government Board, and by a few pioneers among county councils, have apparently taken firm root,

their value being generally recognised during the recent extension of small-pox. But one difficulty has made itself felt, namely, the position of watering-places with reference to such returns. Rightly or wrongly, the impression among the sanitary authorities of health resorts seems to be that they have more to lose by frankly announcing the occasional occurence of infectious cases than by adopting the alternative policy of silence, so that the public are told neither of epidemic prevalence nor of scantiness or absence of infectious diseases. Mr. Trevail, the indefatigable chairman of the Cornwall County Sanitary Committee, has met with this difficulty at Penzance. The local authority have refused to contribute returns to the county summary, and Mr. Trevail not unnaturally points out the unpleasant construction to which the absence of epidemiological intelligence from Penzance readily lends itself. On the whole, it seems clear that if local and national sickness returns continue, even health resorts will find it necessary to fall into line, and if all do so there can be no injustice and little real objection. From the point of view of the public the advantage is obvious.

ULSTER MEDICAL SOCIETY.

AT the annual meeting held in the Museum, Belfast, on July 5th, the following were elected the office bearers for the ensuing session:—*President:* Dr. J. W. Byers. *Vice-Presidents:* Dr. McCaw and Professor Sinclair. *Council:* Drs. Ferguson, Lindsay, Bigger, Mackenzie, Leslie, and Mc Donnell. *Honorary Treasurer:* Dr. Kevin. *Pathological Secretaries:* Drs. Campbell and McQuitty. *Honorary Librarian:* Dr. Cecil Shaw. *Honorary Secretary:* Dr. Mackisack.

A NEW METROPOLITAN ASYLUM.

THE site selected for the new asylum for London is a portion of Baldwyn's Park, consisting of 140 acres, including a mansion and a lodge. The entire park includes 510 acres, and is situated partly in the parishes of Deptford, Bexley, and Wilmington, in Kent. The best portion of the estate has been chosen for the asylum, namely, that part adjoining Dartford Heath, an open area of 350 acres, which cannot be built over, the lord of the manor being so restricted. The site will cost £24,500, and an asylum will be built to accommodate 1,000 or more patients.

IS COLOUR BLINDNESS A PRODUCT OF CIVILISATION?

Nature alleges that an investigation described in *Science* by Messrs. Blake and Franklin, Physical Laboratory, Kansas University, favours an affirmative answer to this question. Of 159,732 persons tested in Europe and America, nearly 4 per cent. were found to be colour blind. But when the ordinary Berlin worsteds were used to test the colour perception of a number of Indians, representing many tribes, only 3 in 418, or 0.7 per cent., were found to be deficient. These were full-blooded Indians, and all males. It appears therefore that, as with civilised people, the percentage of colour blind males is greater than that of females.

INIQUITOUS QUARANTINE.

AN illustration of the inordinate length to which quarantine may proceed is furnished by the recent experiences of the French steamer *Ferdinand de Lesseps*. Sailing from Marseilles, the vessel, owing to the existence of cholera in France, was refused admittance to every harbour in Venezuela and the West Indies, even under quarantine restrictions, except that fifty citizens of Porto Calello, apparently taken aboard *en route*, were permitted to land there. And the folly of it is that, despite the entry of this Venezuelan contingent, not one French emigrant was allowed to leave the boat. Even the French authorities of Martinique refused the ship, on account of two deaths having taken place on board, not from cholera, but small-pox. Neither could the vessel rid herself of any cargo, but was forced to return to Marseilles with all her outgoing passengers minus the two fatally attacked by small-pox. But even at Marseilles the ship was held aloof, being ordered to Frioul to perform quarantine. The story seems almost incredible. If we are to believe it, we can only express our utmost contempt for the iniquitous regulations which enable countries to subject maritime traffic to such utterly meaningless treatment as this ship has received.

MILITARY MEDICINE IN THE FIELD.

WE wish that all those captious critics who sneer at the military pretensions of medical officers, and who deny that they are really qualified to command large bodies of men, could have been at Chelsea Barracks on Saturday, July 15th, when "Colonel" Hamilton inspected the London companies of the Volunteer Medical Staff Corps. The city clerks and medical students, who turned out over 500 strong under Colonel Norton, went through their drill with all the precision of old soldiers, and the whole wound up with a highly realistic performance representing the removal of wounded men from the field to the hospital base. On Saturday, July 22nd, Dr. Hamilton inspects regimental stretcher bearers of the Home District volunteer regiments in Hyde Park, opposite Knightsbridge Barracks, at 5.30 P.M., and we understand that the manœuvres will be most varied and interesting.

ROYAL SOCIETY OF EDINBURGH.

THE last ordinary meeting of the Royal Society of Edinburgh was held on July 17th, Sir Douglas Maclagan, President, in the chair. Dr. Johnson Symington made a communication "On Observations on the Development of the Human Brain," which was illustrated by a lantern demonstration. Professor D'Arcy W. Thompson read a paper "On the Species of Penguin observed in the Neighbourhood of the South Shetlands," by Mr. C. M. Donald, M.B. The President made some remarks on the general work of the Society during the past session. Fifty-three communications had been made; these included twelve on physics, nine on mathematics, one on astronomy, five on meteorology, five on chemistry, four on zoology, five on palæontology, one on physiology, and one on philology. The papers had been fewer in number than in some former sessions, but many of them had been of unusual interest. During the session seventeen new Fellows had been admitted, while the average of new admissions in previous sessions was twenty-one.

THE "COUP DE CORDAY": MARAT'S DEATH BLOW.

A CENTURY has now passed since one of the most historical of murders was committed. On July 13th, 1793, Charlotte Corday was admitted into Marat's room. He was in his bath correcting proofs. What passed till after the blow is known only through the evidence of the assassin. Marat asked for the names of certain Girondin Deputies; Charlotte Corday gave them, and he replied, "*Autant pour la guillotine*," and was immediately stabbed. It is not certain whether he merely shrieked hoarsely and died, or had time to cry out, "*A moi, chère amie, à moi!*" The former is the more probable, as the *chère amie*, Simonne Evrard, did not depose that he called out for her. Simonne and a dentist, De la Fondée, both applied pressure to the wound, but Marat was already dead. Dr. Cabanès enters into full details of the wound in the *Gazette des Hôpitaux*. Pelletan was immediately called in. He found that the knife had passed under the right clavicle between the first and second ribs, and so deeply that the whole length of the forefinger could be passed along the track of the wound in the lung. According to an absurd report, founded on this evidence, Charlotte Corday struck with such force that her finger entered the

wound after the knife! The report of the *post-mortem* examination by Deschamps is very incomplete; the left auricle seems to have been wounded. The assassin was standing to the right, and a little behind her victim, who lay with his right arm out of the bath. Hence it was easy for her to strike him under the right clavicle, but there is some difficulty in explaining the direction of the wound, as noted by Dr. Cabanès, as she was standing, and was 5 feet 4 inches in height, whilst he was lying in a bath. Professor Lacassagne has repeatedly tried the *coup de Corday*, both stooping and standing over the dead subject, but has never succeeded in making a wound of the same kind as to direction. It is unfortunate that the mystery of Marat's disease and psychology remains unsolved. He was a very little man, apparently just under five feet. When in practice in London he seems to have been considered a gentleman, according to his appearance and behaviour. He certainly had a skin disease when he died, and he had lived almost in destitution from 1789 to 1792. Poverty and patriotic frenzy probably account for his disease and for his change of character.

THE INTERNATIONAL SANITARY CONVENTION.

The Dresden Convention has been signed on behalf of Great Britain by the three delegates—Mr. G. Strachey, British Minister to the Court of Saxony; Dr. Thorne Thorne, C.B.; and Mr. A. Farnall, C.I.E., of the Foreign Office. This is a welcome piece of intelligence. It points to the fact that the delegates who attended on behalf of our country have been able to use their influence as representatives of a nation which has long since dropped the use of quarantine where cholera is in question, for the more efficacious system of medical inspection. They have further succeeded in winning foreign Powers to our way of dealing with the diseases as a seaborne plague. The terms of the Convention, so far as we know them, point to a continuance of the cholera orders at present in force in all parts of the United Kingdom, and it is to be hoped that all the Governments signing the Convention may now soon follow in the footsteps of the Austrian Sanitary Council, which has issued regulations based on the Dresden Convention. If the nations of Europe can be got to move now ere cholera has assumed any alarming proportions, much vexation and loss to private firms and general trade will be avoided.

QUARANTINE EXTRAORDINARY.

The Fulstone Local Board have been fortunate enough to secure a favourable decision from the County Court judge in the following case, the particulars of which we learn from the *Yorkshire Post:* A man, living some twenty yards from a house infected by small-pox, was ordered by the sanitary inspector to remain indoors, on pain of prosecution. In pursuance of these very plain and intelligible directions, the unfortunate neighbour remained in quarantine for seven weeks, thereby losing his situation as well as his wages. He then sued the Local Board for £25 damages, but was non suited, apparently on the ground that the inspector's action was a blunder for which the Board were not responsible. It has, at all events, proved a costly blunder for the victim, who will probably be less ready in future to pay much attention to the directions of the sanitary authority. It would be interesting to know more of the methods of sanitary administration in this district; for instance, what means of notification, isolation, and disinfection are in use, and whether the inspector's peculiar ideas as to quarantine were shared by his superior officers, under whose instructions he was acting, and to whom he would doubtless at once report the steps which had been taken.

REFRIGERATED MEAT.

The Select Committee of the House of Lords, presided over by Lord Onslow, has met again to continue the hearing of evidence on this subject. The first witness was Mr. Cogan, a West End butcher, who said that he believed refrigerated meat to be as good as anything that could be produced in this country. Butchers in the West End had to put everything in the refrigerating chamber, and after a few days in the chamber home-killed meat assumed very much the appearance of frozen meat. A customer probably would not be able to tell the difference. The only objection to marking was the damage it might do to the meat; but he was unable to say whether marking by means of an electric wheel, as had been suggested, would damage the meat. The best American and Canadian beef was often equal in quality to anything produced in this country. Of course there was a prejudice in some people's minds that prime Scotch beef was the best, and no doubt they were entitled to get what they asked for and what they believed they were getting; but from his experience he did not believe that there was a general practice to supply the cheaper article when the best was asked for. There were several qualities of frozen mutton, and probably there was not a general knowledge of that fact among the butchers' customers. It might happen that when a customer thought he was getting New Zealand meat he was really purchasing Australian or River Plate. In that respect purchasers were no doubt entitled to some protection. The trade generally did not think any legislation was necessary, but if it was necessary he would only make two classes, namely, meat which came into the country in a frozen state, and all other meat. Refrigerated meat was generally as good in quality, and sold at the same price as home-grown meat. There would be no objection to the extension of the Merchandise Marks Act to the marking of imported meat, but the marking should be done before it reached this country.

DEATHS FROM ALCOHOLISM.

Dr. Waldo, the medical officer of health for St. George the Martyr, Southwark, has called attention to the many deaths resulting from alcoholism which are not certified by the medical attendant as having died from the effects of drinking. He very truly and judiciously adds that a nearer approach to truth in death certificates, so far as alcoholism is concerned, would be the issue if medical practitioners were obliged to send all certificates of death, in confidence, direct to the registrars. This state of things has been frequently pointed out, and ought not to prevail. At present only pain and shame would accrue to the relatives of persons dying from intemperance if the certifying medical attendant were to attribute the death to its remote cause. But if these certificates were forwarded to the registrar as a confidential document for State medicine purposes, neither the survivors would have to endure the reproach of a disclosure nor the certifier to keep back anything.

A NOVEL COMPETITION FOR NURSES.

In the course of the discussion on Nurses' Homes, which took place at the International Congress at Chicago, Dr. Billings, the President, expressed the view that it was about time that women manifested the latent power claimed for them in a practical and definite form. He pointed out, says the *Hospital* for example, that it had been left to man—an impotent weak creature as women knew him to be—to design and erect homes for nurses and training school buildings. Architects and male experts had exhausted their ingenuity in designing such buildings, and he thought that Congress was a very appropriate platform from which to invite the exhibition of women's latent power by urging the superintendents to elaborate plans and enumerate each item which a model nurses' home and training school should contain. We have had much pleasure in falling in with Dr. Billings's suggestion, and have decided to organise a competition, which will be open to any woman engaged in nursing from any part of the civilised world. The following details of the proposed competition will no doubt be of interest. Two

prizes—namely, a first prize of 75 dollars (£15) for the best plan sent in for competition, and a second prize of 25 dollars (£5) are offered, by the editor of the *Hospital*, London, England, for competition amongst lady superintendents, matrons, and nurses in the British Empire, United States, and the countries of Europe. Competitors must send in the proposals in type-written form, which must consist of two parts: (1) A statement setting forth categorically all the rooms and accommodation which are necessary in order to make the proposed nurses' home a model of what such an establishment should be where room is provided for from 50 to 100 nurses; (2) a second statement and plan prepared in similar form which provides accommodation for from 150 to 200 nurses. Each of these specifications (1 and 2) must be accompanied by plans drawn to a uniform scale, and must explain how the proposed home for nurses can be extended should the growth of the establishment render such a step necessary. The conditions are:

1. The competitors must send their names and addresses by November 1st, 1893, to Dr. J. S. Billings, United States Army, Washington, D.C., and all plans and proposals presented for competition must reach Dr. Billings not later than January 1st, 1894. 2. Dr. Billings, Dr. Henry M. Hurd, superintendent of the Johns Hopkins Hospital, Baltimore, Md., and Miss Sophia S. Palmer, superintendent of the Garfield Hospital, Washington, D.C., are appointed as the judges of the papers and plans submitted in this competition, and their decision will be final. Should the papers and plans submitted demand such a course, the judges reserve the right of withholding any award. 3. All proposals must be type written on one side of the paper only, and all plans must be drawn to a uniform scale of ½ inch to 1 foot. *Special Note.*—It is proposed to publish an account of the competition with a selection from the competing plans, such publications to be undertaken by the Scientific Press, Limited, 428, Strand, London, W.C., at their option, to whom papers and plans will be sent by the judges after they have made their award.

THE LONDON COUNTY COUNCIL AND THE COUNTY LUNATIC ASYLUM.

We understand that the Asylums Committee of the County Council intend to take the wise and useful step of appointing a pathologist in connection with their County Lunatic Asylum, a step of great value in the advancement of this important branch of the healing art. The question has been carefully considered whether to appoint one or several, and it has been decided to concentrate the work in a single laboratory, and to offer an adequate salary for a thoroughly capable specialist in that department. The salary will be £700 per annum, but without residence, and we believe that the appointment will probably be offered to Dr. Edwin Goodall, at present pathologist and assistant medical officer to the West Riding Asylum at Wakefield, an institution which ever since the time when Sir J. Crichton Browne was its director has held a foremost place in the scientific and therapeutic study of mental disorders. It is intended that the new laboratories shall be at Claybury Asylum, and that they shall be furnished with all the requisites for complete scientific research; but, as they are not yet commenced, it is probable that the appointment will not be made for a few months.

EDINBURGH ROYAL INFIRMARY AND THE CLINICAL INSTRUCTION OF WOMEN.

In view of the fact that the authorities of Leith Hospital were alleged to be able and willing to provide facilities for a sufficiency of clinical instruction for women, to meet the requirements of the Examining Boards, the managers of the Edinburgh Royal Infirmary recently resolved (as reported in the BRITISH MEDICAL JOURNAL at the time) to cease to admit women to the wards after the close of the present summer session. At their last weekly meeting the subject again came up for consideration, when it was pointed out that Leith Hospital could not set aside a large enough number of beds to meet the requirements of the Examining Boards. Further, the Scottish Association for the Medical Education of Women had given an undertaking to find £500 for fitting up twenty-five additional beds, to be placed at the disposal of their students. It had also been urged that the fees that would be derived from the women students who entered for clinical teaching would go a considerable way towards meeting the cost of maintenance of these additional beds. With these and other points before them, the managers have resolved to provipe the additional accommodation required by the Triple Qualification Examining Board for the clinical instruction of women. They have in the past placed some sixty-four beds at the disposal of women students, and they will now add something like twenty-five more. These facilities for the clinical instruction of women are open to both sections of the Medical School for Women, and not limited, as Leith Hospital was, to the original school, while the more vigorous offshoot was excluded. The above decision of the managers has to be ratified at the weekly meeting on Monday next, but it is believed that that will be merely formal. The resolve of the managers has met with very general approval, and will certainly obviate the loss of a considerable number of subscriptions, which would have been turned elsewhere had they persisted in their determination to exclude women from opportunities of clinical teaching.

INDUSTRIAL LEAD POISONING.

THE frequent reports of the occurrence of lead poisoning in the manufacture of enamelled iron show clearly enough that, however harmless some of the enamels now employed ployed may be, lead is still largely used in certain branches of the trade. The difficulty seems to centre chiefly in the manufacture of sign plates. All the manufacturers agree that it is possible to make ordinary enamelled ware entirely free from lead, but in regard to sign plates it is maintained by some that for the production of an enamel which will resist all kinds of weather, and retain its colour under all circumstances, a certain proportion of lead is necessary. Others maintain, however, that it is possible to do entirely without it, although the cost of manufacture is increased, and explain their loss of the sign-plate trade by the greater cheapness of the lead enamel. Meanwhile, it may be well to observe that the experience of other lead industries points to the fact that there is generally some remediable error in method or in discipline where plumbism largely prevails, and it would seem probable that the same sort of minute care in the observance of cleanliness and in the removal of dust by fans and other appliances, which have so largely reduced the prevalence of the affection in other industries, would have the same result in the enamelled iron trade, and even in the manufacture of sign plates, if persistently applied.

CASUALTIES AT HOSPITALS.

A REPORT in the *Morning Leader* of July 14th gives particulars of an inquest held on a painter who died in consequence of injuries received from a fall off a ladder, who was taken to St. Thomas's Hospital, but not admitted as an in-patient. After being attended to for scalp wounds, and kept under observation for some time (how long is not stated in the present account), he was considered to be drunk, and sent home in a cab. Next day he was taken to the Chelsea Union Infirmary, and died there, but the very imperfect account given does not say when nor from what cause. On *post-mortem* examination, besides the injuries which had been detected during life, a fracture of six ribs was discovered far back, near the angles of the ribs. We may dismiss this feature of the case at once, for it is by no means uncommon to find such fractures, even in cases which have been carefully examined during life in regard to the point, but which it has been found impossible to detect. Nor is it at all likely that this injury had anything to do with the fatal issue of the case. The two house-surgeons who were examined at the inquest both swore that the man smelt strongly of

drink, and they and other witnesses from the hospital believed, from his behaviour, that the man was drunk. On the other hand, his friends swore that he had had nothing to drink. These conflicts of testimony are so very common on such a point that we must be excused for accepting the evidence of the house-surgeons—at least, as far as the fact for which they had the evidence of their senses—that the man smelt of drink; and the case seems to be one of that very numerous class in which a person has received an injury to the head, is partly but not wholly insensible, behaves in a manner suggesting intoxication, and smells of drink. Such cases are often of the most difficult nature, and there are only too many instances to prove that men of great experience—hospital surgeons, divisional surgeons of police, and others having extensive practice in casualties—frequently are in error, so far at least as to attribute symptoms to mere intoxication which may be, at any rate, partly due to cerebral injury, though perhaps more or less masked by the effects of drink. It is, therefore, a good rule for young officials like house-surgeons to be particularly cautious in the diagnosis, and to incline rather to the admission of such patients than to their discharge. At the same time, we must say that in the present case no detriment is proved to have been inflicted on the patient by his being sent home, though it would have been more satisfactory if the cause of death had been plainly stated from the notes of the *post-mortem* examination.

METROPOLITAN INQUESTS.

During last year there were 6,846 inquests held in the county of London, the greatest number being held in the Central district, 1,603, and the smallest in the Liberty of Tower, 15. The disbursements vary considerably in the different districts, but steps have been taken to obtain greater uniformity in the future. There are still many anomalies in the law relating to the holding of inquests which await alteration. For instance, although the London Council pays the whole of the costs of inquests thoughout the county, including the salaries of the coroners, there are some districts in which it has no voice whatever in the appointment of the coroner. This is so in Westminster, Southwark, and other parishes. Then, again, the coroner's salary is based upon the number of inquests held, but he receives no payment for any trouble he takes in investigating cases, and consequently his interest lies in the direction of holding inquests in every case. Provision ought to be made for the repayment of expenses occurred in making investigations when no inquest is necessary.

ABUSE OF MEDICAL CHARITIES.

We desire to draw the attention of our readers to the report from the Medical Charities Committee of the Aberdeen Branch, printed in the British Medical Journal for June 3rd. The Committee says: "After consideration of the recommendations of the Committee on Medical Charities of the British Medical Association, and comparing the standard rates of wages here with what obtains in London, your Committee would approve of these recommendations, and would fix the wage limit for Aberdeen at 17s. per week for single, and 27s. per week for married, applicants. Your Committee, however, find that there is no gross abuse of medical charities in the Aberdeen Infirmary, the out-patient department being undertaken by the Aberdeen Dispensary, where a certificate is required from some responsible person that the applicant is too poor to pay for medical advice. Only in some of the special departments, and chiefly by patients coming from the country, is there abuse of medical charities in connection with the infirmary. The Eye Institution and the Sick Children's Hospital, however, are free to all who apply for advice, and your Committee regret that such a method should be adopted by these institutions as leads to prostitution of medical charity, and an undervaluing of medical skill."

Here in London, after about a quarter of a century of agitation, and after innumerable confessions of gross abuse by the most competent authorities on the subject, no attempt whatever is being made to formulate any plan by which that abuse may be checked, and if any reflection is made in the journals on hospitals where out-patients are received out of the streets in thousands, without any pretence of inquiry, the staff of those hospitals rush to the defence of the system.

Meanwhile, the numbers of out-patients are growing, and so is the pecuniary embarrassment of the hospitals. Mr. Yerbury, a member of the Distribution Committee of the Saturday Fund, writes to the *Times* of July 14th to make an earnest appeal for the Fund, and points out in his letter that the "number of new out-patients" is 1,133,433, carefully distinguishing between that number and the number of visits. He also points out that "one noble institution has been compelled to close 140 beds and another 30 for want of funds."

Now, no one can regret more than we do the embarrassments of our hospitals, nowhere does any effort to mitigate them obtain more cordial support than in this Journal. So we have no fear of being charged with being an enemy to the hospitals if we tell them the truth. And it is a truth admitted by their warmest friends and supporters that the out-patient system is a blot upon their fame, and that some united effort for its amendment will soon be insisted on by public opinion. That amendment must take the form of regulations to exclude both persons able to pay for advice, and also persons unlikely to derive benefit from hospital treatment, and whose ailments require home treatment and supervision. We had looked with hope to the inquiry recently instituted by the Lords' Committee to lay the foundation of that reform. It seems only too likely that all such hopes will be frustrated, and that the reform must spring from the public and from the profession. But these must act through some agency. Is it too sanguine to hope that we may find such an agency in the Sunday and Saturday Funds? These Funds are now firmly established in popular estimation. Cannot the experienced persons who belong to them rise to a point of view higher than that of Mr. Yerbury? If they could see how much better the half is than the whole, how much better it is to give good advice and real relief to a few hundred deserving cases than to slur over twice that number, probably in large proportion undeserving, we might see them summoning a conference on the out-patient question which might possibly lead to self-reformation in a direction in which, failing self-reformation, the evil may, and probably will, be more sternly dealt with under the pressure of necessity.

HOSPITAL AND DISPENSARY MANAGEMENT.

CORK DISTRICT LUNATIC ASYLUM.

The buildings for additional accommodation in this institution are now completed, and at present there is room for 300 over and above the number in the asylum. A conference is being held between the governors and the Cork Board of Guardians with the object of transferring to the asylum curable patients from the workhouse in lieu of incurable patients to be admitted to the workhouse.

Association of Medical Officers of Life Assurance Offices.—At a meeting of medical officers to life assurance offices, held on July 19th, under the presidency of Dr. J. E. Pollock, it was unanimously decided to form an association of such officers, and the following were appointed to take the preliminary step towards carrying out the scheme: Drs. Colcott Fox, De Havilland Hall, Heron, C. E. Hoar, Habershon, Glover Lyon (Honorary Secretary *pro tem.*), Hector Mackenzie, Newton Pitt, Pollock, and Symes Thompson, with power to add to their number.

THE HOME SECRETARY ON THE CASE OF ALABONE v. MORTON.

THE Home Secretary, in reply to a question of Sir Charles Cameron on July 17th, in reference to proceedings being taken in this case, said, according to the reports of the House of Commons proceedings: "It is not quite clear whether the Society of Apothecaries intend to use their power, but I have given instructions that the matter should be laid before the Public Prosecutor with a view to his taking proceedings either independently or in conjunction with the Society."

Assuming that the reply of the Home Secretary is correctly reported, we think it may convey an erroneous impression as to the course taken by the Society of Apothecaries, and we therefore append the reply of that body to the letter of the Home Secretary on the subject, written in view of Sir Charles Cameron's question:

"The attention of the Society of Apothecaries has been called to the case of Alabone *v.* Morton, and the Society has already authorised proceedings under the Apothecaries Act to be taken against Mr. Alabone, and will also authorise proceedings under the Act to be taken against Mr. Morton. With regard to the proceedings of another kind suggested to be taken against the latter, the Society has no power to interfere."

THE POLLUTION OF THE NILE.

SIR EDWARD GREY, Under-Secretary of State for Foreign Affairs, in replying in the House of Commons to Mr. Pierpoint, on the steps to be taken to prevent an increase in the pollution of the Nile, made a statement which appears to imply imperfect information on this important matter. In the first place, in the statement of the BRITISH MEDICAL JOURNAL which Mr. Pierpoint quoted, and to which Sir Edward Grey referred, we did not accuse the Irrigation Department of adding to the pollution; but, on the other hand, it cannot be denied that the dams they have constructed all over the Delta have had a deleterious effect on the quality of the water. In many places the current is entirely stopped, the various reaches being thereby converted into so many stagnant pools, in which the poisonous filth alluded to by us accumulates and putrefies. In numbers of such places the water is most offensive at certain seasons, and its surface covered with an iridescent scum. In a paper read at the Seventh Congress of Hygiene, Dr. Greene Pasha, recently head of the Sanitary Department of Egypt, showed clearly that during the five years from 1886 to 1890 the mortality in variably rose during the summer months in all the towns furnishing statistical reports, with two exceptions. The exceptional towns were Damietta and Rosetta, where the people could not drink the river water when it ran low, because it then became brackish from admixture with the sea. They used water stored in cisterns during the flood. In 1891, a canal having been dug, the reservoirs at Rosetta were left empty, and forthwith the mortality began to rise till the deaths far exceeded the births, a thing never known to have occurred before. It is idle to contend that the irrigation operations do not affect the quality of the water supply, and consequently the public health. The watering of the fields may be an imperious necessity, but the authorities should not shut their eyes to the price that has to be paid. A complete remedy for all the evils resulting from the impure water of the Nile during the summer would be the adoption of the well-approved scheme for storing the surplus flood in the Raiyan desert far away from all danger of pollution. It is difficult to understand how anyone with the true interests of the people at heart can hesitate for a moment regarding this most important project. The engineering authorities have pronounced it practicable, and there can be no manner of doubt that it is far and away the best from the sanitarian's point of view; and if Sir Edward Grey will examine the matter for himself, or with the light of the information in our possession, we feel sure that he will arrive at the same conclusion.

UNIVERSITY OF DURHAM.

HONORARY DEGREES.

AT a Council meeting of the British Medical Association, held on July 19th, the President-elect, Dr. G. H. Philipson, announced that the University of Durham had arranged to hold a Special Convocation on Friday, August 4th, for the purpose of conferring the honorary degree of Doctor of Civil Law on the following:—Mr. Joseph White, Dr. W. Withers Moore, Mr. H. T. Butlin, Dr. David Drummond, Dr. G. H. Hume, Dr. C. J. Cullingworth, Sir Walter Foster, M.P., and Mr. Ernest Hart.

THE CHOLERA.

THE *Times* correspondent at Cairo, telegraphing on July 13th, states that, according to the official reports, the mortality from cholera among the pilgrims in quarantine at El Tor is already serious. It must be expected to increase as more pilgrims arrive in an enfeebled condition from the hardships of their journey; 7,000 have been landed, and from 35,000 to 40,000 more are expected, most of whom must wait at Jeddah or Yembo until room can be found for them at El Tor, which accommodates only 11,000 at one time. All undergo fifteen days' quarantine, which will be considerably prolonged, as it is reckoned from the last case of cholera registered against each separate section of pilgrims.

The neglect of Turkey to enforce even the simplest sanitary laws in Arabia is the main cause of this year's frightful mortality amongst the pilgrims. This neglect has enormously increased the difficulty of the task imposed by the European Powers upon Egypt of preventing cholera from passing her territory.

The Vienna correspondent of the *Times* telegraphs on July 13th: According to the official report issued to-day by the Supreme Sanitary Council, 7 suspicious cases of illness, and 3 deaths occurred in North-East Hungary between June 24th and July 10th, while others are announced from the district of Bereg, as also from Dees in Transylvania. The usual precautions against cholera will be immediately put into force by the Hungarian Government. Communication between the infected localities and the surrounding country will be strictly supervised, and arrangements will be made for the examination of passengers at the railway stations, as well as for the establishment of disinfecting apparatus and the provision of assistance in case of an outbreak of cholera.

Reuter's agent at Alexandria telegraphed on July 15th that the French steamer *Natal* had arrived there from Marseilles with a suspicious case of illness on board. The passengers for Egypt have been landed at the Meek's quarantine station. All further arrivals from the French Mediterranean ports will be subject to a week's quarantine, including the time occupied by the voyage.

From July 9th to the 12th, there have been 20 deaths among the pilgrims at the quarantine station at El Tor.

Two deaths suspected of being due to cholera are reported to have occurred at Novosielka, Russia. According to a Russian official communication, 31 cases of cholera, with 11 deaths, took place in Moscow between June 30th and July 10th.

The *Standard* Vienna correspondent, telegraphing on Sunday night, July 16th, states that within the previous forty-

eight hours there had only been one case of cholera in Szathmar, Hungary. No fresh cases had been reported within the previous three days.

Dalziel's agent at Toulon, under date of July 16th, reports that some cases of cholera continued to occur in the South of France. Two cases and 1 death were officially reported there on July 15th, and the same number occurred on the previous day. One death is reported from Hyères. Three deaths have occurred at a village on the banks of the Rhone, near Lyons.

The *Standard* correspondent at the Hague, under date of July 17th, reports that after 3 cases of cholera nostras at Oldebrock, in the province of Guelderland, a man has died in the capital of the province of North Brabant, Bois-le-Duc, from Asiatic cholera. All measures have been taken to prevent the spread of the disease.

The *Times* correspondent at Vienna, telegraphing on July 18th, states that an official announcement from Hungary reports that 4 suspicious cases of illness have occurred at Szatmar, and 2 at Dees, in Transylvania.

The *Times* Vienna correspondent, telegraphing on July 19th, reports that an official telegram from Buda-Pesth states that the measures taken to prevent the spread of cholera have proved successful in the district of Bereg, where the first and most severe cases occurred. For upwards of seven days not a single suspicious case has been recorded within the limits of the district. Two new cases of illness with symptoms of acute intestinal catarrh have occurred at Szatmar, and 2 others are reported from Dees, in Transylvania.

Reuter's agent at St. Petersburg, telegraphing under date of July 18th, states that the epidemic at Moscow is raging principally among the poorer classes. The city authorities have established an executive sanitary committee under the presidency of the mayor. The number of public medical officers has been doubled, and the doctors in the different quarters of the city will be informed by telephone from the Town Hall of all fresh cases of cholera as they occur. On July 12th and 13th there were 15 fresh cases of cholera at Moscow, 2 recoveries, and 8 deaths, and there were 31 patients still under treatment.

The epidemic continues to make great ravages in the province of Podolia, where the last weekly official report announces 309 cases and 90 deaths, and it still prevails, though in a less degree, in the provinces of Orel (93 cases and 41 deaths), Bessarabia (26 cases and 8 deaths), Saratoff (17 cases and 4 deaths), Viatka (12 cases and 3 deaths), Kursk, Tula, Kherson, and Tobolsk.

The steamer *Blue Jacket* arrived on July 19th at Cardiff from Marseilles, and was boarded by the sanitary officials from the cholera steamer which was cruising about the roads. It was found that there were 2 cases of Asiatic cholera on board. Other members of the crew had suffered slightly, but had recovered on the way to Cardiff, and the two patients who had suffered most are now convalescent, and have been removed to the isolation hospital on the Flat Holm. The *Blue Jacket* will be kept under observation at the mooring station for some days, and meanwhile will be thoroughly disinfected. The two men under treatment had drunk freely of the Marseilles water, contrary to the express instructions of the captain.

TURKEY.

Cholera continues to hold its own in the village of Bassorah. The official statistics show a mortality from cholera of 818 deaths from May 17th to June 23rd, of which 388 were in the village of Bassorah; 309 at Abou-Hussib and Zobeir, near Bassorah. It is always to be found in the following localities: Amara, on the Tigris, Chatra, Korna, and in five or six other districts, but the extent of the disease is always ignored amongst the Arab tribes.

MECCA.

From June 8th to June 25th there were 2,201 deaths at Mecca; and in one day (June 26th) 499 deaths at Minah and 500 at Mecca, making in one day 999 deaths; but as these figures should be doubled, we have a total of 6,000 deaths, of which about 2,000 took place in one day. From June 26th to July 24th there were 499 deaths at Minah, 3,408 at Mecca, and 303 at Jedda. These figures should also be doubled. The loss in two months, until the repeopling of the country by all the pilgrims of Hedjaz will then still further exceed 15,000, the number that has been indicated, and which has already been reached. From a letter dated July 1st from Jedda we learn that 20,000 pilgrims have already returned to that town. The first French vessel was to start that same day. The crowd of Hadjis is exceptionally large this year. It is the first time that the Jedda office has registered the large number of 93,000 pilgrims landing in one year. It is probable that there is a proportional increase in the caravans. It may be reckoned that, with the inhabitants of Mecca and its surroundings, there are actually gathered together 200,000 or 250,000 Mussulmans in the sacred town and its environs.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETING FOR 1893. ELECTION OF MEMBERS.

A MEETING of the Council will be held on October 25th, 1893. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before the meeting—namely, October 4th, 1893.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeing election by a Branch Council should apply to the Secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election. FRANCIS FOWKE, *General Secretary*.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

DORSET AND WEST HANTS BRANCH.

The summer meeting of this Branch was held at Poole on July 12th, under the presidency of Dr. F. C. G. GRIFFIN. Eighteen members were present.

New Member.—Dr. William Doidge Haslam, of Bournemouth, was elected.

Discussion.—A discussion upon Typhlitis and its Concomitants was opened by Mr. PARKINSON, Vice-President, and taken part in by the PRESIDENT, Dr. LYS, Dr. BACOT, Mr. CURME, Mr. MAHOMED, Dr. SNOW, Dr. LUSH, and Mr. VERNON.

Communication.—Dr. H. G. LYS: Lymph Stricture of the Pylorus, with specimen.

Next Meeting.—It was resolved that the autumn meeting should be held at Ringwood.

Dinner.—The members dined together at the London Hotel.

OXFORD AND DISTRICT BRANCH.

THE annual meeting of this Branch was held at Fairford on July 14th. The President-elect entertained twenty-five members at luncheon, and was warmly thanked for his hospitality.

Installation of President.—Dr. WARD, the President, installed his successor, Mr. D. Iles, of Fairford.

Minutes.—The minutes were read and confirmed.

Address.—The PRESIDENT gave an address on Hysteria and Hysteric Mania.

New Members.—Dr. Edwards, of Woodstock; Dr. Innes, of Chipping Norton; Mr. Steedman, of Oxford; and Dr. Bulteel, of Adderbury, Banbury, were elected members of the Branch.

Election of Officers.—Dr. Hutchinson, of Chipping Norton, was elected President-elect, and Chipping Norton was chosen as the place for the next annual meeting. Mr. Winkfield was re-elected as representative on the General Council and on the Parliamentary Bills Committee. Mr. Winkfield was also re-elected Treasurer. Mr. W. Lewis Morgan was re-elected as Honorary Secretary. Messrs. Bevers, Franey, and Moore were elected members of the Branch Council. Messrs. Robertson, R. Hitchings, and Shore were proposed as candidates for election.

Report of Council.—The Report of the Council was read as follows: The Council beg to report that the number of members of the Branch is 95; they regret to record the death of Dr. S. D. Darbishire, who took the greatest interest in the prosperity of the Branch, and was for many years one of the Honorary Secretaries. The financial condition continues satisfactory, the Treasurer's report showing a balance of £28 15s. 4d.

GLASGOW AND WEST OF SCOTLAND BRANCH.

ON Wednesday, July 5th, this Branch held its summer meeting at Aberfoyle, under the presidency of Dr. WHITELAW, of Kirkintilloch. On arrival at Aberfoyle a conveyance was obtained, and thereafter the party had a drive to Loch Ard, which was looking its best in the bright summer sunshine.

President's Address.—In the evening dinner was served in the Bailie Nicol Jarvie Hotel. After dinner, Dr. WHITELAW read an interesting paper on his own college days, and introduced many racy reminiscences of the professors of that time.

NORTH OF ENGLAND BRANCH.

THE twenty-ninth annual meeting of this Branch was held on July 14th at Norton, Stockton-on-Tees.

Presidential Address.—The retiring President, Dr. MURPHY, vacated the chair in favour of Dr. BLANDFORD, who then delivered his presidential address dealing with questions of public health and bacteriology.—A vote of thanks to Dr. Blandford for his able address was proposed by Dr. PHILIPSON, the President-elect of the Association, seconded by Dr. BROADBENT, and carried.

New Members.—A considerable increase in the number of new members was reported, and is no doubt due to the attractions of the forthcoming meeting of the Association in Newcastle.

Payment of Travelling Expenses.—The question of paying the travelling expenses of the members of the Parliamentary Bills Committee was discussed, and it was resolved that, in the opinion of the meeting, the travelling expenses of the members of that Committee should be defrayed out of the funds of the Association.

Election of Representatives.—Dr. Drummond and Mr. Williamson were elected the representatives on the Council of the Association. Dr. Murphy was elected the representative on the Parliamentary Bills Committee. Dr. Oliver of Newcastle was chosen as President-elect.

President's Dinner.—After the meeting the President, Dr. Blandford, entertained the members of the Branch at dinner to the number of about one hundred.

PERTHSHIRE BRANCH.

AT a special meeting of the Perthshire Branch of this Association held in the rooms of the Literary and Antiquarian Society, George Street, Perth, on Friday, July 14th, 1893, at 4.30 P.M., Dr. R. ROBERTSON was called to the chair.

The minutes of last meeting were read, approved, and signed by the Chairman.

Dr. HOLMES MORISON submitted the following resolutions:

County Medical Officers and Private Practice.—I. That this Branch records its opinion that medical officers of health for Scottish counties should be debarred from private practice, except where special circumstances entitling to exemption can be shown to exist to the satisfaction of the Secretary of State for Scotland.

Death Registration.—II. That this Branch records its opinion (1) That the present system of medical certification of cause of death before interment is carried out in a perfunctory manner, and attended with unsatisfactory results. (2) That no death should be registered without a medical certificate. (3) That the registrar should report to the procurator fiscal all cases where no medical certificate can be produced, and that the procurator fiscal shall thereupon be bound to make inquiry. (4) That *post-mortem* examination should be made in all obscure cases. (5) That these certificates and *post-mortem* examinations should be paid for by the authorities. (6) That it should be competent to secure a public inquiry in connection with accidents resulting in death, trade fatalities, and similar disasters. After some discussion these resolutions were formally adopted, and the Secretary of the Branch was instructed to submit them to the General Secretary.

New Members.—The following were elected members of the Branch:—Dr. R. C. Buist, Dundee; Dr. Douglas Crawford, Dundee; Dr. W. Chalmers Cowan, Dundee; Dr. James Gowans, Broughty Ferry; Dr. W. Kinnear, Dundee; Dr. D. Lennox, Dundee; Dr. T. F. M'Farlane, Dundee; Dr. D. S. Moon, Dundee; Dr. D. MacEwan, Dundee; Dr. J. W. Miller, Dundee; Dr. A. M. Paterson, Dundee; Dr. E. Waymouth Reid, Dundee; Dr. N. Raw, Dundee; Dr. J. Rorie, Dundee; Dr. T. S. Gray, Dundee; Dr. A. M. Stalker, Dundee; Dr. P. Steven, Dundee; Dr. R. Sinclair, Dundee; Dr. C. Templeman, Dundee; Dr. J. W. Wemyss, Broughty Ferry; Dr. P. Young, Dundee.

Proposed Dundee and District Branch.—Dr. J. W. MILLER then moved, seconded by Dr. MORISON: "That the following members of the Association residing in Forfarshire, being one-third of the Perthshire Branch, and being desirous of forming a new and independent Branch to be called the Dundee and District Branch, the Secretary be requested to forward their petition for the formation of said Branch to the General Council of the Association for consideration at their next meeting," and the motion was thereupon unanimously adopted. [The names were on the agenda.]

EAST ANGLIAN BRANCH: JUBILEE MEETING.

Council Meeting.—A meeting of the Council of the East Anglian Branch was held at the Institute, Stowmarket, on Thursday, July 13th, 1893, at 11.30 A.M.; Mr. MARRIOTT in the chair.

New Members.—The following were elected members of the British Medical Association and the East Anglian Branch: Harold Julius Jäger, Holt, Norfolk; William James McFarland, Smallburgh, Norfolk; Pembroke R. J. B. Minns, M.D., Thetford, Norfolk; Matthew Wright Talbot, M.B., Great Yarmouth; F. Harrison Tetley, Bungay; Frederick Preston, Norwich; Cecil Frank Wightman, Ditchingham, Norfolk; Orby Russell Morgan Wood, M.B., Woolpit, Suffolk. The following were elected members of the East Anglian Branch: Hubert Airy, M.D., Woodbridge; Henry St. George Boswell, M.B., Saffron Walden; Thomas Carr, M.B., Braintree; Surgeon-Major T. S. Cogan, Ipswich; F. D. Grayson, Rayleigh, Essex; H. D. King, M.D., Sudbury; Jos. Michael Ryan, M.B., Colchester; H. B. Walker, Lowestoft; Avery Clough Waters, M.B., Southend; R. B. Wrightson, M.D., Aldeburgh, Suffolk; Geo. Vincent, M.D., Ipswich.

Congratulation to President.—Mr. MARRIOTT proposed a vote of congratulation to Dr. Durrant. This was seconded by Mr. GORHAM, and carried by acclamation.

JUBILEE MEETING.

The Jubilee meeting was held in the Institute, Stowmarket, on Thursday, July 13th, 1893, at 12 noon; Dr. DURRANT (President) in the chair, and about 40 members present.

Mode of Election of Branch Officers.—The minutes of the last meeting were read. Dr. MEAD proposed "That the minutes be not confirmed." Dr. Mead objected to the election of officers which had taken place at Peterborough, on the ground that the town was outside the geographical limits of the East Anglian Branch, and therefore illegal. Dr. Mead's motion did not find a seconder.—Dr. BARNES, one of the Secretaries, urged that the meeting had been duly called, that it did not violate any by-law of the Association, that it had been held strictly in accordance with precedent, the procedure following not only the custom of the East Anglian Branch, but of other Branches, of which he cited examples. He also showed that Dr. Mead himself was elected Representative of the Branch on the Parliamentary Bills Committee at Cambridge in 1891, and that he then did not consider that the election was illegal, though conducted in the same manner in every particular as Dr. Manby's election to the same office, to which Dr. Mead took exception.—Dr. BEVERLEY read the opinion of the Solicitor to the Association that the election was not illegal.—After which Mr. JEAFFRESON moved, and Mr. GORHAM seconded, that the minutes be confirmed, which was carried unanimously.

Election of Secretary for Essex District.—Dr. Carr, Braintree, was unanimously elected Secretary for the Essex District.

Proposed By-laws.—Dr. MEAD proposed: "That a Committee be formed to prepare proper by-laws for the East Anglian Division for the regulation of its business." This was not seconded; and Mr. VINCENT proposed and Mr. JEAFFRESON seconded, and it was carried with one dissentient: "That the matter be deferred until after the Newcastle meeting."

Communication.—Dr. BARNES read a paper, Brief History of the East Anglian Branch, and this paper was ordered to be printed and circulated.

Luncheon.—The members then adjourned for luncheon at the King's Head Hotel, thirty-nine gentlemen being present.

President's Address.—The PRESIDENT gave a short address, and Mr. GORHAM proposed and Dr. BRADBURY seconded a vote of thanks to Dr. Durrant, which was carried by acclamation.

Further Communications.—Dr. GROOME showed: (1) A case of a Sebaceous Cyst in the back of the hand which had assumed an epitheliomatous character; (2) a case of Chronic Rheumatic Deformity in wrist and ankle (osteo-arthritis deformans); (3) a case of Macroglossia.—Mr. HARPER showed: (1) a case of Multiple Lipoma; (2) a case of Congenital Dislocation of both Femora.—Sir FREDERIC BATEMAN, M.D., read a paper, Criminal Anthropology in its Medical Aspects, and in the discussion which followed followed Professor CLIFFORD ALLBUTT and Mr. JEAFFRESON took part.—Mr. ALBAN DORAN read a paper on Cases of Tuberculous Disease of the Uterine Appendages and Peritoneum, and Professor CLIFFORD ALLBUTT, Dr. GROOME, and Mr. LING took part in the discussion which followed.—Sir PETER EADE, M.D., read a paper on Albuminuria in Relation to Life Assurance. Dr. COOPER-PATTIN, Dr. BEVERLEY, and Sir FREDERIC BATEMAN took part in the discussion which followed.—Mr. T. H. MORSE read a paper on Six Cases of Extrauterine Fœtation, and in the discussion which followed Mr. DORAN took part.

Afternoon Tea.—After the meeting the members were kindly entertained to afternoon tea by Mr. and Mrs. J. W. Harper at their residence in the Station Road.

BRITISH MEDICAL ASSOCIATION.

SIXTY-FIRST ANNUAL MEETING.

THE sixty-first Annual Meeting of the British Medical Association will be held at Newcastle-on-Tyne, on Tuesday, Wednesday, Thursday, and Friday, August 1st, 2nd, 3rd, and 4th, 1893.

President: JOSEPH WHITE, F.R.C.S.Edin., Consulting Surgeon, Nottingham General Hospital.

President-Elect: GEORGE HARE PHILIPSON, M.D., D.C.L., F.R.C.P., Professor of Medicine in the University of Durham.

President of the Council: W. WITHERS MOORE, M.D., F.R.C.P., J.P., Consulting Physician, Sussex County Hospital.

Treasurer: HENRY TRENTHAM BUTLIN, F.R.C.S., Surgeon to St. Bartholomew's Hospital, E.C.

An Address in Medicine will be delivered by DAVID DRUMMOND, M.D., Physician and Pathologist, Royal Infirmary, Newcastle-on-Tyne.

An Address in Surgery will be delivered by GEORGE HALLIBURTON HUME, M.D., F.R.C.S.Edin., Surgeon to the Royal Infirmary, Newcastle-on-Tyne.

An Address in Obstetrics and Gynæcology will be delivered by CHARLES JAMES CULLINGWORTH, M.D., F.R.C.P., Obstetric Physician and Lecturer on Midwifery and Diseases of Women, St. Thomas's Hospital.

The scientific business of the meeting will be conducted in eleven Sections, as follows, namely:

A. MEDICINE.

Medical Theatre—College of Medicine.

President: W. MILLER ORD, M.D. *Vice-Presidents:* HENRY BARNES, M.D.; HENRY HANDFORD, M.D. *Honorary Secretaries:* JAMES ALEXANDER LINDSAY, M.D., 37, Victoria Place, Belfast; JAMES LIMONT, M.B., 3, Queen's Square, Saville Place, Newcastle-on-Tyne.

The following subjects will be discussed in this Section:

Wednesday, August 2nd, at 10 A.M.—Chronic Glycosuria in Middle Life, introduced by Sir Dyce Duckworth, M.D., LL.D. Professors Clifford Allbutt, Gairdner, Grainger Stewart, Drs. Lauder Brunton, A. H. Carter, Stephen Mackenzie, F. W. Pavy, R. Saundby, W. R. Thomas, C. R. Drysdale, E. Markham Skerritt, and Shingleton Smith will take part in the discussion.

A demonstration on Myxœdema will be given by Dr. George Murray Professor Oliver, Dr. T. M. Allison, and others.

Thursday, August 3rd, at 10 A.M.—The Pathology and Distribution of Atrophic Paralysis, introduced by David Ferrier, M.D., LL.D., F.R.S. Drs. Julius Althaus, A. G. Barrs, Alexander Bruce, Judson Bury, F. W. Mott, Alexander Robertson, and R. Saundby will take part in the discussion.

Dr. David Drummond will give a demonstration on Aneurysm.

Friday, August 4th, at 9.30 A.M.—Concussion of the Spine, more especially in its Relationship with Railway Accidents and Injuries, introduced by Byrom Bramwell, M.D. Professor Clifford Allbutt, Dr. J. O. Brookhouse, Professor Victor Horsley, Professor Cuming, Dr. Buzzard, Mr. Frederick Page, Dr. Alexander Robertson, Dr. Chauncy Puzey, Dr. E. Markham Skerritt, and Mr. Wheelhouse will take part in the discussion.

The following papers are announced:

COLEY, F. C., M.D. Chlorosis.
DRYSDALE, C. R., M.D. Treatment of Empyema.
GIAMPIETRO, Professor D. E. (University of Naples). Aphasia in its Relations to Lesions of the Auditory Centres.
REDMOND, C. S., M.D. The Cool Bath Treatment of Enteric Fever.
SOLLY, S. E., M.D. (Colorado, U.S.A.) Effects of Heredity in the Progress of Phthisis.
SMITH, Wilberforce, M.D. The Weighing Machine in Consulting Room Practice; Cases, with Clinical Charts.
WADE, Willoughby F., F.R.C.P. On a Morbid Condition of the Local Nerves as a Factor in Gout.

B. SURGERY.

Anatomical Theatre—College of Medicine.

President: W. C. ARNISON, M.D. *Vice-Presidents:* R. J. GODLEE, M.B.; F. PAGE, M.D. *Honorary Secretaries:* J. RUTHERFORD MORISON, F.R.C.S., 14, Saville Row, Newcastle-on-Tyne; JAMES ERNEST LANE, F.R.C.S., 46, Queen Anne Street, W.

A discussion on the Radical Cure of Hernia will be introduced by Dr. Halstead, Surgeon to the Johns Hopkins Hospital, Baltimore, U.S.A., on Wednesday, August 2nd, at 10 A.M., and the following gentlemen intend to take part in it: Jordan Lloyd, Mayo Robson, Professor Annandale, Bowreman Jessett, C. B. Keetley, A. E. Barker, Professor Macewen, Hume, Damer Harrisson, Ward Cousins, Gilbert Barling, Dr. Crawford Renton, Mr. Stanmore Bishop, Rushton Parker, Dr. Mitchell Banks, Mr. Pye-Smith, Mr. R. C. Chicken, Mr. J. Paul Bush, and W. Alexander.

The discussion on the Surgical Treatment of Cerebral Tumours will be introduced by Professor Victor Horsley, M.B., F.R.C.S., who will illustrate his paper by lantern photographs and specimens, on Thursday, August 3rd, at 10 A.M., and Professor Macewen, Dr. Ferrier, Dr. Drummond, Damer Harrisson, Dr. Crawford Renton, Dr. MacDougall, and Rushton Parker will take part.

Dr. Frederick Page will introduce a discussion on the Treatment of Intestinal Obstruction, on Friday, August 4th, at 10 A.M. Messrs. Jonathan Hutchinson, Jordan Lloyd, Mayo Robson, Professor Annandale, Messrs. H. W. Allingham, Bowreman Jessett, Hume, Dr. Drummond, Harrison Cripps, Ward Cousins, Gilbert Barling, Dr. Crawford Renton, Rushton Parker, D. Lowson, Mr. Pye-Smith, and W. Alexander will take part in the discussion.

The following papers are announced:

ALEXANDER, W. M. D., F.R.C.S. (Liverpool). Some Results of Trephining in Epilepsy.
BARKER, A. E., F.R.C.S. On the Treatment of Acute Intussusception in Young Children.
COLLIER, Mayo, M.B., F.R.C.S. (London). A paper with illustrative specimens on the Surgery of the Frontal Sinuses.
GRIFFITH, J., M.D., F.R.C.S. Symmetrical Talipes Dorsalis in an Acephalous Fœtus.
HASLAM, W. F., F.R.C.S. Some Points in the Surgical Treatment of Simple Ulcer of the Stomach.
HERN, J., M.D. The Effect of Repeated Tappings on Hydrocephalus.
JONES, Robert, F.R.C.S. Papers on Amputation in Senile Gangrene. The Treatment of Chronic Sprains of Foot and Ankle.
LANE, W. Arbuthnot, M.B. 1. The Fallacy of the Vertical Foot Piece. 2. The Applicability of the Parting Tool or Angular Gouge to the Surgery of the Skull.
MORISON, A. E., M.B., F.R.C.S.Ed. A Patient after Gastro-enterostomy.
MORISON, Rutherford, M.B., F.R.C.S. 1. Specimens illustrative of Gastrointestinal Surgery. 2. A New and Easy Method of Intestinal Resection.
PARKER, Rushton, M.B., B.S., F.R.C.S. (Liverpool). 1. The Radical Cure of Hernia, based upon over 270 Operations. 2. A Case of Two Attacks of Acute Intestinal Obstruction recovering the First Time under Palliative Treatment, the Second after Abdominal Section.
ROSS, F. W. Forbes, M.D. The Abdominal Vessels, their Use in Pressing Vascular Emergencies (with Citation of Cases).

Demonstrations of patients and of operations will be arranged at the Royal Infirmary, at the Children's Hospital, and at other institutions.

Dr. F. Page will show a Man upon whom two operations of Pyloroplasty was performed 14 months ago.

On Wednesday, Thursday, and Friday demonstrations on Surgical Cases will be given at the Infirmary at 5 o'clock in the afternoon by the surgical staff.

C. OBSTETRIC MEDICINE AND GYNÆCOLOGY.

Chemical Theatre—Durham College of Science.

President: JAMES MURPHY, M.D. *Vice-Presidents:* W. GOWANS, M.D.; D. BERRY HART, M.D. *Honorary Secretaries:* A. D. LEITH NAPIER, M.D., 67, Grosvenor Street, Grosvenor Square, W.; R. C. BENINGTON, M.D., 59, Osborne Road, Newcastle-on-Tyne.

A discussion on Puerperal Septicæmia will be opened by Dr. Barnes, and the following intend to speak: Drs. Cullingworth, Lovell Drage, Jardine, Herman, Hern, Boxall, Fancourt Barnes, Bell, Sloan, Elder, Byers, Professor Oliver, Reid, Smyly, Aust-Lawrence, Swayne, and Cameron.

Professor Pozzi will open a discussion on the Conservative Treatment of the Diseases of the Uterine Appendages. The following members will speak: Drs. Cullingworth, More Madden, Sloan, Tait, Handfield-Jones, A. Martin, Mayo Robson, Fancourt Barnes, Elder, Bell, Smyly, Aust-Lawrence, Swayne, Cameron, Travers, and Jessett.

The following papers are announced:

AUST-LAWRENCE, A. E., M.D. *Post-Partum* Ovariotomy.
BALLANTYNE, J. W., M.D. Summary of the Results of the Examination of 100 Cases of Fœtal Deformity and Disease.
BARNES, Fancourt, M.D., F.R.S.Edin. Case of Lithotomy in the Female Bladder.
BELL, R., M.D. Treatment of Displacement of the Uterus.
BISHOP, E. S., F.R.C.S., First Thirty Ovariotomies.
BRAITHWAITE, James. On Acute Anteflexion of the Uterus in the Later Months of Pregnancy.
BREWIS, N. T., M.B. Some Unusual Forms of Hyperplasia of the Cervix Uteri.
DUKE, Alex., F.R.C.P. The Value of Crude Boracic Acid in the Treatment of Chronic Endometritis.
EDIS, A. W., M.D. Some Typical Cases of Puerperal Septicæmia.
HANDFIELD-JONES, M., M.D., M.R.C.P. The Treatment of Adhesions after Pelvic Peritonitis.
HART, D. Berry, M.D. The Extraperitoneal Development of Extrauterine Gestation, with remarks on its Treatment.
HAULTAIN, F. W. H., M.D. The Constant Current in Uterine Disease Practically Considered.
JESSETT, F. B., F.R.C.S. On the Treatment of Advanced Uterine Cancer.
MADDEN, More, M.D., F.R.C.S.Edin. On Puerperal Fever and Septicæmia.
MARTIN, A., M.D., Berlin. (Title not announced.)
MARTIN, C., M.B., F.R.C.S. On the Nerve Theory of Menstruation.
NAPIER, A. D. Leith, M.D., and SCHACHT, F.F., M.D. Series of Cases of Ventrofixation of the Uterus.
POZZI, Professor. The Technique of Laparotomy.
PURSLOW, C. E., M.D. The Treatment of Retroversion of the Gravid Uterus.
WEBSTER, J. C., M.D. The Etiology of Ectopic Gestation.

Dr. Murdoch Cameron will show a New Pair of Axis Traction Forceps for application in the conjugate diameter at the brim.

D. PUBLIC MEDICINE.

Hall of Geographical Society.

President: H. E. ARMSTRONG, D.Hy. *Vice-Presidents:* GEORGE EASTES, M.B.; THOMAS EUSTACE HILL, M.B. *Honorary Secretaries:* F. P. WIGHTWICK, M.D., 5, Curlew Street, Horsleydown, S.E.; W. TURNBULL, M.B., South Shields.

The following papers are announced:

ARMSTRONG, Henry E., D.Hy. (M.O.H. Newcastle-on-Tyne). 1. Cholera Precautions in the North of England. 2. (Exhibit) Medical Visiting Coat and Head Cover for Infectious Diseases.
CLARK, F. W., M.D. (Newcastle). The Duties and Difficulties of Port Medical Inspectors.
DAVIES, Sydney, M.D. (M.O.H. Plumstead). The Causes of the Increase of Diphtheria in Urban Districts.
DE'ATH, G. H., L.R.C.P. (M.O.H. Buckingham Rural and Urban Sanitary Districts). The Housing of the Working Classes in Rural Districts.
FOWLER, Trevor, L.R.C.P. (Epping). District Medical Officers as Medical Officers of Health.
HILL, T. E., M.B. (M.O.H. Durham County Council). Specific Throat Affections.
KERR, Norman, M.D. The Shelters and Dissemination of Small-pox.
LAWS, C. U., M.B. Arrangements for Sterilisation of Cholera Dejecta, etc., at the Temporary Cholera Hospital at Newcastle-upon-Tyne.
MALCOLMSON, J. A., M.D. (M.O.H. Middlesbrough). The New Floating Hospital of the Middlesbrough Port Sanitary Authority (with plans).
MASON, J. W., M.B. (M.O.H. Hull). Cholera: Quarantine as a Preventive Measure.
MUNRO, A. C., M.B. (Renfrew County Council). Notification of Measles.
PRINGLE, R., Brigade-Surgeon, M.D. Cholera: Quarantine as a Preventive Measure.
RENTOUL, R. R., M.D. (Liverpool). Proposed Registration and Inspection of Stillborn Children.
RIDGE, J. J., M.D. The Diet of Infants and Young Children.
RING, C. G., L.R.C.P. (M.O.H. Keswick). Prevention of the Spread of Infectious Diseases by Tramps.
WILLOUGHBY, E. F., M.D. The Control of Dairies.

E. PSYCHOLOGY.

Durham College of Science.

President: T. W. MCDOWALL, M.D. *Vice-Presidents:* ALEX. REID URQUHART, M.D.; C. NORMAN, F.R.C.P.I. *Honorary Secretaries:* J. T. CALLCOTT, M.D., City Asylum, Gosforth, Newcastle-on-Tyne; ROBERT JONES, M.D., London County Lunatic Asylum, Claybury, Woodford, Essex.

The President (T. W. McDowall) will introduce for discussion the subject of the Effect of the Recent Change in County Government on Asylums and the Insane.

Discussions will be opened on the Alleged Increase of Insanity, by Dr. D. Hack Tuke; on the Detached Asylum Hospital, its Uses and Advantages, by Dr. Clouston; on State Aid for Poor Private Insane Patients, by Dr. Yellowlees.

The following have promised to take an active part in the proceedings of the Section: Sir J. Crichton-Browne, Dr. John Sibbald, Dr. T. Outterson Wood, Dr. Robert Smith, Dr. John Merson, Dr. John A. Wallace, Dr. P. W. MacDonald, Dr. Carlyle Johnstone, Dr. John Macpherson.

The following papers are announced:

CAMPBELL, Harry, M.D. Claustrophobia.
CLOUSTON, Dr. The Mental Symptoms of Myxœdema and the Effects of Treatment by Thyroid Glands.
IRELAND, Thomas, L.R.C.P., etc. (Public Asylum, Berbice). Insanity from the Abuse of Indian Hemp.
KEAY, John, M.D. On the Use of Hypnotics and Sedatives.
MIDDLEMISS, Dr. Adolescent General Paralysis; its Pathology and Symptoms.
NORMAN, Conolly, M.D. The Criminal Law Amendment, 1885, in Relation to the Protection of Female Patients.
RAYNER, H., M.D. Notes from the Out-patient Department for Mental Diseases at St. Thomas's Hospital.
ROBERTSON, Dr. On Massage of the Brain, a New Principle in Cerebral Therapeutics.
WHITWELL, Dr. Exhibition of a Series of Incised Slates for use in the Post-mortem Room.
URQUHART, Dr. 1. Current Opinion on Psychological Questions in Germany. 2. Notes of a Conversation with Professor Meyer, of Göttingen.

F. ANATOMY AND PHYSIOLOGY.

Physiological Laboratory—College of Medicine.

President: THOMAS OLIVER, M.D. *Vice-Presidents:* R. W. REID, M.D.; W. D. HALLIBURTON, M.D. *Honorary Secretaries:* R. HOWDEN, M.B., University of Durham College of Medicine, Newcastle-on-Tyne; A. THOMSON, M.B., Museum, Oxford.

The following discussions have been arranged for:

1. Wednesday.—On the Delimitation of the Abdomen, to be opened by William Anderson, F.R.C.S.

2. Friday.—On the Sensori-motor Functions of the Cortex Cerebri, to be opened by F. W. Mott, M.D.

The following papers are announced:

BOYCE, Rubert, M.D. 1. Ablation of Cerebral Hemispheres in Mammals. 2. On the Action of Absinthe on the Nervous System.
BRODIE, T. Gordon. A New Method of Studying the Elasticity of Muscle or any Tissue.
BROOKS, H. St. John, M.D. On the Morphology of the Peroneal Group of Muscles in the Monotremata.
BROWN, Macdonald, M.D., F.R.C.S. 1. The Attachments of the Ascending Colon. 2. Variations in the Position and Development of the Kidney.
BRUCE, Alexander, M.A., M.D., F.R.C.P.E. Demonstration of a Case of Descending Degenerations of the Fillet.
CLELAND, John, M.D., F.R.S. The Relations of Incisors to Compound Teeth.
FAYRER, Sir J., F.R.S. Cardiac and Pulmonary Thrombosis.
GIAMPIETRO, Professor Dott. Eduardo (University of Naples). Classification of the Auditory Centres in Relation to Articulate Language.
GIBSON, G. A., M.D., F.R.C.P.E., and GILLESPIE, A. Lockhart, M.D. On some Points in Relation to the Development of the Heart.
HALLIBURTON, W. D., M.D. Intravascular Coagulation.
HORSLEY, Victor A. H., M.B., F.R.C.S., F.R.S., and BEEVOR, C. E., M.D., F.R.C.P. On the Movements of the Tongue and their Representations in the Cortex.
HORSLEY, Victor A. H., M.B., F.R.C.S., F.R.S., and KRAMER, Dr. The Effect of Gunshot Injuries of the Brain.
KANTHACK, A. A., B.A., B.Sc., F.R.C.S. The Relation of the Epiglottis to the Velum Palati in Various Animals.
KENT, A. F. Stanley. Further Researches on the Structure and Functions of the Mammalian Heart.
MOTT, F. W., M.D. The Sensori-motor Functions of the Rolandic Area of the Cortex Cerebri.

Oliver, Thomas, M.D., F.R.C.P., and Garrett, Mr. F. C. Analysis of the Gases of the Blood in Chloroform, Ether, and Bichloride of Methylene Anæsthesia.
Paterson, A. M., M.D. The Distribution of the Nerves to the Lower Limb.
Paton, Diarmid Noël, M.D. Influence of Fever on Hepatic Glycogen.
Sherrington, C. S., M.B., L.R.C.P. Experimental Note on the Knee-jerk.
Starling, Ernest H., M.D. Absorption from and Secretion into the Serous Cavities.
Symington, Johnson, M.D. Observations on the Development of the Human Brain.
Thompson, W. H., M.D. 1. The Absorption of Fat from the Intestine. 2. The Nature of the Work of the Kidney as shown by the Effects of Atropine and Morphine on the Secretion of Urine.
Russell, J. S. Risien, M.B. The Effects of Lesions of the Cerebellum.
Webster, J. C., M.D. Embryological Studies in Tubal Gestation.
Wilson, ——. Anæsthesia Due to Disease of the Cerebral Cortex.

A special Anatomical and Physiological Museum will be arranged in the room adjoining the Section.

G. Pathology.

Physical Theatre—Durham College of Science.

President: C. S. Roy, M.D., F.R.S. *Vice-Presidents:* T. C. Squance, M.D.; J. L. Steven, M.D. *Honorary Secretaries:* F. W. Mott, M.D., 84, Wimpole Street, W.; George R. Murray, M.B., 2, Saville Place, Newcastle-on-Tyne.

Wednesday, August 2nd. Introductory Address by the President. Communications and demonstrations on the Pathology and Pathological Anatomy of the Circulatory and Glandular Systems.

Thursday, August 3rd. Communications and demonstrations on other branches of Pathology and Pathological Anatomy.

Friday, August 4th. Bacteriological papers and demonstrations.

The Section will be held in the Physical Lecture Theatre of the Durham College of Science, Newcastle-on-Tyne. This room is fitted with a powerful electric lantern, and provision will be made for lantern demonstrations, the projection of spectra, chemical experiments, and microscopical exhibitions. Arrangements may also be made for informal demonstrations of experiments or specimens in the Museum of the Section in the afternoons. It is hoped that as many papers as possible will be accompanied by specimens, illustrations, lantern slides, or demonstrations.

There will be an exhibition of specimens, recent and preserved, bacteriological cultures, models, diagrams, and instruments for pathological research in the Museum attached to the Section.

The following papers are announced:

Adami, Professor. (Title not received.)
Andriezen, W., M.B. On the Form and Significance of the Hypophysis Cerebri in the Evolutionary History of the Brain.
Bokenham, T. J., L.R.C.P., and Fenwick, Soltau, M.D. The Pathological Action of some Substances obtained from the Spleen of Patients dead of Scarlatina.
Cattle, Chas., M.D. Observations on the Cell Enclosures met with in Cancer.
Clarke, J. Jackson, M.B. Psorosperms.
Coats, Professor J., M.D., and Auld, A. G., M.D. A Preliminary Communication on the Pathology of Aneurysms and its Relations to Atheroma.
Cooper, P. R., M.B. A Few Facts Concerning Gregarinosis or Psorospermosis.
Copeman, Monckton, M.D. Experiments on Vaccinia and Variola.
Delépine, Professor S. Some Results on the Value of Experimental Tuberculosis in Diagnosis.
Galloway, J., M.D. Psorosperms.
Gibson, G. A., M.D., and Muir, Robert, M.D. Condition of Nerve Centres and Thyroid Gland in Graves's Disease.
Griffiths, J., F.R.C.S. Retained Testis in Man and some of the Lower Animals.
Haig, A., M.D. The Causation of Anæmia and the Blood Changes produced by Uric Acid.
Harley, Vaughan, M.D. Experimental Diabetic Coma.
Horsley, Professor V., F.R.S. On Transplantation of the Thyroid.
Kanthack, A. A., M.D. Immunity.
Kelynack, T. N., M.D. 1. Appendicitis. 2. Heart Failure in Alcoholism.
Kent, Stanley. 1. On the Supposed Occurrence of Psorosperms in a Tapeworm. 2. On the Structure and Function of the Mammalian Heart. 3. Effects of Thyroidectomy.
Kramer, Dr., and Boyce, R. Upon the Action of the Serum of Vaccinated Calves.
Lang, Dr. On the Nature of the Muscular Movements in Cachexia Thyreopriva in Dogs.
Levy, Dr. On the Elasticity of the Brain Substance.
Mackenzie, Hector, M.D. Thyroid Secretion.
Mackenzie, J., M.D. Thyroid Secretion.
Murray, George, M.D. Thyroid Secretion.
Parsons, J. Herbert, M.B. Effects of Thyroidectomy on Metabolism.
Power, D'Arcy, M.B. Some Effects of Chronic Irritation upon Living Tissues, or First Steps in a Rational Study of Cancer.
Roy, Professor C. S., F.R.S., and Cobbett, L., M.B. Pathology of Collapse.
*Russell, Risien, M.D. The Effects of Lesions of the Cerebellum.
Ruffer, A., M.D., and Plimmer, Dr. On Relation of Protozoa to Disease.
*Sherrington, C. S., F.R.S. Experimental Note on the Knee-jerk.
Smith, J. Lorrain, M.B. The Function of the Thyroid.
Snow, Herbert, M.D. The so-called Parasitic Protozoa of Mammary Carcinoma.
Steven, J. Lindsay, M.D. The Pathology of Fibroid Degeneration of the Heart.
Stewart, Professor Grainger, and Gibson, G. A., M.D. Atrophy of Heart Muscle in consequence of Obstruction of the Coronary Artery.
Thomson, John, M.D. The Treatment of Three Cases of Sporadic Cretinism by Thyroid Extract.
Wesbrook, Dr. Immunity against Cholera.

Preference will be given to communications accompanied by demonstrations, but as far as possible the above communications will be taken in the order which is found most convenient.

H. Ophthalmology.

Materia Medica Room—College of Medicine.

President: G. E. Williamson, F.R.C.S. *Vice-Presidents:* John Walton Browne, M.D.; G. Hartridge, F.R.C.S. *Honorary Secretaries:* A. N. Godby Gibbs, L.R.C.P., 27, Chandos Road, Redland, Bristol: A. S. Percival, M.B., 16, Ellison Place, Newcastle-on-Tyne.

The President, Mr. Williamson, will give a short opening address.

Dr. Buzzard will open a discussion on Optic Atrophy as a Symptom of Chronic Disease of the Central Nervous System. Dr. Berry will follow.

The following papers are announced:

Anderson, Tempest, M.D. Railway Servants' Eyesight.
Berry, George, M.D. 1. On the Innervation of the Ocular Muscles. 2. On Glaucoma and Iridectomy for Glaucoma.
Campbell, E. Kenneth, M.B., F.R.C.S. The Relation between Asthenopia and the General Health.
Chassaud, Dr. ——. Intraocular Therapeutics communicated by Dr. Noël Paton.
Drake-Brockman, Brigade-Surgeon-Lieutenant-Colonel. Case of Double Proptosis.
Hern, John, M.D. The Effect of Correcting Errors of Refraction in some Epileptics.
Knaggs, R. Lawford, M.D. Reflex Amblyopia during Pregnancy.
Mackay, George, M.D. The Optical Treatment of Conical Cornea.
Oliver, Charles, M.D. (Philadelphia, U.S.A.). Clinical History of a cas of a Successful Extraction of a Piece of Steel from an Iris.
Snell, Simeon, F.R.C.S. Cataract Extraction without Iridectomy—Further Record of Cases.
Stephenson, Sydney, M.B., F.R.C.S. Congenital Ectropion of the Uvea and will show the latest model of Expression Forceps for Trachoma.
Sym, William G., M.D. Simple Glaucoma in Young Persons.
Williamson, G. E., F.R.C.S. Sections and Drawings from a case of Primary Spindle-cell Sarcoma of the Iris.

Papers have also been promised by Drs. Bickerton, Cross, and Johnston Taylor.

Abstracts of papers should be sent without delay to the Local Secretary of this Section.

I. Diseases of Children.

Durham College of Science.

President: T. Barlow, M.D. *Vice-Presidents:* Noble Smith, F.R.C.S.Ed.; W. C. Beatley, M.D. *Honorary Secretaries:* W. E. A. Cummins, M.D., 17, St. Patrick's Place, Cork; W. G. Black, F.R.C.S.Edin., 24, Ellison Place, Newcastle-on-Tyne.

At the forthcoming meeting some portion of each of the three days on which the Section meets will be devoted to the discussion of the following subjects:

Abdominal Tuberculosis in Childhood and its Treatment. To be opened by Dr. Fred. Taylor and Mr. Howard Marsh: Mr. A. E. Barker, Dr. Sims Woodhead, and Mr. Lawford Knaggs intend to take part.

The Treatment of the Enlarged Cervical Glands, opened by Dr. Clifford Allbutt and Mr. Pridgin Teale.

Heart Disease in Childhood and its Treatment, to be opened by Dr. H. Ashby and Dr. F. C. Coley; Dr. J. W. Byers and Dr. E. R. Townsend intend to take part.

The following papers are announced:

Lane, Arbuthnot. The Treatment of Talipes.
Smith, Noble. The Treatment of Spinal Caries.
Thomas, William, M.B., F.R.C.S. Some Points in the Operative Treatment of Severe Harelip.
Vickery, W. H. Case of Mastoid Disease with Ligature of Internal Jugular (with patient).

J. Otology.

Durham College of Science.

President: H. Bendelack Hewetson, F.L.S., M.R.C.S. *Vice-Presidents:* R. Ellis, F.R.C.S.Edin.; A. Bronner, M.D. *Hono-*

rary Secretaries: J. MACKENZIE BOOTH, M.D., 367, Union Street, Aberdeen; S. MACAULAY, L.R.C.P., 49, Jesmond Road, Newcastle-on-Tyne.

The President, Mr. Bendelack Hewetson, will give an opening address.

A discussion will take place upon the Surgical Treatment of Mastoid Disease and its Complications. The following have signified their intention of taking part in this discussion: Professor William Macewen, M.D., Glasgow; Victor Horsley, F.R.S., London; W. Milligan, M.D.; A. Ogston, M.D., Aberdeen; Charles Warden, M.D.; Dr. Nunneley, Leeds; Thomas Barr, M.D., Glasgow; and Dr. H. E. Jones, Liverpool.

A discussion on Pathogenic Organisms of the Naso-pharynx and Ear will be opened by Dr. Macintyre, Glasgow. The Otological Museum will be placed in a room adjoining the Section.

The following papers are announced:

BOOTH, J. Mackenzie, M.D. 1. Case of Intracranial Affection following Catarrhal and Preceding Purulent Tympanitis and Mastoid Abscess. 2. Notes on Practical Teaching of Otology.
BRONNER, A., M.D. Notes on Sixty Cases of Mastoid Disease in which the Antrum was Opened.
BROWNE, J. Walton. A case of Foreign Body lodged in the External Auditory Meatus.
ELLIS, Richard, F.R.C.S.Ed. Results of an Examination of 2,000 School-children in Newcastle-on-Tyne and District as to their Hearing, etc.
GIAMPIETRO, Professor (Naples). The Dangers and Limitations of Politzer's Method.
LANE, W. A., M.B. The Symptoms and Treatment of Septic Infection of the Lateral Sinus as illustrated by Ten Cases.
LODGE, Samuel, junr., M.D. On a Case of Pharyngomycosis.
MACAULAY, S. L.R.C.P.Edin. Some Observations on an Examination of 100 Deaf Mutes.
METCALFE, G., M.B., B.S. On the Use of Pilocarpin in Aural Affections.
MILLIGAN, W., M.D. 1. The Treatment of Chronic Suppuration of Middle Ear Disease by Excision of the Auditory Ossicles. 2. On a New Intra-tympanic Syringe.
ROBERTSON, Wm., M.D. 1. A Series of Cases of Antrectomy by Recent Methods of Operating. 2. A Series of Cases of Deafness arising from Intra-nasal Conditions; for example, Rhinoscleroma, Intra-nasal Diaphragms, Purulent Ethmoiditis, Diseases of the Antrum of Highmore, etc. 3. Cases demonstrating Eustachian Synechiæ.
WALKER, H. S. (Leeds). (Title not received.)

K. DERMATOLOGY.

Durham College of Science.

President: W. ALLAN JAMIESON, M.D. *Vice-Presidents*: GEORGE THIN, M.D.; T. COLCOTT FOX, M.B. *Honorary Secretaries*: PHINEAS S. ABRAHAM, M.D., 2, Henrietta Street, Cavendish Square, W.; V. H. RUTHERFORD, M.B., 12, Eldon Square, Newcastle-on-Tyne.

A discussion will take place on Ringworm, to be opened by Dr. Colcott Fox, in which the following gentlemen will take part: Dr. H. Alder-Smith, Dr. Leslie Roberts, Dr. George Carpenter, and Dr. Alfred Eddowes.

A discussion will take place on Psoriasis, to be opened by Dr. Radcliffe Crocker, in which the following gentlemen will take part: Mr. Dale James, Dr. Mapother, Dr. Stewart Stirling, and Dr. P. S. Abraham.

A discussion will take place on Lupus, to be opened by Mr. Jonathan Hutchinson, in which the following gentlemen will take part: Dr. P. G. Unna, Dr. Norman Walker, Dr. H. Handford and Dr. G. G. Stopford Taylor.

The following papers are announced:

BIDWELL, L., F.R.C.S. On the Surgical Treatment of Lupus.
ECCLES, A. Symonds, M.B. Massage in Certain Diseases of the Skin.
EDDOWES, Alfred, M.D. Note on Tuberculous Eczema.
FOX, Dr. Colcott, and CARPENTER, Dr. George. On Syphilitic and Tuberculous Cutaneous Gummata.
JAMIESON, W. Allan, M.D. 1. Notes on the Treatment of Ringworm of the Head. 2. Therapeutic Note on Einol. 3. Note on a Form of Fuller's Earth for Diseases of the Skin.
SABONVAUD, Dr. —, Paris. A Typical Series of Cultivations of the Various Fungi of Ringworm. (These will be exhibited, on behalf of Dr. Sabonvaud, by Dr. P. S. Abraham.)
SMITH, W. Ramsay, M.B. On a Definite Form of Skin Disease Allied to Erythema and Urticaria.
STIRLING, Stewart, M.D. Clinical Note with Drawings of a Case of Seborrhœa Psoriasiformis.
WALKER, Norman P., M.D. On Rodent Ulcer.
WALSH, D., M.B.Edin. On Metastasis as a Factor in Certain Skin Inflammations.

Water-colour drawings, casts, and microscopic specimens will be shown by Dr. Stopford Taylor, Dr. Norman Walker, Dr. Colcott Fox, Dr. Leslie Roberts, Dr. Geo. Carpenter, and Dr. P. S. Abraham.

Mr. Jonathan Hutchinson, Dr. Radcliffe Crocker, Dr. Allan Jamieson, and Dr. Colcott Fox, will exhibit drawings, etc., of Diseases of the Skin.

Dr. Norman Walker will give a lantern demonstration on Rodent Ulcer in connection with the Section one afternoon.

Dr. P. S. Abraham will exhibit some new Dermatological Instruments.

Honorary Local Secretary: G. E. WILLIAMSON, F.R.C.S., 22, Eldon Square, Newcastle-on-Tyne.
Honorary Treasurer: W. C. BEATLEY, M.D., 10, Jesmond Road, Newcastle-on-Tyne.

PROGRAMME OF PROCEEDINGS.

TUESDAY, AUGUST 1ST, 1893.

9.30 A.M.—Meeting of 1892-93 Council.
11 A.M.—First General Meeting. Report of Council. Reports of Committees; and other business.
P.M.—Sermon by the Bishop of Durham.
8.30 P.M.—Adjourned General Meeting from 11.30 A.M. President's Address.

WEDNESDAY, AUGUST 2ND, 1893.

9.30 A.M.—Meeting of 1893-94 Council.
10 A.M. to 2 P.M.—Sectional Meetings.
3 P.M.—Second General Meeting. Address in Medicine.
4 P.M.—Garden Party by the Sheriff of Newcastle at Highfield House, S. Gosforth.
8.30 P.M.—*Conversazione* by the Mayor and Corporation in the Natural History Museum.

THURSDAY, AUGUST 3RD, 1893.

9.30 A.M.—Meeting of Council.
10 A.M. to 2 P.M.—Sectional Meetings.
3 P.M.—Third General Meeting. Address in Surgery.
4.30 P.M.—Reception by the Schools and Charities Committee of the Newcastle-on-Tyne Corporation, at the Home for Incurables on the occasion of its inauguration.
7 P.M.—Public Dinner of the Association in the Banqueting Hall, Jesmond Dene.

FRIDAY, AUGUST 4TH, 1893.

9.30 to 11 A.M.—Sectional Meetings.
11 A.M.—Concluding General Meeting. Address in Obstetrics and Gynæcology.
3 P.M.—Convocation at Durham for Conferring Honorary Degrees.
4 P.M.—Garden Party and Reception by the Warden and Senate of the University.
8.30 P.M.—*Conversazione* in the Art Gallery.

SATURDAY, AUGUST 5TH, 1893.

Excursions.
Ambulance Review in the Gosforth Park.

RECEPTION ROOM.

Part of the first floor of the College of Medicine will be fitted up as a reception room, and will be opened at 4 o'clock in the afternoon on Monday, July 31st, and on Tuesday, August 1st, and the following days at 9 o'clock, for the issue of tickets to members and for supplying all necessary information. It is particularly requested that members on their arrival will at once proceed to the reception room, enter their names and addresses, and obtain their tickets and Daily Journals containing programme, inquire for letters and telegrams, consult the list of lodgings, hotels, etc.

SHORT EXCURSIONS.

A garden party will take place at Durham after the Convocation on Friday.

An excursion to Saltburn, a seaside watering place, devoted almost exclusively to the reception of visitors, will take place on Friday. There will be a lunch, and a dinner in the evening, followed by a display of fireworks.

LONGER EXCURSIONS.

Wynyard Park.—On Saturday there will be an excursion to Wynyard Park, the seat of Lord Londonderry, who has kindly promised to be present on the occasion with Lady Londonderry, to receive the members.

Warkworth and Alnwick.—After visiting Warkworth the party will drive to Alnwick Castle, where they will be entertained by the Duke of Northumberland. The castle is a fine, stern-looking old fortress, where the beauty and comfort of the interior contrast well with the strong and somewhat grim walls. Its gates open on the one side into the streets of

Alnwick, and on the other into the gardens and park, which are among the most extensive in the country.

Rothbury and Cragside.—Lord Armstrong, who is an honorary member of the Association, will receive a party at Cragside, Rothbury, in the beautiful valley of the Coquet. The grounds and the house are justly and widely celebrated for their beauty. The landscape gardening, which has taken advantage of every peculiarity of a rocky mountain site, is unique of its kind. After lunching at Cragside the visitors will drive to Morpeth, a quaint old county town, where they will be entertained at tea by the medical men residing there.

The Chesters.—Mr. N. G. Clayton, whose residence is at Chollerford, will receive a party to visit the Roman wall and the excavations of a large Roman camp which have been made in his grounds. After lunching at Chollerford the party will proceed to Swinburne Castle, where they will be entertained by Dr. William Murray.

PLACES OF INTEREST IN THE NEIGHBOURHOOD.

Tynemouth.—Tynemouth is a large watering-place at the mouth of the river Tyne, with plenty of accommodation for visitors, and with good railway and steamboat communication. It has fine broad sands, stands well at the mouth of the river, and is celebrated for the beautiful ruins of its ancient priory. Sea bathing here is excellent, together with boating and sea fishing. There are several smaller and quieter watering-places north of Tynemouth—namely: Cullercoats, Whitley, Newbiggen, Warkworth, Bamborough, and Alnmouth. South Shields, and Roker, near Sunderland, are also pleasant seaside places to stay at. Near South Shields are the celebrated and picturesque Marsden Rocks and Caves.

Hexham and Corbridge.—There are beautiful places west of Newcastle, but it will scarcely be convenient to go further than Corbridge or Hexham during the meeting. Hexham is a picturesque old town, chiefly interesting on account of its fine old abbey church. The Roman wall can be conveniently visited from Hexham or Chollerford.

Durham.—This city is situated on the main line south of Newcastle, and the quick trains run there in about twenty minutes. It is a quaint old town, its chief beauties being the Cathedral (a magnificent Norman church) and the Castle, both picturesquely situated on two of seven hills on which Durham is built. The river winds round the base in a sharp curve between well-wooded banks. Finchale Abbey is a fine ruin on the river Wear, three miles from Durham.

Morpeth.—This is a pretty, quiet country town, half an hour's railway journey north of Newcastle, with good lodging accommodation. Near to it is Rothbury, a delightful place with pure and bracing air.

NOTICES OF MOTION.

Dr. MEAD hereby gives notice that he will move:

That as a considerable number of Branches are unprovided with by-laws, and in consequence irregularities arise, especially in the election of officers and other important matters, the Council be empowered forthwith to purchase a set of model by-laws regulating such matters, and such by-laws be taken and deemed to be the by-laws of every division in which special by-laws sanctioned by the Council do not exist.

July 20th, 1893. FRANCIS FOWKE, *General Secretary.*

SPECIAL CORRESPONDENCE.

SYDNEY.

Medical Societies in New South Wales: The New South Wales Branch of the British Medical Association.—The Medical Section of the Royal Society.—Other Medical Societies.—The Paradise of Quacks.—The Medical Bill.—The Transactions of the Intercolonial Medical Congress.

IT is at this time of the year that the various medical societies begin their sessional meetings. The New South Wales Branch of the British Medical Association is the most flourishing and vigorous of the more purely professional societies here. Its membership is large, its financial condition prosperous, and the record of its work for the past year is highly creditable. The condition of its funds enabled the Branch last year to further fulfil the purposes of its foundation by making a special grant of £50 to Dr. C. J. Martin, of the Physiological Laboratory. Dr. Martin is investigating the chemistry and physiological action of snake poison, and his work, part of which he has already made public, promises to be of great value. The Branch is also taking practical steps to form a clinical library for the use of its members, and already £100 has been voted for this desirable object. The retiring President (the Hon. Dr. Creed, M.L.C.) delivered his valedictory address, in which he dealt in an able manner with some of the public and professional questions that have special prominence at present, such as the relation of the medical profession to friendly societies, the overcrowding of the profession in Australia, federal quarantine, the treatment of leprosy by the State, cremation, and other interesting subjects.

The Royal Society of New South Wales carries on much of its work in sections. The Medical Section is another of our popular medical societies. Its President is the Hon. Dr. H. N. Maclaurin, the representative of the Government in the Legislative Council. This Society confines itself as far as possible to the consideration of the more purely scientific subjects connected with medicine and surgery.

As further evidence of our social activity and *esprit de corps*, it may be mentioned that the three large suburban districts have each their medical association with stated meetings for intellectual and social purposes. The latest addition to our medical societies is one which aims at dealing with medical ethics, the regulation of medical fees for sick clubs, etc. It has also taken under its management a defence fund for the benefit of those members who may be subjected to any of those forms of litigation to which medical men in all parts of the world are exposed. A medical society exists in the northern part of the Colony, with Newcastle for its centre, and the students attending the Medical School of Sydney have a similar organisation, which holds its meetings in one of the metropolitan hospitals.

Notwithstanding the existence of all these medical societies, Sydney has still every claim to be considered "the Paradise of Quacks." All forms of unblushing imposition are tolerated, from the Arabian doctor with his "eyes and piles" as specialities to the "extra specialist" who undertakes to remove all sorts of obstructions in two and a-half minutes. There is, however, the dawn of a better state of affairs. Public opinion has been quietly but surely growing in favour of a proper condition of things medical, and it dates mainly from the time when a Royal Commission was appointed to inquire into the nature and extent of this irregular practice throughout the Colony. The report of that Commission is a unique piece of work. It will constitute a valuable addition to any medical library, and its interest will be lasting. For the work done at that special inquiry the medical profession will ever remain indebted to the Hon. Dr. Creed, the gifted editor of the *Australasian Medical Gazette*. He was the skilful pilot that steered the course.

A Medical Bill is on its way through Parliament; it has already gone successfully through the Upper House, and in the Lower House it has safely reached the end of its second reading. There it now rests, waiting until the pressure of Government business shall be a little eased off. This will not now be for some months, as Parliament is about to be prorogued. It is earnestly hoped that no unforeseen circumstance will arise to delay the passing of this important measure. We cannot dare to congratulate ourselves until the Bill has actually become law, because Colonial Legislators, like the "Heathen Chinee," have peculiar ways, and a dissolution of Parliament would mean that the whole thing would have to be done over again.[1]

We are waiting more or less patiently for the publication of the *Transactions* of the Intercolonial Medical Congress, which held its meetings in Sydney last September. The Government generously undertook the work free of cost. It has been hard pressed lately owing to the serious monetary crisis, and the Government printer has had his hands full in consequence, but the work is all in the printer's hands, and may be expected shortly.

June 9th, 1893.

[1] An abstract of the provisions of this Bill is published at page 211.

CORRESPONDENCE.

THE LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY, LIMITED.

Sir,—In reply to the gratuitous criticism on the accounts of the Society offered by your correspondent, who signs himself "Hugh Limebeer, Chartered Accountant," in the British Medical Journal of July 15th, we may point out, for the information of subscribers and of the medical profession generally, that the system of finance hitherto adopted by the Society is briefly as follows: All the accounts, as occasion requires, are submitted to a Finance Committee, and subsequently passed by the Council for payment. At the end of the year the statement of accounts and the balance sheet, drawn up by the Treasurer with the assistance of an actuary of a leading assurance society, are submitted to the auditors and duly verified. Information in greater detail than is given in the financial statement has been and will be gladly afforded to those directly concerned.

As is well known to the subscribers, the accounts of the Society are open to the inspection of any of its members, if they formally express a wish to that effect. We do not, therefore, feel justified in trespassing upon your space to such an extent as would be necessary to reply in detail to the various insinuations of your correspondent. We need scarcely add that in our opinion ample proof was afforded of the balance in favour of the Society of £15 6s. 11d. Moreover, we desire to take this opportunity of directing attention to the existence of an asset which does not appear in the balance-sheet. As all members of the Society are aware, the Council have at their disposal the guarantee fund, which can be called up in certain definite instalments, and under conditions laid down in the articles of association. This so-called guarantee fund is held in reserve to meet extraordinary law expenses; it represents uncalled capital to the extent of £687, and is recoverable at law from the members, each of whom is a shareholder in the Society to the extent of £1. It is unnecessary for us to enter upon the protection benefits for which the Society was formed, as they are fully dealt with in the report which was presented at the annual meeting, and will shortly be issued to all members of the Society.

In conclusion, we beg to add that any suggestion such as that contained in your correspondent's letter, if coming from one of the members of the Society, would doubtless receive due attention at the hands of the Council; in fact, we understand that the subject has already been under discussion. But, in spite of your correspondent's expression of opinion, and in view of the disclosures which have recently taken place in the courts, the Society may possibly consider that greater confidence would not be secured by engaging the services of a professional auditor. It may seem preferable to leave the control of its finances entirely in the hands of those who, as members of the Society, have a direct interest in the proper administration of its funds.—We are, etc.,

Robert Boxall,
Alex. G. R. Foulerton,
July 17th. Honorary Auditors to the Society.

Sir,—The balance sheet was prepared by a gentleman having a high official position as an accountant, and carefully gone over by the elected auditors, and finally exhaustively discussed item by item by the Council. Of the organisation accounts £124 17s. 4d., of which £80 has been repaid me, I may state that £50 was paid by me for furniture for the London offices, the other £30 included payments for postages, for circulars and letters, railway, cab, and omnibus fares, and registration fees at Somerset House. Of the sum remaining due a considerable amount is for postage stamps, petty office expenses, travelling expenses in organising the numerous London and provincial divisions, in all cases directly authorised by the Council. Two-thirds of the personal expenses have been paid by myself. The usual 10 per cent. was deducted in the valuation of the furniture, and assets certain to prove valuable were not included in the account. The printed matter in hand included many thousand stamped and directed packets of our publications ready for the post, though not actually posted but charged for. Every case in which a member has applied for help has been efficiently dealt with, and, as the annual report shows, other important work done or in progress.

Though seldom or never the case in new companies, so economical has been our working, that all preliminary expenses have been paid out of the first year's revenue. The company started on May 1st last for its second year's work free of debt, and with a substantial balance in hand, besides a guarantee fund of over £2,000. Every penny now paid by our members is available for the protection of the subscribers and the current expenses. After the Liberator exposures the value of "professional" services unchecked may be estimated. I can, from personal knowledge, and having been accustomed for many years to the examination of accounts extending over thousands of pounds, pledge myself to the accuracy of these accounts and the solvency of the Society, and am prepared at once if any deficiency is proved to hand over such a cheque as will cover it.

Dr. Heron, Dr. Hugh Woods, and myself have made great personal sacrifices to secure solvency, economy, and efficiency. The first year has been one of great anxiety to us, but with the kind help of our President (Mr. Hutchinson, Drs. Cleveland, Cooper Rose, Hooper May, Brodie Sewell, Henty, Alderson, Radcliffe Crocker, Andrew Clark, Bruce Clarke, and others, we have succeeded beyond our most sanguine expectations. No farther extraneous aid is necessary to inspire more confidence in the Society than exists.—I am, etc.,

Mentmore, Newmarket, July 15th. George B. Mead, L.R.C.P.

EXTENSION OF SANITARY POWERS TO COUNTY COUNCILS.

Sir,—I have read with much interest the first portion of Mr. Ernest Hart's article entitled "Extension of Sanitary Powers to County Councils," which appeared in the British Medical Journal of July 15th, and it will undoubtedly be extremely valuable to all interested in county sanitary administration. In dealing with "notification," however, you make a slight error with regard to this county when you state that quarterly summary returns of cases of infectious disease are issued by me as county medical officer of health. The returns ever since my appointment have been issued monthly, and every district medical officer of health in the county sends me a monthly return regularly and voluntarily. The medical officers of health of the county boroughs in the county also give me the same information; and therefore, as in the West Riding, the Durham monthly summary is almost invariably complete.

It may be interesting to you to know that, during the past twelve months, and chiefly through the action of the County Health Committee, the Infectious Diseases Notification Act has been adopted in thirteen sanitary districts in this county, having a total population exceeding 160,000; and at the present time the Act, with the exception of the county borough of Gateshead and four urban and 3 rural districts, has been adopted throughout the county. With the sanction of the Health Committee, I have also arranged with the district registrars of births and deaths, so that I now receive monthly returns of births and deaths from every portion of the administrative county, as well as immediate information of all deaths from infectious diseases. I find already such information very useful, and it will undoubtedly become more valuable each year.

Owing to counsel's opinion being adverse to such action under the existing Rivers Pollution Acts, the County Council has not yet taken any decided steps to prevent the pollution of rivers and watercourses in this county; but, on the other hand, energetic action has been taken to improve the houses of the working population, especially in rural districts, and in a number of instances the powers granted to the County Council under Section 45 of the Housing of the Working Classes Act, 1890, have been put into force. I have pleasure in enclosing you a copy of one of the monthly summaries issued by me.—I am, etc.,

Durham, July 19th. T. Eustace Hill.

A CASE OF TYPHOID FEVER FOLLOWED BY PERFORATION AND RECOVERY.

Sir,—Under the above heading a very interesting case is recorded in the British Medical Journal of July 8th by

Dr. Anthony McCall. It may seem somewhat ungracious to adversely criticise what has undoubtedly been a very successful case, but as perforation of the intestine through a typhoid ulcer into the peritoneal cavity—which is supposed to have happened in this case—has hitherto been looked upon as a very fatal lesion, it is desirable that successful cases should be clearly established on a correct diagnosis. There are, no doubt, a few genuine cases of perforation under such circumstances which have recovered without and with operation. A very successful case of laparotomy for typhoid perforation was recorded in 1891 by Dr. Weller van Hook of Chicago.

In the present case Dr. McCall and I have probably very different ideas as to what constitutes typhoid perforation. I look upon the lesion as a communication between the bowel and the peritoneal cavity through a typhoid ulcer. The perforation usually takes place at the lower end of the ileum. The whole history and localisation of the complication in Dr. McCall's case undoubtedly point to appendicitis with possible perforation, but in this case the perforation would be retro-peritoneal, the appendix being probably situated behind the cæcum.

I recently had a case of typhoid fever with a large abscess behind the ascending colon, where there was no reason to suspect any perforation. The abscess was laid open and the patient made a good recovery. Of one thing I feel certain, that there could not have been "comparative good health and appetite existing even with more than a pint of pus in the abdominal cavity," if by "abdominal" he means peritoneal cavity, and these two terms are so frequently used synonymously as to demand that when the extra-peritoneal cavity is meant it should be thus clearly stated. In short, I look upon this complication as one of appendicitis, which no doubt occurred more readily because the patient happened to be suffering from typhoid fever, or it may have been a true complication of the fever independently of any food of which the patient partook. We all know that the vast majority of cases of appendicitis get well, and therefore I can see no reason for reckoning this case as a spontaneous cure of typhoid perforation.—I am, etc.,

Liverpool, July 8th. JAMES BARR.

THE PREVENTION OF PROLAPSE AFTER INGUINAL COLOTOMY.

SIR,—I quite agree with Mr. Barker as to the importance of a small opening with separation, not division, of the muscular fibres, and the great value of Mr. Greig-Smith's suggestion for the prevention of prolapse, and, like him, have met with perfect success in most of my later operations; but there are still a few patients for whom these precautions are not sufficient, and in whom a tendency to this distressing complication does manifest itself sooner or later; and I venture to think this will always be the case in a certain proportion so long as the last part of the intestine is made to pass straight through the wall of the abdomen, almost in a line with the descending colon. There may be no inconvenience so long as the bowels act only once or twice a day; but if there is an attack of diarrhœa and the tone of the abdominal muscles is weakened, the persistent straight down-driving of the intestine is almost sure to produce it, just as summer diarrhœa so frequently produces prolapse of the rectum in children. The obliquity of the valvular opening and the increased distance occupied by the bowel in the abdominal wall, giving room for firmer union, are additional safeguards which I have tried where the mesentery was long, and found effectual.—I am, etc.,

Wimpole Street, W., July 15th. C. MANSELL MOULLIN.

MEDICO-LEGAL AND MEDICO-ETHICAL.

MEDICAL DEFENCE UNION, LIMITED.

A COUNCIL meeting was held at the rooms of the British Medical Association, London, on July 12th, Mr. Victor Horsley in the chair. Eighteen new members were accepted. It was resolved to report one practitioner for covering. In another instance of a similar character the Secretary reported that the offender had promised immediate amendment. A letter was received from the Secretary of the London and Counties Medical Protection Society, Limited, enclosing a resolution passed by the Council of that Society, "That this Council is of opinion that it is desirable that this Society and the Medical Defence Union should amalgamate to form one Society," and requesting an appointment for a committee to meet the Medical Defence Union. It was resolved, "That this letter be received and entered upon the minutes, and that Dr. Hugh Woods be informed that the Council of the Medical Defence Union will be glad to receive the Sub-Committee of the London and Counties Medical Protection Society, Limited, at their next meeting." Dr. Bateman was instructed to write to the President of the Board of Trade upon the matter of a limited liability company professing to grant diplomas. A large number of minor applications were received and dealt with.

SMALL-POX AT THE SALVATION ARMY SHELTER.

ON July 13th Mr. Slade resumed at the Southwark Police Court the hearing of the summons taken out by the sanitary authorities of St. George-the-Martyr, Southwark, against the superintendent of the Salvation Army Shelter in Blackfriars road, for knowingly letting the premises for hire after a case of small-pox had occurred there without having the place disinfected to the satisfaction of a legally qualified practitioner. On the case being called the defendant did not appear, and Mr. Munroe, defendant's counsel, told the magistrate that his absence was due to the fact that he was suffering from small-pox, and was in the hospital. Mr. Slade gave judgment against the defendant, and said that, in his opinion, the opening of the shelter for a penny per night was a letting for hire within the meaning of the Act. He also held that the system of disinfection employed for purposes of ordinary cleanliness was insufficient in case of an outbreak of small-pox or other epidemic disease. The defendant was liable to a penalty of £20, but he thought the justice of the case would be met by a fine of £5 for each of the two days that he was in default.

A LINCOLNSHIRE SLANDER CASE.

AT Lincoln Assizes, on July 13th, before Mr. Justice Vaughan Williams, an action was brought by Richard Brocklesby, physician and surgeon, Grimsby, to recover damages for slander from George Lowe Alward, town councillor, Grimsby. Mr. Harris, Q.C., and Mr. W. Graham appeared for the plaintiff; and Mr. Buszard, Q.C., and Mr. L. White represented the defendant. Plaintiff held the office of surgeon to the Grimsby Police Force, and in 1891 attended Police-constable T. Bolton, who was suffering from inflammation of the feet. Some feeling arose in the Watch Committee in regard to Bolton's case, and the defendant was alleged to have said "he would have been in the force now but for the neglect of Dr. Brocklesby, and I will say further, if Dr. Brocklesby will have it, that serious injury has been done to Bolton by the inattention of Dr. Brocklesby, and by his want of ability." Bolton was reappointed officer, and on June 12th he was picked up in the streets in an almost dying condition, his heart and lungs having failed. For the defence it was contended that defendant made the statement as a public servant, and not maliciously. The judge, in summing up, remarked that it had been suggested in the cross-examination that the words as reported in the press were much toned down. His experience of reporters was that they exercised an excellent discretion in reporting. There were many rash words spoken, and good reporters were too discreet to report them, and it was very much to their credit. The jury gave a verdict for the plaintiff, £50 damages. His lordship gave judgment accordingly.

THE PLEA OF PRIVILEGE.

IN a recent divorce case Sir Francis Jeune stated that it must not for a moment be supposed that a clergyman had a right to withhold information from a tribunal of justice. It was right that justice should prevail, and that no idea of privilege should stand in the way of the proper administration of justice. The case which gave occasion to these remarks was simple. A farmer having caught his wife in the act of adultery with a farm labourer, sought a divorce. Immediately after the act the parson had been consulted, and it was arranged that the respondent should go to a penitentiary, but she never went. The parson objected to state what had transpired at the interview, and it was this that called forth the remarks of the judge above quoted. The judge admitted that there were cases in which a clergyman ought not to disclose what had passed, especially where the rights of another person were concerned, but here no such question could arise, and we entirely agree with him that in circumstances such as these no claim of privilege could be allowed. Clergymen in this matter ought to be on precisely the same footing as medical men.

CORONERS AND MEDICAL EVIDENCE.

J.R.N. forwards a cutting from the *Pontypool Free Press*. It details the result of an inquest on a man who died from a fracture of the skull, a severely depressed fracture of the temporal bone. J.R.N. adds: I spent half a day trephining and raising the depressed bone, and was not called by the coroner to give evidence, and, according to the report, the coroner accepted the cause of death from a woman.

*** We think that J. R. N. has good grounds for complaint, but we fear that, until the law is so altered that every coroner is compelled to have sworn medical testimony as to the cause of death before calling upon the jury to return their verdict, such incidents as the above will continue to be of constant occurrence.

THE TITLE OF "DR."

INQUIRENS.—(1) We believe it to be not an infrequent occurrence for a medical practitioner (although not entitled to the degree of M.D.) to prefix the title "Dr." to his name on door-plate or card, simply, we think, as being the popular appellation of the medical man. Speaking, however, in the light of recent decisions, it may be that legal proceedings would lie against such practitioner under Section 40 of the Medical Act, 1858, for so doing; we cannot say with what measure of success. The question is a somewhat vexed one, and has been much discussed in our columns. (2) An L.S.A.(Dublin) could not recover fees for purely surgery cases.

CONSULTANTS' FEES.

ARETE writes: I shall be glad to know the ethics of the following case. I was called at 10 P.M. by the *locum tenens* of a neighbouring practitioner, with whom I have no relations, to consult with him in a case some distance away. When the consultation was over the "*locum*" mentioned something to me about trying to get "something"—if possible, half-a-guinea—for me in return for my kindness. The patient is in good circumstances. Am I not entitled to the consultant's fee of a guinea?

*** Under the circumstances related our correspondent would be entitled to the consultant's fee—an opinion which he will find confirmed under the heading of "Consultations" in the *Medico-Chirurgical Tariffs*, page 13, in which *inter alia* it is distinctly laid down that "When a general practitioner is himself called in consultation he is entitled to the consultant's minimum fee of one guinea."

NAVAL AND MILITARY MEDICAL SERVICES.

ARMY MEDICAL STAFF: EXCHANGE.

The charge for inserting notices respecting Exchanges en the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post office order with the notice. The first post on Thursday mornings is the latest by which these announcements can be received.

A SURGEON-MAJOR, till October at home on leave, with 18 months to serve in N.W.P., Bengal, wishes to exchange with an officer coming home this trooping season or with an officer on the Home Establishment.—Address, No. 2,224, BRITISH MEDICAL JOURNAL Office, 429, Strand, W.C.

THE NAVY.

FLEET-SURGEON JAMES TRIMBLE has been placed on the retired list, with the rank of Deputy-Inspector-General of Hospitals and Fleets, July 13th. He was appointed Surgeon, June 13th, 1859; Staff-Surgeon, August 19th, 1870; and Fleet-Surgeon, September 20th, 1881. He was Fleet-Surgeon of the *Jumna* troopship during the operations in the Eastern Soudan in 1884, was mentioned in despatches for his admirable arrangements for the sick and wounded, and received the Egyptian medal and the Khedive's bronze star.

Staff-Surgeon W. F. SPENCER, M.D., has been promoted to be Fleet-Surgeon, July 2nd. His commission as Surgeon dates from October 1st, 1872, and that of Staff-Surgeon twelve years thereafter. He was Surgeon of the *Thalia* during the Egyptian war of 1882, and has the medal and Khedive's bronze star for that campaign.

The following appointments have been made at the Admiralty: JOHN W. SLAUGHTER, B.A., M.B., Surgeon to the *Magnet*, lent, July 11th; HUGH S. D. GRIFFITHS, Surgeon, to the *Traveller*, lent, July 11th; MARTIN H. ATOCK, M.D., Surgeon, to the *Vivid*, additional, July 13th.

ARMY MEDICAL STAFF.

THE retirement of Surgeon-Major-General W. M. WEBB is gazetted. In the BRITISH MEDICAL JOURNAL of July 8th we noticed fully his commissions and services.

Surgeon-Captains J. F. DONEGAN, H. C. THURSTON, J. W. COCKERILL, and C. A. YOUNG, who are serving in the Bengal Command, have qualified in Military Law.

Surgeon-Colonel J. WARREN, now Principal Medical Officer at Poona, is appointed Principal Medical Officer Bombay Army, from July 6th, the date of the retirement of Surgeon-Major-General Webb.

Brigade-Surgeon-Lieutenant-Colonel G. ANDREW, M.B., serving in the Madras Command, in medical charge of South Station Hospital, Secunderabad, is transferred to the medical charge of South Station Hospital, Bangalore.

Brigade-Surgeon-Lieutenant-Colonel E. TOWNSEND, M.D., on return from England, is appointed to the medical charge of South Station Hospital, Secunderabad, Madras Command.

Surgeon-Major G. LAFFAN, M.D., serving in the Madras Command in medical charge of South Station Hospital, Bangalore, is ordered to do duty in the Belgaum and Bangalore Districts.

Surgeon-Major O. E. P. LYOYD, doing duty in the Myingyan and Mandalay Districts, Madras Command, is appointed to the medical charge of the Station Hospital at Mandalay.

ARMY MEDICAL RESERVE.

SURGEON-CAPTAIN EDWARD J. LLOYD, M.D., is promoted to be Surgeon-Major, July 19th.

INDIAN MEDICAL SERVICE.

SURGEON-CAPTAIN F. C. CLARKSON, Bengal Establishment, received charge of Furreedpore Gaol on May 27th.

Surgeon-Captain C. C. CASSIDY, Bengal Establishment, received charge of Nuddhea Gaol on June 1st.

The appointment of Surgeon-Captain C. C. CASSIDY, Bengal Establishment, to the officiating medical charge of the 5th Punjab Cavalry is cancelled. Surgeon-Captain Cassidy is appointed to act as Civil Surgeon of Nuddea during the absence of Surgeon-Major J. Clarke.

Surgeon-Major R. R. H. WHITWELL, Bengal Establishment, Civil Surgeon of Durbhunga, is appointed to act as Civil Surgeon of Gaya.

Surgeon-Captain F. C. CLARKSON, Bengal Establishment, is appointed to act as Civil Surgeon of Furreedpore.

Surgeon-Captain H. GREANY, M.D., Madras Establishment, is permitted to return to duty.

Brigade-Surgeon-Lieutenant-Colonel A. STEPHEN, M.B., Bengal Establishment, is granted the temporary rank of Surgeon-Colonel from June 5th, while officiating as Inspector-General of Civil Hospital, Punjab.

The services of Surgeon-Captains F. A. ROGERS, D.S.O., T. GRAINGER, M.D., and C. R. M. GREEN, all of the Bengal Establishment, are placed permanently at the disposal of the Bengal Government.

The services of Surgeon-Captains A. COLEMAN and C. H. JAMES, of the Bengal Establishment, are placed temporarily at the disposal of the Punjab Government.

The services of Surgeon-Captain E. HUDSON, Bengal Establishment, are replaced at the disposal of the Military Department from December 15th, 1892.

Surgeon-Captain A. R. S. ANDERSON, Bengal Establishment, is appointed Surgeon Naturalist, Marine Survey of India, from March 1st, *vice* Surgeon-Captain A. W. Alcock.

Surgeon-Major H. W. STEVENSON, Bombay Establishment, Superintendent of Mahableshwur, in the district of Satara, is appointed a Magistrate of 1st class in that district, and will exercise powers with which he is hereby invested within limits of hill station of Mahableshwur, also a justice of the peace within and for territories subject to administration of Government of Bombay other than presidency town of Bombay.

Surgeon-Major A. H. C. DANE, M.D., Bombay Establishment, in medical charge of the Bhopal Battalion, is allowed furlough to Europe, for 110 days, on private affairs.

The services of Surgeon-Captain J. L. T. JONES, M.B., Bombay Establishment, are placed at the disposal of the Government of India.

Surgeon-Lieutenant V. G. DRAKE-BROCKMAN is appointed to the officiating medical charge of the 10th Bengal Infantry, *vice* Surgeon-Captain K. Prasad, M.B.

Surgeon-Captain W. C. VICKERS, Madras Establishment, is appointed to be Civil Surgeon of Shwebo District, Burmah, in addition to his military duties.

Surgeon-Captain C. F. FEARNSIDE, Madras Establishment, is appointed to act as Professor of Pathology, Madras Medical College.

Surgeon-Captain C. A. JOHNSTON, is appointed to the officiating medical charge of the 3rd Madras Lancers.

The date of submission of applications for the four extra pensions of £100 per annum each, admissible to the senior officers of the Indian Medical Service, has been fixed for March 1st of each year.

THE VOLUNTEERS.

SURGEON-CAPTAIN D. MACNEILAGE, from the 1st Argyll and Bute Volunteer Artillery, is appointed Surgeon-Captain, 7th Lancashire (Manchester) Artillery, July 15th.

Mr. SEPTIMUS FARMER is appointed Surgeon-Lieutenant to the 1st Volunteer Battalion Loyal North Lancashire Regiment (late the 11th Lancashire), July 15th.

Surgeon-Captain T. FORT, 6th Volunteer Battalion, the Manchester Regiment (late the 22nd Lancashire), is promoted to be Surgeon-Major, July 15th.

A very successful ambulance competition between the battalions of the West London Volunteer Infantry Brigade took place at Chelsea Barracks last week. The competition was open to regimental stretcher squads composed of four men, and one non-commissioned officer in charge of each squad, the prizes being a silver challenge cup and money prizes for the two best squads. Each battalion was allowed to enter one or more squads, and in all there were eight entries made. Each squad was put through a course of stretcher drill by its own non-commissioned officer, including the lifting and laying of wounded, after which each man was practically examined *viva voce* in elementary anatomy and physiology, in first aid, and the use of the triangular bandage. Both first and second prizes were eventually won by the 2nd Volunteer Battalion Royal Fusiliers. Colonel Trotter, commanding the Grenadier Guards and the West London Brigade, in presenting the prizes, congratulated the winners on their success. He also expressed his great interest in all he had seen, and congratulated Brigade-Surgeon-Lieutenant-Colonel Parsons Smith on being one of the first to organise such a competition. The judging was performed by Brigade-Surgeon-Lieutenant-Colonel O. M. White, East London Infantry Volunteer Brigade, Surgeon-Captains Yarr and Crooke, Army Medical Staff, H. F. Stokes, R. R. Sleman, and E. Hughes, Volunteer Ambulance School of Instruction.

On July 15th, the London companies of the Volunteer Medical Staff Corps, under Surgeon-Lieutenant-Colonel A. T. Norton, the commandant, were inspected at Chelsea Barracks by Surgeon-Colonel Hamilton, P.M.O. Home District. About 350 of all ranks were on parade, and passed through the ordeal of inspection in a satisfactory manner. The corps proceeds to Aldershot for a week's training with the regular troops in August.

The ambulance challenge shield of the Volunteer Medical Association was competed for on the same date at Wellington Barracks. The competition is open to efficient stretcher bearers of the Honourable Artillery Company, the yeomanry cavalry, and the volunteers. Fourteen squads competed, each being examined in first aid, stretcher, and wagon drill. Surgeon-Captain Dundas Grant, 24th Middlesex Royal Volunteers, was in charge of the arrangements. The judges were Brigade-Surgeon-Lieutenant-Colonel J. H. Evatt, M.D., Surgeon-Major Andrew Clark, Army Medical Staff; and Surgeon-Major Adam Watson; Surgeon-Captain H. F. Stokes, Volunteer Ambulance School of Instruction. Colonel Evatt, in declaring the result, said that the competition had been a good one, and spoke of the great importance of ambulance training in the volunteers. Mr. Andrew Clarke subsequently handed the badges to the first three squads.

BRIGADE-SURGEON-LIEUTENANT-COLONEL ATKINS.

THE officers of the Army Medical Staff stationed at Devonport and Plymouth gave a farewell dinner on July 12th, at the Royal Hotel, Devonport, in honour of Brigade-Surgeon-Lieutenant-Colonel Atkins, A.M.S., who is proceeding on leave, prior to his departure for India, whither he is ordered on promotion. After the usual loyal toasts had been drunk, Surgeon-Colonel Welch, P.M.O., proposed the health of the guest of the evening, and spoke of his popularity both on and off duty, expressing regret at his departure. The toast was then drunk with much enthusiasm and musical honours. Brigade-Surgeon-Lieutenant-Colonel Atkins responded, and referred to the happiness he had experienced during the four years and a-half he had been in charge of the Station Hospital,

Devonport, where he had invariably received cheerful support from the officers serving under him. He regretted having to leave Devonport, but he hoped that he might have the pleasure of serving with them again, either at home or abroad.

THE STATE AND ITS SERVANTS.

IN a review of this reprint from the pages of the BRITISH MEDICAL JOURNAL, our contemporary the *Broad Arrow* appears to think we minimise the influence or importance of the advice of the "military advisers" of the Secretary for war on army medical matters. This is certainly not the case; we are only too well aware of their power, especially in the direction of preventing desired reforms. Nor have we any thought of presuming to encroach upon matters strictly within the prerogative of these advisers, whose influence with the War Minister should and must be great. It is only when we find these advisers opposing army medical reforms which are neither special nor technical, but common sense property, that we venture to criticise them.

MILITIA MESS ALLOWANCES.

OUR contemporary the *Broad Arrow* says: "It is very hard upon medical officers attached to militia regiments during training that they should be denied the usual mess allowances.....Combatant officers of the line who volunteer to go out for training with the militia do so of their own free will, and yet receive better treatment than the unfortunate doctor whose wishes on the subject have never been consulted." We have frequently commented on this absurdity and injustice, and would again join our contemporary in urging the War Minister to abate it. The paltry character of this "grossly unfair" economy makes it doubly offensive.

MEDICAL TITLES IN THE UNITED STATES ARMY.

IN the New York *Army and Navy Journal* we notice the retirement of a distinguished medical officer, announced in a General Order by the Adjutant-General, as follows:—

"War Department, Washington, May 29th, 1893.

"By direction of the President, the retirement from active service on this date, by operation of law, of Brigadier-General Charles Sutherland, Surgeon-General of the Army, etc.....Commissioned in 1852. General Sutherland has passed, etc."

We commend the above to those who say it would be absurd to confer military titles on medical officers; they have been so conferred since 1847 on medical officers in the army of a kindred people, and, as we have often shown on unimpeachable testimony, have worked admirably. The Americans, whatever their failings, are at all events a highly practical and open-minded people, and are not likely to have retained an absurd or unworkable system in operation for nearly fifty years without very good reasons.

"NITRAM'S" SCHEME OF RETIREMENT.

TWO more officers in India send us their adhesion to the scheme of retirement ventilated in these columns by a correspondent some months ago.

THE INDIAN PRINCIPAL MEDICAL OFFICERSHIP.

X. writes: I would beg to traverse some of the arguments of an "Indian Medical Officer" in the BRITISH MEDICAL JOURNAL of July 8th. He considers the difficulty of finding a surgeon-major-general of the Medical Staff for the Principal Medical Officership, having sufficient service to run before age retirement, could be "got over" by at once appointing an Indian medical officer at the next vacancy. I think his cure not only a makeshift but wrong. He says there are three Indian surgeon-colonels having from seven to nine years' service to run, one of whom I suppose he would promote specially for the post. But are there not more of that rank in the Medical Staff equally eligible on the same score? You have the sympathy of all reflecting medical officers in opposing hitherto all and every temporary expedient in filling this post, as well as in deprecating the intrigue and undignified scramble over it when vacant. It is one of so much importance and dignity that to prevent all unworthy action connected with it it might well be removed permanently, as it is likely to be habitually, from limitations imposed by age, so necessary in ordinary appointments. Fair-minded men recognise with you the undoubted hardship which Indian medical officers who stick to military employ suffer in being practically debarred from the rank of surgeon-major-general; but they firmly oppose compensation at the cost of the Medical Staff in general, and of this post in particular. I will not affirm there are no Indian medical officers fitted to fill it, but that is not the question. It is the one prize open to the Medical Staff, except the Director-Generalship, if, indeed, that comes within the category; and taking into consideration the size and all-importance of the European army, and the great and arduous executive duty connected with it which falls on the Medical Staff in India, to the latter surely belongs the medical headship of it in that country, not as a matter of expediency, but as a question of special fitness. The difficulty in filling it ought not to lie in age clauses, but in selecting officers who will occupy it at once efficiently and with due dignity and independence.

DISABILITIES AND DIFFICULTIES OF THE ARMY MEDICAL DEPARTMENT.

AN ARMY SURGEON says: At the late State Ball the head of the Army Medical Department was, for the first time in recent years, commanded to attend; but the intimation of his having been asked was somewhat marred by describing him among the "Generals" as "Surgeon-Major." So much for medical titles. But medical officers at large are still conspicuous by their absence at Court ceremonies, notwithstanding Mr. Stanhope's promise to have the matter looked into.

He also writes: Among the difficulties besetting the department in its preparations for war, is that of the regimental stretcher bearers. The two per company, or sixteen per regiment, are supposed to be duly trained, and will be placed under the orders of the medical officer attached to the regiment before an engagement. As at present carried out, the system is known to the military authorities to be a farce, and will so prove in time of war. The men are duly trained by the medical officer, when he can get them, and even when trained are speedily lost through constant changes. Commanding officers have no responsibility in the matter, and many consider it a nuisance and a fad; but they should be held responsible, and it should form a question for general officers at their periodical inspections of regiments. It is only in this way that this important matter can be kept forward in any degree of efficiency for war.

MEDICO-PARLIAMENTARY.

HOUSE OF LORDS.—Thursday, July 13th.

Infectious Hospitals Bill.—This Bill passed through Committee without amendment.

HOUSE OF COMMONS.—Thursday, July 13th

The Metropolitan Asylums Board.—Mr. COHEN asked the President of the Local Government Board whether he could state to the House what was the number of patients suffering from small-pox, diphtheria, and scarlet fever who were refused admission owing to want of space in the hospitals controlled by the Metropolitan Asylums Board during the month of June last; and whether he would grant a return of such refusals during each of the twelve months from July, 1892, to June, 1893.—Mr. H. FOWLER said the managers of the Metropolitan Asylums District informed him that no small-pox cases had been refused admission to the asylums for many years past. As regards patients suffering from scarlet fever or diphtheria, he learned that the information asked for could not be obtained without a laborious and lengthy analysis of all the applications which had been received, as no system of registration had been adopted, and, further, that if a return were prepared it would not accurately represent the actual number of patients refused admission, as applications were made by different persons for the same patient and applications were repeated with respect to the same person on different days.

Poisoning of Lead Workers.—Mr. R. G. WEBSTER asked the Home Secretary a series of questions with reference to the poisoning of lead workers, in which the following occurred: Whether any report had been made to him of nine recent serious cases of lead poisoning incurred by operatives employed in the use of white lead in the Wolverhampton district, as reported in the *Daily Chronicle* of June 28th last, the correspondent of which paper further stated that there were twelve in-patients suffering from lead poisoning in 1892 and seven in 1891, whilst the number of out-patients suffering from the same cause was approximately eighty-four for 1892 and fifty-two for 1891.—The HOME SECRETARY said his attention had been called to the cases, and, as he had stated the other day to the hon. member for Battersea, the whole subject was being carefully investigated by the Home Office Committee now inquiring into the white lead industry. It was not illegal to employ females under 18 in enamelling works, but no child or young person might be employed in the process of making white lead. As soon as the Committee reported he would be in a position to say what amendments would be necessary either in the special rules now in force or in the legislation affecting these industries. The report would be presented with all possible promptitude.

Monday, July 17th.

Alabone v. Morton.—Sir CHARLES CAMERON asked the Secretary of State for the Home Department, whether his attention had been called to the case of Alabone *v.* Morton, and to the following words in the judgment of Mr. Justice Wright: "It is to be hoped that the proper authorities will take steps to enforce the Apothecaries' Act against both parties, and consider whether proceedings of another kind should be taken against the defendant, whose fraud and false pretences are established by the evidence in this case, so far as that evidence can be relied on;" and whether, considering the nature of the fraud and false pretences referred to by the learned Judge, he would direct the steps recommended by him to be taken.—Mr. ASQUITH said it was not clear whether the Society of Apothecaries intended to use their power in the matter, but he had given instructions that the case should be laid before the Public Prosecutor with a view to his taking proceedings either independently, or in conjunction with the Society.

Pollution of the Nile.—Mr. PIERPOINT asked the Under-Secretary of State for Foreign Affairs whether his attention had been called to a statement made in the BRITISH MEDICAL JOURNAL of July 8th, that the Nile had been and was habitually poisoned with human and other filth, and the labours of the Irrigation Department had unhappily tended towards augmenting the concentration of the poisonous masses; whether this statement referred to the barrage, and to the possible construction of further dams in the bed of the river in order to have water for summer irrigation, which, even if they served for raising crops, were poisonous to human beings; and whether, in view of the British interests at stake, both in life and money, in the traffic passing through the Suez Canal, representations would be made to the Egyptian Government against any further pollution of the Ismailia Canal, on which the entire water supply of Port Said and Suez depended.—Sir E. GREY said he had not seen the statement in the BRITISH MEDICAL JOURNAL, but according to the information at their disposal it was not borne out by the facts. The operations of the Irrigation Department had not added to the amount of pollution, but they had increased the volume of water in the Ismailia Canal. If it could be shown that any subsequent operations would seriously alter the present state of the water supply, the matter would no doubt receive attention.

Housing of the Working Classes Act (1890) Amendment Bill.—This Bill was read a third time.

The Opium Commission.—Mr. G. RUSSELL, in reply to Mr. NAOROJI, said it would be part of the duty of the Commission to ascertain the feeling of the people of India with regard to the subjects specified in the recent resolution of the House of Commons relating to the opium question, and

this would necessarily be done by taking evidence rather than by attempting to represent on the Commission the numerous races and sects into which the population of India was divided. Every effort would be made to carry out thoroughly the resolution of the House of Commons; but the Secretary of State was not at present in a position to make any statement with regard to the composition of the Commission.

Tuesday, July 18th.

Vaccination Fines.—Mr. ASQUITH, in reply to a question put for Mr. KEIR HARDIE by Mr. MURRAY MACDONALD, said that in all cases where the penalty for non-compliance with the Vaccination Acts went to the Crown the police had power to enforce payment by distraint. In respect of vaccination fines, the penalties went to the Crown; but the police had always been instructed to refer to the Home Office before levying distress, and, in the case of the Walham Green fines, the matter had so been referred, but he had not yet given any instructions.

THE REGISTRATION OF PLUMBERS.

THE Bill to establish a national system for the registration of plumbers came on July 18th before the House of Commons Standing Committee on Trade. After discussion, in which apprehensions were expressed as to the possible effect of the Bill in establishing a monopoly, and the necessity of having some representative of the Local Government Board on the Committee was urged, an adjournment was agreed to.

INDIA AND THE COLONIES.

INDIA.

A NEW HILL STATION.—A new hill station has been discovered in India which is said to have all the merits and few of the drawbacks of the existing ones. The announcement has created considerable interest throughout Anglo-India, the depreciated rupee making it difficult for men with families to come to Europe on leave. The new station, Mahendro Giri, is 400 miles north of Madras, and within twenty-eight hours by rail of Calcutta. It is 500 feet above sea-level, has a rainfall of less than 40 inches, and the warmth during the whole of the hot months is tempered by a steady sea-breeze. There is in addition a capital supply of pure water.

BURMAH.

The officers of the Army Medical Staff and Indian Medical Service stationed in Rangoon entertained Surgeon-Colonel C. Sibthorpe, Indian Medical Service, at dinner on June 15th, previous to his leaving to take up the duties of Principal Medical Officer at Secunderabad. Among the guests were the Chief Commissioner, the Bishop of Rangoon, General Hamilton, R.E., and the commanding officers of regiments, etc.

NEW SOUTH WALES.

THE MEDICAL BILL.

OUR Sydney correspondent sends us the following summary. The Medical Bill has passed the Upper House, and has been read a second time in the Lower House:

Medical Council.—The preamble of the Act sets forth that it is expedient to enable persons requiring medical or surgical advice or aid to distinguish qualified from unqualified practitioners. It provides for the establishment of a Medical Council, consisting of ten persons registered under the Act of the 2nd year of Her Majesty, No. 22, of whom four shall be appointed by the Governor, two by the Senate of the University of Sydney, and four elected by the medical practitioners. The Council are to have specified powers, and they are to cause all persons to be registered as legally qualified medical practitioners who shall show to the satisfaction of the Council that they are entitled to registration.

Illegal Assumption of Titles.—The Act sets forth that "If any person shall wilfully pretend to be or shall use the name or title of a physician, doctor of medicine, licentiate in medicine and surgery, bachelor of medicine, surgeon or apothecary, or any other designation which would imply that he is a medical practitioner, not being registered as such, or entitled so to be, he shall, upon conviction for any such offence, pay a sum not exceeding £50, or in default of payment be liable to imprisonment for a term not exceeding twelve calendar months."

Saving Clauses.—Any person other than those persons entitled to be registered under section 6 of the Act who has been practising medicine or surgery, or both, in the Colony during a period of five years immediately preceding the passing of the Act, and who within two years thereof shall to the satisfaction of the Senate of the University of Sydney pass an examination as defined in the Act, shall be entitled to have his name entered in a separate folio of the *Register*, specifically named, and to all the rights and privileges of a medical practitioner. The Senate of the University are to hold within the said period of two years four such examinations at intervals of not less than five months. Candidates are required to show at these examinations a thorough acquaintance with the structure of the human body, and the functions of its various parts both in health and disease. They are further required to show competency to treat ordinary cases of disease and injury, and an acquaintance with medical jurisprudence and midwifery, and the nature and mode of administration of drugs used in medicine. It is further enacted that any person who shall prove to the satisfaction of the Council that he has been continuously and reputably practising medicine or surgery in the Colony during a period of twenty-five years immediately preceding the Act, shall be entitled to have his name entered on the separate folio of the *Register*.

Custody of the Register.—The Council is empowered to refuse to register any person whose name has been removed from the register of any recognised licensing body which may have been removed in consequence of misconduct of such a character as would render it undesirable in the public interest that the name of such practitioner should remain on the *Register*.

Advertisements.—Any person who shall advertise as treating disease injury, or ailment, shall state his Christian and surname in full in the advertisement, and shall also place them upon any house or premises to which such advertisement refers, and if not a medical practitioner shall also add "Not registered under the Medical Act."

WESTERN AUSTRALIA.

THE small-pox epidemic at Perth, Western Australia, is considered to have been thoroughly stamped out. The encampment has been broken up, and all the quarantine restrictions will be removed.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF EDINBURGH.

A MEETING of the Court was held on Monday last.

The First Professional Examination for the Degrees of M.B. and C.M. began on Saturday last, July 15th, with the examination in Practical Chemistry. The written examinations took place on July 17th and 18th. The Second Professional Examination began on July 19th. The Summer Session in Medicine has now ended.

EDINBURGH SCHOOL OF MEDICINE.—The lecturers of the Extra-Academical School of Medicine, in view of the continued growth of the School, have appointed Mr. R. N. Ramsay as their Secretary and Treasurer.

DEGREES OF M.B. AND C.M.—In addition to the names of those printed in the BRITISH MEDICAL JOURNAL of last week, the following candidates have now passed the Final Examination:

W. A. J. Alexander, M.A., G. B. Anderson, F. W. Barton, J. B. Bell, J. G. F. Bent, A. B. Carvasso, B.A., D. N. Chatterjee, B.A., H. O. Corfield, A. Croll, R. W. Fraser, T. Farthing, T. Gibson, C. S. Glegg, F. T. Gourlay, W. R. Jackson, M.A., W. E. Jameson, F. Lishman, W. F. Macalister-Hewlings, H. J. Mackintosh, A. M'Neil, B.A., A. Macnicol, P. W. Macvean, R. B. Marjoribanks, A. H. Moorhead, S. G. Morris, A. Philip, R. Riddell, J. B. Robinson, R. A. Wilson.

OBITUARY.

GEORGE GRAHAM, M.D. MELBOURNE.

WE regret to have to report the death of Dr. George Graham, of Melbourne, Australia, which took place on board the steamship *Thermopylæ* on June 25th. The deceased was born in Ashfield, county Cavan, on July 1st, 1829, and studied medicine in Dublin. He applied to enter the navy, but was at the time too young, but would have been eligible in the following year. He then obtained an appointment as surgeon to an emigrant ship going to Australia, where he remained. His special study was lunacy, and he was one of the official visitors to the Kew and Yarra Bend Asylums in Victoria. For some years past he had been Examiner in Forensic Medicine at the Melbourne University, and was one of the first to take the M.D. degree there. At the time of his death he was on his way to visit his relatives in Ireland and America, after which he intended to be present at the International Medical Congress in Rome. Dr. Graham was one of the founders of the Richmond Dispensary. He was an ex-President of the Medical Society of Victoria, and ex-President of the Victorian Branch of the British Medical Association. Prior to his departure from Melbourne Dr. Graham was presented with a valedictory address from his friends, wishing him a pleasant voyage. It was at first intended to entertain Dr. Graham at a banquet, but at his express wish the idea was abandoned.

ALFRED WILLIAM KENNETT PACKMAN, M.D.

WE regret to have to report the death of Dr. Alfred Packman, which took place at St. Marychurch, Torquay, on the morning of July 14th. The deceased was born at Puckeridge, Herts, on December 30th, 1836, where his father had been in practice for many years. Dr. Packman studied at University College Hospital, London, and at the Marischal College of the University of Aberdeen, where he graduated in 1852, and for about four years in Paris. He joined his father in practice at Puckeridge in the year 1855, and for many years carried on a most extensive and lucrative practice in the neighbourhood. He was a keen sportsman, and always tried to hunt twice a week during the season. In fact, Dr. Packman was the subject of one of the late Mr. Leech's most striking pictures in *Punch*, where a doctor is represented in his brougham pulling on his hunting boots. After retiring from practice the deceased settled at Bengeo, near Hertford, and soon attracted to himself a large number of friends.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns, including London, 6,361 births and 4,914 deaths were registered during the week ending Saturday, July 15th. The annual rate of mortality in these towns, which had increased from 17.5 to 23.8 per 1,000 in the preceding seven weeks, further rose to 24.8 during the week under notice. The rates ranged from 12.3 in Huddersfield, 12.5 in Halifax, 13.4 in Bristol, 14.2 in Brighton, and 16.2 in Plymouth to 31.6 in Bolton, 31.7 in Wolverhampton, 34.9 in Salford and in Liverpool, and 51.8 in Preston. In the thirty-two provincial towns the mean death-rate was 26.2 per 1,000, and exceeded by 3.3 the rate recorded in London, which was 22.9 per 1,000. The 4,914 deaths registered during the week under notice in the thirty-three towns included 1,431 which were referred to the principal zymotic diseases, against numbers increasing from 415 to 1,197 in the preceding six weeks: of these, 1,024 resulted from diarrhœa, 112 from measles, 95 from whooping-cough, 72 from diphtheria, 65 from scarlet fever, 48 from "fever" (principally enteric), and 15 from small-pox. These 1,431 deaths were equal to an annual death-rate of 7.2 per 1,000; in London the zymotic death-rate was equal to 5.8, while it averaged 8.2 per 1,000 in the thirty-two provincial towns. The lowest death-rates from these zymotic diseases were recorded in Huddersfield, Bristol, Halifax, Newcastle-upon-Tyne, and Gateshead, and the highest rates in West Ham, Salford, Blackburn, Leicester, Liverpool, and Preston. Measles showed the highest proportional fatality in Blackburn and Preston; scarlet fever in Swansea; whooping-cough in Norwich, Liverpool, and Salford; and diarrhœa in Birmingham, Leicester, Bolton, Manchester, Salford, Preston, Leeds, and Sheffield. The 72 deaths from diphtheria recorded in the thirty-three towns included 56 in London, 3 in Cardiff, and 3 in Manchester. Five fatal cases of small-pox were registered in West Ham, 4 in London, 2 in Oldham, and 1 each in Manchester, Blackburn, Bradford, and Sunderland, but not one in any other of the thirty-three towns; 364 small-pox patients were under treatment in the Metropolitan Asylums Hospitals and in the Highgate Small-pox Hospital on Saturday last, July 15th, against numbers declining from 370 to 381 at the end of the preceding nine weeks; 61 new cases were admitted during the week, against 59, 76, and 68 in the preceding three weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital was 2,924, against numbers increasing from 2,024 to 2,885 on the preceding thirteen Saturdays; 348 new cases were admitted during the week, against 309, 364, and 362 in the preceding three weeks. The 203 deaths referred to diseases of the respiratory organs in London were 7 above the average, and were equal to an annual rate of 2.5 per 1,000.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday, July 15th, 891 births and 616 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 21.5 per 1,000 in each of the preceding two weeks, rose to 21.9 during the week under notice, but was 2.9 per 1,000 below the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the lowest rates were 17.3 in Paisley and 18.5 in Edinburgh, and the highest rates 29.0 in Greenock and 29.2 in Perth. The 616 deaths in these towns included 118 which were referred to the principal zymotic diseases, equal to an annual rate of 4.2 per 1,000, which was 3.0 below the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Paisley, Glasgow, and Greenock. The 305 deaths registered in Glasgow included 43 from diarrhœa, 20 from whooping-cough, and 9 from measles. Eight fatal cases of measles were recorded in Greenock. The death-rate from diseases of the respiratory organs in these towns was equal to 2.7 per 1,000, against 2.5 in London.

HEALTH OF IRISH TOWNS.

In sixteen of the principal town districts of Ireland the deaths registered during the week ending Saturday, July 8th, were equal to an annual rate of 24.7 per 1,000. The lowest rates were recorded in Lisburn and Drogheda, and the highest rates in Waterford and Lurgan. The death-rate from the principal zymotic diseases averaged 5.6 per 1,000. The 165 deaths registered in Dublin were equal to an annual rate of 24.6 per 1,000 (against 25.4 and 30.7 in the preceding two weeks), the rate during the same period being 22.3 in London and 17.3 in Edinburgh. The 165 deaths in Dublin included 34 which were referred to the principal zymotic diseases (equal to an annual rate of 5.1 per 1,000), of which 22 resulted from diarrhœa, 6 from measles, 3 from enteric fever, 2 from whooping-cough, and 1 from scarlet fever.

COST OF MAINTENANCE IN ISOLATION HOSPITAL.

The local board of Pudsey (Yorkshire) has, during the last two or three years, achieved notoriety on more than one occasion by attempting to fetter the action of its able medical officer of health, Dr. Hunter. The board's latest effort in the direction of inefficiency is a decision to enforce heavy and practically prohibitive charges for the maintenance of patients in the isolation hospital. According to the *Pudsey and Stanningley News*, complaint was made by the chairman that the hospital was being used by persons for whom it was never intended, and Dr. Hunter was instructed to "cease removing cases which could be satisfactorily dealt with at home." It is not even suggested that there was any unwillingness on the part of the patients or their friends or their medical attendants, or that the cases were not of the infectious diseases for which the hospital was provided. Given these conditions, it ought to be the object of a sanitary authority to protect the public by isolating as large a proportion as possible in hospital, and at the public expense. Charges for the cost of maintenance may reasonably be made if special privileges are demanded, but otherwise it is useless and impolitic to attempt to throw the cost of isolation upon private persons who are willing to render a service to the community by consenting to removal.

ISOLATION OF INFECTIOUS PATIENTS.

We have received several inquiries as to the note in the British Medical Journal of July 8th, p. 99, on the Public Health (London) Act and the proposals for its amendment. The decision referred to is an old one, and is of little moment nowadays. If the M.O.H. certifies that the patient is without "proper lodging and accommodation," and satisfies the magistrate to that effect, the order is issued and must be obeyed. And it is the practice of M.O.H.'s generally not to regard accommodation as "proper" which does not include reasonable isolation. Unless this were so, many glaring cases would be left untouched. Nevertheless it seems clear that, whatever M.O.H.'s now think, and whatever the Legislature meant in 1875, the person who drafted the section (124) had not thought of the expression "proper lodging and accommodation" as including any degree of isolation. Had he regarded isolation as essential to proper lodging and accommodation, he would not have gone on to provide specially for two glaring examples of non-isolation ("room occupied by more than one family," etc.). Hence we have on one side the apparent meaning of the section and the decision; on the other, the obvious fact that such a reading would stultify the section for most practical purposes of sanitary administration. Matters have progressed much with regard to hospital isolation since 1875; and, as we said before, it is now usual to consider others as well as the patient.

APPOINTMENT OF AN ASSISTANT MEAT INSPECTOR FOR EDINBURGH.

At a meeting of the Public Health Committee of the Edinburgh Town Council, Mr. Alexander Mackay Trotter was unanimously appointed to the office of assistant meat inspector for the city. Mr. Trotter was a distinguished graduate of Dick's Veterinary College, took the highest place in the classes, obtained several medals for his knowledge of meat inspection, and was for some time assistant to Principal Walley. The Council had previously determined to appoint none to the office save a fully qualified veterinary surgeon.

THE NOTIFICATION OF INFECTIOUS SORE THROAT.

The Holywell Local Board have acted wisely in at last meeting a claim preferred by Dr. Owen Jones for fees under the Notification Act of 1889, in respect of certificates of cases of diphtheritic sore throat. The attitude of the local health officer in adjudging the disease not to fall within the terms of the Act having led Dr. Jones to enter the question in the county court, the sanitary authority have settled the matter, though without admitting their legal liability. However the legal aspects of the case may present themselves, there can be no question about the wisdom of knowledge by health officers of the existence of cases of sore throat of a diphtheritic nature. It may in some cases result in the extinction of an outbreak of disease which would otherwise have got beyond control if certificates assigning the name of "diphtheria" to the occurrences had been waited for. Indeed, the instances in which unequivocal diphtheria has been otherwise variously called are by no means few; and unless *mala fides* on the part of the certifying practitioner be strongly suspected, we should desire to see health officers, by acceptance of certificates, aiming at the encouragement of notification of diseases having infectious quality and akin to those named in the statute.

THE WORKING OF THE NOTIFICATION ACT.

The Holywell Local Board have propounded to the Local Government Board the following questions, to each of which a negative reply may be anticipated with considerable confidence. (1) Is it or not the duty of a medical officer (of health) to reject the certificate of a medical practitioner who has attended a case unless he has good ground for believing that the practitioner was actuated by *malâ-fide* motives in giving the certificate? (2) Is it one of the duties of the medical officer of health to examine any case reported; and if, on examining it, he finds that, in his opinion it is not of the nature reported, is it his duty to accept or reject the notification? (3) Is the fee earned by a practitioner who reports a case to which the Act does not apply? Such questions ought to be unnecessary four years after the passing of the Notification Act; but they serve a useful purpose in keeping prominently before the Local Government Board the fact that the country is still waiting for a Memorandum defining officially and explicitly the duties of medical officers of health with regard to notified cases of infectious disease.

SUMMER DIARRHŒA IN MANCHESTER.

It is unfortunate that with cholera and rumours of cholera in Continental cities, Manchester should at the present time be passing through a serious outburst of infantile diarrhœa and English cholera. The occurrence itself is not alarming, since Manchester is not singular in the rise of diarrhœal disease just now; but, following closely as it does on the advent of cholera-infected vessels in the Tyne and Bristol Channel, and having the ominous name of "cholera" attached, the outburst is not likely to meet with kind reception at the hands of foreign Governments which, from their attitude towards home cholera of the Asiatic type, may regard England as having something to conceal in designating the malady as "diarrhœa and English cholera." The facts are that the deaths from these diseases in Manchester rose from 11 to 58 in the last three weeks of June, and further rose to 75 in the first week of July, with other 28 having diarrhœa as a secondary cause. Whilst these two latter weeks' records are much above any other in recent years in the city, we must not overlook the climatic conditions of the past months, nor the fact that 48 of the 75 deaths last named were in children under 1 year of age. It is the misfortune of our country to suffer annually from infantile summer diarrhœa, and it seems to be only the accident of Continental [illegible] that has raised alarm respecting Manchester. Dr. Tatham may be trusted to do his utmost in checking the malady.

MEDICAL NEWS.

THE Lady Hozier Convalescent Home, Lanark, the gift of Sir William Hozier, of Mauldslie, to the Glasgow Western Infirmary, was opened on July 10th. The total cost of the building, exclusive of site and equipment, is about £6,000.

THE DENTAL HOSPITAL OF LONDON.—A largely attended *conversazione* was held at the Royal Institute Galleries last week by the staff of this hospital, when prizes were distributed to the students by Sir W. H. Flower, K.C.B., F.R.S., who also delivered an address.

WE learn from the *Boston Medical and Surgical Journal* that the Board of Regents of the University of the State of New York have recently revoked the charters of the "College of Midwifery of the City of New York" and the "College of Massage," two institutions under the same management.

CASE OF EXTREME OLD AGE.—The Registrar of Terryglass, co. Tipperary, has lately recorded the death of a man, aged 113, in his district. He was 18 years of age in the year of the Rebellion, in which he took an active part, having fought in several engagements. His memory of that period was quite clear up to a short time before his death.

THE death is announced of Dr. E. P. Thwing, an American medical missionary at Canton. Dr. Thwing had recently visited the United States to obtain support for a proposed asylum for the insane at Canton, which would have been the first in the Chinese Empire. On returning to China, his wife was attacked by typhoid fever, and while nursing her he appears to have contracted the disease to which he succumbed.

DR. NORMAN WALKER, Assistant Physician to the Skin Department, Edinburgh Royal Infirmary, will conduct a class for graduates and senior students. A systematic lecture will be given daily, illustrated by models and drawings, and the members of the class, which will be limited to twelve, will have instruction in the histology of skin diseases as well as the advantage of clinical teaching in the Royal Infirmary. The class, which will last four weeks, commences on Tuesday, August 8th. Applications should be made to Dr. Walker without delay.

AT the annual meeting of the Brussels Medical Graduates' Association the following officers were elected for the ensuing year:—*President:* Dr. J. Ormsby. *Vice-President:* Dr. Tweed. *Members of Council:* Drs. W. J. Foster, F. N. Boyd, J. W. Warburton, S. Sunderland, C. T. Brookhouse, C. Burland, A. W. Thomas, W. A. Hearnden, John R. Gabe, and A. L. Achard. *Honorary Secretary:* Dr. Greenwood. *Treasurer:* Dr. Younger. *Auditors:* Drs. Nix and J. Beresford Ryley. After a vote of thanks to the retiring officers, the members and their friends dined together and spent a very pleasant evening.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.—At the quarterly court of directors of the Society the chair was taken by the President (Sir James Paget). Six new members were elected, and the deaths of three reported. The death of a widow in receipt of grants was announced, and application for relief was read from a widow for herself and daughter, and a grant was made. It was resolved to distribute a sum of £1,281 amongst the fifty-seven widows and eleven orphans now on the funds, and the four orphans on the Copeland Fund. The expenses of the quarter amounted to £51 5s. 6d.

AN IRREGULAR PRACTITIONER IN NEW YORK.—An "Arabian Oculist," calling himself Goolam Kader, recently began to publish glowing advertisements in a number of New York newspapers. One of these, we are informed by the *Boston Medical and Surgical Journal*, attracted the attention of Dr. F. C. Valentine, Editor of *Medical Abstracts*, who recognised the name as that of a person who had been expelled from certain Continental cities as an irregular practitioner. He at once reported the matter to the Medical Society of the County of New York, which took prompt action, with the result that the Arabian was brought before the Special Session, and held for trial on a charge of practising medicine without a licence, at a bail of 500 dollars.

OPENING OF WILLESDEN COTTAGE HOSPITAL.—Miss Balfour, who was accompanied by Mr. A. J. Balfour, M.P., recently opened the Willesden Cottage Hospital, which has been erected at a cost £2,000 by Mr. J. Passmore Edwards, and endowed by money raised in the district. The building is prettily situated, looking out towards Harrow. It is constructed almost entirely of red brick, and contains two wards, each provided with four beds, besides an exceedingly neat room for one paying patient. The hospital, which will provide a long-felt want in the neighbourhood, is beautifully airy, although not draughty, and is perfectly arranged throughout. Mr. and Miss Balfour were received by Sir Bradford Leslie, K.C.I.E., Chairman of the Trustees, Messrs. H. E. Goodwin and J. J. Hanbury, the Honorary Secretaries, Mr. and Mrs. J. Passmore Edwards, Inspector-General Eames, R.N., Dr. Brookfield, and Mr. C. Claude Robson. A large tent had been put in the grounds, and it was here Miss Balfour declared the building open. After an inspection of the wards, Mr. Balfour expressed the pleasure it had afforded Miss Balfour and himself to come down to Willesden and take part in so excellent an undertaking. The President of the hospital, the Earl of Aberdeen, was unable to be present.

MEDICAL VACANCIES.

The following vacancies are announced:

ASYLUM FOR IDIOTS, Earlswood, Redhill, Surrey.—Assistant Medical Officer. Salary, £150 per annum, with board and residence. Applications, in envelope marked "Assistant Medical Officer," to the Secretary, 36, King William Street, London Bridge, E.C., by July 25th.

CHARING CROSS HOSPITAL, W.C.—Assistant Surgeon, must be F.R.C.S.Eng. Applications to the Chairman of Committee by July 24th.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL AND DISPENSARY, Chesterfield.—House-Surgeon. Salary, £100 per annum. Assistant House-Surgeon. Salary, £50, with board, apartments, and laundress for each. Applications to the Secretary by August 4th.

COUNTY ASYLUM, Lancaster.—Assistant Medical Officer; unmarried. Salary, £100 per annum, increasing £25 annually to £200 per annum, with furnished apartments, board, etc. Also Clinical Assistant. No salary; board, lodging, etc., provided. Applications to Dr. Cassidy, Medical Superintendent, by July 24th.

GENERAL HOSPITAL FOR SICK CHILDREN, Pendlebury, Manchester.—Junior Resident Medical Officer; doubly qualified. Salary, £80 per annum, with board and lodging. Applications to the Chairman of the Weekly Board by July 29th.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway Road, N.—House-Surgeon. Salary, £60 per annum, with board and lodging in the hospital. Applications to William T. Grant, Secretary, by July 24th.

GREAT YARMOUTH HOSPITAL.—House-Surgeon; doubly qualified. Salary, £80 per annum, with board and lodging. Applications to Richard F. E. Ferrier, Honorary Secretary, by August 1st.

GROSVENOR HOSPITAL FOR WOMEN AND CHILDREN, Westminster.—Assistant Physician and Anæsthetist. Applications to the Secretary by July 29th.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident Medical Officer; doubly qualified and not under 25 years of age. Salary, £200 per annum, with board and residence. Applications to Henry Dobbin, Secretary, by July 26th.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, Bloomsbury, W.C.—Assistant House-Surgeon (Non-Resident); appointment for six months. Salary, £20. Applications to the Secretary by July 26th.

ISLINGTON DISPENSARY, 303, Upper Street, N.—Dispenser; not over 35 years of age. Salary, 40s. per week. Applications to the Honorary Secretary.

KIDDERMINSTER UNION.—Medical Officer for the Bewdley District. Salary, £100 per annum and vaccination fees. Applications to Mr. F. Burcher, Clerk, Workhouse, Braintree, by July 24th.

LEWES DISPENSARY AND INFIRMARY AND VICTORIA HOSPITAL, High Street, Lewes.—Resident Medical Officer; doubly qualified. Salary, £100 per annum, furnished apartments, coal, gas, and attendance. Applications to the Honorary Secretary, Mr. Reginald Blaker, Lewes, Sussex, by July 31st.

LIVERPOOL CHILDREN'S HOSPITAL.—*Locum tenens* House-Surgeon for one month. Board, rooms, and washing. Applications to the House-Surgeon.

LIVERPOOL DISPENSARIES.—Assistant Surgeon; unmarried. Salary, £80 per annum, with apartments, board, and attendance. Applications to R. R. Greene, Secretary, by July 24th.

MACCLESFIELD GENERAL INFIRMARY.—Junior House-Surgeon; doubly qualified. Salary, £70 per annum, with board and residence. Applications to the Chairman of the House Committee by July 22nd.

MANCHESTER ROYAL INFIRMARY.—Resident Medical Officer, not less than 25 years of age, and unmarried; doubly qualified. Appointment for one year, but holder of office may be re-elected. Salary, £150 per annum, with board and residence. Applications to the Chairman of the Board by July 29th.

NEW HOSPITAL FOR WOMEN, 144, Euston Road, N.W.—Female Clinical Assistant for In-patient Department; fully qualified. Applications to M. M. Bagster, Secretary, by July 28th.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, N.E.—Resident Clinical Assistant. Applications to the Secretary, 27, Clement's Lane, E.C., by July 22nd.

NOTTINGHAM AND BOROUGH ASYLUM.—Second Assistant Medical Officer; unmarried. Salary, £100 per annum, with apartments, board, and washing. Applications to the Medical Superintendent by July 25th.

PONTYPRIDD RURAL SANITARY AUTHORITY.—Medical Officer of Health. Salary, £50 per annum. Applications to E. C. Spickett, Clerk, by July 27th.

POPLAR HOSPITAL FOR ACCIDENTS.—Assistant Resident House-Surgeon. Salary, £80 per annum, with board and lodging. Applications to the Secretary by July 22nd.

PORTUMNA UNION.—Portumna Dispensary No. 2. Medical Officer. Salary, £40 per annum, with £5 as Medical Officer of Health, registration and vaccination fees. Applications to Mr. Laurence Taylor, Honorary Secretary. Election on August 5th.

ROCHDALE INFIRMARY AND DISPENSARY, 176, Drake Street, Rochdale.—House-Surgeon; unmarried. Salary, £80 per annum, with board and residence. Applications to W. A. Cheetham, Honorary Secretary, by July 22nd.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—Assistant Physician. Applications to the Secretary by July 31st.

ROYAL PORTSMOUTH, PORTSEA, AND GOSPORT HOSPITAL.—Assistant House-Surgeon; appointment for six months. Board, residence, and washing, and an honorarium of £15 15s. Applications to J. A. Byerley, Secretary, 137, Queen Street, Portsea, by July 27th.

ROYAL SOUTH HANTS INFIRMARY, Southampton.—Assistant House-Surgeon. No salary; board and rooms provided. Applications to T. A. Fisher Hall, Secretary, by July 31st.

STOCKPORT INFIRMARY.—Junior Assistant Surgeon; appointment for six months. Board and residence provided, and an honorarium of £10 after satisfactory service. Applications to Lieutenant-Colonel S. W. Wilkinson, Honorary Secretary, by July 25th.

TRALEE UNION.—Tralee Dispensary. Apothecary. Salary, £20 per annum. Applications to Mr. W. Denny, Honorary Secretary. Election on August 6th.

WEST END HOSPITAL FOR DISEASES OF THE NERVOUS SYSTEM, PARALYSIS, AND EPILEPSY, 73, Welbeck Street, W.—Physician for Out-patients. Applications to Henry Ansell, Secretary, by July 22nd.

WHITEHAVEN AND WEST CUMBERLAND INFIRMARY, Whitehaven.—House-Surgeon; doubly qualified. Salary, £120 per annum, and £30 per year for dispensing, with furnished apartments and attendance. Applications to Tyson Kitchen, Secretary, by July 29th.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton.—Honorary Gynæcologist; doubly qualified. Applications to the Chairman of the Weekly Board by July 24th.

MEDICAL APPOINTMENTS.

ARKLE, George M., L.S.A.Lond., appointed Assistant Surgeon to the South Dispensary, Liverpool, *vice* Dr. Fagin, resigned.

BOSTOCK, R. H. F., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer of Health to the Norton Urban Sanitary District of the Malton Union, *vice* Wm. Mackay, L.R.C.P.Edin., deceased.

BRIDGER, A. E., B.A., M.D., F.R.C.P.Edin., appointed Physician to the St. Pancras and Northern Dispensary.

BROWN, George, M.D., L.F.P.S.Glasg., appointed Medical Officer of Health for the Colchester Urban Sanitary District of the Colchester Union.

BRYAN, T. Leigh, M.B.Dunelm, appointed Medical Officer to the Brough District of the Kirkby Stephen Union, *vice* G. Dulston Ewbanke, L.R.C.P., L.R.C.P.Edin., resigned.

CAMERON, Alexander, M.D., C.M.Glasg., reappointed Medical Officer of Health for the Caistor Rural Sanitary District.

CANN, Thos. Martyn, M.R.C.S.Eng., L.M., appointed Medical Officer for the First Division of the Third District of the Newhaven Union.

CHAMBERS, H. F. T., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Wareham District of the Wareham Union, *vice* Aubrey Blakiston, L.R.C.P., L.R.C.S.Edin.

CLEAVER, W. F., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer of Health to the Phillack Urban Sanitary District.

DE RENZI, Henry Castriot, M.R.C.S.Eng., L.R.C.P.Lond., late Senior House-Surgeon, appointed Resident Obstetric Assistant to the Westminster Hospital.

EDEN, Thomas Watts, M.D.Edin., C.M.Edin., appointed Pathologist to the Chelsea Hospital for Women, *vice* J. A. Shaw-Mackenzie, M.B.Lond., promoted.

GILES, Arthur E., M.D.Lond., M.R.C.P.Lond., B.Sc., appointed Physician to Out-Patients to the Chelsea Hospital for Women, *vice* Gerald Harper, M.B.Aberd., L.R.C.P.Lond., resigned.

HILL, Leonard, M.B., appointed Assistant Professor of Physiology at University College, London.

HIND, Albert, L.R.C.S.Edin., L.M., L.S.A., reappointed Medical Officer of Health for the South Molton Urban Sanitary District.

HOLMES, Frank D., B.A.R.U.I., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Breadsall District of the Shardlow Union, *vice* Edward Hoskins, M.R.C.S.Eng., resigned.

KEANE, Bernard, L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Western District of the Mile End Union.

KING, Arthur, L.D.S., appointed Honorary Dental Surgeon to the Royal Surrey County Hospital, Guildford.

LEE, Sidney H., M.B., B.C., B.A.Cantab., M.R.C.S., L.R.C.P., late House-Surgeon, late House-Physician, appointed Obstetric House-Physician at Middlesex Hospital.

LITTLEJOHN, Hy. Harvey, M.A., M.B.Edin., C.M., F.R.C.S., reappointed Medical Officer of Health for Sheffield.

MACBEATH, Abercromby, L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the District of Unst.

MCCAUSLAND, A. S., M.D.Brux., L.R.C.P.Lond., M.R.C.S., appointed Certifying Factory Surgeon for the Swanage District.

MACKENZIE, Allan Grant, M.R.C.P., F.R.C.S.Edin., reappointed Medical Officer for the Third Sanitary District of the Church Stretton Union.

MILLS, H. H., M.R.C.S., L.R.C.P., appointed an Assistant Demonstrator in Anatomy at the Westminster Hospital Medical School.

MINSHALL, Arthur G., L.R.C.P.Lond., M.R.C.S.Eng., appointed Senior Assistant Medical Officer to the St. Pancras Parish Infirmary, *vice* E. S. Passmore, M.D.

MOSSOP, I., F.R.C.S.Edin., L.R.C.P.Edin., appointed Honorary Medical Officer to the Bradford Children's Hospital, *vice* A. Rabagliati, M.D., resigned.

MUNDEN, Charles, M.R.C.S., L.S.A., reappointed Medical Officer for 3 c Sanitary District of the Langport Union.

OPENSHAW, T. H., M.S., M.B.Durh., F.R.C.S.Eng., appointed Lecturer on Anatomy at the London Hospital Medical School, *vice* Frederick Treves, F.R.C.S.Eng.

PEARSE, Robert Edward Franklyn, L.R.C.P.Lond., M.R.C.S.Eng., reappointed House-Surgeon Jagersfontein Hospital, Orange Free State, S. Africa.

POLLOCK, Wm. Rivers, M.B., B.C.Camb., M.R.C.P.Lond., appointed Assistant Obstetric Physician to the Westminster Hospital.

POOLER, H. W., L.R.C.P., M.R.C.S., L.S.A., appointed Honorary Administrator of Anæsthetics to the Dental Hospital, Birmingham.

PORT, Arthur William, M.B., B.S., M.R.C.S., appointed House-Surgeon to the Monkwearmouth and Southwick Hospital, Sunderland.

POUND, Clement, L.R.C.P.Lond., L.S.A., appointed Medical Officer for the Odiham District of the Hartley Wintney Union, *vice* G. Pound, M.R.C.S.Eng., deceased.

ROBINSON, E. Stanley, L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer of Health for the Stourport Urban Sanitary District of the Kidderminster Union, *vice* G. F. Cadogan-Masterman, L.R.C.P.I., M.R.C.S.Eng.

RUSHTON, Wm., L.D.S.R.C.S.Eng., appointed Dental Surgeon to the Hospital for Consumption and Diseases of the Chest, Brompton.

SANTI, P. de, F.R.C.S., appointed Demonstrator of Anatomy at the Westminster Hospital Medical School.

SMITH, Alfred C. F., L.R.C.P.& S.Edin., appointed Assistant House-Surgeon to the Royal Albert Hospital and Eye Infirmary, Devonport, *vice* E. Knox Goodwin, M.R.C.S., L.R.C.P.Lond., resigned.

STOKES, Henry Fraser, M.R.C.S.Eng., L.R.C.P.Lond., appointed Medical Lecturer at the Church Missionary College, Islington.

STOKOE, Benjamin Thomas, M.B., B.S.Durh., appointed Medical Officer of Health for the Borough of Gateshead.

WILLIAMS, Roland P., L.R.C.P., L.M., L.R.C.S.Edin., appointed Medical Officer to the Holyhead Post Office *employés*.

WILLS, William A., M.D.Lond., appointed Lecturer on Elementary Medicine at the Westminster Hospital Medical School.

YEARSLEY, P. Macleod, L.R.C.P.Lond., M.R.C.S.Eng., appointed an Assistant Demonstrator in Anatomy at the Westminster Hospital Medical School.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

BAILY.—At Oban, on the 13th inst., the wife of Edwin Baily, M.B., of a daughter.

BRYAN.—On June 12th, at Sedbro' House, Brough, Westmorland, the wife of T. Leigh Bryan, M.B.Durh., of a son.

ROALFE-COX.—On July 16th, at The Laurels, Mortimer, Berks, the wife of Walter J. Roalfe-Cox, M.R.C.S., L.R.C.P., of a daughter.

SHEA.—On July 14th, at 1,515, North 20th Street, Philadelphia, U.S.A., the wife of William Ker Shea, L.R.C.S.I., L.R.C.P.Edin., of a daughter.

MARRIAGES.

D'ARCY—HORSFALL.—At St. George's Cathedral, Cape Town, on June 26th, 1893, by the Very Rev. the Dean, Richard J. D'Arcy, J.P., District Surgeon, Willowmore, to Bertha, fifth daughter of Henry Horsfall, Esq., M.D., of Masham, Yorks.

GELL—BRADSHAW.—On July 19th, at Christ Church, Lancaster Gate, by Rev. J. B. M. Butler, Rector of Maresfield, Sussex, uncle of the bride, assisted by Rev. J. P. Gell, Rector of Buxted, Sussex, father of the bridegroom, and by Rev. J. C. Ridgway, Rector of Christ Church, Lancaster Gate, Henry Willingham Gell, M.D.Oxon., of 43, Albion Street, Hyde Park, to Edith, second daughter of the late Richard Bradshaw and of Mrs. Bradshaw, 10, Stanhope Street, Hyde Park.

POWELL—PRINCE.—On July 13th, at St. Peter's, Withington, Herefordshire, by the Rev. Richard Powell, Rector, assisted by the Rev. John Keal Powell, and the Rev. F. Cecil Powell, father and brothers of the bridegroom, Herbert Edward Powell, M.R.C.S., L.S.A., of Glenarm House, Upper Clapton, N.E., to Mary Elizabeth, elder daughter of Richard Prince, Esq., of Barnamore House, Withington, Hereford. No cards.

DEATH.

PARKINSON.—On the 14th inst., at St. Marychurch, Torquay, Alfred William Kennett Parkinson, formerly of Puckeridge and Bengeo, Herts.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Hours of Attendance.*—Daily, 2. *Operation Days.*—Tu. S., 2.

CENTRAL LONDON OPHTHALMIC. *Operation Days.*—Daily, 2.

CHARING CROSS. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M., 1.30; Dental, M. W. F., 9; Throat and Ear, F., 9.30 *Operation Days.*—W. Th. F., 3.

CHELSEA HOSPITAL FOR WOMEN. *Hours of Attendance.*—Daily, 1.30 *Operation Days.*—M. Th., 2.

EAST LONDON HOSPITAL FOR CHILDREN. *Operation Day.*—F., 2.

GREAT NORTHERN CENTRAL. *Hours of Attendance.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Ear, Tu. F., 2.30; Diseases of the Skin, W., 2.30; Diseases of the Throat, Th., 2.30; Dental Cases, W., 2. *Operation Day.*—W., 2.

GUY'S. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 1. *Operation Days.*—(Ophthalmic), M. Th., 1.30; Tu. F., 1.30.

HOSPITAL FOR WOMEN, Soho. *Hours of Attendance.*—Daily, 10. *Operation Days.*—M. Th., 2.

KING'S COLLEGE. *Hours of Attendance.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, daily, 1.30; o.p., Tu. W. F. S., 1.30; Eye, M. Th., 1.30; Ophthalmic Department, W., 2; Ear, Th., 2; Skin, F., 1.30; Throat, F., 1.30; Dental, Tu. Th., 9.30. *Operation Days.*—M. F. S., 2.

LONDON. *Hours of Attendance.*—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, S., 9.30; Skin, Th., 9, Dental, Tu., 9. *Operation Days*—M. Tu. W. Th. S., 2.

LONDON TEMPERANCE HOSPITAL. *Hours of Attendance.*—Medical, M. Tu. F. 2; Surgical, M. Th., 2. *Operation Days.*—M. Th., 4.30.

METROPOLITAN. *Hours of Attendance.*—Medical and Surgical, daily, 9; Obstetric, W., 2. *Operation Day.*—F., 9.

MIDDLESEX. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Th., 1.30; o.p., M. F., 9, W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu., 9; Skin, Tu., 4, Th., 9.30; Dental, M. W. F., 9.30. *Operation Days.*—W., 1.30, S., 2; (Obstetrical), Th., 2.

NATIONAL ORTHOPÆDIC. *Hours of Attendance.*—M. Tu. Th. F., 2. *Operation Day.*—W., 10.

NORTH-WEST LONDON. *Hours of Attendance.*—Medical and Surgical, daily, 2; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operation Day.*—Th., 2.30.

ROYAL FREE. *Hours of Attendance.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Dental, Th., 9. *Operation Days.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Hours of Attendance.*—Daily, 9. *Operation Days.*—Daily, 10.

ROYAL ORTHOPÆDIC. *Hours of Attendance.*—Daily, 1. *Operation Day.*—M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Hours of Attendance.*—Daily, 1. *Operation Days.*—Daily.

ST. BARTHOLOMEW'S. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, W. Th. S., 2.30; Ear, Tu. F., 2, Skin, F., 1.30; Larynx, F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. *Operation Days.*—M. Tu. W. S., 1.30; (Ophthalmic), Tu. Th., 2.

ST. GEORGE'S. *Hours of Attendance.*—Medical and Surgical, M. Tu. F. S., 12; Obstetric, Th., 2; o.p., Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopædic, W., 2; Dental, Tu. S., 9. *Operation Days.*—Th., 1; (Ophthalmic), F., 1.15.

ST. MARK'S. *Hours of Attendance.*—Fistula and Diseases of the Rectum, males, S., 3; females, W., 9.45. *Operation Days.*—M., 2., Tu. 2.30.

ST. MARY'S. *Hours of Attendance.*—Medical and Surgical, daily, 1.45; o.p., 1.30; Obstetric, Tu. F., 1.45; Eye, Tu. F. S., 9; Ear, M. Th., 3; Orthopædic, W., 10; Throat, Tu. F., 1.30; Skin, M. Th., 9.30; Electro-therapeutics, Tu. F., 2; Dental, W. S., 9.30; Consultations, M., 2.30. *Operation Days.*—Tu., 1.30; (Orthopædic), W., 11; (Ophthalmic), F., 9.

ST. PETER'S. *Hours of Attendance.*—M., 2 and 5, Tu., 2, W., 5, Th., 2, F. (Women and Children), 2, S., 4. *Operation Days.*—W. and F., 2.

ST. THOMAS'S. *Hours of Attendance.*—Medical and Surgical, daily, exc. W. and S., 2; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Tu. F., 1.30; Children, S., 1.30; Dental, Tu. F., 10 *Operation Days.*—W. S., 1.30; (Ophthalmic), M., 2.30, F., 2; (Gynæcological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Hours of Attendance.*—Daily, 1.30. *Operation Day.*—W., 2.30.

THROAT, Golden Square. *Hours of Attendance.*—Daily, 1.30; Tu. and F., 6.30; *Operation Day.*—Th., 2.

UNIVERSITY COLLEGE. *Hours of Attendance.*—Medical and Surgical daily, 1.30; Obstetrics, M. W. F., 1.30; Eye, M. Th., 2; Ear, M. Th., 9; Skin, W., 1.45, S., 9.15; Throat, M. Th., 9; Dental, W., 9.30; *Operation Days.*—W. Th 1.30; S., 2.

WEST LONDON. *Hours of Attendance.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th. S., 2; Ear, Tu., 10; Orthopædic; W., 2; Diseases of Women, W. S., 2; Electric, Tu., 10, F., 4; Skin, F., 2; Throat and Nose, S., 10. *Operation Days.*—Tu. F., 2.30.

WESTMINSTER. *Hours of Attendance.*—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1; Eye, M. Th., 2.30; Ear, M., 9; Skin, W., 1; Dental, W. S., 9.15. *Operation Days.*—Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

PRACTICE IN SPANISH AMERICA.

DR. J. BOOTH-CLARKSON, late Surgeon-Superintendent Her Britannic Majesty's Government Emigration Service (Liverpool), writes: Can any of the members of the Association give any information as to the rules and regulations for admitting men with British qualifications to practise in the various Spanish-speaking countries of Central and South America, and the chances of practice?

GALVANISED IRON WATER PIPES.

DR. MUNRO CAMPBELL (Caersws) asks for information as to the poisonous effects (if any) to be apprehended from the use of galvanised iron pipes for conveying drinking water. He desires to know what form the poisoning takes, and how it may best be avoided?

*** We are not acquainted with any data upon this point in any of the textbooks or papers. Nothing is known of any injurious effects in the districts where galvanised iron pipes are used, and in which we have been able to make inquiries.

INSURANCE COMPANIES AND MEDICAL CERTIFICATES OF DEATH.

G. W. A. writes: A. gives to B. an insurance policy as security for money lent, said policy for not more than £500. Is B. necessarily bound to pay £1 1s. to the medical practitioner of A. for a death certificate to receive the money for A.'s life policy?

*** The usual fee payable for the certificate required by an insurance company as proof of death of a policy holder is one guinea. The representatives of the deceased or the person to whom the policy has been assigned have to pay for the certificate. If B. claims the policy he must necessarily furnish the certificate and pay for it.

ANSWERS.

MR. REGINALD HARGRAVE should consult a surgeon. We cannot undertake to give medical advice. We may say, however, that powders for "drying the skin and making it shrink" would be quite useless.

EFFECTS OF ELECTRICAL CURRENTS ON BACILLI.

G. P.—In Spiller and Gottstein's experiments (*Centralblatt f. Bakt. und Parisitenk.*, Bd. ix, p. 77) a current of 2.5 ampères and 1.25 volts was passed through a spiral around a test tube containing the organism to be tested. This killed bacillus prodigiosus in twenty-four hours. For the literature on the subject we may refer our correspondent to Sternberg's *Manual of Bacteriology*, pp. 154 and 784.

PRACTICE IN CALIFORNIA.

DR. J. BOOTH-CLARKSON, late Surgeon-Superintendent Her Majesty's Government Emigration Service (Liverpool), writes: All that is necessary for "M.D." to do for practice in the State of California is to send his diplomas, together with a letter of recommendation from a duly qualified physician resident in California, to the Board of Examiners of the Medical Society of the State of California, San Francisco, when he will receive a licence to practise medicine and surgery, which he will register and have endorsed by the clerk of the county in which he intends to practise. Fee about 21s., or 5 dollars.

FÆCAL INCONTINENCE IN CHILDHOOD.

DR. H. OLIPHANT NICHOLSON (Kirkcaldy, N.B.) writes: In reply to "M. F. C." I would like to make the following suggestions: 1. Use every precaution to insure that after the worms infecting the lower bowel have been got rid of, re-entrance into the alimentary tract is prevented. This indication is fulfilled by careful dieting (avoidance of sweets and starches), attention to general health, use of filtered water,

and the careful cleansing of the hands of the patient, as well as the anal region, after defæcation. 2. Inject 2 ounces of a solution of tinct. ferri perchlor. (5j to 5j of water) thrice daily into the rectum. The same drug may be exhibited internally in 10 to 15-minim doses t.d.s., with great benefit. 3. The incontinence of the fæces may not be due to the presence of worms in the rectum. Try tinct. belladonna, beginning with 25 to 30 minims t.d.s., and increasing till physiological effects are produced. This treatment answered admirably in the case of a girl aged 7 years in my practice. Henoch mentions six cases of incontinence of fæces which were cured by ergotin (gr. jss), or even by distilled water alone, injected subcutaneous near the anus. In such case he believes the condition was simply the result of a bad habit.

NOTES, LETTERS, Etc.

GERMS BY POST.

THE American Postmaster-General has ruled that "diseased germs are unmailable matter." It has got to be a common thing to use the mails to send to specialists for examination diseased germs of every kind. The post-office authorities propose to put a stop to this practice.

THE EMPLOYMENT OF UNQUALIFIED ASSISTANTS.

M.D., M.R.C.S.—If the statements made can be established, we should say the case is perilously near to one of "covering." Our correspondent should communicate with the President of the General Medical Council, 299, Oxford Street, London, W., giving details of the specific points on which he is prepared to furnish evidence.

A MEDICAL LAYMAN.

MEDICUS writes, with reference to Dr. Senn's speech on proposing the toast of the foreign medical guests at the banquet by the Practitioners Club in Chicago (reported in the BRITISH MEDICAL JOURNAL of July 15th), that while it was right in a technical sense to describe Mr. H. C. Burdett as a layman, yet if a complete medical education at two recognised hospitals, a twenty-five years' practical devotion to the larger medical work of the British Empire and the civilised world, an intense sympathy with, and loyal devotion to, his medical first love, and the production of medical—that is to say, hospital—works of unparalleled magnitude and importance, entitle a man to be considered in the large and unconventional sense as a medical man, then Mr. Burdett is improperly described as a layman.

THE SECTIONS AT THE ANNUAL MEETING.

MR. T. GARRETT HORDER (Cardiff), writes: With reference to the sectional work at the annual meeting, I venture to express the opinion that far too much is attempted to be performed. On looking over the programme for the Newcastle meeting I find that no fewer than 26 discussions and 133 papers are announced, besides several addresses from the presidents of sections! To accomplish this herculean task four hours are set apart on Wednesday, the same number on Thursday, and one and a-half hour on Friday.[1] Is it not time that some reform should be adopted? To make the meeting interesting and instructive to the main body of members, the programme should consist only of discussions of topics which general practitioners could take part in. By all means invite some of our leading men to initiate such discussions, but do not invite men to read papers when there is no possible chance of their ever being able to do so. Many members are also strongly of opinion that an opportunity should be afforded of discussing the ethics of the profession. We want the Association to interest itself more and more in the defence of our interests; to make *bonâ fide* efforts to suppress quackery and all unlicensed practitioners; to protect the public from fraudulent advertisers; and to alter the laws respecting the so-called patent medicines. With our numerical strength we should be able to accomplish some of these desirable objects at no distant date, and I therefore plead that a portion of the week should be set apart for the thorough discussion of them.

SCIENTIFIC MANUSCRIPTS.

SOME interesting scientific documents changed hands at the sale this week of the library of the late Lord Brabourne. Among the lots was a quantity of the correspondence of Sir Joseph Banks, to whom Sir Edward Knatchbull, Lord Brabourne's father, was executor. An interesting autograph letter from John Hunter, dated 1792, appears to be one covering the despatch to the Royal Society of his paper on the Natural History of the Common Bee. He hopes Sir Joseph and his worthy Council will think the results of twenty years of observation and experiment suitable for publication in the *Transactions*, and details some of the obstacles which had prevented an earlier forwarding of the paper. About 1830 the Royal Society claimed and received from Sir Edward Knatchbull the letters and papers of Sir Joseph Banks, referring to the Society over which he so long presided, but evidently this particular letter was overlooked.

LETTERS, COMMUNICATIONS, ETC., have been received from:

(**A**) Dr. F. J. Allan, London; Arete; Mr. E. W. Anderson, Arbroath; Messrs. D. Appleton and Co., London; Mr. A. Aslett, Oswestry; Dr. A. G. Auld, Glasgow; Dr. T. C. Askin, Woodbridge; Professor T. C. Allbutt, Cambridge; P. H. Abercrombie, M.B., London; A.M.S. (**B**) Messrs. Burroughs, Wellcome, and Co., London; Mr. W. B. Benham, Oxford; Mr. J. C. Brasier, London; Mr. W. H. Brown, London; Mr. J. Buck, Leicester; Mr. R. Bevan, Lydd; Dr. J. Barr, Liverpool; Mr. Berdoe, London; Mr. Blackett, London; Dr. R. Boxall, London; Mr. L. Browne, London. (**C**) Mr. W. R. E. Coles, London; Mr. G. H. Cleveland, Chicago; Mr. R. J. Collyns, Dulverton; Miss M. A. Cleves, M.D., Chicago; Mr. S. W. Churchy, Atherstone; J. M. Campbell, M.B., Caersws; Chelsea Hospital for Women, Secretary of the, London; Dr. F. C. Cory, Buckhurst Hill; Cantab; Mr. H. Cooper, Aberdeen; C. J. (**D**) Dr. D. Drummond, Newcastle; Dr. A. Duke, Cheltenham. (**E**) Errata; Edinburgh Dental Hospital, Dean of, Edinburgh. (**F**) Dr. Ferrier, London; T. Fentem, M.B., Bakewell; Mr. E. L. Freer, Birmingham; Mr. A. G. R. Foulerton, London; Dr. C. M. Fegen, London. (**G**) Dr. M. Greenwood, London; Miss L. Graham, Gibraltar; Dr. J. Griffiths, Cambridge; Mr. H. Gilford, Reading; Dr. J. B. Graham, Sydney; Dr. H. R. Greene, Southsea. (**H**) Dr. F. De Havilland Hall, London; Mr. A. R. Holland, Margate; Mr. E. Houghton, London; Mr. N. Handcock, Twickenham; L. Hill, M.B., London; Messrs. B. Hunter and Co., Bristol; Dr. G. H. Hume, Newcastle; Dr. L. Henry, Melbourne; Mr. T. G. Horder, Cardiff; Mr. J. F. Hyder, Plymouth; W. Hardman, M.B., Blackpool. (**I**) Inquirer. (**J**) Dr. H. R. Jones, Liverpool; Dr. J. H. Jackson, London; Mr. E. W. Johnson, London; Dr. E. L. Jones, Cambridge. (**K**) Mr. A. Kinlay, Plymouth; Mr. M. H. Knapp, London; Mr. G. M. King, Preston. (**L**) Rev. F. Lawrence, York; Mr. W. Liggins, Ashby-de-la-Zouch; Dr. J. J. Lynch, Walsall. (**M**) M.D.; M.D., M.R.C.S.; Mr. J. R. Miller, Maidenhead; Dr. L. W. D. Mair, Croydon; Mr. W. Martindale, London; Dr. G. B. Mead, Newmarket; Dr. C. W. M. Moullin, London; Dr. P. Manson, London; Mr. W. L. Morgan, Oxford; A Member; Mr. J. B. McLaren, Manchester; Mr. J. J. N. Morris, Devonport; Mr. J. B. McKinney, London; Mr. F. H. Moore, Littleport. (**N**) Dr. J. L. Notter, Woolston; Nemo; Mr. H. O. Nicholson, Kirkcaldy; Mr. F. Newcombe, Grantham. (**O**) T. H. Openshaw, M.B., London; Mr. W. Odell, Torquay. (**P**) Mr. R. J. Parsons, Mansfield; Dr. F. H. Pott, Bournemouth; Mr. R. E. F. Pearse, Jagersfontein, South Africa; Dr. F. A. Purcell, London; Mr. H. W. Pooler, Birmingham; Dr. G. W. Potter, London; Dr. F. Page, Newcastle; Dr. F. L. Phillips, Birmingham; Mr. P. Pigott, Norwich. (**R**) Royal Microscopical Society, Secretary of the, London; Mr. W. Rushton, London; Dr. C. Renner, Redhill. (**S**) Dr. T. Savill, London; Dr. F. Semon, London; Mr. H. Stubbs, Madeley; Mr. R. R. Sleman, London; Dr. A. Sheen, Cardiff; Dr. S. T. Smyth, Southampton; Mr. J. G. Shea, Chesterfield; Mr. H. F. Stokes, London; Victoria University, Registrar of the, Manchester; Mr. A. Snowdon, Yarm. (**T**) Dr. G. D. Thomas, London; Tornix; Mrs. C. Thelwall, London; Dr. H. H. Tooth, London; Dr. F. E. Townsend, Middlesbrough. (**W**) Dr. C. T. Williams, London; Mr. A. T. Wedderburn, Forfar; Dr W. Hale White, London; Dr. R. T. Williamson, Manchester; Dr. A. E. Wright, Netley; Mr. J. C. Wood, Sunderland; Mr. W. Wingate, London; Mr. H. P. Ward, Southampton; D. Walsh, M.B., London; Mr. J. O. Williams, Troedyrhiw; Mr. C. Wray, Croydon; Dr. H. Woods, London; Dr. J. Wolfe, Elie; Mr. H. H. Williams, Wick; W. C. S.; Dr. G. E. Williamson, Newcastle; Mr. J. P. Wightman, Liverpool; etc.

[1] 10½ hours for the 11 sections.

BOOKS, ETC., RECEIVED.

Dochmia and Beri-Beri: A Review of a Report on Kála-Azár and Beri-Beri. By G. M. Giles. Singapore: Singapore and Straits Printing Office. 1893.

La Pratique Dermatologique et Syphiligraphique des Hôpitaux de Paris. Par Professor P. Lefert. Paris: J. B. Baillière et Fils. 1893.

La Méthode de Brown-Séquard. Par Dr. C. Éloy. Paris: J. B. Baillière et Fils. 1893. 3.50 francs.

Traité des Maladies de l'Estomac. Par L. Bouveret. Paris: J. B. Baillière et Fils. 1893. 14 francs.

Die Krankheiten der Mundhöhle, des Rachens, und des Kehlkopfes. By Dr. A. Rosenberg. London: Williams and Norgate. 1893. 8 marks.

Syphilis und Prostitution vom Standpunkte der öffentlichen Gesundheitspflege. Von Dr. A. Blaschko. London: Williams and Norgate. 1893. 4.50 marks.

Gynaekologisches Vademecum für Studirende und Aertze. Von Dr. A. Duhrssen. London: Williams and Norgate. 1893. 4.50 marks.

Compendium der Augenheilkunde. Von Dr. P. Silex. London: Williams and Norgate. 1893. 4.80 marks.

Descriptive Biography Columns, to Classify and Arrange Groups of Biographical Facts. By N. J. Readymoney. London: Williams and Norgate. 1893.

Ergebnisse der Anatomie und Entwickelungsgeschichte. Von F. Merkel und R. Bonnet. Wiesbaden: J. F. Rebman. 1892. 25 marks.

What Constitutes an Efficient Nurse. By Marion C. Pincoffs. London: Record Press, Limited. 6d.

The Nursing Directory, or The Official Directory of Trained Nurses for 1893. London: Record Press, Limited. 5s.

How to Become a Hospital Nurse. By Alice Dannatt. London: Record Press, Limited. 1s. 6d.

Wellerisms from "Pickwick" and "Master Humphrey's Clock." By C. F. Rideal. London: Record Press, Limited. 1s. 6d.

Book of the Hand. By Cheiro, the Palmist. London: Record Press, Limited. 1s. 6d.

*** In forwarding books the publishers are requested to state the selling prices.

CLINICAL REMARKS
ON
CERTAIN CHANGES OBSERVED IN THE URINE IN MYXŒDEMA AFTER THE ADMINISTRATION OF GLYCERINE EXTRACT OF THYROID GLAND.

By WILLIAM M. ORD, M.D., F.R.C.P.,
Physician and Lecturer on Medicine at St. Thomas's Hospital;
AND
EDMUND WHITE, B.Sc.Lond.

A PATIENT suffering from myxœdema was admitted to St. Thomas's Hospital on April 19th, 1893. After careful daily examination of the food and the urine, she began, on May 1st, to take 20 drops of a glycerine extract of the thyroid body of the sheep daily. The dose was equivalent to a sixth part of the whole thyroid body of the sheep. We beg to submit a short statement of the observations obtained.

For a week previous to May 1st the patient had been placed on a diet carefully ordered so that its elements should be as much as possible the same day by day. The particulars of this diet and its equivalents in chemical examination will be published subsequently. The same diet was maintained after the administration of the thyroid extract during the whole period of the treatment of the patient in hospital.

After the administration of the thyroid extract a marked change was observed both in the volume of urine passed and in the quantity of nitrogen excreted. An increase in the volume of urine is the first point to be noted. As regards the excretion of nitrogen, the quantity up to the time of the administration of the thyroid extract corresponded fairly with the amount of nitrogen taken in the food, being, as one would expect, slightly less. Bearing in mind this fact that before treatment the nitrogen excreted in the urine was slightly less than that taken in the food, it is of importance to note that three days after the first administration of the thyroid extract the excretion of nitrogen in the urine exceeded the amount introduced in the food, and that this proportion, very much marked in the earlier days of treatment, was practically maintained so long as the patient was under observation.

The total nitrogenous excretion was determined, as well as the excretion of urea, in order to ascertain whether the nitrogen might be excreted in any form other than urea. The records show that the relation of total nitrogen to nitrogen as urea remained about the same as in normal urine, thus indicating that the nitrogen was still excreted chiefly as urea. It was also seen that the difference between organic matter and urea remained about the same during the continuance of the experiment, thus showing that, in addition to water, the increased excretion was urea or other nitrogenous matter. At the same time, it is important to notice that the patient lost weight rather rapidly in the first week of treatment—namely, from 8 st. 4½ lbs. to 7 st. 13 lbs., with a further but more gradual loss of 3 lbs. The temperature of the body was raised; before treatment it had been subnormal, ranging from 96.6° to 98.6° F., ranging afterwards from 97.6° to 100°, the maximum temperature being reached on the thirteenth day after treatment had begun. As regards the loss of weight, we have to take into account the fact that the patient, having previously a very dry skin, had free perspiration after the administration of the drug.

With regard to the excretion of inorganic matter, it had occurred to us that, with the increased excretion of urea and the associated rise of temperature, changes in the excretion of saline matters, such as occur in pyrexia, might be looked for. It appears, however, that in this case the excretion of the inorganic substances determined was very little affected by the thyroid treatment.

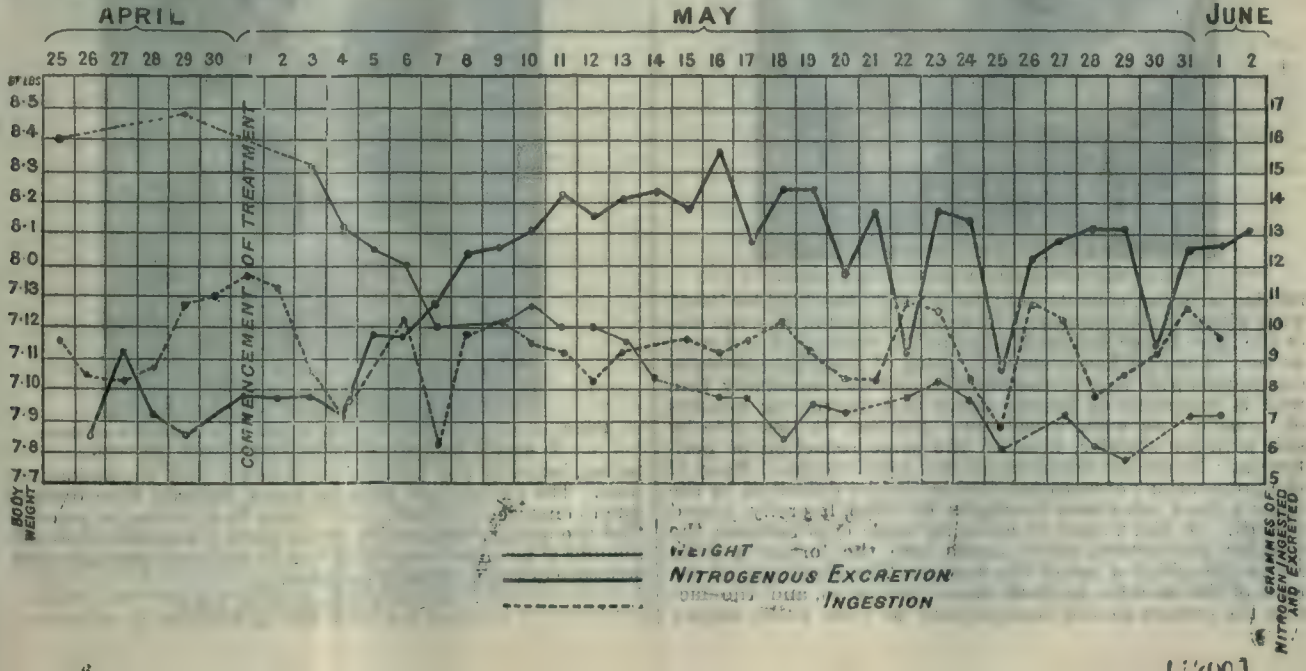
The acidity of the urine was observed to follow closely the variation in the quantity of phosphoric acid eliminated, thus being evidently due to acid sodium phosphate as in normal urine. It is to be regretted that the sulphates in the urine have not been determined, seeing that they might have shown whether the increased nitrogenous excretion might be referred to destruction of proteid substances or some other form of nitrogenous matter.

We beg to present the following conclusions as the result of the treatment and observations in this case:

1. That the urine is increased in volume.
2. That the nitrogen excreted in the urine exceeds the total quantity of nitrogen in the food.
3. The phosphoric acid and chlorine elimination are practically unaffected.
4. That the increased nitrogenous excretion is chiefly in the form of urea.
5. That the body weight is rapidly diminished.
6. That the temperature of the body is raised.

We append a chart showing the changes in the weight of the body, the nitrogenous value of the food taken daily, and the excretion of nitrogen after treatment.

We propose, also, to publish later a full report of our observations, with the tables illustrating them.



ABSTRACT OF A LECTURE ON THE PATHOLOGY OF CYSTIC TUMOURS CONNECTED WITH THE BLADDER.

Delivered at the Royal College of Surgeons of England.

By J. H. TARGETT, M.S.Lond, F.R.C.S.,
Erasmus Wilson Lecturer at the Royal College of Surgeons.

The commonest form of cystic tumour connected with the bladder is the sacculus, or pouch of mucous membrane protruded through the muscular coat of the organ in consequence of some mechanical obstruction to the outflow of urine. It may occur at any part of the viscus except the trigone, but it is most frequently met with towards the base. The explanation may be that the felting of the muscular fibres is here most interrupted by the entrance of the large vesical arteries. Similar herniæ of the intestinal mucous membrane, or distension diverticula, are limited to the mesenteric border, where the continuity of the muscular coat is broken by the passage of the mesenteric vessels. The circular coat of the bladder and the innermost reticulated layer become so thickened and fasciculated from obstruction that they may measure three or four times as much as the external. Having passed between the bundles of muscular fibres, the sacculus may develop no further, or it may extend laterally between the layers of muscle, forming an intermuscular cyst, or more frequently it perforates the outer longitudinal coat at the site of some large vessel or duct, in which case its wall will consist of mucous membrane, a covering derived from the recto-vesical sheath of the bladder, and perhaps scattered bundles of muscular fibres and peritoneum. Sacculi are of two kinds—the small multiple pouches commonly met with in cases of enlarged prostate, and the large usually single, cyst illustrated in Fig. I. It represents a uni-

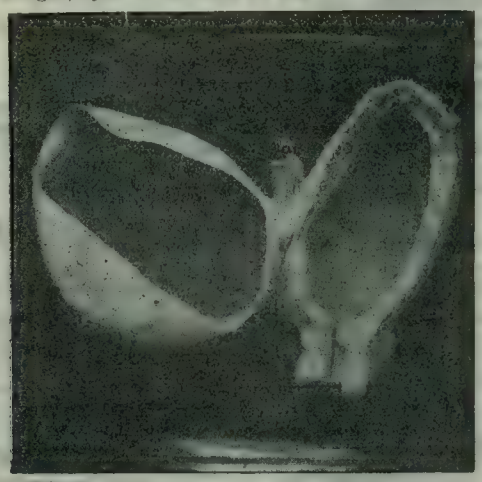


Fig. 1.—Guy's Museum. A. Dilated right ureter.

locular sacculus, considerably larger than the bladder itself, with which it communicates by a small round orifice, the size of the little finger, situated close to the opening of the right ureter. The cyst has a smooth lining of mucous membrane continuous with that of the bladder, and its remarkably thin wall is composed of fibrous tissue and interlacing bundles of muscle. As such a sacculus enlarges, it lies side by side with the bladder, beneath the same reflection of peritoneum; hence the resemblance to a double organ. Many of the preparations of so-called double bladder described by the older writers have been examples of large, laterally placed sacculi. In Fig. 2 there is a similar large cyst between the bladder and rectum, which opens into the former a little above the orifice of one of the ureters. The small size of the neck of the sacculus in both these specimens, and the fact that the ureters are not incorporated in their walls, sugges the possibility of radical treatment by ligature and excision. Though usually single, two or even three large cysts may occur in the same preparation; if two are present, they are



Fig. 2.—St. Bartholomew's Museum. B. Bladder. C. Enlarged prostate. D. Sacculus. E. Displaced vesicula seminalis.

often symmetrically placed with regard to each ureter, as in a case recorded by Mr. Erichsen.[1] The largest vesical cyst of this nature on record is that described by Dr. Warren Greene,[2] which contained more than a gallon of limpid urine. It occupied a large part of the abdominal cavity, yet its mouth measured only an inch and a-half in diameter.

A distinction may be drawn between pouching and sacculation of the bladder, in that the former consists of an irregularly shaped protrusion of all the vesical coats more or less thinned by distension. Sacculi have narrow mouths, while pouches have wide ones. Pouches not infrequently result from the pressure of a vesical calculus. In No. 2,398, St. Bartholomew's Museum, there is a pouch behind the prostate which involves the whole extent of the trigone. It lodged an oval calculus, which was not detected during life. As the ureters open at the bottom of the pouch, they were obstructed by the overlying stone.

Though usually connected with the side and base of the bladder, Fig. 3 shows a large sacculus at the apex above the



Fig. 3.—Royal College of Surgeons Museum. F. Enlarged prostate. G. Back of bladder. H. Parietal peritoneum reflected.

pubes, between the parietal peritoneum and the abdominal wall. The patient had for some years suffered from dysuria due to enlarged prostate. And it may be remarked in passing that the urinary obstruction which leads to sacculation of the bladder is far more frequently due to enlarged prostate than stricture of the urethra or calculus.

[1] *System of Surgery*, vol. ii, p.1098.
[2] *Amer. Med. Times*, 1862, vol. iv, p. 177.

The clinical importance of sacculi depends upon their capability of retaining foul urine, and of lodging a renal calculus which forms the nucleus of an encysted calculus. The foul urine acts prejudicially by contaminating that within the bladder, and thus tends to keep up a chronic cystitis. A sudden and large increase in the quantity of pus passed with the urine is a characteristic feature of such cases. Again, the cyst may become inflamed and suppurate, and pus extend into the surrounding loose tissues or burst into the peritoneum. Or an intramural abscess may be formed, as in Fig. 4. This represents a bladder seen from behind, with a large abscess



Fig. 4.—St. George's Museum. K. Reflected wall of abscess cavity.

cavity in the muscular coat of the posterior wall. It communicates with the bladder by a wide orifice (shown in the figure) just behind the trigone, and it also opened into the rectum at the most dependent part. It is highly probable that such an abscess resulted from suppuration of a sacculus, which was protruded partly through the muscular coat, and then expanded between its layers. In No. 2,405, St. Bartholomew's Museum, such an intramuscular abscess is actually associated with small incomplete sacculi.

Fig. 5 is a remarkable instance of the association of a cyst with a new growth of the bladder. The left wall of the organ is affected with an epithelioma, and over an area corresponding with that of the growth a large smooth-walled cyst is



Fig. 5.—Guy's Museum. L. Enlarged prostate. M. Orifice of right ureter. K. Growth invading cyst wall.

attached. The left ureter, vas, and vesicula, together with the peritoneum, have been stripped off the bladder by the cyst, the wall of which consists of fibrous tissue without a lining of mucous membrane. The cyst is probably due to a distension of the fascial sheath of the bladder by extravasated urine which has escaped through a perforation made by the malignant disease in the vesical wall. The prostatic enlargement which exists would tend to increase the intravesical pressure, and thus assist in the production of the cavity.

The man, aged 63, was admitted for hæmaturia of five months' duration. There was a swelling above the pubes on the left side, which extended half way up to the umbilicus. Nothing detected on sounding. At the necropsy the right non-obstructed kidney was in a state of suppurative nephritis, while the left kidney was atrophied from obstruction, but not inflamed.

Fig. 6 represents a large cyst attached to the back of the bladder, and nearly filled with a lobulated epithelioma, which has extended into it from a primary source in the trigone.



Fig. 6.—St. Bartholomew's Museum. O. Back of bladder. P. Cyst containing growth.

The cyst is a true sacculus of mucous membrane with a narrow orifice, and not a distension of the fascial sheath, as in Fig. 5. The right ureter terminates in the sacculus, owing to its formation at the spot where the ureter perforates the vesical wall and the gradual shifting of its orifice. Further, the right vas deferens has been detached from the bladder, and is now incorporated with the wall of the cyst. This would not have occurred if the cyst was merely a dilatation of the lower end of the ureter.

The history of the case states that for two years the patient had difficulty in micturition and occasional retention, due to enlarged prostate. But the withdrawal of the urine did not reduce a swelling felt above the pubes, which proved to be the bladder pressed forwards by the cyst full of growth.

Two other examples may be mentioned. No. 1750A, Middlesex Museum, shows a very large diverticulum of the bladder containing a sarcomatous growth; and in No. 41A, St. George's Museum, there is a typical sacculus, from the wall of which springs a fimbriated papilloma.

Beside the displacement of the bladder which a large sacculus produces, other effects may be observed, such as compression of the rectum, vasa, and vesiculæ. By the extrusion of the mucous membrane at the termination of the ureter, the lower end of the canal will be compressed between the sacculus and the bladder, or its orifice may be so shifted that the ureter actually opens into the sacculus. Dr. Murchison records a case[3] of thrombosis of the iliac and femoral veins due to the pressure of a large vesical sacculus, which formed a tumour in the groin; and a similar cyst has been met with in an inguinal hernia.[4]

Fig. 7 has a historical as well as a pathological interest, for it is figured and described by Robert Liston in his well known *Practical Surgery*. It represents a large diverticulum, the mouth of which involves the whole extent of the trigone. The right ureter opens immediately above, and the left below, this orifice. The exceptional position of the cyst may be explained by supposing that the cause of the urinary obstruction was in action at the end of fœtal life, and that therefore its greatest effect was produced on the trigone or that portion of the bladder which is the last to be developed.

HYDATID CYSTS OF THE BLADDER.

They are usually situated between the bladder and rectum, or, if originally at one side of the bladder, they come to occupy a posterior position in the course of growth. For

[3] *Trans. Path. Soc.*, vol. xiv, p. 133.
[4] *Wiener klin. Woch.*, 1891, No. 19.

this reason it is generally taught that they are developed from daughter cysts derived from the liver or some other abdominal organ which have fallen into the recto-vesical pouch of peritoneum and there steadily enlarged. But an examination of all the specimens in the London museums has shown that these cysts were originally placed between



Fig. 7.—Royal College of Surgeons Museum.

the muscular coat and the sheath of recto-vesical fascia. This fascia, besides enclosing the prostate and lower part of bladder, forms a special sheath for the vesiculæ and vasa deferentia; hence the gradual enlargement of the cyst separates the fascia from the bladder, and thus detaches the vasa and vesiculæ, which henceforth may become incorporated in the wall of the cyst.

In Fig. 8 an enormous bilocular hydatid cyst is seen



Fig. 8.—Royal College of Surgeons Museum. R. Bladder, side view. S. Sigmoid and rectum. T. Hydatid cyst. U. Displaced vesicula seminalis.

wedged between the bladder, rectum, and sigmoid flexure, and the pelvic peritoneum is obliterated by adhesions. The vesiculæ (U) lie in contact with the cyst wall and not with the bladder. Fig. 9 represents an artificially prepared cyst at the base of the bladder. An incision having been made through the mucous and muscular coats, the fascial sheath can then be readily separated from the bladder by means of the fingers alone. Dissection shows that the vasa and vesiculæ are detached by this procedure in exactly the same

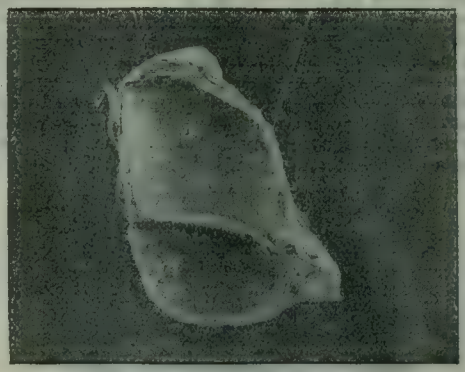


Fig. 9.—V. Left vas deferens. W. Cavity of bladder. X. Site of left vesicula.

manner as by a hydatid cyst, and lie on the wall of the cavity. Thus, in Fig. 9 (X) is within the artificial cyst, and marks the site of the left vesicula. The pouch of Douglas is in most cases obliterated by adhesions; but in No. 3,747B, Royal College of Surgeons Museum, a considerable portion of it remains between the back of the cyst and the rectum. Hence the formation of these cysts within the peritoneal cavity can no longer be accepted as their ordinary mode of development; on the contrary, they are in the majority of instances entirely extraperitoneal. Perhaps the hydatid embryo is deposited in the space indicated from the large venous plexuses about the base of the bladder; or they may burrow through the mucous and muscular coats to reach it, and there develop. Hydatid cysts found within the pelvic peritoneum have generally exhibited signs of a distant origin, such as bands or adhesions connecting them with the liver, ovary, great omentum, etc.

Owing to the large size of the cysts, the bladder becomes displaced upwards or to one side, the neck of the bladder and prostatic urethra lengthened and distorted, and the ureters and rectum compressed. In the female additional difficulties arise from the mechanical interference with parturition. In some cases the cyst has extended far between the rectum and prostate, compressing and destroying the latter, and come within easy reach of the perineum; and the question of treating such cysts by abdominal or perineal section naturally arises. Laparotomy is to be recommended, firstly because the diagnosis of the case is likely to be obscure, and secondly, because it provides a much freer access to the cyst for evacuating its contents than the perineal operation, and is further removed from sources of septic infection. In a successful case recorded by Mr. Bond,[5] the daughter cysts and elastic membranes were completely removed, and the incision in the mother cyst closed by inversion of its edges. It is important to remember that the distended and displaced bladder in these cases may reach as high as the umbilicus, and may be, therefore, the first thing met with on making an ordinary median incision in the abdominal wall. In Bond's case the incision had to be prolonged upwards, and the peritoneum opened above the bladder before the cyst could be reached. A very similar case is mentioned by Graham.[6] A young woman was operated on for a hydatid tumour which greatly distended the abdominal wall. A median incision 2 inches below the umbilicus passed at once into the bladder, which was pushed upwards by a large cyst growing from the front of the uterus. The patient, for weeks after she was able to get about, had a fistulous opening in the abdominal wall through which urine trickled.

PERIVESICAL SUPPURATION.

Certain large abscesses are met with in the neighbourhood of the bladder, which from their size and situation may be

[5] BRITISH MEDICAL JOURNAL, 1891, vol. i, p. 795.
[6] *Hydatid Disease*, p. 108.

classed with the cystic tumours. As a rule, they occur at the base of the organ behind the prostate, or in the prevesical space. The recto-vesical abscess is the commonest, of which Fig. 10 is an illustration. It represents a side view



Fig. 10.—Royal College of Surgeons Museum. Y. Fundus of abscess cavity. Z. Vas deferens.

of the bladder and rectum, separated by a large pyriform abscess cavity. A precisely similar cavity exists on the opposite side of the preparation, and the rectum passes between them. These two loculi communicate by a single channel with the prostatic urethra. The upper surface of the sac is covered with pelvic peritoneum (Y), while between it and the bladder is the vas deferens (Z); below the latter the thickened and dilated right ureter lies upon the lateral wall of the abscess.

The specimen was removed from an elderly man, who stated that he had passed fœtid urine for nearly thirty years. He died of suppurative nephritis, and the necropsy revealed extreme ulceration of the bladder, but there was no communication with the intestine. The patient had been in the habit of passing instruments upon himself. It is therefore highly probable that the abscess was the result of false passages. It was specially noted that the vesiculæ seminales were healthy.

In other specimens which I have had the opportunity of dissecting there has been evidence to show that these large anomalous recto-vesical abscesses are due to perforation of the urethra by instruments, and not to rupture of prostatic abscesses in that direction. The curious bilocular shape is due to the gravitation of pus in the loose cellular tissue on each side of the rectum. In No. 3728, Royal College of Surgeons Museum, there is a large abscess behind the prostate, and the evidence of a traumatic origin is very strong. For the patient had been repeatedly sounded for stone during an illness of seven years, and the urine at length became purulent, probably by a discharge of pus from the abscess into the prostatic urethra, with which it communicated. In Fig. 11 the abscess is probably a sacculus which has suppurated. The uppermost compartment is the hypertrophied bladder, and the lowest is a large prostatic abscess due to ulceration of the urethra. The intervening cavity communicates with the bladder by a small orifice, but *not* with the prostatic abscess. Like sacculi in general, it is situated beneath the recto-vesical fascia, for the vas deferens is displaced backwards by it. Unfortunately, no clinical record has been preserved of this case. An example of a large prevesical abscess is found in No. 21 in St. George's Museum. It is produced by ulceration of calculi through the vesical wall into the cavum Retzii. In the female extensive suppuration in the neighbourhood of the bladder is usually secondary to inflammatory conditions of the uterus and its appendages—for example, the perimetritic and parametritic abscess. The broad distinction drawn between these two kinds of abscesses is that the parametritic abscess extends laterally along the base of the bladder into the broad ligament, while the perimetritic abscess passes upwards above the bladder, and forms a hypogastric tumour.



Fig. 11.—Middlesex Museum.

OTHER KINDS OF CYSTS.

That illustrated in Fig. 12 may be called a paravesical cyst. It has merely a loose fibrous connection with the bladder; its interior is ridged like an ovarian cyst, and is provided with



Fig. 12.—University College Museum.

a smooth lining membrane. It was removed from a female dissection subject. Possibly it may have originated in the broad ligament.

In Fig. 13 a large sac is seen above and behind the bladder, which was formed by the detachment of the peritoneum from the abdominal wall and back of bladder in consequence of a rupture and the escape of urine. The site of the rupture is marked with a rod. The walls of the sac are encrusted with phosphates. The patient after heavily drinking, and while playing a cornet, was suddenly seized with severe abdominal pain. He died of suppurative peritonitis twenty-six days after this occurrence. A very similar preparation is preserved in St. Mary's Museum, No. 1203. Extraperitoneal rupture of the anterior wall may also lead to a circumscribed collection of urine and blood in the suprapubic region, and this may become encysted.

The so-called allantoic cyst is known by its preperitoneal

situation and its connection with the urachus, generally in the lowest fourth of its extent. The cyst possesses a dis-



Fig. 13.—Royal College of Surgeons Museum. A. Wall of sac. B. Adherent coils of ileum. Y. Rectum.

tinct covering of smooth muscular tissue, and is lined with stratified epithelium. Usually they are not larger than a horse bean. Certain very large preperitoneal cysts met with in the course of abdominal sections have been attributed to dilatations of the allantoic canal because of their situation and the escape of urine from the operation wound. But the evidence is inconclusive, since such cysts may be confused with apical sacculi of the bladder, encysted peritoneal effusions, or even with ovarian and parovarian cysts. As none of the cases recorded have been demonstrated by *post-mortem* inspection, their allantoic origin cannot be accepted. Multiple cystic dilatations in the course of the urachus are occasionally found in performing laparotomy, but they are always of a small size.

CHOLERA AT MECCA AND QUARANTINE IN EGYPT.

By J. MACKIE, M.B., C.M.G.,
British Delegate at the Quarantine Board, Alexandria.

THE first announcement officially made of what will be the memorable cholera epidemic of this year at Mecca was on June 7th, when the mortality was already 18 per day, and deaths from "ordinary" diseases 72.

The population of Mecca is estimated at about 60,000, while the number of pilgrims massed together there this year from all parts of the Moslem world is variously estimated at from 200,000 to 300,000; the latter figures I should consider considerably over the mark. As there are no means of estimating the number with even an approximation to certainty, it is a matter of guesswork, and it is well known how difficult it is even for experts to estimate crowds of very large numbers. It is certain, however, that the pilgrimage is very exceptionally large. The members of the Mahomedan faith joined it this year on account of the day of Sacrifice at Moona falling on a Friday (June 24th). The numbers arriving at Jedda by sea might be pretty accurately controlled, but the arrivals by land cannot be estimated. The number of pilgrims shipped at Suez alone was 25,301, of which 14,310 were Egyptians. Besides this number, 18,931 transited the Suez Canal, coming from the Mediterranean side, giving over 44,000 to be accounted for at the quarantine stations on their return. Deaths from cholera and other pilgrimage diseases will, however, have greatly thinned the ranks, whilst many remain in the Hedjaz to trade, or for other reasons, returning later or with next year's pilgrims. Up to July 13th over 10,000 deaths from cholera had been officially reported from Mecca and Jedda, while there is no report of deaths from other diseases. That this number, though official, is under the mark, may be inferred from a report of Dr. Chaffy, an Egyptian Moslem, sent by the Quarantine Board as their sanitary correspondent to Mecca.

This report, of which I give a translation of some extracts, reveals a ghastly state of things happening, one may say, almost at the door of Europe, taking account of these days of rapid steam communication. Dr. Chaffy says: "On arrival at Mecca I commenced at once an inspection in the town. The hospital, private houses, and tents were full of people suffering from cholera. I sent you by telegraph the number of deaths declared officially, but on account of the extraordinary mortality it must be admitted that the number of deaths could not be precisely known, and it may certainly be considered to have been double of that officially declared, even more. At 'Moona' it was impossible to bury all the dead, which lay here and there in heaps. Round about the Syrian Caravan (Mahmal) there was a large number of bodies lying unburied. Returning from Moona to Mecca I found the route strewn with dead. In the town of Mecca itself, dead bodies were lying about in a state of putrefaction, and, when they were at last transported to the cemetery, they were thrown down there, and left lying for days unburied from want of a sufficient number of gravediggers. The mortality from ordinary diseases at Mecca was caused by pernicious fevers[1] and diarrhœa."

One has only to read this and Burton's description of Mecca and pilgrim life there on ordinary occasions to form some, but a very imperfect, idea of the state of things after the sacrifices at Moona, under the scorching heat of midsummer. After the sermon of many hours' duration on Mount Arafat, a stampede, graphically described by Burton, takes place down to the Moona valley, where the sacrifice of sheep takes place, the valley being converted for the time into a charnel house. No one who knew these rites was astonished when the mortality after "Moona" was officially reported to have mounted up from 220 and 455 to 1,000 a day. I have seen no account of the mortality on the road on the return journey of forty miles from Mecca to Jedda, but one may infer that a good many must have died by the way, as cholera was declared amongst return pilgrims at Jedda on June 29th, and only three days before they were dying at the rate of over 1,000 a day in Mecca, whence they had come.

JEBB EL TORR.—THE EGYPTIAN QUARANTINE STATION FOR RETURN PILGRIMS.

This is the fourth time within a few years that the Quarantine Board has had to deal with severe epidemics of cholera amongst return pilgrims at its quarantine station at Torr, namely, 1881, 1890, 1891, and 1893. Up to this date news has been received by the Board of the arrival of 7,801 pilgrims at Torr; of these 1,256 only are Egyptians, the rest being from countries on the Mediterranean side—Turks, Moors, Bosnians, etc. These have been conveyed from Jedda by ten steamers, and 24 deaths from cholera are stated to have happened on board during the voyage, and others from ordinary diseases. Since their arrival at Torr there have been about 100 cases of cholera with about 60 deaths, while the station hospital for ordinary diseases is stated by the director to be already "encumbered" and the doctors overworked. At the date of last report there were 250 sick in hospital of ordinary diseases. Of the choleraic attacks only 3 or 4 have been Egyptian pilgrims. It is to be noted that, according to information received, the Egyptian pilgrims suffered very little at Mecca. In the previous epidemics also of 1890 and and 1891 the Egyptian pilgrims suffered comparatively little, and on the present occasion their general health is reported by the director of the station to be good. The Quarantine Board, with knowledge gained from previous epidemics, and knowing the work which would be thrown upon it should an epidemic break out amongst the immense number of pilgrims of this year, took steps in good time to prepare the quarantine station, and is working hard, aided by the Egyp-

[1] Pernicious fever is a vague term used in these countries, and may mean many things. I have known it applied to septicæmia, pyæmia, peritonitis, etc. In a general way, when there are shivers, cold perspirations, collapse, and death, whatever relation they bear to each other, the disease is dubbed pernicious fever.

tian Government, to stamp out the epidemic at Torr, and prevent its introduction into Egypt and Europe. As it has succeeded on the previous occasions I have mentioned, there is good reason to hope that it will succeed again now, though the circumstances are much more serious.

The station of Torr is practically a desert, water being supplied from wells. There are no running streams to pollute, and the pilgrims are lodged in tents. Each ship as it arrives is assigned a section apart for its pilgrims, the sections being at a considerable distance from each other, with guards placed to prevent intercommunication. Healthy and infected sections are kept well apart. The period of quarantine is fifteen days, dating from time of arrival if healthy, or dating from the last case of cholera in the section after arrival. During the quarantine the vessel bringing the pilgrims is cleansed and disinfected, and the personal effects of the pilgrims are disinfected by steam under pressure, for which the Quarantine Board possess disinfecting machines established at the station. If considered necessary, the camping ground of an infected section is changed. The number in a section varies from perhaps 300 to 900, according to the number brought by any one steamer. After having undergone the prescribed period of quarantine without a suspicious case the foreign pilgrims are re-embarked on the steamer which brought them, and pass the Suez Canal in strict quarantine and well guarded, to prevent communication with Egypt. In the case of Egyptian pilgrims, after having undergone the prescribed period of quarantine at Torr and being declared healthy, they undergo a further three days' observation at a fresh camping ground at Rass Mallays—a healthy spot at a considerable distance from Torr—and are thence brought to Suez, generally in clean vessels sent by the Egyptian Government, allowed to land in free *pratique*. Vessels leaving Jedda with pilgrims receive their papers for Torr and go straight to the quarantine station on the peninsula. The station is guarded by military sent by the Egyptian Government, and I believe there are about a thousand soldiers at present there on duty. All likely places where where sambooks or other small craft might land pilgrims "in contravention" are strictly watched and every precaution taken by camel patrols and coastguard cruisers to prevent return pilgrims from landing in Egypt except by the stations established by the quarantine board. Personal effects too worthless and dirty for disinfection are ordered to be burnt, the Egyptian Government at its own expense having sent a supply of clothing to draw upon to replace them. Communication is kept up with Suez by small steamers lent by the Egyptian Government, which take provisions if required and mails, there unfortunately being no telegraph wire between Suez and Torr. Specimens of the water from the wells were examined some time ago at the Khedivial laboratory in Cairo and pronounced to be good. No complaints have reached the Board as yet as to quantity or quality of the water or food. Two great dangers in the present instance are the chance of the water giving out, which it has not done on previous occasions, and the station becoming overcrowded by prolonged quarantine should many sections continue long infected preventing their being sent off while fresh batches continue to arrive. The work of disinfection has been much and unfavourably criticised, and any one who has had personal experience of crowds of pilgrims the state of filth and dirt of their persons and clothes, the bundles of filthy impedimenta which they carry with them, can easily understand that the disinfection cannot be perfect, but if perfection cannot be achieved (and in what is it achieved?) it is no reason why something should not be done.

ORIGIN OF THE EPIDEMIC.

The usual vexed question will no doubt soon arise as to how the disease was this time imported into Mecca. According to information received in Egypt the first cases of cholera were observed amongst the Yemen pilgrims immediately on their arrival in Mecca. It is known that cholera must have been prevailing in the Yemen as lately as the end of last year.

A Turkish transport with troops from Yemen left Hodeida on the 19th of last September, and made for the Turkish quarantine station at Camaran, in the Red Sea. During their stay at Camaran there occurred 47 cases of cholera, 46 cases of chronic dysentery, 38 cases of intestinal catarrh, and 10 cases of pernicious fever. Probably some of the cases of chronic dysentery and intestinal catarrh were choleraic.

During the present season one vessel—the *Knight of St. John*—arrived at Camaran on May 5th from Bombay with over a thousand pilgrims of different nationalities, amongst whom were a few cases of cholera. These pilgrims underwent their quarantine at Camaran, and no further cases, as far as I know, have been reported amongst them.

Discussions on this subject in the past have usually been very unsatisfactory and the conclusions very indefinite. The serious fact remains that cholera epidemics amongst the pilgrims annually collected at Mecca are of very frequent occurrence, and are a standing menace to Egypt and Europe. Four times within the last twelve years the disease might have been introduced by the pilgrims into Egypt or Europe, or both, and the experience of Spain and France has shown how easily it may become endemic. The endeavours of the Quarantine Board have fortunately been successful in stamping out the disease before the pilgrims reached Egypt. The doings of the Board have been very severely criticised in England, often rightly, but oftener undeservedly, and without *connaissance de cause*. Its actions will in the future be very much modified by the decisions of the Conference of Venice, a Conference due entirely to the action of some of the members of the Board, who took the initiative and drew up a programme for their Governments with a view to settle on a more rational basis, and smooth over the ever-irritating question of Suez Canal quarantine.

ON A METHOD OF DETERMINING THE CONDITION OF BLOOD COAGULABILITY FOR CLINICAL AND EXPERIMENTAL PURPOSES, AND ON THE EFFECT OF THE ADMINISTRATION OF CALCIUM SALTS IN HÆMOPHILIA AND ACTUAL OR THREATENED HÆMORRHAGE.

[PRELIMINARY COMMUNICATION.]

BY A. E. WRIGHT, M.D.DUBL.,
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IT is evident that the foundations of a rational system of therapeutics in connection with the treatment of conditions of altered blood coagulability cannot even be laid until we are in possession of a method by which the necessary clinical data on blood coagulability can be collected. The method which I am about to describe allows of such determinations of blood coagulability being made in a drop of blood obtained from the finger. The clinical application of the method is, as far as I know, new; but the method itself is a very obvious one, and must have already suggested itself to other observers.

The necessary apparatus consists of half-a-dozen to a dozen capillary tubes of approximately equal calibre. The blood is aspirated into these, and the coagulation time is determined by blowing down one tube after another at regularly increasing intervals until the tubes are found to have become blocked by clot.

Such capillary pipettes can easily be made by a glass blower out of thermometer tubing, or they can be prepared out of ordinary glass tubing as follows: Soft glass tubing about ¼ inch external diameter is cut up into lengths of about 4 inches. Each of these pieces of tubing is heated in the middle in an ordinary blowpipe flame; and is drawn out into a capillary tube. The capillary tube thus obtained is broken across in the middle, giving us a couple of glass pipettes ready for measurement. Capillary tubes of any selected calibre may be employed, but it would obviously be convenient to constitute a standard size. Those I have employed ranged in diameter between 0.01 inch (*circ.* 0.25 mm) and 0.0125 inch. I employed a column of blood 2 inches (*circ.* 5 cm.) in length. A calibration, which was found quite sufficiently accurate for all practical purposes, was obtained as follows: Two pieces of brass wire, respectively 0.01 and 0.0125 inch in diameter, were selected by measurement under the low power of the microscope. The thicker wire was pushed down the mouthpiece of the pipette until it was nipped by the by narrowing capillary tube. This point was marked with a red pencil, and the tube was broken across 2 inches below this point. The thinner wire was now passed down the pipette, and the calibration was considered sufficiently exact when this wire was found to pass out through the extremity of the tube.

These capillary pipettes can be cleared by passing a fine wire down, and then washing them out in distilled water. The tubes must then be thoroughly dried, either by passing them through a flame, or by removing the water with alcohol and the alcohol with ether.

These tubes are employed in the following manner in making an estimation of blood coagulability. Six or more capillary tubes are laid on the table before the observer, along with a watch provided with a seconds hand, and pencil and paper for noting the times of filling and testing the separate tubes. A drop of blood is now obtained from the finger in the usual way. This is aspirated into a capillary tube, and the time of filling the tube is accurately noted down. The finger is then wiped clean, and another drop of blood is pressed out for filling the next pipette. It will be found convenient to allow an interval of one quarter, to half, a minute to elapse between the filling of successive tubes. In dealing with normal blood two minutes may be allowed to elapse before testing the condition of coagulability in the first tube. The condition of the blood, as ascertained by blowing down the tube, is noted down opposite the entries of the time of filling and testing. If the tube is found blocked, coagulation has taken place, and the condition is noted down as "clotted." If, on the other hand, the contents of the tube can be blown out, the condition is to be noted as either "clotting" or "liquid." It is easy to differentiate between these latter conditions by blowing out the contents of the tubes on to a piece of blotting or filter paper. In coagulating blood a shred of fibrin can then readily be distinguished. If the contents of a tube, examined, say, at three minutes after filling, are found to be liquid, while the contents of the pipette next in series, examined after four minutes, are clotted, it is advisable not to delay further before testing the following tube. When the tubes have been filled at half-minute intervals we thus learn what the condition of the blood is at three and a-half minutes. An actual example may further elucidate the method.

Tube 1, tested 2 minutes after filling: contents liquid; Tube 2, tested after 3 minutes: liquid; Tube 3, tested at 4 minutes: liquid; Tube 4, tested at 5 minutes: clotting; Tube 5, tested at 4½ minutes: liquid; Tube 6, tested at 4¾ minutes: liquid; Tube 7, tested at 5½ minutes: clotted; Tube 8, tested at 5¼ minutes: clotted; Tube 9, tested at 5 minutes: clotted; Tube 10, tested at 4 minutes 50 seconds: clotted. It will be seen that coagulation time here lies between 4 minutes 50 seconds and 5 minutes.

In addition to employing our capillary tubes for determining the actually existing condition of blood coagulability, we may employ them to control our therapeutics by ascertaining whether an alteration of blood coagulability has been brought about by treatment. By this means we can evidently avoid inducing undesired or excessive alterations of coagulability.

We can further employ our capillary tubes to assist us in our selection of an appropriate method of treatment. We can, for instance, ascertain whether the addition of a lime salt to a particular blood will increase the coagulability of that blood. To determine this, it is only necessary to aspirate an appropriate[1] amount of a solution of a lime salt into the capillary pipette (it is a convenient plan to have the stem of the pipette divided into fifths and tenths), and to fill up to the usual mark with blood. Mixture of the contents can be effected by blowing out the contents of the tube on to any clean surface, and aspirating them again without delay into the tube. It will be shown further on that the more rapid coagulation[2] which is observed after appropriate additions of calcium chloride solution to the extravascular blood is obtained equally by the administration of lime salts by the mouth. On the other hand, too much reliance must not be placed upon forecasts based only upon the results of the additions which are thus made to the extravascular blood. For instance, an addition of either citrate of soda[3] or leech extract[4] will keep the blood in the capillary pipette liquid for an indefinite period but the administration of these substances by the mouth appears to be quite ineffective.

The methods which have just been described have gradually elaborated themselves in connection with the examination of the blood in a case of hæmophilia which was referred to me for study, and if possible for treatment, by my friend Dr. H. Willoughby Gardner, of Shrewsbury. I am glad to have this opportunity of thanking him for his great kindness and help in this matter. I propose to put the results of the examination of the blood in this case of hæmophilia on record here, in as far as they bear upon the questions under consideration.

S. W., aged 11 years. No family history of hæmophilia. At 3 years of age was brought to a doctor for bruises; at 6 years of age and again at 10 years bled profusely—it is said for a week at a time—when on each occasion a tooth became loosened and fell out by natural processes. About 7 years of age patient bit his tongue, and bleeding continued until he was so weak that he was unable to stand without assistance. His pillow was saturated with blood during the night. On another occasion, when the hæmorrhage from a trifling cut on the finger was excessive, bleeding was only arrested by the application of the actual cautery. Patient has a history of perpetually recurring swellings of his joints and of large subcutaneous hæmorrhagic ecchymoses. He is often seriously crippled by the effusions in his joints.

Present Condition (May 24th, 1893).—He has a fair complexion with reddish hair; is fairly well nourished and tolerably robust for his age; presents a large livid ecchymosis on right upper arm and a considerable hæmatoma on the left buttock. His right knee-joint is considerably swollen and is full of fluid; the swelling is not painful, but it causes a certain amount of lameness. Synovial membranes of elbow-joint are considerably thickened.

When the patient came under observation at Netley, I proceeded to make a systematic examination of the blood, with the view of ascertaining whether any pathological alterations could be detected. The blood was examined daily at 3 P.M.—being an hour and a-half after midday dinner. It was obtained in the usual way, by pricking the tip of the finger. Daily observations were made with reference to the following points: (*a*) the number of red blood corpuscles; (*b*) the number of leucocytes; (*c*) the percentage of the various varieties of leucocytes; and (*d*) the condition of coagulability.

Gowers's hæmocytometer was employed for the enumeration of the red and white blood corpuscles. The diluting fluid employed was an 8 per cent. solution of magnesium sulphate, which had received a sufficient addition of gentian violet to stain the leucocytes darkly in the course of the few minutes required for the subsidence of the corpuscles. The percentage of the different varieties of leucocytes was determined in cover-glass specimens of blood. These were fixed by floating them for half a minute on a saturated solution of mercuric chloride (method of Muir and others). The preparations were then stained by the method recently described by Surgeon-Captain Bruce and myself.[5] The leucocytes were enumerated under the following four headings: (*a*) leucocytes with coarse eosinophilous granules and subdivided nucleus (so-called "eosinophilous leucocytes"); (*b*) leucocytes with greatly subdivided darkly-staining nucleus and very minute eosinophilous granules (so-called "polynucleated or neutrophile leucocytes"); (*c*) large leucocytes with a single large not-subdivided faintly-staining nucleus (so-called "mononuclear leucocytes"); (*d*) small leucocytes containing a relatively large and very darkly-staining nucleus (so-called "lymphocytes"). The condition of coagulability was determined by the method of capillary tubes described above.

The results are entered in the tabular statements given below:—

Date.	Treatment.	Number of White Blood Corpuscles in 1 c.mm.	Varieties of White Blood Corpuscles. E.	P.	M.	L.	Coagulation Time.
May 25th, 1893	None	8,400	2	58	11	29	10 minutes
May 26th, 1893	,,	6,500	1	56	10	33	9 minutes
May 27th, 1893	,,	6,800	2	48	9	41	9½ minutes
May 29th, 1893	,,	5,800	1	57	10	31	9½ minutes

This tabular statement shows that the blood of this hæmophilia patient differed from the normal blood in three respects: (*a*) in containing a somewhat reduced number of white blood corpuscles; (*b*) in containing a diminished proportion of polynuclear leucocytes (54 per cent. of total leucocytes instead of about 75 per cent.); (*c*) in possessing an apparently altogether subnormal degree of coagulability (coagulation time 9 to 10 minutes, instead of as in normal blood from 2½ to 5, or rarely 6 minutes). The number of the red blood corpuscles ranged from 4.280.000 to 5.200.000.

[1] About 1 volume of 1 per cent. calcium chloride to 4 volumes of blood.

[2] Acceleration of coagulation is also obtained by additions of distilled water in the extravascular blood. In making experiments on the effect of lime additions it is therefore well to employ solutions of calcium chloride in normal salt solution, and to employ normal salt solution, and not distilled water, in the control tubes.

[3] Citrate of soda keeps the blood liquid by decalcifying it. An addition of 1 part of citrate of soda to 200 of blood (⅕th volume of a 25 per cent. solution) is quite adequate for this purpose. I may perhaps be allowed to remark in this connection that this variety of decalcified blood appears to be even more suitable for purposes of transfusion than even the oxalated blood proposed by me in a previous communication (British Medical Journal, December 5th, 1891).

[4] One leech head extracted with 5 c.c. of normal salt solution will keep about 25 c.c. of blood liquid. In other words, 1 volume of such an extract will keep 5 volumes of blood liquid.

[5] British Medical Journal, April 3rd, 1893.

On consideration of these facts it will be seen that the indications for treatment were all in the direction of endeavouring to bring about an increased degree of coagulability in the blood. In view of the general paucity of leucocytes in the blood, it was evidently worth ascertaining whether an increased coagulability could be brought about by increasing the number of the leucocytes. With a view to effecting such an increase, I put the patient upon daily 1 gramme doses of nuclein. I had prepared the nuclein, by Horbaczewski's method, from thymus glands. The leucocyte enumerations which are tabulated below confirm, as far as a single case can, Horbaczewski's observations of the occurrence of leucocytosis after the administration of nuclein. The enumerations were in all cases made three hours after the exhibition of the nuclein. The degree of leucocytosis is to be gauged by reference to the figures for the four preceding and three succeeding days (vide *supra* and *infra*).

Date.	Treatment.	Number of White Blood Corpuscles in 1 c.mm.	Varieties of White Blood Corpuscles. E.	P.	M.	L.	Coagulation Time.
May 30th, 1893	1 g. nuclein at 12 noon	8,600	2	57	10	31	14 minutes(?)
May 31st, 1893	,,	10,200	2	58	6	34	12 minutes
June 1st, 1893	,,	10,200	1	58	10	31	10½ minutes

It will be noticed that the coagulability of the blood was not increased as compared with the three previous days. I therefore determined to try the effect of the internal administration of lime salts. I was influenced in this (*a*) by the results of my experiments on the administration of calcium chloride to animals, some of which have been already reported in the British Medical Journal[6]; (*b*) by the following experiments, in which I observed that an increase of coagulability was obtained when calcium chloride was added to the extravascular blood of this particular patient. The experiments were as follows:—

May 31st, 1893. Capillary tubes of standard size filled with blood from tip of finger. Tube 1 tested 8½ minutes after filling contents liquid. Tube 2, after 9½ minutes, liquid. Tube 3, after 9½ minutes, liquid. Tube 4, after 10 minutes, clotting. Tube 5, after 11 minutes, clotting. Tube 6, after 10 minutes, clotting. Tube 7, after 12 minutes, clotted. Tube 8, with addition of ½ volume 1 per cent. $CaCl_2$ solution found clotted when tested after 6 minutes. Tube 9, with addition of ½ volume of 1 per cent. $CaCl_2$ solution tested after 6 minutes, contents clotted. Tube 10, with ½ volume 1 per cent. $CaCl_2$ solution clotted after 5½ minutes.

It will be noticed that we have here a reduction of coagulation time from 12 to 6 minutes as a consequence of an addition of calcium chloride to the extravascular blood. I have multiplied such observations on my own blood and upon other normal bloods of both man and animals, and find, as far as my experience goes, that such an acceleration of coagulation time is the invariable rule. Thus, for instance, my own blood clotted in 30 seconds with a lime addition at a time when its normal coagulation time was represented by 2½ minutes. Again, on another occasion, when the coagulation time of my blood was represented by 3 minutes, I found that my blood clotted in 45 seconds with the appropriate lime addition.

In view of the above facts I administered 1 gramme (*circ.* 15 grains) of calcium chloride three times a day to my hæmophilia patient. The results are tabulated below.

Date.	Treatment.	Number of White Blood Corpuscles in 1 c.m.	Varieties of White Blood Corpuscles. E.	P.	M.	L.	Coagulation Time.
June 2nd, 1893	1 g. $CaCl_2$ t. i. d.	7,200	1	47	19	33	5¼ minutes
June 3rd, 1893	,,	7,800	4	44	11	41	5½ minutes
June 5th, 1893	,,	6,500	2	51	6	41	Over 1 hour

[6] British Medical Journal, December 19th, 1891.

The administration of lime was thus immediately followed by a reduction of coagulation time to within normal limits. This normal degree of coagulability was also maintained on the next day. On the fourth day of the treatment, however, coagulability was found to be decreased to an extraordinary extent. At this stage my observations were unfortunately broken off by the departure of my patient.

In the absence of actual experiment, I have however the following reasons for *surmising* that the observed decrease of coagulability was due to the administration of calcium chloride having been carried too far (*a*) when too large an addition of calcium chloride is made to decalcified blood *in vitro* coagulability decreases,[7] instead of being accelerated as it is with moderate additions; (*b*) on taking 2 grammes of calcium chloride three times a day I found that the coagulability of my blood rose during the first 24 hours, and then fell away to almost its original normal level (coagulation time 4 minutes) on the second day, and fell away further on the third day (coagulation time 6 minutes); (*c*) the greatest accelerations of coagulation time appear to be obtained with comparatively small doses of lime. Thus, in the case of my frind Dr. Leonard Rogers, coagulation time before administration of lime was 5¼ minutes; it decreased in 24 hours after two 1-gramme doses of calcium chloride to 1¾ minute. Again, in my own case,[8] the effect of taking 2 grammes of calcium chloride in a single dose was a reduction of coagulation time from a normal of 4 minutes to 1¾ minute 24 hours after the exhibition of the lime.

I believe that the facts which have been brought forward are sufficient to raise a strong presumption that calcium chloride will prove of utility in producing an increased coagulability of the blood such as is desiderated in the treatment of internal hæmorrhage, aneurysm, and hæmophilia. I have seen such arrest of hæmorrhage accompanied by an increase of blood coagulability in a case of perpetually recurring epistaxis and in a severe case of hæmoptysis, the opportunity of observing which last I owe to the kindness of Professor Cayley and Surgeon-Colonel E. Fairland. Similar successful results have been put on record in the British Medical Journal by Mr. Mayo Robson.

I may, in conclusion, refer to two sources of fallacy which might be supposed to vitiate the results arrived at in this paper. The observed increase of coagulability might evidently be attributed to some spontaneous variation of blood coagulability (such a variation might be conceived to be associated with the different stages of digestion); or, again, the alterations of blood coagulability might be attributed to differences in the gaseous composition of the blood in different experiments. As far as I have yet been able to study these questions, I see no reason to believe that these influences exercise a very large disturbing effect. In order, however, to minimise such sources of error in my experiments, I have in all cases made my estimations at the same hour on successive days, and I have invariably relaxed the ligature at frequent intervals whenever I have been drawing off blood from the finger.

A STUDY OF A CASE OF FOCAL EPILEPSY,

AND OF THE RESULTS PRODUCED BY EXCISION OF A SMALL AREA OF THE MOTOR CORTEX.

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Cases in man which help to elucidate some of the difficult problems dealing with the functions of the cerebral cortex are so rare, that the following study of an instance in point may be interesting.

The patient had convulsive seizures of the right arm due to a sarcoma of the lower part of the left ascending parietal convolution. An oval area of cortex infiltrated with growth was excised. The piece taken away had the long axis anteroposterior, and extending from the fissure of Rolando in front to just across the lower extremity of the interparietal sulcus behind.

[7] Wright, *Jour. of Pathology*, June, 1893, p. 444.

[8] The condition of increased coagulability in this case was already apparent in 2½ hours. As in Dr. Rogers's case it passed off gradually on the third day.

I.—SENSORY SYMPTOMS.

Sensibility to touch, to pain, to heat and cold, and the capability of appreciating the addition of 1 oz. to 20 ozs. in the palm of the hand were absolutely unimpaired both before and after the operation. The attempt was made after the operation to see how readily the patient could localise cutaneous impressions, and she was often as accurate as a healthy person. No doubt she was sometimes very wide of the mark, wider indeed than either of three healthy persons tested, but I am not inclined to attribute much importance to this, for often she was quite accurate, and sometimes healthy people were very wide of the mark. Probably the excision of the arm area of the left cortex to some extent weakened the movements of the left arm, and consequently she would not be able to localise very correctly with it. She lay on her back, and therefore the left hand was usually a long way off the right arm, and localisation is always much less accurate the further the localising hand has to be brought to touch the part being investigated, this probably being only a special instance of the fact often observed in healthy people, that the accuracy of localisation is much greater the shorter the time which elapses between the touch and the attempt to localise it. Lastly, as she was aphasic, she was debarred from asking us questions which would enable her to find out whether she correctly understood our requests. On the whole, probably the power of localising impressions was very little, if at all, impaired.

In the few observations that were made with the pin head instead of the pin point the results obtained were the same. I wish I had tested sooner after the operation, and that more observations had been made with the pin head, for some think that however lightly the pin point is applied, it really is a test of the perception of pain and not of touch; but I find in my own arm I cannot localise touches with the pin's head any better or any worse than those with the point, and the point was, in the patient and in the healthy persons, always used so lightly that when I touched myself I was quite unconscious of any pain. Then also it must be remembered that, according to Ziehen, "pain, therefore, is no especial quality of sensation, but merely a special designation for the painful or unpleasant feeling which accompanies very intense dermal sensations."[1] Both in the patient and in the three healthy persons the accuracy of localisation was much greater below the elbow than above it, and was least about the shoulder.

Great importance attaches to the sensory condition of a part paralysed by excision of the cerebral cortex. Munk, as is well known, showed that if a large area of the motor part of the cortex is excised there is loss of sensation on the opposite side of the body. Dr. Mott has recently, with the chip test applied to monkeys, confirmed these results. In all these experiments a large area was excised, but in my case only a small portion was taken away. Some experiments recently performed upon monkeys, and related by Professor Schäfer at the Physiological Society, show that when a small area of the lower part of the ascending frontal convolution was excised there was no discernible loss of sensation in the paralysed part, but if the area excised was large there was loss of sensation. My case therefore supports, I think, the results of experimental physiology. A case just published also supports it.[2]

I have read a great many descriptions of cases of tumours of the brain to see what light they throw on the question of the state of sensation after damage to the motor cortex, but I am convinced that they are useless as an aid to its settlement. In the first place many are very badly reported; secondly, a tumour is always of slow growth, the effects of lesions slowly produced are often widely different from the results of those quickly produced; thirdly, a tumour often sets up surrounding inflammatory changes; fourthly, the increase of intracranial pressure produced by a cerebral tumour is frequently so great that it will cause, as I have elsewhere[3] shown, absorption of half the thickness of the skull, even when it is not itself in contact with the bone; fifthly, different authors often interpret the same case differently.[4]

It seems to me, therefore, that the question can only be settled by observing cases in man, in which a limited area of the cortex is excised. These cases must fulfil the following conditions: 1. They must be accurately reported and observed for all varieties of sensation. 2. If any defects of sensation are observed, it must be shown by a *post-mortem* examination that the only lesion in the brain is that produced by the operation. The absence of a necropsy, as the patient had previously had meningitis, renders even Dr. Ransome's case[5] inconclusive. So few published cases fulfil the above conditions, that the time has hardly arrived for them to be collected and analysed.

II.—THE NUMBNESS IN THE RIGHT HAND WHICH PRECEDED THE FITS.

It has often before been noticed in cases of Jacksonian epilepsy that the fits are preceded by numbness in the part in which they occur. The noteworthy point in my patient is that after excision of the piece of the cortex she never had any numbness. This has been observed in other cases, and with our present state of knowledge there is no entirely satisfactory explanation of it, but it is to some extent a support of the view that the motor area of the cortex has sensory attributes.

III.—THE MOVEMENT OF THE HEAD.

In the few fits in which there was any movement of the head it was jerked to the left, that is to say, it was turned towards the side on which the lesion existed. Now Beevor and Horsley[6] found when they excited the cortex of the ourang-outang on one side, the head and eyes were turned to the opposite side. My case, therefore, indicates a marked difference between man and the ourang-outang in the representation on the cortex of the muscles which turn the head. Mr. Rushton Parker and Professor Gotch[7] have also observed a case in which in the natural fits and after electrical excitation of the cortex on one side the head was turned to the same side.

IV.—THE TEMPERATURE.

For the first three days after the operation this varied from 1° to 2½° F. above normal. It then was about normal till a week before death, during which it was from 1° to 3½° above normal; but at whatever figure it stood, it was almost always higher in the right axilla (on the opposite side of the body to that on which the cortex was excised) than in the left. The difference was usually about 1° F.; on one occasion it was as much as 3° F. It was taken in both axillæ on 223 occasions. It was higher in the left axilla on 19, it was the same in each axilla on 4, and was higher in the right on 200 occasions. Although we carefully looked for it, at no time could any difference of the vascular dilatation of the cutaneous vessels in the two axillæ be detected. It is well known that after a lesion of one corpus striatum the temperature is not only raised,[8] but is often higher in the opposite axilla than in that on the same side. I have recorded experiments and clinical cases showing this,[9] and also that after operations upon the cortex of the brain in animals,[10] and damage to it in man,[11] a rise of temperature is often produced; but as far as I know, this is the first case in which systematic observations of the temperature in both axillæ have been made in a case in which a definite area of the cortex has been excised, although both Dana[12] and myself have recorded cases of a unilateral rise of temperature after softening of the cortex on the opposite side. Dr. Washbourn and I[13] investigated the temperature of the groin in rabbits, and came to the conclusion that when a unilateral lesion of the cortex caused a rise of temperature, both groins were equally affected. It would appear that rabbits and man are different in this respect.

It has been noticed in other cases that after excision of a limited area of the motor region there is paralysis of the parts corresponding to neighbouring areas, and therefore we were hardly surprised to find that our patient had aphasia and paralysis of the face, tongue, and leg after the operation. Probably the reason why these symptoms did not completely pass off was the very rapid development of the other growths which were found after death. It will be noticed that in this patient the march of the fits was the same as is often observed, and that she never had a single fit after the cortex was excised.

The patient, a woman aged 41, was first seen by me on January 4th, 1893. She had two and a-quarter years ago had the left breast removed for malignant disease. She said that for some weeks previously she had suffered from slight numbness in the right hand. On the evening of January 3rd she had her first fit, and subsequently she had about fifteen

severe and some slighter fits every twenty-four hours till the operation. I need only describe one, for Dr. John Smith, with whom I saw the case, the house physician, and clinical assistants at Guy's Hospital, and I myself agreed that the fits were all similar, except that they differed in degree. The patient knew when a fit was coming on by a sensation of numbness and tingling in the right fingers and thumb. Then in less than a minute there were a series of rapidly-repeated extensions of the right wrist and metacarpo-phalangeal joints. At the same time there were a series of rapid abductions of the hand to the ulnar side. The next stage consisted of rapid flexions of the phalangeal and metacarpo-phalangeal joints, so that the fingers were dug into the palms of the hands, causing considerable pain. Then followed a series of rapid flexions and extensions of the elbow, after which the fit was over. It usually lasted, exclusive of the stage of numbness, about ninety seconds. The slighter fits were much shorter, and consisted only of a little movement of the fingers. In a few, after the flexions of the elbow, the shoulder was for a few seconds rapidly adducted and abducted, and the head was jerked to the left. It is said that she was unconscious after the first fit, but those observed by us were never followed by unconsciousness.

In between the fits the right upper extremity was in all movements weaker than the left. The hand lay pronated, and the supinators were unable to move it. On the right side she could only move the dynamometer to 50, but on the left to 90. There was no paresis of the muscles of the head, face, eyes, tongue, trunk, or lower extremities. Both knee-jerks and both plantar reflexes were present, but were better marked on the right than the left. There was no clonus of either knee or ankle. Both elbow-jerks were absent. Both wrist-jerks were present, that on the right being exaggerated.

She was an intelligent woman. Sensibility to touch, pain, and temperature was quite normal over the whole body. In the right hand she could easily tell the addition of 1 oz. to 20 oz.

The fields of vision were normal: she recognised colour and form correctly. The pupils were equal, and reacted well. There was no ocular paralysis. There was early optic neuritis in the right eye, the left was normal. Smell, taste, and hearing were all normal. The diagnosis was made of a growth on the cortex of the left cerebrum implicating the arm area, and secondary to the disease of the breast. The fits were so frequent that the patient desired an operation, although she was told that it would not prevent other secondary deposits.

On January 6th Mr. Arbuthnot Lane exposed the middle of the fissure of Rolando. Over an area which as nearly as could be judged corresponded with the part of the arm area in the ascending parietal convolution, the cortex at one part was of a rather more brownish-green tint than was normal. This part was cut away to such a depth that white matter was exposed. When frozen and cut, it clearly consisted of growth. At the operation it was not definitely marked off from healthy grey matter, which it resembled so closely that several considered it to be healthy.

January 7th. There is paralysis of the whole of the right face, except the orbicularis palpebrarum and the occipito-frontalis. No ocular symptoms. The tongue lies on the floor of the mouth quite motionless. The right upper and the right lower extremities are completely paralysed, but no sensory defect is noticeable. She is completely aphasic.

January 8th. The condition is the same, except that the right pupil is larger than the left, and last night it was observed that the right side of the face was sweating, although the left was quite dry.

January 11th. Her condition is unchanged, except that the tongue can be protruded a little; the facial paralysis is less marked and the pupils are equal.

January 14th. The movements of the facial and lingual muscles are still improving. She can slightly move the right toes, and can detect 1 oz. added to 20 oz. in the right palm.

January 19th. She has still further regained the power of movements of the face and tongue; the movement of the right foot has ceased to improve. She can say five or six words distinctly.

January 22nd. She can still feel the slightest touch of the skin in any part of her body, including the right upper extremity.

The power of localisation of sensations was tested in the following way: She was blindfolded. Some spot on the right upper extremity was touched with a pin point as lightly as possible, and she was asked to touch with her left fingers the spot touched. The spot touched and the spot she indicated as being touched were both marked. This was done on many parts of the right upper extremity, and similar experiments were carried out on the right upper extremities of two healthy women and one healthy man. A comparison of the results showed that the patient and the three healthy individuals were in the majority of instances quite accurate; that sometimes all four were inaccurate, and then the distance between the spot touched and that to which the touch was referred varied from ½ inch to 2½ inches. The patient was a little less accurate than the healthy persons, but the difference was not great. In all cases the subject was more likely to be accurate if the pressure of the pin was firm, and if there was no delay between the attempt to localise and the touch. All four subjects were more correct below the elbow than above it. It was impossible to test the patient's left upper extremity owing to the paralysis of the right. A few experiments in which the head of the pin was used instead of the point gave the same result. These experiments were repeated on other days than this, but always with the same result.

February 7th. Optic neuritis still present. Up to this time her condition since the last note has not changed, but from this date she became drowsy, her pulse was very slow, she had cerebral vomiting, and she sank and died on February 13th, it being clear that there were other deposits in the brain.

She never had a fit after the operation, nor had she any numbness. Her mental condition was quite good till February 7th. She never had any anæsthesia; pain was localised as such; and her temperature sense was normal. The temperature was usually different in the two axillæ.

Post-mortem Appearance of the Brain.—The gap left by the piece of grey matter removed was oval, and occupied the position shown in the figure. It was limited in front by the fissure of Rolando, behind it extended slightly on to the supramarginal convolution, its long axis just crossing the lower interparietal sulcus. The floor of the area removed exposed white matter, soft and discoloured here and there with shreddy filaments of growth. There were secondary growths, all of which had evidently recently grown very rapidly in the upper part of the left ascending



The shaded part indicates the area excised.

parietal, in the posterior part of the third left frontal, in the upper part of the left angular and in the middle of the right ascending frontal convolutions. The presence of these makes it unprofitable to study the aphasia, the paralysis of the face, arm, and tongue, or to seek for changes in the spinal cord.

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THE NEUROGLIA ELEMENTS IN THE HUMAN BRAIN.

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The present preliminary account deals only with the neuroglia elements in the human brain. The research was begun at University College in May, 1892, and continued at the laboratory of the West Riding Asylum since January last. The whole material examined consists of twenty-seven human brains, and the regions studied were the ascending frontal, the occipital (or calcarine), and the hippocampal regions of the brain.

Among animals studied were fœtal, young and adult cats, adult rats, rabbits, cats, and the ox; the results obtained from these confirm in the main features those obtained in the human brain. While in the human brain the nerve elements have been largely and extensively studied both in health and in disease, the neuroglia elements have been comparatively neglected, partly owing to a widely-spread belief in a mere passive *rôle* they were supposed to play, and partly owing to inadequacy of the methods used, for while the general and special methods with the anilines, picro-carmine, osmic acid, hæmatoxylin, and gold chloride—to mention only the chief—have shown much of the nerve elements, a method has been wanting which should not only exhibit the former elements down to their finest ramifications and actual endings, but should do the same for the neuroglia elements with faithfulness and precision, so as also to demonstrate the relations of these two elements to another and to the ground substance.

This is now possible by Golgi's method of staining with silver chromate, which since 1886 marked an epoch in neurology of which the publication of his great work *Sulla fina Anatomia dela Sistema Nervosa* was the beginning of a revolution

of our old ideas on the mechanism and mode of action of the nervous system which is still in progress. With young and embryonic nervous systems that method gives the best results; with slight modifications it has given in my hands results of much success for the adult brains of animals, and by a rather more modified process, similar, and in some respects better, results have been obtained for the human brain. The results obtained in the present research were due to such a method, the details of which will be published later.

From each of the specimens of human brain used, forty to sixty sections were selected and mounted for study; thus, on the whole, rather more than a thousand sections were used, while, of these, only those on which the staining was most precise, uniform, and perfect were utilised to elucidate the details of the neuroglia elements as below. Such an investigation soon made it evident that the neuroglia elements present possess such marked differential characters among themselves that they obviously form two great morphological groups, which, from their most striking appearance, may be justly called (*a*) the neuroglia fibre cell, (*b*) the protoplasmic neuroglia cell. The classification here proposed, and, as far as I am aware, for the first time, while *primâ facie* morphological, is also, as will be shown, a physiological one, while independent studies on their etiology and pathology all point in the same direction, as will be evident shortly. The illustrations accompanying were drawn by the aid of Schroeder's camera lucida.

A. THE NEUROGLIA FIBRE CELL.

There are two species of this cell (see Figs. 1 and 2), and

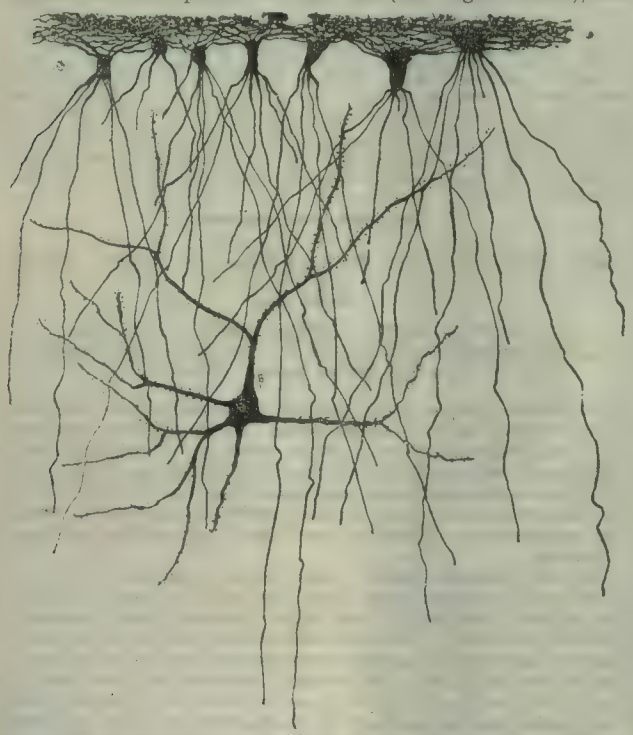


Fig. 1.– *a*. Seven caudate neuroglia fibre cells of the first layer of the human cortex, sending processes some of which reach one half way down the depth of the cortex nearly to the midst of the third layer. *β*. One small pyramidal nerve cell of the third layer (upper part of).

their topographical distribution is correspondingly different. One species (*α*) is situated in the first layer of the cortex, and sends its streaming fibres down into the third layer; these are the caudate cells. (Fig. 1). The other (*β*) is situated in the medullary substance or white matter, and has radiating fibres passing in all directions (stellate fibre cells, Fig. 2).

1. *The Caudate Fibre Cells.*—These form a distinct feature in the first layer of the grey matter in specimens of human brain. The cell bodies are imbedded in the grey substance, and are the most superficial in position of all cell elements—whether nerve or glia—in the cortex. The cell bodies have a rounded apex pointing downwards, and giving rise to a tail-like tuft of smooth fibres streaming into the deeper layers of the cortex. The wider and flatter base is directed towards the surface, and gives origin to an entirely different system of radiating tangential fibres. (Fig. 1.) The individual fibres are extremely long, smooth contoured, and of uniform calibre

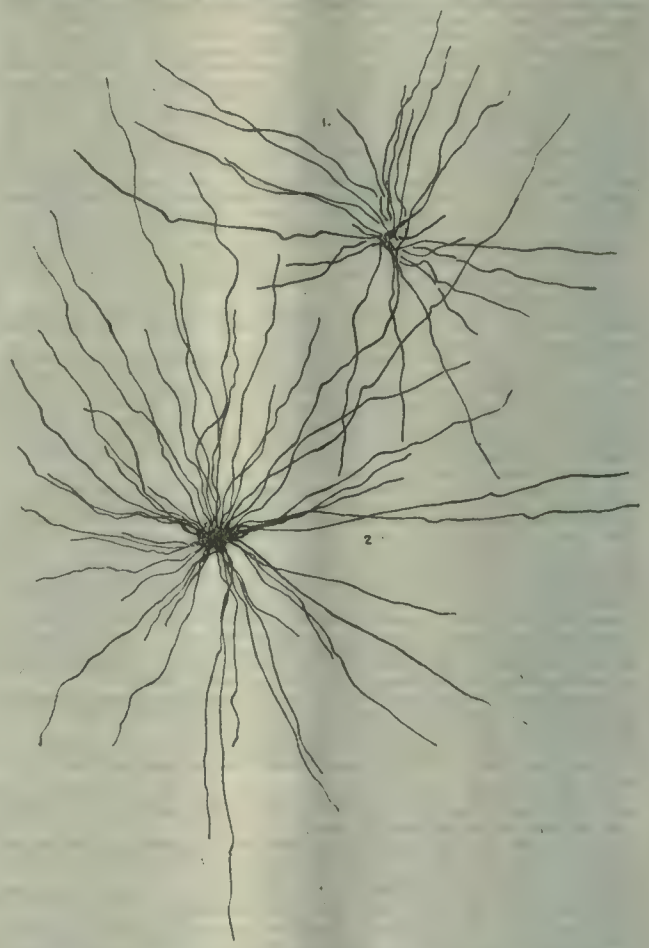


Fig. 2.—Two neuroglia fibre cells of the medullary substance or white matter of the human brain (Schroeder's camera lucida drawings).

throughout, of remarkably uniform thickness one with another, unbranched, slightly wavy in their course, which is, on the whole, almost rectilinear, and exhibiting here and there small sharp curves and small angular bends, while sharp transverse fractures are not infrequent. They form a fine fretwork of cortical fibres. The caudate cells thus have two if not three systems of fibres: (1) the descending apical (tuft of) fibres which pass deeply into the grey matter; (2) the superficial tangential system of fibres forming a true felt-work; and (3) a few shorter fibres passing to the superjacent pia. None of the fibres anastomose, and none show any special vascular connections.

The Stellate Fibre Cell.—This has been recognised by most observers, especially in the white matter and septa of the cord, and can be isolated by maceration in 30 per cent. alcohol (Ranvier). This form of stellate cell, however, is entirely distinct—as shall be shown—from, and should not confounded with, the protoplasmic glia cells, which also have a stellate shape in general, and which with the ordinary methods show but little apparent difference from the stellate fibre cell. The distinction here too clearly comes out when these are studied by Golgi's method. Hitherto all neuroglia cells in the adult brains have been included under one category of "spider" cells (Deiters, Meynert, and others),

which others have named stellate cells. But it can be demonstrated that these form two distinct, and in many respects opposed, groups—namely, into stellate fibre cells and stellate protoplasmic cells showing important and fundamental differences. In the stellate fibre cell a distinct cell body is hard to recognise, partly owing to the enormous number of fibres which emerge from and intercross in the cell body, and so obscure and conceal it, partly owing to optical diffraction effects at the body or focus where so many fibres meet and decussate, and partly because there is but a small and scanty remnant of protoplasm to constitute the cell body. With a wide angle of light perfectly focussed and free from chromatic aberration, and with equally good lenses, the best preparations will show only a very small quantity of protoplasm in the cell body, which, however, is mainly constituted of the meeting and intercrossing fibres. (Fig. 2.) Many of these neuroglia fibres therefore pass right through the cell body. In calibre and contour they are remarkably like the fibres of their congeners the caudate fibre cells, and exhibit the same peculiar sharp curves and angular bends in a course otherwise straight, and also the same sharp transverse fractures. They stain, too, of the same colour, never branch or anastomose, are of considerable length (being on an average five to eight times as long as the processes of the protoplasmic neuroglia cells), and do not exhibit the special vascular attachments which the protoplasmic glia cell exhibits. It should therefore be distinguished from the next great class of neuroglia elements—namely, the protoplasmic glia cell.

B. The Protoplasmic Glia Cell.

This occurs abundantly throughout the grey matter in all the layers of the cortex, while the stellate fibre cell is absent from, or only most sparingly present in, the grey cortex; while, on the other hand, it is exceedingly abundant in the medullary substance, where the protoplasmic glia cell is correspondingly rare.

The protoplasmic glia cell has a distinct cell body, which is irregularly oval, frequently pyriform. Its processes are but



Fig. 3.—A protoplasmic neuroglia cell from the human brain (fourth layer of cortex), showing two expanded conical disc-like attachments to a vessel. Highly magnified.

of slight or moderate length relatively to the fibres of the neuroglia fibre cell, which are from five to eight times as long. The appearance of the protoplasmic glia cell is highly characteristic, and in specimens stained with silver chromate it is impossible to confound these cells (Fig. 3), with the neuroglia fibre cells (Fig. 2). The various protoplasmic processes also exhibit great variations of calibre, some being stout and coarse, and others exceedingly fine (see Fig. 3). The protoplasmic processes are also dendritic, a thing never seen in the stellate fibre cells. A most striking feature is the shaggy granular contour, as if a fine moss constituted the protoplasmic processes. The neuroglia fibres with good illumination have a deep brown, which is slightly translucent, giving these fibres almost a horny appearance; the dendritic shaggy granular protoplasmic processes, on the other hand, take a distinct reddish-grey tint. Further, by one or more of their coarser processes the protoplasmic cells are attached to the perivascular sheaths (Fig. 3). The cells of the perivascular sheath can be seen in fortunate preparation to give forth processes which stream into the circumjacent brain substance, and are granular and resembling the finer protoplasmic processes above described in appearance and coloration. Finally, a fact of the utmost significance, and one clearly demonstrated by the silver staining, is the presence of a lymph space surrounding the protoplasmic glia cells and its branches, and directly continuous with the perivascular lymph spaces. For it not infrequently happens—unless precautions are taken to prevent it—that, in addition to the intimate staining of the nerve and glia elements, a fine dark precipitate of silver chromate takes place in the perivascular spaces and on the surface of the cortex. In the very regions where this occurs, the protoplasmic glia cells, which, when their intimate structure is stained, present the normal appearance as in Fig. 3, may show the superadded surface deposit, and this deposit is continuous over the vascular processes, and so with that in the perivascular spaces. Sometimes the deposit will not have gone on to cover all the processes, so that those which stand out naked and uncovered exhibit the usual appearances as in Fig. 3. These appearances—which can be repeatedly verified—seem to demonstrate not only the well-known perivascular lymph space, but also a system of lymph spaces surrounding the body and dendritic processes of the protoplasmic glia cells, and directly continuous with the perivascular lymph space. The neuroglia fibre cells exhibit no such lymph spaces. Thus it is clear that the neuroglia elements of the brain are not a uniform structure, nor can their functions be regarded as correspondingly simple and uniform. For the fibre cell elements and the protoplasmic cell elements stand opposed to each other; the former constituting a plexus system of well organised fibres which form a passive supporting feltwork in the brain, while the latter constitute a group of active protoplasmic elements present in abundance only in the grey matter, and having vascular and lymphatic relations of a striking character, and one which points to their active *rôle* in the circulatory and lymphatic economy of the brain.

Finally it can be shown that the protoplasmic glia cells with vascular attachments are mesoblastic in origin; and that the fibre cells (both caudate and stellate) are epiblastic in origin. Thus in the olfactory epithelium we have a differentiation of the the primitive epiblast into sustentacular cells and bipolar nerve cells—situated between the basement membrane and the surface. No vessels or other connective elements have ingrown. In the more complex retina—which also is free from connective or other mesoblastic elements—the epiblast has given rise to three superposed layers of nerve elements, and to a well marked system of sustentacular elements, the fibres of Müller. In the embryonic spinal cord the primitive epiblast shows an early differentiation into nerve elements and supporting elements (neuroblasts and spongioblasts of His) and the distinction is obvious and can be recognised before the invasion of mesoblastic elements (blood vessels and connective tissue) from the outside.[1] In the embryonic cord of the chick and of amphibia similar observations have been announced.[2] In all these we have sustentacular elements of epiblastic origin, contemporaneous in origin with the nerve elements, and continuing into adult life as sustentacular structures (fibre cells). The protoplasmic glia cells—those connected with vessels—are to be regarded as ontogenetically younger, and derived from connective elements which have come in with the ingrowth and invasion of vessels, and developed in large numbers in the cerebral cortex. The fibre cells, judging from their numbers in the adult brain—especially the cortex—would seem to have produced an enormous number of wavy fibres of great length, while in the very act of such extraordinary fibrilla-

[1] His, *Archiv f. Anat. u. Phy.*, 1889. Golgi, *Sulla fina Anatomia*, 1886.
[2] Cajal, *Estructura de la Medula Espinal de los Reptiles*, 1891.

tion there protoplasm is used up and exhausted, only a small remnant persisting to mark the cell body. Finally, as instructive analogies may be pointed out the epithelial cells of the Malpighian layer of the epidermis which presents fibrils passing through the cell bodies and constituting the intercellular "bridges" (Ranvier), comparable to the fibres passing through the cell bodies in the stellate neuroglia fibre cells; for were the epithelial cell-bodies further apart, and the fibrils relatively longer, their appearance would be not unlike that of the stellate neuroglia fibre cells, an analogy which strengthens the relationship (by genesis) of the neuroglia fibre cells to epithelial elements.

The protoplasmic glia elements are really the elements which exhibit a morbid hypertrophy in pathological conditions (alcoholism, G.P.), and which may show further morbid activities, in the last stage of which their protoplasm will deposit numerous organised fibrillæ, in the act of doing which the protoplasm proper is used up, except a scanty remnant, which may persist, ghost-like, to mark the position of what was once a protoplasmic cell body.

Thus in fundamental facts of structure, in their topographical distribution, in ontogenesis, in their relationships to vascular and lymphatic systems, and in the morbid changes they show it would seem that there are ample grounds for supporting the classification of the neuroglia elements into protoplasmic cells and fibre cells. The growing importance of these elements is becoming daily obvious, especially in brain pathology.

CONGENITAL (?) DILATATION AND HYPERTROPHY OF THE COLON FATAL AT THE AGE OF 11 YEARS.

BY T. J. WALKER, M.D.,
Surgeon to the Peterborough Infirmary.
WITH PATHOLOGICAL REPORT
BY JOSEPH GRIFFITHS, M.D.,
Pathologist at Addenbrooke's Hospital, Cambridge.

THE boy (F. S.), aged 11, the subject of this note, died on February 6th, 1890. At birth nothing unusual was noticed about the child, but within a few weeks the abdomen was observed to be unusually large, this enlargement increasing to such a degree that when 3 months old the child was taken to the Peterborough Infirmary for treatment. Nothing was then detected beyond considerable flatulent distension. The bowels acted regularly, and the child took nourishment freely, and did not apparently suffer special discomfort from the distension. Carminatives were administered, and strict directions as to diet given, but the condition remained unchanged, and the child ceased to attend.

About three years after the boy was again brought to the infirmary; the distension by this time had enormously increased, but again careful examination detected nothing more than a general tympanites, and the boy did not continue to attend. From this time until his death he was only occasionally under medical care. I used frequently to see him playing quietly or walking in the streets, but had nothing to do with him medically. On February 6th I was told of his death.

On inquiry I learned from the mother that from the time I saw him at the hospital eight years before, his body had gradually enlarged, that he suffered very little pain; his bowels were always confined, but could be relieved by enemata, or by passing a piece of soap into the rectum; his appetite was always bad, his breathing short, his muscular development feeble, his health generally varying with the degree of distension of the abdomen—that occasionally wind would "roar away" from the anus, the body becoming greatly reduced. Latterly the boy had suffered more pain, and had wasted considerably, but he had not been in any way alarmingly worse, and had died suddenly whilst an enema was being administered.

A *post-mortem* examination was made by Dr. Kirkwood and Dr. A. Platt, and the rough sketch of the corpse is drawn to scale from their measurements.

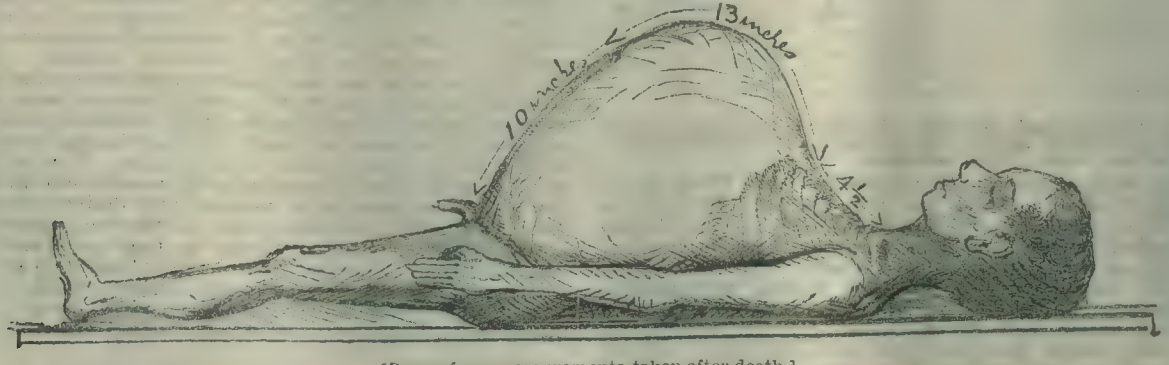
The height of the boy was a little over 4 feet: the total length over the abdomen, taken with a tape from the suprasternal notch to the pubes was 2 feet 3½ inches. This being thus divided:

	Ft.	Ins.
Suprasternal notch to base of ensiform	0	4½
Base of ensiform to umbilicus	0	13
Umbilicus to pubes	0	10
Girth just above nipples	0	27
Girth at point of greatest distension, 4 inches above umbilicus	3	11
Antero-posterior diameter at level of umbilicus	0	13

The diagram does not show, of course, the enormous width of the abdomen, which was very striking.

The body was emaciated, the lower part of the thorax greatly expanded and thrown upwards. On opening the abdomen, nothing was seen but an enormous coil of intestine, looking like a large leg and thigh, with the knee completely flexed; this, on further examination, was seen to be the transverse and descending colon, which measured 23 inches round; tracing it down it was seen that the excessive dilatation reached to the sigmoid flexure, gradually diminishing in this section of the bowel, the last part of which and the rectum were normal; there was no appearance of the slightest constriction, either in the rectum or the sigmoid flexure; in the lowest part of the colon was a considerable mass of soft fæces, which was readily squeezed into the rectum and out of the anus; tracing the distended bowel upwards it was found to diminish somewhat as it approached the cæcum, and the whole of the small intestine was normal in every respect. The ascending and descending colon had both a distinct mesentery. There were no adhesions or other ordinary signs of peritonitis, but the peritoneum was extraordinarily thick.

The distension of the abdomen had spread out and thrown up the lower part of the thorax, so that the thoracic cavity was described by Dr. Kirkwood as resembling a shallow pie dish: the back of the diaphragm being fixed the anterior edge was tilted up, so that the under surface of the liver looked directly forwards; the depth from the suprasternal notch to the top of the diaphragm was about 2½ inches, the lungs and heart being crowded into a space altogether inadequate for their normal development and action. The condition of the mesenteric glands, as seen in the specimen, is sufficient to account for the emaciation and increasing feebleness described by the mother of the boy. The immediate



[Drawn from measurements taken after death.]

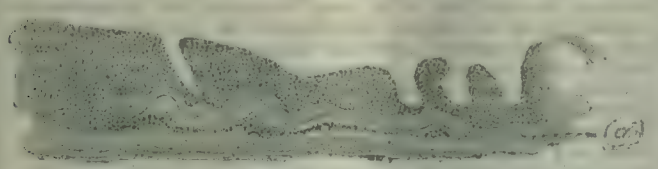
cause of death was concluded to be the embarrassment of the enfeebled heart's action by the distension of the abdomen. The only way in which I can imagine defæcation carried on by a bowel enlarged to the enormous size of this boy's colon would be by the gradual accumulation in the colon of soft fæces, until the mass attained a sufficient size to be grasped by the bowel, which would then, by peristaltic contraction, carry it on to the funnel-shaped sigmoid flexure, where it would lodge, dropping like a ball valve in the narrower portion, causing the periodic attacks of pain and increased distension; the enema or soap suppository, stimulating the bowel to increased contraction, would cause the mass to be moulded and squeezed on into the rectum, and this being expelled, a period of relief would follow. Dr. Griffiths reports on the pathological condition of the affected parts as follows:—

Pathological Report by Dr. Griffiths.

The cæcum, portion of colon, and the rectum sent to me by Dr. Walker are very uncommon, if not unique, and the following is a brief description of each portion.

1. The cæcum is large and much distended, the walls being thick and more muscular than natural. The small intestine attached to it is also large and thick walled, and the vermiform appendix is 5 inches long and nearly twice as thick as it usually is in a lad of the same age. The ascending colon, of which about 1 inch is still attached, is comparatively small, though its walls are thick and muscular.

2. The transverse colon, of which there is a complete portion of an inch or so in length, measures 16 inches in circumference, the sacculi are quite obliterated, the colon being in this place a cylindrical tube; the three muscular fasciculi, which are so prominent in the natural and undistended colon, cannot be distinguished on the exterior, though they can be traced as very attenuated bands of muscular fibres in a section of the wall. The exterior of the colon is covered by somewhat thickened peritoneum, and its muscular wall, chiefly the circular coat, is much thickened, and the mucous membrane finely granular and fixed to the subjacent muscular coat. Under the microscope the mucous membrane of this distended and enlarged part of the colon is much thickened from the effects of chronic inflammation, the free surface being almost denuded of epithelium, and the glandular crypts having in great part disappeared. The epithelium that may still be seen here and there on the surface is less columnar than the natural variety found here, there being hardly any mucin-forming cells to be seen. The loose areolar tissue existing in the natural state between the mucous membrane and the muscular coat had completely disappeared, and what now represents the mucous membrane is firmly adherent by fibrous connective tissue to the inner surface of the muscular wall. The circular coat, which is at least ⅛ inch in thickness, even in this extreme state of distension of the bowel, is composed entirely of non-striped muscular fibres, most of which are of large size, and many of which are of new formation. The external longitudinal coat, which is, in the normal colon, disposed in three narrow bands, is in this instance almost continuous round the bowel, for each of the bands had become flattened out so as to almost touch its neighbours, each band presenting in shape, in a transverse section of the gut, a finely attenuated crescent. The muscle fibres in this coat also are of large size, and many are newly formed. Thus both muscular coats are in a state of hypertrophy, but the mucous membrane is in that state that characterises chronic inflammation.



Section of mucous membrane of transverse colon showing great thickening of the mucosa from infiltration with small round cells, loss of Lieberkühn's glands and the desquamation of the epithelium from the surface. (*a*) thickened muscularis mucosa passing on the left into an enlarged and infiltrated lymph follicle, where it spreads out and is lost. (× 45.)

3. The rectum is somewhat large for a lad of 11 years, and its muscular walls are thicker than natural.

The colon thus distended had been the seat, for some time at least, of chronic inflammation of its mucous lining and hypertrophy of both circular and longitudinal muscle coats.

In the absence of any obstructing agent in the shape of stricture or growth of any kind, it appears to me that this, so far as I know, unique condition, resulted in the first instance from inflammation of the mucous membrane of the colon—colitis, as it is called—which, from some cause or other, became chronic. Great distension followed from the altered chemical changes in the fæces, much gas being produced. Such distension of the gut would naturally render peristalsis more difficult. The increased difficulty in driving the fæces onward was compensated for by an increase in the size of the individual muscle fibres, and also by the formation of new fibres—a true hypertrophy.

ABSTRACT OF LECTURES
on
THE SURGERY OF THE AIR PASSAGES AND THORAX IN CHILDREN.

Delivered at the Royal College of Surgeons of England.

By BERNARD PITTS, M.A., M.C.Camb., F.R.C.S.,

Assistant Surgeon to St. Thomas's Hospital, and Surgeon to the Hospital for Sick Children, Great Ormond Street.

Lecture III.

Enlarged Mediastinal Glands.

Enlarged and especially caseating mediastinal glands occasionally give rise to serious trouble. 1. By pressing on the trachea or bronchus. 2. By one or more glands ulcerating into the trachea or bronchus, and causing obstruction, or even becoming detached and getting impacted in the larynx. 3. A suppurating mediastinal gland not infrequently is the cause of a gangrenous abscess of lung. Sometimes a communication is made with the œsophagus, or the suppuration from the gland discharges into the pleural sac. Fatal hæmorrhage may arise from the ulceration, involving a branch of the pulmonary artery. If there be good reason to believe that the difficulty of breathing in any case depends upon pressure from a mediastinal abscess, careful exploration of the bronchi must be attempted. Possibly, too, the introduction of a curette might be indicated, if abscess or gland matter was found in trachea or bronchus. Excluding the presence of a foreign body, suppuration of a mediastinal gland opening into a bronchus is certainly the most frequent cause of a gangrenous abscess of lung in children.

Traumatic Pneumothorax.

Laceration of the lung may occur in children from a crush of the chest without fracture of the ribs, the rupture of lung tissue being probably due to its compression between the contusing force transmitted through the elastic ribs, and the air imprisoned by spasmodic closure of the glottis at the time of the accident.[1] The prognosis is hopeful in children even in severe cases of injury to the thorax.

The reports of 12 cases in the records of St. Thomas's Hospital had been analysed. In all the injury was produced by being run over by a cart. Four terminated fatally. One or more ribs were ascertained to be broken in 8 of the number, whilst in 4 the ribs were believed to be intact, including 3 fatal cases in which this was made certain by examination after death. Emphysema was present in 5; in 2 of the number the emphysema was limited to the neck, and probably the air made its way there from the mediastinum, since the ribs were intact. Spitting of blood occurred in 7, fluid in the pleural cavity in 7, and this fluid was found to be blood in the 4 fatal cases. Pneumothorax was an immediate symptom after the accident in 6 cases, and was noticed within the next forty-eight hours in the remainder of the St. Thomas's cases.

[1] Holmes on *Surgical Diseases of Children*.

Hernia of the Lung.—Hernia of the lung may occur as a complication of an open wound of the chest, or be consecutive, taking place after the cicatrisation of the wound. In very exceptional instances it may develop without external wound where a subcutaneous injury has weakened the thoracic wall. According to Cloquet a hernia results from a strong expiratory effort, whilst the glottis is closed simultaneously with a blow on the chest; the compressed lung tending to escape at the spot of least resistance.

THE SURGICAL TREATMENT OF EMPYEMA.

The best results are to be obtained in the treatment of empyema in children by early free incision and effective drainage. Aspiration in the majority of cases can only be regarded as a temporary measure. It is undeniable that certain cases of empyema get perfectly well after repeated tappings, but failure is to be expected as the rule, and in consequence of the delay entailed the lung has a much less chance of satisfactory expansion, Aspiration is most likely to cure when the effusion is sero-purulent or very localised. Rapid reaccumulation, increasing severity of symptoms, or the effusion becoming thicker in character, are indications for more active treatment. Besides failing as a curative measure, aspiration has its own special disadvantages. Occasionally it fails to evacuate the pus, from some defect in the working of the instrument, or from the amount of solid material present; the puncture may be followed by hæmorrhage into the pleural cavity, by leakage, or by emphysema. When pus is found in the pleural cavity, I would strongly favour under most circumstances its free evacuation without further delay.

In children the removal of a portion of rib has no disadvantages, and many advantages. Without it satisfactory drainage by a soft tube is impossible in young children, and particularly in chronic cases where the ribs are crowded together. A silver tube is painful, and apt to produce caries of the ribs by pressure. The great advantage gained by removing a piece of rib is that with the finger the pleural cavity can be thoroughly explored, adhesions imprisoning remote collections of pus can be broken down, and solid masses of lymph removed. There is very little increase in the shock of the operation, and the after dressings and management of the tube are attended with much less discomfort to the child. Experience has proved that there is no increased risk of pyæmia, and very little danger of necrosis of the cut ends of the rib. After a considerable experience of rib resection in empyema, I have never had reason to regret doing it, and am sure that in a large proportion of cases the cure has been hastened by the immediate removal of solid exudates. Occasionally it may happen that the condition of the child makes it appear desirable that a simple incision without chloroform should be made, but with care in administration of the anæsthetic, and attention to the position of the child during operation, no such exception need be made. The removal of a piece of rib adds, perhaps, two or three minutes to the length of operation. The periosteal elevator should be used with gentleness, or the pleural cavity may be opened prematurely. About an inch and a-quarter or an inch and a-half of the selected rib is sufficient to remove, and in children this can easily be done with suitable cutting forceps, taking care that all the part of the rib which has been denuded of periosteum is taken away, and that the forceps are sufficiently sharp to avoid bruising or splintering the bone. When the rib is excised for drainage, it is not necessary or advisable to remove any of the periosteum in ordinary cases. For the drainage, however, of very chronic empyemas, where the pleura is much thickened, parts of two or three ribs may be taken away, with the corresponding periosteum and pleura, so that a free opening may be maintained for a lengthy period. I am not speaking now of Estlander's operation, which is done for an entirely different object, and is never required as a primary measure. For reasons pointed out by Godlee, an opening just below and anterior to the angle of the scapula, is best when the empyema involves the entire pleural cavity, but in each individual case the position must be selected according to the physical signs, and occasionally a more anterior opening may be required.

After the rib has been excised, a narrow-bladed knife is introduced at a point corresponding to the mid-line of the rib, and as pus escapes the incision is enlarged. It is easy to regulate the escape of the pus, and the finger should not be introduced until the cavity is nearly empty. If the breathing or pulse be in any way unsatisfactory, an antiseptic compress should be placed over the opening, and the patient turned on to the affected side, and time for recovery allowed. The exploration with the finger must not be attempted if there are indications of general hæmorrhage from the pleural surfaces, but when permissible every part of the cavity should be gently explored, and mopped out with wool sponges firmly held by forceps. If the child is taking the anæsthetic well, and has no paroxysmal coughing, and there is reason to believe that no communication with a bronchus exists, then irrigation with warm boracic solution makes the toilet complete. In the majority of cases, however, irrigation is not advisable, and no such special advantage is likely to accrue from it as to render it desirable to run any risk of fluid getting into the bronchial tubes. A suitable drainage tube having been inserted and made secure, absorbent dressings are applied, wood-wool tissue making a convenient and economical application. The dressing should be changed after a few hours, and afterwards at least once a day, whilst the discharge is free. In uncomplicated cases the tube may often be dispensed with in the first week, but a director should be afterwards occasionally inserted to make sure that no reaccumulation is taking place. The best indications for leaving out the tube are the temperature, the amount of discharge, and its character. The discharge, when all causes of irritation of the pyogenic membrane have been removed, may at once cease to be purulent and become serous; this perhaps is the best indication for leaving out the drain. After-irrigation of the cavity is very seldom necessary or advisable, and should only be done if the discharge remains or becomes very offensive. Sometimes, several weeks after the wound has apparently healed, a superficial abscess appears under the cicatrix, containing a few drachms of pus, such local abscess after incision heals quickly up.

The chief conditions which may retard or prevent convalescence or cause death are:—

1. Profuse and long-continued discharge from the empyema becoming septic, either from a communication with bronchus or rarely with the œsophagus, or by want of attention to detail in the cleanliness of the operation, or after dressing of the wound.

2. The character of the empyema, especially when it arises from a tuberculous abscess of lung, or suppurating bronchial gland, it may be in connection with a carious rib or disease of spine. In exceptional cases the empyema may be pyæmic in origin, or depend on some foreign body or fracture of rib, or be an extension of an abscess from some other part (such as liver) into the pleural cavity, as will be shown by statistics. Cases are not infrequently complicated by pericarditis or peritonitis from an extension of the inflammatory condition.

The case may be complicated by having a collection of pus shut off from the general cavity by adhesions, or by continued or consecutive trouble in the lungs.

Time will only allow for a bare enumeration of these conditions, but it is necessary to consider more at length a very important and common cause of the discharge continuing—namely, the inability of the lung to expand and the cavity to contract so as to become obliterated. In early life the ribs are soft and pliable, and the thoracic wall falls in more readily than in adults, but in certain cases, owing to long previous pressure on the lung and great thickening of the pleura, it is impossible for the lung to expand, for the diaphragm to rise, and the chest wall to fall in sufficiently to allow of a complete cure. Meddlesome interference in slowly contracting cavities is unwise—time must be given for the wonderful reparative and adaptive powers which children possess; and extensive operations for the purpose of getting rid of the residual cavity should only be undertaken after careful consideration of the particular case. Only disaster may be expected when the case is complicated by tuberculosis, or by many of the special conditions which have been enumerated as tending to prevent or retard cure. I have found the plan of packing very chronic cavities most effectual.

Being anxious to see the after-condition of chest and spine in cases of empyema treated by excision of rib, I examined

last May 26 cases, the shortest interval after leaving hospital being eighteen months, and the longest six years, the average time being two years and ten months. The children were all in good health, except that dorsal caries was present in one (unknown to the friends). In 22 the spine was quite straight, and in the remaining 4 the amount of lateral curvature was very slight. The breath sounds were normal in most of the cases, but in a few were less audible on the affected side, below the scar level. Two of the patients had had double empyema, treated by rib resection on both sides; they were in good health, though in one the breathing was very abdominal in character, and there was some retraction of the chest wall on both sides in front. The conditions found correspond very closely with the after-state of 24 cases of empyema in children, reported on by Drs. Hastings and Edwards in the *Lancet* of 1892.

Statistics collected from St. Thomas's Hospital and the Children's Hospital, Great Ormond Street, showed 85 cases treated by incision with 51 recoveries, 16 relieved and 16 deaths; 129 cases treated by rib resection with 99 recoveries, 7 relieved and 23 deaths.

In the *post-mortem* records of the Children's Hospital at Great Ormond Street I have examined 54 cases—12 treated by aspiration, 31 by free incision, and 31 by incision together with excision of rib; the children were very young—under 1 year, 6; between 1 and 2 years, 17; between 2 and 3 years, 11; between 3 and 4 years, 8; between 4 and 5 years, 6; between 5 and 6 years, 3; between 6 and 7 years, 0; between 7 and 8 years, 2. Some of the cases died a considerable time after the operation, but all had evidence of some empyemic trouble remaining. The empyema was on the right side in 24, left side in 23, both sides in 2; 20 of the cases were found to be tuberculous, as evidenced by tubercles found in the lungs or other organs—cascating glands, or caries of spine. Marked pericarditis was found in 9 cases, and in 4 of these the pericardium was distended by several ounces of purulent fluid. In 7 out of the 9 the empyema was on the left side, in 1 on the right, and in 1 double. Peritonitis was present in 5 cases, and was most intense just beneath the diaphragm and about the spleen. The pericarditis and peritonitis appear to have been direct extensions of the inflammatory process. In only 1 case was cerebral abscess found; the abscess was in the left frontal lobe, and contained 3½ ounces of pus. The empyema was on the right side, and had been treated only by aspiration, the first aspiration being three months before death. Only 1 case died at the time of operation, namely, a child of 1 year and 7 months, and it is not certain whether death was due to chloroform or to syncope from the sudden release of pressure. The majority of cases died after an interval of some weeks or months after operation. Necrosis of rib as a result of the excision of rib was only found in 1 case. In 3 treated by simple incision, caries of ribs produced by pressure of the drainage tube was present.

When empyema in children is simple in character, and not complicated by tuberculosis or other unfavourable condition, it will, if treated by effective and early drainage, get rapidly well. If, however, for some unfortunate reason surgical interference is delayed, the recovery may be tedious. In double empyema the necessity for early interference is even greater, so as to give the lungs the best possible chance to expand. It is generally considered wise to wait a few days after opening one side before attacking the other; good results have, however, been recorded when both sides have been opened at the same operation.

Abscess of the Lung.

Abscess of lung in children may be caused by a foreign body or be secondary to caseating mediastinal glands, to pneumonic consolidation of lung, to hydatid, to extension of abscess from some other part, or be the result of a pyæmic process.

In considering the advisability of operative interference, it must always be remembered that spontaneous recovery is possible, and there must be either definite evidence by exploratory puncture of a fairly accessible cavity, or else the medical advisers must be satisfied that the patient is clearly going the downward path. It is often difficult satisfactorily to shut off the pleural cavity from infection, and if the abscess is situated near the root of the lung the chances of dangerous hæmorrhage are considerable. Adhesion between the pleural surfaces cannot be diagnosed with any certainty beforehand. If on exploration no adhesions are found, and there is a sufficient probability of a cavity in the lung, parts of one or more ribs must be removed to allow of careful suturing of the pleural surfaces, and so providing adhesion before the abscess is actually drained. But even with the greatest care the amount of adhesion may be insufficient; and when adhesions are found already established they are not always to be trusted. I do not wish in the least to discourage operative interference in well-selected cases of abscess of the lung, but I feel very strongly that some abscesses are so situate and are so complex that they should not hastily be interfered with; we must always remember that young children have a much better chance of spontaneous recovery than adults.

The treatment of a living hydatid of lung is known to be attended with a special danger of suffocation by the fluid contents escaping into the bronchial tubes. Such an accident is much less likely when suppuration has taken place and the lung surrounding the cyst has been thickened by inflammatory irritation.

The safest and most radical plan to adopt when hydatid is suspected is to tap with fine exploring syringe and not with the aspirator, and, having found characteristic fluid, to cut down and deal with the cyst by drainage as if dealing with an abscess.

Suppurative pericarditis, when diagnosed, is to be treated on ordinary surgical principles, namely, by cautious incision and drainage, and many successful cases of such treatment have been reported.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

A CASE OF POISONING BY CHLORALOSE.

The following may prove of some interest since chloralose is a new drug and is said to be a very safe hypnotic.

A short time ago I was called to see a lady who was said to be suffering from an overdose of a soporific. On my arrival her friends told me that she was in the habit of taking drugs for sleeplessness, but they could give me no information as to what drug she had taken or in what quantity she had taken it. I found the patient, a middle-aged woman, lying in bed in a semi-comatose condition. She showed signs of irritation on attempts being made to wake her, but she could not be roused sufficiently to give an intelligible answer to any question. The face was congested and bluish, pupils equal and somewhat dilated, breathing normal, pulse 60, regular, fairly full, and of high tension, skin warm and moist. On a table by the bed were a box, which had contained cachets of chloralose (0.20 grammes in each) but was now empty, and a bottle of syrup of chloral, from which about ℥vj were missing. I concluded that she was suffering from poisoning by chloralose or chloral or both.

As it appeared that the amount taken might be large I proceeded to wash out the stomach. The water returned almost clear and without smell. I gave an enema of hot coffee. Soon after this she became sufficiently conscious to tell me that she had taken only three cachets and that she had often taken two, and on more than one occasion three cachets without ill effects.

On visiting her later I found her quite well except for a slight headache. She told me that she had taken hypnotics for many years. Once before she had suffered from a very large dose of chloralose, but quickly recovered after an emetic. On the present occasion she had taken two cachets at 1 A.M. and a third about an hour later. I saw her at 4.30 A.M. She thought she slept for a short time after taking the cachets, then felt very ill in an indefinite way, tried to open the door, which was locked, but fell down and was found there in an unconscious condition.

The chloralose which she was in the habit of taking was made by Bain and Fournier, of Paris, but she had recently obtained a fresh supply from another firm, and two of the cachets taken were from this consignment. The contents of one of them weighed between grs. iij and grs. iijss, that is, about 0.20 grammes.

There is nothing in the symptoms to call for remark. They were sufficiently grave to call for active treatment. The quantity taken—0.60 grammes (grs. x)—is the full dose recommended, but she had previously taken as much without ill effects. The untoward symptoms may have been due to

rapid absorption from the empty stomach or to impurity in the new supply.

Bromley, Kent. G. H. LANG, M.D.Lond.

CONTINUED PYREXIA WITHOUT APPARENT CAUSE.

THE diagnosis of "continued fever" nowadays generally means one of two conditions—the one including enteric and relapsing fevers, the other meaning that the patient has some cause for pyrexia which has been overlooked, for example, tuberculosis, empyema, etc.

The subjoined case is of interest, as it indicates the existence of cases which cannot be assigned to either of the above classes. It resembles the first class neither in symptoms, course, or event. I should feel more diffidence in believing that it does not fall into the second class had I not obtained the assistance of my friend, Mr. Blackwell, M.B.,Lond., who was, like myself, quite unable to assign any cause for the pyrexia. Briefly, the case is as follows:

E. B., aged 17 years, a housemaid, was taken ill on February 16th, 1893, with pain in the left side and shoulder, increased on deep inspiration. She vomited once. The temperature was 100° (pulse 120. On February 19th there was dulness at left base, and absence of vocal fremitus; and on February 21st the breath sounds were distinctly weaker at the left base. On February 23rd there was slight dulness at the right base also. On February 26th the dulness disappeared at both bases, and the breath sounds regained their normal character. Up till now the temperature on consecutive days at 4 P.M. had been 100°, 101°, 101.4°, 102.6°, 102°, 103°, 103°, 99.8°, 100.8°, 99°, 99°.

This period of nine days corresponded exactly with the duration of the physical signs of a small pleural effusion at the left base. The cessation of physical signs was followed by a period of two days during which the temperature remained at 99°, at the end of this time it commenced to rise gradually, till on the seventh day it was 102°, and thence consecutively at 4 P.M., 102°, 103°, 104°, 102°, 101.6°, 99.2°, 98.8°, 100.4°, 100°, 100°, 101.4°, 101°, 101°, 100.8°, 100°, 98.8°, 98.8°. During this period of pyrexia, lasting twenty-two days, no abnormal physical signs were present in the chest (examined daily) nor elsewhere. On the sixteenth day of this stage Mr. Blackwell saw her, and was quite unable to find anything abnormal in the chest or elsewhere. The heart was normal, and spleen not enlarged; the apices of the lungs were sound, nor is there any history of phthisis in the family. On the thirty-fourth day after the commencement of the pleurisy the temperature fell to normal, and has remained so ever since. She is now at the seaside, and has completely regained health and strength. During the illness I had my thermometer tested and it was found accurate. She has complained of no pain, nor, indeed, has had any symptom pointing to any portion of the body as the situation of the disease. She has had throughout an excellent appetite, and the bowels have been regular.

CHESMAN BARKER, M.B.Lond., M.R.C.S., L.R.C.P.

Hornsey, N.

A GROUP OF SYMPTOMS CAUSED BY THE ELECTRIC LIGHT.

TAKEN in conjunction with Mr. Hewetson's paper[1], the following notes may prove of interest:

The electrician on board a P. and O. steamer, of which I was then the medical officer, came to me at 8 A.M. complaining of intense pain in both eyes and severe headache, which symptoms had appeared quite suddenly and recently. The man was quite beside himself with the pain, but quite rational. Both eyes were suffused. The conjunctivæ were intensely congested. There was marked photophobia and partial blepharospasm. The skin was hot and dry. The temperature was 102° F. I instilled a solution of cocaine, 5 per cent., freely into each eye, with the result that in a few minutes the pain had considerably lessened, and the patient became much quieter. He was placed on a mattress in the breeze, and seemed inclined to sleep.

He remained quiet till 9.30 A.M., when he suddenly became wildly delirious, and evidently quite unconscious of his surroundings. Potassium bromide and chloral hydrate, of each 15 grains, was given, with the result that within half an hour he settled down quietly, and went to sleep. An icebag was applied to the head. He slept till 1 P.M., and during his sleep perspired freely. When he awoke he felt much refreshed, was quite rational, but somewhat shaky. The pain in the eyes and head had gone, but the former were still suffused, injected, and intolerant of light. The temperature was normal, and the skin moist. He was ordered to rest in a darkened cabin for the rest of the day. Next morning he expressed himself as quite well, and anxious to go on duty. He had no pain, and had slept well. His eyes presented a normal appearance, and apparently vision was unimpaired. It subsequently transpired that the patient, who had during the previous night been in charge of a powerful electric search light which had been used during the transit of the Suez Canal by night, had neglected to wear the protective goggles provided for the purpose, and had on several occasions during the night examined the light through the spyhole in the side of the lantern with his naked eyes. He was in charge of the light about nine hours, and the symptoms developed suddenly about two hours after leaving charge. The sudden onset of the symptoms, and their equally sudden disappearance, coupled with their severity while they lasted, were remarkable, and bear a close resemblance to those described by Mr. Hewetson.

Chepstow Villas, W. E. HARDING FREELAND.

[1] BRITISH MEDICAL JOURNAL, June 24th, 1893.

REPORTS

ON

MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL AND DISPENSARY.

HYPERPYREXIA IN CEREBRAL INJURY.

(Reported by J. P. MACLAREN, M.A., B.Sc., M.B., C.M.)

ON June 2nd, at 1 A.M., T. W., a signal fitter on the Manchester, Sheffield, and Lincolnshire Railway, was admitted in a state of unconsciousness, and suffering from a severe compound fracture of the skull. He had been walking along the railway, and, seeing a train coming up on the down line, he stepped on to the up line and was immediately knocked down by the buffers of a locomotive, the approach of which he did not see until escape was impossible. When brought into the hospital he moaned frequently and breathed very heavily, almost stertorously, at times with puffing of cheek, then a flagging pulse with ominous breaks, and a gradual sinking of respiration until it almost died away. Suddenly, however, both pulse and respiration became stronger, but only to fail again after a short time, to be again succeeded by a sudden amendment; this recurring cycle went on the whole night through. The wound was in the left anteroparietal region, corresponding to the angle between the coronal and sagittal sutures and its almost incised character and small size—little more than an inch in length—gave little index to the seriousness of the fracture beneath.

The wound having been enlarged, it was ascertained that a part of the skull had been driven right into the brain substance, some of which indeed was protruding from the margins of the scalp wound. Two pieces of bone were extracted by forceps, and were remarkable in respect that both—the larger of nearly an inch in diameter, the other much smaller—showed so clean a breakage that they had almost the appearance of having been "punched out," giving remarkable testimony to the force and "incisive" stroke of the blow delivered by the locomotive going at the rate of from thirty to forty miles an hour. These were the only fragments, and the wound was thereafter treated antiseptically, sewn up, and covered with a light dressing. During the next twelve hours there was no alteration other than cessation of the moaning and a more natural and easy respiration. About noon momentary twitchings were seen to flit over the left side of the face, but at 3 P.M. these became more frequent, and persisted thoughout the evening, causing violent distortion of the left facial muscles. The right leg and arm were

also subject to similar spasmodic jerks, the left arm and leg being devoid of all movement or sensation. The temperature at 6 P.M. was 101° F., the pulse 120, somewhat soft, but of fair calibre.

At 12 P.M. the temperature and pulse were unaltered. The right arm and leg, which before were subject to clonic spasms, having nothing to do with will control, now were tossed about the bed, evidently with "purposeful" movement; the face was undisturbed by twitchings, and the left arm and leg were now moved at will, as for example to resist my testing the eye sensitiveness. The respiration was natural and easy, almost as in sleep, and there were no symptoms of cerebral excitement. It was therefore beyond doubt that at the time the brain was under favorable conditions. Thus the second day passed; but at 6 P.M. the pulse began to quicken, the respirations were 35 per minute, and the temperature rose to 103° F., as the sequel showed, never again to fall. The following table shows the gradual ascent:

—	Temperature.	Pulse.	Respirations.
	Degrees.		
3 P.M.	101	130	30
6 ,,	103	160	35
9 ,,	105	—	—
10 ,,	105	—	—
10.30 ,,	105.5	160	35
11 ,,	106.2	185	—
11.30 ,,	108	—	—
12 ,,	108.5	thready and impossible to count	—
1 A.M.	109	—	20
1.30 ,, death.	109	—	—

The respirations became gradually less frequent, being latterly of a vocal and "expulsive" character. The manner of death did not suggest asphyxia, but rather gradual cessation of reflex impulses from the respiratory centres, or more probably from the higher cephalic centres themselves.

REVIEWS.

A Medical Handbook. For the Use of Practitioners and Students. By R. S. Aitchison, M.B., C.M., F.R.C.P.Edin. With numerous Illustrations. London: C. Griffin and Co., Limited. 1893. (Leather, foolscap 8vo, pp. 347, 8s. 6d.)

This compact little handbook has been designed to supply the wants of the student as well as of the practitioner desiring to revise the subject of practical medicine. In the classification of disease clinical requirements have been chiefly kept in view, and the account of the diseases of each system is followed by a useful discussion on differential diagnosis. It is a little surprising at the present day to see it stated that the parasitic theory of phthisis is still unsettled. There can be no doubt that acute pneumonia is a constitutional *(sic)* or general disease, that is, in the sense of being an acute infective process caused by various micro-organisms, of which Fraenkel's pneumococcus is the one most frequently found. The cholera bacillus receives some recognition here, but the tetanus bacillus is not even mentioned. Where space is to be considered a long discussion upon sound in relation to the physical examination of the chest is surely unnecessary, and the kind of shorthand representation of breath sounds, etc., on p. 78 does not seem very practical. The treatment of various diseases of a given organ is at times grouped together, and not entirely with advantage. Alcoholic paraplegia is curiously placed along with syphilitic, hysterical, and reflex paraplegia (p. 221) as a functional condition. The subjects of arterio-sclerosis and myocarditis, much discussed of recent times, deserve more attention. The treatment of empyema, at any rate in early cases, by incision and drainage is now so satisfactory that any question of repeated tappings can hardly arise. Cholecystotomy in certain picked cases of gall stones and the possible removal of a localised and suitably placed intracranial tumour should be mentioned. On the other hand, the early surgical treatment of typhlitis, which the author seems to favour, is open to great question. There are many who think that the total mortality of the disease is increased by a line of treatment which knows no discrimination of cases.

This handbook will no doubt serve well the purpose for which it has been written, but the author's desire to place before his readers nothing but facts has led him to omit things which might otherwise have been rightly accorded a place. As with all these smaller textbooks, it is unconditionally to be desired that the student will supplement them from the larger treatises on medicine.

Vertebrate Embryology: A Text-book for Students and Practitioners. By A. Milnes Marshall, M.D., F.R.S. London: Smith, Elder, and Co. (Demy 8vo, pp. 640, 255 illustrations, 21s.)

The book aims at bringing together from the very numerous and scattered sources all the main facts about the development of certain vertebrate animals: and it succeeds in its aim. The animals chosen are man, rabbit, chick, frog, and amphioxus, the last four being those the embryogeny of which is required for the Preliminary Scientific Examination at the London University.

In his introduction the author deals with sundry general phenomena, such as the structure of the egg, the theory of fertilisation (where a brief reference is made to Weismann's theory as to the meaning of polar bodies), the "recapitulation theory," and the "origin of sex."

Each chapter commences with a general account of the origin of the ovum, and the general process of development, followed by a detailed description of the various stages in this process, and the chief facts in organogeny. In the chapter on amphioxus we have a brief account of the anatomy of the adult, and the importance of the type is insisted on. In the introduction to the chick will be found an interesting, albeit too short, history of the classical researches and controversies as to "preformation" and "epigenesis," of which this animal has been the subject. It will be news to most zoologists, we think, that as early as 1600 the development was described and illustrated in a way not absolutely erroneous, nor without value, by Fabricius.

The chapter on the human embryo is the longest, and the author has to rely on the contributions of his predecessors; whereas in the case of the frog, chick, and rabbit, he is able to add to our knowledge from his own observations. The chapter on the frog is excellent, especially that part dealing with the anatomy of the tadpole; much of it, though by no means all, has appeared before in various papers by the author and his pupils, while some has already been incorporated in the recent editions of the author's dissection manual, *The Frog*.

The 255 figures are executed in that clear, bold, diagrammatic style peculiar to Professor Marshall; and with the exception of those illustrating man's development, the bulk are original. Many of them will be found extremely useful by the teacher, and the student owes a debt of gratitude for those illustrating the chick; for example, on pp. 225, 227, 364, 365, and 366, which give a better idea of the general process of the formation of the embryo and its relations to the yolk sac, than any hitherto accessible to the student. Yet we think that the description of the formation of the first segmentation nucleus, etc. (p. 14, *et seq.*), would have been improved by the introduction of figures, for this is a process difficult to impress upon the student, the more owing to the absence of good recent figures in textbooks. A bibliography of sufficient length concludes the work.

If the "introduction" had been fuller, some of the repetitions might have been avoided, and a concluding chapter containing a general discussion and comparison of leading points, already described in detail, would have been extremely useful.

Nevertheless the book is welcome, and we do not doubt but that it will obtain the popularity which it so well deserves. The care and accuracy with which it has been written will render it most useful to the student and to the teacher; whilst there is a good deal in the chapter on the human embryo which will render the book valuable to medical practitioners.

ON SNAKE POISON: ITS ACTION AND ITS ANTIDOTE. By A. MUELLER, M.D. Sydney: L. Bruck. 1893. (8vo, pp. 85.) THE mortality from snake bite in India and throughout the tropics generally is so great that we are inclined to welcome any suggestion that is likely to lessen it. For this reason we would be disposed to regard with favour the proposal of Dr. MUELLER to use strychnine as an antidote, more especially when he gives a number of cases in which the result appears to have been satisfactory. The manner in which the author of this work deals with the subject is, however, very extraordinary. The writer takes to himself the full credit of having discovered an antidote by observations on man alone, and says (p. 42): "Its discovery in strychnine and its successful application as the long and vainly-sought antidote to snake poison are glorious triumphs of scientific deductions." As we learn from p. 79 that the author is an obscure Australian country practitioner, we are inclined not merely to pass over any boastfulness which such a passage may indicate, but to congratulate him on his discovery, all the more because of the circumstances under which it was made, unfavourable as they must have been, to his becoming acquainted with the work of others on the same subject. His ignorance of previous work is shown by the imperfect and incorrect list on pp. 13 and 14, but this ignorance of their work is no excuse for the terms in which he disparages it.

In his preface he says that not the least pleasing feature in the history of this discovery is the fact that it has been made without an elaborate series of experiments upon animals, that it is a peaceful conquest not attained by means of doubtful justification and which have hitherto failed in their object. In his historical review he goes on to say that "Fontana may be looked upon as the founder of that hideous experimentalism by which, in his hands alone, four thousand animals were tortured to death without a single tangible result, except that in his great work, *Reserche Fisiche sopra il Veneno della Vipera*, which he wrote at the commencement of his cruel labours, he left us a grotesque monument of patient but ill-guided research." Yet, oddly enough, one of the most prominent parts of Dr. Mueller's book consists of an account of the experiments on animals made by Feoktistow, under the direction of Professor Kobert, of Dorpat. Of the fact that all our knowledge of strychnine is derived from experiments upon animals Dr. Mueller appears to be profoundly ignorant.

His method of treatment which he advocates is a rational one, for it is in accordance with the fact ascertained by Rokitansky that strychnine is a most powerful stimulant to the respiratory centre, and also with the discovery of Fayrer and Brunton that snake poison kills by paralysing the respiration, but the way in which the author has chosen to bring the subject forward in this book is certainly calculated to increase the feeling regarding his views, of which he complains on p. 12, and which he stigmatises as "the senseless opposition on the part of a small section of medical men little short of criminal." If Dr. Mueller were to assume a more reasoning and less dogmatic attitude towards those who will not accept his views without his rendering a reason for them he would probably find less opposition on their part.

NOTES ON BOOKS.

Lessons in Physical Diagnosis. By A. LOOMIS, M.D., LL.D. Tenth edition, revised and enlarged. (New York: William Wood and Co. 1893. Royal 8vo, pp. 278, 3 dollars.)—The tenth edition of this work comprises twenty lessons, eight of which are given to the physical examination of the lungs and air passages, five to that of the heart and aorta, three to that of the abdomen, one to the examination of the urine, one to clinical microscopy, and two to the mechanical aids to diagnosis. A short description of medical anatomy precedes the first three sections, and the physical signs of the various diseases are considered at the end of them, with a special view to differential diagnosis. The chapter on clinical microscopy has been rightly added to this edition, considering the importance of the subject. Here the examination of the blood, sputum, urine, vomit, and fæces, including the commoner forms of micro-organisms, is given. Both auscultatory percussion and œsophageal auscultation are described, but of the latter the author says he has had no personal experience. Displacement of the cardiac apex beat might receive more attention as a cardinal sign of pleural effusion. Among the tests for sugar phenyl hydrazin does not find a place. Where such instruments as the stethometer, æsthesiometer, etc., are described the hæmocytometer might with advantage have been included. This book contains a very useful and practical account of the subject, and is in every sense well adapted to the wants of the student. There are many excellent illustrations.

Alcohol and Public Health. By J. JAMES RIDGE, M.D. Second Edition. (London: H. K. Lewis. 1893. Crown 8vo, pp. 91, 1 illustration, 2s.)—The value of the facts, relating to the influence of alcohol on the health of the people, presented in this volume is evidenced by the early call for a second edition. The author contends that the enormous expenditure on intoxicating liquors in 1891 in the United Kingdom of over £141,000,000 is a matter of serious consideration for all persons who are interested in the "commonhealth." A hope is expressed that, by duly weighing the facts adduced, sanitarians may arrive at practical conclusions on the alcohol question, and a fairly general consensus of opinion. The facts here stated, which bear on the physiology, pathology, mortality and sickness, pauperism, insanity, and crime induced by alcoholic indulgence will be found to be put forth in clear and bold relief in a form readily accessible to students and advocates of the important cause of temperance.

Chemistry for All. By W. J. HARRISON, F.G.S., and R. J. BAILEY. (London: Blackie and Son. 1893. Foolscap 8vo, pp. 150, 59 illustrations, 1s. 6d.)—This is a manual for students preparing for the chemical portion of the examinations conducted by the Government Department of Science and Art. It is more especially intended for those entering upon the course of alternative elementary chemistry adopted by the department for students who do not require a technical acquaintance with chemical science. Symbols and formulæ are accordingly omitted throughout the book, and the subject is dealt with as simply as possible. The chemistry of this little manual is accurate enough, and it seems well adapted for the purpose for which it was compiled. We cannot allow an extraordinary etymological error which occurs on page 45 to pass, since otherwise it may be found copied in half-a-dozen other small manuals in the course of a year or so. An eudiometer is not a "water measure," but a "gas measure" (ἔνδιον—something fine or rare, hence air or gas).

Le Mouvement et les Exercises Physiques: Leçons Pratiques sur les Systemes Osseux et Musculaire. (Physical Exercises: A Practical Treatise on the Osseous and Muscular Systems.) Par le Dr. E. DUPUY, Médecin de l'Hôpital de Saint Denis, etc. Précédées d'une introduction par le Dr. DASTRE, Professeur de Physiologie à la Faculté des Sciences de Paris. (J. B. Baillière et Fils, 1893. 1 vol., demy 8vo, 344 pp., 139 figures, 5 francs.)—As this book treats of the anatomy, the physiology, and the pathology of all the tissues concerned in all the movements of the body, mentioning the accidents and diseases to which they are liable, and glancing at the treatment appropriate to such cases, it necessarily contains much which can but be obscure or confusing to the layman; and, while not infrequently suggestive, it contains little of profound interest to the surgeon or the physiologist, unless it be the citing of the well known feat of Milo the Crotonian, as an instance of prowess achieved by the old-world athletes. As a popular summary of its subject the work appears to be within its limits well up to date. Cycling has a chapter to itself, like rowing, which, says Dr. Dupuy, "has attained in England and America to the dignity of a university cult." The remarks on the hygiene and the choice of the various forms of bodily exercise are clear and valuable, and the illustrations, especially those of the more diagrammatic type, are generally excellent. Some useful hints as to the "first aid" treatment of the injured are contained in the text, and there is a sufficient index.

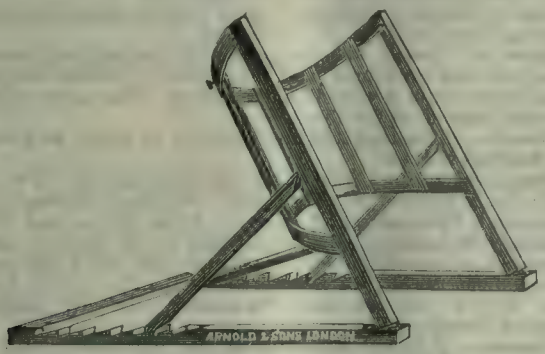
Domestic Medicine and Hygiene. By Dr. W. J. RUSSELL, M.B. Third Edition. (London: W. H. Everett and Son. 1893. Crown 16mo, pp. 508, 2s.)—This little work purports

to give in plain language a short account of the more common diseases, their causes and treatment; and to be a guide to those who, in the absence of a competent medical man, have to rely in time of sickness on their own resources for diagnosis and treatment. The task the author has set himself is an exceedingly difficult one to perform satisfactorily; on the whole we think he has succeeded, and that his work will fairly fulfil its object. The directions for treatment are clear, and in most instances in harmony with current medical practice. The notices of osteomalacia, locomotor ataxy, leprosy, and a good many other chronic and comparatively rare affections might have been omitted with advantage, and the pages devoted to such subjects more usefully employed. Such diseases are not only rare, but their recognition is altogether beyond the diagnostic abilities of the lay practitioner, and in the absence of correct diagnosis attempts at treatment may prove injurious as well as futile.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

THE "CORE" BED-REST.

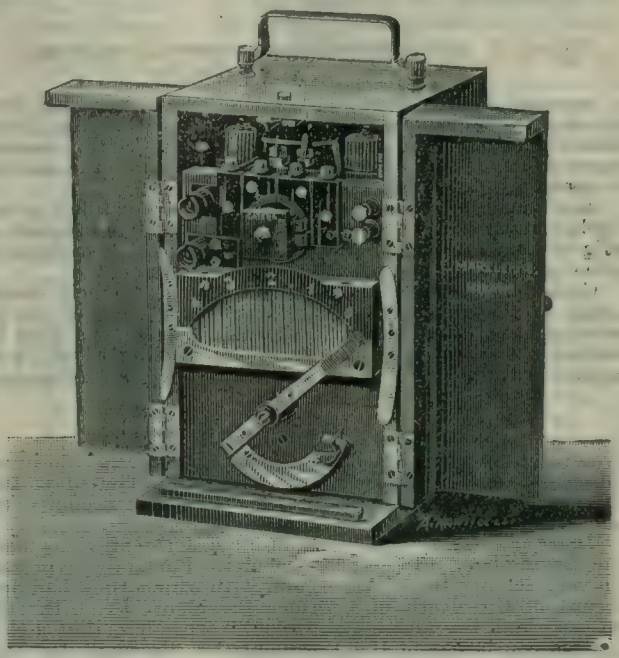
THIS bed-rest is specially adapted for convalescing invalids or acute cases of heart disease and dropsy. It is claimed for it that it is superior to any in present use on account of its comfort, as well as it being so thoroughly sanitary. The back is curved, as is shown in the illustration, and the



pillows rest in lengthwise; two are sufficient, and a third across the top is a support for the head. The lower curved band just fixes the back where weakness is most felt, leaving the lower part of the spine, where the skin is most delicate, to rest solely on the soft pillows. It can be arranged at any angle, so that a patient may sit quite upright, or, again, even in a recumbent position. There are brass buttons at the back, so that in a long and tedious illness pillows can be more firmly secured by means of pieces of strong tape in which button-holes have been made. The pillows can easily be shaken without uncomfortably disturbing the patient. It is simply constructed of wood, and can be carbolised, thus keeping it sanitary. Messrs. Arnold and Sons, of West Smithfield, are the makers.

PROFESSOR BOTTINI'S NEW ACCCUMULATOR BATTERY FOR GALVANO-CAUTERISATION AND LIGHT.

THE new battery made for Professor E. Bottini by the electrician, E. Marelli (Viâ Quadronno 11, Milano), is represented in the accompanying figure. It contains two elements—each element of 14 plates. The height of the case is 23 c.m., the breadth 13 c.m., the length 18 c.m., the weight 8 kilogrammes. The capacity of the whole battery is 50 ampère hours, 25 for each element. Both the elements have useful energy corresponding to 90 Watt hours. The battery requires recharging once every six months; this takes three hours if from a dynamo, six hours if from an ordinary four-cell Bunsen's battery. When the compartments of the two elements are hermetically closed by a screw stopper, the apparatus can be easily transported, and even if turned upside down the liquid does not escape. The liquid used is pure water, with 10 per cent. of sulphuric acid (chemically pure). On the outer side of the battery are inserted two wires for a small electric lamp, which can be used for examining internal cavities. The galvano-cautery knives are fitted up with platinum wires, much thicker, and not so easily fused as the former ones. By means of the new apparatus a two



millimetres wire, 14 c.m. in circuit, may be heated, and even fused, without using all its thermic power. When in use the centripetal half only of the wire effects division of the tissues, if the wire is thin, the scab formed may perhaps succeed in preventing a primary hæmorrhage, but cannot insure the part from a secondary hæmorrhage, which is really much more serious and dangerous, and may happen when the surgeon is not at hand, or, if present, has nothing ready for its arrest. The power and regular and constant action of Professor Bottini's new battery may be fully relied on. The management is so simple, that in comparison Paquelin's cautery may be considered a complicated instrument. Although Professor Bottini has always spoken and written warmly in favour of galvano-cauterisation, particularly in the burning and thermic separation of prostatic growths, he recommends the careful and intelligent use of the apparatus only in those cases where other means have failed.

So understood, the galvano-cautery may render incomparable services; and for my own part I feel perfectly sure that it only requires to be better known in order to be thoroughly appreciated by practitioners. As a matter of fact, amongst all the surgical aids and appliances we have in our possession for amputating the tongue, the penis, and the neck of the uterus, and for removing piles or cavernous vascular angiomata, there is not one which can be so thoroughly relied upon for its power of arresting bleeding and securing perfect asepsis.

DR. MOROTTI.

2, Santa Maria Valle, Milano.

THE will of the late Dr. James Fielden Howard, of Sandycroft, Shaw, Crompton, Lancashire, who died on May 5th, has been proved by the executors. The personal value of the estate is £23,802 16s. 4d.

THE in-patient department of the Victoria Hospital for Children, Queen's Road, Chelsea, is closed for two months for repairs, painting, cleaning, and the installation of the electric light.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room, College of Medicine, Newcastle-on-Tyne, on Tuesday, the 1st day of August next, at 9.30 o'clock in the forenoon.

July 29th, 1893. FRANCIS FOWKE, *General Secretary.*

NOTICE OF QUARTERLY MEETING FOR 1893. ELECTION OF MEMBERS.

A MEETING of the Council will be held on October 25th, 1893. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before the meeting —namely, October 4th, 1893.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election. FRANCIS FOWKE, *General Secretary.*

NORTH OF IRELAND BRANCH.

THE fifteenth annual meeting of this Branch was held in the Museum, College Square North, Belfast, on Thursday, July 20th. The President (Dr. WALTER BROWNE) occupied the chair, and there was a very large attendance.

Death of Professor Dill.—The minutes of the previous meeting having been read and confirmed, the PRESIDENT expressed in very feeling terms the sorrow with which they had just heard of the death of a former President, Dr. Dill. He moved, and Dr. THOMPSON (Omagh), seconded, that a committee consisting of the President (Dr. Browne), Dr. Hall (Monaghan) President-elect, and Dr. Byers be appointed to draw up a letter of condolence to be sent to the family of the late Dr. Dill. This was passed.

Report of Council and Financial Statement.—These were taken as read (as they had been circulated amongst the members), and were passed. There were four meetings during the year 1892-93, which were largely attended, and at which a great variety of medical subjects were discussed. There are 245 members. There is a balance in hand of £57 12s. 1½d.

Election of Office-Bearers.—The following were elected office-bearers for the year 1893-94:—*President:* Dr. J. C. Hall Monaghan. *Vice-Presidents:* Dr. J. A. Lindsay and Dr. Stuart, Ballymena. *Members of Council, Country:* Dr. Palmer, Armagh; Dr. St. George, Lisburn; Dr. A. Dunlop, Holywood; Dr. M'Alister, Carrickfergus; Dr. Gaussen, Dunmurry; Dr. G. C. Thompson, Omagh; Dr. O'Hara, Ballymena; and Dr. J. C. Martin, Portrush. *Belfast:* Professor Cuming, Dr. McKeown, Mr. Fagan, Professor Sinclair, Dr. Calwell, Dr. Dempsey, Dr. O'Neill, and Dr. Walton Browne. Dr. Gray, Castlewellan, was re-elected Treasurer, and Dr. Byers, Secretary. Dr. Byers and Dr. Dempsey were elected as representatives of the Branch on the Council of the Association, and Dr. O'Neill and Dr. Stuart (Ballymena) were appointed on the Parliamentary Bills Committee.

Communications.—Dr. BROWNE (the President) showed a Foreign Body—a piece of iron—removed from the external auditory meatus.—Dr. ST. GEORGE (Lisburn) showed a case of Fractured Patella treated successfully by ligature.—Dr. BYERS showed a child the subject of Congenital Heart Disease. He also showed the Tumours removed in a case of Double Hæmatosalpinx.—Dr. E. C. THOMPSON (Omagh) read notes of a case of Compound Fracture of the Skull in which he trephined with good results, and also notes of a case of Epilepsy treated by a seton.—Dr. W. CALWELL showed some specimens of Diseased Hair under Microscope, included Bulb of Hair removed by Electrolysis, Leptothrix, Moniliform Hair, Favus, etc. He also contributed a paper on Localisation of Cerebral Lesions; some Recent Statistics. An interesting discussion followed the reading of these communications.

Luncheon.—At the conclusion of the meeting the President (Dr. Walton Browne) entertained at a sumptuous luncheon, in the new Grand Central Hotel, ninety-five members of the medical profession from Belfast and North of Ireland. "The Health of the Queen" having been given, Dr. THOMPSON (Omagh) proposed the toast of "The North of Ireland Branch of the British Medical Association," coupled with the health of Dr. Browne (the President), and, on behalf of the members present, he thanked the President for his very great hospitality in entertaining the members that day. Mr. JOHN FAGAN, in supporting the vote of thanks, spoke of his admiration and friendship for his colleague, Dr. Browne. The toast having been received with the greatest enthusiasm, Dr. BROWNE replied. During the luncheon Dr. MacKenzie and Dr. McKisack contributed two admirable songs, Dr. J. A. Lindsay acting as accompanist.

New Members.—At a meeting of the Council of the Branch held on the same day, the following were elected members: James Colville, M.B., Royal Hospital, Belfast; J. S. Bryars, L.R.C.P.and S.Edin., 227, Newtownards Road, Belfast; T. C. Duffin Cathcart, L.R.C.P.and S.Edin., Ashley Lodge, Newtownards, Belfast; K. B. MacDougal Wilson, M.D., 31, Laburnum Terrace, Antrim Road, Belfast; W. W. Duff, M.D., Rock House, Aghagallon, Lurgan; George Clarke, M.D., Wellington Park, Belfast.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.

THE twenty-third annual meeting was held at the Hospital, Swansea, on July 12th, Mr. H. A. LATIMER, President, in the chair, and about 30 members were present.

Vote of Thanks.—A cordial vote of thanks was passed to the retiring President, Mr. T. J. Webster.

Report of Council.—The minutes of the previous meeting were read and confirmed, and the report of Council and statement of accounts were read and adopted. The latter showed a credit balance of £70 15s. 10d.

Donation.—Resolved that a donation of £5 5s. be given to the Portheawl Rest.

Election of Officers.—The following were elected:—*President-elect:* Dr. Mulligan, of Abersychan. *Members of Council:* Drs. Price and Paterson, and Messrs. Evan Jones and Ward. *Honorary Secretaries:* Drs. Sheen and D. A. Davies. *Representatives on General Council:* Dr. Sheen and Mr. Evan Jones.

New Members.—R. C. Elsworth, M.B., Mr. J. K. Couch, and Mr. A. Ll. Morgan, Swansea; Mr. R. Hopkins, Clydach, Swansea Valley.

Alteration of Rules.—A motion by Mr. HORDER (Cardiff) to alter the rules so as to allow of all absent members voting for members of Council and representatives on the General Council, was lost.

Future Meetings.—The Autumn Meeting will be held at Merthyr, and the Spring Meeting next year at Neath.

President's Address.—The PRESIDENT gave an address on "Some Current Medical Topics." A vote of thanks was unanimously accorded the President for his excellent address.

Cases and Specimens.—The following cases were shown by Mr. G. H. HOPKINS (Swansea): (1) Ligature of Popliteal for Diffused Traumatic Aneurysm; (2) Drainage through Mastoid for Middle Ear Disease; (3) Tuberculous Abscess of Hip, incision, hot water flushing, closure without drainage: (4) Specimen of Hydatid Mole and Early Ovum.—Mr. BROOK (Swansea) showed specimens of Diphtherial Larynx, where intubation had been practised, showing that the tube did not displace the membrane; and a Microscopic Specimen of Hydatid of Liver.

Dinner.—The members subsequently drove to Langland Bay, and dined at the Hotel.

SOUTHERN BRANCH: ISLE OF WIGHT DISTRICT.

THE quarterly meeting of the Isle of Wight District was held at the Ryde Pier Hotel, on Thursday, July 20th, the President, J. L. WHITEHEAD, M.D., M.R.C.P., in the chair. The minutes of the previous meeting were read and confirmed.

Laceration of Perineum.—Dr. BUCK (Ryde) read a paper upon recent laceration of the perineum and its treatment. He pointed out that healing of the torn perineum was always by the union of two granulating surfaces, and never by primary union, and that as good or better results could be obtained without stitches as with them by personal attention to the details of treatment which he recommended. These details were as follows :—(1) Never insert any sutures. (2) Tie the patient's thighs together, and keep them so during the puerperal month. (3) Do not use a catheter, but permit the patient to use the bed slipper from the first. (4) Beginning on the day after labour, wash out the vagina first and then the rectum with warm water, and with the greatest care in introducing the enema pipe to avoid separating the torn surfaces. Rupture of the sphincter ani is a reason only for more careful washing. Continue the daily washings for at least three weeks, and use mild aperients frequently to prevent hard fæces forming in the rectum. (5) Do not examine the wound for three weeks, and not then if there is much pus observed before syringing. (6) Use pads of Gamgee tissue or Hartmann's wool instead of napkins. (7) It is better that the patient should not nurse the child. A short discussion followed.

Some Modern Antipyretics and Analgesics.—Dr. ROBERTSON (Ventnor) introduced a discussion upon antipyrin, antifebrin, and phenacetin, in which all the Members joined, the PRESIDENT remarking that the use of antipyrin in the pyrexia of phthisis had now been generally abandoned; Dr. HOLLIS giving details of two cases of antipyrin habit, Drs. HARLAND and BUCK referring to a similar habit in a man who ultimately committed suicide.

The PRESIDENT introduced a discussion upon the legal responsibility of medical men in cases of attempted suicide; and opinion was unanimous that in cases of suicidal mania the medical attendant's responsibility was limited to advising the friends of the patient as to the precautions necessitated by the mental condition.

The meeting then terminated.

NORTH WALES BRANCH.

ANNUAL MEETING.

THE forty-fourth annual meeting of this Branch was held at St. Asaph on July 20th, when there was a very large attendance of members.

Special Service.—At 11.30 there was a service in the Cathedral, when special lessons and prayers for the occasion were used, and an appropriate address by the Lord Bishop of the diocese, the Right Reverend A. G. EDWARDS, D.D., was given.

Luncheon.—Afterwards the members present were entertained to luncheon at the Deanery by the Very Reverend Watkin H. Williams, Dean of St. Asaph, along with some of the clergy of the district and private friends, and at its close the thanks of the members for his generous hospitality was passed to the Dean on the motion of Dr. A. E. TURNOUR, J.P., of Denbigh, the oldest member of the Branch, and one of its founders in 1849.

President-elect.—At the annual meeting the HONORARY SECRETARY read letters of apology from a number of members for non-attendance, among them being the President-elect, Dr. John Roberts, J.P., Menai Bridge, who has been for some time incapacitated from work owing to an attack of pneumonia, but is now slowly recovering.

New Members.—John Elliott, M.D., F.R.C.S.Eng., Chester, and W. Ramsay Smith, M.B., Rhyl, were admitted members of the Branch; and Hugh E. Jones, M.R.C.S., 7, Rodney Street, Liverpool, of the Association and Branch.

Report of District Council.—The report congratulated the members on the continued prosperity of the Branch, evinced by the number of members, the sound financial position, the good attendance at its meetings, and the interesting and practical papers read, many of which had appeared in the BRITISH MEDICAL JOURNAL. It referred in pathetic terms to the loss the Branch had sustained in the deaths of Drs. Edward Williams, of Wrexham, and Eyton-Jones, of Wrexham, of whom interesting obituary notices had appeared in the JOURNAL, and also of Drs. Barston Carstairs, of Rhyl, and O. R. Pughe Owen, of Bala.

The President.—The President, Dr. Robert Hughes, who was unable, owing to illness and absence abroad, to attend the meeting of last year, was congratulated on his return with restored health, after his voyage to the Antipodes.

Future Meetings.—The Council suggested that the intermediate meeting in 1894 be held at Wrexham, and the annual at Bangor (George Hotel).

Election of Officers.—The following officers were elected: Dr. Eyton Lloyd, J.P., of Rhyl, President for 1894. Honorary Secretary: Dr. Jones Morris (re-elected). Honorary Treasurer: Dr. Samuel Griffith, J.P. (re-elected). District Council: Drs. Langford Jones and Emyr O. Price, of Bangor; Elias Owen, Llangefni, and J. Llewellyn Williams, of Wrexham; John Roberts, of Chester; and William Jones, of Ruabon. The Honorary Secretary was appointed to represent the Branch on the Council of the Association, and Dr. Robert Jones, Claybury, Woodford, Essex, and Dr. W. Jones-Morris, representatives on Parliamentary Bills Committee. Dr. Emyr O. Price, of Bangor, was elected a member of the Court of Governors of the University College of North Wales, *vice* Dr. W. Jones-Morris, elected a member of the Council of the College. On the motion of Dr. J. EVANS JONES, J.P., Llanrwst, seconded by Dr. S. W. GRIFFITH, J.P., Pwllheli, the report was unanimously adopted and the recommended nominations of the persons and places noted confirmed.

The late Dr. Edward Williams.—Dr. J. R. JENKINS, J.P., Ruthin, proposed, and Dr. LLOYD ROBERTS, J.P., seconded, the following motion, which was carried unanimously, "That this meeting desires to express its sincere sympathy with the family of the late Dr. Edward Williams, of Wrexham, in the loss they have sustained by his decease. He was one of the founders of the Branch, its first Secretary, was elected President in 1857, and for forty-four years rendered the Branch much valuable assistance by his mature opinion and sound advice, while he endeared himself to his colleagues by his geniality of manner and courteous demeanour."

The late Dr. Eyton-Jones.—Dr. WILLIAM JONES, Ruabon, proposed, and Dr. SAMUEL GRIFFITH, J.P., Portmadoc, seconded: "That this meeting begs to record with great regret the death of Dr. Eyton-Jones, of Wrexham, who for thirty-five years was a faithful and consistent member of this Branch. He served the office for four years as Honorary Secretary, was a member of the Council of the Association for many years as its representative, was President of the Branch in 1867 and 1886, and in these and other capacities rendered valuable service to the Association and Branch. His devotion to the profession, his unwearying efforts on behalf of the Branch, and his kind and genial manner on all occasions will cause his memory to to be long remembered by his colleagues, who desire to express their sympathy with the family of the deceased in their affliction, rendered more acute by the death of his wife a few days after his."

Letters of Condolence.—On the motion of the HONORARY SECRETARY, seconded by the HONORARY TREASURER, it was resolved to send letters of condolence to the families of the other members of the Branch who had died during the year.

Papers.—Dr. LLOYD ROBERTS read notes of a case of Lymphadenoma. Mr. WILLIAM GRIFFITHS, M.B., read a paper on the Therapeutic Value of Alcohol; and Dr. JUDSON BURY, of Manchester, one on the Prominent Symptoms of Chronic Alcoholism, illustrated by photographs of patients suffering from Wristdrop and Leg Paralyses. These papers gave rise to a discussion, on which, as usual, when this "still vexed question" arises, much difference of opinion was expressed by Drs. DAMAR HARRISSON, E. J. LLOYD, J. BARR, J. ELLIOTT, J. W. ROWLANDS, and WILLIAM JONES (Ruabon).—Dr. WILLIAM ALEXANDER showed a man upon whom he had operated five years ago, for Cancer of the Lower Jaw and Contiguous Tissues, in which he had removed the whole of the parts, including the tongue. He was fed by a siphon inserted by himself into the œsophagus, and had an ingeniously instructed apparatus for collecting the saliva, so that he was now in a state of perfect ease, enjoying good health, and when wearing a muffler under the nose would pass unnoticed, as being the subject of one of the most successful surgical operations recorded. Photographs were handed round of his state prior to operation, which Dr. Alexander explained in

detail. He also showed specimens of Ovarian Disease he had removed a few days previously with perfect success.—Dr. Richard Jones, D.P.H., read a paper entitled a Clinical Contribution to the Etiology of Typhoid Disease, in which he gave clinical facts to prove the existence of a typhoid pneumonia distinct from that accompanying typhoid fever. The paper was listened to with much attention, as it was a record of clinical statistics from a neighbourhood where typhoid fever was at one time almost endemic. A discussion followed, which was taken part in by Drs. Barr, Elliott, Jones-Morris, and Ramsay Smith.— Dr. Kenric Davies read notes of a case of Hydatid Mole.

Specimens.—Dr. Emrys Jones showed specimens and gave a brief history of the cases of Sarcoma of the Choroid, Glioma of the Retina, and Lupus affecting the front of the eye.—Mr. Hugh E. Jones showed specimens of (1) Temporal Bone and Membranes from a case of Extradural Abscess and Sinus Pyæmia, (2) Temporal Bone, Caries Sinus into deep muscles of neck, Purulent Meningitis, softening of Parietal Lobe of Brain.—On the motion of the President a hearty vote of thanks was accorded to the various readers and the Hon. Secretary for his indefatigable services.—Messrs. Lynch and Co. exhibited a collection of surgical instruments.

Dinner.—The dinner was held at the Plough Hotel, when 35 members, with the Bishop and Dean as guests, sat down. The Bishop, in responding to the toast of "The Bishop and Clergy," appropriately proposed by Dr. Emrys Jones, referred to the fact that he once thought his life would have been spent in the medical profession, and that in attending that evening he was, as it were, returning to his first love. He spoke in warm terms of the services rendered by the profession to the poor and that in his clerical ministrations he had always received willing help from medical men, with whom he had always been on the most intimate and cordial terms, and whose assistance he valued and highly appreciated.—The testimony of those present was that this was one of the most successful and pleasant meetings in the history of the Branch.

PROCEEDINGS OF THE COUNCIL.

At a meeting of the Council, held at the Offices of the Association, 429, Strand, London, on Wednesday, July 19th, 1893:—

Present:

Dr. W. Withers Moore, President of the Council, in the chair.

Mr. Joseph White, President.

Dr. G. H. Philipson, D.C.L., President-elect.

Mr. Henry T. Butlin, Treasurer.

Dr. G. B. Barron, Southport.
Mr. B. Barrow, Ryde.
Dr. F. Bateman, Whitchurch.
Dr. M. Beverley, Norwich.
Dr. T. Bridgwater, LL.D., Harrow-on-the Hill.
Dr. J. S. Cameron, Leeds.
Mr. Andrew Clark, London.
Surgeon-General W. R. Cornish, London.
Dr. J. Ward Cousins, Portsmouth.
Dr. H. Radcliffe Crocker, London.
Dr. G. W. Crowe, Worcester.
Dr. E. H. Dickinson, Liverpool.
Dr. J. L. H. Down, London.
Mr. George Eastes, M.B., London.
Dr. W. A. Elliston, Ipswich.
Mr. R. S. Fowler, Bath.
Dr. J. H. Galton, Upper Norwood.
Dr. C. E. Glascott, Manchester.
Dr. Bruce Goff, Bothwell.
Dr. T. W. Grimshaw, Carrickmines.
Dr. H. Handford, Nottingham.
Mr. J. D. Harries, Shrewsbury.
Mr. J. H. Hemming, Kimbolton.
Dr. C. Holman, London.
Mr. Evan Jones, Aberdare.
Dr. D. J. Leech, Manchester.
Mr. Jordan Lloyd, Birmingham.
Mr. N. C. Macnamara, London.
Sir W. Moore, K.C.I.E., London.
Mr. R. H. B. Nicholson, Hull.
Mr. C. H. W. Parkinson, Wimborne Minster.
Dr. F. M. Pope, Leicester.
Dr. A. Sheen, Cardiff.
Dr. E. Markham Skerritt, Clifton.
Mr. Noble Smith, London.
Mr. H. Stear, Saffron Walden.
Dr. T. W. Trend, Southampton.
Dr. W. F. Wade, Birmingham.
Mr. F. Wallace, London.

The minutes of the last meeting having been printed and circulated, and no objection having been received, they were signed as correct.

Read letters of apology for non-attendance from Dr. Bristowe, Dr. Drummond, Dr. Jessop, Mr. Jones-Morris, Dr. Saundby, and Mr. Williamson.

Resolved unanimously, that the Council of the British Medical Association cannot allow the sad event of the death of Dr. Alexander Henry to pass without expressing their sorrow for the same, and their cordial acknowledgment of his work for thirty-four years as Sub-Editor of the British Medical Journal, and twenty-six years as Honorary Secretary to the Metropolitan Counties Branch. Dr. Henry's scholarly and varied attainments, his modest and amiable character, and his valuable services to the Association and Journal will cause his memory to be incorporated in the history of the Association.

Read resolution of the Section of Laryngology, consideration of which was deferred from last meeting.

Laryngology Section.

A paper on the importance of a Systematic Course of Physical Voice Training at Schools or Colleges, especially with regard to its Influence on Prevalent Throat Troubles in Public Speakers and Others, was read by Dr. Arthur Sandford; on Faults in Voice Production which Lead to Throat Disease, by Mr. Lennox Browne; on Throat Affections peculiar to Voice Users, by Dr. John M. Hunt; and on a Frequent Cause of Irritation of the Throat in School Teachers, by Mr. Richard Ellis; Drs. Bennett and Barr made some remarks on the subject of Voice Production; and Mr. Browne and Dr. Hunt replied. The following resolutions, proposed by Dr. Sandford, were adopted: 1. "In consideration of the injurious influence exercised upon the vocal organ by improper use of its function, and of the insufficient attention hitherto given to the subject of systematic voice training, the members of the Laryngological Section of this Association desire to urge upon educational governing bodies the importance of more general recognition of this subject as a distinct branch of education, especially in the case of those preparing for the career of public speakers. They would also suggest the advisability of at least an elementary knowledge of the physiology of the vocal organs, and of the principles of scientific vocalisation in school teachers and others associated with the education of the young." 2. "That this resolution be forwarded to the Council for their consideration as to what steps may be desirable for the furtherance of this object."

Resolved: That a small Committee of the Council be appointed to draw up a short memorial, and a list of the Institutions and Educational Establishments of various kinds to which it may be sent, to be submitted to the next meeting of the Council at Newcastle, and that a copy be also sent to the Vice-President of the Council of Education.

Resolved: That the President of the Council, Dr. Ward Cousins, the Treasurer, and Dr. Markham Skerritt be appointed the Subcommittee for the purpose.

Read letter from Dr. Mead giving notice of objection to the election of representatives of the East Anglian Branch as being illegal.

Resolved: That this Council, acting on the advice of its Solicitor, finds nothing illegal in the returns which have been made.

Read letter from the Honorary Secretary of the Edinburgh Branch on proposed new by-law.

Those desiring to become members of the Edinburgh Branch shall apply to the Secretary, who shall lay the request before the Council of the Branch. The petition shall be determined by ballot at the next meeting of the Branch, a majority of three-fourths of those present being necessary for admission.

Resolved: That the proposed new by-law of the Edinburgh Branch be and it is hereby confirmed.

Read letter from the Medical Defence Union, asking for permission to hold a meeting of the Council of the Medical Defence Union in the rooms of the Association.

Resolved: That permission be granted to the Medical Defence Union to hold its meetings twice a month, subject to the conditions which may be issued from time to time by the Council of the Association.

Read letter from the Anæsthetic Committee, asking for a grant and the reappointment of the Committee.

Resolved: That the consideration of the letter be postponed until the Council meet at Newcastle, when the Committees are reappointed.

Resolved: That the replies of Mr. Alfred A. Bethune-Baker and Dr. J. Eyton-Jones to the resolutions of condolence be received and entered on the minutes.

Read letter from Dr. Armand Ruffer, Secretary of the British Institute of Preventive Medicine, asking for the nomination of a representative on the Council of the Institute.

Resolved: That Dr. Bridgwater be appointed a representa-

tive of the Council of this Association on the Council of the British Institute of Preventive Medicine.

Read letter and resolution from Dr. G. H. Savage, also letter from the Charity Organisation Committee, asking for a grant of £25 to finally complete a sum subscribed for the scientific investigation of schoolchildren.

Resolved: That the sum of £25 be granted to the Charity Organisation Committee to finally complete the amount which they consider due to them.

The revised by-laws of the South Australian Branch were then considered.

Resolved: That the proposed new by-laws be received and confirmed, with the exception of By-law 8, which allows of proxy voting, that being under the consideration of the Solicitor.

Read letter from the Honorary Secretary of the Manitoba Branch, together with the proposed by-laws.

Resolved: That this Council has much pleasure in confirming the recognition of the Manitoba and North-West of Canada Branch of the British Medical Association, and confirming the proposed by-laws.

Resolved: That those minutes concerning the Scientific Grants Committee, together with the letter of the four members of the Scientific Grants Committee, be considered at the next meeting at Newcastle.

Resolved: That the minutes of the Journal and Finance Committee of to-day's date, with the exception of those relating to the Scientific Grants Committee, be received and adopted and the recommendations contained therein carried into effect.

The minutes of the Journal and Finance Committee contain memorandum on a proposal to print abstracts of papers before the Annual Meeting; report on a proposal to collect all subscriptions by the office; on minute of Council referred on the expenditure of the Scientific Grants Committee; the accounts for the quarter amounting to £7,016 4s. 2d.; and the report of the auditors for the quarter.

Resolved: That the report of the Council as amended be approved and published in the JOURNAL for presentation at the annual meeting at Newcastle-on-Tyne (see page 266).

The report of the Parliamentary Bills Committee was then considered.

Resolved: That the report of the Parliamentary Bills Committee be received, approved, and published in the JOURNAL for presentation at the annual meeting at Newcastle-on-Tyne on August 1st (see page 268).

Resolved: That the report of the Scientific Grants Committee be received, approved, and published in the JOURNAL for presentation at the annual meeting at Newcastle-on-Tyne on August 1st (see page 270).

Resolved: That the report of the Inebriates Legislation Committee be received, approved, and published in the JOURNAL for presentation at the annual meeting at Newcastle-on-Tyne on August 1st (see page 273).

Resolved: That the report of the Medical Charities Committee be received, approved, and published in the JOURNAL for presentation at the annual meeting at Newcastle-on-Tyne on August 1st (see page 274).

Resolved: That the report on Railway Servants' Eyesight be received, approved, and published in the JOURNAL for presentation at the annual meeting at Newcastle-on-Tyne on August 1st (see page 275).

Resolved: That the report of the Committee on the Physical and Mental Condition of School Children be received, approved, and published in the JOURNAL for presentation at the annual meeting at Newcastle-on-Tyne on August 1st (see page 276).

Resolved: That the report of the Committee on Hypnotism be received and published in the JOURNAL for presentation at the annual meeting at Newcastle-on-Tyne on August 1st (see page 277).

Resolved: That the report of the Committee on Anæsthetics be received, approved, and published in the JOURNAL for presentation at the annual meeting to be held at Newcastle on August 1st (see page 277).

Resolved: That the report of the Therapeutic Committee be received, approved and published in the JOURNAL for presentation at the annual meeting to be held at Newcastle on August 1st (see page 278).

Resolved: That the minutes of the Inebriates Legislation Committee of Monday, June 19th last, be received and adopted.

The minutes of the Inebriates Committee contains the annual report and a request for re-election.

Resolved: That the minutes of the Medical Charities Committee of July 12th be received, approved, and the recommendations contained therein carried into effect.

The minutes of the Medical Charities Committee contain annual report.

That the minutes of the Scientific Grants Committee of July 12th last be received and approved, and the recommendations contained therein be carried into effect.

That the minutes of the Scientific Grants Committee be received and adopted, with the exception of the recommendation of the Council for a grant of £100 to the Committee of Investigation into the Physical and Mental Condition of School Children.

The amendment having been put from the Chair was declared to be carried.

The amendment having been put as a substantive motion was also declared to be carried.

Resolved: That the minutes of the Premises and Library Committee of the 18th inst. be received, approved, and the recommendations contained therein carried into effect.

The minutes of the Premises and Library Committee contain the requirements of the Sanitary Inspector for new drainage and a report on the ventilation of the offices.

Resolved: That the report of the Trust Funds Committee of the 18th inst., be received, adopted, and the recommendations contained therein carried into effect, and that Dr. Thorne Thorne be invited to attend the meeting at Newcastle to receive the Stewart Prize.

Read letter from the Secretaire-Générale of the International Medical Congress.

Resolved: That those members of the Council who purpose being present at the International Medical Congress, to be held at Rome, be appointed representatives of the Association and Council for the Congress. The President of the Council, Mr. Jordan Lloyd, Mr. Parkinson, and Dr. J. H. Galton gave in their names as intending to be present.

Notices of motion given for the annual meeting to be held at Newcastle-on-Tyne were then considered.

BRITISH MEDICAL ASSOCIATION.

SIXTY-FIRST ANNUAL MEETING.

THE sixty-first Annual Meeting of the British Medical Association will be held at Newcastle-on-Tyne, on Tuesday, Wednesday, Thursday, and Friday, August 1st, 2nd, 3rd, and 4th, 1893.

President: JOSEPH WHITE, F.R.C.S.Edin., Consulting Surgeon, Nottingham General Hospital.

President-Elect: GEORGE HARE PHILIPSON, M.D., D.C.L., F.R.C.P., Professor of Medicine in the University of Durham.

President of the Council: W. WITHERS MOORE, M.D., F.R.C.P., J.P., Consulting Physician, Sussex County Hospital.

Treasurer: HENRY TRENTHAM BUTLIN, F.R.C.S., Surgeon to St. Bartholomew's Hospital, E.C.

An Address in Medicine will be delivered by DAVID DRUMMOND, M.D., Physician and Pathologist, Royal Infirmary, Newcastle-on-Tyne.

An Address in Surgery will be delivered by GEORGE HALLIBURTON HUME, M.D., F.R.C.S.Edin., Surgeon to the Royal Infirmary, Newcastle-on-Tyne.

An Address in Obstetrics and Gynæcology will be delivered by CHARLES JAMES CULLINGWORTH, M.D., F.R.C.P., Obstetric Physician and Lecturer on Midwifery and Diseases of Women, St. Thomas's Hospital.

The scientific business of the meeting will be conducted in eleven Sections, as follows, namely;

A. MEDICINE.

Medical Theatre—College of Medicine.

President: W. MILLER ORD, M.D. *Vice-Presidents:* HENRY BARNES, M.D.; HENRY HANDFORD, M.D. *Honorary Secretaries:* JAMES ALEXANDER LINDSAY, M.D., 37, Victoria Place, Belfast; JAMES LIMONT, M.B., 3, Queen's Square, Saville Place, Newcastle-on-Tyne.

The following subjects will be discussed in this Section:

Wednesday, August 2nd, at 10 A.M.—Chronic Glycosuria in Middle Life, introduced by Sir Dyce Duckworth, M.D., LL.D. Professors Clifford Allbutt, Gairdner, Grainger Stewart, Drs. Lauder Brunton, A. H. Carter, Stephen Mackenzie, F. W. Pavy, R. Saundby, W. R. Thomas, C. R. Drysdale, E. Markham Skerritt, and Shingleton Smith will take part in the discussion.

A demonstration on Myxœdema will be given by Dr. George Murray Professor Oliver, Dr. T. M. Allison, and others.

Thursday, August 3rd, at 10 A.M.—The Pathology and Distribution of Atrophic Paralysis, introduced by David Ferrier, M.D., LL.D., F.R.S. Drs. Julius Althaus, A. G. Barrs, Alexander Bruce, Judson Bury, F. W. Mott, Alexander Robertson, and R. Saundby will take part in the discussion.

Dr. David Drummond will give a demonstration on Aneurysm.

Friday, August 4th, at 9.30 A.M.—Concussion of the Spine, more especially in its Relationship with Railway Accidents and Injuries, introduced by Byrom Bramwell, M.D. Professor Clifford Allbutt, Dr. J. O. Brookhouse, Professor Victor Horsley, Professor Cuming, Dr. Buzzard, Mr. Frederick Page, Dr. Alexander Robertson, Dr. Chauncy Puzey, Dr. E. Markham Skerritt, and Mr. Wheelhouse will take part in the discussion.

The following papers are announced:

COLEY, F. C., M.D. Chlorosis.
DRYSDALE, C. R., M.D. Treatment of Empyema.
GIAMPIETRO, Professor D. E. (University of Naples). Aphasia in its Relations to Lesions of the Auditory Centres.
REDMOND, C. S., M.D. The Cool Bath Treatment of Enteric Fever.
SMITH, Noble, F.R.C.S. On Mechanical Treatment of Phthisis.
SMITH, Wilberforce, M.D. The Weighing Machine in Consulting Room Practice; Cases, with Clinical Charts.
SOLLY, S. E., M.D. (Colorado, U.S.A.) Effects of Heredity in the Progress of Phthisis.
WADE, Willoughby F., F.R.C.P. On a Morbid Condition of the Local Nerves as a Factor in Gout.

B. SURGERY.

Anatomical Theatre—College of Medicine.

President: W. C. ARNISON, M.D. *Vice-Presidents:* R. J. GODLEE, M.B.; F. PAGE, M.D. *Honorary Secretaries:* J. RUTHERFORD MORISON, F.R.C.S., 14, Saville Row, Newcastle-on-Tyne; JAMES ERNEST LANE, F.R.C.S., 46, Queen Anne Street, W.

A discussion on the Radical Cure of Hernia will be introduced by Mr. Rushton Parker on Wednesday, August 2nd, at 10 A.M., and the following gentlemen intend to take part in it: Jordan Lloyd, Mayo Robson, Professor Annandale, Bowreman Jessett, C. B. Keetley, A. E. Barker, Professor Macewen, Hume, Damer Harrisson, Ward Cousins, Gilbert Barling, Dr. Crawford Renton, Mr. Stanmore Bishop, Dr. Mitchell Banks, Mr. Pye-Smith, Mr. R. C. Chicken, Mr. J. Paul Bush, and W. Alexander.

The discussion on the Surgical Treatment of Cerebral Tumours will be introduced by Professor Victor Horsley, M.B., F.R.C.S., who will illustrate his paper by lantern photographs and specimens, on Thursday, August 3rd, at 10 A.M., and Professor Macewen, Dr. Ferrier, Dr. Drummond, Damer Harrisson, Dr. Crawford Renton, Dr. MacDougall, and Rushton Parker will take part.

Dr. Frederick Page will introduce a discussion on the Treatment of Intestinal Obstruction, on Friday, August 4th, at 10 A.M. Messrs. Jonathan Hutchinson, Jordan Lloyd, Mayo Robson, Professor Annandale, Messrs. H. W. Allingham, Bowreman Jessett, Hume, Dr. Drummond, Harrison Cripps, Ward Cousins, Gilbert Barling, Dr. Crawford Renton, Rushton Parker, D. Lowson, Mr. Pye-Smith, and W. Alexander will take part in the discussion.

The following papers are announced:

ALEXANDER, W. M. D., F.R.C.S. (Liverpool). Some Results of Trephining in Epilepsy.
BARKER, A. E., F.R.C.S. On the Treatment of Acute Intussusception in Young Children.
COLLIER, Mayo, M.B., F.R.C.S. (London). A paper with illustrative specimens on the Surgery of the Frontal Sinuses.
GRIFFITH, J., M.D., F.R.C.S. Symmetrical Talipes Dorsalis in an Acephalous Fœtus.
HASLAM, W. F., F.R.C.S. Some Points in the Surgical Treatment of Simple Ulcer of the Stomach.
HERN, J., M.D. The Effect of Repeated Tappings on Hydrocephalus.
JONES, Robert, F.R.C.S. Papers on Amputation in Senile Gangrene. The Treatment of Chronic Sprains of Foot and Ankle.
LANE, W. Arbuthnot, M.B. 1. The Fallacy of the Vertical Foot Piece. 2. The Applicability of the Parting Tool or Angular Gouge to the Surgery of the Skull.
LLOYD, Jordan, F.R.C.S. 1. A Simple Method of Securing the Tongue during Operations upon it. 2. A Simple Self-retaining Antiseptic Retractor.
MORISON, A. E., M.B., F.R.C.S.Ed. A Patient after Gastro-enterostomy.
MORISON, Rutherford, M.B., F.R.C.S. 1. Specimens illustrative of Gastrointestinal Surgery. 2. A New and Easy Method of Intestinal Resection.
PARKER, Rushton, M.B., B.S., F.R.C.S. (Liverpool). 1. The Radical Cure of Hernia, based upon over 270 Operations. 2. A Case of Two Attacks of Acute Intestinal Obstruction recovering the First Time under Palliative Treatment, the Second after Abdominal Section.
ROSS, F. W. Forbes, M.D. The Abdominal Vessels, their Use in Pressing Vascular Emergencies (with Citation of Cases).

Demonstrations of patients and of operations will be arranged at the Royal Infirmary, at the Children's Hospital, and at other institutions.

Dr. F. Page will show a Man upon whom the operation of Pyloroplasty was performed 14 months ago.

Mr. Coppinger, of Dublin, will exhibit a case of Subclavian Aneurysm treated by Ligature of the Innominate and Carotid Arteries, and will give a full report of his case.

Dr. Wm. Robertson will show a patient with Œsophageal Stricture who had Gastrostomy performed on him over a year ago.

On Wednesday, Thursday, and Friday demonstrations on Surgical Cases will be given at the Infirmary at 5 o'clock in the afternoon by the surgical staff.

C. OBSTETRIC MEDICINE AND GYNÆCOLOGY.

Chemical Theatre—Durham College of Science.

President: JAMES MURPHY, M.D. *Vice-Presidents:* W. GOWANS, M.D.; D. BERRY HART, M.D. *Honorary Secretaries:* A. D. LEITH NAPIER, M.D., 67, Grosvenor Street, Grosvenor Square, W.; R. C. BENINGTON, M.D., 59, Osborne Road, Newcastle-on-Tyne.

A discussion on Puerperal Septicæmia will be opened by Dr. Barnes, and the following intend to speak: Drs. Cullingworth, Lovell Drage, Jardine, Herman, Hern, Boxall, Fancourt Barnes, Bell, Sloan, Elder, Byers, Professor Oliver, Reid, Smyly, Aust-Lawrence, Swayne, Brewis, Donovan, Cameron, and Professor Simpson.

Professor Pozzi will open a discussion on the Conservative Treatment of the Diseases of the Uterine Appendages. The following members will speak: Drs. Cullingworth, More Madden, Sloan, Tait, Handfield-Jones, A. Martin, Mayo Robson, Fancourt Barnes, Elder, Bell, Smyly, Aust-Lawrence, Swayne, Cameron, Travers, Brewis, Donovan, Jessett, and Professor Simpson.

The following papers are announced:

AUST-LAWRENCE, A. E., M.D. *Post-Partum* Ovariotomy.
BAILEUX, Dr. (Paris). The Surgical Drainage of the Peritoneum through Douglas's Pouch.
BALLANTYNE, J. W., M.D. Summary of the Results of the Examination of 100 Cases of Fœtal Deformity and Disease.
BARNES, Fancourt, M.D., F.R.S.Edin. Case of Lithotomy in the Female Bladder.
BELL, R., M.D. Treatment of Displacement of the Uterus.
BISHOP, E. S., F.R.C.S., First Thirty Ovariotomies.
BRAITHWAITE, James. On Acute Anteflexion of the Uterus in the Later Months of Pregnancy.
BREWIS, N. T., M.B. Some Unusual Forms of Hyperplasia of the Cervix Uteri.
DUKE, Alex., F.R.C.P. The Value of Crude Boracic Acid in the Treatment of Chronic Endometritis.
EDIS, A. W., M.D. Some Typical Cases of Puerperal Septicæmia.
HANDFIELD-JONES, M., M.D., M.R.C.P. The Treatment of Adhesions after Pelvic Peritonitis.
HART, D. Berry, M.D. The Extraperitoneal Development of Extrauterine Gestation, with remarks on its Treatment.
HAULTAIN, F. W. H., M.D. The Constant Current in Uterine Disease Practically Considered.
JESSETT, F. B., F.R.C.S. On the Treatment of Advanced Uterine Cancer.
MADDEN, More, M.D., F.R.C.S.Edin. On Puerperal Fever and Septicæmia.
MARTIN, A., M.D., Berlin. (Title not announced.)
MARTIN, C., M.B., F.R.C.S. On the Nerve Theory of Menstruation.
NAPIER, A. D. Leith, M.D., and SCHACHT, F.F., M.D. Series of Cases of Ventrofixation of the Uterus.
POZZI, Professor. The Technique of Laparotomy.
PURSLOW, C. E., M.D. The Treatment of Retroversion of the Gravid Uterus.
WEBSTER, J. C., M.D. The Etiology of Ectopic Gestation.

Dr. Murdoch Cameron will show a New Pair of Axis Traction Forceps for application in the conjugate diameter at the brim.

D. PUBLIC MEDICINE.

Hall of Geographical Society.

President: H. E. ARMSTRONG, D.Hy. *Vice-Presidents:* GEORGE EASTES, M.B.; THOMAS EUSTACE HILL, M.B. *Honorary Secre-*

taries: F. P. WIGHTWICK, M.D., 5, Curlew Street, Horsley-down, S.E.; W. TURNBULL, M.B., South Shields.

The following papers are announced:

ARMSTRONG, Henry E., D.Hy. (M.O.H. Newcastle-on-Tyne). 1. Cholera Precautions in the North of England. 2. (Exhibit) Medical Visiting Coat and Head Cover for Infectious Diseases.
HART, Ernest, M.R.C.S. The Birthplaces and Diffusion of Cholera (illustrated by photographs and magic lantern slides).
LAWS, C. U., M.B. Arrangements for Sterilisation of Cholera Dejecta, etc., at the Temporary Cholera Hospital at Newcastle-upon-Tyne.
CLARK, F. W., M.D. (Newcastle). The Duties and Difficulties of Port Medical Inspectors.
MALCOLMSON, J. A., M.D. (M.O.H. Middlesbrough). The New Floating Hospital of the Middlesbrough Port Sanitary Authority (with plans).
MASON, J. W., M.B. (M.O.H. Hull). Cholera: Quarantine as a Preventive Measure.
PRINGLE, R., Brigade-Surgeon, M.D. Cholera: Quarantine as a Preventive Measure.
HILL, T. E., M.B. (M.O.H. Durham County Council). Specific Throat Affections.
DAVIES, Sydney, M.D. (M.O.H. Plumstead). The Causes of the Increase of Diphtheria in Urban Districts.
RING, C. G., L.R.C.P. (M.O.H. Keswick). Prevention of the Spread of Infectious Diseases by Tramps.
KERR, Norman, M.D. The Shelters and Dissemination of Small-pox.
MUNRO, A. C., M.B. (Renfrew County Council). Notification of Measles.
RIDGE, J. J., M.D. The Diet of Infants and Young Children.
RENTOUL, R. R., M.D. (Liverpool). Proposed Registration and Inspection of Stillborn Children.
WILLOUGHBY, E. F., M.D. The Control of Dairies.
DE'ATH, G. H., L.R.C.P. (M.O.H. Buckingham Rural and Urban Sanitary Districts). The Housing of the Working Classes in Rural Districts.
FOWLER, Trevor, L.R.C.P. (Epping). District Medical Officers as Medical Officers of Health.
ROBINSON, W., M.D. (M.O.H. Stanhope Urban and Weardale Rural Sanitary Districts). Lead Miners and their Diseases.
DRYSDALE, C. R., M.D. (Senior Physician Metropolitan Hospital, London) High Birth-rates considered as the Chief Cause of Premature Death in Great Britain at the Present Time.

E. PSYCHOLOGY.

Durham College of Science.

President: T. W. MCDOWALL, M.D. *Vice-Presidents:* ALEX. REID URQUHART, M.D.; C. NORMAN, F.R.C.P.I. *Honorary Secretaries:* J. T. CALLCOTT, M.D., City Asylum, Gosforth, Newcastle-on-Tyne; ROBERT JONES, M.D., London County Lunatic Asylum, Claybury, Woodford, Essex.

The President (Dr. T. W. McDowall) will introduce a discussion on the Effect of the Recent Change in County Government on Asylums and the Insane.

Dr. D. Hack Tuke will introduce a discussion on the Alleged Increase of Insanity.

The following papers will be read on Wednesday, August 2nd.

NORMAN, Conolly, M.D. The Criminal Law Amendment, 1885, in Relation to the Protection of Female Patients.
URQUHART, Dr. 1. Current Opinion on Psychological Questions in Germany. 2. Notes of a Conversation with Professor Meyer, of Göttingen.
CLOUSTON, Dr. The Mental Symptoms of Myxœdema and the Effects of Treatment by Thyroid Glands.
EASTWOOD, J. W., M.D., M.R.C.P.Lond. Psychology and Mental Diseases.
IRELAND, Thomas, L.R.C.P., etc. (Public Asylum, Berbice). Insanity from the Abuse of Indian Hemp.
CAMPBELL, Harry, M.D. Claustrophobia.
ROBERTSON, Dr. George. On Massage of the Brain, a New Principle in Cerebral Therapeutics.

On Thursday, August 3rd, Dr. Clouston will introduce a discussion on the Detached Asylum Hospital, its Uses and Advantages. In connection with this discussion Dr. Wallis will exhibit the Plans of a New Hospital for the Whittingham Asylum, Lancashire.

Dr. Yellowlees will introduce a discussion on State Aid for Poor Private Insane Patients.

The following papers will be read:

MACPHERSON, John, M.D., F.R.C.P.Edin., and WALLACE, David, F.R.C.S. Edin. The Surgical Treatment of Jacksonian Epilepsy (two cases).
GOODALL, Edwin, M.D. Remarks upon the Operation of Trephining followed by Drainage of the Subarachnoid Space in General Paralysis, with notes of a case.
MIDDLEMISS, Dr. Adolescent General Paralysis: its Pathology and Symptoms.
RAYNER, H., M.D. Notes from the Out-patient Department for Mental Diseases at St. Thomas's Hospital.
HOWDON, James C., M.D. Exhibition of Model of a Chair for Paralytics.
WHITWELL, Dr. Exhibition of a Series of Incised Slates for use in the Post-mortem Room.

The following papers will be read on Friday, August 4th.

KRAY, John, M.D. On the Use of Hypnotics and Sedatives.
BATEMAN, Sir Frederic, M.D., F.R.C.P.Lond. Criminal Anthropology in its Medical Aspects.

The following have promised to take an active part in the proceedings of the Section: Sir J. Crichton-Browne, Dr. John Sibbald, Dr. T. Outterson Wood, Dr. Robert Smith, Dr. John Merson, Dr. P. W. MacDonald, Dr. Oscar Wood, Dr. Fletcher Beach, and Dr. W. W. Ireland.

The Committee of Visitors of the Newcastle City Asylum have invited the members of the Section to lunch at the Asylum on Friday, August 4th.

F. ANATOMY AND PHYSIOLOGY.

Physiological Laboratory—College of Medicine.

President: THOMAS OLIVER, M.D. *Vice-Presidents:* R. W. REID, M.D.; W. D. HALLIBURTON, M.D. *Honorary Secretaries:* R. HOWDEN, M.B., University of Durham College of Medicine, Newcastle-on-Tyne; A. THOMSON, M.B., Museum, Oxford.

The following discussions have been arranged for:

1. Wednesday.—On the Delimitation of the Abdomen, to be opened by William Anderson, F.R.C.S.

2. Friday.—On the Sensori-motor Functions of the Cortex Cerebri, to be opened by F. W. Mott, M.D.

The following papers are announced:

BOYCE, Rubert, M.D. 1. Ablation of Cerebral Hemispheres in Mammals. 2. On the Action of Absinthe on the Nervous System.
BRODIE, T. Gordon. A New Method of Studying the Elasticity of Muscle or any Tissue.
BROOKS, H. St. John, M.D. On the Morphology of the Peroneal Group of Muscles in the Monotremata.
BROWN, Macdonald, M.D., F.R.C.S. 1. The Attachments of the Ascending Colon. 2. Variations in the Position and Development of the Kidney.
BRUCE, Alexander, M.A., M.D., F.R.C.P.E. Demonstration of a Case of Descending Degenerations of the Fillet.
CLELAND, John, M.D., F.R.S. The Relations of Incisors to Compound Teeth.
FAYRER, Sir J., F.R.S. Cardiac and Pulmonary Thrombosis.
GIAMPIETRO, Professor Dott. Eduardo (University of Naples). Classification of the Auditory Centres in Relation to Articulate Language.
GIBSON, G. A., M.D., F.R.C.P.E., and GILLESPIE, A. Lockhart, M.D. On some Points in Relation to the Development of the Heart.
HALLIBURTON, W. D., M.D. Intravascular Coagulation.
HORSLEY, Victor A. H., M.B., F.R.C.S., F.R.S., and BEEVOR, C. E., M.D., F.R.C.P. On the Movements of the Tongue and their Representations in the Cortex.
HORSLEY, Victor A. H., M.B., F.R.C.S., F.R.S., and KRAMER, Dr. The Effect of Gunshot Injuries of the Brain.
KANTHACK, A. A., B.A., B.Sc., F.R.C.S. The Relation of the Epiglottis to the Velum Palati in Various Animals.
KENT, A. F. Stanley. Further Researches on the Structure and Functions of the Mammalian Heart.
MOTT, F. W., M.D. The Sensori-motor Functions of the Rolandic Area of the Cortex cerebri.
OLIVER, Thomas, M.D., F.R.C.P., and GARRETT, Mr. F. C. Analysis of the Gases of the Blood in Chloroform, Ether, and Bichloride of Methylene Anæsthesia.
PATERSON, A. M., M.D. The Distribution of the Nerves to the Lower Limb.
PATON, Diarmid Noël, M.D. Influence of Fever on Hepatic Glycogen.
RUSSELL, J. S. Risien, M.B. The Effects of Lesions of the Cerebellum.
SHERRINGTON, C. S., M.B., L.R.C.P. Experimental Note on the Knee-jerk.
STARLING, Ernest H., M.D. Absorption from and Secretion into th Serous Cavities.
SYMINGTON, Johnson, M.D. Observations on the Development of the Human Brain.
THOMPSON, W. H., M.D. 1. The Absorption of Fat from the Intestine. 2. The Nature of the Work of the Kidney as shown by the Effects of Atropine and Morphine on the Secretion of Urine.
WEBSTER, J. C., M.D. Embryological Studies in Tubal Gestation.
WILSON, ——. Anæsthesia Due to Disease of the Cerebral Cortex.

A special Anatomical and Physiological Museum will be arranged in the room adjoining the Section.

G. PATHOLOGY.

Physical Theatre—Durham College of Science.

President: C. S. ROY, M.D., F.R.S. *Vice-Presidents:* T. C. SQUANCE, M.D.; J. L. STEVEN, M.D. *Honorary Secretaries:* F. W. MOTT, M.D., 84, Wimpole Street, W.; GEORGE R. MURRAY, M.B., 2, Saville Place, Newcastle-on-Tyne.

Wednesday, August 2nd. Introductory Address by the President. Communications and demonstrations on the Pathology and Pathological Anatomy of the Circulatory and Glandular Systems.

Thursday, August 3rd. Communications and demonstrations on other branches of Pathology and Pathological Anatomy.

Friday, August 4th. Bacteriological papers and demonstrations.

The Section will be held in the Physical Lecture Theatre of the Durham College of Science, Newcastle-on-Tyne. This room is fitted with a powerful electric lantern, and provision will be made for lantern demonstrations, the projection of spectra, chemical experiments, and microscopical exhibi-

tions. Arrangements may also be made for informal demonstrations of experiments or specimens in the Museum of the Section in the afternoons. It is hoped that as many papers as possible will be accompanied by specimens, illustrations, lantern slides, or demonstrations.

There will be an exhibition of specimens, recent and preserved, bacteriological cultures, models, diagrams, and instruments for pathological research in the Museum attached to the Section.

The following papers are announced:

ADAMI, Professor. (Title not received.)
ANDRIEZEN, W., M.B. On the Form and Significance of the Hypophysis Cerebri in the Evolutionary History of the Brain.
BOKENHAM, T. J., L.R.C.P., and FENWICK, Soltau, M.D. The Pathological Action of some Substances obtained from the Spleen of Patients dead of Scarlatina.
BRAMWELL, Byrom, M.D. Acromegaly and Myxœdema treated by Thyroid Feeding.
CATTLE, Chas., M.D. Observations on the Cell Enclosures met with in Cancer.
CLARKE, J. Jackson, M.B. Psorosperms.
COATS, Professor J., M.D., and AULD, A. G., M.D. A Preliminary Communication on the Pathology of Aneurysms and its Relations to Atheroma.
COOPER, P. R., M.B. A Few Facts Concerning Gregarinosis or Psorospermosis.
COPEMAN, Monckton, M.D. Experiments on Vaccinia and Variola.
DELÉPINE, Professor S. Some Results on the Value of Experimental Tuberculosis in Diagnosis.
GALLOWAY, J., M.D. Psorosperms.
GIBSON, G. A., M.D., and MUIR, Robert, M.D. Condition of Nerve Centres and Thyroid Gland in Graves's Disease.
GRIFFITHS, J., F.R.C.S. Retained Testis in Man and some of the Lower Animals.
HAIG, A., M.D. The Causation of Anæmia and the Blood Changes produced by Uric Acid.
HARLEY, Vaughan, M.D. Experimental Diabetic Coma.
HORSLEY, Professor V., F.R.S. On Transplantation of the Thyroid.
JONES, E. Lloyd, M.D. Causes of Chlorosis.
KANTHACK, A. A., M.D. Immunity.
KELYNACK, T. N., M.D. 1. Appendicitis. 2. Heart Failure in Alcoholism.
KENT, Stanley. 1. On the Supposed Occurrence of Psorosperms in a Tapeworm. 2. On the Structure and Function of the Mammalian Heart. 3. Effects of Thyroidectomy.
KRAMER, Dr., and BOYCE, R. Upon the Action of the Serum of Vaccinated Calves.
LANG, Dr. On the Nature of the Muscular Movements in Cachexia Thyreopriva in Dogs.
LEVY, Dr. On the Elasticity of the Brain Substance.
MACKENZIE, Hector, M.D. Thyroid Secretion.
MACKENZIE, J., M.D. Thyroid Secretion.
MURRAY, George, M.D. Thyroid Secretion.
PARSONS, J. Herbert, M.B. Effects of Thyroidectomy on Metabolism.
POWER, D'Arcy, M.B. Some Effects of Chronic Irritation upon Living Tissues, or First Steps in a Rational Study of Cancer.
ROY, Professor C. S., F.R.S., and COBBETT, L., M.B. Pathology of Collapse.
RUFFER, A., M.D., and PLIMMER, Dr. On Relation of Protozoa to Disease.
SMITH, J. Lorrain, M.B. The Function of the Thyroid.
SNOW, Herbert, M.D. The so-called Parasitic Protozoa of Mammary Carcinoma.
SQUANCE, T. Coke, M.D. On *Post-mortem* Examination of a Case of Acromegaly.
STEVEN, J. Lindsay, M.D. The Pathology of Fibroid Degeneration of the Heart.
STEWART, Professor Grainger, and GIBSON, G. A., M.D. Atrophy of Heart Muscle in consequence of Obstruction of the Coronary Artery.
THOMSON, John, M.D. The Treatment of Three Cases of Sporadic Cretinism by Thyroid Extract.
WESBROOK, Dr. Immunity against Cholera.

Preference will be given to communications accompanied by demonstrations, but as far as possible the above communications will be taken in the order which is found most convenient.

H. OPHTHALMOLOGY.

Materia Medica Room—College of Medicine.

President: G. E. WILLIAMSON, F.R.C.S. *Vice-Presidents:* JOHN WALTON BROWNE, M.D.; G. HARTRIDGE, F.R.C.S. *Honorary Secretaries:* A. N. GODBY GIBBS, L.R.C.P., 27, Chandos Road, Redland, Bristol: A. S. PERCIVAL, M.B., 16, Ellison Place, Newcastle-on-Tyne.

The President, Mr. Williamson, will give a short opening address.

Dr. Buzzard will open a discussion on Optic Atrophy as a Symptom of Chronic Disease of the Central Nervous System. Dr. Berry will follow.

The following papers are announced:

ANDERSON, Tempest, M.D. Railway Servants' Eyesight.
BERRY, George, M.D. 1. On the Innervation of the Ocular Muscles. 2. On Glaucoma and Iridectomy for Glaucoma.
CAMPBELL, E. Kenneth, M.B., F.R.C.S. The Relation between Asthenopia and the General Health.
CHASSAUD, Dr. ——. Intraocular Therapeutics, communicated by Dr. Noël Paton.
COUSINS, J. Ward, M.D. 1. New Forms of Ophthalmic Remedies. 2. A New Dial for Testing Colour Vision.
DRAKE-BROCKMAN, Brigade-Surgeon-Lieutenant-Colonel. Case of Double Proptosis.
HERN, John, M.D. The Effect of Correcting Errors of Refraction in some Epileptics.
KNAGGS, R. Lawford, M.D. Reflex Amblyopia during Pregnancy.
MACKAY, George, M.D. The Optical Treatment of Conical Cornea.
OLIVER, Charles, M.D. (Philadelphia, U.S.A.). Clinical History of a cas of a Successful Extraction of a Piece of Steel from an Iris.
SNELL, Simeon, F.R.C.S. Cataract Extraction without Iridectomy—Further Record of Cases.
STEPHENSON, Sydney, M.B., F.R.C.S. Congenital Ectropion of the Uvea and will show the latest model of Expression Forceps for Trachoma.
SYM, William G., M.D. Simple Glaucoma in Young Persons.
WILLIAMSON, G. E., F.R.C.S. Sections and Drawings from a case of Primary Spindle-cell Sarcoma of the Iris.

Papers have also been promised by Drs. Bickerton, Cross, and Johnston Taylor.

Abstracts of papers should be sent without delay to the Local Secretary of this Section.

I. DISEASES OF CHILDREN.

Durham College of Science.

President: T. BARLOW, M.D. *Vice-Presidents:* NOBLE SMITH, F.R.C.S.Ed.; W. C. BEATLEY, M.D. *Honorary Secretaries:* W. E. A. CUMMINS, M.D., 17, St. Patrick's Place, Cork; W. G. BLACK, F.R.C.S.Edin., 24, Ellison Place, Newcastle-on-Tyne.

At the forthcoming meeting some portion of each of the three days on which the Section meets will be devoted to the discussion of the following subjects:

Abdominal Tuberculosis in Childhood and its Treatment. To be opened by Dr. Fred. Taylor and Mr. Howard Marsh; Mr. A. E. Barker, Dr. Sims Woodhead, Mr. Lawford Knaggs, and Dr. George Carpenter intend to take part.

The Treatment of Enlarged Cervical Glands, opened by Dr. Clifford Allbutt and Mr. Pridgin Teale.

Heart Disease in Childhood and its Treatment, to be opened by Dr. H. Ashby and Dr. F. C. Coley; Dr. J. W. Byers, Dr. E. R. Townsend, and Dr. George Carpenter intend to take part.

The following papers are announced:

BURY, Judson, M.D. Heart Disease in Children.
COLMAN, W. S., M.D. An Analysis of Sixty Necropsies on Cases of Tuberculosis.
FREER, E. Luke, M.D. Notes on the Treatment of Cicatrices after Burns (with patient).
GODLEE, R. J., F.R.C.S., and GOULD, A. Pearce, M.B. The Enlargement of Cervical Gland.
LANE, Arbuthnot, F.R.C.S. The Treatment of Talipes.
SMITH, Noble, F.R.C.S. The Treatment of Spinal Caries.
THOMAS, William, M.B., F.R.C.S. Some Points in the Operative Treatment of Severe Harelip.
VICKERY, W. H., F.R.C.S. Case of Mastoid Disease with Ligature of Internal Jugular (with patient).

J. OTOLOGY.

Durham College of Science.

President: H. BENDELACK HEWETSON, F.L.S., M.R.C.S. *Vice-Presidents:* R. ELLIS, F.R.C.S.Edin.; A. BRONNER, M.D. *Honorary Secretaries:* J. MACKENZIE BOOTH, M.D., 367, Union Street, Aberdeen; S. MACAULAY, L.R.C.P., 49, Jesmond Road, Newcastle-on-Tyne.

The President, Mr. Bendelack Hewetson, will give an opening address.

A discussion will take place upon the Surgical Treatment of Mastoid Disease and its Complications. The following have signified their intention of taking part in this discussion: Professor William Macewen, M.D., Glasgow; Victor Horsley, F.R.S., London; W. Milligan, M.D.; A. Ogston, M.D., Aberdeen; Charles Warden, M.D.; Dr. Nunneley, Leeds; Thomas Barr, M.D., Glasgow; Dr. Wm. Hill, and Dr. H. E. Jones, Liverpool.

On Thursday, August 3rd, a demonstration will be given by Dr. John Macintyre on the Pathogenic Organisms of the Upper Respiratory Tract, with Special Reference to Diseases of the Naso-pharynx and Ear.

On Friday, August 4th, Dr. Macintyre will open a discussion on the Etiology of Diseases of the Naso-pharynx and Ear, with special reference to the Bacteriology of those regions and its importance in treatment.

The following papers are announced:

BOOTH, J. Mackenzie, M.D. 1. Case of Intracranial Affection following Catarrhal and Preceding Purulent Tympanitis and Mastoid Abscess. 2. Notes on Practical Teaching of Otology.
BRONNER, A., M.D. Notes on Sixty Cases of Mastoid Disease in which the Antrum was Opened.
BROWNE, J. Walton. A case of Foreign Body lodged in the External Auditory Meatus.

ELLIS, Richard, F.R.C.S.Ed. Results of an Examination of 2,000 School-children in Newcastle-on-Tyne and District as to their Hearing, etc.
GIAMPIETRO, Professor (Naples). The Dangers and Limitations of Politzer's Method.
HILL, Wm., M.D. On the Topography of the so-called Mastoid Antrum.
LANE, W. A., M.B. The Symptoms and Treatment of Septic Infection of the Lateral Sinus as illustrated by Ten Cases.
MACAULAY, S. L.R.C.P.Edin. Some Observations on an Examination of 100 Deaf Mutes.
METCALFE, G., M.B., B.S. On the Use of Pilocarpin in Aural Affections.
MILLIGAN, W., M.D. 1. The Treatment of Chronic Suppuration of Middle Ear Disease by Excision of the Auditory Ossicles. 2. On a New Intra-tympanic Syringe.
ROBERTSON, Wm., M.D. 1. A Series of Cases of Antrectomy by Recent Methods of Operating. 2. A Series of Cases of Deafness arising from Intra-nasal Conditions; for example, Rhinoscleroma, Intra-nasal Diaphragms, Purulent Ethmoiditis, Diseases of the Antrum of Highmore, etc. 3. Cases demonstrating Eustachian Synechiæ.

K. DERMATOLOGY.

Durham College of Science.

President: W. ALLAN JAMIESON, M.D. *Vice-Presidents:* GEORGE THIN, M.D.; T. COLCOTT FOX, M.B. *Honorary Secretaries:* PHINEAS S. ABRAHAM, M.D., 2, Henrietta Street, Cavendish Square, W.; V. H. RUTHERFORD, M.B., 12, Eldon Square, Newcastle-on-Tyne.

A discussion will take place on Ringworm, to be opened by Dr. Colcott Fox, in which the following gentlemen will take part: Dr. H. Alder-Smith, Dr. Leslie Roberts, Dr. George Carpenter, and Dr. Alfred Eddowes.

A discussion will take place on Psoriasis, to be opened by Dr. Radcliffe Crocker, in which the following gentlemen will take part: Mr. Dale James, Dr. Mapother, Dr. Stewart Stirling, and Dr. P. S. Abraham.

A discussion will take place on Lupus, to be opened by Mr. Jonathan Hutchinson, in which the following gentlemen will take part: Dr. P. G. Unna, Dr. Norman Walker, Dr. H. Handford and Dr. G. G. Stopford Taylor.

The following papers are announced:

BIDWELL, L., F.R.C.S. On the Surgical Treatment of Lupus.
BRAMWELL, Byrom, M.D. Psoriasis treated by Thyroid Feeding.
DAVIES, Arthur T., M.D. On the Value of Thyroid Feeding in Skin Affections.
ECCLES, A. Symonds, M.B. Massage in Certain Diseases of the Skin.
EDDOWES, Alfred, M.D. Note on Tuberculous Eczema.
FOX, Dr. Colcott, and CARPENTER, Dr. George. On Syphilitic and Tuberculous Cutaneous Gummata.
JAMIESON, W. Allan, M.D. 1. Notes on the Treatment of Ringworm of the Head. 2. Therapeutic Note on Emol. 3. Note on a Form of Fuller's Earth for Diseases of the Skin.
SABONVAUD, Dr. R., Paris. Typical Specimens of Tricophyton Micro- and Megalo-sporon.
SMITH, W. Ramsay, M.B. On a Definite Form of Skin Disease Allied to Erythema and Urticaria
STIRLING, Stewart, M.D. Clinical Note with Drawings of a Case of Seborrhœa Psoriasiformis.
WALKER, Norman P., M.D. On Rodent Ulcer.
WALSH, D., M.B.Edin. Tinea of the Nails in an Adult, and Specimens.

Water-colour drawings, casts, and microscopic specimens will be shown by Dr. Stopford Taylor, Dr. Norman Walker, Dr. Colcott Fox, Dr. Leslie Roberts, Dr. Geo. Carpenter, and Dr. P. S. Abraham.

Mr. Jonathan Hutchinson, Dr. Radcliffe Crocker, Dr. Allan Jamieson, and Dr. Colcott Fox, will exhibit drawings, etc., of Diseases of the Skin.

Dr. Norman Walker will give a lantern demonstration on Rodent Ulcer in connection with the Section one afternoon.

Dr. P. S. Abraham will exhibit some new Dermatological Instruments.

Honorary Local Secretary: G. E. WILLIAMSON, F.R.C.S., 22, Eldon Square, Newcastle-on-Tyne.

Honorary Treasurer: W. C. BEATLEY, M.D., 10, Jesmond Road, Newcastle-on-Tyne.

PROGRAMME OF PROCEEDINGS.

TUESDAY, AUGUST 1ST, 1893.

9.30 A.M.—Meeting of 1892-93 Council.
11 A.M.—First General Meeting. Report of Council. Reports of Committees; and other business.
P.M.—Sermon by the Bishop of Durham.
8.30 P.M.—Adjourned General Meeting from 11.30 A.M. President's Address.

WEDNESDAY, AUGUST 2ND, 1893.

9.30 A.M.—Meeting of 1893-94 Council.
10 A.M. to 2 P.M.—Sectional Meetings.
3 P.M.—Second General Meeting. Address in Medicine.
4 P.M.—Garden Party by the Sheriff of Newcastle at Highfield House, S. Gosforth.
8.30 P.M.—*Conversazione* by the Mayor and Corporation in the Natural History Museum.

THURSDAY, AUGUST 3RD, 1893.

9.30 A.M.—Meeting of Council.
10 A.M. to 2 P.M.—Sectional Meetings.
3 P.M.—Third General Meeting. Address in Surgery. Presentation of Stewart Prize to R. Thorne Thorne, C.B., M.B., F.R.S., F.R.C.P.
4.30 P.M.—Reception by the Schools and Charities Committee of the Newcastle-on-Tyne Corporation at the Home for Incurables on the occasion of its inauguration.
7 P.M.—Public Dinner of the Association in the Banqueting Hall, Jesmond Dene.

FRIDAY, AUGUST 4TH, 1893.

9.30 to 11 A.M.—Sectional Meetings.
11 A.M.—Concluding General Meeting. Address in Obstetrics and Gynæcology.
3 P.M.—Convocation at Durham for Conferring Honorary Degrees.
4 P.M.—Garden Party and Reception by the Warden and Senate of the University.
8.30 P.M.—*Conversazione* in the Art Gallery.

SATURDAY, AUGUST 5TH, 1893.

Excursions.
Ambulance Review in the Gosforth Park.

RECEPTION ROOM.

Part of the first floor of the College of Medicine will be fitted up as a reception room, and will be opened at 4 o'clock in the afternoon on Monday, July 31st, and on Tuesday, August 1st, and the following days at 9 o'clock, for the issue of tickets to members and for supplying all necessary information. It is particularly requested that members on their arrival will at once proceed to the reception room, enter their names and addresses, and obtain their tickets and Daily Journals containing programme, inquire for letters and telegrams, consult the list of lodgings, hotels, etc.

DINNER OF THE ASSOCIATION.

The Annual Dinner of the Association will take place at the Banqueting Hall, Jesmond Dene, on Thursday, August 3rd, at 7 o'clock. Tickets (inclusive of wine, £1 1s.; exclusive of wine, 15s.) may be obtained at the Reception Room from 4 P.M. on Monday, July 31st, till 6 P.M. on Wednesday, August 2nd. A plan of the tables may be seen, and members are requested to select their seats.

SHORT EXCURSIONS.

A garden party will take place at Durham after the Convocation on Friday.

An excursion to Saltburn, a seaside watering place, devoted almost exclusively to the reception of visitors, will take place on Friday. There will be a lunch, and a dinner in the evening, followed by a display of fireworks.

LONGER EXCURSIONS.

Wynyard Park.—On Saturday there will be an excursion to Wynyard Park, the seat of Lord Londonderry, who has kindly promised to be present on the occasion with Lady Londonderry, to receive the members.

Warkworth and Alnwick.—After visiting Warkworth the party will drive to Alnwick Castle, where they will be entertained by the Duke of Northumberland. The castle is a fine, stern-looking old fortress, where the beauty and comfort of the interior contrast well with the strong and somewhat grim walls. Its gates open on the one side into the streets of Alnwick, and on the other into the gardens and park, which are among the most extensive in the country.

Rothbury and Cragside.—Lord Armstrong, who is an honorary member of the Association, will receive a party at Cragside, Rothbury, in the beautiful valley of the Coquet. The grounds and the house are justly and widely celebrated for their beauty. The landscape gardening, which has taken advantage of every peculiarity of a rocky mountain site, is unique of its kind. After lunching at Cragside the visitors will drive to Morpeth, a quaint old county town, where they will be entertained at tea by the medical men residing there.

The Chesters.—Mr. N. G. Clayton, whose residence is at Chollerford, will receive a party to visit the Roman wall and the excavations of a large Roman camp which have been made in his grounds. After lunching at Chollerford the

party will proceed to Swinburne Castle, where they will be entertained by Dr. William Murray.

PLACES OF INTEREST IN THE NEIGHBOURHOOD.

Tynemouth.—Tynemouth is a large watering-place at the mouth of the river Tyne, with plenty of accommodation for visitors, and with good railway and steamboat communication. It has fine broad sands, stands well at the mouth of the river, and is celebrated for the beautiful ruins of its ancient priory. Sea bathing here is excellent, together with boating and sea fishing. There are several smaller and quieter watering-places north of Tynemouth—namely: Cullercoats, Whitley, Newbiggen, Warkworth, Bamborough, and Alnmouth. South Shields, and Roker, near Sunderland, are also pleasant seaside places to stay at. Near South Shields are the celebrated and picturesque Marsden Rocks and Caves.

Hexham and Corbridge.—There are beautiful places west of Newcastle, but it will scarcely be convenient to go further than Corbridge or Hexham during the meeting. Hexham is a picturesque old town, chiefly interesting on account of its fine old abbey church. The Roman wall can be conveniently visited from Hexham or Chollerford.

Durham.—This city is situated on the main line south of Newcastle, and the quick trains run there in about twenty minutes. It is a quaint old town, its chief beauties being the Cathedral (a magnificent Norman church) and the Castle, both picturesquely situated on two of seven hills on which Durham is built. The river winds round the base in a sharp curve between well-wooded banks. Finchale Abbey is a fine ruin on the river Wear, three miles from Durham.

Morpeth.—This is a pretty, quiet country town, half an hour's railway journey north of Newcastle, with good lodging accommodation. Near to it is Rothbury, a delightful place with pure and bracing air.

NOTICES OF MOTION.

DR. MEAD hereby gives notice that he will move:

That as a considerable number of Branches are unprovided with by-laws, and in consequence irregularities arise, especially in the election of officers and other important matters, the Council be empowered forthwith to provide a set of model by-laws regulating such matters, and such by-laws be taken and deemed to be the by-laws of every division in which special by-laws sanctioned by the Council do not exist.

July 20th, 1893. FRANCIS FOWKE, *General Secretary.*

SMALL-POX IN GREAT BRITAIN.

LAST week some 60 cases of small-pox were admitted to hospital in London, leaving 330 patients under treatment at various institutions on Saturday, a fall from 397 in a period of three weeks. The deaths, however, numbered 10, making 76 in the past nine weeks. Six of the deaths were of unvaccinated persons, all being under 5 years of age. In West Ham numerous attacks continued to be reported, 5 deaths being registered; there were some half-dozen cases in Birmingham, 8 in Salford, 3 in Manchester; Hull, Wakefield, Halifax, and Middlesbrough also being freshly invaded, whilst at Bradford upwards of 20 attacks took place, the hospital records showing nearly 70 patients under treatment at the beginning of the week. Two deaths were registered from small-pox. There have been several cases of the disease in the Totnes rural district recently, huts being utilised for isolation purposes.

THE epidemic of typhus fever in New York during the first quarter of the year caused 119 deaths. There were 328 cases, and all but twelve were males. More than half the patients were between the ages of 25 and 45.

THE French Chamber of Deputies has read for the first time a Bill to amend the law as to the practice of pharmacy. It proposes to unify the pharmaceutical diplomas, and has been introduced as a result of an agitation which has been on foot for some time.

THE MEDICAL CURRICULUM IN FRANCE.—A scheme is under official consideration to alter in some respects the conditions under which the degree of Doctor of Medicine may be obtained in France. Under this scheme, a student before beginning his medical curriculum would be required to have spent at least one collegiate year in the Faculty of Science, and to have passed an examination in chemistry and physics. The duration of the medical curriculum would be four years, and the candidate would have to pass five examinations.

EXTENSION OF SANITARY POWERS TO COUNTY COUNCILS.

A Special Report for the Use of the Parliamentary Bills Committee, prepared by the Chairman.

(Continued from page 189.)

REGULATION OF TRADES.

CLOSELY allied to the subject of by-laws is that of regulated trades. Of these, I may class the keeping of common lodging houses. The supervision of these establishments by local authorities is often very nominal, and rarely efficient except in towns. And standards of cubic space and other requirements fixed by local regulations differ widely. Yet common lodging houses are, above all else, the channels by which small-pox and other infectious diseases are brought into districts by tramps from infected centres, as is well known among health officers. It has needed only a most cursory knowledge of the facts of the present small-pox prevalence to convey an idea of the danger which these houses constitute to the public health. As to these dwellings, as well as in regard of canal boats, I think that county councils should have laid upon them the duty of inspection and reporting, with power to compel adoption and, after adoption, enforcement of by-laws with reference to the former, and with full power of entry in respect of both. Next as to cowsheds, milkshops, and dairies, the administration by local authorities is usually very lax, oftentimes non-existent. Regulations vary in their requirements—a matter of unfairness to one or another district and owner. Seeing that milk plays such an important *rôle* in the dissemination of disease, it is deplorable to think that conditions such as are recorded by health officers and others as obtaining all over the country are permitted to exist unremedied, as is too often the case. Instances are numerous, but I need only refer to two. As to cowsheds, take Pudsey again, and what do we find in the annual report of Dr. Hunter for 1892? This; that "in nearly every cowshed the milk is exposed to infection from air polluted by drain gas, the effluvium of offensive manure heaps, and the emanations from the cows." And then, after detailing the result of a careful inspection of seventy-two cowsheds, Dr. Hunter proceeds: "To sum up: there is no doubt that the milk supply of Pudsey is produced under conditions that favour the production of diseases, and their distribution to the public." The second instance is that of York Rural District, where the situation of wells of dairy farms in dangerous proximity to heaps of filth, to foldyards, and so on, is a common occurrence, wells being in some places so circumstanced that pollution seems inevitable. The reports of health officers and the public journals have placed on record numerous instances in which insanitary conditions existing at dairies, farms, and other places whence milk is distributed, have led to specific contamination of milk with resulting widespread disease and death. In this connection I may refer to my paper on "The Influence of Milk in Spreading Zymotic Disease," published in the *Transactions* of the International Medical Congress of 1881; and to the pages of the BRITISH MEDICAL JOURNAL almost annually since that date.

Here I see reason for concurrent power of action and inspection being granted to county councils and sanitary authorities, with power on the part of councils to make regulations where they do not exist, and to see that they are everywhere duly acted on. And there would undoubtedly be much benefit accruing from a standard of requirements common to the whole county, and consequent enforcement of regulations with a minimum of friction.

I cannot pass this point without insisting further that power should be granted to county councils of inspecting cowsheds with reference to diseases in the cow (tuberculosis, udder and teat eruptions, and the like) that have concern with disease in the human subject. Power of action in respect of the milk and flesh of diseased cattle is also needed. The matter is of growing importance, and has not received the attention it merits in our sanitary laws.

Lastly, I would mention slaughterhouses, which are much neglected in most parts of the country. Reform seems needed on the lines of the Public Health (London) Act of 1891, which gives power to the London County Council to re-

fuse a licence in respect of a slaughterhouse. Such licences should be renewable annually by all county councils, with power of refusal, and councils should be enabled to represent to the Local Government Board whenever they consider a public *abattoir* to be needed, the Board being thereupon under necessity to make inquiry, and, if they deem requisite, to order the establishment of an *abattoir*. Furthermore, it seems desirable that rural authorities should be placed on the same footing as local boards in regard to the framing of by-laws as to slaughterhouses situate in small towns and villages which happen to be in "rural" areas. At present "urban" powers must first be obtained at the hands of the Local Government Board.

Offensive Trades.

As a necessary corollary to regulated trades come those which are classed under the term "offensive" in so far as the powers of county councils are concerned. These trades are to some extent specified by the Public Health Acts, and it may be that others should be added. Control is now nominally vested in local authorities, who rarely exercise any real supervision, no county council, save that of London, having any power in respect of them. Small local authorities have proved themselves incompetent to deal efficiently with these trades; they have no staff for the purpose, no expert knowledge, are constantly open to pressure on the part of those interested, and shelter themselves behind the plea of "driving trade out of the district." But if all districts had a recognised standard these things would not be. The aim, then, is to have an administration that shall be equal and efficient, and accordingly I advise that county councils should be made authorities with whom registration of offensive trades would be compulsory; that to the councils should be given the power of requiring, with assent of the Local Government Board, exact specification of precautions to be adopted for obviating nuisance, and of making by-laws governing the trades. They should also be given power to prohibit where necessary establishment of new works, and should be given right of entry on premises as in the case of trade effluents, inspection being constituted a duty of the councils. Further, in regard of their action, alike in the case of offensive and regulated trades, county councils should be required to make in annual report to the Local Government Board.

Smoke.

With reference to trade nuisances, I may refer to those caused by smoke, to which scarcely any attention is paid by local authorities. Many modern improvements have been made in apparatus, and prevention, or at least mitigation, of nuisances ought now to be possible. The offenders are commonly men of local weight, leading to hesitancy of action on the part of local authorities and their officers. County councils would be free from all local influences of the kind, and consequently in a stronger position. It should be made their duty to maintain inspection concurrently with sanitary authorities, and to report annually to the Local Government Board. The subject of smoke nuisance is one which has considerable bearing on public health, especially in heavy manufacturing localities where men cannot escape the inhalation of a considerable quantity of soot, with resulting harm to the lungs and irritation of these organs, leading, it may be, to phthisis. And in a smoke-laden atmosphere people refrain from opening their windows, thus reducing the amount of ventilation of living rooms to a minimum. The harmful influence of smoke on plant life is well known. These are but the fringe of much that is to be said against the persistence of smoke nuisances, and show that efficient preventive action is called for.

Adulteration Acts.

Another power which might most usefully be given to county councils is that of enforcing, or, still better, of carrying out the Adulteration Acts. In only too many cases the Acts are dead letters. It needs but to peruse the annual reports issued by the Local Government Board to learn how unevenly in this respect the powers of local authorities are used. Yet the necessity for action is evidenced by the results obtained where the Acts are administered, and no one can doubt the importance of safeguarding the public against admixtures of a deleterious nature, to say nothing of the dishonesty of charge on the part of tradesmen, for goods of a nature inferior to those demanded. In such an article as milk it is often of vital importance that it should be pure and free from added water; and the need for unsophisticated drugs is self-evident.

Housing.

I now turn to the subject of the housing of the working classes—one affecting a large section of the community. The law as it stands is anomalous. The Act of 1890, it is true, gives powers to county councils in regard of dwellings. But whilst a certificate that a house is unfit for occupation, and the like, has the same force as that of a local health officer, if it emanate from a county health officer and be forwarded by the council to an urban or rural authority, it would not hold good of a house in a borough. Again, rural authorities are bound to report to a county council their proceedings in respect of representations made to them under the Act; not so urban authorities. Yet there is no good reason for the difference, and it must be borne in mind that many rural districts are in parts strictly urban in character, containing fair-sized towns and large villages, with powerful authorities; whilst undoubtedly only too many so-called "urban" districts consist simply of one or more villages, and these not in all cases large ones. It seems essential that urban and rural districts should be treated alike, power of action in respect of a defaulting urban authority being given to county councils in the same way as that of a rural area.

Burial Grounds.

I would next touch upon a matter of great importance to the living, namely, the disposal of the dead. Only one point, however, do I propose to treat—that of burial grounds. The existing method of central control is vested in the Home Office, which has one inspector to look after all the burial grounds in England. As a result, practical supervision is almost entirely wanting, and some of the older churchyards are shamefully overcrowded. We hear of sextons probing with rods for clear places, and of burials taking place within a few feet of dwellings. The necessary supervision can hardly be looked for from local bodies, hence county councils should be entrusted with powers of supervision and control, being made responsible for inspection, and having among their powers those of sanctioning new grounds and of closing old ones, subject to approval by the Home Office or the Local Government Board.

Local Administration.

Coming now to questions of administration, I would deal first with the question of local sanitary officers, treating primarily the case of the medical officers of health. I would say at once that the inherent defects of the present system of appointments of health officers are low rates of remuneration, and uncertainty of tenure of office. In respect of the former point it cannot but be admitted that the salaries offered in a large number of districts are tantamount to saying, "We must have a health officer, but we want him cheap; and the amount of time devoted to his duties we do not trouble ourselves about." The list of salaries of our local health officers is a standing disgrace to a country professing so much in sanitary matters as England does. I take haphazard a few of the items from the current issue of the *Medical Directory*: Morecambe Urban District expends the munificent sum of £10 annually upon its health officer as payment for work done. Holywell and Chorley, in Cheshire, advance £10 10s. each; Guiseley yields up £12; Havant and Horsforth furnish each of them £15; whilst Slough spends £25 upon the health officering of her upwards of 5,000 residents, only 1¼d. per head per annum! It seems ludicrous to quote these cases, typical of many. But what of security of tenure? Is it existent? Undoubtedly it is in many places. But in others? By no means. In only too large a percentage of districts appointments are annual, or it may be triennial, or even in some few quinquennial. But at the close of each period the officer is at the mercy of his authority; they need not re-elect him, with the knowledge that the worst that can happen is non-approval on the part of the Local Government Board of repayment from county funds of the moiety of his salary. If this happen, the worse for the successor of the dismissed officer. Now, one of two things must often result: either that an officer is content to draw his small pay and perform only

such duties as shall be pleasing to his board, taking care to report in a manner that shall not bring discredit upon them; or he conscientiously carries out his official instructions to the best of his ability, and reports on the state of his district as its circumstances require, with the likelihood of finding his services no longer needed at the end of his term if his authority look askance upon his method of procedure. For an instance of this latter class of case I may refer to the recent action of the Pudsey Local Board with regard to Dr. Hunter, an officer drawing only £40 per annum for a district having a population of over 13,000 persons, and one calling for constant supervision; and in respect of which he conscientiously discharged his duty by reporting on its sanitary defects in a praiseworthy manner. That the district is one demanding the unrelaxed attention of both health officer and other sanitary officers is patent from a perusal of the 1892 report; elementary principles of sanitation have not been properly applied, and the state of property and its adjuncts, in the matter of drainage and the like, give evidence of need for great stringency in the enforcement of the by-laws; whilst conditions under which milk is distributed to Leeds, Bradford, and other towns were such at the close of last year as to "favour the production of diseases and their distribution to the public." Surely these afford reason, if a local authority is right-minded, for retaining a painstaking officer and encouraging him to further zeal.

It is no wonder that a feeling is growing up in favour of certainty of tenure, not alone on the part of the health officers, but in the mind of all the many friends of sanitary science who are desirous of seeing real progress made; and, again, one can understand the wish, now so strongly expressed, for officers who shall devote their whole time to their public duties, and escape the fetters which private practice inevitably lays upon them. Experience has amply shown that where an officer has calls upon his time from a source that furnishes the main portion of his income, he must of necessity yield to that call, to the detriment of his public health work; but when free from the shackles of other work he can not only devote his life to the sanitary welfare of his district, but he can do so with the certainty that he will have the best aid of his medical brethren, the more so since they feel that he will have no interest in their patients beyond the adoption of such measures as shall tend to the prevention of the spread of infectious disease. How frequently even the best endeavours of a health officer, himself a practitioner, to make his duties work smoothly, result in friction and unpleasantness with other practising men, is only too well known. His action is at all times to be misconstrued, and often is, as interference with his brother practitioners and any withholding of help on their part will militate against an efficient discharge of their duties.

It is undoubtedly desirable to establish something like a "public health service," which shall be held together by stronger methods than the caprice of changeable and often wrong-headed local authorities; and if a system of whole-time officers of health is to be instituted, it will be necessary to establish certain corollaries. Thus salaries will need to be sufficient to attract and retain reasonably good men, otherwise only the incompetent and needy will be drawn in. An officer of health is now not infrequently a man who has accepted his post to keep others from establishing themselves in his district. The officership is to him a necessary evil; and in connection with the salary, it would seem well to admit the system, now elsewhere so general, of advancing the scale of pay as the officers' services become more and more useful to their districts, as in banks and numerous other large establishments. Further, the health officer giving his whole time must not be dismissed without the consent of the county council and the Local Government Board. It would be a serious matter for a medical man, debarred while in office from private practice, to be cast adrift at the will of a whimsical local body, to begin professional life again, say, when middle aged. In any case, the power of dismissal should certainly be relegated to a higher authority than at present, the prevailing system being obstructive to all true progress.

I think that whatever system be adopted, salaries should require to be approved by county councils, and to be wholly paid out of county funds, some workable scale of remuneration being generally decided upon; and to county councils should be given the power of requiring, on any given subject, from local health officers, special reports and statistics. At present no such power obtains, and such additional facts and data as councils desire are now voluntarily given by health officers, and are, indeed, at times refused, with the result of rendering county returns incomplete. Some health officers are so bound down that they are afraid to furnish desired data; and, as bearing on this point, I may state that a medical officer of health was only recently dismissed on account of evidence perfectly true, given at a Local Government Board inquiry.

Before leaving the subject of health officers I desire to advert to the important matter of reporting. At present a very large proportion of annual reports are submitted, and remain, in manuscript. This means one copy for the officer's keeping, one copy for his authority, a third copy for the county council, and a fourth for the Local Government Board; and the same in respect of all "special" reports. The system is a direct inducement to make the annual statement as short and meagre as possible. Yet if there should be important matter in a report, a single written copy of which is placed before an authority, it is only lost upon the members, who either simply hear the document once read or "take it as read." If a report is worth writing it is worth writing well, and also printing, so that each member may have a copy to peruse and to study at leisure; whilst a printed document will furnish far better than a written paper a record for future reference. Hence I think that all annual reports should be printed, each county council having power to prescribe the dimensions of the page; or, better still, one standard size being made compulsory in all counties, for convenience of binding and so forth. As matters stand a large variety of sizes are in vogue. The cost of printing might very properly be thrown upon county funds, seeing that it would be a charge incident upon all parts.

The requirement of "whole time" from sanitary inspectors is a matter only second in importance to that of health officers. In small urban districts the inspector is quite commonly saddled with other duties. Thus, in Pudsey I find him fulfilling those appertaining to nuisance inspector, building inspector, and surveyor. Not infrequently he gives only part of his time to public duties, being a farmer, shopkeeper, publican, and so forth. Yet his is skilled work, or should be so, and ought not to be mixed up with other duties and ties tending to distract the inspector's attention or hamper his action.

Some standard of competency, as in London, seems desirable, and adequacy of salary should be insured. The sums are oft-times ludicrously small, and result in, at most, securing the temporary abatement of recurring nuisances. Many instances might be quoted; let two suffice. In the Clayton and Tong district each of the inspectors gives his whole time as inspector of nuisances and surveyor for something under 30s. per week. The first district has an area of 1,200 and the latter of 2,600 acres, whilst the respective populations are 4,700 and 6,900 persons. The joint inspectorial salaries do not amount to a weekly wage of 10s. each. In the matter of reporting, a prescribed form of annual return to be filled in by inspectors would be most useful, this being submitted to the medical officer of health to be appended to his report. The form could be designed by the Local Government Board, each council, with more exact knowledge of their county, having power to add items to the form. Such a return need not preclude inspectors from supplying any additional facts worthy of record.

I have already referred to the fact that health officers, where properly discharging the duties of their post, by exposing the sanitary shortcomings of their districts, lay themselves open to dismissal. Many officers have been dismissed for too plain speaking. But, as has long been said, a health officer has no self defence when an authority decide not to re-elect him for having exposed them as a defaulting sanitary body. It is strange that this monstrous absurdity should have been so long tolerated.

It seems most desirable that local sanitary authorities (apart from their officers) should be required to certify to their own default by means of an annual report dealing with specified points in a particular manner, so that nothing short

of direct mis-statement can prevent any present or past neglect in sanitary work from becoming apparent. Any downright falsity of statement would be detectable by the county council or Local Government Board, to whom copies of the reports should be required to be sent. Omissions from or false entries in the reports might reasonably form ground for complaint, under Section 299 of the Public Health Act of 1875.

This section (299) seems to demand extension to include default under any Act, with default in enforcing by-laws and regulations. Many local authorities who have adopted the model by-laws of the Local Government Board fail to enforce them, as I have already pointed out. New buildings, for example, are comparatively rarely built in strict accordance with by-laws, damp courses and air-tight basements are often ignored, and in Yorkshire back-to-back houses are still springing up, with the connivance of sanitary authorities, in districts for which by-laws to the contrary are in existence. Where outdoor closets are in use it is not too much to say that the model by-laws are very rarely observed.

There is at present no machinery for supervision of sanitary authorities in this matter. Section 299 provides for complaint to the Local Government Board by any person interested, if the sanitary authority neglect to enforce the Public Health Act, 1875, in certain matters. It should be made clear that default in enforcing their own by-laws is a statutory neglect, and that a formal complaint, if substantiated, would lead to the Local Government Board ordering the authority to amend their ways, and in default to empower some person or persons to exercise the functions of the recalcitrant local body. The Local Government Board already have power in this direction as regards drainage and water supply. The duty of maintaining supervision and reporting to the central board might fittingly be imposed upon county councils. At present it is nobody's business. No one possesses power and but little is done, even in the case of glaring default. If work has to be taken out of the hands of a sanitary authority the county council are the proper persons to whom it should be entrusted by the Local Government Board. One or two lessons of this sort would convince all sanitary bodies of the unwisdom of inaction or procrastination.

One point in connection with complains under Section 299 seems to need special consideration—namely, the absence of any means of recouping complainants for expenses to which they have been put in bringing forward evidence condemnatory of the sanitary authority arraigned for default. I certainly think that in cases where default is proved the person or body making complaint should be repaid by the authority for all reasonable expenses incurred in preliminaries. The law as it stands places an obstacle in the way of private movement.

There are certain classes of formal inquiry now undertaken by the Local Government Board which county councils seem to think ought to be held by themselves, such as those for loans in connection with water supplies, sewerage schemes, and the like. But I do not hold this view. In matters of this sort I think the central department should maintain full control, and be furnished with a sufficient staff for the purpose of obviating delay of formal inquiry which is complained of by county councils. But I quite agree that county councils should have an opportunity of being represented officially at such inquiries, of offering suggestions, and of explaining, if need be, the bearing of any proposed scheme upon the interests of other authorities. County councils know, or ought to know, all about the sanitary condition of every district, and cannot properly be ignored when sanitary inquiries are on foot.

What is required, then, is that the Local Government Board should give to county councils information as to all local inquiries to be held, of whatever nature, and should keep them informed on all matters affecting proposals for loans, proceedings under Section 299 of the Public Health Act of 1875, etc.

COUNTY EXPERTS.

I now come to a matter of the utmost importance to efficient sanitary administration. As I have already pointed out, one of the powers conferred on county councils by the Local Government Act of 1888, and important alike to localised communities and to England generally, is that of appointing county health officers. It is a power, however, that, as has been said, has not hitherto been widely exercised, and it is, moreover, one concerning the necessity of which as matters now stand much difference of opinion has been expressed. In addition to the arguments already adverted to as having been advanced is the one that the present system by which each sanitary district has its own medical officer of health, or shares with adjacent districts the services of such an officer, renders the appointment of a county health officer superfluous. There is a central health department, it is urged, which exercises, or should exercise, functions of sanitary supervision over the county generally, and this should suffice. The central health department, however, does not possess upwards of fifty experts, to each of whom it can allot a county, nor, if such were the case, would the principles on which it works allow of such an allotment. The essential element of the Government medical department has been to diffuse abroad for the information of sanitary bodies generally the experience which its inspectors have gathered during years of laborious research among communities living under every conceivable condition, and among whom one and another disease has prevailed under widely differing circumstances. The accumulated store of knowledge thus gathered by exact study of differing local circumstances in many localities cannot as things are constituted be at the immediate disposal of any and every authority. It is used by the central body for the most part exceptionally, when danger is seriously threatened or where disaster has actually occurred, in advising or directing particular local sanitary authorities in ameliorating conditions in their districts hostile to health.

But under the Act of 1888 it is open to county councils to exercise, each for its several districts (and thereby for its county as a whole), and as a matter of everyday routine, a like function, namely, through the instrumentality of a county health officer. To this end each such officer must needs obtain ever-increasing knowledge of the area under his immediate jurisdiction, and this will come from years of attention to its requirements. He will have in his hands every report made by individual medical officers of health to their district authorities, and will be able to advise his council on all matters arising out of these reports and affecting more or less directly the entire county. He will be able also by the relations which he will have towards neighbouring county officers to take cognisance of conditions operating over areas beyond his official ken, and by conferences and conjoint action to deal with matters which are far-reaching in their unhealthy tendencies. In a few years councils will have at their command in these officers a body of men whose intimate knowledge of their counties will constitute a power which cannot but be productive of much good for the sanitary well-being of the kingdom. The relations of these officers with the central body should be of the closest, as this will tend to widen their grasp of difficult sanitary problems.

Now some few "counties" are so small that it seems doubtful whether combination with others would not be essential, unless the county health officer were to be saddled with local executive duties as local medical officers of health. This is the rule in Scotland, and has practically been followed in some English counties, but it involves risk of very awkward relations with county council or local authority if the two should differ on any point. In most counties there is ample work for a county health officer and staff without the accession of other duties.

Some county councils have appointed one of the leading health officers, at a nominal salary, to collate reports and advise the council when called upon to do so. This means very little, as the officer has no real opportunity of supervision or initiative, nor is he available for consultation by local authorities or other officers—a point of first importance and usefulness in the large and active counties.

When definite powers of supervision and control are given to county councils, and sanitary duties are prescribed for them, the appointment of county medical officers of health would be a necessity; a makeshift would no longer be possible. Their duties could then be defined categorically, and the appointments made compulsory. The innumerable channels of usefulness of such county health officerships have been referred to in the foregoing pages, as have also the needs now existing for powers of inspection co-ordinate with local

officers. At present county officers have no powers of entry for any purpose. There can be no injustice, surely, in putting them on an equality in this matter with the officers of each local authority in the county?

Now, with a view of maintaining in all sanitary matters uniformity of administration throughout the county, and in order to retain the supreme authority of the Imperial Government, I would suggest an appeal to the central Board at Whitehall against the ruling of the county council on every point. This is necessary, also, as a matter of justice to local bodies.

Finally, county councils should be required to make an annual report to the Local Government Board upon all sanitary matters entrusted to them, dealing with the several questions in a broad sense, and giving an account of the steps taken during the year.

It is seen, then, from the foregoing pages that there are numerous directions in which additional powers could be conferred upon county councils with, as I claim, much benefit to the community. These councils are bodies freed from much that hinders sanitary authorities from efficient action in one and another matter; they are unfettered by local prejudice, and untrammelled by those vested interests that interfere so greatly with the sanitary progress of only too many districts. And if it lead to greater outlay of money, with the consequent higher rates, we cannot deny it, nor would we see reason for denial. England cannot afford to be parsimonious when her health interests are at stake, and all expenditure that goes in a reasonable manner to perfect her sanitary condition will be amply repaid in the shape of greater comfort and decreasing sickness and preventable mortality. With the hands of the Local Government Board strengthened by subordinate county councils exercising the functions we have suggested, England should soon be in a fair way to becoming, throughout her length and breadth, what she now is in part—a thoroughly well-administered country in public health and sanitary matters.

ERNEST HART.

THE ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A LARGE and important meeting of the Committee of the Association of Fellows of the Royal College of Surgeons of England took place on July 19th, 1893, Mr. GEORGE POLLOCK, President, in the chair. The minutes of the last meeting having been read and confirmed, the Honorary Secretary read the following announcement, which was sent out on a postcard to each member of the Committee in explanation of the summoning of the meeting.

THE ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

[*Important.*]

9, Welbeck Street, W., July 10th, 1893.

Dear Sir,—A meeting of the Committee of the Association of Fellows of the Royal College of Surgeons of England will be held at 36, Grosvenor Street, W., on Wednesday, July 19th, at 5 P.M., for the purpose of discussing the future policy of the Association in view of the success of the candidates of the Association at the election on the 6th inst. To this meeting invitations are being issued to members of the Council of the College, whose views are known to be favourable to the programme of reform adopted by the Association. It is earnestly hoped that you will be able to attend this combined meeting, and you are requested to intimate your intention with respect thereto on the accompanying reply postcard at your earliest convenience.—Yours faithfully,

H. PERCY DUNN, Honorary Secretary.

Letters were also forwarded in similar terms to certain members of the Council of the College, and favourable replies were received, accepting the invitation of the Committee.

The following Fellows of the College, having been duly proposed and seconded, were unanimously elected members of the Association: Mr. Hugh Smith (Highgate), Mr. F. Churchill (London), Mr. Urban Pritchard (London), Mr. Ernest Arnold (Forest Hill), Mr. G. F. Blacker (London), Mr. Newland Pepley (London), Mr. E. Deanesly (Wolverhampton).

The HONORARY SECRETARY reported that he had not received any reply to his letter addressed to the President of the College conveying a copy of the resolution passed at the last annual meeting with reference to the meeting of the Fellows.

It was proposed by Mr. HOLMES, seconded by Mr. GANT, and unanimously carried,

That Mr. Dunn be asked to write to the Secretary of the College inquiring whether the letter to the President of the College had reached its destination and would be laid before the Council, and, should the reply be in the negative, to send a fresh letter, in the same terms, with a request that it should be read to the Council.

A cordial vote of congratulation was passed to Mr. Macnamara and Mr. Mayo Robson on their success at the recent election at the College; and Mr. Macnamara was also specially congratulated on having been appointed one of the Vice-Presidents of the College for the ensuing year, this being the first occasion on which a member of the Association has been appointed to any office of the kind. A vote of thanks was unanimously passed to Mr. A. T. Norton for accepting the invitation of the Committee to come forward as a candidate in the interests of the Association, and the hope was expressed that he would stand again next year.

The future policy of the Association was then discussed, and various members of the committee, together with the members of the Council present, expressed their views in connection therewith.

Subsequently it was unanimously resolved,

That the Council of the College should be approached for the purpose of obtaining a new charter, embodying the points of reform advocated by the Association.

It was further resolved that a subcommittee be appointed to consider and report upon the special points which should be dealt with in the charter, the report to be presented to the Committee in October next.

This concluded the business of the meeting, and the Committee adjourned.

A SAMPLE OF CHOLERA-BEARING WATER.

ITS BACTERIOLOGICAL AND CHEMICAL CHARACTERS.

THE following report on a bacteriological and chemical examination of samples of water, obtained by Mr. Ernest Hart from the Hamburg public water supply in August, 1892, has been unavoidably delayed. Since that period large filter beds have been constructed, and the water delivered for domestic consumption is all filtered. The observations made, however, for us by Dr. G. Sims Woodhead and Professor Percy Frankland possess considerable historical interest.

I.—REPORT BY G. SIMS WOODHEAD, M.D., F.R.S.Edin.,

Director of the Research Laboratories of the Royal Colleges of Physicians and Surgeons, London.

The two samples of water, marked A and B, submitted to us for examination were both turbid, and contained a large quantity of peaty-looking and other suspended matter. After a specimen of water B had been taken for bacteriological examination it was well shaken up and divided into two equal quantities, one of which was passed through Swedish filter paper, which had previously been carefully washed with distilled water. This was done in order that we might know how much of the organic matter found on chemical examination could be removed by filtration. These two samples were forwarded to Mr. A. C. Houston, M.B., D.Sc., for chemical examination, who gives the following report:—

On comparing the analysis of the filtered and unfiltered water, it will be noted that the amount of total solids in the former, though greater, is not in such great excess as one would expect from the large amount of sediment that there appeared to be in the original water. The proportion of free ammonia in the filtered water is much greater—3 to 1 as compared with the water containing sediment. The albuminoid ammonia (Wanklyn), on the other hand, is slightly higher in the water containing the sediment. In the oxygen process the unfiltered water takes up an enormously greater quantity of oxygen, especially during the later stages of the process—at the end of three hours.

On comparing the result of these two analyses, it is apparent that a coarse method of filtration or process of sedimentation would exert comparatively little influence on the chemical character of the water.

BACTERIOLOGICAL EXAMINATION.

As we were aware that some time had elapsed since the

Chemical Analyses.

Two samples of water were sent to me by Dr. German Sims Woodhead to be analysed. They were received by me on January 18th, 1893. One of the samples was labelled "water with sediment," the other was labelled "water freed from sediment;" the amount of the water was 336 c.c., and 379 c.c. respectively.

Description of Water.	Smell (at ordinary temperature).	Reaction.	Colour.	Chlorine.		Total Solids.		Ammonia (Wanklyn).				Oxygen Process (Tidy's) (at ordinary temperature). Oxygen used in:				Microscopical Examination of Brown Flocculent Deposit showed the Presence of:
								Free.		Albuminoid.		¼ hour.		3 hours.		
				Grains per Gallon.	Parts per 100,000.	Grains per Gallon.	Parts per 100,000.	Grains per Gallon.	Parts per 100,000.	Grains per Gallon.	Parts per 100,000.	Grains per Gallon.	Parts per 100,000.	Grains per Gallon.	Parts per 100,000.	
Water with sediment	Absent	Neutral	Brownish flocculent deposit.	22.75	32.5	56	80	0.0105	0.015	0.0616	0.088	0.448	0.64	0.938	1.34	Vegetable cells, and filaments, micro-organisms, vegetable fibres, and animalcula.
Water freed from sediment	Absent	Neutral	Slightly yellow, transparent	20.8	29.7	50	71.4	0.0336	0.048	0.04368	0.0624	0.1897	0.271	0.3122	0.446	

ALEXANDER C. HOUSTON, M.B., D.Sc.Edinburgh, January 21st, 1893.

sample had been taken from its source, during which multiplication of the micro-organisms had been going on, it was evident that the enumeration of the number of the organisms present would give us but little information as to the character of the water. Attention was therefore concentrated on the determination of the number of different species present, as no increase in this respect could take place, however long the water was allowed to stand.

Although from the circumstances under which the water came to our hands there was little chance of separating the cholera organism if still present, an attempt was made to do this by means of the method suggested by Schottelius. Several drops of the water were put into flasks of broth, which were then incubated at the temperature of the blood (37° C.). From the surface growth that formed cover-glass preparations and plates were made, but the results were negative. Samples of the original water were also placed in the hot-air steriliser at 56° C., and kept there for twenty-four hours in order to determine whether there were any spore-bearing organisms not usually present in ordinary waters. Gelatine plates were made with $\frac{1}{3}$ and $\frac{1}{9}$ c.c.; the results were in both cases negative, as not a single organism developed in any of the plates.

In order to determine the number of species, a series of five plates was made from each sample of water, in which quantities of $\frac{1}{1}$, $\frac{1}{2}$, and $\frac{1}{3}$ c.c. were used. A further dilution was made by adding 1 c.c. of the water to 9 c.c. of sterilised distilled water, and from this plates to which $\frac{1}{10}$ and $\frac{1}{100}$ c.c. of the water had been added, by this means were made.

The number of organisms in the two samples exhibit slight variations, but this is a fact which has frequently been observed in waters taken from the same source, and under exactly the same conditions. The average of our enumerations over the five plates with sample A gave from 11,000 to 12,000 organisms per c.c., with sample B from 7,000 to 8,000 organisms per c.c.

When we come to the enumeration of species, however, the same number of varieties were separated from both samples. At least eight distinct species were recognised, consisting of five forms which liquefied the gelatine, and three which were non-liquefying. The proportion of liquefying to non-liquefying organisms was very high, being in some of the plates as high as 40 per cent. All the organisms, both liquefying and non-liquefying, exhibited the rod form, and varied in thickness from 0.5μ to 0.9μ, and in length from 0.7μ to 2μ. The various organisms were distinguished from each other not merely by their size but also by their reactions on different cultivation media—gelatine, agar-agar, potatoes, and milk.

It is evident from both the chemical and bacteriological examination of these waters that they are absolutely unfit for domestic purposes, whether filtered or unfiltered. The total amount of solids, the percentage of albuminoid ammonia, and the quantity of oxygen taken up all indicating that from the chemical point of view we have to deal with a very impure water. The bacteriological examination confirms and even accentuates this deduction. The comparatively large number of species present, and the large proportion of these that liquefy gelatine, all point to extensive recent sewage contamination.

II.—REPORT BY PERCY F. FRANKLAND, PH.D., B.Sc., F.R.S.,

Professor of Chemistry in St. Andrews University, Dundee.

This water is very turbid, contains an excessive proportion of organic matter, yields a very large amount of "albuminoid ammonia" on distillation with alkaline permanganate and consumes a large quantity of oxygen on being placed in contact with acid permanganate for three hours at the ordinary temperature. I have submitted the sample to these three independent methods for ascertaining organic contamination, namely, the combustion process, the albuminoid process, and the Forchammer permanganate process, as one or the other of these is commonly employed by chemists in the examination of drinking water. On each one of these determinations alone the water would be unhesitatingly condemned as unfit for domestic purposes, whilst by the light of these three tests taken in conjunction it is seen to be of the most dangerous character, and highly polluted with sewage or other animal matters. The sample also contains a large amount of chlorine, doubtless through the admixture of sea water, and it is of considerable, although by means excessive, hardness. I do not know of any public supply in this country in which the water is so polluted as this sample.

I have also made a bacteriological examination of the water, although this is of but little value, inasmuch as the sample had not been collected in sterilised vessels, and had, of course, been at least some days in bottle before reaching me. On submitting the water to gelatine plate cultivation it yielded upwards of 6,000 colonies per c.c., after three days' incubation at 20° C., but I do not attribute any importance to this figure for the reasons above stated. None of the colonies on the plates had the appearance characteristic of Koch's "comma" bacilli, nor were any comma bacilli or spirilla detected by microscopic examination. A special search for the bacilli was also made by Schottelius's method, which consists in mixing some of the material under examination with a deep column of sterile bouillon placed in the incubator, and after twelve hours, plate cultivating the surface film or pellicle which forms on the liquid. These special examinations

however, also yielded negative results. This is not surprising considering the age of the sample, even should the comma bacilli have been originally present in it. This in previous experiments[1] which I have made with Koch's comma bacilli I was able to demonstrate their presence in sterilised Thames and deep well water after nine days, and in sterilised London sewage after eleven months, but in unsterilised waters Kraus. Karlinski, and Gärtner were unable to discover them after three days. It is quite possible, therefore, that they might have been present, and have disappeared before my examination was made.

Results of analysis expressed in parts per 100,000 of a sample of Hamburg water supply sent by Mr. Ernest Hart, and received by me on October 21st, 1892:

Total Solid Matters.	Organic Carbon.	Organic Nitrogen.	Ammonia.	Nitrogen as Nitrates and Nitrites.	Total Combined Nitrogen.	Chlorine.
78.00	0.926	0.088	0.030	0	0.113	31.3

Hardness.

Temporary.	Permanent.	Total.
4.1	13.7	17.8

Albuminoid ammonia = 0.047; oxygen consumed by organic matter = 0.366.

Remarks.—Very turbid, depositing a quantity of brown suspended matter.

MEDICAL SICKNESS, ANNUITY, AND LIFE ASSURANCE SOCIETY.

The quarterly meeting of the Committee of this Society was held at 429, Strand, on the 19th inst., the following gentlemen being present: Mr. Ernest Hart (in the chair), Dr. J. Pickett, Dr. M. Greenwood, Mr. J. Brindley James, Dr. W. Knowsley Sibley, Mr. Frederick Wallace, Mr. H. H. Clutton, Mr. Edward Bartlett, Dr. A. S. Gubb, Dr. William Frazer (Bournemouth), Dr. Francis J. Allan, and Dr. Walter Smith.

As the quarter just ended closes a financial year of the Society, the business of the last twelve months was reviewed and found very satisfactory; 163 new proposals for membership have been received, of which 145 were accepted and completed, making the total number of members 1,327, or a nett increase of 95 in the year. Members entitled to sick benefit have received during the year £3,327, and the committee have had before them numerous letters showing how useful the sick pay had been to the members receiving it, and how keenly they felt the benefit they received through their membership of the Society. Although this large amount of sickness pay has been distributed, yet the actual sickness experienced has been within the limits provided for the Society's tables, and a corresponding increase has been made to the sickness fund. At the beginning of the year it stood at £26,169 12s. 3d., and now amounts to £31,793 1s. 1d., showing an increase of £5,623 8s. 10d. The total funds of the Society have increased during the year from £56,901 4s. 8d. to £66,369 5s. 4d., showing an increase of £9,468 0s. 8d., the largest amount added to the funds in any year since the establishment of the Society in 1884. The growth of the Society has made the control of its finances more and more important, and it has been resolved to appoint a special Finance Committee to superintend this work, and to advise the Executive Committee on all matters relating to investment, etc. Evidence having been brought before the committee that the members would in many cases be glad to have the opportunity of insuring a larger sickness benefit than the tables and rules at present provide, it has been resolved to recommend that members of five years' standing shall be allowed to propose for an increase of sick benefit not exceeding £6 6s. per week full pay in all. In the Life Assurance Department also, it is felt that the limit of £200 placed on the assurance of the Society by the Friendly Societies' Acts renders it inadequate to meet fully the wants of the members in this branch, and arrangements are being made by which the Society, acting as agents for a first-class assurance company, will enable its members to obtain on specially advantageous terms life assurances and deferred annuities for such amounts as they may require.

The annual general meeting of the Society takes place at Newcastle, on Wednesday, August 2nd, at 4, in the Students' Common Room of the College of Science, and the report to be then presented to the members will be one of the most important yet issued. The accompanying accounts will show the very satisfactory state of the finances, and it is hoped that a large number of the members will attend the meeting. The Chairman's address will contain references to matters of more than usual interest.

Copies of prospectus, and every information, can be obtained on application to the Secretary, Mr. F. Addiscott, 33, Chancery Lane, London, W.C.

[1] *Proc. Roy. Soc.*, 1886.

THE CHOLERA.

The *Standard* correspondent at Moscow telegraphed on July 21st that in twenty-one days since the first reappearance of cholera in Moscow there have been 151 cases and 39 deaths. In the same period last year there were 279 cases and 111 deaths. The first cases last year, however, appeared on August 5th. This year they were five weeks earlier, the epidemic having broken out on June 30th.

The Vienna correspondent of the *Standard*, telegraphing under date of July 21st, states that a fresh case of cholera has occurred at Szatmar.

Reuter's agent at St. Petersburg, telegraphing on July 20th, states that it is asserted on trustworthy authority, although up to the present no official declaration has been made, that the cholera has broken out in the capital, and that four authenticated cases of cholera occurred there on July 19th.

In view of the spread of cholera in Bessarabia, the Roumanian Government has decided to close the whole of its frontier towards Russia, with the exception of Ungheni. Persons arriving from Bessarabia will be disinfected there, and will then only be allowed to proceed as far as Jassy, where they will undergo five days' observation.

The Vienna correspondent of the *Standard*, telegraphing on Sunday night, reports that within the previous forty-eight hours three fresh cases have been reported from Szatmar.

Reuter's St. Petersburg correspondent reports, under date of July 22nd, that since the four cases of cholera reported there on July 19th several fresh cases have occurred.

Nine cases of cholera and eight deaths occurred from July 18th to 20th in the Egyptian quarantine hospital at El Tor.

The Russian Government are sending additional doctors for service during the epidemic; to Podolia 23, to Volkynia 34, and to Bessarabia 15.

Owing to the presence of cholera in Russia, the general importation of hay and straw from Russia into Germany has been forbidden by Germany. Permission will nevertheless be given in certain special cases.

Cholera is reported to have broken out at Alessandria; in Piedmont 18 cases and 13 deaths were reported up to Monday night. Cholera cases are also reported at several other places in Piedmont.

The *Standard* correspondent at Athens telegraphed, on July 24th, that three deaths were announced that day at Smyrna. Ten days' quarantine has been imposed on all vessels arriving in Greek waters from that port.

The Gibraltar Board of Health has imposed eight days' quarantine on arrivals from Naples.

Reuter's agent at St. Petersburg telegraphed, on July 24th, that according to the latest weekly medical report cholera is still increasing in many provinces, the highest returns being Podolia, 499 cases and 122 deaths; Orel, 148 cases and 52 deaths; Tula, 31 cases and 8 deaths; Kherson, 22 cases and 11 deaths.

Several cases of cholera and deaths also continue to be reported from the provinces of Kieff, Moscow, Viatka, Tchernogoff, Tobolsk, and Tomsk.

Five cases and 2 deaths were reported at Smyrna on July 24th. The Minister of the Interior at Athens has ordered all

arrivals from Smyrna to be subjected to eleven days' quarantine.

Cholera is reported to have broken out in French Senegambia, 7 deaths having occurred at the chief town, St. Louis, on July 6th, and 12 deaths at the towns of Dagana and Podor on the same day. It is further reported that 11 deaths took place at St. Louis on July 7th. The Governor in Council of Bathurst, Gambia, has declared all ports in Senegal infected, and the strictest quarantine is maintained there.

The *Standard* correspondent in Berlin, telegraphing under date of July 25th, states that the German Chancellor addressed on June 27th to the Federal Governments of Germany, including that of Alsace-Lorraine, drawing attention to the spread of cholera in France and its continuance in Russia, and to the possible danger of its spreading to Germany again this year. The Chancellor states that last year's measures were on the whole successful, but they are to be subjected to revision by the Cholera Commission in accordance with the resolutions passed at the Dresden Cholera Conference. At that meeting it was agreed that all the States there represented should, in future, communicate to each other the names of places where they discovered that cholera had broken out. The German Government has, accordingly, appointed the Imperial Office of Health to manage this business. All telegrams regarding cholera in Germany are to be addressed to that office, which will communicate the facts to the other signatory States.

The *Standard* Vienna correspondent, telegraphing on Wednesday night, states that, according to a report in the *Novoye Vremya*, cholera is daily gaining ground in Moscow; while, during the past week, no more than 18 cases on average were reported, the number now daily recorded has reached 60. The death-rate has risen in the same proportion.

Sporadic cases of cholera have been lately certified in St. Petersburg. In the Province of Podolia 500 cases are, on an average, reported every week, with 120 deaths.

Reuter's agent at Moscow states that there is an average of 6 deaths and 10 fresh cases there daily.

Five days' quarantine are now imposed at Constantinople upon all arrivals from the Gulf of Naples.

Reuter's Alexandria correspondent reports on July 26th that the cholera at El Tor is now nearly extinct.

Reuter's correspondent at Dresden, on July 25th, telegraphed that the Saxon Minister of the Interior has drawn up measures for preventing the introduction of cholera in view of the spread of the epidemic in France and its continued existence.

A Convalescent Cholera Patient at Gravesend: Demonstration of Cholera Bacilli.

The case of the fireman who arrived on board the steamship *Altmore* on July 17th is one which affords very instructive information as to the duration of infection in a person who has suffered from cholera. The ship arrived at Marseilles on July 3rd, and left on July 5th. The fireman was on shore during the whole time of her stay there, and on July 7th was attacked by very severe diarrhœa (twelve times in twelve hours), vomiting, and cramps. He became faint and collapsed, and the captain gave him quinine and iron. When the ship arrived at Gravesend on July 17th, the fireman was still feeble, and though nominally at work was able to do very little. The vessel was cleansed by the Customs officers, and the usual certificate given. Dr. Williams, however, the assistant medical inspector, found the case, and sent him to hospital. The presence of the cholera bacillus in the evacuations of the patient was demonstrated by Dr. Macfadyen at the College of State Medicine. This is very important as it affords further evidence that a patient who might fairly be called convalescent was still capable of communicating the infection. It cannot, therefore, be proper to allow a patient who has recovered from cholera to leave hospital until some time after convalescenee has been established. Dr. Collingridge is of opinion that the period ought to be fourteen days. This fact obviously throws a very serious responsibility on medical officers of health. The ship *Altmore* has been thoroughly fumigated and disinfected with corrosive sublimate under Dr. Collingridge's directions; the water tanks have been emptied and cleaned, the bilges disinfected, and all clothing treated with superheated steam.

EXTRA-METROPOLITAN EXAMINERS AT THE ROYAL COLLEGE OF PHYSICIANS.

We have repeatedly urged on the Royal College of Physicians the justice and wisdom of recognising the hitherto ignored claim of its provincial Fellows to positions on the Examining Board. We have from time to time received intimation from individual councillors and Fellows of their approval of this plea, and of the wisdom of the course of which we have ventured to urge the propriety. We learn with great pleasure that the representations thus made have this year for the first time brought about a practical and fruitful result, and that amongst the list of nominations for examinerships will be found the following distinguished provincial physicians. Among the examiners of medicine is included the name of Dr. Saundby, of Birmingham; Dr. Leech, of Manchester, is reappointed an examiner in materia medica; Dr. Thomas Oliver, of Newcastle, as an examiner of physiology; and Professor Odling, M.D., as an examiner in chemistry. We congratulate the College even more than our provincial colleagues on this just and judicious step. It will indicate, we trust, in more than one way the beginning of a liberal course which will tend from year to year to grow broader and stronger in its flow. We are persuaded that the relative exclusiveness, for which there has been in the past ground for complaint, does not, and probably never did, spring from any contempt of the qualifications possessed by the leading members of the medical profession of the provinces. There has, however, been for a long time an inadequate reflection and expression of opinion on this matter, and of other cognate subjects in the councils of the College.

The leaven of modern thought works somewhat slowly in such a toughly conservative body as is the governing power of the London College of Physicians, as of many other corporate and learned bodies. Nor can anyone expect other than circumspect progress and thoughtful reform. Changes once made are difficult to unmake, and such institutions can hardly be blamed if in all matters relating to the constitution and government of these venerable institutions they make haste slowly. In time the Fellows will no doubt come to see that they ought not alone to constitute the College, but are only a small part of it; that they furnish only an infinitesmal part of the funds of the College, and that it is a discreditable anomaly and an anachronism in these days that a College which depends mainly on its Licentiates, and which derives from them a great mass of its income, and its only claim to be considered as a thoroughly representative body entitled to take a leading part in the government of the profession should exclude, in virtue of an ancient and narrow charter, the major part of the physicians of England—its Licentiates—from representation upon its governing body. Nothing but the blindest conservatism and the most antique clinging to privileges of the past, obtained under conditions and at a time when the Members or Fellows were really the College and there was no one else connected with it, can explain the present position of affairs. It does not excuse it or justify it, or even palliate it—it only indicates the historic origin of what is a great modern anachronism; but just as the College has slowly recognised the desirability of largely recruiting the number of its Fellows from the provincial physicians, and intends to include competent provincial physicians among its examiners, so it will, we have the firmest conviction, arrive in time spontaneously, of its own will and from a sense of justice, at the practical recognition of the claim of the Licentiates and Members generally to at least a moderate share in the constitution of the governing body.

THE ROYAL COLLEGE OF SURGEONS.

An ordinary Council was held at the College on Thursday, July 27th. Mr. Hulke occupied the chair. The minutes of the last quarterly meeting were read and confirmed.

The addresses of congratulation to Her Majesty and the Prince and Princess of Wales on the marriage of the Duke of York and the Princess Victoria Mary of Teck were read and approved.

The Secretary submitted the deed of agreement between the two Colleges and the Trustees for providing a sinking

fund against the determination of the lease of the Examination Hall; and it was resolved that the College seal be affixed thereto.

The recommendation of the Committee of Management that the County Hospital, York, be added to the list of general hospitals recognised by the two Colleges was approved and adopted.

It was announced that the annual meeting of Fellows and Members of the College would be held on Thursday, November 2nd next, at 3 o'clock P.M., and that the usual notices respecting it would be issued.

The following Committee was appointed to draw up the report to the Fellows and Members: Messrs. Bryant, Marsh, and Tweedy, with the President and Vice-President.

The Council nominated Mr. Thomas Bryant as a member of the new Council of University College, Bristol.

A report received from the Finance Committee was approved and adopted. From this report it appears that the income of the College during the past year has increased by £65. The receipts from the Membership and Fellowship examinations are £70 and £19 less respectively, but there is an increase of £63 on the Dental examinations. As regards the incidental receipts, there is an increase of £73, chiefly derived from the hire of the rooms at the Examination Hall. There is also an increase of £85 on the receipts from house property; but the income from invested funds is £197 less, owing to the loss of dividends from stock sold in the previous year. The total expenditure is £344 less than the expenditure in respect of revenue for the previous year, and on being deducted from the total income leaves a balance of £730. Last year was the first since 1884-85 in which the sale of stock had not been rendered necessary, and in the opinion of the Committee the College would be in a position to add £2,000 to its investments annually, so long as no urgent and exceptional demand for heavy expenditure should arise.

A letter was read from Mr. F. W. Rudler, stating that at the last meeting of the Museums Association a cordial vote of thanks was unanimously passed to the Presidents, Vice-presidents and Council of this College for inviting the members of the Association to the *conversazione* on the 5th instant.

Mr. Rivington moved that the appointment of members of the Court of Examiners revert entirely to the Council, and be no longer referred to the Nomination Committee for recommendation and report.

The motion was seconded by Mr. Macnamara, but was not carried.

A letter was read from Mr. H. P. Dunn, reporting the following resolution adopted by the Committee of the Association of Fellows:

"That the Council of the Royal College of Surgeons of England be asked to arrange that meetings of Fellows separately from Members be summoned regularly and be properly organised, after the model of the Convocation of the University of London."

The consideration of the matter was deferred to the next meeting of the Council.

ROYAL COLLEGE OF PHYSICIANS.

The ordinary quarterly Comitia of the College was held on Thursday, July 27th, 1893, Sir Andrew Clark, Bart., President, in the chair.

The President, in a brief but felicitous speech, presented to the Registrar, on behalf of the College, a set of silver candelabra, in recognition of his valuable services in the lawsuit between the College and the General Medical Council, and the Registrar thanked, in feeling terms, the Fellows for their gift.

On the motion of the Senior Censor, seconded by Sir W. Priestley, it was resolved to inform the Medical Board of Trinidad that the College, in consenting to examine Dr. Lola under the regulations drawn up in 1873, wished it to be understood that the examination could not be conducted on the same basis in future.

Sir Henry Pitman moved, and Dr. Dickinson seconded, that addresses should be presented to Her Majesty the Queen, the Prince and Princess of Wales, and the Duke and Duchess of York on the occasion of the late Royal marriage.

This was unanimously agreed to.

Dr. Norman Moore moved, and Dr. Pollock seconded, a resolution thanking the President for his gift of autotype copies of the portrait of Harvey and his kin preserved at Rolls Park, which was agreed to with acclamation.

The following gentlemen were admitted Members:—W. A. Bond, M.D.; T. W. C. Charles, M.D.; S. A. M. Copeman, M.D.; F. Edge, M.D.; A. M. Gossage, M.B.; J. E. Graham, M.D.; J. A. Hayward, M.D.; A. Mantle, M.D.; A. G. Phear, M.B.; C. H. Roberts, M.B.; G. H. D. Robinson, M.D.; J. H. Sequeira, M.D.; J. F. W. Tatham, M.D.; E. F. Trevelyan, M.D.

The Licence was granted to 141 gentlemen, of whom all but six presented themselves under the Regulations of the Conjoint Board.

Diplomas in Public Health were granted (conjointly with the Royal College of Surgeons) to the following: A. E. Atkinson, L.R.C.P. and M.R.C.S.; G. H. Charlesworth, L.R.C.P. and M.R.C.S.; W. T. M. Clark, L.R.C.P. and M.R.C.S.; R. Cresswell, L.S.A.; W. Habgood, L.R.C.P. and M.R.C.S.; A. Hardwick, M.R.C.S.; D. Havard, M.D.St.And., L.R.C.P., and M.R.C.S.; G. P. Johnson, M.B. and B.S.Glasg.; E. Jones, L.R.C.P. and M.R.C.S.; M. L. Jones, L.R.C.P. and M.R.C.S.; T. G. Lithgow, L.R.C.P.Lond. and F.R.C.S.Edin.; E. E. Norton, L.R.C.P. and M.R.C.S.; J. Priestley, M.B. and B.S. R.U.I.

A communication was received from University College, Bristol, inviting the College to send a delegate to be on the Council of that body.—Dr. Skerrit proposed that the request be acceded to.—This was seconded by Dr. George Harley, and agreed to; and, on the motion of Sir Dyce Duckworth, Sir Andrew Clark, Bart., was appointed to serve in that capacity.

Permission was given to Dr. Dickinson to have a copy made of the portrait of Harvey for presentation to Caius College, Cambridge.

A communication was received from the Rector of the University of Padua, enclosing photographs and a drawing of Harvey's monument there.

The Baly Medal was awarded to Professor Schiff.

The following College officers were appointed:—Censors: J. E. Pollock, M.D.; Sir G. Buchanan, M.D.; W. B. Cheadle, M.D.; S. J. Gee, M.D. Treasurer: Sir Dyce Duckworth, M.D. Emeritus Registrar: Sir H. Pitman, M.D. Registrar: E. Liveing, M.D. Harveian Librarian: W. Munk, M.D. Elected members of the Library Committee: J. F. Payne, M.D.; I. B. Yeo, M.D.; R. Farquharson, M.D.; Norman Moore, M.D. Curators of the Museum: W. Wegg, M.D.; W. H. Dickinson, M.D.; W. Cayley, M.D.; Norman Moore, M.D. Finance Committee:—G. F. Blandford, M.D.; W. Wadham, M.D.; and W. S. Church, M.D. Examiners:—Chemistry and Chemical Physics: W. Odling, M.B.; C. W. Heaton, F.C.S.; C. E. Groves, F.R.S.; S. Rideal, D.Sc.; W. R. Dunstan, F.C.S. Materia Medica and Pharmacy: T. Lauder Brunton, M.D.; D. J. Leech, M.D.; N. I. C. Tirard, M.D.; F. Willcocks, M.D.; F. G. Penrose, M.D. Elementary Biology: F. G. Parsons, L.R.C.P.; P. C. Mitchell, B.A. Elementary Physiology: H. Lewis Jones, M.D. Physiology: E. A. Schäfer, F.R.S.; T. Oliver, M.D.; F. W. Mott, M.D. Osteology and Anatomy: H. D. Rolleston, M.D.; C. Stonham, F.R.C.S. Medical Anatomy and Principles and Practice of Medicine: P. J. Hensley, M.D.; G. V. Poore, M.D.; J. Mitchell Bruce, M.D.; W. H. Allchin, M.D.; F. Taylor, M.D.; S. Mackenzie, M.D.; D. B. Lees, M.D.; S. J. Sharkey, M.D.; J. K. Fowler, M.D.; R. Saundby, M.D. Midwifery and Diseases peculiar to Women: J. Williams, M.D.; J. W. Black, M.D.; T. C. Hayes, M.D.; W. S. A. Griffith, M.D.; W. R. Dakin, M.D. Surgical Anatomy and Principles and Practice of Surgery: N. C. Macnamara, F.R.C.S.; J. N. C. Davies-Colley, F.R.C.S. Public Health: Part I.—A. P. Luff, M.D. Part II.—E. Seaton, M.D. Murchison Scholarship: C. T. Williams, M.D.; A. E. Garrod, M.D.

The Registrar moved certain alterations in the by-laws relating to the Membership examination. These were seconded by Dr. Dickinson and adopted.

The newly-elected officers gave their faith to the College.

The usual quarterly reports were received and adopted.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1893.

SUBSCRIPTIONS to the Association for 1893 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, JULY 29TH, 1893.

THE EXAMINATION OF CHOLERA DISCHARGES.

WITH cholera at our gates it behoves us to be prepared to recognise the disease in its very earliest stages. So far as our knowledge goes at present there is no method that is at once so rapid and so reliable as the determination of the presence of Koch's comma vibrio in the alvine discharges of the patient. In a short note[1] on a communication published by Koch in the *Zeitschrift f. Hygiene*, we indicated briefly the methods on which a skilled bacteriologist relies for his diagnosis, but now that a case has already appeared in this country, and as a medical officer of health may be called upon at any moment for a definite opinion, a further and more detailed account of the modern method by which the specific nature of choleraic discharges can be determined is certainly not out of place in our columns. These methods of diagnosis are (*a*) by the microscope, (*b*) by cultures, and (*c*) by chemical tests, or by combinations of two or more of these methods.

(*a*) By the microscope. A drop of the contents of the intestine in the preferably fresh condition is mixed with a drop of tap water and spread out on a microscope slide, with a platinum needle or a glass rod, a cover glass is placed in position and the specimen may be examined at once. In the words of the note to which reference has already been made: "In about half the cases examined, a rapid microscopic examination of the materials forwarded to him from various parts of Germany, enabled him to telegraph almost immediately that the patient from whom the dejecta had come was affected with cholera. In the mucous threads and flakes examined under the microscope the cholera bacilli are arranged in groups, in which the single bacilli run parallel to one another like a shoal of small fish following one another in a stream of water. This appearance Koch regards as so characteristic that where it is present he does not hesitate to form a diagnosis."

To prepare a stained specimen a trace of the intestinal discharge is in the same manner mixed with a drop of water and is then allowed to dry at the temperature of the room. The cover glass may then be passed two or three times rapidly over a spirit lamp or gas flame, after which it should be stained for a minute or two with a watery solution of fuchsine or Spiller's purple, and then carefully washed with clean water. It may be examined at once. The cholera vibrio in such preparations is usually seen in the form of slightly curved (sometimes straight) rods, with an average length of 1.5 μ ($= \frac{1}{15000}$th of an inch, or half the diameter of a red blood corpuscle), and a breadth of about 0.4 μ. The ends of the rod are usually somewhat rounded. From its curved shape the organism has been described as a comma bacillus. These curved bacilli appear to be formed by the segmentation of a spirillum, and the segments may consist of a single comma-shaped organism or of two curved in the same direction so as to form a more or less complete circle, or with the curve reversed so as to form an S-shaped organism. When stained with Spiller's purple the organism appears to be somewhat plumper than when stained in fuchsine. As soon as the material comes to hand a particle should be thoroughly mixed in a test tube with a solution of 1 per cent. peptone in a 1 per cent. solution of common kitchen salt. This may be sterilised by boiling for an hour in an ordinary saucepan, but, if it is to be used at once this is not necessary; the mixture is simply filtered before the suspected cholera material is added. A drop of the inoculated mixture is then placed on a square cover glass, which is inverted and supported at its four corners by small fragments of sealing wax, which are fixed to a microscope slide. Slips of moist blotting paper are laid around the cover in order that the air in the chamber may be kept charged with moisture, so that evaporation from the hanging drop is prevented as much as possible. This preparation is now placed in a warm damp place. At the end of five or six hours the preparation may be examined, and if there are any cholera vibrios present they multiply so much more rapidly in the above solution that characteristic spiral threads, single bacilli, etc., may be seen in enormous numbers, especially near the surface of the drop, that is, away from the cover glass, before other organisms have time to develop to any marked extent. Instead of the peptone salt solution, dilute bouillon may be used for these hanging-drop cultures, but in this case the process goes on somewhat more slowly, and threads are more frequently formed.

(*b*) By cultures. The above hanging drop culture should properly come under this heading. If time were a matter of no importance the gelatine-plate method would in most cases give sufficiently accurate results in twenty-four hours. Plate cultures are made in the ordinary fashion, and then at the time mentioned there appear small white points, many of which are at first deep down in the gelatine; after a time these bring about liquefaction of the surrounding gelatine, especially those in contact with the air, which exhibit a peculiar funnel-shaped depression with a clear glossy-looking margin, and in the centre (when seen under the microscope × 100) is a somewhat coarsely granular grey or greyish yellow mass; and as the liquefaction goes on there appears a peculiar pinkish tinge at the margin of the irregular granular colony. The surface of these colonies is sometimes said to resemble a layer of minute fragments of broken glass. At the same time that these plate cultures are made a flask containing dilute sterilised bouillon, one part bouillon to two or three parts of water, or the peptone salt solution above mentioned, should be inoculated with a small quantity of the cholera material. This may be at once placed in an incubator at a temperature of 38 to 39° C. At the end of eleven or twelve hours in the case of the broth culture, or of seven to eight hours in the peptone culture, the cholera organisms greatly outnumber most

[1] BRITISH MEDICAL JOURNAL, June 17th, 1893, p. 1277.

of the other putrefactive organisms, especially near the surface of the culture medium, where a somewhat wrinkled film, consisting almost entirely of cholera organisms, is formed. A little of this film may be inoculated into another flask containing broth or peptone, or plate cultures may be made. Microscopic preparations should also be made and examined. The cholera organism, which appears to have a very great affinity for oxygen, comes to the surface, there grows rapidly, and gets so great a start of the other organisms that, at this stage, we may have it in an almost pure culture.

At the same time that the inoculation is made into the peptone, the following method, which, in the hands of Freymuth and Lickfelt, has given rapid and very reliable results, may be used; they are able, by their method, to diagnose the presence of cholera bacilli within six hours. On a number of microscopic slides they spread a thin layer, whilst still warm, of the following nutrient medium: 900 c.c. of broth, 12 c.c. of glycerine, 12 c.c. of gelatine, and 30 c.c. of agar, which, on cooling, solidifies; over the solidified surface they paint with a camel hair brush this same warm fluid nutrient medium, to which a few drops of the cholera material have been added; the slides are then placed in Petri's dishes (flat glass dishes with covers), and are kept at a temperature of 38° or 39° C. for several hours. These slides can be examined under the microscope from time to time with comparatively high powers.

At the end of five hours and a-half with the Zeiss AA. or even D. objective, and ocular No. 2 or 4, there are seen well-marked colonies of various sizes and colours. (To the naked eye we have an appearance somewhat like a layer of dust on the nutrient medium.) Their apparent diameter varies between ½ and 2 mm., whilst they vary in colour from a clear steel blue to a dull brown. Most of them have the appearance of a distinct mosaic, in which are dark streaks and points; a few of the blue colonies are, however, almost homogeneous, whilst others appear as though they had been dusted with dust. The outline is usually slightly irregular, and somewhat finely indented. Under the microscope the organisms of which these colonies are composed have all the characteristic appearance of the cholera bacillus, as found in the intestinal contents. The great advantage of this method is that a diagnosis may be arrived at in a comparatively short space of time, and it is certainly an addition to the bouillon, salt solution, and ordinary plate-culture methods.

From the colonies, either on gelatine or on the agar slides, gelatine-tube cultures may be made which have the following characteristic appearances: There very quickly grows along the path of the inoculation needle a somewhat regular growth rather more marked near the surface. At the end of twenty-four hours liquefaction goes on in a funnel-shaped area near the surface, and a little clear air bubble (a very characteristic appearance) is seen; later the growth settles to the bottom of the funnel, and ultimately, on the third or fourth day, the funnel-shaped area has become very well marked, and contains a clear fluid gelatine, at the bottom of which is collected a white or greyish-white mass, whilst along the track of the needle, where a little tube of liquefied gelatine has formed, the growth as the funnel becomes deeper gradually settles down into a kind of a coil or spiral, like a coil of white string lying in clear water.

The true cholera bacillus may be distinguished from Deneke's cheese spirillum and the Finkler and Prior spirillum, both of which have been said to resemble this organism, by the fact that in the case of these latter organisms the liquefaction takes place much more rapidly, and the liquefied gelatine, in place of being clear, becomes more or less turbid, and in the case of the Finkler and Prior spirillum the peculiar coil is seldom present in the liquefied area.

Agar tube cultivations may be made either directly from the fæces, or, better still, from the films that are formed on bouillon, etc. A small portion of the wrinkled film is taken at the end of eight or twelve hours, as the case may be, or from the colonies developed on the slides, on a platinum needle flattened to form a kind of small spatula. This, once charged, is drawn several times over the surface of an oblique agar mass in a test tube, and then in a similar way, without being freshly charged, over the agar in a second tube; in this way we have formed eight or ten streaks, each succeeding one containing fewer and fewer of the seed organisms, so that when we come to the fifth or sixth streak only discrete colonies, from which cultures may be made or which may be examined under the microscope, are developed.

The flask cultivations in bouillon or peptone as recommended by Dunham are excellent for giving the cholera-red reaction—the one chemical reaction which is generally relied upon to determine the presence of the cholera organisms at an early stage. For this purpose the peptone solution appears to be superior to any other. At the end of about eight hours, if a small quantity of pure sulphuric acid be carefully added to a portion of the culture, there is developed, when the two fluids meet, a reddish violet colour, which is spoken of as the cholera-red or indol reaction. This is not an absolutely specific test, but, along with the microscopic examination and the culture tests, it is of very great value, as by it we are enabled to determine the presence of the cholera organism, even when intestinal organisms are present, none of the spirilla in the intestine giving the same reaction, the only one that is known to do this being the vibrio Metschnikovi, which has not yet been found under such circumstances. The bouillon must be allowed to incubate for twelve hours, when the same reaction may be obtained. It may also be obtained with a gelatine culture, in which there is a quantity of peptone.

Although most medical men in practice, with time, a little ingenuity, and a small amount of apparatus, might determine for themselves in a very short time whether or no they are dealing with cases of cholera in which Koch's "comma" bacillus is present, many will find it impossible to obtain sufficient leisure in which (especially at the time that the work must be done) to perform the experiments, whilst others again will be anxious to have their own results corroborated by men who are actively engaged in bacteriological investigations. Although we have not the permission of the directors of the various laboratories in which bacteriological work is being carried on to state that they will examine cholera materials, we may mention that there are in London a considerable number of laboratories to which specimens might be sent, namely, the College of State Medicine in Great Russell Street, the laboratories of the conjoint Royal Colleges of Physicians and Surgeons on the Victoria Embankment, the laboratories in University and King's Colleges; St. Bartholomew's, Guy's, and St. Thomas's Hospital, and probably in several of the other hospitals; also the

pathological laboratories in Cambridge, Manchester, Liverpool, Newcastle; the pathological and public health laboratories in the University of Edinburgh, the laboratory of the Royal College of Physicians Edinburgh; and the laboratories in the Universities of Glasgow and Aberdeen, and University College, Dundee.

Those who wish to send specimens for examination should in the first place send the material as fresh as possible in a well-stoppered bottle, the outside of which should be carefully washed with carbolic acid after the stopper has been put in position, and then dried, and the stopper luted in with paraffin, tied with string or wire, carefully sealed, and securely packed in a stout wooden box. As soon as it has been determined to send off a specimen, a telegram should at once be sent to the laboratory to which the specimen is being despatched, in order that preparations may be made for the immediate examination of the material.

THE DANGERS OF "HEALTH" RESORTS.

THE question which Sir Charles Cameron addressed to the President of the Local Government Board in the House of Commons last week is one which raises a matter of great public import, dealing as it did with the nature of the publicity given to the fact of the prevalence of enteric fever at seaside towns. With respect to the particular case of Worthing we have little to remark; the season for that charming little seaside resort has, we fear, been altogether ruined by the unfortunate recrudescence of fever still prevailing there, and to which attention has been now widely drawn. The answer given to Sir Charles Cameron revealed that the railway company running to Worthing had been apprised of the fact of the fever prevalence, and had been asked to discourage excursion parties from going to the town; but for the rest the public press was alluded to as the medium by which the general community had received information of what was proceeding. We much doubt, however, whether it was widely known prior to the question being put in the House, and the point arises whether there should not be some means available whereby the public shall have early cognisance of dangers threatening unsuspecting persons desirous of resorting to seaside places for purposes of health and recreation. The concealment by coast towns of conditions likely to work harm to visitors is yearly becoming a matter of more and more serious moment, and whilst any sanitary authority concerned has the welfare of its constituents to consider, it owes a duty to those whose annual visitation brings prosperity to the residents who lay themselves out to cater for their temporary benefactors. Most seasons in our English watering-places are short lived, and local tradesmen and lodging-house keepers are to be sympathised with in all legitimate efforts put forth to attract visitors to their particular district; but we draw the line at the negative aspect of the matter—that, namely, which is shown by studied silence in the face of infectious disease. Sir Charles Cameron's question implies the want, felt by a large section of the community, of some authoritative and reliable means of ensuring to intending visitors that the spot selected for their summer vacation is in a reasonably healthy condition, and free from infectious sickness.

How is this want to be met? Experience teaches that local sanitary bodies are not to be relied upon to supply it. Notwithstanding the wide adoption of the system of compulsory notification, there is no corresponding compulsory publication of returns, and whilst "health resorts" are at all times willing to justify their right to the title by publicly asserting the absence of disease, the contrary does not hold good. In these circumstances there seems ample scope for interposition—under statutory powers—by county councils, not alone for coast-bound counties, but for all alike. Only a fortnight ago the columns of this JOURNAL drew attention to the need for the issue by councils of weekly returns to local health officers, and since the action of the press in the case of Worthing is looked upon as having led intending families to suspend for a season the dangerous venture of some weeks proposed to be spent there, we would add to the suggestion the desirability of calling in the aid of the leading county journals for the purpose of publishing weekly summarised local returns of notified cases of infectious disease. If the returns could be demanded as matter of course from all districts alike, no hardship would accrue, and the appearance at weekly intervals of the mere figures would reassure the public, and, we think, lead to less risk of panic such as is too often caused when an unsuspected prevalence of dangerous sickness becomes known in the midst of its course. When two things, such as local and general welfare, are opposed one to the other, the smaller should perforce give way to the greater, and by whatever method arrived at, we think the time has come when considerations of public health, so intimately concerned with seaside and inland watering places, should suffice to set aside local prejudices to the distribution of the facts as to the presence of infectious sickness. Knowledge of the fact that the existence of preventable disease will become matter of public notoriety would also act as an incentive to the adoption of sanitary measures calculated to render a district proof against such disease, and would prove a boon and not a bane, alike to the locality and the country at large.

QUACK ADVERTISEMENTS IN RELIGIOUS PAPERS.

WE feel it necessary to continue to direct attention to the facts justifying our contention that while it is obviously the duty of every department of the newspaper press to exercise due care that its pages, whether pages of news or pages of advertisement, contain nothing which is not honest and of good report, this duty would appear to fall with special strictness on religious newspapers, which may be fairly called upon to set a high standard in respect of all advertisements admitted to their columns. These papers exist for the discussion of the highest problems of man's spiritual existence, to advocate an exalted standard of morality, and to point the way to that strait road which leads to higher things. Surely here, at least, we might hope to escape from the lying pretentions of the quack and the dealer in useless appliances.

We have had the curiosity to look through the advertisement columns of last week's issues of a number of weekly papers published in London, each ostensibly carried on to subserve the interests and meet the religious needs of one or more denominations. The hope that we might find in them a system of careful supervision in the matter of advertise

ments, such as might have been commended to the managers of the lay press as an ensample, has not been fulfilled. We find that religious newspapers of all denominations, from the *Jewish Chronicle* at the one extreme to *The Tablet* at the other, contain the advertisements, often very lengthy, of quack medicine-mongers. In some papers they occupy a large, or the larger, part of the space given to advertisements, and in others they take the specious form of quotations from other papers, or paragraphs so printed as to resemble articles of news. If we may judge from the character of the advertisements, the disorders from which persons who read religious papers chiefly suffer are fits and deep depression, though the cures of consumption also drive a good trade. It would not be difficult to write an amusing article on the strange pretensions and queer statements made by the advertisers, but the matter is past a joke when we find these papers admitting the advertisements of the plaintiff in the recent case of Alabone *v.* Morton, and of Harness's Medical Battery Company. The insertion of such advertisements is derogatory to the honour and interests of journalism, and appears specially disgraceful when the body of the paper is occupied by sermons, religious exhortations, and reports of religious meetings. As to the case of Alabone *v.* Morton, the remarks of the judge and his hesitation as to whether the plaintiff was entitled to a remedy will be remembered, and the Home Secretary recently stated in the House of Commons that he had given instructions that the case should be laid before the Public Prosecutor.

As to Harness he started an action against this JOURNAL on account of a paragraph in which we stated, with eulogistic comment, that the *Times* had refused a four-column advertisement from the Harness Electropathic Belt Establishment. Harness, in the action which he raised, stated that the object and intention of the paragraph was that the Medical Battery Company "carried on so dishonest and disreputable a trade and business, and were so notorious and of such ill-repute as a trading company, that it was discreditable and unworthy on the part of a newspaper proprietor of high position and standing to transact with the plaintiff company the ordinary business of newspaper proprietors with traders, in accepting and inserting at all, or even upon more favourable terms, the plaintiff's trade advertisements." The paragraph was justified by us when the action was brought, and finally Mr. Harness abandoned his action, which was dismissed with costs, since paid by him.

We would invite the attention of the editors and proprietors of religious journals to these facts, and would point out to them that it is their bounden duty to follow the honourable examplesetby the *Times* and the *Pall Mall Gazette*.

THE CONCEALMENT AND DIFFUSION OF CHOLERA.

Now that we are within a few days of August, and have experienced the advent to English ports, in three widely separated localities, of cholera-infected vessels, it behoves us to look at the facts as to the spread of cholera as they now present themselves. In addition to the arrival of the steamer *Myrtle Branch* in the river Tyne from Nantes with a man on board dead of cholera, and of the *Widdrington* in Penarth Roads from Marseilles *viâ* Malta, having had cholera deaths during the voyage, we have to chronicle the case of the steamer *Blue Jacket* at Cardiff with two men on board convalescing from the disease, and that of the *Altmore* at Gravesend, whereon was a fireman likewise convalescing, both these vessels reaching their destination on July 19th, and both also hailing from Marseilles. The patients were removed to the respective port hospitals at the Flat Holm and Gravesend; the vessels dealt with in accordance with the cholera orders; and all else on board being well, the crews were released. These instances, happily, complete our experience of cholera during the present season up to the time of writing this statement; and they direct special attention to the circumstance that the three latter vessels have one and all sailed from the same port, that of Marseilles. Yet we can glean no information concerning the prevalence of cholera in that town, except in this indirect and unpleasant manner. That the disease exists there admits of little question. Not only have we our own examples of seaborne cases, but elsewhere shipcarried cases have been reported. And in addition we have seen the alarm, especially, but not alone, in the Mediterranean, in regard to vessels from Marseilles, stations as distant as the West Indies refusing to admit arrivals thence. Even vessels indirectly coming from the port are placed in quarantine. And yet data as to the prevalence of cholera there are not forthcoming; but it is worthy of record that a German health publication makes mention of the fact that the daily average of 35 deaths was exceeded by 14 on July 4th, whilst on the next succeeding day the mortality was as high as 76, being thus more than twice the normal. The matter seems to be one calling for explanation, in view of the recent Dresden Convention. Indeed, we may ask, What of France generally? Notwithstanding that that country has, so to speak, been the breeding ground of this season's cholera in Europe, the items of news respecting the disease in any part of it are of the most fragmentary character. We do not find one mention of it last week. Is this because the country is free of the malady? We wish we could think so.

Elsewhere, we hear nothing further of Spain and its suspected cholera; Germany seems free, albeit suspicious cases were notified last week in Berlin; and but little spread is recorded in Hungary. However, cases do still occur at Szatmar, and a few fresh occurrences are wired from Dees, in Transylvania. In Russia, matters are more serious; Moscow has been reinfected, there having been 150 cases and 40 deaths up to the beginning of last week and during the three preceding weeks; the latest returns point to continued prevalence of cholera in Podolia (with its 300 cases and 90 deaths in the week), Orel, Bessarabia, Saratoff, and other provinces; whilst news comes of the disease as far north as St. Petersburg itself, 4 authenticated cases occurring on Wednesday of last week, and several others since that date. The Bessarabian spread has led Roumania to close almost the whole of her Russian frontier and to quarantine all arrivals for five days, this being her only land quarantine. With exception of it she has resolved to follow the Dresden recommendations and abandon land quarantines. Her acceptance of the Convention as a whole depends entirely on the attitude taken by Turkey, who has not yet signed it. Germany has forbidden the importation of Russian hay and straw, and altogether great uneasiness is felt at the movements of cholera on the borders of that empire.

Southward the news is not reassuring. Fatal cholera, to the extent of 13 deaths, is reported during the present week at Alessandria, in Piedmont, together with cases in other places in the province; further east deaths at Smyrna have led to an imposition of ten days' quarantine by Greece on vessels from that port; whilst a suspicious case at Nauplia has been followed by an order of three days' quarantine on arrivals in Grecian harbours. Turning again to Italy, we find various Mediterranean stations have quite recently instituted a rigorous quarantine against the city of Naples, because of the occurrence of several fatal cases of cholera there.

Thus we have news of cholera in the basin of the Mediterranean at an increasing number of points, from the extreme east to France. We have evidence of much cholera at Marseilles, but no details; there is news of spread of the disease in European Russia at several centres; and Hungary and Italy are both declared to be invaded. Hence, whilst, so far as our knowledge goes, there is no widespread invasion of any country, there are unpleasant indications of small scattered groupings of cholera such as may at any time lead to general epidemicity of the disease.

Two medical men, no doubt sent by the Home Office, have gone to Lincoln to examine the prisoner under sentence for murder—Christopher Barker. One of them is Dr. Nicolson from Broadmoor.

A general meeting of the Irish Medical Schools' and Graduates' Association will be held at Newcastle on Wednesday, August 2nd, at 2 p.m., in the Students' Common Room of the College of Science.

We are asked to state that the National Temperance League will give a temperance breakfast to the members of the British Medical Association attending the annual meeting at Newcastle on Thursday morning, August 3rd.

The Royal Commission on Vaccination held a meeting on July 26th, Sir James Paget presiding in the absence of the Lord Chancellor. Dr. B. A. Whitelegge, of Wakefield, gave evidence. The Commission afterwards adjourned for two months.

By the death of Dr. Dill the chair of Midwifery and Diseases of Women and Children in Queen's College, Belfast, has become vacant. Dr. Byers has come forward as a candidate, and a memorial in his favour has already been signed by 184 medical practitioners in Belfast and the North of Ireland.

Dr. W. J. Collins, Chairman of the subcommittee of the London County Council which has been considering the question of the appointment of a pathologist to the county asylums, writes to contradict the statement that the office will probably be offered to the candidate mentioned in a paragraph published last week.

EPIDEMIC HOSPITAL IN DUBLIN.

The Governors of the Richmond, Whitworth, and Hardwicke Hospitals have just completed a new auxiliary hospital for the reception of cholera or small-pox patients. They have thus provided for about forty patients, in addition to the existing accommodation in the Hardwicke Hospital, for infectious diseases. The hospital is fitted in the most approved way. Means are also provided for the destruction or disinfection of infected clothing. At Cork Street Fever Hospital 100 additional beds have been provided; at the Meath 10; and other hospitals are also prepared for any invasion.

SUBSTITUTES FOR DISPENSARY DOCTORS.

The Local Government Board of Ireland have refused to sanction an arrangement in the Dundalk Union by which Dr. Sellars was appointed to do duty for Dr. Callan. Dr. Sellars lived in the next district, but the Board require that the substitute shall reside in the district, and shall devote his whole time to the duties of the district.

THE BICYCLE RECORD.

It is interesting to observe how, in almost every department of athletics, the tendency is to beat the record. In regard to cycles this may be partly due to the growing perfection of the machines in use, but that will not explain it all, and those who maintain that civilisation and physical degeneracy are constantly associated will find Shorland's performance at Herne Hill last Saturday a difficult nut to crack. We should be the last to recommend or sanction in any way such a tremendous strain on the whole organism as is involved in such trials of endurance; but, look at it as one will, a man who can provide the force to transport himself 426 miles in twenty-four hours is a fine animal, a very perfect machine for the conversion of energy from the potential into the kinetic.

ST. BARTHOLOMEW'S HOSPITAL.

Several changes have recently taken place in the teaching staff of St. Bartholomew's Medical School. Dr. Norman Moore has succeeded Dr. Gee as Joint Lecturer on Medicine with Sir Dyce Duckworth. The lectures on Pathology, hitherto given by Dr. Norman Moore, have been entrusted to Dr. Kanthack. Dr. Herringham has become Medical Registrar, and Dr. Howard Tooth has succeeded Dr. Ormerod as Demonstrator of Morbid Anatomy. In the more scientific subjects changes have also occurred. Mr. F. D. Chattaway, B.A. Oxon., D.Sc.Lond., Ph.D.Munich, has been elected to the Demonstratorship of Chemistry; and Mr. Alfred Howard has been appointed to the Assistant Demonstratorship. Mr. J. S. Edkins, M.A., M.B.Cantab., at present George Henry Lewis student, and late Senior Demonstrator of Physiology at Owens College, Manchester, has been elected Demonstrator of Physiology.

THE COST OF DIRTY WATER.

The Worthing calamity illustrates very well, and in a way which may appeal to the powerful commercial instinct as well as to humanitarian sympathies, the cost of dirty water. That part of Worthing—West Worthing—which has a distinct water system, has escaped wholly from the visitation. The part of the town in which inadequately safeguarded water is supplied has lost 93 persons by death from typhoid, while 920 have suffered severe illness from the same cause. No doubt the water has been "good enough," but the excretal contamination became specifically poisoned with the typhoid poison. The like immunity lulls many another community into inaction in the matter. It should always be remembered that Mr. Ernest Hart's maxim that "The prevalence of typhoid is an index of the liability of any community to cholera," is now accepted by all hygienists. Worthing has suffered temporary commercial ruin for the penalty of her neglect. She is now constructing in a great panic fresh works in a safe position. She does well tardily; let other towns and villages take warning.

WEST END BAKEHOUSES.

In a recent report which Mr. Wynter Blyth has presented to the St. Marylebone Vestry, he states that he instructed two of the inspectors to visit every bakehouse in the district

between midnight and 6 A.M., and proceeds to give the results of the investigation. In St. Marylebone there are 108 bakehouses, all save six being below the level of the street. The inspectors were particularly requested to take observations of the temperature. The highest temperature found in any bakehouse during the actual baking was 92° F., the lowest 62°, and the greatest difference between the bakehouse and the street 19°. Nine bakehouses had a temperature of from 80° to 85°, the remainder for the most part between 70° and 80°. In one of the 108 bakehouses the conditions were disgraceful, the walls of the "prover" where the dough is put to rise, and, indeed, the walls generally were clothed with cockroaches, a watercloset communicated almost directly with the bakehouse, the drains were of brick, and defective, the flour was stored in a damp musty vault, and the place was filthy. We are pleased to see that legal proceedings have been taken in this case, and that the magistrate has inflicted a penalty; for the time the bakehouse has been closed. We have nothing but commendation to offer to the Vestry of St. Marylebone with regard to the initiation of this night inspection; if inspection of offensive trades is to be of the greatest utility it should be made during the time the business is carried on, the visit should never be expected, and, if possible, entrance should be effected immediately. As an illustration of the importance of immediate admission it is reported that Dr. Sanders, the newly appointed medical officer of health for West Ham, paid a visit to a fat-boiling establishment the other day, was detained at the entrance some minutes, and then, on being conducted over the building, found everything in perfect order; on a subsequent occasion Dr. Sanders had the opportunity of inspecting the same premises unexpectedly, slipping in by a side door, and found good evidence of nuisance and neglect.

THE DIFFICULTIES OF PHILANTHROPY: WHOLESALE MALINGERING.

The Government of India finds its efforts as a civilising agency hindered by the curious willingness of the natives to accept—nay, even to produce—illness, so long as it is a passport to idleness. The Sansia settlement in the North-West Provinces comprises some 600 men, women, and children who were not long ago degraded and filthy savages. Cleanliness has been among the first lessons taught them, and we are told that they now bathe regularly, wash their clothes, and take a pride in looking smart. Love of work, however, is a more difficult lesson to learn, and the hospital, with free rations, is a stumbling block. The people have discovered that a judicious use of copper (sulphate?) and ammonia will not only produce sore eyes, but will also find them a place on the sick list, the result of which has been that during last year there were 589 admissions to hospital from this cause alone.

LEAD POISONING FROM DRINKING WATER.

While public attention is being so repeatedly drawn to the occurrence of lead poisoning in certain trades, we must not lose sight of its existence as a frequent concomitant of the use of soft water, as in many of our northern towns. Dr. McGill, in his report to the local board of Wardle, recently drew attention to two cases of this nature, and reminded those who used the Rochdale Corporation water to exercise great care, as, owing to the increased temperature of the water, it had of late acted more forcibly on the lead service pipes. Lead poisoning had in former years been most prevalent between June and October. It is probable indeed that, besides the higher temperature, other factors are involved in causing the greater energy of moorland water as a lead solvent during the summer months, the much greater activity of vegetable life during that time being liable to lead to an increase of those, possibly acid, products which, as shown by Dr. Sinclair White in the British Medical Journal in August, 1889, and by our Special Commissioner, Dr. S. Monckton Copeman, in the Journals of April 26th to May 17th, 1890, give to the water flowing from certain soils its power of dissolving lead from the pipes through which it passes. The small residual trace of lead which seems to be pretty constantly present in the pipe water of some towns, although it causes no obvious disease in the majority, is undoubtedly an injurious influence to gouty people and other peculiarly susceptible persons, acting as it does continuously, month after month, and year after year. It is therefore worth bearing in mind, by those who can afford it, that this is removable by the use of charcoal filters, provided that the charcoal be often enough renewed. For this purpose naturally those filters are the best in which a considerable bulk of powdered or granulated charcoal is made use of, and in which the whole of it can be easily removed and renewed at frequent intervals.

THE COMPULSORY SECLUSION OF INEBRIATES.

Two inimitable object lessons, illustrative of the crying need for the involuntary internment of inebriates, are presented in the report in the daily journals of two recent police cases in the metropolis. The notorious Jane Cakebread, the veteran heroine of some 252 police-court appearances for inebriate exploits in defiance of the law, after a month's enforced abstinence in prison, was liberated on Friday week. On the afternoon of the same day she was guilty of a fresh inebriate breach of the peace, so was treated to another month's incarceration. The other case was that of a drunken mother, who was charged with having, while drunk, taken her four-year-old scarlet-fever-stricken infant through the pouring rain to a public house, to the peril of the company at the bar. When will the Government of the day, by imperative legislation, protect the community and the wretched victims themselves from the domination of a disease which so effaces womanhood in the person of these involuntary and miserable offenders against the law?

FOUL LONDON CANALS.

For many years past complaint has been made of the insanitary condition of the Regent's and Grand Junction Canals. The London Council have recently had the matter in hand with a view to improving their condition. The sources of pollution are trade, sewage, and solid pollutions, of which the latter seem to be the most important. To overcome these evils it is intended to frame by-laws necessitating the frequent scavenging of the surface and dredging of the bottom of the canals, the frequent change of water in the canals, and particularly of that portion leading to Cumberland basin, and the exclusion of all sources of pollution from the canals in their course through London, and particularly the prevention of fouling by barges and by surface washings when offensive matter is deposited on the wharves or near the banks. The enforcement of the new by-laws, which came into operation this month under the Public Health (London) Act, 1891, should help in remedying some of the evils complained of; at all events, that relating to the carriage of offensive matter. The Zoological Gardens are answerable for some of the pollution, and it is under consideration whether there should not be a public sewer constructed available for the drainage of the gardens.

"VACCINATION: A SUGGESTION."

Under the above title Dr. Bond has reprinted in the form of a leaflet some remarks from his introductory report for 1892 as health officer of the Gloucestershire Combined Sanitary District, in which he asks why the notice of requirement of vaccination should not embody "a succinct statement of the reasons for having the child vaccinated," as a means of combating the mischief accruing from the literary activity of antivaccinators. The suggestion is certainly not without value, but would its adoption achieve the desired end? We much doubt it. Is it even practicable of adoption at present? More to the point, we venture to think, would be

action of the sort by local or county health officers, men known in the district as holding responsible public posts, and who are capable of digesting into popular shape the data available from Blue Books and various other sources —often local—showing in unmistakable language the value of vaccination and the folly of neglecting it. Doubtless the saddling of a function so nearly affecting the public health as the administration of the vaccination laws upon the guardians of the poor has led sanitary authorities to let the matter slide a great deal. We cannot think that the natural guardians of the public health will continue to occupy their present anomalous position in regard to vaccination when the recommendations of the Royal Commission come to be acted on; and we feel convinced that when sanitary bodies, local and county, come to be invested with the enforcement of the law on the subject, the present practically unchecked literature of the antivaccinator—be it leaflet, flaming poster, or what not—will be met with widely distributed trenchant counter-statements bearing the impress of authority.

REFUSE IN LONDON SEWERS.

COMPLAINTS are often received from occupiers of adjoining houses of factories and other places respecting the discharge into the London Council's sewers of objectionable refuse. In some cases, too, flushers in the employ of the Council are overcome by the offensive smells proceeding therefrom. The Council has no power to prevent the discharge of offensive and hot liquids into the sewers unless such discharge injures the sewer. This state of affairs, however, ought to be remedied, and the provisions of Sections 16 and 17 of the Public Health Act of 1890 made applicable to London. These sections provide against the passing into the sewers of any matter or substance by which the free flow of the sewage, or surface or storm water, may be interfered with, or by which any such sewer may be injured, and also against the turning into a sewer of any chemical refuse, waste steam, condensing water, heated water, or other liquid which, either alone or in combination with the sewage, causes a nuisance, or is dangerous or injurious to health. When the Public Health (London) Act, 1891, was being dealt with, the Government was urged to attend to this matter, but without success. Further efforts will be made next session, as it is a matter of considerable importance.

THE GREAT PUBLIC SCHOOLS.

Two recent commemorative events, namely, the jubilee celebration of the foundation of Marlborough College, and the quincentenary of the opening of Winchester College, have again directed attention to our great public schools, and the system of education of which they are at once the bulwarks and the glory. It may be allowed that the education therein imparted—in so far as it implies the acquisition of knowledge—might be improved upon at any rate in two directions. A larger acquaintance with modern languages and with science in its various branches should perhaps be insisted upon. But when education is regarded as something more than the mere cramming of the mind, as in fact a means to the formation of character, it is certain that the public schools evolve a high type of English life. By manly sports and pastimes of all kinds, by training in cadet corps, of which every public school apparently possesses a company, by good plain food, regular hours, daily baths, thorough ventilation of school rooms and dormitories, and by immediate isolation in cases of infectious diseases, the bodily health is sufficiently provided for. These means are assisted by the thorough occupation in duties and pastimes in the hours not devoted to school tasks proper; these various causes, it may be expected, have been tending for years past to raise the moral standard of public school men. If these things be so, we owe a deep debt of gratitude to that great and fearless originator of our public school system. William of Wykeham. For not only have vast numbers of other schools during the last 500 years been founded on the lines which he started at Winchester; but, private schools, even more numerous still, are pushing on in the same direction. Attempts in various directions to extend the public school system to the education of girls will doubtless in time be fully successful; when this happy result shall be attained it will indeed be allowed to say of the labours of Winton's great founder "*opus feliciter consummatum.*"

AMERICAN DENTAL DEGREES.

THE journal of the British Dental Association, referring to the recent action of the General Medical Council with regard to the American universities, says, "The General Medical Council have, as the outcome of much patient inquiry, conducted with the assistance of expert opinion, concluded that the privilege of registration, hitherto conceded to the graduates in dental surgery of Harvard and Michigan Universities, must be at least suspended, and probably withdrawn altogether." These two universities were recognised at the passing of the Dentists Act because they were the best of the American colleges, and it was felt that their curricula would improve as time went on, and that they might ultimately reach the high level required by the Colleges of Surgeons in this country. This has not been the case, and the General Medical Council has justly decided not to allow foreigners to obtain the privileges of registration upon easier terms than British subjects. Before taking this action the Education Committee of the Council was deputed to investigate the question most carefully, and it reported that the requirements of those colleges do not meet those exacted from our own students either in the preliminary or subsequent examination, or in the length of period of study enforced. It may be said that the course of education for a dental surgeon in this country is in all respects superior to that of the American colleges. It is to be hoped, therefore, that the action of the General Medical Council may stimulate our Transatlantic friends to raise the standard of dental education in America.

SALISBURY THE UNREADY.

AN ostler at one of the publichouses in Salisbury applied one day last week at the Salisbury Infirmary for an illness which was at once diagnosed to be small-pox. He was isolated, and the inspector of nuisances called upon to remove him at once. This placed the urban sanitary authority in an awkward position. They had purchased a site for an infectious hospital at Three Mile Hill, but having done so much, had taken time for consideration, and though there was a site, there was not even a hut into which the small-pox patient could be removed. The Alderbury guardians were asked to admit him to the workhouse, but refused on the grounds that the case had occurred outside their jurisdiction, that they had no accommodation for the reception of such cases, and that the Local Government Board had ordered that no small-pox cases should be admitted into the infectious hospital at the workhouse. Late in the evening the extraordinary decision was come to to send the patient in a bath-chair to the workhouse, in spite of the refusal of the officials to receive him. The situation thus produced was a ludicrous exhibition of municipal ineptitude. At 10 o'clock at night, to quote the words of the *Wiltshire County Mirror*, we have the staid officials of the city of Salisbury "in a lone road looking longingly through the bars of the workhouse fence, with a small-pox patient whose presence they were anxious to divest themselves of, but who seemed doomed to remain in their custody. There was no help for it then but to take the man back to his lodgings." Meanwhile the sanitary authority had telegraphed to the Local Government Board for the loan of a tent to put up on the site on which the hospital had not been built. The Board replied that it had no tents to lend. Thereupon the Mayor, with an energy which would have been more commendable had it been dis-

played six months ago, set out for Portsmouth to try and borrow a tent from the military authorities. Failing this he was at length successful in borrowing the Portsmouth Hospital tent, and obtained the promise of Army Hospital tents should the epidemic extend. By the time the tent reached Salisbury the patient was too ill to be moved from his lodgings. It is to be hoped that this story will be a lesson to other sanitary authorities who are waiting to shut the stable door until the horse has been stolen. The Salisbury authority have not only failed in their duty to be ready for an emergency which they had had ample warning might arise any day, but—and this is still more disagreeable to many people—they have made themselves supremely ridiculous. It might be as well, perhaps, for the burgesses to elect to the City Council a member of the medical profession, who would be able to influence them to avoid similar follies in the future.

BACTERIOSCOPY IN CLINICAL MEDICINE.

Full advantage has not yet been taken, either in this country or elsewhere, of the assistance which bacteriology is capable of rendering in the early diagnosis of certain infectious diseases. As is well known, the method has in recent years been used with success in cholera, and so rapidly can the necessary manipulations now be accomlished, that Freymuth and Lickfelt not long ago arrived at a bacteriological diagnosis six hours after the symptoms first led them to suspect that the patient was suffering from cholera. We publish in another column a leading article on the bacterioscopic recognition of cholera, which fully explains the method. A further interesting extension of the bacteriological method has been made by the Board of Health of the city of New York, which has announced its readiness to make a bacteriological examination in all doubtful cases of throat disorder in which diphtheria is suspected. Culture tubes will be kept at certain specified places in the city, where they can be obtained by practitioners, who may either themselves inoculate them, or may obtain the assistance of an officer of the Board. The tubes will be collected daily, and a report issued in twenty-four hours. The *Medical News* truly observes that this is a wise and progressive departure, and one which might well be imitated in this country.

THE TYPHOID EPIDEMIC AT WORTHING.

The epidemic of typhoid fever at Worthing, which has attained very serious proportions, appears now to show a tendency to decline. The population of Worthing is estimated at 17,000, and, according to statistics prepared by Dr. Kelly, the medical officer of health, the number of cases notified during May and June was 303; in the first week of July the number notified was 184, and in the following week the enormous total of 253 was reached; in the third week of July the notifications fell to 157, while in the first four days of the current week only 29 cases were notified. Dr. Kelly has stated most strongly that this satisfactory decline is most probably due, not to the disappearance of the original cause of the epidemic, but to the effectual nature of the temporary precautions taken. First among these is the abandonment of the water supply—water for domestic purposes being now obtained from the waterworks of West Worthing, where, it is stated, no typhoid fever has occurred. All sorts of wild theories have been started to account for the epidemic, but the responsible authorities are satisfied that the public water supply has become polluted. Investigation has shown that defective drainage has brought about the contamination of the water supply at the waterworks. A new spring tapped about two months ago rises to within a few feet of the surface, and has become contaminated by a drain running through the waterworks yard. Application was made some time ago to the Local Government Board for power to borrow some £27,000 for an improved water supply, and it is understood that the necessary official inquiry will be held at once, and that no delay will occur in obtaining the authorisation. It is proposed to obtain a new source of supply at the foot of the South Downs, but it is to be hoped that some better evidence will be brought forward as to the adequacy and purity of this proposed source than the opinion of a "Water Diviner," who, it appears, has been invited to divine water with a forked twig. It is an extraordinary thing that at this day, and in face of the terrible lesson which the town is now receiving as to the folly of setting at naught scientific experience, reliance should be placed on this curious survival of a mediæval superstition.

ILLEGAL SALE OF POISON.

Coroners have frequently rendered valuable service towards promoting more efficient administration of the law relating to the sale of poisons, and the Coroner for the Central Division of London has taken such a prominent part in directing attention to this subject by the paper he read at the International Congress of Hygiene, that we are surprised to find a strongly erroneous opinion attributed to him by the *Morning Leader* of July 20th. In referring to an inquest held at Paddington upon a cabdriver who had been poisoned by oxalic acid sold without a label at an oilshop, and taken by mistake for Epsom salts, Dr. Danford Thomas is reported to have stated that oilshop keepers are "not bound by law to label their poisonous wares," thereby conveying the idea that the sale of poisons at oilshops is allowed by the Pharmacy Act. The writer in the *Morning Leader*, misled by this remark, comments on the supposed anomalous inefficiency of the law which it suggests. There is, however, no real ground for the disparaging view of the Pharmacy Act thus put forward; but the circumstances to which Dr. Danford Thomas might usefully have directed attention is the breach of the law which had been committed not only by the sale of poison without a label, but by its sale at an oilshop under any conditions.

THE SOCIETY OF PUBLIC ANALYSTS.

The annual meeting of this Society has just taken place in Dublin, under the presidency of Sir Charles Cameron, who is public analyst to the City of Dublin. The most interesting feature of the proceedings was a paper read by Sir Charles Cameron giving statistics of the administration of the Food and Drugs Act in various parts of the United Kingdom. The general conclusion to be drawn from the facts, which had been collected through the assistance of the town clerks of towns referred to, is that the administration of the Food and Drugs Act is still remarkably inadequate if the practice of adulteration prevails to anything like the extent that some believe to be the case. The explanation of this failure is to be sought mainly in the want of suitable organisation for directing the administration of the Act. Local authorities are frequently unwilling even to appoint an analyst, and still more disinclined to take in hand the inquiry as to the prevalence of adulteration which might well be held to constitute part of their duties. The consequence is that where analysts are appointed they are the ruling spirit in any action that is taken, and are thus led to take a position as instigators of prosecutions which does not in any way belong to them. Evidence of this false position of the public analyst is incidentally given by Sir Charles Cameron in his paper as well as by some of those who took part in its discussion. It appears to have been at his suggestion that the Corporation of Dublin ceased to be absolutely inactive in regard to the subject of adulteration, and commenced to institute prosecutions under the Act. Even after the appointment of Sir Charles Cameron as public analyst it was he who took the initiative in suggesting to the inspectors the purchase of articles of food that should be sent to him for analysis. In fact, Sir Charles Cameron appears to have performed the functions that would have made him a very efficient chairman of a health committee of the Corporation; and in referring to the services he thus rendered in checking adulteration, Mr.

Hehner naively attributed the good result to the circumstance that the districts for which Sir Charles is public analyst are "all under his control." There may, indeed, have been more of truth than jest in the remark of the Lord Mayor that ever since the analyst to the Corporation of Dublin had been appointed, he had been "a veritable old man of the sea" on the back of that body. That, however, is not the position that becomes the holder of the office of public analyst. It is no part of his duty to instigate prosecutions or to stimulate local authorities to performance of the duties they owe to the communities they represent. As an important and possibly useful public official, the public analyst is as much the servant of the trading portion of the community as of their customers; and in the performance of his duties strict impartiality should be observed. Unfortunately, however, in the absence of any sufficiently authorised central or local authorities for dealing with the subject of adulteration and directing the work of public analysts, some of these officials assume an autocratic part, and take upon themselves the decision of questions that do not come within their province. In view of the importance of the Food and Drugs Act for the general public, it is to be regretted that it has been regarded with so little interest. That defect, however, cannot be remedied by the public analyst going outside his office, and by so doing he is apt to render himself ridiculous.

EPIDEMIC DIARRHŒA.

DIARRHŒA, especially among children, is at this period of the year a cause that figures largely in the death-rates of many of our large towns. This is particularly true of Lancashire and Yorkshire manufacturing towns. We are led to make these remarks in consequence of its sudden appearance in the mortality returns of the city of Sheffield. The weekly returns published by Dr. Harvey Littlejohn, the medical officer of health, show in an interesting way not only the sudden rise in the mortality from diarrhœa, but also the large number of deaths of children under one year:

	Diarrhœa.	Children under One Year.	General Death-rate.
Week ending June 10th	3	34	16.7
,, ,, June 17th	7	37	18.8
,, ,, June 24th	23	54	22.7
,, ,, July 1st	31	59	21.8
,, ,, July 8th	44	70	26.1
,, ,, July 15th	66	95	30.1
,, ,, July 22nd	71	96	28.8

From this it will be at once seen how largely the general death-rate has been influenced. Such a state of things recurs yearly. The present outbreak is earlier than usual, owing no doubt to climatic conditions, the summer being particularly early and the drought excessive. For some reason not easy to explain the affection appears to be a very fatal one in Sheffield. We understand that during the last ten years from 3,000 to 4,000 deaths of children have resulted from this cause alone. Sheffield still enjoys the unenviable distinction of being a privy midden town. Although it may not be correct to associate the conditions spoken of wholly with such a system of refuse disposal, yet we cannot avoid the conclusion that the presence of large privy middens and the accumulation of refuse of all sorts in close proximity to dwellings, more especially in thickly populated areas, must be a very important factor. At the same time it cannot be denied that other influences must be at work, since in other towns with different systems of refuse disposal diarrhœa is prevalent. In Manchester there has been a serious prevalence of diarrhœal disease. In the four weeks ending July 22nd there were 305 deaths from autumnal diarrhœa, 17 from English or simple cholera, and 65 due to diarrhœa as a secondary cause, the primary cause assigned being gastro-enteritis or some similar condition; altogether 103 cases from diarrhœal diseases. We are glad to learn on good authority that no case of Asiatic cholera has occurred in Manchester. Were the disease once to make its appearance in that city, the returns above quoted appear to indicate that it would be liable to spread. Altogether, the subject of the appearance of summer diarrhœa, attended as it is with such mortality, is a matter that might well form the subject of an organised inquiry in continuation of Dr. Ballard's valuable researches.

THE LEPER QUESTION IN THE COLONIES.

IN a letter printed in another part of the BRITISH MEDICAL JOURNAL, Mr. John D. Hillis, formerly superintendent of the Leper Asylum in British Guiana, and author of a well-known work on leprosy, calls attention to some recent remarks of the Surgeon General for that colony, who refers to the lately issued Indian Leprosy Report, apparently in order to disparage the segregation of lepers, which many of the colonists demand, and to support the view that ordinary persons incur no danger in mixing with lepers. As we have before this predicted, that report will naturally be frequently appealed to by our colonial authorities, but these authorities must remember, in the first place, that the report was written particularly for India. It may also be pointed out to those who hold that leprosy cannot be communicated from person to person, that the most the Commissioners can say is, in their own words, that "clinical evidence, for India at any rate, is strongly against a measurable contagiousness of leprosy." In their Practical Suggestions, however, at the end of the Report, although they maintain that "For India complete compulsory segregation may be considered to be absolutely impracticable," they "recommend the adoption of a voluntary isolation as extensive as local circumstances allow," and they also advise that lepers should be prohibited from engaging in any trade or occupation connected with the food, drink, or clothing of the people, and that, like all vagrants with loathsome diseases, they should not be allowed to congregate in towns, frequent public places, or use public conveyances. Colonial administrators must not suppose that the *Report of the Leprosy Commission in India* has as yet quite settled the segregation question.

THE CHOLERA AT MECCA AND OTTOMAN ADMINISTRATION.

THE Egyptian delegate at Mecca has sent in a report containing the most uncompromising condemnation of the Ottoman method of administration in Arabia, but for reasons best known to themselves the Egyptian Government, to whom it was addressed, have interdicted the publication. According to this report the figures representing cholera mortality issued by the Meccan authorities are absolutely false; in order to approach the reality they should at the very least be doubled. All the public places are covered with putrefying corpses, which the local undertakers find it impossible to dispose of. Around the very sanctuaries heaps of bodies may be seen exposed to public view and becoming rapidly decomposed from the excessive heat. The surrounding country for an immense distance is likewise strewn with putrefying human remains. "In one word," says the delegate, "the holy places of Islam afford the horrible spectacle of a field of battle before the removal of the dead; and the authorities are doubtless waiting with folded arms for the advent of birds of prey in sufficient numbers to devour the mortal relics of the unfortunate pilgrims." The Egyptian paper *Le Progrès*, commenting on this report, expresses itself as follows: "In our opinion the Government has committed an unpardonable fault in forbidding the publication of this document for fear of hurting the feelings of the Porte. It is, on the contrary, necessary that Europe—that the whole civilised world—should be aware of the terrible danger menacing it from the direction of that permanent focus of in-

fection which is called Mecca. It is necessary that European Governments should be informed regarding the situation as soon as possible in order that they may move the Porte to take the required steps to rouse the Ottoman authorities in Arabia from their state of torpor and show themselves more solicitous for the public health. Should the Egyptian Government persist in keeping concealed the information which ought to have been at once placed at the disposal of the accredited representatives of the Powers they will assume a responsibility all the more grave inasmuch as the capital question of the world's health would thereby be subordinated to political considerations which have not even the merit of being concerned with the real interests of Egypt. We therefore hope that the report of the Egyptian delegate to Mecca will see the light without further delay in order that the responsibility of the Egyptian statesmen may thereby be covered. There is no worse policy for Egypt than that which tends to solidarise this country with old incorrigible Turkey."

FOOD POISONS.

The question of food poisoning is ever before us. At the commencement of the hot weather, cases of poisoning were so common that we could hardly doubt that the exceptional climatic conditions were in some way responsible for the presence of toxic substances in the food. Most cases were due to pork pies, and in several instances many persons were poisoned by particular articles of food derived from the same source, a most significant fact. We have by no means come to the end of our fatal list. A few weeks ago an extraordinary case of wholesale poisoning was recorded in these columns from Forest Hill School. Pending Dr. Stevenson's analyses, we shall not venture to make any definite statement as yet. This case is by no means clear, since it is difficult to find the *causa peccans* in any particular article of food mentioned at the inquest, or in the notes supplied by the medical officer, Mr. G. C. Bell. From a perusal of the notes, it seems that one of the two children who died had not partaken of the suspected soup, while of the children in the infirmary who had none suffered. And since some of the children did not suffer until four days after the commencement of the outbreak, it is more than possible that here we are dealing with some infective process caused by the ingestion of some article of diet not mentioned in Mr. Bell's notes. That this epidemic was due to an infection rather than an intoxication becomes still more probable when we remember that in most cases there was an appreciable incubation period. Thus we find that on June 23rd about 80 children were affected; on the next day 25 more cases, severer than the first batch; on the third day 15 more cases; on the fourth day about 8; and on the last day 7 more cases. This is not the sort of history we expect to find in a case of true intoxication. Of the two children who died, one showed the first symptoms on June 23rd, while the other did not show signs of illness until the 24th. The soup made of the stock from salt boiled beef which had been served up on the previous day (June 22nd), and of bones from the officers' dinners was suspected. But considering that one of the victims, as mentioned above, had none of this soup, this suspicion is quite unfounded. We have not been supplied with a detailed account of the diet on any day previous to the 22nd, and cannot therefore offer any acceptable theory until we are in the possession of Dr. Stevenson's analytical report. Very different is, on the other hand, the history of the Harpurhey case, where 25 persons were poisoned. The latter belonged to a picnic party, and after a pleasant meal, the bill of fare of which included some tinned meat, 25 out of the 40 suffered from the typical symptoms of acute food poisoning. It is said that all who did not partake of some potted tongue escaped, but absolute reliance cannot be placed on this hypothesis. Whatever the actual cause may have been, this case forms a strong contrast to the Forest Hill calamity, for the Harpurhey men were attacked shortly after their meal, and there were no further cases on any succeeding day. This, then, is an instance of true intoxication. To us the question of how to prevent such untoward cases is one of vital importance. Unfortunately, it is a question which it is most difficult to answer. Occasionally cases of this kind will come before a jury, as, for example, in the recent poisoning case at Burry Port, where a butcher was charged with manslaughter because he had offered for sale some brawn, the consumption of which had resulted in the death of two persons and the serious illness of many others. The butcher was acquitted, and the jury decided that the defendant was not guilty of culpable negligence. All this may be just and right, but was the butcher not liable in any shape or form? It is in most cases difficult to prove that unsound meat was wittingly used, and we cannot possibly agree with the statement made by one of the experts, that meat containing ptomaines in a lethal dose would certainly make itself marked by smell. The olfactory test, as Dr. Stevenson remarked, may desert us altogether; but we can hardly believe that cases of food poisoning could not be prevented if perfectly fresh meat of sound animals be used for the preparation of food, and such food be properly prepared and preserved, and offered for sale in perfectly good and fresh condition. If State interference is to do any good, it should work in these directions. Meat which has been kept a few days, as Scholl has shown, contains the most virulent toxins (toxopeptones), which are not destroyed by heat, and which, administered in small doses, will kill guinea-pigs in a few minutes. We do not propose to enter into the question as to how far the State can act in the matter. Legislation of some sort, however, seems called for when we find that cases multiply with alarming rapidity during an exceptionally hot season; and this is especially true for cases where a number of persons become affected, who have procured a particular article of food, more or less about the same time, from one and the same source, the soundness of which can be tested and thoroughly investigated. When, for example, a certain batch of pork pies brings disease to various communities at various localities at the same time, as happened in one instance this summer, the persons who consumed the noxious food can hardly be made liable. The question as to who is liable we shall not attempt to answer. It is, however, one which, ere long, will require the fullest consideration of those whose duties it is to protect those who cannot protect themselves.

CIVIC MUNIFICENCE IN MONTREAL.

The medical year now closing has been one of moment in Montreal. It opened gloomily with the death of Dr. Ross, Professor of Medicine in McGill University, whose reputation as a clinical teacher in the New World resembled that attained in the old by Murchison, whose pupil he had been. A worthy and enthusiastic successor has been found in Dr. James Stewart, who retains his Chair of Clinical Medicine in the General Hospital, and is thus able to combine the practical with the theoretical methods of instruction. In addition, Dr. Finley and Dr. Lafleur are associated with him as lecturers in medicine and in clinical medicine respectively. In surgery a notable event has been the opening of the new wing of the General Hospital, whereby the surgical accommodation has been well-nigh doubled. A new operating theatre has been built, and the arrangements throughout are exceptionally good. In few cities is so keen an interest in the hospital manifested as in Montreal, and this important addition to its resources fully justifies the pride with which it is regarded. Dr. Adami has promptly taken his place as professor of pathology, and has already created an excellent impression by his scientific energy and his attractive personal qualities. At the close of the convocation for the conferment of degrees in McGill University, the Dean, Dr. Craik, was able to announce that the Hon. Sir Donald A. Smith, the Chancellor, had forwarded a cheque for 100,000

dollars (£20,000) for the purpose of endowing Dr. Adami's Chair of Pathology, and a new Chair of Hygiene to be forthwith established. This is but a small part of Sir Donald's munificence, for, with Lord Mount Stephen, he has built and endowed the Royal Victoria Hospital, close to the Medical College, at a cost, for building alone, of some £160,000. This magnificent hospital, of which we hope soon to give a description, will be opened in September. Meanwhile, Dr. Stewart has been appointed senior physician, and Dr. Roddick, professor of surgery in the university, senior surgeon, while Dr. Adami is to fill the post of pathologist. The pathological department will be made an important section of the hospital, and the donors are now building and endowing in connection with it a large laboratory, comprising a *post-mortem* theatre and its adjuncts, rooms for research in bacteriology and chemistry, and a museum. The Medical College is also undergoing changes, rendered necessary by the expansion of the school. Mr. J. H. R. Molson has given the Faculty £13,000, part of which has been expended in buying an adjacent site for extension purposes, and part in transforming a large three-storey house standing on the property into a temporary pathological laboratory to accommodate classes of fifty to sixty students; the larger part will, however, be devoted to the building of laboratories for physiology, histology, pathology, and hygiene, together with a lecture theatre for 400 persons. Great advances have likewise been made in the science departments, owing to the princely liberality of Mr. W. C. MacDonald, who has built and furnished the Institutes for Physics and for Engineering in the completest manner at a cost of some £200,000. These were opened in March by the Governor-General, and are now superior to anything of the kind in America. The Université Laval, whose medical faculty has its seat in Montreal, has meantime not been idle, for, in addition to other buildings, it has begun the erection of a large new Medical College at the west end of the city. One matter of great importance remains to be mentioned, namely, the successful opposition raised by the English representatives to a Bill, introduced into the Provincial Parliament at Quebec, for establishing a State examination for licence to practise medicine. To discuss the grounds of objection to a proposal which in theory appears eminently reasonable would be to raise political questions which are out of place in these columns. It is sufficient to say that those in Montreal who are most active in the promotion of the science and practice of medicine were convinced that the measure, in the form submitted, would not tend to the general benefit of the profession and of the public, and that this conviction in the end prevailed. Altogether it is clear that in Montreal civic spirit and liberality are at an eviable height, scientific medicine is showing active and vigorous growth. The coming year promises a not less energetic and important advance.

WORKHOUSE NURSING.

The report of an inquest held at Mile End throws an unpleasant, but none the less necessary, light on the state of the nursing arrangements in our workhouses. A cabdriver, aged 39, suffering from "acute heart disease," threw himself from the window of the Mile End Infirmary, where he was a patient, falling 30 feet, fracturing several ribs, and rupturing his viscera. It was elicited that there was one night nurse to two wards containing together 63 patients, and that while she was absent from the ward the patient got out of the window and fell down. The jury added to their verdict an opinion that the night nursing staff was insufficient, and that the attention of the guardians ought to be again called to the subject. There can be no doubt that one night nurse to 63 patients is totally insufficient, especially if among the patients there are cases of "acute heart disease" as deposed by the assistant medical officer. Night nursing is most responsible work, and when acute cases are being treated the nurses should at least be as numerous as the wards.

CONGRESS OF THE BRITISH INSTITUTE OF PUBLIC HEALTH.

[By Telegraph.]

This Congress met on Thursday last, at 10 A.M., when there was a meeting of Council. An hour later the induction of the President took place, and the Presidential Address was delivered by Dr. Henry D. Littlejohn, the Medical Officer of Health for the City of Edinburgh. In his address he indicated the position of old Edinburgh, the various changes in site and state of houses, how such tall tenements came to exist. He traced improvement in houses, and referred to the labours of Dr. Chambers, a former President, and Dr. Russell, the present Lord Provost of Edinburgh. Sewage and irrigation were referred to. Next he turned to the water supply, which was first organised by a Dutchman. Every available spring was used near the city, and next extensions to Mowfoot and the Lammermoor Hills were made; now there was a Manor Valley scheme on foot. The disposal of solid refuse had become a necessity, because its value was now nothing to farmers. He next referred to the amalgamation of small burghs, as seen in the barnacle burghs of Glasgow, and in Canongate, Calton, and Broughton of Edinburgh. The enormous importance of this for public health administration was pointed out. Had these little burghs not been absorbed by Edinburgh long ago progress would have been impossible. The question of intramural interment was discussed. No sooner were new cemeteries formed than residences sprang up round them. The charities of Edinburgh were so many that there was brought about overcrowding of the poor. How to provide for these poor was now a great question for municipal authorities. Glasgow had done this well, and two blocks had been built in Edinburgh. The constant noise in the streets and constant nuisance arising from the evolution of smoke might, he hoped, soon be amended.

An audience of about 250 listened with close attention to the address.

Immediately at the close of the Presidential Address, the three sections of Preventive Medicine, Sanitary Engineering, and Chemistry and Climatology were constituted, and work began.

Section of Preventive Medicine.

Dr. Leslie Mackenzie (Wigtonshire) read a paper on Technical Hygiene in the Counties—an Educational Problem. A great and complex machinery in public health existed, and if waste of public money was to be prevented there must be a board competent to use it. County councils should work along with the medical officer, should cultivate and extend a knowledge of hygiene, arrange for classes and competent teachers, should teach teachers, and hold classes for rural tradesmen. Lecturing was practically worthless save to rouse public opinion. The Education Code was already overloaded. It should be lightened or made commensurate to the needs of artisans, and public health and technical hygiene put in. The needs of special localities should be studied.

The President thought many of the remarks applied to cities as well as to rural districts.

Dr. Marsden (M.O.H. Birkenhead) disapproved of further cramming of children. The authorities ought to be educated; they were often ignorant of the elements of technical hygiene. Lectures were nearly useless.

Councillor Loudon (Coventry) defended the councils, and explained the relation of Coventry to public health advances.

Miss Smith (Southsea) read a paper entitled a Plea for Female Sanitary Inspectors. She traced the need for these from nursery and schoolroom onwards.

Section of Sanitary Engineering.

The Edinburgh City Architect discussed Permanent and Temporary Fever Hospitals, their Relative Uses.

Section of Chemistry and Climatology.

Dr. Ivison Macadam read a paper on the Analysis of Domestic Waters aad the Rational Interpretation of Results and their Value to the Community.

BRITISH MEDICAL ASSOCIATION.

[*The following Reports of the Council and of the Committees will be presented at the Annual Meeting to be held at Newcastle-on-Tyne on August 1st, 2nd, 3rd, and 4th, and are published in accordance with the regulations for the conduct of Annual Meetings, which require that all Reports of Committees of the Association shall be printed in the* JOURNAL *before the Annual Meeting.*]

REPORT OF COUNCIL.

In accordance with By-law 19, your Council submit their Annual Report, and in doing so they desire to express the pleasure they experience in meeting you again in the hospitable city of Newcastle-upon-Tyne, the medical capital of the Northern University of England.

It is twenty-three years since the Association last assembled here, and it may be remembered by some then present how important that meeting proved, and how many significant points were then raised, many of which have since been discussed and decided. Many of those who were present at that meeting have passed away; a few of them still remain, and your Council have every confidence that they and others will follow the determined band of 1870, and strive to place the Association in a yet higher position of prominence in science, progress, and influence.

Those who retain a recollection of the meeting in 1870 will remember that its success was largely due to Dr. Philipson, then Honorary Secretary, now Professor Philipson, the President-elect, and your Council think it due to him to quote the paragraph of the Annual Report of 1870 in reference to the importance of the Branch, whose interests he had done so much to foster.

"In 1866 it was known as the Northumberland and Durham Branch, and numbered 33 members: since then it has increased to 234, chiefly through the indefatigable zeal and energy of its Secretary, Dr. Philipson."

The sixty-first Report of the Council will not be without interest to the members. The Association has extended both in the United Kingdom and in the Colonies, and upwards of 900 members have been added to the roll during the year, of whom 237 are colonial.

At the date of the last Annual Report the number of members was 14,267; since then 996 new members have been elected; 175 members have died, and 385 have resigned; the total number of members is now 14,703.

The Marquis of Londonderry having taken great interest in the work of the Association, both at this meeting and on the occasion of its last visit to Dublin, your Council have great pleasure in nominating him as an honorary member of the Association.

Financially, the total revenue was £34,143, while the expenditure, inclusive of amounts written off for depreciation and losses on subscriptions from deaths, etc., was £29,122, leaving a balance for the year of about £5,000; £3,000 of this has been invested in Liverpool Corporation 3 per cent. Stock, and £2,000 in Caledonian Railway 4 per cent. Debentures. The increase in the surplus over 1891, namely, £1,160, is largely due to lessened expenditure; £400 per annum is now saved on the weekly postage of the JOURNALS to India, Burmah, Hong Kong, and Australia, by the recent reduction of postage. All JOURNALS going abroad are now charged at one universal rate of 1½d. for 6 ozs. and ½d. for every additional 2 ozs.

The printing and publishing of the JOURNAL have cost £434 less this year, in spite of the fact that fifty-three Saturdays necessitated the publication of an extra number. The lessened cost is chiefly due to the incorporation of the Supplement in the pages of the JOURNAL and limitation of the number of pages per week.

The increase in the revenue has been £658.

The investments now amount to £37,000, and the total excess of assets over liabilities is £50,735.

The JOURNAL maintains, with increasing popularity, its long-established reputation.

The library and reading rooms have been largely used during the year, and the approbation in which they are held is manifested by an increase of nearly 50 per cent. on the attendance of the previous year. Many members have expressed their sense of this addition to the facilities afforded by the Association.

The library now contains some 5,700 volumes, in addition to a special collection of Paris theses, which are not easily available elsewhere.

During the past year it has been found possible (in response to various applications from medical societies forming libraries) to distribute 864 odd and duplicate volumes.

The additional space sanctioned by the Council is already in part utilised, and in the remaining available space it is hoped that it will be possible to file certain of the leading foreign medical periodicals.

The premises of the Association were threatened by a new underground railway from Charing Cross to Hampstead, but the Company propose now only to take the first and second floors of 2 and 3, Agar Street, leaving your offices as they are at present. The Council, in consultation with your solicitor, have introduced a clause into the Bill of the Company which they trust will prevent annoyance or damage to your interests.

Several members of the Council have intimated their intention of attending the Exhibition at Chicago, and have been requested to represent the Association at the various Congresses.

Applications have been received from Ballarat for the recognition of a separate Branch for that city and district. The members of Dundee have also applied for the recognition of a separate Branch for Dundee and Forfarshire, there being already Branches in both districts. Your Council have decided to recognise separate Branches if the decision of the whole of the Branch in each case is in favour of the formation of such separate Branches.

An important section of members have applied for the recognition of a Branch for Grahamstown and the Eastern province of South Africa, and the Council are waiting to hear further from the already elected members of the Association in the district: when further information has been obtained, so important a Branch will at once be recognised. A new Colonial Branch for Queensland is also awaiting formalities before being recognised as a Branch of the Association.

The Council have much pleasure in reporting to you the formation and recognition of two new Branches for Ireland, namely, the re-organised Cork and South of Ireland Branch, and a Branch for an entirely new district for the South-east of Ireland. These new Branches your Council trust may be the means of extending the influence of the Association in these districts, and of advancing medical science and social intercourse between the members.

The question of the non-admission of Irish and Scotch diplomates to certain appointments of medical charities has been under further consideration, and your Council have to report that out of 270 medical charities applied to 187 have no restriction, while only 17 appear to have decided rules against the admission of Irish and Scotch diplomates and decline to alter their rules, namely:—

1. Number of hospitals applied to	270
2. Number that have promised to place the letter before the Managing Committee	11
3. Number that have no restrictions	187
4. Number that do not admit Irish and Scotch diplomates, and decline to alter present regulations...	17
5. Number that have special restrictions	9
6. Number that do not state qualifications necessary	29
7. Number that have not replied	17

A vote of £400 was made for the purposes of the Scientific Grants Committee; twenty applicants received aid in their investigations, and from most of these valuable and interesting results may be expected. The Committee present a detailed report.

Amongst other matters of importance during the year, the question of expenditure on scientific grants and scientific scholarships has been before the Council, and the question whether it is advisable to increase the number of scholars and to decrease the amount expended on scientific grants has been considered.

A letter has been received from the Honorary Secretary of

the Montreal Branch upon an important question which, however, has been already decided by the Council and, long previously, by the Committee of Council—namely, whether the Council of the Association will surrender the privilege of electing members into the Association. The Council cannot surrender this privilege, but are always prepared to consider objections which may be urged against the election of a candidate.

Major-General Graham and Mr. Anderson attended the Council in January last (the former representing the West Indian Alliance) to complain of a serious injustice that had been done to Mr. Anderson (a member of the Tobago and Trinidad Branch of the Association), and to ask the aid of the Association. The Council, having no power to devote the money of the Association to such a purpose, decided to apply to members for a subscription towards the expenses of an appeal to the Privy Council, but the Council regret that a very inadequate response was made to that appeal.

Mr. Anderson had been treated with great injustice and indignity, having even suffered imprisonment. A Government inquiry having been made, the Judge was dismissed, showing clearly that Mr. Anderson had suffered wrongfully.

The Parliamentary Bills Committee have done much good work during the past year under the chairmanship of Mr. Ernest Hart. Amongst the many matters that have been under consideration are the prosecution of vendors of proprietary medicines containing poison, and not so labelled; the issue of a circular by the Home Secretary to justices, clerks, coroners, etc., on the amendment of the Oaths Acts, whereby a witness may be permitted to affirm by holding up the right hand instead of by kissing the book; Irish Dispensary Medical Officers; the amendment of the Lunacy Acts Amendment Bill, and many other important matters which are mentioned in the Report of the Committee.

During the past year the Inebriates Legislation Committee have done practical work of considerable value. Encouraged by the remarkable increase in the number of replies from boards of guardians, asking for power to detain inebriate paupers for curative purposes, or to pay for their treatment at a special institution, the Committee asked boards to petition Parliament in favour of compulsion for inebriates of all classes, of provision for the inebriate poor at the public charge, and of the removal of the present hindrances to the reception of inebriates. No fewer than fifty boards (including many of the most influential) accordingly petitioned the House of Commons. The Report of the Departmental Committee on Inebriates, appointed by the late Home Secretary (to the appointment of which the representation of the British Medical Association and the Society for the Study of Inebriety undoubtedly contributed) together with the evidence of the Chairman of the Inebriates Legislation Committee, of the President of the Royal College of Physicians, and others, have so impressed Mr. Asquith, the present Home Secretary, that it is hoped he will bring in a Bill empowering duly-constituted authorities to seclude, under therapeutic conditions, applicants so will-paralysed by inebriety as to incapacitate them from voluntarily applying to be received and detained in a Retreat. The Bill is also expected to embrace provision for the inebriate poor, and to substitute one attesting justice for the two justices at present essential.

The Committee appointed for the purpose have continued their investigations on the physical and mental condition of children in conjunction with the Committee appointed by the Congress of Hygiene and Demography. A methodical arrangement of analysis and tabulation of observations is in use, and the results will be submitted to actuarial investigation, but it is thought that this should be deferred till at least 50,000 children have been examined. At present, owing to want of funds, the reports of only 8,000 are in the hands of the Committee; but 27,400 children have been examined. Further information has been obtained by analysis of the 50,000 cases already published in 1892, and papers have been brought before the Royal Statistical Society, British Association, Sanitary Congress, Anthropological Society, and the Medical Society of London. The Committee are endeavouring to promote lectures upon the observation and study of children, and indications of mental status, and with this object have issued a letter to the Universities, Training Colleges, and other Educational Bodies.

Since August, 1892, the General Committee on Anæsthetics has met once, the English and Scotch subcommittees several times, and the Executive Committee six times.

Since the end of January last (when the record books were collected), the Hon. Sec., aided by various members of the committee, and by Mr. George Rowell, F.R.C.S., has been constantly at work at the records.

The total number of cases recorded is 26,086. All these records have been studied and analysed. The tabulation of the cases of death is complete. The tabulation of the cases of danger under chloroform and ether is almost finished. In addition to the material contained in the record books, reports (many of them very complete) of 27 cases of death have been obtained from the Press and other sources. These have been abstracted, roughly classified, and printed. There have also been received accounts of 7,668 other cases of administration of anæsthetics, summarised, but not recorded separately.

At the last annual meeting, the report presented by the Committee on Hypnotism was referred back to it "for further examination and report." In accordance with the reference, the Committee has decided to submit as an Appendix to the Report some of the documentary evidence upon which it was based. Among the documents sent to the Committee were the following: 1. Details of a series of valuable investigations carried out by Mr. J. N. Langley, M.A., F.R.S. (Lecturer on Physiology in Cambridge University), in conjunction with Mr. Wingfield, B.A. On the death of Dr. Ross, of Manchester, Mr. Langley joined the Committee and placed these details at its disposal. 2. A Report by Dr. G. M. Robertson, who, acting as Dr. Clouston's representative, visited Paris and Nancy for the *special purpose* of investigating and reporting upon the methods employed at these two schools. 3. A Report by Dr. Yellowlees, approved by Professor Gairdner. 4. Reports by Drs. Robertson, Fleming, Kingsbury, Draper, and Hack Tuke; and 5th, a *resumé* of cases treated by Dr. T. Outterson Wood. All of which will be submitted.

The Trust Funds Committee decided, after taking counsel's opinion, to recommend that, as the purposes for which the Hastings Memorial Fund was subscribed have now ceased to exist, and the Scientific Grants and Scholarships and other grants have been substituted for it, the amount should be merged in the General Fund of the Association. With the approval of the Council this has now been done.

Much of the life of the Association is in the Branches, and your cordial thanks are due to the Honorary Secretaries for their able, courteous, and unselfish labours in the interests of the Association, both at home and in the Colonies. Your Council have to report with great regret the retirement, after years of useful and honourable work, of Dr. Glascott of the Lancashire and Cheshire Branch; of Mr. Thomas C. Philip of the Cape Town Branch; of Dr. Simon from the Birmingham and Midland Counties Branch; of Mr. Cardew from the Gloucester Branch; of Surgeon M. Collie, who has been connected with the Bombay Branch since its formation; of Dr. Scott from the Thames Valley Branch; of Dr. Anderson from the Halifax and Nova Scotia Branch; of Dr. Kenny, for many years the Honorary Secretary to the Melbourne and Victoria Branch; of Mr. James A. Lowson from the Hong Kong Branch; and of Mr. Joseph Peake from the Stirling Branch. They have been replaced by the following gentlemen respectively: Dr. James Barr, Lancashire and Cheshire Branch; Dr. G. E. C. Anderson, Cape Town Branch; Mr. Gilbert Barling, Birmingham and Midland Branch; Dr. S. T. Pruen, Gloucester Branch; Surgeon-Major H. P. Dimmock, Bombay Branch; Dr. R. N. Goodman, Thames Valley Branch; Dr. G. C. Jones, Halifax and Nova Scotia Branch; Dr. W. L. Mullen, Melbourne and Victoria Branch; Surgeon-Captain W. C. Beveridge, Hong Kong; Dr. C. J. M. Lewis, Stirling, Kinross, and Clackmannan.

Death has again been busy in the ranks of the Association, 175 members having passed away during the year, and influenza having carried off several young and valuable lives. Amongst others may be mentioned:—Mr. Alfred Baker, Senior Vice-President of the Association, who, with the Birmingham and Midland Counties Branch, entertained the members in 1872, a most active member of the Council, and

one whose loss on the Council of the Association was greatly felt; Dr. Eyton-Jones, who for many years was a member of the Council, and was twice elected President of the North Wales Branch, whose genial manner will be much missed at the Annual Meeting; Mr. Crosse, who lately became a member of the Council and Journal and Finance Committee; Mr. S. W. Sibley, for many years member of the Council, and Parliamentary and other Committees, whose services were always willingly given and gladly accepted by the Council of the Association; Dr. William Wood; Sir George Macleod, who delivered the Address on Surgery on the occasion of the meeting held at Glasgow; Dr. J. E. Morgan, Mr. Edward Cock, J.P., Dr. Alexander Macfarlane, Dr. John Easton, Dr. Alfred Leach, Dr. Alexander Allan, Mr. F. W. Salzmann, Mr. Edwin Furse, J.P., Dr. Thomas Aitken, Dr. Alexander Keiller, Dr. G. R. Barnes, Mr. C. J. Hawkins, Mr. A. P. Boon, Dr. J. Urquhart, Dr. J. C. Steele, Dr. Geo. Ross, Dr. M. W. Taylor, Dr. J. H. Aveling, Dr. W. H. Walshe, Dr. D. D. Costine, Dr. Thomas Hawksley, Surg.-Col. Godwin, Mr. C. R. Crane, Dr. J. J. Buist, Dr. Sidney Hamilton Taylor, Dr. Edward Williams, J.P., Mr. F. A. Gray, Dr. Henry Burden, Mr. F. W. Jowers, and Dr. Alexander Henry, for thirty-four years your Sub-Editor.

W. WITHERS MOORE, *President of Council.*

REPORT OF THE PARLIAMENTARY BILLS COMMITTEE.

THE work of the Committee during the past year has involved the consideration of a large number of matters of considerable professional interest, and of many points raising important questions affecting the public health. The following paragraphs contain brief references to the more important subjects.

REGULATION OF THE SALE OF POISONS.

Since the last annual meeting of the British Medical Association considerable progress has been made towards securing more adequate administration of the Pharmacy Act in regard to the sale of poisons. The magisterial decision given in the prosecution instituted by the Treasury last year, had the effect of establishing the important principle that the erroneous application of the term "patent medicine" to secret remedies does not obviate the necessity of complying with the requirements of the statute law, and of duly labelling all such preparations containing poisons within the meaning of the Pharmacy Act. It is satisfactory that this decision was not disputed, and that to a large extent it was accepted as final by the proprietors of secret remedies, so far as the point of labelling is concerned. The Pharmaceutical Society being, under the 15th Section of the Pharmacy Act, exclusively empowered to enforce the provisions in regard to the sale of poisons by unqualified persons, it remained for that body to follow up the action taken by the Public Prosecutor under the 17th Section of the Act. At the instigation of the Parliamentary Bills Committee of the Association steps were taken with that object. The result of a case heard before His Honour Judge Bacon, in the Bloomsbury County Court, was a decision that proprietary medicines containing poison cannot be lawfully sold by persons who are not legally qualified to sell poisons. The subsequent confirmation of Judge Bacon's interpretation of the Act, on appeal to a divisional court, has entirely dispelled the illusion that preparations containing poison are exempt from the provisions of the Pharmacy Act when they are sold under conditions rendering them liable to medicine stamp duty. On the contrary, they must not only be labelled as the Act directs, but they can only be sold by properly qualified persons. Thus a construction of the Pharmacy Act has been arrived at which is rationally consistent with its original object. It has been distinctly laid down by judicial authorities that the Act prohibits unqualified persons from selling poison—however it may be concealed or disguised by the admixture of other substances—and that in all cases suitable precautions are to be observed even by persons legally qualified to sell poisons. The object which the Committee had in view has therefore been fully attained as a matter of principle, and the practical application of that principle should do away with all ground for further apprehension of danger arising from indiscriminate and unguarded sale of poisons.

The only question remaining relates to the mode of enforcing the law. It is not yet quite clear whether that should be the duty of the authorities representing the general public, or whether it should be left altogether to the Pharmaceutical Society. The further action of the Public Prosecutor in that respect has been limited by the directions given to the officers of the Treasury by the Attorney-General—first, to prosecute only in the event of a particular preparation being really poisonous or dangerous on the ground of poisonous ingredients, and, secondly, that the mere presence of a poisonous ingredient, if not in sufficient quantity to make the article sold poisonous, would not be sufficient to justify proceedings under the 17th section of the Act. The points here referred to involve various considerations as to quantity and proportion as well as the effects of poisons upon adults and children respectively, which are not of a nature to be easily dealt with. They are, in fact, outside the scope of the Pharmacy Act, by which certain articles are declared to be statutory poisons, and the sale of them is absolutely restricted to persons possessing a specified qualification. The question whether a preparation is "really poisonous or dangerous" is altogether one of quantity, and a quantity that would be harmless to one individual might be fatal to another. There is therefore still some danger of the Pharmacy Act being "frittered away" (to use the words of Sir Henry Hawkins). While on the one hand the action of the Public Prosecutor, under the 17th Section of the Act, is hindered by uncertainty as to what is to be considered a poison, the Pharmaceutical Society, on the other hand, appears to limit its action to proceedings under the 15th Section of the Act, for preventing the sale of of poisons by unqualified persons, and to prosecuting offenders in that respect. The monthly reports of the Pharmaceutical Society show that a very large number of such prosecutions have been instituted, and the recovery of penalties for that breach of the law will no doubt, in time, produce a wholesome deterrent effect. But there is good reason for believing that the supply of preparations containing poisons within the meaning of the Pharmacy Act and not labelled "poison" is still being carried on, by direct sales and in other ways, to a large extent with great danger to the public. From the reticence of the Public Prosecutor on the one hand, and of the Pharmaceutical Society on the other, such evasion of the law escapes the repression which is desirable, and it is still a matter of importance to consider how this evil is to be practically dealt with in the public interest.

Another circumstance connected with the sale of preparations containing poison, to which attention has recently been directed in the BRITISH MEDICAL JOURNAL, is the attempt to secure immunity from the provisions of the Act by obtaining patents for such preparations, and trusting to the exemption of patent medicines contained in the 16th Section. Several patents have already been obtained for preparations containing scheduled poisons, and, if this practice be allowed, it would seem probable that those preparations could be sold by unqualified persons and without any of the precautions of labelling, etc., which the law requires. Obviously this proceeding is utterly inconsistent with the objects of the Patent Law, and of the Pharmacy Act. It is also fraught with serious danger to the public, and will on that account call for continued vigilant attention from the Committee.

VACCINATION.

The recent interim report of the Royal Commission on Vaccination, resulting in the introduction into Parliament by a responsible Minister, the Home Secretary, of a Bill to abolish cumulative penalties for violation of the Vaccination Laws, taken together with the prevalence of small-pox in many important centres throughout the country, have rendered it necessary to recall general attention to the abundant and constantly accumulating evidence of the efficacy of vaccination as a protection against small-pox. The Chairman of the Committee entered into communication with a number of members of Parliament, and Dr. Farquharson and Dr. MacGregor have both given notice of their intention to oppose the Bill, and the Committee desire to express their recognition of the ready assistance given by these two gentlemen. It is obviously undesirable that Parliament should propose legislation re-

garding this question in the presence of a recrudescence of small-pox, and in the absence of the completed and matured report of the Commission. Attention has been given to the facts as to the spread of small-pox during the recent epidemic, and they have been carefully collected and tabulated, and will be available for the purpose of the Committee and for transmission to members of Parliament when occasion arises.

Meanwhile a report of the debate raised by Mr. Hopwood, Q.C., M.P., in the House of Commons, will be reprinted, and in the official report of Sir Walter Foster's speech therein contained will be found a very valuable and convincing collection of facts and suggestions. The Committee propose that this reprint should be placed within the reach of sanitary authorities or private individuals at a nominal cost.

A special inquiry has been made for the Committee by circulars addressed to medical officers of health to ascertain the cost to the public of epidemics of small-pox. The Committee are much indebted to medical officers for the ready and very general response which has been made to this circular, and a considerable number of valuable and striking facts as to the public expenditure on this head have been brought together, some of which have already been published in the JOURNAL.

ARMY MEDICAL SERVICE.

The efforts of your Committee, which had in previous years been so successful in advancing the position of the Army Medical Service, were in no way relaxed during the past year. The memorandum submitted in last year's report, which was a direct sequel to the Warrant of 1891, underwent various modifications, as evolution proceeded from the discussion of correspondents in the BRITISH MEDICAL JOURNAL; and, after delay consequent on the change of Ministry, was finally submitted to the Secretaries of State for War and for India.

In the meantime the subject was further opened up in the series of articles in the JOURNAL on "The Work of the Late Administration and the Next," in which the present position and prospective requirements both of the Army and Indian Medical Services, as well as of the Army Medical Reserves, were reviewed.

The acknowledgment of the memorandum by the Secretaries not being considered quite satisfactory, both of the Ministers kindly consented to receive a representative deputation; and such a deputation, consisting of old and distinguished medical officers, as well as of civil representatives of the profession, headed by the Chairman of the Committee, waited on Mr. Campbell-Bannerman and Lord Kimberley in May last.

The subjects particularly urged on the War Minister were: the formation of a consolidated medical corps, with revision of titles, a change in itself which would cover many of the disabilities under which the Medical Service labours, and would undoubtedly greatly enhance efficiency; reversion to three and five years' tours of foreign service, as it is found that six years tours' in India are operating most disastrously on the health, mortality, and consequent efficiency of the officers; revision of the rules of retirement in the higher grades, the three years' service in a rank before pension can be claimed, causing stagnation and disorganisation in the administrative ranks; the financial extension of warrants to India, a matter most pressing, not merely in view of the alarming depreciation of the rupee, but on its own merits of justice and good faith, which cannot be long denied or delayed without affecting the popularity of the Medical Staff, on which the pressure of Indian service is telling severely; the details of medical officers for service in India; study time on full pay, exchanging, and other matters were also touched on. On the Indian Secretary the subjects more closely affecting his department immediately were naturally urged.

The replies of Ministers, if not entirely satisfactory, were generally sympathetic, and the broad results of the deputations were such as to lead to anticipation that the revision at least of some of the conditions complained of will not be long delayed. Both deputations retired well satisfied with the immediate results of their representations—a satisfaction, however, which must be considered to be only conditional, and subject to the still urgent necessity of continuous Parliamentary pressure until the points at issue are adequately solved in such a manner as to restore efficiency to the service, and to content the reasonable demands which are put forward.

INFANT MORTALITY AND FACTORY LABOUR.

At the last annual meeting of the Association a paper was read in the Public Medicine Section, by Dr. Reid, on the effect of the employment of mothers in factories on the mortality among infants. After considerable discussion, a resolution was passed referring the whole question to the Parliamentary Bills Committee. The Committee, in the first instance, thought it desirable to institute an inquiry throughout England on the lines of the Staffordshire inquiry (upon which the paper in question was based), and, as the outcome of this, a large number of returns were received, of which 101, from towns with a total population of 3,368,568, were available for the purpose. To obtain this large number of returns, more than one application had to be made to the various medical officers of health, and as the figures, in most instances, covered a period of ten years, the statistical work was very considerable; accordingly, the final report was only recently presented to the Committee. This report, which bears out the conclusions arrived at by Dr. Reid, has been referred to a special subcommittee, who are considering what action should be taken with the view of correcting the evils which have been proved to exist.

IRISH DISPENSARY DOCTORS.

The grievances of the dispensary doctors in Ireland still remain unredressed. Two Bills, one dealing with superannuation and the other with general reforms, have been introduced in the present Parliament by the Irish Medical Association, acting in concert with the representatives of the British Medical Association. The Bills have been "backed" by members of all shades of political opinion, and much support has been promised. But the demands upon the time of Parliament by the Home Rule Bill have led to the practical exclusion of all other subjects, and we do not think that any progress will be made this year in the direction of ameliorating the condition of these badly-treated public servants.

THE OATHS ACT.

In 1888, when the Oaths Act was before Parliament, a section, at the instance of the British Medical Association and other bodies and individuals interested in public medicine, was inserted for the direct purpose of avoiding as far as possible the risk of the communication of infectious disease in the process of kissing the Book. The section, as it stands in the Bill, is quite explicit, and declares that any person who desires to be sworn in the Scottish form shall be permitted to do so without further question. Published reports and communications addressed to the BRITISH MEDICAL JOURNAL made it evident that coroners, magistrates, and other judicial officials were not acquainted with the provisions of the Act. Further, that if a medical man claimed the right to take the oath with uplifted hand, he was subjected to cross-examination as to his reasons, and that in fact the section of the Act was practically a dead letter. Mr. Ernest Hart, as Chairman of the Parliamentary Bills Committee, addressed a letter to the Home Secretary pointing out these facts, and suggesting the issuing of an official statement from the Home Office. Mr. Asquith thought well to act upon this suggestion, and consequently, on May 25th, a circular letter was issued to magistrates, clerks, recorders, registrars of county courts, chairmen of quarter sessions, stipendiary magistrates, and coroners, pointing out that the section applied to all oaths whatsoever, with the initiative raised by the person desiring to be sworn, and that when such person do so express his wish no question as to his religious belief was to be asked, nor was he to be required to hold or kiss the Bible while being sworn. We may therefore hope that, largely through the action taken on behalf of this Committee, this dirty and dangerous practice of "kissing the Book" will soon be numbered among obsolete customs, and that the more reasonable, cleanly, and impressive method so long in use in Scotland will take its place.

THE LUNACY ACTS AMENDMENT BILL.

No progress has yet been made in Parliament with the

Lunacy Acts Amendment Bill. It will be remembered that a report of the Lunacy Subcommittee of the Parliamentary Bills Committee was brought to the notice of the late Lord Chancellor. Delay necessarily ensued upon the change of Government, but the report of the subcommittee was brought to the notice of the present Lord Chancellor (Lord Herschell), who on previous occasions had assisted the Committee by his advice. The Lord Chancellor replied that he would consider whether anything more could be proposed for legislation in the direction indicated.

DEATH CERTIFICATION.

The subject of improvement in the law and the practice of death certification has occupied the attention of the Committee during the year, and as the results of the arguments and representations made, the Home Secretary, at the instance of Sir Charles Cameron, appointed a Select Committee to inquire into the matter. This Committee has sat under the chairmanship of Sir Walter Foster, and taken much evidence which will no doubt afford the basis for future legislation.

SANITARY LEGISLATION.

The Bill commonly known as the Infectious Hospitals Bill has been introduced into the House of Lords by Lord Thring. A memorandum upon its provisions was drawn up, and was forwarded by the Chairman to Lord Thring, who, in a detailed reply, has expressed his intention to embody in the Bill some of the most important suggestions contained in the memorandum.

A Bill to amend the Public Health (London) Act, 1891, was introduced into Parliament, and a memorandum was prepared for the Committee, pointing out some of its defects and the difficulties which would arise in its administration. In consequence of the representation made and the criticisms which the Bill excited in various other quarters, it has now been dropped.

SCOTTISH COUNTY COUNCIL AND MEDICAL OFFICERS IN PRIVATE PRACTICE.

The attention of the Chairman of the Committee was directed early in the year to the withdrawal by the Secretary for Scotland of the very salutary condition formerly associated with the dispensation of the local taxation grant in aid of the salaries of county medical officers of health in Scotland—that in all cases where geographically practicable, the medical officer should be debarred from private practice. An active correspondence ensued, terminating in the attendance of an influential deputation of Scottish medical officers and authorities jointly with representatives of the Committee at Dover House. A memorandum was presented to Sir George Trevelyan summarising the views of the Committee, and the deputation received a most courteous hearing. It was evident in his reply that Sir George's views had been shaken: he explained that his action had been influenced simply by the consideration that county councils should have a free hand; and he announced his intention of issuing a new circular in lieu of the one withdrawn, which he believed would in a considerable degree meet the views of the deputation.

CIVIL SERVANTS AND THE HOME RULE BILL.

The position of the members of the medical profession officially discharging medical duties in Ireland who would be affected by the Government of Ireland Bill has been considered by the Committee, and a resolution adopted calling upon the Government to introduce a provision into the Bill to compensate any public medical officer who may be displaced. The claims of the medical officers have been put before the Government along with those of other civil servants, but the matter is still under consideration.

COLONIAL BUSINESS.

Two cases in which members of the medical profession practising in the colonies were subjected to great hardship by legal action, have been under consideration during the year.

The case of Dr. H. L. Smith.—One of these was the case of Dr. H. L. Smith, of Western Australia. After Dr. Smith had been successful in an action for wrongful dismissal, and had obtained a verdict with damages, the Attorney-General of the Colony moved that judgment should be entered for the Government, notwithstanding the finding of the jury; the Chief Justice overruled the objection, which he described as being founded on a shocking doctrine. This case was eventually appealed to the Privy Council sitting in this country. The appeal has not yet been heard, and the case is therefore still *sub judice*. Communications were addressed to the Secretary of State for the Colonies, calling his attention to the general principle involved in the case. The Colonial Office have declined to take any action in the matter, while the case is still *sub judice*, but the Committee propose to continue to watch the progress of the case, and take such action in the future as may seem desirable to vindicate the just rights of medical men practising in the Colonies.

The case of Mr. R. B. Anderson.—The second case which engaged the attention of the Committee was that of Mr. R. B. Anderson, who suffered judicial persecution at the hands of the Court of the Colony of Tobago. Opportunity was afforded to Mr. Anderson to bring his case before the profession, and subscriptions were invited in the JOURNAL towards defraying the expenses of the appeal to the Judicial Committee of the Privy Council which is contemplated.

Gold Coast.—The Committee again had under consideration the Druggists' Ordinance No. 14 of 1892 relating to the sale of drugs and poisons in the Gold Coast Colony, which was submitted to it by Lord Ripon, Secretary of State for the Colonies. The Ordinance in its amended form contained most of the suggestions which had been made by the Committee to the Government, but the Committee thought it advisable to draw the attention of Lord Ripon to the objectionable character of Section 14 of the Ordinance dealing with the sale of patent, proprietary, or homœopathic medicines.

Sierra Leone.—The attention of the Parliamentary Bills Committee having been called to a draft Ordinance (Municipal) which proposed to impose an annual municipal tax, the Committee took steps to report the protest of the members of the medical profession in the colony of Sierra Leone. Upon examination, however, it appeared that as all the professions—medicine, law, surveying, and engineering, as well as bankers, pharmaceutical chemists—paid this tax, little hope could be entertained of obtaining a permanent exemption for the medical profession. It was, however, suggested to the proper authorities that in a young colony where the number of representatives of the medical profession was so small, and the need for medical services so great, it would be desirable as a matter of public policy to make an exemption for the present at least, in order to encourage duly-qualified medical practitioners to settle in the colony.

PUBLICATIONS.

A series of articles on medical and sanitary questions in current politics, which were published in the BRITISH MEDICAL JOURNAL, have been reprinted and published in pamphlet form by Messrs. Smith, Elder, and Co., under the title *The State and its Servants.*

The report of the debate in the House of Commons on Vaccination, which appeared in the JOURNAL with tables of statistics quoted by Sir Walter Foster, with notes and an appendix, will be reprinted and placed on sale.

ERNEST HART, *Chairman.*

REPORT OF THE SCIENTIFIC GRANTS COMMITTEE.

THE Scientific Grants Committee have to report that during the past year, 1892-3, the sum of £400 has been granted in aid of scientific research, of which the following are particulars:—

Boyce, Rubert, M.B., Pathological Department, University College, W.C.—A research into the Pathology of Œdema ...	50	0	0
Brodie, T. G., M.R.C.S., L.R.C.P., Physiological Laboratory, King's College, W.C.—For the purchase of apparatus to continue an investigation into the Elasticity of Muscle and other Living Tissues	25	0	0
Cash, J. T., M.D., University of Aberdeen.—An inquiry into the Action of three Vegetable Substances; two of pharmacological interest, the third of distinct therapeutical value ...	12	0	0
Gordon, John, M.D., University, Aberdeen.—Research work on the Action of Piperazine on Uric Acid and Calculi, as well as its Action in cases of Gout	5	0	0
Hime, T. W., M.D., 54, Horton Road, Bradford.—For carrying out an experiment as to the Relationship of Variola and Vaccinia	25	0	0
Jones, Lewis, M.D., 9, Upper Wimpole Street, W.—In aid of a research into the Measurement of the Electromotive Force			

and Current of Medical Induction Coils (for purchase of instruments)	20	0	0
Kanthack, A. A., M.D., M.R.C.P., University College, Liverpool.—To continue researches into the Nature of Snake Poisons...	30	0	0
Ransome, A., M.D., F.R.S., Devisdale, Bowdon, Cheshire.—Experiments upon the Disinfection of Tubercle-infected Houses	15	0	0
Smith, J. Lorrain, M.B., 38, Walnut Street, Oxford.—Research into the Metabolic Changes in Animals from which the Thyroid Gland has been extirpated, especially in relation to the temperature variations observed in the animals after the operation	15	0	0
Stewart, G. N., M.D., Physiological Laboratory, New Museums, Cambridge.—To continue some work (*a*) on the Gaseous Exchange and other properties of isolated parts through which a very complete artificial circulation is kept up, and the alterations produced by drugs and in other ways; (*b*) On the Circulation Time in Organs measured by a method communicated to the Physiological Society in 1890 (*Proc. Phys. Soc.*, November 8th, 1890), and by the aid of which he has since made a great many experiments	15	0	0
Thompson, W. H., Esq., Physiological Laboratory, University College, W.C.—For a research concerning the Vaso-motor Nerve Supply and Musculature of Veins in dogs and rabbits	15	0	0
Tims, H. W. M., M.D., 48, Lupus Street, St. George's Square, S.W.—To investigate the functions of certain tracts of Fibres in the Brain and Spinal Cord, and to trace out the tracts of Degeneration resulting from certain Lesions	30	0	0
Walthard, M., Esq., Pathological Department, University College, W.C.—For a research into the causation of Peritonitis as the result of Surgical Operation	5	0	0
Eastes, G. Leslie, Esq., Guy's Hospital, S.E.—To complete an investigation into the relationship between the Formation of Glycogen and Sugar	5	0	0
Halliburton, W. D., M.D., F.R.S.—A research on the Proteids of various organs of the body	30	0	0
Jones, E. Lloyd, M.B., Pathological Laboratory, New Museums, Cambridge.—For continuing an investigation of the causes of Chlorosis	8	0	0
Mott, F. W., M.D., 62, Chandos Street, W.C.—For continuing experimental work upon the functions of the tracts of the Spinal Cord	30	0	0
Russell, J. S. R., M.B., Physiological Laboratory, University College, W.C.—An investigation into the functions of the Prefrontal Region of the Brain in the monkey, and the relations which exist between the centres for certain movements, as represented in the "motor cortex" and the nerve roots in which the same movements are represented ...	50	0	0
Symes, W. L., M.R.C.S., Physiological Laboratory, St. Mary's Medical School, Paddington, W.—For continuing his work on Nerve Section	10	0	0
Sympson, Dr. E. M., 3 James Street, Lincoln.—Pancreatic Digestion	5	0	0
	£100	0	0

The following sums have been returned as unused:—

Mr. W. H. Thompson	2	7	9
Professor J. T. Cash	7	9	3
Dr. A. A. Kanthack	0	13	6
Dr. Lewis Jones	2	10	0
Dr. Rubert Boyce	13	18	7
Dr. G. N. Stewart	5	2	6
	£32	2	0

Dr. R. Boyce and Professor Victor Horsley, F.R.S., report that they have carried out a large series of experiments on the changes of the tissues in Ranvier's œdema and in œdema produced by chemical alteration of the blood; they are engaged in the examination, with the co-operation of Mr. C. B. White, of the histological appearances of the œdematous tissues, and shall be in a position to communicate fully the results of the work during the following year.

Mr. T. G. Brodie reports that during the past year he has been engaged in work bearing on the elasticity of muscle and other tissues. The experiments he has undertaken are not yet finished, and he would beg to defer a fuller and more detailed account until their completion.

Professor J. T. Cash, F.R.S., reports that the Taita arrow poison which was furnished to him and Mr. Holmes proves itself to be an energetic heart poison towards all animals which have been subjected to its action. It has many interesting affinities with some cardiac tonics, and also with the Wa Nyilsa arrow poison recently described by Professor T. R. Fraser and Dr. Tillie. It is anticipated that a full report on this substance will be published in the course of a few months.

Dr. John Gordon reports that the objects of the research on Piperazine was to test its power of solution on uric acid, on uric acid calculi and its therapeutic value in cases of gout, or in uric acid diathesis. The first part of the research is well advanced, and there is distinct evidence of its solvent power, both of calculi and uric acid. Normal freshly passed urine was employed as the medium for all the solutions. As yet clinical cases have not been obtained in sufficient numbers to allow him to draw conclusions as to its action.

Dr. T. W. Hime reports that during the past year he has continued to make experiments as to Cow-pox, its nature and characteristics. With this view he has carried out various experiments on calves, trying various methods of infection—dermic, hypodermic, intravenous, etc. Another most important question has occupied him, namely, as to how far vaccine derived from a tuberculous animal was infective, if at all.

Dr. H. Lewis Jones has made investigations into the measurement of the currents of the medical induction coil; they have included the following points:—(1) The construction of an instrument which will respond to induction coil currents; (2) The interpretation of the readings of the instrument; (3) The measurement of the duration of induction coil currents by a new graphic method; (4) A comparison of the induction coil currents with the alternating currents used in electric lighting; (5) A comparison of the induction coil currents with condenser discharges. On all these points he has been able to obtain good results, although there has been great difficulty in getting a sufficiently sensitive measuring instrument constructed. The greatest difficulty of all has been in the interpretation of the readings of the instrument, and this is due to an inherent property of the induction coil, namely, that the irregular form of the curve of rise and fall of electromotive force in an induction coil makes it almost impossible to deduce the maximum values from the mean values, as indicated by the galvanometer. As the physiological effects depend rather upon the maxima than upon the mean values, this is a serious difficulty.

A. A. Kanthack, M.D., reports that a series of experiments was performed with a view to finding, if possible, a method of counteracting the fatal effect of a snake bite, or protecting the animal in a manner that would enable it to resist the lethal action of the poison. It was previously shown that strychnine is neither curative nor a preventive, and also that chloride of gold is valueless. A series of other substances which destroy the poison of the Naja tripudians *in vitro* was also tried without success. It seems, however, advisable to continue these experiments, since the recent researches in bacteriology have opened up so many fresh questions in regard to immunity. Unfortunately the results of these cobra poison experiments have been negative.

Dr. A. Ransome, F.R.S., reports that the research by Professor Delépine and himself is still incomplete; but a preliminary report giving a short account of the experiments so far made has been presented to the Committee.

Mr. J. Lorrain Smith writes upon the Metabolism after Thyroidectomy.—So far as the research on the effects of thyroidectomy has been carried out, it has consisted chiefly in observations of the respiratory exchange of animals on which the operation has been performed. For this purpose ten animals have been examined, and the modifications of the normal metabolism which have been noted are directly connected with the function of heat regulation. The results go to prove that this function is seriously disturbed, in the sense that the heat regulation of which an animal suffering from cachexia strumipriva is capable is brought about by an expenditure of heat-forming material greater than that which is necessary, under similar circumstances, in the case of normal animals. The cachexia strumipriva resembles myxœdema in the fact that in both there is a gradual subsidence of the body temperature as the condition progresses, and the observations here made are adduced as throwing some light on the subnormal temperature, which is one of the clinical features of the disease. A paper giving a full account of this part of the research will shortly be published.

Dr. G. N. Stewart reports (1) that the research on the circulation time in organs is so far advanced that three papers containing an account of a portion of the experiments are now in the press for the *Journal of Physiology*, and will appear very soon. Material for further communications has also been obtained; but much work is still required in order to exhaust the information which the method is capable of yielding. Hitherto the circulation time of the lungs, liver, intestines, kidney, thyroid gland, muscles, and

other organs have been investigated in rabbits and small dogs; and changes produced by increase and diminution of temperature, by section and stimulation of nerves, and to some extent by drugs, have been detected and measured in some of the organs. It is hoped that the method will permit of the accumulation of data from which the average circulation time in the organs of man may be deduced with a fair approach to accuracy. (2) A preliminary account of some of the results of the work on the metabolism and heat production of isolated tissues was made orally to the Physiological Society on January 21st, 1893; but the research has not yet reached the stage at which a detailed communication would be advisable, at any rate so long as there remains a possibility of his being able to give further time to the subject.

Mr. W. H. Thompson reports that the subcutaneous veins in the hind limbs of dogs were exposed by raising small flaps of skin. The sciatic nerves were divided and armed with electrodes. The aorta was enclosed in a running ligature which could be tightened at pleasure. On stimulating the sciatics, after closure of the aorta, ring-like constrictions in certain parts of the veins were seen to occur, which slowly passed away after the stimulation ceased, and the blood stream was allowed to flow again. An attempt was made to measure the effect upon the pressure in the vena cava inferior, caused by stimulation of the sciatics under the same conditions as above. In one case only was a rise of pressure obtained, in all the others a fall was recorded.

Dr. H. W. M. Tims reports that experiments were undertaken with a view to ascertaining the functions of the Fornix, and to tracing the degenerations resulting from its division. The experiments have so far been carried out on monkeys. The method of procedure was as follows: The animal, being anæsthetised, the skull was trephined over the fissure of Rolando, close to the vertex, but not near enough to injure the longitudinal sinus. This position was selected as it was found that the fornix was most superficial at the level of the junction of the fissure of Rolando with the great longitudinal fissure. The dura mater having been reflected, a fine knife was passed down the longitudinal fissure, passed through the corpus callosum transverely, and the point pushed gently outwards. Neither unilateral or bilateral section appeared to give any physiological results, but on further examination of the brain microscopically the lesions of the fornix have been found to be very slight; in one instance the knife was not passed deeply enough, so that only the gyrus fornicatus immediately above the corpus callosum was injured. In those cases in which there has been a slight lesion of the fornix, the fibres have been noticed to degenerate in an anterior direction, the mesial fibres at the seat of the lesion retaining their position as they pass forwards, and, becoming the innermost fibres of the anterior pillars. Other degenerations are seen in the occipital lobes and down through the medulla into the spinal cord, but their connections have not yet been fully followed out; they however must probably result from the necessary injury to the corpus callosum and from the slight accidental injury to the cortex in the region of the fissure of Rolando, which is unavoidable in the performance of the operation.

A report of Mr. Walthard's investigation has been published in the pages of this Journal.

Mr. G. Leslie Eastes has been engaged on an investigation as to glycogen and sugar in the dying liver, and shows in this paper that sugar is formed from glycogen in the dying liver, and from that alone; that the rate of formation is most rapid during life, decreasing in rapidity as the liver dies. He has also compared the efficiency of Biondi's method and the trichloracetic acid method for extraction of glycogen, and found that the latter was impracticable, as the acid interfered with the test for sugar, and there were no practical means of freeing the solution from the trichloracetic acid. Incidentally he has also tested very carefully the maltose with phenylhydrazine, but never found any trace of it.

Dr. W. D. Halliburton, F.R.S., reports that the work carried on in his laboratory last year, and to the expenses of which the grant received from the British Medical Association was applied, consisted of the following:—Work by himself on the chemistry of the liver and kidney, the results of which have been published in the *Journal of Physiology*, and on the chemistry of the brain and other nervous tissues. A paper on this subject is already in the press, and will shortly be published in the *Journal of Physiology*. In conjunction with Mr. T. G. Brodie, M.B., he has worked at intravascular coagulation, and a preliminary account of these experiments appeared in the Goulstonian Lectures published in the Journal in March last.—Mr. Pickering, B.Sc., has carried out investigations (1) on the physiology of the embryonic heart, a preliminary account of which appeared in the *Proceedings* of the Royal Society, and a full account of which has been sent to the *Journal of Physiology*; (2) on certain proteid reactions. A paper on this subject is in the press, and will appear shortly in the same journal.—Among other workers have been Dr. Gourlay, who has sent a preliminary account of his experiments on the proteids of the spleen and thyroid to the *Proceedings* of the Physiological Society; and Mr. Whitfield, M.B., who has been working on the proteids of muscular tissues, but whose results are not yet ready for publication.

Dr. E. Lloyd Jones reports that the blood of the healthy female undergoes a remarkable change about the age of puberty (15—20), it becomes poor in hæmoglobin, its sp. gr. being chiefly for this reason less, while the blood undergoes no such changes. In many apparently healthy girls this fall in the amount of hæmoglobin becomes very marked. He has as yet no evidence whatever that the plasma becomes in such cases more watery than before puberty. Whether this be the case or no will be tested by further experiments. This fall in the amount of hæmoglobin in the blood in the female at puberty possibly secures diminished waste. He is inclined to regard this change as a "damping" of tissue change, so that while subcutaneous fat is stored up, the amount of proteids or salts or both in the blood is increased ready for use in the event of pregnancy occurring. During this year he proposes to investigate this matter more fully. Examining the blood of chlorotic girls, he finds that all cases of pure, primary chlorosis occur between the ages of 15 and 26; and he regards the blood change as simply an exaggeration of the blood change normally met with at this period and described by him. In the most severe cases of chlorosis, where the sp. gr. of the blood has been so low as 1036, he was unable to find evidence of an attenuation of the plasma. The plasma of some chlorotic girls appears to be as rich or richer in solids than the plasma of others—even of males of the same age. It appears also to be more alkaline in reaction. These points he is now investigating and they promise most interesting results. If this view be correct it is yet necessary to know the mode in which the chlorotic condition arises. Upon this point he is still collecting information. Last year he referred in his report to the relation which he maintained existed between the vascular space and the blood which is within it, and he suggested that changes in the splanchnic area had something to do with chlorosis. This view will need some modification. Suffice it to say that in his paper, which is shortly to appear, he will show how the condition of the splanchnic vessels may influence the blood in a marked degree. With regard to the relation between chlorosis and gastric ulcer and hæmatemesis, he has been able to produce experimentally in dogs a condition of plethora affecting the splanchnic area especially, and accompanied by profuse hæmatemesis into the intestine. Lastly, his observations afford some indications of the probable influence of iron upon the course of chlorosis, but this part of the subject requires further study. These results, and the conclusions he is inclined to draw from them, will be published very shortly in a preliminary paper. The extremely complicated nature of the work, and a desire to obtain plenty of data upon which to base his conclusions, has been the cause of his delaying publication for so long.

Dr. F. W. Mott has been investigating experimentally in monkeys the sensory functions of the Rolandic area of the cortex cerebri, and an account of the results of his experiments will be given at the next meeting of the British Medical Association.

Dr. J. S. R. Russell reports that he has been engaged on two investigations. One on some circumstances under which the normal state of the knee-jerk is altered, and the other on the lumbo-sacral plexus of macacus rhesus, are both completed, and he hopes to send reports of these investigations for publication in the Journal in a few days.

Mr. W. L. Symes reports with respect to the muscular changes consequent on nerve section, true intra-fibrous fatty degeneration has now been noticed to follow the inter-fibrous adiposis noted before. The duration and termination of the fatty stage is now under investigation. The failure of muscle to react to indirect stimuli, and after the forty-eight hours or thereabouts, is well known. Attempts have been and are still being, made to ascertain whether this is due to failure of nerve fibre or of nerve ending, employing the nerve action current as indicator, but as yet no satisfactory evidence of an action current in degenerating nerve has been obtained. The trophic centre of many nerves is coincident with their centre of origin in the embryo; attempts are being made to determine the extent of the correspondence. With regard to the optic nerve, a rabbit in which it was divided nearly two years ago is still under observation. The eye is blind, the pupil large and immobile, and no ophthalmoscopic changes can be detected.

Dr. E. Mansel Sympson writes that since his last report, briefly stating that he had been able to obtain from the pancreas of the sheep a ferment of remarkable glycolytic power, his experiments have been continued with still more decisive results. By the kindness of Mr. F. B. Benger, he has been favoured with the opportunity of testing his essence of pancreatic juice side by side with the ferments made from fresh sweetbreads, and has found it to act in a precisely similar way in presence of glucose. The latter in an absolutely pure form he has obtained from Herr Kahlbaum, of Berlin. He has before closing this report added a few details of the experiments, and has expressed his sincere thanks to the Scientific Grants Committee for their encouragement in this line of research. An incubator fitted with Reichert's gas regulator was used, kindly lent by the British Medical Association. In all the experiments the test tubes used were washed out previously with rectified spirit, and to each one drop of glycerine of carbolic acid (*B.P.*) was added. This he found had no effect on the action of glycolysis. In all the experiments save one (where the solution of glucose had been kept two days before being used, and as a result all the tests came out wrong) there was no evidence whatever of any fermentation other than that required, and the tubes kept perfectly clear. Their mouths were stopped with purified cotton wool before they were placed in the incubator. Dr. Oliver's indigo carmine test of glucose was used in all the experiments, and worked extremely accurately, and the results were checked with Zeiss's saccharimeter. Pavy's modified Fehling's test was also used frequently. The pancreas is commonly called the "gut bread" by butchers, and this was the sweetbread used. The aqueous extract was made by finely mincing half a perfectly fresh pancreas, and infusing it with warm water (temp. 100° F.); after three or four hours it was strained through muslin, and was fit for use. The other half was also finely minced and covered with glycerine; after a day it was strong enough for use, and was filtered. Carbolic acid was added to both extracts.

Joseph Lister, *Chairman.*

REPORT OF THE INEBRIATES LEGISLATION COMMITTEE.

Your Committee has the pleasing duty of reporting a decided advance of opinion in favour of the involuntary therapeutic seclusion of inebriates. A circular was issued to boards of guardians during the past year. As a result of this appeal upwards of fifty boards have petitioned the House of Commons or memorialised the Government. After expressing gratification at the revolution in public opinion in favour of legislation for the compulsory reception and detention in special Homes for purposes of cure, of such diseased drunkards as have had their will power so broken down as to be unable of their own accord to apply for admission and detention, the petitioners prayed for amended legislation to provide for poor inebriates, for compulsion, and for the removal of the present hindrances to the reception of voluntary applicants. Among the boards which have petitioned or memorialised are those of Darlington, Marylebone, Toxteth Park (Liverpool), Fulham, Hackney, Manchester, Bristol, Reading, Bridgwater, Carlisle, Cockermouth, Dolgelly, Hurdingston, Towcester, Barton Regis, Gainsborough, Southampton, Plymouth, Birkenhead, Wrexham, Cannock, Pontypool, Fylde, Malling, Bedminster, and Basingstoke. This was a step further than the opinion given in reply to the previous three circulars asking if guardians were willing to have the power either of detaining inebriate paupers or of paying for their therapeutic treatment at a special institution. The extraordinarily increased support of these methods of compulsion was evidenced by the number of replies having risen from 36 in 1881 to 229 in 1889. The number of affirmative responses was in 1881, 14; in 1882, 27; and in 1889, 131.

A Departmental Committee on Inebriates, which was appointed by the former Home Secretary, Mr. Matthews, has recently reported to the present Home Secretary, Mr. Asquith, who, it is hoped, will introduce a Bill embodying the chief recommendations of this Committee. A mass of valuable evidence, entirely confirmatory of that given before the Select Committee of 1872, has been published. A striking feature of the appendices is a memorial signed by a large number of leading metropolitan physicians and surgeons, headed by Sir William Jenner, with representative signatures from other parts of the kingdom, asking for compulsion; and a similar well-known memorial from members of the legal profession was also presented. The Committee, after referring to the evidence of, among others, Sir Richard Quain, President of the General Medical Council, Sir Andrew Clark, President of the Royal College of Physicians, and Dr. Norman Kerr, Chairman of the Inebriates Legislation Committee of the British Medical Association, recommends as regards inebriates who will not apply of their own accord "that power should be given for the compulsory committal to a retreat of habitual drunkards (as defined by the Inebriates Act of 1879) on the application of their relatives or friends, or other persons interested in their welfare, to a Judge of the High Court, County Court Judge, Stipendiary Magistrate, or Justices sitting in Quarter or Petty Session, subject to appeal to a Divisional Court." This power of compulsion, which has been persistently urged by the British Medical Association and the Society for the Study of Inebriety, would of itself be a boon of priceless value to the victims, their friends, and the community. But the Departmental Committee has added other valuable recommendations.

The Departmental Committee, in the case of voluntary applicants for admission, recommends "the substitution of one attesting justice, without appearance in open court, for the two justices now required, simpler procedure in admission and recapture, extension of the maximum period of detention to two years, and provision for the poor (who are at present unprovided for) by aid from the public rates."

With reference to inebriate criminals, the Departmental Committee proposes a revolution in judicial procedure, in suggesting that reformatory institutions should be provided, aided by contributions from imperial or local funds (as in existing reformatories and industrial institutions for juvenile offenders) for the reception and detention of criminal habitual drunkards. It is further recommended that magistrates should be empowered to commit to such institutions for lengthened periods, in addition to habitual drunkards who come within the action of the criminal law, inebriates who fail to find required sureties and recognisances, who are brought up for breach of such recognisances, who are found guilty of ill-treatment or neglect of their wives and families, or who have been convicted of drunkenness three or more times within twelve months.

Concerning Scotland, the Departmental Committee "calls attention to the proposed Restorative Homes Bill," which your Committee has repeatedly approved of.

Your Committee congratulates the Association on the prospect of amended legislation, and cordially thanks the Departmental Committee for its laborious and thorough inquiry and its weighty recommendations, which, though not all that your Committee has asked for, would, if embodied in an Act of Parliament, provide proper and efficient means of cure for many more inebriates, to the relief of their harassed friends, and to the public well-being and safety.

The Committee recommend their re-election as follows: The President and President-elect, *ex officio*; Mr. R. Welch Branthwaite, Dr. T. Bridgwater, J.P., Mr. D. B. Balding, J.P.,

Sir Charles Cameron, Bart., M.P., Dr. G. B. Clark, M.P., Dr. C. R. Drysdale, Mr. Geo. Eastes, Dr. J. W. Eastwood. J.P., Dr. R. Farquharson, M.P., Dr. W. T. Gairdner, Mr. W. C. Garman, Dr. J. Hill Gibson, Dr. A. Grant, Mr. F. J. Gray, Dr. C. J. Hare, Dr. Arthur Jamison, Mr. R. H. B. Nicholson, Surgeon-Major G. K. Poole, M.D., Brigade-Surgeon R. Pringle, M.D., Fleet-Surgeon Geo. Robertson, M.D., Dr. Geo. Danford Thomas (Coroner), Dr. H. W. Williams, Dr. Wynn Westcott, Dr. E. Hart Vinen, and Mr. H. R. Ker.

Norman Kerr, M.D., *Chairman.*

REPORT OF THE MEDICAL CHARITIES COMMITTEE.

Your Committee beg to report that since the last general meeting of the Association at Nottingham the report, with recommendations adopted at that meeting, has been sent to all the Branches of the Association, and to 110 medical charities in the metropolitan district.

The Branches were more particularly invited to express an opinion as to the maximum wage-limit above which persons should not be admitted to gratuitous medical relief. A summary of the replies received is given in Appendix A. As your Committee anticipated, the Branches consider a lower wage-limit desirable for the provinces than that which is applicable to the metropolitan district. Replies have been received from 48 medical charities, an abstract of which is given in Appendix B. Of the institutions which have replied, only seven decline to accept the report. The remaining replies are either favourable or to the effect that the report and recommendations are under consideration. Your Committee, however, hope that the institutions whose replies are unfavourable may yet be induced to adopt the more important of your recommendations.

It will be seen that a considerable number of the hospitals and dispensaries replied that the report was under consideration. A subcommittee was appointed to visit these institutions with a view to get a definite statement of policy. The subcommittee has visited several hospitals, and finds that the chief objection to adopting the recommendations put forward is that to do so would involve considerable expense, which the funds of the respective charities would not be able to meet. This refers especially to the appointment of an inquiry officer to investigate the circumstances of doubtful applicants for relief at the out-patient's and casualty departments of medical charities, in which your Committee find that the chief abuses exist. To meet this difficulty, your Committee suggest that the Councils of the Hospital Sunday and Saturday Funds and the Charity Organisation Society be invited to appoint official inspectors to discharge this duty for hospitals and dispensaries whose funds will not permit of the appointment of a special inquiry officer. Your Committee is strongly of opinion that the evils connected with the administration of out-patient relief cannot be successfully grappled with except through a rigid inquiry into the means of those who apply for charitable relief, on the lines laid down in the report adopted at the last annual meeting held at Nottingham.

We propose during the coming year to forward through our subcommittee to the principal hospitals and dispensaries a placard to be exhibited in conspicuous places so as to be seen by out-patients, to the following effect:

THIS INSTITUTION
Being Established to relieve only those persons who are too poor to pay for suitable Medical and Surgical Aid,
NOTICE IS HEREBY GIVEN
That On and After this Date
Patients will be required to give information as to their means and circumstances, with a view to prevent the abuse of this charity by persons who are well able to pay.
By Order of the Committee.
Dated ——

Your Committee will report subsequently as to which institutions are willing or unwilling to adopt the suggestions of the British Medical Association for the reform of hospital abuses.

J. Roberts Thomson, M.D., *Chairman.*

Appendix A: Replies of Branches.

Oxford and District Branch.—The communication from the General Secretary of the Association respecting the wage limit was brought forward, and it was resolved that the limit for this district should be 18s. for single and 25s. for married persons.

Edinburgh Branch.—Dr. Norman Walker moved, and Dr. W. Russell seconded, a motion to the effect that while the Branch sympathised with their English brethren in their difficulties regarding gratuitous treatment of undeserving patients at public hospitals, yet the method suggested seemed quite unsuited to the conditions existing in Edinburgh.

Bath and Bristol Branch.—It was unanimously agreed "that the facts adduced in this Report are not sufficiently precise to draw conclusions from, and that the recommendations are not likely to remove the abuses complained of."

Thames Valley Branch.—It was unanimously decided that the suggested wage limit of 45s. for married men was too high; although the Branch approved of the limit of 25s. for single men.

Reading and Upper Thames Branch.—That a wage limit of £1 per week is adopted at the Royal Berkshire Hospital, and is found to work well, and that the Council think such a limit a desirable one to fix for this district.

South-Eastern Branch (East Kent District).—After some discussion on the subject of hospital abuse, it was proposed and carried that a fair wage limit for the district would be 35s. weekly for married men and 21s. for single men.

North Wales Branch.—The report of the Medical Charities Committee was read, and, after much deliberation, it was resolved that the Honorary Secretary should forward a copy of the report to the medical staff of each of the public hospitals and dispensaries in North Wales for their consideration.

Shropshire and Mid-Wales Branch.—The recommendations of the Medical Charities Committee upon the question of the wage limit were considered, and it was decided to recommend that the wage limit in this district should be 18s. for single and 25s. for married men.

Glasgow and West of Scotland Branch.—The conclusions arrived at were that for out-door relief for single persons the limit should be 20s., and for married 35s. As regards the question of intern treatment, the Branch having regard to the many difficulties of the case does not feel able to make a recommendation as every case should, to a large extent, be considered on its own merits.

Aberdeen, Banff, and Kincardineshire Branch.—The report was referred to a committee consisting of Drs. Rose, Edmond, McKenzie Davidson, and Mackenzie Booth for further consideration, and report to next meeting.

South-Eastern Branch (East and West Sussex Districts).—A resolution was passed unanimously to the effect that the "wage limit" adopted by the Medical Charities Committee for Hospital Out-patients in the metropolitan area was a just one, and suitable for provincial towns, but that for rural districts no limit could be assigned.

The following Branches, namely, West Somerset, Perthshire, North of Ireland and Londonderry, decided to make no recommendation.

Appendix B: Abstracts of Letters of Medical Charities that are Favourable.

City of London Truss Society.—In reply to your inquiry requesting information as to manner in which patients are admitted at this institution and the methods adopted to prevent any abuse of the charity, I herewith forward categorical answers to your various questions.

St. George's Hospital.—Inquiries have been made for many years into the circumstances of persons applying for relief as out-patients.

Royal Free Hospital.—I beg to hand you herewith a copy of the notice just printed by order of my Board for use in our out-patient department, in accordance with the recommendations of your Committee.

Western Ophthalmic Hospital.—I have the honour to inform you that I laid your Report before my Committee on 11th instant. I am desired to inform you that 8 of the 11 suggestions mentioned in your Report are carried out by this Hospital.

The Wilfred Cottage Hospital.—The recommendations are carried out at this Hospital.

Surgical Appliance Society.—This Society does exactly what the British Medical Association recommends, except with regard to the notice on the walls, and that we have to-day adopted.

Hospital for Diseases of the Throat.—I am directed by the Committee of this hospital to inform you that the recommendations of the Medical Charities Committee, so far as they are applicable, have long been carried out here.

Great Northern Hospital.—The recommendations contained in the report are found to be in effect the same as those carried out at this hospital.

Abstracts of Letters of Medical Charities that are Partially Favourable.

Kensington Dispensary.—The recommendations are in general accord, but the Committee, however, are not prepared at present to make such changes in the regulations of the Institution as would entirely carry out the recommendations proposed by the Medical Charities Committee.

City of London and East London Dispensary.—Do not think the recommendations would be entertained except the clause relating to patients being required to give information as to their means, etc.

City of London Lying-in Hospital.—That whilst agreeing with many of the recommendations contained in the Report, they do not feel at present able to take action in the matter.

Ealing Cottage Hospital and Provident Dispensary.—That both Hospital and Dispensary are conducted on the provident principle, and the utmost care is taken that only the really needy shall benefit by the Institution.

Paddington Green Children's Hospital.—The Committee approve generally of the Report, but they do not at present see their way to doing more in this direction than they are now doing.

St. Pete's Hospital.—Though endeavouring to give effect to the spirit of the recommendations contained in the circular letter, the Committee feel that it would be impossible for them to provide funds for employing a special officer to make such investigations.

Home and Infirmary for Sick Children.—The small extent of our out-patient work makes it impossible for us to carry out all the recommendations.

MEDICAL CHARITIES THAT DECLINE TO ACCEPT THE REPORT.

City of London Hospital for Diseases of the Chest.—The Committee of this Hospital do not see their way to giving effect to the recommendations contained in the Report.

East London Hospital for Children.—That the Board decline to accept the recommendations contained in this Report.

North London or University College Hospital.—The Committee of this Hospital decided to take no action in the matter.

St. Marylebone General Dispensary.—The Board desire me to inform you that the recommendations cannot conveniently be adopted by this charity.

The Middlesex Hospital.—The Board do not see their way to entertain the recommendations.

Royal Westminster Ophthalmic Hospital.—The Committee desire me to inform you that they are not prepared to accept the recommendations.

West London Hospital.—The Committee feel themselves unable at the present moment to adopt the recommendations contained in the Report.

St Luke's Hospital.—We do not receive out-patients, so that the recommendations of the Committee on Medical Charities would not appear to apply to this Institution.

The Royal Hospital for Incurables.—As we have no out-patients in the general acceptation of the term, for medical relief, I hardly think this Charity would come within the range of your inquiry.

MEDICAL CHARITIES STILL UNDER CONSIDERATION.

Replies have been received from the following institutions to the effect that the report is still under consideration:—Blackheath and Charlton Cottage Hospital; Hospital for Consumption, Brompton; Charing Cross Hospital; Evelina Hospital; Finsbury Dispensary; Infirmary for Consumption, 28, Margaret Street; King's College Hospital; London Lock Hospital; National Hospital for Paralysis; North-Eastern Hospital; Poplar Hospital; St. Bartholomew's Hospital; St. Mary's Hospital; Westminster General Dispensary; Westminster Hospital; the Hospital for Women, Soho Square; London Temperance Hospital, Hampstead Road, N.W.; Guy's Hospital.

NO. OF MEDICAL CHARITIES APPLIED TO—(110).

Number that have answered favourably	8
Number that are partially favourable	7
Number that are still under consideration ...	18
Number that it is not applicable to...	7
Number that decline to accept the Report... ...	9
Number that have not replied	61
Total	110

REPORT OF THE COMMITTEE ON THE EFFICIENT CONTROL OF RAILWAY SERVANTS' EYESIGHT.

IN presenting its Report last year, the Committee indicated that the policy which it proposed to adopt was to allow the railway companies a reasonable interval for the consideration of its recommendations, and the introduction of voluntary reforms in their methods of sight testing.

The Committee is now able to report that during the past year some progress has been made in the desired direction. The presentation to the Board of Trade last year of the Report on Colour Vision by a Committee of the Royal Society led to the issue of the following circular by the Board:

BOARD OF TRADE (RAILWAY DEPARTMENT), LONDON, S.W.
August 31st, 1892.

SIR,—I am directed by the Board of Trade to enclose, for the information of the Directors, the accompanying copy of a Report of the Committee appointed by the Council of the Royal Society on Colour Vision, and to state that the recommendations contained in that Report, so far as railways are concerned, seem to the Board of Trade to be of so important a character as to make it their duty to ask for the observations of the Directors upon them.

I am to refer especially to the observations of the Committee as regards the tests for Colour Vision at present adopted by the Railway Companies, and their recommendations with regard to the systems of testing which should for the future be adopted.

I am to state that, so far as regards the Officers employed in the Mercantile Marine, the Board of Trade, upon whom the duty is cast under the provisions of the Merchant Shipping Act. 1854, have already taken steps to give effect to the recommendations of the Committee on the method of testing, and I am to invite the careful consideration by the Directors of those recommendations so far as concerns persons employed on their railway, and to request that the Board of Trade may be informed of the action which the Company propose to adopt. I am, Sir, Your obedient Servant,

COURTENAY BOYLE.

The Secretary —— Railway Company.

Your Committee recently endeavoured, through its Chairman, to ascertain what has been the result of this circular. The following reply has been received:

BOARD OF TRADE (RAILWAY DEPARTMENT), LONDON, S.W.
June 20th, 1893.

SIR,—With reference to your letter of the 14th instant on the subject of Railway Servants' Eyesight, I am directed by the Board of Trade to inform you that in August last a circular letter, of which a copy is herewith enclosed, was issued to the Railway Companies by this Department, calling attention to the Report of the Committee appointed by the Royal Society in the matter.

I am to add that, when all the Companies have replied to the circular letter above referred to, the correspondence will be laid before Parliament. I am, Sir,

Your obedient Servant,
FRANCIS J. S. HOPWOOD.

N. C. MACNAMARA, ESQ., F.R.C.S.,
13, Grosvenor Street, W.

The Committee is under obligation to Dr. MacGregor, M.P., for having, on July 6th, drawn public attention to the subject in the House of Commons by asking the President of the Board of Trade "whether the Board had taken or was about to take any steps to secure a more efficient control of the eyesight of such seamen and railwaymen as are responsible for the safe conduct of traffic." Mr. Mundella's reply contained nothing new.

There appears good reason to believe that the Board is turning its attention seriously towards the task of reform, but its policy has not yet been disclosed. It is very desirable that the Board should make its intentions public. Some railway managers are at present only waiting for regulations to be issued by the Board, in order to be able to enforce them with its authority. Others have already revised their methods of examination, but in no uniform manner. The following circular, issued by the Manager of the North-Eastern Railway, is highly gratifying to the Committee, since it contains evidence that the Committee's Report (1892) has been freely drawn upon, and its chief recommendations adopted:—

NORTH-EASTERN RAILWAY.
GENERAL MANAGER'S OFFICE,
York, *November 24th*, 1892.

[General Order 54.]

TESTING OF EYESIGHT.

On and after this date, every person entering the service of the Company in the undermentioned grades will be required to pass an examination of eyesight, both as to accuracy of colour-vision and form-vision, in accordance with the following rules:—

1. The grades for entry into which the eyesight test will have to be passed are as follows:—

Coaching Department:
Station Masters and Assistant Station Masters; Inspectors; Guards and Assistant Guards; Signalmen and Assistant Signalmen; Porters who may be employed as Guards or Signalmen; Shunters; Gatemen.

Locomotive Department:
Engine-drivers; Firemen; Cleaners.

Engineers' Department:
Inspectors; Gangers; Platelayers; Guards; Signalmen; Gatemen.

Goods and Mineral Departments:
Inspectors: Signalmen, Signal boys, and Signal lighters; Shunters; Pointsmen in Shunting Yards: Porters who may be employed as Shunters and Guards.

Steam Boat Masters and Seamen.

Dock Masters and Assistants; Dock Gatemen and Mooringmen.

2. The examination will be conducted by the Company's Medical Officers at York and Newcastle, and for the purposes

of eyesight examination the Company's system will be divided into two districts as follows:—

Northern Engineers' Division .....to be examined at NEWCASTLE.

Central and Southern Engineers' Division to be examined at YORK.

3. The tests which will be required are:—

For Colour Vision.....Holmgren's Wool Test.

For Form Vision.....Snellen's Type Test.

4. Any candidate for employment in any of the grades of service named in paragraph 1 will, before being employed, be required to obtain a certificate from the Company's Medical Officer at Newcastle or York, as the case may be, that he has been examined as to his eyesight, and that he possesses normal vision, both as to colour and form.

5. Every servant of the Company on being promoted from a lower to a higher grade of service in any of the positions named in paragraph 1 will be required to undergo re-examination as to colour and form vision.

6. Every servant of the Company in the grades specified in paragraph 1 must be re-examined as to the accuracy of his eyesight (colour and form) after any accident or serious illness, and for form vision periodically at intervals not exceeding five years.

7. After any accident on the railway, where the exhibition of a wrong signal may have been amongst the causes contributing to the accident, each servant in any way responsible for the working of observance of the signals must be specially examined as to the accuracy of his eyesight.

GEORGE S. GIBB,
General Manager.

The medical officer (Mr. Edmund Owen, F.R.C.S.) of the London Tilbury and Southend Railway has also courteously attributed to our Report the adoption by that line of a system of visual re-examination of *employés* every five years.

On the other hand, the probability of securing *only partial* reforms, if the initiative be left in the hands of the railway managers, is illustrated by the fact that the Manchester, Sheffield, and Lincolnshire Railway has adopted Holmgren's colour test (using Jeaffreson's apparatus), but appears still to draw its examiners from the locomotive staff.

Again, the Lancashire and Yorkshire Railway, whose tests and methods) see Appendix to the Committee's Report of 1892, "Visual Tests on the Railways of England and Wales, No. 19") are very unsatisfactory, appears to have resolved to make no change. If this obdurate attitude is maintained there will be no remedy but legislation.

From the few examples which have been given it is evident that it will be necessary to continue to watch the progress of reform with vigilance.

In asking for a continuance of its appointment the Committee wish to draw attention to the statement contained in the above circular issued by the Board of Trade, which indicates its intention to alter the visual tests employed in the Mercantile Marine. This is a subject of the utmost importance, and the Committee ventures to suggest that the Council should extend its powers and title so as to enable it to add the promotion of the efficient control of mariners' eyesight to its present function.

N. C. MACNAMARA, *Chairman.*

COMMITTEE ON THE PHYSICAL AND MENTAL CONDITION OF SCHOOL CHILDREN.

YOUR Committee have continued their investigation of the condition of school children in conjunction with the Committee appointed by the International Congress of Hygiene and Demography. A methodical arrangement of analysis and tabulation of observations is in use, and the results will be submitted to professional actuarial investigation when a sufficient number of schools has been examined, but it is thought that this should be deferred till at least 50,000 children have been inspected. At present only 8,000 cases are in the hands of the Committee, owing to want of funds, but 27,400 children have been examined; it is hoped that 100,000 cases may be investigated, and tables prepared demonstrating the varied conditions of child life that have to be dealt with by the State—a work which it is believed will prove of great value when placed upon a sufficiently wide basis.

Further information has been obtained by analysis of the 50,000 cases already published (1892), and papers have been brought before the Royal Statistical Society, the Sanitary Congress, the British Association, the Anthropological Society, and the Medical Society of London. Results obtained may be illustrated by the following points: Constitutional differences between boys and girls are marked; boys present more cases of irregular development, brain disorder, and mental dulness, but girls when ill-developed tend in greater degree to become mentally dull and thin, pale, and delicate; small heads are more common among girls, nearly half of them are mentally dull, they are most numerous in certified industrial schools and in certain districts, especially in the Strand and the City, that is, presumably among large block dwellings and warehouses. Low nutrition appears to be very largely associated with ill development, these latter cases are delicate and tend to nerve disturbance and mental dulness; hence they are frequently absent from school and appear in large numbers in Poor Law and certified industrial schools. This fact suggests the desirability of fully investigating the causes of defectiveness among children who throw such a heavy burden upon the State. Children appear in better condition in day schools than in resident institutions. The number of eye cases seen is as large as in the earlier portion of the inquiry, and ophthalmia is found very prevalent in many day schools. English, Irish, and Jewish schools have been reported on; the differences between them appear as marked in the tables published.

The Committee are endeavouring to spread a further knowledge of the conditions of child life and indications of their mental status; for this purpose they desire to promote Lectures upon the study of children, and have addressed a letter upon the subject to the Universities, Training Colleges, and other educational bodies. Your Committee trust that the Memorial passed by the British Medical Association to the Government urging them to appoint a Scientific Commission of Inquiry, may be presented by a suitable deputation, and believe that the information thus acquired would suggest remedial measures tending to social improvement and a lessening of pauperism and criminality by improvement of the conditions of the child population.

FRANCIS WARNER, *Hon. Sec.*

APPENDIX TO REPORT TO SCIENTIFIC GRANTS COMMITTEE.

A brief Statistical Report is here given of 16,094 Children seen in 18 Schools, showing numbers of Children presenting each Defect, and numbers in certain Groups as indicated.

Defect or Group of Children.	Boys.	Girls.
Cranial abnormality	254	230
Ear	108	36
Epicanthis	97	66
Palate	121	83
Nose bone	39	48
Other defect	70	67
Growth	79	106
General balance	25	47
Expression	50	68
Frontals overact	207	39
Corrugation	8	3
Orbiculus oculi relaxed	112	101
Eye movements	119	85
Head balance	28	85
Hand weak balance	261	167
Hand nervous balance	72	112
Finger twitches	32	41
Lordosis	14	35
Other nerve signs	142	96
GROUPS OF CASES.		
Rickets	24	3
Eye cases	212	191
Nutrition low	184	220
Mental dull	646	521
Exceptional pupils	63	57
Children maimed or paralysed	35	35
Children with history of fits during school life	16	18
Imbeciles	3	2
Children feebly gifted mentally	33	35

The children seen were distributed in Standards in school as follows:

Infants.	Primers.	I.	II.	III.	IV.	V.	VI.	VII.	Ex. VII.	
2,746	63	1,425	1,165	1,104	849	589	383	133	26	Boys.
2,498	113	1,310	1,064	970	757	483	250	141	25	Girls.

The cases noted as deviating in some particular from the normal were distributed in Standards in Schools as follows:

Infants.	Primers.	I.	II.	III.	IV.	V.	VI.	VII.	Ex. VII.	
365	23	332	232	160	149	83	50	16	4	Boys.
314	49	227	183	127	104	52	35	15	4	Girls.

Total No. of Children seen—Boys, 8,483; Girls, 7,611; Total, 16,094.

Total No. of Children noted for defects—Boys, 1,414; Girls, 1,110; Total, 2,524.

FRANCIS WARNER, *Hon. Sec.*

REPORT OF THE COMMITTEE APPOINTED TO INVESTIGATE THE NATURE OF THE PHENOMENA OF HYPNOTISM; ITS VALUE AS A THERAPEUTIC AGENT; AND THE PROPRIETY OF USING IT.

THE Committee, having completed such investigation of Hypnotism as time has permitted, have to report that they have satisfied themselves of the genuineness of the hypnotic state. No phenomena which have come under their observation, however, lend support to the theory of "animal magnetism."

Test experiments which have been carried out by members of the Committee have shown that this condition is attended by mental and physical phenomena, and that these differ widely in different cases.

Among the mental phenomena are altered consciousness, temporary limitation of will power, increased receptivity of suggestion from without, sometimes to the extent of producing passing delusions, illusions, and hallucinations, an exalted condition of the attention, and post-hypnotic suggestions.

Among the physical phenomena are vascular changes (such as flushing of the face and altered pulse rate), deepening of the respirations, increased frequency of deglutition, slight muscular tremors, inability to control suggested movements, altered muscular sense, anæsthesia, modified power of muscular contraction, catalepsy, and rigidity, often intense. It must, however, be understood that all these mental and physical phenomena are rarely present in any one case. The Committee take this opportunity of pointing out that the term hypnotism is somewhat misleading, inasmuch as sleep, as ordinarily understood, is not necessarily present.

The Committee are of opinion that as a therapeutic agent hypnotism is frequently effective in relieving pain, procuring sleep, and alleviating many functional ailments. As to its permanent efficacy in the treatment of drunkenness, the evidence before the Committee is encouraging, but not conclusive.

Dangers in the use of hypnotism may arise from want of knowledge, carelessness, or intentional abuse, or from the too continuous repetition of suggestions in unsuitable cases.

The Committee are of opinion that when used for therapeutic purposes its employment should be confined to qualified medical men, and that under no circumstances should female patients be hypnotised except in the presence of a relative or a person of their own sex.

In conclusion, the Committee desire to express their strong disapprobation of public exhibitions of hypnotic phenomena, and hope that some legal restriction will be placed upon them.

(Signed) F. NEEDHAM, *Chairman.*
T. OUTTERSON WOOD, *Hon. Sec.*

*** At the last annual meeting the report presented by the Committee on Hypnotism was referred back to it "for further examination and report." In accordance with the reference, the Committee has decided to submit as an appendix to the report some of the documentary evidence upon which it is based. Among the documents sent to the Committee were the following:

1. Details of a series of valuable investigations carried out by Mr. J. N. Langley, M.A., F.R.S. (Lecturer on Physiology in Cambridge University), in conjunction with Mr. Wingfield, B.A. On the death of Dr. Ross of Manchester Mr. Langley joined the Committee, and placed these details at its disposal.

2. A report by Dr. G. M. Robertson, who, acting as Dr. Clouston's representative, visited Paris and Nancy for the *special purpose* of investigating and reporting upon the methods employed at these two schools.

3. A reported by Dr. Yellowlees, approved by Professor Gairdner.

4. Reports by Drs. Robertson, Fleming, Kingsbury, Draper, and Hack Tuke.

5. A *resumé* of cases treated by Dr. T. Outterson Wood.

All of which will be submitted.

PRELIMINARY REPORT OF THE ANÆSTHETICS COMMITTEE.

(*Adopted by the General Committee, June 26th*, 1893.)

AT the meeting of the British Medical Association in Bournemouth, in July, 1891, an important discussion on anæsthetics was carried on in the Section of Therapeutics. A general opinion was expressed that death under chloroform occurred far too frequently. Objections were raised to the teaching of the Hyderabad Commission, namely, that deaths under chloroform occurred through respiratory failure alone—never from primary cardiac syncope, and that in giving chloroform it was unnecessary to regard the pulse, and desirable to watch the respiration only. The objections were based on the ground that it was unsafe to form absolute conclusions with regard to a man from experiments made on the lower animals, and that these conclusions did not accord with those of other physiologists, or with those arrived at from clinical observations. As a result of the discussion, a Committee was formed for the purpose of investigating the clinical evidence with regard to anæsthetics.

The objects of the Committee (as defined by the resolution of the Council of the Association in November, 1891) are as follows:—

> To investigate the clinical evidence with regard to anæsthetics, and especially the relative safety of the various anæsthetics, the method of administering them, and the best methods of restoring a patient in case of threatened death under anæsthesia.

The methods employed by the Committee in conducting their investigation were reported by them to the Council at the last Annual Meeting.

The record books issued by the Committee at the beginning of 1892 were collected in January of this year. The total number of record books received from various parts of the United Kingdom (hospital and private practice) was 136.

No. of records in record books...	26,086
No. reported from note books, but not in the record books	6,147
No. reported by Surg.-Lt.-Col. Lawrie (from India)	1,521
Total	33,754

Since January the Executive Committee have been engaged in enumerating, considering, and classifying the 26,086 records reported in the books.

No of Chloroform administrations	13,999
,, Ether ,, ,, ...	4,571
,, Gas and Ether ,, ,, ...	2,001
,, A. C. E. ,, ,, ...	691
,, administration of gas, and various mixtures and combinations	4,824
Total	26,086

Taken as a whole, the records may be regarded as representing, though in broken form, the manner and methods of administering anæsthetics, and the results produced in this country. The recorders throughout have recounted the difficulties and risks which have occurred with complete candour, and the best thanks of the Committee are due to them for this, as well as for the patient and conscientious labour which they have bestowed on this undertaking. The notes on cases of dangerous symptoms are in some instances very scanty, but in the majority are quite sufficient to enable an opinion to be formed with regard to the degree of danger incurred.

The cases in which dangerous symptoms of death have occurred under chloroform and ether have been abstracted, roughly classified, printed, and circulated amongst the members of the Exective Committee, to enable them to study, discuss, and adjudge each case on its own merits. For this purpose much time and labour, and many prolonged meetings have been required. Much still remains to be done, but this Committee will shortly be able to submit an account of the whole of the cases of death or danger recorded (under chloroform and ether), arranged in such manner as to show the degree of actual danger, and to indicate how far the symptoms are attributable to the anæsthetic, the condition of the patient, or the nature of the operation.

Those who have been engaged in studying the records are convinced that the facts accumulated in this investigation will prove of great value in illustrating the various difficulties encountered by administrators of anæsthetics in all parts of the country, and in determining the ratio of such difficulties to the number of administrations.

The information derived from so many different sources and from such a wide area may be expected to form a new and reliable basis for estimating the relative safety of the anæsthetics in question under existing conditions. Much useful instruction is also to be gathered from the records with regard to the other objects of the investigation, namely, the best methods of administering anæsthetics, and of restoring patients from dangerous conditions during anæsthesia.

JONATHAN HUTCHINSON, *President.*
CHRISTOPHER CHILDS, *Hon. Sec.*

REPORT OF THE THERAPEUTIC COMMITTEE.

During the past year the Committee has conducted an inquiry into the frequency and importance of the ill effects alleged to attend the use of phenazone (antipyrin), acetanilide (antifebrin), and phenacetin as antipyretic and analgesic agents.

In carrying out the inquiry the Committee have had the co-operation of the Secretaries of twenty-seven Branches of the Association, and, in the case of the South Wales and Monmouthshire Branch, of a local Therapeutic Committee. This latter has been formed, with Dr. D. R. Paterson as Honorary Secretary, to assist the Central Committee in conducting inquiries of this kind.

The inquiry, which was addressed to those likely to possess the necessary experience in the use of the drugs, has recently been concluded, and its results tabulated and analysed. Two hundred and twenty reports in all have been received.

It would appear from these reports that both the frequency and importance of these ill effects have been considerably exaggerated. The predominant opinion is that, with due care, especially as regards the initial dosage, ill effects other than those connected with idiosyncrasy, are extremely infrequent, of little or no importance, and are not of such a character as to limit in any material way the usefulness of the drugs. This conclusion does not so fully apply to antifebrin, the action of which has been frequently followed by ill effects. In the case of antifebrin the dosage employed has in the majority of cases been too large.

WM. HUNTER, *Hon. Secretary.*

BEQUESTS.—The late Mr. Herbert Howard Keeling, of Eltham, who died on June 7th, has by his will bequeathed £100 to the Eltham Cottage Hospital. Mr. William Francis Low, of Wimpole-street, who died on June 10th, has bequeathed £100 each to the London Fever Hospital, Liverpool Road, Islington, and the North London or University College Hospital.

SPECIAL CORRESPONDENCE.

MELBOURNE.

Visitors to Europe.—The Pathology and Treatment of Syphilis.—The Melbourne Morgue.—Accidental Contamination of the Water Supply, followed by Epidemic Dysentery.

DR. GEORGE GRAHAM, prior to his departure for Europe, was presented by the President of the Victorian Branch of the British Medical Association with an address which expressed the warm feeling of regard entertained by the whole medical profession of the colony for the recipient. Dr. Graham has been in practice in this part of the world for the last forty years, and has been severally President of the Medical Society of Victoria and of the Victorian Branch of the Association. The opportunity of the presentation was taken to propose the health of Dr. Graham, which Mr. T. N. Fitzgerald, who occupied the chair, did in felicitous terms. Complimentary remarks were added to those of the chairman by Dr. M'Crea, Dr. Neild, Dr. Cutts, and Dr. Gresswell.[1]. A few days later the approaching departure of Dr. Felix Meyer, for many years connected with the Women's Hospital as honorary surgeon, was taken advantage of to entertain him at a farewell supper. Dr. Meyer will act as the accredited representative of this Branch while at Rome and in England. Dr. Meyer is the Vice-President of the Branch, and both Dr. Graham and Dr. Meyer we cordially commend to the brotherhood of our calling in the old world.

In a communication which I have received from Dr. O'Hara, honorary surgeon of the Alfred Hospital, I am asked to place before the profession in England a theory which he has propounded in the treatment of syphilis. Dr. O'Hara says that he believes that the micro-organisms of syphilis are conveyed from the point of inoculation through the lymphatic ducts to the inguinal glands, and increasing there are carried into the large venous circulation through the ducts. He believes that the micro-organism responsible for the production of the soft so-called non-infecting sore and the true Hunterian chancre are identical. His theory to account for the absence of secondary symptoms in cases of soft chancre is based on the following supposition: The breaking down of the inguinal glands iuto the suppurating bubo gives a ready means of egress to the pent-up virus, and the necessary inflammatory thickening surrounding the inguinal region blocks the ducts leading from these glands, completely isolating this region. In cases of hard Hunterian chancre with enlarged non-suppurating inguinal glands, he has attempted to imitate this natural process by introducing a seton of iodoform gauze deeply through the inguinal region, well below the hardened mass and parallel to Poupart's ligament. Another seton is now introduced through the mass of hardened glands at right angles to the first. The application of a little savin ointment on the seton soon sets up the required suppuration. In this way the glands break down and disappear with the outflow of purulent material through the seton openings. Dr. O'Hara states that he has treated 12 cases by this method with satisfactory results, and without the development of secondary symptoms.

The Morgue returns for the year 1892 show the number of inquests held during that period to have been 325. This is taken from a population of about 450,000. The inquests were held by Dr. J. E. Neild, Dr. Youl, and Mr. Candler. The following is a summary: Suicides, 39; accidents, 131; murders, 1; manslaughter, 2; executions, 1; delirium tremens, 1; infanticide, 28; miscellaneous, 122.

The contamination of our water supply, owing to impurities penetrating through defective water plugs, has been the cause of a good deal of controversy between the Board of Health and the Metropolitan Board of Works. Dr. Gresswell, the Medical Officer of the Board of Health, asserted that in his opinion an epidemic of dysentery, which attacked the inhabitants of a particular part of the city only, owed its origin to a draining of sewage into the main through the water plugs in certain streets while the water in the main

[1] It was recently our painful duty to publish an obituary notice of Dr. George Graham, who died on the voyage home.—[ED. *B. M. J.*]

was at low pressure. Dr. Gresswell demonstrated his statements by a series of experiments and a careful house-to-house visitation of the infected district. The results of his inspection he published in a report, and in a paper which he read before the Victorian Branch of the British Medical Association. His arguments and demonstrations are irrefutable. One of his experiments showed that as soon as the water was turned off at the main, a great amount of suction was observable at one particular plug in a blind lane, to which attention had already been directed, and presently a quantity of sewage was sucked into the plug. When the main was afterwards flushed, at least ten buckets of foul water were discharged from the plug, and a sample of this shows a deposit of nearly 2 inches of mud in a small bottle, while the water itself is of a thick greyish-brown colour, and possesses no transparency whatever. Dr. Gresswell has, in consequence, recommended the adoption of pillar hydrants instead of the surface plugs which we now have, and which in many instances are situated in gutters and in the middle of roads.

In a previous letter on the customs of the Queensland blacks, a misprint has crept in. When one of their number was dying, they used to administer large doses of *semen* (not *senna*, as printed). Anticipating Brown-Séquard?

BIRMINGHAM.

Cessation of Small-pox.—The New Infectious Hospital.—Queen's College Medical Society.

THE small-pox epidemic may now be said to be over, and the Health Committee in their report to the City Council include some tables furnished by the medical superintendent of the Fever Hospital giving some interesting details of the epidemic. Of the 291 cases admitted during the half year ended June 30th, 238 cases were vaccinated, 36 not vaccinated, and two cases were doubtful. Of these the death-rate amongst the vaccinated was 3.5 and of the unvaccinated 22.2, while both doubtful cases were fatal. Of the 238 vaccinated cases, 57 were confluent and 2 hæmorrhagic, whereas out of the 36 unvaccinated the disease was confluent in 22 cases and hæmorrhagic in 3. No members of the staff contracted the disease; all had been recently revaccinated. It was also observed that in several instances an unvaccinated child was the first to contract small-pox, and so introduce it into a household.

Plans of a new Infectious Hospital, the site of which has been already secured, have been provided by Mr. W. H. Ward, the architect of the workhouse infirmary. It is to consist when complete of ten pavilions, to accommodate twenty-four patients each, receiving and discharging wards, isolation block for doubtful cases, nurses' home, and administration block; 2,500 cubic feet are allowed each patient in the pavilions, and the estimated cost of the whole building is £41,920, or about £170 each bed. It is proposed at present to erect only four of these pavilions, and work has actually commenced on two of them.

The Queen's College Medical Society held their annual excursion last Wednesday, and, in spite of the unfavourable weather, had a most enjoyable outing.

SHEFFIELD.

West Riding Medical Charitable Society.—Seeing is Believing.—Children's Ward at Rotherham Hospital.

THE West Riding Medical Charitable Society held its annual meeting on July 20th. This excellent and well-managed charity presented a very satisfactory report, and, whilst in the fortunate position of adding to its funded capital, it yet was able to give between £800 and £900 with a generous hand to the applicants. By the prudence of a bygone generation, fostered also by its present managers, this Society is in such a prosperous financial position, and confers such important benefits, that it is a matter of surprise a far larger number of the profession in the West Riding are not more eager in its support.

The authorities at the Skin Hospital, with its other titles, will have to look to their laurels. A rival is in the field for the cure of lupus and cancer. Possibly the nature of the treatment is as much made public as the cancer treatment at the hospital named has been brought before the profession. Anyway, "300 people cured of consumption, cancer, lupus, tumours, and other intricate complaints," were advertised recently to be present at a presentation to Handyside's representative at Sheffield, and a live J.P. was to take the chair. "All should hear the wonderful declarations made by the patients; can only be believed by seeing."

It is stated that the certificate presented by the girl mentioned in a former letter as having been vaccinated in a peculiar manner has been accepted by the Education Department.

At a recent meeting of the committee of the Rotherham Hospital it was decided to proceed forthwith with the erection of the new children's ward. The feoffees have contributed £750 towards the cost. An excellent feature in the proposed plan is a glass verandah, extending the whole length of the ward, thus enabling children in summer to be readily wheeled out into fresh air.

LEEDS.

Small-pox in Leeds.—River Pollution in the West Riding.—The Leeds Infirmary.

DURING the past week there has been a further decrease in the number of small-pox cases in the city, the number in hospital falling to 33, as compared with 44 of the previous week.

Mr. George Mann recently forwarded to the Local Government Board a letter, urging them to bring pressure to bear upon the local authorities with regard to the condition of the Aire. He has received a reply, in which it is stated that the Board have issued a provisional order, constituting a joint committee for the purpose of enforcing the provisions of the Rivers Pollution Prevention Act, 1876, in the case of the rivers in the West Riding of Yorkshire. The order has been submitted to Parliament for confirmation, and now awaits the Royal assent.

Mr. F. Roberts, M.B.Lond. (Honours), has been appointed Resident Medical Officer to the infirmary, in place of Dr. Cuff, who has resigned the post. Dr. Roberts previously held the post of House-Physician for a year in the infirmary, and since that time has been Resident Medical Officer at the dispensary in Leeds.

CORRESPONDENCE.

THE CONDEMNED MAN BARKER.

SIR,—We were pleased to see the leading article about Christopher Barker. The article was copied into the *Lincolnshire Echo*, which added a leader on the case. I send herewith a copy of the paper. Two medical men have come from London to examine the prisoner, no doubt sent by the Home Office; one of them is Dr. Nicolson from Broadmoor. The leading article in your JOURNAL skilfully arranged the facts, and, in my opinion, came to a correct conclusion.

The difficulty which the medical witnesses for the defence laboured under seemed to me that the form of insanity in question, the delirium of persecution or suspicion, is not a striking form. There are persons whose likeness, from peculiarities in their appearance, can be drawn in a few strokes; others require many fine touches ere their likeness could be recognised. With experienced alienists like Dr. Lindsay and Dr. Russell the type was already in their minds, and they soon put Christopher Barker in this class, but the type did not exist in the minds of the jurymen; their notions of insanity would likely be some of the monstrous, a much greater deviation in the reasoning powers, some gross and palpable delusions or striking hallucinations, or sustained violence of language and conduct. If Dr. Lindsay did not appear as a plausible witness, it was because he held rigidly to the facts, and did not allow his language to trip farther than his evidence. Dr. Bastian is reported to have stated that the evidence of insanity in the family history had not turned out so strong as he thought it would have been. It might be asked, if he thought the man to be sane, why should he have expected that the family history should gainsay his opinion. It struck me forcibly that the neurosis

was not only hereditary, but that it bred true. The insanity was shown to have appeared in the family both of the father and of the mother, and, what is not common always, took the same type as the man condemned to suffer at law for it—namely, delirium of persecution.—I am, etc.,

Lincoln, July 25th. WILLIAM W. IRELAND.

FEES OF MEDICAL WITNESSES.

SIR,—I gather that a medical man summoned on a subpœna to a police court to give evidence in a criminal case is entitled to a fee of 10s. 6d. within the two mile radius of the court, and to £1 1s. outside that radius. Please correct me if I am wrong.

I was summoned to Poole (four miles away) on behalf of the Crown (police) as a witness in a prosecution for procuring abortion. I had to attend twice, and was then bound over to appear at Dorchester, when the Grand Jury threw out the bill.

At Dorchester I received:

	£	s.	d.
Railway fares	0	9	10
Attendance at Dorchester	1	1	0
Attendance twice at Poole	1	1	0
	£2	11	10

I claimed a guinea for each attendance at Poole, and was denied.

If my claim was just, I should be glad if you could tell me what steps to take to enforce it, as this is not the first time that I have believed myself entitled to a higher fee than I have got.—I am, etc.,

Bournemouth, July 16th. FRANCIS POTT, M.R.C.S., etc.

*** According to the scale of fees issued by the Home Office, the fee to medical witnesses who reside more than two miles from the place where they give evidence before magistrates is a sum not to exceed one guinea. The witness is, therefore, at the mercy of the taxing officer. This is very unsatisfactory, but until the rule is altered there appears to be no remedy. If members of the Association who have similar grievances would forward a statement of them to the Chairman of the Parliamentary Bills Committee, steps might be taken to procure a revision of the scale. A similar request for information as to such grievances was made not long since, but a very scanty response was made, insufficient to justify or to support vigorous action, of a character likely to be effective.

THE FATAL CASE OF SNAKE BITE IN SOUTH WALES.

SIR,—The case of fatal poisoning by snake bite in Glamorganshire, reported in the BRITISH MEDICAL JOURNAL of July 15th, is of great interest, inasmuch as authenticated instances where this injury has terminated in death are extremely rare. Indeed, Professor Bell, in his work on *British Reptiles*, expresses a doubt as to whether a fatality from this cause has ever actually occurred, he having been unable to trace any quoted case to a valid source. As a matter of fact, however, I believe that this is the fourth which may be regarded as vouched for by competent authority in Great Britain. Death from snake bite is more commonly heard of on the Continent, but is there almost invariably due to another species of viper, though one which is closely allied to our own. Nevertheless, many bitten persons who have recovered from all primary symptoms produced by the poison eventually succumb to its influence, in remote and indirect effects, at a later period.

Drs. Jennings and Fraser state that the fang wounds were one-tenth of an inch apart. If this be so, it should stamp the aggressor as a very small specimen; two-fifths or even half an inch would more nearly represent the interval between the punctures inflicted by a full-grown viper. In the bites of these serpents which possess erectile fangs, the breadth of surface included is often a little greater than the space which separates the teeth as they lie quiescent in the mouth, a fact which I have repeatedly verified where tropical *Viperidæ* and *Crotalidæ* were concerned. But it very frequently happens that one fang misses altogether where the finger is struck. One mark only would then, of course, be visible, but it would not follow that the symptoms must necessarily be less severe.

That no pain should be felt for three-quarters of an hour is certainly unusual; the rest of the phenomena described are characteristic enough; there is often little or no mental disturbance.

The reptile does not appear to have been secured, but is ascribed "presumably to the adder species." Now, of the three snakes inhabiting this country, one only is venomous, the common viper or adder (*Pelias berus*)—the "little viper" of France and the Continent generally. The poor little legless lizard known as the slowworm or blindworm has, I know, a bad reputation in some parts of Wales, where it is called the "sheepsnake," and is credited with evil deeds innumerable; but it is absolutely inoffensive, in spite of Shakespeare's libellous appellation of the "eyeless, venom'd worm." But your correspondents say that the case was at first looked upon as one of a bite of an "ordinary mountain snake." If by mountain snake is meant the common ringed or grass snake (*Tropidonotus natrix*), it would be deeply interesting to know, both as a question of natural history and as a point of possible importance in diagnosis, whether they have ever seen or heard on good authority of this creature biting? It will hiss furiously on the smallest provocation, and its odour when enraged is something appalling; but, though I have handled hundreds, perhaps thousands, of them in the course of my life, I never experienced a bite from one, nor have I ever met with anyone whose testimony on this head was otherwise. And I am not acquainted with any other member of the serpent tribe of which the same thing can be said, although I have "gone in" for reptiles all my days.—I am, etc.,

Watford, July 24th. ARTHUR STRADLING.

DEATH UNDER CHLOROFORM.

SIR,—In the BRITISH MEDICAL JOURNAL of July 15th, "Health" expresses his agreement with "A. S. V. G." in the opinion that the majority of fatal cases are due to the "too rapid administration of a too concentrated atmosphere." As far as *post-mortem* appearances are concerned, he altogether omits to notice the principal point in my letter of May 20th, which was that these appearances in dogs should differ so widely from those observed in the human subject. As we know positively that many of the dogs were purposely killed by a very strong atmosphere, it is hard to see how "Health" can derive anything from the facts in support of his opinion, to which clinical records lend even less countenance. The late Dr. Snow consistently maintained the view of your correspondent, and founded his percentage system on it. What was the result? We have long ago had the verdict of those who were by no means unfriendly critics. Thus the *Lancet*, in a special report on anæsthetics (vol. i, 1873, pp. 879, 880), says: "The practice founded on the percentage theory was never admitted by the distinguished man who had most to gain from any process which should make the administration of chloroform safe. Sir James Simpson ..... maintained that the more rapid the administration of the vapour the greater the safety of the patient. The second and most potent argument against the theory was the fact of the results brought against it."

Now I would here remark that few men have done more for anæsthesia than Dr. Snow, and I agree that his view that the vapour should not exceed a certain degree of concentration was quite correct. If so, therefore, we must look elsewhere for some error or defect in his teaching. And in my opinion we find it in his notion that it is advisable to give a breath or two of fresh air now and again, and that we ought never to produce deeper narcotism than seems necessary for the operation contemplated. This is the vital difference between his views and practice and those of Syme and Simpson, and it is undeniable that this difference existed. Thus Dr. Snow, speaking of his fourth degree of narcotism, in which the "breathing is stertorous, the pupils are dilated, and the muscles are completely relaxed," goes on to say: "It is very seldom necessary to carry the effects of chloroform as far as this degree." A reviewer of his work, in the *Edinburgh Medical Journal*, vol. iv, p. 645, says of the same degree: "This is the condition generally aimed at by surgeons, at least in Edinburgh." From personal observation I can testify

that this degree was invariably induced in Syme's operating theatre. It has often been acknowledged that death from chloroform has resulted, in spite of all apparent care and skill, and that its action is often anomalous and inexplicable, all which tell against your correspondent "Health"; for if his views were correct there would be a thoroughly sufficient and self-evident cause for the majority of fatalities.—I am, etc.,

Partick, Glasgow, July 25th. ROBERT KIRK, M.D.

THE DUTIES OF CORONERS AND DOCTORS.

SIR,—I send with this a copy of the *Sydenham and Penge Gazette* of July 22nd, containing a report of an inquest held at Catford on July 18th.

As the case is one of some interest to the profession, will you kindly state:

1. Whether I or any other medical practitioner "exceeds his functions," and, if so, in what way, in making a *post-mortem* examination, with the sanction of the relatives of the deceased person, in order to explain the cause of death?

2. Whether it is usual to hold an inquest in such a case as that recorded when the fullest information of the case has been already given by the relatives to the registrar, and by the medical man in attendance on the patient to the coroner?

3. As the deputy coroner states that "in some cases such a course" as that here taken "might be serious," what other course than that adopted should have been followed to avoid "giving trouble?"

It is very instructive to note that after the recent comments in the press regarding the occasional irregularity and vagueness of certificates of death it is now thought by the deputy coroner that a medical man "exceeds his functions" in making a *post-mortem* examination in order to ascertain the exact cause of death.—I am, etc.,

Forest Hill, July 25th. JOHN M. BRIGHT.

*** It is not illegal for a medical man, with the consent of the relatives, to make a *post-mortem* examination of a body to ascertain the exact cause of death before giving a certificate or communicating with the coroner, but it is the wisest course, if any difficulty arises as to the cause of death, to communicate with the coroner first, who will, if an inquest is necessary, give the order for the *post-mortem* examination, for which the practitioner is entitled to remuneration, but not otherwise. The death in question was not a natural death, and it was the duty of the coroner to hold an inquest, as in all other cases of death arising from injury or violence of any kind, and it is the duty of registrars to report such cases to the coroner. The word "peritonitis" alone as the cause of death is not satisfactory, as the peritonitis may arise from traumatic or natural causes. In doubtful cases our correspondent would do well to refer at once to the coroner, and await his instructions.

ABUSE OF MEDICAL CHARITIES.

SIR,—In an editorial notice under the above heading, published in the BRITISH MEDICAL JOURNAL of July 22nd, 1893, the profession is gravely informed that "Here in London .....no attempt whatever is being made to formulate any plan by which that abuse may be checked." The writer of this sweeping statement has evidently overlooked the fact that a very clear and definite plan was not only formulated, but has been for a long time in active and successful operation at the Great Northern Hospital at Holloway, and that full particulars thereof were published in the JOURNAL on December 26th, 1891 (*q.v.*).

The main features of this scheme are shortly as follows: A strict but carefully graduated wage-limit; refusal of any patient not coming within the wage-limit, unless certified at the second visit by his own doctor or employer; medical inquiry by a qualified officer, and selection of proper cases for the visiting staff; every out-patient, in short, has to pass, first, a lay and then a medical inquiry officer before he is registered. The whole scheme is regulated by the Hospital Committee, on which are representatives of the medical staff, the Hospital Saturday Fund, and the local dispensaries.

No doubt some better plan might be formulated by the collective wisdom of the London charities, if only that wisdom could be concentrated, but until that desirable result is achieved the successful efforts of an individual charity should to some extent save us "Here in London" from the wholesale condemnation implied in your recent article.—I am, etc.,

Upper Berkeley Street, W., July 24th. E. CLIFFORD BEALE.

SIR,—No one who has seen the out-patient department of any hospital can doubt that the privilege is abused by persons with the most ordinary ailments, and the full ability to pay a general practitioner for both advice and medicine. A distinct proportion are sent by medical men to this department, and this fact suggests to me the solution of the difficulty. Let medical men, duly qualified, be the sole custodians of tickets of admission to the out-patient department. I have confidence that no unsuitable case would then be sent, and that the abuse would rapidly subside.—I am, etc., C. R. ILLINGWORTH, M.D.

West Kensington, W., July 22nd.

THE LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY, LIMITED.

SIR,—Two letters appear in the BRITISH MEDICAL JOURNAL of July 22nd explanatory (?) of the financial position of the above Society. The honorary auditors state that the guarantee fund "represents uncalled capital to the extent of £687." Dr. Mead, one of the secretaries, speaks of "a guarantee fund of over £2,000." Surely, some better system of book-keeping seems desirable when officials differ in one item to the extent of £1,313.—I am, etc.,

July 23rd. M.D.

THE PREVENTION OF PROLAPSE AFTER INGUINAL COLOTOMY.

SIR,—I have tried on many occasions the methods recommended by Dr. Moullin and Mr. Barker, and have not always succeeded in preventing prolapse. The so-called "anchoring" of the bowel, I invariably carry out in conjunction with the above measures, but prolapse still occasionally follows. The object of Dr. Moullin's method can be achieved by simpler means means than those he recommends. It is quite unnecessary to split the aponeurosis of the external oblique in two places, or when the skin has been divided its upper edge may be drawn upwards and inwards, the aponeurosis may be split at this higher line, drawn downwards towards Poupart's ligament, and the fibres of the deeper muscles separated at this lower level. The track through the parietes may in this way be made as oblique as is desired. The practice of suturing peritoneum to skin I abandoned several years ago in this and all other similar abdominal operations—such as enterostomy, gastrostomy, etc. It is not only an unnecessary measure, but there are many real practical objections to it. "The prevention of prolapse after inguinal colotomy" is a problem not yet solved; the above measures have a real value undoubtedly, but in spite of them all the disagreeable prolapse will still occasionally be seen.

Birmingham, July 23rd. JORDAN LLOYD, M.S., F.R.C.S.

THE LEPER QUESTION IN THE COLONIES.

SIR,—In one part of your able article on the Indian Leprosy Report you state you had specially in view when writing "the desire to prevent the authorities in our distant colonies where leprosy prevails being discouraged by the report in their laudable desire to diminish leprosy by segregation. They must examine such evidence as is open to them, and base their action upon that, and not upon the opinions expressed in any report."

In British Guiana, where this disease extensively prevails, and the local Legislature are willing to vote money for the care and segregation of their lepers, I find the Surgeon-General of the Colony is thus reported in the Court of Policy proceedings *re* segregation: "He might mention with regard to what the hon. member had said as to lepers mixing about in the community that, taking the view of the report of the late Commission on Leprosy, that there was absolutely no danger to people by mixing with lepers in the way described."[1]

[1] *Demerara Daily Chronicle*, June 28th, 1893.

Without offering any opinion on the report itself, I may remark that if it is to be quoted against segregation in colonies where segregation is not only necessary but practicable, it is painful to think of all the harm that must result.—I am, etc.,

Dublin, July 24th. JOHN D. HILLIS.

KISSING THE BOOK.

SIR,—I had occasion the other day to appear as witness in the county court, and upon sending up an intimation to the clerk that I was desirous of taking the oath with uplifted hand I was subsequently allowed to do so without any questioning of any kind.

I think it is the duty of all medical men to teach the public a lesson with regard to this unhealthy practice of kissing the book, which the sooner abolished altogether the better.—I am, etc.,

July 24th. J. D.

P.S.—I may add that I provided myself with the page from the BRITISH MEDICAL JOURNAL which contains the circular of the Home Secretary, in case any unpleasantness should occur. Fortunately there was no necessity to make any use of it.

NAVAL AND MILITARY MEDICAL SERVICES.

VOLUNTEER AMBULANCE INSPECTION.

ON July 22nd an inspection was held in Hyde Park of Volunteer Field Ambulance Corps. This was the first occasion upon which an inspection had been held on a large scale, and the occasion was important not only because it gave the volunteers an opportunity of obtaining experience in field ambulance work on a large scale, but also because it afforded the public an opportunity of becoming acquainted with the nature of such work, and the magnitude which the movement for the formation of such corps has now attained. The whole available force was present, and the trained stretcher bearers of the Volunteers of the Home District, together with the Volunteer Medical Staff Corps, were inspected and exercised in removing wounded in the field by Surgeon-Colonel Hamilton, Principal Medical Officer of the Home District.

Lord Methuen, Commanding the Home District, rode down the ranks with the Principal Medical Officer, and expressed himself as greatly pleased with the turn out; he subsequently looked on while the ambulance drill was being carried out, and spoke in complimentary terms of the efficiency of the men. A large number of spectators, both military and civil, were present.

Some 400 men, representing the following regiments, took part in the work: 2nd Oxford Light Infantry, West London Rifles, 2nd Royal West Surrey, 4th Royal West Surrey, Honourable Artillery Corps, 3rd Middlesex, 3rd Middlesex Artillery, 1st Surrey Rifle Volunteers, and 2nd Surrey Volunteers.

Surgeon-Lieutenant-Colonel Norton commanded the parade, and the Brigade-Surgeons of the London regiments were present on the staff. The actual work consisted of moving "wounded" men, after the application of temporary treatment, on stretchers to the ambulance waggons, which conveyed them to the dressing station, where permament treatment was applied. From thence they were taken to the field hospital. When admitted to the field hospital, if not soon able to return to the ranks, would be drafted by easy stages to the base, and thence by ship to England, if, as everybody believes, the seat of our next war is in some other country. The work was well and smartly carried out, and reflected great credit upon those concerned. It is hoped that further opportunities on a still larger scale may be afforded to the Ambulance Volunteers for gaining experience in working together.

The physique of the bearers of the Volunteer regiments was remarkably good, and especially struck those who have been accustomed to work with the undersized men of the Medical Staff Corps. We have on previous occasions referred to this subject, and have pointed out the absurdity of the War Office insisting on enlisting in this corps men of 5 feet 3 inches to 5 feet 5 inches. The duties which they are called upon to discharge demand much muscular vigour: to convey a heavy man on a stretcher for, perhaps, half a mile or more, over broken ground, requires two powerful men, and to see two pigmies of 5 feet 3 inches struggling under such a burden would be laughable were not the subject too serious for ridicule. The men ought to be specially selected for their strength; the minimum height ought to be between 5 feet 5 inches and 5 feet 8 inches.

ARMY MEDICAL STAFF: EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post office order with the notice. The first post on Thursday mornings is the latest by which these announcements can be received.

WANTED by a Surgeon-Captain, home from abroad one year, an exchange for full or part tour in a colony; Bermuda, Halifax, N.S., or the Cape preferred.—Address, "Viator," care of Messrs. Holt and Co., 17, Whitehall Place.

THE NAVY.

SURGEON REGINALD T. A. LEVINGE has been appointed to the *Wild Swan*, July 20th.

ARMY MEDICAL STAFF.

SURGEON-CAPTAIN THOMAS MOYNIHAN, half pay, is retired from the service with a gratuity, July 26th. He was appointed Assistant-Surgeon February 5th, 1881, and retired on half pay on account of ill health, November 25th, 1891. He was in the Egyptian war of 1882, and has the medal and Khedive's bronze star for that campaign.

Surgeon-Colonel J. JAMESON, M.D., Professional Assistant to the Director-General of the Army Medical Department, obtains his promotion by the retirement of Surgeon-Major-General W. M. Webb, and the step thus vacated falls to Brigade-Surgeon-Lieutenant-Colonel C. McD. CUFFE, C.B.

Surgeon-Major G. F. POYNDER, serving in the Madras Command, is granted an extension of leave from July 31st to November 30th, on medical certificate.

Surgeon-Major-General W. M. WEBB, on vacating his appointment as Principal Medical Officer of the Bombay Army, is permitted to return to England.

INDIAN MEDICAL SEVICE.

SURGEON-MAJOR G. S. ROBERTSON, C.S.I., Bengal Establishment, Agency Surgeon at Gilgit, is appointed to officiate as British Agent at Gilgit, from June 7th.

Surgeon-Captain E. C. HARE, Bengal Establishment, officiating Medical Officer 35th Bengal Infantry, is appointed to the medical charge of Bundelcund Political Agency, from May 13th.

The services of Brigade-Surgeon-Lieutenant-Colonel J. H. NEWMAN, M.D., Bengal Establishment, Residency Surgeon and Chief Medical Officer in Rajpootana, are placed temporarily at the disposal of the Home Department.

Surgeon-Lieutenants W. YOUNG, J. J. BOURKE, and J. N. MACLEOD, appointed to the Bengal Establishment, reported their arrival at Bombay on April 22nd.

The services of Surgeon Captain C. L. WILLIAMS, Madras Establishment, are placed at the disposal of the Government of India in the Public Department.

Surgeon-Major G. M. NIXON, Bengal Establishment, Civil Surgeon of Jhansi, is granted privilege leave for two months and twenty-nine days, from July 20th.

Surgeon-Major H. A. F. NAILER, M.B., Madras Establishment, is appointed to act as Surgeon of the First District, Madras.

Surgeon-Captain A. J. HEATH, Bombay Establishment, is appointed to officiate in medical charge of the 25th Bombay Rifles, *vice* Surgeon-Captain A. V. Anderson, who has been transferred temporarily to the Civil Department.

Deputy Surgeon-General JOHN PICTHALL, M.D., late of the Bengal Establishment, died at his residence, Motcomb Street, Belgrave Square, on July 17th, aged 65. He was appointed Surgeon, December 14th, 1853; and Brigade-Surgeon, November 27th, 1879, retiring with the honorary rank of Deputy Surgeon-General, December 1st, 1882.

THE VOLUNTEERS.

SURGEON-LIEUTENANT C. TWEEDY, 1st Volunteer Battalion the Princess of Wales's Own Yorkshire Regiment (late the 1st North Riding of Yorkshire), has resigned his commission, which was dated April 13th, 1887.

Surgeon-Captain W. GANDY, 2nd Volunteer Battalion the East Surrey Regiment (late the 3rd Surrey), is promoted to be Surgeon-Major, July 22nd.

Surgeon-Lieutenant G. C. RICHARDSON, Manchester Companies Volunteer Medical Staff Corps, has resigned his commission, which bore date April 2nd, 1892.

A further list of officers upon whom the newly instituted Volunteer Officers' Decoration has been conferred appears in the *London Gazette* of Tuesday last, but it does not contain the name of any medical officer.

UNREADY FOR WAR (!)

A CORRESPONDENT sends us the following very suggestive account of an attempted drill of a bearer company at one of our largest stations, in response, no doubt, to the recent representations made as to the unpreparedness of the medical department for actual war. It was put in departmental orders that a bearer company would parade on a certain day for instructional purposes, and as many medical officers as possible at-

tend. On the morning in question the officer in command of the company received notice from the Army Service Corps, whose duty it is to supply transport, that no horses or drivers were available. After delay, horses and drivers were obtained from a battery of field artillery, but sufficient only for half the company. Under such uphill circumstances the company proceeded to the ground, set up "dressing" and "collecting stations," and commenced drill. At the same time and near it happened that an infantry regiment was exercising some field manœuvres under the eye of the general, and, from some oversight, the ammunition ran out. In this difficulty one of the ambulance wagons of the neighbouring bearer company was at once requisitioned to fetch it, and the officer in command of the company could of course only comply. Here are the difficulties of the medical department shown in a nutshell. How can it be held prepared for war under such a system? Our correspondent answers, Make it a corps with control of its own transport. Field hospitals and bearer companies ought to be as mobile as a battery of artillery.

DESIDERATA AND THE DEPUTATIONS.

STRIKE HOME writes: I fully endorse the statement which has been made, that a plebiscite of medical officers would show 95 per cent. in favour of military titles pure and simple. Nothing else will do which is my experience of the compound titles in India; they are laughed at, and even your own deputation laughed at them, if reports in the papers are to be trusted. The War Minister may be assured the existing titles, and all modification of them, such as Captain and Surgeon, etc., are useless, and are favoured neither by the public nor the service.

ANOTHER Correspondent in India says the suggestions laid before the secretaries were so temperate and moderate that they can hardly fail to receive attention, and call forth concessions. The order of importance in which he would place the desired reforms are: (1) A. corps. (2) Readjustment of titles. (3) Exchanges. (4) Reduction of foreign tours. (5) Revised retirement. In connection with the latter he thinks "Nitram's" scheme very sound, and that it would give a healthy impetus to promotion. The three years in the rank is blocking the higher grades.

A SUFFERER writes: The case of surgeon-captains under six years service in India did not receive the attention of the deputations which it merits. They are most unjustly paid. The difference between their actual pay with lieutenant's allowances, and that to which as captains they are entitled, is shown in the following table of pay of a captain of infantry:

Monthly Pay.	Allowances.					Total.
	Half Batta.	Gratuity.	House Rent.	Tentage.	Additional Batta.	
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Rupees, 121.12	*60.14	24	30	50	30.14	=317.8
Rupees, 121.12	†91.5	36	50	75	41.5	=415.6

* At Lieutenant's rate. † At Captain's rate.

At the present rate of exchange, 1s. 2½d. the above rupees, 317.8, represent £19 3s., which, compared with £23 15s., the pay and allowances drawn at home, shows that the surgeon-captain under six years' service sacrifices £4 12s. per month, or £55 per annum for the privilege of being lent to the Government of India.

Surgeon-lieutenants are now about to be sent to India, and the anomaly of the situation will be accentuated.

NOTES ON THE ESTIMATES.

NOT NON-EFFECTIVE writes: Mr. Bartley, as usual, is sadly exercised over the medical "non-effective" vote; but why does he continue to include in it the medical officers "liable to recall" forming our first reserve? This has been pointed out to him over and over again—why ignore it? The so-called retired officers might be utilised more than they are; for instance, it is often difficult to find a full-pay officer to accompany a militia regiment in its annual training—why not arrange with a "recall" man to go out? The militia would thus get the services of, at all events, an experienced officer.

The proposal to attach young medical officers to regiments would, if entailing increased expense, be unlikely to be carried out; but it might not prove popular either with these officers or with regimental officers if the present strained relations between them unhappily continues.

*** We trust the present strained relations alluded to are less general than often represented. Instead of increasing them, we have little doubt the attachment of a medical officer to a regiment would tend to lessen the unhappy breach which, to a certain extent, undoubtedly exists.

PAY WARRANT PERPLEXITIES.

ERRATA writes: In the recent Warrant (Pay and Promotion), Article 1071 has been amended (thanks to Mr. Ernest Hart and the Parliamentary Bills Committee), so that a surgeon-major retiring after twenty years' service is shown to be entitled to £1 a day. But Article 1046 has, apparently through an oversight, not been amended, and still reads that an officer going on half-pay after twenty years' service is not entitled to £1 a day if under the rank of surgeon-lieutenant-colonel. I enclose the articles quoted.

*** The articles read as stated by our correspondent. We presume it would be contended that an unpromoted surgeon-major of over twenty years' service would never be placed on half-pay, but always retired. While we fully recognise the difficulty in dovetailing correctly the complicated mass of pay regulations into each other, yet we think a little more care would prevent contradictions in articles, even if only apparent and not real.

MEDICO-LEGAL AND MEDICO-ETHICAL.

MEDICAL DEFENCE UNION, LIMITED.

AN important meeting of the profession resident in Manchester and the neighbourhood was held under the presidency of Mr. Walter Whitehead, at the Victoria Hotel, Manchester, on July 19th. About eighty medical men were present.

Mr. Whitehead pointed out that if the profession would act together in this important matter, an annual subscription of ten shillings would produce about £17,000, a sum with which much could be done to raise the position and tone of the profession. Other bodies had their unions and modes of defence against attack. He instanced the legal profession, which was able at once to stop an unqualified practitioner. After dwelling upon the attacks to which medical men were specially liable, especially of a slanderous nature, and the necessity of a large Union with ample means to help and protect, he called on Dr. Leslie Phillips, Secretary of the Medical Defence Union.

Dr. Leslie Phillips, after thanking Mr. Whitehead and the professors in Manchester for their courteous invitation, explained at length the objects of the Defence Union, and pointed out that the difficulties of the profession were solely due to want of cohesion. Cohesion would provide defence of the personal reputation of a man if obtained by the machinery of an insurance company. Such provision was the first duty of the Union, and had been the means, as the annual reports showed, of averting a large amount of evil and ruin from members of the profession. The second duty was the prosecution and punishment of quacks and unqualified practitioners. He also dwelt on the general matters affecting the profession which came under the notice of the Union, and laid much stress on the fact that the experience of the Council of the Union was earned by hard and strenuous work, the work itself being novel, and requiring much time and application. To centralise the work, the Council meetings were now held in London, under the presidency of Mr. Victor Horsley. Local committees for advice were established in the counties, with safeguards against reckless expenditure.

In answer to questions, Dr. Phillips stated that Mr. Tait was no longer a member of the Council, and that at the present time, in his opinion, he owed the Union £442, but only as a debt of honour.

After other questions had been answered, Mr. Victor Horsley dwelt on the fact that the interests of medical men were of two kinds—"professional" and "civil;" that the "civil" interests were watched over by the British Medical Association, but that, as had been decided in 1887 on the opinions of counsel, including Sir Richard Webster, that the funds of that Association could not be diverted for the purposes of medical defence. This duty the Defence Union took up, and he hoped that the membership of the Union would equal that of the Association. In response to a previous question on the subject of amalgamation with the London and Counties Protection Society, he stated that that Society had approached the Union with the object of fusion, and that the Union would receive, at the next Council meeting, a deputation from the London and Counties Society to hear their views on the question. He further stated that the Council of the Defence Union had passed a resolution drafted so as to prevent legal proceedings between medical men. He concluded by emphasising the necessity of every medical man joining the Union, in order that it might be furnished with adequate strength to deal with unqualified practitioners.

It was then unanimously resolved: "That, in the opinion of this meeting, a professional organisation is essential; that the Medical Defence Union meets this want, and that a local committee of the Union should be formed."

TWO OPINIONS.

A Mr. WALLIS, L.R.C.S.I., has obtained a gratuitous advertisement for himself by writing to the *Essex Standard* to point out that in one case before Baron Pollock his lordship alluded in favourable terms to his experience, while in a subsequent one in the county court Judge Patterson expressed an unfavourable opinion of a certificate he had given. Possibly both judges were justified, on the facts before them, in expressing their opinions as they did. Mr. Wallis, of course, prefers the favourable opinion of the Judge of the High Court, and wishes the public to know it. Our readers can judge whether such advertisements are legitimate for the purpose of enhancing professional reputaton.

Mr. Wallis also states that "of course" he gave the certificate which came before the county court judge without payment, and then complains that the registrar has not responded to his application for a fee for giving it. If Mr. Wallis did not think his certificate worth a fee in the first instance, it certainly would not become worth more after the county court judge had expressed his disapproval of it. The letter seems to point to another instance of the folly of medical practitioners in doing professional work without knowing who is to pay for it. But the present case is not one in which the unpaid practitioner deserves much sympathy.

CHANGING THE DOCTOR.

A., B., and C. (Isle of Ely).—Our correspondent should have indicated the particular point on which he desired our opinion; in the absence of which our comment must be general and contingent.

With reference to the correspondence that has passed between A., B.

and C., a careful and dispassionate consideration of the ethical points involved therein leads us to the conclusion that the misunderstanding which has arisen between B. and C. is the natural result of a want of candour—a *suppressio veri*, if not deliberate misstatement, on the part of the husband of the patient, in asserting "that, although his wife had been under the care of B., he was not then in attendance"—an alleged statement of fact to which we are constrained to give credence, seeing that it emanates from the eminent and independent consultant A., in reply to B.'s imputative letter, and was subsequently confirmed by C., whom we not only hold to be ethically blameless in the case, but entitled to an explanation from B. relative to the somewhat serious allegation made in his letter to Dr. A., the consultant.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Friday, July 21st.

Typhoid Fever at Worthing.—Sir CHARLES CAMERON asked the President of the Local Government Board whether it was true that a severe epidemic of typhoid fever was at present raging at Worthing, and, if so, whether any steps had been taken to apprise visitors and excursionists of the fact?—Mr. H. FOWLER said it was quite true that there had been a severe epidemic of typhoid fever at Worthing. Between July 1st and 19th 548 cases of enteric fever were notified to the Worthing sanitary authority. The clerk to the sanitary authority had been in communication with the railway company with reference to discontinuing the running of ordinary excursion trains and school excursion trains to Worthing, and the railway company were advising schools not to send excursions there, but the railway company said that they could not discontinue their advertised trains. The statements which had appeared in the public press had gone far to apprise visitors and excursionists of the epidemic.

The Factory and Workshops Act.—Sir J. GORST asked the Secretary of State for the Home Department whether his attention had been called to a recent case at the Marylebone Police Court in which the magistrate decided that the Factory and Workshops Acts did not fix any hour after which work was illegal, whether the factory inspectors had for the last 20 years frequently prosecuted persons for employing women and children after 10 P.M. and obtained conviction, and whether it was his intention to take any steps to have the legal decision in question reviewed by a higher tribunal or to have the Factory and Workshops Acts amended so as to make the employment of women and children after 10 P.M. illegal?—Mr. ASQUITH said he had had his attention called to the case. The magistrate who had refused to convict had informed the chief magistrate that on further consideration he had arrived at the conclusion that his interpretation of the Section of the Factory Act under which the conviction was asked for was erroneous. The difficulty would, therefore, probably not occur again.

Monday, July 24th.

Cholera and the Seaport Towns.—The CHANCELLOR of the EXCHEQUER, in reply to a question from Sir S. KING, said he was informed that the sanitary authority at Hull had made a certain payment as compensation in respect of fruit which was destroyed last autumn by the medical officer of health. The compensation was half the amount claimed, and the payment was made without prejudice and without admitting liability and on the ground that the officer had not acted in accordance with the cholera regulations. In the case of a ship infected with cholera, it devolved upon the master of the ship to cause to be disinfected or destroyed, according to the directions of the medical officer of health, any articles which might probably be infected with cholera, and no compensation was, in the opinion of the Local Government Board, payable by the sanitary authority in respect to articles so disinfected or destroyed.

Cholera in Mecca.—Sir HENRY ROSCOE asked the First Lord of the Treasury whether, in view of the imminent danger to the health of Europe caused by outbreaks of virulent cholera amongst the pilgrims at Mecca, and of the acknowledged absence in that city of the most ordinary sanitary regulations and precautions, he would consider whether the time had now arrived when, by international representations addressed to the Porte, the Government of the Sultan might be induced to enforce measures by which that most serious state of things might be mitigated, if not altogether remedied?—Sir E. GREY said the question would not be lost sight of by Her Majesty's representative at Constantinople, but there was reason to think that the circumstances connected with the recent outbreak of cholera in Mecca were now engaging the attention of the Ottoman Board of Health at Constantinople, and until further information was received as to the action of that Board it would seem to be premature for Her Majesty's Government to make any formal representation to the Porte.—Sir HENRY ROSCOE asked how soon would the report be forthcoming?—Sir E. GREY replied that he could not undertake to say.

Tuesday, July 25th.

Cholera at Mecca.—Sir HENRY ROSCOE asked whether, considering that the lives of thousands of Her Majesty's Mahomedan subjects were yearly placed in danger at Mecca, and the Sultan had been memorialised to improve the sanitation, the Secretary for Foreign Affairs would urge the Porte to secure the immediate publication of the report of the Ottoman Board of Health on the subject.—Sir EDWARD GREY said the subject was already receiving the attention of Her Majesty's Embassy, and no effort would be spared to secure the adoption of suitable sanitary measures by the Ottoman authorities.

Army Medical Department.—Mr. ALPHEUS MORTON asked the Secretary of State for War whether there was an officer in charge of the sanitary branch of the Medical Department at the War Office, and what was his rank; whether this officer was charged with the perusal of the quarterly sanitary reports of the army, and did he bring to the notice of the Director-General all insanitary conditions in the army mentioned in those reports; whether the Director-General brought those insanitary conditions to the notice of the Commander-in-Chief; whether the principal medical officer of the army district inspected the barracks, and was he accompanied by the commanding officer at those inspections; whether in India the sanitary inspections were made half-yearly as in this country; and whether the army medical officers received the protection of the authorities so as to enable them to properly carry out their sanitary duties for the protection of the health of the rank and file of the army at home and in India.—Mr. CAMPBELL-BANNERMAN said an officer of the Army Medical Staff was in charge of the sanitary and statistical branch of the Army Medical Department at the War Office, and his duty was to bring to the notice of the Director-General any important sanitary question involved in the periodical sanitary reports from out-stations. If the case were of sufficient importance, the Director-General would draw the attention of the Commander-in-Chief to it. The actual course of those reports was, however, rather the reverse of that indicated in the question. The principal medical officer's report was addressed to the General Commanding the district, who took such action on it as he thought necessary; or, if the matter be important, referred the point to the Commander-in-Chief, who would naturally call upon the Director-General for his report and advice. The principal medical officer inspected barracks at home half-yearly; abroad, including India, annually. He was accompanied in his inspection by the commanding officer, or by some officer, not below the rank of captain, representing him. He had every reason to believe that the medical officers were fully supported in all matters affecting the soldier's health.—Mr. MORTON further asked the Secretary of State for War whether there was any field hospital equipment available for the training of medical officers in the following garrisons:—Portsmouth, Plymouth, Dover, Woolwich, York, Colchester, Edinburgh, Dublin, and the Curragh; whether, apart from the medical corps depôt at Aldershot, there were any facilities given to the medical officers in garrison there for practice in field duties; and whether the army medical officers had sufficient powers to efficiently carry out their duties to the sick and wounded in the field.—Mr. CAMPBELL-BANNERMAN, in reply, said that at the stations named the necessary articles of field equipment were in store for purposes of mobilisation, but as at present arranged they were not available for purposes of instruction except at Curragh, where half the establishment of a field hospital could be so used. As yet the depôts at Aldershot was the only school for the instruction of medical officers in field duties, but it was intended to give additional opportunities for this training. He believed the medical officers had ample powers for carrying out all their duties.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF EDINBURGH.

FIRST PROFESSIONAL EXAMINATION FOR MEDICAL DEGREES.—The following gentlemen have passed the First Professional Examination:

H. N. Chambers, O. Harrocks, G. H. List, M. J. O'Shea, T. B. Unwin, L. Boyer, W. H. Fowler, I. L. MacInnes, F. W. More. T. Biggam, A. F. Fraser, N. Oliphant, J. B. Williamson, W. Hamilton (with distinction), R. B. Black, G. L. Findlay, H. B. MacCarthy, J. Allison, W. J. Yeacock, B. C. R. Aldren, H. F. Boland, J. Forrest, G. Gattenby, A. Gibson, G. B. Hollings, T. D. M'Laren, J. H. P. Paton, H. A. Robinson, W. R. Somerset, G. H. Vincent, J. G. Forbes, J. C. Hamilton, P. T. Herring, R. P. Hill, J. M. Johnson, E. Laval, A. M. Little, J. H. R. Marrow, J. C. Noronko, T. H. Pemberton, J. T. Scott, G. S. Small, H. W. Smith, D. Wallace, A. White, F. G. Ballantyne, H. M. Bundey, T. W. A. Daman, H. O. Hobson, J. D. Lithgow, J. D. M'Crindle, J. K. Patterson, G. Sander.

The following have passed in the subjects of Botany, Zoology, and Chemistry of the same examination:

D. Clow and H. R. Philips.

The following have passed in Botany, Zoology, and Physics:

R. J. Dick, C. L. Dunn, D. Forbes, M. Johnstone, W. L. Pritchard, and R. F. M. Scott.

The following have passed in Chemistry, Botany, and Physics:

E. P. Baumann, W. S. Eaton, and J. S. Fraser.

The following have passed in Chemistry and Botany:

V. G. Alexander, A. E. Brookes, E. V. Collins, R. V. Cowey, G. W. Fitzgerald, A. C. Renwick, A. J. Ryle, and G. R. Twonsey.

The following have passed in Chemistry and Zoology:

J. Cæsar and J. H. Welsh.

The following have passed in Chemistry and Physics:

A. E Burroughs and M. E. Jones.

The following have passed in Botany and Zoology:

W. A. Dickinson, J. E. Dods, O. A. Gee, A. P. Grange, G. D. Hamilton, A. H. James, J. W. Ingles, P. Kinmont, W. M. A. Smith, E. Somerville, J. R. Robinson.

The following have passed in Botany and Physics:

R. Crawford, R. Cumming, E. W. Lewis, R. C. Verley, J. M. Cuthbert, W. Parr, A. D. Fordyce, J. H. Gordon, B. Greig, J. T. P. Heatley, R. Hill, C. E. Hutson, G. Lyon, H. Macfarlane, A. C. M'Gilchrist, W. J. Nutter, A S Parker, J. M. Reid, C. M. Robertson, T. S. Shepherd, G. F B. Simpson, G. N. W. Thomas.

The following have passed in Chemistry:

J. T. Hirst, A Macleod, J McGibbon, H. K. Paxton, D. J. C. Oliver, F. W. Rigby, and A Wood

The following have passed in Botany:

H. M. Cameron, H C. Gibson, M. Mackenzie, W. S. Messer, S. Champion, A J. W. Buchanan, T. M Coutinlio, G. F. H Cunningham, J. M'Callum, E J. M Neave, N. Varis, H. J. Wright, C. H. Elwes, F. G. Middleton, G. S. Young, T. Jenkins, A S Allum, J. M. Bostock, J. D. S Miller, A. J. Orchard, F. Parry, W. C. Spooner, A. G. Worrall, A. E. Rees, W. G. Sheriff, A. J. T. Allan, R. A. J. Asbury, E. R. Branch, D. M Burden, J. B. Davey, J. W. Falconer, D. D. Farquharson, R. Gibson, A Gilmour, A. Goodall, G. W F Goodridge, J M. Gray, F. J Hathaway, T. E. Hincks, F. O. Lastrey, A. M'Kaig, W. E. M'Kechnie, R. Pugh, H. G. P. Raeburn, H. Taylor, A. Wood.

The following have passed in Zoology:

H. L. D S Belasco, C J Caddick, W. C. H Foster, A G. Hamilton, C. G. Wotherspoon, B A..

The following have passed in Physics:
G. Fourie, G. B. Pemberton, G. Thomson, and J. P. Thorne.

SECOND PROFESSIONAL EXAMINATION FOR MEDICAL DEGREES.—The following gentlemen have passed this examination:
H. M. Crosby, E. A. W. English, D. A. Farquharson, A. N. Fleming, J. S. Flett, S. H. Hall, W. Haig, J. H. Inman, J. K. Jamieson, J. Landsborough, H. L. Lowis, C. J. R. MacFadden, J. A. Macfarlane, G. D. MacRae, P. J. Munn, C. W. Peach, J. C. Rees, A. Rodger, J. Scott, R. G. Selby, S. H. Smith, W. A. Stephen (with distinction), W. L. Stevenson, T. Stuart, T. E. Watson, J. B. Wood, G. P. Yule, H. de M. Alexander, J. W. Anderson, C. S. Cantrell, R. Cross, E. R. Dodds, H. Downes, C. F. Giddy, W. Glegg, T. A. Glover, E. R. Holmes, M. Hughes, J. A. Hunter, A. L. Jones, T. H. Jones, J. W. Keighley, R. M'Cannon, G. W. M'Intosh, R. G. Robson, M. L. M. Vaudin, and E. C. Watts.

The following have passed in the subjects of Anatomy and Physiology in the same examination:
H. H. Balfour, F. A. Clarke, C. B. Crampton, D. F. Dewar, J. Forbes, E. Frost, and W. M. Taylor.

UNIVERSITY COURT.—The University Court met on July 17th. An application for the recognition (under Section vii, 5, of the new Medical Ordinance) of the North Staffordshire Infirmary and Eye Hospital, Hartshill-Stoke-upon-Trent, as one in which candidates for the degrees of M.B., and Ch.B., may attend medical and surgical practice was granted. Copies of orders of Her Majesty in Council, approving of four new ordinances were submitted. A number of draft ordinances were remitted to the Draft Ordinances Committee for consideration and report. With reference to the admission of women to the study of chemistry, botany, and zoology, for graduation in arts and science, subject to the provisions of the ordinance for regulation of the graduation of women, etc., the court resolved to admit to examination for graduation in arts any woman who has received the requisite instruction in these subjects in any Scotch university, or in the Edinburgh School of Medicine for Women, Surgeon Square; or in the Medical College for Women, Chambers Street, Edinburgh; and, subject to the provisions of the same ordinance, to admit to examination for graduation in science any woman who has received the requisite instruction in these subjects in any other university or institution already approved by the court with a view to the graduation of men, or under any teacher already recognised with that view, or in the above named Edinburgh schools for the medical education of women. The gift to the university of a marble bust of the late Chancellor of the University, Lord Justice General Inglis, was accepted with thanks to the donors.

EDINBURGH UNIVERSITY STUDENTS' REPRESENTATIVE COUNCIL.—A statutory meeting of the Students' Representative Council was held on Wednesday of last week, Mr. Gillies-Smith in the chair. It was resolved to draw the attention of the Lord Advocate, the Solicitor-General, Mr. Balfour (the Chancellor), Sir Charles Pearson, the Marquis of Lothian, and the members of Parliament for the city, to certain words in the university ordinance dealing with the question of granting funds to the Council, among other bodies which the University Court have under their authority, with the view of having the objectionable words removed. The words objected to are: "Such sums, if any." The Library Committee reported that a catalogue will probably be in the hands of students by next session, and that it afterwards would be supplemented by monthly lists. It was reported that £3,500 were still required in order to acquire the new athletic field for the university. A balance of profit of £12 on the 21 numbers of *The Student* was reported.

UNIVERSITY OF GLASGOW.

THE following gentlemen have passed the Fourth (Final) Professional Examination for the Degress of Bachelor of Medicine (M.B.) and Master in Surgery (C.M.):—

(A) *Candidates who took Pathology in Fourth Professional Examination.*—W. T. Ainsworth, D. F. Brown, F. Brown, G. B. Buchanan, B.A. Cantab.; A. Cameron, W. Campbell, J. J. Carruthers, T. Colvin, W. Copeland, A. Crawford, J. Crawford, J. Cross, D. A. Dewar, A. Dingwall, M.A.; A. Dodds, W. Duncan, D. F. Harris, B.Sc.Lond.; J. L. Howie, W. Irwin, J. R. Jeffrey, N. S. Jeffrey, G. L. Kerr, D. M. King, J. Lamont, J. F. Lees, P. Marshall, T. B. Marshall, J. B. Millar, D. R. Miller, B. B. Morton, D. D. Macdonald, D. MacDonald, R. J. Mackay, J. M'Kenna, J. M. MacLauchlan, B. S. Nicholson, J. Pearson, P. P. Petrie, M.A.; E. L. Pollonais, A. Ramsay, H. Robertson, J. Robertson, J. Selkirk, M.A.; W. S. Sinclair, J. M. Smith, T. D. Smith, P. M. Smyth, N. Stevenson, M.A.; J. Stewart, J. Taylor, J. Thomas, J. Thomson, M.A.; A. Webster, T. Wright.

(B) *Candidates who Passed Pathology in Third Professional Examination.*—A. Abdurahman, J. E. Adam, R. Y. Aitken, R. H. Allen, R. Boyd, J. P. Brown, M.A.; J. Brown, A. J. Brownlee, R. Bruce, W. I. Buchanan, R. J. Carroll, H. B. Causley, J. M. Christie, J. Clark, R. Cochrane, P. F. Dewar, F. Dittmar, M.A.; A. Donald, J. Donald, J. E. Downs, G. Edgar, J. D. Finlay, A. F. R. S. Frew, J. Fullarton, M.A.; W. W. Fyfe, T. B. Gilchrist, R. Grieve, M.A.; A. G. Hay, M.A.; J. Hunter, M.A., B.Sc.; W. M. Hunter, G. S. Illingworth, W. L. Jones, T. Kay, A. J. Laird, J. Lang, R. R. Manners, C. S. Marshall, D. M'F. Millar, J. R. M'C. Miller, M.A.; J. Moffat, P. M'Bryde, G. M'Callum, A. W. M'Clelland, J. M'Dougall, G. M'Feat, J. M'Feat, W. A. Mackay, J. M'Kie, T. M'Nay, M. Macnicol, M.A.; J. A. Naismith, R. E. Newton, A. C. Park, J. Patrick, M.A.; W. P. Porter, A. Revie, A. M'L. Robertson, H. M. Robertson, J. B. Robertson, J. C. Robertson, E. P. Sinclair, M. A. M'I. Sinclair, J. D. Smith, E. Sugden, J. H. Teacher, M.A.; J. J. Urwin, A. A. Warden, M.A.; J. L. Watson, A. White, W. H. Williams.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH, ROYAL COLLEGE OF SURGEONS OF EDINBURGH, AND FACULY OF PHYSICIANS AND SURGEONS OF GLASGOW.

THE quarterly examinations in Edinburgh for the Triple Qualification took place in July with the following results:

First Examination.—Under the Entire Examination System.—Of 32 candidates, the following 25 passed: J. A. Featherstone, co. Durham (with honours); E. Barker, Yorkshire; D. Hennessy, co. Cork; W. F. Macfarlane, Bangalore; H. W. G. J. J. Cattell, Mauritius; S. O. Hall, India; P. J. H. Mulholland, co. Clare; T. A. Chalmers, Ayr; J. A. S. Cannell, Cheshire; W. Mangan, co. Kerry; M. V. McKechnie, co. Durham; G. H. Williams, Scarborough; P. A. Wedgwood, London; R. A. Bowen, Kerry; S. G. A. Jeffs, Lincolnshire; Ada Mary Kingsbbury, Sydney; P. H. du Plessis, Cape Colony; T. F. Elmes, Cork; R. J. Molison, Upper Holloway; H. J. M. Wyllis, Great Yarmouth; J. W. Lee, Liverpool; G. T. Harbord, Cheshire; E. B. Hicks, Yorkshire; J. S. D. Robertson, Alness; and W. A. McDonald, co. Cork. Three candidates entered for the respective divisions and passed. *Under Five Years' Course.*—Of 16 candidates, the following 12 passed: J. G. Murray, Hong Kong; J. M. Donovan, Galbally; J. Dodds, Selkirk; J. St. J. Murphy, co. Cork; J. Murray, Newcastleton; M. B. Marshall, Edinburgh; Elizabeth Morton Johnston, Edinburgh; T. J. T. McHattie, Antigua; Ellen Willet Stanley, Calais; Janet Dorothy Gilfillan, London; A. Cameron, Rannoch; and R. W. Meikle, Inverary. Seven candidates entered for the respective divisions and passed.

Second Examination.—Of 42 candidates, the following 27 passed: J. A. Featherstone, co. Durham (with honours); W. H. Irwin, Leeds; C. E. Hargitt, Sheffield; J. Barry, co. Cork; A. E. Clayton, South Shields; Margaret Penelope Monro, Edinburgh; F. J. Nolan, Dublin; J. Graham, Workington; Alexandra Mary Campbell Geddes, Bombay; Gertrude Keith, Edinburgh; Agnes Lillie Cousins, Madagascar; P. T. Finn, Ballymote; E. J. McC. Morris, co. Cork; Sarah Brown McMordie, Belfast; A. W. Ball, Liverpool; C. G. Foggs, Morayshire; A. L. Levy, Melbourne; E. A. R. Laing, co. Roscommon; Elizabeth Latto Ewan, Fyvie; M. McGann, co. Clare; J. Moore, co. Antrim; D. M. Atkinson, Yorkshire; A. Bance, Madras; A. P. Dias, Bombay; T. Mansour, Egypt; F. G. W. Deane, Barbadoes; and J. C. Forbes, Edinburgh. Of 17 candidates who entered for the respective divisions, 10 passed.

Final Examination.—Of 76 candidates, the following 33 passed, and were admitted L.R.C.P.E., L.R.C.S.E., and L.F.P.&S.G.: G. D. Robertson, Greenock; G. B. Thompson, Edinburgh; H. Keith, Ceylon; C. A. Courtney, Victoria; J. K. Brownlees, Ballymena; C. S. Langley, co. Cork; A. A. Macfarlane, Madras; T. Clegg, Oldham; W. C. Stephenson, Stirlingshire; M. à B. McCarthy, Sidney; C. W. J. Dunlop, co. Down; H. H. Marshall, Madras; R. Williams, Saxilby; H. Sanford Smith, Toronto; P. McElwaine, Cavan; E. B. M. Atkins, Queenstown; W. H. Coupland, Liverpool; W. McKenzie Morison, Stornoway; A. J. Richards, Bangor; A. B. Franey, Banbury; F. F. Thorne, Kent; R. C. Macdonald, Arbroath; W. E. Wilson, Jamaica; D. Crichton, Edinburgh; K. Ganguli, India; W. E. Ducworth, India; J. Noonan, co. Cork; H. D. Chapman, Staffordshire; F. C. Foster, New Zealand; W. Walker, Alford; A. J. Cromwell, Durham; C. G. Hoysted, Richmond; and O. S. Maunsell, Tramore. Of 21 candidates who entered for the respective divisions, 14 passed.

SOCIETY OF APOTHECARIES OF LONDON.

PASS LIST, July, 1893. The following candidates passed in:—

Surgery.—W. Alder, Guy's Hospital; A. W. Austen, Westminster Hospital; J. Brown, Manchester; C. A. Davies, Manchester; H. J. Dean, London Hospital; G. C. B. Hawes, St. George's Hospital; F. S. Hogg, Charing Cross Hospital; J. H. Jolley, London Hospital; W. A. Jones, Bristol; J. M. A. Lamb, London Hospital; H. Litherland, Manchester; A. L. Morris, Guy's Hospital; A. E. Shepherd, Middlesex Hospital; G. M. Turner, Cambridge and St. Thomas's Hospital; H. J. L. Wales, Guy's Hospital.

Medicine, Forensic Medicine, and Midwifery.—J. H. Campbell, St. Mary's Hospital; F. J. Carter, St. Bartholomew's Hospital; S. A. Clarke, Middlesex Hospital; W. F. L. Green, King's College; E. W. Joscelyne, St. Mary's Hospital; R. D. Moore, St. Mary's Hospital; C. M. Rhodes, St. Mary's Hospital; A. E. Shepherd, Middlesex Hospital; P. Slack, Sheffield; A. J. Temperley, London Hospital; F. D. Woolley, Manchester.

Medicine and Midwifery.—C. F. Gross, King's College; A. Marshall, St. Thomas's Hospital.

Medicine.—E. Smallwood, Liverpool.

Forensic Medicine and Midwifery.—C. P. T. Edwards, University College.

Forensic Medicine.—B. W. Bond, St. Thomas's Hospital; J. Edwards, London Hospital.

Midwifery.—S. R. Merry, Charing Cross Hospital.

To Messrs. Bond, Clarke, Davies, Dean, J. Edwards, Green, W. A. Jones, Rhodes, Shepherd, Temperley, Turner, and Woolley was granted the diploma of the Society entitling them to practise Medicine, Surgery, and Midwifery.

OBITUARY.

JOHN RAE, HON. M.D. MCGILL COLL., L.R.C.S.EDIN., F.R.S., LL.D.

WE regret to have to record the death of Dr. John Rae, which took place on July 24th at his house in Addison Gardens. He was born in the Orkney Islands about the year 1813, and in 1829 he went to Edinburgh to study medicine, and took his L.R.C.S.Edin. degree in 1833. Shortly afterward he obtained an appointment as surgeon on board the Hudson's Bay Company's ship which annually visits Moose Factory on Hudson's Bay. In July, 1845, he set out on his first voyage on behalf of the same company.

The *Times* gives some further interesting details, and says that "though born in the Orkneys 80 years ago until his last illness no more vigorous-looking or active man walked the streets of London. The hardships he endured during his many years' work in the Arctic regions seemed to have made no impression upon his frame; his robust health, indeed, made him somewhat intolerant of others not gifted with his iron constitution. Dr. Rae was a man of a disposition at once generous and sensitive. Probably he was somewhat unjustly dealt with by the Admiralty, who in some editions of their Polar charts gave others the credit for what Rae had done. But Rae's work as an Arctic explorer is too well known to be affected by any mistake of this kind. When he returned to England in 1854, bringing with him many relics of the Franklin expedition in the *Erebus* and *Terror*, and conclusively proving that the worst fate had overtaken its members, he received the reward of £10,000 which had been offered by Government. The Royal Geographical Society showed its estimate of what Rae had accomplished by awarding him its gold medal (1852).

"His first expedition was undertaken in 1846, when he succeeded in laying down 700 miles of new coast on the northern mainland of America, uniting the surveys of Ross on Boothia with Parry's in Fury and Hecla Strait. In 1848, in company with Sir John Richardson, Rae undertook one of the earliest expeditions sent out to search for the missing Franklin expedition. In that and the following year all the coast between the Mackenzie and the Coppermine rivers was searched in vain. In 1850 Rae was sent out in command of another search expedition, and between that and 1854 he examined the whole of Wollaston Land, all the coast east of the Coppermine river: Victoria Land, and Victoria Strait. In this time Rae travelled in all some 5,300 miles, a considerable proportion of it being new country, and much of the travelling being done on foot. In 1853 Rae was once more in the Arctic at the head of an expedition which connected the surveys of Ross with that of Dease and Simpson, and proved King William's Land to be an island. It was on the last journey that Rae was able to collect evidence which showed that not only were the *Erebus* and *Terror* lost, but that in all probability every member of the Franklin expedition had perished. Though Lady Franklin continued the search for some years longer, Government took no further part in a search which most people were convinced would be in vain. During the nine or ten years' work of Dr. Rae he was able to lay down some 1,500, if not 1,800, miles of previously unexplored ground. Even if the deductions which some of his enemies would make were allowed, it is evident that Rae did original work enough to entitle his name to occupy a high and permanent place in the history of Arctic exploration.

"In 1860 Rae took part in surveying for a cable from England, by the Faeroes, Iceland, and Greenland, to America; and in 1864 he conducted a difficult telegraph survey from Winnipeg across the Rocky Mountains. For the last fifteen years Dr. Rae's tall, lithe, muscular figure has been prominent at the meetings of the Geographical and other societies. He was a Fellow of the Royal Society, and had been honoured by foreign scientific bodies. Dr. Rae was an ardent Volunteer, even in his later days, and an excellent shot. In 1850 he published a *Narrative of an Expedition to the Shores of the Arctic Sea in 1846 and 1847*. The accounts of the other work done by Rae will be found in the publications of the Royal Geographical Society and in official reports."

ROBERT FOSTER DILL, M.D.,

Professor of Midwifery and Coroner for Belfast.

THE death of Professor R. F. Dill of Belfast, at the ripe age of 82 years, removes one of the most notable figures from the medical profession in the North of Ireland. The deceased gentleman was born at Berwick Hill, co. Donegal, and was the son of the Rev. Samuel Dill of Castlefin in that county. He received his professional education in Dublin, Glasgow, and Paris, and became M.D.Glasg. and M.R.C.S.Eng. Having practised for some time in Limavady, he settled in Belfast, and soon rose to a prominent position there. He became one of the staff physicians to the Royal Hospital, and enjoyed an extensive obstetric and general practice. On the death of Dr. Burden he was appointed Professor of Midwifery in the Queen's College, and in the year 1865 he became coroner for Belfast.

During his long and active professional career he filled many posts of honour in the medical world. He was President of the Ulster Medical Society and of the North of Ireland Branch of the British Medical Association. Until quite recently he continued to take an active interest in the work of the medical societies, and was a prominent figure at the social gatherings held in connection with them, where his ready wit and strong social faculty made him always welcome. His health began to break down a couple of years ago. An old-standing and obstinate cystitis became aggravated, albuminuria set in, and although he rallied again and again, and showed a marvellous tenacity of life, the end came suddenly at last. He held an inquest as lately as July 17th. On the following day he was very unwell, and on Wednesday, his symptoms having become suddenly very grave, he was seen by Dr. Lindsay, who had attended him for several years. He passed quietly away early the following morning, worn out by age, labours, and infirmities.

Professor Dill was a man of great mental and physical energy, an indomitable worker, a ready debater, a warm friend, and a generous host. In the discharge of the harassing duties of coroner he showed great aptitude, and was very popular with juries. His death snaps one of the most important of the links which unite the past to the present generation of medical men in the North of Ireland.

FREDERICK AUGUSTUS COX, M.B.LOND.

WE regret to have to report the death of Mr. F. Augustus Cox, which took place at St. Leonard's-on-Sea on July 12th, at the early age of 37. He received his medical education at St. Mary's Hospital, where, after matriculating at the London University, he gained the Entrance Exhibition and other prizes. But he was heavily handicapped by feeble health, and he finally developed hæmorrhagic phthisis. Between the written and clinical examinations for the final M.B. he had an attack of hæmoptysis. As he had previously been hindered from the same cause, he resolved to go through with it, and took the degree in 1886, but was for some time after laid aside. He, however, rallied, and pursued his work, although he was several times attacked by a recurrence of hæmorrhage. Mr. Cox was for several years physician to the Western Skin Hospital, and contributed papers on dermatology to British and foreign medical journals. More than a year ago, on the advice of his friends, he took a house at St. Leonard's-on-Sea, and passed a great part of his time there, and seemed much benefited. The deceased was medical superintendent of the Hamilton Association for Providing Trained Male Nurses, and took a great interest in it. Mr. Cox leaves a widow and four children, one an infant born a week before his death.

WE regret to have to report the sudden death of Mr. John Whitaker, of Westhoughton, Lancashire, which took place on July 7th. The deceased was apparently in his usual health, and was going towards home with a friend, and fell down in an unconscious condition, dying directly afterwards. Mr. Whitaker took the degrees of M.B. and C.M.Edin. in 1882. He was medical officer and public vaccinator for the Westhoughton District of the Bolton Union, and a certifying factory surgeon. He leaves a widow and one child. The funeral took place on July 11th amid general manifestations of regret.

A MUNIFICENT OFFER.—Mr. Walter Evans has made a conditional offer of £12,000 for the completion of the whole design of the Derbyshire Royal Infirmary, the foundation stone of which was laid by the Queen some years ago.

SUCCESSFUL VACCINATION.—Mr. R. Henslowe Wellington, of Sutton Bridge, has been awarded the government grant for successful vaccination in parts of Lincolnshire and Norfolk.

PRESENTATION.—The inhabitants of Treorky have presented Mr. Wright, who is leaving for New South Wales, with a handsome dressing case and a gold watch as a token of the high esteem in which he is held by them.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE TRUE DEATH-RATES OF LONDON DISTRICTS DURING THE SECOND QUARTER OF 1893.

In the accompanying table will be found summarised the vital and mortal statistics of the forty-one sanitary districts of the metropolis, based upon the Registrar-General's returns for the second or spring quarter of this year. The mortality figures in the table relate to the deaths of persons actually belonging to the respective sanitary districts, and are the result of a complete system of distribution of the deaths occurring in the institutions of London among the various sanitary districts in which the patients had previously resided.

The 33,007 births registered in London during the three months ending June last were equal to an annual rate of 30.8 per 1,000 of the population, estimated at 4,305,551 persons in the middle of this year. In the corresponding periods of the preceding three years the birth-rates were 30.4, 31.8, and 31.4 per 1,000 respectively. The birth-rates last quarter in the various sanitary districts showed, as usual, wide variations, owing principally to the differences in the age and sex distribution of the population. In Kensington, St. George Hanover Square, St. James Westminster, Hampstead, St. Martin-in-the-Fields, and London City the birth-rates were considerably below the average; while in St. Luke, Shoreditch, Bethnal Green, Whitechapel, St. George-in-the-East, Mile End Old Town, and Bermondsey the birth-rates showed a marked excess.

The 20,493 deaths of persons belonging to London registered during the quarter under notice were equal to an annual rate of 19.1 per 1,000, against 17.9, 23.4, and 18.5 in the corresponding periods of the preceding three years. In the June quarters of the preceding eight years, 1885-92, the mean death-rate was 18.7 per 1,000. The lowest death-rates in the various sanitary districts were 12.6 in Hampstead, 12.9 in Wandsworth and in Lewisham, 15.1 in Kensington and in Plumstead, 15.6 in Paddington and in Battersea, and 15.7 in St. George, Hanover Square. In the other districts the rates ranged upwards to 25.1 in Holborn, 25.5 in Clerkenwell, 26.0 in St. George Southwark, 27.1 in Strand, 29.4 in Limehouse, 31.4 in St. George-in-the-East, and 32.8 in St. Luke. During the quarter under notice 2,986 deaths were referred to the principal zymotic diseases in London; of these, 756 resulted from diarrhœa, 660 from diphtheria, 590 from whooping-cough, 439 from measles, 333 from scarlet fever, 118 from different forms of "fever" (including 4 from typhus, 110 from enteric fever, and 4 from ill-defined forms of fever), and 90 from small-pox. These 2,986 deaths were equal to an annual rate of 2.8 per 1,000, against an average rate of 2.4 in the corresponding quarters of the preceding eight years, 1885-92. The lowest zymotic death-rates during last quarter in the various sanitary districts were 1.2 in London City, 1.3 in St. James Westminster, 1.4 in St. Martin-in-the-Fields, 1.5 in Kensington, 1.6 in Hampstead, 1.7 in Wandsworth, and 1.8 in Lewisham. In the other districts the zymotic death-rates ranged upwards to 3.7 in Fulham and in Poplar, 3.8 in Rotherhithe, 4.0 in St. George Southwark, 4.4 in Shoreditch, 5.0 in Limehouse, 5.1 in St. George-in-the-East, 5.6 in St. Luke, and 5.8 in Clerkenwell.

Ninety deaths from small-pox of persons belonging to London were registered during the three months ending June last, of which 12 belonged to Rotherhithe, 7 to Greenwich, 6 to Poplar, 6 to Camberwell, and 5 to St. George Southwark sanitary districts; 1,309 small-pox patients were admitted into the Metropolitan Asylums Hospitals during last quarter, and 371 remained under treatment at the end of June. Measles showed the highest proportional fatality in Clerkenwell, St. Luke, St. George-in-the-East, Greenwich, Woolwich, and Plumstead; scarlet fever in St. George Hanover Square, St. Giles, Strand, Bethnal Green, Limehouse, St. Saviour Southwark, and St. George Southwark; diphtheria in Marylebone, Strand, Holborn, Clerkenwell, Shoreditch, St. George-in-the-East, Limehouse, Mile End Old Town, and Bermondsey; whooping-cough in Fulham, Chelsea, St. Luke, Limehouse, Rotherhithe, and Battersea; enteric fever in Poplar; and diarrhœa in Fulham, Clerkenwell, St. Luke, Shoreditch, St. George-in-the-East, Mile End Old Town, and St. George Southwark sanitary districts.

Infant mortality in London last quarter, measured by the proportion of deaths under one year of age to registered births, was equal to 147 per 1,000, and exceeded the mean rate in the corresponding periods of the

Analysis of the Vital and Mortal Statistics of the Sanitary Districts of the Metropolis, after Distribution of Deaths occurring in Public Institutions, during the Second Quarter of 1893.

SANITARY AREAS.	Estimated Population middle of 1893.	Births.	Deaths.	Annual Rate per 1,000 Living. Births.	Deaths.	Principal Zymotic Diseases.	Deaths from Principal Zymotic Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-Cough.	Typhus.	Enteric Fever.	Simple and Undefined Fever.	Diarrhœa.	Deaths of Children under 1 year of age to 1,000 births.
LONDON	4,305,551	33,007	20,493	30.8	19.1	2.8	2,986	90	439	333	660	590	4	110	4	756	147
West Districts.																	
Paddington	120,277	753	468	25.1	15.6	1.9	56	3	—	7	15	21	—	3	—	7	139
Kensington	167,038	882	627	21.2	15.1	1.5	64	2	3	12	14	12	—	1	—	20	151
Hammersmith	103,674	784	425	30.3	16.4	2.1	53	1	—	7	6	14	—	2	—	23	134
Fulham	103,075	911	491	35.5	19.1	3.7	96	1	1	10	14	32	—	1	—	37	187
Chelsea	98,114	676	443	27.6	18.1	2.7	66	—	5	7	8	24	—	2	1	19	160
St. George Hanover Square	75,825	371	297	19.6	15.7	1.9	35	3	—	11	10	7	—	1	—	3	105
Westminster	54,761	334	312	21.5	22.9	2.1	28	—	1	5	5	2	—	2	1	12	207
St. James Westminster	33,873	132	124	22.2	20.8	1.3	8	—	—	1	3	2	—	—	—	2	114
North Districts.																	
Marylebone	139,546	1,127	765	32.4	22.0	2.8	97	2	4	11	32	30	—	4	—	14	138
Hampstead	73,949	388	233	21.0	12.6	1.6	30	2	—	8	13	1	—	1	—	5	82
St. Pancras	234,025	1,726	1,189	29.6	20.4	3.2	184	4	39	19	42	33	—	5	—	42	171
Islington	328,608	2,510	1,489	30.6	18.2	3.1	252	—	56	20	45	57	—	8	1	65	159
Hackney	240,177	1,728	970	28.9	16.2	2.2	133	—	6	13	35	39	—	6	1	33	126
Central Districts.																	
St. Giles	38,511	307	217	33.0	22.6	2.3	22	2	1	7	5	4	—	1	—	2	78
St. Martin-in-the-Fields	13,911	51	66	14.7	19.0	1.4	5	2	—	—	1	—	—	—	—	2	157
Strand	23,508	137	159	23.4	27.1	2.7	16	1	—	5	7	1	—	—	—	2	153
Holborn	32,646	228	204	28.0	25.1	2.6	21	—	5	2	9	2	—	—	—	3	158
Clerkenwell	65,163	514	415	31.6	25.5	5.8	94	—	25	9	26	10	—	—	—	24	187
St. Luke	41,106	420	339	40.7	32.8	5.6	58	—	20	4	7	13	—	2	—	12	207
London City	35,383	143	202	16.2	22.9	1.2	11	2	2	2	2	—	—	—	—	3	126
East Districts.																	
Shoreditch	123,325	1,136	711	36.9	24.2	4.4	135	—	27	7	33	22	—	3	—	43	166
Bethnal Green	129,825	1,163	703	36.0	23.6	2.7	87	1	16	19	19	7	—	2	—	23	159
Whitechapel	75,163	846	469	45.1	25.0	2.7	51	3	13	3	13	4	—	1	—	14	144
St. George-in-the-East	45,182	523	354	46.4	31.4	5.1	57	—	11	—	18	1	—	—	—	27	224
Limehouse	57,386	473	421	33.1	29.4	5.0	72	4	3	10	14	24	1	3	—	13	226
Mile End Old Town	108,006	1,025	593	38.1	22.0	3.5	94	3	5	13	20	13	—	6	—	28	133
Poplar	168,876	1,435	943	34.1	22.4	3.7	154	6	3	22	43	17	1	21	—	41	151
South Districts.																	
St. Saviour Southwark	26,823	190	131	28.4	19.6	2.5	17	—	2	5	1	4	—	1	—	4	126
St. George Southwark	59,952	509	388	34.1	26.0	4.0	60	5	7	11	4	13	—	5	—	15	208
Newington	117,430	1,051	622	35.9	21.2	3.0	87	2	13	7	16	17	—	3	—	29	148
St. Olave Southwark	12,816	111	58	35.6	18.1	2.5	8	—	—	2	2	1	—	2	—	1	105
Bermondsey	81,241	799	430	38.0	20.5	3.0	64	2	8	11	21	8	1	1	—	15	126
Rotherhithe	39,761	338	181	32.1	18.3	3.8	38	12	—	3	4	15	—	2	—	2	148
Lambeth	280,567	2,271	1,187	32.5	17.0	2.0	140	1	20	13	28	35	1	8	—	34	117
Battersea	160,633	1,821	623	33.0	15.6	3.2	128	4	18	7	35	38	—	8	—	23	142
Wandsworth	169,379	1,106	546	26.2	12.9	1.7	72	1	7	8	16	10	—	2	—	28	121
Camberwell	240,837	1,832	1,037	29.8	16.9	2.0	123	6	18	9	17	31	—	5	—	37	142
Greenwich	173,519	1,245	771	29.3	17.8	3.1	134	7	52	9	22	17	—	1	—	26	161
Lewisham	76,593	488	247	25.6	12.9	1.8	35	4	10	1	12	2	—	1	—	5	96
Woolwich	41,794	321	196	30.8	18.8	2.8	29	2	10	5	2	6	—	—	—	4	131
Plumstead	94,192	699	354	29.8	15.1	3.1	72	2	28	8	15	4	—	1	—	14	109

preceding ten years. Among the various sanitary districts the rates of infant mortality were lowest in St. George Hanover Square, St. James Westminster, Hampstead, St. Giles, St. Olave Southwark, Lewisham, and Plumstead; while they showed the largest excess in Fulham, Westminster, St. Pancras, Clerkenwell, St. Luke, St. George-in-the-East, Limehouse, and St. George Southwark.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns, including London, 6,399 births and 4,966 deaths were registered during the week ending Saturday, July 22nd. The annual rate of mortality in these towns, which had increased from 17.5 to 24.8 per 1,000 in the preceding eight weeks, further rose to 25.1 during the week under notice. The rates ranged from 12.7 in Bristol, 16.5 in Halifax, 18.0 in Norwich, and 18.1 in Brighton, to 33.6 in Salford, 34.1 in Blackburn, 34.9 in Liverpool, 35.1 in Bolton, and 41.6 in Preston. In the thirty-two provincial towns the mean death-rate was 27.0 per 1,000, and exceeded by 4.5 the rate recorded in London, which was 22.5 per 1,000. The 4,966 deaths registered during the week under notice in the thirty-three towns included 1,554 which were referred to the principal zymotic diseases, against numbers increasing from 415 to 1,431 in the preceding seven weeks; of these, 1,126 resulted from diarrhœa, 129 from measles, 88 from diphtheria, 83 from whooping-cough, 64 from scarlet fever, 44 from "fever" (principally enteric), and 20 from small-pox. These 1,554 deaths were equal to an annual rate of 7.8 per 1,000; in London the zymotic death-rate was equal to 6.0, while it averaged 9.2 per 1,000 in the thirty-two provincial towns, among which the lowest zymotic rates were recorded in Bristol, Huddersfield, Swansea, and Derby, and the highest rates in Leicester, Sheffield, Bolton, Blackburn, and Preston. Measles showed the highest proortional fatality in Cardiff, Plymouth, Newcastle-upon-Tyne, Liverpool, Preston, and Blackburn; scarlet fever in Burnley; whooping-cough in Swansea; "fever" in Bolton; and diarrhœa in Manchester, Wolverhampton,, Salford, Hull Sheffield, Leicester, Bolton, and Preston. The 88 deaths from diphtheria included 66 in London, 4 in Croydon, and 3 in Manchester. Ten fatal cases of small-pox were registered in London, 5 in West Ham, 3 in Oldham, and 2 in Bradford, but not one in any other of the thirty-three towns; 328 small-pox patients were under treatment in the Metropolitan Asylums Hospitals and in the Highgate Small-pox Hospital on Saturday last, July 22nd, against numbers declining from 570 to 364 at the end of the preceding ten weeks; 53 new cases were admitted during the week, against 68 and 61 in the preceding two weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had steadily increased from 2,024 to 2,924, on the preceding fourteen Saturdays, had further risen to 2,974 on Saturday last; 390 new cases were admitted during the week, against 352 and 348 in the preceding two weeks. The 200 deaths referred to diseases of the respiratory organs in London were 18 above the average, and were equal to an annual rate of 2.4 per 1,000.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday, July 22nd, 944 births and 587 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 21.5 and 21.9 per 1,000 in the preceding two weeks, declined again to 20.8 during the week under notice, and was 4.3 per 1,000 below the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the lowest rates were 13.9 in Leith and 17.9 in Dundee, and the highest rates 23.0 in Glasgow and 24.0 in Perth. The 587 deaths in these towns included 132 which were referred to the principal zymotic diseases, equal to an annual rate of 4.7 per 1,000, which was 3.1 below the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Glasgow, Perth, and Greenock. The 300 deaths registered in Glasgow included 37 from diarrhœa, 22 from whooping-cough, 16 from measles, and 2 from diphtheria. Five fatal cases of measles were recorded in Greenock, and 3 of diphtheria in Paisley. The death-rate from diseases of the respiratory organs in these towns was equal to 2.7 per 1,000, against 2.4 in London.

HEALTH OF IRISH TOWNS.

In sixteen of the principal town districts of Ireland the deaths registered during the week ending Saturday, July 15th, were equal to an annual rate of 28.6 per 1,000. The lowest rates were recorded in Galway and Drogheda, and the highest rates in Waterford and Sligo. The 182 deaths registered in Dublin were equal to an annual rate of 27.1 per 1,000 (against 30.7 and 24.6 in the preceding two weeks), the rate during the same period being 22.9 in London and 18.5 in Edinburgh. The 182 deaths in Dublin included 38 which resulted from the principal zymotic diseases (equal to an annual rate of 5.7 per 1,000), of which 30 were referred to diarrhœa, 3 to enteric fever, 2 to measles, 2 to whooping-cough, and 1 to typhus.

THE HAMMERSMITH VESTRY AND ITS MEDICAL OFFICER.

The Vestry of Hammersmith is anxious to obtain the grant of half the salary of its medical officer. Dr. Collier was appointed some sixteen years ago at the inadequate stipend of £200 per annum; he is admitted to be a zealous and excellent officer. The Local Government Board has very properly refused to sanction a new appointment unless the salary is increased to £400 per annum. The Vestry recently discussed the proposal of a committee recommending Dr. Collier's reappointment at a salary of £500 per annum, on which an amendment was carried to offer a salary of £400 per annum; Dr. Collier seems to be inclined to refuse this salary, and without doubt, considering the considerable responsibilities thrown upon metropolitan health officers by recent legislation, the salary does not err on the side of excess. The opposition to the higher sum was confessedly based upon the fact that Dr. Collier will not devote his whole time to the work; this may be technically correct, but no officer in such a position can possibly do his duty without being engaged for many hours each day. The whole time theory as a theory is sound, but when we come to facts, we find that local authorities persistently refuse to pay an adequate sum for such exclusive services, and it becomes a question whether a somewhat easy term of service, debarring the holder of office from private practice, but allowing a reasonable opportunity of making some addition to income by work of a cognate character, will not secure a higher class of public servant than by the opposite system under which the officer is tethered to the official peg, and under no circumstances allowed to go beyond the circle.

THE BIRMINGHAM INFECTIOUS HOSPITAL SCHEME.

The Health Committee of the Birmingham Town Council have had no pleasant task allotted to them in regard of the hospital needs of the county borough. Convinced by the present small-pox prevalence of the necessity for additional isolation accommodation, they have, after much careful consideration, purchased a site within the borough boundary, and have commenced building operations. The plans have been well thought out, and the scheme is an admirable one on paper, but strong local objection is taken on account of the *locale* of the institution. With the view of the opponents to the scheme that the present decline of small-pox obviates the need for immediate action, we do not agree. No one can say what the autumn may have in store as regards small-pox, not alone for Birmingham, but the country generally; and the added beds may at any moment be needed. In nothing more than in hospital provision is it desirable to be ready before an epidemic appears. But if it be true, as is locally held, that the site is in close proximity to the "most rapidly increasing neighbourhood in the borough," we cannot but sympathise with the opposition which strives to send further afield a large building intended for the treatment of small-pox patients. We do not learn that any extra precautions are to be adopted, such as the treatment of the infected air of wards prior to its exit to the general atmosphere, as suggested by the Hospitals Commission of a dozen years back; whilst other of the views of that Commission could in a measure be adopted according to the local opposing party, who point to the willingness of Lord Calthorpe to sell a large piece of ground—some twenty to thirty acres—well away from occupied dwellings, and otherwise suitable for an infectious diseases hospital. If such an establishment be once erected, buildings may be placed in its vicinity at private risk; but to plant a hospital for small-pox in a "populous suburb," "extending almost to the doors," is a totally different matter. Had small-pox been excluded, but little sympathy could have been felt with the opposition; and as it is, we shall hope to learn that the Health Committee have very good ground for their present action. Small-pox hospitals, as we know them generally, will lead to much heartburning wherever they be placed. The pity is that our vaccination laws should be such and so ill-administered as to necessitate these costly contrivances. In the absence of drastic legislation for extinguishing small-pox by means of universal vaccination and revaccination of the best kind, it seems extremely desirable that some method should be adopted by which small-pox hospitals should cease to operate to the danger of surrounding communities. We cannot doubt that the Hospitals Commission of 1881 had in view the practicability of applying such a method when they made their suggestion for securing that the ward air should be robbed of its infective quality in the course of its journey to the general atmosphere.

THE ISOLATION OF INFECTIOUS PAUPERS.

The Berwick-on-Tweed Urban and Rural Sanitary Authorities will be well advised to act on the repeated recommendations of the guardians to erect jointly a hospital for infectious diseases capable of serving the needs of the whole union. The particular interest of the guardians as such in the matter is because of their desire to be in a position to isolate the pauper infectious sick apart from the workhouse premises; and if a sanitary hospital were erected, the guardians could by agreement send their sick into such an institution. We do not doubt that this would prove, as it has already done in numerous instances elsewhere, the best solution of the matter. Beside which, Berwick is not without shipping trade, and therefore needs, quite apart from home disease, to be ready to isolate seaborne infectious cases in a hospital fitted for the purpose.

FEVER IN LONDON.

The returns presented to the last meeting of the Metropolitan Asylums Board, held on July 22nd, showed that during the previous fortnight 786 fever patients had been admitted to the hospital, 76 of whom had died and 642 had been discharged recovered, leaving 3,223 under treatment. Of small-pox patients, 108 had been admitted; 12 had died, 132 had been discharged recovered, leaving 315 under treatment.

NOTIFICATION BY HOUSEHOLDERS.

Dr. Orme Dudfield, in his last monthly report, records two instances in which the presence of infectious disease in households—the malady being in both cases scarlet fever—was discovered as a matter of accident, and owing to information afforded by neighbours. There was good ground for believing that the parents were aware of the nature of their children's ailment in both houses, whilst in neither case had medical aid being sought, or the illness been reported. It is in just this class of persons that the statutory requirement of dual notification would be so valuable, and we would willingly see example made of cases in which, no medical man having been called in, the householder has sought to conceal the presence of infectious sickness on his premises. Such action is fraught with grave danger to the community, especially when, as in one case at Kensington, children from an infected house were allowed to continue in attendance at school.

THE DEATH-RATE OF LEEDS.

Dr. Spottiswoode Cameron is to be congratulated on the record of 1892 so far as the mortality of the city of Leeds is concerned. The city holds second place among the nine largest towns of the United Kingdom with a death-rate of 19.8 per 1,000 of population, against 22.9 in 1891 and 22.7 in 1890, during both of which years, however, influenza prevailed. Comparing 1892 with the twenty years preceding, the mortality-rate shows decrease in the four groupings, reading backward, as follows: 1888-91, nearly 9½ per cent.; 1882-85, just over 12 per cent.; 1877-81, nearly 14 per cent.; and in the five years 1872-76 an improvement of over 27 per cent. In seeking for cause for the vast saving of life thus effected, Dr. Cameron

holds the impetus in sanitary matters following upon the Public Health Acts to be in some degree credited with the falling rate, but, looking to the continued diminution of the rapidity of the initial fall, Dr. Cameron has in mind the clearance of insanitary areas as conducing to better things. In any case, Leeds has an incentive in her present position to perfect those remaining weaknesses in her sanitary defence to which attention has been not a few times drawn.

WATERBORNE TYPHOID.

THE medical officer of health of Chester-le-Street Rural Sanitary District having reported to the Local Government Board a sudden outbreak of enteric fever at the village of Chester-le-Street, and having further intimated his belief that a public water service was concerned in the dissemination of the fever, this inquiry was ordered by the Board, and Dr. Maclean Wilson was instructed to make it. Chester-le-Street is a very ancient village situated on the old post road between Durham and Newcastle, at a point where it crosses the Stanley Burn by a bridge. In all, from October to mid-March there were 43 families invaded, and there have occurred up to the date of inquiry 58 cases with 4 deaths. The conclusion drawn from the investigation is that there appeared nothing in the inter-relations of the sufferers by fever, nothing in the milk supplies used by them, and nothing in their sanitary surroundings, in the least likely to afford a common source of infection. On the other hand was the fact that so many persons using the same polluted water supply suffered while their neighbours who used other water escaped. Furthermore, there occurred, shortly before each of two outbreaks of the fever, opportunity for the bowel discharges of enteric fever patients gaining access to the particular stream which afforded the water supply of invaded households in Chester-le-Street.

A COUNTY MEDICAL OFFICERS OF HEALTH ASSOCIATION.

A MEETING of medical officers of health of the county of Bucks was recently held at Aylesbury for the purpose of forming an association of medical officers of health in Bucks, with the object of securing more united action in the issue of reports and for mutual assistance in sanitary matters.

GRIEVANCES OF A WORKHOUSE MEDICAL OFFICER.

JUSTITIA, a newly appointed workhouse medical officer, writes us a long letter; he appears to have several grievances, the first of which is, that he has not been appointed medical officer of the district as well as the workhouse, as the latter appointment only was vacant at the time of his election, though, as he says the two have hitherto constituted one appointment.

He states that after being elected by the guardians, he was not called upon to enter on his duties for five weeks, or until his appointment had been confirmed by the Local Government Board.

He complains that a cousin to the clerk to the guardians, who is a magistrate, and who is frequently called on to certify for cases of lunacy in the workhouse, invariably avoids the medical officer, and calls in some other medical practitioner, and this even when the medical officer is in the workhouse at the time, and further that this magistrate visits these lunatics in the house without the permission of either the master or the medical officer.

He asks if these acts are right or wrong, and if wrong, whether there is any remedy.

*** "Justitia" is in error in supposing that the medical charge of the district and workhouse has hitherto constituted one appointment; the duties may have been performed by the same person, but notwithstanding this they constitute two separate appointments and the resignation of either one, whether voluntary or compulsory, does not necessarily affect the other. We doubt whether any good can possibly arise from a discussion of the second question, namely, the non-engagement for duty of our correspondent till after his appointment was confirmed by the Local Government Board, and should advise him to let this question rest.

We fear he will not gain much by any agitation in reference to the lunacy cases, as by the Lunacy Act, 1890, the magistrate who acts in the case is at liberty to call to his assistance any registered medical practitioner he pleases, and this magistrate can doubtless visit any of the lunatics in the workhouse for the purpose of transferring them to an asylum without the consent of the medical officer. He cannot, of course, do so without the consent of the master of the workhouse, who practically holds the key of the house, but this consent we apprehend the master is bound to give when informed of the object of the proposed visit.

AIR SPACE IN RURAL COTTAGES.

SENEX asks: What is the area per adult allowed by the Act for dwellers in cottages in the country, especially in regard to sleeping rooms?

*** We are not aware that either area or air space are defined by any Act with respect to rural cottages.

ISOLATION AFTER SMALL-POX.

DR. J. B. G. MCKINNEY writes: I am attending a case of modified small-pox, with about twenty small pocks on the head and face, and as many on the chest and arms. After first week all serious symptoms have disappeared, and now, about tenth day of eruption, pocks are fading away. How long must such a patient remain isolated? It is difficult to shut up a person who feels quite well.

*** It is seldom safe to terminate the isolation before the end of the third week, the rule being to wait until all scabs, and even "fringes" of cipdermis around the scabs, have quite disappeared, so that the skin is left smooth where the pocks have been.

HOSPITAL AND DISPENSARY MANAGEMENT.

THE ROYAL EDINBURGH ASYLUM FOR THE INSANE.

THE eightieth annual report of this institution contains its history for the year 1892, and shows a valuable addition to the long list of successful years of management. The daily average number of persons under treatment in all departments was 834, being an increase of 4 over the number in the year preceding, and the total number of patients under treatment was 1,252. The number of admissions greatly exceeded that of any previous years, and amounted to 433. Taking Scotland generally, Dr. Clouston tells us that there is now one rate-paid insane person to every 392 of the population, while ten years ago the proportion was one to 435. Ireland, however, is worse off in this respect for she has one lunatic to every 280 of the population; while in Argyll there is one to every 200; and yet the opinion gains ground that, with increasing confidence of the public in asylums, there seems a probability of a further increase in the number of the inmates. Twenty-one per cent. of the cases admitted into Morningside were due to drink, and in 24 cases influenza was given as the assigned cause. There were 36 cases of general paralysis, designated by Dr. Clouston as the most truly terrible of all the modern diseases of modern life. Among the discharges, the recovery rate was 37.6 per cent., and the death-rate, calculated upon the total number under treatment, was 7.3 per cent., 2 of the cases that died being cases of developmental general paralysis coming on at puberty.

EYE, EAR, AND THROAT HOSPITAL, CORK.

A SPECIAL appeal has been made on behalf of this institution, in consequence of the increased number of patients receiving relief, and the inadequacy of the present buildings to meet the demands. It is proposed to reconstruct the hospital upon a substantial basis, so that it may still further extend its sphere of usefulness. The buildings are very cold, and portions of them dilapidated, and it is estimated that a sum of £5,000 will be necessary. Lady Arnott and Mrs. Jevers are the honorary treasurers.

MEDICAL NEWS.

DR. H. TINKER has been appointed by the Lord Chancellor Commissioner of the Peace for the borough of Hyde.

A MEETING was held recently at the house of Dr. Theo. Hoskin, Amhurst Road, Hackney, to further the work of the London Police Court Mission.

HIS Royal Highness the Duke of Cambridge has been pleased to appoint Mr. Francis Manley Sims, F.R.C.S., L.R.C.P.Lond., Physician in Ordinary to his Royal Highness.

PRESENTATION.—The members of the Hathersage Ambulance Association have presented a riding whip to Dr. Wallace, as a recognition of a second course of a series of lectures given by him.

AT the beginning of this month the State of Pennsylvania ceased to exercise quarantine jurisdiction, the whole administration being handed over to the Federal authorities. Pennsylvania is stated to be the first State to carry out this reform.

THE EGYPTIAN "WAKFS" ADMINISTRATION.—One of the principal obstacles to reform in Egypt consists in the passive opposition offered by the *Wakfs* to all sanitary measures. This wealthy and powerful body, which owns and administers immense estates but never furnishes any accounts, is notorious for the filthy and neglected condition of most of the valuable properties under its control. The following letter, addressed by the Under-Secretary of State for the Interior to the Prime Minister and Regent, shows that a cholera scare is not altogether an unmixed evil.—"His Excellency the Director-General of *Wakfs* is still at Alexandria. By letters from the Governor of Cairo and the Director of the Sanitary Department, I have ascertained that the *Wakfs* administration has not yet put into execution the precautionary sanitary measures which have been prescribed. I have the honour, therefore, to beg your Excellency to be good enough to order the Director of the Administration in question to proceed to Cairo with the least possible delay. (Signed) MAHMOUD RIAZ."

THE INTERNATIONAL MEDICAL CONGRESS AT ROME.—The National Committee for Scotland of the International Medical Congress to be held at Rome in September has issued a programme containing particulars (already published in the BRITISH MEDICAL JOURNAL of May 6th) of the mode of obtaining the tickets of membership, letters of invitation, and cards of legitimisation required by the railway companies before the reductions offered can be claimed. A table of fares is given. The Chairman of the Committee is Professor Grainger Stewart, and the Secretary Dr. G. A. Gibson, 17, Alva Street, Edinburgh.

MEDICAL VACANCIES.

The following vacancies are announced:

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL AND DISPENSARY, Chesterfield.—House-Surgeon. Salary, £100 per annum. Assistant House-Surgeon. Salary, £50, with board, apartments, and laundress for each. Applications to the Secretary by August 4th.

DEACONESSES INSTITUTION AND HOSPITAL, Tottenham.—Senior House-Surgeon. Salary, £60 per annum, with board, lodging, and laundry. Applications to the Director by August 3rd.

EAST SUFFOLK AND IPSWICH HOSPITAL, Thoro'fare, Ipswich.—Assistant House-Surgeon, unmarried, doubly qualified. Salary, £20 per annum, with board, lodging, and washing. Applications to the Secretary by August 1st.

GENERAL HOSPITAL FOR SICK CHILDREN, Pendlebury, Manchester.—Junior Resident Medical Officer; doubly qualified. Salary, £80 per annum, with board and lodging. Applications to the Chairman of the Weekly Board by July 29th.

GREAT YARMOUTH HOSPITAL.—House-Surgeon; doubly qualified. Salary, £90 per annum, with board and lodging. Applications to Richard F. E. Ferrier, Honorary Secretary, by August 1st.

GROSVENOR HOSPITAL FOR WOMEN AND CHILDREN, Westminster.—Assistant Physician and Anæsthetist. Applications to the Secretary by July 29th.

LEWES DISPENSARY AND INFIRMARY AND VICTORIA HOSPITAL, High Street, Lewes.—Resident Medical Officer; doubly qualified. Salary, £100 per annum, furnished apartments, coal, gas, and attendance. Applications to the Honorary Secretary, Mr. Reginald Blaker, Lewes, Sussex, by July 31st.

LIVERPOOL INFIRMARY FOR CHILDREN.—Assistant House-Surgeon. Appointment for six months, board and lodging provided. Application to C. W. Carver, Honorary Secretary, by August 5th.

LODDON AND CLAVERING UNION, Loddon, near Norwich.—Medical Officer for the No. 4 District. Salary, £55 4s. per annum and usual fees. Applications to James Cole Copeman, Clerk, by July 31st.

MANCHESTER ROYAL INFIRMARY.—Resident Medical Officer, not less than 25 years of age, and unmarried; doubly qualified. Appointment for one year, but holder of office may be re-elected. Salary, £150 per annum, with board and residence. Applications to the Chairman of the Board by July 29th.

NATIONAL ORTHOPÆDIC HOSPITAL, 234, Great Portland Street, W.—Surgical Registrar. Honorarium, £20 per annum. Applications to M. A. H. Tubby, F.R.C.S., at the hospital.

PORTUMNA UNION.—Portumna Dispensary No. 2. Medical Officer. Salary, £40 per annum, with £5 as Medical Officer of Health, registration and vaccination fees. Applications to Mr. Laurence Taylor, Honorary Secretary. Election on August 5th.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—Assistant Physician. Applications to the Secretary by July 31st.

ROYAL INFIRMARY, Hull.—Assistant House-Surgeon. Salary, £60 per annum, with board, and furnished apartments. Applications to the Chairman, House Committee, by August 1st.

ROYAL SOUTH HANTS INFIRMARY, Southampton.—Assistant House-Surgeon. No salary; board and rooms provided. Honorarium £10 at the end of six months. Applications to T. A. Fisher Hall, Secretary, by July 31st.

TRALEE UNION.—Tralee Dispensary. Apothecary. Salary, £20 per annum. Applications to Mr. W. Denny, Honorary Secretary. Election on August 6th.

VICTORIA INFIRMARY OF GLASGOW.—Superintendent and Resident Medical Officer. Applications to Francis Bisset, Secretary, 22, Carlton Place, Glasgow, by August 15th.

WESTMINSTER HOSPITAL, Broad Sanctuary, S.W.—Surgeon. Must be Fellow of the Royal College of Surgeons of England. Applications with testimonials to the Secretary, S. M. Quennel, by August 22nd.

WHITEHAVEN AND WEST CUMBERLAND INFIRMARY, Whitehaven.—House-Surgeon; doubly qualified. Salary, £120 per annum, and £30 per year for dispensing, with furnished apartments and attendance. Applications to Tyson Kitchen, Secretary, by July 29th.

MEDICAL APPOINTMENTS.

BAINE, Laurence, M.D., B.S., Durh., D.P.H.Camb., F.C.S., appointed Resident Physician to the Fever Hospital, Newcastle-on-Tyne, *vice* Dr. Stokoe, resigned.

BENSON, H. P., D., M.B.Edin., appointed Medical Officer for the Skenfrith District of the Monmouth Union, *vice* Charles H. East, M.D.Durh., resigned.

BERRY, Frances May Dickinson, M.D.Lond., appointed Pathologist to the New Hospital for Women.

CARR, Thomas, M.B.Durh., M.R.C.S.Eng., L.S.A.Lond., appointed Medical Officer of Health to the Braintree Rural Sanitary Authority, *vice* C. E. Abbott, M.R.C.S.Eng., L.R.C.P.I., resigned.

CARTER, A. H., M.D.Lond., M.R.C.S., appointed Honorary Medical Officer to the Corbett Hospital, Stourbridge.

CHAVASSE, T. F., M.D., F.R.C.S.Edin., appointed Honorary Consulting Surgeon to the Corbett Hospital, Stourbridge.

DAKIN, W. R., M.D., appointed Physician to the General Lying-in Hospital, *vice* Dr. Cullingworth, resigned.

ELLIS, H. D'Arcy, L.R.C.P.Edin., M.R.C.S.Eng., appointed Honorary Surgeon to the Corbett Hospital, Stourbridge.

FLINN, John James, L.R.C.P.Edin., M.R.C.S.Eng., appointed Medical Officer for the Belmont Road Workhouse of the West Derby Union.

GOSSAGE, A. M., M.B.Oxon., appointed Medical Registrar at Westminster Hospital.

GURNEY, Harrold, L.R.C.P., L.M., L.R.C.S.Edin., reappointed Medical Officer of Health for the Borough of Harwich.

HALL, E. George, M.B.Lond., M.R.C.S., appointed Surgeon to the Bristol Dispensary.

HARE, Arthur William, appointed Medical Officer for the Keyworth District of the Bingham Union.

HOGARTH, Dr., appointed *pro tem.* District Medical Officer for the Cheltenham Union, *vice* Robert Kirkland, M.B.Glas., resigned.

HOOD, Donald W. C., M.D.Cantab., F.R.C.P., appointed Consulting Physician to the North-West London Hospital, Kentish Town Road.

HOWDEN, Robert, M.B., C.M., appointed Medical Officer of Health for the Burgh of Haddington, *vice* Thomas Howden, M.D., resigned.

HOWAT, Robert K., M.B., C.M.Glasg., M.R.C.S., L.R.C.P.Lond., appointed Assistant House-Surgeon to the General Hospital, Wolverhampton.

KEKWICK, John, L.D.S.Eng., appointed House-Surgeon to the Dental Hospital of London.

LYON, A. B., M.B., C.M.Aberd., appointed Medical Officer for the Macduff Sanitary District, *vice* James Hitchcock, M.B., C.M.Aberd., resigned.

MCDOUGALL, J. F., M.R.C.S.Eng., L.R.C.P.Edin., appointed Assistant Medical Officer of Health for the Urban Sanitary District of Walton-on-the Hill.

MUIR, Robert D., L.R.C.P.Lond., M.R.C.S., appointed Resident Medical Officer to Queen Charlotte's Lying-in Hospital, *vice* T. W. Eden, M.D., resigned.

PURKISS, Arthur, M.D., appointed Medical Officer for the Walston District of the Rugby Union.

ROBERTS, F., M.B., appointed Resident Medical Officer to the Leeds Infirmary, *vice* Dr. Cuff.

SMITH, Hy. Hammond, L.R.C.P.Lond., M.R.C.S., appointed Honorary Surgeon to the Corbett Hospital, Stourbridge.

WILLS, W. A., M.D.Lond., M.R.C.P., M.R.C.S., appointed Assistant Physician to the Westminster Hospital.

WOODS, William J., M.B., B.Ch., B.A.O.R.U.I., appointed Junior House-Surgeon to the Royal Southern Hospital, Liverpool.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

BARRY.—On July 16th, at Stamford Avenue, Hassocks, the wife of T. D. Collis Barry, L.R.C.P.Lond., M.R.C.S.Eng., of twins, son and daughter.

CARTER.—On July 15th, at The Poplars, Rastrick, Yorkshire, the wife of William R. Carter, M.B., C.M.Edin., of a daughter.

HOLMES.—At Hope Cottage, West Gorton, Manchester, on the 23rd inst., the wife of Harry A. Holmes, L.R.C.P., of a daughter.

MARRIAGES.

CAPES—THORP.—July 25th, at St. Peter's, Dulwich Common, by the Rev. H. J. Pulley, M.A., assisted by the Rev. H. S. Swithinbank, M.A., and the Rev. W. P. Beckett, M.A., Robert Capes, M.R.C.S.Eng., L.R.C.P. Lond., youngest son of H. H. Capes, Esq., of Belmont, Harrogate, to Mary Isabel, eldest daughter of Dr. Sidney Thorp, Lordship Lane, Dulwich.

D'ERF-WHEELER—BLYTH.—On July 5th, at Christ Church, Jerusalem, by the father of the bride, assisted by the Rev. C. H. Kelk, M.A. (L.J.S.), the Rev. Longley Hall (C.M.S.) and the Rev. T. Bay (C.M.S.), Percy Charles Edward D'Erf-Wheeler, M.D., F.R.C.S., L.R.C.S., of Jerusalem, to Grace Frances Popham, second daughter of the Right Rev. G. F. Popham Blyth, Anglican Bishop in Jerusalem and the East.

HOWDEN—DURIE.—At Stairpark, Tranent, N.B., on the 27th instant, by the Rev. R. N. Smith and William Proudfoot, ministers of Haddington, Robert Howden, M.B., C.M., Carlyle House, Haddington, to Roberta, youngest daughter of the late Robert H. Durie, Barney Mains, Haddington.

WALKER—LEAROYD.—On July 19th, at Queen Street Wesleyan Chapel, Huddersfield, by the Rev. T. Moorhouse Thorp, of London, assisted by the Rev. T. M. Rees, of Halifax, brother-in-law of the bridegroom, Edward Walker, M.D., M.R.C.S., of Huddersfield, to Ethel, eldest daughter of Samuel Learoyd, Sherwood House, Huddersfield. At home August 8th to 11th.

DEATHS.

CHAPMAN.—On June 30th, at Funchal, Madeira, James Milne Chapman, M.D., M.R.C.S., of Inverness, aged 38 years.

WHITE.—On the 24th inst., in the 38th year of his age, Percy H. White, M.B., M.R.C.S., etc., of 3, Moore Street, Cadogan Square, S.W., fourth son of the late Richard White, of Norwich. Interment at St. James's Cemetery, Dover, on Saturday at 3.30 P.M. Friends will kindly accept this the only intimation.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

X. Y. Z. asks what is the best kind of consulting-room writing table, where it may be had, price, etc. The ordinary knee-hole writing table is not quite perfection.

M.A. would be glad of any information as to what has been found useful in (1) the treatment of or (2) the prevention of sea-sickness.

L.R.C.P. wishes to know of an establishment where a dipsomaniac can be placed whose husband can only afford £1 per week.

*** We cannot recommend any individual practitioner or establishment.

M.D. writes: Will any gentleman who has been in for the examination for the Diploma in Public Health of the Royal Colleges of Physicians and Surgeons (Edin.) give me some idea of what work one is required to do in the laboratory? I am a candidate registered before 1890.

BROWN-SEQUARD'S FLUID.

C. J. W. wishes to know whether the treatment by injection of the fluid obtained from the guinea-pig, by Professor Brown-Séquard, has been tried in England, and if so where he could obtain particulars of such trial.

COUNTRY DISTRICT MEDICAL CLUB.

W. writes: Will any member kindly give information about a country district medical club? There are labourers who are unable to obtain a medical ticket from the relieving officer, but who, at the same time, cannot afford to pay a doctor. Would half-yearly payments of 1s. 6d. each for the husband and wife, and 1s. 6d. for the children under 14 years of age, making a total of 4s. 6d. half-yearly for the family, to include visits and medicines, but not fractures, dislocations, or midwifery, be too low a figure?

SMALL-POX LITERATURE.

APOMORPHINE asks for references to literature which would be of use in compiling an essay on small-pox.

*** Our correspondent might consult the following works:—(1) Willan on the Antiquity of Small-pox (in his *Miscellaneous Works*); (2) Moore's *History of Small-pox*; (3) Professor Thomson, of Edinburgh, on the Various Kinds and Secondary Occurrence of Small-pox; (4) Cross on the Norwich Epidemic; (5) Trousseau's *Clinical Medicine* (Sydenham Society's translation); (6) Marson's article in *Reynolds's System of Medicine*; (7) Simon's Papers on Vaccination (reprinted in vol. I Report of Royal Commission on Vaccination); (8) Seaton's *Handbook of Vaccination*; (9) McVail's *Vaccination Vindicated*; (10) Sir George Buchanan's Local Government Report for 1884; (11) Barry's Report on the Sheffield Epidemic. The first four of the above can most conveniently be got at any good medical library.

LIABILITY OF HOSPITAL TO BURY DECEASED PATIENTS.

BRIDLINGTON QUAY writes: A. B. is admitted into our cottage hospital, where he has to pay 3s. per week. Being unable to pay it himself, some kind friends pay it for him. In six weeks A. B. dies. His friends decline to pay the funeral expenses. Who has to pay for the funeral—the cottage hospital, or the parish? Surely the latter.

*** In view of the decision of Lord Denman in *Reg. v. Stewart*, 12 A. and E., 773, the liability to bury the body in the case referred to primarily attaches to the hospital authorities, in the absence of an express agreement with the Poor-law guardians or some other persons to defray the expenses. Section 31 of the Poor-law Act of 1844 (7 and 8 Vict., ch. 101) empowers a board of guardians to bury, at the cost of the poor rates, the body of any poor person which may be within their parish or union; and no doubt in the case in question the guardians could act under that section if they chose to do so; but there would seem to be no obligation upon them to incur the expense unless the body is lying in the workhouse or on premises belonging to the guardians.

ANSWERS.

M.D.—Particulars as to the arrangements for English practitioners proceeding to the Congress at Rome were published in the BRITISH MEDICAL JOURNAL of May 6th, p. 965. Further information can be obtained from the Honorary Secretary, Mr. G. H. Makins, F.R.C.S., 47, Charles Street, Berkeley Square.

INCOME TAX should complain to the Secretary, Inland Revenue, Somerset House, but will probably get no satisfaction. The more a surveyor is in the wrong, the more strongly his superiors are apt to defend him. Against "a fanciful and high-flown estimate" of profits, "Income Tax" may get assistance from the Income Tax Repayment Agency, 25, Colville Terrace, W.

PRACTICE IN SPANISH AMERICA.

DR. R. E. BURGES (Chester) writes: In answer to Dr. J. Booth-Clarkson, I may say that on making inquiries when at Buenos Ayres in 1881 myself, I was informed that a medical man with British qualifications would be required to study there Spanish language and medicine for two years, and then to pass an examination (the nature or extent of which I cannot say) before being allowed to practise in the Argentine Republic. I believe the same holds good at Monte Video, Rio de Janeiro, and Bahia. I believe the chances of practice at Buenos Ayres are very good. Fees are very high, but so are expenses.

GALVANISED IRON PIPES.

DR. J. C. THRESH (Chelmsford) writes: Certain waters undoubtedly act upon galvanised iron pipes, but in my experience in one case only has the zinc dissolved by the water given rise to any ill effects. A gentleman took possession of a country house, which he had erected and which was supplied with water from a spring about a quarter of a mile distant. From the time of removing, his only child suffered from so marked constipation that a medical man was called in. He ultimately suspected the water supply, and upon examination this was found to contain zinc dissolved from the inner surface of the pipes conveying the water to the house. Directly this supply was discontinued, the child's bowels began to act normally. After a time the zinc in such pipes is completely removed, a coating of iron oxide taking its place. I am am anxious to obtain samples of water having the above action, and shall be glad to examine and report upon any such that may be sent me.

NOTES, LETTERS, Etc.

ERRATA.

IN the report of the conjoint meeting of the Edinburgh, and Stirling, Kinross, and Clackmannan Branches on page 148 of the BRITISH MEDICAL JOURNAL of July 15th, the name of Dr. Dow was inadvertently printed as Dr. Dom.

IN the note by Dr. H. Oliphant Nicholson, on "Fæcal Incontinence in Childhood," under Answers, in the JOURNAL of July 22nd, page 215, for "inject 2 ounces of a solution of tinct. ferri. perchlor. (3j to 3j of water)," read "Inject 2 ounces of a solution of tinct. ferri. perchlor. (3j to Oj of water)."

MEDICAL BENEDICTS.

A DOCTOR WHO OWES SUCCESS TO HIS WIFE writes to say that in Australia, where he practises, people "would as soon expect a publican to sell spirits without a licence as a doctor to be unmarried." He thinks that if the unmarried and unsuccessful "would only wake up and take a wife, he would find his number of patients just double."

*** We have reason to believe that the remedy has been frequently tried, not always with the success which our correspondent anticipates.

BONESETTERS AND ASSURANCE COMPANIES.

MCG. writes: In our neighbourhood we have a so-called bonesetter, who not only attends patients but also signs certificates, which are accepted by the assurance companies just as if signed by a registered medical practitioner. I think something ought to be done in the matter either by a combined action of the general practitioners or by calling the attention of the accident assurance companies to it.

*** A certificate of the cause of death signed by a bonesetter would not be accepted by the registrar as if signed by a registered medical practitioner. On receipt of such a certificate, in the present state of the law, it is the registrar's duty to record the assigned cause of death as "uncertified;" indeed, no other course is at present possible as no legal method exists for inquiring concerning the causes of uncertified deaths. If assurance companies accept such certificates they do so at their own risk.

CONCURRENT SCARLATINA AND MEASLES.

DR. J. ROBINSON (Nantyglo, Mon.) writes: I was called in to see E. B. aged 6 years, on July 6th. She was then very feverish, vomiting, and complaining of sore throat; the body was completely covered with a typical scarlatinal rash on the following day. On July 9th, the fourth day of the illness, a second rash appeared which was undoubtedly the rash of measles, both rashes being distinctly visible at the same time. The temperature averaged 104° during the first three days of the illness. On the fourth day, namely, the day on which the measly rash appeared, the temperature rose 1°. The child died on July 13th from lobular pneumonia.

WORKMEN'S TRAINS.

WE are glad to note the practical steps which are being taken to improve the service of workmen's trains in and around London. At the conference just held at the Board of Trade, the companies agreed to many of the suggestions put forward by the London Council, such as making workmen's tickets available after noon (on most lines these have been available only after 4 o'clock), and that all third-class trains, whether on main or branch lines, arriving at the London termini up to 8 A.M. be workmen's trains throughout the area of the cheap train service. Not all of the companies agreed to this latter point. In regard to the model zone system being adopted, the companies state that the suggestion is one to which practical effect cannot be given; they have not, however, refused to entertain the proposal, and have intimated readiness to consider the system of grouping fares for varying distances up to twelve miles from the terminus of each railway. The Council hold that fifteen miles should be the limit, but the matter will be again discussed at another conference to be convened by the Board of Trade. Sir Courtenay Boyle, Secretary to the Board of Trade, favours the Council's suggestions.

A CASE OF WASP STING WITH RAPID CONSTITUTIONAL SYMPTOMS.

DR. G. BALFOUR MARSHALL, M.B., C.M. (Kirkcudbright, N.B.) writes: On July 18th, at 5.30 P.M. I was called to see Mr. A., who, less than an hour previously, had been stung on the nape of the neck by a wasp. To soothe the pain, which was somewhat severe, he applied bicarbonate of soda. Some 15 minutes later he felt his eyes watering but not painful. Getting worse he looked at himself in the glass and found his face somewhat swollen and his eyes bloodshot. He felt his body getting itchy, and taking off his clothes found his chest and abdomen covered with a red rash. Half an hour after being stung his condition became aggravated, his eyes watered much, the face was so swollen that he could scarcely see, and he noticed cyanosis of the lips and round the eyes. His wife also remarked how swollen and blue his face was, and this caused them to send for medical assistance. When I arrived the following was his condition: On the nape of the neck and to the right side was a white well-elevated wheal, ovoid in shape and about almond size, where the wasp had stung him. The face was flushed and showed slight cyanosis, but almost all traces of the previous swelling had disappeared. The conjunctivæ were markedly congested and the flow of tears increased, but the pupils were of moderate size and otherwise normal. The neck and whole trunk, back and front, were covered with a deep scarlatinal-like rash, showing a slight mottling, disappearing on pressure but at once returning. The left palm was likewise reddened but the limbs were otherwise quite free from any rash. All the parts, affected with this rash—trunk and palm of left hand—had been very itchy, but this was now passing off. The left axilla was swollen but not tender to pressure, and the patient himself remarked that it was curious the left armpit should be swollen and the left palm red when he had been stung on the right side of the neck. The left hand had not been stung and showed no wound. The temperature was 98°F., pulse 60, regular and of medium tension. The patient, beyond feeling alarmed at his condition, was conscious of no other symptoms. Four hours later the rash began to fade, and next morning he was quite well.

BIRTHS AND DEATHS.

M. LANGLOIS, writing in *Annales d'Hygiène Publique et de Médecine Légale*, gives some highly interesting figures: Everywhere in Europe there is a continuous and gradual diminution in the number of births. Thus, in England in 1879, there were 34.7 births for each 1,000 inhabitants; but in 1890 the figures were 30.2 births for each 1,000 inhabitants, after having been successively 33.9 (1881), 32.5 (1885), 30.6 (1888). In Belgium in 1879 the number of births were 13.5 for each 1,000 inhabitants; in 1890 the births were but 28.7. In the German Empire in 1879 the number of births to each 1,000 inhabitants was 38.9; in 1890 this proportion had fallen to 36.7. In Prussia proper the proportion in 1879 was 39.2; it was but 36.6 in 1890. Thus throughout Europe there has been an increasing diminution in the number of children born. In France, however, this decrease is more marked than in other countries, because the proportion of births is lower than elsewhere. In 1879 there were 25 children born for each 1,000 inhabitants; in 1890 the proportion was but 21.8, or a diminution of nearly one-sixth. Yet, to form a just estimate of the effect of this decrease of births on each country, we must take into account the mortality of the country. The nations of Europe, for this purpose, may be divided into three groups: those of the South: Spain, Austria, Italy, even Germany, in which countries the number of deaths in 1890 varied from 32 to 25 for each 1,000 inhabitants; those of the centre: France, Belgium, Switzerland, of which the respective proportions were 22.01, 20.21, 20.82 for each 1,000 inhabitants. Finally, the people of the North: England, Denmark, Sweden, Norway, where the respective proportions of deaths were 19.01, 17.19, 16.34, 16.14 for each 1,000 inhabitants. Thus it will be observed that while France has fewer births than any other country of Europe, in regard to mortality she occupies an intermediate position. The South of Europe, contrary to general opinion, has a much higher mortality than the North, especially for children, of which the mortality comprises a considerable proportion of the number deaths in each country. The mortality of children in France is frightful, although there is no increase, but rather a diminution, in the number of infants which die during their first year. If from 1806 to 1809 22 per cent. of the newborn children died, the percentage in 1860 was but 17.63, and it fell to 15.76 in 1888, to 14.82 in 1889, while in 1890, a year of epidemic which did not spare children, the percentage was 16.77. We have to admit that out of 1,000 children born in France, 167 die in their first year; and this number is altogether too large, notwithstanding that Bavaria loses 312 in every 1,000, Italy 212, Switzerland 190, Belgium 174. The public hygiene of a country which, out of 800,000 born, loses 167,000 in their first year, is manifestly inefficient, although enormous progress has been made in the last ten years.

LETTERS, COMMUNICATIONS, ETC., have been received from:

(**A**) Dr. J. Althaus, London; Messrs. Arnold and Son, London; Mr. W. Andriezen, Wakefield; Mr. W. Allingham, London; Dr. W. H. Ackland, Bideford; Dr. P. Abraham, London; Apothecaries' Society, Secretary of the, London; Army Medical Staff. (**B**) Mr. F. M. D. Berry, London; Mr. B. Brooks, Hull; S. Barwise, M.B., Derby; Mr. C. J. Bond, Leicester; Mr. B. G. M. Baskett, London; Dr. R. E. Burges, Chester; Dr. R. Barnes, Liss; Dr. E. G. Barnes, Eye; Dr. C. Beale, London; Dr. J. W. Byers, Belfast; Mr. M. J. T. Barker, London; Dr. L. A. Baine, Newcastle; Mr. H. B. Barrett, Pontypridd; Mr. A. H. Broadwell, London; Mr. A. Bell, Newcastle. (**C**) J. M. Cameron, M.B., Dalmuir; Rev. S. Churchill, Atherstone; Dr. A. E. Cordes, Geneva; Mr. J. Coats, Erith; Dr. W. J. Collins, London; Mr. J. Couldrey, Scunthorpe; Mr. E. G. Clarke, Cleveden. (**D**) Dr. W. R. Dakin, London; Dr. E. Downes, Eastbourne; Mr. H. P. Dunn, London. (**E**) E. A. B. C.; Mr. E. P. Edwards, Mynyddygof. (**F**) J. B. Fisher, M.B., Whitehaven; Professor P. F. Frankland, Dundee Mr. E. H. Fenwick, London; Mr. J. M. Fox, Lymm; Mrs. E. S. Ford, London; Mr. J. A. Fox, Penzance; F.R.C.S.E. (**G**) Mr. B. Gowing, Sheffield; Dr. G. A. Gibson, Edinburgh; Dr. W. F. Grant, London; Dr. A. L. Galabin, London; Mr. J. L. Green, Salisbury; Dr. H. R. Greene, Southsea; J. A. Green, M.B., Glenluce; Mr. W. M. Gabriel, Keighley. (**H**) T. E. Hill, M.B., Durham; Mr. W. E. Hacon, Christchurch, N.Z.; R. K. Howat, M.B., Wolverhampton; Mr. T. Hoskin, London; Dr. T. W. Hime, Bradford; Mr. J. D. Hillis, Dublin; Mr. J. Hayes, Leigh; R. Howden, M.B., Haddington. (**I**) Income Tax; I.V.R.C. (**J**) Jeyes Sanitary Compound Company, Secretary of the, London; J. D.; Mr. L. Jones, Bristol; Dr. H. J. Johnstone-Lavis, Harrogate. (**K**) Dr. C. Kelly, Worthing; Mr. J. Knowles, London; Dr. N. Kerr, London; Dr. C. R. Illingworth, London; Dr. T. N. Kelynack, Manchester; Dr. R. Kirk, Glasgow. (**L**) L.R.C.P.; Mr. T. E. Lyon, London; Mr. G. H. Lang, Bromley; Dr. H. Lankester, London. (**M**) Mr. J. H. Murray-Aynsley, Christchurch, N.Z.; Mr. R. D. Mason, London; Mr. F. Mayhew, Ipswich; Mr. S. C. H. Moberley, Bridlington Quay; Mr. G. B. Marshall, Kirkcudbright; Dr. W. Murrell, London; M.D.; Mr. H. W. Marcus, London; Dr. J. W. Moore, Dublin; Marlburiensis; J. Mackie, M.B., Alexandria; Dr. G. B. Mead, Newmarket; G. R. Murray, M.B., Newcastle; Mr. D. Mackenzie, London; M.D.Durh.; M.A.; Mr. J. J. N. Morris, Devonport. (**N**) Mr. W. L. Newton, London; Mr. R. H. Newett, Belfast; J. H. Nicoll, M.B., Glasgow; Mr. H. O. Nicholson, Kirkcaldy. (**O**) Mr. D. A. O'Sullivan, Burnley. (**P**) Mr. H. O. Pilkington, Preston; Mr. N. N. Pridie, Wansford; Dr. R. G. Price, Carmarthen; Dr. F. L. Phillips, Birmingham; Dr. R. Pringle, London; A. S. Percival, M.B., Newcastle; D'Arcy Power, M.B., London; Dr. R. J. Purdon, Belfast. (**R**) Mr. J. Robinson, Nantyglo; J. M. Robertson, M.B., Glasgow; Mr. H. Rees, Carnarvon; Professor C. S. Roy, Cambridge; J. M. Reid, M.B., Oxford; W. R. Rice, M.B., Coventry. (**S**) Dr. G. H. Savage, London; Dr. J. B. Sanderson, Oxford; Mr. A. Snowden, London; Dr. T. W. Shore, London; Dr. A. Sheen, Cardiff; Mr. S. Snell, Sheffield; Mr. W. A. Stradling, Watford; Dr. A. Smart, Edinburgh; Dr. W. Selby, London; Mr. C. W. Smeeton, Leeds; Surgeon-Captain A.M.S.; Mr. G. Stewart, London. (**T**) Dr. J. Tatham, Manchester; Mr. E. T. Thompson, Dunstable; Mr. F. H. Tinker, Hyde; Dr. A. H. Twining, Salcombe; J. H. Targett, M.B., London; W. H. Turnbull, M.B., South Shields; Mr. M. C. Taylor, Bridlington; Dr. J. C. Thresh, Chelmsford. (**W**) Mr. M. Woodward, Pershore; Dr. J. F. Waldo, London; Dr. W. A. Wills, London; F. J. Woollacott, M.B., London; Mr. W. J. Woods, Liverpool; Mr. R. H. Wellington, Sutton Bridge; Mr. D. Wylie, Glas w; Mr. G. E. Williamson, Newcastle; Mr. C. J. Weller, Stonehouse. (**X** X. Y. Z. (**Y**) Miss M. Yates, London; etc.

BOOKS, ETC., RECEIVED.

Sciatica; A Record of Clinical Observations on the Causes, Nature, and Treatment of Sixty-eight Cases. By A. S. Eccles. London: Macmillan and Co. 1893. 3s. 6d.

Nursing; its Principles and Practice. By Isabel A. Hampton. Philadelphia: W. B. Saunders. 1893. 2 dollars.

Doctor Pascal, or Life and Heredity. By Émile Zola. London: Chatto and Windus. 1893. 3s. 6d.

Homburg Spa; An Introduction to its Waters and their Uses. By Dr. A. Schetelig. London: J. and A. Churchill. 1893. 2s. 6d.

A Manual of Diseases of the Nervous System. Vol. II. By Dr. W. R. Gowers. London: J. and A. Churchill. 1893. 20s.

The Retrospect of Medicine; A Half-yearly Journal. Vol. 107. By Dr. J. Braithwaite. London: Simpkin, Marshall, Hamilton, Kent, and Co. 1893.

Appendicitis and Perityphlitis. By C. Talamon. Translated from the French by R. J. A. Berry, M.B., C.M. London: Young J. Pentland. 1893.

Indigestion, Gout, Corpulency, and Constipation clearly Explained, Treated, and Dieted. By Dr. T. Dutton. London: Henry Kimpton. 1893.

*** In forwarding books the publishers are requested to state the selling prices.

PRESIDENT'S ADDRESS,

DELIVERED AT THE

SIXTY-FIRST ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

BY

GEORGE HARE PHILIPSON, M.A., M.D., D.C.L., F.R.C.P.,

Professor of Medicine in the University of Durham; Senior Physician to the Newcastle-upon-Tyne Royal Infirmary, etc.

The Meeting of the British Medical Association in Newcastle-upon-Tyne in 1870.—The Position of the Association then and now.—The Journal.—Newcastle-upon-Tyne, Ancient and Modern.—Durham University.—Diseases of the Locality.—Population and Census.—State Medicine.—Notification of Diseases.—Pollution of Rivers.—Lunacy Legislation.—County Councils and Public Health.—Minister of Health.

On assuming the honourable position of President of the British Medical Association, to which I have been called by the kind favour of my professional brethren, courteously ratified by the members of the Association, I desire to give expression of my appreciation of the distinction which I have received, and an assurance of my earnest endeavour to fulfil the expectations and requirements of the office. In addition, it is my pleasure and my privilege to offer a hearty and cordial welcome to the members of the Association to the City of Newcastle-upon-Tyne, at this, the 61st annual meeting, and to express the hope that the visit will be a profitable and a pleasurable one. This welcome I give on behalf of the profession of the Northern Counties of England, the North of England Branch of the Association, and of the Municipality of the City and County of Newcastle-upon-Tyne. Every endeavour has been made by the executive and the subcommittees of the Local General Committee that the arrangements shall be convenient and complete, so that the success of the Congress may be assured.

This is the second occasion that the Association has held its annual meeting in Newcastle; the first having been in the year 1870, when the proceedings were ably presided over by the late Dr. Edward Charlton, whose name is referred to with kindly remembrance, and whose memory is warmly cherished. The reminiscences of the meeting are many and pleasant. I then had the honour of acting as the Honorary Local Secretary. Of local friends who rendered valuable service it is my pleasure to mention our venerable member, Dr. Dennis Embleton, the then President of the Section of Medicine; our illustrious citizen and honorary member Lord Armstrong, and the Very Reverend Dean Lake, the revered Warden of the University of Durham.

In the interval of time the Association has greatly increased in numbers, power, and influence. At the annual meeting in 1870, 320 members attended, and the Association numbered 4,258. Now it has on its roll 14,700 members. The membership has been nearly quadrupled. The proportion of British members of the profession who are not yet members of the Association is a steadily diminishing minority. The Association may fairly claim to have brought about for the profession throughout the British Empire the federation which still remains the dream of the politician. Medicine, happily, knows no frontiers, except such as are erected by diversity of language. Members of the Association are to be found in every quarter of the globe, and there are now but few British dominions, colonies, or dependencies in which a Branch of the Association does not exist.

At the Newcastle meeting, in 1870, Mr. Ernest Hart was reappointed the Editor of the British Medical Journal. The power and ability, high professional tone, and ministerial direction which he has displayed in its conduction must be apparent to every member of the Association. The weekly issue, in the interval of near a quarter of a century, has been increased from 2,000 to 17,500. On such a satisfactory result, Mr. Hart is to be heartily congratulated. By his editorial work, he has largely contributed to advance the wellbeing of the nation, to promote the best interests of the medical profession, and to increase the good feeling of its members.

It has been customary, in the Presidential Address, for reference to be made to the locality in which the meeting is to be held, in the way of introduction. In the belief that this course of procedure will prove acceptable to the members generally, and more especially to those who are unacquainted with the place of meeting, it will be followed on the present occasion.

The origin of Newcastle is due to the Romans. During the Roman occupation of Britain, Newcastle was the site of a station, situated a little distance north of the spot where now stands the castle. Along the high ground to the north ran the Roman wall, the great mural barrier erected by the Emperor Hadrian, A.D. 120. South of the Roman station a bridge crossed the River Tyne, where now is the swing bridge. The locality, taking its name from the bridge, was called Pons Aelii, in honour of its imperial founder, Hadrian being of the Aelian family. After a silence of nearly two centuries, mention is made of this place, under the appellation of Ad Murum, as the residence of Oswi, King of Northumberland. At a later period it became colonised by a community of monks, and was called Monk-Chester. It would appear, however, to have then been insignificant, for William the Conqueror, halting on his return from Scotland, was compelled to obtain provisions for his army from Tynemouth.

In 1080, Malcolm, King of Scotland, having ravaged the north of England as far south as the Tyne, William despatched a force into Scotland, under the command of his eldest son Robert Carthose, who, upon his return after the expedition, founded a castle upon the hill overlooking the bridge, and under the shadow of the New Castle upon Tyne has grown up a community which has extended into a vast commercial city, which still retains the name which it received from the son of the Conqueror.

The municipal history of Newcastle dates from the reign of Henry I., when the burgesses were governed by a provost. From 1251 the list of mayors formally begins. In 1400 Henry IV. granted that Newcastle should be separated from the county of Northumberland and be a county of itself, and that the burgesses thereof should have a sheriff.

In pursuance of the Bishoprics Act, the Diocese of Newcastle was founded in 1882. The Bishop of Newcastle may be said to be the successor of the ancient Northumbrian Bishops, whose seat was at Lindisfarne. After the lapse of 1,000 years the Northumbrian See has been once more restored in the chief city of the North. The church of St. Nicholas has become a cathedral, and appropriate changes in its interior have been made.

There are two institutions of a collegiate nature in Newcastle—the College of Medicine and the College of Science, both being Colleges of the University of Durham. As early as 1834 classes were established in Newcastle for the study of medicine. In 1852 the School of Medicine was received into connection with the University of Durham, and in 1870 the affiliation was rendered more complete by the school becoming a College of the University. The lecturers of the College are officers of the University in the Faculty of Medicine, and the students are undergraduates in the same faculty. In the present College, which was opened in 1889, every modern improvement has been adopted, whereby the medical education and the well-being of the students can be furthered. In the College Calendar for 1893 the list of students is 262. The College of Science was founded in 1871 for the teaching of physical science, particularly in its application to engineering, mining, manufactures, and agriculture. It has a large and efficient staff of professors and lecturers.

The University of Durham, originally projected by the Lord Protector Cromwell, was founded by the munificence of William Van Mildert, Bishop of Durham. The fact of the large and increasing population of the northern counties, and their distance from the Universities of Oxford and Cambridge, suggested to him and the Chapter of Durham that a local university might be provided from the revenues of that body. Accordingly, an Act was passed, and the University was

opened in 1833. The management is in the hands of the Bishop of Durham as visitor, the Chapter of Durham as governors, the Dean of Durham as warden, and a Senate constituted of the professors and others. The University in all its faculties has steadily advanced. In the academic year of 1892-93, 145 degrees in medicine, surgery, and hygiene were conferred. The University was the first of the examining bodies of the United Kingdom to institute a practical examination in anatomy and chemistry, and a clinical examination in medicine and surgery for degrees in medicine and surgery. It was also the first University in England to grant degrees in hygiene. A professorship of comparative pathology has been recently founded by the University in the College of Medicine, the endowment for which was generously bequeathed by the late Dr. George Yeoman Heath, Professor of Surgery and President of the College of Medicine. Thus, through the foresight and munificence of one of its most illustrious professors, the University has become the pioneer of a new branch of medical education.

Of the learned societies in Newcastle may be mentioned the Literary and Philosophical, with a library of general literature, which celebrated its centenary in February of the present year; the Natural History, the Hancock Museum of which is a model of institutions of the kind, whereby the collection and preservation of objects available for examination, study, and reference, and thereby for the advancement of science, are available to all; the Society of Antiquaries, with its museum, especially noteworthy for its fine collection of Roman altars; and the Geographical Society, the local centre of the Imperial Institute. The local medical societies, namely, the Northumberland and Durham and the Clinical, are well officered, and have a good list of members. The papers presented are of a high standard, the discussions are animated, and the interchange of opinions produced thereby are instructive and profitable.

The medical institutions in Newcastle are numerous and well supported. The Royal Infirmary, established in the year 1751 for the counties of Newcastle-upon-Tyne, Northumberland, and Durham, from time to time has undergone additions, and at the present time has accommodation for 280 in-patients. The particular interest of this institution is that it exhibits the changes that have taken place in hospital construction and arrangement during the past 150 years. Efforts are being made to obtain a new infirmary. The Newcastle Dispensary, founded in the year 1777, was the second of the kind in the provinces. The first systematic returns of the sickness of the borough appeared in its annual reports. The City Hospital for Infectious Diseases, situated at Walker, built on the single storey pavilion system, with a disunited administrative block, is available for 100 patients. The Prudhoe Memorial Convalescent Home, at Whitley-by-the-Sea, arranged on the pavilion plan for 160 patients, was erected by public subscription in memory of Duke Algernon of Northumberland. There are also the following special hospitals: the Fleming Memorial for Sick Children, the Eye Infirmary, the Hospital for Diseases of the Chest, the Hospital for Diseases of the Throat and Ear, the Hospital for Diseases of the Skin, and the Hospital for Incurables.

The diseases that may be considered to be associated with the occupations peculiar to the locality demand a short notice. In the three northern counties of Northumberland, Durham, and Cumberland, it is estimated that about 120,000 people are employed about coal mines. To the heated atmosphere of the coal mine, an atmosphere often laden with dust, and to the strain thrown upon the internal organs caused by the cramped position in which miners are obliged to work, the mucous catarrhs of the respiratory and gastro-intestinal tracts, from which miners suffer, may be attributed. But there are few diseases peculiar to miners.

Anthracosis is very rare. Emphysema of the lungs does occasionally occur. The pitman's asthma is well known, but it is a much less frequent disorder now than formerly. Miners are also very exempt from nephritis, which may be attributed to the profuse perspiration which they experience while at work and to the daily ablution which they practise on their return home. Contrary to what might be expected from the violent muscular exertions necessary in hewing and from working frequently in wet and damp places and always more or less in currents of air, rheumatism and rheumatic fever rarely affect the coal miner. The explanation of the exemption is the same as that given respecting nephritis. The miners of the North of England have an average of three years' longer life than the aggregate of Englishmen, eight years longer than the Cornish miner, nine longer than the South Wales miner, and only one year less than that of the men of the healthiest districts of the kingdom.

The frequent occurrence of diseases of the cardio-vascular and nervous systems is to be noted. The workers in iron, particularly the puddlers and strikers, are apt to suffer from diseases of the heart and aorta owing to the strain thrown upon the blood vessels. From the records of the Newcastle-upon-Tyne Royal Infirmary for the past five years of all the medical cases, 15 per cent. were of diseases of the circulatory system, and of this number 15.6 were cases of disease of the large vessels; the pathological changes observed were dilatation and hypertrophy of the ventricles, with incompetence of the aortic valves; and 17 per cent. were of diseases of the nervous system.

There are large lead works on the Tyne, both of white and red lead, and the Royal Infirmary is rarely without several cases of lead poisoning. It is observed that the women suffer much more than the men; the records of the Royal Infirmary show twice the number of women to men, as it is the former who are employed in handling and stacking the carbonate of lead. The carbonate of lead when introduced into the system by inhalation or otherwise mixes freely with the fluids, and causes a toxæmia followed by convulsions, and a fatal coma termed "lead encephalopathy" by my esteemed colleague, Professor Oliver, in his able Goulstonian Lectures before the Royal College of Physicians of London. As death under these circumstances has been rapidly induced, no marked structural change is detected in the internal organs. In the more chronic cases the effects of lead poisoning are found in structural alteration of the heart and kidneys, and central and peripheral changes in the nervous system; and lead has been found in the internal organs upon necropsy. As to the remedy for this state of things, the subject requires the most careful investigation in the interests alike of the employer and employed. The Home Office has regarded the prevention of this sacrifice of human life as within the scope of its duties, and has appointed a Commission to inquire into the conditions under which white and red lead are manufactured. The Commission, it is hoped, will give an opinion as to what additional precautions are desirable.

Asiatic cholera, described as such, has been epidemic in Newcastle upon three occasions. The first visitation occurred in 1831-2, causing 322 deaths; the second in 1848-9, with 412 deaths; and the third in 1853, with 1,533 deaths. The water supplied to Newcastle in 1832 and in 1853 was polluted, and in 1849 was uncontaminated. In 1849 the mortality in proportion to the population was seven times less than in 1832 and in 1853.

Respecting the threatening of cholera in England in the autumn of 1892, in September, one sailor from Hamburg arrived in the Tyne suffering from the disease. He was removed to the floating hospital at Jarrow-on-Tyne, and died. There was no spread of the infection. This may be fairly attributed to the strenuous action of the Tyne Port Sanitary Authority, guided by their medical officer. To spread sound views on the laws of health, and on the best methods of warding off or battling with the attacks of any destructive epidemic, is the duty of our municipalities and local boards. This is the best proof of our sanitary progress.

In alluding to the impurity of the water supplied to Newcastle in 1832 and 1853, it is gratifying to state that the present water of the Newcastle and Gateshead Water Company is good in quality, and is filtered before being delivered. The reservoirs of the company are capable of holding 1,827,000,000 gallons.

The general aspect of Newcastle is towards the south, and the surface inclines gradually to the river Tyne. The altitude in a distance of one mile rises to 300 feet. The appearance of the city from the higher grounds, on the Gateshead side of the river, is very striking, and from that point of view is seen to much advantage. In the older streets many of the houses are in the antique gabled style of the

time of Queen Elizabeth. In the new streets there are many palatial buildings, and in the suburbs villa residences, which may be regarded as an indication of its wealth and prosperity. There are several beautiful parks, in addition to the Town Moor and Castle Leazes. The Town Moor is over 1,200 acres in extent, and recently has been beautified by tree planting. It is a matter of thankfulness that the old trade guilds, however they got their right, have been instrumental in preserving to the public this magnificent stretch of open ground. Long may the Town Moor be preserved as the people's park, where they may roam without fear or thought of official; and when Newcastle may have grown out of our knowing, and shall have increased in all directions, may the Town Moor still remain a breathing place, still free, still open, and still green.

Few towns in the kingdom have increased in their population with the present generation as Newcastle has done. In the year 1871 the population was over 128,000, being an increase in ten years of 15 per cent.; in the year 1881 over 145,000, an increase of 11.6 per cent.; and in 1891 over 186,000, an increase of 28.2 per cent. In the census of 1891, Newcastle is exceeded in its increase only by Cardiff, which is 55.7 per cent.

Of the deaths registered in Newcastle from all causes in the ten years 1871-80, the average rate of mortality was 25.8; and in the ten years 1881-90, 23.6, a diminution of 2.2, and during the same decades, of the seven chief zymotic diseases, there was a diminution of 1.6. These rates are satisfactory, and the sanitary authority of the city and the medical officer of health are to be congratulated on their successful administration.

I pass now to the consideration of questions relating to State medicine. The notification of diseases is a subject that may be profitably referred to. In 1863 I had the honour of reading a paper before the Northumberland and Durham Medical Society, entitled, "An Investigation of the Prevalent Diseases of the District by means of a System of Registration." In 1865, at the Leamington meeting of this Association, a resolution proposed by Dr. Arthur Ransome, of Manchester, and which I seconded, was passed: "That a committee be appointed to encourage a registration of diseases, and to devise the best means of obtaining the evidence of members upon medical questions having a practical bearing." A committee was appointed, and reports were regularly presented at the succeeding annual meetings of the Association. In connection with the Northumberland and Durham Medical Society, reports based upon information contributed by the members were regularly issued from 1864 to 1869. Manchester and other towns, also, had their registration of diseases, under local societies. It soon, however, became evident that, as a rule, much could not be hoped for from voluntary effort, and that, if notification was to succeed, it must be compulsory. Memorials in favour of compulsion were forwarded to the Local Government Board, by the Society of Medical Officers of Health and other bodies, but for some time with little avail. Meanwhile, Huddersfield, Bolton, and other towns had obtained local acts, by which notification was enforced. The last Parliamentary return on the working of the Infectious Disease Notification Act shows that upwards of 1,000 sanitary authorities have adopted the Act, the districts represented having an aggregate population of twenty-four out of the twenty-nine millions of people in England and Wales, according to the last census.

There are various reasons why notification should be made compulsory. Economy is one. The cost of the cases of infectious diseases is being more and more thrown on the public. The hospitals for infectious diseases are being used by an increasing number of persons and by classes of a higher social position than formerly. If the State sees its advantage in receiving such patients into isolation hospitals, it will also see to the best means of limiting the number of cases to be admitted. It will not, if it can help it, allow the individual to contract infectious disease or, having contracted it, to freely diffuse it.

Under these circumstances, we have to consider our own duty in respect of the Act, which may be strengthened but which will not be repealed. Our first duty is to perfect our skill in diagnosis. Legislation has emphasised the importance of this Act, and any mistake therein is calculated to bring our defects into special prominence. There are some cases in which diagnosis is not urgent. There are other cases in which promptitude of diagnosis is a virtue, provided that it is sound. Mistakes in diagnosis are inevitable, especially in regard to infectious diseases. These mistakes must not be regarded lightly, and should be reduced to a minimum. It is clearly the duty and the interest of every practitioner to be acquainted with the essential symptoms of the notifiable diseases. Such an acquaintance can only be obtained by careful and minute clinical study.

The further question arises, Cannot something be done to utilise the information of the Notification Act by collating and widely distributing it? The present partial scheme, by which the health officers of certain districts, who supply weekly summaries of notifiable diseases to the Local Government Board, and receive in return the summarised facts for all such districts, should be enlarged to cover the whole country. This could be done by the constitution of county councils as registration authorities, with power to require similar weekly summaries from all health officers within their respective counties, the compiled results being tabulated and sent to all health officers of sanitary districts in and abutting on the several counties. Thus every health officer in England and Wales would have reliable information as to the presence of disease in the adjoining districts; and on the usefulness of these facts it is needless to dwell.

In addition, the data for the country generally could be received from the county councils, and tabulated quarterly and annually by some properly constituted central registration department, and treated either independently or as part of the Registrar-General's quarterly and annual reports.

Apathy has been evinced by county councils in appointing medical officers of health, the general plea being that there is nothing for them to do, and that, at best, they would be ornamental rather than useful officers. Up to the present time their duties have not been defined by Parliament or the Local Government Board. It would seem as if the intention of the Legislature was to allow perfect freedom of action to county councils to define the duties they desire their medical officers to perform for them, so that they may be able to perform similar functions for the local authorities to those at present performed by the medical staff of the central authority in London. In this there is the true spirit of decentralisation, which was one of the principal objects of the Local Government Act.

It is certain that advice coming from a body which has a direct interest in the community to which it is given will be far better received, and much more readily acted on, than that given by a central authority which has only an official or general interest in the people. It does not matter how good the advice may be, or how absolutely necessary its adoption may be, yet it is a fact that very frequently sanitary authorities do not care to carry it out, and when carried out the work is often executed in a perfunctory and half-hearted manner. But when a county council, which has a real and direct interest in the particular rural or urban sanitary area, sends its medical officer of health to assist and consult with the local authorities, then that assistance will be received in a spirit of thankfulness. The skilled medical adviser of a county council, on the outbreak of a serious disease in any district, being on the spot, will be available at once to aid and assist the medical officer of the local district in his investigation, and strengthen his hands considerably in dealing with the local authority.

Of sanitary matters of which mention is made in Acts of Parliament, in connection with county councils, one is the pollution of rivers. River inspection is an urgent necessity, whether viewed from a sanitary or an economical standpoint. From the former, river waters have been rendered undrinkable by man and animals, a positive nuisance in some places where large manufactories are conducted on the banks, and from sewage discharge, in the highest sense carriers of disease to mankind. From the economical point of view pollution has led to the wholesale destruction of fish.

There can be no question that the condition of the rivers has a great sanitary aspect. Populations always aggregate near streams and rivers, and, consequently, if these become polluted and give off noxious smells, they may be the cause of serious disease among the riparian communities; and

from them it may spread to the dwellers in the drainage area. It is no wonder, then, that this subject of river pollution, which was the first matter dealt with by Act of Parliament, 1388, when comparatively few persons peopled this country, should now, after the lapse of five centuries, again engross so much of the attention of local authorities and sanitarians.

The recent lunacy legislation is a subject of much interest. For five successive sessions a series of Bills were brought before Parliament. The earliest Bill neglected the due protection of members of the medical profession in lunacy cases; the final Bill repeated an attempt to meet and satisfy two agitations. One of these was for restrictions upon the previously existing powers of friends and others to place those who were alleged to be of unsound mind under care and control. The other was that led by the Chairman of the Parliamentary Bills Committee of the Association in favour of the medical profession, and was for some measure of adequate protection to medical practitioners, who, in the performance of grave and difficult duty placed upon them by the Legislature, constantly found themselves the victims of harassing, unreasonable, malevolent, or speculative actions at law. The Acts passed embodied an attempt to meet and harmonise the requirements of both agitations—in other words, to combine protection to the public, to the lunatic, and to the liberty of the subject, with due and adequate protection to medical practitioners whose duty it was to discharge various onerous and difficult duties to the insane.

For the former objects provisions were introduced, of which the cardinal one was the outcome of magisterial intervention in non-pauper cases, as a new principle; in pauper cases, as an exclusive provision, although not a new one. For the latter object protective clauses were introduced, which it was supposed would afford adequate protection to medical practitioners who acted in lunacy cases in good faith and with reasonable care. When brought into actual working the Acts were found to be defective on several points. One of these concerned the justices specially appointed under the Act to sign "reception orders" in non-pauper cases. Some of the justices did not understand either their duties or their area of jurisdiction, and of those who did some were absent, some refused to act, while in certain districts their number was too small. Hence arose grave inconveniences to the friends of insane persons, or to others who had to act in the interest of such insane persons. To obviate these evils, some modifications as to the number of such justices and as to extension of their jurisdiction were subsequently made by Lord Halsbury, the ex-Lord Chancellor, which lessened the inconveniences referred to.

Another point in which the Acts have proved to be defective in actual working is that the protection afforded by them to medical practitioners has been found to be inadequate, and to be much less than had been expected, and than seemed to follow from the wording of the Act, and therefore once more to render many medical practitioners of position unwilling to accept the responsibility of certifying. Thus, then, while a great forward progress has been achieved, there is still room and need for some important further amendments. It is to be hoped that Lord Herschell, the present Lord Chancellor, who assisted the Parliamentary Bills Committee on former occasions, will do all he can in this matter.

The study of public health questions by the medical profession has been discouraged by the supineness or inaction of the recently appointed county councils, who, in the exercise of their authority, have not deemed it necessary in the majority of instances to avail themselves of their powers of appointing supervising medical officers of health of their respective areas. The "may" of the English Local Government Act of 1888 instead of the "shall" of the Scotch Act, 1890, has had the effect—temporarily, at least—of discouraging medical practitioners from qualifying for a public health career, and the neglect of the local authorities to consolidate some of the smaller areas into workable districts sufficiently large for an officer giving his whole time to public health duties has still further tended to prevent medical practitioners from devoting their attention to this branch of professional work.

Although provision for the public health is more advanced in this country than in any other, it must not be concluded that everything has been done to ensure the health and longevity of the people. Legislation hitherto has aimed at throwing all the burden of provision for public health duties on local authorities, but it has not adequately met the difficulty of insisting on local authorities respecting and practising the regulations laid down for their guidance. It is true that with well-grounded apprehensions of the approach of cholera an effort has been made to ascertain by actual survey the sanitary condition of many of the chief ports in regular communication with infected areas abroad. But this work ought to be undertaken, not only in regard to our first line of defence, but throughout the 1,500 areas into which our sanitary defence is split up, without in any way lessening the responsibilities of local authorities as defined by law. It is of the greatest importance that this sanitary survey of the country should be undertaken by the central Government and carried out on a defined plan. The great need of our sanitary system, in fact, is a closer touch between the controlling agency and the local authority.

The public health service is to be congratulated on the fact that the office of Parliamentary Secretary to the Local Government Board has been conferred upon Sir Walter Foster, M.P. Not only is he the first member of the medical profession who has been included in the ranks of Her Majesty's Ministry, but the appointment has an additional importance, as it is likely to ensure due attention to matters affecting the medical profession and the public health. It is another step towards the establishment of a distinct department of public health, under the sole control of a skilled member of the Government. It is to be hoped that the Local Government Board, the local sanitary authorities, and the medical officers of health would then be brought into closer relations, and that inspectors would be appointed to give advice to local officers, to act, in fact, as consultants sent from the central authority to aid and advise the local officers. This would give them the higher scientific opinion, without having too much power invested in the central authority. They would also act, for a group of districts, as a registration medical officer.

The central organisation would be a department of public health, presided over by a secretary, who should be a member of the Cabinet. There is a strong prejudice against increasing the number of departments of the Government, and it is too true that the people are as yet far from realising the value of a department for the protection and promotion of public health.

A high medical authority in the Cabinet (of course, selected for his transcendent professional abilities, not his political bias) would save an enormous amount of public delay, vacillation, and disagreement on medical subjects between lay public authorities, while at the same time such an appointment would considerably raise the status of the profession. Very little can be expected from legislation, corrective or initiative, until the legislators are instructed and assisted by experts. Good laws can only be applied and their effects ensured by well qualified agents acting under one responsible head, such as a Minister of Public Health.

M. HAYEM has succeeded the late Professor Peter in the Chair of Clinical Medicine in the Paris Faculty. M. Joffroy has been elected Professor of Mental Medicine in the room of the late Professor Ball.

MR. JOHN LENTAIGNE has been elected to the Council of the Royal College of Surgeons, Ireland, to fill the vacancy caused by the inability of Mr. Henry Gray Croly to take his seat owing to his much regretted and continued illness.

A CARNIVAL, fancy fair, *fête*, and bazaar was held in Edinburgh during the last four days of last week, and realised between £6,500 and £7,000 in aid of the funds of the Royal Maternity Hospital and the Society for the Relief of Incurables at their own homes.

VACCINATION GRANTS.—Dr. Theodore Brand, public vaccinator, Driffield District of E. Yorks, has been awarded for the third time the Government grant for successful vaccination.—E. B. Ormerod, M.R.C.S.Eng., has been awarded the Government grant for successful vaccination as public vaccinator in the Ludlow Union.

ADDRESS IN MEDICINE,

BY

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At the Annual Meeting of the British Medical Association held in Newcastle-on-Tyne, August, 1893.

CAUSAL RELATIONS IN DISEASE.

Introductory.

Prompted by a deep sense of my own unworthiness, and in a spirit of unfeigned humility, I am compelled to avow that no less deserving and yet no more grateful recipient of the honour your Council has conferred upon me has ever delivered the Address in Medicine before the British Medical Association. The honour I esteem in proportion as I feel it to be unmerited, and its value is enhanced because of its inception in the minds of my kind hearted colleagues, for, according to the saying of Ovid:

Acceptissima semper
Munera sunt auctor quæ pretiosa facit.

I am afraid, however, that in making their present selection they have credited me with worth and fitness that I do not possess, and so unintentionally have placed me in the performance of my present task under a disability from which relief can only be found in the indulgence of a long-suffering audience.

It has been the custom of readers of the Address in Medicine to select a subject of general interest and wide application rather than one of narrow limitations, though perhaps equally attractive, and to this time-honoured fashion I have determined to adhere—a resolution to which I am practically compelled in the absence of the fruits of original research in the laboratory. And this I admit without apology, for the lines of my professional life have fallen in spheres so trite and commonplace as the wards of a general hospital and the *post-mortem* room, wherein the work is so engrossing in character as to absorb so much of the time of a busy practitioner as almost to preclude him from the privilege of such research.

On reviewing the past fifteen years, during which it has been my privilege to be Physician and Pathologist to the Royal Infirmary of this city, I naturally ask what phases of clinical work have chiefly interested me. This question I suppose every physician propounds to himself from time to time. But the answer was of special importance to me, because therein I thought I might reasonably expect to find a solution of the one pressing difficulty of my life during the past six months, namely, on what subject should I address this august assembly? I have no hesitation in saying definitely and decidedly that etiology and diagnosis have proved most profitable and interesting, and that in their study my *post-mortem* work has been particularly helpful. These are extensive branches of clinical medicine, and cannot here be comprehensively dealt with; but they furnish me with special lines of thought full of interest and of great practical importance, for there is perhaps nothing more useful and suggestive than an inquiry into the relation between causation and treatment, and the general bearing of etiology on diagnosis, not only as supplying a possible clue to the nature of the disease, but as explanatory of some of those modifications which are so common in clinical pictures. In other words, I propose to discuss some prominent morbid relations, and hope to suggest some of the lessons which their study supplies.

In offering the few remarks it is my privilege to make upon this subject, and in regarding this opportunity as "the season when to take occasion by the hand" by emphasising the bearing of etiology on diagnosis and treatment, I desire it to be recognised that my efforts are only to be considered as suggestive, and by no means as exhaustive or complete. "The tower but not the spire we build." And if the manner in which I shall discuss the subject be thought to derogate from the credit of the long list of pioneers whose names are honourably associated with this work, I must express regret, and claim the indulgence usually accorded to him who attempts to crowd a quart measure into a pint pot. And to this favour I feel all the more entitled, when I recollect the advice tendered me by a greatly esteemed and high official of the Council of our Association, who, when congratulating me upon the high honour to which I was called, added significantly, "Don't make the address too long."

The Backwardness of Etiology.

It will be admitted that etiology and treatment have lagged far behind diagnosis in the scientific race in which we are all interested, notwithstanding the substantial impetus given by the labours of explorers in the microcosm of disease; still, even with this exception, causation has as yet hardly received the recognition and consideration to which it is entitled. One is tempted to ask why this should be. May it not arise from an insufficient consideration of the possible end to which this great principle of causation may lead? And are we not too prone to multiply causes unnecessarily, and, I venture to think, at times flippantly against the protest of science and philosophy: "Entia non multiplicanda sunt præter necessitatem?" Might we not with advantage take a leaf from the chapter of modern experimental pathologists, and aim at demonstrating that a disease can be referred with more justice to one definite cause than to several, each credited with its *pro ratâ* share of statistical responsibility? It will no doubt be objected that no matter how desirable such a demonstration may be, our present knowledge does not admit of it. But even if this be so, an attempt at least should be made to differentiate morbid conditions that may by their close symptomatic resemblance to each other be confounded, and to refer each to its proper cause. It should also be borne in mind that many so-called causes do no strictly merit the name, although they have long figured as such in the text-books whence we draw our inspiration, and wherein we have been accustomed to the qualification of general statements by others vague and conjectural, but warranted nevertheless by authority, and made expedient by a conscientious and self-imposed restraint upon a natural tendency to indulge in generalisations. Authority has much to answer for. But it must not be forgotten that statements ear-marked and accepted under the ægis of authority are, in many instances, the simple and untried opinions of those whose opportunities were by no means equal to our own, and that the responsibility for the chaotic state of our code of laws rests with ourselves, for have we not failed to discriminate between fact and opinion? Let it not be supposed that in entering this protest against the blind acceptance of the views in their entirety of the intellectual giants who have preceded us, I am attempting to throw off the yoke of authority, or am desirous of doing an injustice to those to whom we owe so much. Indeed, we should be the ungrateful inheritors of the valuable legacy bequeathed to us if we did not in turn seek to hand it down to our successors amended and amplified according to the light given us by the indubitable advance of science in our day, for as Goethe says, *der Mensch soll immer streben zum Bessern.*

Defects in Terminology.

The divergence of opinion that exists in reference to the true causal factor of some diseases may, in a measure, be due to the employment of terms which do not convey precisely the same meaning to all who use or read them. Hence, naturally, ensues a confusion which I venture to think will gradually disappear as we come to prescribe to ourselves as an ideal to be realised more and more fully with the progress of our knowledge the reference or reduction of morbid conditions to their true and definite cause or origin. The employment of this method will eventually lead up to the formation of a nomenclature which, in addition to being strictly accurate, may prove of immense therapeutical and diagnostic value, and guard us against the mistakes incident to the habit of giving to a group of symptoms or a pathological condition a name which may indicate a discoverer, but does not indicate the nature or origin of the disease. It may be said that there is nothing new in this, as, when practicable, disease is being named with the object of securing the recognition of its cause, witness malignant and rheumatic endocarditis. In this there is an element of truth, but only an

element, and it is far from my intention to claim any originality for the main proposition, for *nil dictum quod non dictum prius*. Indeed it is just the recognition of the value attaching to names so framed that begets dissatisfaction with the old terminology. To the clinical teacher and his class the advantages of this system are enormous, whilst its adoption in leading to important differentiations must be helpful to medicine at large.

An apt illustration is furnished by those numerous and seemingly distinct lesions of skin, eyes, brain, joints, lungs, etc., which aforetime we regarded as separate entities, but which we now know have one causal factor in common, the bacillus of tubercle, linking all together. Thus the study of tubercle grows in importance as its circle of causal relations widens, and each new fact in its life-history or its manner of decay throws more light upon this great clinical family.

It may fairly be required of me to show what conceivable or probable advantage this method possesses, for on all hands it will be readily conceded that mere novelty or ingeniousness is not a sufficient justification for departure from long established canons. With all the reserve that should characterise the advocacy of what some may regard as an act of empiricism, I plead that the persistent attempt to reduce morbid conditions to a single cause will have a material and beneficial bearing upon the method of treatment. We are all agreed that a cure to be effectual must reach the root of the disease. Once let us be assured that we have discovered the true origin, and the proper treatment, if adopted early in a remediable case, may reasonably be expected to be successful. None of us needs to be told how ineffectual treatment often is simply because it does not reach the mainspring of the mischief. In a sacred book the prophet Elisha is represented as healing waters that were "naught" by going to their springs and "casting salt in there." The springs must be salted if the streams would be cleansed; for *a puro pura defluit aqua*.

Another advantage to be reaped from the recognition of unal causation in morbid relations is its diagnostic help, for if the patient's symptoms point in the direction of a possible disease which in the experience of the practitioner is commonly preceded by a definite causal factor, and we can assure ourselves of the presence of this factor, then our evidence is strengthened, and our diagnosis materially confirmed. To the objection that the number of cases of striking morbid affinities are too few to be of any practical value in this direction, it may be replied that the bond of union between certain associated lesions is being daily more recognised, and that the circle of causal relations is ever widening so as to include an increasing number of diseases. Is it not then a fair assumption that new connections now hidden or obscure may before long be made apparent?

Illustrations of Unal Causation.

With this indication of the scope and purport of my subject I may proceed to test its practical bearing by a brief examination of a few of the more prominent morbid conditions whose claim to belong to the category of diseases having a constant cause is pressing. In this class I include the relation between syphilis and locomotor ataxy, which I believe from my experience to be constant. I regard, and have long taught accordingly, locomotor ataxy as invariably the result of antecedent syphilis, and that (some statistics notwithstanding) where you find the former you may declare with a feeling of absolute certainty that there has been at a previous date the latter, to which this locomotor ataxy is in some manner due. In an address dealing with general principles it is not convenient, or perhaps expedient, to discuss in detail dry statistical questions. I can only, therefore, very briefly point out the views of present-day neurologists on the subject. On referring to Dr. Gowers's excellent work,[1] we find the following opinion expressed: "It is probable, indeed, that taking all cases, a causal proportion of three-quarters will be nearer the truth." And again, further on, the statement: "It is certain, however, that syphilis is not the only cause of the disease. In a few cases (less than 10 per cent. of the whole) it can be excluded with confidence." It is just this opinion, based on the "less than 10 per cent. of the whole, excluded with confidence," that I desire to question; and I venture to do so by asserting that my later experience, under very favourable opportunities of studying the question, has taught me that "specific" disease underlies all cases of tabes—a view which is rapidly gaining ground in the profession, and, in the somewhat cynical language of Horace, *Interdum vulgus rectum videt*.

In view of the importance of the investigation, it is fair to ask ourselves if we intend to wait until in 100 per cent. of cases locomotor ataxy can be unerringly traced to this cause before we believe in the inductive force of the 90 odd per cent.? I venture to say that such a course would be a virtual expulsion from medicine of the inductive method, which has hitherto been its best friend and its glory. This method, as you all know, does not profess to deal with every conceivable case, but only with such a number as may legitimately command assent and establish confidence, and is, with its results, valueless if we may not reason from such a large majority to the whole. For, as John Stuart Mill says, "Induction is the process by which we conclude that what is true of certain individuals of a class is true of the whole class, or that what is true at certain times will be true under similar circumstances at all times." It would be an interesting experiment to try to ascertain how much of the "less than 10 per cent." would remain if the patient who gives evidence could be guaranteed a good memory, and indemnified against the penalty which a true record might entail.

It is surely unscientific, as, indeed, it is irrational, to refuse to accept fully and unreservedly the teaching of the available statistics on this point. The evidence is overwhelming, and must convince all but the most cavilling critic. And it seems to me that the force of this induction can be weakened only where under a general term diseases are included which should be differentiated, as has already been largely done within my own memory. Dr. Gowers himself has done yeoman service to medicine by leading us towards a stricter system of nomenclature in the case with which we are dealing.

But why, you may say, insist upon such a rigorous application of the law of induction? Because to withhold that traditional consensus of medical opinion that necessarily guides the plurality is to leave a wide loophole, which, by the difficulties attending the discovery of the specific factor in the history of the case, is rendered still wider, until there creeps into the mind a suspicion that after all the proportion of "non-specific" cases is much larger than is generally supposed. Such a course begets a loose and disastrous state of things, the consequence of which is that the aid of a valuable diagnostic test factor is lost, and functional nervous conditions are often invested with a pathological dignity which they do not deserve, and violence is done to our nosology and injury to the patient.

Another disease which my experience compels me to ascribe to the same specific factor is general paralysis of the insane. Here the burden of proof is attended with still greater difficulties to the statistician, who has in many instances to deal with patients whom Nature in robbing of past memories has deprived of the ability, if they possessed the will, to furnish a true record. And further, amongst general paralytics we find a larger proportion of women than amongst tabetic cases—a fact which lends an additional complication to the case. Notwithstanding these obstacles, we find that one of the most recent declarations goes so far as to claim that at least 65 per cent. of the cases are specific,[2] and we know that years ago Steenberg and others contended for the unal theory, namely, that there was "no general paralysis without syphilis." Jacobson, in subscribing in large measure to this view, asks why it is that, in spite of the results that have led these writers to this opinion, but few modern alienists have been found to give support to the doctrine. And his answer is, "because no one has yet been able to definitely trace the syphilitic infection to every case of general paralysis. And the frequency with which different investigators have detected it varies it to an extreme degree." Here, again, I beg leave to apply the inductive method and appeal for support of the views of Steenberg, to which I can honestly say my own not inconsiderable number of cases have led me. The importance of adopting this view, if it be correct, can scarcely be overestimated, for it will surely clear

[1] *Diseases of the Nervous System*. Second edition. 1892.

[2] Jacobson, *Journal of Mental Science*, April, 1892.

the way for a reliable diagnosis if we can with confidence say that in eliminating syphilis in a mental case we are practically excluding general paralysis—a factor that may turn the balance where, as often happens, we are compelled to catch at diagnostic straws. If further evidence were required in support of the theory of the constant connection between syphilis and general paralysis of the insane, over and above that furnished by statistics and interpreted in the light of the inductive method of reasoning, it is, I venture to think, to be found in the fact that this disease is virtually the only progressive mental disease with which we are familiar, with a definite and recognisable anatomical lesion. And this fact alone justifies us in pronouncing in favour of a special causation, for it singles out the disease, and seems to warrant the conclusion that, as a definite pathological process has been at work, so has there also been a special etiological factor.

It may be rash in the light of past failures to predict much therapeutical benefit from the recognition of the cause in the instances with which I have been dealing, but may we not fairly ask ourselves the question, might not the results have been different had we applied the remedies earlier? For it will not be straining to an unreasonable extent our knowledge of "specific" lesions to suggest that preceding and underlying the morbid changes of the nature of sclerotic degeneration with which all pathologists are familiar, and which, as we know, have defied our remedies, there is a stage of specific myelitis and neuritis that tends to run an extremely chronic and insidious course, and may be most difficult to recognise clinically, unless perchance a timely warning be given by a ptosis or a diplopia, etc., when the administration of suitable remedies might be expected to yield a good result. How many cases of locomotor ataxy and general paralysis have been prevented by the timely use of antisyphilitic remedies, when at the outset a clue is forthcoming, it is impossible to say.

The Relation of Aneurysm to Syphilis.

I have yet another sweeping accusation to lay to the charge of this many-headed hydra, the extent of whose subtle and baneful influence we seem scarcely yet to realise. For many years I have been deeply interested in the study of the connection between syphilis and aneurysm, and in common with others have been struck with the frequency with which the former occupied a prominent place in the history of a sacculated aneurysm. I have pursued the inquiry with special care, with the result that since I commenced the investigation no indisputable case has come under my notice in which specific disease was wanting, excepting two or three examples of that interesting condition, acute softening of the arterial wall, with aneurysmal bulging, in malignant endocarditis. In order to emphasise this statement you must allow me to remind you that you are at present in a part of the country where aneurysm is an exceedingly common disease; witness the fact that during the past ten years 145 cases of aneurysm of the thoracic aorta have been treated in the wards of the Royal Infirmary.

I am not endeavouring now to make out a case in favour of the specific character of the aneurysmal process, for I do not deny the possibility of sacculated arterial bulging to the extent worthy of the name of aneurysm, in conditions other than those due to syphilis of the arterial coats. But I would suggest that there is something special in this form of arteritis that renders the affected part of the vessel peculiarly liable to yield to pressure. It may be that the involvement of the middle and outer coats, and their transformation into fibrous tissue, so common in syphilis, will account for this liability; and I have found it a good practical rule not to diagnose aneurysm in a doubtful case in the absence of syphilis—a rule that must be more or less limited in its application, as it necessarily presupposes an accurate history. Arterial strain through hard work is of course a factor in the production of aneurysm, but it is one that in the vast majority of instances requires to be multiplied by specific arteritis in order that the product be aneurysm, and then it is the lesser quantity of the two.

The Relation of Empyema to Pneumonia.

The causal relation of pneumonia to empyema, one of the closest if not the most constant, the latest textbooks notwithstanding, is another exemplification of the subject. True there are cases of pus in the pleural cavity that have not arisen out of an attack of pleuro-pneumonia, due possibly to an acute septic pleurisy, or to tuberculous pneumothorax, or as the result of a simple effusion becoming contaminated by septic matter, say by means of a trochar, but these are exceptions. Exclude them, and it may fairly be concluded that empyema, the common disease with which practitioners are so familiar, may be ascribed to an antecedent pneumonia. I must apologise for here repeating opinions to which I have already given expression in more than one journal, but the matter is so important from a diagnostic and therapeutic point of view that I must run the risk of incurring the charge of being wearisome, but "*Bis ac ter quod pulcrum.*" It is of the greatest moment to recognise an empyema as early as possible, for the sooner the pus is evacuated the shorter will be the surgical treatment of the case, and the better the prospect of permanent recovery; and further, if taken very early, a single tapping without incision and drainage may effect a cure. Now the diagnosis of these cases turns largely upon the discovery of the pneumonic factor; in other words, familiarity with the fact that effusion following pneumonia is very apt to be purulent furnishes a clue to diagnosis.

The Relation of Chorea and Rheumatism.

Few subjects have excited more interest than the relation between rheumatism and chorea, and none has occasioned greater divergency of opinion. It must be admitted, however, that the discrepancy relates chiefly to the question of degree, for nearly all allow a certain affinity between the two diseases. It is most unfortunate that something like a general agreement cannot be effected, for the present very unsettled view of the question is eminently unsatisfactory. It may be said that the present state of our knowledge does not warrant a consensus of opinion. That may be true, but it is no reason why, out of our present knowledge, however limited, a theory should not be advanced in thorough harmony with well ascertained facts, which may at any rate be a guide to fuller revelations with increase of information. If it be admitted that a certain proportion of cases of chorea are associated with rheumatism, the inquiry naturally divides itself into two parts, the nature and extent of the relationship. My own cases greatly favour the idea of a singularly frequent and close connection between the two, so much so that I am inclined to the view that, in a certain proportion at least, chorea is simply one manifestation of the disturbance by the rheumatic poison of the function of somewhat unstable and growing cortical cells; and if this conception be tenable in a few instances, may it not be extended so as to include the whole of the familiar group of typical choreic cases so common among the children of nervous and rheumatic families, and prone to yield to large doses of arsenic? Again I ask, are we, before admitting the inductive force of the majority, to wait until in every case we can demonstrate a clearly defined rheumatic illness, as at present understood, in the form of gross articular lesions? Is this scientific? May we not have, without joint mischief, a rheumatic diathesis to which belong the choreas, the pleurisies, the headaches, the cutaneous eruptions, etc., so frequently associated with rheumatism?

The Causation of Cardiac Disease.

The study of cardiac lesions throws into relief the importance of tracing diseases to their true causes. They are all referable to primary conditions—rheumatism, gout, specific fevers, tuberculosis, sepsis, alcoholic excess, syphilis, etc., which are singularly fruitful in morbid products. These conditions constitute a formidable list, to which we are constantly adding, and each is responsible for heart affections having more or less characteristic clinical and pathological features. The immense importance of investigating cardiac diseases upon the basis of their antecedent and underlying morbid states cannot be overestimated, for the treatment and prognosis depend largely upon the particular agent at work. The same remark, I need scarcely say, holds good in the case of lesions of other organs, a fact that in many instances has been fully recognised. But its application in heart disease is perhaps more than ordinarily conspicuous. It has been the habit of our schools to attach too much value to the diagnosis of the particular valve lesion, and too little to its cause.

Thus, for example, we content ourselves with the shallow and often unimportant observation that this or that case is one of mitral regurgitation or double aortic disease, a diagnostic shibboleth that any novice may apply; forgetful that what is of paramount importance is not only the primary reason for the existence of the lesion, but also the cause upon which the symptoms belonging to any subsequent attack of cardiac failure may depend. Thus the inquiry would necessarily embrace the questions in the case of toxæmic lesions—gouty, rheumatic, alcoholic, etc., is the poison still circulating? and what is the prospect of its return? Difficult and at present more or less problematical are these questions, but to them we must direct our attention before we can hope to prognose and treat heart disease successfully.

An attack of rheumatism may damage a valve and leave behind a permanent legacy, but how innocuous that structural change may be, so far as the health of the patient is concerned, so long as his real enemy—rheumatic poison—remains absent, is well known to all practitioners. For there can be no doubt that the injured endocardium is very apt to suffer further damage under the influence of fresh rheumatic attacks, however slight. And it is these intercurrent rheumatic accessions, often subtle and unattended by any outward manifestation beyond fever, that are fraught with so much risk. So also is the case of gouty mischief, but here the causal factor is more constant and insidious in its operations, and its ravages are too often deeply rooted before they are recognised, a fact that should compel us to greater diligence in unearthing a latency so dangerous.

In syphilis we have a much more common cause of heart disease than textbooks admit, and surely a morbid agent that might be met and treated if recognised at the outset; but how seldom has the attempt been made, though specific arterio-sclerosis is, I venture to think, an obvious pathological entity.

The varieties of alcoholic heart disease are now receiving attention, and, with increasing clinical and pathological information, it is to be hoped that fewer mistakes in prognosis will be made; for often the alcoholic heart fails suddenly, giving rise to an unexpected catastrophe, despite the most favourable prognosis, because the mischief, being more of the myocardium than the valves, has remained undetected.

Careful attention to these etiological circumstances will often enable us to help the poor cardiac backslider in a more substantial way than if we simply consider his defective machinery and treat his more pressing wants, regarding the intercurrent attacks as natural and unavoidable incidents in the course of the disorder. It has several times fallen to my lot to demonstrate in the *post-mortem* room that the valve lesion from which the patient had suffered was due to a chronic tuberculosis of the pericardium resulting in general adhesions, and that the valves supposed to be diseased were in themselves healthy, though the orifices were dilated and the myocardium degenerated. Obviously the treatment and prognosis of such a case must differ from the treatment and prognosis of cardiac failure the result of old rheumatic pericardial adhesions, or of a heart damaged in early life by scarlatinal valvulitis and broken down by excessive work, or of a rheumatic case marked by returning and often protracted pyrexial attacks, or of an insufficiency directly due to alcohol.

Would a substantial reduction in the number of chronic heart cases, as the result of the recognition of the fact that many are due to curable and preventable causes which an early and successful treatment might reasonably be expected to subdue, be a dream too visionary for us to indulge in? I think not; but assuredly until we fully appreciate the causes a dream it will remain.

A Useful Generalisation. A Surgical Illustration.

But perhaps it would be difficult to select a better illustration of the benefits that have arisen from allowing ourselves to be influenced by the view that the true or ultimate causes underlying diseased states are, in the botanical sense, solitary, and that the paths along which they travel are comparatively few and well beaten, than the knowledge that guides advanced surgeons in their dealing with suppurative peritonitis—the knowledge, namely, that these cases always result from infection of the peritoneum with pus microbes. We pathologists have helped our surgical friends to give a practical turn to this fact by recognising that the infective microbes gain an entrance either by perforation of a viscus—ulcerated appendix, bowel, or stomach—or the rupture of a puerperal abscess, a generalisation that serves a useful turn in practice, though scientifically speaking it may not be quite accurate.

An extension of this line of thought cannot fail to convince us that our nosological tables hardly contain the name of a systemic disease that is not simply the reflection of some primary morbid state with which we are more or less familiar. Many of these, it is true, are known to us only as subtle influences, but they are becoming rapidly less shadowy, and before long it is to be hoped that the bright light begotten of the fierce competition and zealous spirit of work so characteristic of the present day, will reveal their true nature. At present, like light itself, they are not understood, and are scarcely discernible, until by falling upon some organ with whose form and functions we are familiar, they are reflected to the eye of our understanding.

The cases I have cited are few, but sufficiently typical in character to illustrate the importance and benefit of tracing a disease as far as practicable to one definite cause, and, did time permit, I might strengthen my argument by instancing the connection between gout and uric acid, acromegaly and pituitary growths, myxœdema and atrophy of the thyroid, Addison's disease and lesion of the suprarenal capsules, etc.

The Modifying Influence of one Disease upon Another.

Passing on from the part of my subject that purports to give prominence to the causal relations of morbid entities, I come to consider briefly some possibilities in the modifying or controlling influence exercised by one disease upon another, and even in this enlarged sphere of inquiry we walk by the light of this principle of causation.

I may commence with this proposition that familiar clinical pictures of disease of an organ are often the product of the symptoms peculiar to it, and of others which are the expression of impaired function of another organ. In other words, the full symptom-complex of disease of one organ may be largely contributed to by disease of another, whether produced by the same or some other cause. I can best illustrate my meaning by an example. A patient addicted to alcoholic excess for a considerable number of years is known to be suffering from a group of dyspeptic symptoms, ascribed by the patient, friends, and doctor to this cause, but without a suspicion of gross organic mischief underlying them. This state of health interfered but slightly with the discharge of public and private duties, and indeed, beyond loss of flesh and some discomfort, there was a complete absence of signs of disease. An attack of pneumonia, which tried his powers of endurance considerably and was followed by a slow convalescence, completely altered the character of the case. Within a fortnight or three weeks of the incidence of the pulmonary disorder the abdomen swelled and its superficial veins enlarged, the lips became red and the tongue glazed and red, the face pinched and the urine scanty and full of urates, the motions black, and in every way a most suggestive picture of cirrhosis of the liver was presented, a tranformation that astonished the doctor and friends, and was not at first sight easily explained. The only reasonable assumption to account for the apparently rapid development of cirrhosis of the liver was that the disease had existed for a considerable period in a latent form, and that the obstructed portal circulation was compensated for by the usual auxiliary relief, which served to reduce congestion, and thus keep in check the tendency to ascites, etc., until the attack of pneumonia, by producing cardiac insufficiency, upset the balance, and led to the appearance of the typical signs hitherto absent. Let us observe that though the pathological changes characteristic of cirrhosis were present, the clinical aspect of the case was incomplete until a new and necessary factor, which had nothing to do with the original disorder, revealed the true nature of the illness. It seems a just inference that the cardiac affection made an important, if not essential, contribution to the completion of the symptom-picture. Indeed, I am disposed to think that in cirrhosis of the liver generally the

occurrence of the abdominal dropsy largely depends upon the supervention of heart weakness. In further support of this view I may mention a very striking case recently admitted to hospital under the care of my colleague, Dr. Limont. The patient, a waiter, a confirmed toper, though active and in fair health, and capable of performing his daily work in a large hotel, developed very suddenly the symptoms of portal obstruction—ascites, etc., as the result of a few days of exceptionally heavy spirit drinking. His abdominal distension, becoming very great, was relieved by tapping, but an attack of peritonitis rapidly brought the case to a fatal termination. A *post-mortem* examination revealed a small hob-nailed liver, extensive splenic adhesions, an ample auxiliary portal relief, and a heart greatly dilated. Here, again, we would have had an incomplete clinical case, but for a symptom which the liver borrowed from the heart. In this connection I may remind my audience that it is not unusual for the dropsy of chronic Bright's disease to be determined by heart weakness. Another illustration of the truth of Agrippa's fable, as told by Livy, in which he insists on the intimate connection between the various parts of the human body.

But it is not enough to say that clinical pictures may be the joint products of symptomatic morbid relations, for they are often presented to us under the modifying influence of a tendency or bias, lent by a former or a concurrent disease; that is to say, it is quite common to meet with pronounced modifications in the clinical pictures of disease which can only be accounted for on the principle that one disease has a determining influence upon the aspect of another. The following illustration will explain my meaning. A young man, aged 22, suffered in the autumn of 1891 from an attack of alcoholic paralysis which revealed itself in the usual form of weakness in the legs, flapping of feet in walking, with, eventually, ankle-drop and paralysis, and paresis of the extensors of the fingers, along with which were severe myalgic pains. He recovered satisfactorily, and at the end of four months he was able to walk, and a little later to ride his bicycle. In May of the following year he had an attack of diphtheria, and in a few weeks, while strictly temperate, he developed, without any defect of sight or impairment of swallowing, numbness and weakness of the legs and hands, and indeed a very similar condition to that which had existed previously, except that the pains were absent. In this case the diphtheritic palsy was exhibited in a somewhat unusual form, in consequence of a predisposition to a special paralytic distribution lent by an attack of alcoholic neuritis. I am aware that cases of diphtheritic paralysis are met with where the lower extremities bear the brunt of the poison, but it is exceptional to meet with so pronounced a paraplegia in the entire absence of the usual signs, such as failure of accommodation, dysphagia, etc.

Or take this case. A man in the prime of life, who was much addicted to alcohol, came under observation for complete double drop-wrist, presenting every feature of a plumbic case. His history revealed the fact that twelve years previously he had suffered from lead palsy, with blue line, the result of drinking contaminated water, and as he was recovering he acquired intemperate habits, and developed into a chronic toper. The consequence was that the paralysis of the extensors became more pronounced, and remained permanent. There was absolutely no paralysis of the lower extremities, and the knee-jerk was normal.

The modifying influence of one lesion upon another may be, as is well known, decidedly beneficial. Thus, sarcoma and lupus may yield to the poison of erysipelas; of which fact, it is reasonable to suppose, more will be made in the immediate future.

The controlling effect of disease on disease is also to be seen in the fact that it is quite rare for pulmonary tuberculosis to spring up in the course of a cardiac affection. And, again, it is not unusual when lardaceous disease develops in consequence of chronic phthisis, to observe a distinct tendency on the part of the tubercle to be arrested in its growth. And, further, in this connection I may mention that I have been struck with the rareness with which a pneumonia complicated with jaundice proves fatal.

I make a brief allusion to these points in order to realise the main aim of this address—namely, the arousing and quickening of an interest in the study of morbid relations, wherein our success will much depend on our having a ruling principle for our guide, and a definite object and end in view, both of which I have endeavoured to indicate. An inquiry into the symptoms, diagnosis, prognosis, and treatment of disease cannot fail to be greatly facilitated by keeping ever before us the particular cause or causes at work in producing an uncomplicated disease, or in furnishing the kaleidoscope aspects of many of our cases. In one way it seems a work of supererogation to inculcate the close observance of causes; for, as a rule, the practitioner gradually comes to perceive its importance, and shapes for himself an unwritten compendium along this line. His "experience is by industry achieved, and perfected by the swift course of time." Automatically he seeks for the cause, and is—or should be—satisfied only when he has found it; and that he may register his observations he is driven to an accurate system of nomenclature, which shall possess for him both an etiological and a diagnostic value. Every advance in this direction is a positive gain to medicine; and whether we succeed in tracing a disease to its true origin, or attempt the more arduous task of disentangling the morbid web with a view of assigning its due proportion of responsibility to each factor, and so of dealing with the whole, we are engaged in the employment of a method which, if developed, may make a revolution both in the name and treatment of diseases. This is no mere fanciful theory, for it will be found that every scientific medical man unconsciously and even automatically, as I have said, finds himself perpetually engaged in practising it, and the measure of success he enjoys as a practitioner of the healing art is determined largely by the degree to which he permits himself to be led by its light. A man may never be fortunate enough to make an abiding contribution to the science of medicine strictly so-called, and yet may all through his life have given the public the practical benefit of his originality and independent thought in the adoption and practice of self-taught rules without the aid, or even in spite of the trammels, of hampering traditions. And there are many such amongst us who whisper their worth in the ear of the public, but seldom seek to proclaim it from the literary housetop. To him belongs the credit of benefiting mankind by the practice of unformulated methods, and he shall have his reward: *Denn Gott lohnt Gutes hier gethan, auch hier noch.*

I dismiss from my view the mercenary rewards (if any) that fall to our lot, for the passing of milestones is not the completion of the journey, nor even the applause of the public the height of our ambition or our goal. Our highest honour is the gratitude of humanity, and our best reward the growing assurance that we are lessening or alleviating the pain of many and lightening the load of life. We may not all lead medical opinion from an editor's chair or an author's desk, but every one of us in the employment of a reasonable, natural, and simple method, can bear our share of duty which is none the less honourable or beneficial that it is written, not on paper, but on human flesh and blood; as Cicero has said: *Homines ad deos nulla re proprius accedunt quam salutem hominibus dando.*

On October 26th the Paris Surgical Society will celebrate the fiftieth anniversary of its foundation.

M. Hallopeau and M. Straus have been elected members of the French Academy of Medicine.

M. Pasteur has been elected an Honorary Member of the Vienna Academy of Sciences.

The *London Gazette* of July 28th announces that the Queen has been pleased to grant to Mr. Percy Athelstan Nightingale, M.B., C.M.Edin., her authority that he may accept and wear the insignia of the 3rd class of the Order of the Crown of Johore, conferred upon him by the Sultan of Johore, in recognition of his services while employed in the service of His Highness.

So many of the charitable institutions of Australia have suffered financially owing to the suspension of payments of the banks, that Sir Alfred Stephen proposes that a week of self-denial and abstinence from luxuries shall be observed, and the money thus saved be devoted to the maintenance of the charities. The Mayoress of Sydney has consented to act as treasurer to the fund.

ADDRESS IN SURGERY

BY

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At the Annual Meeting of the British Medical Association held in Newcastle-on-Tyne, August, 1893.

THE EVOLUTION OF SURGICAL PRINCIPLES.

WHEN the British Medical Association met in Newcastle twenty-three years ago the office that now has fallen to my lot was occupied by an able and distinguished surgeon, no longer in our midst. The recollection of the vigorous and eloquent address which Dr. Heath then delivered, a recollection which I doubt not, even at this distance of time, is shared by all who heard it, increases the responsibility of the task I have undertaken. That the Council of the Association, which has grown so much greater and more powerful in the interval, should again have appointed as reader of the Address in Surgery a local surgeon, can be interpreted only as a tribute to the traditions and acknowledged position of surgery in this portion of the kingdom, and by no means to the individual prominence of the representative selected. And deeply sensible as I am of the great honour inherent in the office, and reflected from the illustrious names of those who have filled it in the past, my sense of inadequacy and of diffidence in undertaking it are only thereby increased. When I turn to the fulfilment of my task, not the least difficulty is that which meets me on the threshold of selecting a train of thought on which to address so important an assembly. Engaged in the work of a large general hospital, and gathering experience from its varied service, I turn with readier interest to the broad principles of general surgery than to the elaborated details of any of its specialised departments. But in this I am guided towards a choice. And I have found further suggestion in an event which has already claimed the attention of English surgeons. This year they they have been invited to celebrate the centenary of John Hunter, who, before and beyond all others, laid the foundations of surgical science. And the year is not only the centenary of John Hunter's death, it is also the centenary of the publication of his *Treatise on the Blood and Inflammation*, which Hunter looked on as the crowning work of his life, and of which his death came too quickly to permit the necessary revision. The year, therefore, carries our thoughts naturally to the principles which underlie and give stability to our work. It is our frequent boast that surgery has become, and is becoming, more scientific; and by an appeal to our results we justify the claim. But the science of surgery—and by the phrase we mean the principles of surgery—is nearly altogether the growth of the century that has followed Hunter's death, and its growth has been by no means one of continuous or steady progress—rather, as is usually the case in the development of scientific truth, it has been by fits and starts. The greater part of the work has been done in our own generation. And now, with regard to much of the art of surgery, it rests on principles so worked out and firmly established that the claim to scientific position can be made good. But with regard to much also we are still only struggling towards scientific truth. In speaking therefore of the development of surgical principles I shall endeavour to illustrate both classes—both those principles which, being in a sense perfected, have issued in enhanced success; and those also towards which we are still groping, and by which we have not yet been guided out of difficulty and uncertainty.

The "principles of surgery" is one of those elastic phrases which carry to our minds a fairly exact meaning, but to which we find it hard to give a concise definition. We certainly do not use it as the equivalent of theory. The surgeon who, thinking himself well versed in surgical principles, and therefore prepared to act in the best manner for the best reasons, would not consider himself justly described as a man of theory. And yet theories which become the motive or suggestion of surgical action are surgical principles, and these may be sound or unsound according to the character of the views upon which they are based. In so far as surgery is applied science, the data from which surgical procedures spring are in the strictest sense scientific principles; and we find that surgery advances by precisely the same methods as all other practical sciences. We have our inventions, our appliances, our practical details upon which an ever-increasing ingenuity and industry are expended. We have also sometimes our discoveries in medical or collateral science, which become the inspiration or rallying point of great practical advances. But the phrase covers more even than scientific data. The definite ends or objects of surgical action which are proper under given circumstances belong to the principles of surgery. So also do rules of procedure which the gathered experience of the past and present prescribes or sanctions. The mode of formation of surgical principles is therefore a double one. They may arise like a superstructure upon a foundation of scientific knowledge, or they grow down out of experience to be themselves part of the foundation. They are the mainsprings of action; and so far from being alien to practical efficiency, they are at once its inspiration and guide. One of the not least important surgical principles dictates scrupulous attention to the minutest practical detail; and he who, knowing that a life may hang on the integrity of a stitch, concerns himself anxiously about the method or material of a suture is only acting in faithful obedience to surgical principle.

INFLAMMATION AND REPAIR.

The mode of growth of scientific principles can find no better illustration than in our modern doctrines of surgical repair. The beginnings of these doctrines may be traced far back in the history of surgery. But it was by Hunter's work and in the pages of that *Treatise on Inflammation*—which, though pondered and laboured through many previous years, as was Hunter's way, was not published till the year of his death—that the real beginning was made. Hunter's statement that "primary healing takes place without inflammation" contains the germ of what we believe and act upon now. It did not, of course, go far enough. It defined the relationship between what was then, as it is now, ideal healing and inflammation, in the sense that no relationship can or does exist between them at all. But there is no such definite expression to be found in Hunter's writings with regard to the modes of secondary healing. Hunter, I think, believed, as did most of his successors down to the last few years, that a certain degree of inflammation was necessary for these delayed forms of healing. Indeed, from Hunter's time there was a falling away from the faith, and we find the most philosophical surgical opinion as represented by Travers holding that a "subdued state of inflammation favours healing," and that to "supersede it would effectually retard or preclude" the process of repair.

I am sure, Sir, that to many in this audience it may seem to demand an apology that I should even mention in their hearing the name of inflammation. I may appear to be abusing my opportunities in carrying them back to their earlier days when inflammation was the bugbear of their surgical studies, a true surgical *pons asinorum*. But I plead in excuse that down to a recent period the ideas of healing and the ideas of inflammation seemed in the very nature of things to be inseparably interwoven. It turns out that they were only needlessly entangled, and ideas which in the time of their confusion belonged mainly to the region of theory have since proved to be matters of the most eminent practical importance. The process of disentangling began in and proceeded with the elucidation of the true nature of inflammation and its consequent suppuration. There was a time when the four classical symptoms of pain, heat, redness, and swelling, summed up nearly all that was known of the process of inflammation. Then followed the anatomical era, the time most fruitful of bewilderment to the student, in which, thanks to rapid improvement in the methods of microscopical investigation, attention was concentrated in the blood stasis, the changes in the tissues and on the vessel walls, and on the out-wandering of the white corpuscles. An intermediate stage followed this in which, clinically and experimentally, the suppurative processes were recognised to be infective in their nature. And this culminated in the period in which we now find ourselves when the whole process is demonstrated to be due to the agency of micro-organ-

isms. One point, however, remains to be cleared up. Is the febrile access which follows an aseptic operation, sometimes sharp in degree though short in duration, to be looked on as the result of inflammation? There is no ground for supposing it to be an infective process the same in kind and differing only in degree from that which always tends to suppuration. If different in nature it should also be distinguished in name, and there is much to justify the proposal to restrict the word "inflammation" to those changes which result from the action of septic organisms, while the other and simpler process under some such title as traumatic reaction demands further examination for the clearing up of its intimate character. Such a defined use of the term would end the confusion which has hitherto attended the conception of inflammation as a disease, and would rest the idea to which the word corresponds on the sure ground of etiology.

Naturally with the true knowledge of inflammation and suppuration have come clearer and more accurate views with regard to the process of repair. Not alone in primary adhesion but in all forms of healing it is seen that inflammation is never a help, and can only be a hindrance, and that if it occurs repair must take place in spite of it, or be delayed until it has passed away. We have gone back upon Hunter's dictum, only we have given it a more extended, or rather an unrestricted, application. The surgeon's part, therefore, is now not to treat but to prevent inflammation and suppuration, and the practical side of the scientific evolution I have briefly sketched is the antiseptic system.

Asepsis and Antisepsis.

It has sometimes been made a reproach against the system of wound treatment, by the introduction of which Lister created an epoch in surgery, that its methods and details have undergone constant change. But through all the alterations of detail which the desire for greater simplicity or increased security have prompted, there has been no deviation of principle. The dependence of suppuration and septic diseases upon organisms, and the prevention of these diseases by destroying or getting rid of the cause, is the principle on which the treatment rests, and it is one which admits of some latitude in its application. The aim can be achieved in two ways. Either reliance is placed mainly on the germicidal powers of chemical agents, or the surgeon prefers to trust rather to the removal of the minute organisms along with the soil in which they flourish. The two roads to the same end we know under the names antiseptic and aseptic; and fortunately we are able in this case to travel on both at the same time. So far as our work is concerned, we have thoroughly learned the lesson that cleanliness takes no second place, that it is the highest virtue in surgery. Therefore we cannot err in sparing no pains to remove every particle of dirt from the area and all the accessories of an operation; and in addition we will not deny ourselves the further security which the use of some germ-destroying agent can give.

Those of us who have worked through the whole of the antiseptic period can in looking back trace with some interest the different phases through which the method has passed. I shall not trouble you with detail in a matter which is already chiefly of historical interest. But I may point out that the main changes in the *technique* of the treatment have owed their origin to changing views as to the sources whence danger of infection might be expected to arise. Under the guidance of his earlier experiments, and in accord with the work of Pasteur and the investigations of Tyndall on the floating matter of the air, Lister devised his measures for the avoidance of atmospheric contamination; hence we had sealed wounds, and later the spray. Gradually the belief strengthened that the air as a source of danger might practically be neglected, and we parted with the spray, with a sigh of relief. It had come to be admitted that our own hands and the skin of the patient, besides the instruments and sponges which had always been cared for, were most often at fault; and as a result even the most orthodox believers in the potency of carbolic acid or corrosive sublimate became scrupulous cleansers.

I have said that the antiseptic system admits of latitude in its application; it is open to every one to elaborate his own *technique*. The worst surgery, indeed, is the stereotyped surgery; the best is that which, working faithfully from sound principles as a science, encourages as an art fertility and variety in their application. But with whatever variety of method there ought to be now no grades in the standard of work sought to be accomplished. An ideal of healing which was only occasionally attainable by the many, or more consistently reached by the few as the result of fortunate circumstances, or the reward of strenuous care has become a generally accepted obligation. No one now is ever heard to speak of laudable pus; no pus is considered praiseworthy; but, on the contrary, if it appear in a wound for which the surgeon is responsible, and in making which he had the control of all the conditions, it is always a thing to be ashamed of. Healing without suppuration, therefore, is the end aimed at in all operation wounds, and in a sense it is an extended description of union by first intention. It applies to wounds healing by granulation, or by the organisation of a blood clot, as well as to those uniting by primary adhesion. For all alike Hunter's description holds good: "If a wound heals by first intention all keeps quiet as if nothing had happened." And, by way of emphasising the position that with such wounds inflammation in any of its stages has nothing to do, I will set with this classical quotation the description of primary healing wounds given by von Volkmann, one of the most distinguished and thorough of the German followers of Lister: "A primary healing wound several days after the operation ought to look exactly as if had just been stitched; no swelling and redness; no heat; no pain."

Illustrations of Reparative Surgery.

From trusting more, because knowing better, Nature's powers of repair, it has followed that the range of reparative surgery has been greatly widened. It is not now thought sufficient in bringing wounds together to pass our sutures through all the tissues at once, but each layer is separately stitched—muscle to muscle, fascia to fascia, skin to skin. This is one of the lessons which, if it did not at first teach us, abdominal surgery has been forward to utilise. The gain in abdominal operations is in a greatly strengthened cicatrix and the avoidance of ventral hernia. In general surgery the gain is in promoting healing by the obliteration of "dead spaces," and the consequent less frequent need of drainage. That the ends of divided muscle if brought accurately together will be reunited by proper muscle tissue, and not by interposed connective tissue, as was formerly supposed, is a fact of recent acquisition, but of some practical importance. In operations on the abdominal wall—especially in certain operations for the radical cure of hernia in which, as in Halsted's, the muscular layers are freely divided—their unimpaired reunion is essential for the success of the operation. It is necessary, therefore, that the muscles should be cleanly incised, and not haggled, and that they be afterwards exactly sutured; and the cases in which such plans of operating are the least likely to result succesfully are those in which the repair of so complex a structure as muscle is interfered with by suppuration.

I pass now to a still more attractive illustration of the reparative powers of Nature. Skin grafting, according to the method of M. Reverdin, has long been a valued resource in hastening the cicatrisation of granulating surfaces. But the method known by the name of Thiersch makes larger demands on tissue vitality, and is of wider usefulness. When a portion of the skin—it may be as large as an inch square—is detached and transferred to a recent and aseptic wound, it retains its inherent vitality until it becomes penetrated by blood vessels advancing into it from its new bed. It is thus fully adopted and incorporated in its new position. As if to explain the eager readiness with which the vessels and proliferating cells of the wound surface enter into and constitute an organic union with the new part, Thiersch has advanced one of those theories which, whether they prove in the long run to be well or ill founded, give by their aptness a special kind of mental satisfaction. By a legitimate scientific use of the imagination he supposes that a store of proliferating energy exists in the tissues which, in their intact condition, is kept in check by the mutual pressure of their elements. The constituents of the tissues, in other words, do not grow beyond a certain point for want of elbow

room; but when this mutually restraining pressure is removed by a breach of surface their proliferating energy is set free, and by their liberated activity they become competent to carry out the work of repair. In its practical application the whole of a large open wound can be covered by this method of skin grafting, so that the wound shall heal by first intention. The size of the area that can be so dealt with is only limited by the possibility of obtaining grafts, which may be taken either from the same or another individual, or from a quite recently amputated limb. It is not necessary in removing the graft to take the whole thickness of the true skin. A portion of the corium left behind will, by obviating cicatrical contraction, lessen the sacrifice for that surface which is the donor, without diminishing the value of the gift to the recipient. In plastic operations on the face, and in operations for malignant disease which have involved free removal of skin, the method has found useful application. But I would draw attention to a class of cases which have hitherto been as troublesome as they were uninteresting to the surgeon, and for which Thiersch's grafting holds out a welcome hope of cure. No class of minor surgical ailments gives more trouble in their treatment, or more certain disappointment in their relapses, than cases of chronic ulcer of the leg. For these the method of skin grafting can be made available. Bearing in mind the necessity of an aseptic condition of the bed upon which the grafts are to be placed, it is requisite, by paring the edges, and by thorough scraping of the surface with the sharp spoon, as well as by the use of antiseptic solutions, to surgically cleanse the ulcer. To get rid of the irritating effects of the antiseptics, they should be washed away by sterilised water before the application of the grafts. So treated, an ulcer is brought into the condition of a recently made wound, and success entirely depends on the thoroughness with which this transformation can be effected. A sufficiently extensive trial of this method enables me to say that its success is not uncertain; and that in the saving of time and in the excellence of the cicatrix, which contrasts strikingly with the attenuated and unstable scar left by the ordinary process of healing, it has advantages that commend it to your notice.

In the grafting and reimplanting of bone the incorporation takes place, no doubt, in the same manner as in the skin. We have learned, also, that the breaking up of the bone into small chips is not always necessary; at least that it is not necessary in the case of the discs removed in trephining the skull. Provided these be of moderate size, they can be replaced whole. In a recent case of extensive fracture of the skull, I removed with Macewen's trepan three discs $\frac{3}{8}$ inch in diameter, and they were reimplanted without being broken up. Notwithstanding some neighbouring suppuration from breaking down of an extensive hæmatoma, the reimplanted bone lived, and no trace of the trephining, so far as the skull is concerned, remains.

When we pass to a higher and more complex structure—that of the nerves—I think it will be granted that the process of their repair is still imperfectly understood. In the direct suturing of the divided ends of nerves it may be supposed that immediate reunion of axis cylinders with restoration of function may take place. But when a graft several inches in length is interposed between the widely separated nerve ends, and sensation returns in thirty-six hours, what is the anatomical and physiological condition of the graft? Can it have become so vascularised, and have its axis cylinders acquired such intimate union with those of the nerve ends as to make it in so short a time capable of conducting impressions? Where return of function has followed at a later date it has been supposed that the graft acted merely as a platform along which new axis cylinders developed; and this view has gained countenance from the claim which has been made on behalf of other structures, such as strands of catgut or portions of connective tissue, that they also have sufficed to re-establish functional continuity. The whole subject appears to call for further investigation; and much also would be gained by greater and more explicit detail in the records of cases. Too much value appears generally to have been attached to the return of sensation as an indication of success, whereas only restoration of motor power and the arrest of trophic changes can be accepted as unequivocal evidence of restored function.

Thus far I have endeavoured to trace and to illustrate some of the applications of the great principles of surgical repair. The phenomena which this title covers have in their real character so little that is morbid that they constitute a well-defined department of surgical physiology. When now I turn to pathology, and seek to illustrate from that department the evolution of principles of action from scientific knowledge, I am faced by the whole range of surgical disease. It is only a truism to say that in the absence of a knowledge of its morbid appearances and of its cause no disease can be satisfactorily treated. But what is true in the abstract usually has its truth set in sharper lineaments when looked at in the concrete. I therefore select for illustration two disease groups—tubercle and cancer—especially on this ground, that they present instructive points both of similarity and contrast. If we follow the history of the pathology of tubercle we shall find it divided into periods which correspond to those already referred to in the history of inflammation. There was the period of physical form, when the name was given to whatever was a tubercle in feel and outline; there was the period of minute anatomy, when the disease consisted of special cells and cell groupings; and there is now the period which, since in it we have learned the essential cause of the disease, may be called the stage of real knowledge.

Before the microbic origin of tubercle was known surgery was becoming more aggressive in the treatment of so-called scrofulous disease. Scrofulous glands, for instance, were excised many years ago, at first against the protest of those whose minds were wholly influenced by the supposed constitutional origin of the complaint. The surgery of strumous joints also had long been both more conservative and more successful. But from the new light the surgery of tubercle has gained immense encouragement. The commencement of the disease in a locally-infected area has modified and restricted the conception of a constitutional tendency. The constitutional origin has been changed into a constitutional vulnerability; and, undeterred now by an idea which weighed upon him just in proportion to its vagueness, the surgeon undertakes the treatment of local manifestations of tubercle by local measures. In consequence the surgery of tubercle has undergone great extension. Affections of the skin, of the glands, of the bones and joints, of the urinary organs, of the peritoneum, wherever the disease can be reached and wholly removed, or its action favourably modified, it is submitted to local treatment. And the extension has been in the direction not only of new applications, but of greater thoroughness. The knowledge of the infective character of the disease, and of the liability to local relapses, or even general infection as a consequence of incomplete removal, has led, for example, to the excision of every affected gland or of every diseased focus in a joint. And the guidance afforded by pathological knowledge is even more explicit with regard to other points of treatment. The important question of general infection has light thrown upon it by what we know of Nature's endeavours to imprison by a wall of granulation tissue a tuberculous focus. When by an incomplete operation we break down this wall or cause it to crumble by infecting it with pus microbes, without entirely removing the tuberculous disease, we open the way for the passage of the tubercle bacilli into the system. Hence the extreme necessity of keeping our operations free from sepsis, as well as of making them thorough. The success of the treatment of cold abscesses by evacuation, scraping, and flushing, and closure of the incision—the method known by the name of Mr. Barker—is only intelligible when their true pathology is known. Such a treatment could have no *raison d'être* in the old idea that they were, as the name implies, pus-containing cavities. But when we know that they do not contain pus, but only the liquefied and broken-down products of the tuberculous process, we see the *rationale* of the proceeding, and we understand also the extreme danger of admitting secondary pyogenic infection into such cavities.

The substitution of arthrectomy for formal excision has its motive in the removal of all diseased foci and surfaces with the least possible interference with the integrity of the limb. Its occasional failures to effect lasting cure are explained by the readiness with which scraps of diseased tissue or tuberculous foci in the bone, may be left behind: and I anticipate in

the future a partial return to the older and more searching operation. On every point in the treatment we derive guidance from the pathology of tubercle; and we better understand also the limitation of our success. The nature and condition of the disease are such as to render at present inevitable frequent failure; but even failure is made more tolerable when we can trace its cause. The knowledge we already possess carries hope also for the future; hope that possibly in some combined surgical and special treatment we may find means that are more successful than the present; and hope of fulfilling one day a still higher function than that of curing, namely, that of preventing the disease.

The whole disease picture presented by cancer offers so many points of resemblance to that of tubercle, that the probability of a parasitic origin of it also has at present taken strong possession of the minds of pathologists. The occurrence of minute organisms of the class of sporozoaria in connection with cancer is, I think, held to be demonstrated; but any causal relationship between them and the disease has not been proved. We have as yet nothing beyond the nature of conjecture as to the essential cause of cancer; and as to many facts of secondary, but still great, importance in the natural history of the disease, we have to own that our knowledge is so vague as to be little better than ignorance. What can we affirm with certainty as to its local contagiousness, as to its contagiousness from individual to individual, as to its hereditariness, as to its prevalence in groups of cases due to endemic influences? On these and other points we are able to cite fragmentary evidence, but of any cogent array of facts which would suffice to definitely settle any one of them we are as yet destitute. On one point of importance there is agreement and a growing readiness to act upon it. Due largely to the influence of Mr. Jonathan Hutchinson, a precancerous stage of cancer is recognised; and it follows from the recognition that surgery ought to interfere during this period of suspicion. Another point of practical moment is brought out by the observations of Dr. Sims Woodhead and Mr. Harold Stiles on the channels of lymphatic infection, and referred to by the former in his Morton Lecture last year. These observations were made on cancer of the breast; and it is shown that whenever irritative or effete material has to be dealt with in large amount a special filtering tissue is developed. This, which consists of a growth of adenoid material, is formed in the connective tissue along the lymph channels, and is produced still more strikingly by the transformation of the small lobules of fat in the axilla. One of the great difficulties of dealing with cancerous disease is that we have no means of knowing when lymphatic infection first takes place. As the lymph circulation is always going on there is no reason why infection may not occur in the very earliest stage of the primary growth. If we are to trust cases of removal of the original cancer with no subsequent recurrence—that is, cases of cure—it may never occur at all. We do know that the infection may lie dormant for months or even years before it gives any gross indication of its presence. In dealing with it, therefore, we are meeting an enemy whose first invasion is invisible, and whose strength at any time we cannot even guess at; but all we know of its nature—both the old knowledge and the new—only points to the necessity of free removal. It indicates, I think—and my own experience is strongly in favour of the proceeding—the removal of the next group of glands along with the primary cancer, whether they show gross enlargement or not; and when an operation wound for excision of the breast and clearing out of the axilla can be healed by first intention under one dressing, there should be the less objection to extensive operations for malignant disease if only some additional security can be gained. The rules, then, enjoining early and free removal, and their application also to recurrences, so long as these are removable, are the broad principles which surgeons accept in dealing with malignant disease; they are the results of experience, and are confirmed rather than in the first instance dictated by scientific knowledge. To no subject in the whole range of medicine has there been devoted a greater patience in observation, a more continuous labour in inquiry than to the subject of cancer. The terrible character of the disease, the obstinacy with which it has refused to yield up the secret of its origin, the unsatisfactory results of its treatment, have at once fascinated and stimulated inquirers. The hope of now solving the problem by demonstrating its parasitic origin has enlisted a fresh band of workers whose skill and tenacity in their investigations will surely lead to some definite result. Our already accumulated knowledge about cancer needs only the central fact of what cancer is to fall into order and to become productive of practical good, and out of a then completed pathology we shall hope to forge some weapon of attack or defence which shall reduce cancer to the list of curable diseases.

It is infrequent now that from topographical anatomy comes any suggestion for a fresh advance in surgery. But now and again a corrected misrepresentation or reading of anatomical facts, a new point of view or hitherto unthought-of relationship will lead to a change in surgical practice. You will at once think, in illustration, of the rapid creation of the surgery of the cæcum and appendix, in part under the impetus of the general development of abdominal surgery, still more as the rational outcome of that corrected view of the anatomy of the parts with which we associate the name of Mr. Treves. A yet more striking instance of a change in procedure, abrupt as a revolution, effected from the anatomical standpoint, is the revival in our time of the high operation for stone. Until the publication of Garson's careful observations on the position of the pelvic organs and on the effect produced by their distension on the suprapubic interval, lateral lithotomy continued to be practised with a success which made it, as ovariotomy has since become, the boast of surgery. Cheselden, notwithstanding his 85 per cent. of recoveries, had abandoned the high operation for the still greater success of his method of lateral lithotomy; and Cheselden's operation, virtually unmodified, was that still practised. The publication of Garson's observations and their introduction to the notice of surgeons by Petersen and Sir H. Thompson, with the practical measures based upon them, led to a reversal of Cheselden's decision, and to the general displacement of lateral lithotomy by the high operation. The new facility in the performance of the latter afforded by the use of the rectal bag along with distension of the bladder—again, the bias given by the growing interest in abdominal surgery, and the tendency in the present day to prefer open operations in which the parts dealt with lie well exposed to both hand and eye—all these contributed to the rapid adoption of the change. Perhaps fashion, also, is not without influence in surgical matters; and it would be interesting as well as helpful, after fifteen years' experience of the revival, to learn from figures gathered in a sufficiently wide area whether the old standard of success has been maintained.

Canons in Surgery.

In thus dealing with the evolution of surgical principles and in tracing them, as I have so far done, to the three trunk roots of anatomy, physiology, and pathology, I am not unmindful that surgery as a practical art must needs get sap for its nourishment from whencesoever it can be drawn. It has, therefore, rootlets into every branch of physical science; and there is, moreover, a large body of surgical principles which spring almost purely from observation and experience—not experiment, so far as English surgery is concerned, for that source of knowledge has been so hedged round with obstacles as to be nearly valueless. In this sense of principles derived from experience we use the word as implying not a fundamental fact in science on which action is based, but a rule of action adopted because it has been found, or thought to be, the best, and stamped with the authority of general acceptance. Necessarily such rules are apt to vary, but for the most part, as time goes on, they find their justification in some subsequently proved fact in diagnosis or pathology. The phrase "canons in surgery," used long ago by John Bell and revived a few years ago by Mr. Hutchinson, very aptly covers these rules of experience. Their character and mode of formation will be best shown by an example. The question of amputation in senile and diabetic gangrene of the foot seems to be in course of settlement in favour of operation. The condition is almost certainly fatal, and is fatal often after a period of lingering and intense suffering. As a measure for its relief or for the saving of life, amputation has almost uniformly failed when it has been done in the lower part of the leg. The gangrene seizes upon the flaps, and if the limb be reamputated higher up the stump is

again attacked. But it has been found that if the leg be taken off in the first instance above the knee a fair proportion of cases recover. About one half, according to the most recently collected figures, have been successful, and in a condition so hopeless and usually so painful, such a result is better than the certain issue of non-interference. Let me enforce the point, and at the same time refer to an interesting pathological fact which, in some instances at least, provides its explanation by quoting a case. A man, aged 56, had spreading gangrene of the toes, with severe and constant suffering. The circulation of the whole foot was very imperfect. No pulsation of the posterior tibial was to be felt, but that of the popliteal was distinct. The leg was amputated immediately below the knee, and recovery was marred by slight sloughing of the flap edges and a good deal of pain in the stump. In the end the case did well. The artery, which had been severed high in the popliteal space, presented an interesting condition. Due to chronic arteritis, and not atheroma, there was thickening of the coats to the extent of complete occlusion of the posterior tibial behind the malleolus. A thrombus nearly filled the artery in the calf, and above the bifurcation of the popliteal there was a great narrowing of the vessel. This narrowing close to the bifurcation has been noted in similar cases. It is an old observation that tendency to degeneration in consequence of strain is greatest close to an arterial bifurcation; and the frequent occurrence of serious narrowing at the point referred to explains in a proportion of cases the ill success of amputations through the leg for gangrene. The happily limited sloughing and protracted recovery of my patient teach—as the consequences of breach of rule ought to do—the advantages of obedience; and I leave the case as testimony, so far as it goes, in favour of the establishment of a surgical canon, to this effect: In spreading gangrene of the foot, amputate through the thigh.

An old and familiar surgical canon formulated by our predecessors as the result of experience, enjoined on the surgeon the duty of operating, "when in doubt," in all cases of hernia. We greatly need the guidance of some equally definite rule in cases of internal obstruction. Upon the question of operation surgeons are, if not divided into two parties, at least biassed in contrary directions. Some would operate in all cases of complete obstruction so soon as they have the opportunity; others would try other measures, see what Nature will do, and operate as a last resource. And strong arguments are to be found on either side. The surgeon who would always operate, and had always an early opportunity of doing so, would unquestionably achieve the best results possible, although he would operate on a certain proportion of cases that could spontaneously recover. But unfortunately no one is brought in contact with even the majority of his cases in an early stage. And hence arises the force of the contrary arguments. The circumstances which militate against the success of operation for internal obstruction in the fully established or later stages of the complaint are twofold. In the first place, in nearly all cases, secondary changes speedily ensue, which hinder the search for the obstructing cause, and which may nullify attempts at its removal. And in the second place the patient often passes, it may be at an early period, into a condition mainly due to poisoned blood in which he trembles on the brink of collapse, and in which operation is badly borne. Add to these the fact that a not inconsiderable number of cases, even when there is stercoraceous vomiting, do recover, whose chance of recovery would disappear under the shock of an operation; and we have what I think is a fair statement of the reasoning against operating in all cases. Where are we to look for guidance? Mainly, the question must be settled by experience; it is a case to which the maxim "Solvitur ambulando" applies; and I think experience will aid by bringing to us the ability better to discriminate between the different causes producing obstruction, and to appreciate the prognosis to be attached to each. In a syllabus of intestinal surgery recently published,[1] a list of eleven different causes of intestinal obstruction is tabulated. When we have learned more accurately to distinguish between these at the bedside, we shall be much nearer to the acknowledgment of a surgical canon or rule to guide our interference.

[1] Dr. Byron Robson in May No. of *Annals of Surgery*.

I shall trespass on your attention with one more surgical canon, but it is one whose propriety is so obvious—nay, whose observance is so imperative—that it ought to need no enforcing. The magnitude of many modern operations carrying surgical interference to the verge of what the human body can sustain, makes it more and more incumbent on the surgeon to avoid, or as far as possible to minimise, shock. And yet I doubt if this important duty receives generally the systematic attention it deserves. We do not know the exact pathology of the condition; probably several different conditions are included under the name. But we are very familiar with its symptoms. We know that the patient becomes cold, that the heart's action is depressed, and that all the nervous functions are lowered. We know also that it is induced or aggravated by prolonged operation, by chilling of the surface, by hæmorrhage, whether this take place rapidly or by continuous oozing in small quantity for a long time. I should like to add also that the giving of chloroform on successive days lowers the patient's resisting power. All this supplies hints enough for its prevention and treatment. Something can be done in anticipation of the operation in the way of propping both the physical and moral courage of the patient. Much can be done after the operation in rallying from the condition; and I have believed that a very small, stimulating, hypodermic dose of morphine has proved then of greater use than the same measure employed as a prophylactic. Transfusion with normal saline has so wonderful a power of rallying from shock, though so far as my experience goes its good effect has been disappointingly transitory, that its use will now not be neglected. But most is in our power in the way of prevention by guarding our patients against all those causes which produce shock or aggravate it; and therefore the surgical canon which in this matter claims not formal acknowledgment but systematic observance is: Avoid or as far as possible minimise shock.

But time, and the fear lest I should exhaust your courteous patience, warn me to conclude. In the survey I have given I have had before me the wish to illustrate the growth of surgical principles, and the necessary linking between these and practice. In fearing that much that I have brought before you must have seemed elementary and commonplace, I am conscious that the fault has lain not in the choice but in the handling of my subject. No inquiry into the manner in which knowledge is acquired, or is turned to practical account, ought to be without interest or helpfulness. And, for the most part, we are so engrossed with practical details, knowing how much in surgery depends on these, that we have little time and thought to spare for scientific principles. We may, therefore, profitably remind ourselves that our art is better just in proportion as our science is broader: that for true progress the two must go forward abreast; and that, though great things have been accomplished in our time, much more remains to be done.

AN ADDRESS

DELIVERED AT THE OPENING OF

THE SECTION OF ANATOMY AND PHYSIOLOGY.

At the Annual Meeting of the British Medical Association held in Newcastle, August, 1893.

By THOMAS OLIVER, M.A., M.D., F.R.C.P.,

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PHYSIC AND PHYSIOLOGY.

It is more from my association with the teaching of physiology in this College than from any special fitness for the office that I have been invited to preside over the deliberations of this Section. I do not regard a meeting of the British Medical Association as the best place for the discussion of subjects of a purely anatomical and physiological nature, and yet, as there are many at this meeting whose duty it is to superintend the education of those who are entering the medical profession, there are side issues con-

nected with these subjects that may be discussed, not only with convenience, but, let us hope, to the advantage of medicine as a whole.

In these days of political and social unrest it is scarcely to be wondered that a spirit of reform should pervade the medical life of the nation, but should have penetrated the legislative Council that presides over our immediate destiny. At present there is a tendency in the schools to cast aside all that is purely dogmatic, and to recognise no authority except reason. Opinions, to be acceptable, must rest upon solid facts. The whole tendency of modern education is rather towards the practical than the systematic. The spirit of the age is, indeed, one marked by a thirst for innovation—a great desire to know a little of many things—not much of one thing, and certainly nothing well of even a few things.

In the substitution of biology for botany in the curriculum, the General Medical Council have acted wisely. The medical student ought to have knowledge of the general principles of vegetable and animal life; but it seems to me, speaking as a teacher and examiner, that the General Medical Council have made a mistake—one, certainly, that ought to be remedied without delay—by requiring from the student of medicine attendance upon only one year's lectures on systematic physiology. In England it is impossible to give in the winter session—in the three days a week suggested by the Council—anything like a course of lectures that will cover the subject or fit the student for creditably passing his examination. What we call systematic physiology is, in the calendar of the Scottish Universities, more aptly described as the Institutes of Medicine. Physiology is the foundation of all rational medicine: it is the forerunner of pathology, the handmaid of therapeutics, and the essence of modern surgery. Considering the very important functions of the General Medical Council and its present constitution, there ought to be on that body not simply representation of the schools, but of the subjects taught in the schools.

It has been remarked, and probably not without reason, that modern physiologists have taught beyond the requirements of the medical student. The application of electricity, not only in the investigation of the properties of muscle and nerve, but as an aid to the localisation of function in the brain—the utilisation of the graphic method, and the employment of the highest magnifying power possible in the investigation of intracellular processes, and the life of micro-organisms—in brief, the application of the experimental method has revealed a world of phenomena hitherto beyond the grasp of the physiologist, and has enabled him to transfer their exposition from the realm of imagination to that of reason. Only by observation, analysis, and correlation of facts—in a word, by the process of induction—has the science of physiology advanced. No intuitive knowledge can explain to us, for example, the path by which accelerator impulses pass to the heart, the activities of the vasomotor centres, or the channels through which these operate. It was in the first flush of recent discovery that teachers of physiology, stimulated by the acquisition of new facts, and fascinated by their suggestiveness, strove in the class rooms to make medical students sharers of the intellectual glory that was theirs. Thus captivated, they apparently neglected to impart the simpler and more necessary knowledge. The reaction, however, is complete, and I make bold to say that never in the education of the medical student has there been so sincere a desire on the part of teachers to place before him facts more applicable to the science and practice of medicine, or statements more truly explanatory of phenomena than there is to-day. Armed with a thorough knowledge of these, the medical student has not only the opportunity of being more highly equipped mentally—he is better forearmed for the treatment of disease than in any preceding age.

Uniting in my own particular case the practice of the physician with the teaching of physiology, it is perhaps expected of me that I should say something of their relationship. Have these two sciences advanced at the same pace as the other sciences? Have they contributed to greater physical comfort and happiness, and have we been aided in our work by the support of the public? Few things stand out more prominently than the immense development of medicine and physiology within the last few years, and the important part played by the experimental method in the investigation and treatment of disease. Is there, for example, a single department of medicine or surgery the pathological study of which may not be carried out in the laboratory as well as in the sick chamber? If the public require of us when life is imperilled that we shall bring to bear upon the patient all the resources of the healing art, we insist upon being allowed to gain that knowledge in a manner and by methods alike reasonable and righteous. It is idle to waste time recapitulating what the experimental method has accomplished. Though yet only on the threshold of discovery in this department of investigation we already recognise the true cause of tubercle and the part played by its bacillus. Rabies in Pasteur's hands has been robbed of its terrors and successfully combated. Experiments in the laboratory have placed in our hands, or suggested, remedies whereby we may more advantageously fight disease. Certain forms of brain disease, which have hitherto been considered beyond the reach of the medical and surgical art, have, in the hands of Horsley, Macewen, Godlee, and others, yielded to the knife—the operator guided to the spot by the knowledge of located function. Thanks to experimental physiology, we grapple with disease in the brain, the chest, and abdomen with a dexterity and certainty of success, in a manner quite unknown thirty or forty years ago.

If additional proof of the great advances made within this century were required we have only to allude to the discovery of chloroform and the production of anæsthesia, to the antiseptic treatment of wounds by Lister, and to the impetus given to bacteriological studies and preventive medicine. The object of the medical profession is not simply to treat disease when developed with the best weapons at our command; our duty is to prevent it. But if bacteriological investigations are proscribed, and the profession precluded from fighting the microbes, the microbes may after all prove victorious.

The subject of experimental inquiry must rest upon a rational basis; it should be considered apart from emotion or feeling. In no spirit of arrogance do we say that it is the duty of the British public to be guided in this matter by men who have studied the subject, and are convinced of the enormous benefits that result therefrom. It is gratifying to see that the Government, refusing to be influenced by well-meaning but misguided enthusiasts, and directed by men who have the larger interests of humanity at heart, have at last consented to an experimental investigation into tuberculosis. This subject of experimental investigation is one upon which we, as medical men, must have the courage of our opinions, and I cannot but think that if these are boldly stated, and the results of experimental work placed honestly before our countrymen, public opinion will pronounce in favour of a method the aim of which is their own health and happiness. Sentimentalism must give way to rationalism.

In advocating a method which I regard as perfectly consistent, it is perhaps scarcely expected that I should vindicate the experimental method. But, as we still labour under the influence of an attack which calumniated members of the profession, we cannot let the opportunity pass without saying a word or two. Gentlemen, the conflict between religion and science will never be brought to a peaceful termination or happy reconciliation, so far as the Church and medicine are concerned, by personal insult or aspersion. In this matter we refuse to recognise the dictates of ecclesiastics as authoritative. It is a subject to which they have not given the study necessary to render their opinions conclusive. Who is to estimate or judge our action in this, a purely social matter? Society, and not simply a section thereof. What is right or wrong, what constitutes a moral or immoral act, are questions that belong to the science of ethics. It scarcely comes within the scope of our inquiry as to whether the moral sense has been in the ages slowly evolved, or whether it is spiritual—anterior, therefore, to all human experience—capable of existing apart from it, and to whose dictate we must bow with reverential submission. Apart from the actions of men, morality has no practical existence for us. It is difficult to appraise the ethical value of a human deed, but surely the welfare of society is no mean standard by which to estimate the morality of actions. We admit that the legalisation of an act confers no moral quality upon it, and we equally maintain that legislative restriction does not condemn it as immoral.

In the matter before us, we, as a profession, must take sides. Of the two rival theories of morals, it is the utilitarian rather than the intuitive that appeals to us. Our duty as medical men is to do all we can to increase the span of human life, to diminish its attendant evils, to diffuse a greater amount of health, and thus intensify the happiness of the human race. We must bring to bear upon men in illness that knowledge and experience which will enable them again to become healthy members of society. Branded as utilitarians, we must not shrink from experimental work, the objects of which are to increase the sum of our own knowledge, and thereby more effectually deal with disease. Is it, after all, such a small matter that we should desire the welfare of mankind? Is it not in consonance with the Divine will? If so, then any conduct that leads to that end is in conformity with it. We claim the right to act as conscience dictates. We ask no motive to be imputed; we simply plead that the beneficial results of vivisection amply justify the practice of it. The motive that underlies the act is the attainment of knowledge not selfishly accumulated, but wielded on behalf of humanity and the lower animals also. If the morality of an action depends, as some maintain, upon the intention, here, where the intention is admittedly good, the act clearly stands on no mean moral level. The practice is undertaken, not because we like it, but from altruistic motives. It is said that we have no right to do evil that good may come, or inflict suffering upon animals that the human race may be relieved of pain. Animals, we are told, have rights; they have the right to claim protection at our hands. Animals were made subject to man, and are subservient to him. One of the prominent features in a country far advanced in civilisation is the kindness exhibited towards animals. This kindly feeling, raised as it is to the dignity of a moral sense, is the outcome of evolution or human experience. How few there are who regard the destruction of animal life for food as an immoral act. The strongest opponent of vivisection has no scruples in regard to eating a good beefsteak. He claims that it is necessary for his sustenance.

This conflict should cease. The practice of medicine and the teaching of physiology show vivisection to be necessary. The demands made upon us by society require that we should be in possession of the highest knowledge. It seems strange that men and women who entrust the medical profession with their own lives and those of their children should not receive with satisfaction the assurance that, with the Home Secretary and his colleagues in this particular work as the guardians of the lives of animals, the interests of the animal race will be protected. Reassured by us that pain will not be needlessly inflicted, that the animals in almost every instance are completely anæsthetised, and, therefore, beyond the reach of pain; that they are killed, with very exceptions, ere the return of consciousness, society should be content to leave the matter in the hands of the profession and Government.

To relieve suffering and avert death are tasks allotted to us as a profession, and are the objects that ought to be the end of all physiological inquiry. The meaning of pain, as well as many of the physical conditions upon which it depends, still remain a mystery. Speaking generally, it is admitted that the sum of pain experienced by the lower animals is outbalanced by the amount of pleasure they enjoy. The revolting death which is the lot of many animals through others of a superior order pouncing upon them is, so far as the suffering animal itself is concerned, robbed of much of its repulsiveness by the sudden shock that is received. Thus, whilst apparently in agony, the capabilities for feeling have been destroyed. Death's touch has so far narcotised these that pain cannot be felt. What a mystery there is surrounding suffering!

The whole of the animal world is at incessant strife with itself, and yet through all this warfare, whilst the weak are being crushed by the strong, there is the operation of law, whereby Nature is pushing on to higher ends. By the destruction and utilisation of the lower animals, life is ever rising to nobler forms culminating in man. By a rational use of the knowledge of the phenomena of animal life, he is continually perfecting himself, and is thus trying to realise the highest aim of being. Pain is not therefore an accident—the purpose of pain is progress. We rise through experience of pain and the knowledge of its operation to the means of conquering it. It is thus that social life is lifted higher. And yet, with a full appreciation of the limitation of human thought and action, we admit that should the efforts of our craft be blessed, and the sum of pain and suffering be reduced, no inglorious repose—no life of luxurious ease—no hedonistic allurements would be the prize to mankind, for to it would be presented a widened life of Nature—a far-off goal ever receding as humanity advanced—in a word, there would be then, as now, an ideal still to be pursued.

One of the greatest achievements of medicine has been the introduction of chloroform and its employment to abolish pain. The story of its discovery and early use find a place in medical literature. Most beneficial as its results have been, its employment has at times been followed by disaster. Public opinion has thus been aroused, and a feeling of uncertainty prevails in regard to the use of an agent whose action we cannot always control. Great as have been the benefits conferred by the introduction of chloroform and ether, it will be a real and lasting service to society when the elements of uncertainty have been eliminated, and when an anæsthetic, perfectly safe, admissible under all circumstances, and complete in its narcotising influence, can be placed at our service. This is one of those absorbing questions only to be solved in the laboratory, and if the experimental method can give the answer to this problem, the result alone would amply vindicate the means we adopt to attain it. The Hyderabad Commission and the Glasgow Committee, not to mention individuals, have already done good work. My clinical experience and opinion until lately were—and I believe a similar opinion is held by most hospital physicians and surgeons—that the sudden death in chloroform anæsthesia is due to cardiac failure; but experimental inquiry has shown me, as it did Lauder Brunton, that the sudden death is not due to cardiac failure, but comes from the respiratory centre. A few drops of chloroform will, in some instances, almost immediately kill an animal, and so absolute is the death that neither artificial respiration nor insufflation can restore the animal's life. Under these circumstances, when the chest is opened, the circulation and respiration may be completely quiescent, or the heart may still be seen beating with a fair amount of vigour, and will continue to do so for a variable length of time. Is the composition of the blood likely to throw any light upon cases of sudden death in chloroform anæsthesia? In arterial blood the percentage of nitrogen, for example, is extremely small. It is not more than from 1 to 2 volumes per 100 cubic centimetres of blood, the oxygen 20, and the carbonic acid 20 to 30.

In chloroform anæsthesia the mode of death varies. Inhalation of the anæsthetic may scarcely have begun when the animal suddenly dies. In such a case time has not been given for any quantity of vapour to have been absorbed into the blood. There is no question of the direct action of chloroform upon the heart, much less upon the respiratory or cardiac centres, and yet the sudden death clearly shows that these centres must have been influenced through the sensory nerve endings of the fifth cranial nerve in the nasal mucous membrane. Death is thus a reflex phenomenon. Once this early period of danger is passed, it is astonishing how variable is the toleration of animals in regard to chloroform. Some take it unusually well and for a long time, whilst in others the breathing soon becomes shorter and quicker, or it suddenly ceases. In these cases, when the chest is opened, the heart may still be seen beating, though relaxed, and its chambers, particularly those of the right side, overfilled. My own experience is—setting aside the few cases where heart and respiration have apparently been arrested together or at such a difference of time as to be scarcely appreciable—that death has been due to the sudden suspension of respiration, and it is from this source rather than from cardiac failure that death proceeds. Whilst, therefore, the condition of the pulse should not be overlooked, it is the breathing that should be particularly watched by the administrator of chloroform. It seems to me that the administration of anæsthetics might with the greatest advantage form the subject of a clinical lecture and demonstration by our hospital surgeons more frequently than it does.

In my experiments with chloroform, ether, bichloride of

methylene, and nitrous oxide gas, sudden death in most cases came from respiratory arrest, whilst in one or two cases the phenomena simply resembled those of asphyxia. The tendency of all anæsthetics is naturally to diminish the amount of oxygen carried in by the lungs. For the time being the vapour of the anæsthetic is circulating in the blood, and it is to its presence and its effect upon the brain rather than its influence upon the circulation that anæsthesia is due. Chloroform acts upon blood as well as upon cerebral cells. In the blood it is probably held in solution, or, as Schmiedeberg maintains, it may enter into chemical combination with the blood corpuscles. How does it cause anæsthesia?

As the inhalation of an anæsthetic interferes with the due entrance of oxygen into the blood, it has been thought that it is simply by suffocation or asphyxia that loss of consciousness is induced. Whilst in nearly all my experiments there is a much larger percentage of carbonic acid and nitrogen than in ordinary arterial blood, there are circumstances indicating that asphyxia can scarcely be the explanation. Anæsthesia does not seem to be due to interference with the cerebral circulation alone, nor, as Carter thought, to deficient oxidation and increased brain pressure. I believe with Brunton that it is due to the direct action of the anæsthetic upon nerve tissue. Whether there is, as Heinrich Ranke maintained, a transient fixation of the albuminous molecules in the cells of the cerebral cortex—a condition to which Claude Bernard applied to the term of "semi-coagulation"—we cannot say. The condition is of short duration, and is regarded as akin to the physical changes that occur in muscle in physiological tetanus. Chloroform has the power of coagulating the albuminous substances in muscle, but we require additional proof of the chemical combinations that Ranke has alluded to. I offer no new theory in regard to the action of chloroform. There may be chemical combination between the modified cerebral protoplasm and the anæsthetic. In ordinary anæsthesia the amount of chloroform vapour in the blood must be small. From the blood, as it circulates through the brain, the cells absorb chloroform to the deprivation of their normal amount of oxygen. Anæsthesia would thus be the result of the direct effect of chloroform upon these cells, entering for the time being into loose combination with their constituents, and checking the normal processes of oxidation. The rapidity with which consciousness is regained confirms the opinion that there can be no marked alteration of chemical constitution of cells, and yet there are circumstances which show that alteration in the physicial structure of organs has followed the inhalation of chloroform. I refer to sudden death three or four days after inhalation of chloroform for some trivial complaint in people who are known to have been robust, and in whom *post mortem* either nothing is found to explain death or there is fatty degeneration of the heart. These cases fortunately do no often arise, but they indicate that people who are the subjects of compensated valvular disease of the heart run far less risk during or after chloroform anæsthesia than those whose myocardium is undergoing fatty granular degeneration.

Anæsthetics paralyse the nervous system. Like alcohol, they act first upon the highest levels—those that are the seat of volition—and ultimately influence the lowest centres, those that are automatic, and are situated in the medulla. When pushed far enough, the respiratory movements cease from paralysis of the respiratory centre, or there occurs stoppage of the heart's action. Setting aside the rapidly fatal effects of the inhalation of undiluted chloroform—always attended with serious risk to life—it is when the medullary centres are paralysed that death takes place. The controversy as to the cause of death in chloroform circles round the question whether death proceeds from the cardiac or respiratory centre. In my own cases, whilst arterial pressure was falling, the veins could be seen gradually and, subsequently, suddenly swelling; the breathing became shorter and feebler, or would at once cease, whilst the heart continued to beat. The weakening of the heart's beat seemed to be due to the narcotising of the respiratory centre, and its accompanying weakened respiratory movements. This, in my opinion, is the danger to be dreaded, and, if possible, averted.

In an analysis of the gases of the blood in anæsthesia by Mr. Garrett and myself—allowing for discrepancies—we notice a large amount of carbonic acid, a deficiency of oxygen, and an excess of nitrogen present in the blood during chloroform narcosis. Paul Bert has shown that these tend to become exaggerated as anæsthesia deepens. In ether, which is regarded as a safe anæsthetic, there is a larger number of volumes of oxygen, whilst, in nitrous oxide, we notice a very great disappearance of oxygen, and its replacement by nitrous oxide and nitrogen. Another thing that struck us, too, was that the colour of the blood is no criterion of the amount of oxygen it contains.

Believing that death comes from the respiratory centre, we tried the combined inhalation of oxygen and chloroform, also oxygen and ether. Rabbits, for example, do not bear anæsthetics well, but, when given in this combined form, by passing oxygen through the anæsthetic, and allowing the commingled vapours to pass into the lungs, the risk of sudden death seemed to be diminished. The dangers characteristic of pure chloroform anæsthesia appeared to be averted—the blood pressure remained high and respiration was well maintained. The most satisfactory results were obtained by ether and oxygen. The inhalation of these gases was attended apparently by no discomfort; breathing was performed easily, and, whilst anæsthesia was more slowly induced than with the anæsthetic alone, the sleep was profound. The blood removed for examination escaped under the highest pressure of all the anæsthetics, and for several minutes after the chest was opened respiratory movements were active, whilst the heart continued to beat for from a half to three-quarters of an hour after death. Death came slowly under the combined inhalations. The breathing became shorter and shorter, and then gradually ceased. The blood removed was of a brilliant scarlet colour; it had sufficient oxygen to supply the respiratory centre, and thus apparently warded off a source of death. The pupils remained about the size of a large pin's head, and did not assume the extreme dilatation met with in asphyxia.

Experimental investigation that can be utilised for the services of humanity deserve attention, and should receive our support. The contrast between modern physiology and that taught thirty or forty years ago is so great that the two sciences scarcely resemble each other. In the truest sense of the word has the process been one of development—not simply by accumulation of facts, but by analysis and transmutation, and, therefore, in the highest sense evolutional, has physiology risen to her lofty position. It has thus shared in the general progress of the sciences, and has contributed to their advance. Already how far-reaching are the consequences of Galvani's world-famous experiment!

The history of human knowledge is one of progress—one thought, one spirit, one mind is ever present through the ages. External events may have disturbed the life of nations, arresting for the time being the wave of civilisation; intellectual aspiration may have been stifled and public opinion often have paid too high a premium to mistaken zeal, but neither the abjuration of Galileo, the terrors of an Inquisition, nor public nor private coercion, can check the development of human thought or alter the operation of a law whereby each succeeding age is the inheritor of an increasing sum of knowledge. We are heirs of all the ages. It is our privilege and vocation not only to make such contributions to the sum of human knowledge as may be utilised for the benefit of the present generation, but to transmit an increased legacy to our successors.

Conferment of Degrees at Aberdeen University.—The Graduation in Medicine at Aberdeen University took place in the Upper Hall, Marischal College, on July 27th. Sir William Geddes, Principal of the University, who presided, delivered a brief address of congratulation and advice to the graduates. Nine candidates received the degree of M.D.; thirty-one had conferred on them the degrees of M.B., C.M. The John Murray Medal and Scholarship (awarded to the most distinguished student of the year) was given to Ashley W. Macintosh, M.A., M.B., C.M., to whom also was awarded the George Thomson Fellowship.

AN ADDRESS

DELIVERED AT THE OPENING OF

THE SECTION OF PATHOLOGY.

At the Annual Meeting of the British Medical Association, held in Newcastle, August, 1893.

BY PROFESSOR C. S. ROY, M.D., F.R.S.,
Professor of Pathology, University of Cambridge

DEFENSIVE MECHANISMS.

GENTLEMEN,—It is my first and most pleasant duty to express my thanks to the British Medical Association for having done me the honour of appointing me President of this Section. In undertaking the honourable duties of this office I was well aware that they do not necessarily include the preparation of an introductory address. In the case, however, of a subject which is advancing with such bewildering rapidity as is the pathology of the present day, it is, I believe, possible that a short review of some subject of general pathological interest may sometimes be of use on an occasion such as the present.

All departments of pathology have undergone great development in recent years, in none perhaps more strikingly than that part which concerns itself with the parasites which we now know to be the causes of so many diseases. But although bacteriology offers plenty of scope for an address of this kind, I consider that it will be more profitable if I deal with a subject which is to my mind equally interesting and important, and which has been a little apt to be overlooked in recent years in the attention which we have all given to the microbic causes of disease. The part which I wish to deal with is that part of pathology which concerns itself, not so much with the causes of disease, as with the means of defence which the system possesses for counteracting and warding off possible sources of injury or death to the body.

Now these DEFENSIVE MECHANISMS can be distinguished by this, that they are only called into activity when a part or whole of the system is endangered. They sometimes constitute reactions of mechanisms which are in ordinary use in the normal unendangered animal, but in other cases they are due to the activity of an anatomical substratum which, so far as is known, acts only when the system requires to be defended.

Another characteristic of the protective mechanisms consists in the fact that they are most numerous and most highly differentiated in those parts of the body which are most liable to attack. Some of them, moreover, are for local defence, and serve to protect individual systems of the body, while others protect the economy as a whole. Let me, for illustration' sake, refer to a few of the defences of the body which have to protect a particular part. I might take any or all of the systems of the body, but for shortness' sake will confine what I have to say for the present to the respiratory and digestive systems. The lungs and air passages are obviously open to injury in a variety of ways.

It will be sufficient for my purpose if I refer to the dangers to the system which may result from interference with the bronchial tubes. Through them with each inspiration passes a current of air bearing with it under ordinary conditions microbes which in a moist, warm, organic medium, such as the fluid which bathes the bronchial mucous membrane, are capable of growing, and of producing harmful chemical substances. To protect the system against these we have been provided by Nature with a host of defensive means.

In the first place, there are being continuously extruded between the epithelial cells vast numbers of eosinophile and other leucocytes, which, as in the process of inflammation, destroy and digest any microbes with which they come in contact; while at the same time the conflicting cells and microbes with the chemical products of the latter are continuously being conveyed upwards out of harm's way by the movements of the cilia of the epithelium. Over and above this, however, the air passages are protected by a number of other mechanisms, which only come into play, so far as is known, when there is special necessity for defence against mechanical or chemical substances—by far the most important of these latter being those produced by microbes which have gained some headway against the protecting leucocytes. The bronchial membrane can, at any moment, be rapidly covered by a layer of mucin-bearing fluid, the viscidity of which is apparently of importance in preventing the penetration to the epithelium of both mobile and non-mobile micro-parasites. The accumulation of mucin, with the irritant substances which have caused its secretion, can then be expelled by two mechanisms which would not profitably be called into play in the absence of an increase of the amount of fluid which is normally present on the surface of the bronchial membrane.

These are, firstly, the *coughing* process, which has a co-ordinating centre in the spinal cord, and secondly, the contractions of the bronchial muscular layer. These and other mechanisms then defend the air passages, but, leaving out of account the protective arrangements in the lungs themselves and in the upper air passages, there is yet another and important mechanism which protects the system against an imperfect supply of air, whatever be its cause.

In the phenomena accompanying dyspnœa or asphyxia, we find an elaborate arrangement in which the nutrition of those parts of the body which can be temporarily interrupted is so interrupted, the available oxyhæmoglobin being sent only or chiefly to those organs, such as the central nervous system and heart (whose functions cannot without danger to life be even temporarily interrupted), and to those respiratory and other voluntary muscles which may require to be used to avoid or combat the cause of the dyspnœa or asphyxia. You will please to observe that I am by no means attempting to give a complete list of the defensive mechanisms connected with the respiratory apparatus. I am only giving enough to serve a particular purpose, which I will presently make clear.

Still less will I try to detail the manifold protective mechanisms by which the digestive system is hedged round, and, indeed, it will suffice if I recall to you the importance to the system of *vomiting* in ejecting from the system harmful substances which have found their way into, or been produced in, the stomach; or, again, the increased peristaltic action of the intestines, which, in ordinary diarrhœa, frees the system from peccant matters; or, again, the secretion by the gastric glands of hydrochloric acid, whose value as an antiseptic in destroying microbes which have been swallowed with the food we have recently learned to recognise.

Of greater interest than any of the protective mechanisms which I have just briefly referred to are the great defensive processes by which all the tissues of the body are defended from injury or death by the invasion of pathogenic micro-parasites. Among these, INFLAMMATION takes a prominent place, and on this subject I should like to say a few words. In the first place I must remind you that the much-abused term "inflammation" can no longer be so freely used as has hitherto been the case, and that we must now exclude from this species many pathological processes which have in the past been considered and called inflammations. For instance, many of the so-called chronic interstitial inflammations are, we now know, due to local anæmia, from narrowing of the blood vessels or other cause, whereby the blood supply is rendered insufficient to maintain the relatively active metabolism of certain tissue elements, which are replaced by fibrous tissue whose nutritive changes are less active. The same is the case with most, if not all, of the parenchymatous inflammations, which are mostly due to malnutrition, or to chemical destruction of the functionally active tissue elements, and which in many cases leads to their being replaced by fibrous tissue, in other words, to interstitial inflammation so-called, following so-called parenchymatous inflammation. We must also exclude from the term those processes of repair of tissues where the increased nutritive activity simulates the true inflammatory process.

Leaving these and other cases which I might mention aside, we find that at the present day the inflammatory process is narrowed down to the results of a localised invasion of pathogenic micro-organisms. How large a field this covers it is unnecessary for me to specify here, and I will only remind you that, although by chemical and other means a process apparently identical with what may be called the normal inflammatory reaction can be produced, yet that we must look upon these as cases where the inflammatory pro-

cess has been called for by other than what we may safely describe as its legitimate cause—the cause, that is to say, to meet which it has been evolved in the animal kingdom, namely, a local invasion of pathogenic microparasites.

Now, as regards the process itself, it is essentially to the physiologist a local increase in metabolism. The heat, redness, and swelling cannot be distinguished in kind from the nutritive congestion and the other phenomena which accompany localised increase in metabolism. It is distinguished from this, however, by the pain and hindrance of function, but the congestion and the exudation of plasma are without doubt due to the mechanism which normally regulates the supply of nutriment to a tissue in accordance with the requirements of that tissue. Besides the pain, to which I will presently have occasion to refer under another heading, *inflammation* is distinguished from the increased metabolism which results from such a cause as warming a part of the body a few degrees above its normal temperature by the presence and behaviour of the leucocytes. These, as you know, leave the vessels in increased numbers at the seat of inflammation. That this is no accidental thing resulting from the congestion or other cause is shown by the fact that the leucocytes of the blood are increased in number and in the inflammation due to some microbes, namely, the pyogenic ones, enormously so.

Kanthack and Hardy have found that the amœboid cells which first appear at the seat of invasion are distinguished by the fact that they contain a large number of granules which have a very characteristic appearance, and, which Ehrlich has named, from their colour reactions, eosinophile granules. Kanthack and Hardy have shown that, in the presence of certain pathogenic microbes, these granules leave the leucocytes in which they have been formed, and, being dissolved in the lymph or plasma, in some way injure the vitality of the microbes with which they have come in contact. These observers have shown that the leucocytes which form and extrude eosinophile granules may be looked upon as unicellular amœboid glands, which play a *rôle* of apparently great importance in protecting the system against the invasion of pathogenic microbes. They have shown us also how we can bring into a harmonious whole the two opposing theories of a defence of the system against microbes by means of chemical substances present in the plasma and lymph, and the great work of Metschnikoff, which seemed at first to indicate that the system is defended against microbic invasion by phagocytic digestion only.

Kanthack and Hardy have never, so far as I am aware, for one moment disputed the importance of phagocytosis. What they find is that there is something more than this, and their facts are obviously fitted to explain what we know of the bactericidal and globulicidal action of the serum, apart altogether from the living cells which it may contain.

The enormous numbers of eosinophile cells in the early stages of the inflammation, due to many of the pathogenic microbes, is of itself an evidence of the importance of the part played by these cells in defending the system. Of the importance in inflammation of the process of phagocytosis it is unnecessary for me to speak. Metschnikoff's work on the subject is now being more fully understood than was at one time the case, and its limits are gradually being defined.

Much still remains to be done on the functions and relationship of the different forms of leucocytes, and it may well be that some of these cells have as their function the production of a substance which has the power of oxidising or otherwise destroying the toxins which are produced by pathogenic micro-organisms, and by which they tend to destroy the tissues of their host.

Other leucocytes, again, possibly take part in the process of regeneration which so often follows on inflammation proper. Besides this elaborate system of local protection there is, as you know, a second line of defence in the lymphatic glands.

I have said that PAIN is one of the features of inflammation which distinguish it from increased metabolism due to other causes than the invasion by microbes or other influence which simulates such an attack. In *pain* we have another of the great protective mechanisms of the body which is distinguished from some of the others, in that it has a fixed anatomical substratum apart altogether from the tissues which regulate the usual nutrition or specialised function of the economy.

The nerves which convey the impression of pain are, as we know, distinct from those which convey tactile impressions. Their function is, without doubt, to call into play the powers of the system as a whole, in order to aid in protecting against local attack. The reflex to the voluntary muscles we know of from physiologists, but in the case of the pain of inflammation the gain to the system is by no means so obvious; yet no one who has studied the animal economy with any care will believe *a priori* that the throbbing pain of an inflamed part is a profitless and gratuitous torture to the individual. That this is not so need hardly be said. Continuous pain, as Hilton has shown, acts differently from temporary pain, which calls into play reflexly the voluntary muscles; the continued pain of inflammation tends to inhibit the muscles, which would otherwise be reflexly excited, and calls for *rest*. This is by no means the only case where a defensive mechanism over-rides what is usually called normal function.

But the centripetal influences which pass from an inflamed part to the nerve centres do more than call the attention of the patient to danger, and do more than demand at the same time rest for the affected tissue. The vasomotor system is also called into play, and responds by cutting off or diminishing the blood supply of those organs or tissues whose nutrition can, without great harm to the body, be temporarily arrested in order that the endangered part may receive the increased blood supply which is required to meet the augmented metabolism. Whether the vasomotor centres are called into play by those nerves which convey impressions of pain, or by others which are intended solely to regulate nutrition, is not at present known, and in any case does not concern us here.

Inflammation, as I have said, calls into play in pain a protective reminder to the consciousness, and also calls on the vasomotor mechanism to provide the increased blood supply which is required for the active metabolism which is inseparable from the inflammatory process. As I have said, the lymphatic glands constitute a second line of defence; but the defences of the economy in respect to microbic invasion do not appear to be limited to these. Within or above them there is the febrile process, on which I must here say something. FEVER has been looked on by physiologists as an accidental derangement of the mechanism by which the temperature of warm-blooded animals is regulated—as a profitless and harmful process—in other words, as a part of the price which we must pay for the complicated mechanism by which heat regulation is carried on in the normal animal. This view does not recommend itself to pathologists, whose knowledge of the causes of fever is rapidly extending, and who are *a priori* disposed to see something more than accident in a reaction which so commonly accompanies invasion of the body by certain forms of pathogenic micro-organisms, and which goes hand in hand with the struggle between the system and the invading parasites.

Here I must say a few words regarding the causes of fever. Most fevers are associated with the presence in the system of microbic poison. There is another and quite distinct category of fevers—those due to injury or derangement of the nervous system—and on these I will have a few words to say presently, and will try to show that the existence of these does not really modify the fact that fever is essentially a reaction to the poison of certain microbes. How many in number these latter are I need not stop to say, and will only note that they appear to produce a considerable number of chemical substances which can produce fever.

Of the chemical composition of the fever-producing poisons not very much is known, but Sidney Martin has found that some pathogenic microbes form a fever-producing *albumose*, others an *acid organic body*, and others again a *basic organic body*, both of which produce fever on injection into the system.

We know, then, that all fevers are not due to the same chemical substance, but we do not yet know the full number of those chemical products of microbic life which can cause it. We know, however, that the fever-producing substances may some of them be distinguished from the toxins which are produced by most pathogenic microbes, and to the action

of which is presumably due the difference in the characters of ordinary infective fever, as compared with the fever due to derangement or disease of the nervous system.

The *fever process* itself appears to be the same in all cases. The rise in temperature of the body seems, if we are to accept the work of Rosenthal and his pupils, to be simpler in nature than has generally been supposed, and to be primarily due to a diminution in the amount of heat given off by the skin during the cold or initial stage when the temperature begins to go up. As soon, however, as the temperature of the body rises above the normal, this of itself causes increased metabolism and production of heat, while the amount of heat given off by the skin at the height of the fever may be greater, or may be less, than was given off by the same animal before the fever was produced. Rosenthal's facts have this great recommendation, that they bring the increased heat production and metabolism of fever into satisfactory accordance with what we know of the mechanism for heat regulation in the non-febrile individual, and do not require us to assume the existence of trophic nerves, which were by some supposed to be capable of directly increasing the oxidation of the tissues, and apart altogether from increase in their functional activity. Rosenthal's work is specially interesting in connection with the observations of Pembrey, who has worked recently in Burdon Sanderson's laboratory on the effect of lowering the temperature on the heat production, which, as we know, causes an increased production of heat, supposed by many to be due to the action of trophic or thermic nerves, causing increased metabolism. Pembrey finds that in the chick (with the eggshell still unbroken) before the muscles are capable of contracting, the effect of lowering the surrounding temperature is a diminution of the metabolism, and therefore the heat production, exactly in the same way as lowering of temperature affects a cold-blooded animal, and that the increased heat production in man and other warm-blooded animals, when they are exposed to cold, is apparently due to the shivering and other muscular contractions which take place under these conditions.

We see, then, that both the normal heat regulation and the increased heat production of fever can be satisfactorily explained without requiring to go beyond the simple facts of what has long been known regarding the heat regulation by the muscles and skin, and what is equally well known regarding the effect of a rise in temperature increasing the metabolism of the tissues as a whole.

The other phenomena of fever, the increased respiratory exchanges of gases in the lungs, and the increased amount of the products of metabolism in the excreta can all be explained by the rise of temperature, as can also the changes in the heart's action and in the circulation as a whole.

Fever occurs, so far as is known, in all warm-blooded animals, and apparently also, under certain conditions, in some cold-blooded animals as well. It occurs most readily and certainly as a result of the invasion of those microparasites which most frequently invade the body and cause disease, namely, in those which cause catarrh and suppuration.

Pathologists have learned to look upon it as a measure, in some respects, of the struggle between the system and the invading parasite. It is not a measure of the virulence of the invading microbe, for very often the more severe the symptoms of poisoning by a given parasite the less does the febrile reaction show itself. Fever, again, is characterised by this, that in a given case of an infective disease, such as measles or typhoid, the rise of temperature is confined within comparatively narrow limits, which is not what we would expect were fever an accidental derangement of the heat regulating mechanism.

But it may be urged that if fever be essentially a defensive mechanism, which the animal economy has gradually evolved and which helps it to cope with the microparasites which most frequently invade it, surely there ought to be no difficulty in producing direct evidence of this. Nor is there, I believe, any insurmountable difficulty in finding such direct evidence of the defensive nature of the febrile reaction.

I will not seek to give more than one or two examples—that, first, of *Asiatic cholera*, in which disease it has been commonly noted in the last, as in previous, epidemics that some cases had a fairly marked fever, and others little or no rise of temperature, and that in cases of apparently equal severity those with fever have much more chances of recovery than non-febrile cases. Another, and perhaps better, evidence of the benefit to the system of the febrile process, is to be found in the fact that, in the case of certain animals which are normally immune to certain pathogenic microbes, this immunity disappears if a dose of antipyrin be given at the time of the inoculation, or if, by cold applied externally, the temperature of the animal be kept low. I might give other examples to the same effect.

But I am not concerned here in trying to convince you that fever is essentially a protective mechanism, nor am I by any means sure that *complete* proof of such a view is at present producible. I am rather seeking to indicate to you the general line along which our knowledge of fever is, as it seems to me, developing. Nor are we at present in a position to say in what way the system is aided by the febrile reaction. It is possible, as Ehrlich finds from the colour reactions of certain tissues in the bodies of febrile as compared with non-febrile animals, that in the former there is not only increased oxidation going on, but also increased power of oxidation, so that substances, such as possibly some *toxins*, which would remain undestroyed at the normal temperature, can be oxidised during the fever process. It may also be that the rise of temperature increases the activity of those cells which produce antitoxins, or of those which acts as phagocytes, or it may be of both kinds.

But if we are to take some such provisional view of ordinary infective fever, namely, that it is a defensive or protective process, what view can we take as to the nature of the fever which is due directly to the nervous system in the absence of any poisous to be combated or destroyed? It is obviously possible that nervous fever, such as sometimes occurs in injury or disease of the upper part of the spinal cord, as well as in other ways, is due to an accidental derangement of the heat-regulating mechanism. I do not know of any gain, direct or indirect, that these fevers can bring to the system. They seem to come under the pathology of fever rather than its physiology, if we are to assume (as we must) that the heat regulation is mainly governed by the nervous system.

Before I leave the subject of fever it may be as well to note that the frequent association of fever and inflammation points—since the latter is unmistakably protective—to the probability that the former comes under the same category.

It would require a chapter for itself were I to deal at any length with the interesting subject of the relation which exists between defensive and nutritive mechanisms in the annual economy. In the "functio læsa" of an inflamed part, in the weakening of the digestive process in fever, or in the combustion of the tissues in the same process, in the indirect injury to nutrition of pain, in the rejection of food by the stomach as well as harmful substances when the latter are present, in the phenomena of asphyxia, etc., we will find no want of evidence that the processes of nutrition are habitually subordinated to those of defence when the welfare of the system, as a whole, requires such temporary subordination. In the animal economy, as in communities of men or certain animals, the ordinary avocations of daily life are suspended as far as may be whenever it is necessary to employ the whole powers of the economy or community to render defence against attack effective.

I come to a point when I can say a few words on the general position of the protective mechanisms in the economy. Their importance cannot, I imagine, be logically denied. Some idea of their place in Nature may be gathered from a short consideration of their history in the animal kingdom as compared with that of nutrition and reproduction, which are in any case first postulates in animal as well as vegetable life. It would be too much to expect me to go deeply into this subject here, even were the materials at my disposal sufficiently complete and well arranged in my own mind to allow me to do so with any satisfaction. The work of Metschnikoff and others has, however, shown that defensive mechanisms can be traced almost as far back as the history of animal life. In the amœba can be found phagocytosis which seems to be more than nutritive, and in the ordinary reactions of amœboid protoplasm we see functional characters which show the existence of automatic defensive mechanisms.

In the more differentiated protoplasm of the tissues of the invertebrata as a whole we find that protection from attack has differentiated and developed not less fully than have the mechanisms of nutrition. For example, to take one of many, in the earthworm, as Lim Boon Keng has recently found, the protective mechanisms have reached a very high degree of development, not only in the presence in their cœlomic fluid of phagocytes and eosinophile cells, which we have learned to associate with defence against microbes in the case of animals more highly placed in the scale of organisation, but also in other ways.

In higher animals, amongst the vertebrata, the elaborate organisation for defending the system against attack makes itself manifest, as I have, in my previous remarks, sought to remind you. In the evolutional history of the animal kingdom, then, defence advances more or less equally with elaboration of nutrition and reproduction.

Can we perhaps learn anything of the position in Nature of the protective mechanisms from their pathology, that is, from those cases where they are called into play uselessly and accidentally, and where they interfere with normal nutrition or reproduction they are harmful? The purely nervous fever of which I have already spoken, or the pain of neuralgia where nothing is gained from the pain, or the asthma which constricts the bronchial tubes to a degree which has no apparent connection with the importance of the cause of the asthma, or the vomiting of pregnancy which—of no apparent benefit even in ordinary cases—may be in some instances so excessive as to endanger the patient's life, or the cough which from a trivial cause may be so persistent as to prevent the patient sleeping, and thereby reduce his strength to perhaps a dangerous degree—these and many other examples will illustrate what I mean by the pathology of the protective mechanisms. Pathologists have some of them an idea that those functions of the body which are most likely to go wrong are less fundamentally important in the economy than those which are less liable to derangement—that they are less old in the history of the development of the animal kingdom. I am not sure that this idea has ever been clearly expressed, or that, if expressed, it can be proved. I may, however, say that I do not think that if looked at in this light the defensive mechanisms will be found to come in importance far behind those of nutrition and reproduction.

It would rather seem that the liability to derangement in the protective mechanisms, as in those of nutrition and reproduction, advances with the elaboration of the organisation of these respective mechanisms.

It will not, I trust, be out of place if I remind you that questions such as I have imperfectly sketched in the above remarks have an important bearing on the treatment of disease as we meet with it at the bedside, and that a medical man who unwittingly seeks to treat a protective reaction as a disease may put himself in the unpardonable position of the inexperienced whist player who trumps his partner's "best card," or, still worse, who plays against his own partner.

As a last word I may note that in what I have said I have drawn no sharp line between physiology and pathology. I have not sought to show that between health and disease there is a boundary that can be delimited. I do not believe that such a boundary can naturally be defined, for I am of opinion with Virchow that "pathology is physiology."

The Duke of Westminster has sent a donation of £500 towards the funds of the Metropolitan Hospital, Kingsland Road.

The Certificate in Psychological Medicine of the Medico-Psychological Association has been granted to the following after examination held July, 1893:—Aberdeen—A. Low, P. J. Henderson, J. W. Myers, A. Rose, C. G. Cowie. Edinburgh—S. Edgerley, J. Macmillan, R. S. S. Strong, L. Grant. Glasgow—D. R. T. Strong, R. D. Hotchkis.

The St. John Ambulance Brigade on the Royal Wedding Day.—The Home Secretary has sent a communication to Sir Edward Lechmere, testifying to the excellent work done by the St. John Ambulance Brigade in London on the occasion of the recent royal marriage. The force employed consisted of 200 ambulance officers and men, 10 surgeons, and 30 nursing sisters; 1,544 cases were relieved.

AN ADDRESS

DELIVERED AT THE OPENING OF

THE SECTION OF OPHTHALMOLOGY.

At the Annual Meeting of the British Medical Association, held in Newcastle, August, 1893.

By G. E. WILLIAMSON, M.A., F.R.C.S.,
Honorary Surgeon and Surgeon to the Eye Department, Royal Infirmary, Newcastle-on-Tyne.

ON REFRACTION TESTING AND ON MEDICAL EDUCATION IN OPHTHALMOLOGY.

Gentlemen.—I have great pleasure in offering you a hearty welcome to Newcastle, and I assure you that no effort on the part of the local men will be wanting to make your visit both pleasant and profitable.

This was all I intended to say, but, on thinking over the matter, two subjects came into mind which I am sure must also have occupied the attention of members of the Section.

The Testing of Refraction.

The first is the question of testing for glasses in refraction cases. The great spread of education, the increasing knowledge of the people, and the large amount of minute work due to division of labour, have brought home, even to the working classes, the necessity of having vision aided when it is not perfect. In addition to this, sight tests are exacted in various departments of labour. Now the question I wish to raise is, Who is to cope with the rapidly increasing mass of testing work that has now to be done? The members of this Section will, I am sure, agree with me in answering that it must be done by ophthalmologists. A great part has hitherto fallen to opticians and jewellers, but it is clear that if they are still to do it they must have some special training in the subject, so that the matter is not left to hazard. But even if they are trained as far as it is possible, there are innumerable cases with which they are unable to deal, and where there is disease they are bound to fail. I would urge that every person should have his eyes examined, tested, and reported upon, so that he may know their value and strength as optical instruments.

The public generally are not aware how far the mechanism of the eye is understood, how thoroughly its interior can be explored, how accurately its defects can be gauged, and how often those defects can be remedied. If some knowledge of optics were general, we should not need to insist upon this, nor should we see the public deluded by specious advertisements of certain kinds of glasses superior to any others. The prejudice against glasses, which in some cases is so strong that a man may not wear them at work, even when they give him perfect sight, would disappear, and the increase of those using lenses would be in proportion to increasing knowledge and civilisation. Indeed, what with the growing use of the eyes for close work, and with scientific zeal in correcting errors of refraction, we may ultimately reach a position in which a man who goes about with his eyes naked will be so rare that the sight of him will almost raise a blush. We should, I think, urge upon medical men generally the desirability of sending patients with whose defective vision they are themselves, perhaps, unable to cope, to oculists, as the public naturally receive a wrong impression when educated and qualified practitioners recommend them to be tested by opticians, or even to proceed to a jeweller's to select for themselves the glasses with which they see best. Take, for instance, those cases of refraction headaches which are now so frequently referred to us by physicians; many of them have good vision, and protest that they require no aid; yet the wearing of correct lenses relieves their headaches, and restores to them the full use of their eyes. I need not cite the instances of disease that are so constantly coming under our notice in those who think that all they require is the aid of a pair of spectacles. Whilst fully recognising the trouble taken by many opticians, I think that their part of the work will ultimately be the carrying out of orders; and this will come the sooner when everyone, before he begins his life's work, has his eyes seen to and reported upon by the ophthalmologist.

THE EDUCATION OF THE MEDICAL STUDENT IN OPHTHALMOLOGY.

The other subject I wish to bring before you is the difficult and debateable one of the education of the medical student in eye work. Up to the present those attending our demonstrations are mostly the best students, whose energy extends beyond the ordinary subjects into those which they need not necessarily take up; but, now that a course in ophthalmology is compulsory, we shall have to teach all—good, indifferent, and bad alike. Our work would be rendered lighter to ourselves and more profitable to the students if they came to us with an elementary but accurate knowledge of optics. The average man, by the time he is in his fourth or fifth year, has forgotten the little he ever knew of the subject. His recollection of the anatomy and physiology of the eye is inaccurate and hazy, and yet we have to take him at once into refraction, one of the most difficult parts of applied optics. I see only one way of overcoming this difficulty, and it is to have a class in which the action and uses of lenses, mirrors, and prisms are taught practically, the student himself handling and using the instruments. This is a far more difficult matter than delivering a course of theoretical lectures to a large class, but the result is well worth the extra trouble. As the final part of this course I would suggest a training in the use of the ophthalmoscope, using an artificial eye for the purpose, and practising the men until they can see into it by the direct and indirect methods, and until they know how to estimate its refraction and how to illuminate and magnify with lenses. The student would then be ready to examine patients with advantage and could learn rapidly. Unquestionably this plan involves more work than that of simply letting men loose on patients with an ophthalmoscope of which they understand nothing, but the result will repay the trouble. How often have we sympathised with the man who after struggling on for weeks at last sees an optic disc, and, inspired by the sight, realises that the descriptions of the fundus which he has heard and which have filled him with despair are not poetry after all. We have only three months allowed to us for the course, and even when methodically laid out the time is none too long. So many burdens are now upon the back of the student that we should try how much we can teach him in the time rather than attempt to lengthen the term. Of course the better class of men will not be satisfied with this incomplete training, but will go on with us for another three months or more. Not that we wish to make ophthalmologists of all our students, there are too many already, but we do wish them to be able to use the ophthalmoscope, not simply in affections of the eye, but as a necessary instrument of research which brings into view a prolongation of the central nervous system. How often has the discovery of optic atrophy, of optic neuritis, of retinal hæmorrhages given the clue to otherwise obscure cases, and if a medical man is unable to use the instrument he must miss what would often be his sure guide. The surface diseases can of course only be taught by actual demonstration and examination of cases by each member of the class. As regards the value of a training in eye work I do not know of any department in the whole range of medicine so well calculated to teach exactitude and care in examination, in diagnosis, and in treatment, nor of any department in which the somewhat vague habit of mind gained by working at general diseases where so much is obscure is so well counterbalanced.

SMALL-POX IN GREAT BRITAIN.

THERE would seem to be but little doubt now that London has got control of the small-pox prevalence for the present, although a serious recrudescence in the autumn is not unlikely. Last week the admissions to hospital dropped to but little over 20, and the patients remaining under treatment on Saturday to something like 280, a fall of 100 in a period of four weeks. The registered deaths numbered 8, in addition to 2 in West Ham, where the disease still persists. The Edmonton Union was also heavily visited last week; whilst further afield we hear of cases at Bournemouth in the south, and Walsall and Birmingham in the midlands. Bradford in Yorkshire continues to be heavily invaded, over a score of fresh cases coming to light last week, and 4 cases terminating fatally; whilst both Wakefield and Halifax furnished multiple attacks. In Lancashire, Ashton-under-Lyne had several occurrences, and Oldham and district report the best part of a dozen fresh attacks. Small-pox has been practically stamped out in Glasgow. No new cases have been reported during the past three weeks, nor have any deaths occurred. Only 4 cases remain in hospital.

AN ADDRESS

DELIVERED AT THE OPENING OF

THE SECTION OF OTOLOGY,

At the Annual Meeting of the British Medical Association, held in Newcastle-on-Tyne, August, 1893.

BY HENRY BENDELACK HEWETSON, F.L.S., M.R.C.S.,
Honorary Surgeon to the Eye and Ear Departments of the Leeds General Infirmary, etc.

ON THE TEACHING OF OTOLOGY.

MY first duty, gentlemen, in rising to open the meeting of the Otological Section of the British Medical Association is to acknowledge with deep appreciation the confidence which has been reposed in me in asking me to fill this chair as a representative of British otology, a position which I greatly value, not only so particularly from the "lustre which lies about the throne," honoured, as I am, by being called upon to preside at the *renaissance* of the Otological Section, but rather that it becomes a rostrum from which I may, I feel sure, with advantage ventilate many points of interest and importance relating to the advancement of aural surgery in the present century, some debatable, and others, more particularly those dealing with the larger and wider questions of education in the study of otorhinological surgery, which I trust you will agree with me in thinking are beyond the realms of debate.

We are met here to-day in this grand old city of Newcastle-on-Tyne, and although I cannot with some noted individuals who, wherever they go, claim that this or that locality is the very place from which they spring—my blood is not northern enough for this adaptability; but yet, as a Yorkshire neighbour, and with a cordiality which I will concede to no one, I join with Dr. Ellis and Dr. Macaulay in welcoming to Newcastle-on-Tyne British and foreign otologists, particularly Professor Giampietro, of Naples, and others who have travelled so far to attend this and previous meetings of the British Medical Association. And although I cannot claim to have sprung from Newcastle, in science Newcastle is universally claimed by virtue of its renown. Its great men who have been foremost in the inventions of the world have made it public scientific property, and here we are to-day, having been whirled from the four corners of the Empire, safely and surely, by that great locomotive agency which first saw light in this ancient borough through the penetrative imagination and inventive genius of George Stephenson. The dread engines of destruction of Armstrong, brood with silent power over our peaceful acquisition of knowledge, for the benefit of mankind, and the Selborne-like natural history pursuits of Handcock have founded, in concert with Hewitson, the naturalist, a museum hard by, of which the city ought to be justly proud, being created by her noblest sons.

These acknowledgments however, bald and passing though they be, are wrested from me even in an Address on Otology, since I am deputed, as it were, being a Yorkshire neighbour, to remind you that we meet here in an atmosphere of scientific thought and, through the gentler sister Durham, literary achievements; therefore I trust that you will on this account pardon my digression whilst reminding you of it.

In this special department the lectures on otology ten or twelve years ago, started by our worthy Vice-President, Dr. Ellis, in this town were an effort, laudable in the extreme, to bring the study of otology to the front, which, shall I say to the shame of the city, no longer exist; Newcastle being one of the many cities in which the great need of a regular course of otological lectures is as yet, I believe, unprovided for.

Of the high position which the profession of general medicine and surgery here holds it is not for me to speak, except, as I trust it will be accepted, as a tribute from a sister Section to be dwelt on more fully and eloquently than in a short sentence of passing but none the less sincere appreciation.

In thinking over the best means of making an address, such

as this useful to otological science, and being determined that I would, if I were able, make it so; I revolved in my mind whether that end would be best attained by recounting what, I take it, is already known of the more recent progress in otological surgery; giving a summary of advance and so on, which is often the way with addresses of this nature. I was, however, arrested by the thought that although much has certainly been done in the last thirty years in the advance of otological work, the still further thought prompted me to ask the question: How is it that greater advance has not been made? To me it is deplorable that greater advance in the study of aurri-nasal surgery has not been made. I do not so much mean in the case of individuals as amongst surgeons and practitioners in general.

It will be in the memory of most of you here—speaking of twenty to twenty-five years ago—how the study of otology, in England at all events, was scouted and jeered at in a quiet way, if not actually openly. Surgeons of the highest repute in some of the grandest work in the field of surgery would say—and I have heard many such remarks as this—"You can do nothing, it's an ear case;" "if you can't get an ear better by syringing, it is of no use trying to improve deafness;" remarks like these made with an air of contempt before students, damping their ardour (if they had any), as well as seriously warping their scientific judgment, because made by men whose skill in their own paths stood high. I heard these remarks, gentlemen, and determined that I would try my constant best to overthrow the spirit in which they were made; and I have now this opportunity, which I cheerfully embrace, of giving my experience of its effect on the science and art of aural surgery. There have flourished in Europe many otologists whose work has been a steady protest against all this; men who like Professor Politzer (who, by the by, very much regrets, in a letter to me recently received, that he is unable to accept the invitation I sent him to be present here to-day, since he had already arranged to go to Rome to attend the International Congress), whose work is a monument to his devotion and genius; my friend Professor St. John Roosa, of New York (who also writes regretting that he cannot be with us); his work is also quite monumental in the science of otology. We must not forget Hinton, my old master, and Wylde; and before him Toynbee; or Grüber, Burkhardt-Marian, or Hartmann, or Moos, or Delstanche, Professor Guye whom we were to have had with us to-day, but who has unfortunately at the last moment, I am sorry to say, been prevented from giving the Section the benefit of his profound and learned study of otological science. In England the names of more recent workers in otology rise to one's mind: Sir William Dalby, Professor Urban Pritchard, who as yet holds so ably the only Chair in Otology which we in Britain can yet boast of, and the first Professorship, I need hardly tell you, of Otology at King's College; and, if he will excuse my mentioning him last, my friend Mr. Field of St. Mary's, who has done so much for otology, and who held this chair when I had the honour to be his vice-chairman at Leeds in 1890.

All these men, and very many others whom time only forbids me to name, have struggled with their genius in a veritable quagmire of otological stagnation, which is even now like a field just beginning to be drained, but swampy still.

I do not put the matter one iota too strongly, as I will endeavour to show you; and in the pursuit of this subject I am drawn into the question of how far we, in our early student days, received instruction, even up to the then known standard of otology. How many thousands of practitioners will tell you, what you know to be too true, "that they had no opportunities in their student days for studying diseases of the ear." I may say for myself and contemporaries that there were no opportunities, had we wished to avail ourselves of them, in the quite ordinary course of a student's career, and the uselessness of treating deafness was constantly dinned into our ears.

Faulty Examination.

During the preparation of this address a young medical man, having recently obtained the highest possible degrees in medicine and surgery in England, whom I knew well, applied to me, asking my advice as to how he should proceed to treat cases of otitis in children, associated with scarlet fever, measles, and the like. I expressed my surprise that, having taken such high degrees, these subjects should not have been within the range of his reading and studies. I asked him if, in all the examinations he had passed so successfully, he had ever had a question set in otology. His reply was that *he had never been asked a single question in otology*. It is only natural that men should study as students those subjects which are found to "pay best" at examinations. The diagnosis and treatment of aural diseases is hardly referred to in qualifying examinations, although it is well known how many serious—nay, even fatal—cases are sure to fall under the observation of the general practitioner. If the examiners fail to set the questions, the student will hardly be prepared to spend time upon a science his ignorance of which, he well knows, will not in most instances seriously prejudice his chances of passing his examinations.

It was with these memories ringing in my ears that I undertook to touch in this address rather upon the weakness than upon the strength exhibited from an otological point of view in the training of medical men, in the middle period chiefly, of this nineteenth century. The effects of the absence of this training are as yet painfully evident, and freely and candidly and generously admitted by some of the most worthy general practitioners with whom it is my daily privilege to confer. When I was attending the meeting of the International Otological Congress at Basle some years ago, it occurred in one of the debates how seldom auriste ever saw a case of otitis media in its association with an attack of scarlet fever, and in thinking this over I tried to recall how many I had myself seen since that date—1880, I believe. At the same time, I find—and it will be in the experience of all—that we are treating the disastrous results of scarlatinal otitis every day; their name is legion; and yet I could call to mind only one case in which I had ever seen in consultation a case of otitis media due to scarlet fever during the progress of the fever. This was quite recently. I was asked by Dr. Clayton, of Aberford, near Leeds, to see a young lady who had an attack of scarlet fever complicated by double otitis media with pus pouring out of her ears. I am glad to say that the result was as satisfactory as the experience was novel. In less than seven days we had been able to stop all otorrhœa, and in about ten days the patient heard perfectly and the membrana tympani were healed with no ill effects.

This is an instance which I will dilate on by suggesting the further question as to how many cases of scarlet fever become fatal because of the otic complications not being scientifically interfered with during the attack of scarlet fever. It will occur to many of my hearers, or readers, how many, and many times over he has received cases of otitis media which have dragged on and on, hardly treated, hardly diagnosed possibly, with some hidden astrological folklore suggesting that "they would grow out of it," or, "if the discharge were stopped it would go inwards"—notions too often agreed in tacitly until they drift on into mastoid trouble, again put off, and death. How many cases of mastoid or other trouble may we not all have seen which, if dealt with early enough, could very easily at first have been confined to their simple character. How many cases of naso-pharyngeal trouble, if treated intelligently early, would never have produced the serious deafness or the complications, as well as ill-development and blunted comprehension which accompany nasal stenosis. In the words of the late Sir William Wylde: "Always attend to ear affections, however trivial they may appear; because you cannot tell *when* they will end, or *what* they will end in."

In the not very distant future I trust experimental research in laboratories, possibly by the aid of vivisection, will help us to clear up hidden difficulties, and make our subjective knowledge objective on such points as auditory vertigo and the like. We must not rely too much on irregular clinical demonstration, but rather on systematic courses of lectures with a clinical tendency and interest much more pictorial and illustrative than at present is in vogue. But to me there is an ever-increasing tendency to museum teaching and pathological and *post-mortem* demonstration. In most of our hospitals and newer medical schools, the fabric of the institution has been planned with the full conviction that they have been built for the future student's advantage in this respect. I speak from the experience of having recently

assisted in planning the special eye and ear departments' rooms in the New Infirmary extension at Leeds, and witnessing the splendid designs the Yorkshire College Medical Board have secured for the new Leeds Medical School. Also in other places the same spirit has guided the architects and their advisers. At Manchester, Newcastle, Liverpool, Birmingham, and elsewhere, where, thanks to the great public generosity, we have been able to push far beyond the borders of bygone requirements. Lecturing is not, in my opinion, an unmixed good, but I plead for the extension of lectureships on diseases of the ear in order to give point to the clinical teaching, as being on the side of order and discipline of thought, as well as placing the study of otology on a par with the study of ophthalmology, to which it is second neither in interest or importance; and in this I speak as an ophthalmologist, my appointments and training and practice combining both specialities.

My contention is that we must look to better medical education to accomplish all this, and do not let me be misunderstood for a moment; it is not the specialists themselves that can do this, except so far as they can by virtue of their position as professors, lecturers, and clinical teachers, train the student to know when and where the danger lies. I am not speaking of ills which are confined to the specialist's consulting room: I am alluding to diseases and congenital states which make the possessors prone to disorders occurring in the daily practice of every general practitioner in the world. These are the men to whom the public will fly in their trouble, and it is right that they should; it is the general practitioner who has to make the first diagnosis and decide on the importance of the case, and it has been the cry in Europe generally that the expert has frequently only been called to see the case when cure, through delay, has become impossible. I ask myself, and I ask you as professors and teachers of otological science, How is this to be remedied? True it is that to a large extent the remedy has already set in, and, with the extension of from four to five years in the student's curriculum more time and opportunity will thus be granted for the acquisition of knowledge in the field of the special branches, so as to make our students better general practitioners. I always find that the man who knows most is quicker to appreciate the value of another trained mind. Thus, to be quite clear, I am striving for the better education of students in special subjects to ensure more widely cultivated general practitioners. These are the men who are guiding the great medical and surgical work of the outer world, and it is in the hope that the future education will widen and deepen their already wonderful versatility in dealing with the multitudinous forms of disease which are perpetually coming under their notice. One of the most interesting forms of advance lies in the establishment of post-graduate courses; and those of you who have had, like myself, the privilege of demonstrating to post-graduate classes, can well appreciate how great the need for such courses is, held as they are in so many places, to the advantage of all concerned. The action of the licensing bodies, and requirements regarding the filling up of schedules in reference to the attendance of students upon special classes in otology, as in ophthalmology, will very much assist in the right direction.

In England there has been a great advance these last ten years and upwards; our hospitals have all their aural, ophthalmological, and other special departments; and there is now an army of ardent otologists teaching clinically and very admirably diseases of the ear and naso-pharynx, and throughout which, for purposes of otology—whether anatomically or pathologically considered—are inseparable. I was led in the pursuance of these arguments to analyse the kind of teaching in this department going on in Great Britain and Ireland, and also if I could draw any conclusions from comparison if not, as I suspected, by contrast with the Continental work that was being done in this direction. I accordingly determined to investigate the whole question, and by the great courtesy and kindness of the deans of our medical schools of the yet United Kingdom and the principals of nearly all the German universities and schools of medicine, those in Austria, in Holland and Belgium, Italy and Poland, Sweden and Norway, Denmark, with one exception I have received lengthy and courteous replies to my circular letter, and the exception is in the case of the French schools. I have not had a reply from France of any sort or kind. My object was to find how far the study of otology was at this time recognised and fostered by a lectureship on otology or a professorship outside clinical work, which, in my opinion, loses much of its force and value by being in many cases the only form of aural training a student obtains whose attendance is not insisted upon hitherto by the licensing bodies:—being at the option of the student. I applied to *thirty* medical schools and universities in the United Kingdom, and found that, out of the *thirty*, *one* only, as I hinted at before, had a professorship of otology; *six* out of the thirty had a systematic course of lectures by an approved lecturer, of course in proper combination with clinical training (one of the six has been appointed during the preparation of this address); and of the remaining twenty-three, fourteen only provided that otology should be taught clinically. I will not weary you with the special schools to which I refer, but all this information has been most kindly and generously placed at my disposal with the avowed intention of my making what use of it seemed to me well in bringing the subject before you.

Now for the Continental schools and universities. I will take those of Germany first (because they strike a severe contrast with Great Britain) along with the schools of Austria and Holland. *I received thirteen replies from German universities* and *twelve of them had a professorship of otology;* in the other instance, the thirteenth, a celebrated otologist held a private clinic, and lectured regularly in a kind of way acknowledged by the superior body, as is proved from the fact that his lectures were held sufficient to fill the post of professor of otology, and were reported upon to me by the principal of the university in question. From Austria I have most kind letters, telling of their elaborate courses in otology—*five universities, every one having a professor of otology.* The remaining universities having a professor of otology are Turin, Liège, Amsterdam, Moscow, and Basle. I must here refer to the honoured name of Burckhard-Marian, whose premature death deprived Europe of a splendid aural surgeon and Basle of its then professor of otology. I have no doubt I might have extended this list but I chose an unfortunate season, last Easter, to make this inquiry, forgetting for the moment how many of the heads of leading bodies would be from home and would possibly never get my circular, being, I knew, the cause of their delay in replying in several instances.

If we are reviewing the strength of our naval or military forces, do we not look rather in true estimate of the strength to the weaker parts of the phalanx? So I trust you will take this all too imperfect review of the teaching possibilities of our schools of the science which we all have at heart, and for the furtherance of which we are met here this season.

If we are to expect more of the general practitioner we must teach him more as a student, and the more he knows the deeper and purer will have to be the knowledge and skill of the expert; and I trust that I shall offend no ears when I incline to the belief that no man should commence—nay, it is bad for his science if he does—commence his career as a pure specialist in any branch of medical science. A pyramid can stand only when it stands upon its base, it cannot stand on its apex. Circumstances, adaptability, and personal fitness may all tend to make a man gradually narrow—concentrated I would rather say—as his surgical pyramid grows upon his special leanings in practice. Sometimes his reputation and his professional brethren and the public almost compel it (as in the case of the late Sir William Bowman), but let it always be founded on the broad base of an enlarged scientific and professional early life and training. Then the ear, or the eye, or the throat are to the rightly-seeing mind, not merely the outline and limits of his professional prerogative, but rather interesting and highly wrought organs, acting, whether it be in health, or whether it be in disorder, or in disease, as intricate agents, signalling, mayhap, the early signs sometimes, and ofttimes creating a vicious circle in the general economy of human life.

Notice to Correspondents and Authors of Communications.

In view of the great and constantly-increasing pressure on our space, we would urgently request correspondents and authors of communications to assist us in endeavouring to place their views before our readers by condensing their communications to the utmost extent.

ABSTRACT OF AN ADDRESS

ON

CHOLERA NURSERIES AND THEIR SUPPRESSION.

Delivered at the Congress of the British Institute of Public Health, Edinburgh,

By Mr. ERNEST HART.

I CLAIM to have now established on an overwhelming basis of evidence collected from every part of Europe the dicta—founded upon the original investigations by Snow and Simon on the British epidemics of 1848 and 1854, and by myself and Radcliffe of the East London epidemic of 1866:

1. "That cholera is a filth disease, carried by dirty people to dirty places, and diffused by specifically poisoned water."

2. "That you may eat cholera and drink cholera, but you cannot catch cholera."

3. "That cholera may be considered for all practical purposes as an exclusively water-carried disease, and that it is carried only by water poisoned by human discharges."

I may venture to add that these plain propositions are essential British additions to our public health knowledge; that they have rid England of the panic formerly excited by the approach of cholera, and have pointed the way to the measures by which she and other countries may be rendered insusceptible of cholera. Cholera can find no lodgment where the whole of the potable water is absolutely pure and unpolluted.

I do not stop here to defend these propositions. The proofs—the overwhelming proofs—are set out in the analysis of every European epidemic since 1848, and having recently been endorsed by the American Medical Association at Milwaukee, at the close of my address "On Cholera, a Water-borne and Preventable Disease," and forwarded with their endorsement to all the sanitary authorities of the United States, they may be considered to be pretty universally accepted on both sides of the Atlantic.

They received their last crowning proof at Hamburg, Altona, and Nietleben, which paid a terrible penalty for continuously neglecting them; and are now being rewarded by relative immunity for having tardily and lazily acted upon them.

To rely upon quarantine or medical inspection for the prevention of cholera is to

BOLT THE GATE WITH A BOILED CARROT.

At such a bolt and bar commercial egotism laughs, and the needs of commerce and of modern travel snap it at every port. Neither quarantine or medical inspection ever yet kept out cholera successfully for any length of time. It is a sieve and not an armour plate, a pervious stockade and not an impregnable wall; cholera will creep under it and climb over it, outflanking the cordons and the custom house officers who man the walls.

We should be in a parlous state—spite of all our precautions at our ports—if we had not spent more than a hundred millions during the last twenty years in waterworks and drainage works to purify our water and soil. France, Spain, Italy, and other Continental countries have learnt this lesson from us slowly, and owing to their neglect of it, and according to the measure of that neglect, have since 1866 been successively subject to fearful ravages of cholera epidemics, from which we have during all that time (without much port inspection, or with none at all) been free.

The extinction of cholera as a European epidemic is an object which I believe can be attained without great difficulty, and I predict will be attained within no great distance of time. Two ways are open, both of which can be simultaneously followed. The one is to render the European countries impervious to its incursions by universal and close attention to the purity of the drinking water. Wherever this is not attained and the civic sin is committed of supplying suspicious or polluted water to the population, the habit of boiling it should be universally inculcated. This would have saved Worthing from its epidemic of typhoid, and would now stop the extension of that epidemic.

But pending the sanitation and purification of the European water supply (and that work is very far from complete, even in Great Britain), there remains another way of keeping off cholera, on which I venture to bring before you to-day some details and propositions, which I am inclined to hope you will consider of international importance, and worthy of the attention of our own and other Governments.

THE STRONGHOLD OF CHOLERA AND ITS SALLY GATES.

So long as the whole of Europe and America lay themselves open to the incursions of cholera and its ravages by maintaining certain sanitary neglects, we should act wisely by tracking it to its lair and dealing with it there, instead of relying on any such measures as fumigation, railroad or frontier quarantines, "libations and sprinklings" with antiseptic powders and fluids—all vain ceremonies and mere sacrifices to popular ignorance and prejudice; the idolatrous homage which dirt pays to cleanliness.

Cholera has its entrenched fortresses and its sally gates. The advent of cholera is no longer mysterious, nor are the ways and incidents of its diffusion unknown. It is a man-created epidemic, carried along the lines of human communication. Its home is in India, and its gathering grounds and sally gates are the Indian fairs and the Meccan pilgrimages. Its routes are mainly two: one across the Caucasus, through Russia to the Baltic ports, and thence westward, either directly or through Hamburg—a frequent distributing agency; the other through Mecca, by pilgrim caravans and boats, *viâ* Suez to Europe. We used to talk of thunder as mysterious, and of cholera as a visitation of Providence, in face of which man is powerless. The latter is a piece of presumptuous ignorance clothed in the guise of religion.

We are all-powerful against the propagation of cholera now that medical investigation has ascertained the methods of its diffusion; far from its being a disease which comes by Providence and goes by drugs, it is one which comes by neglect, travels by caravans and steamers, and railroads; is propagated and fostered by man in its areas of chronic prevalence, and is carried by man along definite and well-known lines of human intercourse. To observe this for yourselves, you have only to examine the maps which I show you. I now propose to you

A WORKING PLAN OF CAMPAIGN, WITH DETAILED DIRECTIONS AGAINST CHOLERA IN ITS STRONGHOLD AND AT ITS GATES OF ISSUE.

Mr. Hart then drew attention to

CHOLERA, AND THE PERENNIAL DANGER

caused to Europe and the world by the insanitary state of Mecca. Cholera could only advance from India to Europe by stages, and Mecca, with its thousands of pilgrims coming and going every year, was a half-way-house, an advanced post, a base of attack which gave cholera a great advantage, and which left Europe constantly exposed to its incursions. Great misapprehension had existed as to the mode of diffusion of the disease.

Cholera had been spoken of as

A WATER-BORNE DISEASE,

and people had chosen to interpret that as meaning that it floated down rivers; nothing could be more inaccurate. By this phrase I mean, said Mr. Hart, that it is caused by a living poison, which is swallowed, and which, in 99 cases out of 100, is carried to the mouth in water. Within the body this poison grows, multiplies, and in its growth causes the disease, in the course of which it is discharged, and is then ready to take up the other phase of its life, to grow in damp earth, to breed in dirty water, to be washed by rain into watercourses, to soak through porous soil into wells, in some rare cases, perhaps, where cholera is very rife and filthy habits are over-abundant, to be blown by gusts of wind or carried by the hand into food, and thus, by one means or another, but in an infinitely large proportion of cases by means of water, to get round to another person's mouth, to be swallowed, and again set up the whole cycle of events. It is not a mere matter of rivers and watersheds but of cooking

utensils, drinking cups, water bottles, and especially of cisterns and reservoirs. The disease is water-borne, because it is carried by water to the mouth, but that is only the last stage of a journey, circuitous and often difficult to trace, by which it has travelled from its past to its present host. Inside the body the poison passes quickly from the mouth to its exit, often killing the patient in its passage; outside its course is halting, erratic, various in manner and intensity, depending largely on the physical surroundings in which it finds itself (the soil, the water, the temperature) by which oftentimes it is destroyed or amid which it dies out; but if it lives through its adventures and lands again in the body of a man susceptible to its influence, then again it has its chance and sets up afresh the whole disease. If we fully grasp this conception of the malady facts fall into their places. The seasonal curve becomes a curve depending on the proper heat and moisture requisite for the development of the most active outside life of the contagion, on thirst causing large drinks, on scanty and therefore foul water, on rains washing accumulated filth into the tanks and watercourse, on a mass of physical causes, and not on the spread of an "epidemic influence." The varied susceptibilities of individuals point to varied powers of digesting, and thus destroying the contagion, and the greater liability of some nations to be attacked depends on their greater willingness to drink fæcally-contaminated water. Truly cholera is a filth disease.

The region of the Lower Ganges is

THE HOME OF CHOLERA,

but that is largely in consequence of the habits of the people, and their constant use of foul water for drinking purposes.

The Hindu Fairs: Hotbeds of Cholera.

Mr. Ernest Hart described the fairs and bathing festivals which are such a marked feature in Hindu life, and pointed out their influence in disseminating disease. They are annually frequented by thousands of pilgrims. Nor are these merely local worshippers, drawn only from the great watershed which the Ganges drains. Wherever the Hindu faith extends there the legend of the Ganges is believed, and so from every village in india come pilgrims to the holy stream, bringing with them germs of such diseases as may then happen to be epidemic in their midst, or taking back with them to their villages such infections as they may pick up at the holy place. The fair is not only an exchange for merchandise, it becomes a veritable clearing-house for contagion, to which each brings what he has and takes away what he can carry.

Many illustrations were given showing how disease was transported into distant villages by returning villagers. At these fairs and festivals the very aim and object of their pilgrimage is to bathe in the sacred river and drink of its holy waters. Is it then to be wondered at that they suffer? Amid so great a crowd, largely drawn from the "endemic area," some one or other is sure to have the cholera and to foul the stream, giving to those who drink the fetid water in hope of sanctity an infection which quickly brings about their death.

The pilgrims, however, are not the only sufferers. Soon after the festival is over they are scattered to the four winds of heaven, carrying with them the infection. Some drag their weary bodies homewards till they drop by the wayside and die; others by boat or train are carried to distant parts, where, if they do not die *en route*, they set up fresh foci of disease, from which infection spreads amongst their neighbours. Hardwár fair is by far the chief disseminator of cholera.

The danger of attaching to these vast gatherings at Hardwár, and especially to the great Kumbh fair, is very real. Regarding them a sanitary commissioner says that previous to 1867 "very little remains on record, but that little is

A RECORD OF DISEASE AND DEATH."

In 1867, and again in 1879, the festival was followed by an outbreak of epidemic cholera, which, on the latter occasion, rapidly extended to the western districts, and, in its extreme virulence, carried off large numbers of the hill people.

The Great Sanitary Experiment of 1891.

A grand experiment, however, had been tried in 1891. A definite attempt had been made to deal with one of the greatest, and hitherto most dangerous, of these fairs, the Kumbh fair at Hardwár, on sanitary principles, and to see whether by that means it could be prevented from becoming the starting point of further mischief. Mr. Hart gave a picturesque description of the proceedings at the fair, and stated in detail the sanitary and administrative precautions which were taken, the extent of which will be best appreciated by the fact that although the fair did not take place till April, the preparations were commenced in the preceding December, and that at the time of the festival, besides Bengal cavalry, upwards of 1,000 police were on duty to keep order, that there was a large sanitary patrol always inspecting the town and camp, and that a force of 1,342 sweepers was engaged for conservancy purposes, and 8 temporary hospitals erected. When the trial came

THE SYSTEM STOOD THE TEST.

Cholera was prevalent in the eastern districts, and cases were reported from the pilgrim centres of Benares, Fyzabad, and Allahabad during the period of the fair. The pilgrims coming from cholera-infected districts brought the infection with them, and two people died of undoubted cholera at Hardwár during the most crowded period, but they were promptly isolated, and the infection did not spread. No more cases arose in the town or camp, nor did the disease develop on the track of the dispersing pilgrims. And thus we had the novel experience of a Kumbh fair at Hardwár without an epidemic of cholera spreading all over the surrounding country concurrently with the dispersion of the gathering.

The Perils of Mecca, and the Remedy.

We must now, said Mr. Hart, turn our attention to another great religious festival. A different religion, a different people, a concourse drawn together from a far wider area, but one which, like the Hardwár fair of old, has become a focus and a diffusion point of cholera—a cause of death and disaster to the pilgrims and of danger to the world.

Mohamedanism is not dead, and Islam still remains the faith of two hundred millions, or 14 per cent. of the human race; a faith which is absolute and obedient, and which leads intelligent men—men of position, and whose lives are cast in pleasant places—to suffer pains and discomforts which to an ordinary *dilettante* Christian would be absolutely intolerable, rather than break the Commandments.

Amongst the ordinances, which to the faithful are commands, is that of pilgrimage to Mecca. From Turkey, from a belt of country extending eastwards across Asia to the furthest confines of Malay and from the whole of Africa, pilgrims set out every year, turning their steps towards Mecca, in obedience to this command.

Some Fall Sick, Many Die.

From about 60,000 to over 100,000 each year attain their end, months, and sometimes years, having been devoted to the task, and sufferings and hardships undergone which it would be difficult to describe.

The city of Mecca is mostly modern, having been frequently devastated by winter torrents from the hills around; the streets are, for an eastern city, broad and airy, but unpaved and filthy. Drainage does not exist; water there is in plenty. The population is about 60,000, and is mainly supported by the proceeds of the annual pilgrimage and by the manufacture of sacred relics. Compared with the problem of dealing with an Indian fair the purification of Mecca would seem by no means an insuperable difficulty. Clean dry rocks, pure water, and a blazing desiccating sun are the materials on which we have to work; man, and man only, is the difficulty. No infection need defile the water, which constantly flows through the underground conduit from the mountainous district beyond Arafa; no local disease need reappear in the food, which all comes from afar; no difficulty need be found in dealing with excreta which, buried in the sand, quickly dry up into a harmless powder, and might be made by degrees to fertilise the arid soil. The inhabitants, however, choose to live crowded together, and to surround their houses with refuse and filth, they choose to foul the water supply, and from immemorial usage they regard the pilgrims as victims to be fleeced rather

than as co-religionists to be protected. The result is that while Mecca may be well enough suited for the Meccans in ordinary times, it is not in any way prepared for the strain which comes upon it during the annual pilgrimage, and if a disease such as cholera be then introduced, it straightway

SPREADS LIKE WILD FIRE.

If however we inquire how it spreads, by what means the infection is distributed, we find that here, as in India and everywhere else, the main factor, the constant cause, is the drinking of cholera polluted water.

How Cholera is Spread There.

The proceedings of the pilgrims themselves, the ritual gone through by them during their stay, none of which they like to miss, little as its meaning may be understood, also tend to the spread of the disease, if once it be implanted among them. The march to Arafa, the night spent there in devotion, or in the crowded coffee booths, the "stand" by the Hill of Mercy, the rush to Mina, the sacrifices, the intolerable stench from the thousands of slaughtered animals, the "tawaf" or sevenfold circuit of the sanctuary, each of the many thousand pilgrims kissing the black stone as he passes, the blazing heat, the intolerable thirst, the religious fervour which leads them to accept everything as holy which belongs to Mecca, all drive the unfortunate pilgrims to the consumption of the vilest fluids under the name of water. The natural functions must be attended to, the ground is defiled, there is no attempt at conservancy, the wells are poisoned by filth, and if that happens to be choleraic, cholera breaks out.

The Well Zamzam.

One of the observances is especially dangerous. Next to the Ka'ba, the principal point of interest in the Mosque is the well Zamzam (Well of Hagar), a deep shaft said to be the source from which Hagar drew water for her son Ishmael. The pilgrims are many, the well, however, is but one, and its water not plentiful at the best. Yet everyone wishes to drink and to bathe in these miraculous waters. Each pilgrim in turn, stripped to the waist, stands beside the well while a bucket of the water is poured over him; of this he eagerly drinks as it flows from the bucket, the rest flowing over his naked body, soaking through his loin cloth, and streaming back into the well—to be used again. His place is immediately taken by another, and another, and so on,

EACH DRINKING THE WASHINGS OF THE REST.

Can we wonder, then, that this water on analysis is found to have the characteristics of bad specimens of sewage, or that after the pilgrimage is over the roadside should be found strewn for a dozen miles with the dead bodies of the faithful, killed by a draught of dirty water, after all the difficulties and dangers they have overcome? There is a bathos about it which would appeal almost to one's sense of humour were it not so serious an affair. This is an actual business of to-day. I am not speaking now of things which happened years ago.

The Story of the Pilgrims of 1893.

From June 8th to June 25th this year there were 2,201 deaths at Mecca; and in one day, June 26th, there were 499 at Minah and 500 at Mecca, making in one day 999 deaths.

A Thousand Deaths a Day.

From June 26th to July 24th there were 499 deaths at Minah, 3,408 at Mecca, and 303 at Jidda. I have an account of the state of Mecca, written by Dr. Chaffey, an Egyptian Moslem sent by the Quarantine Board as their sanitary correspondent to Mecca, which reveals a ghastly state of things happening, one may say, almost at the door of Europe, taking account of rapid steam communication. Dr. Chaffey says: "On arrival at Mecca I commenced at once an inspection in the town. The hospital, private houses, and tents were full of people suffering from cholera. I sent you by telegraph the number of deaths declared officially, but, on account of the extraordinary mortality, it must be admitted that the number of deaths could not be precisely known, and it may certainly be considered to have been double of that officially declared, even more.

The Dead Lie in Heaps.

"At Moona it was impossible to bury all the dead, which lay here and there in heaps. Round about the Syrian caravan (Mahmal) there was a large number of bodies lying unburied. Returning from Moona to Mecca I found the route strewn with dead. In the town of Mecca itself dead bodies were lying about in a state of putrefaction, and when they were at last transported to the cemetery they were thrown down there, and left lying for days unburied from want of a sufficient number of gravediggers."

In 1891 Dr. Saleh Soubhy,[1] the Egyptian delegate to the Hedjez, reports that out of 46,953 pilgrims who arrived by sea, only 25,253 returned, the remainder—that is 21,700—having died, chiefly of cholera.

The whole affair is horrible, the place is a slaughterhouse, where the best men of the Mohammedan world are being every year destroyed. For it must be borne in mind that the injunction to visit Mecca is not imposed on everyone, but on those only who are able to devote the time, and able to provide for their families while away. We make a great mistake if we class the Meccan pilgrims with the poor, the miserable, and the helpless; the cream of the faithful go to Mecca; and as years go by, and the knowledge spreads that cholera is a preventable disease, a mere filth disease, spread by dirty customs and dirty water, Mohammedans are awaking to the fact that their best men are being gratuitously sacrificed, and from sheer ignorance and stupidity exposed to a danger never contemplated when the duty of pilgrimage was imposed upon them. But no nation, no part of the world, can isolate itself or afford to stand aloof from the rest. This is not a mere Mohammedan question—what is a danger to the pilgrims is a danger also to the world, for it is through Mecca and its pilgrims that cholera spreads to Egypt, and thus to all the ports of Europe. It is not, however, by quarantining the pilgrims and setting up a series of lazarettos, which themselves become fresh centres of infection, that cholera can be stopped, but by looking after the pilgrims' resting places, and rendering them so clean that if cholera arrive it shall not spread, and shall not set out again on its forward march.

Mecca is the place

in which to stop the cholera. From every point where cholera can originate pilgrims set out, each of whom may bring with him the infection. All pilgrims, however, go to Mecca, where they wait time enough to trap the cholera, and render it harmless if Mecca were but a cleanly place. Again, when the days of pilgrimage are over the Hajjis set out on their return, radiating from Mecca to every quarter of the compass, and carrying such infection as they may have gained. This, however, is not now the infection which was brought from India, but a fresh generation born at Mecca, which would never have come into existence at all but for the uncleanliness of the place. Mecca then is the one place where one can put the foot down firmly upon cholera, whether coming in or going out. If the disease arrives at all it comes there one by one, but it goes out by thousands, and it is giving it an enormous start to let it get to Egypt before it is interfered with. Egypt is practically part of Europe.

The difficulty is who is to undertake the work. The nominal ruler is the Sultan, who, being the religious head of the Mohammedan world, would probably hesitate to incur the odium of being dictated to by the Christian Powers in such a matter. The actual ruler is the hereditary Shereef of Mecca, who is so firmly fixed in his position that the Sultan might well decline to enter into conflict with him, risking as he certainly would thereby a split among his followers.

Direct interference by any single European Power is hopeless. Any Government making the attempt would soon find itself involved in the mazy labyrinths of the Eastern question. To wait for the spread of education in sanitary matters to such dark places is to wait till doomsday.

The Sultan is the Man.

The only person who can usefully interfere is the Sultan, but to interfere with efficacy he must be supported by a strong backing of Mohammedan opinion. This can only be done by the united action of the leading men in the

[1] British Medical Journal, 1891, ii, p. 1370.

various centres of that religion. If they can be brought to a knowledge not only of the greatness of the evil, which by personal and family experience they know well enough, but of the direction in which the true cure lies, there may be hope of some action being taken.

WHAT TO DO.

Let me then, said Mr. Hart, formulate the steps which ought to be taken to save the Mohammedans from the danger caused by their pilgrimages, to save the world from the danger caused by Mecca.

1. The Indian sanitary services should be re-organised.
2. A complete sanitary regulation of all Indian fairs should be undertaken, the precautions so successfully taken at Hardwár in 1891 and of which full details have already been given, being taken as a type.
3. A rigid system of medical inspection of all pilgrims should be instituted at the ports from which they start. The sick being detained and the healthy alone allowed to proceed. This, it may be added, would be all the more effectual in regard to Indian ports, from the fact that a second weeding out of the infected can take place at Camaran.
4. The medical inspection at Camaran should be so conducted as to ensure its complete efficiency.

WOMEN DOCTORS FOR INDIAN WOMEN.

Among the inspectors should be qualified medical women, without whose assistance the medical inspection of Mohammedan women must be either a farce or a great cause of offence, and if possible these medical women should be selected from among Mohammedan women doctors, of whom numbers are now educated in India.

5. At Jidda the sick would again be weeded out.
6. The sanitation of Mecca should be thoroughly reorganised under the auspices of the Turkish authorities. The water supply from its source to its distribution should be carefully inspected and protected from contamination.

CLEAN OUT THE POISON WELL.

The poison well Zamzam should be cleaned and provided with a larger supply and a continued change of water, and the most complete precautions taken that the water used to bathe the pilgrims should at once run away, and under no circumstances return to the well.

7. During the time of pilgrimage a complete system of conservancy should be carried out on the Hardwár plan, the strictest precautions being enforced to insure the immediate removal of all refuse and the prompt isolation of all sick.

MOHAMMEDAN PUBLIC OPINION.

I am glad to be able to say that the Mahommedans both of India and Turkey are now moved to solicit some such system as I have above sketched. The Mohammedans of Madura have met in public to consider the outline proposals of my essay on this subject in the *Nineteenth Century*, and have resolved to support them by petition. Mr. Ahmed, the President of a Mohammedan Association in London, writes to me this week as follows:

"Common Room, Middle Temple, July 26th, 1893.

"My dear Sir,—I have learnt with much pleasure from you that you are actively taking up the subject of the sanitation of our Holy City, and of the sanitary supervision of Mecca pilgrims during the period of pilgrimage, with a view to the diminution, and if possible the prevention, of the fearful mortality which accompanies the pilgrimage from cholera and other zymotic diseases, and with a further view to the prevention of the diffusion of Asiatic cholera from a centre of infection so dangerous alike to Asia and to Europe. This matter has already engaged the attention of many Mohammedans both in India and in Europe, as may be seen from copies of published communications by myself and others. On my visit to Constantinople last year. I had personally brought the matter to the notice of an influential aide-de-camp of the Sultan, who promised me to lay my views on the subject before His Majesty, and let me have a reply at his earliest convenience. As I am particularly interested in the matter personally, I shall be happy to give every assistance in carrying out this object. Taking into consideration the annual loss to the Mohammedans of thousands of precious and promising lives, I have every reason to think that all enlightened Mohammedans will give their cordial support to suitable representations to His Majesty the Sultan on this subject. You must not overlook, however, the religious and financial difficulties attending the question, and I must therefore, in conclusion, tell you that all sanitary reforms in the Holy City can only be carried on through the agency of learned and enlightened Mohammedans.—With best wishes, I remain, my dear Sir, Yours faithfully,

"Ernest Hart, Esq. RAFIUDDIN AHMED."

Thus we may expect the active independent co-operation of enlightened Mohammedans in approaching His Imperial Highness the Sultan, the Shereef of Mecca, and our Indian Government in urging their co-operation in the campaign against the diffusion of cholera from its chief breeding places.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

LITHIASIS IN DEBILITY FROM LEUCORRHŒA AND OTHER CAUSES.

Apropos Dr. Haig's remarks on the relation of uric acid to anæmia, I should like to make the following observations. In several cases of leucorrhœa I have noticed that besides the condition of anæmia and exhaustion thereby induced there is also present a condition of lithiasis, to which I believe, more than merely to the anæmia, may be attributed the distressing symptoms met with in such cases. Again, I have observed the prostration and anæmia following upon influenza to be frequently associated with lithiasis. Da Costa has given detail of a case of lithiasis and albuminuria arising from this source. In poor marasmic children suffering from the evil effects of threadworms the urine is often lithiatic. From these and numerous other instances to which I could refer of the association of lithiasis with anæmia and debility I would suggest that the uric acid acts only as a secondary agent in the production of anæmia; that first of all there is induced a debility, as it were, a paresis of cellular metabolism, which, as a result, leads to the accumulation in the blood of unused albuminoids, with which the liver, sharing in the general cellular atony, is unable to deal satisfactorily, and so we get uric acid, etc., exercising their deleterious influences on the blood.

With regard to treatment, the hydrochloric acid, which has been proved to be so successful in the treatment of chlorosis, acts probably not so much by driving the uric acid out of the blood, nor by its antiseptic action, but by its tonic influence on cellular metabolism.

Oxford. J. MACLAGAN REID, M.B.Edin.

ALOPECIA TOTALIS AND HERPES LABIALIS.

I HAVE under my care in the Belfast Charitable Society a man, aged 75, who for the last fifty-three years has suffered from universal alopecia. The case is an ordinary one of that class. He states that at the age of 22 his hair commenced to fall out. There is no history of syphilis or fever. About three weeks since, hair began to grow on his upper lip; it is white and very fine, but gives all the promise of a good, if not luxuriant, moustache; there is no apparent cause for the growth except an eruption of herpes on the right side of the upper lip. I do not remember having read of any similar case. The interesting point in this is the great length of time during which the baldness existed. I should state there is no appearance of hair anywhere except as noted.

Belfast. RICHARD PURDON, M.D.

ROYAL EDINBURGH HOSPITAL FOR SICK CHILDREN.—The directors of this hospital have appointed Mr. J. S. Fowler, M.B., C.M., to be Resident Surgeon, and Mr. Thomas C. Guthrie, M.B., C.M., to be Resident Physician for next winter session.

SIXTY-FIRST GENERAL MEETING
OF THE
BRITISH MEDICAL ASSOCIATION.

Held in NEWCASTLE-ON-TYNE, August 1st, 2nd, 3rd, and 4th.

First General Meeting of Members.—Tuesday, August 1st.

The first general meeting was held on Tuesday morning, in the New Assembly Rooms; Mr. Joseph White, F.R.C.S.Edin., the President for 1892-93 in the chair.

The minutes of the last general meeting were read and confirmed.

Retirement of President.—The President said that that completed his duties, and it only remained for him to thank the members most cordially for the great honour conferred upon him a year ago in asking him to preside over that great Association, and for the very great kindness he had received during his year of office. It was a still more pleasing duty to introduce his friend Dr. Philipson as President-elect. He would not detain them by many words, but would simply thank them for the very great help he had received on all hands in the duties which had devolved upon him. They had known the President-elect for many years as one who had thoroughly and efficiently performed his duties, and one who had always taken very great interest in the work of the Association. They had to thank him for the preparatory work of that meeting, and he was quite sure they would find it one of the most successful they could hope to hold. He would ask Dr. Philipson to take the chair.

Installation of New President.—Dr. Philipson, the President for 1893-94 then took the chair.

The President thanked the members for the manner in which they had been pleased to receive the proposition of the retiring President. He thanked the retiring President for the very kind and flattering manner in which he had introduced his name to their notice. As there was a large amount of business on the agenda, he would defer the remarks he might have to make until the evening. His first duty was a very honourable one. He had the honour to propose that an address of congratulation be presented to Her Majesty the Queen on the marriage of T.R.H. the Duke and Duchess of York.

Dr. Withers Moore seconded the motion, which was agreed to.

The Marriage of the Duke of York: Address of Congratulation to the Queen.—The President then read the address which had been prepared, which was as follows: "To Her Most Gracious Majesty the Queen: The humble address of the President and members of the British Medical Association. May it please your Majesty, the members of the British Medical Association, numbering 14,700 members of the medical profession resident in the United Kingdom and your Majesty's colonies, representing British Medicine, at the Sixty-first Annual Meeting of the Association assembled in Newcastle-on-Tyne, most respectfully approach your Majesty to offer their congratulations on the marriage of their Royal Highnesses the Duke and Duchess of York, and to express their hope that the union may be auspicious and attended with every blessing and happiness. They desire further to give expression to their fidelity and loyalty to the throne, and their hope that your Majesty's beneficent reign may be prolonged."

Dr. Wade suggested that the words "and in India" should be added after the word "colonies," which was agreed to. The address was then agreed to by acclamation.

Vote of Thanks to the Retiring President.—Dr. Galton then moved: "That the cordial vote of thanks of the Association be given to Mr. Joseph White for his able and courteous services as President during the past year." To him personally the meeting at Nottingham would ever be memorable as carrying a principle which he had long had in his heart, and as the proposer of that motion which had then been carried, and as the proposer of a motion which would make that practicable this year, it was with peculiar pleasure that he moved a vote of thanks to the Chairman who presided on that occasion, who had been very courteous and able in the work he had done among them. He had it from the President's lips that that year of office had been a labour of love to him, and also a source of very great pleasure, and to them as an Association it had been a year of great usefulness. It was very pleasant for them to be able to look to have the work of the President handed down by men of character and ability such as they had had for a long series of years.

Dr. Urquhart had great pleasure in seconding the proposition. He was sure the feelings of everyone who was present at Nottingham, and heard the very instructive and able address which Mr. White made upon that occasion would have every cordiality in carrying the motion by acclamation.

The motion was then carried by acclamation.

Mr. Joseph White said he could not find words in which to express his thanks for the very kind way in which they had passed the vote. His thanks were also due to all those who had added to the interest of the last year's meeting, and had assisted him in his duties. He felt that last year was a year to be remembered during one's life.

The Report of Council.—Dr. Withers Moore (President of the Council) then moved: "That the report of the Council, together with the financial statement for the year ending December 31st, 1892, be received and adopted."

Mr. Butlin seconded the adoption of the report, which by general consent was taken as read.

Surgeon-Lieutenant-Colonel Ince, in criticising the financial statement, said it was extremely bald and meagre. Prior to 1885 there was a much more detailed statement, and several times recently a desire had been expressed by members to have a more detailed statement than was now given. No account was given of the investments, and although they were given to understand that the Association was comparatively rich, they had included in the assets the price of the lease and furniture together with the cost of alterations as though they represented money in hand. These were put down as £14,000, which would have to be deducted from the investments. In addition, he called attention to the increase in the expenses during the last seven years. The subscriptions had in that period increased 28 per cent. The size of the British Medical Journal had increased, it was true, 20 per cent. Editorial expenses had increased 34 per cent., and office expenses 36 per cent. The increase in office salaries and wages, 61 per cent., was, he thought, very serious. The Journal was the only instance he knew of in which an Association engaged the services of a peripatetic editor. If the Association could afford to engage the services of such a travelled editor it showed his services were not necessary. The salary paid to the Secretary was also much too large for the Association to pay. Altogether he thought they were on the high road to ruin. He had asked the Secretary for information with regard to the "contributions." There was an impression that the members of Council were large contributors towards the Journal, and therefore were large recipients of the small income of the Association. That might be wrong, but it should be contradicted if wrong. His sole object was to call attention to the fact that the Association, financially at least, was not in a satisfactory condition.

Mr. George Brown suggested the desirability of reverting to the old arrangement of holding the first general meeting in the afternoon of the first day of meeting, and not in the morning. Those members who came from a distance had to start overnight to attend that, the most important meeting of the whole Association. When it was held in the afternoon, the result was a very large meeting worthy of the Association, and showing proper respect to the Council. He suggested that the sermon should be in the morning, and the meeting in the afternoon. With regard to the report generally, he congratulated the Association that there had been such good work done during the past year, and cordially supported the motion for its adoption. At the same time he sympathised with Dr. Ince in his desire for a more detailed financial statement.

Dr. Groves said at the annual meeting of 1891 a resolution was passed by a large majority to the effect that it was necessary that nurses of all denominations should be strictly under the control of the medical profession in the performance

of their duties, and the Council were instructed to determine and report to the next annual meeting in what manner this end might best be attained. At the last annual meeting he inquired why that resolution had not been attended to, and was informed by the President that as legal proceedings had arisen out of the matter he had deemed it desirable that the resolution should not be handed on to the Council. He thought such a course was most disrespectful to the annual meeting, that a resolution passed by a very large majority should be ignored.

The PRESIDENT said this subject did not arise out of the report, and notice must be given if it was to be brought forward.

Dr. GROVES said he would give notice for another meeting.

Dr. WITHERS MOORE, after expressing his pleasure at seeing Dr. Ince present, although he could not agree with his criticisms, said as the President of the Council he felt bound to say that the money paid to their General Secretary in the way of salary was very well expended. He had the control and management of a very important portion of the JOURNAL. When Mr. Fowke joined the Association the advertisements were only £2,000 a year, and they were now £15,000. They therefore got a very good return for the money expended in the management of the JOURNAL, and he should be sorry if Mr. Fowke felt that his salary was grudged. The multiplicity of duties devolving upon him and the great responsibilities of his office were quite as much as any man could very well undertake, and he had discharged those duties faithfully and most effectually in the interests of the Association. Any company that could show a balance of £5,000 to the good at the end of the year might be considered to be well managed. He had therefore great pleasure in supporting Mr. Fowke on this occasion, and in saying that in his (Dr. Moore's) opinion he thoroughly deserved everything he got.

Mr. BUTLIN said, with regard to Dr. Ince's statement that the furniture had been put down at very much greater value than it should have been, that, on the other side of the account, £5,000 was put down for depreciation. With regard to the increase in expenditure, of course it had increased enormously during the last twelve years. They had removed from their small premises in the Strand to those they now occupied, they had had to increase expenditure as the business increased, their staff had been augmented, a library had been established, and a great many things had been done.

Dr. INCE said that his percentage was upon the seven years.

Mr. BUTLIN said that during the last three years the expenditure not only had not been increased, but had been reduced. With regard to the Editor of the JOURNAL he had received leave of absence on account of ill health on one occasion, and his expeditions had been generally undertaken in his general holiday. During the past year the members of Council had received for their contributions to the JOURNAL the sum of £1 12s.

The report and financial statement were then unanimously adopted.

Election of the Marquis of Londonderry as an Honorary Member.—The PRESIDENT then moved: "That the Right Hon. the Marquis of Londonderry be and is hereby elected an honorary member of the British Medical Association." That had been mentioned in the report as a recommendation of Council, but it had been thought right it should be proposed as a distinct resolution.

Dr. WITHERS MOORE seconded the motion, which was carried by acclamation.

Removal of a Member from the Roll of the Association.—Dr. WITHERS MOORE said it was now his disagreeable duty to ask the Association to remove the name of a gentleman from the roll of membership. The Council had arrived at this conclusion with very serious regret, and only after affording every opportunity for explanation and after thorough investigation. It was a matter of very great regret to the whole Council to have to take this step, and they had only done so from an overwhelming sense of duty. The resolution was, "That the name of James C. Ady, of Barr Street, Rangoon, L.R.C.P., M.R.C.S., be struck off the list of members of the Association."

Mr. BUTLIN, in seconding the motion, thought it was only right that the members should know something of the circumstances under which the proposition was made. After a consultation with the President and others, Mr. Butlin said he was told that such a statement would be contrary to rule. The custom was for the case to be practically tried *in camerâ*, and it was only for the General Meeting to confirm the action of the Council.

After a short discussion, in which several members expressed the feeling that the facts should be known to members before they could judge on the merits of the particular cases, strangers were directed to withdraw, including the representatives of the press. In the result the resolution was carried, with three dissentients.

Vote of Thanks to the Treasurer.—Dr. BRUCE GOFF then moved: "That the best thanks of the Association be given to Mr. Henry T. Butlin for his able services as treasurer for the past three years, for the interest he has shown in the welfare of the Association, and that he be and is hereby elected as Vice-President for life." As a member of Council and as a member of the Journal and Finance Committee he had had ample opportunity of observing the able manner in which Mr. Butlin had conducted the financial affairs of the Association, and he had great pleasure in moving that resolution. Every member of the Council would bear him out when he said that the accounts had been laid before them in such a succinct manner and in such a form that they could all understand and appreciate. They were all very sorry to lose him as their treasurer, and if it could be arranged that he could continue in office every member would be more than satisfied.

Mr. EASTES seconded the motion. He remembered when Mr. BUTLIN was elected to office three years ago the only note of objection had come from Mr. Butlin himself, for he said he could not possibly do a single sum in addition. The very large amounts with which he had since had to deal had given a complete denial to that statement. He thought that for perspicacity Mr. Butlin could not be surpassed, and he trusted that he would be prevailed upon to undertake the office for another three years.

The motion was carried by acclamation.

The PRESIDENT then conveyed to Mr. Butlin the approval of the meeting of his valuable services as Treasurer.

Mr. BUTLIN said that he thanked all the members from his heart for the way in which the resolution had been carried. He had never spoken of his policy as treasurer, and if he might be allowed he would say that it was simply a continuation of that of his predecessors. Mr. Eastes had told them of his objection to taking office—it had been done when he was in Birmingham. He had not a hint that he was to be proposed, and no one was more terribly disappointed than he when he received a telegram stating that he had been appointed Treasurer to the Association. He had not quite said that he could not do a sum in addition, as that was one of the things he had learned in childhood and remembered. Their income had been steadily increasing, but he took no credit to himself for that, because that had happened before and had gone steadily on. They had one cause for it in the continued popularity of the JOURNAL, and for that they had largely to thank the Editor. The second thing was that the expenditure had been kept down, and for that he took some credit to himself. It had been increasing in a very marvellous way for some years previously, and when he looked into things, with the assistance of Mr. Fowke, who was absolutely devoted to the interests of the Association, he found it possible to put his hand down in certain directions in which the expenditure had been injudiciously increasing. They had been fortunate also in another way, because they not only saved money in certain directions by care, but they saved money in foreign postage on account of the reduction of the rates. The result of those two things—the increase of income on the one hand, and the diminution of expenditure on the other—was that the reserve fund of the Association had been steadily increasing. He had received so much correspondence and heard so much said as to the reserve fund of the Association, as to why they should have a reserve fund, that he would take the opportunity of pointing out some reasons for the reserve fund. That Association was a great business Association—the business part could not be dissociated from it—and involved a number of obligations. In the first place,

they had a large staff of clerks and a large number on the editorial staff and a great many compositors, and many of those people depended upon the Association for their daily bread. They had large premises, for the rent of which they were responsible, not for a single year only, but, it might be, for many years, and they had large expenses connected with those buildings. They also gave a large sum of money for all kinds of purposes, scientific principally; and lastly, they had a library for the benefit of the members of the Association, principally for those who were not Members of the College of Surgeons or Licentiates of the College of Physicians. Supposing, for any cause, the income of the Association were largely diminished for several years, what would they do if they had no reserve fund? They would have to send off a number of the staff, go into smaller premises, give up the library, and, in fact, reduce the Association once more to the insignificant position which it held, comparatively speaking, only a few years ago. The very return of their prosperity might depend at that time on keeping everything going just as it was, for it might be only a few years' duration, and therefore it would depend on their keeping up a sufficient reserve for that purpose. The only question was as to what constituted a reserve fund for an Association like theirs. They had come to the conclusion that it should be about twice the annual expenditure. They had not reached that yet by several thousand pounds. He had been asked what they were going to do with the surplus income when the reserve fund was sufficient for their purposes. That would wait perfectly well until they had got their surplus fund. When they had got that they would consider what they should do with the surplus. That would be a matter for future treasurers to consider. He felt that he had carried on the policy of his predecessors with considerable success, owing very largely indeed to the manner in which he had been backed up by the Journal and Finance Committee and also by their excellent friend the General Manager and Secretary.

Re-election of Mr. Butlin as Treasurer.—The President said that the next business was the election of treasurer. Had any member any gentleman to propose?

Dr. Ince: Mr. Butlin, F.R.C.S., Treasurer.

Dr. Mead seconded the motion, which was agreed to by acclamation.

Mr. Butlin said he thanked the members for the kind way in which they had re-elected him as treasurer. They might have found men better far than he, but they could not find anyone who had more at heart the interests and the prosperity of the Association. He accepted the office at their hands with great pride and pleasure, the more so as the treasurer was one of the very few officers elected by the Association in general meeting assembled.

Parliamentary Bills Committee.—Surgeon-General Ewart (Mayor of Brighton) moved: "That the report of the Parliamentary Bills Committee for the year 1892 be received and adopted." He believed he was, on the present occasion, stopping a gap, this duty having been apportioned by the Council to his old and respected friend, Mr. Ernest Hart. Mr. Ernest Hart was not amusing himself in foreign parts, but was doing very good work for the medical profession, and particularly for that Association, in Edinburgh. He had been attending the Congress of the British Institute of Public Health there. He (Dr. Ewart) had parted from him on the previous day, as Mr. Hart could not leave because he had a very important duty to perform. Mr. Hart also knew that his duties at that meeting, being of a very simple nature, could be easily discharged. Lively and interesting as Mr. Ernest Hart's work had been in the Canaries, in Japan, and in Chicago, it had been even more lively, impressive, and instructive before the very intelligent and cultivated audience of local authorities and medical officers of health in the Theatre of the University of Edinburgh. He would not go into the matter of the report: it had been published, and it showed that very good work had been done, and in that particular portion in which he took a very sympathetic interest, namely, that relating to Her Majesty's forces, he was glad to see that that question, which had been going on since the Battle of Waterloo, with regard to the rights, privileges, and position of the medical officers in the army had been satisfactorily settled. If that were so, he thought the medical members in the army had very largely to thank their civil brethren, and particularly their civil brethren connected with the British Medical Association, for having accomplished it.

Sir William Moore seconded the resolution.

Mr. George Brown said there was no reference whatever to the midwife question. He thought the Association could not be too much alive to the fact that the proposed Bill which was now practically before the House of Commons would interfere very considerably with their privileges. There was certainly an attempt to keep Sairey Gamp in existence, instead of clearing her off the face of the earth, as they had thought would be the case when ladies were admitted to the medical profession. As general practitioners, they maintained that the lying-in room should be adequately guarded, and only visited by a thoroughly qualified and educated person, who knew all about medicine and about the anatomy of the parts, and competent to deal with every emergency. There was no reference whatever to that in the report. Then there was another matter which was of considerable importance indeed. There was no reference to the penal clauses of the Medical Act. It was impossible for them to carry out those clauses, because of the fact that the Police Act overrode the 42nd clause of the Medical Act, and the penalties, instead of going to them to recoup them for the outlay they had been put to, went into the hands of the police.

Dr. Mead said the London and Counties Medical Protection Society had gone into the matters which Mr. Brown had pointed out. That report would be laid before the Parliamentary Bills Committee at an early date. He hoped the Association would back up the Parliamentary Bills Committee in bringing the matter before the Houses of Parliament.

Surgeon-Major Poole said those who had retired from the service should know by what rank or title they might call themselves. Surgeon-Major Ince called himself Surgeon-Colonel Ince, and Surgeon-General Ewart (the Mayor of Brighton) had been introduced that morning as Dr. Ewart. It seemed to him something should be done in the matter by the Parliamentary Bills Committee.

Dr. Alderson said some two or three months ago he wrote to the Editor of the British Medical Journal stating that he wished to lay before the annual meeting the necessity of some legislation on the midwifery question, and the Editor replied expressing the hope that he would do so, and that opportunity would be given him on that occasion. He urged that legislation was required to prevent the great loss of life that occurred from ignorant women who called themselves midwives, and would like to be registered as such. Although the last Midwives Bill did not pass, it did not follow that there was no need of legislation. The attention of the Association should be called to the necessity of legislation on this subject.

The President said that involved a substantive resolution, which would require notice to be given.

Dr. Alderson said he regarded it as giving notice when he had made the communication to the Editor.

The President said the report could be discussed, but not added to.

The resolution was then agreed to.

Scientific Grants Committee.—Dr. Bowles proposed "That the report of the Scientific Grants Committee for the year 1892 be received and adopted." He had peculiar pleasure in doing this because it lifted them out of the realm of controversy to something much higher. The Association, important as were its business and social relations, had a much higher vocation, especially now at this renaissance, as they might call it, of medicine. He had much pleasure in proposing the adoption of the report.

Dr. Wade seconded the motion.

Surgeon-Lieutenant-Colonel Ince said this was one of the subjects on which their money was entirely thrown away.

Dr. Wade said the grants were made only for the purpose of purchasing material and instruments, and gentlemen receiving these grants were not allowed to appropriate any of the money either to themselves or to an assistant.

Dr. Goyder could not understand why the reports should be sent to the *Journal of Physiology* and other scientific journals, and were not published in a regular and systematic

form for the benefit of the Association. They might be published in a small volume.

The resolution was agreed to.

Therapeutic Committee.—Professor Gairdner moved: "That the report of the Therapeutic Committee for the year 1892 be received and adopted."

Dr. Saundby seconded the motion, which was agreed to.

Committee on Hypnotism.—Dr. Hack Tuke proposed: "That the report of the Committee Appointed to Investigate the Nature of the Phenomena of Hypnotism, its Value as a Therapeutic Agent, and the Propriety of Using It, for the year 1892, be received and adopted." He expressed his great regret that Dr. Needham, owing to his having been appointed a Lunacy Commissioner, had been obliged to give up his post as chairman of the Committee. A similar report was handed in a year ago, but a very natural wish was expressed that the data on which it was founded should be placed before the Association, and for that purpose it was referred back to the Committee. A large mass of material had now been collected and brought forward, in the opinion of the Committee, justifying the report which was now presented. They had the very great advantage of the experiments placed before them by Mr. Langley, Lecturer on Physiology in Cambridge. Those materials had been carefully gone through, and all who knew Mr. Langley knew that any experiment that he made would be carefully conducted. Other contributions had been made, including one very valuable one by Dr. George Robertson. The report had been to some extent criticised as being too cautious and not sufficiently dogmatic. That was, he considered, a good fault. The report was unanimously adopted, and possibly if it had gone further it might not have been. It was on the whole a very carefully thought out and cautious report, and concluded by urging on the Association the great desirability of putting a stop by legislation to all public exhibitions of hypnotism. The Committee felt extremely strongly upon this point, and he hoped the adoption of the report would give a stimulus to that movement.

Dr. Outterson Wood seconded the motion.

Mr. George Brown, while admitting that the report was very guarded, thought it should be received with caution. It was a very serious matter to pledge an important body like theirs to approve of the practice of hypnotism. What was hypnotism? Could it be weighed in the balance? Was it a thing that could be administered in disease in a liquid, solid, or any other form? The whole thing was imaginary from beginning to end. They must know as professors of physical science that mental influence could not cure disease. It might cure imaginary disease, and doubtless did so. They knew the action of fear and many other things, but it was another thing to pledge the Association to hypnotism as a thing to cure disease. He hoped they would not stultify medicine by adopting that report. He quite agreed in the statement that when used for therapeutic purposes its employment should be confined to qualified medical men and "that under no circumstances should female patients be hypnotised except in the presence of a relative or a person of their own sex." He should be very sorry to practise hypnotism upon females alone. He should be afraid to trust himself with a hypnotic female; it might be that she would become master of the situation. He hoped they would all as medical men be very cautious in recommending the practice of hypnotism in this country. He moved as an amendment that the report lie on the table. The whole thing was of the essence of quackery and charlatanism.

Dr. Mead seconded the amendment.

Dr. Wade thought, whatever might be the intrinsic merits of the report, the amendment was not quite civil to a number of gentlemen who had taken a good deal of pains and had spent considerable time in investigating this subject. If it was the feeling of the meeting that the Association should not compromise itself by adopting the report, a feeling with which he was very much inclined to sympathise, he would suggest that the report should be simply received, and the Committee should be thanked for their services. By that means they would avoid adopting the report.

Dr. Tuke said he was quite willing to adopt that course.

Mr. George Brown said in that case he would withdraw his amendment. He had not wished to say anything disrespectful to the Committee. He believed their one desire was to do what the Association thought right for medical science; at the same time he felt that the meeting was not in a position to adopt the report.

Mr. Noble Smith supported Mr. Brown's suggestion. He felt very strongly upon the matter, having seen a great deal of harm arise from this procedure. It had generally been their object to encourage their patients to exercise their own wills, and to help them to do so in every way, and it was contrary to the whole theory of therapeutics or medicine to begin to influence them by getting them to give up their self-control. Many of those present had seen evil effects of the practice when carried out, and therefore he hoped Mr. Brown's suggestion would be adopted.

Dr. Kingsbury, as a member of the Committee, wished to say one word. As to the report itself, he admitted that it was not all that could be wished, for the reason that the Committee were men scattered hither and thither, and it was very difficult to get them together for collective investigation. He could have wished that it had laid down in certain definite sentences what the results of the experiments had been. It was put in a general form as less likely to create opposition. It pledged the Association to very little. It did not say that it approved of hypnotism or of its use, but left it allowable for any individual practitioner to practise it in suitable cases. He (Dr. Kingsbury) was not a hypnotist; he was a physician in the ordinary practice of medicine, but had made it his business for a number of years to study the phenomena of hypnotism. The result of his demonstrations at Birmingham, in the presence of 500 gentlemen, was that a unanimous resolution was carried that the phenomena of hypnotism were worthy of the investigation of the Association, and that a Committee should be appointed for the purpose. That Committee presented a report as the result of experiments, and as the result of reports submitted to them, and now it was to be passed over simply because Mr. George Brown said that the thing did not exist. It was a preposterous and an unscientific attitude for an Association deserving the name of scientific to adopt. If Mr. Brown had found out that it was quackery, why had not he published his personal experience? When gentlemen said that hypnotism had done harm they should give details. If he referred to quack demonstrations given in public places of amusement, no doubt they did harm; but when it was said that the medicinal practice of hypnotism by medical men did harm, he asked for proof. He hoped the Association would deal fairly with the report and not be led away by any prejudice.

Dr. Urquhart said the last paragraph was most important, in which the Committee expressed strong disapprobation of public exhibitions of hypnotic phenomena, and hoped that some legal restriction might be placed upon them. He should be extremely sorry to see that recommendation go by the board. The Association should take up a thorough and decided attitude about these public exhibitions. He should be very sorry if the report was merely received.

Mr. George Brown asked if this had not already been resolved by the Association at a previous meeting.

Dr. Wade said he thought not. It was a matter upon which they would all give, without discussion, a very firm and decided opinion.

The motion "That the report of the Committee Appointed to Investigate the Nature of the Phenomena of Hypnotism, its Value as a Therapeutic Agent, and the Propriety of Using It, for the year 1892, be received, and that the Committee be thanked for their services," was then put and carried.

The Adjourned General Meeting: Tuesday Evening, August 1st.

The President (Dr. Philipson) in the chair.

The Mayor of Newcastle was present, accompanied by the Sheriffs and Aldermen.

The President: This is the adjourned meeting of this morning. I have the honour to announce that the Right Worshipful the Mayor of Newcastle will inaugurate the proceedings.

The Mayor of Newcastle, who was most warmly welcomed, said: Mr. President, ladies, and gentlemen,—It is my distinguished honour and privilege, as chief magistrate,

to welcome you most heartily to this ancient and honourable city. My fellow-citizens are at one with me in rejoicing at your advent here to-day. I trust your visit to this important centre of varied activity may be productive of the highest result scientifically and tend further to the interest of the noble profession to which you have devoted your talents and life. It is now twenty-three years since your Association last met in this city, under the presidency of the late Dr. Charlton, with Professor Philipson, who is now President, as the organising secretary. The Association then numbered 4,000, since which it has increased to nearly 15,000 members, with representatives the world over. The population of Newcastle was then 125,000. It is now nearly 200,000, and intellectually and commercially great strides have been made. I refer with pride to our medical and physical science colleges, with all the distinguished men connected with them. The importance of your Association as a guide and authority in medical matters can hardly be over-estimated. Among the many subjects you will have under discussion none will be more interesting to the population than the Public Health Section. Much has been done towards improved sanitation, and we have recognised the great importance of cultivating open spaces in the city. We rejoice in the possession of our 1,000 acres of open moor and over 174 acres of cultivated parks—Jesmond Dene—the gift of our distinguished fellow-citizen, Lord Armstrong, being one of the most beautiful in the kingdom. We claim that our Fever Hospital, Children's Hospital, and Hospital for Incurables are almost perfect for their purpose. Nearly every form of disease is ministered to by able, willing, and devoted men in our infirmary and numerous other public institutions. We judge it an honour that Newcastle has again been chosen as the place of your meeting, and I have the fullest confidence that the citizens will maintain the character for generous hospitality that has so long distinguished it. The Hancock Museum, where I hope to welcome you on Wednesday evening, possesses, amongst other exhibits, the finest collection of British birds in the world. I congratulate you on your happy choice of a President, highly and deservedly esteemed by his fellow-citizens. I congratulate you, Professor Philipson, on the high position to which you have been called, than whom none can more ably and genially fulfil it various functions.

The President, who was received with loud and prolonged cheers, said: Mr. Mayor, I thank you very sincerely for the kind welcome which you have given to the members of the British Medical Association assembled here at this the sixty-first annual meeting of the Association. It is most gratifying to us to receive this welcome from the chief magistrate of this ancient city, representing as he does the citizens, and giving us their good wishes and their cordial welcome. We appreciate the honour that you have conferred upon this Association by appearing here in state with the corporation insignia and accompanied by the aldermen, the magistrates, and the councillors of this city, again representing the citizens. For your kind remarks respecting the College of Medicine, the College of Science, with which I am associated, and also for your complimentary remarks to me respecting the honourable position in which I have been placed here as the President of this great Association, I return you my sincere thanks. Then, Mr. Mayor, I thank you for this welcome, which you have given us, which is most acceptable to us in the inauguration of this annual meeting. Again I thank you. It is now my pleasing duty to announce to you that we are honoured with representatives from other countries, representing medicine and surgery, and it is my pleasing duty first to mention the name of Professor Pozzi, of Paris, representing France, and to offer this feeling of reciprocation from the profession of this country to the profession of France, and to say that there is a feeling of brotherhood, a bond of union, between us, for we are all endeavouring to aid humanity. I have next the pleasure of announcing the names of Professor Giampietro, of the Royal University of Naples, and of M. Eugene Dupuy, of Paris, to whom I offer the same assurance of friendship and brotherhood. I have also to mention that we are honoured with the presence of representatives from the Colonial Branches. The Adelaide and South Australian Branch, represented by Dr. M. L. Symons, Dr. J. T. Toll, and Dr. Horneck; the Bombay Branch, represented by Surgeon-Captain M. A. T. Collie; the Griqualand Branch, represented by Dr. A. H. Watkins; the South Indian and Madras Branch, represented by Brigade-Surgeon E. F. Drake-Brockman and Surgeon-Captain Smith; the Sydney and New South Wales Branch, represented by Dr. E. Fairfax Ross; the Burmah Branch, represented by Surgeon-Lieutenant-Colonel H. Johnstone; and the Montreal Branch, represented by Dr. James Bell. I fear, perhaps, as this is the first day of the meeting, possibly some of these members may be a little delayed, and have not yet reached Newcastle. These are the indications that we have respecting the representatives of the Colonial Branches. I state in their absence, and in the presence of those who have come forward upon my mentioning their names, that it is a great delight and a great pleasure to the British Medical Association to welcome the representatives of our Colonial Branches, because the Colonial Branches are a great strength to this Association. We have members of this Association in all our dependencies, in all our colonies, and in all divisions of the British Empire. This is the opportunity at this annual meeting to meet together and to interchange these feelings of friendship.

The President's Address.—The President, who was again most enthusiastically received, delivered his Presidential Address, which is published at page 293.

Sir Dyce Duckworth proposed: "That the warm thanks of the Association be given to Professor G. H. Philipson for his very able address." They all felt that they had heard a most interesting and elaborate address, one which they would do well to read most carefully when it came into their hands. It was hardly too much to say that the President had produced what might almost be called a State paper. It was full of topics. It began with researches of an antiquarian kind, then passed to some archæological and geographical questions, and then touched on history almost ancient, and certainly modern. It had covered a large amount of ground, and embraced many topics. *De multis et rebus quibusdam aliis.* They expected a great deal from a university professor of medicine, especially when he happened to be one of the leading physicians in a great city like Newcastle, and they had not been disappointed. He had great pleasure in proposing this resolution of thanks to the President.

Dr. Ord seconded the motion. He thoroughly concurred with Sir Dyce Duckworth that the President's admirable address had well fulfilled the anticipations of those who knew him best. It was his good fortune some years ago to be associated with Dr. Philipson in examining for the University of Durham in this city. He then learned to recognise in him a man with a singularly high sense of honour, of great dignity, of punctilious but yet natural courtesy, and much learning in many ways. With these qualities he found conjoined a very good common sense, a remarkable practical ability, and a distinguished power of administration. All these had been fairly illustrated in the address, and no one would go away without feeling that he had had both a lesson in morals and a teaching in his profession.

The resolution was carried by acclamation.

The President returned thanks to Sir Dyce Duckworth, Dr. Ord, and the assembly for the kind way in which the motion had been proposed and received. He feared he had wearied them somewhat by his lengthy address, but had endeavoured to put before them as briefly as possible the points which would be of general interest.

Inebriates Committee.—Dr. Norman Kerr moved: "That the report of the Inebriates Committee for the year 1892 be received and adopted." That was a remarkably important occasion, both retrospective and prospective, in regard to practical legislation, and it seemed almost impossible, without reading the report, to avoid saying a word or two about it. During the year the Association had issued a circular to the boards of guardians, asking them to memorialise the Government in favour of the compulsory seclusion of habitual drunkards of all classes. The enormous advance in favour of compulsion was evidenced by the previous reports sent out by the Committee. In 1881 they had received twenty-six replies, which rose in 1889 to no fewer than 229. During the last year a more drastic circular had been sent out, and fifty of the most important Boards of Guardians in

England, including some which had not been memorialised before, adopted the proposals. The other part of the report was still more important—namely, with regard to the efforts of the Departmental Committee which was appointed by the late Government, partly in consequence of the efforts and at the request of the Association. They were very much indebted to the late Government and the late Home Secretary, Mr. Matthews, who was practically the means of giving them their first Bill, and then the amending Bill, which action of the late Government had been followed up by Mr. Asquith. The report was of very great importance, because it conceded nearly all that the Association had asked with regard to legislation. With regard to voluntary inebriates, who applied of their own accord for detention for the purpose of cure, at present each one had to appear under the Act before two justices, which, of course, was almost an impossibility in the case of ladies. The Departmental Committee had reported very strongly that an appearance before one justice at his private house, or anywhere, ought to be sufficient. They were very sorry indeed that the Committee had gone even that length, because they wished them to sweep away such appearances altogether. They believed that the entrance for therapeutic cure ought to be as easy as possible, and the exit as difficult as possible. The other part of the report dealt with cases of involuntary treatment of inebriates who had lost their will power, and were unable to apply of their own accord. That had been suggested for the first time, and signed by most of the leading physicians and surgeons of London, in addition to those in other parts of the country. That was the first pronouncement emanating from the medical and surgical schools. They had in the report a large declaration strongly in favour of compulsion, signed by Sir Richard Quain, Sir William Jenner, and Sir James Paget, and by almost all the leading physicians in the metropolis. There were also memorials from the leading men in Ireland, and in Scotland headed by Professor Gairdner. In addition, there was a representative memorial from the legal profession, which hitherto had always stood in the way. In Scotland the legal profession, including the judges, were almost unanimous in enforcing upon the Scottish department the necessity of compulsion in all such cases, so that all the professions in Scotland were absolutely united upon the question. The recommendation of the Committee, besides enforcing the principle of compulsion in all those cases, both with regard to voluntary applicants and involuntary *détenus*, in the third place indicated what would prove a revolution in the criminal jurisprudence of this country, and among all English-speaking races. For the first time it recommended something else than a gaol for a certain class of criminals, largely influenced by the history of the peasant in Austria who murdered his brother while intoxicated, and who in this country would have been hanged, but who was sentenced to nine months' imprisonment under the Austrian code for involuntary homicide, and afterwards reformed, became an abstainer, and had a monument erected to him for the great services he had rendered to his country in leading men from insobriety. There were other recommendations, among which was one to the effect that certain other classes of inebriates who were not criminal should be brought under the beneficial compulsory action of the law. He was happy to be able to state that Mr. Asquith had promised to receive a deputation during the autumn session from the British Medical Association, and to bring in a Bill on the lines of the Committee's report.

Dr. Eastwood, in seconding the adoption of the report, emphasised the necessity for compulsory powers being given in the case of habitual drunkards, with regard to whom the voluntary system was not at all suitable. Where the voluntary system was relied upon it was impossible for inebriates who had lost their will power to receive proper care and treatment.

The report was then unanimously adopted.

Medical Charities Committee.—Mr. George Brown moved the adoption of the report of the Medical Charities Committee. He said there were only seven or eight institutions which had expressed a desire to meet the recommendations of the Committee, which had been unanimously adopted last year. The chief point urged upon hospitals was that they should make a more strict examination into the condition of certain classes of people who applied for relief. It had been proved over and over again that there was a great deal of abuse with respect to the out-patient departments. One recommendation was that a placard should be placed within the entrance of hospitals, pointing out that the institution was intended for the relief of the poor, and that any person who applied might expect that inquiries would be made into his circumstances in order that he might be refused the benefits of the charity if found to be unworthy thereof. Everyone would agree that the money given for the purpose of charity ought to be expended only on the poor. It was the intention of the Committee to bring pressure to bear upon hospital authorities to carry that into effect. The secretaries were the most difficult persons to deal with; they had not much difficulty with the medical officers and those who contributed the money, but the secretaries desired as many applicants as possible to swell the report and obtain larger subscriptions. If the Committee were allowed to continue its work, they believed they would be able to force the whole of the hospital authorities in time to make strict inquiries as to the expenditure of the funds with which they were entrusted.

Dr. Bridgwater seconded the resolution, which was carried unanimously.

Committee on the Efficient Control of Railway Servants' Eyesight.—Dr. Mackay moved the adoption of the report of the Committee. He said there had been issued by the General Manager of the North-Eastern Railway, with which Newcastle was so intimately associated, a general order insisting upon the examination of the eyesight of every servant of the company who had anything to do with the traffic. That general order was stated in terms so explicit, so comprehensive, and so entirely satisfactory to the Committee, that the very best thing they could hope was that it might be adopted as a model by every railway company throughout the kingdom. The Board of Trade was certainly moving in the matter. As the result of a report laid before it, the Board of Trade had been stimulated to take an interest in the matter. It had not yet disclosed its policy, and he could only express the hope, on behalf of the Committee, that it would not leave it to the railway companies to make the alteration, as that would lead to a want of uniformity and an unsatisfactory result. It was to be hoped that the Board of Trade would enforce a uniform method upon all the railway companies. It was felt by the Committee that it was most desirable that the Board of Trade should be wisely directed in conducting the reforms both with regard to railway servants and mariners, and in the report it was urged that their powers should be extended so that they could keep an eye in future upon what was being done towards the control of mariners' eyesight.

Dr. Crocker seconded the motion, which was unanimously agreed to.

Committee on the Physical and Mental Condition of School Children.—Dr. Markham Skerritt moved: "That the report of the Committee on the Physical and Mental Condition of School Children for the year 1892 be received and adopted." The subject did not require any words from him to recommend it. The Committee was doing good work in "endeavouring to spread a further knowledge of the conditions of child life and indications of their mental status."

Dr. Wade seconded the motion, which was agreed to.

Addition to and Alteration of By-laws.—Dr. Withers Moore proposed that the following by-law be enacted: "Any member of the Association who shall have been convicted in a court of justice of any criminal offence, or whose name shall have been erased from the *Medical Register* on account of infamous conduct in any professional respect, shall *ipso facto* cease to be a member of the Association, but any such member shall be eligible for re-election in the event of his name being restored to the *Medical Register*."

Mr. Butlin seconded the resolution, which was agreed to.

Mr. Eastes, on behalf of Mr. Parkinson, moved that By-law 20 be altered to read as follows: "The three elected members who shall have been longest in office shall retire annually; and if, owing to two or more having been in office for the same period, there shall be any doubt as to which shall retire, the matter shall be decided by (1) number of attend-

ances, and (2) ballot. Members retiring shall be ineligible for re-election for the ensuing twelve months." The resolution referred to the Journal and Finance Committee, where it had been found there was a difficulty in saying who should retire, and if this was adopted it would provide a method for saying who should retire and who should sit on the Council.

Dr. Ward Cousins seconded the motion, which was agreed to.

Inspection of Accounts of Association.—The President said, with regard to a notice of motion given by Surgeon-Lieutenant-Colonel Ince, "That the books of accounts shall be open to the inspection of members during the hours of business at the office of the Association, subject to such reasonable restrictions as to time and manner of inspecting the same as may be imposed by the Association in general meeting," he was guided by a resolution of the Council that, in accordance with the solicitor's advice, it be ruled out of order, as not being in accordance with the articles of association.

Remuneration of Members of Council.—Dr. Ince having protested against the decision of the Council, proceeded to move a second motion, of which he had given notice: "That the acceptance of any kind of payment or remuneration for attendance by members of the Council or any of the Committees is alien alike to the spirit and to the dignity of this our fraternal and professional Association, and should therefore be at once discontinued." He detailed the circumstances under which it was decided in 1889 at the Leeds meeting to pay the railway fares of members of Council when attending the meeting of Council. He objected to the resolution then passed as invalid on account of there being scarcely a quorum present, and also because it was opposed by the leaders of the Association. When he brought forward this rescinding resolution at Nottingham last year there were 31 votes in his favour and 33 against, so that his motion was defeated by a very small majority. He maintained that the Leeds resolution was repugnant to the articles of association, and also that it was contrary to the practice of other professional bodies.

Mr. Wall seconded the motion.

Dr. Ogilvie Grant, as the proposer of the Leeds resolution, said the question had been threshed out again and again, and he was very sorry that they should be detained once more to listen to the old, old story. Ten years ago he was commissioned by the Northern Counties of Scotland Branch to bring forward the subject, it being felt that the then system of members paying their own expenses was unjust. He could see nothing derogatory in members of Council being paid their railway fares, and now that it was done the Branches could select the best men as their representatives, and were not bound to send those only who did not object to the expense. He thought it a great misfortune that a motion like the present should be brought forward year after year, and, as far as he was concerned, this was the last time he would speak on the question.

Dr. Withers Moore said there was no more staunch adversary to the payment of members than he used to be, but had Dr. Ince been placed in the position to judge as he (Dr. Moore) had been he could not have made the remarks he had done. It must be remembered that members of Council who attended came to do the business of the Association. Some of them came great distances, and the expense of the journey was between £7 to £8. Was it reasonable to expect a man in general practice to sacrifice two days and be £7 or more out of pocket to come and do the business of that great Association? During the last three years he had come up to London nearly every week, and sometimes twice, at his own cost, and he had felt the demands so unreasonable that he had taken care that his successor should have an annual ticket given him, so that the Secretary might call upon him to appear at any time during the whole course of the year. He hoped Dr. Ince would withdraw the motion.

Mr. George Brown hoped that the meeting would give Dr. Ince such a demonstration that he would never bring the motion forward again. He believed it was only a matter of justice to pay the railway fares, and had said so many times.

Dr. Ince said the last wish of his life was to give pain or annoyance to anyone, and especially to his friend Dr. Grant. He had no intention to cast any reflection upon anyone. As it seemed to be the unanimous wish of the meeting that the present system should be continued, he had no alternative but to withdraw his motion.

Second General Meeting: Wednesday Afternoon, August 2nd.

The President in the Chair.

The President moved: "That Mr. Joseph White be and is hereby elected a Vice-President of the British Medical Association for life."

Dr. Ward Cousins seconded the motion, which was carried by acclamation.

Mr. Joseph White said he wished to express as emphatically as possible his appreciation of the great honour conferred upon him. He thanked them most cordially.

New President of Council.—The General Secretary then announced the election by the Council of Dr. Ward Cousins as President of Council for the ensuing three years.

Vote of Thanks to the Retiring President of Council.—The President moved: "That the warmest thanks of the Association be given to Dr. Withers Moore for the able and courteous way in which he has performed the duties of President of Council during the past three years, and for his attention to the interests of the Association." It was unnecessary for him to express anything further than that the resolution conveyed the sense of the Council of the Association with regard to the valuable services which Dr. Withers Moore had rendered during the three years that he had occupied the honourable, important, and onerous position of President of Council on the executive of that great Association.

Mr. Butlin said he had great pleasure, in one respect, in seconding the resolution. On the other hand, he did so with very great sorrow, for it was to part him from a colleague with whom he had worked in perfect harmony. He could sum up Dr. Moore's good qualities in these few terms: he had shown good taste, good temper, good feeling, and a good knowledge of affairs. He could not remember a single instance in Dr. Moore's conduct of the business of the Council or of the Association in which he had erred in one single respect from the right line. He was sorry it was not in their power to offer to Dr. Moore what they had done to the retiring President of the Association—the Vice-Presidency—but that was one of the circumstances under which "to him that hath can no more be given;" for Dr. Withers Moore was already a Vice-President of the Association.

The resolution was carried by acclamation.

Dr. Withers Moore said he was greatly obliged to the members for having endorsed the motion, which had been carried by the Council in the morning. Being of a bashful turn of mind, he must honestly say that he scarcely recognised himself in the very beautiful picture which the Treasurer had drawn of him. He wished he dared lay it to heart, and accept half the good qualities which he had put down to his account, but he attributed it to Mr. Butlin's kindliness of heart, and his kindly feeling towards himself. He thanked them most cordially for the very kind way in which they had received and carried the resolution.

Dr. Ward Cousins said he only hoped that the good qualities and the wisdom of his predecessor, Dr. Moore, might descend upon him. The position in which he stood was quite an unexpected honour. He was aware that his appointment was not due to any special qualities, but rather to his long and agreeable association with his fellow-members of Council. He undertook the duties of office feeling himself the humble servant of the Association, and he would do his utmost to discharge his duties to their satisfaction.

The New President-elect and the Next Annual Meeting.—Dr. Ward Cousins then announced that the Council had received an invitation to hold their next annual meeting at Bristol, and that Dr. Long Fox, who had long served the Association, had been selected to be the President-elect. He need not say anything with reference to Bristol. It was distinguished for professional activity and full of eminent men, and he was quite sure their gathering there would be productive of great good to the Association. He had the honour to propose that the invitation to Bristol in 1894 be accepted with the warmest thanks, and that Dr. Long Fox be requested to act as President-elect.

Dr. Wade seconded the motion. He was quite sure they

might look forward to a meeting at Bristol which would be second to none in the history of the Association.

The motion was carried by acclamation.

Dr. LONG FOX said that to sit in the chair which the President occupied was a legitimate object of ambition for any member of the Association. When he said that he was deeply obliged to his colleagues for nominating him from their own body, to the Council for accepting that nomination, and to the members for endorsing it, he believed he had said all that was necessary about himself. He was most deeply obliged to them all for honouring him as they had done: it was perhaps the greatest honour to which any member of the Association could aspire. With reference to the invitation to Bristol, he knew the members of the Branch there intimately, and every member of the profession, and especially the professors and lecturers of their medical school, and he could promise that the intellectual portion of the meeting would be worthy the metropolis of the south-west. Bristol, also, had had a name for hospitality for centuries; it was mentioned with approval in *Pepys's Diary*. He was sure every member of the profession would do his utmost to make the members comfortable, and speaking in the name of the whole profession in Bristol he said they were deeply obliged to the Association, and hoped they would not regret their choice.

Address in Medicine.—Dr. DAVID DRUMMOND then delivered his address, which is published at p. 297.

Dr. ORD, in proposing a vote of thanks to Dr. Drummond for his address, referred to it as a triumph, not only of the moment, but an indicated triumph to come in the future of intellectual power over many obstacles of thought and action. The keynotes appeared to be the assertion of the necessity of a primary recognition of etiology in all cases of disease and a thorough working out of the diagnosis. That surely must be the basis of all medicine in the future. The temptation was to be slothful. Dr. Drummond had taught that conscience should compel to a great diligence in learning the real reasons of symptoms. Idleness and sloth tempted them to see the symptoms only and not to go beyond, either to analyse or group them so as to be led into the deeper recesses of cause and origin. In proportion as they individually accepted Dr. Drummond's wise admonition and argument they would be better physicians, better medical practitioners, and certainly more honest and honourable men. The more they looked at symptoms as things to be dealt with by themselves the worse they were. Their consciences were at once dimmed. They were tempted to give a drug for pain, for sleeplessness, or diarrhœa, or asthma, and to-morrow, finding that the patient had been better for 24 hours, they were tempted to do the same thing again. If they took Dr. Drummond's advice they would follow no such vicious course. They were all deeply grateful to him for the truths that he had put so splendidly before them.

Dr. BRAMWELL seconded the resolution. He esteemed it a very great privilege to be asked to second this vote of thanks to Dr. Drummond, looking back as he did with the warmest feelings of affection to the hours which they had passed together as physicians and colleagues in the Newcastle Royal Infirmary. When he heard that Dr. Drummond was to give the Address in Medicine he felt sure that it would be a very great success, and he was confident all would agree that his expectations had been fully realised.

The motion was carried by acclamation.

Anæsthetics Committee.—Mr. TEALE moved that the temporary report of the Anæsthetics Committee be received and adopted. Many members would be disappointed that after two years the Committee were not able to make a full report, but seeing that it was based upon records made during 1892 and dealt with 30,000 individual cases they would all understand that for the work to be done well it could not be done in a hurry.

Mr. BUTLIN seconded the motion, which was agreed to.

Alteration of By-law 1.—Dr. GALTON moved: "That By-law 1 be altered by expunging the words 'provided that the powers of such Council or Branch Council shall only extend to the election of male persons.'" He said the Association last year at Nottingham resolved to expunge from the articles of association the words "that no female should ever be admitted," and he was the more encouraged to ask now that this eligibility of women should be made practical by the fact of the expression of opinion, both medical and lay, that had followed on the action of the Association. The Association was founded for the purpose of advancing the study of medicine and the allied sciences, and he maintained that that object would be advanced by bringing into their midst a body of practitioners who had special experience and qualifications.

Mrs. GARRETT ANDERSON, M.D. in seconding the motion, said she had tact enough to know that she had friends in front of her, and it was not necessary to say very much in support of the resolution. Newcastle was a most appropriate place for carrying out this last piece of justice to women in undoing the work done many years ago, because it was the home of the youngest of the eight medical schools in which women might study. She asked the Association to welcome the women in the profession, of whom there were now close upon 200, by allowing them comradeship and association in the British Medical Association.

The resolution was unanimously adopted.

Model By-laws.—Mr. BUTLIN, in the absence of Dr. Mead, moved: "That as a considerable number of Branches are unprovided with by-laws, and in consequence irregularities arise, especially in the election of officers, and other important matters, the Council be empowered forthwith to provide a set of model by-laws regulating such matters, and such by-laws be taken and deemed to be the by-laws of every division in which special by-laws sanctioned by the Council do not exist."

Dr. WADE seconded the motion, which was agreed to.

Payment of Travelling Expenses of Parliamentary Bills Committee.—The PRESIDENT explained that the notice of motion of Dr. Douglas had not been entered upon the Journal, as sufficient notice had not been given; but as Dr. Douglas was acting for Dr. Rentoul, and the delay had been caused by a very serious family affliction, it had been decided that, without creating a precedent, the matter should be allowed to proceed.

Dr. DOUGLAS then moved: "That it is desirable, in the interests of the profession and the Association, that each member of the Parliamentary Bills Committee elected by the Branches and eight other members nominated by the Committee, and elected by the Council of the Association, when attending a committee meeting or a subcommittee meeting be paid first-class return travelling expenses out of the funds of the Association, as is already done when members of Council attend meetings of that body." It had been said that if one Committee was paid, why not all? But the Parliamentary Bills Committee and the Journal and Finance Commitee were quite different from the others. He agreed that if the Parliamentary Bills Committee were paid, the Journal and Finance Committee should also be paid. The Parliamentary Bills Committee affected the whole profession. It dealt with the profession at large, and was directly elected by the Branches. It therefore occupied a different position to the other Committees. He believed it was held that the question of payment rested entirely with the Council, and that that meeting had not the power to direct that it should be done. In answer to that, he would point out that at a small meeting at Leeds a resolution was passed recommending that the Council's travelling expenses should be paid, and the Council acted on that resolution. It therefore seemed an insult to say that the Council could say the Committee was not to be paid if the annual meeting said that it should be paid. The non-payment of the Committee led to non-attendance of its members. As to the money question, there was a profit of £5,000 on the year's balance, and they had assets to something like £50,000. As a matter of justice, he asked that those men who gave up their time and suffered pecuniary loss for the Association should be paid.

Dr. WALKER, in seconding the motion, said that out of 68 members the average attendance was 18. Nearly all the Branches who had considered the question had decided in favour of the payment of travelling expenses.

Dr. WITHERS MOORE said that the Lancashire and Cheshire Branch had passed a resolution, which was forwarded forthwith to each Branch of the Association. Out of the thirty-eight Branches, seven only had replied in favour of the measure. The notice appeared on December 10th, but it was not till the April meeting that it was brought before the

Council by the representative. There was ample time for the representative to have spoken at the January meeting. The Council was composed largely of members who were elected by the Branches, and therefore the Branches were practically responsible for the constitution of the Council, but the Lancashire and Cheshire Branch had sent out a notice to all the other Branches before laying the matter before the Council. That was an indication that they felt that the Council would reject the proposal. He thought that if one Committee was paid, all the Committees had an equal right—they should draw no invidious distinctions whatever. As to the question of desirability, the Committee consisted of seventy-five members, and there was an average attendance of about twenty-five. If the whole seventy-five attended, or even fifty, as he thought would be the case if their expenses were paid, the Committee would be absolutely unworkable. It would be a most unwise proceeding to pass the resolution.

Mr. Butlin said that one reason which had been given why the members of the Parliamentary Bills Committee should be paid was that it was representative like the Council. There was one very great difference between the Council and the Parliamentary Bills Committee. The representatives of the Branches on the Council had to do with the executive of the Association, they had to deal with all the money questions, and it was of vital importance to all the different Branches that they should be represented, and that all the members should attend. The Parliamentary Bills Committee was made a very large Committee, not that each member should attend on all occasions, but that if a Branch wished to be represented in any particular question, it should have that opportunity. It was said that it was a very hard thing that the gentlemen attending should pay their own railway fares, but his reply was that, if a Branch wished their member to attend it was very easy for them to appoint their member of Council to the post. As the meeting of the Committee took place on the night before the Council meeting, it was only a question of a few hours' longer stay in London. If Dr. Douglas wished it, the matter could be perfectly well gone into by the Council, and he would promise on behalf of the President of the Council and on his own behalf that it should be. The reason it had not been gone into already was simply that there had been a great deal of extra business to be got through. It was an unfair thing and against good taste for the Lancashire and Cheshire Branch to send out letters to the other Branches asking what was their opinion on the matter, and it was a sign of weakness.

The President asked if Dr. Douglas would accept Mr. Butlin's suggestion that the Council should consider it.

Dr. Douglas said he thought there would be no difficulty about the matter. He had great pleasure in acceding to the proposal that it should be put forward as a matter of recommendation that the Council should consider it.

Dr. Eastwood thought that if one Committee were paid all should be paid, and therefore moved that the matter be no further considered.

Dr. Frain seconded the amendment.

Dr. Leslie Phillips supported the amendment. He had entered the room in favour of the resolution, but the explanation which had been given by the executive officers of the Association had convinced him that it would not be a wise thing to pass the resolution. He did not think it necessary to refer it again to the Council.

The President explained that the purport of the amendment was "the previous question," and he would put it at once to the meeting "That the question be not now put."

A show of hands was taken, 17 voting in favour of "the previous question," and 6 against.

Dr. Douglas gave notice that he would again raise the question at the next annual meeting.

The meeting then adjourned.

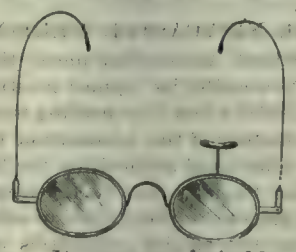
Professor Ludwig, of Leipzig, the distinguished physiologist, has been elected a corresponding member of the Paris Académie des Sciences.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

THE MECHANICAL TREATMENT OF PTOSIS.

C. M., aged 15, consulted me as to the treatment of an almost complete ptosis of the left eyelid since birth. There is also a slight internal squint of the left eye, and compound hypermetropic astigmatism. When the brows are raised as much as possible she is able to expose nearly the lower half of the cornea. Pupil normal. An operation being objected to, I suggested a pair of spectacles with a concave crutch of thin wire projecting backwards from the upper part of the frame, so as to press back the upper part of the lid above the ball, and so raise its lower border.

Below is a rough sketch of the arrangement made for me



by a local optician. It answers admirably, and is not at all uncomfortable.

This method of treatment seems to me preferable to the many operations practised for this condition, and certainly has none of their serious drawbacks.

Grimsby. C. Byron Turner, M.R.C.S., L.R.C.P.

KERATINOIDS, PLASTIC PILLS AND PERLES.

Keratinoids are gelatine capsules coated with a special preparation, which like keratine prevents the capsule being dissolved in the stomach, as they are only soluble in alkaline juices. The manufacturers are Messrs. Duncan, Flockhart, and Co., Edinburgh, who state that almost any drug can be obtained in this form. As they resist the action of acid liquids for a long time, their effect is practically under control. We have examined a specimen of Fel Bovinum keratinoids, and find that they are unaffected by acid liquids, but readily dissolve and discharge their contents in alkaline ones. Messrs. Duncan, Flockhart, and Co. also manufacture Plastic Pills and Perles; they resemble the well-known French perles, but in the plastic pills a pill is introduced which is not only gelatine-coated, but in which the ingredients are in a granular condition, and do not become hard. We have received samples of plastic pills which contain one, two, and even three Blaud pills in the form of a single pill. The contents of these pills are found to be entirely in the ferrous condition.

EFFERVESCENT GRANULES.

We have received from Messrs. Allen and Hanburys, Plough Court, Lombard Street, E.C., specimens of Effervescent Granules of antipyrin, phosphate of iron, ammonio-citrate of iron, citrate of potash, citrate of magnesia, and sulphate of soda. The novelty of these preparations consists in their fine and uniform granulation. The ordinary effervescent preparations are in granules of unequal size, so that when they dissolve in water the effervescence is not uniform, and it frequently happens that large lumps are swallowed when they are taken during effervescence; their irregular granulation also does not admit of accuracy of measurement. Our examination of the Effervescent Granules shows that upon the addition of water there is uniformity of effervescence, and also that they can be measured with ease and accuracy. The granules are packed in bottles furnished with a wooden measure stopper, which is made to contain the minimum dose.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1893.

SUBSCRIPTIONS to the Association for 1893 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, AUGUST 5TH, 1893.

THE NEWCASTLE MEETING.

THE British Medical Association meets this week for the second time in Newcastle, its former meeting having taken place in August, 1870, when the meeting was marked for the first time in the history of the Association by the public recognition of the municipal authorities, the Mayor, Mr. James Morrison, and the Sheriff, Mr. T. L. Gregson, both since deceased, being present in their robes of office. On the present occasion also the official authorities of the town, the Mayor, and the Sheriffs, took part in the reception of members, and by their large hospitality and daily courtesies have done much to add to the dignity and success of the meeting. At the last meeting, twenty-three years ago, Dr. Edward Charlton, then senior physician in Newcastle, was President, and recalled the fact that 25 years previously he had the honour of delivering the annual address before the then Provincial Medical and Surgical Association, assembled at Sheffield, and on that occasion gave the Association a verbal invitation to visit Newcastle, which was not realised till after the lapse of a quarter of a century. "The British Medical Association," said Dr. Charlton, speaking in 1870, "which now represents the former Society, is increased marvellously in numbers and influence, and yet throughout that long course of years it has never swerved from its original design—it has steadily kept in view the amelioration of the profession both by fostering the advance of scientific medicine and by improving the status of the provincial practitioner." The number of members of the Association then was 4,258. There were six Sections for the reading and discussion of papers, namely: Medicine, Surgery, Physiology, Midwifery, Public Medicine, and Psychology. The membership of the Association has now reached the number of 14,700, its Branches are to be found in almost every British dependency, and the number of Sections in which the papers are read are eleven, namely: Medicine, Surgery, Obstetric Medicine and Gynæcology, Public Medicine, Psychology, Anatomy and Physiology, Pathology, Ophthalmology, Diseases of Children, Otology, and Dermatology.

Speaking in the same sense as his predecessor, Dr. Philipson, the President of this year, was able to congratulate the Association and the profession on the immense amount of good work done, not only in the direction indicated by Dr. Charlton, but all along fresh lines tending towards the same end, and aiming not less at the public welfare than at professional advance. In the interval of time, said Dr. Philipson, the Association has greatly increased in numbers, power, and influence. At the annual meeting of 1870 320 members attended; the present attendance will probably prove quadruple of that number, just as that of the members has quadrupled. Proceeding to discuss, as is customary in the Presidential Address, local facts of interest, Dr. Philipson gave a luminous view of the history and development of Newcastle, especially in relation to its university and collegiate institutions, and its medical establishments. Touching on the diseases associated with occupations peculiar to the locality, he referred to the disorders special to the occupations of the pitmen and of the workers in iron. In reference to the large amount of disease connected with lead works, he was able to announce that Professor Oliver, whose able Goulstonian lectures we have recently published, and to whose pen we have been otherwise indebted in this matter, has been appointed a commissioner by the Home Office to inquire into the conditions under which white and red lead are manufactured, and to assist in forming an opinion as to what additional precautions are desirable.

Newcastle has from time to time been the seat of severe visitations of cholera. Dr. Philipson was able to add one further testimony to the enormous accumulation of evidence that cholera is essentially a waterborne disease by pointing out that in 1849, when the water supplied to Newcastle was uncontaminated, the mortality was seven times less in proportion to the population than it was in the visitations of 1832 and 1853, when the water supply was polluted. He was able also to make a statement that the present water supply is good in quality and is filtered. If this confidence be well founded and the protection of the water supply is adequate, there will be no reason to anticipate any extension of the cholera in Newcastle this year, notwithstanding that the disease has been, and may be again, brought to its gates by ships coming from infected ports.

Passing to the consideration of questions relating to public health, Dr. Philipson in effect touched upon the main topics of progress in matters in which for successive years the Parliamentary Bills Committee has been engaged, and he had no difficulty in showing that while enormous progress has been made, there still remained much to be done in order to carry out effectually the good sanitary work of which the county councils are capable in the direction of supervision of the large areas within their jurisdiction, of the prevention of the pollution of rivers, and the appointment of county medical officers, and of consolidation of the 1,500 areas into which our sanitary defence is split up, without in any way lessening the responsibilities of local authorities as defined by law.

He concluded with a strong appeal for the consolidation of Government health departments into a central organisation, which has long been one of the ends of sanitary reformers.

As Sir Dyce Duckworth truly said, the address was able, statesmanlike, well thought out, and likely to be influential for good in all the directions to which it pointed.

The other business of the meeting passed off with unusual serenity. The ever-widening area of the Association's membership, the popularity and large sphere of influence of its JOURNAL, to which kind and graceful reference was made

by the President, the Treasurer, and by other unofficial members of the Association, the highly prosperous state of its finances, the good working of its Committees, the large annual surplus this year—the largest ever yet announced—combine to produce so brilliant a record of successful achievement in every direction that the customary critics who made once more their annual bow and pronounced their annual discourse were milder and more conditional in their censure than on any previous occasion for many years past.

The hospitalities of the town, the private and munificent courtesies and hospitalities of the profession and of leading citizens, the extent and completeness of the accommodation for the meeting and the Sections have furnished all the necessary adjuncts for the good working of the meeting and for the concomitant social pleasure and relaxations which are wont to accompany these annual congresses.

Newcastle has not stood still during the last quarter of a century; its large areas and open spaces, its fine public buildings, its energetic colleges of science and technical teaching, and the development of its great educational institutions, have enabled it to offer itself for criticism no less than congratulations with just confidence and hearty sincerity. The ancient and honoured University of Durham and the illustrious prelate of the diocese have contributed their part to dignify and honour this sixty-first annual meeting of the British Medical Association. The annual addresses have been of a character to do honour to any learned society, and are on the high level to which recent experience has accustomed the members on these occasions. Those which we publish this week will be felt fully to justify this high encomium, and the further reports which will follow will show how much admirable work can be concentrated within a week, and yet leave time for many of those minor amenities of life which give colour and brightness to professional exercises. There is at the present moment in Newcastle not one voice which does not ratify the expression of thanks and congratulations due to our hosts, to the organisers of the meeting, and to those who have contributed to its scientific and social development.

The meeting has been in every way a success, and will leave an indelible mark and the grateful recollection of everyone present.

THE ADDRESS IN MEDICINE.

A certain successful physician was wont to say that, nosologically speaking, the number of patients who consulted him was but six or seven. By this paradox he meant to signify that if all his patients were classified not by superficial but by deep resemblances they fell into a few classes. Such is the motive of the able and broad-minded Address in Medicine delivered by Dr. Drummond at our annual meeting. In this address Dr. Drummond read us a lesson of which we stand in need—the lesson of a wide survey of the field of nosology on a broad and philosophical basis. We repeat that we need this lesson, for the lack of breadth of view, of accurate definition of terms, and of firm grasp of the institutes of medicine, is as conspicuous among us as are our vast industry in the details of the study and our increasing skill in practical therapeutics.

In an important and learned treatise lately issued from the press the author tells us that malignant pustule, splenic fever, and woolsorters' disease "are now all known to be the same disease;" it might as truly be said that a broken leg and a broken head, given by the same stick, are the same disease. Against language of this sort Dr. Drummond invites us to protest. The only intelligible meaning of the word "disease" is a symptom group, and what the writer meant was that though the diseases were different they arose from like causes.

To what we will call polymorphism in nosology the reader of the address called attention, always forcibly and in many passages with remarkable ability, enriched by the results of a large experience. Taking, for instance, the case of syphilis, he regards tabes dorsalis and general paralysis as examples of its polymorphism; or, at any rate, on the theory of probabilities he will have them so regarded until the invariability of the antecedent is disproved. Of aneurysm, again, he effectively says: "Arterial strain through hard work is of course a factor in the production of aneurysm, but it is one that in the vast majority of instances requires to be multiplied by syphilitic arteritis in order that the product be aneurysm, and then it is the lesser quantity of the two." Again, his discussion of the various symptom groups which may owe their origin to the rheumatic poison, and the weighty paragraph on the causation of cardiac diseases, give food for profitable thought.

From polymorphism Dr. Drummond passed on to the difficult subject of the modifying influence of one disease upon another, which he aptly illustrated by cases in which "the liver borrowed (symptoms) from the heart"; alcoholic palsy was modified by diphtherial or plumbic palsy, lupus by erysipelas, and so forth.

The definite lesson for us is to seek to classify diseases, not by superficial but by deep resemblances, not by anatomical but by genetic relations; a well-timed counterblast to doctrines affected by other writers, such as are some of the students of skin diseases, who group their cases exclusively after the former characters. We cordially agree with Dr. Drummond that this disposition to confound diseases which bear a symptomatic resemblance to each other, rather than to refer each to its proper origin, is to be withstood, as also the fashion of some textbooks which appeal to many so-called causes which do not strictly merit this name.

Unfortunately the laborious preparation needful for our profession makes it difficult to secure for our students any education in terminology and in methods; but it is none the less the duty of those who, having passed the standards of the schools desire to teach their brethren, to purge their minds with some measure of such discipline.

THE ADDRESS IN SURGERY.

This year the Address in Surgery is intended to be a general review of recent progress, and not a series of few or more new contributions on questions either of scientific or practical interest. Dr. Hume finds it more congenial to discuss the broad principles of general surgery than the elaborated details of any of its specialised departments. We have in this latest addition to the Association addresses an able and interesting record of the progress of surgery, and of its recent development as both a scientific pursuit and a beneficent calling. In the course of his remarks, which deal mainly with "the evolution of surgical principles," Dr.

Hume expresses a high and sanguine view of modern surgery. Whilst still struggling towards truth—as, indeed, all other branches of science are doing—surgery, we are reminded, rests on principles so worked out and firmly established that its claim to scientific position can be made good. The observance of this year by surgeons as the centenary of the death of John Hunter, of whom it may be justly said that he was the founder of surgical science, has led Dr. Hume to review the progress of surgery during the past hundred years. This progress, we are told, though of course very decided, has not been a steady and continuous one, but has been effected by fits and starts. The greater part of the work, it is held, has been done in our own generation. Many, and especially the veterans of surgery, might possibly not acquiesce very readily in this part of Dr. Hume's excellent address, and might hold that since Hunter's day there has been steady work and steady progress in surgery, but that from time to time the precise aim and direction of the workers have been altered. Special attention was paid at one time to clinical observation, at another to brilliancy of operating, but now the efforts of surgical study are directed mainly to the perfecting and extending of antiseptic methods, and the destruction of the parasitic germs of disease.

The first portion of the Address describes the evolution of surgical teaching and practice with regard to the repair of wounds. Inflammatory processes are now regarded as hindrances and not as helps, and the duty of the modern surgeon is not to treat, but to prevent, inflammation and suppuration. This is the main object of the antiseptic system; but, great as have been the changes this system has effected in surgical practice, the scientific principle on which it is founded has remained unchanged. Hunter's dictum in 1793, that "primary healing takes place without inflammation," seems to be repeated in the statement of one of the most distinguished advocates of Listerism, that "a primary healing wound several days after an antiseptic operation ought to look exactly as if it had just been stitched; no swelling and redness; no heat; no pain." Dr. Hume alludes to the different phases through which the antiseptic method has passed, and holds—very rightly, we think—that it admits of latitude in its application, and that it is open to every surgeon to elaborate his own *technique*.

Whilst fully recognising the benefits that have been derived from the utilisation of the reparative powers of Nature in grafting skin and bone to make up for the loss of these structures, Dr. Hume expresses some doubt as to the benefit to be derived from the grafting of the higher and more complex structure of nerves. The whole subject, he thinks, needs further investigation. The anatomical fact of nerve anastomoses in the extremities certainly justifies the assertion "that only restoration of motor power and the arrest of trophic changes can be accepted as unequivocal evidence of restored function."

As a further illustration of the influence of scientific knowledge on surgical practice, Dr. Hume points to the modern treatment of localised tuberculoses and of malignant disease. The increased activity and aggressiveness in the surgical treatment of so-called scrofulous disease shown just before the microbic era have since been fully justified by the results of pathological research; and, moreover, from these results surgeons have gained immense encouragement, and their further developments of treatment have been in the direction not only of new applications, but also of greater thoroughness. Attributing the occasional failure of arthrectomy to effect lasting cure to imperfect removal of diseased tissue, Dr. Hume anticipates in future a partial return to the older and more searching operation. With regard to cancer, this review of modern surgery is less satisfactory. Recent pathological research, though actively carried on by skilled and earnest workers, has hitherto done but very little to improve the methods and results of surgical treatment. Dr. Hume, however, is sanguine as to the future, and whilst recognising the fact that we have nothing at present beyond the nature of conjecture concerning the essential cause of cancer, he anticipates that science will soon enable us to bring this scourge within the list of curable diseases. Both scientific knowledge and extensive experience in surgical work favour, it is held, the practice of early and free removal of cancerous growths.

Much importance is attributed in this address to certain so-called "canons in surgery," which, though of empirical origin, have in most instances found support in demonstrated pathological fact. Examples of these canons are given by the injunctions to perform high amputation for senile gangrene, and to operate "when in doubt" in all cases of probable strangulated hernia. The guidance of some equally definite rule, it is held, is greatly needed in cases of internal obstruction. Another canon which is here strongly insisted on is that of minimising as far as possible shock in surgical operations. Dr. Hume is disposed to think that this important duty does not always receive the attention it deserves, and he points out that much can be done to support the patient both before and after the operation.

In concluding his very able and suggestive address, Dr. Hume reminds surgeons that though great things have been done in the past, much more remains to be done; and that it is necessary, in order to help the progress of surgery, to associate a growing knowledge of scientific principles with the study and experience of practical detail.

THE ANNUAL MEETING.

THE sixty-first annual meeting of the British Medical Association was opened on Tuesday, August 1st, with the usual formalities. Mr. Joseph White, of Nottingham, the retiring President, introduced his successor, Dr. George Hare Philipson, Professor of Medicine in the University of Durham, who acknowledged the honour done him in a few well-chosen words.

ON Monday evening, Dr. Philipson entertained a large party at an informal dinner in the Assembly Rooms. Among those present were the Mayor, Sheriff, Town Clerk, and Under-Sheriff of Newcastle; Mr. Joseph White, Dr. Withers Moore (retiring President of Council), Mr. H. T. Butlin (Treasurer), Professor Pozzi of Paris, Dr. Long Fox, Dr. W. M. Ord, Professors Cuming, Roy, Arnison, Gairdner, and Oliver, Dr. Hume, Dr. Drummond, Mr. Williamson (Honorary Local Secretary), many presidents and officers of Sections, and many members of the Council of the Association. After the toast of "The Queen" had been duly honoured, Dr. Philipson gave that of "The Mayor and Corporation of Newcastle," which was acknowledged by the Mayor and Sheriff. Subsequently the health of "The Host" proposed by Professor Gairdner, was drunk with great heartiness, and responded to by Dr. Philipson, in a voice full of emotion.

The Reception Room, the bulk of the Museum, and several of the Sections were placed in the College of Medicine, a handsome building described and illustrated in the British Medical Journal on June 3rd. The Section of Public Medicine met in the Hall of the Geographical Society close at hand, and the remainder of the Sections in the College of Science at a short distance.

The annual Museum, which has in recent years attained very large proportions, has been more extensive than ever at this meeting. It was divided into six sections, three devoted to Food and Drugs, Instruments and Books, and Sanitary and Ambulance Appliances respectively, and three to Pathology, and Anatomy and Physiology, and to Otology.

The section of the Museum devoted to Pathology was subdivided into three parts—Diseases of the Skin, Diseases of the Eye, and General Pathology. Conspicuous among the objects in the last-named sub-division were some excellent gelatine casts of various tumours exhibited by Dr. Maclaren, of Carlisle. These gelatine preparations were made by packing the cysts, then coating with gelatine, and allowing this to dry; this process was repeated until the outside was hard and firm; the packing was then removed, and the preparation was painted. The result was most satisfactory, the general effect being very realistic; a large parovarian cyst, for example, succeeded almost perfectly in deceiving the eye. Professor R. Boyce, of University College, London, exhibited some very fine enlarged photo-micrographs of sections of cancerous tumours, showing the cancer bodies as to the nature of which pathologists are at the present time so much at issue. Professor Delépine and Dr. Cooper, of Owens College, Manchester, also exhibited microscopic specimens and drawings of psorosperms in the rabbit. Professor Delépine also exhibited dissections of a series of guinea-pigs which had been inoculated with pure cultivations of the tubercle bacillus at various times before death. The preparations showed the glandular affection at these various dates. Dr. R. M. Buchanan showed microscopic sections of the thyroid gland from a case of myxœdema of four years' duration, and also drawings of the internal organs from a case of melanotic sarcoma. Dr. George Murray showed a number of microscopical specimens of bacteria and a collection of photographs of a case of acromegaly, and of patients suffering from myxœdema before and after treatment by thyroid extract. A large collection of specimens, many of the highest interest, were lent from the Museum of the University of Durham College of Medicine (Newcastle).

The collection of drawings of skin disease was very extensive, and many of the pictures were of extraordinary excellence; many showed conditions of extreme rarity. Among the most striking was a drawing shown by Dr. Jamieson, of Edinburgh, of the arm from a case of so-called "paraffin-ichthyosis." The condition is characterised by the formation first of comedones, which become transformed into crusts and horns, presenting a most curious appearance, well shown by the sketch exhibited. Mr. Jonathan Hutchinson drew from his inexhaustible store some very interesting portraits, among others a curious case of ulcers on a man's face, supposed to be due to infection from "grease" in a horse. He also exhibited a reproduction of a curious drawing in the museum of the Royal College of Surgeons in Ireland, showing a woman surrounded by four children, all presenting a similar form of apparently spastic paralysis, the knees being in a position of extreme flexion, so that the heels touched the buttocks. Dr. Radcliffe Crocker, Dr. Colcott Fox, Dr. Stewart Stirling, and Dr. Phineas Abraham also showed sketches of skin diseases, and the collection of skin-portraits taken altogether would not easily be matched elsewhere. Dr. Abraham also showed for Dr. Sabouraud, of the Hôpital St. Louis, Paris, a series of specimens of typical cultures of tricophyton microsporon and tricophyton megalosporon. The growths had been produced in flasks, on the flat bottoms of which a thin layer of culture medium had been permitted to solidify. Owing to this simple but ingenious plan of cultivation it was possible to examine the form, colour, and contours of the growing parasite with great ease. Dr. David Walsh exhibited casts of a case of tinea of the nails, and among Dr. Jamieson's drawings was a very instructive representation of tinea at the margin of the anus in a child, mistaken, and very liable to be mistaken, for mucous tubercle. Dr. Norman Walker showed a cast and microscopical specimens of adenoma sebaceum, as well as other specimens.

The specimens of diseases of the eye included some examples of intraocular new growth mounted in gelatine as naked-eye specimens by Mr. Henry Juler, Mr. John Griffith, Mr. Gustavus Hartridge, and Mr. A. S. Percival. Mr. Bendelack Hewetson exhibited some well-executed casts of the operator's hand when engaged in making the corneal incision, and when preparing to make the incision in the performance of the operation of iridectomy upwards. The casts were designed to be used for teaching purposes.

A special service was held in St. Nicholas's Cathedral, Newcastle, on Tuesday afternoon. It was attended by the President and other officers of the Association, by the Mayor and Sheriff of Newcastle, by many members of the Association, and by a large number of other persons. The sermon was preached by the Bishop of Durham, who took for his text the words, "In many parts and in many fashions" (Hebrews i, 1). Dr. Westcott, in the course of his sermon, observed that the present age was critical and analytical, and that, therefore, no opportunity should be lost to strengthen the sense of spiritual fellowship among representative leaders of thought. The studies of the physician and the theologian had this in common—that they were both concerned with the mystery of life. In old time the physician and the theologian had been one, and it would be a sad thing if those between whom the offices were now divided failed to work together with one heart and soul. The nature of life was still beyond our ken. The physicist might teach that the world was but a grain of sand in the universe of worlds, and the life of man but a breath, but time and space were no measure of the eternal. The Gospel made all experience contribute to the completeness of the vision in which fragmentary promises could be combined in a final harmony. The solution of the social problems of the day was not material levelling, not the removal of the stern necessity of labour, not the obliteration of individuality or its enfeeblement, not schemes of collectivism. The only satisfying solution was loyal obedience to the spirit of divine trusteeship in the administration of every gift, whether of wealth, or power, or intellect; the generous recognition of the dignity and worth of every form of toil, and the most complete development of personal character, not for self-assertion, but for common ministry. At the conclusion of his sermon the Bishop made an appeal on behalf of the Royal Medical Benevolent College, Epsom. It provided a home and pension for members of the medical profession who, unhappily, in their declining years may require both. It provides also the best possible education for the sons of medical men—an education equal to any which they could obtain otherwise. No words he felt were needed to commend the claims of such an institution to the generosity of such a congregation, but he would invite them to give generously and gladly, for "the Lord loveth a cheerful giver."

The *Newcastle Chronicle* has published a daily supplement containing reports of the meeting of the Association. The supplement published on Tuesday contained a well-written

history of the Association, and a series of reminiscences of the annual meeting held in Newcastle twenty-three years ago. This supplement also contained a history of the University of Durham College of Medicine, and an account of the Newcastle hospitals and local medical charities.

IN the Section of Surgery, at its opening, after a few introductory remarks by the President, a discussion took place on the subject of the radical cure of hernia, which was introduced by a paper by Mr. Rushton Parker, of Liverpool, who reviewed the subject in its general bearings, and sketched the modifications which he had been led to introduce into his method of operating during recent years. The debate which ensued was well sustained, and excited much interest in a large audience. Mr. Coppinger subsequently exhibited the patient, whose case has already been mentioned in the BRITISH MEDICAL JOURNAL, in whom he had ligatured the innominate and carotid arteries for a large aneurysm of the second and third portions of the subclavian artery. On Thursday Mr. Victor Horsley introduced a discussion on the surgical treatment of cerebral tumours. He illustrated his remarks by lantern photographs and specimens. Mr. Page showed a patient upon whom the operation of pyloroplasty had been performed fourteen months before. Demonstrations of surgical cases were given in the infirmary on the afternoons of each day by Dr. Hume, Mr. Page, and Mr. Rutherford Morison.

IN the Section of Ophthalmology, on Wednesday, after the President had made some introductory remarks, Dr. Buzzard opened a discussion on Optic Atrophy as a Symptom of Chronic Disease of the Central Nervous Symptom. He contended that many cases having contraction of visual field and central scotoma with normal discs, such as were generally assumed to be hysterical, might eventually develop the symptoms of disseminated sclerosis. In his opinion disseminated sclerosis was frequently characterised by a history of attacks of blindness and other symptoms from which spontaneous recovery took place. Dr. Berry dissented from this view, and held that the symptoms on which Dr. Buzzard relied were common to hysterical patients. He suggested that since many cases of locomotor ataxy commenced with central scotoma, they might be mistaken for cases of toxic amblyopia; Dr. Buzzard, on the other hand, pointed out that such cases might be examples of alcoholic paralysis simulating ataxy.

THE Section of Obstetric Medicine and Gynæcology was opened by the President, Dr. Murphy, on Wednesday, by an address, in which he reviewed various obstetric and gynæcological problems of general interest. Professor Pozzi of Paris then read a paper on the Conservative Surgery of the Uterine Appendages, which was followed by a prolonged discussion, in which Sir Spencer Wells, Dr. Cullingworth, Dr. W. J. Smyly, Dr. Murdoch Cameron, and others took part.

THE first business in the Section of Diseases of Children was a discussion on abdominal tuberculosis, which was opened by Dr. Frederick Taylor, who spoke from the medical, and Mr. Howard Marsh, who spoke from the surgical, point of view. Among the speakers were Professor Clifford Allbutt, Dr. Sims Woodhead, Mr. Pridgin Teale, the President (Dr. T. Barlow), and others. Dr. Colman subsequently gave the results of an analysis of sixty necropsies on cases of tuberculosis at the Hospital for Sick Children, Great Ormond Street. Dr. Thomas subsequently read an interesting paper on the Treatment of Cases of Severe Hare Lip.

THE Section of Otology was opened by an address from the President, which is published at page 314. The most important discussion in this Section on Wednesday was that raised by the paper of Dr. Milligan, of Manchester, on the treatment of chronic suppuration of middle ear disease by excision of the auditory ossicles. The proposal, which is a comparatively novel one, was very freely debated on both sides.

IN a room adjoining the meeting place of the Section of Otology was a collection of specimens bearing on that department of surgery. Mr. Bendelack Hewetson showed a series of photographs, casts, etc., illustrating the treatment of deafness arising from nasal stenosis and adenoid vegetations. Dr. Samuel Lodge, of Bradford, exhibited microscopic specimens of micro-organisms found in diseases of the throat, nose, ear, and eye. Dr. W. Milligan, of Manchester, showed specimens of caries of the tympanic ossicles, and microscopic sections of epithelioma of the external ear. Dr. Carline, of Lincoln, exhibited his audiometer, and Dr. Ellis, of Newcastle, Hughes's audiometer. Dr. H. S. Walker, of Leeds, showed dissections of the temporal bone in health and disease, and a number of specimens were exhibited from the Museum of the College of Medicine. A selection of aural instruments was exhibited by Messrs. Joseph Wood and Co., of York.

PROFESSOR ROY, F.R.S., opened the Section of Pathology by the delivery of an an address, which is published at page 310. Subsequently much of the time of the Section on Wednesday was profitably taken up by the reading and discussion of papers on the functions of the thyroid and the treatment of myxœdema by thyroid feeding. Among those who took part in the debate were Professor Victor Horsley, Dr. Byrom Bramwell, Dr. George Murray, Dr. T. Coke Squance, Dr. Lorrain Smith, and Dr. Lane.

IN the Section of the Museum devoted to Anatomy and Physiology, Professor Sheridan Delépine exhibited a series of microscopical specimens illustrating the various stages of the process of the deposition of glycogen in the liver during the process of digestion. This deposition, it was shown, takes place first at the periphery of the cell, and chiefly around the intercellular bile canaliculi. Specimens also illustrated the ferrogenic function of the liver as observed in the rabbit. The sections were made at various intervals after a meal, and showed the gradual accumulation of iron round the portal vessels from the fourth to the twelfth hour, and its diminution thereafter. The accumulation of glycogen could be observed to commence in the first hour, and to continue in the eighth, after which it gradually disappeared from the periphery to the centre of the lobule. The subject was further elucidated by a chart with diagrammatic drawings showing the changes observed in the stomach, liver, and pupils of eight rabbits during the digestion of 50 grammes of carrots. The animals were killed at the end of each hour after the meal, and the chart showed the portion of the meal remaining in the stomach at the time of death, the changes observed in the cells of the portal zone, the distribution of iron and of glycogen in a lobule, and the changes observed in the cells of the hepatic zone. Dr. F. W. Mott exhibited a series of microscopical specimens to illustrate the effects of subcortical section of the motor area of the brain. The specimens, which were stained by Marchi's method, showed very clearly the descending degeneration of nerve fibres through the cord, and also that an ascending degeneration occurs above the line of section. Some of the sections of the cord showed that phagocytosis was going on, leucocytes being seen in the vessels deeply stained with the osmic acid. Professor R. W. Reid, of Aberdeen, exhibited his encephalograph, and photographs showing the mode in which it may be used. A number of specimens were lent from the Museum of the University of Durham College of Medicine, among the most interesting being some good examples of intestinal diverticula. From the same source also were shown examples of tissues stained in bulk for class purposes.

On Thursday afternoon a party visited the Newcastle City Hospital for Infectious Disease. They were received by Dr. Armstrong, the Medical Officer of Health for Newcastle, Dr. Stokoe, the Resident Medical Officer, and the Chairman and other member of the Sanitary Committee, by whom lunch was provided. The Hospital, which is situated about three miles from the centre of Newcastle, is built on the pavilion system, and is placed on a site containing about eleven acres of land. The drainage has been designed with great care, and all sewage from the pavilions and patients' laundry is disinfected before entering the drains. Each pavilion is of one storey; it is entered from the centre, and has on either hand a long ward for ten patients, male and female respectively, and two small private wards. There are a nurses' room and scullery, and at the door a discharging room with bath in which the patient about to leave the hospital abandons his hospital clothes, takes a bath, and resumes his own clothes, which have meanwhile been disinfected. The furniture throughout is of polished pine, and the floors of polished pitch-pine laid in narrow widths. The walls are finished to a height of 8 feet with polished Parian cement of a sage-green colour; there are no mouldings or cornices, and the angles throughout are rounded off. In a side porch in the pavilion used for typhoid fever is a special sink for soiled sheets, which are immediately soused in carbolic solution; they are subsequently removed in a covered iron barrow to the patients' laundry. At the entrance to each pavilion hang linen wrappers, which are donned by the medical officers and visitors before entering the wards. The nurses wear linen costumes. The wards are heated by steam pipes, and have also Galton stoves. The ventilation has been carefully considered, and windows and Tobin tubes are supplemented by extraction of vitiated air by Boyle's air-pump ventilators and specially warmed extraction shafts. The scarlet fever pavilion has been fitted with thirty-three cots and beds to provide for the youthful age of the majority of the patients. There is also an isolation pavilion built in two portions; each portion consists of two wards, separated by a nurse's duty room, and containing respectively one and two beds. In this way two different diseases can be housed at the same time and kept separate. The wards are connected with each other and with the administrative block by roofed corridors with open sides. The administrative block contains apartments for the resident medical officer and matron; bedrooms for nurses, each nurse having a comfortable well-furnished room, those for the night nurses being on a separate floor; kitchens, storerooms, and offices. The wards are put into communication by telephone with the resident medical officer's rooms, and the hospital is connected with the health department offices in Newcastle. These telephonic arrangements are very complete, and by the manipulation of the switchboard it is possible to speak through from Newcastle into any ward, and the resident medical officer's bedroom at night can be connected with all the wards.

Newcastle has also provided itself with a site for a cholera hospital on the Town Moor; the foundations have been put in and the drainage finished for pavilions for 100 cases, but at present only buildings for the administrative department and one pavilion are erected. The remainder could be put up at a few days' notice. This hospital is for cases arising in the town. Cases brought to the port by sea are treated in the floating hospital on the river Tyne. A steam disinfecting apparatus has been provided, as also a hospital destructor for infected beds, and a steam steriliser. If needed, each ward would have a separate steam steriliser.

In the Section of Medicine on Wednesday a discussion on Chronic Glycosuria in Middle Life was opened by Sir Dyce Duckworth. The discussion mainly centred on the questions whether glycosuria could properly be looked on as a distinct disease separate from diabetes, and as to the desirability of restriction in diet. Sir Dyce Duckworth was quite prepared to admit that some cases which presented the symptoms of ordinary glycosuria might pass on into diabetes, but certainly cases did occur in which a very considerable amount of sugar was passed during long periods, and in which the resulting degeneration was very slow, the patients often were stout and florid, and although incapable of undergoing any strain, appeared in good health, lived to a fair age, and earned their living. Professor Gairdner mentioned a case in which glycosuria was persistently present for upwards of thirty years; and Mrs. Garrett Anderson one which had continued for more than eighteen. Dr. Shingleton Smith advocated the use of water, and especially alkaline water. There was a general consensus of opinion that rigid dietetic restrictions were definitely injurious, as well as being often ineffectual in the particular condition under discussion. An interesting demonstration of cases of myxœdema was given by Dr. Murray, Professor Oliver, and Mr. Allison; especial stress being laid on the fact that the treatment by thyroid preparations must be kept up continuously, relapses otherwise rapidly occuring.

At the meeting of the Section of Public Medicine on Wednesday the whole sitting was devoted to the discussion of questions as to the prevention of cholera. The President (Dr. H. E. Armstrong, M.O.H. for Newcastle and the Rivet Tyne) introduced a discussion on the Precautions against Cholera adopted in the North of England. He spoke of the visiting of ships, hospital accommodation, means of removing patients, disinfecting apparatus, the means of dealing with patients unable to be removed from their own homes, and the disinfection of their dejecta. Frequent and thorough flushing of the sewers by water in preference to any chemical or other mode of treatment was strongly recommended. Finally, Dr. Armstrong exhibited a washable visiting coat and head-cover of grey gingham to be used by medical men visiting cases of infectious disease, that they might not be open to the charge of conveying the contagium. Dr. C. U. Laws more particularly described the arrangements for sterilising cholera dejecta adopted at the temporary cholera hospital at Newcastle, in a central sterilising boiler, where they can be raised to a temperature of 230° F. For private houses disinfection by mercuric perchloride was recommended. Dr. F. W. Clark read a paper on the duties and difficulties of port medical inspectors, both as to the dealing with passengers, crews, and ballast of infected vessels. Dr. J. W. Mason (M.O.H. Hull), read a paper on quarantine as a preventive measure. He described it as a failure, giving a false sense of security, and advocated in its place careful medical inspection at all ports. The expense of these local measures should be partly borne by the Imperial exchequer. Brigade-Surgeon Pringle gave a graphic description of his experiences as to cholera in India, in which the utter worthlessness of quarantine was well exhibited. Mr. Ernest Hart spoke of the birth-places and diffusion of cholera, and advanced the proposition that cholera is an easily preventable disease. Fortunately, there is a wholesome fear of cholera which tends to keep the various sanitary authorities of this country well up to their duties. Cholera is eaten, or drunk, never caught; it always breeds in human beings or surface soil and water, and travels with the speed of human intercourse from India to Europe and the rest of the world, now reaching St. Petersburg within two or three months of its leaving India. The two great dangers are the Hardwár fair, where the pilgrims bathe in and drink the holy water, and the pilgrimage to Mecca. By most minute precautions in 1891 cholera was entirely prevented at the Hardwár fair; if the same precautions should be taken at Mécca the very same prevention could be easily effected at the Mohammedan focus of diffusion. Mr. Hart concluded by proposing that the question of approaching the European

and Indian Governments for the suppression of cholera in India and at Mecca be referred to the Parliamentary Bills Committee. Dr. Alfred Hill (M.O.H. Birmingham), seconded the resolution, which was carried unanimously with acclamation. Surgeon-Major Poole gave his experiences at Peshawur, where in the midst of a terrible epidemic of cholera the water supply to the gaol was kept perfect, and no cholera came about; then when the water supply became infected, cholera arose, and was again stopped when the water was once more rendered pure. He advised house to-house inspection in case of an epidemic of cholera. Dr. Thresh (M.O.H. Essex), gave an account of the precautions adopted at the ports of that county last year for the prevention of the disease. Dr. Groves (Isle of Wight) described his experiences in that district, showing how pilots from infected districts may land without their entrance into the country being known by the coastguard, or other local anthorities. Mr. Bernard E. Smith, Ph.D., Inspector, Alkali Acts Department of the Local Government Board, showed specimens of sulphurous acid liquefied under pressure of two atmospheres in glass bottles, to be used for disinfecting purposes in rooms, ships' cabins, etc., and superior to the ordinary burning of sulphur for disinfection. Dr. W. G. Richardson, Resident Medical Officer Newcastle Dispensary, spoke of the precautions to be taken there if cholera should occur. Brigade-Surgeon Pringle fully confirmed Mr. Ernest Hart's graphic description of the origin of cholera at Hardwár.

SIR HENRY ROSCOE has expressed his intention of calling the attention of the Minister of Foreign Affairs and the Secretary of State for India to the resolution which was moved and unanimously carried in the Public Medicine Section on the methods of assisting the extinction of cholera, and to ask whether they will be willing to give the assistance requested in promoting the necessary measures.

ON Wednesday afternoon the Sheriff of Newcastle gave a garden party at his residence, which was attended by a large number of members of the Association, the Mayor and Mayoress, and many invited guests.

ON Wednesday a party of about fifty visited the works of the United Alkali Company at Gateshead, where they were entertained at luncheon.

THE annual meeting of the Durham University Medical Graduates' Association was held on Wednesday in the Grand Hotel, Newcastle, under the presidency of Dr. A. Mantle. Dr. W. T. Wilson was elected President for the ensuing year.

ON Wednesday evening, the Mayor and Corporation of Newcastle gave a *conversazione* in the Hancock Natural History Museum. The visitors, who were very numerous, were received by the Mayor and Mrs. Culley, and by Professor Philipson. The Museum, which is a large building, containing a large number of interesting objects, was well adapted for the purpose of a large assemblage, but the pleasure of the evening was somewhat marred by a breakdown of the electric light, owing to the fusing of a wire.

ON Thursday afternoon the Schools and Charities Committee of Newcastle Corporation held a reception at the new Home for Incurables, which was thus inaugurated. The building, which has been well designed by Mr. Edward Shewbrooks, consists of an administrative block, two pavilions of ten beds each, and a detached cancer pavilion for twenty cases. An interesting display of hand and horse ambulances was made by Messrs. Atkinson and Philipson, of Newcastle, in the museum, and the same firm showed an ambulance tent van, the use of which will be illustrated during an ambulance review which will be held in Gosforth Park on Saturday.

IT will be seen that Mr. Butlin, whose term of office as Treasurer of the Association has been signalised by a considerable increase of income and important economies, has again accepted office for a further term as Treasurer of the Association. During his term of office, Mr. Butlin has acquired the fullest confidence of his colleagues on the Council, who have thus paid him the distinguished, though somewhat onerous, compliment of re-electing him. The President of the Council, Dr. Withers Moore, retires from his office, bearing with him the hearty goodwill and respect of his colleagues, and of the Association at large, for the courteous and assiduous manner in which he has fulfilled the very responsible duties to the Council. Dr. Ward Cousins, on whom the choice has fallen in succession to Dr. Moore, is well known throughout the Association as having most successfully conducted the business of his Branch, and as having been a diligent attendant at the annual meeting and at the meetings of Council, where he has the earnest goodwill of all, His close attention to the business of the Association for many years has given him a comprehensive knowledge of detail which cannot fail to be serviceable in his term of office.

IN the Section of Surgery on Thursday Mr. Victor Horsley read a paper on the Surgical Treatment of Cerebral Tumours, illustrated by lantern slides, photographs, and specimens. He insisted that such cases were, as a rule, sent to the surgeon too late for operation. Professor Macewen, of Glasgow, followed with an important speech, and the discussion was well maintained by Mr. Rushton Parker, Dr. Lang, of Berne, Mr. Godlee, and Dr. Newman.

IN the Obstetric Section, on Thursday, a debate on puerperal septicæmia was opened by Dr. Robert Barnes, and in the discussion which followed Professor Philipson, Dr. Cullingworth, Mrs. Garrett Anderson, Dr. Byers, Dr. W. J. Smyly, Dr. Aust-Lawrence, Professor Pozzi, and others took part.

THE Charter of the new University for Wales was laid before Parliament on August 1st.

CHOLERA AND PANIC IN EGYPT.

ACCORDING to its usual custom, whenever cholera seems imminent, the Egyptian Government has developed of late a wonderful amount of spasmodic energy. Were it not for the gravity of the subject, it would be comical to note the way the same ground is gone over year after year without any perceptible advance. The moment cholera is said to have appeared at Mecca or Mûna, a wave of panic at once makes itself felt on the banks of the Nile, and committees and commissions, extraordinary and superior, are at once appointed to "take the necessary precautions." The regulation drill ought to be well known by this time; it consists of a kind of a goose step—all the motions of progress are gone through, but the performers remain in exactly the same place. The thousand and one sins against public hygiene are taken in hand, but though they are all most efficiently remedied—on paper—in reality not the slightest amelioration takes place. The sanitary condition of Egypt will never be remedied till a sufficient sum be calmly and deliberately set aside to cover the cost of the necessary works. In the first place the water supply must be placed above reproach. When that burning question is attended to it will be time to take in hand the other and less salient requirements.

EDUCATION ESTIMATES AND CHILDREN WHO SHOW DEFICIENCY.

Mr. Acland, in making the annual statement of the Education Department in Parliament, gave an able and lucid account of the varied educational work now carried on, and showed a sympathetic spirit towards the individual wants of the children in their physical as well as mental training. We note with pleasure his reference "to the provision which has been made as to the blind, the deaf, and the dumb children of London, and to another class of children who are not idiots, but who show a deficiency, and who ought not to be pressed in the ordinary way in which ordinary children are pressed in the ordinary schools." It might have been added as to "the children who show a deficiency" that day schools of special instruction have been provided for them not only in London, but also in Birmingham and Leicester. This provision for children feebly gifted mentally is largely due to the careful investigation of the condition of children seen in schools promoted by the British Medical Association in 1888, and now carried on by a joint committee appointed by the Association and the International Congress of Hygiene and Demography. Over 80,000 children have been seen in this inquiry by Dr. Francis Warner, and about 16 per 1,000 of the school-children appear to require special care and training. This inquiry and the needs of "children who show deficiency" is a matter which should engage the careful attention of the Education Department.

PLUMBERS' REGISTRATION BILL.

The Standing Committee on Trade met on Thursday, July 27th, to consider the terms of the special report necessitated by their decision not to proceed further with the Plumbers' Registration Bill. After some discussion, it was agreed to report to the House as follows: "Your Committee have proceeded with the consideration of the Plumbers' Registration Bill. During such consideration Clauses 1 and 2 were agreed to without amendment, Clause 3 was struck out to enable the substitution of a new interpretation clause, and Clause 4 was proceeded with. But the Committee are of opinion that that there is no prospect of their dealing with the Bill by amendments in a satisfactory manner, and they have therefore resolved not to proceed further with the consideration of the Bill."

ROYAL COLLEGE OF SURGEONS, IRELAND.

An adjourned meeting of the Royal College of Surgeons was held in Dublin on July 31st, to receive a statement from the Council regarding the financial condition of the institution. Mr. Thornley Stoker, Vice-President, occupied the chair. A balance-sheet was submitted showing in round numbers liabilities amounting to £12,000, and assets £64,000. The latter was made up of a mortgage for £10,000, and the rest was calculated upon the valuation of the premises and contents. This portion of the statement was very adversely criticised as being altogether illusory. It was pointed out that the general expenses and the salaries of officers were excessive. Dr. Myles proposed a resolution recommending the Council to reduce all salaries at once by 25 per cent. It appeared that a committee had been appointed by the Council to report on the whole question; and Mr. Thomson proposed, and Sir William Stokes seconded, an amendment to adjourn the meeting until November, so that the report and suggestions of the Committee might be laid before the College. This was defeated by one vote, and the original motion was carried.

OPIUM GROWING AND SMOKING IN INDIA.

A paper recently issued by the Chinese Imperial Maritime Customs contains a report of the journey in boats up the Yangtse to Chunking of the Custom's staff sent to that port to open it to foreign trade. Mr. Hobson says that the amount of land devoted to poppy culture, even along the river banks, is "something astounding," and it would almost appear that if the supply of Indian opium were cut short to-morrow, Szechuan alone would be able to provide for the wants of smokers over a considerable portion of the Empire. He met no real specimen of the debauched opium smoker so constantly paraded for the sympathy of Europeans. The agricultural and boating population of Szechuan slave like beasts of burden, and their yellow and generally jaundiced complexions testify to their indulgence in the opium pipe, and yet nowhere in the world will a hardier, better tempered, and more decent lot of people be found. "Whether mild indulgence in opium does not tend to secure immunity from various types of malarial disorder, to which, owing to poor living and damp dwellings, they would otherwise be liable, is a nice point for the medical faculty to elucidate."

CLOSE OF THE SESSION AT GLASGOW.

The summer medical session of the University was brought to a close on July 28th by the usual graduation ceremonial. At the final examinations 125 candidates passed out of a total of 185 who entered for the examination, and at the graduation ceremony 117 were presented for the degrees of M.B. and C.M. Five previous graduates received the higher degree of M.D. The closing address was delivered by Professor McKendrick, who discoursed upon Thirty Years' Progress in Medicine. By the use of statistics Dr. McKendrick was able to show the great saving of life annually effected by preventive medicine, and a study of mortality tables of the Royal Infirmary of Glasgow and St. Bartholomew's Hospital, London, seemed also to indicate advance in curative medicine, though the difficulty of applying a statistical inquiry in this direction was very great. Professor McKendrick quoted Dr. G. B. Longstaff's results of an examination of the Registrar-General's reports, which he discussed in detail. The total result, he thought, of the progress of medical science during the last thirty years might be briefly summed up thus: (1) Thousands of lives saved annually by preventive medicine; (2) greater accuracy in diagnosis, and a sounder knowledge of the natural history of disease; (3) more rational treatment; (4) many diseases caused to pass more speedily through their stages, thus saving time; (5) better means of relieving pain and suffering; (6) making disease, even when incurable, more tolerable.

THE CONGRESS OF THE BRITISH INSTITUTE OF PUBLIC HEALTH.

The Edinburgh meeting of the British Institute of Public Health has been a signal success. To this many causes have been contributory—the excellent organisation of the meetings, the ability of the distinguished President, and of the Chairmen of the Sections, the wide range of subjects discussed, the capacity of those who read papers, and the interesting series of excursions. If one might select those parts of the Congress that had been pre-eminently successful, one would name the Presidential Address, the address on Cholera by Mr. Ernest Hart, and that on Cremation by Sir Spencer Wells. The largest meeting was that on Saturday to hear Mr. Ernest Hart, when some 400 were present. The great interest taken by the Corporations of London, Dublin, and Edinburgh, as shown by the frequent attendance of the Lord Mayor of London, the Lord Mayor of Dublin, the Lord Provost of Edinburgh, along with sheriffs, aldermen, bailies, and councillors, speaks well for the attention which public health questions are receiving and will receive in these and other great cities. As a slight spot on the sun of a most successful meeting it may be hinted that there was, perhaps, a plethora of papers with a comparative atrophy of discussion. It is also a matter for regret that, while the Section of Preventive Medicine was practically unanimous as to the contagiousness of tuberculosis, no resolution was passed urging any form, modified or other, of notification.

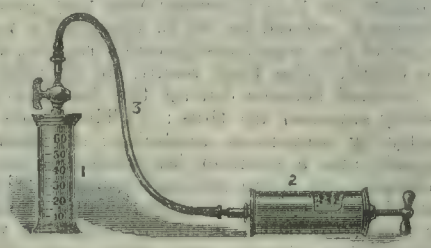
AN EASY AND QUICK METHOD OF DETERMINING THE AMOUNT OF CARBONIC ACID IN AIR FOR HYGIENIC PURPOSES.

By GILBERT KIRKER, M.D.,
Staff Surgeon, R.N

[Communicated by the DIRECTOR-GENERAL OF THE MEDICAL DEPARTMENT OF THE NAVY.]

SINCE the amount of carbonic acid (CO_2) in indoor atmospheres is taken as the best and most accessible index of their fitness for breathing and of the efficiency of ventilation, an easy and quick method of estimating the amount of this gas in air is a matter of considerable practical importance. Some three years ago the process I am about to describe occurred to me. Having found it satisfactory, I propose to make it public.

The method is based on the fact that the beautiful pink colour which is produced in a solution of lime or baryta by the addition of phenol-phthalein disappears entirely when the alkalinity of the solution is removed by CO_2. A very weak solution of baryta is therefore made, and to it is added a solution of phenol-phthalein until the pink colour ceases to deepen. It is not necessary to weigh the baryta or graduate its solution further than to make it just so strong that a distinct but not deep colour is produced on the addition of the phenol-phthalein. I find it convenient to have two solutions of baryta, one saturated and the other graduated as described. The solution of phenol-phthalein is made according to the directions given in Parkes's *Hygiene*. For making the solutions, if distilled water is not attainable, ordinary clean water will do.



Apparatus—1, Receiver; 2, Air-pump; 3, India-rubber tube.

The apparatus consists of (1) a graduated glass receiver, which has the half of the cylinder opposite to the graduation marks painted white, and which is fitted with a cap bearing a two-way stopcock; (2) a brass air-pump; and (3) an india-rubber tube with fittings to connect the pump and receiver. The receiver I use has a capacity of 75 c.c., and is graduated in 5 c.c. divisions.

Before experimenting with the apparatus, the amount of air which one stroke of the pump will exhaust from the receiver when the latter contains a definite quantity of solution is found out by putting a measured quantity of water in the receiver and drawing one stroke of the pump. After immersing the receiver in water, the stopcock is opened, water rushes in to fill the vacuum, and its amount is noted. If the amount of water which enters is not accurately measured by the graduation of the receiver, the quantity originally put in should be varied until this takes place, and then the operation should be repeated several times to see that the pump works uniformly. Of course it is not necessary to do this at each experiment, but it should be done from time to time to test the working of the pump.

In making the experiment the determined amount of pink solution is put into the receiver and the cap screwed on. The stopcock is closed and the receiver is well shaken to expose the contained air to the action of the baryta. The solution should be strong enough to be still pink at this stage. The receiver is now connected with the pump, the stopcock is opened, and one stroke made. Then the stopcock is quickly closed to the pump, the other way opened, and air allowed to enter. Both ways are now closed, the receiver shaken again, and the colour of the fluid observed. This operation is repeated until the pink colour entirely disappears. The amount of air which brought about the change is obtained by adding together the quantity at first in the receiver and that drawn through by the total number of strokes of the pump. If the fluid is put into the receiver in a different atmosphere to that to be examined the contained air must be all exhausted by making several strokes of the pump and then the air under examination allowed to take its place.

If the strength of the baryta solution were known the amount of CO_2 present could be calculated from a single experiment. For sanitary purposes, however, it is not necessary to discover the absolute amount of CO_2 in an indoor atmosphere; all that is required to be known is the amount of the gas there compared with the external air. The latter is therefore taken as the standard and assumed to contain the usual amount of CO_2, namely, 0.4 per 1,000 volumes. When, therefore, the experiment is made in the external air and in the air to be examined the relative amounts of CO_2 present in the two atmospheres is obtained.

Taking an experiment made in the external air as a standard I consider much better in many ways than working with a standard solution. It does away with the necessity of delicate balances, which are possessed by few, and dependence on the correctness of an unstable solution. Besides, it has only to be done once for all the examinations, no matter how numerous, made with the same solution about the same time. It is of importance to point out that the colour of the fluid in the receiver, in all experiments of a given set, must be judged by the same light. Thus it would not do to judge the colour in the external air experiment by daylight and that in an indoor atmosphere by candle or lamp light. When working at night I find it most convenient to use the same candle for all the experiments.

At the same time that the examination for CO_2 is made the temperature of the air should be taken, in order that the necessary correction may be made. That is, if the internal atmosphere is warmer than the external—as in most cases it is—0.2 per cent. must be added to the result for each degree F. of difference.

I may now illustrate the working of the method by an example. Suppose that into a receiver of 75 c.c. capacity, 30 c.c. of solution are put, and that one stroke of the pump exhausts from the receiver, after the addition of the fluid, 25 c.c. of air. Now suppose the experiment to be first made in the external air, the temperature being 60° F., and that it is found that, besides the 45 c.c. of air at first remaining in the receiver, 20 strokes of the pump have to be made before the pink colour is removed, or, in other words, $45+(25\times20)=545$ c.c. of air bring about the change. Again, suppose the experiment to be repeated in an indoor atmosphere, the temperature of which is 70° F., and that besides the 45 c.c. of air in the receiver, 8 strokes of the pump are required to discharge the pink colour, or $45+(25\times8)=245$ c.c. of air. The amount of CO_2, therefore, in the latter atmosphere is $0.4\times\frac{545}{245}=0.889$ per 1,000 volumes uncorrected for temperature, or $0.889+0.889(\times0.002\times10)=0.906$ per 1,000 vols. corrected.

There will be abundance of opportunities for employing a method of examining air such as I have described this one to be—quick and easy.

LITERARY INTELLIGENCE.

MESSRS. LONGMANS will shortly publish a work by Professor and Mrs. Percy Frankland, entitled *Micro-organisms in Water*. It will not only deal with the presence and significance of bacteria in water, but also with the various means of effecting their removal, and an account will be given of what is known concerning the vitality of pathogenic microbes in various waters. A tabulated description of the micro- and macroscopic characters of all the micro-organisms, both pathogenic and non-pathogenic hitherto discovered in water, will be appended, whilst a special part will be devoted to the methods involved in the bacteriological examination of water. The work is intended to serve as a handbook for all interested in the sanitary aspects of water supply.

ON Monday evening the Royal College of Physicians of Edinburgh entertained the Lord Mayor of London, the Lord Mayor of Dublin, the Lord Provost of Edinburgh, the President, Councillors, and certain members of Congress and other guests to dinner in their Hall in Queen Street.

MELBOURNE.

By J. R. WOLFE, M.D., F.R.C.S.Edin.

I.—The University.

Early last summer the settlement of important private business called me to Melbourne. I left England on June 10th in the P. and O. steamer *Arcadia*. On July 17th we landed at Adelaide. Although it was then midwinter, the sun shone brilliantly. Adelaide is justly called the "Garden of Australia." A voyage of two days more brought us to Melbourne.

In 1835, thirty years after the discovery of Botany Bay, Mr. John Batman landed here and purchased two tracts of land, 600,000 acres in extent, upon which the cities of Melbourne and Geelong have been built. For this land he paid to the natives in flour, blankets, shirts, etc., about £150. The area of Melbourne is 5,020 acres, and the annual rental is nearly two millions. The streets, which intersect at right angles, are wide and spacious; the buildings are magnificent. The city is surrounded by gardens and public parks, and connected with the suburbs by a network of railways and cable tramcars. The suburbs themselves, inhabited by many merchant princes and wool kings, are very beautiful. The telephone system is more thoroughly developed than with us, being in common use, so that the towns of Victoria constantly speak to each other. Considering that we are looking upon a city not more than fifty years old, we are not surprised that the Victorian colonist is proud of his home.

The public buildings of Melbourne are equipped in the most liberal way; nothing is done in a niggardly spirit. Of this the Melbourne University, established in 1853, is a striking example. It is situated on the most elevated position, in ample grounds of more than fifty acres in extent, laid out as a park, in which the various buildings are scattered. It is one of the features of this University that the lecture rooms, laboratories, etc., are not all massed together under one roof, but the various schools of medicine, chemistry, biology, and physics, occupy separate buildings, complete in themselves, and even differing in style of architecture. This allows for extension according to the requirements of the day.



THE WILSON HALL, UNIVERSITY OF MELBOURNE.

On entering the main gates, the eye is first attracted by the Wilson Hall, a building of white freestone, used for examinations and other University functions. Behind, and to the right of it, stands the main building, which was opened in 1855. Here are accommodated the administrative department, the library, and the lecture rooms for the schools of art, law, and engineering. On the left is the new physical school, just completed. It is a splendid building of white freestone, most luxurious in its arrangements and fittings. It is said to be the most complete laboratory of the kind in the world. The biological school is a comparatively recent erection, built of brown freestone, and is an elegant specimen of the early Gothic style. Further off still, in the right hand corner of the grounds, is the chemical school, and adjoining it the medical school. The original buildings of the latter were erected in 1862, mainly through the energy and perseverance of her Chancellor Dr., now Sir Anthony Brownless, and opened with three students. To-day the medical students number over 200, of whom 15 are women. In 1886 new medical school buildings were completed; they form a handsome structure of brown freestone, in a modified early Gothic style, and contain a spacious, well lighted, and well ventilated dissecting room, a museum and temporary pathological and bacteriological laboratories and preparation rooms. The old buildings contain two lecture rooms, the medical library, professors' rooms, preparation room, and students' room.

The lavish equipment of the laboratories in the science and medical departments shows the importance attached by the authorities to practical instruction. Thus in the chemical school, which is under the charge of Professor Orm Masson, a son of the well known professor of English literature in Edinburgh, there is a very large junior laboratory, a senior laboratory, a laboratory for advanced work and original research, a metallurgical laboratory, and a private laboratory for the professor and demonstrator. The physiological laboratory is fitted with a number of separate tables, each provided with a battery and all necessary appliances for experimenting on muscle, nerve preparations, frogs' hearts, etc., the students performing the experiments for themselves. More elaborate experiments on muscle, circulation, nervous control and the mechanism of the special senses are carried out before the class by Professor Halford and his demonstrator, who are provided with all the most modern apparatus. At the invitation of Professor Halford, I attended one of the demonstrations on the organ of vision, and witnessed it with the highest satisfaction.

A course of bacteriology has just been commenced by Professor Allen, in which every student prepares for himself the various media, and makes a number of cultures of the more common and typical micro-organisms. Professor Allen is also pathologist to the Melbourne Hospital, and gives demonstrations on morbid anatomy in the deadhouse there. The pathological museum is very largely the result of his labours, and is most admirably arranged to illustrate his lectures. It contains examples of almost all morbid processes, and a beautiful collection of specimens showing the pathological anatomy of hydatid cysts and typhoid fever, two diseases specially prevalent in the colony. I saw during the vacation several graduates at work in the dissecting room, pre-

paring special dissections for the museum, there being no lack of subjects both for dissection and operative surgery. Dr. Allen is also Professor of Anatomy, in which he is assisted by Mr. Syme, who is also assistant surgeon in the Melbourne Hospital.

II.—The Hospitals.

The Melbourne Hospital is situated in the very heart of the city, in grounds about five acres in extent. It was founded in 1846, and was originally a small brick building in the Elizabethan style. Although it has reached its present dimensions by frequent additions, it yet presents a fairly uniform appearance. The original building contained only 51 beds. At present it accommodates 290 patients. The ventilation is rather defective, many of the wards being lighted on one side only, and those on the south side getting no direct sunlight. The operating theatre is isolated from the other portion of the building, and is of considerable size, and very conveniently arranged for spectators. An effort was made by Mr. Fitzgerald and others to build a new hospital, but owing to the period of commercial depression supervening this proposal had to be abandoned.

The staff consists of four physicians and four surgeons for in-patients, and five physicians and five surgeons for out-patients. The staff is elected every four years by the votes of the subscribers to the hospital funds. While it may be admitted that in the past the leading physicians and surgeons of Melbourne have been on the staff, this system is open to many abuses, such as the manufacture of faggot votes. At the same time it has its advantages, being on a strictly popular basis, instead of being under the control of an oligarchy.



NEW MEDICAL SCHOOL, UNIVERSITY OF MELBOURNE.

The great defect of medical education in Melbourne is the want of some nexus between the University and the various hospitals where clinical instruction is given. Yet, notwithstanding these drawbacks, good work is done within the walls of the Melbourne Hospital. There is no lack of material, and there are excellent men on the staff. The name of Mr. T. N. Fitzgerald, the senior surgeon, is not only a household word throughout Australasia, but is also known and esteemed in this country; he is universally regarded as a most capable and original surgeon. Other members of the staff are Drs. Williams, Maudsley, Birds, sen. and jun., Springthorpe, and Charles Ryan and Stirling, all honoured names in the colony.

The Alfred Hospital

is situated within three miles of the city on a large open site facing the Albert Park. It was founded in 1870 to commemorate the visit of the Duke of Edinburgh to the Colonies. It is a handsome brick building in the Elizabethan style, and contains 140 beds in use. The staff is appointed by the committee, and holds office practically for life. Clinical instruction is here given, but, owing to the distance of the hospital from the University, few students attend. This hospital was the first to establish a training school for nurses and special diseases of the eye, ear, throat, and skin. Mr. O'Hara, the senior surgeon, an eloquent lecturer and a successful operator, occupies the same position here as Mr. Fitzgerald does in the Melbourne Hospital. I was very much interested in a patient from whom he had successfully removed a large hydatid cyst of the brain. There are also on the staff Dr. Harwicks and Mr. Rudall.

The Women's Hospital

is situated close to the University. It is divided into two departments—midwifery and infirmary—each of which is quite distinct, with a separate staff, both honorary and resident. The infirmary portion, dating from 1856, is an old-fashioned building on the block system, but the midwifery part is a handsome structure in the Queen Anne style erected in 1888 on the most approved principles, with every modern improvement. The staff is elected every four years by the subscribers, but the lecturer on obstetrics and diseases of women at the University is *ex officio* on the staff. Clinical instruction is given in both departments, and students reside in the hospital while attending the requisite number of cases of midwifery.

The Children's Hospital

is not far from the Women's. It was commenced in a private house, which has been gradually enlarged and altered to meet requirements. The committee of management of both the Children's and Women's Hospitals consists chiefly of ladies; Dr. Wm. Gardner, formerly Lecturer on Surgery at the Adelaide Medical School, where he has done good work, has recently been appointed surgeon to this institution.

The Eye and Ear Hospital

is situated conveniently on an elevated part of the city known as Eastern Hill, close to St. Patrick's Cathedral and the hall of the Medical Society of Victoria. It contains 40 beds, and is well adapted for its special work. Dr. Gray, the senior surgeon, and Mr. Aubrey Bowen were the original founders of the hospital about thirty years ago. The latter has recently resigned on account of ill-health, and Drs. T. Ryan and Barrett are on the staff.

Lonsdale House

is a private hospital belonging to Mr. Fitzgerald, who was the first to introduce this system into the Colonies. It has proved a great boon to the community, obviating the necessity of trafficking with the wards of charitable institutions by the admission of paying patients, so depriving practitioners of their legitimate income. The building is of three storeys with a hydraulic lift running from the ground floor to the top storey. In this latter is the operating room, lighted by two large windows and fitted with electric light. Tobin's system of ventilation is thoroughly carried out. There are reception and drawing rooms for the patients and twenty separate bedrooms, each of which opens on to a balcony at one side and a corridor on the other. Every part of the house is fitted in the most elegant style. Patients come to it from all parts of Victoria and the other colonies, and the beds are generally full. I saw here some very interesting operations, such as for hydatids of the liver and lungs, fracture of the patella by the Fitzgerald method, and excision of the larynx. Mr. Syme, Dr. Maudsley, and others are generally in attendance.

I cannot conclude these notes without expressing my high appreciation of and affectionate regard for our colonial fellow-subjects. They are a generous, amiable, and loyal people, and the destinies of the southern hemisphere are safe in their keeping. They have lately suffered severely from depression, followed by unreasonable panics, but fortunately they have ample resources, and there is plenty of energy and recuperative power in the young nation. There is every reason to hope that the sun of prosperity will soon shine upon them.

CONGRESS OF THE BRITISH INSTITUTE OF PUBLIC HEALTH.

[From our own Correspondent.]

Section of Preventive Medicine.

In continuation of the proceedings reported in the British Medical Journal last week, on Thursday, July 27th, the following subjects were brought forward: Sanitary Certification of Dwelling Houses, by Dr. Edgar Flinn (Dublin); and Present Day Obstacles to Sanitary Reform, by Dr. Simpson (M.O.H. Perth).

On Friday Dr. J. E. Squire (London) read a paper on the question, Should Pulmonary Consumption be Included in the Notification Act? which he answered in the affirmative.

Dr. Cooper Patten (Norwich) would include every form of tuberculosis where the bacillus could be shown in secretion or excretion.

Dr. R. W. Philip (Edinburgh) thought some modified form of notification certainly ought to be adopted.

Dr. Wells (M.O.H. Mansfield) urged isolation hospitals.

Dr. Chalmers (Glasgow) wished to know what public advantage would arise from notification.

Dr. J. B. Russell (Glasgow) pointed out difficulties in the adoption of compulsory notification.

Dr. Blair Cunynghame (Edinburgh) also indicated difficulties; and Dr. Squire replied.

Further papers in this Section were: on Abattoirs, with special reference to the Central Slaughterhouses, Berlin, by Councillor Pollard; Meat Marking and the Control of Meat Supply, by Principal Walley (Edinburgh); An Important Point regarding the Inspection and Seizure of Meat under the Public Health Act, 1875, in connection with which the following resolution was adopted on the motion of Alderman Shaw (Birkenhead):

Whereas under the existing law in England, where a local authority has made an unsuccessful application to a justice for an order for the destruction of meat, etc., seized by their inspector under Sections 116 and 117 of the Public Health Act, 1875, the amount of costs incurred by the owner of the meat, etc., in opposing the application is determined by arbitration involving great expense and delay, this Section is of opinion that it is desirable that such law should be amended so as to provide that the amount of such costs, if any, shall be determined by the justice before whom the application is made, or in some other satisfactory mode.

Dr. Maxwell Ross (M.O.H. Dumfriesshire) read a paper on Methods of Dealing with Outbreaks of Infectious Disease in Connection with Dairies.

On the motion of Dr. Munro (Renfrewshire) the following resolution was adopted:

That in the opinion of this meeting such an amendment of the Law of Public Health in Scotland as a new Public Health Act can only afford is urgently demanded in the public interest.

Section of Sanitary Engineering.

The President, Professor Armstrong, briefly indicated the nature of the connection between the subject of the Section and the maintenance and promotion of public health. Continuing the discussion on Fever Hospitals, Mr. Campbell Douglas, architect (Glasgow), read some Notes on their Design and Construction; Mr. R. Thornton Shiells, architect (Edinburgh), Notes on their Construction; and the Edinburgh Health Convener made remarks.

On Friday the Section was occupied with the subject of Drainage and Refuse Disposal.

Section of Chemistry and Climatology.

Dr. T. G. Nasmyth (M.O.H. Fifeshire) read a paper on Water Analysis, in which he suggested some alterations in the usual mode of examination.

Sir Charles Cameron said he believed that albuminoid matter was the most important noxious ingredient. He added that it was not the number but the character of micro-organisms that was important, but he did not attach greater importance to the biological methods of analysis than to the chemical.

Dr. Aitken (Edinburgh), Miss Burton (Edinburgh), Dr. Thresh (Essex), Dr. Kenyon (Chester), Dr. Purves (Edinburgh), and Dr. Shelly (Hertford) also took part in the discussion.

On Friday the Section was occupied with the subjects of Scarlet Fever in Relation to Climate; the Bacteriological Examination of Water, and the Information it has Furnished; and the Sale of Food and Drugs Act.

General Meetings:

Mr. Ernest Hart on Cholera Nurseries.

On Saturday a general meeting of the Institute was held for the transaction of routine business.

M. Pasteur, Professor von Pettenkofer (Munich), Sir George Buchanan (late Medical Officer to the Local Government Board), Dr. Edward Frankland, Sir Henry Acland, the Duke of Westminster, Professor Crum Brown, and Sir Stuart Knill (Lord Mayor of London) were elected Honorary Fellows of the Institute.

Sir Spencer Wells moved a resolution to the effect that medical officers of health should not engage in private practice, and that steps be taken to secure this.

A very large audience assembled to hear Mr. Ernest Hart on Cholera Nurseries and their Suppression, an abstract of which is published at p. 317.

The Lord Mayor of Dublin moved a vote of thanks to Mr. Hart, and this was formally conveyed to that gentleman by the President of the Institute.

Sir Spencer Wells on Cremation.

On Monday an address on cremation was delivered by Sir Spencer Wells. Some discussion followed, in which Mr. Ernest Hart, Professor T. Smith, Rev. Dr. Masson (Edinburgh), Dr. Munro (Dumfermline), and Dr. Valentine (Agra) took part.

Bishop Dowden moved a vote of thanks.

On the motion of the President the following motion was agreed to:

That this meeting of the British Institute of Public Health, recognising the dangers attending on the present system of burying the dead, hereby record their opinion that the time has now come when cremation should be adopted, especially in the case of death from infectious diseases, and that local authorities should be empowered by Parliament to build crematoria, and conduct them under adequate supervision.

Registration of Plumbers, Etc.

In the afternoon the concluding general meeting was held, at which the following two resolutions were unanimously adopted:

1. Proposed by Professor W. R. Smith, London, and seconded by the Lord Mayor of London:

1. That in view of the general approval by this Congress of the provisions of the Plumbers' Registration Bill, this meeting learns with much regret that the Parliamentary Committee to whom the same was referred has not seen its way to proceed with the consideration of the Bill, is of opinion that steps should forthwith be taken for recommitting the Bill, and respectfully requests the members for the city of Edinburgh and district, together with others interested in the subject, to take action accordingly. 2. That in the event of the Bill not becoming law during the present session of Parliament, this Congress, requests the Worshipful Company of Plumbers to institute systematic inquiry among the sanitary authorities and plumbers of the United Kingdom for the purpose of ascertaining their opinion upon any points of objection raised in Parliament in connection with the Bill, and, if deemed desirable, to convene a general meeting of sanitary authorities and plumbers and the representatives of those trades liable to be affected by the national registration of plumbers, with a view to the preparation of an authoritative statement on the subject.

2. Proposed by Professor W. R. Smith, and seconded by Professor Crum Brown:

That the Council of the Institute be requested to prepare a petition, and to forward the same to the Secretary for Scotland, praying Her Majesty's Government to introduce a Bill into Parliament empowering county councils to compulsorily acquire heritages required for purposes of public health, such as the acquisition of land for sewage disposal, fever hospitals, etc., by some summary and inexpensive procedure such as is presented by the Burgh Improvements (Scotland) Act, 1892.

Various votes of thanks brought the Congress to an end.

Festivities.

The graver features of the Congress were agreeably diversified by excursions, dinners, receptions, and a *conversazione* given by the Lord Provost and Corporation of Edinburgh in the Museum of Science and Art, which was attended by a large number of members of Congress.

MEDICAL DEFENCE UNION, LIMITED.

A Council Meeting was held at the rooms of the British Medical Association, 429, Strand, London, W.C., on Wednesday, July 26th, at 4 P.M.; Mr. Victor Horsley in the chair. Fifteen new members were accepted.

It was resolved: "That the best thanks of the meeting be given to Mr. Walter Whitehead for the kind and able assistance he had rendered the Union in relation to the Manchester meeting."

The application of a member for assistance was considered. It was unanimously resolved: "That Dr. —— be informed that he has the cordial sympathy and support of the Medical Defence Union; and that the Council of the Union have pleasure in making a donation of twenty-five guineas towards the cost of the present case, in addition to the payment by them of the costs already incurred in the first case amounting to over £270."

Delegates were appointed to the International Medical Congress at Rome. Steps were directed to be taken in a case in which a member had been subjected to blackmailing demands for £500. A deputation was received from the London and Counties Medical Protection, Limited. Mr. Victor Horsley explained that the suggestion for the fusion of the Medical Defence Union and the London and Counties Medical Protection Society, Limited, had been initiated both formally and informally by the latter company. On the retirement of the deputation, which was thanked for its attendance, the following resolution was adopted: "That a committee of three be appointed to meet a committee of the London and Counties Medical Protection Society, Limited, to discuss the suggestions laid before this Council by the deputation of the London and Counties Medical Protection Society, Limited."

Numerous cases of minor importance were considered and dealt with.

THE CHOLERA.

DURING last week the s.s. *Bona* and *Violet* arrived at Gravesend, the former from Bussorah, the latter from Dantzig, reporting suspicious cases of disease on board. On the *Bona* a fireman died on the day of seizure by a malady held to be cholera; but the four cases on board the *Violet* in the course of her voyage were in all probability not cholera. Both vessels were dealt with, however, under the Cholera Orders, all else being well.

The German Imperial Government have done wisely in resolving to remodel their regulations in regard to cholera prevention on the lines of the Dresden Convention, one of the rules adopted being that of informing all signatory Governments of the names of places where cholera has broken out; the Imperial Board of Health—corresponding, we presume, to our English Local Government Board—having been appointed to manage this part of the business. This determination to keep certain foreign nations *au courant* with the movements of cholera in Germany—our own country being among the number—will be a valuable addition to the means at the disposal of the signatory Powers for preventing the introduction of seaborne infection. We sincerely trust that both France and Italy will join with England in a like agreement. In regard to the former country, the feeling prevails that much cholera is concealed; whilst as respects Italy, it is only a day or two ago that the Government felt constrained at last to give official countenance to the statements current for some time past as to the presence of cholera at Naples, and at Alessandria, and many other places in Piedmont.

Austria-Hungary.—Two cases of cholera were notified at Szatmar towards the end of last week, in addition to cases among gipsies in the neighbourhood.

Italy.—Ten cases of cholera, 4 being fatal, were heard of in Alessandria, in Piedmont, in the middle of last week, and during the closing days of July more than 90 cases of suspected cholera occurred in Naples. On the last day of the month a Dalziel telegram revealed the existence of nearly a score of cholera attacks at Rome, with several deaths. Turkey and Cyprus have imposed five days' quarantine on arrivals from the Gulf of Naples.

Spain.—Alarm was caused last week by the outbreak at Pindo, Cape Finisterre, of an epidemic resembling cholera, but held by the Corunna Board of Health to be a severe form of colic; 14 deaths had been recorded up to Thursday of last week.

In the East.—Several fatal cases of cholera at Smyrna have led Turkey, Egypt, and Malta to impose ten, seven, and five days' quarantine respectively on arrivals from the Gulf of Smyrna. The port is being shunned by steamers on account of this step. At El Tor station only 3 cases of cholera remained when last information came to hand in the middle of the past week. But the situation there is serious owing to danger of revolt among the thousands of pilgrims left on board ship on account of the quarantine station being full.

Russia.—Our St. Petersburg correspondent writes: Cholera is spreading in Russia. The authorities have arranged to publish the cholera bulletins twice a week instead of weekly as heretofore. The disease has reappeared, after an absence of several months, in Moscow, Kief, Tver, Vladimir, and Voronegh. In Moscow, between June 30th and July 10th (new style), there were reported 32 cases and 11 deaths; between July 10th and 14th there were 31 cases and 14 deaths. In the government of Kief, between July 9th and 15th, there were 9 cases and 6 deaths. In the Vladimir government there was 1 death from cholera in the week ending July 15th. From the Tver government in the same week 4 cases and 2 deaths were reported. From the government of Voronegh in the week ending July 8th 2 cases and 1 death were returned. Cholera is also present in the governments of Podolia, Kursk, Bessarabia, Saratof, Tula, Orel, and Kherson in European Russia, and in Tobolsk in Siberia. The epidemic is most severe in Podolia, where, in the week ending July 3rd, there were 309 cases with 90 deaths. In Nijni Novgorod, in view of the opening of the great Fair on July 27th (new style), considerable preparations are being made to cope with a possible outbreak of cholera. The Fair authorities have contributed 35,000 roubles and the town authorities 40,000 roubles for this object. Last year the cost of carrying out the measures directed against the epidemic was very great. The total expenditure, which was partly borne by the Government, amounted to 550,000 roubles. Large numbers of convicts are frequently sent to Siberia through Nijni Novgorod, and there is considerable risk of the cholera infection being introduced by them to this town, more particularly as there is often a delay of a day or more in waiting for the steamers to convey the prisoners down the Volga. Quite recently a large body of prisoners arrived at Viatka (which is considerably north of Nijni Novgorod) with several sick with cholera, and three dead from the disease. It has therefore been arranged for the future that convicts shall not be sent through Nijni Novgorod in larger parties than 150, and that parties exceeding this in number shall be sent by a circuitous route, avoiding the town. More recent returns show an increasingly serious state of things. We learn of the province of Podolia that in the first week of July there were 499 cases and 122 deaths, followed in the next fortnight by 1,165 cases and 350 deaths. In this last fortnight the province of Orel furnished 382 cases and 143 deaths; Toula Province 108 cases and 27 deaths. Among other infected provinces are Viatka, Kazan, Riazan, Simbiosk, and Onfa. In the city of Moscow there are on the average 6 deaths, with 10 fresh cases, daily. Sporadic cases have been recently reported in St. Petersburg.

PRECAUTIONS IN THE PORT OF LONDON.

SINCE August 18th, 1892, every vessel entering the port of London has been boarded by a medical officer. One at least of these officers is on duty day and night at Gravesend, where their own hulk is moored, and where they have their own steam launch. They go down and meet the vessels coming as soon as they see them in the offing, making them anchor if necessary.

Practically all vessels coming from Continental ports, except from those of Spain and Italy, are inspected.

In the case of a vessel from an infected port, the inspector gives notice to the master of the vessel under Article 4 of Cholera Regulations, September 6th, 1892, to pump his bilges dry, and to empty his water tanks, if filled at the infected port, before passing up the river or entering dock. Also under Articles 2 and 3 of the Order of the Local Government Board of September 6th, 1892, he forbids by a formal notice the landing of any persons from an infected port, who are either filthy or unwholesome. Under the same Order he takes the names and addresses of all persons from infected ports, and forwards them to the clerk of the sanitary autho-

rity of the district to which they are about to proceed, so that if disease should break out in a vessel after the passengers have landed, they could all be traced and kept under observation. The same regulations also tend to prevent the importation of pauper aliens, who, usually of the lowest class, coming from the most insanitary districts, with filthy clothing, etc., are exceedingly likely to brings germs of disease, which, on account of the short passage, might not develop until they had left the ship, and they themselves had been lost sight of, in the poorest and most crowded portions of London. Since the present system has been in working order, this dangerous class has practically ceased to enter the port.

A special ward has also been erected at Gravesend for cholera patients, and a special steam launch, fitted as an ambulance, will soon be ready for the conveyance of patients to the hospital, and for attendance on the vessels which are detained under observation. It will be useful, later on, as part of the regular system of medical inspection for the port. Arrangements have been made for the services of a staff of medical officers all along the river from Teddington down, and in every dock also, who will know each time how to act in case of emergency.

Of course this is but a first line of defence, there is no such thing as hermetically sealing a country against cholera, and nothing which is done at the ports can obviate the necessity for sanitary work inland.

MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

The fifty-second annual meeting of this Association was held at Buxton on July 28th, under the presidency of Dr. Murray Lindsay.

At the business meeting in the morning many important subjects were discussed, and a new edition of the *Handbook for Nurses and Attendants on the Insane*, prepared by a Committee of the Association, was announced. An important report was issued by the Educational Committee, which stated that several universities and licensing bodies now make an examination in mental diseases a compulsory subject for their degrees and diplomas. The Dietary Committee presented their report, but the discussion on the new rules was postponed until the November meeting.

In the afternoon the President delivered the annual address, in which he dealt with the admission of female members to the Association, the question of superannuation, the work of county councils, and the long hours of duty in asylums. He advocated the better equipment of county asylums, by providing pathologists and rooms for research, and an increase in the staff of medical officers. He also dealt with the lunacy laws and the strengthening of the Lunacy Commission by an increase in the number of commissioners and the substitution of medical for legal commissioners. The address included remarks on the administration of asylums by county councils, showing that they were progressing on the lines of advance.

The business being over, Dr. Robertson conducted a party of members over the baths, which, together with the Pavilion Gardens, the Union and Golf Clubs, were thrown open to members during their stay in Buxton.

In the evening the annual dinner was held, and on Saturday an excursion was made to Chatsworth, Haddon Hall, and Bakewell Church, bringing to a close a most successful meeting.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETING FOR 1893. ELECTION OF MEMBERS.

A meeting of the Council will be held on October 25th, 1893. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before the meeting—namely, October 4th, 1893.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election.

Francis Fowke, *General Secretary.*

BORDER COUNTIES BRANCH.

The twenty-sixth annual meeting of this Branch was held at the County Hotel, Carlisle, on July 21st. The chair was taken by the retiring President, Dr. Somerville, of Galashiels, and there were about twenty members and visitors present.

New Members.—Dr. Gore Ring, of Keswick, and Dr. Sloane, of Galashiels, were elected members of the Branch.

Mode of Election of Officers.—The proposition of Dr. Hamilton with regard to election of representatives on the Council was ruled out of order, and the question as to whether the re-election of any one member should be limited to three years was referred to the Council for consideration and report.

Guests.—It was resolved by a majority that the President and Council be empowered to ask a limited number of guests to the dinners of the Society during the ensuing year.

Medical Evidence of Cause of Death.—The subject of medical witnesses in procurator fiscal's inquiries and coroners' courts was considered; and the following resolution, which was directed to be sent to the Home Secretary and Secretary for Scotland, was carried unanimously, namely: "That in the case of sudden or unseen deaths, medical evidence should be required as to the cause of death, and should be placed in the hands of the authorities."

The British Institute of Preventive Medicine.—It was decided by a majority that £10 10s. be subscribed out of the surplus funds of the Branch to the British Institute of Preventive Medicine.

Report of Council.—The report of the Council was read and adopted.

Letter of Condolence.—It was unanimously resolved that the Secretary be directed to write to Mrs. Taylor, expressing the sympathy felt for her by members of the Branch in her bereavement by the death of her husband. The following paragraph on this subject occurs in the report: "By the death of Dr. Taylor, who practised for many years in the Penrith district, the Branch has sustained an irreparable loss. He was one of the promoters, and the second President of our Branch, and always took great interest in its proceedings. His original investigations as to the causation and transmission of infectious diseases were of great value, and were highly appreciated by the profession, while as an archæologist he was well known throughout a wide circle."

Election of Officers.—Dr. Connel, of Peebles, was appointed President-elect. The following gentlemen were elected to serve on the Council: Dr. McLachlan, Lockerbie; Dr. Barnes, Carlisle; Dr. Bowser, Penrith; Dr. Maclaren, Carlisle; Dr. Menzies, Galashiels; Dr. Jackson, Whitehaven; Dr. Helm, Carlisle; Dr. Ross, Dumfries; Dr. Hamilton, Hawick. Dr. Altham, Penrith, was reappointed Secretary and Treasurer. Dr. Somerville, Galashiels, was appointed representative on the General Council of the Association and also on the Parliamentary Bills Committee.

Vote of Thanks.—A unanimous and cordial vote of thanks was accorded to Dr. Barnes, who had for nine years represented the Branch on the General Council.

Autumn Meeting.—The autumn meeting was appointed to be held at St. Boswell's and the spring meeting at Whitehaven.

Retiring President.—Dr. Somerville then left the chair, which was taken by Dr. Mitchell, of Cockermouth, President for the ensuing year. A hearty vote of thanks was accorded to Dr. Somerville for his conduct in the chair, and he was elected a vice-president for life.

President's Address.—Dr. Mitchell then delivered his presidential address, which was listened to with great interest. A vote of thanks for the address was carried by acclamation, and the President was asked to print it for distribution.

Dinner.—The members dined together in the hotel after the meeting.

CORRESPONDENCE.

ABUSE OF MEDICAL CHARITIES.

SIR,—I have read your annotation on the above subject in the BRITISH MEDICAL JOURNAL of July 22nd with attention, as I have long taken an interest in this subject. Will you allow me to remark that I believe that no amount of adverse criticism will ever put down "medical charity"? So long as it continues to further the personal ends and aims of medical men, and so long as hospital appointments are monopolised by the favoured few, will hospitals and dispensaries continue to increase, no doubt to the injury of many in the profession, and to the moral and social injury of the public at large. One can scarcely read an obituary notice nowadays in which it is not stated in praise of the deceased that he founded a hospital or dispensary. Every one knows to what an extent this has happened in London and elsewhere during the past fifty years. It is this state of matters that has called into existence the "threepenny dispensary" system, by which the cruelly impoverished humbler members of the profession are often most reluctantly compelled to endeavour to earn a scanty livelihood. It is also this system which has been the parent of the club system both in England and elsewhere. These systems have spread to the Colonies, and neither the animadversions of the medical press, nor the contumely of the richer members of the profession will arrest conditions called into existence by the ever accentuating "struggle for existence."—I am, etc.,

D. CAMPBELL BLACK.

Glasgow, July 25th.

SIR,—The exception quoted by Dr. Clifford Beale in his letter published in the BRITISH MEDICAL JOURNAL of July 29th goes far to prove the rule, as correctly laid down in your editorial of the previous week, for it is still certainly true as regards all the large hospitals with schools attached, who are the principal offenders, that no attempt whatever is being made to formulate any plan by which the abuse may be checked; and it is further true, as there stated, that, on any objection being made, the staff of those hospitals rush to the defence of the system.

Twenty years ago, acting in conjunction with the late Drs. Anstie and Meadows and other colleagues of the Hospital Out-patient Reform Association, I "formulated," as recorded in the BRITISH MEDICAL JOURNAL at the time, three points on which reform was then, and, in my opinion, is still required, namely: (1) Inquiry into the circumstances of all patients by a properly-qualified officer; (2) stopping the indiscriminate supply of medicines; (3) discontinuance of prescribing by unqualified students. In asking for these reforms we merely followed out the conclusions reached by the influential Committee over which Sir William Fergusson presided in 1870-71, and yet up to the present time I do not know of a single hospital in London with medical school attached in which any two of these proposals can be said to be fully carried out. It is well to put the saddle on the right horse, and in my judgment the staffs of St. Bartholomew's, St. Thomas's, the London, and Guy's are chiefly to blame.—I am, etc.,

Dulwich, S.E., July 31st. H. NELSON HARDY.

AN ASSOCIATION OF THE SCOTCH MEDICAL SCHOOLS AND GRADUATES.

SIR,—It has often struck me as remarkable that while the Irish schools and graduates have a large and flourishing Association in London, the Scotch schools and graduates—which far outnumber the Irish—have no similar institution.

I venture to propose the establishment of "A Scotch Medical Schools' and Graduates' Association" on the same lines as the Irish society—that is, a non-political, non-sectarian body, with its objects: (1) to support in every legitimate way efforts made to improve the status of the profession at large, and especially of those holding Scotch degrees or diplomas in medicine and surgery; (2) to promote social intercourse among those holding medical qualifications obtained in Scotland and others who have studied at a recognised Scotch School of Medicine.

Should this suggestion meet with the approval of your readers, I shall willingly undertake the formation of a committee for the purpose of hiring a large hall in London, and holding a general meeting, to which all Scotch graduates, diplomates, and past students would be invited.—I am, etc.,

R. J. BLACKHAM, L.R.C.P., L.R.C.S.Edin., L.F.P.S.Glasg.

Sidcup, Kent, July 31st.

THE LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY, LIMITED.

SIR,—The auditors' balance sheet showed the financial condition of this company on April 30th, 1893. No notice was taken of the guarantee of £1 per member, nor of the guarantee for £1,000 given when the Society was established. My letter spoke of the financial condition of the Society at the time it was written, nearly three months after the end of the financial year.

Practically our position is this: We have a guarantee fund of £2,000 and a handsome cash balance at the bank after providing for all expenses. The annual subscriptions are therefore entirely free to meet current expenses. When we consider the social and pecuniary position of the eminent men at the head of this Society, even if it were true, an understatement of its assets of a paltry £1,300 or £1,400 would only show our *bona fides* and desire not in any way to overestimate our splendid financial position. Practically my statement was correct and justifies the confidence reposed in us.—I am, etc.,

Mentmore, Newmarket, July 31st. GEORGE B. MEAD, L.R.C.P.

SIR,—In explanation of a letter from "M.D.," in the BRITISH MEDICAL JOURNAL of July 29th, we beg to point out that the "guarantee fund" to which we referred, and which we took the trouble to explain, is a legal asset, and "represents uncalled capital to the extent of £687." The "guarantee fund of over £2,000" to which Dr. Mead refers presumably includes this £687, together with sundry other amounts which we believe were guaranteed by certain of the founders of the Society at the outset, and before its financial success was assured. This balance is a "debt of honour," so to speak, but not a legal asset, and consequently does not come within our cognisance as auditors. This, then, is the explanation of the discrepancy which the ingenuous but anonymous "M.D." had discovered. Your correspondent will observe that his mare's nest does not contain a faulty system of book-keeping, or, indeed, anything else.—We are, etc.,

ROBERT BOXALL,
ALEX. G. R. FOULERTON,
Honorary Auditors to the Society.

July 29th.

THE ACTION OF ELECTRIC LIGHT.

SIR,—Our attention has been drawn by Mr. E. Harding Freeland's notes on "A Group of Symptoms caused by the Electric Light," in the BRITISH MEDICAL JOURNAL of July 29th, to the article "Remarks on Acute Inflammation, accompanied by Great Pain in the Head and Eyes, and Blepharospasm, occurring some Hours after Witnessing Electric Welding Operations" by Mr. H. Bendelack Hewetson in the JOURNAL of June 24th, 1893, in which he writes: "I must confess that I had never either seen or read of symptoms of this acute nature caused by electric welding such as the worst cases presented, and their occurrence, in the face of the possibilities of electric advance, which is taking place by leaps and bounds, opened up whole fields of thought."

In a joint article in the *Practitioner* of April and May, 1892, on "Light as a Therapeutic Agent," and in a paper on the same subject read by one of us at the West London Medico-Chirurgical Society last session, there is an account of similar experiments by Dr. Maklakoff, of Moscow, on the action of electric light upon himself and the *employés* at the electric welding works at Kolomna, in Russia, where the Benardo system is in use. In spite of the protection afforded by the reddish-green spectacles commonly used by the workmen, which only permitted the sun's disc to be seen, Dr. Maklakoff's eyes and skin suffered severely after an exposure of an hour and a-half, and the pain was not relieved by cocaine. He found also that the skin was best protected by yellow media. The account is taken from "L'Influence de la Lumière Voltaïque sur les Téguments du Corps Humain (L'Insolation Électrique)" (*Arch. d'Ophtalmologie*, vol. 9, p. 97.—We are, etc.,

West Eaton Place, S.W. A. BARRY BLACKER, M.D., B.S.

Westwood, Thanet, Aug. 1st. R. H. CLARKE, M.A., M.B.

NAVAL AND MILITARY MEDICAL SERVICES.

ARMY MEDICAL STAFF.

Deputy-Surgeon-General William O'Halloran died at Bournemouth on July 24th at the age of 59. He entered the service as Assistant Surgeon, February 18th, 1856; became Surgeon, March 8th, 1871; Surgeon-Major, March 1st, 1873: Brigade-Surgeon, January 30th, 1882; and Honorary Deputy-Surgeon-General on retirement, April 13th, 1887. He served in the China war of 1857, and was present at the capture of Canton (medal with clasp), and in the operations in the Malay Peninsula in 1876 (medal with clasp).

INDIAN MEDICAL SERVICE.

The services of Surgeon-Captain C. L. Williams, M.D., Madras Establishment, are placed at the disposal of the Government of Madras.

The services of Surgeon-Captain J. W. Wolfe, Bengal Establishment, are placed temporarily at the disposal of the Chief Commissioner of Burmah.

The services of Surgeon-Captain H. R. C. Barber, Bengal Establishment, are placed temporarily at the disposal of the Government of the Punjab.

Surgeon-Major C. J. Bamber, Bengal Establishment, civil surgeon, is transferred from Jullunder to Rawul Pindee.

Surgeon-Major W. H. Cadge, Bengal Establishment, civil surgeon, Fyzabad, is appointed to hold visiting medical charge of Joimpore District, in addition to his own duties, from June 17th.

Surgeon-Captain G. H. Baker, Bengal Establishment, supernumerary civil surgeon, is transferred from Banda to Jhansi.

Surgeon-Captain D. H. M'D. Graves, Madras Establishment, will do duty in the Myingyan District, Burmah.

Surgeon-Lieutenant R. A. Yeates, Madras Establishment, will do duty in the Mandalay District, Burmah.

Surgeon-Major A. H. C. Dane, Bombay Establishment, has been granted leave of absence for 110 days.

Surgeon-Major George Hamilton Peevor, Bengal Establishment, Medical Officer 1st Battalion 4th Goorkhas, died at Bukloh, Punjab, of intermittent fever, on July 24th, aged 41 years. He was appointed Surgeon March 31st, 1876, and Surgeon-Major twelve years thereafter. He was employed in the operations against the Naga Hills tribes in 1879-80 (medal with clasp), and with the Sikkim Expedition in 1888 (clasp).

THE VOLUNTEERS.

The following gentlemen are appointed Surgeon-Lieutenants to the corps specified, all dated July 29th:—John Gemmill Thomson, 1st Ayrshire and Galloway Artillery; Henry Francis Townshend Chambers, 1st Volunteer Battalion the Dorsetshire Regiment; Charles Carter Moxon, 2nd Volunteer Battalion the York and Lancaster Regiment.

Surgeon-Captain H. F. Hurst, 2nd Volunteer Battalion the Northumberland Fusiliers (late the 2nd Northumberland), is promoted to be Surgeon-Major, July 29th.

Surgeon-Lieutenant F. G. H. Whitley, 1st Volunteer Battalion the Duke of Cornwall's Light Infantry (late the 1st Cornwall), has resigned his commission, which was dated September 20th, 1890.

Surgeon-Captain W. H. Bull, 1st Bucks Rifles, is promoted to be Surgeon-Major.

A NETLEY BAND.

It would appear that the War Office, or Horse Guards, or both combined, negatived a late application by the Medical Staff to organise a band at their own expense, to lessen the weariness of sickness at our none too lively great military hospital at Netley. As money was not asked, the refusal cannot be laid as usual at the convenient door of the Treasury; but it is said was made out of a considerate regard to the pockets of the medical officers themselves. But many will be inclined to look behind the ostensible ground of refusal. Some years ago a similar proposal was favourably entertained, provided the band was placed under the then "military commandant." But the medical officers did not see the fun of paying the piper and leaving the calling of the tune to an outsider. Be the matter as it may, considering the large sums applied directly and indirectly by the State to the maintenance of military and naval bands, surely something might be done in the way of music to lighten the sick burden of hundreds of poor fellows, who on being invalided home must spend many tedious days in Netley Hospital.

EMPLOYMENT OF VOLUNTEER MEDICAL OFFICERS.

Volunteer Officer wants to know why a civil medical practitioner has lately been appointed to assist in military duties at a certain station in the north of England, when many medical officers of the volunteers and Army Medical Reserve are available?

*** We cannot say. It is certainly laid down that officers of the auxiliary and reserve have a "prior claim" to employment with regular troops. Perhaps our correspondent could say whether any of these officers had been offered and refused the employment he mentions; if so, they may have waived their "prior claim."

MILITARY TITLES FOR MEDICAL OFFICERS.

L. V. R. C. writes: Medical officers of the Norwegian army have purely military titles, as Colonel, Major, etc., and the following is the opinion of the Surgeon-General of that army on this matter: "I am glad to be able to tell you that the granting of military titles to the officers of our (Norwegian) Medical Corps has not caused any inconvenience whatever in our army. In the Medical Corps itself they are found to be quite needful." An official of high rank at Athens writes concerning the military titles of the Greek medical officers: "I have no reason to believe that the system has worked otherwise than satisfactorily."

*** Important foreign testimony accumulates on this subject.

THE INDIAN PRINCIPAL MEDICAL OFFICERSHIP.

I.M.S. offers a correction to a recent correspondent—"X." He says that at the rearrangement in 1880, when the administrative union was devised by the Government of India, it was ordained that the appointment of surgeon-general of Her Majesty's forces (principal medical officer in India) should be given alternately to the Medical Staff and the Indian Medical Service. This promise has not been kept. He is not concerned with the questions of "expediency" or "fitness," but with this promise, which disposes of the right to what "X." terms the "one prize" of the Medical Staff.

*** We leave our correspondent "X." to settle differences with this correspondent, who, we think, however, is wrong. In G. G. O., No. 13, dated January 2nd, 1880, it is stated that, "though the surgeon-general of the three armies will ordinarily be taken from the British Medical Department, the Government of India reserves the power of appointing specially-qualified officers of either service to any of these positions." The word "alternately" is not used.

REGIMENTAL STRETCHER-BEARERS.

Marlburiensis writes: I endorse the opinion of a recent correspondent in your columns that but little encouragement is given to these men by commanding officers. Having recently applied for two men per company to go through the training in accordance with the regulations, I was struck by their youthful appearance; and in speaking to the commanding officer on the matter, he informed me the regimental defaulters had been sent. Comment is needless.

MEDICO-LEGAL AND MEDICO-ETHICAL.

WHO IS TO PAY?

Medicus.—It is not quite clear from our correspondent's question whether the certificate referred to was supplied at the instance of A or B. If at A's request then he would be the person liable; if at B's, then B. The fee should be the amount usually charged for a certificate, and not a fee based on the amount which "Medicus" would have been entitled to if he had been required to attend court personally to give evidence.

HANDBILLS.

Practitioner.—In response to our correspondent's request for advice on behalf of himself and fellow-practitioners relative to "Dr. Watson's card, late commodore surgeon," etc., and "Dr. Shekleton's handbill" in relation to the Horfield Provident Dispensary, and who offers a "single consultation, with medicine, for 6d.," we can only reiterate the opinion so often repeated in the pages of the British Medical Journal, to the effect that the one effective remedy for such a degrading system of advertising is the enforced application of the disciplinary laws of the respective Colleges of which the offending practitioners are members, and to the authorities of which in the cases in question our correspondent will do well to forward the card and handbill (for which purpose we return those transmitted to us), with a short protesting memorial signed by himself and brother practitioners, with the view to emphasise it, and at the same time avert the possible contingency of the proceeding being ascribed to individual jealousy.

"A SECOND OPINION."

W. F. G.—1. If the practitioner called in was cognisant that Dr. G. was or had been in prior attendance on the assumed case of scarlet fever, it would be his duty to request a consultation with him (Dr. G.); and even if he found that the latter had formed an incorrect diagnosis (of which there is no proof whatever), he, the consultant, should, while seeking to do his duty to the patient, at the same time endeavour judiciously to shield his brother practitioner from the obloquy and prejudice which are always, in a greater or less degree, attached by patients to an error in judgment by their doctor; for who, it may be replied, has not, in the course of his professional life, committed like and grievous errors, of which the "still small voice" within is alone cognisant and the sole accusant?

2. Having regard merely to the facts as stated by our correspondent, the medical officer of health would not be justified in assuming that the first diagnosis was necessarily wrong, or that there had been any want of care or skill. Cases undoubtedly occur in which the symptoms are so slight or transient that difference of opinion may legitimately arise even between competent observers seeing the case at the same time. The duty of notification is not conditional upon anything but that the diagnosis be made in good faith. The fact of another medical man differing in opinion—past, present, or future—does not remove or alter the obligation.

DEFAMATION OF PROFESSIONAL CHARACTER.

A Member.—It may, we think, be taken as a general rule, that defamatory words attacking persons in the way of their profession or business will support an action, for every publication is slanderous which tends directly to injure a man in respect of his profession or business, such as an imputation that may have a natural tendency to lessen profit. Such slander may be generally considered as actionable *per se* without proof of special damage. On the facts of our correspondent's case, as stated, there would seem *primâ facie* to be ground for an action. It might be prudent to write a preliminary letter requiring a written apology if "A Member" would be satisfied with this. We recommend him to consult a solicitor.

AN INTERLOPER.

Cave Canem writes: A and B. are medical men in the same country district. A is called to a case which ultimately develops into double pneumonia. The case assuming great gravity, A suggests to the friends

of the patient the advisability of a second medical man being called in as consultant, leaving it to the interested parties to name any one of several well-known medical men in a neighbouring town. The friends express themselves satisfied with A's attendance and ability, but he pressing the point, C is wired for, and in due course arrives. On the day following that on which A and C see the patient, B is driven over to the patient's house by an uncle, who has notoriously attempted to force B on the country folks (the patient having formerly acted as farm manager to B's uncle), and, without being requested, B examines the patient, pronounces the case hopeless, and prognosticates death in four hours. What redress has A against such unprofessional conduct?

*** We fear that A can obtain no practical redress from the practitioner B, who not only appears to be insensible to the medico-ethical obligations devolving upon him, but to the plain moral law of doing unto others as he would wish to be done by—as evidenced by his course of action in the case above alluded to. Such men are, we regret to know, generally indifferent to editorial censure, however justly merited. Further, if B's prognosis was subsequently confirmed, to our mind it seems especially regrettable that so officious an intrusion on the last moments of the sufferer should have been permitted.

MEDICAL CERTIFICATES AND INDUSTRIAL INSURANCE.

J. W. D.—Under the provisions of the Friendly Societies Acts it is illegal for industrial insurance companies to "pay any sum of money upon the death of a member or other person whose death is or ought to be entered in any register of deaths, except upon the production of a certificate of such death under the hand of the registrar of deaths, or other person having the care of the register of deaths in which such death is or ought to be entered." The object of this provision is to provide against illegal over-insurance in these societies, which is obviously an incentive to "foul play." A medical certificate, or a copy thereof, is therefore of no legal value for the above-mentioned purpose, although there is reason to fear that copies of medical certificates are sometimes illegally accepted by some insurance societies, and that the statutory provision against over-insurance is thus illegally evaded and ignored. It follows, therefore, that medical practitioners should use great caution about giving copies of medical certificates, lest they should be used to obtain the illegal payment of sums of money in excess of the statutory amount, thus affording an incentive to child or adult murder.

THE ACTION AGAINST A DENTIST AT MANCHESTER.

JUDGE HEYWOOD awarded a plaintiff £15 damages for personal injury alleged to have been caused by the negligence and want of skill of the defendant's assistant. The evidence went to show that the defendant's gum was severely lacerated, that in the middle of the night hæmorrhage supervened, and that a portion of the tooth was not extracted. All these things might have happened without any fault attaching to the operator. The evidence was not altogether satisfactory, because no dentist was called to give evidence on behalf of the defendant. Serious hæmorrhage after tooth extraction has been recorded on many occasions, and a judge would hardly mulct a dentist of £15 damages for what might be due to constitutional causes. The assistant who performed the operation was in court, but was not called. It is possible he is unregistered, and that his chief feared the result of an *exposé* both for his practice and himself; because, if unregistered, the assistant might be prosecuted for obtaining money under false pretences, while the chief himself might be dealt with by the General Medical Council for covering an unregistered practitioner.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF EDINBURGH.

SECOND PROFESSIONAL EXAMINATION FOR THE DEGREES OF M.B. AND C.M.—The following gentlemen have passed this examination:

A. J. Gibson, R. Grieve, G. J. Jenkins, J. J. Kelly, T. B. Kenny, D. Lawson, M.A., S. F. Lusk, W. Mailen, A. Mitchell, J. U. N Paton, W. L. Pritchard, F. G. Proudfoot, M.A., P. Rattray, R. A. Ross, and C G. Thompson.

The following have passed in the first division (Anatomy and Physiology) of the same examination:

C. B. Johnstone, H. Jones, G. Lawrence, and T. T. Ormerod.

UNIVERSITY OF GLASGOW.

LIST of degrees conferred on July 27th, 1893.

Doctors of Medicine (M.D.):—With Commendation: H. C. Gillies, M.B., C.M. (Thesis—The Theory of Counterirritation.) Ordinary Degree: R. Craick, M.B., C.M. (Thesis—Dysmenorrhœa). W. Hunter, M.B., C.M. (Thesis—Clinical Notes: (1) On the Cure of Myxœdema, with photographs; (2) On the Prevention of Habitual Abortion). D. Macdonald, M.B., C.M. (Thesis—On Spinal Irritation and the ill-defined and unsatisfactory portion of the Subject, with notes of some forty cases). J. A. N. Scott, M.B., C.M. (Thesis—The Diagnosis and Treatment of Echinococcus Cysts.)

Bachelors of Medicine and Masters in Surgery (M.B., C.M.):—High Commendation: *J. J. Urwin, J. H. Teacher, M.A., G. M'Callum, J. Brown, R. E. Newton, C. S. Marshall. J. Thomson, M.A., J. Clark, R. Y. Aitken, J. Cross. Commendation: E. P. Sinclair, M. Macnicol, M.A., G. L. Kerr, D. A. Dewar, T. Colvin, P. M'Bryde, A. J. Brownlee, R. R. Manners, J. B. Millar, R. Grieve, M.A. Ordinary Degrees: A. Abdurahman, J. E. Adam, W. T. Ainsworth, R. H. Allen, D. F. Brown, F. Brown, J. P. Brown, M.A., R. Bruce, G. B. Buchanan, B.A.Cantab., W. I. Buchanan, A. Cameron, W. Campbell, R. J. Carroll, J. J. Carruthers, H. B. Causley, J. MacN. Christie, R. Cochrane, W. Copland, A. Crawford, J. Crawford, P. F. Dewar, A. Dingwall, M.A., F. Dittmar, M.A., A. Donald, J. Donald, J. E. Downs, W. Duncan, G. Edgar, J. D. Finlay, A. Forrest, R. S. Frew, J. Fullarton, M.A., W. W. Fyfe, T. B. Gilchrist, D. F. Harris, B.Sc.Lond., A. G. Hay, M.A., J. L. Howie, W. M. Hunter, G. S. Illingworth, W. Irwin, J. R. Jeffrey, N. S. Jeffrey, T. Kay, D. M. King, J. Lamont, J. Lang, J. F. Lees, P. Marshall, D. M'F. Millar, D. R. Miller, J. R. M'C. Miller, J. Moffat, B. B. Morton, A. W. M'Clelland, D. D. Macdonald, D. MacDonald, J. M'Dougall, J. M'Feat, R. J. Mackay, W. A. Mackay, J. M'Kenna, J. M'Kie, J. M. MacLauchlan, T. M'Nay, J. A. Naismith, B. S. Nicholson, A. C. Park, J. Patrick, M.A., J. Pearson, P. P. Petrie, M.A., E. L. Pollonais, A. Ramsay, A. Revie, H. M. Robertson, H. Robertson, J. Robertson, J. B. Robertson, J. C. Robertson, J. Selkirk, M.A., T. L. Shields, M. A. M'I Sinclair, W. S. Sinclair, J. D. Smith, J. M. Smith, T. D. Smith, P M. Smyth, N. Stevenson, M.A., J. Stewart, E. Sugden, J. Taylor, J. Thomas, A. A. Warden, M.A., J. L. Watson, A. Webster, A. White, H. W. Williams, T. Wright.

* Mr. Urwin gains the Brunton Memorial Prize of £10, awarded to the most distinguished graduate in medicine of the year.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

THE following gentlemen having conformed to the by-laws and regulations, and passed the required examinations, were, at the meeting on July 27th, admitted Licentiates of the College:

Adcock, G. R., St. Bartholomew's
Atkinson, J. P., Cambridge and King's College
Baldwin, A., Middlesex
Bamfield, H. J. K., St. Mary's
Barrow, W. D., Edinb. and Liverpl.
Bearblock, P. E., Guy's
Benjamin, J. K. K., St. Barth.
Bensley, C. H., St. Mary's
Bensley, G. E., St. Bartholomew's and University College
Benson, G. V., St. Thomas's
Betenson, W. D., St. Bartholomew's
Bryett, W. R., King's College
Buchanan, J. S., Glasgow and Lond.
Bunch, J. Le M., University College
Burton, J. C., University College
Cardinall, C. D., St. Bartholomew's
Clarke, H. R. S., University Coll.
Compton, J. H., Guy's
Cooper, P. R., Manchester
Corkery, C. M., Bombay, Cork, and Middlesex
Coulson, J. E., Camb. and Guy's
Cresswell, S. C., Guy's
Crump, J. A., St. Bartholomew's
Cuff, A. W., Camb. and St. Thomas's
Darlington, W. W., Birmingham
Davies, E. T., Edinburgh
Davies, H., Univ. Coll. and Guy's
Davies, W. T., London
Dayus, F. H., St. Mary's
Densham, A. B., Bristol and King's College
Duprey, A. J. B., St. Mary's
*Durell, R. E., King's College
Dymoke, F., Bristol
Edmunds, F., Sheffield and London
Edwards, F. H., Guy's
Ellison, A., Leeds
Elrington, N., St. George's
Elvy, F., Middlesex
Elworthy, H. S., St. Bartholomew's
Evans, W., London
Eves, P. S., University College
Ewbank, A. G., St. Bartholomew's
Eyre, J. W. H., Durham and Guy's
Farrant, M., Westminster
Fish, C. E., Camb. and St. Thomas's
*Freyberger, D., Vienna
Grech, J., St. Mary's
Griffin, W. W., Otago and London
Griffith, J., Edin. and St. Barth.
Hacquoil, P. H., Guy's
Hall, C. B., St. Mary's
Harris, C. P., London
Harrison, C. A., Birmingham and London
Harrison, G. A., St. Bartholomew's
Harriss, S. A., Sheffield, Edinburgh, Charing Cross, and Westminster
Henley, W. F., Charing Cross
Hewett, J. W., St. Thomas's
Hicks, T. R. H. C., London
Hodgson, C., St. Thomas's
Hodson, T. G. S., London
Hughes, E. W. S., Leeds
Hughes, P. V., King's College
Instone, N., Guy's
Jeans, T. T., Manchester
Jenkins, T. J. P., St. Bartholomew's
Jones, B. S., St. Thomas's
*Jones, E. J. T., St. Thomas's
Joynson, H. M., Liverpool
Kirby, R. A., Camb. and Univ. Coll.
Kirkpatrick-Picard, A. W., University College
Knight, E., Manchester
Langford, C. H., St. Bartholomew's
Langmore, H. R., Camb. & St. Grge's
Lawton, W. C., Guy's
Leigh, A., Liverpool
Lewis, E. W., St. George's
Ley, B., St. Bartholomew's
Linington, W. W., St. Mary's
Lockyer, G. E., Guy's
Lyle, H. W., King's College
Martin, A. A., St. Mary's
Mason, W. B., Charing Cross
Miskin, E. St. Thomas's
Moore, H. M., St. Thomas's
Morley, H. W., St. George's
Morton, S. E., Sheffield and University College
Murdoch, A., St. Bartholomew's
Noonan, F. F., Melbourne, Westminster, and Edinburgh
*Noyes, H., Toronto, Edinburgh, and St. Bartholomew's
Nuttall, A. P., University College
Oldfield, C., Leeds
Ord, R. W., Camb. and St. Thomas's
Owens, I. E., London
Pauli, E. H. C., Bristol
Payne, W. H., University College
Quirke, J. J., Birmingham
Rainier, N. R. J., Charing Cross
*Rees, E. D., King's College
Richardson, S. W. F., St. Thomas's and London
Robertson, G. V. A., Leeds
Robinson, F. C., St. Bartholomew's
Rock, E. A., Middlesex
Rogers, J. E. G., London
Rogers, K., St. Bartholomew's
Rowstron, N. F., Durham and St. Bartholomew's
Salter, S. C., Manchester
Sandall, T. E., Camb. and Charing Cross
Sarjeant, J. F., Middlesex
Scott, J. A. N., Glasgow
Serase, F. E., Bristol
Seller, J. D., St. Mary's
Sharp, A. J., Guy's
Shears, W., St. Bartholomew's
Simmons, E. W., St. Mary's
Simpson, C. S., London
Sly, E., King's College
Smith, T. W., King's College
Staniland, J. H., Leeds
Stanwell, St. J., Edinburgh
Stedman, T. B., University College
Stepanian, H. D., London
Stephens, W. J., Durham and St. Thomas's
Stevens, A. F., St. Bartholomew's
Stuck, S. J., Middlesex
Taylor, J. W., Guy's
Thomas, W. H., London
Tomkys, L. S., Birmingham
Vickers, K. B. J., St. Thomas's
Wace, C., King's College
Weekes, R. N., St. Bartholomew's
Wells, J. E. B., St. Mary's
Wiggington, A. E., Birmingham
*Williams, F. E., Guy's
Willis, C. H., St. Bartholomew's
Wilson, F. W., Guy's
Wilson, R. P., Liverpool
Woodfield, T. H., St. Bartholomew's
Woodward, C. R. M., St. Thomas's
Worrall, E. S., University College
Worts, S. E., Guy's
Yelf, J. B., St. Mary's

* Candidates who have not presented themselves under the Regulations of the Examining Board.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.

The following gentlemen passed the First Examination of the Board, under the "*Five Years Regulations*," in the subjects indicated:—

Passed in *Elementary Biology*: H. J. Aldous, King's College; F. G. Aldrich, Charing Cross; A. W. Aldridge, Mason College, Birmingham; B. E. G. Bailey, St. Bartholomew's; P. C. Barham, St. Bartholomew's; M. R. Barker, St. Mary's; J. A. Barnes, St. Thomas's; F. Barton, University College, Liverpool; A. St. J. Bateman, King's College; C. L. Batteson, London; F. F. Bond, Westminster; C. H. S. Brown, St. Thomas's; R. Bryan-Haymes, St. Thomas's; E. P. Burns, Mason College, Birmingham; T. W. Byrne, University College, Liverpool; C. S. Cato, Westminster; H. J. Chater, St. Mary's; S. H. G. Cory, St. Mary's; A. Croneen, Guy's; R. I. Cuming, St. Thomas's; T. H. Davies, Middlesex; H. O. P. de Mirimonde, Yorkshire College, Leeds; H. H. J. Edwards, St. Thomas's; M. H. G. Fell, St. Bartholomew's; R. Fell, Guy's; C. E. Fenn, King's College; R. J. de G. Ferguson, University College; W. R. Flint, St. Mary's; H. W. Fox, Guy's; C. H. Francis-Williams, St. George's; J. G. Glasgow, St. Thomas's; A. S. Good, St. George's; G. Hardwick, Yorkshire College, Leeds; J. H. Hare, St. Thomas's; G. W. Harrison, St. Thomas's; R. S. F. Hearn, St. Bartholomew's; C. E. Hogan, St. Bartholomew's; J. Holmes, Yorkshire College, Leeds; W. St. A. F. Hubbard, Charing Cross; W. T. Jackson, Owens College, Manchester; W. James, St. Thomas's; E. G. Kent, St. Bartholomew's; E. H. Kitchin, Yorkshire College, Leeds; A. G. Leverton, St. Bartholomew's; J. E. Long, University College, Bristol; C. A. Lower, Guy's; M. R. Maher, University College, Liverpool; W. S. Maugham, St. Thomas's; C. G. Meade, St. Bartholomew's; W. Meade, St. George's; A. Mercer, University College; A. A. Miller, Guy's; S. L. C. Mondy, University College; R. G. Murray, St. George's; A. H. Norris, Owens College, Manchester; B. G. Patch, St. Thomas's; W. D'U. Pemberton, St. Thomas's; H. J. Phillips, St. Thomas's; H. J. Pickering, St. Bartholomew's; R. M. Richards, St. Mary's; O. H. Rogerson, Yorkshire College, Leeds; E. H. Ross, St. Thomas's; W. J. Schuller, London; A. F. Seacome, University College, Liverpool; E. B. Stevenson, St. Bartholomew's; J. L. V. Shortland, King's College; E. Symes, University College, Bristol; A. J. Tayler, King's College; H. W. B. Walling, Guy's; J. H. Watson, University College, Liverpool; R. Willcox, University College, Bristol; B. F. Wingate, St. Mary's; G. Winn, London; R. Le G. Worsley, St. George's.

Passed in *Elementary Anatomy*.—J. A. Archer, Mason College, Birmingham; H. J. M. D. S. Barker, Guy's; F. Barton, University College, Liverpool; A. St. J. Bateman, King's College; G. H. Bedford, Guy's; R. Brookes, Westminster; T. W. Byrne, University College, Liverpool; C. S. Cato, Westminster; M. B. Dawson, Middlesex; H. O. P. de Mirimonde, Yorkshire College, Leeds; J. C. Douglas, Middlesex; A. L. Edwards, St. Mary's; D. R. Edwards, University College, Liverpool; A. T. Falwasser, Guy's; T. B. Fawley, Firth College, Sheffield; H. W. Fox, Guy's; W. D. French, University College; C. Gasgoigne, St. Mary's; J. G. B. Gowlland, St. Bartholomews's; F. H. Hand, St. George's; W. H. Harland, Middlesex; G. W. Harrison, St. Thomas's; S. Harrison, Guys's; W. T. Hillier, Middlesex; W. Hodges, St. Thomas's; H. C. Jones, St. Mary's; E. H. Kitchin, Yorkshire College, Leeds; M. R. Mayer, University College, Liverpool; W. S. Maugham, St. Thomas's; A. Mercer, University College; S. L. C. Mondy, University College; C. C. Morgan, St. Bartholomew's; A. H. Norris, Owens College, Manchester; J. Oldfield, St Bartholomew's; G. O'Neill, Charing Cross; G. C. Owsley, Guy's; A. H. Parker, Charing Cross; H. J. Phillips, St. Thomas's; N. J. Roche, Charing Cross; H. A. Scholberg, St. Bartholomew's; A. F. Seacome, University College, Liverpool; H. Underhill, Mason College, Birmingham; J. H. Watson, University College, Liverpool; M. T. Whitehouse, Mason College, Birmingham; W. H. G. Whittuck, University College, Bristol; J. A. Wilson, King's College.

MEDICO-PARLIAMENTARY.

HOUSE OF LORDS.—Friday, July 28th.

Industrial and Provident Societies' Bill.—The Marquis of Ripon moved the second reading of this Bill, which, he said, was in the main a consolidating Bill, re-enacting the provisions of the existing law. The number of members of these societies in 1892 was 1,179,600, and the union promoting the Bill represented 1,020,291 of those members, and had the authority of successive co-operative congresses for their action. The Bill had passed through the House of Commons without any opposition, and had been very carefully considered by a Select Committee of the House.—The Lord Chancellor, without taking any objection to the Bill, suggested that as it was a consolidating Bill it should be submitted to the draftsman of the Statute Law Revision Committee. There were a variety of alterations in the drafting that might be expedient.—The Marquis of Ripon assented to this suggestion, and the Bill was read a second time.

HOUSE OF COMMONS.—Thursday, July 27th.

Conditions of Work in Scottish Laundries.—Mr. Paul asked the Home Secretary whether his attention had been called to the disclosures in Miss Irwin's report on the evils of public and private laundries in Edinburgh and other cities in Scotland, which were due to want of regulation and inspection, and whether he had considered during the recess, if there was one, the desirability of including laundries under the Factory and Workshop Acts? He also asked whether the right hon. gentleman was aware that the Edinburgh Trades Council and the Working Women's Federation of Edinburgh had passed resolutions in favour of public inspection and regulation of laundries.—Mr. John Wilson asked whether, considering the wearing-out nature of the industry, the Home Secretary would take early steps to place it under the Factory Acts?—In reply, Mr. Asquith said he was aware of the statements and recommendations in Miss Irwin's report, and also of the resolutions referred to. He was one of those who regretted at the time that laundries were not included in the Factory and Workshop Act of 1891. The matter was at present under consideration, and he was having inquiries made in various parts of the United Kingdom on the subject, and he trusted that some legislation would be possible.—Mr. Stuart Wortley asked that if it was not the fact that had Parliament in 1891 made laundries liable to inspection it would have necessitated the inspection of some convents?—In reply, Mr. Asquith said that was a matter on which he could not pronounce a definite opinion at the moment, but since the Act of 1891 they had been able to appoint female inspectors, and that might possibly get rid of the objection.

Death from Violence in an Asylum. Mr. M. Healy asked the Chief Secretary to the Lord Lieutenant whether the attention of the Irish Prisons Board had been called to the facts connected with the death of Henry Pedley, in the Cork District Lunatic Asylum, in February last, as proved at the trial which had taken place at the Cork Assizes, where Daniel Murphy, an attendant in the Asylum, was tried for the manslaughter of Pedley, and acquitted; whether he was aware that it was established in evidence at the said trial that Pedley died from blood poisoning arising out of the fracture of four of his ribs from violent treatment received in the asylum.—Mr. J. Morley: The facts are as stated in the question, and one of the inspectors of lunatic asylums has been instructed to hold an inquiry into the circumstances connected with Pedley's death.

Vaccination Orders.—Mr. C. Allen asked the Secretary for the Home Department whether he had now come to any decision in respect of directing the issue of distress warrants at Fulham to enforce vaccination orders; and whether the police were authorised to call at the house of defaulters and threaten the wives with consequences for default in obeying the orders for vaccination, using the name and authority of the Secretary of State for the Home Department.—Mr. Asquith said with regard to the first paragraph, it was through an omission on the part of the police to observe the instructions, which in all such cases require a previous reference to the Secretary of State, that the inspector took the action which he did. No further proceedings had been taken for the execution of the warrant, and the instructions of the Secretary of State would be brought again to the notice of all the metropolitan police and their observance strictly enforced. The answer to the second paragraph was in the negative.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE REGISTRAR-GENERAL'S QUARTERLY RETURN.

The Registrar-General has just issued his return relating to the births and deaths registered in England and Wales during the second or spring quarter of this year, and to the marriages during the three months ending March last. The marriage rate was equal to 10.9 per 1,000, and was not only considerably below the average in the corresponding period of the preceding ten years, but was lower than in the first quarter of any year since civil registration was established in 1837.

The births registered in England and Wales during the three months ending June last were 235,109, equal to an annual rate of 31.7 per 1,000 of the population, estimated by the Registrar-General to be rather less than twenty-nine and three-quarter millions of persons in the middle of this year. This rate was, with two exceptions, lower than in the corresponding period of any year on record, and was 1.0 per 1,000 below the mean rate in the second quarters of the preceding ten years. The birth-rates in the several counties during the quarter under notice ranged from 23.9 in Rutlandshire, 24.9 in Sussex, and 25.5 in Surrey to 36.7 in Monmouthshire, and 37.4 in Staffordshire, in Durham, and in South Wales. In thirty-three of the largest English towns the birth-rate last quarter averaged 32.2 per 1,000, and was 0.5 above the general English rate. In London the birth-rate was 30.7 per 1,000, while it averaged 33.2 in the thirty-two provincial towns, among which it ranged from 24.1 in Huddersfield, 24.3 in Brighton, 26.6 in Halifax, and 25.8 in Croydon to 37.2 in Cardiff, 37.4 in Sunderland, and 37.7 in Salford.

The births registered in England and Wales during the quarter under notice exceeded the deaths by 102,249; this represents the natural increase of the population during that period. It appears from returns issued by the Board of Trade that 120,458 emigrants embarked during last quarter from the various ports of the United Kingdom at which emigration offices are stationed. Of these, 43,304 were English, 8,121 Scotch, and 23,865 Irish. The proportions of British emigrants to a million of the respective populations of the three divisions of the United Kingdom were 1,457 from England, 1,984 from Scotland, and 5,181 from Ireland. Compared with the mean proportions in the corresponding periods of recent years, the proportion of English and Scotch emigrants showed an increase, while those from Ireland showed a decline.

During the second quarter of 1893 the deaths of 132,860 persons were registered in England and Wales, equal to an annual rate of 17.9 per 1,000 of the estimated population; in the corresponding periods of the preceding ten years 1883-92, the mean rate was 19.1 per 1,000. Among the urban population of the country, estimated at about nineteen and a quarter millions of persons, the rate of mortality during the quarter under notice was 18.7 per 1,000; in the remaining, and chiefly rural, population of about ten and a half millions, it was 16.4 per 1,000. These rates were respectively 1.0 and 1.5 per 1,000 below the mean rates in the corresponding quarters of the preceding ten years. Among thirty-three of the largest English towns the mean death-rate was 19.8 per 1,000; in London the rate was 19.5 per 1,000, while in the thirty-two provincial towns it averaged 20.1 per 1,000, and ranged from 13.6 in Croydon, 14.7 in Nottingham, and 14.8 in West Ham to 24.4 in Manchester, 26.2 in Preston, and 27.1 in Liverpool.

The 132,860 deaths registered in England and Wales during the three

months ending June last included 3,859 which resulted from diarrhœa, 3,624 from measles, 2,301 from whooping-cough, 1,812 from diphtheria, 1,566 from scarlet fever, 1,030 from "fever" (including typhus, enteric, and ill-defined fever), and 519 from small-pox; in all, 14,711 deaths were referred to these principal zymotic diseases, equal to an annual rate of 2.0 per 1,000, against an average rate of 1.8 in the corresponding quarters of the preceding ten years. The mortality from small-pox, diphtheria, and diarrhœa showed an excess, while that from each of the other principal zymotic diseases was below the average. The 519 fatal cases of small-pox exceeded the number in any quarter since March, 1888; 138 occurred in Yorkshire, 110 in Lancashire, 100 in London, 25 in Derbyshire, and 20 in Warwickshire.

The rate of infant mortality, or the proportion of deaths under one year of age to registered births, was equal to 135 per 1,000, and was slightly above the mean rate in the corresponding periods of the preceding ten years. In London the rate of infant mortality was 148 per 1,000, while it averaged 165 in the thirty-two provincial towns, among which it ranged from 103 in Croydon, 122 in Gateshead, and 125 in Hull to 205 in Leicester, 218 in Liverpool, and 248 in Preston.

The mean temperature of the air during last quarter at the Royal Observatory, Greenwich, was 57.0° and was 4.7° above the average in the corresponding periods of 122 years; it showed a marked excess during each month of the quarter. The rainfall amounted to only 1.5 inch, which was about one-fourth of the average amount.

ENGLISH URBAN MORTALITY IN THE SECOND QUARTER OF 1893. THE vital and mortal statistics of the thirty-three large English towns dealt with by the Registrar-General in his weekly returns are summarised in the accompanying table. During the three months ending June last, 82,866 births were registered in these thirty-three towns, equal to an annual rate of 32.2 per 1,000 of their aggregate population, estimated at upwards of ten and a quarter millions of persons in the middle of this year. In the corresponding period of 1892 the birth-rate in these towns averaged 32.9 per 1,000. In London the birth-rate last quarter was equal to 30.7 per 1,000, while it averaged 33.2 in the thirty-two provincial towns, among which it ranged from 24.1 in Huddersfield, 24.3 in Brighton, 25.6 in Halifax, and 25.8 in Croydon to 36.4 in Liverpool, 37.2 in Cardiff, 37.4 in Sunderland, and 37.7 in Salford.

During the quarter under notice 51,060 deaths were registered in the thirty-three large English towns, which corresponded to an annual rate of 19.8 per 1,000, against 19.5 in the second quarter of 1892. In London the rate of mortality was equal to 19.5 per 1,000, while it averaged 20.1 in the thirty-two provincial towns, among which the death-rates ranged from 13.6 in Croydon, 14.7 in Nottingham, 14.8 in West Ham, and 15.5 in Portsmouth to 22.5 in Bolton, 24.4 in Manchester, 26.2 in Preston, and 27.1 in Liverpool. The 51,060 deaths registered in the thirty-three towns last quarter included 7,125 which were referred to the principal zymotic diseases, equal to an annual rate of 2.8 per 1,000; in London the zymotic death-rate was 2.8, while it averaged 2.7 per 1,000 in the thirty-two provincial towns, among which it ranged from 0.8 in Huddersfield, 0.9 in Wolverhampton, 1.0 in Derby, and 1.1 in Sunderland to 3.7 in Manchester, 3.9 in Liverpool, 4.3 in Cardiff, 4.7 in Leicester, and 8.1 in Preston. The 7,125 deaths referred to the principal zymotic diseases included 2,081 which resulted from diarrhœa, 1,592 from measles, 1,208 from whooping-cough, 959 from diphtheria, 659 from scarlet fever, 363 from "fever" (principally enteric), and 263 from small-pox. The 2,081 fatal cases of diarrhœa registered during the quarter under notice in the thirty-three towns were equal to an annual rate of 0.81 per 1,000; in London the rate of mortality from this disease was equal to 0.72, while it averaged 0.88 per 1,000 in the thirty-two provincial towns, among which diarrhœa showed the highest proportional fatality in Liverpool, Birkenhead, Leicester, and Preston. The 1,592 deaths referred to measles were equal to an annual rate of 0.62 per 1,000; in London the rate of mortality from this disease did not exceed 0.41 per 1,000, while it averaged 0.77 in the thirty-two provincial towns, among which measles was proportionally most fatal in Blackburn, Cardiff, Leeds, Plymouth, Gateshead, Newcastle-upon-Tyne, and Preston. The 1,208 fatal cases of whooping-cough were equal to an annual rate of 0.47 per 1,000; in London the rate of mortality from this disease was equal to 0.55 per 1,000, while it averaged 0.41 in the thirty-two provincial towns, among which whooping-cough showed the highest proportional fatality in Manchester, Birkenhead, Liverpool, Halifax, Norwich, Brighton, and Leicester. The 959 deaths referred to diphtheria were equal to an annual rate of 0.37 per 1,000; in London the diphtheria death-rate was equal to 0.63 per 1,000, while it averaged only 0.19 in the thirty-two provincial towns, among which it was highest in Manchester, West Ham, Halifax, Cardiff, and Croydon. The 659 fatal cases of scarlet fever were equal to an annual rate of 0.26 per 1,000; in London the death-rate from this disease was equal to 0.31 per 1,000, while it averaged 0.22 in the thirty-two provincial towns, among which scarlet fever showed the highest proportional fatality in Liverpool, Cardiff, Leicester, and Burnley. The 363 deaths referred to different forms of "fever" (including typhus, enteric, and simple and ill-defined forms of fever) were equal to an annual rate of 0.14 per 1,000; in London the "fever" death-rate was 0.11 per 1,000, while it averaged 0.16 in the thirty-two provincial towns, among which it was highest in Burnley, Sunderland, and Liverpool. Of the 263 fatal cases of small-pox registered during the quarter under notice in the thirty-three towns, 100 occurred in London, 30 in Oldham, 22 in Halifax, 19 in Birmingham, 19 in Bradford, 17 in Manchester, 13 in West Ham, and 11 in Salford. During last quarter 1,309 small-pox patients were admitted into the Metropolitan Asylums Hospitals, and 371 remained under treatment at the end of June.

The rate of infant mortality in the thirty-three towns, measured by the proportion of deaths under 1 year of age to registered births, was equal to 158 per 1,000. In London the rate of infant mortality was equal to 148 per 1,000, while it averaged 135 in the thirty-two provincial towns, among which it ranged from 103 in Croydon, 122 in Gateshead, 125 in Hull, and

Analysis of the Vital and Mortal Statistics of Thirty-three of the Largest English Towns during the Second Quarter of 1893.

Towns.	Estimated Population middle of 1893.	Births.	Deaths.	Annual Rate per 1,000 Living.			Deaths from Principal Zymotic Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-Cough.	Fever.	Diarrhœa.	Deaths of Children under one year of age to 1,000 Births.	Rate per cent. of Uncertified Deaths
				Births.	Deaths.	Principal Zymotic Diseases.										
33 Towns	10,322,429	82,866	51,060	32.2	19.8	2.8	7,125	263	1,592	659	959	1,208	363	2,081	158	1.7
32 Provincial Towns	6,016,878	49,859	30,174	33.2	20.1	2.7	4,102	163	1,153	323	282	616	241	1,324	165	2.3
London	4,305,551	33,007	20,886	30.7	19.5	2.8	3,023	100	439	336	677	592	122	757	148	0.8
West Ham	227,404	2,016	838	35.6	14.8	2.1	120	13	4	17	21	15	10	40	130	5.7
Croydon	103,000	701	369	25.8	13.6	1.9	52	—	2	3	28	5	2	12	103	—
Brighton	117,833	715	483	24.3	16.4	1.5	43	—	—	1	6	25	2	9	157	2.3
Portsmouth	167,284	1,128	646	27.0	15.5	2.1	86	—	41	5	4	11	8	17	131	0.8
Plymouth	86,772	654	476	30.2	22.0	3.2	70	—	44	2	4	6	2	12	185	0.4
Bristol	225,146	1,763	962	31.4	17.1	1.2	69	1	4	7	11	14	7	25	126	2.8
Cardiff	142,346	1,320	687	37.2	19.4	4.3	153	—	52	16	28	15	4	38	186	1.3
Swansea	93,910	847	481	36.2	20.5	1.4	33	—	9	8	2	3	3	8	156	2.5
Wolverhampton	84,245	753	417	35.9	19.9	0.9	18	—	—	2	1	—	4	11	134	1.7
Birmingham	487,897	4,037	2,397	33.2	19.7	2.1	256	19	9	22	13	61	13	119	167	4.3
Norwich	104,176	824	406	31.7	15.6	1.6	41	—	1	5	3	17	3	12	164	1.5
Leicester	180,065	1,544	870	34.4	19.4	4.7	213	5	18	21	7	46	5	111	205	3.2
Nottingham	220,551	1,676	806	30.5	14.7	1.5	80	1	1	11	2	10	13	42	137	1.1
Derby	97,341	825	427	34.0	17.6	1.0	24	2	1	4	—	7	2	8	139	1.9
Birkenhead	103,817	896	500	34.6	19.3	3.6	93	1	1	5	7	15	4	60	189	1.0
Liverpool	510,486	4,632	3,445	36.4	27.1	3.9	496	1	111	48	8	78	43	207	218	3.0
Bolton	117,278	1,006	658	34.4	22.5	3.4	100	1	34	10	4	15	5	31	171	0.6
Manchester	515,567	4,464	3,130	34.7	24.4	3.7	473	17	147	35	47	69	30	128	166	1.4
Salford	203,427	1,910	1,135	37.7	22.4	3.1	157	11	27	3	12	25	12	67	176	4.1
Oldham	136,469	982	670	28.9	19.7	1.9	66	30	1	7	5	11	2	10	152	1.3
Burnley	93,517	833	477	35.7	20.5	2.3	54	4	4	13	3	5	6	19	166	1.7
Blackburn	124,015	977	638	31.6	20.6	2.9	90	2	43	3	—	13	7	22	168	2.8
Preston	110,225	950	721	34.6	26.2	8.1	222	—	129	7	—	14	3	69	248	3.1
Huddersfield	97,552	587	409	24.1	16.8	0.8	19	—	6	6	1	2	—	4	129	2.4
Halifax	91,918	586	388	25.6	16.9	2.5	57	22	4	1	10	14	1	5	147	4.1
Bradford	221,611	1,578	1,066	28.6	19.3	2.7	150	19	31	10	6	27	8	49	165	1.7
Leeds	382,094	3,235	1,993	34.0	20.9	3.0	287	3	157	7	21	34	8	57	167	1.1
Sheffield	333,922	2,934	1,717	35.2	20.6	2.4	200	4	40	25	17	23	11	80	164	3.0
Hull	208,639	1,801	894	34.6	17.2	2.1	107	6	47	9	6	15	5	19	125	3.4
Sunderland	134,394	1,252	669	37.4	20.0	1.1	37	1	3	6	1	6	10	10	147	1.3
Gateshead	90,961	796	402	35.1	17.7	3.2	73	—	50	—	1	9	4	9	122	2.5
Newcastle-on-Tyne	197,026	1,637	997	33.3	20.3	3.3	163	—	132	4	3	6	4	14	157	0.8

128 in Bristol to 186 in Cardiff, 189 in Birkenhead, 205 in Leicester, 218 in Liverpool, and 248 in Preston.

The causes of 873, or 1·7 per cent., of the 51,060 deaths in the thirty-three towns during the second quarter of the current year were not certified, either by registered medical practitioners or by coroners. The proportion of uncertified deaths in London did not exceed 0·8 per cent., while in the thirty-two provincial towns it averaged 2·3 per cent. All the causes of death were duly certified in Croydon; in the other towns the lowest proportions of uncertified deaths were registered in Plymouth, Bolton, Portsmouth, and Newcastle-upon-Tyne; and the highest in Hull, Salford, Halifax, Birmingham, and West Ham.

RURAL WATER SUPPLY.

M. O. H. asks for information as to the usual interpretation of the words "within a reasonable distance" in Section 3 of the Public Health (Water) Act, 1878. Would a well 160 yards from a cottage be considered to be "within reasonable distance" for the water supply of its occupiers?

EPIDEMIC OF TYPHOID FEVER IN JOHNSTONE.

JOHNSTONE, near Paisley, in Renfrewshire, is at present the site of an epidemic of typhoid fever, there being as many as 101 cases in the district. The accommodation of the Combination Hospital is taxed to its utmost, the number being treated in hospital being 31. Two-thirds of the patients are children, and the source of the epidemic has not yet been traced.

NOTIFICATION OF INFECTIOUS DISEASES BY UNQUALIFIED PERSONS.

DR. W. M. GABRIEL (Keighley) writes: 1. What is the duty of the medical officer of health with regard to the notification of infectious diseases made by unqualified persons? 2. Is it any part of the duties of the medical officer of health to supply forms for the notification of infectious diseases to unqualified persons?

*** 1. "Notifications" by unqualified persons, like other non-medical diagnoses, are to be regarded as provisional only. They cannot, of course, be accepted as medical notifications under the Act, but as informal warnings of the possible existence of dangerous infectious disease they may serve a useful purpose, by affording a clue to the medical officer of health. The steps which he should take depend, of course, upon the nature of the disease alleged, the surroundings of the patient, and the preventive measures available. He should treat such a "notification" as he would an ordinary letter calling his attention to a supposed case of infectious disease not under the care of a medical man. 2. It is not part of the duty of a medical officer of health to supply notification forms to unqualified persons, nor is it usual or desirable to do so.

INFANT MORTALITY IN EGYPT.

THE death-rate among little children in Egypt is this year assuming somewhat worse proportions than usual, as may be seen from the following table compiled from the official returns, referring to 31 towns, with a reputed population of 1,002,961:

1893. Week ending—	Total Number of Deaths.	Deaths under 5 Years.	Births.	Deaths under 5 per 1,000 Births.
June 1st	1,057	642	942	681
,, 8th	1,156	761	1,046	727
,, 15th	1,208	797	1,053	756
,, 22nd	1,167	780	932	836
,, 29th	997	681	765	890
July 6th	1,184	835	992	841
Average	1,128	749	955	788

During these six consecutive weeks the mortality under 5 years of age was equal to very nearly 80 per cent. of the birth-rate; and the deaths under 12 months amounted to 2,517, which, compared with the natality, gives a rate of 439 per 1,000. In London last year the proportion under the latter heading was 154 per 1,000; and during the second quarter just terminated it was 147, which was said to be in excess of the mean rate in the corresponding periods of the preceding ten years. As usual, the greater part of the mortality among the infants in Egypt is ascribed to gastro-enteritis and its congeners, which being interpreted means poisoning by impure water.

SUMMER DIARRHŒA.

THE relation which Dr. Ballard observed between the temperature of the subsoil and the outburst of epidemic diarrhœa, has been borne out this summer by the experience of more than one English town, in which records of earth temperatures are kept. The Medical Officer of Health for Preston (Mr. Pilkington) makes special reference to this in his report for the four weeks ending July 15th. The temperature at a depth of 4 feet below the surface of the soil at Preston reached the dangerous point—56° F.—on June 10th, and it seems that prevalence of diarrhœa among infants became apparent in the mortality returns very shortly afterwards. Mr. Pilkington enumerates the causes which he holds accountable for the heavy annual death-roll from infant diarrhœa in Preston. Among these are neglect and improper feeding, pollution of air and soil, and filth accumulations close to dwellings. He advocates the substitution of waterclosets for privy-middens in the worst built parts of the town, and the covering of yard surfaces with some impervious material which would prevent the soakage of filthy liquids into the soil, and the consequent tendency to exhalation of foul gases.

HEALTH RESORTS AND SICKNESS RETURNS.

J. A. FOX, L.R.C.P.Lond., L.R.C.P.Edin. (Penzance) writes: In reference to the annotation headed "Health Resorts and Sickness Returns," as a borough councillor and a member of the Sanitary Committee of the town referred to, I feel, in duty bound, to say that the reason for refusing to supply the monthly health returns to Mr. Trevail, the Chairman of the Cornwall County Sanitary Committee, is that the Borough Council consider the returns have been used unfairly; and, further, inaccuracies have occurred in Mr. Trevail's summary of the reports, which have neither been acknowledged nor corrected when pointed out.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,205 births and 4,478 deaths were registered during the week ending Saturday, July 29th. The annual rate of mortality in these towns, which had increased from 17.5 to 25.1 per 1,000 in the preceding nine weeks, declined to 22.6 during the week under notice. The rates ranged from 11.2 in Derby, 12.3 in Huddersfield, 14.4 in Bristol, 15.0 in Plymouth, and 15.3 in Halifax, to 29.7 in Wolverhampton, 31.2 in Burnley, 31.5 in Liverpool, 34.1 in Blackburn, and 40.2 in Preston. In the thirty-two provincial towns the mean death-rate was 23.8 per 1,000, and exceeded by 2.8 the rate recorded in London, which was 21.0 per 1,000. The 4,478 deaths registered during the week under notice in the thirty-three towns included 1,257 which were referred to the principal zymotic diseases, against numbers increasing from 415 to 1,554 in the preceding eight weeks; of these, 850 resulted from diarrhœa, 96 from diphtheria, 94 from whooping-cough, 87 from measles, 69 from scarlet fever, 45 from "fever" (principally enteric), and 16 from small-pox. These 1,257 deaths were equal to an annual rate of 6.4 per 1,000; in London the zymotic death-rate was equal to 5.0 per 1,000, while it averaged 7.3 in the thirty-two provincial towns, among which the lowest zymotic death-rates were recorded in Bristol, Halifax, Huddersfield, Brighton, and Derby, and the highest rates in Liverpool, Leicester, Blackburn, Burnley, and Preston. Measles showed the highest proportional fatality in Liverpool, Burnley, and Blackburn; scarlet fever in Leicester and Bolton; whooping-cough in Swansea and Gateshead; "fever" in Derby; and diarrhœa in Wolverhampton, Portsmouth, Hull, Leicester, Blackburn, Burnley, and Preston. The 96 deaths from diphtheria included 72 in London and 5 in Manchester. Eight fatal cases of small-pox were registered in London, 4 in Bradford, 2 in West Ham, 1 in Bolton, and 1 in Manchester, but not one in any other of the thirty-three towns; 280 small-pox patients were under treatment in the Metropolitan Asylums Hospitals and in the Highgate Small-pox Hospital on Saturday last, July 29th, against numbers declining from 570 to 328 at the end of the preceding eleven weeks; 38 new cases were admitted during the week, against 61 and 53 in the preceding two weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had steadily increased from 2,024 to 2,968 at the end of the preceding fifteen weeks, were 2,966 on Saturday last; 282 new cases were admitted during the week, against 348 and 390 in the preceding two weeks. The 182 deaths referred to diseases of the respiratory organs in London were slightly above the average, and were equal to an annual rate of 2.2 per 1,000.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday, July 29th, 890 births and 539 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 21.9 and 20.8 per 1,000 in the preceding two weeks, further declined to 19.1 during the week under notice, and was 3.5 per 1,000 below the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the lowest rates were 14.4 in Edinburgh and 14.5 in Dundee, and the highest rates 22.7 in Leith and 29.2 in Perth. The 539 deaths in these towns included 110 which were referred to the principal zymotic diseases, equal to an annual rate of 3.9 per 1,000, which was 2.5 below the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Leith, Paisley, and Greenock. The 208 deaths registered in Glasgow included 30 from diarrhœa, 12 from measles, 2 from diphtheria, and 14 from whooping-cough. Six fatal cases of measles were recorded in Greenock, and 5 of "fever" in Paisley. The death-rate from diseases of the respiratory organs in these towns was equal to 2.8 per 1,000, against 2.2 in London.

HEALTH OF IRISH TOWNS.

IN sixteen of the principal town districts of Ireland the deaths registered during the week ending Saturday, July 22nd, were equal to an annual rate of 25.9 per 1,000. The lowest rates were recorded in Londonderry and Dundalk and the highest rates in Waterford and Kilkenny. The death-rate from the principal zymotic diseases was equal to 7.1 per 1,000. The 203 deaths registered in Dublin were equal to an annual rate of 30.3 per 1,000 (against 24.6 and 27.1 in the preceding two weeks), the rate during the same period being 22.5 in London and 19.7 in Edinburgh. The 203 deaths in Dublin included 45 which resulted from the principal zymotic diseases (equal to an annual rate of 6.7 per 1,000), of which 36 were referred to diarrhœa, 4 to enteric fever, 2 to measles, 2 to whooping-cough, and 1 to diphtheria.

MEDICAL NEWS.

MESSRS. FISHER AND CO., of Cassel, announce the issue of a new series of monographs under the title of *Bibliotheca Medica*. The monographs will be published in either German, English, French, or Italian, and will be printed in large quarto, so that the plates may not be folded. The *Bibliotheca* is divided into six sections, any of which may be subscribed to separately. There is one statement in the prospectus to which, probably, general assent will be given, namely, that "medical compilations.....are appearing in German in quite sufficient numbers."

THE GENERAL PRACTITIONERS' ALLIANCE.—The annual meeting of the General Practitioners' Alliance was held on July 20th at the Holborn Restaurant, Dr. J. W. Oswald in the chair, and about eighteen gentlemen present. The annual report of the Council was adopted. The Treasurer (Dr. Eady) read the financial statement for the year, which showed a balance in hand of £7 19s. 11d. The statement was approved and adopted. Dr. Henty proposed that the name of the General Practitioners' Alliance should be altered to Medical Practitioners' Association, which, after some discussion, was carried by 13 votes to 3. The articles of association for the purpose of registering the Association under the Limited Liability Companies' Act were submitted to the meeting, and after discussion referred back to the Council to consider any suggested alterations. The Council were empowered to carry out the registration of the Association after such alterations as they thought necessary had been made in the articles. Dr. Alderson was elected President for the ensuing year. The Council was re-elected, with the addition of Dr. Atkinson. The Treasurer (Dr. Eady) was reappointed, and Drs. F. Greaves and R. J. W. Oswald were appointed Hon. Secretaries. Dr. J. W. J. Oswald, the retiring President, delivered a brief address, in which he reviewed the work of the Association for the past year, and offered his congratulations. The members present, with others who entered towards the close of the meeting, afterwards dined together, with the exception of Dr. Eady, who had sustained that day a domestic loss.

MEDICAL VACANCIES.

The following vacancies are announced:

BRISTOL HOSPITAL FOR SICK CHILDREN AND WOMEN.—House-Surgeon; doubly qualified. Salary, £100 per annum, with rooms and attendance. Applications marked "House-Surgeon" to the Secretary, H. Lawford Jones, by August 12th.

CUMBERLAND INFIRMARY, Carlisle. — Assistant House-Surgeon. Salary, £40 per annum, with board, lodging, and washing. Applications and testimonials to the Secretary by August 17th.

HUNGERFORD UNION.—District Medical Officer. Salary, £80 per annum, and usual extra fees. Will be required to reside within the district. Applications to H. D'A. W. Astley, Clerk to the Guardians, Hungerford, by August 7th.

LIVERPOOL INFIRMARY FOR CHILDREN.—Assistant House-Surgeon. Appointment for six months, board and lodging provided. Application to C. W. Carver, Honorary Secretary, by August 5th.

RETREAT, THE, York.—Junior Asssistant Medical Officer; unmarried. Salary, £100 per annum, with board, lodging, and washing. Applications to Dr. Bedford Pierce, The Retreat, York, by August 7th.

ROYAL INFIRMARY, Hull.—Senior House-Surgeon. Unmarried. Salary, 100 guineas per annum, with board and furnished apartments. Testimonials to be sent to the Chairman of the House Committee by August 15th.

VICTORIA INFIRMARY OF GLASGOW.—Superintendent and Resident Medical Officer. Applications to Francis Bisset, Secretary, 22, Carlton Place, Glasgow, by August 15th.

WESTMINSTER HOSPITAL, Broad Sanctuary, S.W.—Surgeon. Must be Fellow of the Royal College of Surgeons of England. Applications with testimonials to the Secretary, S. M. Quennell, by August 22nd.

MEDICAL APPOINTMENTS.

ARNOLD, Mr. W., appointed Medical Officer for the Great Milton and Little Milton District of the Thame Union.

BOWMAN, Henry Moore, M.D.Lond., M.R.C.P., appointed Assistant Physician to the Royal Hospital for Diseases of the Chest, City Road.

BUCK, Joseph, L.R.C.P., L.R.C.S.Edin., appointed Medical Officer of Health for the Rural Sanitary District of the Hunslet Union, *vice* Jas. Nowell, M.R.C.S.Eng., deceased.

BULLMORE, William King, M.D.St.And., M.R.C.S.Eng., reappointed Medical Officer of Health for the Falmouth Urban Sanitary District.

CRIBB, C. H., B.Sc.Lond., F.I.C., reappointed Public Analyst for the Strand District.

CROPLEY, Henry, F.R.C.S.Eng., appointed Medical Officer of Health for the Kingsthorpe Urban Sanitary District of the Northampton Union.

DAVIES, P. E., L.R.C.P.Lond., M.R.C.S.Eng., appointed House-Surgeon to the Kidderminster Infirmary.

DOMAN, George H., B.A., M.B., B.C.Cantab., appointed Certifying Surgeon under the Factory Act for Westhoughton; and Medical Officer and Public Vaccinator for Westhoughton District of the Bolton Union, *vice* John Whitaker, M.B.Edin., deceased.

FLETCHER, William John Harvey, L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Uttoxeter and Leigh Districts and Workhouse of the Uttoxeter Union, *vice* F. Hawthorn, L.R.C.P.Edin., M.R.C.S.Eng., resigned.

GERMAN, Mr. A. W., appointed Assistant Medical Officer for the Mile Road Infirmary of the West Derby Union.

HARRIS, Alfred, M.B., C.M.Edin., appointed Medical Officer of Health for the Thetford Urban Sanitary District, *vice* F. W. Joy, L.R.C.P.Edin., deceased.

HOLMES, Frank D., B.A.R.U.I., L.R.C.P.Edin., appointed Medical Officer for the Duffield District of the Belper Union.

JONES, Herbert, L.S.A., appointed Medical Officer of Health for the Borough of Crewe.

LING, Charles A. S., M.R.C.S.Eng., appointed Medical Inspector of Seamen for the Port of Colchester.

MORRISON, R., L.R.C.P. and S.Edin., appointed Medical Officer for the Duffield District of the Belper Union.

OSMOND, Edward Bartrum, L.R.C.P.Lond., M.R.C.S.Eng., appointed Honorary Consulting Medical Officer to the Pontefract Dispensary.

PAULIN, John, M.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Ashton-on-Mersey District of the Altrincham Union, *vice* John Sheldon Withers, L.R.C.P.Lond., M.R.C.S.Eng., resigned.

PARSONS, Francis John C., L.R.C.P.Lond., M.R.C.S.Eng., reappointed Medical Officer of Health for the Bridgwater Urban and Rural Sanitary Districts.

RIDER, Alonzo, M.B.Lond., M.R.C.S. L.R.C.P., appointed Assistant Surgeon to the Royal Albert Hospital, Devonport.

ROBERTS, John D., M.R.C.S.Eng., appointed Surgeon to the Ealing Cottage Hospital, *vice* W. C. Steele, M.D.Brux., resigned.

SILK, J. Fredk. W., M.D.Lond., M.R.C.S., L.S.A., appointed Anæsthetist and Instructor in Anæsthetics in King's College Hospital, *vice* Charles Moss, resigned.

THOMPSON, John H., L.R.C.P.I., L.R.C.S.Edin., reappointed Medical Officer of Health for the Mytholmroyd Urban Sanitary District.

TURNER, Dr. W. Aldren, appointed Physician to Out-patients and Registrar, Hospital for Epilepsy and Paralysis.

VERNON, J. J. D., M.B.Lond., M.R.C.S.Eng., appointed Medical Officer of Health for the Audley Urban Sanitary District of the Newcastle-under-Lyme Union, *vice* Richard Vernon, M.D.Glasg., resigned.

WALLIS, Fred. C., M.B.Cantab., F.R.C.S., appointed Assistant-Surgeon at Charing Cross Hospital.

WILLIAMS, Evan, L.R.C.P.I., M.R.C.S.Eng., appointed Medical Officer of Health for the Llangefni Urban Sanitary District of the Anglesey Union.

WOOD, T. Jason, M.D.Lond., M.R.C.S., L.R.C.P., appointed House-Surgeon to the Bradford Infirmary.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTHS.

LOWE.—On July 25th, at Wymondham, Norfolk, the wife of George Lowe, M.D., C.M., of a daughter.

LUCY.—July 28th, at 9, Princess Square, Plymouth, the wife of Reginald H. Lucy, M.B., F.R.C.S.Eng., of a son.

WILLIAMSON.—Newcastle, 8, Eldon Square, on July 28th, the wife of G. E. Williamson, F.R.C.S., of a son.

MARRIAGES.

CARRUTHERS—HOLMES.—On the 2nd inst., by the Rev. Arthur Connell, Rector of St. Mark's, West Gorton, Christopher Carruthers, L.R.C.P., L.R.C.S.Edin., Openshaw, Manchester, to Nellie, eldest daughter of Frank Holmes, Esq., M.R.C.S., Ardwick, Manchester.

COLLIE—LAURIE.—At S. Columba's Church, Edinburgh, on the 29th July, by the Right Reverend John Dowden, LL.D., Bishop of Edinburgh, assisted by the Rev. H. H. Flower, Rector of S. Columba's, Surgeon-Captain Macintosh A. T. Collie, I.M.S., to Margaret Jean Somerville, younger daughter of Professor S. S. Laurie, of the University of Edinburgh.

FEATHERSTONE—DAVIES.—On July 11th, at Erdington Parish Church, by the Rev. S. G. Swindell, Vicar of Sedgley, assisted by Rev. W. Bleiben, W. Barltrop Featherstone, M.D.Lond., of Erdington, to Isabella Harriett, daughter of the late Henry J. Davies, Esq., of Brooklyn, New York, U.S.A., and Excelsior House, Wylde Green, Birmingham.

DEATHS.

HALL.—On July 26th, at Tunbridge Wells—very suddenly of heart failure—Frederick Hall, M.R.C.S., L.S.A., of 1, Jermyn Street, St. James's, S.W., aged 69 years.

WRIGHT.—On July 28th, at the residence of his father, 153, Upper Kennington Lane, S.E., Sydney Charles Ernest Wright, L.S.A.Lond., aged 31 years; deeply regretted.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

Cancer, Brompton (Free). *Hours of Attendance.*—Daily, 2. *Operation Days.*—Tu. S., 2.

Central London Ophthalmic. *Operation Days.*—Daily, 2.

Charing Cross. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M., 1.30; Dental, M. W. F., 9; Throat and Ear, F., 9.30 *Operation Days.*—W. Th. F., 3.

Chelsea Hospital for Women. *Hours of Attendance.*—Daily, 1.30 *Operation Days.*—M. Th., 2.

East London Hospital for Children. *Operation Day.*—F., 2.

Great Northern Central. *Hours of Attendance.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Ear, Tu. F., 2.30; Diseases of the Skin, W., 2.30; Diseases of the Throat, Th., 2.30; Dental Cases, W., 2. *Operation Day.*—W., 2.

Guy's. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 1. *Operation Days.*—(Ophthalmic), M. Th., 1.30; Tu. F., 1.30.

Hospital for Women, Soho. *Hours of Attendance.*—Daily, 10. *Operation Days.*—M. Th., 2.

King's College. *Hours of Attendance.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, daily, 1.30; o.p., Tu. W. F. S., 1.30; Eye, M. Th., 1.30; Ophthalmic Department, W., 2; Ear, Th., 2; Skin, F., 1.30; Throat, F., 1.30; Dental, Tu. Th., 9.30. *Operation Days.*—M. F. S., 2.

London. *Hours of Attendance.*—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, S., 9.30; Skin, Th., 9, Dental, Tu., 9. *Operation Days*—M. Tu. W. Th. S., 2.

London Temperance Hospital. *Hours of Attendance.*—Medical, M. Tu. F. 2; Surgical, M. Th., 2. *Operation Days.*—M. Th., 4.30.

Metropolitan. *Hours of Attendance.*—Medical and Surgical, daily, 9; Obstetric, W., 2. *Operation Day.*—F., 9.

Middlesex. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Th., 1.30; o.p., M. F., 9, W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu., 9; Skin, Tu., 4, Th., 9.30; Dental, M. W. F., 9.30. *Operation Days.*—W., 1.30. S., 2; (Obstetrical), Th., 2.

National Orthopædic. *Hours of Attendance.*—M. Tu. Th. F., 2. *Operation Day.*—W., 10.

North-West London. *Hours of Attendance.*—Medical and Surgical, daily, 2; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operation Day.*—Th., 2.30.

Royal Free. *Hours of Attendance.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Dental, Th., 9. *Operation Days.*—W. S., 2; (Ophthalmic), M. F., 10.30.; (Diseases of Women), S., 9.

Royal London Ophthalmic. *Hours of Attendance.*—Daily, 9. *Operation Days.*—Daily, 10.

Royal Orthopædic. *Hours of Attendance.*—Daily, 1. *Operation Day.*—M., 2.

Royal Westminster Ophthalmic. *Hours of Attendance.*—Daily, 1. *Operation Days.*—Daily.

St. Bartholomew's. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, W. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. *Operation Days.*—M. Tu. W. S., 1.30; (Ophthalmic), Tu. Th., 2.

St. George's. *Hours of Attendance.*—Medical and Surgical, M. Tu. F. S., 12; Obstetric, Th., 2; o.p., Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopædic, W., 2; Dental, Tu. S., 9. *Operation Days.*—Th., 1; (Ophthalmic), F., 1.15.

St. Mark's. *Hours of Attendance.*—Fistula and Diseases of the Rectum, males, S., 3; females, W., 9.45. *Operation Days.*—M., 2., Tu. 2.30.

St. Mary's. *Hours of Attendance.*—Medical and Surgical, daily, 1.45; o.p., 1.30; Obstetric, Tu. F., 1.45; Eye, Tu. F. S., 9; Ear, M. Th., 3; Orthopædic, W., 10; Throat, Tu. F., 1.30; Skin, M. Th., 9.30; Electro-therapeutics, Tu. F., 2; Dental, W. S., 9.30; Consultations, M., 2.30. *Operation Days.*—Tu., 1.30; (Orthopædic), W., 11; (Ophthalmic), F., 9.

St. Peter's. *Hours of Attendance.*—M., 2 and 5, Tu., 2, W., 5, Th., 2, F. (Women and Children), 2, S., 4. *Operation Days.*—W. and F., 2.

St. Thomas's. *Hours of Attendance.*—Medical and Surgical, daily, exc. W. and S., 2; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Tu. F., 1.30; Children, S., 1.30; Dental, Tu. F., 10 *Operation Days.*—W. S., 1.30; (Ophthalmic), M., 2.30, F., 2; (Gynæcological), Th., 2.

Samaritan Free for Women and Children. *Hours of Attendance.*—Daily, 1.30. *Operation Day.*—W., 2.30.

Throat, Golden Square. *Hours of Attendance.*—Daily, 1.30; Tu. and F., 6.30; *Operation Day.*—Th., 2.

University College. *Hours of Attendance.*—Medical and Surgical daily, 1.30; Obstetrics, M. W. F., 1.30; Eye, M. Th., 2; Ear, M. Th., 9; Skin, W., 1.45, S., 9.15; Throat, M. Th., 9; Dental, W., 9.30; *Operation Days.*—W. Th 1.30; S., 2.

West London. *Hours of Attendance.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th. S., 2; Ear, Tu., 10; Orthopædic; W., 2; Diseases of Women, W. S., 2; Electric, Tu., 10, F., 4; Skin, F., 2; Throat and Nose, S., 10. *Operation Days.*—Tu. F., 2.30.

Westminster. *Hours of Attendance.*—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1; Eye, M. Th., 2.30; Ear, M., 9; Skin, W., 1; Dental, W. S., 9.15. *Operation Days.*—Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

Communications for the Current Week's Journal should reach the Office not later than Midday Post on Wednesday. Telegrams can be Received on Thursday Morning.

Communications respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the Journal, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

In order to avoid delay, it is particularly requested that all letters on the editorial business of the Journal be addressed to the Editor at the Office of the Journal, and not to his private house.

Authors desiring reprints of their articles published in the British Medical Journal are requested to communicate beforehand with the Manager, 429, Strand, W.C.

Correspondents who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

Correspondents not answered are requested to look to the Notices to Correspondents of the following week.

Manuscripts forwarded to the Office of this Journal cannot under any circumstances be returned.

Public Health Department.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* British Medical Journal *are devoted will be found under their respective headings.*

QUERIES.

W. J. S. L. asks: Can any of your readers inform me whether there are any homes where unmarried women can be attended in their confinements, on payment of a small sum weekly?

Malaria writes: Would any of your readers kindly inform me at which season of the year cases of intermittent fever or ague occur in England? Also the name of any small work on what is called brassfounders' ague?

Dr. T. Garrett Horder (Cardiff) writes: Will you allow me to ask in your columns for information respecting industrial assurance companies that provide medical attendance for the working classes as well as provision for death?

Delta writes: A young lady, who will be 21 years of age in about six weeks' time, wishes to become a nurse. I should be glad to know whether there is any institution which would accept one so young as a probationer.

Charcoal Stove Cooking Bench.

J. A. H. writes, with reference to the "Doctor in the Kitchen's" lectures on economical cookery at low temperature: Where can I get a French or Belgian charcoal stove bench for cookery?

*** Our correspondent can probably get what he requires at Bonnett's French ironmongery store, 75, 77, Shaftesbury Avenue, W.C.

ANSWERS.

Home for a Dipsomaniac.

Dr. William Odell (Torquay) writes: "L.R.C.P." would find Temple Lodge, Torquay, a suitable home in which to place his dipsomaniac patient.—"L.R.C.P" (who has sent no address) is also recommended to place himself in communication with Dr. Ironside, Laurencekirk, N.B.

NOTES, LETTERS, Etc.

"Not a Dispensary Doctor" has not enclosed his card.

Incontinence of Urine.

Dr. G. H. R Dabbs (Shanklin) writes: I have lately succeeded in curing a most intractable case of this affliction by making the boy sleep on a cane-bottomed couch (with good large holes in the cane) with as little covering as he could, and dressed in flannel trousers and shirt *vice* nightshirt. The amelioration commenced at once, and has now lasted six months. I feel justified, therefore, in recommending this simple plan to others—and the doctors of others, which is what I really mean.

Dilatation and Hypertrophy of the Colon.

Mr. A. Maude (Westerham) writes: The case detailed in the British Medical Journal of July 29th, p. 230, of Dilatation and Hypertrophy of the Colon is of such rarity and interest that I may be allowed to point out that a similar case was published in the *Medical Times and Gazette* of February 2nd, 1884. The subject was a boy, aged 8, under the care of Dr. Eustace Smith, at the East London Children's Hospital, who died quite suddenly a few hours after admission. The history of the case was precisely similar to the one just reported. The *post-mortem* examination was made by Mr. R. W. Parker, and I made drawings of the viscera, one of which is printed in the account. The only difference apparent in the cases is that in the Shadwell case the distension and hypertrophy of the bowel wall was lower down, affecting the descending colon and sigmoid flexure.

THE SCOTCH OATH.

MR. F. W. LOWNDES, M.R.C.S.Eng. (Liverpool), in a paper read at the July meeting of the Church of England Sanitary Association, held at the Church House, Westminster, pointed out that the manner in which the oath is administered to witnesses and jurors, especially the former, in Scottish law courts, is vastly superior to that in English or Welsh courts. Anyone living in the land of heather remembers as long as he lives the solemnity with which he was impressed the first time he took the oath, "the truth to tell." He saw the judge rise up, and, gathering his scarlet robes around him, hold up his right hand and say, "Witness, hold up your right hand, and repeat after me, I swear by Almighty God, as I shall answer to God at the Great Day of Judgment, that I will speak the truth, the whole truth, and nothing but the truth." And however frequently he may have to appear as a witness, the solemn character of such an oath must impress him, and in fact does so. The Scottish mode may be adopted by anyone taking an oath in any part of the United Kingdom. Though the Act permitting this was four years old last December, it was hardly known until it was vigorously pushed into daylight by the medical press. Even then many coroners and magistrates were unaware of the Act. It would be a great advantage if children were sworn in this way, the Scotch form of words being so much more simple and more capable of being understood than the English form. Members of the medical profession have persisted in being sworn with uplifted hand, and in refusing to kiss the book. The courage of a few individuals has led to a reform in oath administration, the effects of which are likely to be far more beneficial than may at first appear. Following the profession of medicine, which condemned the practice of kissing the book as a possible means of spreading infection, the legal profession have placed no difficulty in the way; many of its members preferring it themselves. Still something is wanted to make swearing with uplifted hand universal, and that is the influence of the clergy and ministers of all denominations. The assizes are held at least twice a year in most parts of England and Wales; three times, and even four times in the larger towns and cities. Would it not be well if "Assize Sunday" had, like Hospital Sunday, a more truly catholic application, and if, from every pulpit in the country, sermons were preached setting forth the importance of the due observance of the third commandment, as applied to reverence generally; and of the ninth, as applied to speaking the truth at all times, and, more especially, when under the solemn obligation of an oath. Every effort should be made to make our present mode of swearing more impressive to those brought under its influence, more calculated to awe witnesses and to deter them from committing perjury. Lastly, and above all, our mode of administering the oath should be more suggestive of reverence towards Him in Whose name every oath is taken.

COMMUNICABILITY OF FOOT AND MOUTH DISEASE TO MAN.

DR. SPENCER SMYTH (Southampton), writes: After perusing the paper upon Communicability of Foot and Mouth Disease (in the BRITISH MEDICAL JOURNAL of July 15th) from Cattle to Man, I remember well a case in which I was asked in for consultation, occurring in a lady who had been staying at a farmhouse in the country, where some cattle in the yards were affected with the disease, it being also rather prevalent at other farms in the locality. The patient at the time was not in good health, but upon returning home evidently was manifesting symptoms of the complaint. The mouth and fauces were greatly inflamed with pustules upon the mucous surface, especially upon the tongue, causing distress upon the administration even of soothing remedies; ulceration resulted, with great fœtor and much pain, febrile symptoms running rather high, with symptoms of exhaustion. The feet also were implicated, but to a less degree than the mouth trouble. The case was pronounced to be foot and mouth disease, but as to the *origo mali* at the time no cause could be especially assigned, although I have since suspected the milk, of which a fair amount was swallowed, might have been the means of propagating the disorder. Recovery was somewhat tedious, health re-established under ferri perchl. c. potas. chlorat et quinine, with potas. chloras and borax washes to the mouth, and sedative lotions to the feet, "conium." Diet was of a supporting character, and after a while port wine was taken.

HYPNOTISM IN RUSSIA.

AN official notice has been issued in Russia that "physicians shall have the right to make use of hypnotism in the treatment of their patients. In every case of the application they must inform the administrative authorities, at the same time giving the names of the physicians in whose presence the patient was hypnotised."

WASP STING WITH RASH AND CONSTITUTIONAL DISTURBANCE.

DR. CARSTAIRS DOUGLAS (Skelmorlie, N.B.) writes: I was somewhat amused by having, on July 29th, a few hours after receiving my BRITISH MEDICAL JOURNAL, a case of this kind almost exactly identical with that described by Dr. G. Balfour Marshall in the same paper. In this instance the patient was a young woman, who was stung on the back of the neck, and who, in ten minutes thereafter, suffered from tingling all over her body, swelling of the face, neck, arms, and hands, cyanosis of the face, and also exhibited a mottley rash. She was so alarmed that she sent for me, but when I arrived the condition had subsided slightly. The sting was readily extracted, and a little bicarbonate of soda relieved the local pain. The patient was in her usual condition in a day and a half.

MR. R. BEVAN, L.R.C.P.Lond. (Lydd, Kent) writes: I have had two cases presenting almost similar symptoms as those recorded by Dr. Marshall in the BRITISH MEDICAL JOURNAL of July 29th. The first, a male, came round to my surgery having been stung some 20 minutes previously on the hand by a wasp. Having suffered severe symptoms of collapse, vomiting, and urticarial rash last summer when stung he wished to have advice immediately on this occasion. He was suffering from a general rash over his face, body, both arms and legs, of small wheals varying in size from a pea to a fourpenny piece. There was small, quick, thready pulse, and general depression. I prescribed for him, and when I saw him later on there was only the œdema of the hand and arm left. In the case of the female, she had been stung on the scalp. Within ten minutes she was covered with small wheals all over the chest, back, arms, and legs, and when I saw her within twenty minutes of being stung, there was swelling of the face, eyelids, and lips, lachrymation, swelling of the tongue, a large number of wheals on the face and body, inside the cheeks, and on the soft palate—these latter looked like bullæ of the size of fourpenny pieces. There was great oppression over the heart, difficult breathing, small, thready pulse, and other symptoms of collapse, which did not pass off for several hours. Curiously enough the same patient was stung again two days later on the finger, but had no rash, only general œdema of the hand and arm, much pain, and very little general disturbance.

LETTERS, COMMUNICATIONS, ETC., have been received from:

(A) Mr. R. B. Anderson, London; Professor T. Clifford Allbutt, Cambridge; P. H. Abercrombie, M.B., London; Messrs. Armour and Co., London. **(B)** Dr. J. W. Byers, Belfast; Mr. W. Booth, London; H. Back, M.B., Norwich; Dr. D. C. Black, Glasgow; Messrs. O. Bruster and Co., London; Mr. B. Brooks, Hull; Dr. A. T. Brett, Watford; Dr. A. T. Brand, Great Driffield; Dr. H. M. Bowman, London; Dr. A. B. Blacker, London. **(C)** F. Clemow, M.B., Cronstadt; Dr. H. Campbell, Woolford Bridge; Dr. J. Ward Cousins, Southsea; Mr. F. N. Constance, London; Mr. R. Bevan, Lydd; Messrs. J. and A. Churchill, London; Mr. H. Cooper, Manchester; R. B. Cullin, M.B., Tiverton. **(D)** Mr. J. W. Draper, Huddersfield; Mr. E. S. D'Odiardi, London; Mr. J. F. Dell, London; Dr. C. Dukes, Rugby; Dr. G. H. R. Dabbs, Shanklin; G. B. Doman, M.B., Westhoughton; Delta; C. C. Douglas, M.B., Skelmorlie. **(E)** Dr. W. M. Ellis, Bath. **(F)** Mr. C. E. S. Fleming, Bath; Professor P. Frankland, Dundee. **(G)** Dr. A. L. Griffith, London; Mr. J. A. Gibbons, London; Dr. F. W. Gibbon, Tyne Dock; Mr. J. Griffith, Bethesda; Dr. S. Griffith, London; Dr. H. R. Greene, Southsea; Dr. O. J. Gregory, Cape Town. **(H)** Mr. G. Hodson, Loughborough; Mr. F. F. Hale, Chesterfield; W. Hardman, M.B., Blackpool; H. R.; Dr. W. H. Hamer, London; Dr. D. Hardie, Brisbane; Mr. G. Hope, London; Dr. T. G. Horder, Cardiff; Mr. H. N. Hardy, London; Dr. Herman, London. **(I)** I.M.S.; **(J)** Junior Member; Mr. M. B. James, Exeter; Mr. E. W. James, Maidstone; Mr. C. H. Johnson, Reading. **(K)** Mr. G. M. King, Preston; Mr. G. Kirker, Alexandria. **(L)** Mr. T. Laffan, Cashel; Dr. G. Lowe, Wymondham; Liquor Carnis Company, London. **(M)** Mr. J. McMunn, London; Dr. P. Manson London; Mrs. Malleson, Winchcombe; Mr. A. Maude, Westerham; Malaria; Dr. G. B. Mead, Newmarket; Professor D. C. Muller, Buda-Pesth. **(N)** Not a Dispensing Doctor. **(O)** Dr. T. Oliver, Newcastle; Mr. E. B. Ormerod, Dartford; Mr. W. Odell, Torquay; Mr. D. A. O'Sullivan, Burnley. **(P)** Practitioner; A. S. Percival, M.B., Newcastle; Mr. C. Pound, Odiham; Dr. F. L. Phillips, Birmingham; Mr. R. D. Patterson, Caledon; Mr. E. F. Parry, London; Dr. J. F. Payne, London. **(R)** Dr. J. C. Renton, Glasgow; Mr. C. F. Rudd, Teignmouth; A. P. Russell, M.B., Lincoln. **(S)** Mr. G. Stoker, Dublin; Dr. R. Saundby, Birmingham; Mr. R. W. Shelley, Sunderland; Mr. C. W. Smeeton, Leeds; Mr. A. Morton Smale, London; Dr. J. F. W. Silk, London; Subscriber; Dr. R. Stockman, Edinburgh. **(T)** Mr. B. Trevelyan, Bath. **(U)** Dr. A. R. Urquhart, Perth. **(V)** L. Vintrass, M.B., London; Victoria University, Secretary of the, Manchester. **(W)** Dr. T. J. Wood, Bradford; Messrs. Weston, Hunt and Co., London; Dr. F. Warner, London; Mr. E. L. Walford, London; Dr. F. J. Waldo, London; F. C. Wallis, M.B., London; W. J. S. L.; Messrs. Wightwick and Gardner, Folkestone; Mr. J. H. Wathen, Clifton; etc.

BOOKS, ETC., RECEIVED.

Appendicitis and Perityphlitis. By Ch. Talamon. London: Young J. Pentland. 1893.

A Handbook of Obstetric and Gynæcological Nursing. By Dr. F. Churchill. Dublin: Fannin and Co. 1893.

The Mineral Waters of Harrogate. By Dr. J. D. Liddell. London: Young J. Pentland. 1893.

Notes on Some of the More Common Diseases in Queensland, in Relation to Atmospheric Conditions 1887-91. By Dr. D. Hardie. Brisbane: James C. Beal. 1893.

Introduction to the Catalogue of the Collection of the Calculi of the Bladder. By Sir Henry Thompson, M.B. London: J. and A. Churchill. 1893.

Verhandlungen des Congresses für Innere Medicin herausgegeben Von Dr. E. Leyden und Dr. E. Pfeiffer. Wiesbaden: J. F. Bergmann. 1893. M. 11.

Il Magnetismo negli Animali e nelle Piante. By Dr. V. Allara. Milan: C. Chiesa e F. Guindani. 1893.

Hypnotische Experimente. Von R. Krafft-Ebing. Stuttgart: F. Enke. 1893. M. 1.20.

Movable Kidney and Intermitting Hydronephrosis. By G. D. Knight. London: Baillière, Tindall and Cox. 1893.

*** In forwarding books the publishers are requested to state the selling prices.

ADDRESS IN OBSTETRICS AND GYNÆCOLOGY

BY

C. J. CULLINGWORTH, M.D., F.R.C.P.,

Obstetric Physician and Lecturer on Midwifery and Diseases of Women, St. Thomas's Hospital.

At the Annual Meeting of the British Medical Association held at Newcastle-on-Tyne, August, 1893.

ON PELVIC PERITONITIS IN THE FEMALE, AND THE PATHOLOGICAL IMPORTANCE OF THE FALLOPIAN TUBES IN CONNECTION THEREWITH.

Twelve years have elapsed since the last Address in Obstetric Medicine was delivered before this Association. If, following the example of my predecessor, I had determined to occupy myself on this occasion with a review of the progress made in this great department of medicine during that time I certainly should not have had reason to complain of any lack of material. Both in obstetrics and gynæcology the advances in our knowledge have been enormous. For the very briefest survey of them I should require a much longer time than the hour that has been generously placed at my disposal. Even then I am doubtful whether the time would have been profitably employed. This work of review is now done so well in the various yearbooks and other similar publications, and in the annual presidential addresses delivered before the several obstetrical and gynæcological societies of the United Kingdom, that it appears to me undesirable to take up your time with it on an important occasion such as this. I propose, instead, to ask your attention for a short time while I endeavour to point out some of the advances that have been recently made in our knowledge of pelvic inflammations, and more especially pelvic peritonitis. I have selected this subject for many reasons. It includes within its range the most common and, from their far reaching effects upon the sufferer's health and usefulness, probably the most important of all the diseases of women. It almost equally concerns the obstetrician and the gynæcologist, and therefore fulfils, better than any other subject I could think of, the terms of your invitation, namely, that I should give an Address in Obstetrics and Gynæcology. Again, the subject has now been delivered, or nearly so, from the bondage of theory and tradition and the authority of great names, and may at length be studied in the light of well ascertained facts. And lastly, as it is always the safer and wiser plan for a speaker to choose as his topic that which he knows most about, this subject commended itself to me as being the one to which my own thoughts have been for some time past more especially directed.

Historical.

Before attempting to convey an idea of the present state of our knowledge of pelvic inflammation, I must allude for a moment to the history of the subject, and especially to the work and writings of the man whom I believe to have been one of the greatest gynæcologists of the century—M. Bernutz. At the time when Bernutz published his clinical memoirs it was the current belief that the hard swellings felt above the vaginal roof on one or both sides of the uterus in cases of pelvic inflammation were invariably due to inflammatory exudation in the connective tissue at the base of the broad ligament, or between its layers. Nonat had for ten years been upholding this doctrine, and under the influence of his authority and dogmatic teaching it had come to be almost universally accepted. Various names were given to these exudations, but whether they were described as pelvic cellulitis, or parametritis, or periuterine phlegmon, there was practically no difference of opinion as to their seat. For some time Bernutz himself participated in the common belief. The fatal termination, however, of two cases under his own care served effectually to change his views, and enabled him "to prove incontestably that the periuterine tumour, which during life presented all the symptoms of the so-called periuterine phlegmon, was not situate in the cellular tissue at all. In the necropsies in question the tumour, which even after death presented all the usual signs, was seen to be formed by the pelvic viscera matted together by peritoneal adhesion." This discovery was one of such immense importance that it gives an historic interest to the two cases that led to it. I have only time here to mention the main facts of the first of these. It was that of a young woman of 18, who had led an irregular life for twelve months, and was admitted to the hospital for severe pain in the lower part of the body. The pain had seized her suddenly on the eighth day of an attack of gonorrhœa, and was daily increasing. In addition to the usual signs of acute gonorrhœa there was discovered on examination a resisting body above the vaginal roof, extending all round the cervix except on its right side. Pressure on the tumour caused great pain. Rest and the application of leeches to the left iliac region, gave some relief, but the swelling remained the same, and a few days later the pains returned. When she had been some weeks in the hospital she had an attack of jaundice, and then pleurisy with effusion—first serous, and, after the first tapping, purulent. She died three months after admission. On *post-mortem* examination the bladder, uterus, broad ligaments, and sigmoid flexure were all found matted together by old adhesions. There was no cavity on the left side of the pelvis, the broad ligament being united to both bladder and rectum. On separating these adhesions an intraperitoneal abscess was opened. The uterus was bound posteriorly to the rectum. The Fallopian tubes were highly congested. The right one contained two collections of pus, one at the fimbriated extremity, which was dilated and firmly adherent to the ovary. The left tube contained no pus, but was impermeable. The ovaries were both healthy. The cellular tissue of the broad ligaments and uterus were perfectly healthy. The supposed phlegmon did not exist.

This case occurred in 1856, and was published in 1857; but it was not until 1862 that Bernutz, in conjunction with his friend M. Goupil, published in a collected form that marvellous series of clinical memoirs which had appeared from time to time in the *Archives Générales de Médecine*, and which constitute by far the most important contribution ever made to the literature of gynæcology. The publication of that volume settled, or ought to have settled, at once and for ever, by a mass of clinical and *post-mortem* evidence that was positively overwhelming, the true nature of the majority of the swellings that had hitherto been ascribed to pelvic cellulitis. I say the majority of the swellings, for Bernutz did not, as he is sometimes erroneously represented to have done, deny the existence of a phlegmon or inflammatory exudation between the layers of the broad ligament, especially in puerperal cases: but he considered them rare as compared with the swellings due to pelvic peritonitis, and he himself never met with one in the *post-mortem* room. The conclusions at which Bernutz arrived as a result of his researches have been summarised by himself as follows: (1) That inflammation of the pelvic peritoneum is a disease very commonly met with; (2) that the tumour found after death in cases of pelvic peritonitis is formed by various intra-pelvic viscera being matted together as a consequence of the inflammation; and (3) that inflammation of the pelvic serous membrane is always symptomatic, and that it is generally symptomatic of inflammation of the ovaries or Fallopian tubes.

It might be thought that views so clearly expressed and supported by such incontrovertible evidence must needs have met at once with general acceptance, and become part of the common stock of professional knowledge; but they did nothing of the kind. For twenty years the old views continued to be generally taught, and even yet they form the basis of much of the current teaching and practice in regard to pelvic inflammations. The late Dr. Matthews Duncan, indeed, recognised the great value of the papers of Bernutz, but he only accepted his doctrines in a very modified form. He expressed the conviction that those papers would "form to the future medical historian of the subject one of the chief landmarks in it." "Bernutz," he says, "pointed out the error of the cellulitic theory, and of a great part of Nonat's defence of it. He tried to show that the so-called periuterine phlegmons of that author were not phlegmons at all,

but results of pelvic peritonitis. He appealed to the evidence of *post-mortem* investigation, and, so far as he went, successfully and triumphantly. Cases, with exactly the symptoms and signs of cellulitis or parametric phlegmon, he showed, by necropsies, to be cases of pelvic peritonitis.[1] But while giving him credit to this extent, he thought that Bernutz, in forming his conclusions, had forgotten that all questions cannot be settled by necropsies, and he believed him to have been "carried away by his enthusiasm into indefensible arguments for the frequency of pelvic peritonitis and the rarity of parametric phlegmon."

If Dr. Matthews Duncan, with his usually keen and generous appreciation of sound scientific work, thus failed to estimate the results of Bernutz's observations at their true value, I suppose it is no great wonder that other and lesser men failed to do so. I will not detain you by inquiring into the reasons for this widespread neglect, further than to remark that the new views might possibly have attracted more attention had it been made to appear that they had any important bearing upon treatment. Many years, however, were destined to elapse before the discoveries of Bernutz found a practical application, and even then it was not, in the first instance, as a direct result of those discoveries, but as an outcome of that surgical enterprise which, just as it has opened new avenues of knowledge and new possibilities of relief and cure by operative treatment in the case of the kidney, is doing the same for other organs of the body, and notably for those which are chiefly concerned in the production of pelvic peritonitis.

In the year 1872, the operation for the artificial induction of the menopause, by the removal of the healthy Fallopian tubes and ovaries, was carried out by three operators of different nationalities at dates so closely following one another, and yet at places so remote, that it was practically impossible for there to have been any sort of concerted action. On July 27th, Hegar performed the operation at Freiburg in a case of ovarian pain and menorrhagia. Five days later Lawson Tait operated at Birmingham on a case of uterine myoma with excessive hæmorrhage; and within three weeks of Hegar's operation, a highly respected American gynæcologist, Dr. Robert Battey, of Rome, Georgia, performed a similar operation on a patient with hystero-epilepsy and amenorrhœa. It would be quite profitless under these circumstances to inquire which of these three distinguished men is able to establish the strongest claim to priority. At the instance of Dr. Marion Sims, the operation has been named after his compatriot Dr. Battey, who appears to have conceived the idea of the operation seven years before he had an opportunity of carrying it out, and who certainly can claim the credit of having been the first to publish his case, and to bring the whole subject before his professional brethren for discussion.

In the course of two or three years the number both of operations and operators began rapidly to multiply, so that at the International Medical Congress held in London in 1881 Battey showed a table of 193 complete and 25 partial operations. The general death-rate of these was 18 per cent., but individual operators were beginning to show a greatly diminished mortality. Tait, for example, reported 26 consecutive cases with but a single death, and Savage reported an equal number with no death at all. With such results as these it was to be expected that the scope of the operation would soon be widened, and instead of being limited to the removal of the normal organs, would be extended to cases where the uterine appendages were themselves the seat of the disease. And this is precisely what took place. In the years 1879 and 1880 Hegar, in Germany, and Lawson Tait, in this country, operated on several patients for the removal of inflamed ovaries and tubes, and then it was that the accuracy of the observations of Bernutz came to be fully recognised, and his apparently barren discoveries to bear their legitimate fruit. The knowledge at which he had arrived by *post-mortem* investigation was now arrived at in a different, but at least equally conclusive, way by actual inspection and touch during life. In many respects, indeed, the evidence thus obtained in the living subject was more valuable than the evidence afforded by *post-mortem* examination, for in the *post-mortem* room the disease has often advanced too far to enable us to trace its origin and study its various stages, and, moreover, the parts having lost their vital tonicity no longer hold precisely the same relation to each other, or convey the same impression to the touch, that they did during life. Nevertheless, each of the two sources of information possesses advantages of its own, the two fitly supplementing one another; and when the lessons taught by the two methods coincide, we are in a position to accept the evidence as conclusive, and to welcome the information thus obtained as a positive and unassailable addition to our knowledge.

[1] *Perimetritis and Parametritis*, Edinburgh, 1869. pp. 90—101.

Pelvic Cellulitis commonly a Secondary Disorder.

During the past five or six years I have performed abdominal section in nearly one hundred cases that in the earlier part of my professional career I should have regarded as well-marked examples of pelvic cellulitis—namely, cases in which the mobility of the uterus was more or less impaired, and in which hard, irregular, fixed swellings could be felt above one or both lateral fornices of the vagina, and often extending into Douglas's pouch. In the vast majority of those cases I found no evidence of cellulitis at all, and, where it did exist, it was clearly secondary to the salpingitis and peritonitis which constituted the principal lesions present. In no case was there any inflammatory exudation in the cellular tissue of the broad ligament or elsewhere sufficient to form a distinct tumour recognisable as such on bimanual examination. In some cases of chronic suppurative inflammation of the uterine appendages, the broad ligaments were the seat of a certain amount of thickening from inflammatory exudation, but this obtained only in the neighbourhood of the suppurative disease, and the thickening seldom exceeded one-eighth of an inch, and even in extreme cases never exceeded half an inch.

Pelvic Inflammation usually a Peritonitis originating in Salpingitis.

The usual state of things disclosed on opening the abdomen in these cases is as follows: The contents of the pelvis are generally concealed from view by the great omentum, which has been drawn down so as to cover them in anteriorly, and has contracted adhesions to the peritoneum as it becomes reflected on to the anterior abdominal wall, as well as to the uterus and other pelvic viscera. Along with this screen, as it were, of omentum it is not unusual to find coils of adherent small intestine. On separating and drawing aside this screen, one side, or it may be the whole, of the posterior part of the true pelvis is seen to be occupied by what appears to be an indistinguishable mass of matted viscera. The uterus itself is sometimes implicated in the mass, but in other cases its upper part at least is free. Tracing the Fallopian tube outwards from the uterine cornu on the side of the disease, it is often found to be normal in size for the first half-inch or so, and then to become involved in the adherent mass. This mass, on being separated and brought into view, is invariably found to consist of the uterine appendages more or less altered by inflammation. There is always salpingitis, and the inflamed and thickened tube usually enfolds the ovary. In a large number of cases the ovary itself is normal, except that it is universally adherent. In other cases it is in a condition of incipient cystic degeneration. I do not allude to the harmless condition, sometimes spoken of as incipient cystic degeneration, in which several Graafian follicles distended with serum cause transparent projections from the surface of an otherwise normal ovary, but to that condition in which true cysts are found, varying in size from a marble upwards, and in which the normal structures of the organ have become more or less replaced by them. Whenever the lateral swelling is so large as to push the uterus to the opposite side, this condition of the ovary may be suspected. In many cases the cysts in the ovary are found to be in a state of suppuration, their contents having presumably become infected from the inflamed and suppurating Fallopian tubes. Of primary ovaritis, either acute or chronic, which is supposed by some authorities to be a common affection and a frequent cause of pelvic peritonitis, I have scarcely (apart from tuberculous disease) met with a single example.

With regard to the tubes, the first point to be noted is that the evidences of peritoneal inflammation are always most marked in the neighbourhood of the fimbriated end, showing

clearly that the pelvic peritonitis has originated by direct extension from the mouth of the inflamed tube or by the escape of morbid secretions therefrom. Where the secretion from the inflamed tube is chiefly mucous in character, with only a slight intermixture of pus corpuscles, the intensity of the inflammation around the abdominal ostium is shown by the extreme density of the adhesions at that spot and nothing more. Where the secretion, on the other hand, is wholly purulent, one of two things is found to have happened, according to whether the fimbriated end remains patulous or has become closed. In the former case, an intraperitoneal abscess is found, encysted among adhesions, and fed by the purulent discharge issuing from the open mouth of the suppurating tube.[2] In the latter case the pus, accumulating in the occluded tube, distends it, sometimes uniformly but more often irregularly, forming a series of loculi or pouches full of pus here and there along the tube, in either case constituting the condition known as pyosalpinx.

The changes in the walls of the tube are as follows: In acute cases the mucous membrane, including the projecting longitudinal folds, is found highly congested and swollen and covered with purulent or muco-purulent secretion; in chronic cases the condition varies according to whether the inflammatory secretions are pent up within the tube or have made their escape from the open fimbriated end. In the former case the mucous membrane is either distinctly ulcerated or covered with granulation tissue; in the latter, having got rid of its secretions, it is often found to have resumed more or less completely its normal appearance, except in the neighbourhood of the adherent abdominal ostium, where it is frequently intensely congested and œdematous. The most striking change in chronically inflamed tubes is due to the extension of the inflammation to the middle or muscular coat, which becomes greatly thickened and indurated from inflammatory exudation amongst the connective tissue elements of the muscular layer, causing irregular separation of the muscle fibres and producing a general thickening of the tube wall, which often measures one-eighth to half an inch in thickness. The enlargement of the tube is not only manifested in an increase in its width and circumference, but frequently also in an increase in its length; and as this increase in length takes place within a confined space, it frequently results in the tube becoming doubled and folded upon itself, forming an intricate series of convolutions. Sometimes the convolutions take a sharp turn, forming knuckles on the external aspect, and shutting off by the suddenness of the bend one portion of the canal from the other.

In advanced cases further changes may take place; the pus-containing tube becoming adherent to a cystic ovary, its wall may ulcerate and perforation occur, permitting the escape of the purulent contents of the tube into the interior of the cyst and the formation of tubo-ovarian abscess. The result of such an accident is a sudden and most violent attack of pelvic peritonitis, placing the life of the patient in imminent peril. It must not, however, be supposed, whenever an inflamed and purulent tube is found suddenly to lead into a large abscess cavity, giving an appearance that has been happily compared to that of a retort, that the condition is necessarily one of tubo-ovarian abscess. I have recently pointed out that a tubo-ovarian abscess may be simulated by a sudden expansion of the tube itself, forming a curious and interesting variety of pyosalpinx. There are two examples of this in the museum of St. Thomas's Hospital, in one of which the true nature of the specimen was proved beyond cavil by the fact that both the patient's ovaries were seen during the operation to be absolutely healthy; they were not even adherent. I cannot produce the ovaries in proof of my statement, for they still remain in the body of the patient, who made an excellent recovery.

Complications of Salpingitis.

Amongst the secondary changes that occur as a consequence of these inflammatory processes, there are one or two of such importance as to call for special mention. When the salpingitis is unilateral, it is not at all unusual to find that the peritonitis spreading from its place of origin, the fimbriated end of the inflamed tube, has passed over to the other side of the pelvis, involving the healthy uterine appendages of that side in a mass of adhesions. Under such circumstances closure of the abdominal ostium of the healthy tube is apt to occur, and to be followed by the development of a hydrosalpinx, which, though then simply an incident in the course of an attack of pelvic peritonitis, may in its turn itself become a source of suffering and ill-health. In my experience this is the commonest mode in which hydrosalpinx is developed. Hæmatosalpinx, as a complication of salpingitis, is much more rare. In the great majority of cases hæmorrhages within the tube and hæmatoceles of tubal origin are the consequence of tubal gestation, but now and then they occur as incidents in the course of the inflammatory processes I have just described, and quite independently of gestation. An instance of this kind is recorded in the recently issued volume of the *St. Thomas's Hospital Reports*. There are, of course, many other secondary changes met with in old-standing cases of pelvic peritonitis besides those I have enumerated, but I have not now time to dwell upon them. The outcome of a knowledge of the facts I have laid before you is to give to the Fallopian tubes an enormous importance in the pathology of pelvic inflammation.

It has been somewhat the fashion of late to sneer at those who have become impressed with the pathological importance of the Fallopian tubes as the victims of a mere passing craze, who can see nothing but diseased tubes in every gynæcological case that comes before them. The phenomenon is one that need not excite the least suprise or arouse the least resentment. It is a matter of common experience that those who are left behind by the advancing tide of knowledge, whether it be from prejudice, or lack of opportunity to observe, or the inability to take in new ideas which is one of the heaviest penalties of advancing years, are tempted to deny that the advance is real, and to ridicule or denounce those who accept it. When the ophthalmoscope was first introduced into this country, a paper was read on the subject before a provincial medical society, when one of the leading oculists of the town, a man of large experience and great ability, rose and said that it was perfectly absurd for anyone to come there and describe various appearances seen at the back of the eye; the back of the eye was black, and there was nothing more to be said about it. There always were and always will be people like this old oculist, ready to assert that where they can see nothing but blackness, nothing but blackness exists. Such men are to be accepted as an inevitable part of what Professor Huxley has recently called the cosmic process, and the true evolutionist consoles himself by the reflection that even they may one day be shown to subserve some useful purpose therein.

The pathological importance of the Fallopian tube is due to its peculiar anatomical position in the human subject. There is, so far as I am aware, no other mucous canal in the body similarly situated. It is exposed to constant risk of infection, owing to the direct continuity of its lining membrane with that of the uterus and vagina, so that it is almost by a miracle if it escapes in any case of acute infective endometritis, whether septic or gonorrhœal. But there is the widest possible difference between the danger of an acute endometritis and an acute endosalpingitis. In the former the patency of the cervical canal provides a natural outlet for the morbid secretions; in the latter there is no such natural outlet. The uterine end of the Fallopian tube has, even under normal circumstances, a lumen only just large enough to admit a fine bristle. It will, therefore, be readily understood that it only requires a very slight amount of swelling of the mucous membrane, such as is probably inseparable from the mildest inflammatory attack, to block up that end completely. Hence, as an outlet for inflammatory secretions, the uterine orifice may practically be regarded as non-existent. The position of matters, therefore, is that either there is no outlet at all for the morbid secretions, owing to the closure of one orifice by the swollen mucous membrane and the closure of the other by adhesions, or the only outlet is through the abdominal ostium into the peritoneal cavity. It is this fact of the absence of a safe outlet for inflammatory products that makes an attack of suppurative salpingitis so much more serious a matter than an equally severe attack of

[2] Pelvic abscesses bursting into the rectum or into the vagina are almost always of this nature and not of cellulitic origin, as has been commonly supposed.

suppurative endometritis, and that invests the inflammatory affections of the Fallopian tube generally with such an exceptional and grave importance.

Improvements in Diagnosis.

But it is not only in pelvic pathology that we have been recently enabled to add to our knowledge; our powers of diagnosis have been enlarged. A little time ago the idea of being able to map out and examine the uterine appendages in the living subject would have been scouted with derision. To-day I should be ashamed for any of my clinical clerks to be found, at the close of their three months' tenure of office, unable to diagnose, under reasonably favourable circumstances, the size, position, consistence, and mobility of the Fallopian tubes, even if not of the ovaries as well, with a fair amount of accuracy. The improvement has been reached in the only way that improvements in diagnosis can be reached, namely, by habitually making as accurate and careful a diagnosis as we are capable of making, and bringing it to the test of actual fact whenever an opportunity offers. In the case of many diseases such opportunities only occur in the *post-mortem* room, but in the case of the diseases we are now considering frequent opportunities have of late been afforded also in the operating theatre, with the result that the diagnosis of these diseases is in a fair way of being revolutionised. Considering how much there is still be learnt, it behoves every gynæcological operator to be careful not to miss a single opportunity of thus adding to our knowledge. Operators who are content with a mere rough-and-ready examination of a case before operating, and who confessedly leave anything like a detailed diagnosis to be made after the abdomen has been opened, seem to me, not only to act unfairly to their patients, but deliberately to throw away invaluable opportunities of improving their own powers of diagnosis and of advancing professional knowledge.

In order to make a satisfactory bimanual examination in a suspected case of pelvic inflammation I believe it to be essential that the patient be in the dorsal position, with the knees flexed and separated, the head supported on a single pillow, and the shoulders not raised, as is generally recommended, but lying flat on the couch or bed. To avoid strain (and no examination can ever be satisfactory in which the posture of the examiner involves the least strain) the examiner should stand or sit directly in front of the patient. Only in this way can the full advantage of the bimanual method be obtained. I know that it is usually recommended, more particularly in Scotland, that the examiner, even when the patient is in the dorsal position, should stand at the patient's right side whilst conducting the bimanual examination. But consider for a moment what that involves. The two hands are at right angles to each other. By facing the patient this awkwardness is avoided; the hands and forearms are parallel to one another, and the necessary manipulations are thereby carried out more effectually because more easily. With regard to the respective merits of the dorsal position and the left lateral, or English obstetric, position for purposes of bimanual examination, there seems to me really no room for discussion. No one who has once accustomed himself to place his patients in the dorsal position, and has experienced the vastly increased ease with which the deeper parts of the pelvis can be thus explored, will ever willingly revert to the older plan. It has been said that the dorsal position is less modest than the position on the left side, and therefore more trying to the feelings of the patient. But is this really the case? Of course, I can readily understand that a patient who has been accustomed to be examined on the left side, and is for the first time placed in the dorsal position, will feel strange and uncomfortable and disposed to resent the unaccustomed posture. Similarly I can quite enter into the feelings of a medical practitioner who, having been in the habit of attending obstetric cases with the patient in the left lateral position all his professional life, and seeing for the first time an examination conducted with the patient lying on her back, is disposed to regard the proceeding as indelicate. But all this merely emphasises once more the marvellous force of habit. There is nothing inherently indelicate in the dorsal position, and an examination can be conducted with just as much regard for the feelings of the patient when she is lying on her back as when she is lying on her side. When a woman has made up her mind to submit to the ordeal of an examination at all, she has done so because she wishes to know what is the matter with her, and she would certainly prefer, if the question were put to her, to be examined by that method which would best enable the examiner to form a correct opinion and to give her the information she seeks.

Improvements in Treatment.

But we must not forget, in our eagerness after a more correct pathology and a more refined diagnosis, that the reason of our existence as practitioners of the healing art is to relieve suffering, and where possible to cure disease. "There is one part of their business," says Oliver Wendell Holmes, in one of his inimitable essays, "which certain medical practitioners are too apt to forget; namely, that what they should most of all try to do is to ward off disease, to alleviate suffering, to preserve life, or at least to prolong it if possible. It is not of the slightest interest to the patient to know whether three or three and a-quarter cubic inches of his lung are hepatised. His mind is not occupied with thinking of the curious problems that are to be solved by his own necropsy; whether this or that strand of the spinal marrow is the seat of this or that form of degeneration. He wants something to relieve his pain, to mitigate the anguish of dyspnœa, to bring back motion and sensibility to the dead limb, to still the tortures of neuralgia. What is it to him that you can localise and name by some uncouth term the disease which you could not prevent and which you cannot cure? An old woman who knows how to make a poultice, and how to put it on, and does it *tuto, cito, jucunde*, just when and where it is wanted, is better—a thousand times better in many cases—than a staring pathologist who explores and thumps and doubts and guesses, and tells his patient he will be better to-morrow, and so goes home to tumble his books over and make out a diagnosis."

I have called attention in the earlier part of this address to some of the indirect benefits that have accrued from operations undertaken for the removal of the uterine appendages, but I have said nothing as yet as to the value of these operations considered in regard to their primary object—namely, as a mode of treatment. It is desirable, in the first instance, to make a clear distinction between the operation for the removal of the uterine appendages when there is no obvious lesion of either tube or ovary, and the same operation when those parts are the seat of manifest disease. Probably owing in some measure to the fact that the one operation grew, as it were, out of the other, the two operations are continually being confounded both by speakers and writers, to the great perplexity of the uninitiated. The scope of Battey's operation—that is, the operation for the artificial induction of the menopause, never very wide, has become narrower and narrower as experience has increased, and is now practically restricted to the treatment of certain cases of uterine myoma. As a means of relieving neurotic conditions, it is so terribly open to abuse, it raises so many difficult questions that are better left undisturbed, and it has proved so uncertain and disappointing in its results even when legitimately applied, that it is now thoroughly and in my opinion properly discredited. At the same time we must never forget that it is to the men who first conceived and carried out Battey's operation that we owe not only a method of dealing with uterine myomata that has saved many a life, but also that further development of pelvic surgery, of which I come now to speak, and which in my opinion is one of the greatest triumphs of modern gynæcology. I refer, of course, to the operation for the removal of the uterine appendages when they are the seat of serious disease. I have so recently had an opportunity of laying before the profession at considerable length the grounds on which I feel myself justified in advocating and practising this operation, that it can scarcely be necessary for me, even if there were time, to enumerate them upon this occasion. I propose, instead of entering into an elaborate argument, to relate, in briefest outline, one or two cases in order to illustrate and contrast the result of operative and non-operative treatment.

Operative and Non-operative Treatment Contrasted.

In August of last year, a thin, emaciated woman, aged 37,

but looking much older, was admitted to the South-Western Fever Hospital, in London, supposed to be suffering from enteric fever. She had lived a dissolute life, was living apart from her husband, and showed well marked evidence in the palate of having suffered severely from constitutional syphilis. There was a distinct history of gonorrhœa. She had been ill for three weeks with headache and loss of appetite, and for four days before her admission had suffered from pain in the abdomen and diarrhœa. The abdomen, on admission, was somewhat distended and tympanitic, the tongue dry, the pulse rapid and feeble, and the temperature 103°. There were no spots, and the chest sounds were normal. On vaginal examination, the whole of the posterior part of the pelvis was found to be occupied by a firm, hard mass. Early in the morning of the second day after her admission, she passed a large quantity of extremely offensive purulent fluid from the vagina and, four hours later, she died. At the necropsy a considerable quantity of semi-purulent fluid was found in the abdominal cavity, the contents of which were much matted together by adhesions, especially towards the pelvis. The uterus was somewhat enlarged and its mucous membrane hyperæmic. Both Fallopian tubes were found thickened, enlarged, and full of pus. They were curled back upon themselves, and their fimbriated ends, closed by inflammatory adhesions, were adherent to one another in Douglas's pouch. The remainder of the back of the pelvis consisted of a large abscess cavity, containing much offensive pus. This abscess cavity was found to communicate with the interior of the right Fallopian tube, through an ulcerated opening in the tube wall; it also communicated with the general peritoneal cavity and, through a small round opening in the posterior fornix, with the vagina. The ovaries were of normal size and imbedded in the walls of the abscess cavity. There were no signs of intestinal ulceration or of disease of the cæcum or its appendix, and the other organs of the body were healthy.

Here is another and still more recent instance of death resulting from rupture of a pyosalpinx. On April 8th of the present year there was admitted into the medical wards of St. Thomas's Hospital a very stout married woman, aged 41, with symptoms of general peritonitis, and in a state of collapse as though from intestinal perforation. For some months she had had an offensive vaginal discharge. Her present illness had commenced a day or two before admission. She was practically moribund when she arrived at the hospital, and died in a few hours. At the necropsy there was evidence of general peritonitis, most intense in the pelvis. The abdomen contained about a pint of highly offensive pus. Both Fallopian tubes were greatly and about equally distended, being equal in size to a piece of intestine. They were much distorted, and doubled backwards on themselves. Each of them was closed at both ends, and contained about an ounce of the most intolerably fœtid pus. On the anterior wall of the left tube, somewhere about its centre, was a perforating ulcer through which pus could be squeezed. There was no other serious disease in the body, except that the mucous membrane lining the cavity of the uterus was intensely inflamed, and a small, soft, ulcerated, and gangrenous polypus projected into it from the left side of the fundus.

Both these are examples of chronic disease ending fatally. Occasionally, however, tubal disease terminates fatally at a much earlier stage, as in the following terribly sad case, the notes of which have been placed at my disposal.

A healthy and well-built young woman, aged 27, was, a few years ago, admitted into one of the wards for infectious disease at St. Thomas's Hospital, with acute but ill-defined febrile symptoms, which had commenced four days previously. She had been nursing some cases of diphtheria, and, as she had slight soreness of the throat, with shivering, severe headache, vomiting, and aching of the limbs, it was thought that she had caught the infection. Her temperature on the day of admission was 102°, the day following it was 104°. On the third day she complained of some abdominal pain, and the evening temperature was 104.6°. At the end of a week the abdomen became somewhat distended. From that time the symptoms were those of general peritonitis. She died on the thirteenth day after admission, the temperature an hour before death having risen to 105.6° At the necropsy there were evidences of acute general peritonitis, most marked in the pelvis. There was little or no fluid in the abdominal cavity, but abundance of lymph and much glueing together of the intestines and other abdominal viscera. In the pelvic cavity there was an ounce or more of thick pus. The uterus was much involved in adhesions, but otherwise healthy. Both Fallopian tubes were acutely inflamed, and, upon making pressure upon them, thick yellow pus in considerable quantity exuded from the outer extremity of each. The inflammation was most marked on the right side. The right ovary was larger than the left, and appeared congested; the left was quite healthy. All the other organs of the body were healthy, except that the lungs were somewhat congested and œdematous.

Such is a brief account of three cases of purulent salpingitis that proved fatal owing to escape of the contents of the tube into the peritoneal cavity; in two instances through a rupture of the tube wall, and in the third through the still unclosed fimbriated extremity of the tube.

I propose now, by way of contrast, to relate three cases of very similar character to the foregoing, in which the diseased tubes were removed by operation. I have told the story of the first case before, but it will bear to be told again.

A young woman aged 28, with a worn pale face and wretchedly thin, was admitted into hospital on account of severe pain in the lower part of the abdomen with pyrexia. She had been married five years, but had been separated from her husband for three years on account of his intemperance and cruelty, and during this time had had to maintain herself and her two children by dressmaking. Only once during the three years of their separation had the husband, and she cohabited, and on that occasion, which was twelve months before her admission, he infected her with gonorrhœa. In a few weeks she became too ill to continue at her work, and had to give up her home and go into the parish infirmary with her children. She came out in three or four months, but soon had to return. She again took her discharge, and resumed her occupation. Her health, however, soon gave way. She suffered great pain in the lower part of the abdomen, in the groins, and in the back, and eventually sitting became so difficult and painful that she had to relinquish her employment, and for some weeks before admission she had subsisted on the generosity of friends. The pelvis was filled with a hard, irregular mass, especially to the right of the uterus and behind it. The uterus was of normal size, pushed over to the left of the middle line, and fixed. Abdominal section was performed. The posterior part of the pelvis was occupied by a mass of adherent viscera, difficult to recognise and separate. Both tubes were thickened and much distended, and each communicated, by its open fimbriated end, with an intraperitoneal abscess, fed, evidently, from the suppurating tubes. The patient, notwithstanding she had to run the gauntlet of a severe attack of pneumonia after the operation, eventually made an excellent recovery, lost her pain and ill looks, and became a picture of good health.

The next case I have selected is that of a young married woman, aged 24, the mother of three children, who was admitted complaining of severe pain in the back and left iliac region, the symptoms having come on suddenly four days previously. Her temperature varied from normal to 102.2°. She had had a similar attack three months previously, but in the meantime had felt fairly well. The pain disappeared after the patient had been twenty-four hours in the hospital, but as there was in each posterior quarter of the pelvis a dense irregular mass, a portion of which could be felt as a tortuous and thickened tube, and as it appeared certain the case was one of chronic purulent salpingitis, it was thought the safest plan to operate. The decision was a fortunate one for the patient. The operation was performed. Both tubes were found irregularly dilated, occluded, and full of pus. Their walls were a quarter of an inch thick, and so deeply ulcerated that in places only the peritoneal coat remained. On the anterior surface of the right tube, at a point where the wall was specially thin, there were two small perforations through which pus was escaping. Probably these openings were made during the separation, but it was manifest that even if perforation had not already taken place, it was on the point of doing so. A delay of even a few days would have

exposed this patient to a very serious risk. She made an uninterrupted recovery, and, when seen sixteen months later, looked so stout and well as to be scarcely recognisable. She had had no pain since the operation, and was in better health than she had been for several years.

The third and last case I desire to bring before you resembles in some of its features that of the nurse whose case I related in the first series. A chambermaid at a City hotel, aged 24, reported one evening to the manager that she had been violated by a stranger staying in the hotel. The offender was summarily expelled, but the girl gave notice to leave. During the five weeks she remained in her situation she had some pain on micturition and a vaginal discharge. The morning after she left she felt pain in the right wrist. Three days later she was admitted under the care of one of my colleagues at St. Thomas's Hospital, supposed to be suffering from acute rheumatism. She had pain and tenderness in several of her joints, without obvious effusion or redness of skin. Her temperature was frequently as high as 102°, and sometimes reached 104°. Five weeks after admission a vaginal discharge was noticed, and a few days later a suspicion already existing in my colleague's mind that the case was not one of ordinary acute rheumatism was confirmed by the patient's complaining of pain in the lower part of the abdomen. I was thereupon asked to see and examine her. I reported that she was suffering from gonorrhœa, with pyosalpinx, pelvic peritonitis, and pyæmia. She was transferred to my care, and a week later I operated. The pelvic viscera were matted together by peritoneal adhesions. The Fallopian tubes were thickened and full of pus. Behind the uterus and walled in by adhesions was an abscess the size of a Tangerine orange fed by the two Fallopian tubes through their open fimbriated ends. The result of the emptying of the abscess and removal of the tubes was immediate and striking. The pyæmic symptoms rapidly disappeared, the parts concerned in the operation healed without a trace of suppuration, and the patient made a complete and excellent recovery.

Can there be any reasonable doubt that the lives of the first three of these six patients might have been saved by timely operation, or that the lives of the last three were so saved?

Do not let me be misunderstood. I do not for a moment suggest that every case of inflamed Fallopian tubes should be operated upon. On the contrary, I am of opinion that most of them recover without. But there is a large residuum of cases, most of them chronic, some few acute, in which nothing but an operation can save life. And there is a still larger number of cases where a timely operation rescues the patient from years of misery, incapacity, and chronic invalidism. Every case has to be considered individually; no rules can be laid down which shall be of universal applicability. The woman who has her bread to earn or who is the busy wife of a working man, cannot afford the luxury of an illness extending over several years, and an operation would be justifiable in her case when it would not be in the case of her more well-to-do sister. The operation is, in short, not the one Heaven-sent remedy superseding all others, but an invaluable addition to our resources which, when it is adopted in suitable cases, under a due sense of responsibility, and after full explanation to the patient and her friends both of the immediate risk and the ultimate physiological results, is capable of achieving triumphs as remarkable as any operation in surgery.

NORTH-WEST LONDON HOSPITAL.—The Maharajah of Bhaunagar has sent a donation of fifteen guineas to the North-West London Hospital, Kentish Town Road, in aid of the general purposes of the charity.

ST. JOHN AMBULANCE BRIGADE.—On Saturdaay, August 5th, St. John Ambulance Brigade commenced a week under canvass for the fourth year in succession. Members of the London, Northampton, Babbington, Wembley, and St. Albans districts mustered at the headquarters of the brigade at St. John's Gate, Clerkenwell, and accompanied by a number of cyclists, nurses, and ambulance wagons, together with three Bands, marched to the encampment, where twenty-six bell tents, two hospital tents, and three tortoise tents had been pitched, the accommodation being for 200 men.

AN ADDRESS

DELIVERED AT THE OPENING OF

THE SECTION OF PSYCHOLOGY.

At the Annual Meeting of the British Medical Association, held in Newcastle, August, 1893.

BY T. W. McDOWALL, M.D.,

Lecturer on Psychological Medicine at the University of Durham.

THE EFFECT OF THE RECENT CHANGE IN COUNTY GOVERNMENT ON ASYLUMS AND THE INSANE.

WHEN the Council of our Association was pleased to ask me to preside in this Section, the proposal was with much gratitude accepted, as it would afford me the opportunity of welcoming many old friends to this neighbourhood, and also because it would give me a chance of putting into coherent shape my ideas on some matters relating to the treatment of the insane, about which I had often talked with my more intimate friends, and which seemed to be of considerable importance, especially at the present time. To make preparation for this address, I set about collecting material, and had begun to arrange it, when a whirlwind of affliction overtook my household, and since that time I have not been able to devote that energy which is requisite for the preparation of an address worthy of this occasion. But if in a few sentences I am able to state some of the lessons learned during a long official life, my presence here to-day may not be quite useless, especially to my juniors, who will be carrying on the work when I and my contemporaries have disappeared.

The times in which we live are characterised by such unwholesome and positively morbid activity, and by such an irrepressible tendency to talk and write, that it is really past the wit of man to discover a subject which is completely fresh. Every topic that one can think of has received immense attention, without in many cases our making much progress in the solution of the difficulties surrounding it, and even the more trifling have been viewed with microscopic care with a very similar result. It is not my meaning that about these questions, great and small, something may not be added at some future time to our knowledge; but I must confess to a feeling of profound disappointment at the net results of so much writing and discussion, *plus* a certain amount of honest hard work. In my opinion, it must have become abundantly evident to anyone who has honestly tried to keep up an intimate acquaintance with current lunacy literature that no man can read it all, however devoted and industrious, far less understand it, and turn it to practical use in his daily work.

Like every other department of medicine, lunacy has the misfortune of being such an enormous subject that no man can pretend to study it exhaustively, and thus each person, according to his tastes and opportunities, views it from a speculative or practical, metaphysical or physiological, racial or individual, social, legal, pathological, or other standpoint. No one can deny the charm of such study; no inquiries could be more captivating and engrossing; but we cannot hide it from ourselves that our labour has been painfully unproductive. We see so little for our trouble that we become disheartened in our struggle to attain that which never seems to come nearer; and thus the majority of us fall back on what we must regard, after all, as our first duty—the care and treatment of our patients according to general and individual experience, and the administration of our asylums—in the hope that someone more enterprising and fortunate than ourselves may come forward with some observations which may be considered real additions to our knowledge, and may be turned to some practical use. Perhaps most of us in this room have now devoted many years of our lives to the consideration of lunacy in one or more of its aspects; most of us have attempted to treat mental disease during ten, twenty, aye thirty years, and have thus gained a certain amount of experience which is invaluable to us in our daily work, but must we not admit that we have made next to no progress in solving the difficulties which so perplexed and discouraged us at the very outset of our professional career? Perhaps in

our younger days, having imbibed the enthusiastic and hopeful views of accomplished and elegant writers, we felt inclined to believe that the normal and morbid phenomena of mind were about to be understood, and that the treatment of the latter was about to be based on a true scientific foundation; but as years passed, these hopeful visions gradually disappeared, and now we find that in that respect we are practically no further forward.

This to me is a very distressing confession, and I gladly look elsewhere for comfort. Looking back over an asylum experience of twenty-five years—no short period—it is with great thankfulness that I can say that during that time there has been a steady, gradual, but decided improvement in all that is practically connected with the care and treatment of the insane in public asylums. About this there can be no doubt, and for this we cannot be too grateful. The men of former days, guided by a few of great energy, devotion, and farsightedness, carried forward reformations of which we enjoy many of the fruits. They were painfully conscious of the defects of their own time; they did their best to remove them; they left things much better than they found them; and, better still, they set us an example of patient, quiet perseverance, not to be discouraged by the slowness of real progress, and not to make changes without very mature consideration, knowing well that changes may not always be for the better. The improvements begun by the original reformers have been continued and expanded as time went on; and we now—the older men, who have perhaps seen the best of our days and accomplished much of our life's work—must take care that through no fault of ours is the advance allowed to slacken. We naturally take a pride in the institutions with which we have been connected so long, and we feel an anxiety that they may prosper in all directions when we no longer preside over their fortunes. The asylums of Great Britain lose nothing by being compared with any in the world, and we must see that no evil influence is at work which tends to displace them from their proud position.

Of late years our asylums have occupied a large amount of public attention, and there has been a considerable awakening of interest in all that affects them. It is not my intention to refer to that unhappy piece of legislation, the Lunacy Act of 1890; it has been torn in pieces and trodden under foot; but unfortunately we cannot get rid of it, and must carry out all our official work under its vexatious requirements. I would, however, like to say something about the Local Government Act of 1888, for it is manifest that it will greatly affect our county asylums and all connected with them, for good or evil. When I first began duty in an English asylum, as pathologist at Wakefield, in 1872, under my respected chief, Dr.—now Sir—James Crichton Browne, one of the first things I heard discussed was this long-threatened and much-dreaded Bill, with the numerous evils that were expected to flow from it. The majority of asylum physicians were then, and have continued to be, hostile to any change in county government by which asylums would be handed over to the management of popularly elected bodies. My professional friends feared many consequent ills, though I did not share their misgivings. These dreaded evils were very clearly expressed by Dr. Needham in his Presidential address to the Psychological Association in 1887, and the following is an abstract of his views:

Having stated his impression that the new measure would be of a drastic character, and would materially modify the position of county asylums, he proceeds:

"It is clearly of the first importance that their external government should be conducted by intelligent and educated persons, that good salaries should be continued in order to secure and retain the services of the best men as superintendents, and that while due economy should prevail so as to lighten as far as possible the burden upon the rates, economy should not be the only or the chief consideration. I consider that the present competition in public asylums for a reduction of the rates to the lowest possible point is simply disastrous from the point of view of the cure and comfort of the patients and the future of the asylums and their officials.

"The committees of county asylums at present generally consist of gentlemen of position, who have both a large personal interest in securing an economical administration of county finance and an enlarged appreciation of what constitutes true economy. They know that present parsimony may imply a large future expenditure, and that what may be called the fringe of expenditure is especially valuable. They are told and believe that the decoration and furniture of rooms, and the provision of suitable amusements, have a distinct moral influence in the cure of insanity. But they are not absolutely essential, like so much beef or so much bread and milk, and is it to be expected from what is seen and known of the typical guardian—the guardian, not of the poor, but of the rates—that he will be willing to continue an expenditure in respect of them when he is unable accurately to weigh or measure the advantages to his pocket which are to accrue from them? So, also, with reference to the salaries and pensions of the superior officers.

"The wear and tear of asylum work is undoubtedly great, and it needs the inducement of a liberal salary and pension to secure the devotion of the best men to the service.

"Will county boards be likely to recognise these claims, and continue these inducements? The answer to this question is, I think, involved in the reply to the following: Will county boards consist chiefly of such men as administer the present county government, or will the guardian and farmer class predominate?

"Personally," Dr. Needham continues, "I have no doubt upon the subject, or that the policy of these boards will be the guardian policy, intensified by the existence, if they still continue, of the hard times and the consequent pressure of every small expenditure."

I have quoted these views of Dr. Needham at considerable length because they very clearly and forcibly express what were undoubtedly the feelings and opinions of nearly every-one connected with our asylums. I formed one of a very small minority who looked to the threatened changes with more hope and confidence. I had not the same antipathy towards the guardian element, for during my residence in Northumberland my experience of these boards had led me to form a high opinion of their fairness, liberality, and desire to deal justly towards their officers and the poor, especially the insane; and the men of influence in these boards were such that I felt that, should they become my masters, I could leave my own interests in their hands with safety. Moreover, in Scotland several asylums have been under the management of boards composed of persons corresponding to guardians of the poor in England, and I always understood that these asylums were intelligently managed, and that the officers were considerately and liberally treated. Then again, in England, there are numerous borough asylums, the managing boards of which are elected by the ratepayers, and in these the condition of the medical officers never appeared to be so undesirable that we in county asylums needed to view with alarm the advent of elected boards. Further, prompted by my belief in the essential justice of the English people, however disfigured by political and social prejudices, and so frequently led astray by the specious misrepresentations of interested, ignorant, or misinformed men, I felt that, after some possible preliminary difficulties, asylum affairs would be conducted as intelligently, efficiently, and liberally as under the old *régime*. It must not be imagined that I viewed the disappearance of my committee, consisting of justices of the peace, without regret. Personally and officially their supersession was a great trial to me, for during many years they have been everything to me that a board could be—considerate, sympathetic, liberal in every sense of the word. I knew that in parting with them I might lose much, that in working under strangers I could gain nothing.

Speculation as to what may happen is all very well; experience must guide us in arriving at the truth. It cannot be denied that if the forebodings of the majority had turned out to be well founded, English asylums would gradually degenerate in every respect, and medical men possessing the qualifications necessary for their direction would not enter a branch of the profession where, in addition to an anxious and laborious life, their services would not be appreciated, and where they would not receive the cordial support of the Visitors to carry on that policy of improvement which must never be lost sight of unless we are to allow the results of past achievements to go to ruin. Such a result appeared to me impossible; public and professional opinion would never allow it. We would not silently acquiesce in it.

There was another reason which weighed much with me in dissenting from the views of the majority of my fellow superintendents. Suppose county asylums had been excluded from the control of elected boards, what would probably have followed? They would have been made the subject of constant adverse criticism—possibly not on account of the management, but of the expense. Persons, both inside and outside the county councils, would have considered that they had been defrauded of their political rights, and that the most important establishment in the county had unjustly been removed from their control. This, in my opinion, would have led to a state of affairs much worse than exists at present, and there would have arisen a constant agitation to get rid of the magisterial management in favour of the representative form. In the past asylum committees have practically always been what the superintendent made them, and this I felt sure would hold good in altered circumstances, and that under any form of board a man might look with confidence to the recognition of his ability, industry, and the other characteristics of a good superintendent. It seemed so unlikely that a body of men, however composed, would be so far wanting in honour, generosity, and the ordinary feelings of mankind that they would, from unworthy motives, political, religious, social, or personal, fail to appreciate a competent county officer, to assist him in his difficult work, and adequately to reward him for his services. Though there is much to distress the student of mankind in this country, it did not appear that we are cursed by the same political bitterness and corruption which disgrace public life in the two great republics, nor do the social antipathies, which make official life almost unbearable in some colonies, have such far-reaching results in England. But we need not go so far from home for illustrations of the harm done to asylum administration by the introduction of passions and prejudices which should never affect the transaction of official business. We have only to look at the condition of Irish asylums and read the reports of the proceedings of the committees—reported at great length in the local papers—to see how political and religious prejudices sometimes combine to obstruct the transaction of business.

With the view of discovering the real feeling and experience of my brother superintendents as to the working of our asylums since the advent of county councils, I prepared a number of questions and forwarded them to every county asylum. Before doing so they were submitted to one or two trusted friends, who commended the project, but feared that some men would decline to furnish the information asked for. This, of course, I expected. It must be confessed that some of the questions were rather inquisitorial, but they were intended to refer to all forms of possible difficulty, some of which I had heard about, and others which we know have existed in other representative bodies.

Of the 53 circulars sent out, I received answers more or less full to 29. Some took no notice of it, and others declined to supply the information for various reasons. It is much to be regretted that such a considerable proportion failed to help in the thorough consideration of a matter of so much public and personal importance. A few of the excuses appeared inadequate and trivial. Some of my correspondents applauded the undertaking, but feared that the replies would neither be numerous enough nor complete enough to afford me much encouragement or enable me to arrive at accurate conclusions. It was suggested by an old and much respected friend that at the present high pressure at which superintendents work few could find time to answer in detail the numerous circular letters received by them from other asylums, especially circulars like mine containing twenty questions. He objected that few superintendents would care to give free, full, and candid expression of their opinions on the questions asked. He stated, however, that his experience—which he described as perhaps in one sense unique—had enabled him to modify his views a little, but he had neither the leisure nor the wish to commit them to writing. At the same time he admitted that, owing to the liberality and enlightened views of his committee and council, greater improvements were in progress than had been attempted for many years. Mistaking the object of my questions, he quizzed me as to their character and tendency, and concluded his long and friendly letter by expressing surprise at my communication, evidently taking it for granted that my opinions in favour of the new form of county government had become entirely changed.

Another correspondent thought that he would not be justified in criticising his committee behind their backs. To that it may be answered that medical men in various public offices freely discuss questions affecting the public weal and their own interests. Surgeons in the army and navy, medical officers of health, practitioners holding Poor-law appointments do not seem to consider that by so doing they are guilty of dishonourable conduct. Besides, we know very well that by their united efforts to effect reforms in the public services they have done much good, not only to themselves but to the country at large. Why should we be afraid to discuss in a moderate and sensible way the many important questions affecting the treatment of the insane and also our own interests? An asylum committee is a public body, and as much open to fair criticism as the House of Commons or any other representative body. We are public servants and have important personal and official interests to protect. How can that be done if men fear to unite in the discussion of these matters, though they may not hesitate to speak of them privately, and though they lament that they see no chance of improving conditions that may make this department of medical practice so undesirable that young men of ability may fear to enter it? Though we might hesitate to speak and act from personal and selfish reasons only, surely we need not hold back if we believe that the welfare of the pauper insane is in danger.

As was to be expected, several of my correspondents view the present form of county government with great aversion, and anticipate even greater and more disagreeable changes. Several see in the present social and political movements of the day a speedy realisation of all they dread. They predict the destruction of the present Lunacy Board, the enlargement of the sway of the Local Government Board, and the reduction of our asylums to the condition of workhouses and our official and professional position to that of workhouse masters. Bumbledom, they declare, is becoming a greater power, and is entirely destroying all the comfort and amenities of official life.

I will now proceed to an analysis of the information received in answer to my questions, and this may, perhaps, be best done by taking the subjects in the order in which they were originally arranged:

Question 1. During the election of the first county council did your asylum come in for much criticism? If so, what was specially objected to?—In nearly 30 per cent. various matters connected with asylums were more or less severely criticised, but it speaks volumes in favour of their condition and general management that in no case was the treatment of the patients condemned. In a surprisingly small number of counties were the contests avowedly conducted on political lines, but in these, as might have been expected, more or less bad feeling and acrimony was displayed. The magistrates were condemned in unmeasured terms for extravagance, especially in building, and as they felt bound to defend themselves such contests were not always of the pleasantest, and perhaps the animosity was increased by the acknowledged success of the defence. It has since been admitted that in selecting asylum finance and management as a cause of assault on the magistracy, a great tactical blunder was committed. In some instances the attacks were characterised by so much ignorance and such evident animus that they not only failed in their object, but positively caused their own defeat. In one instance it was stated that many patients were kept in asylums merely because they were useful—a charge too ridiculous to call for attention.

Question 2. During the second election was the attack renewed by the same or other candidates?—In only one instance was the attack renewed, and it assumed so mild a form as really not to pass the bounds of legitimate criticism. It would appear that some members of asylum committees under the first election, when seeking re-election, had the courage and good feeling to state that they had been misinformed as to asylum matters during their first candidature, and had said things about the magisterial rule which they now regretted, for on becoming practically familiar with

asylum affairs they had found that no extravgance of management had existed.

Question 3. Speaking generally, are your relations with your committee as pleasant, and your official life as smooth, under the new *régime* as under the old?—Here the answers display some variety, and are of a character that many of us would not have expected. In the great majority of cases (twenty-one) the reply is that the relations are quite as pleasant; in one case more so, in one much more so. In two the relations are slightly changed for the worse; in two they are distinctly worse. In some cases my correspondents explain the continuance of pleasant relations by the fact that a large proportion of their new committee is composed of magistrates who were members of the old boards. But this explanation cannot hold good in every case, for in some instances nearly the whole of the magisterial element disappeared, and yet the relations are reported as being satisfactory.

Question 4. Is it your experience that asylum business in all its departments is now as efficiently conducted? and Question 5. State any advantages or disadvantages that may have come under your observation.—In 24 instances the answers to the questions are in the affirmative; in 3 it is stated that the business is more efficiently performed; and in only 2 is the contrary stated.

Several superintendents were good enough to append special information concerning this important subject. They state that as the attendance at the committee meetings is now larger, there is more discussion and sometimes more distinct difference of opinion, and consequently that business is not so rapidly transacted. On the other hand, the recommendations of the committee are more readily acquiesced in by the council. One of my correspondents states that he has observed a number of advantages, namely, more liberality as to salaries of the assistant medical and other subordinate officers; also as to wages and food of attendants. The visits to the wards by the committee are stated to be more frequent in a few instances, and thereby the patients have enjoyed increased opportunities of speech with the visitors. There has also been a greater willingness to provide scientific apparatus for the medical staff at one asylum.

Committees as at present constituted are undoubtedly more liberal in voting expenditure on buildings, and the county councils possess the same virtue. It is only necessary to examine recent asylum reports to see how generously the requirements of the insane are met in this respect.

It is pointed out by one correspondent that the only disadvantage be observes is the rather frequent change in the *personnel* of the committee, due to the triennial elections.

One is glad to learn that in one asylum there is now more personal and kindly interest taken in the patients and members of the staff. Whether the contrary has occurred I am unable to say, but many of us must be able to look back to much personal and official kindness experienced during our years of service under the magistrates.

Several of my correspondents do not find their committee meetings as pleasant as before. There is not the same studious courtesy of conduct and expression when complicated subjects are under discussion, and sometimes the quietness and comfort of a meeting have been destroyed by outbursts of personal feeling—incidents which were practically unheard of previously. Too much importance should not be attached to these unseemly discords; they are inevitable in all elected assemblies, and should be forgotten as speedily as possible. We cannot expect from a county council a higher standard of conduct than from an Imperial Parliament. As students of psychology, we must have observed that many of the circumstances attending the working of elected bodies tend to the accentuation and expression of the worst impulses of human nature, and we should therefore make due allowance.

In concluding the examination of this section, I may add that several of my correspondents remark that the inexperience of some of the Visitors has occasionally led to temporary difficulties, chiefly in minor matters, and these will be indicated briefly further on.

Question 6. Does your present committee take a broad and liberal view of its duty, or does it evince undue reluctance to spend money?—The answers are practically unanimous in stating that liberal views prevail, and that money is readily voted when cause is shown. In several instances the report is that money is more freely voted for structural additions and improvements than was done by the magistrates. That might readily be the case, as we are quite aware that in several counties, especially the poorer ones, the old committees distinctly failed in their duty in this respect. Even when reports were presented to quarter sessions, recommending necessary expenditure on buildings, they were not always adopted, and the money asked for was refused. This was chiefly due to ignorance of the modern requirements of asylums and the speedy advent of the expected county councils. In the new committees many of the members are quite inexperienced in asylum matters, and they therefore are anxious to be thoroughly satisfied in their own minds as to the real necessity of the proposed additions. This desire of knowledge is natural enough, and to be commended. Once satisfied, they not only give their assent to the proposed expenditure, but make an intelligent defence of the report should it be objected to in council. From information supplied by a very few of my correspondents, it would appear that their favourable reports are only applicable to their committees as a whole, and that individual members are sometimes not deserving of approval as to the manner in which they view questions involving expenditure. This, of course, was to be expected, and we as business men may as well make up our mind to such experiences; besides, they are not quite of recent date in some instances.

Question 7. Does your committee readily adopt your suggestions? This practically asks: Do you enjoy the confidence of your Visitors?—As a general statement an asylum is what it is largely through the conduct and character of the medical superintendent, for he has, for good or evil, a very great influence on his Visitors as to the manner in which they transact their official business and generally on their relations to the asylum and all its affairs. It has been most truly said that a committee is what the superintendent makes it. It is, therefore, most satisfactory to find that practically without exception my correspondents state that their suggestions are readily adopted—a sure indication that they enjoy the confidence of their boards. In their endeavours to be quite honest, four of my correspondents state that there is more preliminary questioning—again an indication of inexperience and a desire to become familiar with the matter under discussion. To that there can be no objection. Besides, it is only by going thoroughly into all questions that a board can gain that knowledge which is absolutely necessary for the intelligent transaction of business. This thoroughness will in the end really facilitate work, and although a multiplicity of subcommittees may be at first rather troublesome, the ultimate result will be thoroughly satisfactory.

Question 8. Is your county council and committee business managed on political lines, or are asylum questions considered and decided on their merits?—It will not be denied that this subject is of the highest importance to us as superintendents. That a candidate should secure a seat in a county council through political influence cannot be objected to so long as he is a respectable member of the community and a competent man of business. This has been one of the favourite methods in all representative bodies since they came into existence, and it will continue to be so. We may, therefore, make up our minds to this—that we will have on our committees members of antagonistic political views, opposed to each other on political and social questions, and, consequently, possibly embittered in their personal relations. In my opinion, nothing could be worse for the efficient and pleasant direction of a business than that political and social prejudices and animosities should be introduced. This, to my mind, was the greatest danger associated with county councils, and yet I hoped and believed that whatever a few might attempt to do, the great majority of the members would not degrade themselves and their position by sacrificing the interests of the insane, and those immediately responsible for the administration of asylums, by viewing asylum business in any other way than would be done by gentlemen who had no political views at all.

As already stated, political influence has been employed to secure the election of county councillors in some districts, though in many others strenuous and successful efforts were

made by candidates to lift the elections and county business out of the undesirable accompaniments of political strife. As the result of my inquiries, it would appear that, as a rule, all business is decided on its merits. The same holds good, even to a greater extent, in asylum affairs. In only three instances would it appear that even an attempt was made to work on political lines. In one case it is admitted that political bias completely influenced the decisions of the council, but that evil method does not hold good for the asylum committee. In another case efforts were made to demoralise the committee by working it on political lines, but the results were so unsatisfactory that it speedily became evident that if the asylum and its business were not to go hopelessly wrong they must be conducted on ordinary principles.

Question 9. Have your difficulties in management been increased? If so, how? Do you find it as easy as before to maintain the discipline of your staff?—In no fewer than five instances it appears that the difficulties were at first materially increased. In one instance this is attributed to the unrest of the male attendants, who, urged on by external agitators, were continually petitioning for increase of pay and leave. Incredible as it may appear, it is stated that members of a committee have been known to start an agitation.

A gentleman whom I have known many years states that he finds the maintenance of discipline more difficult. He, however, completely exonerates the county council, and lays the blame on the general democratic upheaval, due, as he thinks, to the mistaken ideas so industriously urged on the attention of the working classes. In giving expression to his opinion he uses some strong expressions, which need not be reproduced.

A third correspondent made a successful stand against insubordination. He convinced his committee that, as he represented their authority, they must support him in its exercise; and they did so.

In another case some of the subordinates thought that, with the advent of the county council, their good time had come, and that they could run to individual members of the committee with their accounts of their grievances. Fortunately, this irregularity was at once put down, and no further trouble was experienced.

This question of discipline is of primary importance, and yet its consideration is beset with difficulties. One superintendent differs from another in his views as to its exact meaning, and we all have our own ways of maintaining order in our staffs. This, however, is perfectly certain, that no form of discipline can be maintained if the medical superintendent is not loyally and vigorously supported by his committee. It is, therefore, exceedingly satisfactory to find that in every case initial difficulties having been overcome, the working of an asylum is now as easy as ever it was, so far as the influence of the committee is concerned.

Question 10. Have you any reason to believe that members of your staff have, contrary to rule, communicated with any of the visitors to make complaint, to apply for an increase of salary, for pension, etc.?—This question has already been partly discussed. Under the old *régime* such irregularities sometimes occurred. A magistrate, from good nature or weakness, occasionally listened to such statements, but, being aware of his duty to his colleagues and the medical superintendent, he either took no notice or communicated with the chief officer of the asylum, with the result that the offender, if still in the service, was warned not to commit such an irregularity, on risk of dismissal.

That the staff should be able to communicate with the committee as to any real or imaginary grievance we will all concede; all that is objected to is secrecy and duplicity. The interest we take in the comfort of the staff is one of the best signs of modern asylum management, and none of us would ever dream of standing between our committees and the attendants to prevent the granting of any reasonable application, for we ourselves are only too anxious to do all in our power to make the staff comfortable and contented, but we must resist to the uttermost any secret trafficking between subordinates and individual members of the committee.

Question 11. On account of your religious or political opinions, or from other causes, have you incurred the personal ill-will of any of your committee? If so, how has that enmity been displayed?—To ask such a question I was positively ashamed; but in my determination to discover the very worst it appeared to me right to afford my correspondents an opportunity of bringing under my notice any circumstances which seemed to indicate such conduct. It is contrary to the conscience of an upright man to think evil or suggest evil of others; but it is a matter of common knowledge that, if not asylums, in other services men have been made miserable by the malice and wickedness of official superiors. It is satisfactory to find that in no instance has a superintendent been made the object of personal enmity and persecution. In two cases their conduct was called in question in a singularly offensive way; and when the charges were proved to be groundless the accusers had not the good feeling to express regret for their—mistake, let us call it. But such examples of baseness might be occasionally expected; and, concerning them, we should not be too indignant, for, however annoying they may be at the time, in the end they do good by exciting an active sympathy on the part of the intelligent and upright majority.

Question 12. Are reporters admitted to your committee meetings? or is the business communicated to the press? Has any section of the press devoted special attention to the asylum business? Have the criticisms been fair, or have you observed a tendency to use the press to poison the public mind against the Asylum Committee and officers?—Whilst the public have a right to know that asylum business is properly conducted, it is not at all necessary that they should learn through the press the details of the proceedings, it has often struck me as one of the lamentable signs of the times that people of all grades of society can afford to waste their time and enfeeble their mental vigour by reading the miserable details which compose the bulk of the records of public business. Nothing seems to be too trivial, nothing too mean, and should there be anything personal or exceptionally disgraceful in the proceedings, the account of it is sure to furnish the subject of much conversation. We, as students of mental phenomena, must often wonder at all this, whether disgracing that remarkable assembly the House of Commons, or brutalising some poor rural authority; but we must be careful to place the blame on the right shoulders, not on the press, which does much to conceal such scandals, but on the public, which appears never to be satisfied with such miserable rubbish.

So far as can be ascertained, no reporter is admitted to any asylum committee meeting in England. This, no doubt, has a most beneficial influence in restraining the loquacity of some members who might otherwise be tempted to address their constituents, though professedly discussing the business in hand. We are thus saved a good deal of foolish talking. An asylum is such an important institution in a county that its affairs are sure to attract considerable attention at the hands of the press, and none of us would have just cause of complaint if the criticisms are fair and founded on fact. Not in a single instance has a correspondent complained of the action of the press; on the contrary, several state that the papers in their districts treat the asylum, its officers, and its affairs with great consideration; avoid the publication of petty matters, and make special efforts to obtain reliable information about those of importance, so that public opinion may be directed in the right way.

Question 13. Have you any reason to believe that firms tendering for goods have used private influence with members of your committee to secure contracts?—This form of corruption, believed to be so common in some bodies, has been attempted in a mild form in two or three instances, but with no success. There is no reason to believe that in any instance has a member of an asylum committee made use of his position to further the pecuniary interests of his personal or political friends.

Question 14. Have applications by the higher members of the staff for increase of salary been liberally dealt with?—Any question affecting our income is sure to receive careful attention at the hands of most of us; for not only does money materially affect our comfort in this gold-worshipping world, but in the majority of instances it will be admitted that according to our remuneration we may estimate the value placed by our committees on the importance of our work and the manner in which we perform it. Viewed in this or any

other light, the answers received are most satisfactory. In twenty-one asylums the response to applications for increase of salary were liberal or very liberal; in three cases no application had been made, but in two of these it is believed that the answer will in due time be quite satisfactory; in only four instances were the applications treated niggardly, and in only one was that application from the head of the asylum refused. Surely, in the face of these facts, it cannot be maintained that our new rulers are more illiberal than their predecessors.

Questions 15 and 16. Have pensions been abolished? If not, have applicants been liberally dealt with? If pensions have been abolished, what effect has this had on the asylum service?—Before and since the advent of county councils perhaps no subject connected with asylums has been so much discussed by ourselves, and it has been most industriously and successfully kept before our notice by my worthy friend Dr. Murray Lindsay, the present President of the Medico-Psychological Association, who, in his address the other day, made special reference to it. There is, therefore, but little left for me to say except this, that in spite of the liveliest fears that pensions would disappear from the attractions of our service, matters remain practically as they were. Classifying my returns, I find that in twenty-three asylums (representing a considerable larger number of individuals) liberal pensions have been granted; in four there have been no applications; and in two they have been abolished so far as relates to new appointments. In two instances, although the pension was granted, there was a distinct feeling against it expressed by a considerable minority.

It cannot be denied that a pension is a most powerful inducement to enter a service and to continue in it, and no elaborate demonstration is required to prove that our worldly interests would be seriously damaged if we had not a reasonable expectation of a retiring allowance, and that this looking forward to a sufficient provision for old age or premature decrepitude has a most beneficial influence on the subordinate staff. Personal and public reasons combine to urge us to use our best efforts to induce our committees to treat the pension question liberally. So far as matters have gone we have had no cause of complaint, and we probably never will have if we look after our own and asylum interests with energy and discretion.

Let us now pass on to Question 20, which may be looked upon as a general summing up of the others. Does your committee evince a decided desire to conduct the asylum on the most approved principles, to adopt modern ideas of asylum requirements, to encourage original research by the medical staff, and to discharge its duty to the patients and asylum staff, in spite of any difficulties they may encounter either from a section of the county council or from the press?—The answers are practically uniformly in the affirmative, though in two instances it is indicated that, owing to the general impoverished condition of all persons interested in agriculture, progress must not be too rapid as money is scarce.

It is quite possible that much of the preceding summary is of little interest to you and far from convincing. It may be contended, and with some show of reason, that the information collected by me is positively misleading, as medical superintendents with unfavourable remarks to make might hesitate to communicate them. Any amount of suffering and discontent may lie concealed under the refusals to reply to my inquiries; but it may be considered reassuring that at the recent meeting of the Medico-Psychological Association not a single superintendent stated in my hearing that his official position was worse than it used to be, and it must be confessed that asylum matters were discussed with a freedom that made strangers who overheard some of the remarks regard us with much curiosity. If we limit our inquiries to actually ascertained experiences, as reported in writing, it cannot for a moment be maintained that asylums and their officers are now in a worse plight than they were five years ago. There have been occasional difficulties; why complain of these? They are of the highest educational value to both committees and superintendents; they are positively blessings in disguise. Such at least is my experience. Here in Northumberland I am blessed with a most liberal and enlightened county council, and with a committee which, as a body, is all that a man could desire, yet all my experiences were not at first quite smooth, and some for a time caused me considerable anxiety. But looking back to these events, I cannot say that they were productive of anything but good, and I would now without fear encounter much worse. When everything goes smoothly there is great risk that the management is being allowed to fall into a death-like routine, and that a sufficient amount of energy and enterprise may be wanting either on the part of the committee or of ourselves.

Even in asylum administration the path of progress is not a smooth one, and we know that when the great Conolly was carrying out his imperishable work at Hanwell he suffered a martyrdom from ignorant opposition and malignant persecution. Compared with him we slumber in a bed of roses. If we even admit that our official life has during the past four years not been quite so pleasant as it used to be, even if we actually knew that half the medical superintendents in England were unhappy in their work and their lives a burden to them, should we be cast down? should we be filled with all kinds of fears and doubts? should we look upon our special department as ruined and the remainder of our lives a continuous misery? No, not by any means. Were circumstances as bad as they could possibly be, we would be poor creatures if we resigned ourselves to our fate; we would then deserve nothing better. As a man—now risen to the highest position in the world of science—said to me when a boy, "God helps those that help themselves." It is in our official life exactly as in our spiritual: we must work out our own salvation. We must, by spotless private and official conduct, gain the respect of those placed over us; we must win their confidence by an evident and ready knowledge of all matters relating to our asylums, by a transparent honesty and candour, by a courtesy which never fails, by a devotion to work which never slackens; we can with safety appeal to their best instincts. Having succeeded so far, most of our difficulties, doubts, and fears will disappear as if by enchantment.

It is, unfortunately, only human to make much of vexations, and, especially in these days of pessimism, to look at the blackest side of everything. All our life through most of us are more concerned about our distresses than our blessings, and so we are apt to become fretful, faithless, selfish, the mental vision becoming distorted and discolored; the mental activities perverted and enfeebled. Such a mental existence may lead us to fail to see our clear duties and grave responsibilities. And now I come to what I really wished to say—to my message to you—for I do not wish this occasion to pass without delivering myself of a few sentences of truth as it appears to me.

The change in county government has thrown a great responsibility on us. If we clearly see this and are true men, we will do immense services to the insane poor and to our profession; if we fail to recognise the task thrown upon us, we will have missed a golden opportunity of carrying out a great work. If each of us, appreciating the position of affairs, sets himself to educate his committee as to the present and future requirements of the destitute insane, we will be listened to if we temper our zeal with common sense. My experience is this—and it is not singular—that the members of these new boards are most anxious to do their work to the very best of their ability, to meet the modern requirements for the care of the insane, and to treat those in office with every consideration. They, however, feel their almost total ignorance of all these matters, and are only too glad to avail themselves of the special knowledge of their medical officers. In these circumstances it would be ridiculous for us to pretend that progress in asylum management rests with committees—it really rests with us; therefore we must not allow the new committees to suffer from the chief defect of the old ones—want of enterprise. We, the medical superintendents, are, in my opinion, much to blame for the comparatively slow rate of progress hitherto attained; had we been more enterprising it would have been much faster. How lamentable it is to read of some of us congratulating our committees and the ratepayers on the low cost of maintaining pauper lunatics. It may be an indication of economical management—it certainly is of deadly lack of enterprise. To lead our committees along the path of progress may not always be an easy task; it may take years of patient instruction before we succeed in getting

our views carried out. Yet how constantly do we miss opportunities of furthering this educational process. Each of us, in our own district, could do much useful work by attention to our annual reports, those rather miserable productions so seldom indicative of zeal and enterprise.

What is now most wanted is enterprise. How is this to be shown? By an honest and vigorous effort to face the difficulties and shortcomings which exist in every department of asylum work. Guided by our experience, we know full well about them, though we may not attach quite the same importance to each of them; neither is it possible for any one man to grapple with them all at once. Therefore each of us must be content at first to struggle with what appears to him most urgent; his experience will speedily be tested by his fellows, and genuine improvements will not be slow of being adopted. To go fully into this subject would involve the discussion of the whole of asylum management; that is out of the question.

When I sat down to prepare this address it was my intention to devote considerable attention to the consideration of how best to further scientific work in asylums, but I have already occupied far too much of your time, and will simply say that a most valuable aid to all grades of asylum medical officers would be afforded by the establishment of lectures by men specially learned in the various branches of the science. Such lectures would enable us to keep ourselves quite up to date in the latest discoveries of anatomy, physiology, and pathology of the nervous system. Of this I am quite sure, that were such courses of lectures instituted they would be well attended, yes, even by medical superintendents—men, it is so persistently said by their candid friends, entirely destitute of scientific habits, knowledge, and instincts. Here is a suggestion thrown out in haste, and it probably will be lost sight of, but my honest opinion is that it would be productive of much good if acted on.

But, whatever we do about scientific research, our asylums will be judged by the public by their management, and our first duty as public officers is to make quite certain that we do our very best to perform our work with knowledge and devotion—thus only can we secure public confidence. Let us, therefore, be strong, fearing nothing, living under an ever-present feeling of duty, thoroughly appreciating the sacredness of the work committed to our care, and knowing at the same time that in exact proportion as we succeed in our efforts to attain a high standard of personal, professional, and official honour, so will we gain the confidence and praise of those placed over us, and thus we will not only benefit ourselves, but we will maintain this special branch of medicine in high esteem and prove that it is worthy of engaging the services of the most learned, able, and devoted men in our profession.

Successful Vaccination.—Mr. J. Nicholls Lewis, of Maindee, has been awarded the Government grant for successful vaccination in the Christchurch and Nash districts of the Newport Union, Mon.

The Pasteur Institute.—The returns published by the *Annales de l'Institut Pasteur* for the two months of May and June show that 305 persons were under treatment during that period, of whom all but 14 were French. It is worth noting that 3 deaths were reported during that period as having occurred in patients who had previously been under treatment. The first case was bitten on March 15th, and came under treatment at the Pasteur Institute on the 17th; the second was bitten on May 3rd, and was treated from the 4th to the 18th; the third case was bitten on May 12th, and treated on the 15th. In none of these cases was there any inordinate delay in undergoing treatment.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently passed away are Professor F. Weber, Ritter von Ebenhof, formerly head of the obstetrical clinic in the University of Prague, aged 79; Dr. Zoilo Perez, of Madrid, several times a member of the Spanish Cortes; Dr. James J. Levick, sometime physician to the Pennsylvania Hospital, aged 68; Dr. A. Kalischer, a leading physician of Berlin, and author of numerous publications on children's diseases in Prussia, the prevention of infectious diseases, etc.; and Dr. Francisco Alberto de Oliveira, surgeon to the S. José Hospital, Lisbon.

SIXTY-FIRST ANNUAL MEETING
OF THE
BRITISH MEDICAL ASSOCIATION

Held in NEWCASTLE-ON-TYNE August 1st, 2nd, 3rd, and 4th, 1893.

PROCEEDINGS OF SECTIONS.

PUBLIC MEDICINE.

Wednesday, Thursday, Friday, August 2nd, 3rd, 4th.
H. E. Armstrong, D.Hy., President.

DISCUSSION ON CHOLERA.

Cholera Precautions in the North of England.

The President opened the proceedings of the Section by reading an address on cholera precautions in the North of England. He said, in arranging the subjects for the consideration of the Section of Public Medicine, it was at first proposed to give in one paper a description of the preparations made in and around Newcastle to meet the generally anticipated second outburst of cholera during the forthcoming autumn. The undesirability, not to say the impracticability, of such an idea had, however, soon became evident. Others had undertaken portions of the subject with which they were well able to deal, and he trusted that the discussion would be joined in by the representatives, professional or otherwise, of the various sanitary authorities there present. The result of this Conference would be to show that the North was alive to the danger to England of the introduction of the disease from abroad, and that the north-eastern ports, especially in this respect, fully realised the serious responsibility of their position with regard to the whole country. Some idea of the magnitude of this responsibility, he continued, may be gathered from the following statistics, extracted from a special return of information laid before the Conference of Port Sanitary Authorities, held in the Guildhall, London, under the presidency of the Lord Mayor, in February last. In the five ports of Hartlepool, Hull, Sunderland, the Tees, and the Tyne, the arrivals during 1892 of vessels in the foreign trade was 10,651; vessels from infected ports entered those ports bearing an aggregate of 161,560 crews, and 79,334 passengers. The expression of opinion at the Dresden Conference that we are not to have a reappearance of cholera in Europe this autumn may be in some degree to blame for the failure on the part of certain sanitary authorities to make preparations. The grounds on which that opinion was formed are not apparent. Even if it were otherwise, the policy of promulgating such a view is to be condemned as likely to produce only one effect—namely, that of lulling suspicion at a time when suspicion is needed. Since that forecast was made, the disease has not only appeared on the west coast of the Continent of Europe, but has been carried thence to our shores. It behoves us, therefore, above all things to beware of the feeling of security which may be false. That this feeling is not participated in by the north-eastern ports and towns of England will, I think, appear from the evidence to be laid to-day before this Section of the Association. So far as my own immediate experience enables me to speak, the measures taken by the authorities, or with their concurrence, are of two kinds: first, those for the exclusion of cholera; and, secondly, those for the limitation and extinction of any case of the disease that may pass the first line of defence.

The Exclusion of Cholera.

Under the first head come the provisions, general and special, made by port sanitary authorities. On the Tyne these include, first, the health department in ordinary, namely, the medical officer and assistant medical officer of health; the inspector of nuisances and two assistants; a steam launch, and requisite crew for visiting vessels; attending to the general sanitary work of the port, and removal of patients from ship to hospital; an office at the Town Hall, Newcastle; a station, with residence for the inspector, at South Shields, overlooking the port; a hospital of thirty beds in three blocks, on a platform supported by pontoons (of which a model was shown), together with an administrative de-

partment on a separate float, with residence for the hospital staff, disinfecting appliances, etc. These different divisions of the health department as thus constituted are in telephonic communication with each other. The special provisions in the Tyne port during the cholera epidemic in Europe last autumn included the engagement of two assistant medical inspectors to visit ships from infected ports as they arrived, by day or night. To facilitate this work, an arrangement was made, through the courtesy of the officers of Her Majesty's Customs, by which the medical inspectors were accommodated at the Customs hailing station, and were put on board ships by the Customs launch. The crew of the launch of the port sanitary authority was also strengthened to enable her to be in constant attendance. This year the arrangements, although as yet in some respects only provisional, have been considerably extended. Thus two boarding medical officers, Drs. F. W. Clark and W. R. Foster, have been retained to act on immediate notice if required. A twin screw steam launch, *The Spark*, has been engaged, and is in constant readiness for their special purposes, thus leaving the authority's launch *Midge* available for ordinary work. A hulk, with two men to attend her, has been secured, and is about to be fitted up with a complete set of apparatus for disinfecting ships and their contents throughout. This outfit comprises the appliances approved by the Conference of Port Medical Officers of Health,[1] with certain modifications, namely: (1) The hulk will be towed to the side of any ship to be disinfected, thus saving time and obviating a certain degree of danger; (2) instead of a generator of sulphurous acid gas, with driving fans, etc., there will be provided a stock of cylinders of sulphur dioxide or chlorine, liquefied under pressure, and thus ready for use without other apparatus; (3) a steam disinfector; (4) a receptacle for bales of rags and other articles waiting disinfection; (5) a large tank for mercuric drench, with means for flushing or spraying the drench on decks, the floors and sides, etc., of holds, forecastles, berths, dry ballast, into bilges, etc. A steam steriliser will also probably be provided for the treatment of cholera dejecta at the hospital. In inspecting ships we have in the Tyne port a considerable advantage in the constriction of the river near its mouth to the width of about a quarter of a mile, thus giving full view of every vessel arriving by night or by day.

State Contributions to Local Port Expenditure.

Before proceeding to the second part of my subject I beg to direct your attention to the important difference of principle involved in the action of port sanitary authorities for the exclusion of cholera from our shores, and that of urban and rural authorities for its limitation and extinction on land; and consequently the justice of the claim for national support in the former case, but not in the latter. The responsibility of a port sanitary authority in face of an invasion of cholera is by no means the same as that of a group of riparian authorities protecting themselves. Each riparian district will or ought to provide for itself, independently of the action of the port authority. If a port sanitary authority wilfully, or through negligence, fail in its duty of protector—for no matter what may be said to the contrary, that is what is its duty—the Government and the whole country will cry out as against a betrayer; and rightly so, for no one disputes that the exclusion of cholera from Great Britain is under the control of these authorities, or questions the general danger if that control is not exerted with vigilance and energy. But with land authorities it is otherwise. Here each looks out for itself. If the disease is carried from a town elsewhere by infected passengers or articles, the sanitary authority is not answerable. Hence it has no claim for external aid. The opinion expressed by the Chancellor of the Exchequer that ports derive the whole of the advantages from the shipping trade, and ought to take the attendant risks and expenses, is without foundation—for everyone is aware that the entire country benefits by the commercial prosperity of seaports. If the argument of the Chancellor of the Exchequer is valid, why does Government now pay half of the salaries of so many port medical officers of health and inspectors? That the principle of State aid for such purpose of cholera prevention is not new is shown both by the precedent just quoted and by the immense grants made by Parliament under the Contagious Diseases (Animals) Acts for stamping out pleuro-pneumonia, an expenditure the wisdom of which is undoubted. The result of the refusal to comply with the petition of the port sanitary authorities in April last for a grant from the national exchequer to meet the special expense of excluding cholera from Great Britain cannot as yet be seen. One representative on the deputation to the Chancellor of the Exchequer, on hearing his decision, is reported to have said that his authority would make no further provision against the epidemic. That the preparations made by many authorities are, and will be, insufficient to bear the test is abundantly proved by the following summary of returns supplied by the port sanitary authorities of England and Wales for the conference at the Guildhall already referred to. These returns show that of 49 port sanitary districts replying to the queries issued, 3 only had engaged two temporary medical assistants for the purpose of continuous inspection of ships by night and day; 25 have no medical assistant whatever, 8 have permanent assistants only, 10 have temporary assistants only, and 6 only have both permanent and temporary medical assistants; 33 districts report having only 1 inspector, and 1 district had not such an officer at the date of report. As to the means afforded for visiting ships infected or suspected of cholera, in 16 districts only was a special launch or steam tug provided; 12 districts appear to be without any means whatever for this purpose. As to hospital accommodation 11 of the districts have floating hospitals of their own, 29 have similar accommodation on shore, 1 has a floating hospital in conjunction with another sanitary authority, 9 have hospitals on shore in conjunction with other authorities, and 5 districts are without any hospital accommodation. Hospitals on land for cases of cholera on shipboard, or any hospitals for cholera to which patients from other districts, and suffering from other diseases, have access, are unsatisfactory. Speaking generally, the means of removing patients from ship to hospital are insufficient. In 15 districts the conveyance is an open boat or barge, and in 10 others there appears to be no provision at all. Twenty-six districts are without disinfecting apparatus; 14 only have steam apparatus for the purpose. As yet no district seems to have acquired a steam steriliser for treating infected excreta. The Tyne port is, as already stated, about to provide itself with one. The means in general use for disinfecting ships' holds, bilges, ballast tanks, rags in bale, baggage, and other cargo, cannot be characterised as satisfactory. In a large number of districts sulphur burning is the principal process relied on. The much safer and more convenient liquefied sulphur dioxide appears to have come into use in only one or two districts. Perchloride of mercury is but little employed. Judging by the returns, a considerable number of districts are without any means or appliance whatever for the disinfecting of a ship or its contents. Seeing from the foregoing summary how unreliable are our barriers against cholera, and considering the exceptional nature of the British method of dealing with cholera as compared with the quarantine system so much in favour abroad, the refusal of aid to port sanitary authorities is doubly unfortunate—first, by reason of the danger to which the entire country may be exposed through inefficiency on the part of a single port, however small; and, secondly, from the moral effect on other nations of the spectacle of our Government declining to support the system of prevention it has so long, in the face of general opposition, steadfastly and resolutely upheld—in other words, refusing to pay for the lock on the house door.

The Limitation and Extinction of Cholera.

Owing to the time already occupied by this paper on the exclusion of cholera, very little space is left for remarks on limitation and extinction. A few words on this point to show that the authorities have not been unmindful of their responsibility may not, however, be out of place. As Dr. C. U. Laws has undertaken an account of the new Cholera Hospital of the Newcastle Corporation (the administrative block and one ward of which, together with a complete set of apparatus for disinfection, including a somewhat novel form of steriliser for infected excreta, are now completed), any

[1] See report in *Shipping Gazette* of February 18th, 1893.

further reference here to these is unnecessary. Mr. Bernard E. Smith, Alkali Inspector to the Local Government Board, has, at my request, kindly consented to describe some recent improvements in aërial disinfection by means of different gases liquefied under pressure, the production of which in large quantities and at prices calculated to bring them into general use, is now in progress by well known chemical manufacturers on the Tyne. Early in the year the Sanitary Committee of the Newcastle Corporation, in conference with the leading representatives of the Newcastle Dispensary, agreed on a system of organisation for adoption in the event of cholera appearing in the city. This included the division of the city into districts, with a special set of officers, including medical attendants, home nurses, inspectors, disinfectors, etc., for each. Further details of this organisation will be given by Dr. Richardson, Resident Medical Officer of the Dispensary, in the discussion to follow. The police and their telephone system will be utilised for the notification of cases. On receiving the report of a case the medical officer of health will at once despatch an inspector and (unless the report be accompanied by an intimation that the patient is unfit for removal), an ambulance to the house. Cases fit for removal will be taken to hospital, with their infected bedding, clothing, etc., where the latter will be disinfected or burnt in the hospital destructor. Patients unfit for removal will be provided with medical attendance, nursing, and medicines. A large closely-covered red pail, with the word "Cholera" painted on it in white letters, will be left at the house by the corporation. A disinfector will attend to charge this pail with a concentrated solution of perchloride of mercury coloured a deep blue tint and in sufficient quantity to yield a strength of not less than 1 per 1,000 in a pailful of liquid. Printed directions as to the use of this pail will be given to the nurse. The disinfector will call at the house three times a day during the continuance of the case and will see to the proper discharge of the contents of the pail into the drain, the final disinfection of the premises, etc., and other matters requiring his attention. Infected articles of clothing, etc., will be removed from the premises in tightly-closed boxes. It is estimated that the average discharges from a cholera patient amount to about two gallons. Therefore, for 100 cases there would be to deal with 200 gallons (2,000 lbs.), requiring at least 2 lbs. of mercuric perchloride, costing 5s. Six houses will probably be as many as one man can properly attend to per day. The question of the treatment of the sewage of the city in case of an outbreak of cholera has been referred by the Sanitary Committee to the city engineer and medical officer of health, who were authorised to consult Professor Bedson, D.Sc., of the Durham College of Science. The result of this conference was to report in favour of frequent and thorough water flushing of the sewers in preference to any chemical or other mode of sewage treatment. Disinfectants will, of course, be available from the stock of the health department. The various local nursing institutions have been communicated with, and will, as far as lies in their power, provide home nurses for those requiring them. But in the event of any considerable epidemic it is evident that the only reliable source for help is the Royal British Nursing Association. The aid of senior medical students, after suitable training in cholera work, is counted on. In doubtful cases, and as a means of determining the cessation of the period of infectivity in convalescents, the excreta of the patient will be submitted to a bacteriologist for examination. The Sanitary Committee have recommended the Council to provide a reception house for poor persons whose dwellings are being disinfected. At the same time a list will be kept of empty houses suitable for such a purpose. One important duty of the special inspectors will be to act as cholera detectives. The anticipation of any serious epidemic of the disease would, of course, lead to the adoption of the special provisions of the Public Health Act for house-to-house visitation and other purposes. In conclusion, that medical practitioners may not themselves be open to a charge of conveying the contagium, either of cholera, scarlet fever, smallpox, or other disease from house to house, I beg strongly to commend to the profession the use of a wrapper and head cover to be put on in the lobby of the house of any infectious case, and to be taken off on washing the hands, etc., in disinfectant immediately after leaving the sick room. The specimen I exhibit is made of grey gingham, is washable, and occupies very little space. After use it may be placed in a small waterproof bag, such us as shown herewith.

Dr. C. U. LAWS described

THE ARRANGEMENTS FOR STERILISING CHOLERA DEJECTA, ETC., ADOPTED AT THE TEMPORARY CHOLERA HOSPITAL AT NEWCASTLE-ON-TYNE.

The publicity given by the press to all the terrible details of the outbreak of cholera at Hamburg in the summer and autumn of 1891 excited the greatest interest and some wholesome alarm in England, more especially in those seaports, such as the Tyne, which were in direct communication with Hamburg. The port sanitary authorities were at once on the alert, and so effective were the measures taken on the Tyne that, although during the most of the time there was constant communication with Hamburg, and one actual and some suspected cases of cholera reached the port, not one got through the first line of defence, and the only case of death from the disease took place on the floating hospital of the port sanitary authority. The sanitary authority of Newcastle at once resolved to prepare the second line of defence, so as not to be taken unawares should any cases occur in the town during the summers of 1893 or 1894. It was admitted that the sanitary state of the town was very different from that prevailing at the time of the heavy epidemics of 1849 and 1853, and that in 1866, the disease was much more under control, while, since that time, there had been nothing that could really be called an epidemic of cholera in the town or neighbourhood. It was considered, therefore, that provision for the housing and treatment of 100 or 120 patients would probably meet the requirements of even a sharp visit of the plague. There were some of the necessary preparations that would take time to carry out, while others might be deferred until the disease had actually declared itself again in Hamburg, or some other port in frequent communication with the Tyne. It was evident that no time must be lost in selecting and preparing a suitable site. That finally selected on the Town Moor, though not by any means an ideal site, had a balance of advantages in its favour. Thus, it was one which the freemen (whose consent was necessary) were willing to put at the disposal of the authority on proper conditions. It was far enough removed from the nearest dwellings to avoid private opposition, and it had already some of the essentials required. On the other hand, it was far from the town; it was rather open and exposed, and, more important still, the Town Moor was known to be honeycombed with old coal workings now standing full of water. From these workings it was known that several private and public wells in and around the town derived their supply. It would, therefore, be dangerous if any of the cholera dejecta should find their way on to the soil, as it was quite possible that in such a case the water of wells in the various parts of the town distant a mile or even more might be contaminated with the cholera bacillus, and so become centres of apparently spontaneous outbreaks. This, though a serious disadvantage, was one capable of being dealt with effectually by physical means, and, in fact, it was made the groundwork of the whole scheme of the hospital. It was decided that the first point to be considered was that the drains and sewers should be made quite watertight, and that the whole of the floors should be absolutely impervious and capable of being properly cleansed and swilled, and that all washings of whatever kind should naturally find their way to the sewers. This was accomplished by making the ward floors of concrete, slightly dished towards the centre, and sloping down to one end where there was an opening to the sewer. All liquids which fell on the floor were therefore kept within its bounds, and the washings might either be run at once into the sewer or passed to the steriliser if need be. As the sewers and these concrete floors required time to complete they were the first things to be commenced, being arranged in six blocks, each forming a floor for a wooden building laid out to contain twenty beds. These wooden buildings were made of a framing of rough scantlings, covered without with galvanised corrugated iron, and lined within by a beading of half-inch matchboarding dressed and

varnished. The roofs of the were also covered with galvanised iron. The floor space allowed was 100 square feet per bed. These buildings being such as could be readily and quickly erected, it was not considered necessary that they should be commenced until there was some immediate probability of the disease appearing, and as they could be properly and economically built by contract, the committee took tenders for the erection of them, the chief conditions being that the contractor should undertake to keep on hand a certain stock of the necessary material, and that he should be prepared to erect each ward block complete and ready for patients within twenty-one days of notice being given to him to that effect. Should the contractor not be called on to erect them at all, then he was to receive 10 per cent. of the stipulated price as compensation to him for any loss on the material provided. The beds and other furnishings of the wards were dealt with in the same way—namely, by a contingent contract, to be carried out only if required. It was at first intended that the present small-pox hospital should be used as an "administrative block," and for dormitories for the cholera nurses, but the increase in the number of small-pox cases in the country generally, and the fact that there were several in Newcastle and the neighbourhood, rendered this plan impracticable, and now a separate block for the accommodation of seventeen nurses and the necessary domestic staff had been erected and furnished.

The Need for Disinfection of Dejecta.

During the discussions on the scheme it became evident that the general feeling was in favour of some effectual means for the disinfection of the dejecta and liquid sewage generally, before they were allowed to reach the sewers, and also that some form of destruction by fire was most popular. The whole question was referred to the medical officer of health and the city engineer to consider and report upon, with power to consult such experts as they considered could help them in the matter. They were also to consider some scheme for the disinfection of the cholera dejecta in private houses, should the disease break out so generally as to make it necessary to treat patients at their own homes. These gentlemen made a report on both these matters, having had the advantage of consulting Professor Bedson, of the Durham College of Science, on the question of the best disinfectants, and the best modes of applying them. This report was adopted by the authority, and its recommendations carried out.

Sterilisation by Steam.

For the hospital they advised the use of a modification of the system of sterilisation by steam, carried out in the Russian and Berlin hospitals. There the dejecta, washings, etc., were collected from the wards by a rather complicated system of pipes, and conveyed to a central sterilising boiler, where they were raised to a temperature of 230° by means of steam passing round the jacketted boiler, which was furnished with an elaborate system of gauges for both pressure and temperature. After the whole of the material had been thus practically boiled under pressure it was allowed to flow away into the sewer. The modification suggested by the medical officer of health and the city engineer was to avoid the collection of the material by means of pipes, which, never being heated, would contain unsterilised matter, and might be a source of danger. They, therefore, proposed to reduce greatly the size of the sterilising pan—namely, from 200 or 300 gallons down to 30, and to place one of them in connection with each ward, conveying the steam to it from a central boiler detached from the wards. The sterilising pan is furnished with an opening 9 inches in diameter, which can be hermetically closed by an iron lid, with an indiarubber joint ring. Into this pan the steam is conveyed by a pipe reaching quite to the bottom and pierced by small holes. From the bottom of the pan a large cast-iron pipe, capable of being closed by a valve, communicates with a cooling tank outside the ward, this tank being directly connected with the sewer. The pan stands in a small offshoot from the ward, and while not in use, steam is shut off and the hinged lid is thrown back, leaving the opening free; into this the nurse empties the bedpans, or any vessels containing infected washings or suspected liquid, and closes the lid. When the pan is about two-thirds full, or oftener, if necessary, she calls the attendant, who screws the lid down tightly, closes the outlet valve, and opens the steam cock; the steam enters at the bottom of the liquid, and rapidly raises it to a temperature of 250°, which is indicated by the steam gauge showing a pressure of 30 lbs. As soon as this point is reached it shows that the desired temperature has been obtained throughout the liquid, and that it is now effectually sterilised. Steam is shut off, and when the gauge indicates that the pressure has fallen to about 5 lbs., the outlet valve is opened, and the whole of the liquid is at once discharged into the cooling tank by the pressure of the remaining steam, the pan being completely emptied. In the tank it meets with a stream of cold water, and as soon as the whole is cooled down to 100° it is allowed to flow away to the sewers. In the meantime, the lid being released, the sterilising pan is thrown open again, ready for use by the nurse. The whole operation does not occupy more than fifteen to twenty minutes, so that, in case of necessity, a charge can be boiled off and cleared out each half hour, thus providing for the sterilisation of from 200 to 250 gallons daily from each ward, which seems ample to meet the requirements of twenty patients. By this mode of working the material is rendered harmless before any part of it leaves the ward, and no unsterilised matter is left in any of the pipes. Messrs. Goddard, Massey, and Warner, of Nottingham, worked out the details, and made the machinery for the Newcastle Hospital. Besides this sterilising apparatus, there was provided at the hospital, a small steam disinfector for clothing, bedding, and the like, and also a small hospital destructor for the burning of solid matter.

Disinfectants.

The result of the consultation with Dr. Bedson, as to the best disinfectants for use in private houses where cholera had broken out, was that he generally approved of the proposed arrangements for dealing with the dejecta, etc., in such cases, while giving some valuable advice as to the form in which the chemicals used should be applied. The proposals were that the authority should undertake the carrying out of this work, and the provision of the needful apparatus and disinfectants, and should employ a staff of men working under the medical officer of health and his inspectors to see that the work was properly done. The plan suggested was that as soon as a case was reported, a special pail, marked "cholera pail," and painted red or some other distinctive colour, should be at once taken up to the house. Into this pail, before he left, the medical officer's man would pour a strong solution of mercury perchloride sufficient to make the pail when full of liquid contain 1 per 1,000 of the disinfectant, that is, for a 5-gallon pail the amount of perchloride would be about three-quarters of an ounce. The solution would be supplied to the inspectors in bottles containing enough for one, two, or three charges, as might be most convenient, so that there might be no doubt as to the quantity used. Directions would be given to the nurses, or other persons in charge of the patients, that all dejecta and washings of whatever kind should be at once emptied into the "cholera pail," and into the pail only, and well stirred to mix them thoroughly with the disinfectant. The sub-inspector who supplied the pail would visit the house three times, at least, during each day, and at each visit would see that the directions had been complied with. He would then empty the pail into the drains and recharge it with the disinfectant. Should there be more than one patient in the house, additional pails would be supplied or the house visited oftener. This plan should secure that, except by wilful negligence, no dejecta or washings could reach the sewers until rendered harmless, and was simple enough to give no excuse for evading it.

The Duties and Difficulties of Port Medical Inspectors.

Dr. Francis W. Clark, D.P.H.Camb., said that it had been his duty and his privilege to act as boarding medical officer for the River Tyne Port Sanitary Authority during the recent cholera epidemic. The duties, briefly, were to board every vessel entering an English port from a cholera-infected port, whether of our own or another country. This necessitated, of course, a periodical return, from some official source, of those ports which were deemed infected, and this return

had been regularly received from the offices of the Port of London. On boarding such a vessel, the duty of the medical inspector was to examine every person on board in a manner sufficient to enable him to declare whether or not the ship was infected with cholera; and, should such prove to be the case, he must certify accordingly in duplicate form, one copy of the certificate being handed to the master of the vessel, and the other copy retained, or forwarded to the sanitary authority, while notice was also sent to the Local Government Board as to the arrival of the vessel, and the presence on board of cholera. The number of persons seen must be carefully compared with the number of the ship's company, as entered in the ship's articles at the port of sailing, and especial inquiry must be directed to suspicious cases of diarrhœa, mention of which, unless specially inquired into, was frequently suppressed. If the medical officer were satisfied that the ship was infected with cholera, he should next direct the master to moor or anchor the vessel at the quarantine station approved of by the chief officer of Customs of the port, and should then make a further examination of all persons on board the ship, certifying each suspicious or declared case of cholera, and notifying in writing to the master that no person not so certified should be permitted to land unless he satisfy the medical officer of health as to his name, place of destination, and address at such place. The names and addresses of any persons so desirous of landing were forwarded immediately to the clerk of the sanitary authority, who might, if he thought fit, verify the accuracy of the said addresses before these persons were allowed to leave the ship. Should the boarding medical officer find that the ship was not infected with cholera, but that she had passengers on board in a filthy or otherwise unwholesome condition, or that she had come from a place infected with cholera, he might yet give the above certificate in duplicate form, if, in his opinion, it would tend to check the introduction or spread of cholera, prohibiting the landing of any person on board until he was satisfied as to their name, place of destination, and address at such place. Every person certified by the medical officer to be suffering from cholera should be removed, if his condition admitted of it, to some hospital or other suitable place appointed for that purpose by the sanitary authority; but if such person could not be so removed the ship remained subject to the control of the medical officer, and all suspicious cases might be detained on board the ship for a period not exceeding two days, or might be removed to the hospital or other suitable place and detained there for a like period. If any death from cholera occurred on board such ship the sanitary authority might themselves inter the body or direct the master to cause the body to be taken out to sea and committed to the deep, properly loaded to prevent it rising. All articles of clothing, bedding, etc., soiled with cholera discharges, would be destroyed by the master's directions, or disinfected if thought advisable by the medical officer. The ship, also, would be disinfected under the directions of the medical officer.

THE NEED FOR POWER OF DETENTION.

These were the duties of port medical officers of health, as defined by the special cholera regulations of the Local Government Board; and the first difficulty met with in carrying out these regulations was dependent upon the entire absence of any powers of detention on the part of the Port Sanitary Authority, pending the inspection of the vessel by the medical officer. In the Tyne it frequently happened that three or four vessels from cholera-infected ports arrived at about the same time; and while the boarding medical officer was occupied on board one of them, the others would proceed up the river, or especially at flood tide, would enter the docks, and persons would land, before any medical inspection could be carried out. A brief period of detention, limited, say, to one, two, or three hours, would amply suffice to obviate this difficulty; and although offering occasionally some slight hindrance to commerce, need only be put in force when several vessels from infected ports arrived simultaneously, while the additional security gained by the prevention of the landing of persons suffering from slight and suspicious attacks of choleraic diarrhœa, or even convalescent from an acute attack of cholera, would amply repay the country for this trivial hindrance to its traffic. Should such power of detention be granted, vessels would be required to moor at some appointed station until the completion of the medical inspection, and in a narrow river like the Tyne this would be an additional advantage, for on several occasions on which the master of a vessel had been sufficiently conscientious to await his arrival if he were detained elsewhere, he had complained of the risk of doing damage to other craft in the river and the risk to his own vessel entailed by waiting unmoored—and, in fact, on one or two occasions damage had been done in such manner.

CONTROL OF CREWS.

Another difficulty which had been met with in carrying out the above regulations was that many of the regular trading vessels remained for some twenty-four or forty-eight hours only, and the crew had no homes and no address which they could give, but desired to go ashore to purchase provisions for the next passage. These men were allowed to land, provided they slept on board the vessel; but there was no remedy if these men deserted when ashore, as they occasionally did. Any attempt to detain the men on board would be futile, while the vessel was alongside the quay or the coaling spouts. As, however, these men did not, as a rule, travel very far when ashore, the keepers of all boarding-houses and sailors' homes at ports should be made liable, under a penalty, to report at once all suspicious cases of illness, and especially of diarrhœa, vomiting, or cramps, among the inmates, to the sanitary officials of that town. Under these circumstances, the health authorities could at once deal with suspicious cases of cholera, and isolate them, before the disease had had any opportunity of spreading. The Port Sanitary Authority should also be apprised of such cases, in order that a stricter watch might be kept over the remainder of the crew of the vessel which the sick man had left. Occasionally a vessel entered the port, the master of which was unaware, until he communicated with his owner or agent, whether the men would be paid off and the vessel laid up, or proceed to sea again in a few days. Under these circumstances it was found advisable to take the names and addresses of all the crew, and retain the list until the master had had an opportunity of communicating with his owners. The master was instructed to at once notify to the Port Sanitary Authority the result of his communications from the owners, and, if the vessel was to be paid off, the list of names and addresses was at once forwarded to the clerk to the authority; while if the vessel was to proceed to sea again, a second visit to her was necessary, to ascertain which of the crew were leaving the ship, in order that their names and addresses alone might be dealt with.

BALLAST.

Powers ought to be granted to the port inspectors to order the pumping out of water ballast which had been obtained from the river or dock of an infected port, and the same powers should apply to sand ballast if dredged from the bed of an infected river. Last autumn a number of sailing vessels entered the Tyne in ballast, which had been dredged from the bottom of the river Elbe, just below Hamburg, and it would appear that such ballast, under the circumstances, must certainly have contained some of the cholera poison. This ballast was disinfected under the superintendence of the port medical officers, and then sent to sea and sunk in deep water by the river Tyne commissioners' screw hoppers. In order to facilitate commerce and save time, fresh water ballast might be pumped out at sea shortly before the vessel reached her destination—and, in fact, this was done last year by the regular Tyne traders, for in those vessels which must have some ballast to keep them steady one ballast tank was emptied of its fresh water and then the sea-cock opened, so that it was filled with sea water before the next tank was emptied. As a rule these vessels have three or more separate water ballast tanks. If the British Consuls at infected ports were instructed to inform all masters of vessels who applied to them for information that no fresh water ballast from an infected port might be brought into a British port, it would soon become a regular custom for those vessels trading from a cholera-infected port to dispose of their fresh water ballast at sea, and, if necessary, take

in sea water ballast in place of it. The disinfection of bilges and waterclosets and the renewal of the drinking water when its appearance was not satisfactory were regularly dealt with by the staff of sanitary inspectors acting under the directions of the medical officers, and merely called for extra vigilance during the prevalence of cholera or other epidemics.

Quarantine as a Preventive Measure against Cholera.

Dr. J. Wright Mason, D.P.H.Aberd. (M.O.H. Town and Port of Hull), observed that quarantine as a preventive measure against the introduction of cholera into this country had been superseded by the system known as medical inspection, which received the formal approval of the Vienna Conference in 1874. Any attempt had long since been relinquished in this country to impose quarantine at any of our ports, and the only relic of the system was the Quarantine Act of 1825, which still existed but was never enforced except in cases of yellow fever. In Liverpool there was still an officer specially appointed by Her Majesty's Customs to carry out the provisions of this Act. Quarantine would mean the detention of all vessels coming from infected ports for a period varying from five to ten days, according to the conclusions arrived at at the conferences held in Vienna (1874) and Rome (1885). At the conference previously held at Constantinople in 1866 a period of sixteen days' quarantine was decided upon. The conclusions of the Dresden Conference had not yet been published, but he hoped that one result would be the international notification of disease. The incubation period of cholera was about five days, but the "Solomono" case at Bridgwater in September last extended considerably over this period. The delay to travellers, often unexpected and indefinite, their detention under circumstances most favourable to contract disease; and, secondly, the dislocation of commerce, together with the accumulated evidence of those who have had to bear the brunt of public criticism in this country, had demonstrated beyond doubt that the theory of quarantine was delusive, and should be abandoned. The country does not depend upon the false security of quarantine, but rather upon its sanitary administration, and each district should be in such a sanitary state of preparedness that the disease, if imported, should not spread. The experience of 1892, during the cholera epidemic at Hamburg, in those ports which were exposed, and possibly none more so than the ports of Hull and Newcastle, which were in daily communication with that cholera-stricken city, must have inspired confidence in the public mind in this country and the Continent of Europe, that medical inspection, the due regard to the rigorous inspection of all articles likely to convey infection, improved sanitation, and efficient hospital equipment, were alone sufficient to arrest the progress of the disease. Quarantine had been proved a failure, and only served the purpose of diverting attention from the real protection. If cholera could be controlled by the system known as medical inspection, with due regard to sanitation, the same regulations might equally apply to vessels infected with yellow fever, and with the same beneficial results, and would be more likely to prevent the disease than the detention of the healthy and sick together in quarantine. Medical inspection in lieu of quarantine had been adopted in England over a quarter of a century, and involved no vexatious interference, but provided for the inspection of vessels on arrival, and should cholera have developed during the voyage amongst any of the passengers or crew the removal of patients to hospital and the isolation of suspicious cases. Healthy persons were allowed to land subject to the notification of their place of destination, the vessel being only detained for purposes of disinfection at some appointed station, or in case a patient was in too dangerous a condition to be removed to hospital. The regulations of the Local Government Board also provided where a ship was not infected with cholera, or had come from a place infected with cholera, for the detention on board the vessel of such persons who were in an unwholesome or destitute condition. The drinking water taken in at any infected port might be ordered to be thrown overboard, and the tanks cleansed upon a proper supply being furnished in lieu thereof by the authority, and the bilges pumped out and thoroughly disinfected before the vessel was allowed to enter the dock. Medical inspection to be efficient should be carried out both by day and night, and all vessels, both foreign and coastwise, arriving from infected ports, before being allowed entrance to the port, should be detained for the purpose of medical inspection, and should receive a certificate from the medical officer of health or some other person deputed that the passengers and crew on board were healthy. We are not yet perfect, and much remains to strengthen our natural defences against the invasion of cholera. The ports, whilst protecting themselves, were protecting the community at large, and he believed that he was expressing the opinion of port sanitary authorities generally that the expenses incurred for these extra precautions, which were necessary for efficient port sanitary administration, should be contributed to in some measure by the Imperial Exchequer.

Brigade-Surgeon R. Pringle, M.D. (late Sanitary Department H.M.'s Bengal Army) observed that land quarantine was so impossible to carry out satisfactorily that it did not even merit a discussion. While no believer in the directly infectious or contagious theory of cholera, he laid particular stress on the importance of special arrangements for the treatment and isolation of cases of the disease occurring, for instance, in the carriages in long railway journeys. Quarantine at seaports was another thing; a ship arriving at a port with cases of cholera on board ought to undergo a most careful inspection, isolation, and disinfection while anchored in a selected locality before it could be admitted into port. A distinction must be made between the regulations enforced in the case of large seaports like Newcastle, etc., and passenger traffic seaports like Dover, etc. In the former case the length of time that the ship had been at sea must be taken into consideration in all calculations of the period of quarantine isolation. The case of ports like Dover, used for passenger traffic and confined to short channel passages, required special regulations. A system of registration of names and addresses of passengers, with special facilities for communicating the fact of these cases occurring to some central authority in the county or group of counties, was needed. The chief local conditions for the lighting up of an alarming outbreak were (1) defective water supply, directly aiding in circulating the cholera poison in suspension, as in Hamburg; (2) local insanitation, producing diarrhœa or even dysentery; and (3) an abundant supply of fruit or vegetables in a state likely to cause the production of diarrhœa, or that class of vegetables producing inordinate looseness of the bowels, such as melons, etc., which, as he had pointed out in the cases of Juggernauth and Cashmere, unquestionably gave rise to conditions favouring the susceptibility to the disease as well as aiding in its rapid development and dissemination. The state of humidity of the air, and indirectly the soil, were also of importance. The first condition Dr. Pringle called A, the second B, and the third C, including personal, local, and atmospheric. A and B were conditions this country had spent millions to place in an innocuous condition as far as this was possible, and Britain, therefore, could, humanly speaking, contemplate the condition C without alarm, feeling confident that, unless the conditions of A and B were favourable for the reception of the cholera poison, cholera, except to the extent of a few sporadic cases, was impossible. Speaking from his extensive experience of the disease in India during two twelfth-year festivals at Hardwár, on the Ganges, in the North-West Provinces, in 1867 and 1879, and Juggernauth on the Bay of Bengal in 1856, Dr. Pringle stated that Hardwár was one of the impossibilities of severe epidemic cholera prevention, and that persistence in these festivals, after the awful lessons of 1867 and 1879, and even so late as 1892, was a positive trifling with insanitary conditions, alone excusable on the grounds of the grossest ignorance of the risks incurred. As an instance of possibilities, Dr. Pringle named Muthura, on the Jumna, North-West Provinces. Here all that individual liberality on the part of the native gentlemen could do to improve conditions A and B had resulted in giving to the authorities of India for twenty years, from 1864, while the district was under his sanitary supervision, an object lesson, even in that land of endemic cholera, of how possible it was to protect a crowded and populous native city, the centre of pilgrim resort from all parts of India, at all

times of the year, from epidemic cholera, though this immunity had been repeatedly tested with the crowds of cholera-stricken hurrying from Hardwár. Muthura showed what could be done, Hardwár what might be left undone, and Murree in the Himalayas what should be done to protect localities from cholera epidemics. Up to 1884 at least, as he knew, sanitary cordons were universal in the North-West Provinces round military and civil stations during cholera outbreaks, and in every case they proved complete failures. The dead and the dying were in 1879 taken out of railway carriages at Saharanpur, one of the most important railway stations in the North-West Provinces, and the train allowed to proceed without any attempt at proper purification or disinfection. The only well at this railway station was fouled with "lotatis" (brass drinking cups), covered with the unutterable impurities inseparable from a cholera outbreak among terror-stricken natives waiting at a railway station, and all this in a country boasting of a Sanitary Department. Though this outbreak was the cause of a loss of over 600 soldiers among the troops engaged in the Afghan campaign, the wonder is that it was not 6,000, and that march known as "the march of death." To complete this picture of complete demoralisation, Brigade-Surgeon Pringle gave the details of a case of a British soldier struck down by the pestilence in passing through Saharanpur, and placed in the "dhooly," or stretcher, with the pick-axe and spade, to be buried when the column halted, but who was found sitting up when the burying party came up to the "dhooly." As regards the period for quarantine, in the cases in which this preventive measure was applicable Dr. Pringle fixed it at forty-eight hours, as follows: Out of all the cases observed during twenty years, not a single one was met with in Mussooree and Landour in the Himalayas (after full exposure to the cholera poison in the plains below), in which that limit exceeded.

THE BIRTHPLACE AND DIFFUSION OF CHOLERA.

Mr. ERNEST HART made a communication on the birthplaces and diffusion of cholera, in which he traced especially the influence of great assemblies of pilgrims and traffickers such as took place in India at certain localities on religious festivals, and annually at Mecca. His remarks were illustrated by photographs of scenes during a religious fair in India, showing the pilgrims bathing, washing, and drinking. He concluded by moving the following resolution:

RESOLUTION I.

"That it be referred to the Parliamentary Bills Committee to take such steps as may be desirable to approach the British and foreign Governments with a view to obtain their intervention in securing measures for the suppression of cholera at the Hardwár and other Indian fairs, and at the Meccan pilgrimage; and that for this purpose also due submission of the facts be made to His Majesty the Sultan."

Dr. ALFRED HILL (M.O.H. Birmingham) in rising to second Mr. Ernest Hart's resolution, paid a high tribute to the great interest and value of Mr. Hart's address. Mr. Hart possessed in an eminent degree the faculty of an expositor. He had shown it years ago in his admirable little brochure, *The Truth about Vaccination;* he had repeated the performance on the present occasion in expounding in the clearest and most informing manner the truth about cholera. The subject had been made wonderfully clear and comprehensible, and he had put the whole matter into a nutshell. He had thoroughly impressed the mind with the facts that cholera was not infectious in the ordinary sense, that we now know the origin and character of the disease, and that therefore we are able to a great extent to prevent it, while curative measures are useless. All this went to show the increasing value of the preventive department of medicine, confirmed also by the result of its influence on other diseases like ague, small-pox, and typhoid. It appeared to be rapidly becoming more important than the curative branch. The resolution was adopted unanimously.

RESOLUTION II.

The following resolution was moved by the PRESIDENT (Dr. H. E. Armstrong), seconded by Dr. SPOTTISWOODE CAMERON (M.O.H. Leeds), and carried unanimously: "That the Parliamentary Bills Committee of the British Medical Association be requested to bring before the Local Government Board the desirability of taking means, by extending the jurisdiction of the port sanitary authorities, or otherwise, to safeguard the island against the danger of persons infected with cholera being landed at any point not under the control of a port authority."

RESOLUTION III.

The following resolution was moved by Sir CHARLES CAMERON (M.O.H. Dublin): "That it is the opinion of the Public Health Section that the extra expenses incurred by the port sanitary authorities in preparing for or dealing with an invasion of Asiatic cholera should be defrayed by the country at large." The resolution was seconded by Brigade-Surgeon ROBERT PRINGLE, M.D., and carried unanimously.

Dr. THRESH (M.O.H. Essex) expressed the opinion that our first line of defence was not perfect, inasmuch as on many parts of the coast not included in port sanitary districts persons from infected countries or ships could be landed without the medical officer for the district becoming acquainted with the fact. In such districts, moreover, usually no preparation has been made for the isolation and treatment of cases should they occur.

Dr. GROVES (M.O.H. Isle of Wight) concurred with the opinion expressed as to the weak points in our first line of defence against cholera. He gave an example of a pilot landing from a vessel from Hamburg on the coast of the district of which he had charge without any person being aware of his presence. Subsequently other persons landed on remote spots of the sixty miles of coast. The coastguard officers were important aids, but, with all their vigilance, smuggling occurred, and, as a matter of fact, landed every day without any investigation on the part of the coastguardsmen.

Dr. OGILVIE GRANT (M.O.H. County of Inverness) observed that the defects of our first line of defence against cholera—namely, the proper inspection of the seaboard—had been pointed out; but he desired to point out that what might be called the second line of defence—the early notification of this disease and of choleraic diarrhœa—could only be given effect to by the adoption of the Compulsory Notification of Infectious Diseases Act. Until this was done by all local authorities sanitary officials would experience difficulty in getting early and accurate information. He had personally found considerable difficulty in getting local authorities to take steps to erect hospitals and complete the third line of defence—an experience which was probably by no means unique.

Sir C. CAMERON had had experience of cholera in Dublin in 1866. There were 950 deaths and about 1,500 cases reported. He believed that the cases of true cholera almost always proved fatal. Many cases of severe diarrhœa and of so-called "British cholera" would, of course, be coexistent with Asiatic cholera, and, as of these 95 per cent. would recover, the recoveries would be recorded as referring to true cholera.

Dr. SIDNEY DAVIES said that although sanitary measures are by far the most important in preventing cholera, quarantine was not altogether to be despised. It appeared to have kept cholera for nine years out of Egypt, for the fact that there had been no cases of cholera in Egypt during that time could only be attributed to the measures taken by the Egyptian Quarantine Board. In order to trace passengers to their homes from infected ships it was necessary that the addresses should first be verified before they left their ship.

Dr. SPOTTISWOODE CAMERON (M.O.H. of Leeds) wished only to mention two points which had come up in the discussion. Our first line of defence was even yet not quite perfect. In Leeds information was frequently received from Dr. Armstrong, from Dr. Mason of Hull, from Dr. Collingridge of London, of the landing of persons from infected ports, and their intention to go to Leeds. Frequently these persons were not to be found in Leeds: not always because the address was wrong. In one case, for instance, the sanitary officers visited daily for nearly a week, and the person did not arrive, nor did his wife know where he was. Now in this case there was no intention to deceive. The man had simply, instead of coming home to the address given, gone about his business as a traveller. Had he developed cholera

in some inland town no one would have been on the look-out for his case. In other cases, especially of foreign immigrants, the names and addresses received in Leeds were often quite wrong. The other point was that both Mr. Ernest Hart and Dr. Alfred Hill stated broadly that in cholera treatment was of no use. Neither meant that all treatment was useless in cholera, and the expressions used had been, perhaps, too general. If it was meant that drugs did not cut short an attack of cholera any more than they did an attack of measles and scarlet fever, that would be admitted by all; but if it were meant that a patient unnursed and untended, attacked by cholera, had exactly the same chance of recovery as a person carefully treated at home or in hospital, that was misleading.

Brigade-Surgeon R. Pringle, M.D., had listened with special interest to the graphic story told by Mr. Ernest Hart of the marches of cholera from Hardwár and Mecca; the photographs of Hardwár had brought back to him his annual visits to that sacred spot, extending over twenty years, from 1864. On hearing what had been done in 1891, he had felt that now would come the reward to those who, like himself, have felt that cholera-polluted water, as at the well at Hardwár, and at the only well at the railway station at Saharanpur, was not the harmless fluid for drinking or any other purpose which the Sanitary Department in India for the first twenty years had, if judged by their action in this matter, practically maintained it to be. He himself and others had suffered not a little for their persistence in trying to remove this removable cause of cholera extension, but with little success, and not a little injury to prospects; it was now a consolation to feel they had suffered for what the profession and Europe was prepared to endorse was the right thing to have done. Though there was no specific medicine for cholera, yet there was ample room for treatment in its relation to nursing; this was the sheet anchor, not drugging by opium or stimulating by alcohol.

Dr. J. Wright Mason stated that, in accordance with the cholera regulations, the medical officer of health had to satisfy himself as to the destination of persons arriving on board ship, and could detain only such persons not giving a satisfactory address. He had issued instructions to masters of ships arriving at the port of Hull, containing particulars of the regulations issued by the Local Government Board. The jurisdiction of port sanitary authorities should be strictly defined. Cases, if imported along the coast line, must be dealt with in whose jurisdiction it occurred.

MEDICAL SICKNESS, ANNUITY, AND LIFE ASSURANCE SOCIETY.

Tenth Report of the Committee to the Members for the Year ending June 30th, 1893.

Gentlemen,—In presenting to you the tenth report of the proceedings of the Society for the year ending June 30th, 1893, your Committee have again the pleasure of congratulating you upon the success which has been achieved. The sound financial position which the Society has attained is shown clearly in the accompanying accounts, and it is a source of great satisfaction to us to feel that such accounts, showing the results of nearly ten years' working experience, leave no room for doubt that our business was founded upon a perfectly secure basis, and that the method in which it has been conducted is economical and safe. It is, however, with still greater satisfaction that we are able to inform you that we are constantly receiving evidence that the money which we pay away is doing the work it was intended to do, and that the value of the benefits which the Society confers upon those of its members who are entitled to them is even greater than was at first anticipated.

Numerical Progress.—During the year no fewer than 163 new proposals for membership were received, of which 145 were accepted and completed. This is considerably above the average number received during the last few years, and affords gratifying evidence that the benefits of the Society are becoming better known to the members of the profession. Of these proposals it was found necessary to decline 15 only, and as only those in perfect health are accepted, it is evident that the proposals were received from an excellent class of lives. In fact, the preliminary forms required to be filled up before a new membership can be entertained are so drawn as to make it difficult that any really bad lives shall be offered. The net number of new memberships is, therefore, 145, and this, added to the number of members at the beginning of the year, under review, makes a total of 1,377. On the other hand, 50 memberships have during the year fallen through from various causes—namely, 38 have lapsed by the non-payment of the subscription, 3 members have withdrawn after having received a consideration for their certificates in the shape of a cash surrender value, and 9 have died. In this latter number was 1 member who, actuated by the generous desire to avoid coming upon the funds of the Society until compelled to do so, struggled, it is feared, against his disease too long, and died within a fortnight of his declaring on the Sick Benefit Fund. The net result is that the present number of members is 1,327, showing an increase of 95 on the number at the beginning of the year.

Financial Statement.—The accounts (appended to the Report) will be found to show the very sound condition of the finances of the Society. The corresponding figures of the accounts of the previous year are placed at the side of the amounts for this year, so that a comparison between them is rendered easy. It will be seen that each department of the Society's business shows a large increase during the year.

Circumstances having arisen which render it difficult to ascertain the exact value of the investment of £2,000 made by the Society in the bonds of the South Staffordshire Mines Drainage Commissioners, the Committee have resolved to write off the whole amount, placing it in a suspense account until a favourable opportunity of realising occurs. As is shown in the accounts, the amount is replaced from the savings in the management fund.

Sickness and Accident Fund.—This is by far the most important branch of the business, as the Society was founded principally with the view to assure against losses occasioned by disabling illness. The outgo in this department is necessarily very fluctuating in amount, and for the last three years has been materially affected by the epidemic of influenza. The following statement shows the amount paid away as sickness benefit in each quarter during the last five years:—

Year.	Members.	First Quarter, ending September 30th.	Second Quarter, ending December 31st.	Third Quarter, ending March 31st.	Fourth Quarter, ending June 30th.
		£ s. d.	£ s. d.	£ s. d.	£ s. d.
1888-89	985	390 8 0	545 2 0	560 6 6	650 6 6
1889-90	1,067	504 13 6	631 10 0	1,194 16 6	541 17 6
1890-91	1,145	607 8 6	642 9 0	825 13 6	1,184 0 8
1891-92, ...	1,232	780 13 6	708 1 6	1,190 0 6	1,044 15 9
1892-93	1,328	662 6 6	803 12 6	922 11 6	933 9 6

Although the influenza epidemic has largely subsided, it is responsible for 49 of our sickness claims during the last twelve months, and caused a total of 115 weeks 6 days' illness, at a cost to the Society of £443 2s., showing an average duration of illness of 2 weeks 2 days. In the previous year the sick claims arising from influenza were 123 for 245 weeks 2 days, and caused an expenditure of £891, showing an average duration of illness of 2 weeks. We are justified, therefore, in hoping that for the present we have seen the worst of this scourge.

The rules of the Society as to the supervision of the admission of new members are so strict and so rigidly adhered to that, during the first few years of its operations, the fact that the sickness expenditure was less than that provided by the tables was not surprising; but the Society is now in its tenth year of work, and it is gratifying to find that, although in the case of the bulk of its members what is known as the advantage of medical selection must have almost if not entirely ceased, yet the sick claims are within the amount provided for.

The total number of sickness and accident claims during the year under review was 227 for 1,057 weeks 6 days, being

27 weeks 3 days less than in the previous year. As the members are scattered over all parts of the United Kingdom, they are exposed to a great variety of risks, and the result is shown in the very varied nature of the causes producing the claims on this fund. Thus, in the year under review, we have had, as already stated, 49 cases of influenza, 11 from rheumatism, 11 from bronchitis, 11 from tonsillitis, 7 from catarrh, 4 from phthisis, 3 from pneumonia, and no fewer than 20 from accidents. The accident claims are, for the most part, received from country members, who are specially liable to injury when riding or driving. The remainder of the sickness claims arise from such various causes that it is difficult to classify them. Some arise from the special risks to which medical men are exposed in the work of their profession; but these are to some extent counterbalanced by the precautions which they take.

The following statement shows the proportion between the sickness provided for and experienced for the twelve months ending June 30th, 1893:

	Full Pay.		Half Pay.		Total.	
	Weeks.	Days.	Weeks.	Days.	Weeks.	Days.
Sickness provided for.....	1,237	0	380	8	1,617	0
,, experienced	794	2	263	4	1,057	—
Margin.....	442	5	116	3	559	1

The sickness premium received during the year amounted to £7,847 3s. 3d., as against £6,853 14s. in the previous twelve months, and the interest received was £1,103 5s. 7d., as against £635 17s., showing an increase of £993 9s. 3d. of premium, and of £467 8s. 7d. of interest on the year. The total increase in the Sickness Fund was £5,623 8s. 10d., as against £3,736 19s. 8d. in 1891-2. The amount paid for sickness has been £3,327, as against £3,723 10s. 6d. in the previous year, showing a diminution of £396 10s. 6d., due mainly to the subsidence of the influenza epidemic.

It is proposed that, subject to their furnishing satisfactory evidence of health, and paying an adequate additional premium, members of five years' standing shall be allowed to increase their sick benefit to £6 6s. per week.

Annuity and Life Assurance Funds.—The annuities secured by the Society's certificates are not payable until the members attain the age of 65 years. No payments of annuity have as yet become due. During the year three members surrendered their annuity contracts, and received surrender allowances. In the life assurance department a claim for £200 was caused by the death of one of the original members of the Society, and this amount was paid to his representatives. The business done has been very small, and it has been felt for some time that the limitation placed to the operations of the terms of Friendly Society Acts renders it inadequate to meet fully the wants of the members in this branch of the business. By the provisions of these Acts the Society cannot secure to its members a larger sum at death than £200, nor a deferred annuity for more than £50 per annum, while, on the other hand, the many advantages enjoyed by a friendly society in the way of immunity from stamp charges, etc., render it undesirable that the constitution of the Society should be changed. Arrangements are, therefore being made by which the Society will act as agents to a first-class life insurance company. Under this arrangement any member who wishes for a life assurance for a larger amount than £200, or for a deferred annuity for more than £50 per annum, can obtain this through the Society as agents for the life insurance company. No liability of any kind attaches to the Society in respect of this arrangement, as the life insurance company will issue its policies direct to the assuring members. Under a special arrangement with the life insurance company a rebate of 5 per cent. will be made to the assured under these policies, who will thus derive a special financial advantage from insuring through the agency of this Society. It is hoped that many of the existing members of the Society will avail themselves of the opportunity thus offered to them, and will effect, through the agency of the Society such more extended life and deferred annuity assurances as they may require.

Management Fund.—The total expenses of management been £648 19s. 5d., being £56 16s. 8d. in excess of last year. As the bulk of the business increases it necessarily follows that the cost of managing it must increase in about the same ratio; but in the year under review the expenses have been somewhat abnormally increased by the cost of changing the offices and the consequent purchase of new furniture, fittings, etc. After allowing for this, it will be found that the expenditure is somewhat less than that of last year if measured as a percentage on the premium income. After deducting the entrance fees and the fees charged for second notices and acknowledgments of assignments, in all amounting to £92 3s., the net expenditure is £556 16s. 5d., or £4 3s. per cent. on the premium income of £13,442 16s. 4d.; whilst by the same method of calculation the percentage of the previous year is found to be £4 6s. By the rules, 10 per cent. of the premium income is set aside for management expenses; but as less than half this amount has been hitherto found sufficient under the economical system of management adopted, it follows that a large surplus has been formed in the Management Fund.

As the accounts show, this fund now amounts to £3,173 1s. 5d., and this large sum might be treated as divisible profit, but to further secure continued financial stability the Committee have decided that, subject to the concurrence of the members, a portion at least of this should be permanently placed to an Investment Fluctuation Reserve Fund, and that such fund should be increased year by year, by any amount of interest received from the invested funds over the amount assumed in the valuation, namely, 2½ per cent. In face of the fact that the difficulty of obtaining even a moderate rate of interest from first-class investments is increasing, the Committee are strongly impressed with the desirability of forming and maintaining such a reserve fund.

Growth of Reserves.—The financial strength of the Society is perhaps most clearly shown in the steady growth of the reserve. During the last year the funds have increased from £56,901 4s. 8d. to £66,369 5s. 4d., showing an increase of £9,468 0s. 8d., this being the largest increase in funds that has been made in any year. The following statement shows the amount of the funds at the end of each year, with the annual increase from the commencement of the Society to the present time:—

Date.	Amount of Reserves.	Annual Increase.
	£ s. d.	£ s. d.
June 30th, 1884.....	1,434 16 3	—
,, 1885.....	6,433 0 10	4,998 4 7
,, 1886.....	11,330 7 6	4,897 6 8
,, 1887.....	17,645 3 0	6,314 15 6
,, 1888.....	24,694 17 9	7,049 14 9
,, 1889.....	32,561 13 0	7,866 15 3
,, 1890.....	40,459 13 10	7,898 0 10
,, 1891.....	48,766 0 9	8,306 6 11
,, 1892.....	56,901 4 8	8,135 3 11
,, 1893.....	66,369 5 4	9,468 0 8

It is our duty to again point out to the members that the gratifying success of our Society is largely due to the generous zeal and energy evinced by the officers and committees. The amount of time and labour that is freely given to the service of the Society by the gentlemen connected with it is exceedingly large, and it would be impossible, within the limits at our disposal, to give anything like a detailed account of it. To Dr. de Havilland Hall we are indebted for a careful perusal and examination of every new proposal and every claim that is submitted to the Society, and in this way the labours of the Executive Committee are appreciably lightened. The Committee also wish to take this opportunity of thanking those members of the profession who kindly examine and report with much care upon special cases for the Society, the more so as it frequently happens that these gentlemen are not directly connected with the Society. They also wish to express their indebtedness to the Medical and Insurance Press, and especially to the British Medical Journal, to which journal the Committee feel that the members owe a great debt of gratitude.

The post of Secretary to the Society having become vacant by the resignation of Mr. C. J. Drummond on his obtaining a Government appointment, the Committee carefully considered the numerous applications they received for the post. Feeling that it was very desirable that their chief officer should possess the actuarial knowledge so often necessary in conducting a business of this description, their choice eventually fell on Mr. Francis Addiscott, F.I.A., who, as a Certificated Fellow of the Institute of Actuaries, and an insurance officer of great experience, seemed to them the most suitable candidate, and they anticipate that this appointment will meet with general approval.

They also considered that it would be convenient to the members that the registered address of the Society should be in a more central position than heretofore, and with this view have taken an office at No. 33, Chancery Lane, London, W.C. This arrangement will greatly facilitate the operations of the rapidly-growing business of the Society, and its advantages are already felt.

It is accordingly proposed to amend Rule 1 by reciting therein the new registered address of the Society.

We have once more to call the attention of the members to the duty they owe both to themselves and to the profession of assisting the spread of the sphere of usefulness of this Society by introducing new members. At almost every meeting of the Committee evidence is before them that the benefits of this Society are very deeply felt and keenly appreciated by those who enjoy them, and there can be no doubt that there are many members of the profession who would gladly avail themselves of them if they were brought under their notice. To the younger members of the profession in particular the value of membership in the Society can scarcely be overrated, for by joining the Society at an early age they secure the payment of a low rate of premium, while to them the timely aid it affords in emergencies may be of vital importance. We are, of course, in no sense in need of new members, but it is evident that the larger the business becomes the smaller will be the rate of expenditure at which it can be worked, and thus all interests are served by adding to the number of those who are members of the Society.

Signed by order of the Committee,
Ernest Hart, Chairman.
F. Addiscott, Secretary.

33, Chancery Lane, London, W.C., July 19, 1893.

REPORTS
ON
MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

MANCHESTER ROYAL INFIRMARY.

TWO CASES OF ABDOMINAL SECTION FOR INTESTINAL OBSTRUCTION.

(Under the care of Mr. Southam.)

[From notes taken by Mr. Hooton, House-Surgeon.]

Case I. *Strangulation by a Band: Abdominal Section: Recovery.*—F. T., aged 13, was admitted on the evening of May 8th, 1893, with the following history: Nine days previously, while at work, he was seized with pain in the abdomen. The following evening sickness set in, and continued up to admission. There had been no action of the bowels for six days. The morning after admission the patient was extremely collapsed. Temperature 97°; pulse 104, small and thready. Expression very anxious. During the night he had been sick several times, the vomited matter being distinctly fæcal. There was no distension of the abdomen and no rigidity of the abdominal muscles. He complained of slight pain, most marked in the region of the umbilicus, and there was general tenderness upon pressure. No fulness or swelling could be felt on palpation, though there was gurgling on pressing over the right iliac fossa. Dr. Wilkinson examined the patient with Mr. Southam, and, though the nature of the obstruction was obscure, it was resolved to explore the abdomen, in spite of the fact that the patient's condition was not favourable for any operation.

May 9th. Laparotomy was performed by the usual median incision. On introducing the finger into the abdomen a small mass of enlarged glands could be felt deep down in the middle line, at a point on a level with the umbilicus. There was no evidence of peritonitis, but constricted by a narrow band, which ran from the vicinity of the glands to an adjacent portion of the mesentery, was a congested coil of small intestine several inches in length. The band was easily broken down with the finger, the bowel liberated, and the abdominal wound then closed. The patient made an uninterrupted recovery, the wound being healed when it was dressed for the first time upon the seventh day. There was no sickness after the operation, the bowels acting naturally on the fifth day.

Case II. *Perforative Appendicitis: Diffuse Suppurative Peritonitis: Abdominal Section: Death.*—W. S., aged 16, was admitted on March 15th, 1893, suffering from symptoms of obstruction of the bowels. Six days previously, being in perfect health, he went to his work as usual, the bowels having acted naturally the same morning; in the course of the afternoon he was seized with pain in the abdomen, followed by sickness, which continued till admission. When he came under observation on the sixth morning after the first onset of the symptoms, there had been no action of the bowels and no passage of flatus for six days; the pulse was quick and wiry, and the temperature was normal; his face had the characteristic expression typical of acute peritonitis. The abdomen was slightly distended, the abdominal muscles being very tense and rigid. There was general tenderness on pressure, not more marked over the right iliac fossa. No perceptible fulness or localised swelling could be distinguished at any part, and an examination by the rectum gave negative results. The vomiting continued, but had not become fæcal. As the symptoms were those of complete obstruction, accompanied by acute peritonitis, it was resolved to explore the abdomen in the hope that some condition might be found capable of relief by operation. On opening the abdomen in the median line there was an escape of fœtid pus, which welled up from all parts, but especially from the right iliac fossa. The intestines were congested and matted together by deposits of lymph, most abundant in the neighbourhood of the cæcum. The peritoneal cavity was thoroughly irrigated with hot boric lotion, and a large glass tube inserted in order to provide for drainage. The patient never rallied from the operation, and died the following day. At the necropsy pus was found diffused throughout the entire peritoneal cavity, and in many places there were distinct collections of pus encysted between adjacent coils of intestine. On examining the appendix a perforation was found close to its origin from the cæcum, and lying outside it there was a small hard concretion which had evidently ulcerated through its walls.

Remarks by Mr. Southam.—Case I is a good example of the advisability of exploring the abdomen in cases of intestinal obstruction which have resisted treatment, and it illustrates well the success which usually attends surgical interference when not employed too late and when the obstruction is due to a mechanical cause which can be removed by operation. An interesting feature in Case II, where the obstruction was the result of paresis of the bowel, was the absence of any history or of any local signs to indicate that the vermiform process was the part primarily affected. It also illustrates the rapidity with which pus may form as well as the unsatisfactory results which so often follow surgical interference under these circumstances; for though the abdomen was opened on the sixth day after the first onset of symptoms and immediately after the patient's admission into hospital it was practically impossible to thoroughly drain the peritoneal cavity, as, in addition to the diffuse suppuration, there were numerous collections of pus encysted between coils of intestine.

Mr. H. Frazer Hurst, of Walker-on-Tyne, has been appointed to the Commission of the Peace.

The Croydon County Council have resolved to erect a new fever hospital in the borough at a cost of £23,000.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF EDINBURGH.

GRADUATION CEREMONIAL.—The annual medical graduation ceremonial took place on Tuesday, August 1st, in the Synod Hall. The Vice-Chancellor, Sir William Muir, presided. The degree of LL.D. was conferred on Geheimrath Professor Dr. Arthur Anwers, of Berlin (*in absentiâ*); John Sutherland Black, M.A., Edinburgh; Sir Stuart Knill, Lord Mayor of London; Henry Duncan Littlejohn, M.D., F.R.C.S., Edinburgh, Public Health Officer for the City, and President of the British Institute of Public Health.

The Degree of M.D. was conferred on the following 60 gentlemen, to whose names are appended the names of their theses: * R. Abernethy, Scotland, M.B., C.M., 1888; A Case of Locomotor Ataxy, with a Discussion of some of its Clinical Features and Pathological Anatomy. *T. S. Balfour, Scotland, M.B., C.M., 1890; Hemorrhage from the Uterus before and after Labour. **J. Barrie, Scotland, M.B., C.M., 1884; on Typhoid Fever. *W. L. Bell, Scotland, M.B., C.M., 1887; Acute Croupous Pneumonia in Children. W. A. Betts, England, M.B., C.M. (with Second-Class Honours), 1888; The Etiology and Treatment of Lateral Curvature of the Spine. **J. L. Bogle, England, M.B., C.M., 1873; The Prevalent Diseases of the Upper Karroo; their Etiology and Relative Frequency. ***F. D. Boyd, Scotland, M.B., C.M., 1888; Some Points in the Pathology of the Albuminuria. *J. E. Brandt, Madeira (B.A.), M.B., C.M., 1890; Motor and Sensory Aphasia. *R. Broadbent, England, M.B., C.M., 1888; Diabetes Mellitus. D. W. Brown, England, M.B., C.M., 1887; Treatment by Intra-laryngeal Injections. *E. C. Carter, England, M.B., C.M. (with First-Class Honours), 1887; The Nature of Secondary Malignant Growth, as illustrated by a case of Melanotic Tumours. *J. Chaytor-Whyte, Ireland, M.B., C.M., 1887; A Commentary on Cholera Outbreak in India (*in absentiâ*). G. E. Clemons, Tasmania, M.B., C.M., 1891; Manual Osteoclasis in the Treatment of Deformities due to Rickets. *A. C. Coles, England, M.B., C.M., 1889; Observations on Myxœdema, with special reference to Pathological Conditions found in the Leucocytes. F. J. W. Cox, Scotland, M.B., 1881; Some of the Aural Complications of Influenza. *H. Dobie, England, M.B., C.M., 1889; A Study of the Histology of Certain Skin Diseases. A. P. Drummond, Scotland, M.B., C.M., 1883; Hæmatemesis, with special reference to that form met with in early adult female life. W. Everrett, England, M.B., C.M. (with Second-Class Honours), 1889; Traumatic Insanity. **W. Fordyce, Scotland, M.B., C.M. (with First-Class Honours), 1888; Intrauterine Ascetis: its Obstetrical Significance and Pathology. **F. Gourlay, Scotland, M.B., C.M., 1891; Some Notes on the Thyroid and the other Ductless Glands, together with some Original Experiments to discover the nature of the Thyroid Tissues and Secretion; also, Report of a Case of Myxœdema successfully treated by Thyroid Feeding. W. Harding, England, M.B., C.M., 1881; Chorea and Rheumatism. *R. E. Horsley, Australia, M.B., C.M., 1885; Chronic Nasal Catarrh (Rhinitis Chronica): a Consideration of its Varieties, Pathology, Etiology, and Complications, with some Remarks upon the Methods of Treatment now in vogue. G. Hoyle, England, M.B., C.M., 1873; The Diagnosis and Treatment of Intestinal Obstruction. *H. G. Huie, Scotland, M.B., C.M., 1890; Myxœdema and Sporadic Cretinism, with Special Reference to their Treatment with Thyroid Juice. H. H. Johnston, Scotland, M.B., C.M., 1880; The Relation between Malarial Fever among Her Majesty's White Troops at Port Louis, Mauritius, and the Meteorological Elements of Temperature, Rainfall, and Relative Humidity for the Year 1889, with a Preliminary Sketch of the Medical Topography of the Island and the Epidemic of Malarial Fever in 1866-67. T. L. Kennish, England, M.B., C.M., 1888; The Therapeutical Value of Physiological Rest in the Treatment of Disease. L. J. Lamrock, Australia, M.B., C.M., 1891; Rickets: the Clinical Characteristics, Complications, and Treatment of the Disease. *W. T. Lundie (M.A., B.Sc.), Scotland, M.B., C.M., 1888; Neuropathic Œdemas. *S. G. M'Allum, India, M.B., C.M., 1889; Phthisis Pulmonalis in the Insane. W. C. M'Ewan (M.A.), Scotland, M.B., C.M., 1884; Appendicitis. *J. W. Martin, England, M.B., C.M., 1887; Notes of Cases of Snake-bite, with Remarks on the More Recent Methods of Treating Snakebite in Australia (*in absentiâ*). A. S. Miller, Scotland, M.B., C.M., 1890; Acute Pneumonia; a General View of the Teaching on the Subject, with Observations on the Use of Inhalations of Oxygen and the Hypodermic Injections of Strychnine in the Treatment of the Disease. *R. A. Murray, Scotland, M.B., C.M., 1879; Some Surgical Experiences. *F. C. Nicholson, Australia, M.B., C.M., 1869; Cholera and its Treatment (*in absentiâ*). *W. B. Orr, Scotland, M.B., C.M., 1888; Lupus Elephantiasis. M. Paterson, Scotland, M.B., C.M., 1885; Principles of Expression. **W. E. Porter, England, M.B., C.M., 1883; Studies in Vital Statistics, more especially those relating to the Middle Classes, and chiefly based upon figures collected from the Column of Births, Marriages, and deaths in the London *Daily Telegraph* during the years 1888 and 1889. *G. H. Prance, England, M.B., C.M., 1891; Epidemis Dermatitis Exfoliativa. W. Richards, England, M.B., C.M., 1884; The Diseases of Brass Workers. *R. Richmond, England, M.B., C.M., 1888; Analysis of the Causes of Death in an Essex Rural District, and an Examination of its Vital Statistics during the Ten Years 1881-90, with Remarks upon the Occurrence of Infectious Disease (*in absentiâ*). S. Riseley, England, M.B., C.M., 1891; Detachment of the Retina; its Pathological Anatomy, Causation, and Treatment. H. L. Roberts, England, M.B., C.M., 1887; Introduction to the Study of the Mould-Fungi Parasitic in Man. W. I. Robertson, Scotland, M.B., C.M., 1890; on the Treatment of Malignant Growths in relation to what is believed as to their cause. E. Robinson, England, M.B., C.M., 1872; Resumé of an Epidemic of Measles, combined with a strong Scarlatina Element (Rötheln), and the proof of such in the sequelæ thereof. R. S. Rogers (B.A.), Australia, M.B., C.M., 1887; Some Protean Aspects of Hysteria (*in absentiâ*). *F. W. F. Ross, Jamaica, M.B., C.M., 1889; The Infantile Alimentary Tract a Sinus (*in absentiâ*). *A. Rowland, M.A., B.Sc., Scotland, M.B., C.M. (with Second-Class Honours), 1887; Insanity in Adolescence: its Forms, Causes, Prevention, and Treatment. ***J. S. R. Russell, Demerara, M.B., C.M., 1886; An Experimental Investigation of the Nerve Roots which enter into the formation of the Limb Plexus of the Dog and Monkey. G. S. Samuelson, Australia, M.B., C.M., 1888; Some Etiological Factors of Health; a Clinical Study (*in absentiâ*). J. F. Scott (B.A.), America, M.B., C.M., 1888; Hydrothionuria, or the Phenomenon of Sulphuretted Hydrogen Gas in Urine; a Review of the Literature (*in absentiâ*). A. Sellers, England, M.B., C.M. (with Second-Class Honours), 1886; The Value of Oxygen Gas in the Treatment of Disease. E. W. Skinner, England, M.B., C.M., 1885; Diphtheria as observed in Certain Parishes in East Sussex, with Special Reference to its Origin. ***J. L. Smith (M.A.), Scotland, M.B., C.M., 1889; Thyroidectomy and Respiratory Exchange: a Contribution to the Pathology of Myxœdema. **G. A. Sutherland (M.A.), Scotland, M.B., C.M., 1886; Scurvy in Children. J. F. J. Sykes, England, M.B., C.M., 1878; An Inquiry into an Outbreak of Enteric Fever and the Dissemination of the Disease by Infected Steam Vapours. E. E. Taylor, England, M.B., C.M., 1889; Senile Gangrene, with illustrative cases. ***J. C. Taylor, England, M.B., C.M., 1884; The Health Resorts of the Canary Islands (*in absentiâ*). ***W. E. F. Thomson (M.A.), Scotland, 1889; The True Position of Oxygen as a Restorative in Carbonic Acid Poisoning. C. E. Walker, England, M.B., 1878; On some Diatheses and their bearing upon Practical Medicine. *R. J. E. Young, Scotland, M.B., C.M., 1891; A Treatise on Bloodletting (general and topical) Historically, Theoretically, and Clinically Considered from the Physician's Standpoint (*in absentiâ*).

*** Those who have obtained gold medals for their dissertations.

** Deemed worthy of competing for the dissertation gold medals.

* Commended for their dissertations.

The degree of Doctor of Science in Public Health was conferred on the following gentlemen:

E. H. Ezard, M.D., B.Sc. Thesis—"Notes on some Points in connection with Erysipelas." J. Howard-Jones, M.B., B.Sc. Thesis—"The History of the Cholera Epidemic in Europe, 1892." J. F. J. Sykes, M.B., B.Sc. Thesis—"Public Health Problems." J. B. Young, M.B., B.Sc. Thesis—"On the Chemical and Bacteriological Examination of Soil: with special reference to the Soil of Graveyards."

The degrees of M.B. and C.M. were conferred on the following 216 gentlemen:

W. A. J. Alexander, M.A., G. B. Anderson, W. Anderson, W. C. Anderson, M.A., G. J. Auburn, R. Ballantine, J. T. Balmford, H. P. Barlow, W. D. Barrow, F. W. Barton, D. H. Beegling, B.A., J. B. Bell, W. B. Bell, H. P. Bennett, J. G. F. Bent, W. T. Blackledge, J. Blyth, M. R. Bow, A. S. Boyd, C. W. Branch, A. H. Buchan, M.A., J. M. Buist, J. C. Caldwell, A. W. C. Cameron, P. Campbell, F. Cargill, A. B. Carvosso, B.A., H. W. Case, J. G. Cattanach, W. Catto, M.A., W. R. Center, J. E. A. Chatelier, D. N. Chatterjee, B.A., C. Christy, J. Clark, T. A. Clinch, G. A. Cohen, G. P. Coldstream, R. A. G. Constantian, H. O. Corfield, J. N. Craig, G. P. Crerar, **C. Crerar, D. B. Crerar, A. Croll, D. R. Crow, N. C. Das, A. Dennison, G. R. Denton, C. B. Dobell, J. K. Drysdale, **J. B. Duff, *R. C. Dun, J. D. Duncan, R. W. Duncan, T. Dunlop, J. C. Dunn, *G. H. Dupont, **A. M. Easterbrook, E. C. Edwards, S. Evans, T. Farthing, D. M. Ferguson, J. L. Ferris, P. D. Fick, D. Findlay, A. M. Fleming, W. E. Foggie, M.A.; A. W. Forrest, A. Foster, **W. E. Fothergill, M.A., B.Sc.; J. A. Foulis, D. P. Foulkes, R. A. Fox, A. M. Fraser, J. G. Fraser, R. W. Fraser, A. Gardner, T. Gibson, H. B. Gladstone, C. S. Glegg, J. H. Glover, T. G. Goldie-Scot, F. T. Gourlay, S. D. Graham, J. T. Grant, H. Grey, A. Gwyther, W. T. Hall, W. C. Hamilton, R. Hanton, C. Hardcastle, T. B. Hearder, G. Hodges, *C. A. Hogg, R. Hoggan, C. W. Holme, J. Hume, G. P. Humphery, **R. Hutchinson, J. W. Hyslop, E. W. J. Ireland, W. R. Jackson, M.A.; R. C. Jameson, W. E. Jameson, T. J. Jehu, R. Kenyon, *C. Kerr, C. T. C. Kingdon, J. Kippax, W. C. C. Kirkwood, L. F. B. Knuthsen, F. W. Langton, B.A.; J. A. Lee, E. S. Lewer, F. Lishman, G. O. M. Lunt, W. F. M'Allister-Hewlings, G. A. Macdonald, H. M'Donald, A. W. J. MacFadden, G. MacGibbon, J. A. Mackenzie, A. Mackintosh, H. J. Mackintosh, J. D. P. M'Latchie, J. D. Maclean, J. D. M'Millan, *J. G. M'Naughton, A. M'Neill, B.A.; A. Macnicol, P. W. MacVean, **R. H. Makgill, R. B. Marjoribanks, J. Marsh, R. B. Martin, A. C. Matchett, R. M. Matheson, J. C. Maxwell, M.A.; W. Millar, T. B. Moore, B.A.; A. H. Moorhead, J. M. Morris, M.A.; S. G. Morris, C. G. Murray, D. Murray, D. G. Newton, J. D. Noble, L. S. F. de R. Norman, G. W. Park, C. H. Passman, **J. V. Paterson, M.A.; F. R. Patterson, J. Pearse, J. Penny, A. Philip, G. Phillips, J. C. Potter, R. H. Price, G. L. K. Pringle, S. W. Prowse, B.A.; E. B. Purdon, G. M. Rae, M. B. Ray, J. Reinch, R. Rendall, R. Riddell, A. Robertson, W. Robertson, E. Robinson, J. B. Robinson, L. N. Robinson, F. W. H. Robson, J. E. Rogers, R. Rosie, W. A. Rutherford, S. M. J. Saliba, C. E. Salt, M. Sandeman, M.A.; H. Schmitz, H. Scott, W. E. Scott-Moncrieff, J. P. Silver, B.A.; A. H. H. Sinclair, A. A. S. Skirving, G. Smith, M.A.; J. Sorley, M.A.; St. J. Stanwell, A. P. Steavenson, *J. Steed, J. W. Stenhouse, C. P. Stewart, **D. W. Sutherland, J. M. Sutter, *J. Tennant, M.A., G. St. C. Thom, D. Thomas, M.A., E. S. T. Towert, W. B. Turnbull, H. W. Vaughan-Williams, *H. Walker, M.A.; J. G. Walker, H. S. Walsh, E. E. Waters, F. H. Watling, R. H. Watson, M.A., T. Watson, W. T. Wearing, **D. A. Welsh, M.A., B.Sc.; T. R. Williams, R. A. Wilson, T. Yeates, *J. B. Yeoman, Z. M. Zorab.

** Means first-class honours. * Means second-class honours.

The degree of Master in Surgery was conferred on C. E. Walker, M.B. 1878.

The degree of Bachelor of Science in Public Health was conferred on the following gentlemen: W. E. Haworth, M.B., C.M.; J. M. Hobson, M.D. (*in absentiâ*); H. H. Johnston, M.D.; J. Macmillan, M.B., C.M.; C. K. Millard, M.B., C.M.; D. Ritchie, M.D.; J. Wallace, M.B., C.M.; J. R. Whait, M.B., C.M.

The following fellowships, scholarships, and prizes were awarded: The Ettles Scholarship was awarded to Robert Hutchison, M.B., C.M.; the Beaney Prize in Anatomy and Surgery was awarded to Hugh Walker, M.A., M.B., C.M.; the Syme Surgical Fellowship was awarded to William Menzies Hutton, M.B., C.M.; the Murchison Scholarship in Clinical Medicine was awarded to David Arthur Welsh, M.A., B.Sc., M.B., C.M.; the Gunning Victoria Jubilee Gregory Prize in Practice of Physic was awarded to Robert Main Horne, M.B., C.M.; the Gunning Victoria Jubilee Joseph Black Prize in Chemistry was awarded to Theodore Rettie, B.Sc.; the Buchanan Scholarship in Gynæcology was awarded to William Edward Fothergill, M.A., B.Sc., M.B., C.M.; the James Scott Scholarship in Midwifery was awarded to Alexander Maitland Easterbrook, M.B., C.M.; the Milner Fothergill Gold Medal in Therapeutics was awarded to William George Aitchison Robertson, M.D., D.Sc.; the Wightman Prize in Clinical

Medicine was awarded to James Pearse, M.B., C.M.; the Dobbie-Smith Prize in Botany was awarded to Thomas Duncanson Sadler.

The usual address to the Graduates was given by Professor Grainger Stewart. After congratulating the new graduates he pressed on them the importance of the duties to which they were now called, the necessity for constant reading and study, and enumerated some of those qualities and faculties which constituted the *mens medica*. These were habits of observation, good memory, correct intuition, a kindly and sympathetic nature, resolute will, tact, a reverent habit of mind, reverence for facts, reverence for man, and reverence for God. That was the physician who would get and keep the confidence of his patients. He concluded by some general advice, illustrated by quotations from Shakespeare and Burns.

The Lord Mayor of London, the Lord Mayor of Dublin, and the Lord Provost of Edinburgh, attended in State.

The following is the official list of candidates who passed the first and second professional examinations last month:

First Professional Examination.—F. T. H. Adamson, B, C. R. Aldren, J. Allison, E. B. Anderton, R. W. Anthony, E. Arkwright, F. G. Ballantyne, J. H. Bam, T. Biggam, R. B. Black, H. F. Boland, L. Boyer, G. M. Bucher, H. N. Bundey, B. W. Burwood, C. A. Brugman, H. N. Chambers, G. L. Chiene, T. S. Church, C. B. Clarke, E. F. Coghlan, R. Craven, T. W. A. Daman, J. L. Davis, D. C. Dickson, J. Donaldson, J. Dorman, J. F. Falconer, G. L. Findlay, D. L. Fisher, A. W. Fletcher, J. G. Forbes, J. Forrest, J. G. Forsyth, W. H. Fowler, A. F. Fraser, J. Fraser, J. M. Fraser, G. Gatenby, A. Gibson, J. C. Hamilton, W. Hamilton (with distinction), F. S. Harper, W. G. Heath, P. T. Herring, R. P. Hill, H. O. Hobson, G. B. Hollings, O. Horrocks, C. H. Johnson, J. M. Johnson, A. H. Keun, I. Khan, E. Laval, A. M. Limont, G. H. List, J. D. Lithgow, A. M. Little, J. S. Lyle, A. B. MacCarthy, A. J. M'Clymont, J. D. M'Crindle, I. L. MacInnes, J. W. M'Intosh, G. M'Kellar, T. D. M'Laren, C. C. Macmillan, J. Malcolm, H. Malcolmson, W. Martin, T. M. Metcalfe, W. M. Milne, F. W. More, J. H. R. Morrow, W. Mowat, J. Muir, J. C. Noronha, N. Oliphant, M. J. O'Shea, G. H. Parry, J. K. Paterson, J. H. P. Paton, J. H. Patterson, T. H. Pemberton, E. E. Porritt, F. W. Price, A. E. Richard, J. Richards, R. G. Riddell, A. A. Robinson, G. Sander, J. T. Scott, G. S. Small, H. W. Smith, W. R. Somerset, J. F. Stewart, J. W. Struthers, J. P. Sturrock, M.A., H. V. Taylor, G. C. Thomas, H. M. Traquair (with distinction), T. B. Unwin, W. J. Veecock, G. A. Vincent, C. P. B. Wall, D. Wallace, D. C. Wallace, A. White, F. M. Willcox (with distinction), J. R. Williamson, W. M. Wilson.

Second Professional Examination.—H. de M. Alexander, G. Anderson, J. Anderson, J. W. Anderson, W. B. Anderson, A. W. M. Auden, B.A., H. Bateson, A. S. F. Birrell, A. Bremner, E. E. Brierley, C. S. Cantrell, P. F. Chapman, G. P. P. Clapham, H. M. Crosby, R. Cross, E. R. Dodds, H. Downes, E. A. W. English, H. J. Ewald, D. A. Farquharson, J. A. Featherstone, R. W. L. Fernandes, A. N. Fleming, J. S. Flett, H. Forrester, R. M. Freer, W. A. Gibb, A. J. Gibson, J. A. Gibson, C. F. Giddy, W. Glegg, T. A. Glover, J. O. Goldie, R. Grieve, J. H. K. Griffiths, W. Haig, S. H. Hall, R. P. Heddle, E. R. Holmes, M. Hughes, J. A. Hunter, D. M. Hutton, B.Sc., J. H. Inman, L. V. Jacques, J. K. Jamieson, G. J. Jenkins, A. L. Jones, D. J. Jones, T. H. Jones, J. G. Kay, J. W. Keighley, J. I. Kelly, T. B. Kenny, J. Landsborough, D. Lawson, M.A., W. Leslie, H. L. Lewis, A. C. Lupton, S. F. Lusk, R. M'Cannon, C. J. R. Macfadden, J. A. Macfarlane, G. W. M'Intosh, J. C. Mackenzie, W. H. Mackenzie, J. Mackinnon, G. D. M'Rae, W. Mailer, J. G. Masson, S. Messulam, A. Mitchell, C. H. D. Moore, R. O. Morris, M.A., P. J. Munn, H. V. Munster, A. G. Naylor, A. J. M. Paget, J. M. N. Paton, C. W. Peach, T. C. Penfold, C. E. Potter, W. L. Pritchard, F. G. Proudfoot, M.A., P. M. Ragg, P. Rattray, J. C. Rees, W. P. Richardson, R. J. Riseley, R. G. Robson, T. E. E. Roddis, A. Rodger, L. Rose, M.A., R. A. Ross, V. A. Ross, J. Scott, R. S. Selby, P. D. Smith, S. H. Smith, W. A. Stephen (with distinction), W. L. Stevenson, T. Stuart, J. M. Taylor, C. G. Thompson, A. G. P. Thomson, M. L. M. Vaudin, G. D. de Waal, J. S. H. Walker, G. Wallace, M.A., F. T. Walmsley, T. E. Watson, E. C. Watts, E. T. Whitaker, A. R. Wilson, M.A., F. Wilson, W. de W. Wishart (with distinction), J. B. Wood, G. P. Yule.

UNIVERSITY OF LONDON.

Intermediate Examination in Medicine, July, 1893.—The following gentlemen have passed this Examination:

Entire Examination.—First Division: C. W. Alford, Middlesex and Gower Street Laboratory; H. L. Barnard, London; J. A. Belcher, University College; R. A. Bennett, Queen's and Mason College, Birmingham; J. H. Bodman, Bristol Medical School; J. A. O. Briggs, St. Bartholomew's; P. K. Byrne, B.A., University College; J. A. Clough, Yorkshire College; H. H. Greenwood, Yorkshire College; and J. Owen, Liverpool. Second Division: V. J. Blake, University College; L. W. Burrow, St. Thomas's; A. G. Butler, Guy's; F. J. H. Cann, Guy's; F. B. Carter, University College; G. A. Crace-Calvert, St. Bartholomew's; Rosina Clara Despard, London School of Medicine for Women; Adèle Isabella De Steiger, London School of Medicine for Women; H. P. Ferraby, Guy's; A. P. Gibbons, London; S. Gross, Leeds Medical School; E. W. H. Groves, B.Sc., St. Bartholomew's; W. Hardcastle, Charing Cross; P. H. Hayllett, Guy's; A. Heath, St. Bartholomew's; J. Hussey, St. Bartholomew's; F. S. Jackson, Owens College, Manchester; T. Lambe, University College; C. H. J. Lockyer, Charing Cross; Rachel E. W. Mackenzie, Edinburgh and London Schools of Medicine; J. P. O'Hea, St. George's and St. Bartholomew's; J. E. Phillips, University College; N. H. Pike, Guy's; E. Playfair, King's College; W. A. Savage, University College; J. C. Smellie, St. Mary's and Birkbeck Institute; E. A. Smith, St. Bartholomew's; G. U. Smith, King's College; J. C. Spillane, London; H. J. Spon, Guy's; E. S. Stork, University College; R. G. Strange, St. Thomas's; A. Tafel, Owens College, Manchester; E. Thomas, University College; H. E. Thompson, St. Bartholomew's; Margaret M. Traill-Christie, London School of Medicine for Women; P. C. E. Tribe, King's College; Ethel May Vaughan, London School of Medicine for Women; H. C. Watt, University College; and Mabel Elizabeth Webb, London School of Medicine and Bedford College.

Excluding Physiology.—First Division: F. H. Atkinson, Charing Cross; J. B. Brash, University College; T. R. H. Bucknall, University College; A. J. Martineau, St. Thomas's. Second Division: R. H. Ashwin, Guy's; J. F. Bill, St. Bartholomew's and Birkbeck Institute; T. Chave, St. Bartholomew's; M. W. Coleman, St. Bartholomew's; Frances Ede, London School of Medicine for Women; J. A. K. Griffiths, University College; J. H. Hugo, St. Bartholomew's; E. Pratt, St. Bartholomew's; A. R. H. Skey, St. Bartholomew's; C. F. Steele, Bristol Medical School and Clifton Laboratory, J. E. Steinhaeuser, Guy's.

Physiology only.—First Division: A. W. Jenkins, University College; R. M. Johnston, University College; J. E. Waite, University College. Second Division: W. Allport, Mason College, Birmingham; E. B. Bostock, Mason College, Birmingham; C. H. Caldicott, Mason College, Birmingham; A. D. Ducat, St. Bartholomew's; W. H. Holliday, Yorkshire College; D. Horwitch, Queen's and Mason Colleges, Birmingham; C. H. Mott, London; G. F. Murrell, St. Bartholomew's and University College; W. Smith, Bristol Medical School; M. Wilks, University College.

ROYAL UNIVERSITY OF IRELAND.

Faculty of Medicine: Summer, 1893.—The following candidates have been adjudged to have passed the First Examination in Medicine:

R. Ahern, Queen's College, Cork; W. L. Armstrong, Queen's College, Belfast; A. Birmingham, University College, Dublin; R. T. Booth, Queen's College, Cork; W. Cahill, Queen's College, Cork; J. A. Clarke, Queen's College, Galway; J. G. Corry, Queen's College, Galway; G. Douglass, Queen's College, Belfast; J. Duff, University College, Dublin; T. P. Flynn, Queen's College, Cork; J. R. Gillespie, (Sch.), Queen's College, Belfast; W. Hartnett, Queen's College, Cork; B. P. Healy, B.A., University College, Dublin; G. H. Henry, B.A., Queen's College, Belfast; M. Henry, Queen's College, Galway; E. Heskin, Queen's College, Cork; G. A. Hicks, Queen's College, Belfast; J. P. Higgins, B.A., Queen's College, Cork; G. A. Hogg, Queen's College, Belfast; F. S. Irvine, Queen's College, Belfast; A. Johnston, Queen's Colleges, Belfast and Galway; T. Kennedy, Queen's College, Belfast; J. J. Kinsella, University College, Dublin; S. M'Cann, University College, Dublin; O. E. M'Cutcheon, B.A., Queen's College, Belfast; C. E. M'Dade, B.A., Queen's College, Belfast; A. M'Kay, University College, Dublin; T. M'Kelvey, Queen's College, Galway; M. M'Sherry, Queen's College, Belfast; A. W. Montgomery, Queen's College, Galway; H. J. Monypeny, Queen's College, Belfast; C. J. Moore, University College, Dublin; D. Nyhan, Queen's College, Cork; T. O'Hagan, University College, Dublin; W. Porter, Queen's College, Belfast; J. Ritchie, Queen's College, Belfast; L. Robinson, Royal College of Science, and School of Physic, Trinity College, Dublin; T. S. Ross, Queen's College, Belfast; J. Scott, Queen's College, Belfast; R. A. Shaw, Queen's College, Belfast; W. J. Shaw, Queen's College, Cork; J. R. Sinton, Royal College of Science, and School of Physic, Trinity College, Dublin; Lucy E. Smith, Queen's College, Cork; J. H. Stewart, Queen's College, Belfast; S. Waddell, Queen's College, Belfast; J. E. Whyte, Queen's College, Belfast.

Honours Lists.

Zoology.—First Class: None. Second Class: C. J. Moore, University College, Dublin.

Botany.—First Class: A. W. Montgomery, Queen's College, Galway; J. Scott, Queen's College, Belfast; J. G. Corry, Queen's College, Galway. Second Class: T. M'Kelvey, Queen's College, Galway; G. Douglass, Queen's College, Belfast.

Chemistry.—First Class: None. Second Class: J. R. Gillespie (Sch.), Queen's College, Belfast; B. P. Healy, B.A., University College, Dublin.

Experimental Physics.—First Class: A. W. Montgomery, Queen's College, Galway; J. R. Gillespie (Sch.), Queen's College, Belfast. Second Class: A. Birmingham, University College, Dublin; J. Scott, Queen's College, Belfast; C. J. Moore, University College, Dublin.

Exhibitions.—First Class, £20: A. W. Montgomery, Queen's College Galway. Second Class, £10: J. Scott, Queen's College, Belfast.

EXAMINING BOARD IN ENGLAND AT THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.

The following gentlemen passed the first examination of the Board at the quarterly meeting of the examiners in the subjects indicated, under the Five Years Regulations:

Passed in Chemistry and Physics.—J. B. Addison, St. Mary's; F. G. Aldrich, Charing Cross; H. T. M. Alford, St. Thomas's; S. E. Aubrey, Charing Cross; B. E. G. Bailey, St. Bartholomew's; W. B. Bannerman, London; F. Barton, University College, Liverpool; E. B. Barton, University College; F. S. Batchelor, Guy's; C. L. Batteson, London; H. M. Berncastle, Guy's; T. T. Blythe, St. Thomas's; D. Brewer, St. Mary's; C. P. Burd, St. Bartholomew's; E. P. Burns, Mason College, Birmingham; F. T. Butler, Owens College, Manchester; T. W. Byrne, University College, Liverpool; H. M. Cade, Westminster; C. G. Catterall, Yorkshire College, Leeds; and Pharmaceutical Society; J. B. Cautley, St. Bartholomew's; C. L. G. Chapman, Guy's; H. J. Chater, St. Mary's; F. W. Chesnaye, St. George's; A. J. Clegg, Oxford University; T. J. Crossley, Owens College, Manchester; A. J. McN. Cuddon-Fletcher, St. Bartholomew's; R. I. Cuming, Cambridge University; J. Dalebrook, St. Bartholomew's; A. B. M. Dallas, King's College; J. Davies, London; T. D. Dawson, St. Bartholomew's; J. Dixon, Guy's; K. H. Douglas, London; E. F. C. Dowding, St. Thomas's; T. A. Dowse, Charing Cross; T. H. Dugon, London; E. S. Edwards, University College, Bristol; E. Evans, Guy's; A. T. Falwasser, Guy's; M. H. G. Fell, St. Bartholomew's; C. E. Fenn, King's College; E. L. Forward, St. Thomas's; W. C. Fowke, Guy's; C. L. Francis, St. Bartholomew's; C. H. Furnivall, St. Mary's; G. E. Gask, St. Bartholomew's; C. B. Gervis,

University College; E. G. Goddard, Guy's; S. D. T. Halliday, Middlesex; G. Hardwick, Yorkshire College, Leeds; H. A. C. Harris, St. Thomas's; H. G. Harris, St. Bartholomew's; F. Hasler, London; E. S. E. Hewer, St. Bartholomew's; J. E. Hodgson, Owens College, Manchester; R. R. Horley, Middlesex; W. St. A. F. Hubbard, Charing Cross; R. Hughes, Owens College, Manchester; P. D. Hunter, Guy's; T. D. Jago, St. Bartholomew's; J. H. Jones, Guy's; L. Jones, St. Bartholomew's; T. C. L. Jones, St. Bartholomew's; D. F. Kennard, St. Mary's; J. E. Kilvent, St. Thomas's; J. I. Langley, St. Thomas's; C. P. Lankester, St. Thomas's; R. A. R. Lankester, University College; O. E. Lemin, London; R. H. Lloyd, St. Bartholomew's; J. R. Long, Westminster; W. C. Long, St. Bartholomew's; F. P. Mackie, University College, Bristol; M. R. Maher, University College, Liverpool; H. R. Marsh, Guy's; J. Martin, University College; W. S. Maugham, St. Thomas's; S. M. Mayou, King's College; A. A. Miller, Guy's; C. F. B. Moggridge, St. Thomas's; J. I. W. Morris, St. Mary's; C. H. Mossop, Guy's; E. J. O'Meara, Guy's; G. O'Neill, Charing Cross; A. Osborne, St. Thomas's; A. F. Page, St. Bartholomew's; J. E. F. Palser, London; T. Pearson, Charing Cross; S. B. C. C. A. Pennington, Guy's; H. J. Phillips, St. Thomas's; A. R. G. Pocock, University College; R. Raines, St. Bartholomew's; H. M. Rees, Owens College, Manchester; H. C. Regnart, Guy's; R. M. Richards, St. Mary's; A. Riley, Westminster; W. E. B. Roberts, Mason College, Birmingham; A. C. Robinson, St. Thomas's; F. H. Rose, University College, Bristol; W. J. Schuller, London; A. W. Shedden, Mason College, Birmingham; S. J. R. Shorto, King's College; J. O. Skevington, St. Mary's; M. A. Smith, Charing Cross; A. E. Stevens, St. Thomas's; R. Storrs, St. Bartholomew's; W. T. Storrs, St. Bartholomew's; J. Taplin, Mason College, Birmingham; J. L. Tayler, St. Thomas's; J. Templeton, St. Mary's; M. H. Thornley, Guy's; C. E. Turner, University College; A. W. Tuxford, St. Mary's; H. E. Waller, St. Bartholomew's; J. B. Walters, Guy's; H. B. G. Walton, St. Mary's; J. H. Watson, University College, Liverpool; J. G. Watt, Guy's; M. H. Way, Guy's; C. P. Weekes, Guy's; A. E. Weld, Charing Cross; C. F. Winkfield, St. Bartholomew's; P. Wood, St. Bartholomew's; A. O. B. Wroughton, St. Bartholomew's.

Passed in Practical Pharmacy. F. G. Aldrich, Charing Cross and private; H. T. M. Alford, St. Thomas's; G. P. Anning, Yorkshire College, Leeds; S. E. Aubrey, Charing Cross; A. E. Baker, Middlesex; J. A. Barnes, St. Thomas's; F. Barton, University College, Liverpool; H. S. Beadles, St. Bartholomew's; C. D. Bishop, Charing Cross; D. Brewer, St. Mary's; A. H. Brodribb, St. Mary's; E. P. Burns, Mason College, Birmingham; H. M. Cade, Westminster; C. G. Catterall, Yorkshire College, Leeds, and private; J. B. Cautley, St. Bartholomew's; E. P. Chennells, University College; F. W. Chesnaye, St. George's; S. C. Clapham, Guy's; A. J. Clegg, Oxford University and private; A. W. S. Curties, Yorkshire College, Leeds; A. W. Dickson, St. Bartholomew's; M. G. Dyson, St. Bartholomew's; A. L. Edwards, St. Mary's; W. J. Fanning, St. Thomas's; T. A. E. Fawcett, Yorkshire College, Leeds; G. B. Forge, London; C. B. Gervis, University College; A. S. Good, St. George's; B. B. Gough, Guy's; A. E. Hamerton, Yorkshire College, Leeds; S. W. Hanbury, St. Thomas's; G. M. Harston, Charing Cross; G. Hutcheson, London; G. W. G. Jones, St. Mary's; H. S. Langdon, Middlesex; J. I. Langley, St. Thomas's; T. Leah, St Mary's and private; F. S. Lloyd, St. Mary's; J. R. Long, Westminster; A. Martin-Leake, private; J. Martin, University College; N. G. Meade, Yorkshire College, Leeds; R. Milnthorp, Yorkshire College, Leeds; D. V. Muller, Charing Cross; T. S. Novis, London; J. Oldfield, St. Bartholomew's; A. Osborne, St. Thomas's; R. S. Osborne, St. Mary's; H. J. Phillips, St. Thomas's; A. H. Prichard, University College; C. Riviere, St. Bartholomew's; W. E. B. Roberts, Mason College, Birmingham; A. C. Robinson, St. Thomas's; B. S. Sanders, private; H. A. Scholberg, St. Bartholomew's; W. J. Schuller, London; A. E. Stevens, St. Thomas's; S. D. Turner, St. Thomas's; W. G. Westcott, St. Mary's; H. E. White, Birmingham; H. C. Whiteside, Middlesex; R. G. Whiting, St. Bartholomew's; C. F. Winkfield, St. Bartholomew's.

The following gentlemen passed the First Examination of the Board at the quarterly meeting of the examiners in the subjects indicated, under the Four Years' Regulations.

Passed in Chemistry and Chemical Physics.—H. W. Abbott, Charing Cross; C. T. Anderson, Guy's; G. R. Baker, St. Bartholomew's; H. H. Beale, St. Mary's; W. G. Bennett, St. Thomas's; A. J. Bennetts, St. Mary's; F. C. Blakiston, St. Thomas's; J. Broch, St. Bartholomew's; E. T. Burton, Mason College, Birmingham; T. A. Caley, Yorkshire College, Leeds; W. E. J. Clarke, Guy's; M. Clover, University College; H. J. Clutterbuck, Middlesex; E. S. Crispin, King's College; A. E. B. Crosby, Guy's; A. M. Crosfield, Yorkshire College, Liverpool; T. J. Davies, Middlesex; E. Fryer, Guy's; J. H. Gartrell, Charing Cross; A. H. Gibbon, private; W. Y. Gibbs, Mason College, Birmingham; W. R. Gibson, St. Bartholomew's; A. R. Greenwood, Middlesex; W. L. Hay, King's College; A. W. Hayles, King's College; G. S. Haynes, St. Bartholomew's; F. F. L. How, Edinburgh and University College; H. C. Jackson, University College; H. G. Lewer, Edinburgh University; F. Lodge, Yorkshire College, Leeds; F. E. Manning, University College; E. P. Marett, St. Thomas's; P. A. J. Maver, King's College; A. H. McN. Mitchell, St. Mary's; H. L. W. Norrington, University College, Bristol; G. Parnell, Charing Cross and private; W. H. Peile, University College; F. E. Price, St. Bartholomew's; H. E. Raper, University College; G. Q. Richardson, Dublin; S. Roach, St. Bartholomew's; J. H. R. Robinson, London; R. P. Rowlands, Guy's; J. Sandison, London; E. H. Scott, St. Thomas's; G. E. Seville, private; H. P. Shanks, University College; M. Smith, Middlesex; E. W. Stabb-Johnson, Guy's; H. J. Turner, St. Thomas's; F. J. Waldmeier, Beyrout and London; W. P. Walsh, Oxford University; F. E. Walton, St. Thomas's; S. J. Warcham, Charing Cross; A. W. Wilkinson, St. Bartholomew's; C. P. Woodstock, Glasgow and private; W. E. A. Worley, St. Bartholomew's; G. H. L. Wright, University College, Bristol.

Passed in Materia Medica and Pharmacy.—C. P. Allen, Middlesex; A. P. Ambrose, Westminster; C. T. Anderson, Guy's; O. C. Andrews, Mason College, Birmingham; F. L. Angior, University College, Liverpool, and private; C. J. Armson, Middlesex; J. H. Arthur, London; R. Balderston, Guy's; P. D. Barker, University College; J. S. Barnes, St. Thomas's; J. F. Baxter, Westminster; G. F. Beacher, Firth College, Sheffield; E. J. Beards, Mason College, Birmingham; F. V. O. Beit, St. Bartholomew's and private; H. C. P. Bennett, St. Bartholomew's; W. G. Bennett, St. Thomas's; S. H. Berry, Charing Cross; C. Black, Firth College, Sheffield; J. Black, Owens College, Manchester; G. P. Bletchly, Middlesex; C. Bolton, University College; W. E. Bracey, Mason College, Birmingham; H. Breton, St. George's and private; S. S. Broadbent, Firth College, Sheffield; J. Broch, St. Bartholomew's; R. P. Brown, St. Bartholomew's; A. S. Bruzand, London; H. J. Bryan, London; H. A. Bull, St. Thomas's; C. G. Burton, Guy's; G. Burton-Brown, Guy's; E. Chatterton, University College; M. A. Cholmeley, St. Bartholomew's; J. H. Churchill, St. Bartholomew's; H. C. Clark, Middlesex; G. F. M. Clarke, Charing Cross; A. J. Cleveland, Guy's; H. Clifford, University College; E. F. Clowes, Guy's; P. C. Colls, King's College; J. M. S. Coutts, University College; R. M. Cowie, King's College; A. M. Crabtree, St. Bartholomew's; E. U. Croker, St. Thomas's; N. Daly, Guy's; D. L. F. Davies, Middlesex; F. L. Denner, London; H. J. de Saram, Ceylon and Middlesex; A. E. de Val, Mason College, Birmingham; G. E. Dodson, St. Bartholomew's; G. H. Dominy, St. Thomas's and private; W. F. C. Dowding, St. George's; J. A. Dredge, St. Bartholomew's and private; W. N. East, Guy's; J. G. Emanuel, Mason College, Birmingham; J. H. Fenn, London; J. H. Ferguson, Dublin; R. D. Fisher, London; R. T. Fitz-Hugh, Guy's; E. H. B. Fox, St. Bartholomew's; J. Francis, Westminster; E. H. Fricke, Charing Cross; D. P. Gabell, Charing Cross; A. H. Gadsden, St. Mary's; W. R. Gibson, St. Bartholomew's and private; L. Gilbert, St. Thomas's; F. W. Goldie, Guy's; A. R. Greenwood, Middlesex; F. R. Greenwood, Mason College, Birmingham; E. M. Gwynn, Middlesex; J. S. Hall, St. Thomas's; H. Hallam, Firth College, Sheffield; N. H. Harris, St. Bartholomew's; F. J. Hasslacher, King's College; H. T. Hicks, Guy's and private; A. R. Hitchfield, Guy's; F. C. Hitchins, Guy's; W. M. Hocken, University College, Liverpool; C. R. Hodgson, Guy's; E. C. Hort, Cambridge and Guy's; W. A. Horton, Guy's; G. D. Howlett, St. Thomas's; S. Hunt, St. Bartholomew's and private; H. W. Jackson, University College; A. E. Jerman, Westminster; J. L. Jones, University College; R. D. Joyce, Dublin; C. V. Knight, St. Bartholomew's; W. Liversidge, University College; N. Y. Lower, Guy's; G. M. McKie, King's College and private; C. R. Maitland, private; T. Marles-Thomas, University College; H. J. Marriage, St. Thomas's; G. B. Mason, London; H. T. Matthews, London; J. L. Maxwell, St. Bartholomew's; R. W. Mayston, Guy's; E. Moore, private; R. H. Mornement, Middlesex; G. N. Mottram, Guy's; H. Mundy, St. Bartholomew's and private; F. Nelson, Owens College, Manchester; C. R. Nicholson, Guy's; A. C. Nicol, Yorkshire College, Leeds; A. P. Nixon, University College, Liverpool; M. J. Nolan, St. Thomas's; W. S. Nowell, Middlesex; A. W. Ormond, Guy's; W. H. F. Oxley, Firth College, Sheffield; A. J. Pattison, London; H. D. Peile, Guy's; W. R. Penny, Westminster; W. E. Plummer, Guy's; A. W. Powell, Guy's; J. C. Powell, St. Bartholomew's; J. H. Power, London; C. C. Pratt, St. George's and private; F. E. Price, St. Bartholomew's; W. C. Pritchard, Guy's; P. D. Pywell, St. Thomas's; L. G. Reynolds, Guy's; A. T. Richardson-Jones, Oxford and King's College; W. H. Roache, St. Bartholomew's; C. Roberts, Middlesex; H. Rose, St. Mary's; A. G. Sargent, St. Mary's; J. P. Scatchord, St. Thomas's; G. E. Seville, private; P. W. G. Shelley, St. Bartholomew's and private; G. M. Smith, St. Thomas's; M. F. Squire, St. Mary's; R. J. Stilwell, Westminster; W. R. Stowe, St. Bartholomew's; J. W. Sweetlove, Guy's; J. F. Swift, Sheffield; R. R. Thomas, St. Bartholomew's; H. R. F. Towne, Westminster; W. F. Tyndale, St. George's; W. P. Walsh, Oxford; S. J. Wareham, Charing Cross; H. J. Weston, St. Bartholomew's; F. Whincup, St. Bartholomew's; F. E. Williams, Guy's; R. P. Williams, King's College; B. S. Wills, St. Thomas's; A. G. Wilson, London; W. B. H. Wood, Mason College, Birmingham; E. W. Woodbridge, St. Bartholomew's and private; T. F. Woolley, Mason College, Birmingham; and T. P. Yates, Owens College, Manchester.

Passed in Elementary Anatomy and Elementary Physiology.—H. A. Ahrens, King's College; E. Q. Ambrose, London; W. Amsden, St. Bartholomew's; R. T. Bailey, University College, Liverpool; H. N. Barnett, Queen's College, Belfast; P. Bayley, Mason College, Birmingham; D. J. Bedford, Cambridge University; F. C. Blakiston, St. Thomas's; C. H. Bradbury, Owens College, Manchester; C. S. Brookhouse, Guy's; G. M. Brown, Guy's; A. H. Carter, Guy's; H. Clifford, University College; A. B. Cridland, University College, Bristol; W. Daly, University College, Liverpool; L. A. W. French, University College; E. Fryer, Guy's; W. Y. Gibbs, Mason College, Birmingham; E. Gray, Queen's College, Cork, and London; F. F. L. How, University College; H. C. Izard, St. George's; R. O. Jones, Guy's; J. L. Kirk, Cambridge; F. C. R. M. Knight, Guy's; J. R. Lambert, Yorkshire College, Leeds; B. E. Laurence, St. Bartholomew's; C. P. Legge, Glasgow; H. Markby, Yorkshire College, Leeds; H. C. Meacock, St. Thomas's; A. F. Mortimer, St. Thomas's; W. Naylor, Charing Cross; O. C. Ormrod, Owens College, Manchester; L. E. L. Parker, St. George's; G. Parnell, Charing Cross and Mr. Cooke's; J. K. Pedley, Guy's; J. A. L. Peirce, Mason College, Birmingham; C. T. Pellow, St. Thomas's; D. L. K. Prichard, University College; G. Q. Richardson, Dublin; R. T. Richmond, Cambridge and Mr. Cooke's; J. H. R. Robinson, London; J. Sandison, London; H. V. Smith, Guy's; R. C. Smith, University College, Liverpool; W. S. V. Stock, University College, Bristol; R. R. Thomas, St. Bartholomew's; G. L. Thornton, Cambridge; S. Wellby, Oxford University and St. Thomas's Hospital.

Passed in Elementary Anatomy only.—L. Broadstock, Mason College, Birmingham; A. E. Farndon, St. Mary's; R. C. M. Hoare, Mason College, Birmingham; R. G. Macpherson, Middlesex.

Passed in Elementary Physiology only.—A. R. Adams, Guy's; H. H. Beale, St. Mary's; W. L. Burn, St. Bartholomew's; R. S. Elvins, Mason College, Birmingham; J. J. Lowell, St. Thomas's; H. L. W. Norrington, University College, Bristol; J. B. A. Treusch, Guy's; A. H. Whittingham, Cambridge University and St. Mary's.

ROYAL COLLEGE OF SURGEONS OF EDINBURGH.

The following gentlemen, having passed the requisite examination, have been elected Fellows of the College:

J. Fuller, L.R.C.S.Edin., M.R.C.P.Irel.; E. B. Fuller, M.B., C.M.Edin., L.R.C.S.Edin.; R. J. Pope, M.D., L.R.C.S.Edin.; E. R. Morton, L.R.C.P.&S.Edin.; J. C. G. Macnab, M.B., C.M., L.R.C.S.Edin.; J. A. Lea, L.R.C.P.Edin.&Lond., M.R.C.S.Eng.; A. C. Hartley, M.D., L.R.C.S.Edin.; and J. Hardie, M.B., C.M., L.R.C.S.Edin.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS OF EDINBURGH AND FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

The following is an official list of the candidates who passed the respective examinations of the above Conjoint Board at the July sittings in Glasgow:

First Examination (five years' course).—Passed with Distinction—H. Macpherson, A. F. Jones. *Ordinary Pass List*—H. Alstrom, J. R. Riddell, Selina F. Fox, Grace H. Stewart, Kathleen H. Moore, Christina H. Stirling, R. F. Flood, C. A. P. Rowse, A. M'Credie, J. M'Glynn, W. J. Aiken. *In Division I (Physics)*—G. H. A. Taylor. *In Division III (Elementary Biology)*—R. Mackie.

First Examination (four years' course).—R. H. Fleming, E. B. Marshall, R. J. Stoddart, R. E. Moriarty, P. A. Winckley, J. A. E. A. Lavery, H. J. D. Mackay, Beatrice Ann M'Gregor, D. V. M'Cuaig, J. O'Meara, R. J. Molison, W. Boyd, A. E. Blades, E. O. Jones, W. G. Pritchard, J. T. Hancock, J. F. Pougnet, G. C. Henry, N. Johnstone, D. Viliesid, W. T. M'Killiam, J. Brownridge, R. O. Harrison, R. E. Roberts. *In Division I (Chemistry)*—J. E. O'Ryan, S. Robinson.

Second Examination.—With Distinction—J. Battersby. *Pass List*—E. Denison, W. R. Beck, G. C. Murray, A. G. Kewley, S. Robb, J. A. Sanderson, Helen S. MacDonald, J. W. Cuthbertson, S. Basham, R. S. Martin, M. H. Enright, S. Nicolson, W. Macdonald, F. J. Whitehead, J. J. Bell, J. H. Hall, J. M. O'Sullivan, Annie C. Sutherland, F. H. Wolfe, W. Gordon, J. Wishart, W. R. Ridley, C. Peddie. *In Division I (Anatomy)*—D. A. Chalmers, D. Viliesid, F. Jeeves, H. Macfarlane, C. Delacherois, A. B. C. Orchard, J. A. Meeke, G. P. Searle, W. H. Madden, Winifred J. Pierce, J. B. Voortman. *In Division II (Physiology)*—E. B. H. Hughes, F. Jeeves, H. W. G. Cottell, S. B. Siddall, J. M. Beattie. *In Division III (Materia Medica)*—R. P. Graham, S. B. Siddall, S. Rees.

Final Examination.—Gerda B. Jacobi, J. Boyd, J. N. Macmullan, E. M'Garity, H. Case, J. M. Macmillan, J. O'Connell, Catherine Howe, Kate E. Paton, H. H. Oram, W. C. Paterson, J. C. Woods, Janet Russell Wells, H. de C. O'Neale, J. Devon, W. E. Blakely, D. Stephen, Elizabeth T. Gilchrist, H. E. C. Corkery, A. G. Cooley, D. Y. Clark, W. R. Abernethy, W. C. Alexander, B. C. Ghosh, H. R. Wolfe, R. L. Brown, J. Towart, R. Mailer, R. T. Jones, J. Clark, J. C. Sturdy. *In Division I (Medicine, etc.)*—L. Bowman. *In Division III (Midwifery, etc.)*—Susan Campbell, T. O. Jones, F. Smith, P. W. Griffiths, J. A. Swainson, B.A., J. Munro, J. Tait, W. J. Woods.

REVIEWS.

Outlines of the Diseases of Women. By John Phillips, M.A., M.D.Cantab., F.R.C.P., Assistant Obstetric Physician to King's College Hospital; Physician to In-patients at the British Lying-in Hospital; Examiner in Midwifery to the University of Glasgow. With 120 illustrations. London: Charles Griffin and Co., Limited. (Large crown 8vo, pp. 273. 7s. 6d.)

There is always room for a good educational work, hence Dr. Phillips's *Diseases of Women* is welcome enough, though so many treatises on gynæcology are in print and on sale. The author has avoided some of the worst errors prevalent in works of this class. Thus, we do not find long tables of successful operations—instructive and often justifiable in a monograph, but quite out of place in a textbook. An author who writes for students is, of course, heavily responsible for what he teaches and for the system whereby he communicates knowledge to his readers.

Dr. Phillips's manual is written in a succinct style. It is free from perpetual allusions to illustrious European and American authorities, men of whose merits the student is necessarily ignorant, so that their mere names convey no useful impression. The greatest evil of needless references is that it encourages the learner to believe too much in names. Later on, he must know how to recognise not so much names as the precise merit of those who bear them.

Dr. Phillips rightly lays stress on anatomy, especially morbid anatomy. Indeed, in future issues of his *Outlines* he might even add more. Thus, a correct knowledge of the musculature of the vulva and vagina is important. The levatores ani form the true sphincter. In morbid conditions of the rectum and anus, especially in fissures, they are subject to tonic contraction, often interfering with the functions of the vagina. Budin relates one case at least where their fibres retarded labour. The author has done his best to make clear our ignorance—we cannot call it knowledge—of the true physiology of ovulation and menstruation. A remark on page 56 shows that he is as sceptical about the manner of transference of the ovum from the ovary to the tube as Dr. Heil, of Darmstadt, who has shown that all theories on the subject are faulty.

The passages on case-taking are excellent, and so are the paragraphs on the use of the sound, but far greater importance should have been given to bimanual palpation. The beginner should be taught to distinguish every normal structure which possibly can be made out by the finger, else he will go through life liable to mistake a contracted obturator internus for inflammatory effusion, and to think that pain caused by pressure on a branch of the sacral plexus is a sign of disease. The subject deserves a good separate chapter. The more readily the gynæcologist explores the pelvis with his finger and the more he refrains from using the sound the better it will be for his patients.

The chapters on uterine cancer and on hæmorrhages from the genitals are written after the style of the best teachers. Dr. Phillips is sound enough in his instructions about dilatation of the uterus for diagnostic and therapeutic purposes. Indeed, he is very trustworthy throughout in his views on therapeutics. He will doubtless save many victims of uterine cancer from much needless addition to their torments by the following sentence: "The fœtor of the discharge may be neutralised by vaginal douches of sanitas or kreolin; being bland and non-irritating they are preferable to carbolic or sublimate lotions." Under the head of "differential diagnosis" of early malignant disease the author should have mentioned "the so-called senile endometritis" to which he refers at page 138. It is a cause of great anxiety to many elderly women and is very puzzling to the young practitioner.

The author admits in his preface that the plan of his work does not allow of anything beyond passing notice of major operations. In the notes on the manner of opening the abdomen in ovariotomy (p. 239) he observes that, "as the walls are usually thinned out, this can be done by one or two strokes of the knife"—most dangerous advice. Nor ought he to teach that, if the pedicle be sufficiently thin, "a simple ligature around it of carbolised silk will be enough."

The text is unusually free from clerical errors. Words like "hyperlactation" (p. 143) and "pericervical" (p. 177) should have been avoided. There is no such thing as Gärtner's duct; the "*Umlaut*" is an eyesore in English text, even where necessary.

The illustrations are in great part diagrammatic, and the author has already tested their value in demonstrations to his class. In selecting drawings of those necessary evils, gynæcological instruments, he has shown judgment, and has wisely refrained from noticing appliances that should be rejected. Note has already been made of Dr. Phillips's attention to therapeutics; we may add that he supplies the reader with an excellent series of simple but valuable formulæ. Some teachers are too apt to overlook prescriptions as an indispensable requirement for their pupils, and we congratulate Dr. Phillips in avoiding an error particularly serious in these days when few students enjoy the advantages of apprenticeship.

The Nationalisation of Health. By Havelock Ellis. London: T. Fisher Unwin. 1892. (Cr. 8vo, pp. 244. 3s. 6d.)

The principles which are here advocated aim at securing a national and organised system for protecting the health of the people, as against the private, individual, and irrational efforts which, the writer contends, are growing less and less suited to the needs of our time; but the term "nationalisation of health" must not be held to imply aught which is in antagonism to internationalisation—for, indeed, the former must needs lead up to and go hand in hand with the latter.

Our present sporadic measures for coping with disease are freely criticised; and friendly societies, private practitioners,

charitable hospitals and specialism, furnish much material which in the author's hands is made to serve as argument in favour of the nationalisation of health. He proposes that each district should have a well-organised hospital to which all the local medical men are attached, which is to serve as an institution of health, thoroughly in touch with the growing sanitary organisation of the country, and where all cases of injury and illness are to be registered and dealt with. Mr. ELLIS believes that when the whole community is directly interested in the cure of all disease, it will certainly recognise that it has also a great interest in the prevention of disease, and such "national hospitals" will be supplemented by further efforts to guard the public health. Thus there would follow: routine inspection and reasonable regulation of all forms of industry, the methodical examination of the eyes and ears of children, the special training and registration of midwives, the more zealous guarding of our water supplies, and so on.

The small work is well printed, and forms an eminently readable volume, the perusal of which affords much food for thought and speculation. Is the "nationalisation of health" within a measurable distance of being realised? At present it is impossible to proceed beyond the point of conjecture; but with the Infectious Diseases Notification Act in force, and with whisperings of a possible Minister of Public Health—some day—it may at least be said to be "in the air."

NOTES ON BOOKS.

Formulaire des Médicaments Nouveaux et des Médications Nouvelles [Formulary of New Remedies]. By H. BOCQUILLON-LIMOUSIN. Fourth Edition. (Paris: J. B. Bailliere et Fils. 1893, fcp. 8vo, pp. 314, 3 francs.)—This work is somewhat similar in plan to the well-known work of Martindale and Westcott. Nearly all the drugs recently introduced or suggested as therapeutic agents are treated under the various headings of Description, Composition, Preparation, Properties, Mode of Use, and Dose. That the work has been well received in its own country is manifest from the fact that since its first appearance in 1890 four editions have been required. In the present edition, besides descriptions of numerous new medicinal plants, brief working accounts are given of the large number of synthetic drugs most of which have been introduced on theoretical grounds, and are awaiting the verdict of experience. We may especially mention analgene, asaprol, bromanide, salophen, piperazidin, and even the recently-suggested "nervous transfusion" of Constantin Paul. In the present state of therapeutics there is much need of some such work, which may keep the busy practitioner informed as to the main characters of the remedies whose names, without some such aid, are liable to be more familiar to the patient than to the doctor himself. As the writer of the preface—Dr. Huchard—aptly puts it, such a work serves to put one on guard against that kind of therapeutic hysteria which tends to invade us, but which cannot be too strenuously opposed. The descriptions are well and concisely written, but they might be of still greater utility were the bibliographic references more numerous.

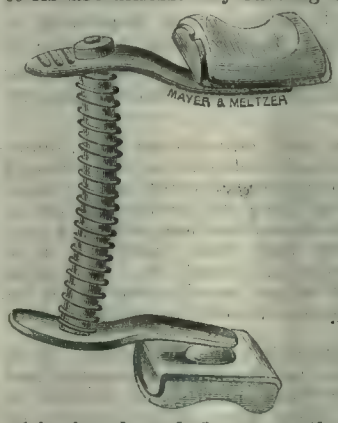
The Life Saving Society Handbook. Second revised edition, 1893. (Published by the Life Saving Society, 3, Clarendon Square, London, N.W. Demy 32mo, pp. 102, 13 illustrations, 1s.)—This excellent little manual is part of the machinery devised by the Life Saving Society to promote technical education in life saving and resuscitation of the apparently drowned, and to encourage the art of natation. Short but lucid descriptions of the Silvester, the Marshall-Hall, and the Howard methods of resuscitation are supplemented by directions for systematic "drills" designed for the instruction of classes. There is also a very useful "rescue drill," in which the best plans of approaching, taking hold of, and carrying to shore a person in danger of drowning, as well as of releasing oneself from the clutch of a drowning man, are practically taught. Drill of itself is an excellent thing as a promoter of the health of the drilled, and if it is made to contribute to the saving of some of the 6,000 or 7,000 lives annually lost on the coast and inland waters of the United Kingdom, it has an important additional recommendation. Of all the various developments of amateur surgery and medicine which, under a variety of names, have in recent years seen the light, this to us seems the most practical, the most attainable by the amateur, the one most likely to bear good fruit, and altogether the best. The Society and their handbook have our entire sympathy and approval.

Beiträge zur Kenntniss der Metastasenbildung maligner Tumoren, nach statistischen Zusammenstellungen aus den Sektions-Protokollen des Berneschen Pathologischen Instituts. [Contributions to the Knowledge of the Metastatic Development of Malignant Tumours, based on Statistics derived from the *Post-mortem* Records of the Pathological Institute of Berne.] Inaugural Dissertation. Vorgelegt von MAX MÜLLER, prakt. Arzt in Bern. (Berne: Buchdruckerei Lack Scheim and Cie. 1892. Demy 8vo, p. 64.)—This is an attempt to establish the relations between primary and secondary malignant growths, so that the clinical observer may be enabled, from the seat of the latter, to form some idea as to the probable seat of the original disease, and also to surmise what organs are most likely to be secondarily affected in the case of primary disease in any one organ. The tables collected by the author have been well arranged, and will be found useful for reference by those engaged in the study of malignant disease of the organs of digestion and of the thyroid body. The material, however, at the disposal of Dr. Max Müller is far too small to allow of any general conclusions, as very few instances are here recorded of cancerous disease of the breast, tongue, and lip. The results of his study of these tables have led the author to the conviction that both in carcinoma and sarcoma the disease is carried from its original seat to other organs by the blood. In carcinoma, however, he holds that the metastatic particles reach this fluid indirectly through the lymphatics, whilst in sarcoma they pass at once into the blood current.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

AN IMPROVED MOUTH PROP OR GAG.

SINCE its introduction, two years ago, Messrs. Mayer and Meltzer, at the suggestion of Dr. Wyatt Wingrave, have made several alterations in his original pattern which have added to its usefulness. By curving the horizontal bars, the tooth mounts are more closely approximated, thereby facilitating its introduction and adjustment. A modification in the shape of the tooth-mount adapting it to the requirements of edentulous cases, has proved so convenient for all variations in dentition that it has been selected as the standard pattern. The smaller shape is still supplied if desired. By keeping the pivots well oiled, and by separating the horizontal limbs to the widest limits of the jaws during adjustment, its security and action are fully assured: whilst very slight pressure with thumb and finger on the roughened projections will disengage it at once.



THE LATE DR. MICHAEL J. MOLONY.—A monument to Dr. Molony, who was medical officer of Arklow Dispensary District for eight years, was recently unveiled in Arklow Cemetery. The monument is composed of Italian marble, with a limestone base, and bears a suitable inscription.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1893.

Subscriptions to the Association for 1893 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, AUGUST 12th, 1893.

THE SIXTY-FIRST ANNUAL MEETING.

The annual meeting of the British Medical Association has grown in importance with the growth of the Association in numbers and in activity. It has become a recognised annual function of public interest, an occasion when the general public and the general press may come into touch with the intellectual life of the medical profession, and catch a glimpse of the movements of thought and of opinion within it. The British Medical Association, younger than any of the medical corporations, is the true offspring of the spirit of the age; democratic and representative in its constitution and government, it more truly reflects the hopes, the efforts, and the wishes of the great working body of the profession. Professor Philipson's claim that, as the chosen president of the British Medical Association, he had been called to the place of the leader of the profession in this country, was no empty boast, no mere piece of after-dinner rhetoric. It was grounded on a correct apprehension of things present, and was a true prophecy of things future. The view which he ventured to express from the Presidential chair and all that it involves will become increasingly apparent to all, and the right of the Association to speak in the name of the profession of medicine in the British Empire will be more and more widely recognised in the future.

The members of the British Medical Association who attended the annual meeting this year will always retain a vivid recollection of the warm-hearted welcome extended to them by the citizens of the grey city of the north. In Dr. Philipson the Association found a President who knew how to conduct its business with dignity and courtesy, and at the same time with firmness and impartiality. The public functions were distinguished by the presence of the official heads of a university which has borne an important part in the advancement of the standard of medical education, and of the leading members of a municipality which has proved itself one of the most enlightened in the country in its conduct of affairs connected with the preservation of the public health. The work of the Sections, numerous as they were, was carried on with spirit, and afforded many opportunities of discussing some of the most important clinical and pathological problems of the day.

As we briefly indicated last week, and as our readers will shortly have the opportunity of judging for themselves as the proceedings are published in these columns, much valuable work was done in the Sections, and we are glad to recognise that, in spite of forebodings to the contrary, general practitioners were not backward in taking a share in the debates. This is one of the most useful parts of such meetings, and any suggestion for still further enlarging this field of usefulness would be welcomed, and will, we feel sure, meet with most careful consideration from those who are responsible for making the arrangements for the next annual meeting.

Medicine is in so large a part an art which can be best learned and extended by actual observation of patients and inspection of specimens and drawings, that the great pains taken at Newcastle with the scientific part of the museum were well expended. The collection of drawings of skin disease exhibited was very large and highly instructive. It is not often that such a valuable series of portraits has been brought together, and the large number of members who were constantly to be found examining them was proof of the interest which they excited. The same may be said of the other objects exhibited, and there can be no doubt of the large measure of truth in the opinion expressed by Mr. Jonathan Hutchinson, in his *Archives of Surgery* last year, to the effect that the museum is one of the most important parts of the annual meetings, and will probably become every year more and more important and instructive. The demonstration of patients given in the Royal Infirmary during the week by the physicians and surgeons were also exceedingly valuable and interesting, and it might, perhaps, be well on future occasions to arrange for them on even a larger scale, and to give them somewhat greater prominence in the announcements of the meeting and in the notices posted for the information of members. Dr. Drummond set a good example by bringing to the Section of Medicine a series of most interesting cases of aneurysm to illustrate his paper on that subject; in fact, it might almost be said that his contribution was a demonstration. From the interest which it excited we must conclude that similar demonstrations in the Sections would be in the future among the most valued and valuable contributions which the physicians and surgeons of the town in which the annual meeting is held could make to its proceedings.

The opportunity again afforded this year by the Section of Pathology to the practising physician and surgeon to become acquainted with the latest advances made by working pathologists was largely taken advantage of. Here the demonstrating lecture lantern was permanently installed, and, in a large proportion of cases, the audiences had placed under their eyes photographic reproductions of the actual specimens upon which the conclusions of the authors were based.

For the individual member, a large part of the pleasure of attending an annual meeting of the Association is determined by the completeness of the arrangements made beforehand by the local executive committees. On the present occasion all the business details were arranged with conspicuous ability, and it was evident that all the local officers had devoted themselves with self-denying enthusiasm to the task of making the visit to Newcastle both profitable and pleasant.

The smoothness with which everything worked was a proof of the care which had been given to the preliminary work, and the foresight with which every detail had been

worked out. Here the Association had the advantage of the excellent organising powers of the President, Dr. Philipson, seconded by his able lieutenant, Mr. G. E. Williamson, upon whom, as Honorary Local Secretary, fell the task of organising the arrangements in their broad features as well as in many details. Professor Philipson paid a well-merited tribute to the assiduity and unostentatious skill with which Mr. Williamson discharged his onerous duties; and it is unnecessary for us to say more than that the complete success which crowned his efforts was universally recognised by everyone who attended the meeting. Thanks are due to the Reception Committee, and especially to its Honorary Secretary, Dr. Thomas Lyle, for the admirable arrangements made for the comfort and convenience of members.

The convocation at Durham for the conferring of honorary degrees was a dignified function, and one of high significance. The recognition thus extended by the University to leading officers of the British Medical Association will be as gratifying to the Association at large as it must have been to the recipients. In Mr. Joseph White, Dr. Drummond, and Dr. Hume, were honoured members who had contributed of their best to the successful issue of the great annual gatherings of the Association. In Dr. Withers Moore and Mr. Butlin a like honour was extended to officers who had during their period of office devoted themselves with disinterested zeal to onerous duties which made constant calls on their time; while in Sir Walter Foster and Mr. Ernest Hart recognition was given to services rendered during a long series of years in the public relations of the Association with Parliament, and with the great departments of the State; in Mr. Hart's case, also, graceful reference was made to the success with which he has occupied the office of editor of this JOURNAL for a period of a quarter of a century, during which its value and influence have been enormously increased.

The Museum contained beyond the collection of anatomical and pathological specimens, both naked eye and microscopical, three departments for the exhibition of pharmaceutical and dietetic products, of instruments and books, and of ambulance litters, wagons, and other appliances. These were assigned space in convenient central positions, and members were thus able to make frequent leisurely visits for the purpose of inspecting the numerous trade products which had been gathered together. The arrangements worked out most satisfactorily in every respect, and special thanks are due to the Museum Committee and to its Honorary Secretary, Dr. Howden, who was untiring in his exertions.

The public dinner of the Association in the Banqueting Hall in Jesmond Dene, the beautiful pleasaunce presented to the people of Newcastle by Lord Armstrong, was an extremely pleasant gathering. Great pains had evidently been taken by the Committee to make the occasion a success, and in Dr. Murphy, whose private hospitality was on a most generous scale, the Committee had an organiser of no mean skill and experience.

Excursions on Saturday to the historic castles of Warkworth and Alnwick, to the princely home of the Marquis of Londonderry at Wynyard, and to the mountain palace of Lord Armstrong at Rothbury, brought to an agreeable termination a meeting which was characterised throughout by great spirit and cordiality. The plans for these excursions had been carefully worked out by a committee, which had in Dr. W. Ridley an energetic and experienced secretary. Everything which foresight could accomplish was done, and if it had been possible to conciliate the Clerk of the Weather nothing would have detracted from the pleasure of the expeditions.

THE ADDRESS IN OBSTETRICS.

THE choice of Dr. Cullingworth to give the Address in Obstetrics has been fully justified by the result. The address, as many of his audience knew, had been prepared in an interval of leisure enforced by illness; and his many friends were glad to see him now fully restored to health, with his appetite for work as keen as ever, and his capacity for it undiminished.

Dr. Cullingworth chose a subject of lively interest and great practical importance; and he kept closely to that subject. It was one upon which he was entitled to be heard, for in it he may, without disparagement of anyone, be fairly styled a leader and teacher of the profession.

The subject was "Pelvic Peritonitis in the Female, and the Pathological Importance of the Fallopian Tubes in connection therewith." Dr. Cullingworth sketched the early history of the subject, modestly cutting short his outline before the time when he himself began to work at it. We may venture to complete it. Bernutz, as Dr. Cullingworth showed, made the profession rightly comprehend the nature of the pelvic swellings which before his time were miscalled cellulitis. But the work of Bernutz had little practical effect beyond that of correcting an error in morbid anatomy. Diseases of the Fallopian tubes were regarded, before and after the publication of his book, as conditions beyond the reach of diagnosis and treatment, only to be discovered when their effects brought about a necropsy.

Battey, Hegar, and Tait began at nearly the same time to remove ovaries for conditions other than cystic disease. But it is beyond doubt Tait to whom we owe the frequency with which diseased tubes are now removed. His example kindled the enterprise of others—some would say up to the point of recklessness—and diseased Fallopian tubes have been removed all over the world in amazing numbers; indeed, as some think, in far too great numbers.

Those who look upon the frequent performance of this operation as a thing to be deprecated do so on the grounds that these diseases of the Fallopian tubes, although common, are not nearly so often fatal as has been alleged; that either they often end in complete recovery, or they cannot clinically be distinguished from conditions which do; and that the cure by operation is often neither complete nor lasting, while the loss of the ovaries is a serious injury.

Perhaps more help will be gained from the study of the elaborate paper published by Dr. Cullingworth in the Obstetrical Society's *Transactions* for 1892 than from any statistical table. We have learnt all that is to be learnt from lists of operations; we want details of individual cases to teach us how to diagnose the different conditions, and we want the after-histories, that we may know what amount of relief a successful operation is likely to bring, and what bad effects may also follow. Dr. Cullingworth's paper was the first large contribution conceived on these lines. It had the claim to confidence that in it he gave his whole experience simply in chronological order, without mystifying his

readers by any esoteric classification. It had also the guarantee of accuracy that all the operations were performed, and the cases watched, under the eyes of medical students, the most keen and watchful critics that one who aspires to teach the profession could have. The author of a paper so valuable and unique has a right to the attention of the profession.

After sketching the history of his subject, Dr. Cullingworth went on to define in detail and illustrate the pathological changes of which he spoke. He gave an admirably full, clear, and yet brief account of the morbid anatomy of the conditions which, in his judgment, are best treated by the operations which have been so much discussed. He then illustrated his point of view by relating six cases—three left to Nature, three cured by art. It is impossible for anyone who reads these to deny that operations such as those performed on the three latter are a gain, an addition to our power to save life and relieve suffering, even if he do not agree with Dr. Cullingworth in his view of the frequency with which they are required.

Those who remove the uterine appendages for causes other than those recognised for many years as proper indications for operation have been criticised in a way that reminds us of the denunciations of the pulpit rather than the calm atmosphere in which the dry light of science ought to shine. It was inevitable that Dr. Cullingworth should refer to his critics. He did so in a tone of kindly humour which contrasts pleasantly with that of much that has been written on the subject. It is good that every new weapon against disease should be strictly tested before the profession is encouraged to take it up; but the forging of new weapons, even though some may fail when put to proof, is a greater thing than the function of the critic.

Dr. Cullingworth's clear, temperate, and practical summary of the present state of this question marks a stage in its history.

METROPOLITAN SANITARY GOVERNMENT BY BY-LAW.

The sanction of the Local Government Board to the by-laws submitted by the London County Council marks a distinct era in the history of our local government. Under the Public Health Act the London County Council has power to make by-laws for the conduct of offensive trades, for prescribing the times of removal of offensive liquids or matters by road or water, for the filling up of cesspits, for the removal of dust, for the inspection of cattle and of the milk supply, and also with regard to such sanitary appliances as waterclosets, privies, ashpits, and receptacles for dung. All these matters are now regulated by by-law. Under the Metropolitan Management Act the London County Council have also power to make by-laws as to the construction of house drainage, but they have hitherto faithfully followed the footsteps of the old Board of Works in neglecting this important matter. Some of the local authorities, for example, Marylebone and Chelsea, have made regulations for the guidance of their officers in respect to drainage, but these regulations can never have the force of by-laws, and such by-laws can only be made by the County Council. Hence in the absence of by-laws applying to the whole area, while some authorities like St. Marylebone insist upon a drain being ventilated, laid in concrete, and provided with a disconnecting chamber, and the plans approved by both the medical officer of health and the surveyor, some other authorities are quite satisfied with any pipe drain, and even allow the joints to be puddled with clay, nor are they very particular with regard to cutting off sewer gas by a siphon.

The local metropolitan authorities have also made by-laws under the Public Health Act as to nuisances from snow and ice, for the keeping of waterclosets supplied with water, for securing the cleanliness and freedom from pollution of water stored in cisterns, and a number of other matters. These by-laws await the assent of the Local Government Board; the assent has, we understand, been delayed in order carefully to frame from the various by-laws submitted for approval a model set applicable to the whole metropolis. We hope then, ere long, to have a useful code which, to be complete, should include directions for the construction of new drains.

It is one thing to have by-laws, another to carry them out. Various inquiries by the Medical Department of the Local Government Board in different parts of the country have shown that an urban sanitary authority may possess a complete and admirable set of by-laws, and yet take no steps to enforce them. We therefore trust that the County Council will keep the local authorities well up to the mark, and see that they take cognisance of all infractions of the by-laws.

We are requested to state that the library of the Obstetrical Society of London will be closed from August 21st to September 21st.

It is stated that the Royal Commission on the Opium Traffic will consist of nine members, of whom two will be Government officials, two natives of India, two gentlemen identified with the anti-opium movement, one a medical man, and one an independent gentleman with no pronounced convictions on the subject. Of the four last mentioned, it is probable that two will be members of Parliament chosen from opposite sides of the House. The only difficulty of the Government, now that Lord Brassey has accepted the chairmanship, is to decide which of the numerous candidates for the honour of serving on the Commission are best fitted to discharge the prescribed duties.

The Secretary of State for Foreign Affairs wishes to make known to shipowners and others trading with foreign countries, that he cannot undertake to intercede with foreign Governments in individual cases where it is merely sought to obtain exemption from quarantine which those Governments have thought fit to impose, and to which all vessels alike are subjected. In cases where shipowners have reason to believe that the regulations have been infringed, time may be saved by the parties interested communicating directly with Her Majesty's diplomatic representatives in the countries in question, who have full instructions to do what they properly can on behalf of the British interests in such cases.

CHANGES IN THE STAFF AT UNIVERSITY COLLEGE HOSPITAL.

Dr. Herbert R. Spencer has been appointed Professor of Midwifery and Obstetric Medicine at University College, and Obstetric Physician to University College Hospital, in succession to Dr. John Williams, who has esigned these appointments. Dr. G. F. Blacker has been appointed Assistant Obstetric Physician, and Mr. Raymond Johnson Assistant Surgeon.

THE YORKSHIRE COLLEGE.

THE winter session of the medical department will be opened on Monday, October 2nd, by Professor T. Clifford Allbutt, M.A., M.D., LL.D., F.R.S., Regius Professor of Physic in the University of Cambridge.

ROYAL COLLEGE OF SURGEONS, EDINBURGH.

THE Royal College of Surgeons of Edinburgh, at its meeting of July 31st, approved of the prize of £100, given triennially by his Excellency Robert Halliday Gunning, M.D., LL.D., for the greatest benefit done to practical surgery during the triennial period ending on June 20th, 1893, and known as "The Liston Victoria Jubilee Prize," having been awarded by the President's Council equally between Mr. Charles W. Cathcart, M.B., F.R.C.S.E., Edinburgh, and Mr. Harold J. Stiles, M.B., F.R.C.S.E., of the same city.

THE INDEX TO EGYPT'S LIABILITY TO CHOLERA.

DURING six consecutive weeks (May 25th to July 6th) the mortality of young children in the thirty-one chief towns of Egypt has been equal to very nearly 80 per cent. of the birth-rate (788 per 1,000). The greater part of the mortality is ascribed to gastro-enteritis and its congeners, which, being interpreted, means poisoning by impure water. This is the index to the liability of Egypt to cholera, and, taken in relation with the recent mortality from cholera at Mecca, and the subsequent dispersion of the pilgrims, is far from reassuring.

THE VACANT CHAIR OF MEDICINE AT VIENNA.

THE difficulty in finding a successor to the late Professor Kahler of Vienna has been happily surmounted by the appointment of Dr. Edmund Neusser to the vacant chair. The new professor was born at Krakau in 1852, studied medicine there and at Vienna, and took his degree in the latter university in 1877. From 1880 to 1888 he was assistant to the late Professor Bamberger, whose place he filled when, in the academic year 1888-89, Bamberger was on his deathbed. Professor Neusser has been physician to the Rudolphstiftung Hospital at Vienna for some years, and has made several valuable contributions to medical literature, chiefly on clinical subjects.

THE CRUSADE AGAINST INTOXICANTS.

TEMPERANCE is rapidly widening its definitions, and is no longer a mere matter of abstinence from alcohol. Not only have we always with us the great teetotal propaganda, but, with a quietness and persistence almost characteristic of the drug, the use of opium is being assailed; and a commission is now sitting, or is supposed to be, to investigate the ins and outs of all the drugs which come from hemp. Evidently the forbidden fruits are multiplying. Rumours are in the air of attacks upon tobacco, and, as for tea, every evil thing has long been said about it. In coffee lies the only hope of those who crave for stimulation; and sadly it must be confessed that coffee is not always an exhilarating beverage. Happy the stolid masticators who can get joy from beef and pudding, and gain excitement in the ferocious doings of an after-dinner nightmare; against them there is no law.

INTERNATIONAL TEMPERANCE CONGRESS.

THE fourth International Congress for the Suppression of the Abuse of Alcoholic Drinks will be held at the Hague on August 16th and two following days. The members of the Congress, already some 300 in number, will be officially received in the Rathhaus by the Burgomaster on August 15th, at 8 P.M. Among the subjects to be discussed are "Alcohol in Relation to Physiology and Hygiene," and the abatement of the drink evil by voluntary effort and by compulsory legislation. Among those who have promised to take part in the discussion of the scientific aspects of the subjects are Sir Dyce Duckworth, Mr. L. P. Walburgh Schmidt (of Amsterdam), Mr. A. Schmitz (of Bonn), and Dr. A. Forel (of Zürich). Dr. A. Bär (of Berlin) will bring forward statistics as to the death-rate among drinkers, and the prevalence of criminality and insanity among them.

DRUGS MADE FROM HEMP.

IN accordance with a request from the India Office made in pursuance of the answer given in the House of Commons to Mr. Cane, M.P., Lord Lansdowne has appointed a Commission to inquire into the cultivation of the hemp plant in India, the preparation of drugs from it, the trade in those drugs, the moral effect of their consumption, and the desirability of controlling the cultivation of hemp and the manufacture, sale, and taxation of hashish, bhang, ganja, and similar products. The Commission is to visit and take evidence in most of the provinces of India. The Commissioners are the Hon. W. Mackworth Young, C.S.I., First Financial Commissioner of the Punjab; Mr. H. T. Ommanney, Collector, Bombay Presidency; Mr. A. H. L. Fraser, Commissioner, Central Provinces; Surgeon-Major C. J. H. Warden, Professor of Chemistry in the Medical College, Calcutta; Raja Soshi Sikhareswar Roy, Bengal; Kanwar Harnan Singh, C.I.E., Kapurthala; and Lala Nihal Chand, of Mozaffarnagar.

APPOINTMENT OF A MEDICAL OFFICER BY THE INNER AND MIDDLE TEMPLES.

DR. F. J. WALDO, M.A., M.D.Camb., D.P.H., has been appointed medical officer of health of the sanitary districts of the Honourable Societies of the Inner Temple and the Middle Temple. An old Act incorporated in the Public Health (London) Act compels these Societies to appoint one or more medical officers of health, and the present appointment has been made by the Benchers with the fear of cholera before their eyes. Dr. Waldo is himself a member of the Honourable Society of the Middle Temple, and was a pupil of von Pettenkofer, Koch, and Pasteur. The Vestry of St. George-the-Martyr have given him permission to retain his appointment as medical officer of health in Southwark, in addition to those at the two Inns of Court above mentioned.

SALARIES OF MEDICAL OFFICERS OF HEALTH.

THE Sanitary Committee of the Cornwall County Council have made a suggestion which is worthy of record as a practical attempt to deal with an absurd and anomalous state of matters. They have prepared a return showing the area and population of each of the sanitary districts included in the county, and the remuneration awarded to the medical officer of health in each. Such a return for any county would yield curious results, and Cornwall is no exception to the rule. From one point of view, perhaps, the most contemptible instances are afforded by the Launceston Rural Authority, who in 1892 appointed a health officer at a salary of £20 per annum to look after the sanitary welfare of a district 100,000 acres in extent, with a population of over 11,000, and by the Ludgvan Urban Authority, whose medical officer of health receives £5 a year for sanitary supervision over 2,334 persons. Compared with these the yearly pittance of 30s. allotted to the officer acting for one district which has a population of 430 only, is almost reasonable, and it is scarcely a matter for surprise that the medical officer of health for St. Ives has not thought it worth while to trouble the corporation of that ancient borough for any salary at all. There are other examples of salaries of £10, £12, and £14. and, indeed, it seems that no fewer than 17 out of the list of 37 Cornish districts estimate the value of the services of their medical officers of health at £20 or less. From these premisses the Cornwall Sanitary Committee have apparently drawn the logically inevitable conclusion that unless the Cornish medical officers of health are grossly neglecting their duties, they are only being paid for a small fraction of

the work which they are carrying out. The Committee suggest that at all events some sort of minimum salary should be fixed. They propose a preliminary fee of £10 for each sanitary district, with an additional £5 for every 1,000 of population, and a further addition of £2 for every 10,000 acres. The scale certainly does not err on the side of extravagance, and in one town it would permit of a reduction in the salary now paid—a reduction singularly unlikely and unjust, looking to the past services of the health officer of the district in question. Still, as a minimum basis it would remedy the most glaring and absurd instances of the underpayment of professional men, upon whom the tendency of legislation is to cast heavier and heavier statutory responsibilities. Mr. Trevail and his committee have rendered a service to the public by calling attention to those anomalies. Their modest and tentative effort to bring about a more rational system has been for the present rejected—not too courteously—by the County Council, but it will not be forgotten."

CONVERSAZIONE AT NEWCASTLE.

The social festivities in connection with the annual meeting of the British Medical Association at Newcastle were brought to a close by a *conversazione* on Friday night, given by the President and Local Executive Committee. The guests were received by Dr. Philipson, Dr. Adam Wilson (chairman of the *Conversazione* Committee), and Dr. R. C. Benington (honorary secretary). The *conversazione* was held in the Art Gallery, which contained a collection of pictures by members of the New English Art Club. The guests had thus the opportunity of studying the latest products of the Impressionist school, of wondering at, and perhaps admiring, the portrait of its apostle, Mr. George Moore, and generally of forming an opinion of the meaning of the protest against conventionalism in Art which this young band of artists has raised. During the evening Mr. Alfred Capper gave an interesting exhibition of "thought-reading," and the small theatre was filled first by Mr. Amers's band and the English Opera Singers' Quartette, and later by Mr. Arthur Roberts.

THE REGISTRATION OF MIDWIVES.

The Midwives Registration Committee brought their labours to a conclusion on August 8th. Their report recommends that a system of examination and registration of midwives should be established, and that for the purpose of admission and examination of women desiring to act as midwives, the General Medical Council shall be invited to frame rules for regulating (1) the admission to the register either by (*a*) practice, or (*b*) examination; (2) the conditions of admission to such examinations; and (3) the conditions of such examinations. These rules and regulations should, in the opinion of the Committee, be subject to confirmation by the Privy Council, and in the event of the General Medical Council failing to make such rules as the Privy Council can confirm, the Committee recommend that the Privy Council should invite some other medical body, or forthwith cause the proposed rules and regulations to be framed for the purpose required, and that such rules shall take effect as if they had been made by the General Medical Council. The Committee also recommend that the duty of carrying out locally the provisions of the Act that will be required should be placed in the hands of the County Councils. They are also of opinion that greater facilities for the study of midwifery should be provided in workhouse and lying-in hospitals.

THE CONTRACTOR AGAIN!

At the meeting of the Holborn Board of Guardians last week very serious statements were made respecting the subsidence of the walls of some of the buildings under their management, which illustrate well the manner in which the contractor with his little ways prevails against the easy-going British ratepayer. We quote from the *Islington Gazette*: "Defects were found in the boundary wall, which had been built without the proper concrete foundation. It had been found that the wall had been built upon clay, over which a little white lime had been sprinkled. Then it was found that the floors of the day and workrooms, which should have been laid on concrete and tar, were not so laid. It was found, upon examination, that the inch of Stockholm tar in the estimate had not been laid; the flooring blocks were rotting as a consequence, and before long the whole of those floors would have to be reinstated. The chimney-stacks, which should have been built with Portland cement, were found to have been simply washed on the outside with Portland cement, which years had worn off, and now showed defective brickwork. The question arose as to the responsibility for this state of things. There was no doubt that the builder was responsible; but unfortunately the builder had been found out in similar work, and was now an uncertificated bankrupt." Every year brings forth revelations of the same order. On the one side is the careless ratepayer, on the other the canny contractor, between whom lie the sick, the children, and the paupers—helpless victims of indolence and rapacity and of the neglect—if nothing worse—of those who ought to see that right is done.

A SUBSTITUTE FOR ROME.

The postponement of the International Medical Congress at Rome will come as a great disappointment to a great number of British members of the medical profession, who proposed to combine the scientific interest of a congress with the amenities of a holiday in Rome, and the holiday arrangements of many medical men are thus left open for rearrangement. It will probably have suggested itself to many that this will afford an opportunity for substituting a similar holiday of mixed scientific interest and recreation by taking the opportunity thus afforded of visiting the Chicago World's Fair, and of combining with that unique experience a visit to the Pan-American Medical Congress at Washington, which will be held on September 5th. All British medical men will receive a warm welcome at this International Congress of Medicine, towards the funds of which for purposes of hospitality and organisation the American Government have largely contributed. The Secretary of the Pan-American Congress is Dr. Read, Cincinnati, Ohio, who will be happy to afford every information and facility to European visitors. The Cunard steamer *Campania*, the fastest boat on the ocean, which starts from Liverpool on August 19th, will probably land her passengers in New York on the night of the 25th, and the *Umbria*, which sails on Saturday, the 26th, will probably land them on the morning of September 2nd. Passengers sailing by either ship would arrive in good time for the Congress. The visit to the World's Fair at Chicago may be made either before or after the Congress, according as may be most convenient. If a considerable number of medical men desire to combine for the journey it is probable that some special arrangements might be made for their convenience by the Cunard Steamship Company.

MEDICAL MEN AND "FOUNDERS' SHARES."

It is impossible for us to pass over without comment the very unpleasant case which has this week furnished a text to the lay press for so many sermons, and which, although decided in favour of the medical men involved, has been gall and wormwood to all honourable members of the profession. It would appear from the report "In *re* Macdonald Sons and Co., Limited," that in floating the company the vendor not only received cash and ordinary shares, but also some forty "founders' shares" of £25 each, "to be allotted as fully paid up to the persons named by the vendors as founders of the company." Negotiations seem then to have been entered into with certain medical men, who were induced to prescribe and recommend goods to patients and tradesmen,

each doctor who undertook to do so being promised a fully paid up founder's share. In due time the certificates were handed to the doctors, but instead of dividends flowing in the company went quickly into liquidation, and the "founders" being called upon to pay up appealed to the court to have their names removed from the list of contributories. The judge said "it was a sad thing"—we say it is more than a sad thing—"that members of a learned profession should have consented to take shares on such terms . . . . . to take shares in consideration of praising the wares of the company was very like taking them as bribes." The very foundation of a doctor's relation to his patient is absolute honesty. Whatever he orders must be assumed to be for the patient's good, not for his own profit. For the exercise of his skill he takes his fee, and that should be his entire reward. Anything in the shape of bribe or discount or commission, by which he can be influenced to order this or that for his own rather than his patient's benefit, is to be put aside absolutely and at once as an unclean thing. We earnestly beg our younger and less experienced *confrères* to take heed of this, for the ways of the trader are insidious and not always equally oblique. Christmas hampers, heavy discounts for surgical appliances, "founders' shares," are but degrees in the same detestable system, and all should be shunned by men of honour. In reference to this case we can hardly doubt that some further action will be taken by the General Medical Council or the Colleges, for it would be difficult to find an action more "infamous in a professional respect" than the taking of bribes for professional recommendation.

THE "PUBLIC-SPIRITED" WEALTHY.

The failure of the Metropolitan Asylums Board to obtain a site for the erection of a fever hospital at Upper Norwood, in consequence of "a few public-spirited residents" clubbing together to purchase the estate, draws renewed attention to the difficulties under which the isolation of the metropolitan sick has to be provided for. The acquisition of sites for isolation hospitals has all along been a troublesome business; the publicity of every step, the necessity of an inquiry by the Local Government Board before the bargain is concluded, and the uncertainty as to the grounds of its decision, all conducing to put the Asylums Board at a disadvantage in the transaction. But if syndicates of "public spirited" men of wealth are to be formed to render the sanitary administration of the metropolis impossible, a deadlock will certainly be produced from which no escape will be possible without further legislation; and we may be pretty sure that if the legislative authority steps in, very enlarged powers of compulsory purchase will be given to whatever body is entrusted with the care of the infectious sick. In a matter of this sort London must be treated as a whole, and it is intolerable that wealthy suburban residents should put a ring round the metropolis, and drive the sick poor far into the country. Distance means death in cases of typhoid fever and diphtheria, and whatever the cost and however much the residents may dislike it, hospitals must be placed within reasonable reach of every part of London.

THE SALVATION ARMY AND THE DISSEMINATION OF SMALL-POX.

In answer to a question in Parliament, the President of the Local Government Board stated, on July 24th, that he was aware that cases of small-pox had occurred at the Salvation Army Shelter in Blackfriars Road, but that he was assured that where the patients had been certified as suffering from that disease they had been removed to hospital in ambulances. This was very soothing and consolatory to the public, but somewhat less so to Dr. Waldo, who had said in our columns that they had walked through the streets. From inquiries which we have made in the matter, we fear that if the whole truth had been told, the story would have been less pleasing to the public. It seems that eight sufferers from small-pox had walked through the streets from the Salvation Army Shelter at Blackfriars to the out-patient departments of various hospitals, St. Bartholomew's, St. Thomas's, Guy's, and Westminster, and two to the Southwark Union Northern Relief Station. All these were ultimately certified from these hospitals and station, and were no doubt removed from them to the small-pox wharf in ambulances, but nevertheless they walked through the streets, as Dr. Waldo had said, from the shelter to these hospitals, and they took that little promenade among their fellow men because they were ill and, as was subsequently shown, were suffering from small-pox. The answer given in Parliament was clearly an official one drawn from official records, which only start with the certification. The facts, however, all tend to bear out Dr. Waldo's contention that these shelters ought to be placed under the protective provisions of the Common Lodging House Acts, a clause in which makes it obligatory on the keeper to report suspicious cases, and would certainly have prevented some of these cases from wandering through the streets.

THE VACCINATION COMMISSION.

Two health officers of some standing—Dr. Bond, of Gloucestershire Combined Sanitary District, and Dr. May, of Warwickshire—make mention in their annual reports of the mischievous effects of the long delayed result of the Royal Commission on Vaccination. For more than four years the Commission have been sitting and have almost continuously been occupied in taking evidence for and against vaccination. Yet we know from published documents of the evidence taken during only the first twelve months of their existence, the three volumes recording the evidence to the early part of July, 1890. The fifth report of the Commission, in which the members gave publicity to their views relative to repeated prosecutions and the treatment of defaulters, suggests the existence of a fourth volume, but we cannot learn that such has been issued. It certainly seems incredible that the evidence adduced during the last three years should have been withheld. Yet this seems to be the case. There may be some reason for it, but passing by the fact that we do not yet know the evidence on which the fifth report was based, and looking to the near approach of the season when small-pox may be again expected to manifest signs of epidemicity, we venture to assert that whatever may be the view adopted with regard to formal evidence at the sittings of the Commission they should at least publish the reports made on the long list of inquiries undertaken for them during the present year into the circumstances under which small-pox has prevailed at one and another place. Both Dr. Bond and Dr. May advert to the bad effect which the protracted proceedings of the Commission are exerting in the matter of vaccination; and we feel that the publication of the results of these inquiries made into the recent heavy prevalences of small-pox by independent experts would go far to lead people to secure for themselves and their children that measure of protection against attack which we confidently assert these inquiries have amply demonstrated. For the rest, if we mistake not, the antivaccinators have for some time occupied the attention of the Commission. If so, it is but just that the other side should have like opportunity for discussion of their convictions. But in the best interests of vaccination, and therefore of the public health, it is much to be desired that the already long-drawn sittings should speedily culminate in a final report. Since, however, we have but little hope of this, we feel that the course above suggested should be pursued during the next few months.

DEATH UNDER CHLOROFORM.

We have been favoured with the following report by Dr. H. Tilly of a death from cardiac failure at the London Throat Hospital, Great Portland Street. On the afternoon of July 19th chloroform anæsthesia was induced in order to remove

the tonsils and postnasal adenoid growths. This was successfully accomplished; the slight hæmorrhage had ceased, and the patient was beginning to recover consciousness, when fatal syncope ensued. The patient was a healthy-looking lad, 11 years of age, admitted under Mr. W. H. Stewart. He had had a good breakfast in the morning, but nothing since except from half to three-quarters of a pint of beef-tea about 12 o'clock. Previous to inhaling the chloroform the patient's pulse was good, and except for a little superficial eczema round the lips, nothing seemed amiss with him. He was not at all nervous. The anæsthetic was administered on a modified Skinner's inhaler at 3.45 P.M. The patient took it well, struggling very little during the first stage, and when anæsthesia was complete the pulse and respiration were good. No more chloroform was given. The operation was completed in about two minutes, the hæmorrhage had practically ceased, the patient was placed in the semiprone position, and the medical men on the point of leaving him when he suddenly became pale, although it was noted at the time that respiration continued. The head was immediately lowered, the tongue drawn and held out with forceps, the legs raised, and artificial respiration commenced, air entering freely with inspiration and expiration. An ounce of brandy in warm water was injected into the rectum and retained, and 10 minims of ether injected under the skin over the heart area. The electric battery to the heart area, amyl nitrite to the nostrils, flagellation of the face and chest with a wet towel, hot sponge over the heart were other means adopted from time to time to stimulate the circulation, but were of no avail, although persisted in for more than an hour and a-half. One reason for continuing these measures for so long was that the patient's colour seemed to give hope that the circulation had not entirely failed. Nothing was clearer in the case than the fact that respiration continued after the heart failed, how long it is almost impossible to say, as the movements of artificial respiration, which were never relaxed from the commencement of bad symptoms, obscured the natural respiratory movements; however, as nearly as one can guess, about two minutes after the commencement of artificial respiration the patient inspired naturally, whilst an effort was made to keep accurate time with these natural movements, unfortunately without any good permanent result. At the *post-mortem* examination the heart was found empty and perfectly healthy. The lungs were congested—a fact probably explained by the long-continued artificial respiration. There was no obstruction in the larynx, trachea, or main bronchial tubes. All the other organs were healthy.

THE WATER SUPPLY OF WORTHING.

The Town Council of Worthing have acted with commendable promptitude in the matter of a new water supply in the face of great local discouragement. Mr. Mansergh, C.E., whom they had called in to advise on the subject, has reported his belief in the specific contamination of the borough water service by way of soakage from a defective sewer connected with the main drainage of the town, the sewer allowing of free percolation of its contents into the surrounding chalk, and thence by way of fissures and faults into the large volume of water struck as recently as last April, and which had considerably augmented the general supply of the place. While suggesting measures for securing that the defective pipes for the conveyance of sewage shall be safe from leakage in future, Mr. Mansergh also expressed his opinion that the heading of water which he credits with being the cause of the fever prevalence should be excluded from the borough supply, and he has urged the provision of an entirely new service from a site at the foot of the New Downs. Hereupon the Town Council petitioned the Local Government Board for sanction to borrow £3.000 for experimental purposes, and formal inquiry into the subject of the proposed loan was held recently by Mr. Arnold Taylor on behalf of the Board, this amount enabling the Council to make an immediate start in connection with a larger undertaking, costing many thousands of pounds. There was a general consensus of opinion on the part of the experts called in as to the site chosen for the new works. The present supply will be entirely closed when the water now sought is available. Later in the day of the inquiry the Town Council passed a resolution in favour of purchasing, at a gross cost of £26,000, the entire interest of the West Worthing Water Company, which supply the West Ward of the borough, and whose water is held to be above suspicion. Thus it is seen that Worthing is determined to proceed at great cost to set her house in order in the important matter of drinking water, and we cannot withhold our congratulations and our wishes that the step decided on may next season reinstate her in her position as a charming seaside resort. But she has learned dearly the lesson that towns cannot, with impunity, afford to permit the continuance of defective sewage pipes and domestic water supplies in direct relation the one to the other. A shaft sunk eight years ago and left in an unsafe condition, having regard to neighbouring faulty sewers, has not proved notoriously dangerous until the present summer; but the day of reckoning has come by the soakage of typhoid poison into the household water supply, and at a moment when Worthing most needed complete immunity from disease. The lesson taught seems difficult to learn, and many another town needs to learn it.

PRESENTATION TO PROFESSOR GRAINGER STEWART.

One of the most interesting events in connection with the annual meeting at Newcastle was the presentation to Professor Grainger Stewart of a life-size portrait of himself by his former pupils now scattered all over the world in the practice of their profession. The picture, which was painted by Sir George Reid, President of the Royal Scottish Academy, bears the following inscription: "Presented to Thomas Grainger Stewart, M.D., Professor of the Practice of Physic in the University of Edinburgh, by former pupils as a token of their gratitude and esteem. August 3rd, 1893." The presentation was made by Dr. Sims Woodhead in an appropriate speech. Professor Grainger Stewart, in acknowledging the gift, said it was very interesting to him to look back over the thirty years he had been a teacher in the Edinburgh School of Medicine, and to think with gratitude of all the kindness he had experienced, and of the many friendships he had formed with those who had been colleagues, teachers, and students. He thanked the contributors most heartily for their kindness. The proceedings then terminated.

DEATH OF AN OBSTETRICIAN FROM ACUTE SEPTICÆMIA.

Full details have been published of the lamented death—recently announced in the British Medical Journal—of Dr. Emile Blanc, of Paris, from septicæmia of extreme severity. He was only 35. According to Dr. M. A. Poncet, whose clinical report of the case appears in the current number of the *Archives de Tocologie*, Dr. Blanc removed some pieces of retained placenta, at 8 A.M. on May 23rd, from a patient who had already shown signs of puerperal infection. There was a very small agnail on the left forefinger where the skin is reflected on the side of the nail. Shortly afterwards the place became tender. Forty-eight hours afterwards all tenderness had passed away from the seat of infection. Yet only six hours after infection Dr. Blanc was seized with intense pain in the left axilla. There was no evidence of inflamed lymphatics in the left arm. Two hours later a slight rigor occurred, with cutis anserina, followed by nausea and vomiting, which lasted for two days. The unfortunate obstetrician felt certain that he had received a death blow, and took to his bed never to rise again. On May 24th the temperature rose to over 105° F., the pulse to 130. There was swelling in the left axilla, extending to

the subclavicular region; the skin was not red. But the most intense lancinating pains were felt in that part, especially when the arm was moved. It was agreed that the focus of infection in the axilla ought to be excised so as to give the patient a fair chance. Dr. Poncet dissected out some œdematous axillary glands, and also opened the subclavian region and cut out some glands there. The œdematous connective tissue in those parts was of a saffron colour; not a drop of pus could be found. Both wounds were freely touched with the actual cautery. There was complete temporary relief; the pains ceased entirely, but within twenty-four hours they returned and the swelling also reappeared. The raw surfaces of the wounds, which were dressed with antiseptics and had not been sutured, were of a coppery yellow colour, and around them was slight swelling of undefined limits. Extreme dyspnœa set in, relieved by subcutaneous injections of morphine and inhalations of chloroform. Dr. Blanc died at 7 in the morning of May 28th. Though so young, he had done excellent work. Amongst his contributions to medical literature are papers on Forehead Presentations, on the Inferior Segment of the Uterus at the End of Pregnancy, on the Toxic Nature of the Urine in Pregnant Women, and on the Pathogenic Action of a Microbe found in the Urine of Eclamptics.

FAITH AS A THERAPEUTIC AGENT.

THE admirable pharmacological methods of Dr. Lauder Brunton and Professor Leech must find a large extension before we can so far analyse our treatment as to separate faith effects from physiological effects on lower planes. Meanwhile, may we not suffer from that unsettlement of mind, that decay of faith in which theologians see cause for lamentation? Mrs. King's article on Mediæval Medicine, in the *Nineteenth Century*, certainly arouses some such reflections—shall we call them regrets? Surely it was a blessed state of mind in Elias Ashmole which enabled him to find in a necklace of three spiders a specific for his ague. For ague, happily, we have now a more constantly serviceable remedy, one that will cure sceptics as well as believers. Still, how about the poor sceptics in the ante-Peruvian days? And today, can we not find in our hearts not only forgiveness, but even some envy, for the confiding soul which can cure its grosser envelope of Bright's disease or a dislocated hip by a pseudo-electric belt? Until Drs. Brunton and Leech find us a specific for "neurasthenia," may not loyal souls find some alleviation of the evil even in the touch of a baronet? Those persons not yet "honeycombed with doubt" may find Pliny a cheaper physician than modern quacksalvers; certainly baked toads in silk bags are a cheaper appendage than electric belts; and who shall be sure that they are less efficacious? "Jerome of Brunsweig"—who sounds like "somebody"—himself saw a horse cured of blindness by a root of "cut Malowe" which was hanged about his neck. This faithful animal belonged to Jerome, who was heartless enough to make money by the transaction to the tune of 30 crowns. Any comments made subsequently by the purchaser seem to have perished.

WATER FILTRATION AND FEVER.

IT is seldom that the spread of waterborne typhoid fever can be so demonstrably traced to a particular supply, as has been the case at Chester-le-Street. We have already referred briefly to the fact that the two outbreaks, which form the subject of an admirable report by Dr. Maclean Wilson to the Local Government Board, were largely among consumers of a public water supply. How large the incidence was may be gathered from the fact that, of 43 households attacked, the initial sufferer in 41 drank the water; whilst, of the remaining two, one seems clearly to have had other opportunity of contracting the disease, and the second had an attack of very doubtful character. Other probable causes of the fever are discussed by Dr. Wilson and set aside, the only condition common to the sufferers being the water service; and, since the 41 households were on one of two public waterworks' systems, the evidence is even more conclusive as to the part played by the particular supply, which, by the way, serves 60 per cent. of the houses. Dr. Wilson's description of the works of the company whose water is implicated reads like that of some deservedly cholera-ridden Continental town. The details given by him lead to the uncomfortable inquiry whether England has many such other like cases. We fear, from recent experience, that our public services are by no means such as could be wished. We have but to remember the Tees epidemics, and the instances of Rotherham and district, King's Lynn, and now Chester-le-Street, to see how dangerous it would doubtless prove to England if cholera were to escape the vigilance of our Eastern ports and gain a footing in inland districts where sewage was led to the gathering grounds of water supplies, and even into the very intake pipes themselves. Coming to the interesting question of water filtration as protecting from fever spread, we have, in the instance before us, a "filtered" water, proving, as far as can be judged, a disseminator of disease, after having had opportunity for receiving specifically-polluted matter up stream. But, while the experience of Chester-le-Street shows this to be so, the general question is not furthered, since, to prove anything, the filtration to which water is subjected should of course be of the most perfect sort. We sincerely hope that steps will be taken to place before the whole village of Chester-le-Street a drinking water free from all risk of pollution alike by way of intake, filter bed, filtering material, or otherwise.

POSTPONEMENT OF THE INTERNATIONAL MEDICAL CONGRESS.

WE have received an official intimation of the fact that in consequence of the sanitary condition of several European States, the Executive Committee of the International Medical Congress, following the advice of many leading members of the profession, Italian and foreign, have decided by a large majority to postpone the meeting of the Congress, which had been fixed for the end of September, till April, 1894. The exact date of the meeting will shortly be announced.

The following is the text of the official circular from the General Secretary of the Congress:

Genoa, August 4th, 1893, 6.15 P.M.—The International Medical Congress, which was to have been held in Rome from September 24th to October 1st, 1893, is postponed to the month of April next. The cause of this postponement is contained in the subjoined resolution of the Committee of Organisation, which has been approved by an absolute majority: "The Executive Committee, having regard to the sanitary anxieties of the European States, and being of opinion that these anxieties may prevent colleagues of all nations from leaving home, considering that in that case the Congress, which ought to have a general character, would fail in its object, following the advice relative to this subject received from numerous adherents from all foreign scientific centres, decides to postpone the Congress till the month of April, 1894."—MARAGLIANO.

SMALL-POX IN GREAT BRITAIN.

IN London last week only some 40 cases of small-pox were notified, much as in the week before, but the cases remaining under treatment last Saturday, about 250, were lower than on any occasion for many months past. Three deaths were registered in the metropolis last week, as was also the case in West Ham, where many fresh attacks were heard of. Multiple cases came to light in the Edmonton Union. In the Midlands, Birmingham, Walsall, Derby, and Leicester all returned cases, the latter town some half-dozen, after a week of freedom a fortnight earlier, the first for over six months. In Yorkshire the disease showed some decrease at Bradford, although still busy there; and Wakefield and Hull chronicled fresh cases, as well as other towns where single occurrences were noted. In Lancashire, Salford had 6 cases, Manchester 2, and Oldham and Ashton under-Lyne each a single attack. A few cases occurred in the Tyne districts. Bradford registered 3 deaths, and Salford and Birmingham each one.

THE French Society of Dermatology and Syphilography will hold its next annual meeting at Lyons in August, 1894.

SIXTY-FIRST ANNUAL MEETING

OF THE

BRITISH MEDICAL ASSOCIATION.

Held in NEWCASTLE-ON-TYNE, August 1st, 2nd, 3rd, and 4th.

Third General Meeting: Thursday, August 3rd.

The third general meeting was held on Thursday, August 3rd, in the new Assembly Rooms; the President, Professor Philipson, in the chair.

Vote of Thanks to the Dean of Durham and the University of Durham.—The President said they were honoured on that occasion by the presence of the Very Rev. the Dean of Durham, who attended as an indication of the interest taken by the Durham University in the proceedings of the Association. He was sure they would all heartily welcome the presence of the Dean, coming amongst them in his dual position as Dean of Durham and as Warden of the University of Durham. It was to the Association a great honour and distinction. He proposed that the hearty thanks of the meeting should be accorded to the Dean for his kindness in attending their proceedings.

The President of the Council seconded the resolution, which was carried by acclamation.

The Dean of Durham said this was to him an unexpected honour. It was a very great pleasure to him to be present. He had always appreciated the very great advantage of the connection Durham derived from the great and flourishing School of Medicine at Newcastle. In the old days, when he first came to Durham, its support—for it was a real support—was an immense advantage to them, for in those days Durham had considerably fallen, and the one body to which he then looked as representing worthily what was being done in the University education in the North of England was the very flourishing College of Medicine at Newcastle. They had now got a sister by their side in the College of Science, a very worthy representative of a very large portion of scientific objects in promoting science in all directions in the North. He had always cherished a warm affection for the good old town of Newcastle, looking upon it as the great centre of life and thought of every description. It had no doubt taken a great scientific position for many years, and he hoped to see it take a high position also with regard to literature. Science had gone so far ahead that literature was left somewhat in the rear, and he therefore appealed to Newcastle's friends to establish a side of literary teaching in the growing Physical College of Science. He thanked them very heartily for the reception they had given him, and could assure them that it was a sincere pleasure for him to be present and to see the close link of connection which bound the University of Durham with the great scientific and medical colleges of Newcastle.

A Personal Explanation.—The Treasurer said he was very glad to have this opportunity of making a very short personal explanation. On Tuesday, in the course of the debate on a very undesirable member of the Association, the question was asked why the College of Surgeons of England did not deal with him, and he (Mr. Butlin) having already read out that this gentleman was L.R.C.S., L.R.C.P.Edin., replied at the moment, without thinking what effect it might produce, that the College had nothing to do with him, because he was an Edinburgh man. He was sorry to say that expression was interpreted as a distinct slur upon Edinburgh men. It was not until the previous day that he heard this from various quarters, and was told it was taken in very bad part by the Edinburgh men who were present. He could only say he had no such intention; indeed, the idea never entered into his mind, and he was only too grieved to think that these gentlemen should know him so little as to conceive that it was possible for him to intentionally insult, or even cast a slur, upon so estimable a body of men—a body of men whom he held in the highest respect, and amongst whom he counted some of his warmest and dearest friends.

The Stewart Prize.

The President, in presenting the Stewart Prize to Dr. Thorne Thorne, said, on behalf of the Council of the British Medical Association, he had the honour of presenting to him the Stewart Prize, which had been awarded to him by the Council upon the recommendation of the adjudicators in accordance with the following statement: "British Medical Association. This is to certify that the Stewart Prize of 1893 of the sum of £50, the interest on a fund left by the late Dr. Alexander Patrick Stewart, to be awarded from time to time in recognition of important work already done or of researches instituted and promising good results regarding the origin, spread, and prevention of epidemic disease, with a view to encourage the continuance of the same, has been awarded to R. Thorne Thorne, Esq., C.B., M.D., F.R.S., F.R.C.P., medical officer to the Local Government Board, for important work done, which he has done personally, on the subject of diphtheria and the co-ordinating influence of the scientific staff, of which he formed the head, in searching into the etiology of this disease. (Signed) George Hare Philipson, President. Francis Fowke, General Secretary." He had to ask Dr. Thorne's acceptance of this prize. In doing so, as one of the adjudicators, he might state that the three adjudicators, acting independently of each other, in accordance with the trust, came to the same decision, that of the investigators and of the writers in pathology more especially upon preventive disease, Dr. Thorne Thorne, in his Milroy Lectures before the College of Physicians of London, and since published, had fulfilled more than any other individual in the United Kingdom during the past twelve months the indication of the Stewart Fund, and after consideration again in concert they came to the unanimous opinion that it was their duty to advise the Trust Committee that this was their recommendation. They had convincing evidence when the matter passed to the Council of the Association that they had done right, and they had the indication from the members of the Association present that the action of the adjudicators, the Trust Committee, and the Council of the Association, would receive their hearty ratification. He might say further respecting the important investigations upon this very difficult, dangerous, and fatal disease, that Dr. Thorne Thorne in his investigations had unmistakably advanced their knowledge respecting the etiology and causation of diphtheria, and that there was hope that this disease might be held in check and might also be prevented in the future if the directions of this able physician and pathologist were strictly attended to by that important branch of the profession, the medical officers of health, of whom he thought they would agree with him in saying Dr. Thorne Thorne was the head, occupying the position of chief medical officer of the Local Government Board. Dr. Thorne Thorne was recently honoured by Her Majesty, being made a civil Commander of the Bath, and they now, as the British Medical Association representing British medicine, desired to give him an indication of their approval, with the further expectation that in the position which he occupied they might anticipate further advances brought about through his investigations. He begged, therefore, to offer Dr. Thorne Thorne their hearty congratulations, and to express once more their sense of the advance and the aid which he had been able to bring about respecting preventive medicine—a branch of their science which they were endeavouring to further.

Dr. Thorne Thorne said he was sure they would agree with him that he ought not to accept this great honour from the Association by a mere silent acknowledgment. The mere fact that it came to him from a great representative body such as this was in itself a very considerable distinction; and knowing, as he did, how the Association was made up, and what eminent men formed part of its governing body, he could assure them that he deeply appreciated the honour that it had conferred upon him. Then, again, the prize bore the name of Alexander Patrick Stewart. He could claim that he was a personal friend of Dr. Stewart's; and all who had known him would know what a high-minded and large-hearted man he was, and would desire that some influence, at least, from him should extend to influence the lives of all those who knew him. But it was rather as a physician that they had to do with him that day. Dr. Stewart exhibited and he could remember it even from his student days—that

great tact which was embodied in real power of observation; as he went from bed to bed amongst his fever patients, he became convinced that he was dealing, not with one fever, but with more than one. His clinical notes, which were based upon a careful power of observation, bore out this view; and when he studied it from a pathological point of view, he became absolutely convinced that he was dealing with two diseases, and not one; and from that moment, fifty years ago, a differentiation was made between typhus and typhoid fever. The discovery was one of great value from the clinical point of view; but it was infinitely more so from the public health aspect. Directly this differentiation was made, men naturally asked themselves, and amongst them was no less a man than Sir William Jenner, "Are not these diseases due to two different causes?" and the result of the investigation into the etiology of those diseases was that typhus in the greater part of the country was now a clinical curiosity, and that the mortality from enteric or typhus fever had so diminished that they were really the envy of the civilised nations of the world. If ever proof were wanted, the true powers of observation, careful clinical record, and a knowledge of the natural history and pathology of disease were needed in order to prove the basis of progress in preventive as well as in curative medicine. That work was done by Alexander Patrick Stewart. They would allow him to say also that the manner in which the Prize was conveyed to him was particularly gratifying. It identified him in the first place with a staff of which he deemed it a great honour to be at the head. He knew no men who were more devoted to the effort to make public health a science as well as a boon to mankind than the staff at Whitehall. He thanked them also very heartily for including a reference to the medical officers of health of the kingdom. In one sense he would accept the kindly statement that he was their head, although it was by mere accident of his position. But it was a great honour to be in that sense the head of such a body. As they had been mentioned in connection with this work on diphtheria, no one knew better than he did, no one knew anything like so well as he did, how much he was dependent for that work on those who had carried out what he might call the "field epidemiology" of the kingdom. They supplied the material and the facts and he had done little more than to put those facts together and to draw certain inferences from them. In conclusion, he wished to say that the value of the Prize was very greatly enhanced by the knowledge that the President was one of the adjudicators. He begged to thank them for the distinction that had been thus conferred upon him.

The Address in Surgery, which was published in the BRITISH MEDICAL JOURNAL of August 5th, page 302, was then delivered by Dr. G. H. HUME.

Mr. PRIDGIN TEALE said it gave him very great pleasure to propose that the best thanks of the meeting be given to Dr. Hume for his able and interesting address in surgery. It was a very great pleasure to any member to have the privilege of proposing a vote of thanks to Dr. Hume for what he might call his very charming address—charming in diction and charming above all in its substance. It was a useful lesson to any one of them to hear that address, whatever their spheres of practice. It touched on surgical principles, and it touched one very great principle—namely, that in their advance in surgery, as in everything else, they must attend to every detail, and carry it out in the best way possible. He had very great pleasure in proposing a vote of thanks to Dr. Hume.

The TREASURER said he should not have accepted the kind offer to second this resolution had it not been for two very good reasons. In the first place, he desired personally to thank Dr. Hume for his very admirable, he might almost call it practical, review of surgery for the last few years; and in the second place, he did want to call attention—and he did that more as an official than as a member—to the fact that that room had been very sparsely filled that day. He had to charge the magnificent hospitality of their Newcastle friends in part for that, and in doing so he had only two charges to make against them. In the first place, to himself personally they had been so kind that he doubted whether he should live through the week; and in the second place, the executive had allowed the Committee to arrange a very large excursion of 300 members to Tynemouth that afternoon. He could only recall to Dr. Hume what great stage actors had felt in old times—men like Macready and Kean, who complained that their acting failed to draw whilst the introduction on to the stage of a flock of sheep or six white horses filled the house. He was afraid even in their enlightened constituencies an excursion on a fine afternoon like that to Tynemouth had more attractions than even the classical address of their friend Dr. Hume, for which they heartily thanked him.

The resolution was carried by acclamation.

Dr. HUME said he could only state how much he appreciated their kindness in receiving his address in the way they had done, and in acknowledging it by a vote of thanks so kindly proposed by Mr. Teale and seconded by the Treasurer. It would ill become him, if they of the audience had found no fault, for the lecturer to find fault with his audience, even in point of numbers. He could only, therefore, express his gratitude for the patient and kindly hearing which they had given him.

Public Medicine Section.—The TREASURER: I have formally to move the adoption of some resolutions passed at the Public Medicine Section, as follows:

"That it be referred to the Parliamentary Bills Committee to take such steps as may be desirable to approach the British and foreign Governments, with a view to obtain their intervention in securing measures for the suppression of cholera at the Hardwâr and other Indian fairs, and at the Meccan pilgrimage; and that for this purpose also due submission of the facts be made to His Majesty the Sultan." Carried unanimously.

"That the Parliamentary Bills Committee of the British Medical Association be requested to bring before the Local Government Board the desirability of taking means, by extending the jurisdiction of the port sanitary authorities, or otherwise, to safeguard the island against the danger of persons infected with cholera being landed at any point not under the control of a port authority." Carried unanimously.

"That it is the opinion of the Public Health Section that the extra expenses incurred by the port sanitary authorities in preparing for or dealing with an invasion of Asiatic cholera should be defrayed by the country at large." Carried unanimously.

All I have to do is to propose that these be referred, as such resolutions usually are, to the Council for consideration.

The PRESIDENT seconded the resolution, which was carried.

CONCLUDING GENERAL MEETING, FRIDAY, AUGUST 4th.

THE concluding general meeting was held on Friday, August 4th, the President, Dr. PHILIPSON, in the chair.

The PRESIDENT said he had received the following letter from the Marquis of Londonderry: "Dear Mr. President, I have to thank you most sincerely, and through you the members of the British Medical Association, for the honour they have done me by electing me an honorary member of the Association, an honour that I can assure you I deeply appreciate. I shall hope to see you at Wynyard on Saturday. Believe me, very truly yours, LONDONDERRY." He proposed that this letter be entered on the minutes.

Address in Obstetrics and Gynæcology, which is published at page 353, by Dr. D. J. Cullingworth.

Dr. MURPHY, President of the Obstetric Section, in proposing a vote of thanks to Dr. Cullingworth, said, whatever might be thought of the meeting at Newcastle-upon-Tyne, it would be remembered as one at which three most eloquent addresses had been delivered to the Association. It had been a peculiar satisfaction to himself, presiding, as he had done, over the Gynæcological Section, that it should have been so nobly represented at that meeting. In the first place his distinguished friend, Professor Pozzi, did them the honour of coming from Paris to open a discussion, and now, as the climax of the whole, they had had a brilliant address from Dr. Cullingworth. For some years there had been no address on this subject, and when it was first mooted in London the suggestion was not taken up with any great warmth. When, however, he suggested the name of Dr. Cullingworth, it was acceded to with acclamation. Dr. Cullingworth enjoyed the unique distinction of being the only man that had ever removed a tumour larger than himself. He had the greatest

pleasure in proposing a most hearty vote of thanks to Dr. Cullingworth for his able and eloquent address.

Professor Pozzi seconded the resolution, which was carried by acclamation.

Dr. Cullingworth said he had omitted from the address proper the usual opening sentences of gratitude to the Association for the honour that had been bestowed upon him, but that was not because he did not feel the honour. He did so most keenly. He knew of no honour in the course of his professional career that had given him more pleasure than being called upon to deliver this address. He wished to express his very grateful thanks to the members who had been good enough to constitute his audience for the manner in which they had listened to what he was afraid had been a somewhat lengthy address.

The Control of Nurses.—Dr. Groves (Carisbrooke, Isle of Wight), who had given notice to propose the reaffirmation of the resolution of the annual meeting of 1891, with reference to the control of nursing, "It is necessary that nurses of every denomination be under the complete control of the medical profession in the performance of their duties, and it is an instruction to the Council of the Association to consider and report in what manner this end may be best attained," and to call attention to circumstances associated with it, said had the order of the meeting admitted of his putting a question before the report of the Council was adopted, he should not now have troubled them with any remarks. He felt, however, much satisfaction that he was stopped on the opening day, because he had had the advantage of enjoying one of the pleasantest meetings of the Association that he had ever attended. He had been informed that married people were in the habit of telling their companions in life that they wished they never had been married; he was also informed that on looking into their inner consciousness they found no trace of such regret. In all probability, if he looked into his inmost feeling, he should find there regret that he ever became a member of the British Medical Association, because he had suffered very grievously in connection with this subject. He had felt bound to come to a meeting of the Association and move this resolution. He came, as he thought, to a quasi-private meeting, in which anything he might say would be privileged, and he thought so because the rule of the Association said that general meetings were meetings of medical men and of members of the Association. Perhaps as a magistrate he ought to have known something of the law of slander and libel; he knew a great deal more about that law than he did previous to the year 1891. He was very much surprised after he had spoken to find his speech in the British Medical Journal *in extenso*, unedited; and he said to himself, "What is the Reference Committee for if we cannot be protected in our speeches?" No speech was made in the House of Commons that was not edited, and surely speeches made at those meetings amidst genial companionships ought to be just looked at a little by the editors before they were passed into the press. However, three or four months afterwards he opened the British Medical Journal one morning, and found in the largest type a statement which branded him with dishonour, in which it was said that he was practically unworthy of credit.

The President was sure Dr. Groves would excuse him for suggesting that he should not go into personal matters.

Dr. Groves said he had no wish to pose as a martyr. He simply referred to personal matters in order to save the Council trouble in the future. It would be a bitter disappointment if he had to go back after all that he had gone through without this resolution being reaffirmed. The matter had never gone to the Council, but with all respect to their President, he did not think they were ever authorised to keep back any resolution of general meeting from the Council.

Dr. Ward Cousins said that was not quite correct. The matter had been before the Council, and had been accepted.

Dr. Groves said in that case it was not necessary to reaffirm it. He should be perfectly satisfied if he were assured that the Council were going to carry out this resolution, and to report to a general meeting. Was he to understand from the President of the Council that that was so?

Dr. Ward Cousins could assure Dr. Groves that this matter would again receive the early attention of the Council; but, still, the issue of their consideration was very doubtful. The resolution stated that "nurses of every denomination be under the complete control of the medical profession." The Council of the Association could not do that; nevertheless, they would give the topic their full and earnest consideration.

Dr. Groves said, having that assurance, he would withdraw the resolution.

Dr. Donovan (Birmingham) proposed a vote of sympathy with Dr. Groves for the trouble he had been put to.

Surgeon-Lieutenant-Colonel Ince seconded the resolution, which was carried by acclamation.

Dr. Groves said he had intended to say that a great deal of the bitterness of his life had been taken out of it since he had been in communication with members of the Association at that meeting. What bitterness remained had been removed by this vote of his professional brethren.

Votes of Thanks.—On the motion of the President, seconded by the President-Elect, the following resolutions were carried by acclamation:—

"That the cordial thanks be given to the Right Worshipful the Mayor of Newcastle, the Sheriff of Newcastle, and the Corporation of the city of Newcastle for their warm welcome on the occasion of the sixty-first annual meeting."

"That the grateful thanks of the Association be given to the Right Reverend the Lord Bishop of Durham, the visitor of the University of Durham, for his eloquent sermon to the members of the Association; and to the Vicar, the Reverend Canon Lloyd, and the Churchwardens of St. Nicholas' Cathedral for their kindness in receiving the Association."

"That the grateful thanks of the Association be given to the Very Reverend the Warden and the Senate of the University of Durham for their kindness in arranging for a special convocation and in recognising the Association by conferring honorary degrees."

"That the hearty thanks of the Association be given to the Right Worshipful the Major (Alderman Culley) and the Corporation for their reception and *conversazione* in the Natural History Museum on Wednesday last."

"That the Sheriff of Newcastle (Mr. Riley Lord) be warmly thanked for his delightful garden party on Wednesday last."

"That the President of the Association, Professor Philipson, and the local Executive Committee, be sincerely thanked for the *conversazione* in the Art Gallery, and for their valuable services in rendering this, the sixty-first annual meeting, so memorable a success."

"That the cordial thanks be given to the Warden and Senate of the University of Durham for the garden party given in the Fellows' Garden, and to the Schools and Charities Committee of the Newcastle-on-Tyne Corporation for their reception, and the Chairman and House Committee of the Royal Infirmary for their hospitality."

"That the heartiest thanks be given to the Mayor and Mayoress, ladies, and citizens of Newcastle-on-Tyne for their liberal hospitality to the members of the Association, and for their admirable arrangements for ladies accompanying members."

"That the Presidents and Councils of the Colleges of Medicine and Science be warmly thanked for having placed the use of these buildings at their disposal, thus contributing so greatly to the success and comfort of members attending the meeting."

"That the best thanks of the Association be given to Mr. G. E. Williamson, honorary local secretary; Dr. Beatley, honorary local treasurer; Dr. Howden, honorary local secretary to the Museum Committee; Dr. Murphy, honorary local secretary to the Dinner Committee; Dr. Lyle, honorary secretary to the Reception Committee; Mr. W. Ridley, honorary secretary Excursion Committee; and to Drs. Limont and Arnold for their successful labours in organising so important a meeting."

"That the best thanks of the Association be given to the Mayor and Corporation of Tynemouth, and to the Mayor and Corporation of South Shields, for their hospitality at the excursions to their respective towns, and for the interesting exhibition of life brigades on the occasion of their annual meeting at Newcastle."

"That his Grace the Duke of Northumberland, the Right Honourable the Marquis of Londonderry and Lady Londonderry, the Right Honourable Lord Armstrong, and Mr. N.

G. Clayton be most warmly thanked for their hospitable receptions."

"That those firms who have opened their respective works and places of business to members of the Association, with accompanying ladies, be cordially thanked for the interest thus added, and for their hospitality on the occasion of the 61st Annual Meeting of the Association. Messrs. the United Alkali Company; Messrs. Clarke, Chapman, and Co.; the proprietors of the Newburn Steel Works; Messrs. Palmer's Shipbuilding and Iron Company; Messrs. Sowerbys; Messrs. Consett Iron Works; Sir W. G. Armstrong, Mitchell, and Co.; the Cowpen Coal Company; Messrs. Readhead and Co.; Messrs. Eltringham and Co.; Messrs. J. P. Rennoldson and Son; Messrs. Atkinson and Philipson; and Messrs. Wailes and Strang."

"That the members of the Union, Conservative, and Liberal Clubs, and the Golf Clubs be cordially thanked for throwing open their houses to members of the Association during the meeting."

The President having left the chair,

Moved by Dr. Ward Cousins, F.R.C.S., President of the Council, Senior Surgeon to the Royal Portsmouth Hospital, seconded by Dr. T. Bridgwater, LL.D., and carried by acclamation,

"That the cordial thanks of the Association be presented to Professor George Hare Philipson, M.D., D.C.L., for the able, dignified, and courteous way in which he has conducted the proceedings, as President of the British Medical Association, of this the sixty-first annual meeting."

The Mayor of Newcastle said he should look back to this meeting as one of the brightest parts of his mayoralty of this year. He had looked forward to it with very great pleasure, especially knowing he should receive so much assistance from their esteemed President, whom to know was to respect, and the more they knew of him the better they liked him. He hoped the members had been gratified with what they had seen in that great city. Newcastle had many things to be proud of, especially in the direction of medical science. Its colleges and hospitals were among the best in the United Kingdom. He hoped their visit to Newcastle would remain a green spot to their memories for some time to come.

The President of Council then moved: "That the cordial thanks of the Association be presented to Professor Philipson for the able, dignified, and courteous way in which he has conducted the proceedings as the President of the British Medical Association at its sixty-first annual meeting." He was quite sure they would be all unanimous, and that their President had discharged his duties in a way which would commend itself not only to those who were fortunate enough to have been present at these meetings, but also to all the Association throughout the world.

Dr. Bridgwater, in seconding the resolution, said he had accepted a herculean task, for it was almost impossible to convey in words what they must all feel as regards the President during that meeting. His chivalrous courtesy had lent a halo to his office, and to that was united a marvellous capacity for detail. The combination of these two qualities had almost led one to believe that his task had been easy, whereas in point of fact it must have been a source of continual anxiety and of earnest labour during the whole time of his presidency. His care, also, for the enjoyment and comfort of every member during their sojourn in Newcastle was such as to demand their warmest thanks. The Association had received from its President a most generous, courteous, and hospitable reception.

The resolution was carried by acclamation.

The President: Mr. President of Council, I thank you most sincerely for the indication to me that you have appreciated the efforts of my friends, my brethren in the profession of the North of England, in our endeavour to give you satisfaction respecting this, the sixty-first, annual meeting of the British Medical Association in this city, over which I have the high honour and distinction of presiding. The remembrance of these meetings will be ever in my mind. I fear I have been spoken of in too laudatory terms. I have endeavoured to do my duty, and if I have given you satisfaction I have my reward.

This concluded the business.

The Public Dinner.

The public dinner of the Association was held on Thursday evening in the Banqueting Hall, Jesmond Dene. The President took the chair, and was supported by Lord Armstrong, the Mayors of Newcastle-upon-Tyne, Gateshead, and Tynemouth, Sir Dyce Duckworth, Sir Walter Foster, M.P., Sir Spencer Wells, the Recorder of Newcastle, the President-elect, the President of Council, the Sheriff of Newcastle, etc. The guests numbered about 230.

The toasts of "The Queen," "The Prince of Wales, the Princess of Wales, and the rest of the Royal Family," having been duly honoured,

Professor Grainger Stewart proposed "The Navy, the Army, and the Auxiliary Forces." In doing so he said he had, until the other day, always thought the medical profession, with its responsibilities, was the most trying and difficult in the world, but, after what had happened recently in the Mediterranean, he could quite understand that even the responsibility of medical men was as nothing compared with that of those who commanded their fleets and armies. He could thoroughly sympathise with the men who had so heavy a responsibility, and therefore had great pleasure in proposing this toast, associated with the names of Captain Wood, R.N., and Colonel Robinson, R.A.

Captain Wood, in responding, said he thought that medical men had a much more dangerous time than even commanders of ships on fleet, for, whilst their sailors had to meet and deal with enemies that could be seen, medical men had to contend with unseen foes. He thanked them for drinking the health of the navy, and was proud to think that that branch of Her Majesty's service had shown that they were composed of the same stuff that British seamen had always been made of.

Colonel Robinson returned thanks for the army, and in doing so expressed the indebtedness of the army to the medical department. The army in India could hardly live were it not for the careful way in which it had been looked after by the medical officers and the skill in which the requisite sanitary improvements had been carried out. It was, therefore, a very great pleasure to him to return thanks for the army.

Sir Spencer Wells, Bart., proposed "The Houses of Parliament." He said the toast was, he need scarcely say, quite free from any taint of political warfare. In the House of Lords, in the House of Commons, and in the British Medical Association there were members of all shades of political opinion. He could say of their medical Parliament that very many of them had lived long enough to look upon governing by party and the struggle of contending politicians with supreme indifference compared with the far higher and nobler work in which both Houses of Parliament were engaged when legislating for the good of the nation, for the happiness, prosperity, and welfare of the peoples of vast British Empire. He hoped the day might come when it might be said of their Association, of their medical Parliament, that

> None was for a party,
> But all were for the State.

The measures the Association had supported were those which tended to the physical and moral welfare of the people. Their Parliamentary Bills Committee had endeavoured to protect the people from the dangers to which they were exposed by an indiscriminate sale of poisons as medicines. It had also contributed to amendments in the Oaths Act, the Lunacy Act, to legislation for inebriates, and for the physical training and education of children, and had made important suggestions respecting the public health. They could, therefore, refer to the work of the Association with great satisfaction as work done for the common good, and as deserving support from men of all parties, both Lords and Commons. As to the Lords, he need not say more than to express the hope that before very long their power and influence might be extended by the addition of further representatives of art, science, and literature. They had present to speak for that House one of the most eminent scientists in the country, whose name would be handed down to posterity as one whose work had been of the greatest possible benefit the Victorian age. For the House of Commons the toast would be responded to by one of their past Presi-

dents, who had long been a member of their profession, and who had now shown in the House of Commons all those qualities that he exhibited before he went there. In the important post he now held he had done very useful work, and particularly in defending the people of this country from the dangers to which they were exposed by some few people who wished to amend, as they supposed, the Vaccination Act. He had great pleasure in proposing the toast of "The Houses of Lords and Commons," coupled with the names of Lord Armstrong and Sir Walter Foster, M.P.

Lord Armstrong, who was most cordially received, said he must confess himself a very unimportant member of the House of Lords. He was quite sensible of its defects, but in what legislative assembly could they find perfection? Certainly not in that one which the Lords were in the habit of describing as "another place." Whatever defects might be attributed to the Lords, they were at all events decorous in their behaviour. (Laughter.) The time was approaching when a very momentous question would be submitted to them, and he hoped he was not treading upon any person's toes in saying that he thought the medical profession would not call in question the sanity of the House if its decision was in accordance with general expectation. He was glad of this opportunity of joining in words of welcome to the British Medical Association. He hoped that the reception they had met with would be gratifying to them, and that they would carry away pleasant memories of their visit. This was an age of wide-spreading associations and monster annual meetings, which would have been perfectly impracticable in the old coaching days, and it was a pleasing reflection that it was owing to the engineering science and art that the obstacles had been removed. There was no profession that got so little recreation as the medical, and he hoped the members present would temper their hard work by a fair amount of amusement. It was what they would prescribe for a hard-worked patient, and they ought to practise what they preached.

Sir Walter Foster, M.P., said he was delighted, after some months of hard work in the House of Commons, to find amongst his colleagues a pleasant and genial welcome, and a hearty appreciation of the merits of that institution. The House of Commons was dear to every Englishman, and they would agree in the hope that during the ages to come it would maintain a high tone in its debates. (Laughter.) The fact that party spirit had led it to lapse into certain errors during the present session would, he hoped, be forgotten, and that the House would in the future stand as high as ever in the hearts and opinions of Englishmen and members of this great United Kingdom. They knew in the House of Commons, he hoped, no difference between nations; they were composed of several nations in a common House, each of which deserved the sympathy and consideration of every true citizen of the Empire. The members of the medical profession had always had a kindly feeling for the great representative institutions of the country, and supported measures which were beneficial by the promotion of the public health. He asked them to take a greater interest in the proceedings of Parliament. He hoped to see more members of his own profession there, in order that that great assembly might have the benefit of scientific opinion from members who knew the difficulties that had to be dealt with, and had been in the forefront of the battle they were daily fighting. They looked to the medical profession to take a larger share in the local government of the country, and he was glad to know that in municipalities, county councils, and local boards, his medical *confrères* were taking an increasing part in public and civic duties. The result would be that local authorities were carrying out with increasing care, vigilance, and efficiency those great duties connected with the public health which lay at the root of the happiness of the people at large. He was glad that at their first meeting the civil authorities of Newcastle came to pay due honour to the medical profession, and hoped that at future annual gatherings the worthy example set by the Mayor and principal officers of that city would be followed. It had been one of the features of that great gathering, and he hoped as long as the Association existed that their intimate relations with the municipal authorities would be maintained, promoting a kindlier feeling, a greater harmony between the medical men in their ranks and those civic authorities with whom they had so much to do. He wanted this alliance to be strengthened and made more perfect, so that they might go about their daily duties with increasing confidence in those who were their local governors; and that a profession which, if not the noblest, was at all events one of the most useful, and the most unselfish, might have in the future greater opportunities for public good, and so fulfil its great mission of bringing health and happiness to mankind.

Mr. Butlin proposed: "The Mayor and Corporation of Newcastle-upon-Tyne." He said the Association owed the Mayor and Corporation a very great debt for the manner in which they had been received in Newcastle. In visiting towns for the first time, he always made it a practice to walk through its streets and view its public buildings. This he had done in Newcastle. He had, however, found things here which were not usually found in large provincial towns, for opposite his rooms was a church standing in the middle—not of tombstones—but of a most lovely garden. He had wondered to what particular influence such things were due, and he had found that they were to be accounted for in some measure by the great interest taken by the Mayor and Corporation, not only in erecting great buildings, but also in adding to the beauty of their city. He asked all present to join in drinking this toast, and at the same time to return their thanks for the really princely hospitality which they had received.

The Mayor, in responding, said it was quite true that he was a lover of flowers, and he would gladly do anything to increase the ornamental spaces in their city. They had in Newcastle very large open spaces. There was a town moor of over 1,000 acres, and there were over 130 acres of cultivated park, among the most beautiful of which was the Jesmond Dene, in which they were then meeting, the princely gift of their distinguished townsman, Lord Armstrong. They had a very ancient history to look back to, and he was proud to say that as a Corporation they were desirous of keeping up their old character for hospitality. Newcastle had ever been distinguished for warm and generous hospitality to visitors, and he hoped the day would be far distant when they should lose that great distinction. He thanked them for the kind manner in which they had spoken of himself and the great city which he represented.

The Recorder of Newcastle (Mr. Digby Seymour, Q.C.), in proposing "The British Medical Association," said that Newcastle throughout all its borders welcomed and appreciated the honour done to it by the present visit of the Association. No man had read with greater interest than himself the history of the marvellous progress and growth of the Association. It was only a matter of a few years ago in the retrospect since Dr. Hastings, among a handful of brethren, amounting to nineteen in all, in an infirmary room at Worcester established the British Medical Association. The object was to elevate and bring together a great profession, to vindicate its honour, to establish a code and feeling of fellowship and relationship between its various Branches and gradually to build up and gather together from every end of the earth contributions to the advance of medical science. What had been the result? When the Association visited Newcastle 20 years ago they only numbered something like 4,000 members. Twenty years had passed, years of marvellous progress in the history of surgical and medical science in England, and now they were met to contemplate an aggregation which was perfectly marvellous, seeing that they numbered between 14,000 and 15,000. They had in that time established Branches wherever the British flag floated. There was no part of Her Majesty's dominions in which they had not Branchess. They had established a journal, the most important and efficient among the medical journals of the kingdom, and with a circulation of over 17,000, a journal which had done much to consolidate medical thought upon the important subjects of the day. Besides this they had an invested reserve fund of between £20,000 and £30,000. He congratulated the Association upon its position. He congratulated the medical profession upon the work that they had done. Hard things were sometimes said with regard, especially, to the surgical aspects of the profession, and they heard a good deal of vivisection and its evils. The Lord Chief Justice of England had recently lent his voice in speaking in somewhat strong language against the practice of vivisection.

He should like, if he had the opportunity, to ask Lord Coleridge if he could not recall the exercise of vivisection on the part of the Bar. He had himself seen Lord Coleridge cross-examine a witness, and notably the claimant in the Tichborne case, until the very sweat rolled off his brow, and the man would have accepted any torture on earth rather than that which he was then undergoing. If a cross-examining counsel might vivisect for the purpose of eliciting truth, was it to be said that the brute creation in order to alleviate human suffering should not, under the influence of anæsthetic administration, contribute its quota to medical science? He was delighted, in reading the address given by Dr. Drummond, to find that in his concluding sentences he said that their "higher honour was the gratitude of humanity." He hoped the Association would continue as it had gone on, its future career more than surpassing its former conquests, devoting itself to the elevation of the profession, to the alleviation of human suffering, to the advancement of the cause of pure public health, and to all the other surroundings which dignify and illustrate the broad patriotic and Christian energies of a great profession. He gave "The Health of the British Medical Association," coupled with the name of Dr. Ward Cousins, President of the Council.

Dr. WARD COUSINS, in responding, said they had been listening to a most eloquent picture of the progress of the Association. He was perfectly aware that its development had been an astonishment to many. He had been asked how he accounted for this rapid evolution—Where was the centre of their vital action? Where was that vital force which had power to diffuse itself through the large organisation, and then, as it were, by some mysterious reflex action gather itself up together and reflect itself once more upon the centre; Was it to be found in the perfection of their organisation? They would agree with him that perfection in this world was very difficult to obtain, but perfection certainly should be their aim. Was it in the widespread use of the JOURNAL and the efforts of their very able Editor? He was glad to express his opinion, and although there might be sometimes an antagonism of forces in their midst, yet the forces which bound them together as an organisation were always stronger than the forces which would dare to rupture or divide them. There was, indeed, a large heart beating in the centre of their organisation—a heart of brotherhood and a heart of goodwill. Might he be pardoned for reminding their President that, under his courteous guidance on the previous afternoon, they had taken a step which he (Dr. Ward Cousins) firmly believed would introduce another powerfully cementing force into their organisation. It was only the change of one word, to expunge only one from their book of laws, and by that means a stain upon their organisation was removed, and they at the same time opened the gates to a kindly influence from the better, yes, the nobler—he was sure the most tender—part of the medical profession. Exalting as he did in every sense the social forces which bound them together as an organisation, there was still another force, for their aim was not to obstruct progress. They were the friends, and not the foes, of evolution. They were like a great army, fighting the battle against disease and death, and doing their utmost to diffuse the influences of their splendid science, and so to confer countless benefits on mankind.

Sir DYCE DUCKWORTH proposed "The Health of the President." He said the reason why he had been selected for this honour was perhaps in part because he could claim friendship with Dr. Philipson over a very long course of years. It was now some thirty-one years since, as an undergraduate at Edinburgh, he was introduced to a Mr. Philipson by their common friend, Professor Annandale, and from that date their friendship had continued and increased. Ten years ago it was renewed in that city, when he (Sir Dyce Duckworth) had the honour of being an examiner in the University of Durham, and only last year it was still further cemented when the President was appointed representative of the University on the General Medical Council. This toast must commend itself to the heart as well as to the head, for it was not possible to have been present at those meetings without being impressed by the fact that their President had indeed been the right man in the right place. They would neve forget the extraordinary courtesy, the urbanity, the dignity of his demeanour, and, in his conduct as President he had set a brilliant example—one that would make the position of future Presidents harder than it had ever been before. Dr. Philipson was also a man of high professional eminence, of great skill in the conduct of affairs, and one who in every way reflected the best traditions of that position which he so worthily held. He gave the toast of "The President."

The toast was drank with musical honours.

The PRESIDENT said he greatly appreciated the toast as having been proposed by Sir Dyce Duckworth, his esteemed friend of many years, but he appreciated it still further because Sir Dyce Duckworth was, as he was informed, present not only in his individual capacity, but also as the representative of the Royal College of Physicians. This was still further honour to him (the President) as a Fellow of that august body. He felt a difficulty in finding words to adequately convey his feelings respecting the meeting from its beginning till now. He esteemed it the greatest honour of his life to be the President of the British Medical Association. He must not allow himself to stand alone, but must remember those to whom he was indebted for the success of that meeting. It was to the profession of the North of England, who indicated him as a humble individual to act as President—a suggestion received favourably by the Council and ratified by the Association itself. The various Committees and Subcommittees had worked as one man in supporting him in bringing this meeting to a state that would compare favourably with those that had gone before. He was especially indebted to the Honorary Local Secretary, Mr. Williamson, and to the Honorary Local Treasurer, Mr. Wheatley, for their loyal and generous support on every occasion. During the remainder of his term of office it would be his endeavour to maintain the honour and dignity of the profession, and to pass on undimmed to his successor the office which he now held.

Mr. ERNEST HART proposed "The Colonial Representatives." He said if he had at that eleventh hour to make a speech, he ought, perhaps, to apologise for having on some occasions spent his vacation in visiting colonies and colonists and Colonial Branches of the Association. He felt that it was all the less necessary to make such apology, because that fact enabled him to speak from personal knowledge of the vast possibilities, of the large future, and of the great present which were found in the Colonial Branches. He would now only ask them to realise the advantage which one had of seeing and of hearing, as well as of communicating, at a distance with their Colonial neighbours by proposing the health of Sir William Moore, who was put down, with a pardonable ignorance on the part of those who had never visited the Colonies, as a Colonial representative, whereas he represented an Empire; of Dr. Meyer, who represented a Colony which was Imperial in its importance; and of Dr. Ross, who did not represent a Colony, but a vast Dominion three times the size of any other Dominion known to the civilised world within American or Colonial limits. He proposed the toast, coupling with it the names of Sir William Moore, representing the Empire of India; of Dr. Meyer, representing the Melbourne Branch and the Australasian Colonies; and Dr. Ross, representing the Dominion of Canada.

Sir WM. MOORE said it was quite true that India was not a Colonial Branch, for India never would be colonised by Europeans. The Bombay Branch, which he had the honour to represent, was founded some few years back when a previously existing medical society was dissolved, and it was unanimously voted by both the Indian and English representatives that a Branch of that Association should be instituted in its place. That showed the appreciation which their brethren in foreign parts entertained of the Association, and also their desire to keep in touch with the progress of medical science in this country.

Dr. MEYER, on behalf of the Victorian Branch, returned thanks for the cordiality with which the toast had been received. He was glad to have the opportunity of testifying to the invariable kindness and courtesy he had received at the hands of the Association; from their genial and ever-obliging Secretary, Mr. Fowke; and from all the gentlemen he had had the good fortune to meet. He believed the Melbourne Branch was one of the largest, if not the largest, outside the

United Kingdom; and while they were endeavouring to keep abreast of the times in the development of medical knowledge, they were also endeavouring to inculcate a *morale* and a code of ethics which would not disgrace or find disapproval at the hands of the parent Society. He should carry back and express to his *confrères* in Melbourne the remembrance of the extreme courtesy and kindness he had received at their hands.

In the absence of Dr. Ross, Dr. Brockman also responded. As representing the Southern Branches of India, he expressed the great appreciation that would be felt if Mr. Ernest Hart could be induced to visit those Branches. The Branch was in a most flourishing condition, and its members would be very gratified to learn that the toast in their honour had been so cordially received.

Dr. Drummond proposed "Our Guests," coupled with the names of Professor Pozzi, Professor Giampietro, and Professor Senn.

Professor Giampietro responded.

The company then separated.

HONORARY DEGREES AT DURHAM UNIVERSITY.

In connection with the meeting of the British Medical Association in Newcastle the honorary degree of D.C.L. was conferred by the University of Durham on certain distinguished officers—past and present—of the British Medical Association. The Convocation for the degrees was held on Friday, August 4th, at 3 o'clock in the afternoon, and a large party travelled to Durham from Newcastle. The ceremony took place in the old banqueting hall, which was crowded by an interested audience.

The Warden of the University presided at the ceremonial, and opened the Convocation by announcing briefly the object with which it had been summoned; he formally submitted and received the sanction of the Senate for each of the names of the proposed recipients of the honorary degree.

Professor Philipson, addressing the Warden, expressed the pleasure with which he presented to Convocation to receive the highest distinction of the University officers of the British Medical Association, who were all men of learning, of culture, and of the highest eminence in the medical profession.

Each recipient, who was robed in the scarlet gown of the doctor, was then called forward and presented by Professor Philipson to the Warden in a few appropriate sentences. The first person presented was Mr. Joseph White, President for 1892-93 of the British Medical Association.

Professor Philipson said: Mr. Warden and Proctors, I present to you Mr. Joseph White, Fellow of the Royal College of Surgeons of Edinburgh, the retiring President of the British Medical Association, to be admitted to the honorary degree of Doctor of Civil Law. Mr. White is Consulting Surgeon to the Nottingham General Hospital, and is held in high estimation by the profession of his district. He is the author of several important and valuable publications. Of such may be mentioned his work on *Heredity in Disease* and that on the *Medical Topography of Nottingham*. He filled the office of President of the British Medical Association in the year 1892-3 with much distinction.

The Warden expressed the pleasure with which he admitted to the degree of Doctor of Civil Law the ex-President of the British Medical Association.

Dr. Philipson then introduced Dr. Withers Moore, saying: Mr. Warden and Proctors, I present to you Dr. William Withers Moore, Fellow of the Royal College of Physicians of London, the retiring President of the Council of the British Medical Association, to be admitted to the honorary degree of Doctor of Civil Law. Dr. Moore is Consulting Physician to the Sussex County Hospital, and a late member of the Court of Examiners of the Society of Apothecaries of London. He is a permanent Vice-President of the British Medical Association, and was President of the Association in the year 1886-87, when the meeting was held at Brighton. As President of the Council of the Association he has filled the important and onerous duties of the office with universal acceptance, and has had the entire confidence and respect of the members.

The Warden, having expressed the pleasure with which he admitted Dr. Moore, Professor Philipson presented Mr. Butlin in the following terms: Mr. Warden and Proctors, I present to you Professor Henry Trentham Butlin, Fellow of the Royal College of Surgeons of England, the Treasurer of the British Medical Association, to be admitted to the honorary degree of Doctor of Civil Law. This eminent and gifted surgeon is Professor of Pathology and Surgery in the Royal College of Surgeons of England, and surgeon to St. Bartholomew's Hospital, London. He is a member of several learned societies, and a Vice-President of the Pathological Society of London. He has enriched surgical literature by several important and valuable contributions on malignant diseases. He is well deserving of every distinction for his eminence as a surgeon and pathologist.

The degree having been conferred by the Warden, Professor Philipson presented Dr. David Drummond with the following words: Mr. Warden and Proctors, I present to you Dr. David Drummond, Master of Arts, the deliverer of the Address in Medicine at the Newcastle-upon-Tyne meeting of the British Medical Association, to be admitted to the honorary degree of Doctor of Civil Law. Dr. Drummond is a distinguished Graduate in Arts and Medicine of the University of Dublin. He is Lecturer and Examiner in Pathology in this University, and is Physician and Pathologist to the Newcastle-upon-Tyne Royal Infirmary. He has specially directed his attention to the study and investigation of diseases of the nervous system, and has done much to advance the knowledge of these obscure diseases. As a lecturer in this University, who has been honoured by the British Medical Association, it is the pleasure of the University to give evidence of its appreciation of the selection by conferring a further distinction upon this distinguished physician and eminent pathologist.

The Warden, in conferring the degree, said that everyone who had heard Dr. Drummond's address must rejoice that he should occupy a position of honour in the University of Durham.

Professor Philipson then presented Dr. Hume in the following terms: Mr. Warden and Proctors, I present to you Dr. George Haliburton Hume, Fellow of the Royal College of Surgeons of Edinburgh, the deliverer of the Address in Surgery at the Newcastle-upon-Tyne meeting of the British Medical Association, to be admitted to the honorary degree of Doctor of Civil Law. Dr. Hume is surgeon and joint lecturer on clinical surgery at the Newcastle-upon-Tyne Royal Infirmary. He is consulting surgeon to the Newcastle-upon-Tyne Borough Lunatic Asylum. He was formerly lecturer and examiner in physiology in this University. He has contributed able and valuable papers on "Epithelioma," "Rodent Ulcer," and "Gastrostomy." In Dr. Hume the renown of Newcastle surgeons is being maintained.

The Warden, in conferring the degree, referred to the pleasure with which he had listened to Dr. Hume's address.

Dr. C. J. Cullingworth was next presented by Dr. Philipson, who said: Mr. Warden and Proctors, I present to you Dr. Charles James Cullingworth, Fellow of the Royal College of Physicians of London, the deliverer of the Address in Obstetrics and Gynæcology at the Newcastle-upon-Tyne meeting of the British Medical Association, to be admitted to the honorary degree of Doctor of Civil Law. Dr. Cullingworth is an alumnus of this University, and is obstetric physician and lecturer in midwifery at St. Thomas's Hospital, London. He is a Fellow of the Royal Medical and Chirurgical Society of London, the Obstetrical Society of London, and the London Medical Society. He is an examiner at the University of London and the Royal College of Physicians of London. He was formerly Professor of Obstetrics and Gynæcology in the Victoria University. He is the author of a valuable treatise on *Puerperal Fever*, and is, moreover, a successful and highly distinguished obstetric physician.

The Warden, addressing Dr. Cullingworth, said: I have great pleasure in conferring on you the honorary degree of Doctor of Civil Law; I have the more pleasure in doing so as you are already an alumnus of the University and we have heard the many titles to distinction which you possess.

Dr. Philipson next presented Sir Walter Foster, M.P., saying: Mr. Warden and Proctors, I present to you Sir Walter Foster, Member of Parliament for the Ilkeston

Division of Derbyshire, Doctor of Medicine, Fellow of the Royal College of Physicians of London, to be admitted to the honorary degree of Doctor of Civil Law. Sir Walter Foster is Parliamentary Secretary to the Local Government Board, and a direct representative of the medical profession in the General Medical Council. He is consulting physician to the Birmingham General Hospital and Emeritus Professor of Medicine in the Queen's College, Birmingham. He is a permanent Vice-President of the British Medical Association. He is an ex-President of the Irish Medical Graduates' Association. Sir Walter Foster, by his ability and erudition, has attained to the enviable position of being one of the most distinguished members of the medical profession. His appointments all bear marked testimony to his merits and worth and the estimation in which he is held. During his Parliamentary career, which has been eminently distinguished, he has rendered valuable services to the State and has largely advanced the interests of the medical profession.

The WARDEN, in conferring the degree, said, addressing Sir Walter Foster: Your position, I am sure, will give you many opportunities of advancing the medical profession in many respects, and I am confident that you will make good use of them.

Dr. PHILIPSON then presented Mr. Ernest Hart in the following terms: Mr. Warden and Proctors, I present to you Mr. Ernest Hart, the Chairman of the Parliamentary Bills Committee of the British Medical Association, to be admitted to the honorary degree of Doctor of Civil Law. As Editor of the BRITISH MEDICAL JOURNAL, Mr. Hart has exerted a powerful influence for good upon the medical profession, medical education, and the well-being of the nation. The improvement of the condition of the sick poor in workhouses and infirmaries, the establishment of a system of metropolitan asylums, the guidance and development of the National Health Society in its useful labours for the diffusion of the knowledge of the laws of health among all classes, are works of national usefulness to which he has successfully devoted rare energy and activity. The position and rewards of members of the medical profession who serve their country in the British and Indian Medical Services, in the public health and Poor-law medical services, have been improved and increased by his public and private exertions, and by his social and political influence. The creation and development of the Medical Sickness, Annuity, and Life Assurance Society is a monument of no small magnitude. "It is clear that at all times he hears, and not in vain, what too many of us in the race for power or wealth, or pleasure or fame, are too apt to forget—'the still sad music of humanity.'"

In conferring the degree the WARDEN said, addressing Mr. Hart: You unite in yourself two distinguished professions. You are not only a medical man, but you are also devoted to the service of literature, and have adopted that service to the good of the medical profession. We know how much you have done in the past, and trust that you may for many years continue to exercise the same good influence.

At the close of Convocation the numerous company present were entertained at a garden party.

LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY: NORTHUMBERLAND BRANCH.

A MEETING of the Northumberland Branch of the London and Counties Medical Protection Society was held at the College of Science, Newcastle-on-Tyne, on August 3rd. The accounts of the division were presented and passed. The report of the Organisation Committee was considered to be most satisfactory. A considerable number of members of the Association who had recently joined were elected members of the division; and the recommendation of the Committee that steps be taken to organise the northern counties, and, if possible, the adjacent Scottish counties into a powerful division, was approved.

Mr. Ridley, F.R.C.S., of Newcastle, President, and Dr. F. W. Clark, 7, Cardigan Terrace, Newcastle, Secretary, had votes of thanks passed unanimously for their able services. Dr. Mead, Newmarket, the Organising Secretary of the Association, was thanked for his attention on this and a former occasion.

MEDICAL SICKNESS, ANNUITY, AND LIFE ASSURANCE SOCIETY.

THE annual general meeting of this Society was held in the Science College, Newcastle-on-Tyne, on August 2nd, Mr. ERNEST HART, President, in the chair. Among those present were Dr. F. B. Greene, Newcastle-on-Tyne; Dr. J. W. Baker, Derby; Dr. A. T. Wear, Sunderland; Dr. C. W. Buck, Settle; Dr. G. Carter, Ilkley; Dr. J. L. Speirs, Gateshead; Dr. J. L. Booth, Durham; Dr. L. M. Griffiths, Bristol; Dr. T. M. Dolan, Halifax; Mr. W. Thomas, Birmingham; Dr. W. Gregory, Newcastle-on-Tyne; Dr. G. Mackay, Edinburgh; Dr. J. S. Tew, Nottingham; Dr. R. Ackerley, Ashburton; Dr. Watson, Lanark; Dr. R. Watson, Lanark; Dr. Parkinson, Wimborne Minster.

Mr. ERNEST HART, in moving the adoption of the report, said that they were now in their tenth year, which was always a satisfactory point in the history of a society such as that, because it was customary to make a quinquennial valuation. The result of their first valuation showed a very good balance, but they resolved to put that balance to the reserve and to await the result of the second valuation before coming to any conclusion as to the best way to deal with the surplus. They started in 1884 without any capital, and during the first six months they had 500 members. They had steadily grown, and they now had 1,327 members and an accumulated reserve fund of £66,369. During the ten years the Society had paid for sickness, in sums steadily increasing from year to year, £21,000, beginning with £843 in the first year, and in 1892 they had to pay £3,700. They were still feeling, like other societies of the kind, the effects of influenza, which had added very largely to the outgoings. Influenza had not disappeared yet, and the present year's payments showed that they had paid £443 for influenza only, and in the previous year £891, which made a very distinct impression on the funds. Nevertheless, they had a very handsome surplus. They would prepare now for their valuation, and they would take the best actuarial opinion as to what the actual surplus was, and the best way of dealing with it. One satisfactory feature was that, although the amount paid for sickness increased with the increase of members, still the rate of pay per head had not increased to the extent it might have been expected to do, in view of the advancing age of members. Another very satisfactory feature was the extremely low cost of management, to which they owed a very large part of their surplus. The expenses of management had been still kept under 5 per cent. of the premium income. Ten per cent. was the very lowest on which it would be prudent to reckon for costs of management. The result of their having been able to reduce the cost of management to so low a percentage was that the management fund now showed a surplus of £5,173. Insurance societies generally reckoned 10 to 20 per cent. for management expenses, and friendly societies from 25 to 30 per cent., so that they might congratulate themselves. As against that, however, they would have to consider the question of the undoubtedly reduced value of money, and the reduction of the rate of interest, which was an important fact to all societies such as this. In the five years ending June 3rd, 1893, they had received £576 interest in excess of the three per cent. which had been the basis of interest on which the society started, which went to their credit. But that was a rate of interest which was becoming increasingly difficult to obtain. They had exhausted probably so far as the rules of prudence would permit investments of the particular kind which yielded little over three per cent., and those were corporation investments, municipal stocks of Great Britain. In view of the market which has fallen within the last 30 years and which was likely to fall lower, they were making investments such as Indian three per cent. of permanent interest. The rate of interest derivable from them would remain identical and stationary. Under these circumstances he thought it exceedingly likely that the actuaries would advise them to do what some of the most stable insurance societies were doing, and that was to calculate the base of in-

terest for the future at two and a-half per cent. A considerable part of the reserve—£25,000—was mortgaged for annuities, a provision put by, not for contingencies, but for certain and unavoidable claims upon it, and therefore they must be ready to undertake to meet those claims. That was a part of the business on which there was the least margin. The Society was granting annuities almost up to the full value of the amount paid. The life assurance business was small, which was due to the fact that the sum for which a person could insure his life was inadequate. On the other hand, there was a certain advantage for the Society to remain under the Friendly Societies Act, which prohibited an insurance of more than £200. Arrangement had been made with the Rock Life Assurance Society, who were willing to grant assurance to members of the Society for sums to any extent beyond the £200, on the Society's forms, through our physician, and with all the care which we exercise, but under terms which would relieve us of all responsibility. The Society would continue to take insurances for £200 as before. Everyone insuring in the Rock Life Assurance Society through the Society would receive a rebate of 5 per cent. on his premium. If they looked at the rate of securities, they would see that the rates of interest had actually fallen during the past ten years. With regard to the investment in the South Staffordshire Mines, he regretted to say that those mines had been flooded. Before taking up the investment they were very particular to get the best of advice. They had the advice of one member of the Committee who lived in the district and the advice of the bankers. Those rates were secured by Act of Parliament, and the Society took an interest of £2,000, which sum, after careful consideration, they had decided to write off. Whatever came from that account would of course go to the funds of the Society.

Dr. Dolan (Halifax), in seconding the adoption of the report, said the Society owed a great debt of gratitude to Mr. Ernest Hart and the officers who had conducted so satisfactorily the affairs of the Society. He was glad to hear that arrangements had been made for the purpose of increasing life assurances, and he felt that the step was one in the right direction.

After some further discussion the report was carrried unanimously.

Dr. Wear proposed, and Dr. Booth seconded, the following resolution, which was carried unanimously: "That the best thanks of this general meeting be and are hereby given to the officers and committees of the Society, for their valuable honorary services during the past year."

Dr. Booth, in proposing the following resolution, said he had very much pleasure in proposing that the officers be re-elected. Having had the misfortune to take advantage of the Society during the past year, he could speak from experience of the very able and courteous manner in which his application was received, and he took great pleasure personally in expressing his thanks. He was sure that the Society could not be in better hands than they were at the present moment.

"That the following officers and members of the Committees be and are hereby elected": *Chairman:* Mr. Ernest Hart, 38, Wimpole Street, London, W. *Vice-Chairmen:* Professor T. Clifford Allbutt, M.D., F.R.S., Cambridge; Dr. J. B. Brierley, Alma House, Old Trafford, Manchester; Dr. W. Bruce, The Castle, Dingwall, N.B.; Mr. W. G. Burnie, M.R.C.S., Bradford; Dr. T. M. Dolan, F.R.C.S.Ed., J.P., Halifax, Yorkshire; Dr. M. Greenwood, 243, Hackney Road, London, N.E.; Dr. De Havilland Hall, F.R.C.P., 47, Wimpole Street, London, W.; Mr. D. De Vere Hunt, L.R.C.P.Ed., Cardiff; Mr. T. V. Jackson, F.R.C.S.Ed., Wolverhampton; Mr. J. Brindley James, M.R.C.S., 47, Jamaica Road, Bermondsey, S.E.; Dr. W. M. Ord, F.R.C.P., 37, Upper Brook Street, London, W.; Mr. R. J. Pye-Smith, F.R.C.S., 350, Glossop Road, Sheffield; Mr. J. Bain Sincock, M.R.C.S., Friarn Street, Bridgwater; Mr. E. Noble Smith, F.R.C.S.Ed., 24, Queen Anne Street, London, W.; Mr. F. Wallace, L.R.C.P., Foulden Lodge, Upper Clapton, N.E. *Treasurers:* Dr. G. E. Herman, F.R.C.P., 20, Harley Street, London, W.; Mr. H. H. Clutton, F.R.C.S., 2, Portland Place, London, W. *Elected Members of the Executive Committee:* Mr. E. Bartlett, M.R.C.S., 38, Connaught Square, London, W.; Mr. F. S. Edwards, F.R.C.S., 93, Wimpole Street, London, W.; Dr. A. S. Gubb, 29, Gower Street, London, W.C.; Dr. J. W. Hunt, 101, Queen's Road, Dalston, London, E.; Dr. J. Pickett, 26, Colville Square, London, W.; Dr. W. Knowsley Sibley, 7, Harley Street, London, W. *Trustees:* Mr. Ernest Hart, Wimpole Street, London, W.; Dr. W. M. Ord, F.R.C.P., Upper Brook Street, London, W.; Mr. J. R. Upton, Austin Friars, London, E.C.; Sir T. Spencer Wells, Bart., F.R.C.S., Upper Grosvenor Street, London, W. *General Committee:* Dr. F. J. Allan, London; Mr. R. S. Charsley, Slough; Dr. G. W. Crowe, Worcester; Dr. C. Firth, F.R.C.S., Gravesend; Dr. W. Frazer, Bournemouth; Mr. J. M. Griffiths, Clifton; Dr. F. R. Mutch, Nottingham; Dr. W. Newman, Stamford; Dr. W. Smith, London; Mr. W. J. Stephens, Brighton; Mr. H. P. Symonds, Oxford; Mr. W. Thomas, F.R.G.S., Birmingham. *Arbitrators:* Sir Edward Clarke, Q.C., M.P.; Dr. R. Farquharson, M.P.; Mr. J. Vesey Fitzgerald, Barrister-at-Law; Professor W. T. Gairdner, M.D., Glasgow; Mr. J. W. Stephenson (late Actuary Equitable Assurance).

Dr. G. Carter seconded the resolution, which was carried unanimously.

Dr. G. Carter proposed, and Dr. Griffiths seconded, the following resolution, which was carried: "That the best thanks of this meeting be, and hereby are, given to the British Medical Journal for the kind assistance so freely given to the Society."

A cordial vote of thanks to the Chairman for his able services brought the meeting to a close.

Erratum.—In a paragraph on the debate on Puerperal Septicæmia in the Section of Obstetric Medicine and Gynæcology, published in the British Medical Journal of August 5th, the name of Professor Philipson was accidentally substituted for that of Professor Simpson, of Edinburgh.

THE CHOLERA.

The Thames.

The schooner *Elizabeth McNeal*, from Cherbourg, arrived at the Nore, on her way to Rochester, on Wednesday of last week, and was found on inspection to have on board a man suffering from a disease suspiciously like cholera. She was ordered to proceed to the mooring station by Dr. Swales, but failed owing to absence of a tug. Next day Dr. Collingridge saw the patient, confirmed the diagnosis of cholera, and took the man in the port launch to the cholera hospital at Gravesend. The case, a severe one, is now likely to end in convalescence. Removal to hospital has doubtless saved the man's life. The vessel has been dealt with under the cholera orders, prior to proceeding to Rochester, the rest of her crew being in good health.

The Humber.

On the same day, August 2nd, the Danish steam trawler *Dania*, from Antwerp for the Iceland fishing grounds, put into Grimsby with a man ill from what has turned out to be a fatal attack of cholera. The floating hospital not being ready the man was kept on board till next day, but died on the evening of his removal. The vessel was disinfected, and other precautionary measures adopted, and has left the port with all hands well.

The Mersey.

The ss. *Ant*, from the Baltic and several German and French ports *en route*, entered the Mersey last week, with two men suffering from choleraic symptoms. They were removed to the extra-urban infectious hospital by the Liverpool Port Sanitary Authority, and are progressing favourably, having developed no further symptoms of cholera.

Austria-Hungary.—On Wednesday of last week a fatal case of cholera occurred in a village near Pressburg, and another attack developed suspiciously like Asiatic cholera. In Budimòl, in Croatia, some hundred cases of European cholera have occurred, and further cases of true cholera at Szatmar. In the Hungarian district of Maramaros 11 cases of suspected cholera were reported on Sunday, and on the same day 3 deaths from cholera were registered at Madworna, in Galicia, in province fresh cases have elsewhere occurred. Comprehensive measures of prevention are being adopted.

Italy.—After the suppression of telegrams announcing the presence of cholera in Italy the Government has now resolved to act on the provision of the Dresden Convention as to communicating cholera intelligence to signatory Powers.

The first statement speaks of "some cases of cholera" in two small communes of Alessandria, now under control, and says that a few scattered cases remain in the rest of the kingdom, save at Naples, where the occurrences are not in excess of twelve *per diem*. We learn of 90 cases of cholera with many deaths in Naples last month; on August 4th, of 20 cases, 14 deaths; of 11 cases and 7 deaths on the 5th; of 5 deaths on the 6th. Five fresh cases occurred on the 8th. There were 7 deaths in the 24 hours ending at noon of August 9th. Some cases have also occurred in certain parts of the Terra di Lavoro, to the north of Naples, and others in communes near Mount Vesuvius.

Russia.—In European Russia the records for July show quite 3,000 cases of cholera and 1,200 deaths, of which 200 (100 fatal) occurred in Moscow, and 1,475 (450 fatal) in the province of Podolia; some 15 provinces being invaded. The official returns for the past week are as follows: In the province of Podolia, 390 cases and 136 deaths; in the Don Province, 106 cases and 40 deaths; Kursk, 69 cases and 27 deaths; Tula, 95 cases and 22 deaths; Kieff, 56 cases and 28 deaths; Saratoff, 24 cases and 2 deaths; and Bessarabia, 17 cases and 8 deaths. At Moscow there were 121 cases and 43 deaths, and at the town of Rostoff, 75 cases and 35 deaths. The disease has reached Nijni Novgorod, which has its great annual fair now in progress; from July 11th to the 24th there were 258 cases with 102 deaths. In the south-west, cholera has occurred in Bialystock, only some 70 miles from the Prussian frontier.

Roumania.—Twelve sporadic cases of cholera, 7 fatal, occurred at Braila in July, and 5 fresh cases of choleraic disease, with 2 deaths, were officially reported last Saturday, 8 additional attacks with 6 deaths occurring on Sunday and Monday. A great many of the sufferers have been dock labourers, living amid insanitary surroundings. Stringent sanitary measures have been taken. Cholera is also reported among the garrison troops at Sulina, at the mouth of the Danube.

In the East.—Up to the end of July the cholera deaths at Mecca numbered 6,600, and at Jeddah 2,300. From Smyrna the news is more reassuring. No fresh facts have come to hand from the pilgrim quarantine station at El Tor.

America.—The ss. *Karamania*, which left Naples on July 15th, has been put into quarantine for five days at the New York station because of 3 deaths during the passage from bowel diseases; and keen watch is being kept for other vessels known to be on the way from Naples.

Quarantine.—Egypt imposes seven days' quarantine on arrivals from Smyrna; Cyprus and Greece, ten days; and Malta and Gibraltar, five days on the same port. Naples is quarantined to the extent of five days by Turkey and by Cyprus. Bulgaria imposes eight days' quarantine on arrivals from Roumania, Russia, Turkey, and Asia, and five days on the Mediterranean, with drastic measures on importations of merchandise.

Cholera and Rags.

The Local Government Board have by order dated August 5th revoked their former rag orders, and have framed new regulations relating only to dirty bedding and disused and filthy clothing, including these articles when torn up, but not when packed as rags in bales and imported as merchandise. The articles must, on being landed for importation, be subjected to disinfection, within forty-eight hours, by means of steam under pressure at 212° F., at the expense of "the person having control" of the articles. Failing such disinfection, they are to be destroyed by him within twenty-four hours, and in his default by the sanitary authority. The countries affected are Russia, Bulgaria, Turkey, France, and European countries north of Dunkirk, "other than ports of Sweden, Norway, and Denmark."

ASSOCIATION INTELLIGENCE.

READING AND UPPER THAMES BRANCH.

The annual meeting of this Branch was held at Reading on July 20th, Mr. R. Birch, the President, in the chair.

Election of Officers.—The following officers for the coming year were appointed:—*President:* Dr. Moody Ward, Reading. *President-Elect:* Dr. I. B. Isaac, Broadmoor. *Council:* The President; the President-Elect; Dr. O. C. Maurice; Dr. Shettle; Dr. Bateman, Whitchurch, Oxon; Dr. Price; Dr. Tench; Dr. Dickson, Great Marlow; Mr. Holderness, Windsor; Dr. W. J. Maurice; the Honorary Secretary. *Representative of the Branch on the Council of the Association:* Dr. F. Bateman, Whitchurch. *Representative of the Branch on the Parliamentary Bills Committee:* Dr. H. H. Phillips, Reading. *Honorary Secretary:* Dr. H. H. Phillips, Reading.

Luncheon.—The members and friends afterwards adjourned for luncheon to the Queen's Hotel, Dr. Moody Ward in the chair.

SYDNEY AND NEW SOUTH WALES BRANCH.

The 107th general meeting of this Branch was held at Sydney on June 3rd: Dr. Ralph Worrall, President, in the chair. There were present Drs. Sutherland, Wilkinson, Norrie, Crago, Fiaschi, Wm. Chisholm, A. Jarvie, Hood, West, Jamieson, Frizell, Kendall, Bennet, Foreman, MacSwinney, Money, Traill, Brady, A. Parker, Thomas, Langhorne, Clubbe, Jenkins, Clark, G. A. Marshall, Rorke, Thring, Newmarch, Abbott, Jas. Dick.

Minutes.—The minutes of the previous meeting were read and confirmed.

New Members.—The President announced the following new members: Drs. Grace, Robinson, Thos. Frizell, and D. Taylor Edmunds.

Communications.—Dr. MacSwinney exhibited a patient suffering from Chorea, during which a peculiar form of dyspnœa occurred. Drs. Crago, Brady, and Angel Money discussed the paper; Dr. MacSwinney replied.—Dr. Jamieson read a paper on a Case of Pachymeningitis Hæmorrhagica Interna. A discussion ensued, in which Drs. Wilkinson, Fiaschi, and Worrall took part.—Dr. T. M. Kendall read a paper on Rickets. Drs. Crago, Thring, Wm. Chisholm, Jenkins, and Worrall took part in the discussion which ensued.—Dr. Jenkins exhibited a specimen showing a Brain with Two Tumours symmetrically situated, and explained the case.

CORRESPONDENCE.

THE FLOODS IN KASHMIR AND SRINAGAR A NEW FOCUS OF ENDEMIC CHOLERA.

Sir,—The telegraphic news from India this week of the terrible floods in the valley of Kashmir, by which half the city of Srinagar, the capital, has been washed away, induces me to request the favour, if you will kindly accord me the space, of placing before my professional brethren some important facts in reference to that city as a new focus of endemic cholera. The position of Kashmir in the geography of our Indian Empire, and in relation to the mode by which cholera travels by the lines of human intercourse, whether by land or by water, is my excuse for craving this indulgence. The city of Srinagar is built on both sides of the Jhelum river, extending along its banks a distance of two miles, and its width on either bank is a mile and a-half. The population of the city is 120,000, or 20,000 inhabitants to the square mile. The area of occupation on both sides is intersected by various canals, which flow again into the river. The buildings, crowded together and constructed chiefly of wood with stone foundations, run down to the water's edge. Everywhere the filth is indescribable. In the spaces between the houses, in the paths or lanes from one quarter of the city to another, and on the river banks the soil is blackened by sewage fungus on which fresh excreta day by day is deposited. In 1892, during the three months of extreme prevalence of cholera in the valley, I travelled all over the waterways of Kashmir investigating the causes of the epidemic, and the conclusion I arrived at was that it was a water-borne disease, developed and spread by the dirty habits of the people. Nowhere were the evidences more patent than in Srinagar itself, and in several instances I was able to trace certain local outbreaks to the use for cooking and drinking purposes of tainted water; notably was this the case in the instance of a sudden and limited outbreak which occurred in July last year towards the end of the epidemic in the vicinity of the Takht-i-Suleiman. Hence in May and June, during the height of the epidemic, about 1,000 people were buried surreptitiously, and the bodies were placed only

6 inches from the surface. Towards the middle of July heavy rain fell, and the rain water, filtering through these graves, drained into the canal leading from the Vâl lake to the Jhelum, close to the public library. The outbreak to which I refer was entirely limited to the people who used this water. I could multiply instance after instance of the disease originating and spreading through the medium of foul and tainted water.

To prevent Kashmir becoming a new focus of endemic cholera, or in any case a fresh starting point in the spread of the disease from India to Europe, certain sanitary measures are necessary as regards the city of Srinagar. Its present sanitary state is a standing danger to the health of our large garrisons in Northern India, and has had in the past few years an important influence in the spread of epidemic cholera from India through Central Asia to Europe. These sanitary measures are (1) a pure water supply; (2) remodelling of the city, with throwing back the frontage of buildings from the river a distance of 30 to 50 feet; and (3) the introduction of a good system of surface scavenging, with sewage removal and disposal. It is to the second of these proposals I wish now to draw attention. The first and third are obtaining the consideration of the authorities, and early action may be expected. When I was in Kashmir last year the importance of remodelling the city, that is, building it in blocks with streets running through them, and throwing back the river frontage some 50 feet, was placed before the officials and acquiesced in by them, but the expense and the prejudices of the people were factors against the proposal which could not be overcome. The present is an opportunity that will not be readily repeated, for it must be those buildings which are nearest the river or which are situated on the several canal banks that have been washed away. Outraged Nature has done what the hand of man dared not, and now self-interest will be on the side of sanitary progress. It is to enlist your advocacy on behalf of this proposal that I venture to trespass upon your space, and through you to influence public opinion in its favour. I believe the question to be one of Imperial importance, and that the present loss of life and destruction of property will be a blessing instead of a misfortune if advantage be taken of these circumstances to carry out the improvements I advocate.—I am, etc.,

W. Hill Climo, M.D.,
Colchester, August 4th. Brigade-Surgeon-Lieutenant-Colonel A.M.S.

THE ABUSE OF MEDICAL CHARITIES.

Sir,—Although the cleansing of the Augean stable of medical charity seems still to be in the distant future, yet much can be done at the present time to minimise some of the grosser evils. As continuous dropping of water will in time wear away a stone, so constant exposure of the truth will some day convince hospital out-patient physicians and surgeons that by allowing the abuses of the out-patient department to go on unchecked they not only pauperise the public, but they also degrade themselves and their profession. The number of patients in the out-patient departments is so large that the work done there is hurried and slipshod in the extreme. Interesting cases receive attention. Common ailments are dismissed with half a dozen words and a bottle of medicine. The deluded patient is told to come again, when the same farce of treatment is repeated. What good is all this? The patient is not benefited, and as in very many cases he is able to pay for medical attendance, it would be to his advantage to be referred by the out-patient physician to the local practitioner, from whom he would receive attention. The physician and students derive but little benefit from seeing a crowd of persons passing in and out of the rooms. The retention of all and every case for treatment robs the general practitioner of fees that are rightly his due. If the out-patient departments are to be retained let them be used to the advantage of the public and the profession. At present they are merely free dispensaries to which anyone can resort. They should be places where the general practitioner can send his poor patients for special advice, and, if necessary, treatment.

The abuse of medical charity can be easily remedied by co-operation between the hospital physician and the general practitioner, without the necessity of abolishing the out-patient departments altogether, as Mr. Burdett suggests. Let every patient attending the out-patient department be provided with a subscriber's letter, which should be endorsed by a general practitioner before being available. The general practitioner as a rule knows the means of his patients, and is best able to tell whether the patient is a fit and proper person to receive medical charity. In the case of those patients able to pay small fees but unable to pay large fees, and whom the practitioner would like to send up to the hospital for an opinion, he would endorse the letter accordingly. Such persons, after being seen by the out-patient physician, should be sent back to the general practitioner, who would be glad to receive the opinion and suggestions of his more experienced brother, and who would at any time send the patient up to be seen again when desired.

On the back of the letter might be left a space for the practitioner's endorsement, and some such form as the following might be printed:

1. The patient.....is a fit and proper person for medical charity.

(Signed).....

2. The patient.....is sent up for an opinion.

(Signed).....

The hospital physician would see at a glance in what class to place the patient.

The result of the adoption of this system of check would be a complete prevention of the abuse of charity by well-to-do patients. The poor would be relieved, and the rich would not be allowed to defraud. General practitioners would send up interesting cases from far and near, and the out-patient department would be very instructive. All would be benefited, and the hospitals would be used for the purposes for which they are intended.—I am, etc.,

August 5th. General Practitioner.

Sir,—While I am bound, on broad general grounds, to agree with Mr. Nelson Hardy that great abuse of hospital charity does exist, I must differ with him considerably in his particular charges, so far as the London is concerned. I have had some years' experience (as medical registrar and assistant physician) in the out-patient department of that hospital, and on the three points of reform mentioned by Mr. Hardy I beg most emphatically to state: (1) That a properly qualified officer is kept by the hospital, whose duty consists—and, I believe, solely consists—in inquiring into the circumstances of outpatients. (2) That, so far as I personally am concerned, I stamp the books of a large number of my outpatients "further treatment not required," so as to check, as far as possible, the indiscriminate supply of medicines. (3) I have been successively student, house-physician, medical registrar and assistant physician at the London, and I can confidently assert that, to my knowledge, no unqualified student is ever, under any circumstances, allowed to prescribe for a patient—of course I am not speaking of the cases where the students write at the dictation of a qualified officer of the establishment. In face of these facts, I may add that I shall be only too pleased to see Mr. Hardy at the hospital to verify them for himself. I trust Mr. Hardy will except the London from his sweeping statements.

While on the subject I would like to add a fourth to three points of reform, namely, that all hospital letters should be placed in the hands of medical practitioners for distribution, especially district medical officers and general practitioners. By this means the hospital out-patient department would be raised somewhat to the dignity of a consulting department, instead of, what I fear it too often is, a gratis dispensary, outbidding the sixpenny one. My belief is that the chief cause of the present abuse is the power placed in the hands of subscribers of giving their letters to any undeserving object; it is in their—the subscribers'—minds easier to hand a friend a hospital letter than to give him half-a-crown as a fee for a medical man, and they choose the easier and less offensive and expensive (the one coming out of subscriber's pocket, the other out of hospital physician's pocket) charity.—I am, etc.,

Christopher Street, E.C., August 7th. Fred. J. Smith.

Sir,—Hospital physicians and surgeons are strong in their position, and defy all attempts to reform the hospital system of charitable relief. But why are they strong? Because

general practitioners persist in thrusting all power into their hands, and forcing it upon them. There are many general practitioners of mature age, large experience, and first-rate capacity who might be called in as consultants. But does anybody call them in? Do not the general practitioners themselves prefer the youngest and rawest member of a hospital staff as a consultant to the most capable general practitioner which London or the country can furnish? So long as this is so, young men will rush for hospital appointments, and they will do everything which lies in their power to bolster up the hospital system which furnishes the appointments. I myself have worked at striving to reform hospitals until the very name of "hospital reform" has become wearisome. If anybody asks why hospitals are not reformed, the reply is prompt and convincing: it is because general practitioners are too jealous of one another to work loyally together. General practitioners almost always speak of other general practitioners with contempt. This is the plain, downright truth. If general practitioners were loyal to one another, and would sink the personal element for the general good, the hospital system could be easily and completely reformed through the British Medical Association in five years. I purposely withhold my name, because I have no desire to be asked to help to form another futile organisation. But truth is truth, and ought to be well pushed home.—I am, etc.,

NOT A GENERAL PRACTITIONER.

NAVAL AND MILITARY MEDICAL SERVICES.

ARMY MEDICAL STAFF: EXCHANGES.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post office order with the notice. The first post on Thursday mornings is the latest by which these announcements can be received.

WANTED by a Surgeon-Captain likely to proceed to India this trooping season, an exchange with another who has been home a year or more. Apply "Kompo," care of Messrs. Holt and Co., 17, Whitehall Place, London, S.W.

A SURGEON-CAPTAIN, who has completed nearly four years in India, who is at present at home on leave, wishes to exchange with an Officer in good position on the roster at home. Apply to "Home," care of Editor, BRITISH MEDICAL JOURNAL.

ARMY MEDICAL SCHOOL, NETLEY.

THE following is a list of surgeons on probation of the medical staff of the British Army and Indian Medical Service who were successful at both the London and Netley examinations. The prizes are awarded for marks gained in the special subjects taught at the Army Medical School. The final positions are determined by the marks gained in London added to those gained at Netley:—

ARMY MEDICAL STAFF.

*Spencer, C. G.	5,523	Killery, St. J. B.	4,402
†Fowler, C. E. P.	5,009	French, H. C.	4,307
Goodwin, T. H. J. C.	4,985	Smith, W. W.	4,205
Porter, H. E. B.	4,765	Barter, W. P.	4,105
Keble, A. E. C.	4,551	Williams, E. M.	3,916
Lattey, A.	4,489	M'Munn, I. R.	3,723
Collins, D. G.	4,440	Anderson, J. B.	3,642

* Gained the Herbert Prize of £20, the Montefiore Prize of £21 and medal, and the Parkes Memorial bronze medal.

† Gained the De Chaumont Prize for hygiene.

INDIAN MEDICAL SERVICE.

*Stevens, C. R.	5,929	Mulvany, J.	5,035
†Barry, C. C. S.	5,442	Kilkelly, P. P.	4,978
Rogers, L.	5,413	Sutherland, H. L.	4,926
Newman, E. A. R.	5,382	Sharman, E. H.	4,714
Birdwood, G. T.	5,318	Stodart, T.	4,633
‡Gould, J.	5,204	Nauth, B.	4,541
Turner, R. G.	5,145	Foulkes, T. H.	4,377
Davidson, J.	5,113		

* Gained the Martin Memorial Gold Medal and the Fayrer Pathology Prize.

† Gained the Montefiore Second Prize.

‡ Gained the Maclean Prize for clinical and ward work.

THE NAVY.

THE following appointments have been made at the Admiralty: JOHN L. AHERNE, B.A., Surgeon, to the *Volage*, August 4th; HAMILTON E. EARLE, Surgeon, to the *Hibernia*, August 5th; PHILIP N. RANDALL, M.B., Surgeon, to Chatham Dockyard, August 5th.

ARMY MEDICAL STAFF.

SURGEON-COLONEL J. JAMESON, M.D., is gazetted Surgeon-Major-General, *vice* W. M. Webb, retired, July 6th. Surgeon-Major-General Jameson's previous commissions are dated as follow: Assistant-Surgeon, November 9th, 1857; Surgeon, March 1st, 1873; Surgeon-Major, April 1st, 1873; Brigade-Surgeon, May 2nd, 1883; and Surgeon-Colonel from September 14th 1888. He was promoted Surgeon "in consideration of his highly meritorious services during an epidemic of yellow fever in Trinidad." He had charge of the D Division of the English ambulance in the Franco-German war from October, 1870, till March, 1871, and was employed at the siege of Paris and in the campaign on the Loire.

Brigade-Surgeon C. MACD. CUFFE, C.B., is promoted to be Surgeon-Colonel, *vice* J. Jameson, M.D., July 6th. Surgeon-Colonel Cuffe was appointed Assistant-Surgeon, September 30th, 1863; Surgeon, March 1st, 1873; Surgeon-Major, April 28th, 1876; to rank of Lieutenant-Colonel, September 30th, 1883; and Brigade-Surgeon-Lieutenant-Colonel from September 1st, 1888. He served as Senior Medical Officer in the Kaffir war of 1877-78 with the force against the Galekas (mentioned in despatches); was subsequently Principal Medical Officer of Wood's Flying Column throughout the Zulu war in 1878-79, and was present at the battle of Ulundi (mentioned in despatches, medal with clasp). He was nominated a Companion of the Order of the Bath, November 27th, 1879. He was likewise engaged in the Burmese war in 1887-88 under Brigadier-General Wolseley during the operations in Upper Burmah, and has received the frontier medal with clasp.

Surgeon-Lieutenant-Colonel W. H. MCNAMARA, M.D., F.R.C.S.I., commanding the Depôt and Training School at Aldershot, is promoted to be Brigade-Surgeon-Lieutenant-Colonel, *vice* C. McD. Cuffe, C.B., July 6th. Dr. McNamara entered the service as Assistant-Surgeon, October 1st, 1867; became Surgeon, March 1st, 1873; Surgeon-Major, October 1st, 1879; and attained the rank of Lieutenant-Colonel, April 1st, 1887. He was appointed to the command of the Aldershot Training School October 22nd, 1891. During the Egyptian war in 1882 he was attached to the 1st Battalion Royal Irish Fusiliers, and was present at the battle of Tel-el-Kebir (medal with clasp and Khedive's bronze star).

Brigade-Surgeon-Lieutenant-Colonel W. D. WILSON, M.B., who is serving in the Bombay Command, is appointed to officiate as Principal Medical Officer to the Poona District, with the temporary rank of Surgeon-Colonel, pending the appointment of a successor to Surgeon-Colonel J. Warren, who has been appointed Principal Medical Officer to the Bombay Army.

Surgeon-Colonel J. WARREN, Principal Medical Officer to the Poona District, took over the duties of Principal Medical Officer to the Bombay Army on July 5th from Surgeon-Major-General W. M. WEBB.

Surgeon-Lieutenant-Colonel F. LYONS assumed the administrative medical charge of the Poona District from Surgeon-Colonel Warren, pending the arrival at Kurrachee of Brigade-Surgeon-Lieutenant-Colonel Wilson.

ARMY MEDICAL RESERVE.

SURGEON-LIEUTENANT WILLIAM B. MACKAY, M.B., is promoted to be Surgeon-Captain, August 2nd.

INDIAN MEDICAL SERVICE.

SURGEON-LIEUTENANT-COLONEL W. PRICE, M.D., Madras Establishment, is promoted to be Brigade-Surgeon-Lieutenant-Colonel, March 1st. His commission as Assistant-Surgeon dates from April 1st, 1869.

Surgeon-Lieutenant-Colonel C. T. PETERS, Bombay Establishment, is promoted to be Brigade-Surgeon-Lieutenant-Colonel February 26th. He entered the service as Assistant-Surgeon April 1st, 1869, and took part with the Zhob Valley Expedition in 1884. He was also with the Burmese Expedition in 1885-87, and has the Frontier medal with two clasps.

The retirement of Brigade-Surgeon-Lieutenant-Colonel G. GRIFFITH, already announced in the BRITISH MEDICAL JOURNAL, has received the approval of the Queen.

Surgeon-Lieutenant-Colonel G. G. MACLAREN, M.D., Bengal Establishment, has retired from the service, which he entered as Assistant-Surgeon April 1st, 1868.

The date of the retirement of Brigade-Surgeon-Lieutenant-Colonel J. B. THOMAS, Madras Establishment, has been altered from April 1st, 1893, to May 12th, 1893.

The retirement of Surgeon-Lieutenant-Colonel W. H. ROBERTS, M.D., Madras Establishment, which has been already announced in the BRITISH MEDICAL JOURNAL, has received the approval of the Queen.

Surgeon-Lieutenant J. J. BOURKE, Bengal Establishment, is appointed to the officiating medical charge of the 18th Bengal Infantry, *vice* Surgeon-Captain J. W. Wolfe.

Surgeon-Lieutenant C. E. WILLIAMS, Bengal Establishment, is appointed to the officiating medical charge of the 17th Bengal Infantry, *vice* Surgeon-Captain B. C. Oldham.

Surgeon-Captain B. C. OLDHAM, Bengal Establishment, is transferred from the officiating medical charge of the 17th Bengal Infantry to the officiating medical charge of the 40th Bengal Infantry, *vice* Surgeon-Captain H. R. C. Barber.

The services of Surgeon-Lieutenant W. YOUNG, Bengal Establishment, are placed temporarily at the disposal of the Chief Commissioner of Assam.

Brigade-Surgeon-Lieutenant-Colonel J. H. NEWMAN, M.D., Bengal Establishment, Residency Surgeon and Chief Medical Officer in Rajpootana, is appointed to officiate as Inspector-General of Civil Hospitals, Bengal.

Surgeon-Lieutenant-Colonel J. T. B. BOOKEY, Bengal Establishment, Medical Officer 6th Punjab Infantry, is appointed to officiate as Medical Officer of the Bhopal Battalion and of Bhopal Political Agency.

Surgeon-Major H. P. YELD, Bengal Establishment, Deputy Assay Master, Bombay, is appointed to officiate as Assay Master, Bombay.

Surgeon-Captain J. L. T. JONES, Bombay Establishment, is appointed a probationer in the Assay Department, Calcutta Mint.

Surgeon-Captain R. E. S. DAVIS, Madras Establishment, Superintendent of Rangoon, Central Gaol, is permitted to return to duty within the period of his leave.

Surgeon-Major S. H. DANTRA, Bengal Establishment, Junior Civil Surgeon, is appointed to officiate temporarily as Senior Civil Surgeon, Rangoon.

Surgeon-Captain J. H. SELLICK, Bengal Establishment, Superintendent of Rangoon Central Gaol, is appointed to officiate as Junior Civil Surgeon.

Surgeon-Captain A. R. P. RUSSELL, Bengal Establishment, is transferred

from Thayetmyo to Rangoon, and is appointed to officiate as Superintendent of Rangoon Central Gaol.

Surgeon-Captain H. M. Morris, Bengal Establishment, is transferred from Meiktila to Thayetmyo, Burmah, and is appointed to be Civil Surgeon of Thayetmyo.

Surgeon-Captain G. F. W. Braide, Bengal Establishment, officiating Superintendent of Chenawan Central Gaol, has obtained privilege leave for three months from June 17th.

Surgeon-Captain A. Coleman, Bengal Establishment, whose services have been placed temporarily at the disposal of the Government of the Punjab, is appointed to officiate temporarily as Superintendent of Chenawan Central Gaol.

Surgeon-Captain R. R. Weir, Bengal Establishment, Superintendent of the Central Prison at Futtehghur, is granted privilege leave for three months from July 15th.

Surgeon-Captain D. W. Scotland, Bengal Establishment, Official Superintendent of the Central Prison at Agra, is appointed to officiate as Superintendent of the Central Prison at Futtehghur.

Surgeon-Captain L. J. Pisani, Bengal Establishment, Civil Surgeon, is transferred from Dehra Dun to Jounpore.

Surgeon-Captain T. C. Moore, Madras Establishment, is appointed to do duty at the Madras General Hospital as a temporary measure.

Surgeon-Major W. G. King, M.B., Madras Establishment, is appointed to act as Sanitary Commissioner, Madras.

Surgeon-Captain G. C. Hall, Madras Establishment, is appointed additional medical officer, Madras General Hospital, sub. *pro tem.*

Surgeon-Lieutenant J. P. Morton, Madras Establishment, is directed to do duty in the Mandalay District, Burmah.

MILITIA MEDICAL STAFF CORPS.

Second-Lieutenant William Moyle O'Connor, from the 1st Volunteer Battalion the Berkshire Regiment, is appointed Surgeon-Lieutenant, August 5th.

THE VOLUNTEERS.

Surgeon-Captain Sidney Wacher, of the 1st Volunteer Battalion the East Kent Regiment (late the 2nd Kent), is appointed Captain in the same corps, August 5th.

Mr. Francis James Warwick, M.B., is appointed Surgeon-Lieutenant to the 1st Tower Hamlets Rifles (the Tower Hamlets Rifle Volunteer Brigade), August 5th.

MEDICO-LEGAL AND MEDICO-ETHICAL.

WHAT IS A PAGE?

A case of considerable interest to medical men came before the Liverpool Police Court last week, in which the Inland Revenue Department prosecuted a doctor for having employed a male servant without having taken out a licence, as required by law. The boy served a portion of each day, and was paid weekly wages; he opened the door, cleaned the boots, kept the doctor's room in order, and dusted the books. He did not reside on the premises, but went home to his friends every night; nevertheless, the doctor was fined 5s. and costs, and will have in future to take out a licence.

EXTRAORDINARY INSURANCE CASE.

At the Leeds Assizes, at present being held before Lord Chief Justice Coleridge and a special jury, an action was brought by William Needler, of Hull, to recover claims from the Standard, the Travellers, the Northern, and the Scottish Metropolitan Accident Assurance Companies for the loss of a hand. Mr. Lawson Walton, Q.C., M.P., and Mr. Kemp were for the plaintiff, and Mr. Waddy, Q.C., M.P., and Mr. Chitty were for the defendants.

Mr. Waddy submitted that as far as the Northern was concerned there was no case to go to the jury, but his Lordship pointed out that this was a charge of gross and abominable conduct, and he declined to decide any point of law until the opinion of the jury had been taken on the question whether the plaintiff wilfully shot off his own hand to recover the insurance money. Mr. Waddy pointed out that this was a common occurrence in America, and pleaded that Mr. Needler intentionally mutilated himself.

The jury failed to agree, and were eventually discharged.

The general feeling appears to be that the insurance companies have acted unwisely in declining to pay.

MENTAL DISEASE AND PILES.

Cantab. writes: If a physician, when treating a person for mental disease, becomes aware that the patient is suffering from, and has suffered for many years from, piles, should he prescribe for the piles or should he suggest that a surgeon be consulted?

*** Unless a surgical operation be needed in the case referred to, we fail to see any necessity for a surgeon, in lieu of the attendant physician, being consulted thereon.

MEDICAL WITNESSES AT INQUESTS.

A. B. C. (Dunstable) writes as follows: I got a message to go at once to a public house to see a man who was said to have shot himself. On arrival, I found that not only was life extinct, but that the deceased had succeeded in literally blowing his brains out. I at once communicated with the police, and an inquest was held the following day, to which I was not summoned or requested to attend. I was afterwards informed by the superintendent of police that the coroner had not deemed medical evidence necessary. I would ask: 1. Is such the usual procedure in such cases? 2. Does the calling of medical evidence depend entirely on the whim or salary of the coroner?

*** The calling or not of medical evidence in no way affects the coroner's salary. The calling of such witnesses is regulated by Sections 21, 22, and 23 of the Coroners' Act, 1887, where permissive power is given to the coroner to summon as a medical witness "the practitioner who may have attended the deceased during his last illness; and, if not so attended, then he may summon any legally qualified medical practitioner who is at the time in actual practice in or near the place where the death happened." The witness usually selected in case of a person being found dead is the one who may have been first called to see him after death. It is not compulsory on the part of the coroner in the first instance to summon any medical witness; but if, during the course of the inquiry, "a majority of the jury sitting at an inquest are of opinion that the cause of death has not been satisfactorily explained by the evidence of the medical practitioner or other witnesses brought before them, they may require the coroner, in writing, to summon as witness some other medical practitioner named by them; and, further, to direct a *post-mortem* examination, etc., of the deceased; and the coroner shall comply with such requisition, or in default shall be guilty of a misdemeanour." This section would seem to imply that, although the previous section is permissive only, it is the duty of the coroner, and is certainly anticipated, that he will in the first instance secure the attendance of a medical witness, and we may say that this is the usual course adopted. In the present case, as our correspondent observes that "the brains were literally blown out," it may have occurred to the coroner that "the view of the body" which he and the jury would necessarily take according to law, might sufficiently demonstrate the cause of death without medical testimony, and hence he omitted to call the doctor—possibly overlooking the importance of medical evidence in determining the direction of the wound, the possibility of its being self-inflicted, the time of death, and many other important facts which should not be omitted in a judicial inquiry, as upon such testimony the verdict of suicide or murder often depends.

PARTNERSHIPS AND SELLING OUT.

R., an Englishman, in partnership with G. and W., Scotchmen, in Norfolk, sells his share and parts with G. and W. on friendly terms. G. and W. agreed to settle with R. at the end of every three months for moneys received. This agreement (verbal) is not adhered to, and it is only through a solicitor threatening a summons that any notice is taken of R.'s frequent letters to G. and W. Settlement for twelve months has thus been arrived at, but since then more than twelve months have elapsed and no notice is now taken of letters from R.'s solicitors. What is R. to do?

*** The agreement being verbal, its terms may probably be disputed. R. had better consult his solicitor as to whether it is advisable to bring an action to enforce payment of moneys due under it. Obviously no one can advise in this matter without much fuller information than is here given.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS, Friday, August 4th.

Chemical Workers.—Mr. J. H. Lewis asked the Secretary of State for the Home Department whether a departmental committee had been appointed to consider the conditions under which chemical workers carry on their employment; and if so, whether he would state the terms of reference, and when the committee might be expected to present their report.—In reply, Mr. Asquith said: Yes, it was the fact that such a committee had been appointed. The terms of reference required the committee to deal with the matter both generally and in case of alkali works, and the manufacture of bichromate and chromium compounds, with particular reference to the following points: 1. How far these manufactures as at present carried on injuriously affect the health of the workpeople, and how far the injurious effects depend upon the age and sex of the operatives. 2. What means could be adopted to abate the injurious effects of the manufacture? 3. What special regulations should be adopted to protect vats and other dangerous places and utensils used in the manufacture? As regards the date when the committee may be expected to present their report, he could only say that the field of the inquiry was an extensive one. Much valuable information had been obtained at Widnes and St. Helens, but the committee still propose to visit such important centres as Flintshire, Glasgow, Northwich, and Newcastle, and therefore he did not think their report could reasonably be expected till next month.

Monday, August 7th.

Scarlet Fever at Harrow.—Mr. MacFarlane asked the President of the Local Government Board whether he was aware that, during the first school term of this year—namely, between January 23rd, 1893, and March 12th, 1893—there had been 17 cases of scarlet fever in the boarding houses of the masters of the Harrow School, the last one proving fatal; that the occupants of those houses only number 360; and that during the same period there were no other cases in Harrow, with a population of 6,560; and whether, with a view to the possible danger to the public health of Harrow, since those houses were scattered over the district, and seeing that a fresh case had occurred this term in the school, he would direct an inquiry into the cause of the outbreak, and its lengthened continu-

ance in the houses of the Harrow School.—Mr. H. FOWLER, in reply, said the facts generally were as stated. He understood that the governors of the school had been advised by their own medical officer, and had also had the assistance of Sir William Broadbent; and they did not consider that the circumstances were such as to require an inquiry by an inspector of the Local Government Board. This was also the view of the Board's medical advisers.

Fever at Agra.—Mr. DISRAELI asked the Under-Secretary of State for India whether he was in possession of any information as to a rumoured existence of enteric fever at the Agra cantonment due to bad water supply; and what steps had been taken towards insuring the health of the troops there by improved drainage, water supply, or other necessary measures.—Mr. G. RUSSELL, in reply, said the Secretary of State had nothing to add to the answer given to a somewhat similar question on June 12th last. It was then explained that work had been in progress since last year for the extension to the cantonments at Agra of the water supply from the municipal waterworks, and that the garrison in the fort of Agra had been supplied with the municipal water since 1892. The Secretary of State had no information as to any recent increase in the mortality from enteric fever at Agra.

Tuesday, August 8th.

Principal Army Medical Officers.—Dr. FARQUHARSON asked the Secretary of State for War how many changes had taken place in the officers holding the post of Principal Medical Officer of the following districts since January 1st, 1891: Aldershot, Portsmouth, Dover, Devonport, Woolwich, London, Colchester, York, Edinburgh, Chester, Dublin, and Belfast; and whether, in the interest of the efficiency of the Army Medical Department, he could arrange that those officers should enjoy the usual staff period of tenure of office for five years.—Mr. CAMPBELL-BANNERMAN, in reply, said: At the stations named in the question the number of changes of Principal Medical Officers (including officers in temporary charge pending the appointment of a successor) were since January 1st, 1891, Aldershot, 1; Portsmouth, 3; Dover, 3; Devonport, 5; Woolwich, 4; London, 1; Colchester, 0; York, 1; Edinburgh, 2; Chester, 1; Dublin, 2; Belfast, 3. With one exception these changes have been unavoidable as a consequence of the officers reaching the age for compulsory retirement or being required to relieve officers abroad who had to retire or who completed their prescribed tour of foreign service. These causes preclude any fixed period for the tour of home service.

A University for Wales.—Mr. ACLAND, in answer to Mr. LEIGHTON, said: Mr. Edwards had been invited to draw up a report upon the whole question of a University for Wales. His visits, which were left entirely to his own discretion, included the four colleges of Bangor, Aberystwith, Lampeter, and Cardiff, and several places. The report was made solely for the use of members of the Government and for the Committee of the Privy Council which considered the draft charter. He did not propose to lay it on the table, but he was quite willing to inform the hon. member that in the report, which consisted mainly of information rather than recommendations, Mr. Edwards did not report in favour of the inclusion of St. David's College, Lampeter. He was not able to say what should be the cost of establishing a Welsh University. No doubt part of the cost would be defrayed from fees. The question of a State grant such as is given, for instance, to Victoria University, had not yet been formally raised.

Army Medical Examinations—Sir J. LENG asked the Secretary of State for War whether the War Department had restricted the selection of surgical and medical examiners for the competitive examinations for admission to the Army Medical Service solely to the examiners of the two London Colleges of Physicians and Surgeons; whether it was the case that a large proportion of the Army Medical Staff, including the director-general and four out of the surgeon-major-generals, held as their only qualification Scottish diplomas; and why a monopoly was now conferred on the London medical schools to the detriment of the medical corporations in Scotland and other parts of the United Kingdom.—Mr. CAMPBELL-BANNERMAN, in reply, said: No restriction was intended as to the medical schools from which examiners should be selected, but the first list of examiners under the new system had been selected from the Colleges named, partly on the ground of accessibility. The appointments were for four years only, and, when a vacancy occurs, it would be for consideration whether the new examiner should be taken from the Irish or Scottish Colleges. He was informed that rather less than one-third of the army medical officers held Scottish diplomas.—Dr. MACGREGOR said he wished to ask whether the action of the right hon. gentleman's department was not calculated to throw a slight on the Scottish medical corporations.—Mr. CAMPBELL-BANNERMAN replied, No, Sir.—Dr. MACGREGOR: The restriction was for four years. Was not this an instance of the centralisation of affairs in London to the detriment of the kingdom at large, especially that part of it called Scotland?—Mr. CAMPBELL-BANNERMAN said: It was equally to the detriment of that part of the kingdom called Ireland. There was no intention to do anything of the kind suggested.—Dr. MACGREGOR said he begged to give notice that he should call attention to the question on the Estimates.

OBITUARY.

THOMAS AUBREY BOWEN, L.R.C.P.I., M.R.C.S.Eng.

A NOTABLE figure in the medical profession of Australia passed away, on July 27th, in the person of Dr. Aubrey Bowen, of Melbourne. He was born at Cradley, in Worcestershire, and received his medical education at Dublin, becoming a member of the Royal College of Surgeons of England in 1862, and a Licentiate of the King and Queen's College of Physicians of Ireland in 1863. Having determined to try his fortune in the Colonies he settled at Melbourne, where he soon acquired a great reputation as an ophthalmic surgeon. He became one of the recognised leaders in that speciality in Australasia, his practice not being confined to his own Colony, but extending to Tasmania and New South Wales. So widespread was his fame that we understand he was once summoned to see a case in Japan.

In 1869 he founded the Ophthalmic and Orthopædic Institution at Melbourne, which was afterwards amalgamated with the present Eye and Ear Hospital of Victoria. He was himself the architect of the building, and for twenty years he gave his best energies to the service of the poor sufferers who applied there for relief. In 1889 Dr. Bowen was nominated by the Medical Society of Victoria, of which he had been secretary and afterwards treasurer, to represent it at all meetings of kindred Associations in Europe and America which he was then about to visit. He was appointed a member of the Royal Commission of Victoria to the Universal Exhibition of Paris. For his services in that capacity the Knighthood of the Legion of Honour was conferred on him by the President of the French Republic. In 1891 he was appointed to represent the Colony of Victoria at the International Congress of Hygiene and Demography held in London. He was also to have represented the Colony of Victoria at the International Medical Congress in Rome.

Dr. Bowen died of phthisis. When he became aware that his case was hopeless, he determined to come back to die in the old country. He leaves a widow, but no child. Through his mother he was a great-grandson of Dr. Joseph Priestley, the discoverer of oxygen. He was also a distant relation of Sir William Priestley.

DR. JAMES YOUNG, of Edinburgh, who died recently, was born in 1832, and took his doctor's degree in the University of Edinburgh in 1853. He had a large general practice, and was greatly respected both for his professional skill and his personal worth. He was a man of deeply religious character, and his kindness made him particularly beloved by the poor. Of a somewhat retiring disposition he took no part in public affairs. He leaves a widow and four sons (two of them members of the profession) and two daughters to mourn his loss.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

EXTENSION OF SANITARY POWERS TO COUNTY COUNCILS.

A DISTINGUISHED MEDICAL OFFICER OF HEALTH writes: Please excuse the liberty I take in congratulating you on the excellence of your report published in the BRITISH MEDICAL JOURNAL *re* the extension of sanitary powers to county councils. You seem to have exactly discovered what is wanted, and I am satisfied that your efforts will prove of the greatest value. In concluding your remarks reference is made to the Local Government Board. Now *entre nous* I think that department would better forward sanitary work if it gave up to the counties some of the powers which are held with so much tenacity. The officials of the Board have now, as you know, a plethora of engagements, and in consequence there is much delay in Lancashire in getting the required sanction to schemes for sewage disposal, etc., promoted by local authorities. The energies of the watershed boards are consequently restrained, and remembering the strong opposition before a Committee of the House of Commons offered by the Local Government Board some twelve months ago to the Mersey and Irwell Joint Committee in their successful attempt to extend the provisions of the Rivers Pollution (Prevention) Act, 1876, many are inclined to believe that the sweets of power are quite as important to the Local Government Board as sanitary progress. It may also appear strange that county medical officers of health are not informed of official inquiries relating to public health matters which are held in the area under their supervision, and they are not supplied as a rule with printed copies of the memoranda, orders, etc., issued from time to time by the Local Government Board, nor do

they receive the periodical lists of infectious disease notified in urban centres, although these are distributed to the various district medical officers of health.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns, including London, 6,389 births and 4,344 deaths were registered during the week ending Saturday, August 5th. The annual rate of mortality in these towns, which had been 25.1 and 22.6 per 1,000 in the preceding two weeks, further declined to 21.9 during the week under notice. The rates ranged from 14.8 in Croydon, 15.1 in Bristol, 15.9 in Brighton and in Halifax, and 16.6 in Huddersfield, to 27.9 in Burnley and in Sunderland, 29.3 in Bolton, 29.9 in Blackburn, 30.8 in Liverpool, and 34.1 in Preston. In the thirty-two provincial towns the mean death-rate was 22.8 per 1,000, and exceeded by 2.0 the rate recorded in London, which was 20.8 per 1,000. The 4,344 deaths registered during the week under notice in the thirty-three towns included 1,116 which were referred to the principal zymotic diseases, against 1,554 and 1,257 in the preceding two weeks; of these, 695 resulted from diarrhœa, 115 from whooping-cough, 85 from measles, 77 from diphtheria, 67 from "fever" (principally enteric), 66 from scarlet fever, and 11 from small-pox. These 1,116 deaths were equal to an annual rate of 5.6 per 1,000; in London the zymotic death-rate was equal to 4.9 per 1,000, while it averaged 6.2 in the thirty-two provincial towns, among which the lowest zymotic death-rates were recorded in Plymouth, Bristol, Swansea, and Nottingham, and the highest rates in Burnley, Hull, Bolton, Wolverhampton, Blackburn, and Preston. Measles showed the highest proportional fatality in Blackburn, Sheffield, and Gateshead; scarlet fever in Burnley; whooping-cough in Norwich, Birkenhead, and Gateshead; "fever" in Norwich and Derby; and diarrhœa in Wolverhampton, Burnley, Bolton, Blackburn, Preston, Sheffield, Hull, and Sunderland. The 77 deaths from diphtheria included 64 in London, 5 in Manchester, and 2 in Birmingham. Three fatal cases of small-pox were registered in London, 3 in West Ham, 3 in Bradford, 1 in Birmingham, and 1 in Salford, but not one in any other of the thirty-three towns; 246 small-pox patients were under treatment in the Metropolitan Asylums Hospitals and in the Highgate Small-pox Hospital on Saturday last, August 5th, against numbers declining from 570 to 280 at the end of the preceding twelve weeks; 40 new cases were admitted during the week, against 53 and 38 in the preceding two weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 2,968 and 2,966 at the end of the preceding two weeks, had further declined to 2,944 on Saturday last; 351 new cases were admitted during the week, against 390 and 282 in the preceding two weeks. The 208 deaths referred to diseases of the respiratory organs in London were 23 above the average, and were equal to an annual rate of 2.5 per 1,000.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday, August 5th, 926 births and 546 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had declined from 21.9 to 19.1 per 1,000 in the preceding three weeks, further fell to 19.4 during the week under notice, and was 2.5 per 1,000 below the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the lowest rates were 15.4 in Perth and 16.8 in Leith, and the highest rates 20.2 in Dundee and 24.1 in Paisley. The 546 deaths in these towns included 80 which were referred to the principal zymotic diseases, equal to an annual rate of 2.8 per 1,000, which was 2.8 below the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Glasgow, Leith, and Dundee. The 253 deaths registered in Glasgow included 13 from whooping-cough, 8 from measles, 4 from scarlet fever, and 2 from diphtheria. Four fatal cases of fever were recorded in Paisley. The death-rate from diseases of the respiratory organs in these towns was equal to 2.8 per 1,000, against 2.5 in London.

HEALTH OF IRISH TOWNS.

In sixteen of the principal town districts of Ireland the deaths registered during the week ending Saturday, July 29th, were equal to an annual rate of 25.6 per 1,000. The lowest rates were recorded in Drogheda and Kilkenny, and the highest rates in Sligo and Waterford. The death-rate from the principal zymotic diseases averaged 6.7 per 1,000. The 196 deaths registered in Dublin were equal to an annual rate of 29.2 per 1,000 (against 27.1 and 30.3 in the preceding two weeks), the rate during the same period being 21.0 in London and 14.4 in Edinburgh. The 196 deaths in Dublin included 43 which resulted from the principal zymotic diseases (equal to an annual rate of 6.4 per 1,000), of which 35 were referred to diarrhœa, 4 to whooping-cough, and 2 to diphtheria.

FEVER IN LONDON.

The returns presented at Saturday's fortnightly meeting of the Metropolitan Asylums Board show that 803 fresh fever patients had been admitted during the past fortnight, 704 had been discharged recovered, 93 had died, and 3,229 remained under treatment. The number of small-pox patients showed a decrease of 93.

RIVER POLLUTION PREVENTION.

The Local Government Board have, by circular, called the attention of sanitary authorities and county councils to the Rivers Pollution Prevention Act of the present Session, which ordains that the authorities will be deemed guilty of offence under the Act of 1876 if sewage be allowed to continue to enter a stream after passing through a sewer vested in them, no matter when the sewer was constructed; unless in the case of a sewer in use prior to 1876 the authority can show that the best practicable and available means are being taken to render the sewage harmless. This would seem to be an important addition to the law of river purification, and clears up an ambiguous point.

THE SANITARY OFFICERING OF RURAL DISTRICTS.

Dr. Fletcher, in a report to the Local Government Board on the sanitary circumstances of the Monmouth Registration District, has some unsatisfactory statements to make concerning the sanitary administration of that large area of upwards of 100,000 acres. Especially is this so of the Monmouth rural district, comprising nearly 95,000 acres, a population of 20,361 persons, and having a rateable value of £85,882. The authority having jurisdiction give to their health officer £75 annually, for part services of course, but he is responsible for the duties of his office over an area and a class of people demanding, we should opine, a large proportion of his time, if the necessities of the district were to be met. To the nuisance inspector, £100 is annually doled out, and for this amount he has to devote his whole time to the duties of his office, and provide a horse and trap, the only means of locomotion available in his enormously wide-reaching and hilly district. The present officer we learn is a painstaking and hard working man, with an almost impossible task to accomplish. He works among a class of people for the most part careless and indifferent to habits of cleanliness, and requiring "to be kept under continual observation." His authority would seem to hold the view that the prevailing insanitary conditions, "must of necessity exist," and that "damp and unhealthy dwellings," more particularly "those built against banks, or the sides of hills".....are not necessarily injurious to health or unfit for habitation."

Dr. Fletcher's report clearly shows the need for efficient sanitary inspection, and that the body charged with the function of administering the Public Health Acts have signally failed to realise their responsibility as custodians of the health of the community committed to their charge.

DIPHTHERIA AT DERRY HILL.

A report by Dr. Horne, made to the Local Government Board, on diphtheria at Derry Hill, points to a long and nearly continuous succession of cases of the disease in the parish. The locality is situate in two sanitary areas, the rural districts of Calne and Chippenham, and herein lies the advantage of inquiry by an expert from an independent source. Dr. Horne has little to say in favour of the sanitary conditions prevailing. We read of absence of all sewerage; of the disposal of slops round dwellings; of primitive and nuisance-creating methods of excrement disposal and of removal of filth; and of water derived under circumstances which permit of the fouling of the wells furnishing the supplies, since Dr. Horne speaks of wells in proximity to dwellings, privies, ashpits, and pigsties. Difficulty has been found in fixing with any degree of accuracy the cause of the more remote outbreaks of diphtheria, but in 1891 the deaths by the disease were recorded of ten children under 11 years of age, twenty-four cases having been notified under the compulsory system. Next in the parish were cases in August of last year, and thence until March of the current year eighteen cases were heard of, in addition to those not notified, and these latter would seem to have had an important bearing on the lingering prevalence. Local opinion was divided between effluvia from the Calne sewage works and the local insanitary surroundings as having caused the disease; but Dr. Horne can only conclude that the influence which these could exert would be to favour attack, and perhaps to increase severity of attack in individuals. Indeed, he could trace no relation in point of time between alleged effluvia and diphtheria occurrences. But what Dr. Horne does establish is the fact that personal infection, mainly at school, has been the means whereby diphtheria has again and again been disseminated in Derry Hill. Furthermore, he has arrived at the conclusion that too much reliance has been placed on notification as a means of affording all needed information of the occurrence of "throat illness." But herein, we think, lies one of the weaknesses of the Notification Act, since while diphtheria as such is heard of as a matter of course when medically attended, those dangerous occurrences of infectious throat illness going under one and another name by no means always come to light. And Dr. Horne found evidence pointing to the bridging over of intervals of apparent quiescence of diphtheria by these more obscure ailments seldom calling for medical attendance. Another matter we notice in the report is entire absence of mention of school closure in the past history of diphtheritic illness at Derry Hill. Hence Dr. Horne makes special reference to this among other points needing attention in the future.

COUNTY HEALTH OFFICERS AND NOTIFICATION PROBLEMS.

Dr. Seaton, the health officer of the county of Surrey, has expressed to his sanitary committee his readiness to act as arbitrator between local medical officers of health and private practitioners in cases where difficulties and differences arise under the Notification Act. The task is not an enviable one, but we regret to have to say that the duty is one of necessity. Friction between medical men of official and unofficial standing in relation to notification certificates whilst not relatively of frequent occurrence, does, nevertheless, exist is only too many instances, and in a large proportion of cases tact and decision on the part of a county officer, whose independent position would free him from bias in such a matter of local moment, would set matters right. Dr. Seaton, however, has wisely decided to act only in those instances in which his services are sought by both parties and on the distinct understanding that his decision is final and will be accepted by them. His committee entirely agree with this view and significantly express the opinion that the case which led to its adoption has arisen owing to the local medical officer of health being in private practice. This fact, we believe, generally speaking, lies at the bottom of the whole business. We can only hope that Dr. Seaton may not find his duties, especially in regard to time occupied in locomotion, much increased by his new duty.

An Association has been formed at Reiboldsgrün, in Saxony, for the establishment of consumption hospitals in the kingdom of Saxony. The Association is under the protectorate of King Albrecht; the presidents are Professors Curschmann, of Leipzig, and Fiedler, of Dresden.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Hours of Attendance.*—Daily, 2. *Operation Days.*—Tu. S., 2.

CENTRAL LONDON OPHTHALMIC. *Operation Days.*—Daily, 2.

CHARING CROSS. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M., 1.30; Dental, M. W. F., 9; Throat and Ear, F., 9.30 *Operation Days.*—W. Th. F., 3.

CHELSEA HOSPITAL FOR WOMEN. *Hours of Attendance.*—Daily, 1.30 *Operation Days.*—M. Th., 2.

EAST LONDON HOSPITAL FOR CHILDREN. *Operation Day.*—F., 2.

GREAT NORTHERN CENTRAL. *Hours of Attendance.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Ear, Tu. F., 2.30; Diseases of the Skin, W., 2.30; Diseases of the Throat, Th., 2.30; Dental Cases, W., 2. *Operation Day.*—W., 2.

GUY'S. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 1. *Operation Days.*—(Ophthalmic), M. Th., 1.30; Tu. F., 1.30.

HOSPITAL FOR WOMEN, Soho. *Hours of Attendance.*—Daily, 10. *Operation Days.*—M. Th., 2.

KING'S COLLEGE. *Hours of Attendance.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, daily, 1.30; o.p., Tu. W. F. S., 1.30; Eye, M. Th., 1.30; Ophthalmic Department, W., 2; Ear, Th., 2; Skin, F., 1.30; Throat, F., 1.30; Dental, Tu. Th., 9.30. *Operation Days.*—M. F. S., 2.

LONDON. *Hours of Attendance.*—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9. *Operation Days*—M. Tu. W. Th. S., 2.

LONDON TEMPERANCE HOSPITAL. *Hours of Attendance.*—Medical, M. Tu. F. 2; Surgical, M. Th., 2. *Operation Days.*—M. Th., 4.30.

METROPOLITAN. *Hours of Attendance.*—Medical and Surgical, daily, 9; Obstetric, W., 2. *Operation Day.*—F., 9.

MIDDLESEX. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Th., 1.30; o.p., M. F., 9, W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu., 9; Skin, Tu., 4, Th., 9.30; Dental, M. W. F., 9.30. *Operation Days.*—W., 1.30, S., 2; (Obstetrical), Th., 2.

NATIONAL ORTHOPÆDIC. *Hours of Attendance.*—M. Tu. Th. F., 2. *Operation Day.*—W., 10.

NORTH-WEST LONDON. *Hours of Attendance.*—Medical and Surgical, daily, 2; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operation Day.*—Th., 2.30.

ROYAL FREE. *Hours of Attendance.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Dental, Th., 9. *Operation Days.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Hours of Attendance.*—Daily, 9. *Operation Days.*—Daily, 10.

ROYAL ORTHOPÆDIC. *Hours of Attendance.*—Daily, 1. *Operation Day.*—M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Hours of Attendance.*—Daily, 1. *Operation Days.*—Daily.

ST. BARTHOLOMEW'S. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, W. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. *Operation Days.*—M. Tu. W. S., 1.30; (Ophthalmic), Tu. Th., 2.

ST. GEORGE'S. *Hours of Attendance.*—Medical and Surgical, M. Tu. F. S., 12; Obstetric, Th., 2; o.p., Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopædic, W., 2; Dental, Tu. S., 9. *Operation Days.*—Th., 1; (Ophthalmic), F., 1.15.

ST. MARK'S. *Hours of Attendance.*—Fistula and Diseases of the Rectum, males, S., 3; females, W., 9.45. *Operation Days.*—M., 2., Tu. 2.30.

ST. MARY'S. *Hours of Attendance.*—Medical and Surgical, daily, 1.45; o.p., 1.30; Obstetric, Tu. F., 1.45; Eye, Tu. F. S., 9; Ear, M. Th., 3; Orthopædic, W., 10; Throat, Tu. F., 1.30; Skin, M. Th., 9.30; Electro-therapeutics, Tu. F., 2; Dental, W. S., 9.30; Consultations, M., 2.30. *Operation Days.*—Tu., 1.30; (Orthopædic), W., 11; (Ophthalmic), F., 9.

ST. PETER'S. *Hours of Attendance.*—M., 2 and 5, Tu., 2, W., 5, Th., 2, F. (Women and Children), 2, S., 4. *Operation Days.*—W. and F., 2.

ST. THOMAS'S. *Hours of Attendance.*—Medical and Surgical, daily, exc. W. and S., 2; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Tu. F., 1.30; Children, S., 1.30; Dental, Tu. F., 10 *Operation Days.*—W. S., 1.30; (Ophthalmic), M., 2.30, F., 2; (Gynæcological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Hours of Attendance.*—Daily, 1.30. *Operation Day.*—W., 2.30.

THROAT, Golden Square. *Hours of Attendance.*—Daily, 1.30; Tu. and F., 6.30; *Operation Day.*—Th., 2.

UNIVERSITY COLLEGE. *Hours of Attendance.*—Medical and Surgical daily, 1.30; Obstetrics, M. W. F., 1.30; Eye, M. Th., 2; Ear, M. Th., 9; Skin, W., 1.45, S., 9.15; Throat, M. Th., 9; Dental, W., 9.30; *Operation Days.*—W. Th 1.30; S., 2.

WEST LONDON. *Hours of Attendance.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th. S., 2; Ear, Tu., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, Tu., 10, F., 4; Skin, F., 2; Throat and Nose, S., 10. *Operation Days.*—Tu. F., 2.30.

WESTMINSTER. *Hours of Attendance.*—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1; Eye, M. Th., 2.30; Ear, M., 9; Skin, W., 1; Dental, W. S., 9.15. *Operation Days.*—Tu. W., 2.

MEDICAL NEWS.

PROFESSOR VON BERGMANN has been elected Dean of the Medical Faculty of the University of Berlin for the coming academic year.

DEATH OF A LUNATIC OF THE CORK DISTRICT ASYLUM.—An inmate named Condon, who had been two years in the asylum, while taking exercise on August 5th, under surveillance, leaped over the boundary wall of the asylum and plunged into the reservoir. He sank at once, and his body was recovered some hours afterwards.

THE SANITARY EDUCATION OF THE PEOPLE.—During the past seven months—from January 1st to July 31st inclusive—10,129 persons have visited the Highgate Museum of Sanitary Appliances, showing that the efforts of the Sanitary Authority in establishing the museum have been appreciated by the public. From an educational point of view this must do good.

PASTEURISM IN NEW YORK.—Dr. Paul Gibier, Director of the Pasteur Institute of New York, reports that between July 1st, 1892, and July 1st, 1893, the number of patients submitted to antirabic treatment at the Institute was 104. No deaths occurred. In 47 of the cases the existence of rabies in the animals which inflicted the bite was proved either by experiment or by the death of some other person or animal bitten by the same animal.

ST. ANDREWS GRADUATES' ASSOCIATION.—At the annual meeting, held at 11, Chandos Street, Cavendish Square, on August 2nd, the following resolution was unanimously carried: "That the Council and members of the St. Andrews Graduates' Association desire to offer to our learned president, Sir Benjamin Ward Richardson, our most hearty congratulations on the dignity Her Most Gracious Majesty the Queen has conferred upon him, and sincerely hope that renewed health and vigour may enable him for many years to come to shed lustre upon medical science, and to be a benefactor to his country."

MEDICAL VACANCIES.

The following vacancies are announced:

ANDERSON'S COLLEGE MEDICAL SCHOOL, Glasgow.—Chair of Materia Medica and the Chair of the Physics. Applications to John Kidstone, Secretary, 50, West Regent Street, Glasgow, by August 31st.

BIRMINGHAM CITY ASYLUM, Birmingham.—Junior Assistant Medical Officer. Salary, £80 per annum, with board, lodging, and washing. Applications to the Medical Superintendent.

BRIGHTON, HOVE, AND PRESTON DISPENSARY, Board Room, Queen's Road, Brighton.—House-Surgeon, unmarried, doubly qualified. Salary, £140 per annum, with furnished apartments, coals, gas, and attendance. Applications to C. Somers Clarke, Honorary Secretary, by September 1st.

BRISTOL HOSPITAL FOR SICK CHILDREN AND WOMEN.—House-Surgeon; doubly qualified. Salary, £100 per annum, with rooms and attendance. Applications marked "House-Surgeon" to the Secretary, H. Lawford Jones, by August 12th.

CUMBERLAND INFIRMARY, Carlisle. — Assistant House-Surgeon. Salary, £40 per annum, with board, lodging, and washing. Applications and testimonials to the Secretary by August 17th.

COUNTY ASYLUM, Lancaster.—Clinical Assistant. Board, etc., provided. Applications to the Medical Superintendent.

GENERAL HOSPITAL, Birmingham.—House-Physician. Salary, £70 per annum, with residence, board, and washing. Applications to Howard J. Collins, House Governor, by September 2nd.

LONDON COUNTY ASYLUM, Claybury, Woodford, Essex. Fourth Assistant Medical Officer, unmarried, doubly qualified, and not more than 35 years of age. Salary, £150, rising £5 a year to £160 per annum. Applications on specified form to R. W. Partridge, Clerk to the Asylums Committee, 21, Whitehall Place, S.W., by August 21th.

LONDON TEMPERANCE HOSPITAL, Hampstead Road, N.W.—House-Surgeon and Junior House-Surgeon, doubly qualified. Residence, board, and washing provided. Appointments for six months. The House-Surgeon will receive a salary at the rate of 50 guineas per annum, and the Junior House-Surgeon will receive an honorarium of 5 guineas on satisfactory completion of term of appointment. Applications to E. Wilson Taylor, Secretary, by August 31st.

NATIONAL DENTAL HOSPITAL, Great Portland Street, W.—Assistant Dental Surgeon. Applications to E. Almack, Secretary, by August 22nd.

QUEEN'S COLLEGE, Ireland.—Professor of Midwifery. Applications to the Under Secretary, Dublin Castle, by August 21st.

RADCLIFFE INFIRMARY, Oxford.—House-Physician, doubly qualified. Salary, £80 per annum, with board, lodging, and washing. Appointment for two years. Applications to the Secretary by August 18th.

ROYAL INFIRMARY, Hull.—Senior House-Surgeon. Unmarried. Salary, 100 guineas per annum, with board and furnished apartments. Testimonials to be sent to the Chairman of the House Committee by August 15th.

ROYAL UNITED HOSPITAL, Bath.—House-Surgeon; must be M.R.C.S. Eng. Salary, £80 per annum, with board, lodging, and washing. Applications to W. Stockwell, Secretary-Superintendent, by August 25th.

ST. LUKE'S HOSPITAL, London, E.C.—Clinical Assistant. Appointment for six months. Board and residence provided. Applications to Percy de Bathe, Secretary, by August 24th.

TEIGNMOUTH, DAWLISH, AND NEWTON INFIRMARY, DISPENSARY, AND CONVALESCENT HOME.—House-Surgeon, doubly qualified. Salary, £60 per annum, with board, lodging, and washing. Applications to the Chairman of Committee by August 28th.

TOWNSHIP OF MANCHESTER.—Resident Assistant Medical Officer at the Workhouse at Crumpsall, doubly qualified, unmarried. Salary, £100 per annum, with furnished apartments, fire, light, washing, and attendance. Applications, endorsed "Assistant Medical Officer," to George Macdonald, Clerk to the Guardians, Poor-law Offices, New Bridge Street, Manchester, by August 16th.

TULLAMORE UNION, Killoughey Dispensary.—Medical Officer. Salary, £100 per annum, with £20 as Medical Officer of Health, registration and vaccination fees. Applications to Joseph Cummins, Honorary Secretary, Currygurry, Blueball. Election on August 14th.

VICTORIA INFIRMARY OF GLASGOW.—Superintendent and Resident Medical Officer. Applications to Francis Bisset, Secretary, 22, Carlton Place, Glasgow, by August 15th.

WESTMINSTER HOSPITAL, Broad Sanctuary, S.W.—Surgeon. Must be Fellow of the Royal College of Surgeons of England. Applications with testimonials to the Secretary, S. M. Quennell, by August 22nd.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton.—House-Surgeon. Salary, £100 per annum, with board, lodging, and washing. Appointment for one year, but eligible for re-election. Applications, endorsed "Application for House-Surgeon," to Edwin A. White, House-Governor and Secretary, by August 28th.

WORCESTER COUNTY AND CITY LUNATIC ASYLUM.—Third Assistant Medical Officer, unmarried. Salary, £100 per annum, with board, lodging, and washing. Applications to Dr. Cooke, The Asylum, Powick, near Worcester, by August 25th.

MEDICAL APPOINTMENTS.

BEACH, Fletcher, M.B., F.R.C.P.Lond., appointed Physician for Outpatients at the West-End Hospital for Nervous Diseases, Epilepsy, and Paralysis, Welbeck Street.

BELLAMY, Henry Reynell, L.R.C.S.Edin., L.R.C.P.Edin., L.F.P.S.Glasg., appointed Honorary Surgeon to the Stockport Infirmary, *vice* W. E. Bailey, M.B., C.M., resigned.

BERESFORD, R. de la Poer, M.D.Glasg., L.R.C.P.Lond., L.R.C.P., L.R.C.S. Edin., reappointed Medical Officer of Health for the Oswestry Rural and Urban Sanitary Districts.

BLACKER, George Francis, M.B., B.S.Lond., appointed Assistant Obstetric Physician at University College Hospital.

BRADFORD, W. G. H., B.A., M.B., B.C.Cantab., appointed House-Physician to the Brompton Hospital for Consumption and Diseases of the Chest.

BROOK, Wm. Frederick, F.R.C.S.Eng., L.S.A., appointed Medical Officer for the Throat and Ear Department of the Swansea Hospital.

CARDELL, A. John, L.D.S.R.C.S., Eng., appointed Honorary Dental Surgeon to the Western Dispensary, London.

CARR, John Walter, M.D., B.S.Lond., M.R.C.P., F.R.C.S., appointed Assistant Physician to the Royal Free Hospital, Gray's Inn Road.

CARR, Dr. T., appointed Medical Officer of Health to the Braintree Rural Sanitary Authority.

DIXON, Arthur, M.R.C.S.Eng., L.R.C.P.Lond., appointed Medical Officer for the Eighth District of the Preston Union.

DONNELLAN, John Nicholas, M.B.R.U.I., B.Ch., appointed Medical Officer for the Waltham St. Lawrence District of the Cookham Union.

DONNELLY, W. T. B., M.B., B.S.Durh., M.R.C.S.Eng., L.R.C.P.Lond., appointed House-Physician to the Brompton Hospital for Consumption and Diseases of the Chest.

FAWSSETT, Frank, M.B., B.S.Lond., reappointed Medical Officer for the outlying portion of St. John's Parish of the Lewes Union.

FERGUSSON, William B., M.D., appointed Medical Officer for the Sixth District of the Stroud Union.

GOODING, Matthew Richard, L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer of Health for the Borough of Bideford.

GOODMAN, F. G., M.D.Dub., L.K.Q.C.P.Irel., appointed Medical Officer for the Workhouse and the Brigg Sanitary District of the Glandford Brigg Union.

GRANT, Frederick, L.R.C.P., L.M.Edin., M.R.C.S., reappointed Medical Officer of Health for the Market Harborough Urban Sanitary District.

HALPIN, J. E., L.R.C.S.Irel., L.and L.M.K.Q.C.P.Irel., appointed Medical Officer to the South Normanton Colliery Company.

HEMMING, C. W., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Glyncorrwg Sanitary District of the Neath Union.

HILL, A. B., M.D.Giessen, L.R.C.P., L.M., L.R.C.S.Edin., D.P.H.Camb., appointed Medical Officer of Health for the Aston Urban Sanitary District.

HUSBAND, Charles, M.R.C.S., reappointed Medical Officer of Health for the City of Ripon.

JOHNSON, Raymond, M.B., B.S.Lond., F.R.C.S.Eng., appointed Assistant Surgeon to the University College Hospital.

LIMONT, James, M.A., M.B., B.Sc., M.R.C.P., appointed Physician in charge of the recently instituted Department for Diseases of the Skin at the Royal Infirmary, Newcastle-on-Tyne.

LOVERIDGE, W. G., L.R.C.P., L.R.C.S.Edin., L.F.P.S.Glasg., appointed Medical Officer for the Barton Sanitary District of the Glandford Brigg Union.

LOYND, Wm., L.R.C.P.I., M.R.C.S., reappointed Medical Officer of Health for the Oswaldwistle Urban Sanitary District.

LUPTON, H., L.R.C.P.Lond., M.R.C.S., reappointed Medical Officer for the Alveston and Welford Sanitary Districts of the Stratford-on-Avon Union.

MASON, William, L.R.C.P., L.R.C.S.Edin., reappointed Medical Officer of Health for the St. Austall Rural Sanitary District.

MOORHEAD, G. H., L.R.C.P., L.M., L.R.C.S.Irel., appointed Medical Officer of Health for the Hunsworth Rural Sanitary District.

OLIVER, Mr. William, appointed District Medical Officer of the Township of Saddleworth.

OWEN, H. E., L.R.C.P.Lond., appointed Medical Officer of Health for the Kingsbridge District Local Board.

PALMER, A. M., L.R.C.P., L.M.Edin., M.R.C.S., reappointed Medical Officer for the Whittington Sanitary District of the Chesterfield Union.

PARKER, George Roger, L.R.C.P.Lond., M.R.C.S.Eng., reappointed Medical Officer of Health for the Lancaster Rural Sanitary District.

PERRY, C. E., M.D.Brux., L.R.C.P., L.M.Edin., M.R.C.S., reappointed Medical Officer of Health for Sandgate.

PIMLEY, Thomas, M.B., C.M.Aberd., appointed Medical Officer for the Fulwood District of the Preston Union.

POLLARD, G. W., M.B., C.M.Edin., appointed Junior House-Surgeon to the Borough Hospital, Birkenhead.

RIDLEY, Walter, M.B., M.S., F.R.C.S., appointed Surgeon in charge of the recently instituted Department for Diseases of the Throat and Ear at the Royal Infirmary, Newcastle-on-Tyne.

RENTON, George, M.D.Edin., appointed Medical Officer of Health for the Leadgate Urban Sanitary District.

SHORTRIDGE, Thomas W., M.D.Brux., L.R.C.P., L.R.C.S.Edin., reappointed Medical Officer of Health for Honiton.

SPENCER, Herbert R., M.D.Lond., appointed Professor of Midwifery and Obstetric Medicine at University College, and Obstetric Physician at University College Hospital, *vice* John Williams, M.D., resigned.

STEPHENS, James Wm., L.R.C.P.Lond., M.R.C.S.Eng., appointed Certifying Surgeon under the Factory Acts for the Cardigan District, *vice* Dr. Davies, deceased.

STEPHENSON, Frederick, L.F.P.S.Glasg., L.R.C.P.Edin., reappointed Medical Officer of Health for the Prestwich Urban Sanitary District.

STOCKWELL, Frederick, M.D.Lond., M.R.C.S., reappointed Medical Officer of Health for the Wincanton Rural Sanitary District.

THOMAS, A. W., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Sporle Sanitary District and the Workhouse of the Swaffham Union.

WARREN, F. C., L.R.C.S., L.M.Edin., reappointed Medical Officer of Health for Gillingham.

WILLIAMS, R. T., L.R.C.P., L.R.C.S.Edin., L.F.P.S.Glasg., appointed Medical Officer of Health for the Porthcawl Local Board.

WILSON, Charles, M.B., C.M.Glasg., appointed House-Surgeon to the Wirral Children's Hospital, Birkenhead.

YOUNG, Mr. James, appointed Medical Officer for the Fourth District of the St. Alban's Union.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTH.

FITCH.—On August 2nd, at Churchgate House, Chaddesley-Corbett, Kidderminster, the wife of Dennis Fitch, M.R.C.S., of a daughter.

MARRIAGES.

EDWARDS—BATCHELOR.—On August 3rd, at St. Augustine's Church, Penarth, by the Rev. E. S. Roberts, B.A., W. T. Edwards, M.D., F.R.C.S., J.P.Cardiff, to Edith Evangeline (Eva), daughter of the late John Batchelor and Mrs. Batchelor, the Upper Cliffs, Penarth.

LANSDOWN—GRIFFITHS.—On August 9th, at Holy Trinity, Kilburn, N.W., by the Rev. W. R. Wollen, M.A., uncle of the bridegroom, assisted by the Rev. Sydney Gurney, M.A., Robert G. Poole Lansdown, M.D., B.S., of Clifton, Bristol, to Alice Anna Griffiths, daughter of the late Thomas Griffiths of Cardigan.

STOCKER—DE PARIS.—On August 2nd, by the Ven. the Archdeacon of Middlesex, at St. John's Church, Notting Hill, Walter Woodley Stocker, M.R.C.S.Eng., M.R.C.P.Lond., to Constance Emily, daughter of Mrs. de Paris of Clarendon Road, and the late Edward de Paris of Brighton.

DEATHS.

COOPER.—On July 23rd, at Feckenham, Worcestershire, Frank William Cooper, M.R.C.S.E., late of Gainsborough House, Leytonstone, aged 54.

DURHAM.—On August 6th, at the London Fever Hospital, of virulent diphtheria contracted while on duty as Acting Resident Medical Officer, Arthur Ellis Durham, M.A., M.B., B.C. (late scholar of Christ's College, Cambridge, and student of Guy's Hospital), aged 28, eldest son of Arthur E. Durham, F.R.C.S., of 82, Brook Street, W., and Guy's Hospital.

HAWORTH.—On July 13th, at Whalley Range, Manchester, England, A. M. Haworth, widow of the late Rev. B. N. Haworth, Wesleyan Minister, and mother of Dr. R. J. Haworth, of McGregor, Manitoba, Canada.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

DR. R. HUGHES (Bala) writes: I shall feel obliged if you or any of your correspondents would favour me with the title of any work giving a description of the so-called "sun" treatment.

INQUIRENS asks for the name and maker of the best axis traction midwifery forceps at present in use, and also the best cephalotribe, together with their respective prices, if possible.

ANSWERS.

M. W.—The Lunacy Act does not apply to Ireland. The petitioner who applies to a magistrate for an order must lay before him his petition, accompanied by two medical certificates. It is not the magistrate's business to call in a medical man.

MEMBER.—The gradual extraction of teeth by indiarubber rings is only applicable to conical-rooted teeth, such as the incisors or bicuspids. The indiarubber ring should be smaller than the tooth, so that it has to be sprung over the crown, and placed at the neck; the ring then gradually forces the gum and other tissues away on its journey up or down the root of the tooth. When the roots are spread or divergent there is no tendency for the ring to travel further than the neck of the tooth, and consequently the tooth is not loosed. It is a very unsatisfactory proceeding, because all the time the ring is forcing its way along the root the tooth is painful to pressure; and as it takes some days for the process to be accomplished, a considerable amount of discomfort—if not pain—is endured. The best method of extracting teeth is by means of a pair of forceps in the hands of a skilful operator. The shock of the extraction is less dangerous, even to people with diseased heart, than the continuous pain extending over longer periods; while, by the administration of nitrous oxide gas the patient can be saved both the pain and the knowledge that the operation is being performed.

THE HUMAN HAIR.

SUBSCRIBER.—Our correspondent should refer to any of the standard works on dermatology, and not to books such as that to which he refers.

WORKS ON BALNEOLOGY, ETC.

G. A. B. will find the following works suitable: *Climate and Health Resorts*, new edition, by Dr. Burney Yeo; *Baths and Wells of Europe*, by the late Dr. Macpherson; "General Balneotherapeutics," by Dr. Leichtenstern, in von Ziemssen's *Handbook of General Therapeutics*; and the *Curative Effects of Baths and Waters*, by Dr. Braun, edited by Dr. H. Wiber.

NOTES, LETTERS, Etc.

OVERCROWDING IN THE MEDICAL PROFESSION AND ITS RESULTS.

NEMESIS writes: Four years ago there were four "doctors" in ———, a small manufacturing town. The population has not increased, but now there are eight (one non-resident). A few weeks since three children of one of the newcomers were passed as half-timers for the factory!

A DISCLAIMER.

MR. HERBERT J. FREDERICK, of Sidcup, writes to us to express his annoyance at a notice of his appointment as assistant house surgeon at a London hospital having appeared in a local paper. The notice was inserted entirely without Mr. Frederick's knowledge.

FOGS.

MR. R. H. SCOTT, F.R.S., read a paper before the Meteorological Society on "Fifteen Years' Fogs in the British Islands, 1876-90," which was a discussion of the fog observations made at the stations which appear in the daily weather report. The winter is the foggiest season, and the greatest number of fog observations are reported from London, Yarmouth, Oxford, and Ardrossan. In the summer half year the fog prevalence attains a local maximum in two different districts, namely, at Scilly, St. Ann's Head, and Roche's Point in the south-west, and at Sumburgh Head and Wick in the north. These are evidently sea fogs accompanying warm weather. Mr. Scott has made a collation of the observations of fog and the force of the wind, and finds that fog almost invariably occurs only with calm or very light winds. The author says that it seems to be generally assumed that fogs in London are increasing in frequency and in severity. From the observations it appears that there is no trace of a regular increase, either in the monthly or in the annual curve. All that can be said is, that taking the three lustral periods of five years each, the last of these—1886-90—comes out markedly the worse, the successive totals being 262, 250, and 322.

LETTERS, COMMUNICATIONS, ETC., have been received from: (A) Messrs. Armour and Co., London; Mr. W. H. B. Atkins, Toronto; Mr. T. R. Atkinson, Sherborne; Mr. W. Andriezen, Wakefield; Alpha; Messrs. Arthur and Co., London; Mr. G. W. Anderson, Arbroath. (B) Dr. H. M. Bowman, London; Dr. A. B. Blacker, London; Dr. W. H. Brazil, Bolton-le-Moors; Mr. W. B. Bishop, Newcastle; Mr. W. Barling, Kidderminster; W. T. Brooks, M.B., Oxford; Mr. W. G. Black, Edinburgh; Mr. H. R. Bellamy, Stockport; Dr. A. T. Brett, Watford; Mr. R. J. Blackham, Sidcup; Dr. F. Beach, London; Dr. J. K. Barton, Dublin; Mr. F. Barrow, Rothbury. (C) Mr. H. Cooper, Manchester; R. B. Cullen, M.B., Tiverton; Cantab.; Mr. R. Curtis, London; Dr. W. R. Climo, Colchester; Candidate; Mr. E. G. Clarke, Cleveden; Mr. C. Campbell, Oldham; Dr. W. T. Cocking, Sheffield. (D) C. C. Douglas, M.B., Skelmorlie; Mr. E. de Paris, London; Mr. W. C. Dendy, Aylesbury; Mr. W. T. B. Donnelly, London; P. M. Deas, M.B., Exeter; Messrs. J. W. Drysdale and Co., London. (E) Mr. N. Everitt, London; Edinburgh University, The Dean of; Enquirens; Mr. E. D. Edwards, Montreux. (F) Mr. T. Farthing, Spennymoor; F.C.S., F.L.S.; G. Findlay, M.B., Shipton-on-Stour; F.R.C.S.; Mr. D. Fitch, Kidderminster; Mr. O. A. Fry, London. (G) Mr. W. Glendenning, Newcastle; Mr. J. M. Garrard, Harrogate; Mr. C. A. Gordon, London; Mr. H. R. Greene, Southsea; G. A. B.; Mr. B. J. Guillemara, Cape Colony. (H) Mr. H. Hutchinson, Aberdeen; Dr. W. B. Hopkins, Philadelphia; Mr. B. Hunter, London; Dr. R. Hughes, Bala; Mr. C. W. Harris, London; Mr. H. F. Hurst, Walker-on-Tyne; Messrs. C. J. Hewlett and Son, London; Mr. W. R. Haycraft, Bow; Mr. J. E. Halpin, South Normanton. (I) Dr. W. Iliffe, Derby.; I.V.R.C. (J) Mr. C. H. Johnson, Reading; R. Johnson, M.B., London; Mr. E. L. Jones, Sale. (K) Mr. J. W. Kidd, Stirling; Mr. J. L. Kerpen, Penarth; J. R. Kaye, M.B., Huddersfield; Dr. R. L. Knagg, Leeds; Dr. Kanthack, Cambridge. (L) Liquor Carnis Co., London; Mr. J. N. Lewis, Newport; L.R.C.P., M.R.C.S.; Mr. C. G. Lee, Liverpool; Mr. H. Lund, Manchester; London Scottish. (M) Professor D. C. Muller, Buda Pesth; Member; Mr. J. M. Menzies, London; Dr. H. Macnaughton Jones, London; Dr. W. Murrell, London; Dr. Murray, Malvern; M. W.; A. McCall, M.B., Conisborough; Mr. F. J. Mackintosh, Edinburgh; Dr. F. W. Mott, London. (N) Northumbrior; Dr. A. Newsholme, Brighton; Dr. E. G. Newell, Londonderry; Dr. J. C. F. Naumann, London; Dr. A. D. L. Napier, London; New South Wales Branch, The Hon. Sec. of the. (O) Mr. D. A. O'Sullivan, Burnley; Observer. (P) Dr. A. Parkin, Hull; Pax; Dr. J. W. Potter, London; Professor Philipson, Stockport; Dr. E. C. Perry, London; Dr. H. H. Phillips, Reading. (R) Messrs. J. Robertson and Co., Edinburgh; Dr. W. R. Rice, Coventry; Dr. A. Rosenau, Bad Kissengen; Mr. J. Rogers, London; J. S. Russell, M.B., London; Mr. W. Ridley, Newcastle; Mr. C. A. Rayner, Boscombe. (S) Dr. R. Stockman, Edinburgh; Mr. B. Spicer, Barnet; Mr. J. W. Stride, Brighton; Mr. W. F. Sheard, London; A Subscriber; Surgeon-Licutenant-Colonel, A.M.D.; J. Steel, M.B., London; Mr. T. H. Smith, Lyndhurst; Dr. F. J. Smith, London; Mr. R. Savage, London; Mr. R. B. Sealy, Disley. (V) Veteran, A.; (W) Mr. M. A. Wardle, Bishop Auckland; Dr. F. J. Waldo, London; Mr. J. R. Whiting, Johannesberg; Mr. T. C. Winn, London; Dr. H. B. Wynter, Exmouth; W. G. A. R.; Mr. C. Wilson, Glasgow. (Y) R. J. E. Young, M.B., Edinburgh; Etc.

BOOKS, Etc., RECEIVED.

Lehrbuch der speciellen pathologischen Anatomie. Von Dr. J. Orth. Berlin: August Hirschwald. 1893. M. 9.

Guide for Medical Students. By the Registrar of the Catholic University School of Medicine. Dublin: Browne and Nolan. 1893-94.

Cardiff, Penarth, and Environs. By J. L. K. London. Hudson and Kearns. 1893.

Buxton: Its Baths and Climate. By Dr. S. Hyde. London: John Heywood. 1893.

Practicum der physiologischen und pathologischen Chemie nebst einer Anleitung zur anorganischen Analyse für Mediciner. Von Dr. E. Salkowski. Berlin: August Hirschwald. 1893.

*** **In forwarding books the publishers are requested to state the selling prices.**

SIXTY-FIRST ANNUAL MEETING
OF THE
BRITISH MEDICAL ASSOCIATION

Held in NEWCASTLE-ON-TYNE August 1st, 2nd, 3rd, and 4th, 1893.

PROCEEDINGS OF SECTIONS.

THE PATHOLOGICAL EFFECTS OF CERTAIN SUBSTANCES DERIVED FROM THE SPLEEN IN CASES OF SCARLATINA.

Presented to the Section of Pathology at the Annual Meeting of the British Medical Association held in Newcastle, August, 1893.

By T. J. BOKENHAM, L.R.C.P., M.R.C.S.,
Research Scholar to the British Medical Association;
AND
W. SOLTAU FENWICK, M.D.Lond., M.R.C.P.,
Physician to Out-patients, Evelina Hospital for Sick Children; Medical Tutor, London Hospital.
(From the Conjoint Laboratories of the Royal College of Physicians (London) and Surgeons (England).)

Object of the Research.

The researches of Sidney Martin, Hankin, Brieger, Roux, and Yersin, and others have already done much for our knowledge of the chemical pathology of infectious diseases. A field of research has been opened up by them in which chemical rather than pure bacteriological methods are chiefly applicable. Scarlatina, however, seemed at first sight to lend itself less readily to this method of research. Though most suspect that the disease is of bacterial origin, this has not as yet been established as has been done for anthrax, diphtheria, and tetanus, which have furnished the subject of previous researches. This deficiency in our knowledge deprives us of a most important control to any chemical work. In the case of anthrax, for instance, it has been possible to isolate a toxin from the tissues, and to compare its action with that of a similar substance prepared from cultivations of the bacillus anthracis. We thought, however, that, even in the absence of this control, important evidence might perhaps be obtainable by looking for special chemical poisons in the organs of patients in whom the disease had ended fatally. The gastric catarrh, fever, and nephritis so characteristic of the disease were almost surely of chemical origin. Profiting, therefore, by the experience of Sidney Martin, we determined to seek in the spleen such a chemical substance. In this we were most kindly assisted by Dr. Gayton, superintendent of the North-Western, and Dr. Caiger, superintendent of the South-Western Fever Hospitals. These gentlemen sent us all the material we were able to examine, 15 cases in all, forwarding the spleens to us, immersed in rectified spirit, as soon as possible after the *post-mortem* examination had been made.

Nature of the Cases.

The bottles containing the spleens were labelled with the name of the patient, age, and date of death. We sought no further information about the cases until our experiments were nearly concluded, and in the end we found that we had been wise in delaying our inquiries, as our ignorance allowed us to come to quite unbiassed conclusions as to the action of matter extracted from each individual case. Of course it was likely that if the scarlatina had terminated fatally at different stages of the disease any special chemical substances discoverable in the organs would have a physiological action either of different intensity or quality. The results of our investigations actually showed that the action of the substances obtained might without difficulty be divided into three distinct classes—highly poisonous, of uncertain activity, and scarcely toxic. On comparing these conclusions with the full report of the cases obtained later, we had the satisfaction of finding, as will presently be more fully stated, that the first class of substances were derived from acute cases, namely, those which proved fatal during the first three or four days from evident toxæmia; the substances of lesser and variable activity were associated with cases which had survived about a fortnight or so, and had been complicated with suppuration about the throat and fauces—"septic cases;" while the third class of substances came from cases which had died from a late sequela or intercurrent disease. It appears to us that this is a very valuable control to the accuracy of our conclusions.

Process of Extraction.

We may say at once that the method of extraction employed was almost precisely similar to that used so successfully by Sidney Martin in his investigations on diphtheria, differing only in minor details. The spleens were removed as soon as possible after death, and, after being well washed, were freely incised and placed in bottles containing a good quantity of rectified spirit. When we received them at the laboratory we passed them through a mincing machine till they were in a state of fine pulp, which was allowed to remain in contact with the spirit for some weeks. By this means all globulins and nucleo-albumins were coagulated and rendered insoluble. The spirit was then separated, the residue pressed, and all the liquid portions after filtration, were concentrated to a small bulk (an almost syrupy consistence) in a large vacuum apparatus, on the principle of Liebig's condenser, so arranged as to be capable of independently concentrating six specimens at a time. The solid residue of the organs was treated with sterilised distilled water in successive portions, extraction being each time assisted by placing the mixture for some hours in an automatic "shaker." When nothing more could be extracted in this manner, the liquids were united, and concentrated to a small bulk in the same manner as the spirituous extract. In this process the vacuum apparatus attached to the condensers allowed the liquids to boil at a temperature below 40° C., this being considered advisable until we knew whether heat had any injurious effect on the toxins. All the concentrated liquids were then thrown into at least ten times their volume of absolute alcohol. In every case a more or less bulky whitish or yellow precipitate fell, in most cases having a greater or less tendency to adhere to the sides of the bottle. After being allowed to remain under the alcohol for some weeks, the precipitate was separated, washed in alcohol, dissolved in a small quantity of water, and again thrown into absolute alcohol. By repeating this process several times, the precipitate was in great measure purified. It was then dried *in vacuo*, and preserved in stoppered bottles. In its final stage it is a yellowish or white powder, deliquescent, of either neutral or slightly alkaline reaction, readily soluble in water, but insoluble in alcohol, ether, or chloroform.

As a control experiment, the spleens removed from two cases of death by accident were submitted to the same process. In this case, also, a small yield was obtained on throwing the concentrated extract into absolute alcohol, but this yield was both more flocculent and less sticky than that in most cases obtained from the scarlatinal spleens. Chemically it gave the reactions of an albumose, and this would tally with the observations of v. Jaksch, and of Halliburton and Gourlay, who found that the spleen contained, a few hours after death, always a greater or less amount of proteose. The latter observers offer, as an explanation of the fact, that this is a *post-mortem* phenomenon, and that the proteose is formed from the splenic cells and leucocytes.[1]

The alcohol used in the above-described manipulations also contained much soluble matter. It was treated with dry carbonate of potash or soda in order to remove all traces of water, after which it was separated from the salt and evaporated to dryness at a low temperature *in vacuo*. The residue was extracted with absolute alcohol, a deposit of tyrosin and mineral salts being left behind. The alcoholic extract, after being kept for some days, deposited a further impurity in the shape of leucine, which adhered to the sides of the bottle. The remainder was again evaporated to dryness, once more extracted with absolute alcohol, and thrown into anhydrous ether. The ether became immediately turbid, and a precipitate fell. This was separated, washed with more ether, and treated with pure chloroform, in which a part of it was

[1] Goulstonian Lectures, 1893.

soluble. The remaining insoluble dark yellow residue was set aside for chemical and physiological tests.

In the treatment with ether a good deal of oily matter was separated out, but the nature of this substance has not as yet been investigated.

AMOUNT OF THE PROTEID AND OTHER MATTERS OBTAINED.

Only an approximate estimate of these quantities can be given, as a great deal must have been lost in the various processes of separation and purification. The spleens also were of various sizes, and of their weights we have no record. It will be sufficient, in order to give some idea of the amount of material at our disposal for physiological examination, etc., to say that our smallest yield of proteid matter was 0.06 gramme, our largest being 1.6 gramme. In the cases in which the yield was most abundant, however, it was found to be as a rule less active physiologically. The alcohol-soluble portion was in every case less abundant, being generally 0.1 or 0.2 gramme.

CHEMICAL REACTIONS.

To ascertain the chemical nature of these bodies we applied tests, the chief results of which are given below. We may say at once that whether the substances proved active or not the chemical reactions were in nearly every case identical, so that the physiological is the only reliable means of distinguishing them.

REACTIONS OF PROTEID PRECIPITATES.

Cold water, solubility complete.
Boiling, no precipitate.
Litmus, reaction neutral or faintly alkaline.
Saline solution hot or cold, solubility complete.
Saturation with sodium chloride, slight or no precipitate.
Saturation with ammonium sulphate, complete precipitation.
Nitric acid, a precipitate in the cold in the presence of excess of salt, sometimes without addition of salt.
Biuret reaction, nearly always distinct.

REACTIONS OF ALCOHOL-SOLUBLE PORTION.

Litmus paper, alkaline, but becomes acid on keeping in the solid form.
Phospho-tungstic acid, a more or less copious precipitate.
Phospho-molybdic acid, ,, ,, ,,
Potassio-mercuric iodide, an orange or reddish precipitate.
Millon's reagent, a white precipitate which becomes pink.
Biuret reaction, negative.

It will thus be seen that the proteid matter may be classed among the proteoses, and is quite indistinguishable chemically from the proteoses formed during the process of digestion. The nature of the alcohol-soluble portion is at present immaterial, for our physiological experiments have shown it to be practically inactive on animals.

While dealing with the chemical portion of our paper, we may say that we have recently, acting on a suggestion of Professor Halliburton, separated some of the digestive proteoses from commercial peptone, and used these substances as a control of our observations with the scarlatinal proteose.

MODE OF ADMINISTRATION: IMMEDIATE AND REMOTE EFFECTS.

The animals used in our experiments consisted of rats, guinea-pigs, mice, and rabbits, those only being selected which had been for some time previously under observation. In every case daily records of weight and temperature were kept, and compared with similar records of control animals. The actual injection of the experimental substances dissolved in a few cubic centimetres of water seldom caused any local trouble. At the most a little pus formed at the site of inoculation in one or two instances. Although the material was given in doses varying from 0.05 gramme to 0.4 gr. per kilogramme of body weight, the following description of its effects refers solely to those cases in which the dose measured 0.1 gramme per kilo.

The constitutional effects of the albuminous extract were found to vary according to the nature of the case from which the material was derived, but it is satisfactory to note that each preparation exhibited a uniform action in the various animals used.

I.—TOXIC CASES.

When the solution of the albuminous extract from a case of scarlatina fatal in one to five days was introduced under the skin of a rat in the proportion of 0.1 gramme per kilo. of its body weight, no abnormal symptoms manifested themselves for a period of twenty-five to thirty minutes. At the end of that time, the animal appeared to mope in a corner of its cage, and to be disinclined for active exertion. The respirations became increased in frequency, and the animal's gait became tottering and extremely unsteady. Within a short time paresis of the hind limbs set in, the body being dragged along in an irregular and zigzag fashion by the sole action of the forelegs. With the development of this paresis the respiration became markedly slow and laboured in character, the accessory muscles of the nose and mouth being called into requisition. Within half an hour from the onset of the symptoms the animal passed into a state of profound collapse. The heart's impulse was weak and its action quick, and the surface of the body was cold to the touch. After a varying period of time, gradual recovery took place; the breathing grew quicker and more natural in type, the temperature rose, and the power over the extremities was slowly regained. The actual time occupied by this series of symptoms varied considerably, but it was found that the period of collapse could be curtailed by placing the animal in a chamber at a temperature of 130° F. It is a remarkable fact that recovery took place in every instance, even when as much as 0.4 gramme per kilo. was administered, with the result that the stage of collapse was rapid in its onset, and so extremely severe that a fatal termination appeared inevitable.

The same series of symptoms exhibited themselves in the case of the mouse and guinea-pig, the only difference being that in the latter the signs of paresis were much less marked. The rabbit, on the other hand, appeared to be but little affected by the poison, a slight attack of general *malaise* being the only noticeable result.

Effects on Temperature.—Before attempting to discover the effects of the substance upon the temperature of the body it was necessary to determine the normal in each variety of animal, and also to register the daily variations of the thermometer in each animal for some days prior to the commencement of the experiment. It was found that in any animal the thermometric reading in the rectum could be made to vary considerably by inserting

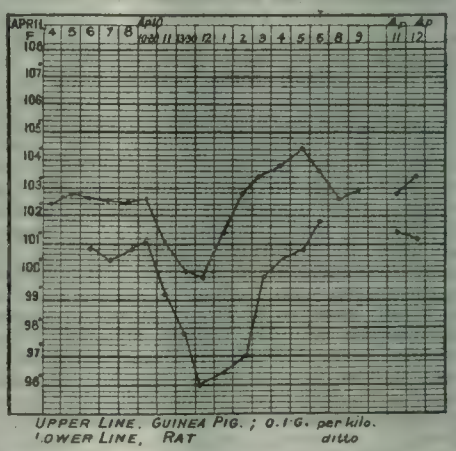


Fig. 1. Chart indicating effect upon temperature of a guinea-p and rat of the hypodermic injection of scarlatinal albumose. Upper line, guinea-pig; lower line, rat. Dose, 1 gramme per kilo.

the bulb of the glass for a greater or lesser distance into the gut. In every case, therefore, the thermometer was introduced for the same distance, and held in position for the same length of time. When these precautions were observed the normal temperature was found to vary but little among the various members of the same species, being in the rabbit 102.4° to 103° F., in the guinea-pig 101.8° to 102.4° F., and in rats 100.6° to 101.2° F. When 0.1 gramme per kilo. was administered to a rat or a guinea-pig, the temperature in the rectum commenced to decline after an interval of 20 to 30 minutes, and steadily fell about 5° F. until it reached its lowest point two or three hours after the injection. Reaction then set in, and the mercury regained its original position about two hours later. In most cases a certain amount of pyrexia asserted itself on the recovery of the temperature, and the mercury underwent a further elevation amounting to one

or two degrees. This reactionary fever was, however, of only short duration, and completely subsided within seven hours of the initial injection. Similar results were observed in the case of the rabbit, only the depression was less severe, and recovery took place sooner.

When a corresponding amount is injected into the marginal vein of a rabbit, the temperature in the rectum, instead of falling, commences to rise, and continues to do so until it reaches a point about 3½ to 4° F. above the normal. It then gradually declines, and regains its former position within eight to ten hours from the commencement of the experiment. In a few cases a slight initial fall was observed within ten minutes of the injection.

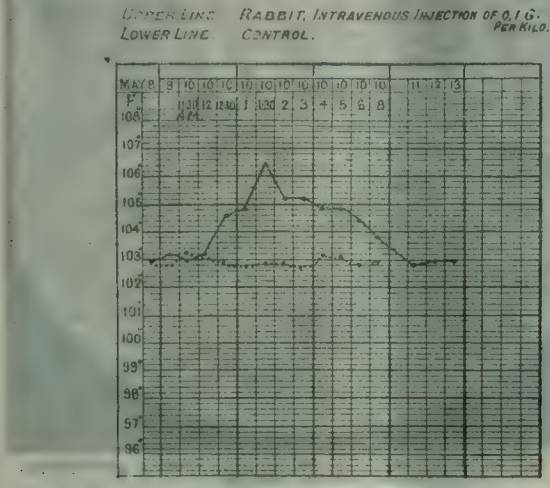


Fig. 2.—Chart showing effect of intravenous injection of scarlatinal albumose on a rabbit Lower dotted line shows temperature of a control rabbit.

When the same dose is given every day the temperature fails to respond with the same facility, the resulting effect diminishing day by day until little or no reaction can be obtained. The production of this degree of tolerance is not a constant phenomenon, but is sufficiently marked to deserve notice.

During the few days immediately following the injection the animals appeared to suffer no particular inconvenience, and the temperature remained at its normal level. About the seventh or eighth day, however, the appetite began to fail, the temperature rose slightly, and the body lost in weight. With only one exception (rabbit) death ensued within the fortnight, the rats exhibiting a uniform tendency to succumb about the tenth or eleventh day. The earliest period at which death occurred was the fifth day. When two injections were given on consecutive days the animal died on the fifth or sixth, and after three doses on the third or fourth. In every case where it was possible to obtain a specimen of urine the presence of albumen was easily demonstrated, and in some instances epithelial and granular casts were also found. In the few cases where observations were undertaken, no change could be detected in the microscopical characters of the blood. There were never any symptoms pointing to an affection of the motor nerves such as is described by Sidney Martin in the case of the splenic extract from patients dead of diphtheria.

II.—Septic Cases.

The albuminous extract in these cases did not give such uniform results as in the case of the toxic variety of the disease. The immediate effects of the injection were for the most part unimportant, and the animal usually failed to exhibit those symptoms of collapse which proved so uniform a feature in the preceding cases. In almost every instance the subcutaneous injection was followed by signs of *malaise*, and the temperature in the rectum fell one or two degrees; but it often required a dose of 0.3 g. per kilo. to produce an effect equivalent to that which followed the administration of 0.1 g. per kilo. of the material derived from the toxic cases. Intravenous injection in the rabbit always caused a rise of temperature, but the pyrexia was of short duration. In some instances albuminuria ensued within the next few days. Unlike the preceding cases, death seldom resulted from one dose, only two animals out of fourteen succumbing after seven and nine days respectively. Some of the animals were killed at definite intervals, and their tissues set apart for histological examination.

III.—Postscarlatinal Cases.

In this series the albuminous extract derived from the spleen exhibited but little effect when injected under the skin of the various animals. In some instances a slight fall of temperature was noted, but it was not attended by any characteristic symptoms. Intravenous injection was seldom accompanied by any degree of pyrexia when the ordinary dose was given. Albuminuria was occasionally noted, but this symptom invariably disappeared within a few hours, and never manifested itself again. In no instance did death occur as the result of the poison, though in two cases sloughing took place at the site of inoculation, which necessitated the animal being put to death. As in the other series, several animals were killed at definite intervals, and their tissues examined.

The Residue Soluble in Absolute Alcohol.

There is very little to be noticed concerning the effects produced by the administration of this substance. When injected either subcutaneously or into the general circulation in doses not exceeding 0.2 g. per kilo., the temperature in the rectum seldom evinced any tendency to rise more than a fraction of a degree, and in the great majority of cases remained entirely unaffected. The animals exhibited no signs of *malaise*, and in no case did death ensue. This material must therefore be regarded as devoid of any pathological significance.

Pathological Results.

To the naked eye the various viscera of the cases which had died from the effects of a dose of the albuminous extract presented few signs of disease. In a few instances the intestines were found to contain an excess of bile, and occasionally the mucous membrane of the stomach exhibited small hæmorrhages, but neither of these can be regarded as phenomena of serious import. In the majority of instances the kidney was congested, and its cortex rather granular, but beyond this there was seldom anything to excite remark. The various tissues were hardened in Flemming's solution, cut in the frozen state, and stained either with hæmatoxylin or hæmatoxylin and eosine.

Toxic Cases.

In these cases the kidney was usually found to present a pale, swollen, and slightly granular cortex, in which the glomeruli were conspicuous as small red dots. The capsule always stripped off readily, and occasionally a few small hæmorrhages could be seen scattered over the surface of the organ. On examining a section of the tissue under the microscope it was at once evident that grave changes had taken place in its secreting structure. The interlobular blood vessels were engorged, and here and there small extravasations were visible. In some places the capillary tufts of the glomeruli were likewise gorged with blood, while in others they appeared swollen and homogenous, the nuclei of the connective tissue being increased in number. The cells lining the inner surface of Bowman's capsule were granular and often detached, but the wall of the capsule itself presented no appearance of thickening. In many instances the capillary tuft did not entirely fill the capsule, the interval being occupied by a mass of granular material, blood cells, and sometimes threads of fibrin. In a few places there appeared to be a slight increase in the number of nuclei surrounding the afferent vessels of the glomeruli and between the proximal ends of the convoluted tubules, but the condition was never a conspicuous feature, and was often entirely absent. We were never able to detect signs of hyaline degeneration of the intima of the vessels similar to that described by Klein in the case of the human subject. The tubules in every case presented the typical features of

catarrhal inflammation. The lining epithelium was swollen and granular in the early stages, and the lumen of the tubes considerably reduced in size. In the more advanced cases the individual cells were scarcely recognisable, and the centre of the tubule was occupied by a granular mass, which, after staining with osmic acid, assumed a black appearance.

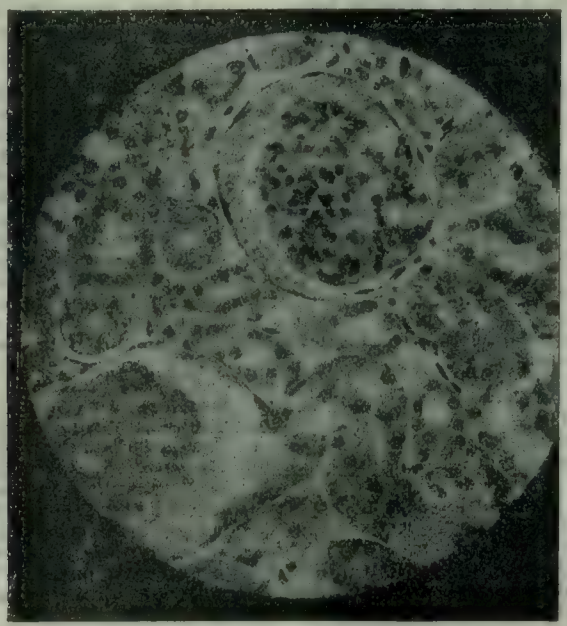


Fig. 3.—Kidney of rat. Proteose from a case of rapidly fatal scarlatina. Death after injection of 1 gramme per kilo., showing acute tubal nephritis.

The epithelium of the straight and collecting tubules was seldom affected, but their lumen was occasionally blocked by granular and fatty plugs. These signs were often detected



Fig. 4.—The same. From a photograph from another case. More highly magnified.

within twenty-four hours of the injection. An examination of the other organs gave a uniformly negative result, the liver, spleen, stomach, intestines, heart, muscles, nerves, and central nervous system appearing perfectly normal. It would therefore appear that the only pathological change in these cases consisted in an acute tubular nephritis with a very slight interstitial change, and since an examination of the

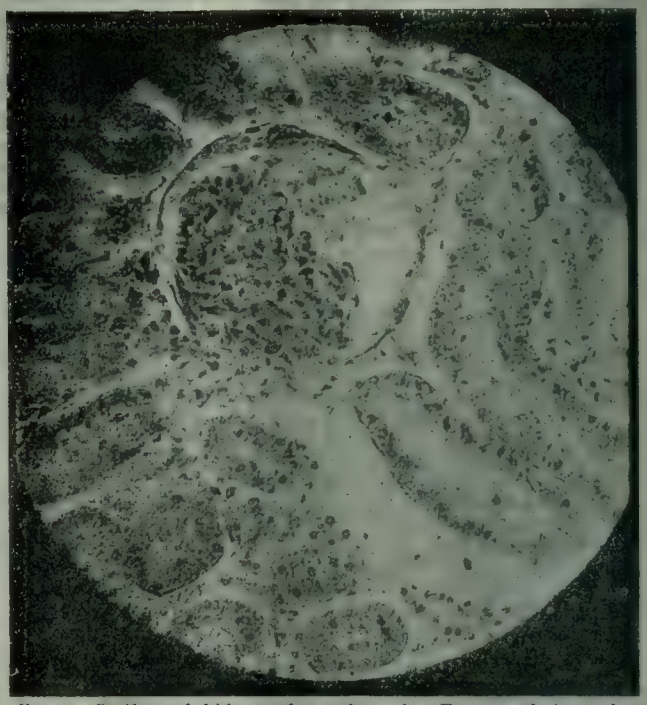


Fig. 5.—Section of kidney of a guinea-pig. From a photograph. Showing similar changes.



Fig. 6.—Kidney of rabbit. Stained with osmic acid, showing fatty degeneration of the tubal epithelium. From a photograph.

blood demonstrated its complete sterility, the death of the animals can only be attributed to the affection of the kidney.

Septic Cases.

The effects produced upon the kidney by the albuminous extract derived from these cases were very variable. In two instances, with the exception of some congestion of the Malpighian tufts and slight cloudy swelling of the convoluted tubes there was nothing worthy of notice. But in two cases where the injection caused death the signs of parenchymatous nephritis were well marked, although the glomeruli were only slightly affected. It is interesting to note that, according to Dr. Caiger's report of the case, the child from whom the spleen had been obtained had succumbed to acute nephritis. Accordingly, we can only state that the administration of the extract in these cases was occasionally attended by the phenomena of acute nephritis.

Postscarlatinal Cases.

It has already been remarked that in this series death never occurred as the result of the injection. In a few instances, where the animal had been killed within the week, the convoluted tubules exhibited some signs of cloudy swelling, but the glomeruli never exhibited any morbid change.

Conclusions.

In order to control to some extent the foregoing experiments, two spleens derived from cases which had died from an accident were subjected to the same process, and the albuminous extract administered to animals. The material in question gave rise to no pathological effects. In like manner peptic albumoses, when injected into the circulation, never produced an inflammation of the kidney similar to that previously described.

These facts point to the conclusion that in case of rapidly fatal scarlatina a morbid product of a proteid nature is formed, which can be extracted from the spleen in small quantities. This substance, when introduced into the circulation of an animal, is rapidly excreted by the kidney, and, acting as an irritant to the secreting structure, tends to produce a condition of acute parenchymatous inflammation. This result is obtained even when the solution has been previously boiled.

It might be thought that the gastro-intestinal changes described by Samuel Fenwick in cases of scarlatina might also be dependent upon the same cause. But in our experiments the alimentary tract was never affected by the administration of the splenic extract. It must be remembered that the affection of the stomach and intestine always occurs within the first twenty-four hours of the onset of the fever in the human subject, and therefore precedes the development of the kidney disease by a considerable period of time.

In conclusion, we would embrace the opportunity of tendering our warmest thanks to the Royal Colleges of Physicians and Surgeons for the ample facilities for research afforded us at their laboratories, and to the director, Dr. Sims Woodhead, for his kind advice and valuable suggestions. We would also again express our indebtedness to Drs. Caiger and Gayton, for the material with which they so kindly provided us.

PUBLIC MEDICINE.

H. E. Armstrong, D.Hy.Durham, President, in the Chair.

Thursday, August 3rd.

Diphtheria and Specific Throat Affections.

Dr. J. Eustace Hill (M.O.H. Durham County Council) read a paper of diphtheria and diseases which appeared to be in some way connected with it. After referring to the bacteriology of diphtheria, and to the possibility that cases were capable of transmitting the disease, he went on to observe that numerous outbreaks of diphtheria have, however, occurred in which milk appears to have been in no way responsible for the disease, and in many such cases no satisfactory explanation of its origin could be ascertained. There was undoubtedly considerable evidence that the disease was more common in districts with a damp, cold soil, and there was no doubt that in houses that were dark and structurally damp conditions existed which favourably affect its propagation and virulence. Defects of sewerage and drainage and accumulations of decomposing filth also seemed to favour the disease, and it was a well-known fact that the prevalence of diphtheria in many districts dated from the time of the completion of schemes of sewerage and drainage. There was not, however, any authenticated instance of diphtheria being produced by the drinking of polluted water, and another important point was that the disease in this country had to some extent a geographical distribution, and did not appear to be the result of those general insanitary conditions which were usually considered the factors of a high general and zymotic death-rate, for in many of the large towns in Lancashire and Yorkshire, and in other parts of the country where the average general and zymotic rates were high, the mortality from diphtheria was very low, while in London and in many of our otherwise healthy rural districts the death-rate was and had been for many years excessive. The difficulty of controlling the spread of diphtheria was generally very great, owing to the different manifestations of the disease in those attacked. In very many instances the first cases were so mild as to be mistaken for cases of simple sore throat. Consequently the true nature of the disease was overlooked, and conditions were favourable for the disease spreading. There is every excuse for a mistaken diagnosis in such cases, for there is rarely any evidence of the patient having been in contact with anyone suffering from diphtheria, and except for the injection and enlargement of the tonsils and general *malaise* there were frequently no symptoms at all suggestive of diphtheria, but there could be no doubt that such cases were infectious, and that under certain conditions the specific virus was capable of inducing fatal diphtheria. Unfortunately, also, during some epidemics of diphtheria, cases of the disease were not recognised by the medical men in attendance, even though the disease was so severe as to produce fatal results. Thus it was not uncommon to find during the progress of an epidemic of diphtheria that fatal cases are registered as resulting from croup. Croupous bronchitis, laryngitis and tracheitis, broncho-pneumonia, etc., which on inquiry appeared to have had distinct diphtherial symptoms, with a history of exposure to the diphtheritic poison. A short time ago, during a diphtheria epidemic, he had met with an excellent example of this misdiagnosis, for in one family where there were three deaths within one month, the causes of death were given in the first case as tonsillary abscess—dyspnœa; in the second as severe tonsillary inflammation—exhaustion; and in the third as tonsillary ulceration—convulsions. These cases all occurred at a time when diphtheria was prevalent in the immediate vicinity, and there was a distinct history of these patients infecting other children with diphtheria. There have, however, been outbreaks of specific throat disease in which very few, if any, of the cases developed the characteristic diphtherial membrane, but otherwise presented many of the symptoms of true diphtheria. In one such outbreak he had observed the infection to be conveyed by milk, and distributed among a large number of persons. The chief symptoms were intense headache and sore throat; the tongue was thickly coated with white fur, there was swelling and inflammation of the tonsils and cervical and submaxillary glands, with, in some instances, follicular ulceration of the tonsils. The temperature generally varied between 102° and 104°, and the acute symptoms, which lasted about a week, were followed by great physical prostration, which persisted for a considerable time. In none was pseudo-membrane or post-diphtherial paralysis observed. The cows at the farm which supplied the milk were all perfectly healthy and free from any eruption on the udders, but it was ascertained that there had been previous to and at the time of the outbreak cases of this throat disease in the family of the hind who attended to the cows and the milk. The hind himself did not appear to have suffered from the disease, but he lived with his family in a very insanitary one-roomed house, and appeared to have been the medium by which the infection was carried to the milk. Some of the cases were reported under the Notification Act as diphtheria, others as scarlet fever, while a large proportion of the cases were not notified, owing to the indefinite symptoms of the disease. There was very slight evidence of either rash or desquamation in any of the cases, but they certainly differed from diphtheria in the absence of any definite false membrane, while the case

mortality was much lower and the ages of the persons attacked generally much higher than in true diphtheria. The disease was undoubtedly infectious, and the infection was transmissible by milk. Dr. Hill then drew attention to the affinity or connection which appeared to exist between diphtheria and scarlet fever. Outbreaks of these diseases occurred frequently in a district at the same time, or one disease following in the wake of the other. Except for the rash and desquamation of scarlet fever, which are often so slight as to be hardly discernible, the symptoms of that disease could hardly, if at all, be distinguished from cases of mild diphtheria. Another point of similitude was that both diseases appeared to affect the cow and produce somewhat similar symptoms, namely, eruptions on the udder, etc. During the past twelve months he had learnt of several instances in which outbreaks of these diseases appeared to have been intimately connected with one another, and in one district—the Northern Division of the Houghton Rural District—the apparent relationship was extremely well marked. Thus, not only were the two diseases prevalent in the same portions of the district, but the date of the prevalence of the diseases almost exactly corresponded; for there were two severe outbreaks of diphtheria, one at the beginning of the year, which died out in June, and the other commencing at the end of September; and, though less severe, there were also two distinct outbreaks of scarlet fever beginning and terminating at the same times as those of diphtheria. Cases of diphtheria might occur in a family other members of which were at the time suffering from scarlet fever, and the close connection existing between the diseases has been commented on by Dr. Airy and Dr. Parsons in reports to the Local Government Board. The apparent relationship might partly be accounted for by the fact that after an attack of scarlet fever the throat is weak and more liable to be attacked by the diphtheritic poison, and there is also no doubt that cases of diphtheria are at times notified as scarlet fever and *vice versâ*, but these facts were not a sufficient explanation, and further inquiry into the relationship or affinity of these diseases to one another was desirable. The chief factor in the spread of the disease was school attendance, the result undoubtedly of children suffering from a mild and undetected form of the disease (slight sore throat) still remaining at school. In every epidemic of diphtheria which he had investigated the effect of school attendance on the spread of the disease had been most evident, and he had generally been able to obtain evidence of the attendance at the schools of children or teachers during the time they were suffering from what they considered was simply an attack of sore throat. School closure should be resorted to much more frequently during the prevalence of diphtheria than had hitherto been the case, and by the recent regulations of the Education Department increased power had been given to medical officers of health to do this. Increased supervision of the health of the scholar by the teachers themselves was also required, and at all times cases complaining of the slightest sore throat should be strictly excluded from school attendance till they had been seen by a school medical officer. The practice adopted in some districts of insisting on the attendance at school of all children who were not absolutely ill was to be deprecated. In some districts this practice was carried to such an extent, and the parents were in such fear of the threats of the school attendance officers, that they preferred to send ailing children to school rather than keep them at home. Another equally reprehensible practice was the sending of scholars to inquire into the cause of the absence of other scholars from school; by this means children might be frequently sent to houses where infectious diseases existed. The obliteration of the word "croup" from the medical vocabulary, the compulsory notification of cases of sore throat, and the isolation of cases of diphtheria in hospital wherever possible (this was quite as necessary as in cases of scarlet fever, but has hitherto been greatly neglected), are also measures which might with advantage be adopted as means of reducing the prevalence and mortality of diphtheria.

THE CAUSES OF THE INCREASE OF DIPHTHERIA IN URBAN DISTRICTS.

DR. SIDNEY DAVIES (M.O.H. Plumstead) observed that diphtheria had greatly increased in London during the last ten years, and in Plumstead during the last five years, and no satisfactory explanation of this increase had yet been given. School influence was very important, but did not account for the greater increase in towns. Woolwich and Plumstead were two parishes, side by side and under similar conditions of soil, population, etc. Plumstead was the healthiest, but during the last four years there had been five to eight times more diphtheria in Plumstead. In Plumstead the sewers were largely ventilated, mainly by grid ventilators. In Woolwich there was little ventilation and no grid ventilators. The grid ventilators had been put in during the last five years. Therefore, in time and place, diphtheria in the Woolwich district had followed grid ventilators. Probably the ventilation of sewers was one, if not the chief cause of the urban increase of diphtheria. Dr. Davies then related, in the following terms, the facts which had brought him to this opinion:—Woolwich and Plumstead are two urban parishes, lying side by side. Plumstead is in reality merely an extension of Woolwich, the two parishes being separated only by an artificial boundary line. They are on the same soil, have the same water supply, and to a large extent the same milk supply. They are both inhabited mainly by artisans, and the bulk of the houses in each are 4 or 5 roomed, with no inside water closets. Woolwich has a good many slums, and in other respects is in a very imperfect sanitary condition; its general death-rate last year was 18.7, and its infantile death-rate 147, and these are the lowest rates it has yet recorded. Plumstead, on the other hand, has no slums, and is in a decidedly good sanitary condition, last year's general death-rate being 15.2, and infantile death-rate only 109—lower than any sanitary area in the metropolis. The population of Woolwich is 41,000, and of Plumstead, 55,000; apparently the age distribution as regards children must be nearly the same, since the birth-rates are nearly the same, 30 and 31 respectively. The sewage of both parishes goes into the southern London outfall sewer. Probably Woolwich has a large proportion of old brick sewers, whereas Plumstead has now mainly pipe sewers. The Woolwich sewers have for the most part a much less fall than those of Plumstead, which lies on the slope of a steep hill. These two parishes having so much in common are, however, under different sanitary authorities and have different surveyors; and as a result of this, whereas Woolwich has no grid ventilators, and not much sewer ventilation of any kind, Plumstead has grid ventilators in nearly every street, and all the houses built within the last three years are provided with shafts which ventilate the sewers through the house drains. Now let us look at the prevalence of diphtheria in each parish. Those who say that diphtheria is independent of sanitary conditions would expect to find it more or less equally prevalent in both parishes; those who, like myself, believe it is dependent on sanitary conditions, would expect Woolwich to have the greatest prevalence. But, contrary to both expectations, there is and has been during several years past a far greater prevalence in Plumstead. During the past four years there were in Woolwich 19 deaths and 45 cases notified, and in Plumstead, on the other hand, there were 74 deaths and 231 cases notified. In proportion to population there were three times as many deaths in Plumstead and four times as many notifications. Taking the year 1892 alone, there were in proportion to population eight times as many deaths and five times as many notifications in Plumstead as in Woolwich. Comparing the other zymotic diseases, scarlet fever and enteric fever appears to be equally prevalent in the two parishes, while diarrhœa is more prevalent in Woolwich. As regards the distribution of diphtheria in the various subdistricts, this has varied during the past three years from 1.8 per 1,000 in one district to 5.3 in another. The district with the highest rate adjoins Woolwich. This fact strikingly points to the deduction that the difference in the prevalence of diphtheria is not merely accidental, nor due simply to spread by infection, but is related to the different sanitary administration. The increased prevalence of diphtheria in Plumstead dates back, as I have said, five years, and it is just the last five or six years that have seen the growth of the grid ventilators. In illness, he continued, all the secretions usually passed into the sewers, and even if it were shown that sewer gas

never contained the diphtheric bacillus, it might yet contain some element essential to its growth and multiplication. The filth coating the walls of sewers seems a most favourable soil for its growth. If sewer gas were the cause of diphtheria in Plumstead, it must come from the sewer ventilators, because there was no possibility for it to enter direct by the great majority of the houses. Further, the grids and not the shafts were to blame. The shaft ventilators being mainly in one part of the parish, it would be easy to see if more cases of diphtheria occurred in that part; but this was not the case, but rather the contrary. There was ample opportunity for children to inhale the gas from the grids; the streets were the common playgrounds, and children stooped down over the grids in search of escaped marbles, etc. The foul odours issuing from the grids were in Plumstead, as elsewhere, a constant cause of complaint. Towns such as Brighton and

Annual Mortality from Diphtheria per Million Persons Living.

Year.	England.[1]	London.[2]	Plumstead.[3]
1859	517	284	—
1860	261	174	—
1861	225	239	—
1862	241	255	720
1863	315	275	—
1864	261	207	880
1865	196	144	960
1866	140	152	480
1867	120	145	560
1868	137	158	440
1869	117	107	360
1870	120	104	—
1871	111	105	300
1872	93	80	160
1873	108	95	420
1874	150	122	620
1875	142	167	360
1876	129	109	390
1877	111	88	190
1878	140	155	130
1879	120	155	390
1880	109	141	90
1881	121	172	160
1882	152	229	340
1883	158	244	280
1884	186	241	320
1885	164	227	170
1886	149	212	320
1887	160	235	200
1888	171	319	610
1889	189	391	570
1890	179	331	440
1891	173	340	120
1892	—	—	720

[1] and [2] are from the Registrar-General's annual report. [3] The column for Plumstead is from the annual reports of the medical officers of health, and includes croup.

Croydon, which had carefully ventilated their sewers, had had serious outbreaks of diphtheria afterwards. Dr. Seaton had described a Surrey village in which there had been an outbreak of diphtheria immediately after a perfect system of sewers had been put in. Dr. Seaton gave this as an instance in favour of his view that diphtheria was independent of sanitation; but as the sewers were ventilated in the orthodox manner, that is, by grids, Dr. Davies adduced it in support of the opposite opinion. On the other hand, Bristol had unventilated sewers, and very little diphtheria. Grid ventilators came into fashion, for the most part, in the last fifteen years. If this were so, it was easy to explain the Registrar-General's annual figures of the diphtheria mortality. These had been quoted by Dr. Seaton as showing that diphtheria was independent of sanitation. But he only began in 1871. If the earliest year given in the Registrar-General's table were taken, it would be seen that diphtheria diminished prettily steadily, like enteric fever, and remained low up till about 1877, since which year it had steadily increased. The increase, however, was confined to the towns the decrease having been persistent in country districts. Diphtheria had diminished with sanitary improvements, but, unlike enteric fever, had again increased owing to insanitary methods of ventilating sewers. As regards the practical lessons, he was not prepared to suggest a solution of the difficult question of how sewers should be ventilated. He had advised his own authority that no more grid ventilators should be put in which were likely to act as outlets, and that as far as possible all existing grids should be made inlets by providing shaft ventilators at suitable places. If this could not be done, and in all cases where grids emitted foul odours they should be closed. What was of far more importance than ventilation was thorough cleansing and flushing. In conclusion, he submitted:—(1) That no satisfactory explanation has yet been given of the urban increase of diphtheria. (2) If it can be shown that diphtheria increases with sewer ventilation, a satisfactory explanation has been found. (3) I have shown this for one district. (4) It is desirable that inquiry should be generally made as to whether this is the case in other districts.

Dr. Thresh (M.O.H. Essex) found in the county of Essex, in which the mortality from diphtheria was very excessive, that the disease seemed to travel from parish to parish and district to district, prevailing for two or three, or more, years in one district, then disappearing more or less completely, only to appear elsewhere. The outbreaks also varied considerably in character, the case mortality varying during the past year from 0 to 40 or 50 per cent. In rural districts a very considerable number of cases of diphtheria, some of which gave rise to epidemics, was caused by servants being sent home from their situations in the towns directly they complained of sore throat; thus the amount of diphtheria in urban districts was diminished, and in rural districts increased. In Dr. Thresh's districts he had usually found school attendance the chief cause of the dissemination of the disease, but it was rare to find that the children attacked sat close together. In his opinion the licking of slates and pencils, drinking from the same cup, etc., was the cause of the disease spreading in schools. When the disease broke out in any school he recommended that the slates, pencils, etc., should be thoroughly disinfected with strong carbolic acid solution. In one village in which diphtheria had been continuously prevalent for some three years, affecting children attending one of the two schools almost exclusively, disinfection of the slates and the provision of sponges and carbolised water had been attended with the best results. The relationship between scarlet fever and diphtheria was probably more intimate than was usually supposed; he had found diphtheria not only following scarlet fever, but also scarlet fever developing from diphtheria, which could not possibly have been a scarlatinal angina.

Dr. A. Newsholme was of opinion that a more probable explanation of the increased prevalence of diphtheria in Plumstead than the sewer grids would be found in the very defective house drains which had been laid in suburban districts during the last thirty years. This might also explain the greater prevalence in Plumstead than in Woolwich, which was an older district. The chief cause of diphtheria was, however, direct personal infection, and school attendance played an important part in this. The visiting of absentees by school children sent by their teachers was a source of great danger, which was connived at if not actually encouraged by many large school boards in the country. The proposed supervision of children by teachers was very difficult to carry out in practice. Slight cases of sore throat would generally be overlooked. Periodical medical inspection was urgently required, in association with more careful supervision by parents and a diminished exercise of pressure to secure the return of convalescent absentees to school.

Dr. Wm. Robinson, F.R.C.S.Eng., gave an instance of two cases of "croup" breaking out in a house under the floor of which rats had burrowed their way from an old stone sewer and there died. The smell in the house was very bad; the kitchen floor was taken up, the dead rats removed, and the next week the first case of croup occurred and proved fatal; the next case soon followed with a similar result. He therefore thought that all cases of so-called "croup" should be notified as diphtheria, and preventive measures taken. He also stated that he had seen a case of sore throat in which false membrane was never present, followed by paralysis of the ciliary muscle, the muscles of the soft palate, and other muscles, proving that the case had really been one of diphtheria; and this case would have been misdiagnosed had not the case been in contact with a previous case. The diagnosis

of these and similar cases of sore throat was attended with considerable difficulty.

Sir CHARLES CAMERON observed that although the main discussion was in reference to diphtheria, yet the side issue that the use of sewer ventilators in streets was insanitary was perhaps more important. The conduction of sewage by open drains in the street would be less open to objection than the system of having close sewers with openings into them at regular intervals. In the former case everyone would get his fair share of the stinking emanations from the drain, whilst, by the ventilating system, the emanations were concentrated at a limited number of points, and became more dangerous to the persons who lived close to these points. He described some experiments which he had made in Dublin sewers, which proved that the air entered them to a greater extent than foul air came out of them; this was particularly in the early morning when, the fires being lighted in kitchens, caused an insuction of air into the house, and where there were defective traps or absence of them the sewers gases were drawn into the house through the house drains. In Dublin, however, there seemed to be no connection between the ventilation of sewers and diphtheria, as that disease did not increase in Dublin, the death-rate from it being only about 40 or 50 per 1,000,000 persons living.

Dr. GROVES said the ventilation of sewers was a matter of the law of the diffusion of gases. In summer the presence of sewer gas was more appreciated in obedience to this law, the atmosphere being warmer than the air of the sewer. He had not made up his mind as to the relation of sewer gas to diphtheria, but he quoted the case of a village in which there were outbreaks of diphtheria among children attending a school in a neighbouring town. A road ventilator near the Board school was closed, with the idea of substituting a shaft ventilator, and there had not been an outbreak of diphtheria in that village since. He spoke of the transference of the poison of diphtheria at schools by using a drinking vessel in common, etc. He referred to the influence of soil, and instanced the example of an epidemic of diphtheria passing from east to west, during which the incidence of the disease was exceedingly severe and fatal in villages situated on the clay, and mild in villages situated on porous soil.

Brigade-Surgeon R. PRINGLE, M.D., thought that the desire on the part of the School Board authorities to keep up the average attendances was one of the chief causes of the late increase of diphtheria, and unless some steps were taken by the medical officer in connection with the School Board authorities by which all undue pressure was avoided, diphtheria, ringworm, and other infectious diseases must increase. On the commencement of an outbreak of diphtheria the medical officer should see that these cases were not allowed to return to school till they are quite free from infection, and that the School Board authorities should have this fact explained to them, and thus make allowances for any lowering of the averages.

Dr. OGILVIE GRANT (M.O.H. Inverness-shire) pointed out that one of the causes of the prevalence of diphtheria in one district more than another was the difference of opinion among medical men as to what diphtheria was. As a result of the examination of certificates under the Compulsory Notification Act, it appeared to him that some medical men took a wider view of what was included under the name diphtheria than others.

Dr. J. WRIGHT MASON believed the action of surface ventilation of sewers as a cause of diphtheria had not been fully established. Diphtheria in Hull was not a prevailing disease. The ventilation of the sewers was by surface ventilation. They had to have recourse to steam power to assist the sewage system. The sewage system was formerly tidal locked for some sixteen hours daily. He believed diphtheria was commonly spread by direct contagion, through mild and unrecognised cases attending school.

Dr. ALFRED HILL considered the importance of the subject justified the length to which the discussion had been carried, as it had contributed very valuable experience and expression of opinion on a disease which was only imperfectly understood, and about which every sanitarian was eager to acquire more knowledge. He combated the view that sewer gas was the principal cause of the disease, and was of opinion that drain air was much more likely to be the offending agent. He was disposed to regard the difference between sewer gas and drain air as due to the different conditions to which they were respectively exposed, the former being largely diluted with air, and therefore largely oxidised, while the latter, consisting of more concentrated gases resulting from putrefactive decomposition, was much more injurious, and being in closer connection with the houses more readily gained access to the interiors. His explanation of the occurrence of outbreaks of diphtheria, which had been referred to as following the introduction of sewers was that it was due to the disturbance of the ground and not to the sewage, because it was found by experience that when the sewers were got into working condition the diphtheria disappeared. One of the difficulties connected with the subject was the frequent inaccuracy of diagnosis; for example, in some towns the mortality from diphtheria was said to be 5 per cent. Here it was most improbable that the disease was diphtheria; it was probably common sore throat.

Dr. MALCOMSON corroborated Sir C. Cameron's view that there was no connection between the causes of diphtheria and typhoid fever. Middlesbrough had ventilated sewers, was very free from diphtheria but subject to enteric fever; he was of opinion that a great many cases of follicular sore throat were certified as diphtheria. The mortality of real diphtheria was much higher, in his opinion, than the figures of notification give.

Mr. G. EASTES stated that at the West End of London enteric fever was now a rare disease, and of the cases seen the majority arose out of the district; whereas diphtheria had of late years become much more common. Some years ago an outbreak of diphtheria occurred at Hampstead, which was on high ground, and the epidemic was attributed to the ventilation of the drains into the open roadway. There was an inlet of air into the drains in the lower parts, and a corresponding outlet for the heated gases at the openings situated in the more elevated districts.

Dr. EUSTACE HILL, in reply, said that Dr. Thresh had referred to the period of infectivity of diphtheria, and mentioned instances of patients being allowed to return to work or school before they were free from infection, and consequently had been the means of spreading the disease. Unfortunately, such instances were only too numerous. Any medical officer of health of a large district would know that some medical men only attended such cases during the acute stage of the disease, with the result that the patients were not kept under observation during convalescence, with the inevitable result that they were often the means of spreading infection. As to the exercise of supervision by teachers, he had not intended to suggest that the teachers should take upon themselves the duties of medical examiners, but that whenever diphtheria was prevalent in or threatened a district the teachers in elementary schools should inquire daily if any children were suffering from sore throats, and if any such cases existed they should be excluded from school till they had been medically examined. With reference to Sir Charles Cameron's opinion that open sewers might be better than closed drains, Dr. Hill added that in many colliery districts in Durham county the drainage was entirely by open channels, which, when carefully laid with proper fall, and receiving proper attention, appeared to answer their purpose very satisfactorily. In many rural and small urban districts where there was a system of closed drainage the drain connections were often most imperfect, the drains either being untrapped, or else very imperfectly trapped and in close proximity to the houses, and there could be no doubt that a proper system of open drainage, carefully attended to, was for small populations more sanitary than an imperfect system of closed drainage.

Dr. S. DAVIES, who also replied, observed that the drains in Plumstead were by no means perfect, but there were very few drains under the houses. His view was that diphtheria, though most often spread by infection, was one of those diseases which, so to speak, take root in the soil (including the sewers), like enteric fever and cholera. More information as to the connection between diphtheria and the sewers and soil was needed, and the Local Government Board should endeavour to obtain it.

The Prevention of the Spread of Infectious Disease by Tramps.

Dr. C. G. Ring (M.O.H. Keswick) said that it was generally recognised that outbreaks of epidemic disease in particular localities were very frequently caused by tramps, who were perhaps more than any other class likely to be exposed to infection and to spread it abroad. When a case occurred in a casual ward or common lodging house, the inmates for the night had often dispersed in unknown directions before a diagnosis could be made, and even when this was not so, there was no power to compel them to undergo quarantine, and often no means of making it effectual if they consented. As it was impossible to tell where each inmate might be when he in turn became ill, and thus liable to become a fresh centre of infection, no word of warning could be sent to the sanitary officials concerned.

It was evident that this constituted a serious danger to the community, which urgently called for remedy by suitable legislation. It was desirable to consider what means would be the simplest, and at the same time the most effectual, for meeting the necessities of the case. One obvious method would be a system of compulsory quarantine; but this would always be costly, and in some cases almost impossible to carry out effectually, and might in many instances cause serious and unnecessary hardship. It would, therefore, be preferable if an inexpensive way could be found by which sanitary authorities might have reliable information given them of the previous movements of tramps passing through their districts, with necessary particulars of any contact with infection. He suggested that in times of epidemic every tramp should be compelled to carry a card with his name and description, which should be stamped with the name of the locality and the date by the sanitary authority at each place he stopped at, and be endorsed by the medical officer if the tramp should anywhere be brought in contact with infectious disease. Cards should be obtainable from the sanitary authorities at all towns, and no keeper of a common lodging house or casual ward should be allowed to receive any person who could not produce one. They should be renewable every fortnight, and should bear on their face the names of places slept at for the previous fifteen days.

This information could ordinarily be obtained from the previous card, or, in case of a lost card, from the last place stopped at by telegraph, and so no delay need be caused to the tramp.

Further, a register should be kept at each place for reference with names and all other particulars given on the cards. There should be suitable penalties for giving false information or wilfully destroying or defacing cards. Of course no tramp should be allowed to leave an infected house till his clothes, etc., had been thoroughly disinfected. In epidemics of small-pox, every tramp should be required to have a certificate of revaccination.

Dr. Groves, while recognising the manner in which infectious disease was spread by tramps—an example of which he quoted—desired to direct attention to the importance of medical men putting on an overall when visiting cases desquamating in scarlatina. He maintained, too, that no nurse in attendance upon a case of infectious disease should be allowed to nurse or visit other persons. She should be as strictly isolated as the patient.

Dr. E. Jepson said that tramps should be revaccinated whenever they sought refuge either in prison or workhouse; tramps were a special class requiring special treatment. Small-pox had been brought on two occasions to Durham gaol by tramps; the tramps were marched through the narrow streets with infection upon them on their way to prison. By revaccinating the tramp when under control the spread of the disease could be controlled.

Dr. Wm. Robinson, F.R.C.S.Eng. (Stanhope) wished to record his antipathy to the present system of the relief of vagrants, who were most fruitful carriers of disease. They should be compulsorily revaccinated during the prevalence of small-pox. He stated that in vagrant wards the night shirts were given out each night, and they were worn without being washed or disinfected by different tramps each night. He instanced the wearing of one night shirt by a healthy tramp which on the previous night had been worn by a vagrant who was suffering from unrecognised small-pox. He thought the treatment of tramps a most pressing question worthy of the immediate attention of the Local Government Board with a view to their gradual extermination.

Brigade-Surgeon R. Pringle, M.D., thought that to revaccinate a tramp after he had slept in a nightshirt used the night before by a case of small-pox might be too late. The suggestion to revaccinate tramps compulsorily was open to grave objection, because, though the operation when thought necessary might be and was generally simple and harmless, yet not a little depended on the health of the person to be revaccinated, and where and how he lived, and his labour. A man could not work hard with revaccinated arms. A revaccinated tramp with a bad arm from revaccination compulsorily performed would have a strong case against the operator.

Dr. Malcomson said that he had a strong feeling against the method by which tramps spread disease. Middlesbrough had been annoyed with small-pox for over a year, the infection being carried by tramps. Tramps had no regard for the community, and their feelings ought not to be considered; they ought to be compulsorily revaccinated. He knew of one instance where, from a woman concealing a shawl, at least sixteen cases broke out.

Dr. Trevor Fowler said that gipsies should be included with tramps in any measures which might be proposed.

Dr. J. Wright Mason stated that small-pox had been introduced into Hull into the respective workhouses and Her Majesty's prisons through vagrants arriving mostly from the West Riding of Yorkshire. He suggested a medical inspection before their discharge from workhouse; on exposure to infection, revaccination.

Dr. Ring, in reply, observed that it was necessary to consider what legislation it was possible, under existing circumstances, to obtain, and it might be difficult, in the present state of public feeling, to obtain compulsory power from Parliament to revaccinate or detain tramps. He agreed that it was very desirable that gipsies should be included.

The Notification of Measles.

Dr. Campbell Munro originated a discussion on this subject, using illustrations from his experience in Jarrow and in Renfrewshire. He concluded by moving: "That in the opinion of this Section the inclusion of measles in the list of diseases compulsorily notifiable was a necessary preliminary to any effective attempt to control the spread of the disease."

Surgeon-Colonel Cuffe, C.B., said that all infectious diseases occurring in the army were notified, and measures taken to prevent the spread of them. In Aldershot some years ago he had made a successful attempt to stamp out measles amongst the families residing in huts in the North Camp by isolation, fumigation, and disinfection of dwelling and contents. The result was that for two years subsequently no other case occurred in these lines. Unfortunately ignorant people, and some who should know better, considered that children must have measles as naturally as they had their teeth. In the Belfast district he was now endeavouring to stamp out the disease amongst the families of the troops by vigorous measures, but this obviously could not be done unless the cases were notified. He had much pleasure in seconding Dr. Munro's resolution.

Dr. Ridge considered that the notification of measles would lead to less practical results than in the case of scarlatina, as it was so infectious before the rash appeared. It was also already in the power of any local board who had adopted the Notification Act to include measles, so that no fresh legislation was required.

Dr. J. S. Tew (Basford, Notts) said that voluntary notification of measles was adopted in his rural district (population 52,000) for a period of four years—namely, 1886-89—the number of cases reported during that period being 733. The case mortality was 5.7 per cent., and the cost of notification of measles averaged £1 15s. per 1,000 of population. One decidedly epidemic year was included—1887—when 293 cases were notified with 15 deaths. The case mortality of measles during this period only exceeded that of scarlet fever by 0.7 per cent., and the actual deaths in seven years, 1885-91, from measles exceeded those from scarlet fever by 5.

Dr. Eustace Hill said that anyone interested in public

health must sympathise with the resolution moved by Dr. Munro, but at the same time there were at present many practical objections to the notification of measles. In addition to the infectivity of the disease before the appearance of the rash, there was the fact that parents generally look upon measles as a very mild complaint, for the treatment of which it was not necessary to call in medical attendance, with the result that, after a confinement of two or three days to the house, the children were allowed to run about, and, besides running the risk of fatal complications, they undoubtedly spread the disease. In Durham the result of notification in urban districts had undoubtedly been unsuccessful, so much so that notification had been discontinued in two districts, the expense being enormous, while in another district, where every effort had been made by notification and school closure, etc., the only effect appeared to have been a prolongation of the epidemic period of the disease, and there had been no reduction in the mortality in that district. In scattered rural districts there could be no doubt that notification of measles combined with early school closure has in many instances been effective in stamping out the disease, but in urban and other populous districts the difficulties in the way of controlling the disease in an effective manner appear to be at present insuperable, and he was loth to recommend the notification of measles in any large urban district, unless at the same time there was made provision of hospital accommodation for the isolation of patients suffering from the disease and also a very large augmentation of the inspectorial staff.

Dr. Campbell Munro, in reply, said that the argument against notification represented a gospel of despair. Those who opposed notification must be held to say in effect that nothing was to be attempted in the way of an attempt to arrest the spread of measles.

The resolution was adopted with one dissentient.

A Floating Hospital.

Dr. J. H. Malcomson exhibited a model of the new floating hospital of the River Tees Port Sanitary Authority which was now being built by Messrs. Head, Wrightson, and Co., at their works at Thornaby-on-Tees. These wards, administrative and laundry blocks, were erected upon a platform or float, consisting of ten wrought iron cylindrical pontoons, each 86 feet 6 inches long and 6 feet in diameter, with hemispherical ends. These pontoons had a total displacement of about 650 tons, and were fixed 14 feet 6 inches apart, from centre to centre. They were connected together by nine rolled steel girders, each 140 feet 6 inches long and 12 inches deep, resting upon curved saddles, which in turn rest upon and were rivetted to the pontoons. The connection between the saddles and the girders is so arranged that any one of the pontoons can be detached, partially sunk by admitting water, and removed from its proper position for painting or repairs. On the girders were laid 11 feet by 3 inches creasoted joists, fixed 4 feet apart. These were bolted to wrought iron chubbs, rivetted on the upper flange of the girders. Across these joists is laid a close deck of 3-inch planking, creasoted and spiked down. The size of the deck or platform was 140 feet 6 inches by 85 feet 6 inches, which gives a superficial area of nearly 1,335 yards. It was 4 feet above the water level, and was protected all round by a strong wooden handrail, and the ward blocks were not built less than 4 feet from the edge of the deck. There were two ward blocks, built of timber and covered externally with strong galvanised corrugated iron. They were each 68 feet long by 24 feet 6 inches wide and 12 feet 6 inches high to the eaves. The roof was also formed of wood. No. 1 ward block was divided into two wards for patients, containing 2 and 8 beds respectively, and to each is attached an offshoot 8 feet square, containing a watercloset and scullery. The smaller ward was used as an isolation or inspection ward in doubtful cases. No. 2 ward block was divided into two wards for patients, containing 4 and 6 beds respectively, and had similar waterclosets and scullieries attached to each. The two wards in each block were separated by a space 10 feet wide, and contained a nurse's room and bathroom. A small window in each side of the nurse's room enabled her to command a view of all the beds. In this room was placed a special stove which gave a constant supply of hot water by means of a circulating cistern in the roof. Cisterns were also fixed in the roof above the ceiling to contain fresh and river water. The wards were lined with pitch pine boards, dressed and varnished, and the under side of the ceiling was of the same material. The windows had a large swinging sash in the upper part, which could be worked by a fixed rack and screw by cords from below so that they could be set to any width of opening. Pure air was admitted by Kite's ventilators fixed in the walls under each bed. Each ward block had an independent floor laid on joists which were 9 inches above the deck. All the wards were heated by Musgrave's slow combustion stoves. The chimney from these stoves was carried up through the roof, passing through a ventilating shaft 18 inches square, widening out to 3 feet at the ceiling level. The heat given off by these stove pipes assisted to create an upward current for the removal of vitiated air through the shaft. This current could be easily regulated by light iron flaps worked by cords from below. The whole of the interior woodwork was in pitch pine and varnished. All waste and soil pipes discharged directly into the water outside, and were cut off short 30 inches below the level of the deck, so as to form a good air trap, and also to prevent any excreta or slops hanging about their ends. Force pumps were provided in the scullieries for raising river water for certain purposes, and fresh water was pumped into the cisterns from water boats on the river. Large rain water butts were fixed to catch all the water from the roofs for washing purposes. The administrative block, 58 feet by 30 feet 6 inches, was constructed in a similar manner to the ward blocks, so far as the walls and roof are concerned. It provided the following accommodation: sitting and dining room, kitchen (with serving hatch), scullery, larders, storeroom, watercloset, bathroom, medical officer's room, caretaker's bedroom, day nurse's bedroom, night nurse's bedroom, and servant's bedroom. There are also large closets for linen, pots and pans, and places for coals, sticks, and lamps. The laundry was a detached block behind the administrative block. It would have a flagged floor, and be provided with all the latest appliances. It measured 26 feet by 14 feet, and is constructed of wood and covered with galvanised corrugated iron, like the other blocks. A special feature in connection with this hospital would be a small destructor for the burning of all infected clothing, bedding, etc. It will be constructed of firebrick, and the outsides covered with iron plates securely bolted together. The size of this destructor will be 7 feet 6 inches by 6 feet by 4 feet 6 inches high. A small mortuary block 11 feet by 7 feet 6 inches will be provided. The cost of the hospital, exclusive of laundry fittings, destructor, and furnishing, will be £6,000. In addition to this, something like £1,500 will be expended in dredging a berth, and building a large slag wall to form a kind of bay for the hospital to be moored in, and to protect it from the gales of wind from the north and east. The position of the mooring place or berth is on the north side of the River Tees, about four miles up the river from the sea.

Friday, August 4th.

H. E. Armstrong, D.Hy.Durh., President, in the Chair.

District Medical Officers as Medical Officers of Health.

Dr. Trevor Fowler (D.P.H.Cantab., etc.; M.O.H. Epping Rural Sanitary District) said that whatever might have been the intention of the framers of the Local Government Board Act, 1871, it was evident, from the words of the Act itself, that, in so far as rural districts were concerned, it was not expected that medical officers of health should be debarred from private practice. As a matter of fact, almost every rural sanitary authority in the country was allowed to give these appointments to one or other of their district medical officers.

Some of the objections against medical officers of health being in private practice were that his private interest must predominate over the public interest; that men in private practice would take advantage of their position as medical officers of health to injure rival practitioners; that they would excite envy, and consequently antagonism, amongst their professional brethren, and, instead of the friendly co-operation so much to be desired, they would have obstacles

thrown in the way of the due performance of their duties; that as regards the Notification of Infectious Diseases Act they would be disposed to shield their own patients, whilst advising the full rigour of the law to be enforced against the patients of their opponents; and, lastly, that they would be deterred from their duty by the fear of becoming unpopular in the district. An experience of eighteen years in both capacities entitled him to speak with reference to these objections. So far from having found the two offices in any way incompatible, his experience had been exactly the reverse. As to the first objection, the argument, if it were worth anything, would be equally applicable to the case of men in private practice undertaking the duties of district medical officers, and yet the system had worked well for a long series of years. Was it not sometimes an advantage to the medical officer of health to be also a district medical officer? Was it not true that he was more familiar with the dwellings, mode of life, general habits of the people, and had more frequent opportunities of noticing the sanitary conditions under which they lived than any other person in the district? The only substantial objection was the fear of the loss of popularity. But, it might be asked, Has not the Public Health Act now been in force a sufficient number of years to have produced some conspicuous examples of the pernicious effects of these appointments? But, so far as he was aware, they were to be looked for in vain.

The real difficulties of the medical officer of health in rural districts might be summed up as follows: (*a*) apathy of the public; (*b*) objection of owners of property to expend money upon sanitary improvements; (*c*) terrorism exercised by landlords over their smaller tenants; (*d*) supineness, and parsimony of the local authority; (*e*) failure of the supervision of the central authority. Education was steadily developing amongst the people a fuller recognition of the importance of the laws of health, and it was to education that we must look to overcome that widespread indifference, that public apathy, which had too long obstructed the progress of hygiene. To the three celebrated R's required to be taught in all our public elementary schools there should be added an S in the shape of the word sanitation.

Boards of guardians, very excellent bodies for the purpose for which they were created, were neither in composition nor in the time at their disposal fitted for the duties of sanitary authorities. Their members had for the most part been brought up in an atmosphere, if not of absolute disbelief in the benefits of sanitation, at any rate in one in which the advocates of sanitary reform met with but little sympathy. It was notorious, also, that the time devoted to sanitary administration by the present authorities was grossly inadequate.

As a medical officer of health for a rural district, he had long since ceased to rely upon any support from the Local Government Board in the advice which he was from time to time called upon to give to his sanitary authority. Until some system was adopted similar to that of sending vaccination inspectors to visit the different districts periodically, he did not think that matters were likely to mend.

The charge of being influenced by unworthy motives so repeatedly brought against the humbler members of the profession by those whose first duty it should be to defend its honour was an instance of that spirit of superciliousness which had too long been abroad, and which would claim all the virtues and all the honours for the magnates of the profession. When the "working man" of the profession was thoroughly aroused to the full interpretation of the imputations which had been so ruthlessly cast upon him, his voice would be heard and his power felt in high places, rolling back in scorn the accusation that he was unworthy of the trust that had been placed in him. What was to be said to men like Mr. Hopwood, when they had the hardihood openly to malign the profession in the House of Commons, and in the very presence of the Government of the day, by bluntly charging its members with backing up a false proceeding for purely mercenary motives, when some of the leaders of that profession did not themselves scruple to appear before one of Her Majesty's Ministers and unhesitatingly proclaim that the predominating spirit of the profession was the private interest of each of her members?

The annals of the profession literally teemed with brilliant examples of self-abnegation and the faithful discharge of duty for duty's sake; and in no instance had this noble spirit been exhibited more conspicuously than in the manner in which these district medical officers had performed, without fear or favour, the new duties which had fallen to them. Whatever might be the shortcomings of the profession, neither greed of gain nor self-interest could be said to be among them.

Dr. Sidney Davies agreed with the author on the whole. What was necessary for a medical officer of health was that he should be specially qualified, and should give up a certain definite amount of time to his duties, attending at an office daily. If he did this he might be left to dispose of the remainder of his time as he thought fit. And it was most desirable that a medical officer of health should have some kind of medical practice. By visiting patients he discovered insanitary conditions which he would otherwise overlook. The system prevailing in Cairo was admirable. The medical officer of health was also district medical officer, seeing and treating all the poor of his district; and he was likewise the registrar of births and deaths.

Brigade-Surgeon R. Pringle, M.D., said that until the country realised that economy did not lie in keeping the salary of the medical officer of health at the lowest point, but in seeing that the salaries of these officers were such as to make them independent of all influences which would militate against the absolute independence of their reports in all cases, it was difficult to see how local authorities could hope to obtain that state of the public health in their district which was inseparable from faithful reports fearlessly submitted.

Dr. Trevor Fowler, in reply, entirely agreed with Dr. Davies that every medical officer of health should possess the special qualification of sanitary knowledge. The time required for the work was no doubt an important point, but unless a man attended to his duties in a proper way either as medical officer of health or in his private practice, he was not likely to meet with success in either. It would also be an advantage to the community if medical officers of health could also be appointed registrars of births and deaths. All were agreed as to the inadequacy of the salaries paid to many medical officers of health.

Dr. William Robinson, F.R.C.S.Eng. (Stanhope) read the following paper:—

Lead Miners and Their Diseases.

For the last thirty years little or nothing has been written on lead miners and their diseases. This is chiefly due to the exhaustive report, published in 1864, of the Royal Commission "appointed to inquire into the condition of all mines in Great Britain to which the provisions of Act 23 and 24 Vict., cap. 151, do not apply, with reference to the health and safety of persons employed in such mines," and which contains most valuable statistical and other evidence. During twelve years I have had many opportunities of studying the life-history of the lead miners, and the following brief summary of the knowledge so gained may not be unacceptable to the profession.

The Lead Country.—The lead country is limited chiefly to the upper reaches of those rivers which arise on either side and on the south extremity of the Pennine Range. Lead is also found in the Lake District, in Wales, and in Cornwall, where the mines are much deeper. The surface of the country near the mines is generally open heather-clad moorland, 1,000 to 2,200 feet above the sea level, and the miners reside in small villages lower down the valleys, and, consequently, they must either walk two to four miles to and from their work or else sleep in a "lodging shop" near the mine.

Weardale and its Lead Miners.—In Weardale, which I shall take as a type of the lead country, a few acres of grass land are attached to most of the miners' cottages, enabling each of them to keep a cow or two, and the healthiness of this occupation and the natural purity of the air help to neutralise the pernicious effects of lead mining on the health of the miner. As the romantic features of the country explain many traits of character of the miner, is is necessary to describe it briefly. Weardale is a very beautiful vale in the county of Durham, and may be said to commence five miles

below Stanhope and to extend to the upper reaches of the Wear. In the lower half of the dale the rich pasture land is freely interspersed with wood, but as we ascend the valley it narrows and trees become very scarce. On each side of the valley runs the "great limestone," a little above whose upper level the enclosures of grass land, at a distance of three-quarters of a mile or more from the river, are replaced by the rising dark fells, covered with heather and fine grass, which serve as a pasture for thousands of black-faced sheep and breeding grounds for countless grouse. These fells extend for many miles, in fact, until the south of the Tyne is reached on the north and west and the Tees on the south. The river Wear runs a comparative straight course in a rapid current to the east, at times but an insignificant streamlet, filling only a narrow strip of its bed, which is covered with big round waterworn stones, but, after heavy rains or the sudden melting of a thick carpet of snow on the fells, it rushes down in a mighty flood. Its numerous tributaries cut through the strata, forming deep gorges, which afford great facilities for mining operations and for driving adit levels at various elevations. Sandstone-built houses covered with heavy grey slates are scattered along each side of the valley. They are fairly good buildings, but the bedrooms are often badly ventilated; few windows open from the top, and the chimney, if there be one, is nearly always blocked up on account of the long, cold winters and the cost of fuel; hence they are often dank and smell mouldy. Until thirty years ago the inhabitants saw few but themselves, being a most stationary class, and therefore intermarriages were very frequent, so that the dales people may be said to form by a relationship, near or remote, but one great family. So much is this so that, in the schools in the upper part of the dale, if the teacher calls out "Peart" or "Featherstone," the whole school becomes silent. Immigration into the dale is extremely rare, and the surnames of the miners of to-day are the same as those in the reign of Charles II. Lead mining probably dates back to the Roman occupation, and has been constantly carried on since 1401. These circumstances have had great effect in intensifying any predisposition to disease, such as exists in consumption, and is capable of being transmitted hereditarily. The great attachment of the people to the dale is one of their most marked characteristics; few, indeed, unless compelled to do so by sheer necessity, will leave the badly-paid,[1] disease-producing, and life-shortening employment of a lead miner for more lucrative work in the coalpits and ironworks of central and eastern Durham—and this, too, in spite of an intelligence of high order. They are a very temperate people and distinctly religious. Their food is chiefly bread in various forms, bacon, milk, butter, and eggs, with little mutton or beef.

Occurrence of Lead Ore.—Lead ore occurs in "veins," which were originally only fissures in the rocks that have been filled up with earthy and mineral substances. The veins traverse the strata in a direction more or less vertical, and run in comparatively straight lines over the earth's surface for several miles; their width varies from 1 inch to 15 feet, and in some mines the vein is considerably wider. Many fissures are "void" of ore. The veins which are found in the various strata of silicious sandstone, limestone, clay shale ("plate"), and beds of indurated clay that form the Yoredale rocks, or the higher carboniferous or mountain limestone of the carboniferous system, are the chief in which lead is found: indeed, the "great limestone" stratum—which crops out on each side of the Wear valley—has probably furnished as much lead as all the other strata put together. These rocks, overlaid in places by the millstone grit, compose the Pennine Range. At Keswick and in Patterdale, however, lead veins are found in primary rocks. Lead chiefly occurs as galena or sulphide of lead, in which a varying amount of silver, sulphide of antimony, and uncombined oxide of sulphur is found. It also occurs as carbonate, "white lead ore," especially in the Alston district. As the ore is non-volatile and insoluble, lead poisoning is unknown amongst lead miners. Zinc, copper, and iron ores are also found in these veins.

A Lead Mine.—To reach the lead in the veins, miners either sink a shaft or drive a "day-level" or "drift" into the side of a hill, if possible, through the stratum called "plate," which is clay shale, on account of its softness. Having reached the vein from "rises"[2] or "sinkings," they drive other levels along the course of the vein, and then work out the minerals between the various levels, working as a rule from below upwards by means of scaffolding, so that the "work" falls by it own weight to the lowest main or horse level. The rocks and veins vary much in hardness; those veins west of the great Burtreeford Dyke (basalt), which run north and south through Burtreeford, a mile to the west of Wearhead, are generally harder than those on the eastern side. The harder the rock the more drilling and blasting with dynamite will be required, and the more dusty and injurious will the air of the mine be. A mine may reach a mile or more into the side of a hill and attain a great depth: for descending the shafts or "sinkings" ladders are chiefly used. The ventilation of the mine is generally improved by "rises" at certain distances reaching the surface, these cause air currents; by means of the fall of a stream of water from the surface of the hill, which forces a body of air into the mine—a water blast, or by fan blasts; but whatever means are used, the ventilation is often very bad, and the sum required to effectively ventilate may be so great that the proprietors would rather close the mine than submit to the expense, and so it happens that as the mine deepens or extends, the air gets worse until it may be so "bad" that the tallow candles, which are the sole lights used, may cease to burn, showing that there is less than 18.5 per cent. of oxygen in the air volumetrically, and then the men are forced to leave the mine, or the candles may require to held horizontally, or the wicks must be constantly teased out, or two candles may have to be held together in order to keep them alight. Dr. Angus Smith examined 110 samples of the air of lead mines, and found that it was pure, or nearly so, in 12.72 per cent., decidly impure in 24.52 per cent., and extremely bad in 62.72 per cent. He found in one instance the oxygen as low as 18.27 per cent., and the carbonic dioxide amounted in another to as high as 2.26 per cent.—an exceedingly large amount, when it is remembered that an atmosphere above ground is decidedly bad which contains 0.1 per cent. of carbon dioxide. Dr. Bernays found 8 out of 29 samples of the air of mines to contain more than 1 per cent. of this gas, the excess of which is derived from the breathing of the miners, the combustion of the candles, and it appears to be also given off from the strata, especially those composed of limestone. The dust from boring, more particularly in boring holes upwards in making "rises," when water cannot be used to lay the dust which then necessarily falls more or less directly on to the faces of the miners, and the products of the explosions of dynamite, which has superseded gunpowder, further most seriously deteriorate the air. Frequently, after a shot has been fired, the air is irrespirable (owing to the extreme irritation it causes in the chest) for thirty minutes or more, the men being forced to leave their working until the gas and smoke clear away, which, in a badly ventilated mine, is a slow process. The dust from gritty sandstones is the most injurious. As the candles burn so badly for want of oxygen, much carbon in fine particles escapes into the air unburnt. The lower the barometer the worse the mine is for air, and so the miners know before they leave the mine whether it is raining or likely to do so when they reach the "day." Many mines are wet but warm, and the men frequently get chilled on coming to the surface, and this is more likely to happen if they have to walk two or three miles in the cold night air across a storm-blasted moor to their homes. They are, moreover, more susceptible to chills from breathing a vitiated atmosphere, hence catarrhs, acute bronchitis, pneumonia, and pleurisy not uncommonly arise from this cause.

The "Lodging Shops."—At the present time, about 166 miners, who live several miles away from the mines, make use of the "lodging shops," provided by the proprietors, during three or four nights per week. I have visited several of these "shops," and most of them were found in a deplorable and filthy condition. The bedrooms are frequently crowded to excess; for example, in one room 16 feet by 13½ feet, by 9¾ feet, there is sleeping accommodation for 20 men at the rate of about 124 feet per man, whilst the model regulations of the

[1] Their wages average at present from 10s. to 12s. a week.

[2] A "rise" is a kind of shaft extending upwards from the level, and worked out from below upwards towards the surface.

Local Government Board require not less than 400 feet. One man told me he had slept with twenty-six others in this Black Hole of Calcutta one night! They have, as a rule, no fireplace, and no means of ventilation. In order to crowd as many men as possible into one room, the beds are arranged in two tiers—one 3 feet 6 inches—above the other, and there is scarcely room to pass between one set of beds and another; and, as these rooms are occupied by different sets of miners, one set leaving work as another goes on, the stench in them is often so disgustingly noxious that, to people who have never visited them, it is happily inconceivable. James Mitchell, Esq., LL.D., who was on the Children's Employment Commission in 1840, wrote: "I think it no hardship to have to remain twenty-four hours in a mine, but I should be terrified at being ordered to be shut up for a quarter of an hour in the bedroom of a lodging shop." He spoke the truth. It is the same to-day, except that fewer men are employed in the mines than formerly, owing to the price of lead being so low (£10 a ton), from the great influx of cheaper Spanish and Australian lead on the market, and which has brought this industry to a low ebb for many years past, so that the mining populations are gradually diminishing. The day and drying rooms are no better than the bedrooms of the "mine shops," and the lavatory accommodation is of the scantiest. Miners work forty hours per week—five shifts of eight hours; this they generally manage to do in four days, the rest of their time being spent at home. The time spent in the mine, in the lodging shops, and in a bedroom at home, perhaps badly ventilated, takes up two-thirds of the lifetime of those miners who have to sleep in a mine shop.

Summary of Disease-producing Conditions.—It will be seen from the foregoing description that the disease-producing conditions to which the miner is exposed may be thus summarised: 1. The "bad air" of the mines, due to defective ventilation, is characterised by: *a*. Excess of CO_2, amounting in one to 22.6 per cent. *b*. Deficiency of O; in some cases this gas is below 18.5 per cent. *c*. Presence of the products of the explosions of dynamite. *d*. Presence of the floating irritating particles of dust and grit from blasting and boring operations. *e*. Solid unburnt particles of C, which escape from the candles which burn so badly for want of O. 2. Chills received, especially in cold and wet weather, on leaving the mine, which is often warm but damp. 3. Overcrowding and absence of ventilation in the bedrooms of the "lodging shops." 4. The bad ventilation of some of the bedrooms of the miners at home. 5. The greatly intensified predisposition to phthisis from intermarriages, extending over many generations of miners.

Diseases of Lead Miners.—The first of the above conditions is the chief cause of the chronic bronchitis and emphysema from which the great majority of old lead miners suffer, though the other conditions enumerated aid greatly by weakening the miner, rendering him an easy prey to the first. From the second cause frequently arise catarrhs, acute bronchitis, pleurisy, and pneumonia, whilst all the conditions named join in accounting for the excessive prevalence of consumption. The fact that consumption is an infectious disease accounts for the female portion of the population suffering almost equally with the men. The origin of catarrhal pneumonia amongst lead miners is easily found in the irritating particles of grit inhaled during drilling and blasting operations.

History of Miners' "Asthma."—The following is a brief life history of the majority of lead miners. The son of a lead miner generally works at the crushing, washing, and separation of the lead ore from the fluor and calc spar, etc.—a process usually carried on in the open air. This is a very healthy occupation, so that when he enters the mine at about the age of 18 he is sturdy and strong. After a few years, more or less, he begins to be short of breath, but this does not hinder his work, but still he is "touched in his wind." On leaving work he coughs up a quantity of bluish-black sputa. As years pass by, the difficulty of breathing increases, and there often occur acute attacks of bronchitis. These pass off, but the miner is left with increasing shortness of breath, getting up more slate-coloured expectoration, and with progressive debility. His appetite fails, and he frequently vomits his breakfast on his way to work after a paroxysm of coughing. At 40 or 45 he is a wheezing old man, with a more or less barrel-shaped chest, coughing and expectorating, incapable of much exertion, with more or less blueness of the lips, and other signs of defective aëration of the blood; and before 50 he is usually forced to give up work as a worn out old miner. This state of things lasts for a time, varying in different cases from one year up to twenty, with some improvement in the summer, but with frequent subacute attacks of bronchitis being superadded to the old mischief in the autumn, winter, and spring; and one of these attacks generally ends the scene, or the miner falls a prey to increasing exhaustion. Such, indeed, is the but too common history of lead miners' "asthma." In others there are attacks of catarrhal pneumonia, or pleurisy, and many drift into phthisis. It is not difficult to connect this picture with the causes at work in the mine—the deficiency of oxygen necessitating an increase of respiratory movements, both as to depth and frequency; and thus there is drawn deeply into the chest all the fine but irritating particles of grit and dust floating in the air; especially is this the case in drilling holes in the roof in making "rises," in which it is impossible to lay the dust with water. The microscope shows that the bluish-black colour of the sputa above mentioned is due to fine irregular particles of dust, most probably carbon, which escapes unburnt from the candles.

Statistics.—In the Stanhope Division of the Weardale Union, from January, 1885, to December, 1892, there took place the deaths of 23 miners, whose ages averaged at death 50 years, and only one of whom reached 70, and he had ceased to work for many years. Of these 23 deaths 7 were ascribed to bronchitis, 5 to consumption, 2 to injuries received in the mine, and 1 each to pneumonia, pleurisy, general tuberculosis, cystitis, chronic gastric catarrh, apoplexy and heart disease with hæmoptysis. No fewer than 14 out of the 23 were due to chest affections. Amongst 9 retired old lead miners who died in the Stanhope Urban District during the last eleven years, 8 had chest affections. The following statistics show the excessive death-rate from consumption in lead mining districts, as compared with the average for England and Wales, namely, 1.5 per 1,000 (1888). During the seven years ending December 31st, 1892, 38 persons died from consumption in the Stanhope Division of the Weardale Union; 17 were males and 21 females. Of these, 16 took place in Rookhope (9 males and 7 females), and 22 (8 males and 14 females), in the rest of the division. The localities tabulated below refer to those parts of the ecclesiastical parishes included in the division, whose total area is 24,864 acres. The first three and part of the fourth locality are almost identical as far as regards the condition of the houses, character of the soil, and climate, including rainfall, exposure to winds, range of temperature, etc., hence the only cause that can account for the excess of phthisis is the work of the people—lead mining. The village of Frosterley is more sheltered, and has a bigger population (about 1,000).

Localities.	Average Population for last 7 yrs.	Average Death-rate from Consumption for last 7 years.	Chief Occupation of Working Classes.	Character of Locality.
Rookhope	500	4.6	Chiefly lead miners and some farmers, a few are both	Almost identical. The first two are adjoining on the same tributary of the Wear (Rookhope Burn). They are small villages with outlying farms, which extend on the side of the valley to the moors.
Eastgate	220	0.6	Farmers	
Stanhope outside Local Board District	750	1.4	Farmers and limestone quarrymen	
Frosterley	1,300	1.3	Limestone quarrymen chiefly, some farmers, a few lead miners and lead smelters	Outside the village Frosterley it is similar to the above

In the other lead mining districts of Weardale, namely, in the St. John's and Derwent divisions, the phthisis death-rate is also excessive. In St. John's it was 3.8 in 1891, and 1.99 in 1892; in Derwent, it was 3.8 in 1891, and the same in 1892. In the adjoining lead mining district of Middleton-in-

Teesdale, the rate is also in excess, namely, 2.8 for 1892; and I believe if the purely mining populations could be separated from those following other occupations, a much higher mortality would be found from this cause. In the adjoining districts of Stanhope (urban) the death-rate for the last seven years is slightly below 2.0, the chief occupation being quarrying limestone; in Wolsingham (steel works, farmers, etc.), it was 0.8 for 1891 and 1.5 for 1892; in Towlaw, with its population of 4,364, its exposed situation, and chief occupation of coal mining, the consumption rate was 0.9 in 1891, and 1.7 in 1892. It is to be noted that the excess of consumption in the county of Durham roughly corresponds to those valleys where the mountain limestone of the carboniferous system comes to the surface, the great limestone being the chief ore-bearing stratum. The same geological formation is the hotbed of goître (thick neck), but the connection between these two is less clear.[3] Recognising the fact that consumption—pulmonary tuberculosis—is caused by the growth and multiplication of the tubercle bacillus in the lung, I ask, can we have a more certain method of spreading the disease than obtains in a "mine shop?" Here we have, as a rule, an excessive number of men crowded into a practically non-ventilated room; many are suffering from cough and expectoration. It must every now and again happen that a consumptive sleeps there also. He coughs up sputa teeming with millions of the microscopic seeds of the disease; the sputa is often spat on the floor, it dries, the organisms rise into the air as dust, and are drawn into the lungs of the inmates at almost every breath. In addition, we must remember that nearly every miner inherits a body specially susceptible to the disease, as shown by so many of his relations having already succumbed to consumption. Not less than 76 per cent. of my cases of this disease have a family history of phthisis. The mere recital of the majority of the unhealthy conditions named in this paper suggests the appropriate means for their remedy. I would, however, urge that every case of consumption should be looked upon and treated as one of infectious disease, and more particularly would I insist on the sputa being expectorated directly into disinfectants, or better still, burnt.

THE DIET OF INFANTS AND YOUNG CHILDREN.

DR. J. J. RIDGE said that, having to draw up some rules on the subject of infants' diet, he had read some leaflets issued by certain hospital authorities, and was very much surprised at some of the recommendations. He stated such directions as he had been accustomed to give. The chief points on which he ventured to differ from the printed rules adopted by Guy's, the Evelina Hospital, and the North-West London Hospital were: (1) That the two former recommend one part of milk to two of water when hand-fed during the first month; the North-West London recommended equal parts. He considered that one-third water reduced the proportion of casein sufficiently, and there was certainly no occasion to dilute it beyond one-half. (2) When young children could not digest milk and water it was better to add to the milk a little well-baked flour boiled with water. It was preferable to barley water, because the starch grains were more thoroughly broken up, and it contained more proteids. It was useful in either case to direct the mother to put a little of her own saliva into the mixture to ensure the conversion of the starch. (3) Children about a year old should not have bread or bread and butter, as they swallowed lumps, which often caused bowel disturbance. (4) Neither should young children have meat or fish until they had all their milk teeth. Condensed milk sometimes agreed with children when fresh milk had from some cause disagreed, and some children throve on this alone.

Dr. SIDNEY DAVIES inquired whether a little carbonate of soda would not be of equal advantage with the mother's saliva, to which he objected as uncleanly and likely to cause infection. In hand-feeding he always began at once by adding some starchy thickening material to the milk, the principal object of it being to break up the curd of the milk. On the whole he preferred Mellin's food for this purpose.

Dr. TREVOR FOWLER said there was a danger of losing sight of the risk to future generations of the prevalent custom of hand-feeding as opposed to natural feeding by the breast.

Mr. LIDIARD had found that when the mother suckled only at night time her milk left her very soon, therefore breast suckling should be adopted with hand-feeding.

[3] See the writer's *Endemic Goitre, or Thyrcocele*, published by Churchill, 1884.

MEMBERS PRESENT AT THE ANNUAL MEETING.

THE following names of members and visitors attending the annual meeting were entered in the books provided for the purpose:

Abbott, J. T., L.R.C.P., Tunbridge Wells
Abraham, P. S., M.D., London
Ackerley, Richard, M.B., Ashburton
Aitchinson, H. H., M.D., Wallsend
Aitchinson, T., M.B., Willington Quay
Aitchison, J., M.D., Newcastle
Alderson, F. H., M.D., Hammersmith
Allbutt, T. C., M.D., Cambridge
Allison, T. M., M.B., Newcastle
Angus, J. A., M.R.C.S.Eng., Newcastle
Arbuckle, H. W., M.D., Thorne
Armstrong, H. E., D.Hy., Newcastle
Arnison, W. C., M.D., Newcastle
Arnison, W. D., M.D., Newcastle
Arnold, A. P., M.D., Gateshead
Ashford, E. C., M.R.C.P., Bath
Armytage, F.F., L.R.C.P., Rotherham
Atkinson, G. A., M.D., Newcastle
Alexander, P., L.R.C.P., Whitley, R.S.O.
Atkinson, Ed., M.R.C.S.Eng., Leeds
Anderson, James, M.B., Edinburgh
Anderson, Robert, M.D., Newcastle
Auld, A. G., M.D., Glasgow
Armstrong, J.F., M.D., South Shields
Arthur, D., M.B., New Galloway, N.B.
Armitage, S. H., M.D., London
Ainsley, T. G., M.D., Hartlepool
Anderson, Elizabeth Garrett, M.D., London
Atkinson, J., L.R.C.S., Ronaldskirk
Altham, J., M.B., Penrith
Aitkin, J., L.R.C.P., Wingate
Anderson, R. S., M.D., Spennymoor

Bain, William, L.R.C.P., Stockport
Baker, J. B., M.D., Finchley
Bark, E., M.R.C.S., Birmingham
Barnes, Henry, M.D., Carlisle
Baumgartner, H. S., M.B., Newcastle
Baumgartner, J. R., M.R.C.S., Newcastle
Beatley, W. C., M.D., Newcastle
Beattie, T., M.B., Newcastle
Bell, John H., M.D., Bradford
Bell, Robert, M.D., Glasgow
Benington, R. C., M.D., Newcastle
Bevan, W. L. P., M.D., Alton
Beveridge, R. E., M.B., Sunderland
Bidwell, L. A., F.R.C.S., London
Black, W. G., F.R.C.S., Newcastle
Buckham, T., M.B., Lanchester
Blandford, J. W., L.R.C.P., Stockton
Bowles, Robert L., M.D., London
Bradley, M. McW., M.D., Jarrow-on-Tyne
Braithwaite, J., M.B., Newcastle
Bramwell, H., M.D., Tynemouth
Broadbent, S. W., M.R.C.S.Eng., Castle Eden
Brown, T. E. B., Brigade-Surgeon, C.I.E., M.D., Cambridge
Brown, W. H., M.R.C.S.Edin., North Shields
Brown, George, M.R.C.S.Eng., London, W.C.
Buck, C. W., M.R.C.S., Settle
Burdon, John, L.R.C.P., Newcastle
Burnell, A. C., M.B., Jesmond
Bush, J. Paul, M.R.C.S., Bristol
Butlin, Henry Trentham, F.R.C.S., D.C.L., London
Barnes, Robert, M.D., Lyss
Baker, J. W., M.R.C.S.Eng., Derby
Bernard, Gerald, M.D., Silksworth
Booth, Lionel, M.D., Durham
Bridgwater, Thomas, M.B., Harrow
Baigent, Wm., M.D., Newcastle
Buchanan, R. M., M.B., Glasgow
Bunting, T. L., M.B., Wallsend
Blumer, F. M., B.A., Stafford
Bowman, R. M., M.R.C.P., Ripon
Brown, R. G., Fleet-Surgeon R.N., M.B., North Shields
Barlow, T., M.D., London
Boxall, Robt., M.D., London
Barnes, F., M.D., London, W.
Bronner, Adolph, M.D., Bradford
Browne, J. W., M.D., Belfast
Bogle, J. L., M.D., New Ferry Park
Barclay, John, M.D., Banff, N.B.
Black, John G., M.D., Harrogate
Blackadder, E. H., M.D., Montreal
Bowser, Jos. E., M.B., Penrith
Bickersteth, R. A., M.B., Liverpool
Brooks, H. St. John, M.D., Dublin
Bishop, E. S., F.R.C.S., Manchester
Brodie, T. G., M.B., London
Byers, J. W., M.D., Belfast
Boyce, R., M.B., London
Buzzard, T., M.D., London
Barton, S., M.D., Norwich
Brooke, H. G., M.B., Manchester
Buttercase, Robt., M.B., Forest Hall
Beach, F., M.B., Sidcup
Baine, L. A., M.D., Lintz Green, R.S.O.
Bramwell, H. R., M.B., Whitley
Berry, G. A., M.B., Edinburgh
Brookhouse, J. O., M.D., Nottingham
Blair, A., M.B., Ashington
Babst, C. T. U., L.R.C.P., Willington Quay
Biggart, S., M.D., West Hartlepool
Barrow, F., M.R.C.S., Rothbury
Brown, R., M.B., Blaydon-on-Tyne
Braithwaite, C. B., M.B., Bishop Auckland
Bramwell, B., M.D., Edinburgh
Blumer, W. P., F.R.C.S., Sunderland
Brewis, N. T., M.B., Edinburgh
Bailey, T. R., M.D., Bilston
Beatson, G. T., M.D., Glasgow
Bokenham, T. J., L.R.C.P., London
Brown, W., F.R.C.S., Carlisle
Bruce, M., M.B., Ashington
Braithwaite, J., M.D., Leeds

Cameron, M., M.D., Glasgow
Cardew, H. W. D., M.R.C.S., London
Cattle, C. H., M.D., Nottingham
Clark, Andrew, F.R.C.S., London
Clark, F. W., M.B., Newcastle
Clay, John, M.B., 28, Archbold Ter.
Cameron, J. H., M.B., Toronto
Clippingdale, S. D., M.D., London
Cullingworth, C. J., M.D., D.C.L., London
Cook, R. F., M.B., Gateshead
Cousins, J. Ward, M.D., Portsmouth
Cox, A., M.B., Gateshead
Craggs, R. F., M.B., Newcastle
Crease, J. R., F.R.C.S., South Shields
Crisp, J. L., M.R.C.S., South Shields
Cummins, W. A., M.D., Cork
Calcott, J. T., M.D., Gosforth
Clark, M., M.B., Newcastle
Clark, A. Campbell, M.D., Bothwell
Corbin, M. A. Bazille, F.R.C.S., Guernsey, C.I.
Crespi, Alfred J. H., M.R.C.S., Wimborne
Coley, F. C., M.D., Newcastle
Craig, G. B., F.R.C.P.Edin., Willington-on-Tyne
Campbell, A., M.B., Newcastle
Campbell, R. A., M.B., Newcastle
Cornish, William Robert, F.R.C.S., Surgeon-General, C.I.E., South Kensington
Crocker, James, M.R.C.S., Bingley
Cuffe, Surgeon-Colonel C. McD., C.B., Belfast
Carson, Stewart, M.B., Alston
Curran, J. J., L.R.C.S., Killeagh
Cole, R. H., M.B., Hillingdon

Clegg, J. H., M.R.C.S.Eng., Stockton-on-Tees
Cuming, James, M.B., Belfast
Craig, A. B., M.B., Walker-on-Tyne
Carpenter, W. S., M.R.C.S., Newcastle
Cameron, J. S., M.D., Leeds
Chicken, Rupert C., F.R.C.S., Nottingham
Colquhoun, D., M.D., Dunedin, New Zealand
Campbell, J. A., M.D., Carlisle
Cathcart, C. W., F.R.C.S., Edinburgh
Cameron, Sir C. A., Kt., F.R.C.S., Dublin
Cuthbert, C. F., M.R.C.S., Gloucester
Coppinger, C., M.D., Dublin
Clelland, J., M.D., Glasgow
Cullen, G. M., M.D., Edinburgh
Cushny, A. R., M.D, Strassburg
Carter, G., M.R.C.S., Ilkley
Crocker, H. Radcliffe, M.D., London
Colman, W. S., M.D., London
Collier, T., M.R.C.S., Ripon
Clark, J. C., M.B., Bolton
Clouston, T. S., M.D., Edinburgh
Cant, W. J., F.R.C.S., Lincoln

Davies, H. W., L.R.C.P., Newcastle
Davis, Robt., M.R.C.S., Epsom
Davis, W. H., L.S.A., Gateshead
Dinsmore, W., M.B., Newcastle
Dixon, J. D., M.B., Newcastle
Dodd, T. A., M.R.C.S., Newcastle
Dodd, T. A. H., M.R.C.P., Newcastle
Don, J., M.D., Newcastle
Donovan, W., M.D., Birmingham
Drake-Brockman, E. F., F.R.C.S., London
Drury, Arthur, M.B., Halifax
Drummond, David, M.D., D.C.L., Newcastle
Dunn, H. P., F.R.C.S., London
Draper, J. W., L.R.C.P.Lond., Huddersfield
Downes, E., M.D., Belfast
Dempsey, Alexander, M.D., Belfast
Dancy, H. M., M.D., Belvedere
Duckworth, Sir Dyce, M.D., LL.D., London
Daggett, H. L., M.B., Boroughbridge
Duggan, M., M.R.C.S., Castle Eden
Dove, R. A., L.R.C.P., Carlisle
Davies, A. T., M.D., London
Davies, E. C., M.R.C.S., Lampeter
Dixon, John, M.B., London
Delépine, S., M.B., Manchester
Doolan, D., L.R.C.S., London
Drysdale, C., M.D., London
Dempsey, M. J., M.B., Dublin
Davies, S., M.D., London
Davis, C. H., M.R.C.S., West Hartlepool
Densham, H. B., M.B., Stockton-on-Tees
Duncan, R. B., M.B., Newcastle
Douglas, W., M.D., Leamington Spa
Devey, T. V., L.R.C.P., Wolsingham
Drury, C. D. H., M.D., Darlington
Donald, D., L.R.C.P., Buckhaven
Duncan, T., M.B., Catchgate, Lintz Green
Dolan, T. M., M.D., Halifax
Dodd, J. R., M.D., Surg.-Maj. A.M.S., Bengal
Daly, G. W., M.D., Ratoath

Eastes, Geo., M.B., London
Ellis, Richard, F.R.C.S., Newcastle
Emmerson, W. L., M.D., Leicester
Evers, C. H., L.S.A., North Seaton
Ewart, J., M.D., Brighton
Eddison, John Edwin, M.D., Leeds
Evans, M. G., M.D., Caerphilly
Eastwood, J. W., M.D.Edin., Dinsdale Park
Eastes, F., M.D., Folkestone
Eddowes, A., M.D., London
Eccles, A. S., M.B., London

Farquharson, J. D., M.B., Newcastle
Fenwick, John C., L.R.C.P.Edin., Sunderland
Foggin, Geo., L.R.C.P.Edin., Newcastle
Frain, Joseph, M.D., Newcastle
Fox, E. L., M.D., Bristol
Fitzgerald, Gerald M., M.D., Pontefland
Freeman, John, L.R.C.P., Bristol
French, G. B., Surg.-Capt., I.M.S., Kensington, W.
Fulton, G. C. H., M.B., Eston
Fielden, S., M.D., Shildon
Fox, T. C., M.B., London
Freeman, Alfred J., M.D., San Remo
Ferrier, D., M.D., London
French, R. H., M.B., Whetstone
Fowler, T., L.R.C.P., Epping
Favell, R., M.R.C.S., Sheffield
Fothergill, W. E., M.A., Edinburgh
Foster, Sir Walter, M.D., D.C.L., M.P., Birmingham
Fenwick, J. C. J., M.D., Ferryhill
Forster, T. F., M.R.C.S., Brampton
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Fullerton, Robt., M.D., Glasgow

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Gibbon, Frederick W., L.R.C.P., Tyne Dock
Goff, Bruce, M.D., Bothwell, N.B.
Galloway, W., L.R.C.P., Gateshead
Garner, J. E., M.D., Preston
Gray, C. F., M.R.C.S., Newmarket
Gibson, Charles, M.D., Harrogate
Goyder, David, M.D., Bradford
Greenwood, J. W., M.R.C.S., Scarborough
Griffiths, L. M., M.R.C.S., Bristol
Gowans, Wm., M.D., J.P., Westoe
Gairdner, W. T., M.D., Glasgow
Grant, Ogilvie, M.B., Inverness
Gibbs, A. N. G., L.R.C.P.Lond., Bristol
Gordon, William, M.B., Exeter
Gibb, C. J., M.D., Newcastle
Galbraith, Wm., L.R.C.P., Gosforth
Graham, W., M.D., Middleton
Groves, J., M.D., Carisbrooke
Groom, Wm., M.R.C.S.E., Wisbech
Gramshaw, F. S., M.D., Easingwold
Grange, Wm. D., M.D., Moffatt
Green, A., M.B., Gateshead
Gilbert, H. J., M.D., Gateshead
Grinling, J. C., M.B., Birmingham
Graham, John C., F.R.C.S., Sumatra
Gofton, J. E., L.R.C.P., North Shields
Gubb, A. S., M.D., London
Godfrey, T. H., M.B., Stockton-on-Tees
Godfrey, C., M.R.C.S., London
Godlee, R. J., F.R.C.S., London
Gardner, James C., M.R.C.S., Washington
Gibbon, E. H., M.S., South Shields
Gibson, G. A., M.D., Edinburgh
Gardner, A. J., M.D., Darlington
Gairdner, M. W., M.B., Naples

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Hill, T. E., M.B., Durham
Holmes, J., M.D., Manchester
Hoople, H. N., M.B., Brooklyn, U.S.A.
Hoffmann, A. H., L.R.C.P.Edin., Humshaugh-on-Tyne
Horsley, Victor, F.R.C.S., London
Howden, Robt., M.B., Newcastle
Hackney, John, M.D., Hythe
Harrison, John, M.B., Lanark
Horsman, Godfrey C., L.S.A.S.M., London
Hay, T. W., M.B., Newcastle
Harman, Wm. Morton, M.D., Winchester
Hunter, Wm. Lovell, M.D., Pudsey
Haslam, W. F., F.R.C.S., Birmingham
Herring, H. T., M.B., London, W.
Hawthorn, John, M.R.C.S.Eng., Newcastle
Hart, Ernest, D.C.L., London
Hill, Alfred, M.D., Birmingham
Hind, Henry, F.R.C.S.I., Stockton-on-Tees
Harrison, Jos., L.R.C.P., Bradford
Hewitson, J. G., M.B., Newcastle
Hudson, G., M.D., Scarborough
Handford, H., M.D., Nottingham
Hindhaugh, James, M.D., Newcastle
Hill, Wm., M.D., London
Halliburton, W. D., M.D., London
Harrison, D., F.R.C.S.Eng., Liverpool
Hume, G. Haliburton, M.D., D.C.L., Newcastle
Haultain, F. W. N., M.D., Edinburgh
Harrison, Chas., M.D., Lincoln
Hartridge, Gustavus, F.R.C.S., London
Hollings, C. Ed., L.R.C.S., Calverley
Hutson, Charles, M.D., Barbados
Howden, J. C., M.B., Montrose
Hudson, J., M.B., Newcastle
Head, H., M.D., London
Handcock, Geo., F.R.C.S., Leeds
Henderson, T. Brown, M.D., Glasgow
Hern, John, M.D., Darlington
Hedley, J., M.D., Middlesbrough
Harford-Battersby, C. F., M.D., West Africa
Hardy, C. M., M.B., Heighington, R.S.O.
Hunter, M., M.D., Sunderland
Hart, D. B., M.D., Edinburgh
Hutchinson, J. A., M.D., Northallerton
Haig, A., M.D., London
Hogg, G. M., M.B., Stockton-on-Tees
Howell, R. E., M.B., Middlesbrough

Ince, J., M.D., Swanley
Ingram, P. R., M.B., Burradon
Ireland, Alfred, M.B., Cradock
Ireland, T., L.R.C.P., Polton
Ireland, W. W., M.D., Polton

Jameson, W. A., M.D., Edinburgh
Jones, Evan, M.R.C.S., Aberdare
Jackson, J. A., M.D., Hexham
Jessop, T. R., F.R.C.S., Leeds
Johnston, J. S., F.R.C.S., Betchley
Jardine, R., M.D., Glasgow
Jefferies, H., M.R.C.S., Bolton
Jepson, Edward, M.D., Durham
Jones, Hugh E., M.R.C.S., Liverpool
Jeffcoat, J. H., Deputy-Surg.-Gen., Surbiton
Jacob, E. H., M.D., Leeds
Johnston, G., M.D., Sheffield
Jamieson, H., M.D., Edinburgh

Kelly, M. F., M.D., Felling
Kœttlitz, Reginald, M.R.C.S.Eng., Butterknowle
Kingsbury, Geo. C., M.D., Blackpool
Kaye-Smith, Ed., L.R.C.P., St. Leonard's
Kerr, Norman, M.D., London
Knott, W., M.D., Middlesbro'
King, J., M.B., Leigh
Kirkwood, T., M.D., 62, Westmorland Road
King, H. W., M.D., Chester
Knaggs, R. Lawford, M.B., Leeds
Kay, W. S., M.D., Wadsley Asylum
Kay, W. Tolson, Gateshead
Kempster, W. H., M.D., London

Lane, J. E., F.R.C.S., London
Laws, C. U., M.B., Newcastle
Lightfoot, C. L., M.D., Newcastle
Lloyd-Jones, E., M.D., Cambridge
Limont, James, M.B., Newcastle
Liston, Henry, F.R.C.P., Sunderland
Lyle, Thomas, M.D., Newcastle
Lidiard, S. R., M.R.C.S., Hull
Lindsay, Jas. Alex., M.D., Belfast
Lindow, A., M.R.C.S., London
Lowe, G. M., M.D., Lincoln
Lawrence, A. E. A., M.D., Bristol
Leary, Thomas, M.D., Castlederg
Lofthouse, Surg.-Gen., M.D., London
Lightbourne, J., A., M.D., Preston
Leech, J. W., M.B., Newcastle
Lankester, Herbert, M.D., London
Longford, Henry, L.R.C.S.I., Thirsk
Lane, W. Arbuthnot, M.S., London
Lowe, John, M.D., London
Little, E. M., F.R.C.S.Eng., London
Lindsay, Murray, M.D., Derby
Legat, Andrew, M.D., South Shields
Lovett, S. R., L.R.C.P., London
Lawrence, J., M.D., Darlington
Laing, Robert, L.R.C.P., Blyth
Legat, A. E., L.R.C.P., Sunderland
Longbotham, G., M.R.C.S., Middlesbrough

MacArthur, A. J., Edinburgh
Macaulay, John, M.D., Newcastle
Macaulay, Samuel, L.R.C.P.Edin., Newcastle
Macdonald, J., M.B., South Shields
Macleod, W. A., Kilmarnock
Maling, W. H., M.R.C.S., Sunderland
Marshall, Thomas, L.R.C.P., South Shields
Martin, Albert M., M.B., Newcastle
Martin, T. B., L.R.C.P., Sunderland
McKinney, S. B. G., L.R.C.S.Edin., London
Mearns, William, M.D., Gateshead
Metcalfe, George, M.B., Newcastle
Milburn, Charles Henry, M.B., Hull
Millar, James, M.D., Nottingham
Millard, W. J. K., M.D., Bristol
Mitchell, Edgar, M.B., Newcastle
Mitchell, R., M.A., Hebburn-on-Tyne
Modlin, J. G., M.B., Sunderland
Moore, Sir Wm., K.C.I.E., London
Moore, W. Withers, M.D., D.C.L., Burgess Hill
Morison, Rutherford, M.B., Newcastle
Murphy, James, M.D., Sunderland
Masters, John Alfred, M.D., London
Mott, F. W., M.D., London
Murray, G. R., M.B., Newcastle
Morrison, J. H., M.D., Perth
Mitchell, John, M.D., Barnard Castle
Middlemiss, Geo., M.D., Darlington
May, T. F., L.F.P. and S.G., Newcastle
Martin, A. A., L.R.C.P.Eng., North Shields
Muir, D. K., L.R.C.P., Walker
Milson, R. H., M.D., London
Mathews, H. J., M.B., Newcastle
Mason, J. W., M.B., Hull
McDowall, T. W., M.D., Morpeth
Mackintosh, Donald, M.D., London
Mansfield, C. J., M.B., Surgeon R.N., Dartmouth
Marshall, W. S., M.B., Ebchester
McCoull, George, L.R.C.P.Edin., Ovington-on-Tyne
Mackay, W. M., L.R.C.P., North Shields
Mead, George B., M.D., Newmarket
Miller, Alex., L.R.C.P., Glasgow
Martin, T. M., M.B., South Shields
Murray, Donald, M.B., Brood, N.B.
McCullagh, T. A., M.R.C.S., Bishop Auckland
Merson, J., M.D., Hull
Macfie, Charles, M.D., Bolton
Mins, P. R. J. B., M.D, Thetford
Morton, Alexander, M.D., Glasgow
Maxwell, James L., M.D., London
Mackay, George, M.D., Edinburgh
Morse, Thos. H., F.R.C.S., Norwich
Muir, William, M.B., Glasgow
McMorris, R. J., M.R.C.S., Fleet-Surgeon R.N., Strabane
Meyer, Felix, M.D., Melbourne
Madden, Thomas M., M.D., Dublin
Milligan, William, M.D., Manchester
Monro, James, M.D., Barnard Castle
Morrison, F. Sanderson, Dundalk
Mackenzie, J., M.D., Burnley
Mapother, E. D., M.D., London
Munro, A. Campbell, M.B., Paisley
Martin, C., M.D., Birmingham
Myrtle, A. S., M.D., Harrogate
McBean, S., M.D., Newcastle
Mason, John R., L.R.C.P., Newcastle
McDowall, J. G., M.D., Menston Asylum
Miller, J., M.B., Seghill
Macphail, R., M.D., Derby
Mantle, A., M.D., Halifax
Mossop, Isaac, F.R.C.S., Bradford
MacLennan, D. C., M.D., Appleton-in-Widnes
McCracken, J. S., M.B., Newcastle
Maclaren, R., M.D., Carlisle
Malcomson, J. A., M.D., Middlesbrough
Mackenzie, G. H., M.D., Edinburgh
Mackinlay, J. E. H., M.R.C.S., Redcar
Macintyre, J., M.B., Glasgow

Nesham, T. C., M.D., Newcastle
Newton, R. C., M.R.C.S., Newcastle
Newton, George, M.R.C.S.Eng., Newcastle
Nicholson, R. H. B., M.R.C.S., Hull
Newcombe, F. W., M.D., Gateshead
Napier, L., M.D., London
Norman, John E., M.D., Hebburn
Noott, Regd., M.B., Wokingham
Noble, James B., L.R.C.P., London
Newman, D., M.D., Glasgow
Nesfield, Stephen, M.D., Manchester
Newstead, G., M.D., Blyth
Newsholme, A., M.D., Brighton

Nevin, R. J., M.B., West Auckland
Newington, H. H., M.R.C.S.Eng., Ticehurst

Oliver, Thomas, M.D., Newcastle
Oliver, M. J., M.B., St. Boswells, N.B.
Oakley, John, M.R.C.S., Halifax
Oswald, J. W. J., M.D., London
Owen, S. Holgate, M.D., Manchester
Oliver, William, L.R.C.P., Walsall
O'Donnell, T. J., L.K.Q.C.P., India
Orr, J., M.B., Tayport, Fife
Osburne, C. A. P., F.R.C.S.Eng., Hythe
Ord, W. M., M.D., London

Page, F., M.D., Newcastle
Pye-Smith, R. J., F.R.C.S., Sheffield
Paige, Horace, M.D., Gosforth
Parkinson, C. H. W., M.R.C.S., Wimborne, Dorset
Patton, Alexander, M.B., Dublin
Pearcey, P. A., M.B., Monkwearmouth
Penny, J. C., Dep.-Surg.-Gen., M.D., London
Percival, A. S., M.B., Newcastle
Philipson, Professor George Hare, M.D., D.C.L., Newcastle
Plummer, H. B. W., M.D., West Bromwich
Plummer, Selby W., M.B., Durham
Poole, G. K., Surg.-Maj., M.B., I.M.S., London
Parker, James, M.D., Glasgow
Parsons, Charles, M.D., Dover
Petter, Walter, M.B., Darlington
Peart, R. S., M.D., North Shields
Pearcey, J. J. W., L.R.C.S.Edin., Accrington
Parry, T. W., M.R.C.S.Eng., Ferndale
Paterson, A. W., M.B., Wallsend-on-Tyne
Parker, R., M.B., Liverpool
Palmer, F. S., M.D., London
Panton, J., M.B., Walker-on-Tyne
Phillips, Frank L., M.D., Birmingham
Power, D'Arcy, M.B., London
Paterson, A. M., M.D., Dundee
Philip, James P. F., M.D., Morpeth
Pronger, Charles E., F.R.C.S., Harrogate
Pringle, Robert, M.D., Brig.-Surg., Blackheath
Purslow, Charles E., M.D., Birmingham
Preston, L. L., M.B., London
Pringle, I. I., M.B., London
Pilkington, Edward, M.R.C.S., Sunderland
Pierce, B., M.D., York
Puzey, C., M.R.C.S., Liverpool
Paton, D. N., M.D., Edinburgh
Peters, G. A., F.R.C.S.Eng., Toronto
Phillips, J., M.B., Sunderland
Pooley, William, Rochdale
Purdie, R., M.B., Gateshead
Price, William, M.B., Cardiff
Pollok, R., M.B., Glasgow

Rathborne, H. T., L.R.C.P., Tyne Dock
Rattray, J. M., Frome
Ridge, J. J., M.D., Enfield
Richardson, W. G., M.D., Newcastle
Ridley, Geo. W., M.B., Newcastle
Robertson, Alex., M.D., Glasgow
Robertson, J. G., M.D., Gateshead
Robinson, Alfred, M.D., Rotherham
Russell, Frank, M.B., Newcastle
Russell, Wm., M.D., Edinburgh
Rutherford, J. V. W., M.B., Newcastle
Russell, Thomas, M.B., Glasgow
Ridley, J. H. W., M.R.C.S.Eng., Gateshead
Robertson, Wm., M.D., Newcastle
Routh, R. H. F., M.R.C.S., Bridgwater
Robson, Adam, L.R.C.S.Ed., South Shields
Raw, Nathan, M.D., Dundee
Ryan, R. P., M.R.C.S., Norfolk County Asylum
Robinson, Wm., M.D., Stanhope
Robson, E. S., M.R.C.S., Durham
Redmond, C. S., L.R.C.P., Gateshead
Riordan, R. de B., Surg.-Maj. M.S., Newcastle
Renton, J. C., M.D., Glasgow
Robinson, Hy., M.R.C.S., Barnsley
Russell, J. S. R., M.D., London
Rivington, Walter, M.S., London
Robson, R. Barker, M.B., Alnwick
Ross, E. Fairfax, M.D., Sydney
Robertson, J. A., M.D., Stilton
Richards, J. P., M.R.C.S.Eng., Ealing, W.
Rumboll, Sydney, F.R.C.S.Edin., Leeds
Roper, H. J., M.R.C.S., Leeds
Rankin, J., L.F.P.S.G., Kilmarnock, N.B.
Renton, W. W., M.D., Chester-le-Street
Reid, R. W., M.D., Aberdeen
Roy, Chas., M.D., Cambridge
Rutherford, V. H, Newcastle
Rygate, J. R., L.R.C.P., Bridgwater
Roberts, H. J., M.R.C.S., N. Wales
Roberts, J., M.D., Chester

Shuter, R. E., M.B., Melbourne
Sergeant, W. R., L.R.C.P., Gateshead
Shaw, R. H., M.B., Newcastle
Sinclair, Geo., L.R.C.P., Kirkwall, N.B.
Sinclair, F. W., M.B., South Shields
Sherrington, C. S., M.D., London
Sloan, S., M.D., Glasgow
Smeddle, R. W., M.B., New Shildon
Smith, Andrew, M.D., Whickham
Smith, R. G., M.R.C.S., Gosforth
Smith, J. W., M.D., Ryton-on-Tyne
Smith, Noble, F.R.C.S., London
Smith, W., M.D., London
Speir, John L., M.B., Gateshead
Squance, T. C., M.D., Sunderland
Squire, Balmanno, M.B., London
Stainthorpe, T., M.D., Hexham
Stainthorpe, W. W., M.D., Saltburn-by-the-Sea
Stiven, E. W. F., M.D., Harrow
Stuart, R., M.R.C.S., Durham
Smith, James, M.R.C.S., Newcastle
Smyth, W., M.B., Amble
Stockton, H. S., M.B., Gateshead
Slater, Wm., M.D., Newcastle
Salisbury, C. R., L.R.C.P., Leeds
Summerskill, Wm., L.R.C.P., Leeds
Smailes, Robert, L.R.C.P., Leeds
Speirs, W. R., M.B., Haltwhistle
Somerville, R., M.D., Galashiels
Skrimshire, J. T., M.D., Holt
Skrimshire, Fred. W., M.R.C.S.Eng., Morpeth
Scotland, Thos., M.B., Newcastle
Skerritt, E. M., M.D., Bristol
Steven, John Lindsay, M.D., Glasgow
Saundby, Robert, M.D., Birmingham
Smith, H. L., M.R.C.S., Chester-le-Street
Stirling, S., M.D., Edinburgh
Stewart, P., M.B., Langley Moor
Scurfield, Harold, M.D., Sunderland
Smith, Heywood, M.D., London
Sommerville, Rev. J., L.R.C.P., Rajputana
Swallow, A. J., M.B., London
Shannon, M., L.F.P.S.G., Demerara
Smyth, Surg.-Cap. J., M.D., London
Smith, Solomon C., M.D., London
Sinclair, Thos., F.R.C.S.Eng., Belfast
Sutherland, J. R., L.R.C.S.Edin., West Rainton
Somerville, W., L.F.P.S.G., Sunderland
Smith, J. L., M.D., Cambridge
Smith, R. S., M.D., Bristol
Symonds, Horatio, F.R.C.S.Edin., Oxford
Snell, Simeon, F.R.C.S.Ed., Sheffield
Stobo, Robert, M.B., Sunderland
Smyly, W. J., M.D., Dublin
Smith, R. C. M. C., M.B., London
Steele, W. F., M.B., Darwen
Stone, G., L.R.C.P., Liverpool
Saravanamuttu, V., L.M.& S., Ceylon
Solly, S. E., M.D., Colorado, U.S.A.
Schacht, Frank T., M.D., London
Stephenson, Sydney, M.B., London
Symington, Johnson, M.D., Edinburgh
Stockman, Ralph, M.D., Edinburgh
Smith, H., M.B., Durham
Smith, E. Gilbert, F.R.C.S., Moseley
Smith, F. C., F.R.C.S., Surg.-Major I.M.S., Morpeth
Sawdon, F. I.
Scvier, A. H
Spiers, W., M.R.C.S., Cleator
Stewart, T. Grainger, M.D., Edinburgh
Simpson, A. R., M.D., Edinburgh

Tomson, W. Bolton, M.B., Luton
Tilton, J. E., M.R.C.S., Great Malvern
Taylor, Jas., F.R.C.S., Chester
Tew, J. S., M.D., Nottingham
Thimbleby, John, F.R.C.S., Spilsby
Thornhill, John, L.R.C.P., Gosforth
Thomson, J. F., L.R.C.P., Felling-on-Tyne
Totherick, J. Y., M.D., Wolverhampton
Townsend, E. R., M.D., Cork
Tucker, Joseph, M.R.C.S., Chulmleigh
Turnbull, W. H., M.B., South Shields
Turnbull, Wm., M.B., 3, Jesmond Terrace
Tuohy, F. J., M.D., Cork
Thomson, John, M.D., Edinburgh
Taylor, George, M.R.C.S., Norfolk
Teale, T. P., F.R.C.S., Leeds
Tuke, D. H., M.D., Hanwell
Taylor, G. G. S., M.D., Liverpool
Townsend, F. E., M.D., Normanby
Thin, George, M.D., London
Thompson, W. H., M.D., London
Thomas, W., M.B., Birmingham
Treves, W. K., F.R.C.S., Margate
Taylor, John W., F.R.C.S., Birmingham
Tweedy, E. Hastings, L.R.C.S.Irel., Dublin
Thomson, Arthur, M.B., Oxford
Taylor, John, M.D., Chester-le-Street
Thresh, J. C., M.B., Chelmsford
Tyson, W. J., M.D., Folkestone
Thomas, W. R., M.D., Bournemouth
Taylor, F., M.D., London
Travers, W., M.D., London
Thorne, R. Thorne, M.B., F.R.S., London

Urquhart, A. R., M.D., Perth

Vickery, W. H., F.R.C.S., 52, Elswick Road
Vinrace, John, M.D., Birmingham
Verrall, T. Jenner, M.R.C.S., Brighton

Walker, N., M.D., Edinburgh
Warden, C., M.D., Edgbaston
Watson, P. H., L.R.C.P., 72, Jesmond Road
Watson, Thomas Alfred, M.B., Sunderland
Wear, Arthur T., M.D., 1, Wentworth Place
White, Joseph, F.R.C.S.Edin., D.C.L., Nottingham
Williamson, G. E., F.R.C.S., 8, Eldon Square
Wilkinson, A., M.D., Tynemouth
Wilson, A. M., M.B., 10, Marianople Street
Wilson, Hector M., M.D., Local Government Board
Wilson, Thomas, M.R.C.S., Wallsend
Wilson, C. W., M.B., Bridport
Wilson, Adam, F.R.C.S.Eng., Osborne House
Wise, R. S., M.D., Banbury
Wylie, A., M.D., London
Wood, Joseph, M.B., Oldham
Wilson, W. T., M.D., Newcastle
Williams, Dawson, M.D., London
Westcott, W. W., M.B., London
White, H. W., L.R.C.P.Edin., Bradford
Wilson, R. H., M.D., Gateshead
Wade, W. F., F.R.C.P., Birmingham
Weaver, F. P., M.D., London
Watson, Jas. K., M.B., Morpeth
Wigham, W. H., M.B., South Shields
Wingate, D., M.B., Haswell
Wallace, R. S., L.F.P.S.Glas., Manchester
Walker, T. Hatfield, L.R.C.P., Newcastle
Webster, J. Clarence, M.D., Edinburgh
Walker, Wm., M.D., Glasgow
Walker, Wm., M.D., Redcar
Walsh, David, M.D., London
Woodhead, G. Sims, M.D., 3, Sydenham Terrace
Walker, H. S., F.R.C.S., Leeds
Wright, H. P., M.D., Ottawa
Wall, R. Bligh, London
Wood, T. Outterson, M.D., London
Watkins, A. H., M.D., Wolverhampton
Wallace, James, M.D., Belfast
Willmore, F. W., Walsall
Wilson, John, M.D., Lanchester
Wells, Sir Spencer, Bart., London
Williams, Wm. Jones, M.D., Middlesbrough
Wood, J. C., L.R.C.S., Sunderland
Wightwick, F. P., M.D., London
Watkins, Arnold H., M.D., Kimberley
Welford, George E., M.D., Sunderland
Wilson, T. S., M.D., Birmingham
Waterston, J., L.R.C.S., Sunderland
Walker, B., M.D., Kirkby Stephen
Wright, G., L.R.C.P., Southport
Wilson, F., L.R.C.P., Hull
Webster, C. R., L.R.C.P., Newcastle
Wood, F. H., L.R.C.P., Wakefield
Waterson, W. T., L.R.C.P., Embleton
Wenyon, C., M.D., Richmond
Wright, C. J., M.R.C.S., Leeds
Wells, J. W., M.B., Blackburn
Watson, J. M., L.R.C.P., Lanark
Wreford, J., M.R.C.S., Newcastle

Yellowlees, D., M.D., Glasgow
Young, Moffat, L.R.C.P., West Hartlepool

Guests who registered their names:
Boisleux, Charles, M.D., Paris
Dupuy, Eugene, M.D. Paris, Paris
Giampietro, Professor E., Pavia, Italy
Kramer, S. P., M.D., Cincinnati, Ohio
Lanz, Otto, M.D., Newcastle
Meyer, W. P., M.D., Amsterdam
Neale, L. E., M.D., Baltimore
Pozzi, Samuel, M.D., Paris

ANNUAL MUSEUM.

MESSRS. ALLEN AND HANBURYS (Plough Court, Lombard Street) showed, among other articles, their Malt Extract, Bynin, Bynol, Byno-hypophosphites, Castor Oil, the "Perfected" Cod-liver Oil, Soluble Gelatine Coated Pills, Malted Infants' Food, Jujubes and Pastilles, Saccharin and its Preparations, etc. They also exhibited Surgical Instruments and Nursing Requisites, Hypodermic Syringes, Atomisers, and Ambulance Equipments. The surgical instrument department is a new branch of the business of this firm.

The ANGLO-SWISS CONDENSED MILK Co. (Mark Lane) showed their Condensed Milk, and also their Condensed Milk mixed with Coffee, Cocoa, and Chocolate.

The APOLLINARIS COMPANY, LIMITED, showed their widely used and much appreciated Apollinaris Water, which has thoroughly established itself in public favour by reason of (1) its absolute purity, (2) its slight alkalinity, and (3) its effervescence and agreeable flavour. Its popularity is evi-

denced by the fact that the annual sale has risen in seventeen years from one million to eighteen million bottles. The greatest care is taken to bottle the water in the highest state of natural purity, and to provide that it shall always reach the consumer in the most perfect condition. In these days of widespread prevalence of epidemics owing to the contamination of drinking water it may be confidently commended to the public as at once the safest and the most palatable drinks. The same company also showed their well-known Hungarian Aperient Water, and Friedrichshall Water, so useful in habitual constipation.

Messrs. Armour and Co. (Tooley Street, E.C.) showed their Extracts of Meats and Digestive Ferments.

Messrs. Arnold and Sons exhibited Instruments for Operations on the Eye, Ear, Nose, Vagina, and Abdomen, most of them being of the latest pattern and fitted with modern aseptic handles of every description. Among their new specialities were: A new Case of Instruments fitted for the immediate treatment of ruptured perineum; an improved form of Glass Vaginal Self-retaining Speculum for the application of medicaments to the uterus. The glass bulb serves as a drain for the surplus fluid. Improved forms of Wire Dilating Rectal and Vaginal Specula, by Dr. Alexander Duke. Aseptic Catheter Syringe, by Hurry Fenwick, F.R.C.S. A Tourniquet with the latest improvement in fastening, styled the "Reliance." An improved form of Pile Clamp, by Dr. J. Ward Cousins—a modification of Smith's, by which the pile is completely controlled during operation. Improved form of *Serre-Nœud*, by Harrison Cripps. Improved form of Stricture Dilators, by Surgeon-Major Lawrie. Improved Ovariotomy Trocar and Cannula, by Dr. A. Duke. Bipolar Electrode, by Dr. Lewis Jones, for the Electrolysis of Nævi. Improved form of Acupressure Pin and Cannula, by Dr. Branch. An improved form of Bullet Forceps, by Surgeon-Major Macnamara; this instrument acts as a probe and extractor combined, and the grip is so perfect that when the bullet is once seized it is impossible for it to shift during extraction. Improved form of Uterine Applicator, by H. E. Trestrail. An improved form of Axis Traction Midwifery Forceps, by Mr. J. H. Dauber. The same firm showed a Complete Cabinet of Eye Instruments of the latest construction, and Lithotrites of improved models, and a general collection of Instruments of Modern Surgery.

Messrs. Arthur and Co. (Newman Street, London) showed, among other preparations, Mist. Calcis. Chlor. c. Ferro, a chemical food containing no sugar, and almost tasteless. It contains chloride and ferrate of ammonia. Mist. Cal. Chlor., a perfectly neutral solution of lime; a chemical food. Lin. Tannici Co.; this is stated to be a remedy for tender skins, chilblains, soft corns, and undue perspiration of the feet; it is useful in cases of relaxed sore throat; it is highly antiseptic. Lin. Iodo-Glycerol; recommended for gouty and rheumatic joints; it is said not to produce that intense irritation of the skin which follows the application of tinct. iodi, and from the manner of its preparation, the iodine and pot. iodi are more readily absorbed. Ol. Morrhuæ Etheris, a perfectly limpid preparation, differing essentially from the turbid mixtures usually prepared. Lotio Capitis, a stimulant for the scalp, containing ammonia and cantharides, after the prescription of the late Dr. Hawkes Tanner. Lotio Picis Carbonis Co.; a lotion said to be useful in nettlerash and kindred affections. Linimentum Pinus Aceticum, Linimentum Pinus Aceticum Fort. Messrs. Arthur and Co. have prepared a terebinthinate embrocation in two strengths, one for ordinary use, and the other as a rubefacient. Chloralose, the new hypnotic of Hanriot and Richet; this drug, exhibited for the first time, attracted considerable attention; it is supplied in boxes of 20 cachets, each containing 3 grains, also in bottles of 154 and 770 grains, or 10 and 50 grammes.

The Aylesbury Dairy Company showed their Humanised Milk: Special Milk Food for Infants; Peptonised Milk, an artificially digested food for the sick; Whey, and their well-known Koumiss.

Mr. W. Beavis (Nelson Street, Newcastle-on-Tyne) exhibited various medical books.

The Bovinine Company (Snow Hill) exhibited Bovinine, a preparation of lean uncooked meat, obtained by a mechanical process.

The Bovril Company (Farringdon Street) showed their different preparations of bovril, beef essence, and vril food.

Mr. T. Bowater Vernon (Albany Buildings, Victoria Street) showed the Ceres Automatic Letter and Card Files, a simple method of keeping letters and papers of every description.

Messrs. Boyd and Company (Belfast, Ireland) showed the Doctor's Ulster, the Eiderdon Rug, as adopted by the Nansen Polar Expedition; the Connemara Cape, a travelling wrap for ladies; Eiderdon pure woollen materials for dresses, dressing gowns, ladies' underskirts, bed coverlets, etc.

Messrs. Brady and Martin (Northumberland Road, Newcastle-on-Tyne) showed an assortment of Drugs and Medical Requirements.

Messrs. Brand and Co. (Little Stanhope Street, Mayfair) had an exhibition of their well-known specialities for invalids.

Dr. J. B. Brierley (Old Trafford) showed Midwifery Forceps, in which the slot is in front of the handle of the upper blade, which is introduced first. The patient is not brought over the edge of the bed, but may lie anywhere. When adjusted the handles are fastened by a crank, which is firm, whether the forceps are completely locked or not, and can be freed instantaneously as often as necessary between intervals of traction.

Messrs. Burroughs Brothers (Basinghall Street) exhibited Dr. Langen's Sugar of Milk, for infants and invalids; Dr. Langen's Chocolate Pastilles, prepared from Dutch cocoa, with the addition of sugar of milk; and Dr. Langen's Digestive Cocoa.

The Bravais Wine Company showed their Bravais Wine and Bravais Liqueur. It contains fluid extract of kola, extract of coca, extract of guarana, besides tannate of theobromine and caffeine. A report on the Bravais was published in the British Medical Journal of Nov. 5th, 1892.

The British Medical Temperance Association exhibited Temperance Scientific Literature.

Messrs. Burroughs, Wellcome and Co.'s exhibit comprised all their well-known products: the Kepler Extract of Malt, Kepler Essence of Malt, Kepler Solution of Cod-Liver Oil in Malt Extract, Fairchild Digestive Preparations, Glycerinum Pepticum, a fresh solution of the secretion of the peptic glands of the pig's stomach; Pepsin (Fairchild) Powder Scales and Tabloids, Zymine Powder and Tabloids, Zymine Peptonising Powders (Fairchild) carefully packed in hermetically sealed tubes, each containing sufficient to digest a pint of milk or beef-tea. Hypodermic Tabloids and Hypodermic Emergency Cases were shown, and the special points demonstrated by experiments. The tabloids of hypodermic remedies are quickly and perfectly soluble in a small quantity of fluid, and are free from irritative acid salts or fungoid contamination. Tabloids of Thyroid Gland (sheep), consisting of the gland substance carefully prepared with sterilised implements and dried *in vacuo* at a low temperature, were exhibited. Other Animal Extracts were also shown. Tabloids of Blaud's Ferruginous Form were shown, and the formation of the ferrous carbonate demonstrated by immersing the tabloids in water; the Soloids of Corrosive Sublimate and Iodic-hydrarg. for the rapid preparation of antiseptic solutions for surgical and obstetric practice; Local Government Board Soloids, prepared in accordance with the directions given in a memorandum issued to medical officers of health by the Local Government Board; one soloid dissolved in a quart of water makes the required solution. Paroleine. Naso-pharyngeal and Post-nasal Atomisers for use with solutions of Menthol Eucalyptia; other essential oils, Terpenes and Stereoptens; these all dissolve readily in paroleine, which is a fatty paraffin oil, entirely freed from colour, odour, or flavour; it does not become rancid when kept. Among the other preparations exhibited were Lanoline and Lanoline Toilet Preparations; Antipyrin, powder, crystals, tabloids; Ichthyol, ointment, tabloids, and soap; Diuretin, Knoll powder and tabloids; and the new products of Messrs. Meister Lucius and Brunin—Agathin, Dermatol, Hypnol, Iodopyrin, Benzosol, Tuberculin-Koch and Tuberculocidin-Klebs; Glycerine Suppositories (Burroughs, Wellcome and Co.), Hollow Cones of Cocoa Butter, filled with glycerine; Hazeline Suppositories made in the same manner; Zyminised Meat Suppositories, and similar ones with Milk for rectal alimentation.

Messrs. CADBURY BROTHERS (Brownville, near Birmingham) showed their well-known Cocoa, for which absolute purity is claimed; and Chocolates, plain and variously flavoured, in very dainty little boxes.

The CAMPDEN HILL PHARMACY (Bedford Terrace, Kensington) showed their Chirata Liquida, a solution of uniform strength in glycerine and water of the two bitter principles of ophelia chirata, two fluid drachms being equal to half an ounce of the herb, or one pint infusum chiratæ.

Messrs. CARNRICK AND CO. (Hart Street, Bloomsbury) showed their various Peptonoids, their Soluble Food Preparations, Cod-liver Oil Milk, plain and with hypophosphites; the Ozolator, or Compressed Dry-air Inhaler; Ozol Pocket Inhaler; and Ozol, for use in the inhalers.

The CHEMISTS' AERATED AND MINERAL WATERS ASSOCIATION (Starbeck, Harrogate) exhibited Soda, Potash, and Lithia Waters, aërated in syphons and bottles; the number of grains of alkali in each syphon on bottle being plainly stated on each label; Crystal Lemonade, and Fruit Syrups.

Messrs. CHEVALIER AND CO. (Bartholomew Close) showed their Flexible Gelatine Capsules.

Mr. H. B. CHIBNALL (King Street, Hammersmith) showed his Dorina Nursery Biscuits, etc.

Messrs. THOMAS CHRISTY AND CO. (Lime Street, E.C.) exhibited Analgen, a new nervine, for the treatment of neuralgia, migraine, gout, etc., in powder, tabellæ and cachets. They had also a full show of Fluid Extracts and Tinctures, and different sorts of Kola preparations.

Messrs. CORBYN, STACEY, AND CO. (High Holborn), exhibited Antiseptic Jellies, Dusting Powder (pink and white), and Soap, Aromatic Saccharated Castor Oil and Carbolic Acid, Collodium Preparations, Standard Liquid Extracts, Ext. Malt and Ext. Malt Liquid, Emulsio Ol. Morrhuæ (50 per cent.), Elixirs, Granular Effervescing Preparations, Glycerole Pepsine, Acid Pepsine, Ferri Dialysat., Thyroid Gland, Liq. Santal Comp., etc., Thyroid Extract, Champagne Coca, Medicated Wines, New Drugs, Chemicals, and Pharmaceutical Specialities.

Messrs. COXETER AND SON, of Grafton Street, had a good electrical exhibit, which consisted largely of batteries of their own and other manufactures, all fitted with their Gold Medal Dry Cells. They also showed Aseptic Insoluble Dry Electrode; a great improvement upon the old kind of wet electrodes. They showed also a new Ophthalmoscope introduced by them. Its simplicity, range, and portability depend upon a new method of arranging the lenses, suggested by Mr. Edmunds, of University College. The operator, by simply turning one wheel, obtains 144 consecutive combinations in half dioptres.

Mr. T. CROSLAND, 175, Woodhouse Lane, Leeds, showed the Rumboll-Birch Gas and Ether Inhaler, for the administration of gas and ether in varying proportions, at the will of the operator.

The DOMEN BELTS COMPANY (Moor Lane, E.C.), showed the Domen Abdominal Belts for pregnancy, confinement, hypogastric support, spinal support, umbilical hernia, and floating kidney. The Belt Corset, a combination of a belt and corset, affords in the wearer all the advantages of wearing the two articles separately, without the inconvenience thereby entailed. The "Domen" Stoop Cure is a remedy for round shoulders in children and adults, and is worn beneath the dress, and entirely unobservable. The "Domen" Safe Guard, ladies' bandages, preventing chafing and chill, and absolutely cleanly.

Messrs. DOWN BROS. showed cases of operating instruments in which the Knives, Retractors, Periosteum Elevators, Chisels, Gouges, Needles, etc., were forged in one piece, out of solid steel, while the Forceps, Scissors, and even the Saws were made to take apart for thorough cleansing. The whole of the instruments are fitted into metal frames inside metal trays, the latter being intended for carbolising purposes, and forming an inner lining to the usual polished wood cases. The metal frames can be lifted out and placed bodily into the steriliser for boiling, if desired. They also showed small metal cases containing selections of Scalpels and Bistouries. Pocket Cases made of metal, fitted with instruments made on the same principle, one very portable form suggested by Dr. Leeson, of Twickenham, and containing all the essentials for the emergencies of ordinary practice; also larger cases containing a more complete selection. In these cases the knives are made in one solid piece. They also exhibited Glass Tables for the operating theatre, and Sterilisers of several different forms, Professor Cathcart's Steam Steriliser in different sizes, suitable for hospitals or private practice, and some made with trays and racks expressly for eye instruments. Schimmelbusch's Sterilisers for boiling instruments in soda solution, also an extremely convenient form for hospital use. Dr. A. Bronner's Steriliser for eye instruments, bandages, and solutions, and also one suggested by the same surgeon for Eustachian catheters. Portable forms for pocket instruments, and others suitable for ordinary catheters, for the preparation of ligatures, sutures, etc. Among the new models of instruments were Automatic Retractors, suggested by Mr. Jordan Lloyd, of Birmingham, one end provided with the usual double blunt hook for placing in the wound, the other with sharp hooks to fix in the patient's flesh, thus obviating the necessity of assistants to hold the retractors; these are made in several different sizes. Scalpels designed by the same surgeon, supplied with dissectors or small scoops at the reverse end, for dealing with tuberculous lesions in bones, tendon sheaths, glands, etc.; a fine Dissector and Probe suggested by Mr. Watson Cheyne. A V-shaped Gouge, designed by Mr. Arbuthnot Lane, for removing irregular shaped pieces from the skull; a modified form of Barker's Scoop by Mr. Dunn, with a movable handle, which could be fitted at any part of its length, likely to be useful in cases where either a long or a short instrument is required. Sammway's Tourniquets, with anchor and grapnel pattern fasteners, an arrangement which enables the rubber tube to be secured at any point. Among the eye instruments shown were Knapp's Expression Forceps for trachoma, and a new model by Dr. Stephenson, rather more powerful, and fitted with two pairs of rollers of different sizes, a very useful addition. In all the forceps shown by this firm, the old fashioned chequering or "file cut" on the handles is replaced by broad grooves. Mr. Pridgin Teale's Cystotome and Curette, and also his Eyelid Retractor, a modification of Pellin's retractor suggested by Mr. Cross, of Bristol; a new and portable form of ophthalmoscope, designed by Mr. Simeon Snell, in which the case or cover is of metal, and is so arranged as to slide off and form a handle, a patented modification of Morton's well-known instrument, in which the numbers are marked on a wing of metal attached to the glasses. Ophthalmic Charts, by Mr. Frank Haydon, for recording pathological conditions of the fundus by means of superimposed layers of colour, each layer being readily and separately exposed, with the aid of an ordinary pocket knife. This firm also showed a Midwifery Bag, called the "Desideratum," a wide-mouthed bag, so arranged that when once opened it remains open, and does not close of itself. The fittings consist of bottles in boxwood cases, and a complete set of midwifery and craniotomy instruments, all made with metal handles capable of being rendered thoroughly aseptic.

Mr. R. J. DOWNES (Lower Baggot Street, Dublin) exhibited his Sol Iodi.

Messrs. DUNCAN, FLOCKHART, AND CO. (South Canongate, Edinburgh) showed their Chloroform, Pharmaceutical Preparations and Special Preparations, Effervescing Salts, Syrups, Glycerites, Fluid Extracts, Capsules, Plastic Pills, Perles, Keratinoids, Cachets, Cachet Pills, Baumol Soap, Compressed Tablets, etc.

Mr. RICHARD ELLIS, F.R.C.S.Edin. (Ryehill, Newcastle-on-Tyne) exhibited a Working Microscope used by Dr. Marshall Hall, F.R.S., in his investigations of reflex functions of the nerves, etc. The instrument was presented, in 1869, by his son, to Mr. Richard Ellis, F.R.C.S.Edin., of this city, as a mark of esteem and in appreciation of his labours in originating the Marshall Hall prize now awarded by the Royal Medical Chirurgical Society of London.

Messrs. FELTOE AND SMITH (Augustus Street, Regent's Park) showed their "Specialité" Lime Juice Cordial and also their Lemon Squash, made from the juice of the lemons and loaf sugar.

Messrs. FLETCHER, FLETCHER, AND STEVENSON (Mincing Lane) showed their Concentrated Liquors, specimens of British Pharmacopœia Tinctures, Standardized Fluid Extracts, Fletcher's Syrups of Hydrobromates, Prize Formulæ

Mixtures, Thermo-Urinometer, and their Patent Automatic Stopper.

The Flitwick Chalybeate Company (63, Borough High Street, S.E.) showed their Flitwick Water, obtained from a medicinal spring in Bedfordshire. A report on this water was published in the British Medical Journal of February 11th, 1893.

The Frame Food Company (Lombard Road, Battersea) showed their various preparations of Frame Food, reports on which have been published in the British Medical Journal.

Messrs. W. Glendinning and Co. (St. Mary's Place, Newcastle) displayed their Beef and Malt Wine, a preparation of Alto-Douro port wine, Kepler Malt Extract and Beef Jelly, and their Cocoa Wine.

Messrs. Hertz and Collingwood exhibited Franz Josef Water, Rosbach Water, Levico Natural Arsenio-Ferric Water, and Coca Champagne. This latter article is one of special advantage to diabetic patients. Before the coca is added it is carefully prepared, and the extract of coca which is added to the wine is equal to one liquid drachm of the concentrated extract to the fluid pint of wine. The coca essence in concentration is prepared with saccharin equivalent to 2 per cent. of sweetening, and this is the only sweetening of any kind used in the champagne, which is prepared by Messrs. Laurient, Perrier, and Co., of Bouzy, near Reims, and imported solely by Messrs. Hertz and Collingwood.

Messrs. C. J. Hewlett and Son (London, E.C.) showed a series of new remedies, improved pharmaceutical preparations, and special tests for urine analyses, and stains for bacteriological investigation. The new remedies included Dulcin, a substitute for saccharin, which is stated to be from 200 to 250 times as sweet as sugar, and without aromatic taste. It is para-phenetol-carbamide, according to Riedel, and absolutely harmless. It was exhibited in crystals, powder, and compressed pellets. Strontium Bromide, Strontium Lactate, and their syrups were shown. The former has met with some favour in this country as superior to the potassium salt, whilst the lactate has been successfully employed in albuminuria. Pure Eucalyptol, which has been administered internally in chronic bronchitis, asthma, etc., in doses of 5 minims three or four times a day. It has a specific gravity of 0.930, and boils at 176° C. Pure Guaiacol, a colourless liquid, boiling at 205° C., and used in phthisis, etc. The same firm also showed a number of antiseptic preparations, such as Perchloride of Mercury Pellets, Antiseptic Jellies, Antiseptic Cream, and a disinfecting fluid containing a large proportion of cresylic acid, which mixes perfectly with water.

Dr. T. W. Hime (Horton Road, Bradford) showed Calf Vaccine (1) specimens of various forms of preparation; (2) appliances used in the preparation of; Series of Photographs and Watercolour Drawings illustrating the development of cow-pox in the calf after inoculation with small-pox; Coloured Drawings showing development of cow-pox in the calf; and a new High Pressure Steam Steriliser designed by the exhibitor.

Messrs. Hodgkinson, Preston, and King (Bishopgate Street Without) showed Liquor Ergotæ; Liquor Sennæ Leguminum, a tasteless preparation of senna; etc. They also exhibited Ophthalmic Lamels, Antiseptic Linseed Meals, Aminol, Hypodermic Solutions and Cases, and Sublimate Tablets.

Mr. Hoff (New Bridge Street) exhibited his well-known Malt Extract.

Messrs. T. Howard Lloyd and Co. (Leicester) exhibited their Soluble Pearl-coated Pills, a large number of well-known Formulæ and many new kinds; Compressed Tablets both for internal and hypodermic use; the Colloid Capsules, containing drugs, such as Blaud's Pills, Cascara Sagrada, Copaiba, Creosote, Cod-liver Oil, Ext. Filicis, Terebene, etc., in measured doses; Peppifer, a new preparation of iron for administration with food; Bromo-Chloral; Lanadeps, a purified wool fat; Unna's Paste; and other preparations.

Mrs. B. Hunter (Brandon Villas, Charlotte Street, Bristol) showed Hunter's Patent Grips and Splints; Specimen of Obstetric Binder Grip for obtaining an easily regulated and maintained compression or support for a patient of any size without the use of pins, straps, etc., and allowing an ordinary strip of calico to be used for the binder without fear of it wrinkling or "rucking" while in use; and Hunter's Patent Grips and Splints, which can be made in any selected pattern for splinting and bandaging fractures, etc., without movement to the patient.

Messrs. A. Hurst and Co. (Fowkes' Buildings, Great Tower Street, London) showed, besides a great variety of various Electrodes, Sledge Coils, Constant Current Batteries, and Electric Lighting Instruments, a large Thermo-Electric Pile, by means of which it was possible to obtain the current for working several large faradic coils direct from the heat of a Bunsen burner, thus obviating the necessity of batteries. A further novelty was an Electro-Mechanical Vibrating Apparatus for treatment of neuralgia. There were also several complete apparatus which make it possible to utilise the electric current as derived from the mains for all medical purposes, including direct electrolysis and constant current application. They have during the past year succeeding in placing upon the market a new type of Medical Accumulator in a portable form.

Messrs. Ingram and Royle (Farringdon Street) showed Foreign Natural Mineral Waters, including Carlsbad, Oberbrünnen, and Vichy.

Dr. Jaeger's Sanitary Woollen System Company (Milton Street, E.C.) had on show some Pure Wool Clothing and Bedding.

Jeyes' Sanitary Compounds Company exhibited their ordinary disinfectants, including Creolin, Lano-Creolin, an antiseptic ointment; Creolin Gauze, impregnated with 10 per cent. of creolin; Creolin Dusting Powder; Jeyes' Sanitary Soap, and Creolin Capsules.

The Johannis Company showed their well-known Table Water.

Messrs. Krohne and Sesemann (Duke Street, Manchester Square, W.) exhibited some recent improvements in Inhalers for the precise, systematic, and safe administration of chloroform, methylene, and ether or chloroform, followed by occasional doses of ether in any desired proportion. Anæsthetic Drop Bottle, for precise administration of the anæsthetic drop by drop in slow or rapid succession; Double Tube, for continuing the administration during operations in the mouth, face, etc., with two long tubes attached for watching the condition of the respiration by heaving; Facepiece, covered with flannel, for safe self-administration of anæsthetics in obstetrical and medical cases; Improved Anæsthetic Bottle, for preventing accidental injections of narcotic fluid; Improved Hagedorn's Needle Holder, made in two sizes—namely, for general and gynæcological surgery in which the jaw is placed centrally with the handles; Flushing Gouges and Flushing Curettes; Hegar's Uterine Dilators, made entirely of nickel-plated metal; Improved Intrauterine Stem; Improved Pessaries; Pile Clamp, made entirely of Delta metal; Hysterectomy Clamp and Pins, made of Delta metal; Hewett's Anæsthetic Emergency Case; arrangements for holding Antiseptic Ligature and Suture Silk, of four different sizes; Patent Lever Spring, for correcting malposition of the great toe for the prevention and relief of bunions; New Apparatuses for the treatment of contracted toes by continuous and gradual extension; also used for the treatment, in severe cases, after surgical operation; Operating Knives, Scalpels, etc., in metal handles; and various improvements in general instruments.

Mr. B. Kuhn (St. Mary-at-Hill, London), showed Papaïn (Dr. Finkler and Co.). The exhibits comprised photographs of the tree and fruit, preserved fruit of the carica papaya, the dried juice and the finished product, and a collection of medicated preparations, such as lozenges, pills, tablets, solution in acid glycerine, and compos with iridin, bismuth, and cascara sagrada. The other exhibits were Exalgine; the fact that 8 grains exalgine dissolve in 1 ounce of hot dist. water, and keep in solution when cold, gives to the dispenser a convenient way of dispensing, and is at the same time a safeguard against accidental overdosing. Ethyl Chloride (Dr. Bengué), with patent stopper and spray for the production of local anæsthesia in dental and minor surgical operations. The patent stopper saves the ethyl chloride, and allows it to be used to the last drop. Local anæsthesia is produced in 30 to 60 seconds, and last for one to two minutes; the tubes contain sufficient ethyl chloride for 10 to 15 extractions of teeth, or minor surgical operations. Ethyl chloride has also proved

successful in relieving facial neuralgia and migraine. Anestile, a new anæsthetic, evaporates at a lower temperature than ethyl chloride: it consequently produces local anæsthesia in a shorter time and on a larger area; it does not harden the surface. Anestile can be used for stopping hemorrhage.

Mr. H. K. LEWIS (Gower Street) had on exhibition a number of medical, surgical, and dental books, charts, etc., published by him.

LIEBIG'S WINE COMPANY, Islington, exhibited Pearson's Liebig's Beef Wine; Beef Vin Regno, a combination of port wine, essence of beef, and malt; and Vivo, or beef juice, for making beef tea.

The LIQUOR CARNIS COMPANY (Holborn Viaduct) exhibited their Virol, a suggested substitute for cod-liver oil; Jelly Carnis, Caffyn's Carnis Suppositories, Malto Carnis and Caffyn's Liquor Carnis.

The LIVERPOOL LINT COMPANY (Mark Street Mills, Liverpool) exhibited Flax and Cotton Lints, Bandages made from various materials, open or porous grey cloth; also Bleached Absorbent for water-dressing purposes; Grey and Bleached Calico, for use where great strength is required; and Flannel; Surgeon's Tow, finely carded into long lengths of even thickness; Carbolised Tow, specially prepared for surgical purposes; Cotton Wools, absorbent, bleached, and grey; Protective Lint, the smooth side being treated with a waterproof material; Splint Padding, a combination of absorbent cotton-wool and carbolised tow—the latter, while being antiseptic, prevents the wool from clotting; "Health" Chest Protectors, Body Belts, Under Vests.

Messrs. LORIMER AND CO. (Britannia Row, Islington) exhibited their Beef and Malt Wine, Iodised Oil, Parrish's Gold Medal Chemical Food, Coca Wine, and Hypophosphites Syrup.

Messrs. J. F. MACFARLAN AND CO. (Edinburgh and London) showed Chloroform, Anæsthetic Ether, Chrysophanic Acid, Acetanilid, Aloin, Araroba Powder, Liquor Ergotæ and Ergotine. They also showed various Antiseptic Dressings used in the Listerian system of surgery, and prepared according to the special formulæ of Sir Joseph Lister.

The MALTINE MANUFACTURING COMPANY (Hart Street, Bloomsbury) exhibited Maltine, Maltine with Cod-Liver Oil, Maltine with Cascara Sagrada, and various other preparations with which maltine is mixed.

The MARZA WINE COMPANY (Wilson Street, Finsbury) showed their Marza Wine, which is a preparation of port wine combined with iron, phosphorous coca and pepsine, and is said to be a digestive tone-giving stimulant. They also showed Marzo Meat and Malt Wine, a port wine combined with the juice of beef and extract of malt.

Messrs. G. MASON AND CO. (King's Road, S.W.) exhibited their usual specialities for invalids, including Mason's Essence of Beef, Concentrated Beef Tea, Concentrated Meat Lozenges, "O. K." Bouillon, Malted Food for Infants, Meat Juice, and "O. K." Sauce.

Messrs. MAWSON, SWAN, AND WEDDELL (West Grainger Street, Newcastle-on-Tyne) exhibited Cerebos Nutritive Table Salt, which is said to contain an equivalent of the mixed phosphates found in bran combined in suitable proportion with fine table salt. They showed specimens of Broad Bran and Mixed Phosphates, etc., extracted from bran. The same firm exhibited the Mawson Filter.

Messrs. MAYER AND MELTZER (Great Portland Street, W.) showed a collection of Aural, Laryngeal, and Nasal Instruments, Patent Aseptic Hypodermic Syringe, the Newton-Nixon Thermometer Case, Galbiati's Knife for Symphysiotomy, Ether and Gas Inhalers, and Craniectomy and Laminectomy Instruments.

MEABY'S TRITICUMINA COMPANY (St. Paul's Churchyard and Reading) showed their Malted Wheat Food for Infants, Children, and Invalids, and Entire Wheatmeal Digestive Bread, the starch of which has been largely converted to dextrine by the special mode of malting the wheat prior to grinding into meal. A report on the Triticumina food was published in the BRITISH MEDICAL JOURNAL of March 25th, 1893.

Mr. G. MELLIN (Peckham) showed his well-known Foods for Infants and Invalids; his Emulsion of Cod-liver Oil and Hypophosphites, and Vin de Coca (Mellin).

Mr. HENRI NESTLÉ (London) showed his well-known Milk Food and Condensed Swiss Milk.

Messrs. NEWTON, CHAMBERS, AND CO. (Thorncliffe Ironworks and Collieries, near Sheffield) exhibited the new antiseptic and disinfectant Izal, which is said to mix freely with water, and to be of very great microbicide potency, and at the same time non-poisonous and non-corrosive.

Messrs. OPPENHEIMER, SON, AND CO., Limited (Worship Street, E.C.) exhibited their Palatinoids and Bipalatinoids. These palatinoids and bipalatinoids are said to be a useful vehicle for nauseous drugs. Concentrated Liquors, among which may be mentioned the Liq. Euonymin et Pepsinæ Co. (Oppenheimer) and the Liq. Caulophyllin et Pulsatillæ Co. (Oppenheimer). Liq. Helalin et Pepsinæ Co., a new concentrated liquor, said to be a hepatic stimulant. Cream of Malt, with Cod-Liver Oil and Hypophosphites (Oppenheimer), an agreeable method of administering cod-liver oil. Cream of malt may also be had plain or in various combinations.

Messrs. PARKE, DAVIS, AND CO. (Holborn Viaduct) exhibited Fluid Extracts of the United States and British Pharmacopœias, Sugar and Gelatine Coated Pills, Hypodermic Tablets, Hypodermic Cases with Syringe and Tablets, Tablet Triturates, Compressed Tablets, and other pharmaceutical preparations; also preparations of the Mosquera Julia Food Company, consisting of Beef Meal, Beef Cacao, and Beef Jelly.

Mr. YOUNG J. PENTLAND (Edinburgh and West Smithfield, London) exhibited a collection of Medical and Surgical Books, Atlases, etc., published by him.

Mr. PRIESTMAN (Guildhall Chambers, Basinghall Street) exhibited some Pharmaceutical Specialities.

Messrs. PROCTOR, SON AND CLAGUE (Grey Street, Newcastle-on-Tyne) showed some Granular Effervescent Preparations, each containing a certain quantity of the drug: Turkey Opium, Rectified and preparations of Rectified Opium, and a variety of pharmaceutical preparations.

Mr. RAWSTHORN (Green Bank Mill, Preston) showed his Whole Wheat Flour with Hypophosphites. A report on this article appeared in the BRITISH MEDICAL JOURNAL of July 15th.

Mr. F. J. REBMAN (Adam Street, Strand) showed a number of Medical and Surgical Books, Charts, etc., published by him.

Messrs. JOHN RICHARDSON AND CO., LIMITED (Leicester), exhibited in Section A, in addition to their Pearl-coated Pills, their Gelatine Capsules, the manufacture of which they have developed with success. Many samples were shown, including Syr. Easton, Blaud's Pill, Ext. Cascara, Ol. Jecoris c. Creasot., Syr. Hypophos. Co., Ol. Gaultheria, Quininæ Sulph., Sulphonal, etc., together with a new combination in the shape of Compound Salicylate of Colchicine. Improved Gelatine Perles showing no joint were amongst other novelties, together with Granular Effervescent preparations, such as Antifebrin, Caffein Cit., Ferri Carb. Sacch., Ferri Ammon. Cit., etc.; Bi-conical Gelatine-coated Horse Balls, Medicated Pessaries, Bougies, Cones, etc. In Section D the same firm had, in addition to their Dispensing Cabinet, which has been previously described, an assortment of Instruments, including many recent novelties. Some portraits from the *Provincial Medical Journal* had a prominent position on this stand.

Messrs. RIDDLE AND CO. (Commercial Street, E.) exhibited Stower's Lime Juice, prepared from the juice of the fruit and refined lump sugar.

Messrs. JAMES ROBERTSON AND CO. (Edinburgh) showed their Flexible Gelatine Capsules. Among the most notable were their Blaud's Capsules. They also had numerous other kinds of capsules, amongst which may be mentioned Sulfonal in a semisoluble form by special process, Cascara, and various combinations, the last addition being the latest new remedy—Analgen. The firm also exhibited numerous Granular Preparations; Acidified Perchloride of Mercury Pellets in various strengths for the formation of antiseptic solutions of definite strengths, and numerous other preparations.

Messrs. SALAMON AND CO. (Rainham) exhibited their purest Chloroform and purest Ethylic Ether.

Messrs. SALMON, ODY, AND CO. (Strand, London, W.C.) showed Single Truss for inguinal hernia, Double Truss for

inguinal hernia, Single Truss for scrotal hernia, Single Truss for femoral hernia, Truss for umbilical hernia, Truss for the bath and hot climates, Indiarubber Trusses for children, the New Patellar Truss, Artificial Leg, Artificial Arm, Artificial Hand, Hert's expired Patent Belts for umbilical hernia, prolapsus uteri, pregnancy, and general support, Patent Cork Belts, Bandages, "Rubber" Bougies, Catheters, Clinical Thermometers, Ear Trumpets, Leg Instruments, Knee Caps, Stockings, Urinals, Arm Slings, Stethoscopes, Pessaries, Chest Expanding Braces, Obstetric Binders (Improved), Improved Stockings, Knee Caps, Leggings, etc., in para rubber.

The Royal Leamington Spa showed their Mineral Waters.

The Sanitary Wood Wool Company (Thavies Inn, Holborn Circus) showed various wood wool preparations, including Hartmann's Patent Wood Wool Wadding, an antiseptic absorbent dressing, Wood Wool Tissue, consisting of a layer of Hartmann's wood wool between two pieces of sublimate gauze, Sanitary Wood Wool Sheets, in three sizes, for accouchement, Hartmann's Wood Wool Towelettes, for menstruation and during accouchement; Wood Wool Gonorrhœa Bags, Vaccination Pads, the Guinea Complete Sanitary Outfit for accouchement, Wood Wool Sponges, and Hartmann's Catgut prepared with juniper oil, carbolised or sublimated and preserved in absolute alcohol.

The Sanitas Company showed an assortment of Disinfectants and Antiseptic Dressings, together with a new Sulphur Candle, which easily lights and burns, thoroughly securing disinfection with moist sulphurous acid.

Mr. K. Schall (Wigmore Street, W.) showed various Apparatus for utilising the current supplied for Lighting Houses, for Galvanisation, Electrolysis, Faradisation, Small Surgical Lamps, and for Galvanic Cautery, Transformers, and Rheostats; Batteries and Accumulators for Galvanic Cautery and Electric Lights; various Cautery Instruments, and Instruments for Illuminating Larynx, Mouth, Nose, Ear, Œsophagus, Bladder, Urethra, Vagina, Rectum, etc. Dry and Liquid Leclanché Batteries, and Acid Batteries for Galvanisation and Electrolysis; Galvanometers, Rheostats, Electrodes, etc.; Spamer's, Taube's, Dubois-Reymond's and other forms of Induction Coils, etc.

Messrs. W. Schacht and Co. (Finsbury Pavement) showed Frankfort Claret, Water from the Wilhelmina Spring at Haarlem; Teplitz Sparkling Table Water; Hungarian Tokay Wine; Wiesbaden Water, Salt, Soap, and Lozenges; and the Cyclone Fumigator, Inhaler, Disinfector, and Perfuming Machine.

Dr. W. H. Spencer (St. Leonards-on-Sea) exhibited the Eucalypt Vaporiser, for vaporising volatile oils and medicinal substances dissolved in them, and diffusing the vapour in the air of rooms, hospital wards, etc.

Dr. T. Core Squance (Sunderland) showed an eighteenth-century Microscope, Cuff's model, date about 1745; a nineteenth century Microscope, "Van Heurck" model, 1892; and a Lantern Microscope, for demonstrating and drawing specimens.

Messrs. Stephen Smith and Co. (Bow) exhibited Hall's Coca Wine, a preparation made from the leaves of the Bolivian coca plant. One drachm of the active and soluble constituents of the leaves is said to be contained in two ounces of the wine.

The Universal Digestive Tea Company (Market Street, Manchester) exhibited their Tea, in which the tannin neutralised by a special process with oxygen and ozone.

The Viking Food and Essence Company (King's Road, St. Pancras) exhibited their Essences of Beef, Mutton, Chicken, and Turtle. These preparations are said to consist solely of the juice of the meats, without the addition of water or of any other substance. Real Invalid Turtle Soup, Turtle Jelly, said to be prepared from the choicest West Indian turtle, also put up in glass. Pure Beef Tea (Concentrated), in skins and in glass. Meat Lozenges of delicate flavour, consisting of pure meat only. Nutrient Suppositories, specially prepared, and of extreme value. Concentrated Meat Juice, a preparation made from the fresh juice of English Beef, extracted by hydraulic pressure and without heat.

Messrs. Warner and Co. showed their Antiseptic Pastilles, Antalgic Saline and Tablets, their Parvules, some Effervescing Salts, including Aperient Saline, Benzoate of Lithia, Bromo Lithia, and Salycilate of Lithia.

Messrs. John Weiss and Son (Oxford Street, London, W., and Manchester) exhibited a selection of Surgical Instruments and Appliances.

The Wells and Baths Corporation (Harrogate) exhibited the Harrogate Sulphurous and Chalybeate Waters as obtained from the springs.

Messrs. Joseph Woods and Co. (Spurriergate, York) exhibited a varied assortment of the latest and improved patterns in Surgical Instruments.

The Woodhall Spa (Lincolnshire) showed their Bromo-Iodine Mineral Water for rheumatism, etc.; the Mutter Lange, and the Granular Effervescing Salt manufactured from the Bromb Iodide Water.

Messrs. John Wyeth (Philadelphia, and Snow Hill, London) showed their Beef Juice; Compressed Pills, plain and sugar coated; Compressed Hypodermic and Ophthalmic Discs, and some Digestive Ferments.

Sanitary and Ambulance Appliances.

Section E, Sanitary and Ambulance Appliances, was housed in the Cambridge Hall, opposite the College of Medicine. The principal exhibits in this Section were the following:

Mr. W. T. Allen (Gravelly Hill, near Birmingham) showed his patent Automatic Watercloset, Birmingham system, which is said to be an improved and simplified form of automatic flushing closet. It consists of pipes of stoneware, the top pipe or pan being so constructed that solid matter not intended to pass cannot be thrown down. It is also thoroughly ventilated. The patent Automatic Revolving Flush Basin, when charged to the water line, revolves and discharges the whole of its contents in one volume to the mouth of the drain.

Messrs. Atkinson and Philipson (Newcastle-on-Tyne) showed three four-wheeled Vans for horse power, and a large number of Hand Ambulances and Stretchers. They showed a Convertible Stretcher and Chair, for which they received a gold medal at the Newcastle Jubilee Exhibition. The Ambulance Vans contain stretchers and other appliances designed with the view of rendering the carrying of patients as painless as possible and prevent the spread of infection. Among these were the Philipson "Registered" Ambulance Van, which has a covered seat for the driver and internal accommodation for two patients lying at full length, for a third one sitting, and for two attendants. They also exhibited an Ambulance Van of the Furley pattern fitted with the Furley stretcher and other appliances; a Hand Ambulance on two wheels and one on three wheels, as used by the metropolitan police; the Ashford Litter, the Furley Stretcher, etc.

The Berkefeld Filter Company (Oxford Street, W.) showed Laboratory and Chemists' Filters for solutions of any kind, and for obtaining sterile milk, blood serum, etc.; Tourists' Filters in various designs; Household Filters, to attach to water service pipes, yielding 5 to 20 gallons per hour; Large Supply Filters, giving 50 to 500 gallons an hour; and patent Village Pump Filters, for villages where only an impure water supply from shallow wells, infected ponds, or rivers can be obtained.

Messrs. Billington Brothers (Liverpool) showed various forms of Invalid and Hospital Bedsteads fitted with woven steel wire spring mattresses, etc.; Lounge Couches; a Couch for surgery or operating room; and Bedrests of various designs.

Messrs. Dinning and Cooke (Newcastle-on-Tyne) exhibited their Patent "Wash Down" Pedestal Closet; their Open "Wash Out" Pedestal Closet; Lavatories in Earthenware with Metal Frames, standing waste and overflow, which can be readily taken out, cleaned, and replaced; Hospital or Laboratory Sinks; Independent Bath, with Spray, Shower, and Douche, and Towel Rail through which hot water is circulated to air towels and keep the bath room warm.

Messrs. Ferens and Love (Durham) showed Egglestone's "Health Trap" for receiving yard, scullery, bath, and lavatory waste, which is presented as combining in itself all the essentials for the removal of accumulation of waste matter from houses and for the passage of liquid waste direct into the house drain.

Messrs. George Gale and Sons (Leeds) showed Hospital and other Bedsteads fitted with "Dominion" Wire Spring

Mattress; Folding Spring Bedsteads fitted with "Dominion" Spring Mesh and Combination Spring Cots.

Mr. J. F. HYDE (Plymouth) showed an Improved Invalid's Bed Rest, which combines the advantages of support with protection from draught.

The LEATHER AND RUBBER BOOT COMPANY (Albion Street, Leeds) showed Scafe's Patent Combination Boots, which are stated to be perfectly water and damp proof. The middle sole is of vulcanised rubber covered with rubber discs or studs, which pass through holes in the outer sole, projecting from it, giving a soft, noiseless, and elastic tread. The boots are said to be very durable and comfortable to the feet. Their noiselessness makes them specially useful for medical men, nurses, and others whose business leads them into sick rooms or hospital wards.

Messrs. C. T. MALING AND SONS (Newcastle-on-Tyne) exhibited an assortment of special articles, including Registered Air-tight Anatomical Jars, Air-tight Specimen Jars; Slipper Bedpans, with gas-tight covers; Sick-bed Washbasins, with soaps; Urinals, male and female; Sick-feeders, Anti-tannin Teapots, Surgical Instrument Trays, etc.

Mr. H. A. MURTON (Newcastle-on-Tyne) showed Elastic Rubber Water Beds, Cushions, and Pillows; Rubber Beds, with a funnel or central tube for conveying the evacuations in cases of paralysis, etc., into a vessel beneath; Elastic Rubber Cushions for spinal complaints, and a large variety of Rubber Materials for the use of travellers and invalids; Nursing Appliances, Douches, etc.

ANATOMY AND PHYSIOLOGY.

Section C, devoted to Anatomy and Physiology, was housed in the Physiological Laboratory, No. 1, of the College of Medicine. Professor SHERIDAN DELÉPINE showed: 1. Sections of Rabbit's Liver, at various intervals after a meal, showing the gradual accumulation of iron round the portal vessels from the fourth to the twelfth hour, and diminution afterwards. 2. Sections of Liver at various intervals after a meal, showing the gradual accumulation of glycogen in the liver lobules from the first to the eighth hour, and its gradual disappearance from the periphery to the centre of the lobule.

Dr. F. W. MOTT showed specimens illustrating the degeneration of Nerve Fibres of the central nervous system, stained by Marchi's method; and Phagocytosis after lesions of the central nervous system.

Dr. R. W. REID showed an Encephalograph and an Ossified Tendo-Achillis.

The UNIVERSITY OF DURHAM COLLEGE OF MEDICINE showed a number of interesting specimens illustrating various anatomical anomalies and methods of Staining.

PATHOLOGY.

Section B, devoted to the exhibition of pathological preparations, etc., was housed in the Physical Laboratory at the College of Science. One of the most interesting features of the department of the museum was the exhibition of drawings illustrating diseases of the skin. Among those shown by Dr. PHINEAS ABRAHAM were photographs of lepers in the Matunga Asylum; photograph of Keanu, the inoculated convict, inoculated with leprosy by Dr. Arning; and of Father Damien, the leper martyr.

Dr. RADCLIFFE CROCKER showed illustrations of a case of multiple lupus vulgaris, the patient having 48 small patches scattered about the face, trunk, and limbs; an eruption artificially produced by a girl of 14 on her skin, probably by means of hydrochloric acid applied with a broad brush; and dermatitis venenata, from leather dye, probably hexanitro-di-phenyl-amine.

Dr. COLCOTT FOX showed illustrations of Raynaud's disease; psoriasis, with dystrophy of joints; urticaria pigmentosa; pityriasis rosea, etc.

Mr. JONATHAN HUTCHINSON showed a large and interesting series of illustrations including molluscum contagiosum on a man's back, ulcers on a man's face, supposed to be from infection from grease in a horse; melanosis developed in a mole, with involvement of glands, etc.; pemphigus in the secondary stage of syphilis on a man's arm; eczema-lupus on the neck of a young woman, etc.

Dr. W. ALLAN JAMIESON showed illustrations of Dermatitis Herpetiformis (*a*) erythematous form, (*b*) vesicular and bullous form; Xanthoma Diabeticorum; Mycosis Fungoides (*a*) premycosic stage, (*b*) stage of fully developed tumours; Pityriasis Rubra Pilaris, approximating to lichen ruber in type; Paraffin Ichthyosis, etc.

Illustrations of various types of Skin Lesion were shown by Dr. GEORGE CARPENTER, Dr. H. HANDFORD, Dr. STEWART STIRLING, and Dr. STOPFORD TAYLOR.

Cultures and microscopic preparations of Trichophyton were exhibited by Dr. LESLIE ROBERTS; typical cultures of Trichophyton Microsporon and Megalosporon were exhibited by Dr. SABOURAUD; and cultures of different kinds of Trichophyton by Dr. P. G. UNNA.

Casts and Microscopic Sections were exhibited by Dr. DAVID WALSH and Dr. NORMAN WALKER.

The Pathology of the Eye were illustrated by specimens mounted in jelly by Mr. JOHN GRIFFITH, Mr. G. HARTRIDGE, and Dr. A. S. PERCIVAL. A number of specimens, including Melanotic Sarcoma of the Choroid, Sarcoma of the Ciliary Body, Epithelioma of the Cornea starting in a Pterygium, were exhibited by Mr. HENRY JULER.

Among the exhibits illustrating general pathology were Photographs of Cancerous Bodies and Specimens of Madura Foot, shown by Professor BOYCE; Specimens of Melanotic Tumours, etc., shown by Dr. R. M. BUCHANAN; Microscopical Specimens of Cell Enclosures in Carcinoma, by Dr. C. H. CATTLE; Cultivation of Psorosperms and Microscopical Preparations of Psorosperms, by Professor SHERIDAN DELÉPINE; Microscopic Section of the Medulla and Thyroid in Graves's disease, by Dr. G. A. GIBSON; Gelatine and Plaster Casts of Pelvic Tumours, by Dr. MACLAREN. An interesting series of photographs illustrating Myxœdema and the effect of thyroid treatment of that condition, photographs and casts of a Case of Acromegaly, and Preparations of Anthrax, Tetanus, Glanders, Cholera, Typhoid, Tubercle, and Diphtheria Bacilli and other Organisms by Dr. GEORGE R. MURRAY; Microscopical Specimens and Photographs of Cancerous Growths, by Dr. HERBERT SNOW; a Naked Eye Specimen of the Hypophysis Cerebri from a Case of Acromegaly Tumour of the Cerebellum, etc., by Dr. T. COKE SQUANCE; and a large and most instructive series of specimens shown by the University of Durham College of Medicine.

OTOLOGY.

Section F was devoted to Otology. Among the exhibits were Photographs, Casts, etc., illustrating the treatment of deafness arising from nasal stenosis and adenoid vegetations by the President, Mr. H. Bendelack Hewetson; Microscopical Specimens of Micro-organisms found in diseases of the throat, nose, ear, and eye, by Dr. Samuel Lodge, jun.; Dissections of the Temporal Bone in Health and Disease, by Dr. H. Secker Walker; Specimens of Caries and Tympanic Ossicles and Microscopical Sections of Epithelioma of the External Ear, by Dr. W. Milligan; and a number of specimens illustrating the Anatomy of the Temporal Bone and the Ear, by the Durham University College of Medicine. Dr. Carline showed his Audiometer, and Dr. R. Ellis showed Hughes's Audiometer. A selection of Oral Instruments was also shown by Messrs. Wood and Co. of York.

DEMONSTRATIONS IN THE ROYAL INFIRMARY.

ONE of the most instructive features of the meeting this year was a series of demonstrations of cases of especial interest, given in the wards of the Royal Infirmary on Thursday, August 3rd, by Dr. D. Drummond, and by Dr. W. C. Arnison, Mr. Page, and Mr. Rutherford Morison. For the following notes of these demonstrations we are indebted to the courtesy of Dr. W. D. Arnison, the senior house-physician, and Messrs. W. H. Bishop and J. Braithwaite, house-surgeons to the Infirmary.

Cases shown by Dr. Drummond.—Dr. DRUMMOND showed: A Boy suffering from Jacksonian Epilepsy, following Fracture of Skull; Four cases of Peripheral Neuritis, three of them Alcoholic and one Rheumatic; Two cases of Paraplegia secondary to Pott's Disease of the Spine; A case of Transverse Myelitis; Two cases of Locomotor Ataxia; A case of Cerebral Tumour; Various cases of Heart Disease; Thoracic and Abdominal Aneurysm; Exophthalmic Goître; A Girl with Marked Pigmentation of the Skin following the Administration of Arsenic.

Cases shown by Dr. Arnison.—Dr. Arnison showed three cases of excision of the wrist:

Case I.—T. S., aged 28, miner, was admitted in March, 1892, suffering from tuberculous disease of the wrist. The wrist was excised on March 9th, 1892, by a longitudinal median incision, about four inches long. He is now able to follow his employment. There is slight ulnar flexion of the hand.

Case II.—E. T., aged 22, domestic servant. She had her wrist excised on August 5th, 1892, for tuberculous disease by a longitudinal median incision about four inches long. She is now able to follow her employment. She can perform all the movements of the wrist with ease. She also has slight ulnar flexion.

Case III.—G. B., aged 30, miner, was operated on in November, 1892, for tuberculous disease. At present his hand is put up in a stiff apparatus by plaster of Paris splint. He has perfect movements of his fingers.

Cases shown by Mr. Page.—Mr. Page showed three patients after Halsted's operation for the radical cure of inguinal hernia:

(*a*) Man, aged 29, hernia on the left side acquired three months before admission. Operation fourteen months ago. Primary union of wound throughout. Has never worn a truss, and there is no tendency to recurrence.

(*b*) Boy, aged 4, hernia on left side, infantile. Operation nine months ago. Primary union of wound. Has never worn a truss, and there is no tendency to recurrence.

(*c*) Man, aged 30, congenital hernia on left side. Barker's operation performed on November 16th, 1892. Primary union of wound. Left hospital wearing truss. Returned in January last with hernia down again. Halsted's operation on the 16th. Superficial wound healed by primary union, but deep suppuration occurred later, and the suture came out. Now wears a light truss, and has had no further trouble.

2. Two patients after radical cure by other methods:

(*a*) A man, aged 42, small inguinal hernia on the left side, of one year's standing. Barker's operation performed in December last. Primary union throughout. He wears a light truss, and has no recurrence.

(*b*) Man, aged 51, large irreducible left inguinal hernia. Has had several attacks of incarceration. The sac contained a great portion of the large intestine, which was adherent to it, and a little omentum. The bowel was returned with some difficulty, the sac ligatured and cut off, the left testicle removed, and the ring firmly sutured. Operation three weeks ago. The wound healed by primary union, but venous hæmorrhage occurred, and it had to be opened up. Now doing well.

3. Three patients after recent extensive operations on the jaws:

(*a*) Man, aged 27, had a large sarcoma growing from the left side of the lower jaw, involving the skin of the face, and encroaching on the mouth. Operation on June 13th, 1893. Preliminary laryngotomy and removal of left half of inferior maxilla, with growth and the involved skin. Made a good recovery, and left hospital July 8th. Recurrence has taken place in the sawn end of the bone, and patient has been readmitted to have the other half of the bone removed. Specimen shown.

(*b*) Man, aged 46, admitted with epithelioma of tongue. Operation on June 10th, 1893. Preliminary laryngotomy; tongue removed by Syme's method. Made uninterrupted recovery. Some glands can now be felt on the right side of the neck.

(*c*) Man, aged 48, suffered from epithelioma of floor of the mouth, involving the symphysis menti. Growth excised freely, together with a large piece of the symphysis, on June 24th. Made a good recovery, and left hospital three weeks after operation.

4. Four patients after operation for ununited fractures of the long bones:

(*a*) Man, aged 42. Admitted June, 1890, with simple fracture of left femur, which failed to unite. November 16th, 1890. Bones exposed by incision on outer side of leg. They were in good apposition. The ends of the fragments were resected but not sutured, and the wound closed. Good union was obtained. Patient now walks as well as ever.

(*b*) The engine driver of the mail train which was wrecked at Thirsk in November of last year. Admitted February 28th with ununited fracture of the right femur, the result of that accident. Patient is a very muscular man. March 7th. The fragments were exposed by a longitudinal incision 8 inches in length on the outer side of the thigh, and a second one at right angles to this, and crossing it about its centre 5 inches long, dividing the muscles transversely down to the bone. The ends were not in good apposition. They were freshened, brought together, and tied with stout silver wire. The wound healed entirely by first intention, and there is now firm union of the bone.

(*c*) Man, aged 35. Admitted with ununited fracture of the right humerus. Fragments exposed by longitudinal incision, and sutured together with strong silver wire. Now, one year after operation, he can perform every movement of his arm, and follow his occupation as huntsman without any inconvenience.

(*d*) Man, aged 40. Ununited fracture of left ulna. Ends of bone were cut down upon, freshened, and sutured with silver wire on December 31st, 1892. Good union obtained without any irregularity. The wound healed by primary union, and the scar is now barely visible.

5. Six patients after nephrectomy:

(*a*) Boy, aged 15. Hydronephrosis of left kidney with constant attacks of renal colic for the last two years. Operation on October 8th, 1892. Made a rapid recovery, and has had no recurrence of symptoms.

(*b*) Woman, aged 32. Pyonephrosis of right kidney of three months' duration. Nephrotomy performed August 29th, 1892, nephrectomy on October 16th. She was much run down at the time of operation, but made good recovery, and is now in perfect health.

(*c*) Man, aged 38. Pyonephrosis of right kidney of six months' duration. Was exhausted by pain, continued pyrexia, and the constant discharge of pus. Operation November 11th, 1892. Recovery was somewhat protracted but complete. He is now strong and quite well.

(*d*) Man, aged 27. Hydronephrosis of left kidney giving rise to all the symptoms of renal calculus. Duration of symptoms, three years. Operation February 4th. He suffered severely from shock after the operation, but quickly rallied, and made an uninterrupted and complete recovery.

(*e*) Woman, aged 42. Hydronephrosis of right kidney, causing attacks of severe renal colic for the last sixteen years. Operation May 6th, 1893. Never had a bad symptom, and is now perfectly well.

(*f*) Woman, aged 35. Hydronephrosis of right kidney, attended with frequent attacks of acute colic. Operation June 13th, 1873. The ureter was enormously dilated, and the end where it is sewn to the skin is still patent. Patient is in excellent health.

6. Two patients after removal of vermiform appendix:

(*a*) Lad, aged 16. Admitted suffering from symptoms of intestinal obstruction, with acute tenderness over the cæcum, of one week's duration. An incision was made over this region, and about two pints of intensely fœtid pus escaped from the pelvis. The appendix was found to be perforated by a large ragged ulcer the size of a thumb nail. The patient made a good recovery, and is quite well now, four and a half months after operation. There is no tendency to hernia.

(*b*) Boy, aged 14. Symptoms very similar to those in the last case, but less severe. The appendix was found immediately on opening the belly. It was not perforated, but was gangrenous, a distinct line of demarcation being visible about a quarter of an inch from the large bowel. It contained two small fæcal concretions. The belly contained very little pus, and the peritonitis was localised. Patient is now convalescent. Operation July 1st.

7. Two patients after excision of the condyle of the lower jaw.

(*a*) Lad, aged 18. Operation six years ago for ankylosis of the left condyle, then of two years' duration. He has now perfect movement of the jaw.

(*b*) Girl, aged 15. Operation five years ago. The jaw was very ill developed, and firmly ankylosed. Condition was of seven years' standing. Fair movement was obtained after operation. The jaw is now very small and ill-formed, and there is very little movement.

8. A patient after gastrostomy:

Man, aged 50. Admitted unable to swallow anything but fluids. He was very much emaciated, and complained of great hunger and thirst. Operation June 26th. The wound is perfectly healed, and the patient gets plenty of nourishment, and is quite comfortable. He has gained a stone since the operation.

9. Patient after pyloroplasty:

Man, aged 31. Admitted with great dilatation of the stomach following on a blow on the epigastrium thirteen years before. He was very weak, and had lost flesh rapidly. The belly was opened by a median linear incision, and the pylorus was found to be the seat of a simple fibrous structure. Mikulicz's pyloroplasty was performed, and he made an uninterrupted recovery. He is now, seventeen months after operation, perfectly well and at work.

10. Patient after thyroidectomy:

A man, aged 50, was admitted on March 21st, 1893, suffering from distressing dyspnœa consequent on hypertrophy of the thyroid. The enlargement affected both lobes and the isthmus, but the right lobe was larger than the left. On April 12th complete extirpation of the gland was effected by means of two incisions, one running from just below and behind the right mastoid process parallel to the sterno-mastoid down to the clavicle, and the other commencing from about the centre of this and running across the throat, and being prolonged upwards on the other side to a point an inch behind the angle of the jaw. Both the sterno-mastoids and all the muscles attaching the hyoid bone to the parts below it were divided. The whole of the wound healed by primary union, and movement of the head is in no way impaired. There are no symptoms of myxœdema.

11. Patient after ligature of the femoral artery:

A man, aged 35. The left femoral artery was tied for a popliteal aneurysm the size of a hen's-egg. The operation was performed on November 26th, and he left the hospital on December 13th of last year. There is no tumour to be felt now, and he describes the leg as being "the best of the two."

12. Two collections of gall stones:

(*a* and *b*) These patients had unfortunately both left the neighbourhood and could not attend. Both were in excellent health. The collections numbered 45 and 33 stones respectively.

13. Two patients after Macewen's osteotomy:

(*a*) A man, aged 20. A most aggravated case of genu valgum. Right femur divided on April 11th, 1893. Splints and dressing removed May 20th. Left femur divided on June 3rd. Unfortunately suppuration occurred in this leg and recovery has been very much protracted. He has gained 3 inches in height since the operation, although some deformity still remains.

(*b*) A boy, aged 15. Genu valgum of right leg. Operation six weeks before. Splints and dressings were now removed for the first time. The wound was perfectly healed and good union of the bone had taken place. No trace of the deformity remains.

14. Patient after double oöphorectomy for ruptured tubal gestation and cystic ovaries:

A woman, aged 29. Admitted for abdominal pain and tenderness. Operation July 17th. About a pint of blood was found free in the abdominal cavity. Patient has never had a bad symptom, and the wound is quite healed.

15. Two patients after excision of the astragalus for club-foot:

(*a*) A girl, aged 2½. Had aggravated talipes equino-varus (double). She walked on the outer side of the feet, and adventitious bursæ had formed over the cuboids. Both astragali were excised on November 16th, and the tendo Achillis divided on both sides. She made a rapid recovery, and now walks well with the soles of her feet flat on the ground. There is a very little inversion of the right foot, which is corrected by her boot.

(*b*) A boy, aged 4 months. Double talipes equino-varus. The left foot

could be manipulated into good position, but on the right side the deformity could not be reduced. The right astragalus was therefore removed, and the foot can now be kept in good position.

16. Patient after excision of wrist:

A lad, aged 19. Tuberculous disease of wrist. Operation three years ago, a linear incision being employed. He has now free movement in the wrist in every direction, and follows his occupation as a miner. There is no trace of disease.

17. Patient after compound depressed fracture of the skull:

A man, aged 34. Sustained an injury of the above nature to the frontal bone 1 inch above the right eye two months ago. Wound and fracture 3 inches long, and he had also a fractured thigh and other injuries. There were no symptoms at the time of admission, no operation was performed, and the patient has made an uninterrupted recovery, and is now convalescent.

18. Patient with aneurysmal varix following a punctured wound of the neck:

A pitman, injured 1½ year ago. Patient suffered from dizziness, buzzing in the ears, and difficulty of speaking. Since then he has much improved, and now suffers no inconvenience. The characteristic thrill is well marked.

Cases shown by Mr. Rutherford Morison.—Mr. Morison showed the following cases:

1. Cholecystotomy:

The patient was a woman, aged 39, six months pregnant. She had suffered from attacks of biliary colic for nine years, each attack being followed by passage of a stone. Six large stones were removed. She made a good recovery, and her pregnancy has gone on without interruption.

2. Mikulicz's osteoplastic operation on the foot:

The patient was a man, aged 42, and the operation was performed for injury, with a good result.

3. Two cases of pancreatic cyst. In both there was history of severe abdominal injury. Both recovered from the immediate effects of the injury, and the abdominal swelling followed some time after apparent recovery. Both had severe periodic attacks of abdominal pain. In both a cystic swelling was apparent in the epigastric region, with stomach above, and the transverse colon below. Both were diagnosed before operation:

(*a*) E. F., aged 17. Dr. Martin, of North Shields, opened and drained the abdomen on April 3rd, 1892, and aspirated the swelling. It refilled, and on May 23rd Mr. Rutherford Morison reopened the abdomen, which was distended with purulent lymph, and exposed the pancreatic cyst by turning up the omentum and transverse colon. The cyst could not be brought up to the abdominal wall at this point, so the omentum and colon were replaced, the gastro-colic omentum divided, the cyst aspirated and drawn to the surface between the colon and stomach. It was drained and sutured to the abdominal wall, the abdoulinal cavity being drained by a tube in Douglas's pouch. The boy made an uneventful recovery, and is now in good health.

(*b*) A patient, 28 years, operated on by Mr. Williamson on March 20th, 1893. The cyst, adherent to the parietes, was incised and drained, the man making an excellent recovery.

The fluid from both cases had all the characteristics of pancreatic fluid. It converted proteids into peptones, starches into sugar, curdled milk, emulsified fats, and had the chemical composition of pancreatic fluid.

4. Halsted's operation for radical cure of hernia, on a case of strangulated hernia:

The patient, a man aged 58, was admitted with an immense strangulated hernia, which he had made vigorous attempts to reduce by taxis. The hernia had been present since he was 13 years of age, and for several years had been irreducible. On account of this and the very large size of the hernia, Mr. Morison decided to do Halsted's operation in order to avoid the difficulty of reduction, and to perform what he considered the best radical cure. In spite of an attack of delirium tremens the wound healed by first intention, and there was now only a linear scar.

5. A case of cholecystotomy in a case of gall-stone impacted in the cystic duct:

A young woman, who had been troubled for months with attacks of abdominal pain. A distended gall bladder was discovered by Dr. Drummond, who asked Mr. Morison to operate. After emptying the gall bladder no stones were found in it, but a stone about the size of a pea was felt impacted in the cystic duct. A probe or forceps could not reach it, nor could the fingers move it. Eventually it was with difficulty crushed between the finger and a lithotomy scoop, and the fragments escaped by the abdominal wound. After some days the patient was in good health and free from pain.

6. A case of total extirpation of the uterus, ovaries, and tubes:

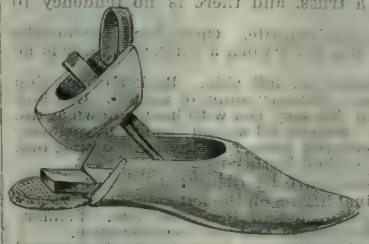
The patient, aged 42, was suffering, when admitted to the infirmary, from epithelioma of the cervix, a large cystic ovary, and retroflexed uterus. The fundus of the uterus and both ovaries and tubes were removed by an abdominal opening: the stump was surrounded by an elastic ligature, and the canal covered over by iodoform gauze sutured in position. The patient was then placed in the lithotomy posture, and the cervical stump removed per vaginam. An uneventful recovery followed, and the patient is now in excellent health.

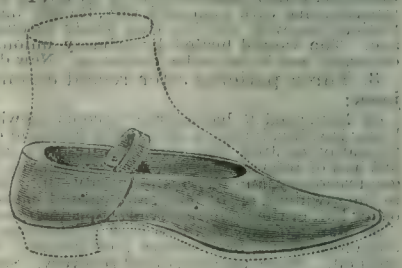
Several other abdominal cases of special interest were also shown.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS

A NEW BOOT WARMER.

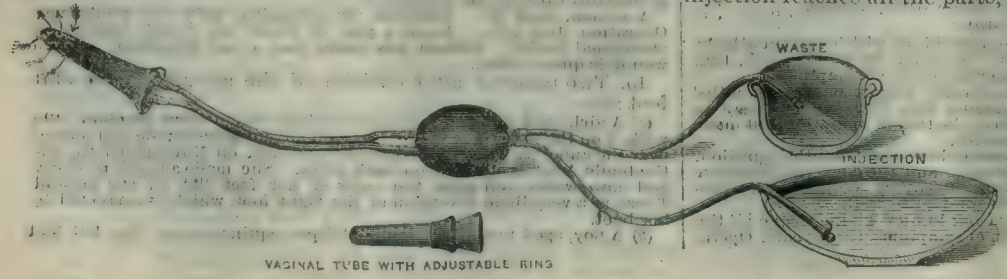
A NEW boot dryer and warmer, manufactured by Messrs. E. and W. Belden, of Great Dover Street, S.E., has been submitted to us. The apparatus is in the form of a boot tree, into the sole of which is fitted a small metal case, underneath which is a thick sock of absorbent material. The warming is accomplished by means of a small block of metal, which is heated for ten or fifteen minutes in the flame of a small spirit lamp, and then inserted into the case in the hollow part of the tree. The heat thus generated is said to be retained in the boot for about three hours. The heat does not injure the leather, as the warmer does not come in contact with it, and the tree keeps the boot in proper shape. For persons who suffer from cold feet or who have to travel much by rail the invention seems likely to be extremely useful.





A NEW VAGINAL SYRINGE.

THIS is a new vaginal syringe called the "Vonda," invented by Mr. A. B. Cruickshank, and introduced by Messrs. J. G. Ingram and Son. It is constructed with double tubes, one for injection and the other for waste, the valves in the tube on one side opening in an opposite direction to those on the other side, and the bulb and vaginal tube being each divided into two compartments. The following are claimed as its chief advantages: It is double acting, douche and suction taking place alternately, water being first injected into the vagina and then withdrawn by suction; and this alternate action can be kept up continuously, as long as desired, without withdrawing the vaginal tube. The object of this suction, though gentle, is to remove morbid secretions and clean the parts, leaving a clear field for an examination with the speculum. The widened end of the vaginal tube plugs up the entrance to the vagina, so that an astringent or caustic injection can be held in contact with the walls of the vagina and neck of the womb as long as desired. It distends evenly the folds of the vagina, so that the injection reaches all the parts, and they can be thoroughly irrigated if necessary. The same water is never used twice over. A rubber ring for use in cases of prolapsus uteri slips over the vaginal tube, and can be adjusted so as to shorten the tube in proportion to the distance the womb has slipped down. Syringes on the same principle of alternate douche and suction are made for washing out the stomach.



VAGINAL TUBE WITH ADJUSTABLE RING

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1893.

Subscriptions to the Association for 1893 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, AUGUST 19th, 1893.

TRAMPS AND INFECTION.

The interesting discussion at the Newcastle meeting on the spread of infectious diseases by tramps opened up a question which is of the gravest importance to the community. The efforts of sanitarians in regard to the suppression of infectious diseases are at the present day mainly directed into two channels: one the production of such a general improvement of the sanitary surroundings of the people as shall render them more able to resist disease, the other the prompt removal and isolation of the sick, so as to prevent infection of the healthy. Some of the younger and more hopeful among us may think to see the day when the first of these shall be sufficient, but certainly at the present time, and so long as the lives of the poor remain as they are, we can no more afford to allow the free dissemination of infection than a farmer can permit the use of matches in his rickyard.

Everywhere this is being recognised. Notification is spreading over the land, isolation hospitals are arising on all sides, which, although often very imperfect, show at least that the principle is being widely accepted, by elected and directly responsible bodies, that individuals shall not be allowed to infect the community. As a consequence, respectable citizens are finding their liberties in many respects curtailed, workmen are debarred from their ordinary means of earning a livelihood, children are shut out from an education which is their right, and ratepayers have to support large hospitals, all for the sake of restraining the spread of disease, and yet the vagrant is allowed to roam over the country caring for none of these things, and carrying with him his rags and his infections from town to town, without let or hindrance. We need, then, feel no surprise that people who have to submit to such restrictions, and who do submit to them with more or less willingness in the hope of thereby deriving some protection, object strongly to their efforts being antagonised by the wanderings of tramps and vagrants.

The sturdy beggar and the homeless vagrant have troubled the law-abiding citizen far back into the times of early history; the tendency to vagrancy, the dislike to settled habits, the hatred of control being so ingrained in a certain proportion of the human race, that the genus tramp—with all its dirt and tendency to spread disease—has always been able to hold its own against the laws, often harsh and cruel, which have for ages been levelled against it: and we certainly must not allow any hope or expectation of an advancing civilisation leading to the extinction of the race to stand in the way of such measures as may be found necessary to prevent the evils arising from its nomadic habits.

Dr. Ring pointed out how frequently epidemic diseases were carried into new districts by tramps, and how common lodging houses and casual wards became dispersion points for infection. Dr. Armstrong[1] also has shown the immense importance of vagrancy in the dissemination of small-pox; 73 per cent. of the urban districts in which small-pox had occurred, and from which he got returns, having sooner or later been infected by vagrants, many of them having had it introduced in the same way over and over again. The case, in fact, in regard to small-pox is so strong, that perhaps the discussion drifted unduly in the direction of compulsory revaccination as a way out of the difficulty, for the probability is that a mode of dissemination proved in one disease operates in others, and that many a strange and unaccountable outbreak of diphtheria or scarlet fever dates back to the cup of water given by a villager to some passing tramp.

Unfortunately the remedies proposed all touch freely on that thorny question—the liberty of the subject. Compulsory detention, revaccination, and disinfection, with compulsory reporting of their movements, and even, as recommended by Dr. Ring, the registration of their comings-in and goings out on a card carried for the purpose, form the staple of the suggestions which were made; but when one realises that we have to deal with people who dislike gaol chiefly because it brings them under the ken of the authorities, and to whom the "ticket," with its suspicious resemblance to a ticket of leave, would seem a greater punishment than the penalty for not using it, we begin to see some of the difficulties with which the question is hedged around. Nor are these lessened by the fact that, although tramps form a class apart, separate, and distinct from the rest of the community, they are intimately mixed up in their haunts and their movements with the unemployed poor. However much it may be insisted on that the tramp requires severe measures, the only places where he can be caught to be dealt with at all are the casual wards and the common lodging houses, in both of which he is mixed up with a crowd of unfortunates, out-of-works, and ne'er-do-wells, who by no means deserve the same severity; and although it may be true that an experienced officer can pick out the tramp at a glance—nay even, as was suggested, at a sniff—that is hardly the sort of evidence on which it would be right to condemn any one to exceptional treatment.

We, like the Hindus, have our fairs and great gatherings, although with less religious aims, and ours, like theirs, doubtless act as disseminators of disease. Hop picking, harvesting, and strikes, all set up large movements of the poorest of our population, who become intermingled in our casual wards and lodging houses with detachments of that great army of 60,000 vagrants which is said constantly to perambulate our country, and, efficacious as it might be from a sanitary point of view to treat all these people like ticket-of-leave men, we hardly think it probable that Parliament would be induced to take that view.

In the meantime our authorities might certainly apply with greater vigour the powers which they have. Little control as we have over the tramp himself, we do already possess

[1] *Public Health*, July, 1893.

considerable authority over the keeper of the common lodging house. If the description of doss houses lately given in the *St. James's Gazette* are to be trusted, these dwellings are far indeed from the perfection which could be enforced by the law even as it now stands, and if it be objected that to make them clean and decent would render them too expensive for the tramp, we would answer—so much the better. The sooner the tramp can be driven to a reformed casual ward, where at least he can be washed and his rags be disinfected, the better for the country. It would probably well pay the nation to give him both bed and breakfast in return for being allowed to scrub him.

THE COUNCIL OF THE COLLEGE OF SURGEONS AND THE COURT OF EXAMINERS.

AT the last quarterly meeting of the Council Mr. Willett moved an amendment to an old regulation which was adopted as long ago as 1866, providing that after an examiner had held his appointment on the Court for two terms of five years he should not be eligible for immediate re-election. By Mr. Willett's amendment the examiner would not be eligible for immediate re-election after the expiration of his first term. Unfortunately, the motion was lost by 16 to 7 votes. Altogether the result is to be regretted. As fair chances as possible should be given to each of the numerous capable teachers in our medical schools to serve as examiners at the College. The Council doubtless includes many surgeons well fitted to examine, but some of its most honoured and valuable members have passed the age when the duties of examiner can be discharged with fairness to candidates. All Councillors *in posse* should be strictly discouraged from seeking election with the idea that success in the attempt will increase their chances of becoming examiners. As long as Fellows are elected with that idea, so long will obstructive regulations remain in force and reform be impeded. Of necessity the present state of things is unfavourable to Mr. Willett's proposal. Men who gain a high chance of election become all the more eager for re-election, which doubles the value of their prize. But the Fellows elect members of Council to carry on government and reform, not to examine.

It follows that closely associated with the re-election of examiners is another subject—the proportion of members of Council on the Board. Under thorough reform two or three members might well be retained, or rather elected as such, avowedly to represent the Council on the Board. The present predominance of members of Council is objectionable. The reform of this bad arrangement was attempted in the summer of 1870, when Mr. Richard Quain moved that it was desirable that no fewer than four members of the Court of Examiners should be Fellows who are not and have not been members of Council. This resolution, seconded by Sir William Fergusson, was passed. Yet, as Mr. Marshall, then President, explained at the meeting of Fellows and Members in March, 1884, this resolution had never been acted upon because there was no provision in the Charter for any such arrangement. Mr. Tweedy, at that meeting, reminded the audience how mischievous that anomalous state of affairs might prove. The resolution in question had been passed many years since, it had never been acted upon, and then (1884) every member of the Court of Examiners and one member of the Board was on the Council, so that the Examiners had eleven members on the Council. In the interest of the Fellows and in the interest of the College it was not desirable that the regulations relating to the Fellowship should be determined by resolution of the Council instead of by by-laws, for the resolutions of one Council were not binding on another. Hence the present Council might impose most salutary restrictions which a future Council could remove by a mere vote.

Through the energetic action of the Fellows, Mr. Tweedy taking the lead, no clause was added to the new charter confirming such dangerous power to the Council. The questions of tenure of office and proportion of members of Council on the Board of Examiners fell into abeyance. Now that the power of voting by papers and other privileges have been gained, the Fellows should turn their energies once more to reform of the Board of Examiners. In the second volume of the BRITISH MEDICAL JOURNAL for 1887, page 962, will be found some instructive statistics on the "Receipts of Councillor-Examiners of the English College of Surgeons." They serve as an object lesson to demonstrate that reform from within has no chance except it be aided from without. The proposal, made at the meeting of Fellows and Members in 1884, that not more than half of the members of the Court of Examiners, and not more than two members of the Board, should have seats on the Council, and that an examiner should vacate his office if elected into the Council, was rejected by the Council, with the excuse that the Conjoint Board was coming into force, and then the two Colleges would have to consider such questions. The Fellows must feel that the answer of the Council has not proved satisfactory. The examiner question must be promptly taken in hand.

WORK AND PLAY IN PUBLIC SCHOOLS.[1]

THOSE of us who are engaged in teaching the young men who, as boys, have been educated at public schools, may say in their haste that an essay on work and overwork in these schools must resemble in its contents the celebrated chapter on *Snakes in Ireland*. There are, of course, many able boys who, by industry or talents, or both, will excel, whatever their training. Such boys trouble their teachers but little, and owe but little to any school—so far, that is, as instruction goes; indeed, such persons seem to be rather braced by difficulties and disadvantages than stunted or discouraged; of these we need not speak. We would speak rather of the mass of public school boys as they enter the universities—boys neither clever nor stupid, well-disposed rather than ambitious—such as are nineteen out of every twenty of them. Ask one of these boys what he can produce after ten years of costly schooling. At nearly all public schools the teaching of natural science is not serious even in intention. Idle boys see in these classes an escape from books, and head masters by transferring them may gratify a parental fad, and, at any rate, relieve themselves of a burden. These boys, when they enter a laboratory at 19 or 20 years of age, find they have to begin science afresh. Well, natural science may be fitter for the training of men than of boys; what of languages? It is admitted that Greek is

[1] *Work and Overwork in Public Schools.* By Clement Dukes, M.D. London: Percival. Pp. 69.

not possible; Greek therefore must be "eliminated." What of Latin? Can 10 per cent. of the public school boys express themselves correctly in Latin? We suspect that not 5 per cent. can write ten lines of fair Latin prose (without grammar and dictionary) if called upon to do so. We know that 70 per cent. cannot write even three lines. What, then, of French or of German? Still less; virtually nothing. What, indeed, of English? They have not attained even the rudiments of a plain, correct, and pointed style; nay, rather they have gained a vulgar, loose, and inaccurate style. And so forth. We will not prolong the indictment as to attainments. But we are told that by the expenditure of some two thousand pounds the young Briton comes from school with a fine character. This we grant, though it be as costly as the original Chinese recipe for roast pig. The boy is modest, manly, and brave; he is truthful, he has good manners, and he is excellent in field sports. On the other hand, he has no sympathy with learning or ideas; he lacks tenderness and liberality of sentiment; and he is rather good-natured than unselfish in his pleasures. His education is, in fact, the education of a ruling and exclusive class; not the education of a citizen of the world. The English public schoolboy is an anachronism.

And yet Dr. Dukes, whose authority and experience almost command assent, tells us he is overworked! Did any smaller person tell us this we should say "Fudge." Of the "home work" assigned to pupils of day schools we will say nothing, for we are to-day speaking of the public schools. We admit that the pupils of schools not called "public" are better prepared and may be overworked; indeed, we know that too often this is the case.

But we are relieved to find that Dr. Dukes condemns not the standard of attainments, but the method by which attainment is sought. He brings a large and severe indictment against almost every part of school management, an indictment tempered in tone by his relation to one great school, but sweeping enough nevertheless.

The distribution of time is bad, the hours are too long; the kinds of work are badly distributed; the tests of progress are narrow and mischievous; tyrannous and debasing customs, such as the imposition of "lines," flourish; variety of mental endowment is ignored; sanitary principles are defied, and so forth. In all this we heartily agree, and we agree as heartily in the opinion that the uneducated master is the cause of the overworked boy.

In these columns we have pointed out repeatedly that the profession of teaching is the only one for which no special training is given or expected. As Dr. Dukes says, a graduate taken direct from the university, "without the least preparatory discipline or proved adaptability, is authorised to take a form or teach a class; and this in face of the fact that the effective training of the young is a subject of national concern." "Everyone," he adds, "is supposed to be naturally and instinctively qualified to teach. No assumption is more fatal or fraught with more malign influence..... Why is it," he says again, "that the same pupil with one teacher will work well without punishment, while with another his imposition never fails?" Why is it, we may add, that in private life the ordinary public school master is interested in nothing but in the petty details of his own system and the rites of his own seminary; that he is indifferent to ideas, narrow in culture, insular, even provincial, in prejudices, and is only roused to enthusiasm when some brother raises the questions of bounds or of table beer? The suppression of "overwork" must begin with the reform of the teaching system, with a widening of the outlook of the teacher, and with a training of him in the skill and methods which will economise the faculties of the scholar and awaken in him the love of knowledge.

The Introductory Address in the Faculty of Medicine, University College, London, will be delivered by Mr. Bilton Pollard, Assistant Surgeon to University College Hospital, in the Botanical Theatre, on October 2nd, at 4 P.M.

The annual dinner of the old and present students of the Faculty of Medicine of University College, London, will be held at the Hôtel Métropole on Monday, October 2nd, at 6.30 P.M.; Mr. Christopher Heath in the chair. Applications for tickets must be made before September 30th to Bilton Pollard, F.R.C.S., 24, Harley Street, W., or to Dr. J. E. Paul, University College Hospital, Gower Street, W.C.

THE CERTIFICATION OF DEATHS.

We are informed that the report of the Select Committee on the Certification of Deaths will not be ready for some time. In the meantime a statement is published in the daily press to the effect that the principal recommendation is that death shall be certified upon medical authority, and that the registrar shall not certify for burial upon any other. Midwives, nurses, and other persons have no power to certify to death, but their certification is frequently accepted. The Public Prosecutor will be authorised to act in cases of fraudulent certification.

A NEW FORM OF DANGEROUS EXHIBITION.

A medical practitioner recently exhibited some cholera bacilli in glass tubes in the New York Museum of Natural History. The occurrence was reported to the Board of Health, who sent a medical inspector to investigate the facts. On his report, the Board passed a resolution forbidding any such public exhibitions in future. The practitioner who showed the bacilli states that they were entirely harmless, having been killed by sunlight and exposure, and placed in tubes filled with Canadian pine. The Board of Health, however, is laudably determined to be on the safe side. If only other boards we wot of were as energetic in protecting us from live bacilli as the New York Board is in preventing the exhibition of dead ones, the sanitary millenium would be at hand.

FOUNDERS' DAY AT EPSOM COLLEGE.

The annual celebration of Founders' Day took place at Epsom College on August 14th, and was attended by a large gathering of friends and parents of the students, as well as of those more immediately connected with the management of the school. The College has made such progress during the past few years that the Council have under consideration a project of enlarging the school premises at as early a date as possible. The record of the past year is one of which any school might well be proud. The prizes were presented by Lord Ashcombe and Dr. Propert. Dr. Holman, the Treasurer, in seconding a vote of thanks to Lord Ashcombe, said he had always had a strong belief in Epsom, and no one could fail to see the enormous improvement that had taken place in the school within the past few years. They were making their mark in the intellectual world and at the universities, but they must extend their walls. He was a devout disbeliever in all forms of class schools, and he would never falter until he saw Epsom College free, so that the boys of the medical profession should meet their compeers in every portion of society, but at the same time

he should never forget John Propert's legacy that they must take care of the poor of their own profession, to whom no greater boon could be given than to mix with the sons of all classes of Her Majesty's subjects.

THE "BREAKING-IN" OF INFANTS.

IT is a moot question at what age school education should begin. Among the well-to-do the tendency certainly is to let the earlier years of life be free from study, to let the child observe, but not to teach him or put him in a class. The experience of elementary schools, however, points out certain advantages in early training. It is often said that the boy is the father of the man; perhaps now we shall have to admit that the infant is the father of the boy. Mr. Diggle, Chairman of the London School Board, states that it is gradually becoming easier to maintain discipline among the children, and this improvement he attributes to the fact that the proportion of those who have not passed through the infants' department is getting less and less. There are now only a few waifs and strays among the boys and girls who have not been already broken-in in the infants' school. Whether this "breaking-in" of infants by immature pupil teachers is an altogether satisfactory substitute for a mother's training, and whether the boy so readily amenable to discipline will make so good a fight in life as the wild "shaver" of former times are questions which the future must decide.

WASP STINGS.

FROM nearly all parts of the country come doleful stories of the incursions of wasps, which do not confine their ravages to sugar basins and jam pots, but commit assault and battery of a painful though unheroic kind on the persons of Her Majesty's lieges. A wasp sting may be a very trivial affair for all its pain, but when a large number of these creatures are disturbed, as in destroying their nests, very severe symptoms may be produced by the number of stings which are inflicted, extreme collapse sometimes following, partly the result of the pain, but largely as the direct consequence of the quantity of the animal poison injected. Occasionally, also, a single sting will be rapidly followed by an acute cellulitis, death from which has in more than one instance been recorded. As regards treatment, the immediate application of ammonia, the liquor or the universally obtainable sal volatile, or the contents of a smelling bottle, seems to be the quickest in giving relief to pain, but any alkali will do, or, if there is nothing better to be had, the application of the freshly cut surface of an onion is useful. The local after-treatment is really that of the cellulitis—carbolic or lead or spirit lotion. Perhaps it is as well, if the sting obviously remains in the skin, that it should be extracted, but it is certainly not wise to do so at the expense of injuring the surrounding tissues, especially mucous membranes. In cases of collapse from extensive stinging in feeble people warmth to the extremities with free stimulation by alcohol, ether, and ammonia, as in the case of snake bite, is the best course. The possible necessity of tracheotomy in case of cellulitis and œdema of the larynx following stings in the mouth and pharynx, must not be forgotten.

THE EXCESSIVE HEAT.

THE continued excessive heat is producing its natural result in cases of heat-stroke and heat-exhaustion. Whether these two conditions, the one with lowered temperature, the other with hyperpyrexia, are the direct result of heat, or whether, as seems more probable, they are due to poisoning by ptomaines or by some product of abnormal metabolism or excretion consequent on the lessened difference between the internal and external temperatures, in the one case affecting principally the heart, in the other the nervous system, we will not stop to inquire, the points of importance are that in the cases of heat-stroke the symptoms, as separate from the history, are chiefly distinguishable from apoplexy and opium poisoning by the high temperature, and that the free use of cold is essential in treatment. In India a patient attacked with cerebral hæmorrhage on a hot day runs a fair chance of being treated for heat-stroke, if there be no one-sided paralysis, whereas in England the converse would be the case unless the thermometer be carefully used, and for certainty in such cases its introduction into the rectum may be suggested. The cardiac cases are often hopeless from their suddenness, and would seem to be due to some inhibitory, possibly poisonous, influence on the cardiac ganglia. These severe forms, however, are but extreme examples of what has been described as heat-exhaustion, a condition in which much may be done by timely rest in cool air, moderate stimulation, friction, and, probably, where it can be obtained, the inhalation of oxygen which, when kept in the compressed form, is necessarily cooled by expansion before being used. A considerable number of cases of faintness and of heart failure come under notice among stout people in hot weather, which, although one might hesitate to call them so, are really cases of heat-exhaustion; these people have only just enough heart power for ordinary occasions, and are readily knocked over by the heat, so that although when they come under treatment they are found to be suffering from heart disease, probably of old standing, the final cause of their breakdown must, in a certain number of cases, be attributed to that self-poisoning, whatever its nature may be, which is produced by prolonged exposure to, and especially exercise in, excessive heat. Among the secondary and even more common evils produced by the hot weather, are the results of the greatly increased tendency to decomposition of articles of food. Diarrhœa fortunately is often produced, but where that does not occur flatulence, oppression of the heart, and all the minor symptoms of ptomaine poisoning are apt to occur in hot weather, purely from the fermentation of food which has been eaten in a state of incipient but undetected decomposition.

TYPHOID FEVER IN DUBLIN.

AT the quarterly meeting of the Dublin Corporation, on August 14th, a deputation was received from the Typhoid Fever Inquiry Committee appointed in 1892 to investigate the circumstances connected with the excessive prevalence of typhoid fever in Dublin. The deputation consisted of Mr. R. O'Brien Furlong, President of the Dublin Sanitary Association; the Rev. Dr. Haughton, Mr. F. W. Pim, Dr. J. W. Moore, Dr. Stewart Woodhouse, Mr. Thomas Drew, Dr. W. R. Graves, and Dr. Edgar Flinn. In presenting the report, Mr. O'Brien Furlong said the result of the investigations of the Committee was to prove most abundantly the existence of a large excess of typhoid fever in the city. The number of deaths from that disease which occurred in Dublin during 1891 was 191, being 41 in excess of the average for the preceeding ten years, and giving the annual death-rate from the disease of 5.5 per 10,000. That death-rate was higher than in any of 33 large towns in the United Kingdom save Belfast, where the death-rate was 5.9. Assuming the mortality to be the same outside and inside the hospitals, the 191 deaths represented 2,022 cases of the disease, of which 1,345 presumably belonged to the city. The Committee had come to the conclusion that the saturation of the subsoil of Dublin was, if not the principal, one of the chief, factors in the high typhoid death-rate of Dublin, and therefore the first of their recommendations was that an efficient system of subsoil drainage should be carried out in Dublin along with the main drainage about to be provided. The Rev. Dr. Haughton then described the excellent results which had followed subsoil drainage within the area of the Trinity College. Dr. J. W. Moore laid stress on the very unequal distribution of the Infectious Diseases Notification Act in the City of Dublin and the surrounding townships. The Act was in force in the city and in the Pembroke township, but not in the Rathmines district. The result was that

the whole thing was in a condition of confusion, and the Act was rendered utterly futile. The Lord Mayor said he regarded the report as of very great value and public importance; some of the suggestions made by the Committee, however, were made to some extent in ignorance of the difficulties the Corporation had to contend with, and the question of finance with which it was confronted. If these recommendations were carried out, Dublin would be a highly sanitary city; but it would also be a highly taxed city, and they must proceed slowly. It was admitted by the deputation that the Vartry water was for all practical purposes pure, and it was only when stored in cisterns that it became impure. The Corporation were doing their best to do away with that system of storage. He thought that if, instead of confronting them with the difficulties that existed, the Committee had suggested some scheme for dealing with the faults which they pointed out, the Corporation would have got more help. It was moved and carried that the report be sent forward to the Public Health Committee, and the thanks of the Council be given to the deputation for laying their views before the meeting. The Chairman of the Public Health Committee, Mr. Tallon, said the Committee would pay every attention to the suggestions made.

DEATH OF M. CHARCOT.

It is with very great regret that we learn of the death of M. Charcot, which occurred at Morvan on August 16th. M. Charcot's name was known throughout the civilised world, and his influence on medical thought, especially in connection with the pathology and treatment of nervous diseases, can hardly be overestimated. M. Charcot was born in Paris in 1825, and was consequently in his 68th year. He was a not infrequent visitor at the annual meetings of the Association. We hope to publish a full obituary of this distinguished man at an early date.

SCARLET FEVER AT HARROW SCHOOL.

It would be interesting to know by what arguments or mental processes Mr. Fowler was led to decline an inquiry into the outbreak of scarlet fever at Harrow School, in which 17 cases and 1 death occurred in six of the masters' houses between January 23rd and March 12th, and 1 case last term. One can quite understand the Governors of the school not considering an inquiry necessary—that goes without saying; but it is not so easy to comprehend why the Board's medical advisers should agree with them, seeing that they must have been acquainted with the situation of affairs at Harrow and of the position taken up by the masters in regard to the sanitary authority. Harrow is something more than a school; it is a town of six or seven thousand inhabitants, and, strange as it may seem to the Governors, these people deserve some little consideration. It is not as if the school and its houses were within a ring fence. Dotted over the town are twenty masters' houses, and also scattered in divers places are the different buildings of the school, the 600 or 700 pupils of which wander to and fro continually. The townspeople, therefore, may well consider that the presence of scarlet fever in the school is a matter of practical interest to themselves. Knowing as they did that their medical officer of health had been repeatedly refused admission to the houses in which the disease had broken out, and in regard to which he had received notification, and that, after at last obtaining access, he had discovered sanitary defects and had found that recommendations which he had made a year before on the occurrence of a case of typhoid fever had not been attended to, the people of the place may well have thought that this was typically a case for investigation by the central authority. The wording of Mr. Fowler's answer would lead one to conclude that there is a medical officer to Harrow School appointed by the Governors. There is a medical adviser to the head master, but as regards medical attendance on the boys we believe we are right in saying that each house master makes his own arrangements and that the attendance at the various houses falls into different hands. The sanitary affairs have also been carried out by different firms, and the arrangements for disinfection have been by no means suggestive of central control, the process sometimes being carried out by a local plumber, sometimes by domestic servants, and only occasionally by the properly appointed officers of the sanitary authority. We can quite believe that the conditions of life at Harrow School are such as to make it difficult to eradicate a disease like scarlet fever, but that renders an inquiry all the more desirable. We do not there find bare and open dormitories which can be washed down and through which fresh air can blow all day. At Harrow the boys sleep in their studies (!), one, two, or three being allotted to each. In these they do their work, keep their clothes, pass their time, and carry out their little hobbies, covering the walls with pictures and nick-nacks and rendering them uncleanable. In these also they spend the night, each sleeping in that old-fashioned abomination—a shut up bed. An institution whose sanitary ideas are of such a pre-scientific kind, and in which scarlet fever dribbles on month after month, would certainly appear to require thorough inspection.

THE NEMESIS OF UNREADINESS.

We are sorry for Salisbury. After earning for itself the by-name of "the unready," it has paid the penalty of seeing its makeshifts destroyed by fire. On August 16th one of the tents erected for the accommodation of small-pox patients at Three Mile Hill, near Salisbury, was burnt down. The patients were rescued by the caretakers and placed in another tent; the one destroyed was one borrowed from the Mayor of Portsmouth to meet an emergency. The risk of fire is one of the standing perils of tents and wooden structures used for hospital purposes. This is by no means a solitary instance. Case after case has occurred in which these inflammatory structures have gone off like fireworks, and it is only a short time ago that the burning of a wooden fever hospital full of scarlatina cases was attended with loss of life. Experience constantly shows that it is not true that communities can safely trust to being able to provide themselves with hospital accommodation as occasion may arise. The provision of land, drains, and water supply, and the erection of huts, or even tents, takes a far longer time that people are apt to imagine; and, overriding everything that can be said in favour of extempore provision of accommodation, is the constant danger of fire in these temporary structures. We shudder to think what might happen at Tottenham, for example, if a fire were to break out on a windy night. Wooden wards, wooden kitchens, all lined with wood, and with their wooden floors ventilated underneath, and the fifty separate buildings linked together with wooden corridors, and in almost every building a stove, all as dry as tinder after the long drought, would make a blaze to be remembered.

THE FEVER AT WORTHING.

Upwards of 1,000 cases of enteric fever have been recorded at Worthing during the present prevalence, and over 100 deaths registered from the disease. The East Preston Guardians, having been informed of the illegality of their action in receiving non-pauper patients into their three temporary hospitals, these institutions have been taken over by the Town Council of Worthing, who will in their turn receive pauper cases for treatment by arrangement with the guardians. Other neighbouring districts are much disconcerted by the immigration of persons from Worthing sick of fever, and meetings have been held to consider the matter, the Steyning authority moving against the entry into their district of any person not free from suspicion of the disease. But the practice will, we fear, be difficult to stop. With regard to water supply, Mr. Mansergh has proposed the erection of filter beds, looking upon sand filtration of the existing supply as probably affording an absolute

safeguard against the entry of the fever poison into the mains, Professor Dewar lending support to the theory. The Town Council submitted the point to the Medical Officer of the Local Government Board, and received a letter from Dr. Thorne Thorne, in which he strongly inclines to the boiling of the water as against sand filtration, and the delivery, where necessary, of boiled water to houses. He cites the opinion of Professor Koch, of Berlin, that even under favourable conditions such filtration cannot give absolute protection against the danger of infection. As a result, the Council have wisely resolved to abandon the filtration scheme. At a special meeting held on Monday last they accepted an agreement with the Shoreham Waterworks Company, whereby the company undertake to supply from 80,000 to 150,000 gallons daily for twelve months; whilst the work of laying the underground mains from Shoreham will be immediately proceeded with, and is expected to be completed in three weeks or a month. The attitude of the Town Council towards all that will lead to a reinstatement of their town in public favour is such as deserves to succeed.

ENTERIC FEVER AT STOCKPORT.

THE town of Stockport is to be congratulated on the occurrence in its midst of an epidemic of enteric fever. We grieve deeply for the victims but acknowledge the necessity, for when a town allows itself to drift into such a quagmire of insanitation as is revealed in the report of Dr. Porter, the medical officer of health for Stockport, nothing short of human sacrifice is usually sufficient to rouse the authorities to the necessity of reform. We have here another instance of the happy way in which communities may live on amidst bad conditions until enteric fever or cholera, touchstones of sanitation, arrive to show the rottenness of their fools' paradise of dirt. The ill-ventilated sewers lying on steep gradients and terminating by dead ends, the back-to-back houses, the privy pits, the unconnected house drains, the sewage-soaked soil—these are no new things, they are the result of years of apathy and indifference on the part of the people at large, and especially of those committees of their corporation whose duty it is to control the erection of buildings in the district. It is unfortunately true of many towns, that the sanitary committee has to slave away year after year, making good the defects caused by some other committee, over which it has no control, in allowing the erection of insanitary buildings and abominable drains. It is a matter of considerable interest that Dr. Porter has been able to show the special incidence of the disease in two elevated districts, each of which corresponds with the highest points of several main sewers. The gradients of these sewers are in some cases extreme, the following being taken as examples: 1 in 9, 1 in 20, 1 in 25, etc.; and it seems probable that, in the absence of engineering precautions to the contrary, these sewers are acting as main ventilators to the drainage system of the town. But clearly the general habits of the population are at fault when people, through their elected Town Council, are willing to put up with the existence in their midst of vast, ill-constructed, leaky, soil-polluting privies, used in common by large numbers, and even, when new houses are erected with closets, take no steps to prevent their being inhabited until their drains are connected with the sewers, it is not to be expected that any high standard of sanitation can be attained. The people themselves must be converted, and this requires much preaching; a prophet, we would hope, they now have in their medical officer of health, but clearly they will not be converted without a sacrifice. They may be congratulated on it so far being so small; many towns have suffered more for smaller sins.

CANCER CURES AGAIN.

THE readers of newspapers at this time of year have to remember that it is the season for big gooseberries, the great sea serpent, and other "fearful wild fowl." It is, indeed, much to be wished that writers would keep to topics so innocent. The world, however, has long been satiated with things of that sort; what it likes is something new, and especially something pathological. Fortunately for the penny-a-liner, the public memory is not long, and by dint of a few old numbers of the medical papers, their craving for novelty can be satisfied; witness the paragraphs now going the round, clipped, copied, and enlarged upon, regarding the "new" treatment of cancer by our old friend the streptococcus of erysipelas. There can be no question as to the beneficent effect of an attack of erysipelas in lupus, and occasionally in malignant growths, though whether the improvement which follows is ever worthy to be called a "cure," may well be doubted. The difficulty is to administer a dose of erysipelas—if we may be allowed the expression—that will set up sufficient reaction in the growth without damaging the patient. Even if a method of inoculating erysipelas in a mild form, by injecting the toxic products of the streptococcus, has recently been discovered, it still remains to be proved that the results are sufficiently good to warrant its inclusion in our therapeutic arsenal.

THE SEMMELWEISS MEMORIAL.

AT the meeting of the Council of the British Medical Association, held in the College of Medicine, Newcastle-on-Tyne, on August 1st, on the question of a subscription to the proposed memorial to Semmelweiss, a resolution was passed to the effect that the Council have not the power to subscribe the funds of the Association for the purpose. While regretting that their hands are thus tied in the matter, however, the Council wish it to be understood that they have every sympathy with the object for which a subscription was asked. Members may be reminded that an influential Committee was formed some time ago for the promotion of the project of a memorial to Semmelweiss, who was certainly one of the greatest benefactors of humanity that ever lived, and who on that account has a better claim to such commemoration than most of the men in whose honour statues are set up. The sum so far collected for the purpose is far from being sufficient, and it is to be hoped that the profession, both in this country and abroad, will respond generously to the appeals that have been made. The Honorary Secretary of the fund in England is Dr. Robert Boxall, 29, Weymouth Street, W.

DOCTORED FOOD.

NOBODY is likely to be one penny the worse for the occasional ingestion of a little boracic acid; even salicylic acid in small quantity may be taken unperceived by most people. But daily dosing with these drugs is another matter; and when we find that not only salicylic acid is used as a preservative of various articles of diet which are commonly bought in the shops, such as preserves, canned vegetables, cider, and other drinks, but that its fame has reached the ears of the careful housewife, so that now even "home-made" things are doctored with it, we think it time to enter our strongest protest against its use. It is a distinct adulteration, an addition of a substance entirely foreign to the article, and a substance the continued use of which is definitely injurious. Moreover, it is quite unnecessary. Properly-cooked preserves will keep without it; all it does is to save imperfectly prepared things from going bad. When, then, our ears buzz and our foreheads throb after eating the good things our clever hostess sets before us, we have the additional pleasure of knowing that the fruits which seemed so nice were only "seconds," and that but for the poison they were dosed with would long ago have been upon the dung-hill. The rough test is fairly simple. Add a little solution of perchloride of iron to the suspected substance; if the acid be present the mixture will develop a deep violet-red colour. Sugar, salt, heat, and possibly alcohol, are the only permissible preservatives for ordinary articles of diet; things which they will not keep are better not preserved.

THE REGISTRATION OF MIDWIVES.

The text of the report of the Select Committee on Midwives Registration, the gist of which was published in the last number of the British Medical Journal, is now before us. The Committee sat four times, and took the evidence of distinguished medical men and women in various spheres of practice both in town and country, and of trained and experienced midwives from various districts. The Committee express the opinion that a large number of maternal and, particularly, infant deaths, as well as a serious amount of suffering and permanent injury to women and children, is caused by the inefficiency and want of skill of many of the women who now practise as midwives without proper training and qualification. Among the poor and working classes, both in the country and in the town, the services of properly trained midwives have been eminently successful, and of great advantage to the community. The Committee consider that the evidence given before them proves that the services of midwives are a necessity, and consequently that every precaution should be taken to discourage the practice of women who are ignorant and unqualified. The Committee think that no woman should be allowed to call herself, or to practise as, a midwife, except under suitable regulations, but that the term "Registered Midwife" should be protected and restricted to those who have been properly trained, and who alone should be placed on the Midwives' Register. The vested interests of untrained midwives should be efficiently protected by inserting in any future Bill a clause to the effect that any woman who produces evidence that she is in practice as a *bonâ fide* midwife at the time of the passing of the Act, shall, without a formal registration, be allowed to continue her calling under the term "midwife" alone, but shall not be permitted to assume any other title whatever.

The Committee recommend that a system of examination and registration of midwives be established, and that for the purpose of admission and examination of women desiring to act as midwives the General Medical Council be invited to frame rules for regulating: (1) the admission to the register either by (*a*) practice or (*b*) examination, or by both; (2) the conditions of admission to such examinations; and (3) the conditions of such examinations. These rules should, in the opinion of the Committee, be subject to confirmation by the Privy Council, and, in the event of the General Medical Council failing to make such rules as the Privy Council can confirm, it is recommended that the Privy Council invite some other medical body, or forthwith cause the rules and regulations proposed to be framed for the purposes required, such rules to take effect as if they had been made by the General Medical Council and confirmed by the Privy Council. The Committee further recommend that the duty of carrying out locally the provisions of the Act that will be required should be placed in the hands of the county councils. They also express the opinion that greater facilities for the study of midwifery should be provided in the workhouses and lying-in hospitals. The report concludes with the following words:

"In conclusion, your Committee desire to refer to the apprehension expressed by certain witnesses belonging to the medical profession, lest their interests might be injuriously affected by an improvement in the status of midwives. The greater preponderance, however, of medical and other evidence, having regard to both the authority and number of witnesses, was to a contrary effect. Your Committee, therefore, whilst giving due consideration to the expression of such fears, believe that the suggested injury is not likely to prove serious, and they are of opinion that medical men will not only be relieved of much irksome and ill-paid work, but also that improved knowledge on the part of midwives will induce them to avail themselves more frequently, and at an earlier stage than at present, of skilled medical assistance in time of emergency and danger. On this point your Committee had full and substantial evidence."

The Professorial College of the Medical Faculty of Vienna have recommended Professor Anton Weichselbaum *primo et unico loco* for the chair of pathology vacant by the death of Professor Kundrat.

EXCURSIONS FROM NEWCASTLE-ON-TYNE.

As usual, the excursions constituted one of the most delightful features of the annual meeting. Although the Clerk of the Weather was not in his most gracious mood, the arrangements were perfect, and everything else combined to make the days given up to these little trips *albo notandæ lapillo* in the calendar of memory. There was something to please every variety of taste: archæology, illustrated by magnificent ancient instances, for those who like to take their pleasure in that way; the triumphs of mechanical invention for those more interested in modern progress; priceless art collections; and delightful scenery, and the heartiest and most generous hospitality for all.

Tynemouth.—The first of the series of excursions took place on August 3rd, the place visited being Tynemouth, once described by Judge Digby Seymour as "the Brighton of the North." The visitors were received at the Aquarium by the Mayor (Alderman J. F. Spence), who wore his official chain of office, and the Town Clerk (Mr. H. A. Adamson). The interior of the hall had been elaborately decorated for the occasion, and an excellent repast was awaiting the guests, who numbered about five hundred. The chair was occupied by the Mayor of Tynemouth, who was supported on the right by Dr. Long Fox, of Bristol, the President-Elect of the British Medical Association; and on the left by his Honour, Judge Digby Seymour, Q.C. Among the places visited were the beautiful and interesting relics of the Priory Church. The Castle, the remains of which are very inconsiderable, also attracted attention. The Tynemouth Volunteer Life Brigade House on the Spanish Battery was also visited.

Wynyard Park.—On Saturday an excursion was made to Wynyard Park, by invitation of the Marquis of Londonderry, the most recently elected honorary member of the British Medical Association. The tickets were limited to a hundred. A special train was provided for the journey. The visitors were welcomed by the Marquis of Londonderry, Lord Castlereagh, Lord Reginald Vane-Tempest Stewart, and Lady Helen Vane-Tempest Stewart. Lord Londonderry himself conducted his guests over his magnificent home, showed them the beautiful suites of rooms and the collection of art treasures. Luncheon was served soon after 1 o'clock. After the health of "The Queen" had been drunk, Lord Londonderry proposed the toast of "The British Medical Association," coupling with it the name of the President, Professor Philipson. He said he could not refrain from expressing his appreciation—which was shared by every one within what he might describe as the radius of Newcastle—of the fact that the British Medical Association this year had selected the northern metropolis for its place of meeting. To entertain a section of the Association was to him a matter of the greatest pleasure. Professor Philipson, in reply, said he had the honour, on behalf of the British Medical Association, to return to Lord Londonderry the sincere thanks of the members of that body who were there at his lordship's private invitation—to return him their thanks for that indication of his kind feeling to the Association, and for his interest in medical science, shown by the fact that he had followed their proceedings daily. Professor Philipson then proposed "The Health of Lord Londonderry," and repeated his acknowledgment, on behalf of the Association, of the kind way in which they had been received. Their visit to Wynyard Park would be long remembered by them as one of the most pleasurable incidents in the sixty-first annual meeting of the British Medical Association at Newcastle-upon-Tyne. After luncheon, Lord Londonderry accompanied his guests to the gardens and to the stables, where, with justifiable pride, he displayed his fine stock of stud mares, foals, and yearlings. Returning to the Hall, kindly words of farewell were spoken; and the visitors reached Newcastle again at half-past six o'clock, well pleased with the day's outing.

Warkworth and Alnwick.—The party—numbering about two hundred—visiting Warkworth started under the guidance of Professor Arnison, chairman of the Excursion Committee, and Dr. G. W. Ridley, hon. secretary. At Warkworth Dr. Robson, of Alnwick (in the unavoidable absence of Dr. Main, his fellow conductor) took up the charge, which was performed by him—as by all others—most efficiently. The Rev. Canon Dixon explained the antiquities of Wark-

worth and neighbourhood to the excursionists. The Hermitage was shown and described by Mr. C. F. Hodgson. On arrival at Alnwick the party were conducted through the magnificent vineries by Mr. Harris, the head gardener to the Castle, where the party were met by Earl Percy, who was supported by Mr. E. G. Wheeler (Commissioner) and Mr. Humphry Willyams (the Constable of the Castle). A sumptuous luncheon was provided in the Guest Hall, to which ample justice was done by the large party. Earl Percy, in the name of his Grace the Duke of Northumberland, gave a hearty welcome to the visitors, and hoped they would enjoy their visit. Dr. Ward Cousins, on the part of the visitors, thanked his Grace and Earl Percy for the hearty reception accorded. Mr. John Brown then conducted the party round the exterior of the Castle, and afterwards showed the interior—from the drawing rooms to the wonderful kitchens. They then drove to the Hulne Park. On arrival at the ruins of the Hulne Abbey, still beautiful in their decay for anyone with taste, a refreshing tea was ready. After tea a hearty vote of thanks was accorded to the gentlemen who had guided the party—namely, Dr. Arnison, Dr. G. W. Ridley, and Dr. Robson, including the veteran antiquarian of the Castle, Mr. Brown, and the party then wandered about the Abbey, which is interesting as the first Carmelite monastery in England. The party then drove into town, first visiting the beautiful church of St. Michael's, the history and monuments of which were lucidly explained by the vicar, the Rev. W. H. Connor.

Rothbury and Cragside.—About a hundred members visited Rothbury and Cragside. Mr. F. Barrow, the Local Secretary, Dr. Jack, and Mr. D. D. Dixon met the party at the station, and under their direction a start was made for the Rectory (Whitton Tower), which lies snugly sheltered above the western bank of the Coquet. Lord Armstrong had, with characteristic kindness, provided a number of conveyances, so that many of those present drove to the different places visited. On reaching the Rectory the visitors were received by the Rev. A. O. Medd, the genial and popular rector. Here Mr. Dixon read an interesting paper, bearing on the historic and antiquarian associations of the Tower. Afterwards the party broke up into two sections, the gentlemen examining the Tower, with its beautiful garden and grounds externally, while the ladies inspected the internal arrangements of the building. Mr. Medd courteously explained the various objects of interest which gather in and about his historic and unique residence. On reassembling the party descended into the valley, with a view to visit the ancient parish church. In the plain, but pretty, chancel were introduced to the visitors' notice the well-preserved Norman arches and lovely stained windows. Two pre-Reformation bells were exhibited, and their history and that of the baptismal font, constructed partly out of a Saxon stone cross, was given. From the church the company adjourned to the Jubilee Hall, where they were entertained at luncheon by Lord Armstrong. Before leaving, the visitors, on the motion of Dr. Broadbent, passed a resolution thanking Lord Armstrong for the kindness and hospitality shown towards them during the day. Subsequently, at the invitation of the noble owner, Cragside, the residence of Lord and Lady Armstrong, was visited. After examining the splendid collection of oil paintings, water colours, and engravings, and various other works of art in the entrance hall, along the staircase, and gallery, the party were received in the drawing room by Lord Armstrong. He invited his visitors into his laboratory, where he demonstrated a most interesting experiment in the production of the electric spark, which simultaneously flashed in green and white across the surface of some glazed paper attached to the apparatus. The rustic beauties of Thrum Mill were noted, these details being followed by tea, which was kindly provided by Drs. Barrow and Jack, at the Jubilee Hall. At the conclusion, Dr. Barrow, Dr. Jack, and Mr. Dixon were all heartily thanked for the part they had taken in the day's proceedings, Dr. Gowans, of South Shields, proposing the resolution in a very felicitous speech. Newcastle was reached about half-past eight. The visitors expressed themselves highly pleased with all they had seen, and with the manner in which they had been entertained.

The Chesters.—A party, numbering about thirty, visited the famous Roman Camp of Borcovicus, where lunch was served. The company afterwards drove to The Chesters, the residence of Mr. N. G. Clayton, and inspected the remains of the Roman occupation of Britain. These beautifully-preserved relics were viewed with the keenest interest. At the Antiquity House Mr. Clayton received the party, who on arrival at the estate became his guests. After a careful inspection of the relics the guests were entertained at dinner at the George Inn, Chollerford, by Mr. Clayton. In replying to the toast of his health, Mr. Clayton said it was most gratifying to him to entertain any learned party on a visit to the Roman remains in that neighbourhood. Shortly after 7 o'clock the party left for Newcastle. The heartiest thanks are due to the guides, the energetic secretary of the Newcastle Society of Antiquaries, Mr. Robert Blair, and Mr. T. J. Armstrong, as well as to Dr. Hoffman for his services as organiser.

Several short excursions were made on Friday (August 4th) after the last general meeting.

Saltburn.—One party proceeded to Saltburn-by-the-Sea by special train. On arrival the brine baths were visited, and opportunity was afforded to see the general position and laying out of Saltburn itself. Subsequently the party was entertained at dinner at the Zetland Hotel, covers being laid for 140 guests. The toast of "The British Medical Association" was given by Mr. Arthur Pease; and Dr. Stainthorpe gave some account of the advantages of Saltburn. He stated that the water supply was excellent, and the sanitary arrangements admirable. The death-rate in the last ten years had averaged a fraction over 10 per mille, and the zymotic death-rate was under 1 per mille. The toast was acknowledged by Dr. Brown. Mr. William Whitwell, in proposing a toast to Saltburn as a health resort and place of residence, observed that the estate owners had shown a wise liberality. Dr. Bell and Dr. Sidney Davies also replied; and the visitors subsequently witnessed an illumination of the pleasure gardens.

South Shields.—A party of about 150 visited South Shields at the invitation of the Mayor, by whom they were entertained at luncheon. The toast of "The British Medical Association" was proposed by the Mayor, who said that South Shields was the most rapidly-increasing town in the district; in fact, its rate of increase during the last decade (40 per cent.) was the second largest of any town in the kingdom. In that time fine municipal offices had been erected, and the Marine Parks had been laid out near the seashore. He acknowledged the assistance which municipal authorities had received from the medical profession, and said that in South Shields great attention had been given to the carrying out of sanitary improvements. By acting on the advice of a succession of able medical officers of health the death-rate had been reduced, and the sewage had been so disposed of that the excellent sea-bathing was not in any way contaminated. The toast was acknowledged by Sir W. Moore. A vote of thanks to the Mayor, proposed by Dr. Berry Hart, seconded by Dr. Arnison, was carried by acclamation. The party then visited the pier, and witnessed an exhibition by the South Shields Volunteer Life Brigade of their mode of saving life. The North and South Shields lifeboats also were launched and manned. Subsequently the party divided, some visiting the Roman Camp and others proceeding by special train to Marsden.

Elswick.—A large party visited the great Elswick Works of Messrs. Armstrong, Mitchell, and Co. The visitors were received by the directors, and taken over the works in parties of ten.

ERRATUM.—In the report of the annual dinner published in the BRITISH MEDICAL JOURNAL of August 12th, Dr. E. Fairfax Ross was erroneously described as a representative of Canada instead of New South Wales.

SCIENTIFIC MISSIONS.—Dr. Charles Debierre, professor in the Medical Faculty of Lille, has been commissioned by the French Government to examine the anatomical and anthropological collections of Italy, and make craniological and craniometric researches there.—Dr. Gabriel Maurange has been commissioned to study the progress of surgery in Germany, and to make researches on surgical tuberculosis.—Dr. Mangenot, of Paris, has been commissioned to study the schools of Rome from the hygienic point of view.

SUCCESSFUL VACCINATION.—Mr. W. Drinkwater has received an award of £14 2s. from the Local Government Board for public vaccination in the Bicester District of Bicester Union.

THE CHOLERA.

Grimsby.—The alarmist statement as to a death from genuine cholera at Grimsby has been denied by the Chairman of the Sanitary Committee. The only foundation for the serious announcement seems to have been a fatal case of summer diarrhœa of a somewhat severe type.

Austria-Hungary.—The state of public health in districts not far removed from the Austrian Empire is causing great uneasiness to the Supreme Sanitary Council. The cholera is raging in Podolia and other Russian provinces; it has got a firm hold in Roumania at Braila, Czernawoda, and other places; and the intercourse with Italy, and with France through Italy, seriously threatens Austria, looking to the facts respecting the disease in those countries. Austrian local authorities have therefore been enjoined to use every means to prevent the importation and spread of cholera. In her own borders Austria was attacked last week in Raho, in Hungary, with 2 cases; in Mikuliczyn, in Nadworna district, with 3 deaths; in Cilli, Styria; in Kolomea and Belzec, Galicia, the latter town close on the Russian frontier. On August 15th, 2 cases of cholera were reported from each of the parishes of Mikuliczyn, Delatyn, and Dobsotoff, and 1 from Tanoff. On August 10th there was 1 case at Tinlukoff in the district of Sniatyn, and 3 fresh cases, with 1 death, occurred in the same place on the 14th. In the Hungarian town of Marmaros, whence a railway is being constructed to the Galician frontier, cholera has broken out among the navvies, and up to August 14th 35 deaths had occurred, causing a stampede among the thousands of workmen, many of whom precipitately left the line and fled homeward. Hundreds of the men have passed through Pesth, a large number being Italians, and have been disinfected *en route*, and fed and provided with clean outfit.

Italy.—The Government received official intimation early last week of the occurrence of two cases of cholera in Rome, and towards the end of the week another suspected case was reported. In Naples nearly 50 deaths occurred in the week, and some cases have been notified in certain districts to the north of that city, and in several communes in the vicinity of Mount Vesuvius as far as Torre-Annunziata, whilst 2 suspicious attacks have occurred at Nola. In the commune of Barra the insanitary conditions are giving rise to serious apprehensions, the disease continuing to increase, whilst at Fossato, in the province of Campobasso, several cases have recently occurred, most being fatal.

Germany.—The official denial of last week of the presence of cholera in Berlin has been followed during the present week by a declaration that at least 3 cases of Asiatic cholera with 1 death have occurred in the capital. It appears that 3 Polish workpeople have been attacked in the east end of the city with what was looked upon as being diarrhœa, but bacteriological tests have demonstrated otherwise. The importation of the disease is attributed to immigrants from Russian Poland. Stringent measures of precaution are being adopted in Berlin. The extent of the Russian epidemic has led the Landrath of Eastern Prussia to issue orders under which persons may cross the frontier at two places only, and are there to be examined by a physician, suspicious maladies being treated by a six days' observation of the patients. Public opinion seems roused by the serious condition of affairs around.

The Netherlands.—For some days past cases of cholera have occurred in Holland, but are all classed as cholera nostras. In the province of Utrecht cases have been recorded at Lopik and Jaareveld, and a death has taken place at Neerbosch, in the province of Guelderland.

Roumania.—At Braila, last week, there occurred 87 cases of cholera, with 22 deaths; at Salina, 136 cases and 49 deaths; and cases and deaths were recorded at Czernawoda, Galatz, and Tultcha being also invaded. It is feared that the disease will spread inland by way of the Danube. An official announcement, date August 15th, states that 12 fresh cases with 6 deaths had occurred at Braila since the previous day, 14 cases and 12 deaths at Sulina, 9 cases at Czernawoda, and 11 at Galatz.

France.—The only two items of news from France are of cholera cases last week at Montpellier, and of 3 deaths suddenly from the disease in the neighbouring commune of Palavas.

In the East.—Smyrna feels very acutely the rigorous quarantines maintained against her, and which she holds to be unjustifiable. The cholera is declining, there being only some half-dozen cases daily, and last week only 9 deaths in all. The condition of affairs among the pilgrims returning from Medina is declared to be deplorable, the unfortunate people dying at Yambo of hunger and thirst, cholera and other diseases being rife. Early in the month about 7,000 pilgrims were unable to leave Yambo for want of shipping. The Egyptian Government have sent steamers provided with provisions.

Russia.—The returns for the first two weeks of this month continue to show heavy increase of cholera in Russia. In the first week we learn of the provinces as follows: Podolia, 390 cases, 136 deaths; Don, 106 cases, 40 deaths; Kursk, 69 cases, 27 deaths; Tula, 95 cases, 22 deaths; Kieff, 56 cases, 28 deaths; Saratoff, 24 cases, 2 deaths; Bessarabia, 17 cases, 8 deaths; City of Moscow, 121 cases, 43 deaths; town of Rostov, 75 cases, 35 deaths. In the second week: Podolia, 484 cases, 175 deaths; Orel, 327 cases, 110 deaths; Don, 354 cases, 147 deaths; Kieff, 290 cases, 91 deaths; Grodno, 110 cases, 27 deaths; Nijni Novgorod, 258 cases, 102 deaths; Kherson, 50 cases, 18 deaths; Yaroslar, 39 cases, 15 deaths; Samara, 31 cases, 8 deaths; Vladimiv, 23 cases, 5 deaths; Kazan, 39 cases, 13 deaths. Many other provinces are invaded in a minor form. The official returns give some 30 cases and 15 deaths daily in the city of Moscow, but other sources give 86 cases, 52 fatal, on Friday of last week, and last Sunday 47 cases, with 16 deaths on the following day, the prevalence being much more severe than that of last year.

New York.—Twenty cases of cholera have occurred on the ss. *Karamenia* from Naples, and, after many days of quarantine, the vessel has been allowed to dock. The string of occurrences on board demonstrates very forcibly the folly of enforced quarantine. The *Fulda*, from Genoa, has reached New York free from disease.

RETURN OF MECCA PILGRIMS: QUARANTINE AT TORR.

[From a Correspondent.]

The following are the returns from the Quarantine Station at Torr up to date of the latest detailed information received here:—Total number of pilgrims arrived at Torr up to July 29th, 20,224. Of these there arrived from Jedda 9,023, and from Yambo 11,201. These arrived in twenty-five steamers, eleven coming from Jedda and fourteen from Yambo. Total number of cases of cholera, 135; of these, Jedda arrivals furnished 124, and Yambo arrivals 11. Total deaths from cholera, 91. Number of Egyptians who have finished their quarantine and entered Egypt, 1,256. Number of foreign pilgrims who have left Torr to enter the Mediterranean, 4,480.

The latest report of the hospital at the station is dated July 28th. At that date 3 old cases only remained in the cholera hospital. No fresh case of cholera had occurred in the camp since July 21st, and only 2 or 3 on board the vessels in the roadstead. In the hospital for ordinary diseases there were 242 patients; of these, 123 were classed as suffering from diarrhœa, 45 from dysentery, and 33 from gastritis; or, of the 242 patients in hospital, 201 were suffering from gastro-intestinal complaints. In the present report no cases of fever are mentioned, and no mortality statistics are given.

In a former report of July 21st, of a total of 239 patients in the hospital for ordinary diseases at that date 115 were classed as suffering from diarrhœa, 31 from dysentery, 10 from gastric fever (?), and 51 vaguely from "fever." Differential diagnosis of "fever" under the circumstances would probably be difficult and therefore of little value, though it would be of interest if to be relied upon.

Notwithstanding the slight increase in the number of cases in the hospital for ordinary diseases at the later date the sanitary condition of the pilgrims now arriving is very much improved. The increase is owing to the fact that a number of cases landed from steamers which arrived in the early part of the season from Jedda still remain in hospital. Two Turk-

ish steamers alone, which were amongst the earlier arrivals from Jedda, furnished about 100 cases of gastro-intestinal disease and fevers.

The pilgrims who took the route *viâ* Medina and Yambo are arriving from the latter port in a very much better sanitary condition than those who embarked at Jedda, both as regards cholera attacks and ordinary diseases.

This corresponds with the experience of former epidemics, especially of 1890 and 1891, and as the bulk of those to arrive will come from Yambo the cholera epidemic may be regarded as nearly at an end. This superior sanitary condition of the Yambo arrivals on ordinary occasions is recognised by the Quarantine Board, and for this reason and because many of them are Egyptians, they are assigned a camping ground by themselves at a considerable distance from the Jedda pilgrims and intercommunication forbidden.

Some Egyptian pilgrims who have been interviewed since their return express themselves satisfied with everything provided for them at Torr, except the water, which they state was very salt and caused diarrhœa.

Specimens of the matter sent for analysis to the Khedivial Laboratory at Cairo at the commencement of the season gave rather unsatisfactory results. The water of three of the wells supplying the Jedda pilgrims, and two for the Yambo pilgrims, was classed as drinkable water; whilst for three other wells for Jedda and one for Yambo pilgrim arrivals the certificate stated that the quantity of oxygen absorbed by the water of these wells was too high for it to be considered fit for alimentation, and the water of one well contained so much saline matter and ammonia that it was unfit for use. The want of really good drinking water at Torr is a great drawback, but I am informed that the director of the station has been doing his best to shut up wells, the water of which has been found to have become salt, or otherwise bad.

A great drawback on account of the large pilgrimage this year is the want of a sufficient number of steamers to transport the pilgrims from Yambo as they arrive. The consequence is that at this date there are from 6,000 to 8,000 pilgrims crowded together waiting for transport, the town being in a very insanitary condition, and the water supply bad. Although it is hoped that the epidemic is over, it will not be surprising if a mild epidemic breaks out there, as a few cholera cases are still occurring, and from seven to eight deaths are occurring daily from ordinary diseases, classed by the sanitary agent as chiefly intermittent and pernicious fevers. What they really are it is difficult to say. It is to be remarked that not a single case of cholera has occurred at Torr amongst the sanitary staff, the nurses, guards, or military, nor in the village of Torr.

I think it is but right that I should correct a statement made in a late number of the BRITISH MEDICAL JOURNAL, that the Egyptian Government had suppressed the report on the cholera at Mecca sent by the sanitary agent. The *Progrès*, on whose authority you made the statement, is an irresponsible free lance journal, and the statement is incorrect. So little was the report suppressed that it was telegraphed to the *Times* within two days of being received, and soon after was published by the British Delegate at the Quarantine Board in the JOURNAL. The representative of every European Power was furnished with a copy as soon as received. The Egyptian Government simply abstained from publishing it in the *Journal Officiel*, so as not to produce a panic, for Egypt now, thanks to Europeans, has become the country of panics.

The same newspaper—the *Progrès*—states that the Turk must be obliged to put Mecca in a perfect sanitary condition to prevent these frequent outbreaks of cholera, and that it can be done in a short time and at moderate expense. He is a courageous and irresponsible journalist, certainly, who can make such a statement.

It will take more than a short time, and more than a moderate expense, to put Mecca in such a condition that cholera will not break out if 100,000 pilgrims cholera infected, from India and elsewhere, are thrown into it in a few weeks' time—dirty and filthy—to undergo hardships and sacrifice sheep in the Valley of Moona, under the scorching heat of a midsummer sun.

Until this Utopia of the perfect sanitation of Mecca, and necessarily also the perfect sanitation of the pilgrims, can be obtained, can nothing be done to prevent the importation of cholera from abroad into Mecca? What do our Indian authorities do to prevent their pilgrims to Mecca bringing cholera with them? In 1890, 1891, and 1893 cholera-infected pilgrims have been brought into the Red Sea for Mecca by ships from Bombay.

Old Indian mystifications about cholera must be given up, and the transmissibility of the disease be looked at in the light of recent European research, and means taken to prevent its introduction; until that millennium arrives when there is no more soil on which it will take root and propagate.

MEDICAL DEFENCE UNION, LIMITED.

A COUNCIL meeeting was held at the rooms of the British Medical Association, 429, Strand, London, W.C., on Wednesday, August 9th, at 4 P.M., Mr. VICTOR HORSLEY in the chair. Thirty-seven fresh applications for membership were accepted, one was rejected, and one deferred. The following resolution was adopted:—"That it be a standing order that where any member of the Executive makes application to the Union for assistance, such member shall during the discussion of the matter by the Council retire from the Council chamber, and that he shall abstain from voting thereon." The SECRETARY reported that the apology demanded on behalf of a member had been forthcoming. Various matters of minor interest were considered and dealt with.

LITERARY INTELLIGENCE.

DR. JOHN B. HAMILTON has been elected Editor of the *American Medical Journal*, in the place of Dr. J. C. Culbertson, who has resumed the editorship of the Cincinnati *Lancet-Clinic*.

Professor Unverricht, of Magdeburg, has succeeded Professor A. Fraenkel, of Berlin, in the editorship of the *Centralblatt für klinische Medicin*.

Dr. Enrique Navarro, of the Spanish navy, has had the Cross of Naval Merit, First Class, conferred on him by Royal decree for his work entitled *Elementos de Medicina Legal, Naval y Militar* (Elements of Naval and Military Medical Jurisprudence).

The Proceedings of the Congress of Internal Medicine held at Wiesbaden at Eastertide in the present year, and those of the Association of Internal Medicine (Berlin, 1892-93), have just appeared. The former publication is issued by J. F. Bergmann, of Wiesbaden.

The well-known work by the late Dr. Norman Chevers, entitled *Medical Jurisprudence in India*, is to be re-edited by his son, who, in undertaking this task of filial respect, is, we believe, obeying the wish of his father.

The A. B. C. Holiday Guide (Boot, Son, and Carpenter, 24, Old Bailey, E.C.), now in its third year of publication, has already established itself in public favour as a trustworthy source of information valuable to all who may be contemplating a holiday. The contents are of a thoroughly business-like character, what may be called the guide book element being reduced to its simplest expression, while prominence is given to the matters vital to the personal comfort of the holiday maker. The intending tourist is not only told how he may get to a particular place, but where and on what terms he may obtain lodgings, what he will have to pay for drives, sails, etc. In short, the *A. B. C.* entirely carries out the promise of its title page, which many guide books of much greater pretensions signally fail to do.

The reports of the annual meeting at Newcastle which appeared from day to day in the columns of the *Newcastle Daily Chronicle* have been reprinted in a quarto volume of 136 pages in double column, and published by Walter Scott, Ltd., Newcastle and London, price 2s., bound. The volume is printed from bars produced by the Linotype composing machines at present at work in the *Newcastle Chronicle* office. A portrait of the President, Professor Philipson, forms a frontispiece, and in the text are numerous portraits of other officers of the meeting, and sketches of public medical institutions in Newcastle. In addition to reports of the general meetings and brief outlines of the proceedings of the sections, the volume contains articles on the origin and

progress of the Association, on the meeting at Newcastle in 1870, a history of the University of Durham College of Medicine in Newcastle, notes on the medical curriculum of the University, a description of the College buildings, and of the local hospitals and infirmaries. The volume forms an interesting memento of the 61st annual meeting.

SMALL-POX IN GREAT BRITAIN.

The small-pox admissions to hospital in London last week did not much exceed 20, whilst the number of patients remaining under treatment on Saturday were only 221, a still further decrease on previous totals. The deaths were 2. In West Ham only a couple of fresh attacks were recorded, but northward there were numerous occurrences in the Edmonton Union, more especially at Tottenham. In the Midlands, the centres last week were Birmingham and Leicester, with some half dozen cases between them; Bradford, with nearly a score of attacks, and Wakefield being the Yorkshire towns chiefly implicated: in the north Tynemouth again had multiple cases; and in Lancashire, Salford had 5 cases and 3 deaths, Manchester a single attack and one death, and Oldham and Stalybridge a couple of cases each. The decrease in the Manchester epidemic is plainly shown in Dr. Tatham's report for the second quarter of this year, wherein 89 attacks occurred in April, 102 in May, and 34 only in June, a total of 215, against 385 in the first quarter of the year, whilst the fresh weekly occurrences during July and the present month have been quite insignificant in number.

ASSOCIATION INTELLIGENCE.

PROCEEDINGS OF THE COUNCIL.

At a meeting of the Council, held in the Council Chamber, College of Medicine, Newcastle-on-Tyne, on Tuesday, August 1st, 1893:—

Present:

Dr. W. Withers Moore, President of the Council, in the chair.

Mr. Joseph White, President.

Dr. G. H. Philipson, President-elect.

Mr. Henry T. Butlin, Treasurer.

Dr. Henry Barnes, Carlisle.
Dr. T. Bridgwater, LL.D., Harrow-on-the Hill.
Mr. Andrew Clark, London.
Surgeon-General W. R. Cornish, London.
Dr. J. Ward Cousins, Portsmouth.
Dr. H. Radcliffe Crocker, London.
Dr. J. Cuming, Belfast.
Dr. A. Dempsey, Belfast.
Mr. George Eastes, M.B., London.
Professor W. T. Gairdner, F.R.S., Glasgow.
Dr. J. H. Galton, Upper Norwood.
Dr. Bruce Goff, Bothwell.
Dr. O. Grant, Inverness.
Mr. T. R. Jessop, Leeds.
Mr. Evan Jones, Aberdare.
Dr. F. Meyer, Melbourne.
Sir W. Moore, K.C.I.E., London.
Mr. R. H. B. Nicholson, Hull.
Mr. C. H. W. Parkinson, Wimborne Minster.
Dr. C. Parsons, Dover.
Dr. W. Russell, Edinburgh.
Dr. R. Saundby, Birmingham.
Dr. E. Markham Skerritt, Clifton.
Mr. Noble Smith, London.
Mr. J. Taylor, Chester.
Dr. A. R. Urquhart, Perth.
Dr. W. F. Wade, Birmingham.
Mr. G. E. Williamson, Newcastle-on-Tyne.

The minutes of the last Council meeting having been printed and circulated, and no objection taken to them, were signed as correct.

Read letters of apology for inability to attend from Mr. Wheelhouse, Dr. Bristowe, Dr. Roberts Thomson, Dr. Langdon Down, Dr. Bateman, Dr. J. Mackenzie Booth, Mr. Jordan Lloyd, Dr. Glascott, Mr. Hemming, and Dr. Grimshaw.

Read letter from Committee on the Mental and Physical Condition of Children.

Resolved: "That £50 be paid for the work of the current year, and that £100 be granted to the Committee for their work in 1893-94," on the same terms as hitherto.

Read letter from Dr. Douglas in reference to notice of motion as to payment of expenses of the Parliamentary Bills Committee.

Resolved: "That the President be instructed to allow Dr. Douglas's proposition to be placed before the general meeting."

Read letter and requisition, signed by twenty members of the British Medical Association, from Grahamstown, South Africa, asking to be recognised as a Branch.

Resolved: "That the application of the Grahamstown Branch be acceded to."

Read letter from Sir Spencer Wells asking the Association to subscribe to the Semmelweiss Memorial.

Resolved: "That Sir Spencer Wells be informed that the Council have not the power to subscribe the funds of the Association for the purpose, but that a notice be inserted in the Journal asking for subscriptions."

Read letter from the Perthshire Branch, enclosing resolution requesting that a separate Branch be recognised for Forfarshire.

Resolved: "That a separate branch for Forfarshire be recognised as 'The Dundee and District Branch.'"

Resolved: "That the 82 candidates whose names appear on the circular convening the meeting, together with the 8 candidates on the supplementary list, be, and they are hereby elected members of the Association, subject to confirmation at the October meeting of Council."

Read report of the Subcommittee of the Journal and Finance Committee on the Expenditure of Scientific Grants and Report of Scientific Grants Subcommittee.

Resolved: "That £800 be voted by this Council to the Scientific Grants Committee, of which sum £450 shall be devoted to the establishment of Three Scholarships of £150 each, and the remaining £350 to grants in aid of research, in such sums as the Scientific Grants Committee shall determine."

Resolved: "That while the Scientific Grants Committee shall, as at present, not be restricted to members of the Council, the outside members of the Committee shall not exceed one-third of the whole number, the Chairman of the Committee being always a member of Council."

Read Memorial on Voice Training.

Resolved: "That the Memorial be received and adopted."

Resolved: "That a copy of the Memorial be also sent to the Vice-President of the Council on Education."

Resolved: "That an address of congratulation be presented to Her Majesty the Queen on the marriage of their Royal Highnesses the Duke and Duchess of York."

Read the proposed address, which was adopted by acclamation, and ordered to be presented to the General Meeting of to-day.

At a meeting of the Council held in the Council Chamber of the College of Medicine, Newcastle-upon-Tyne, on Wednesday, August 2nd, 1893:—

Present:

Dr. W. Withers Moore, President of Council, in the chair, afterwards Dr. J. Ward Cousins.

Dr. G. H. Philipson, President.

Mr. H. T. Butlin, Treasurer.

Dr. T. Bridgwater, LL.D., Harrow-on-the-Hill.
Dr. J. W. Byers, Belfast.
Dr. J. S. Cameron, Leeds.
Mr. Andrew Clark, London.
Surgeon-General W. R. Cornish, London.
Dr. H. R. Crocker, London.
Dr. J. Cuming, Belfast.
Dr. A. Dempsey, Belfast.
Mr. G. Eastes, M.B., London.
Professor W. T. Gairdner, F.R.S., Glasgow.
Dr. J. H. Galton, Upper Norwood.
Dr. B. Goff, Bothwell.
Dr. W. Gordon, Exeter.
Dr. O. Grant, Inverness.
Dr. H. Handford, Nottingham.
Mr. T. R. Jessop, Leeds.
Mr. Evan Jones, Aberdare.
Sir William Moore, K.C.I.E., London.
Mr. R. H. B. Nicholson, Hull.
Mr. C. H. W. Parkinson, Wimborne.
Mr. C. Parsons, Dover.
Dr. W. Russell, Edinburgh.
Dr. R. Saundby, Birmingham.
Dr. E. Markham Skerritt, Clifton.
Mr. Noble Smith, London.
Dr. R. Somerville, Galashiels.
Mr. J. Taylor, Chester.
Mr. T. J. Verrall, Brighton.
Dr. W. F. Wade, Birmingham.
Mr. Joseph White, Nottingham.
Mr. G. E. Williamson, Newcastle-on-Tyne.

Dr. R. Somerville (representative of the Border Counties Branch), Dr. William Gordon (South-Western Branch), and Mr. T. J. Verrall (South-Eastern Branch), were introduced to the Council as new members.

Letters of apology were read from Mr. W. Thomson, Dr. W. A. Elliston, Mr. Wheelhouse, Dr. Trend, and Mr. Wallace.

The minutes of the Council meeting held Tuesday, August 1st, were read and confirmed.

Read letter from Dr. Leech, enclosing report of the Therapeutic Committee, and suggesting that two or three names should be added to the Committee.

Resolved: "That Dr. Ward Cousins be and he is hereby elected President of the Council for the ensuing three years."

Dr. WARD COUSINS having taken the chair, it was moved and

Resolved: "That the warmest thanks of the Association be given to Dr. Withers Moore for the able and courteous way in which he has performed the duties of President during the past three years, and for his attention to the interests of the Association."

Resolved: "That the candidates whose names are printed on page 42 of the Daily Journal be provisionally elected, subject to confirmation at the October meeting of Council."

Dr. MARKHAM SKERRITT introduced a deputation from Bristol, consisting of the following gentlemen:—Dr. Long Fox, Dr. Shingleton Smith, Dr. Aust-Lawrence, Dr. Griffiths, Dr. Godby Gibbs, Dr. Paul Bush, and Dr. Kelson Millard.

Dr. LONG FOX having addressed the Council, offering a cordial invitation to the Association to meet in Bristol next year.

Resolved: "That it be recommended to the annual meeting of to-day that the invitation to Bristol to hold the annual meeting there in 1894 be accepted with the warmest thanks, and that Dr. Long Fox be appointed President-elect."

Read list of attendances of Members of the Council for the past twelve months, as follows:—

LIST OF ATTENDANCES OF COUNCIL—SIX MEETINGS.

	Total Attendances.
Mr. Joseph White, F.R.C.S., D.C.L., Nottingham, President	6
Dr. G. H. Philipson, D.C.L., Newcastle-on-Tyne, President-elect	5
Dr. W. Withers Moore, D.C.L., Burgess Hill, President of Council	6
Mr. H. T. Butlin, D.C.L., London, Treasurer	6
Acland, Sir H. W., K.C.B., Oxford, Vice-President	0
Mr. Alfred Baker, Birmingham, Vice-President	0
Sir J. T. Banks, Dublin, Vice-President	0
Dr. Henry Barnes, Carlisle, R.	1
Dr. G. B. Barron, Southport, R.	4
Mr. B. Barrow, Ryde, Vice-President	1
Dr. F. Bateman, Whitchurch, R.	5
Dr. R. W. Batten, Gloucester, R.	3
Dr. M. Beverley, Norwich	1
Dr. J. Mackenzie Booth, Aberdeen, R.	0
Dr. T. Bridgwater, Harrow-on-the-Hill, Vice-President	3
Dr. J. S. Bristowe, London, R.	5
Dr. J. W. Byers, Belfast, R.	2
Dr. J. S. Cameron, Leeds, R.	3
Mr. Andrew Clark, London	6
Surgeon-General W. R. Cornish, London, R.	5
Dr. J. Ward Cousins, Portsmouth, R.	6
Dr. H. Radcliffe Crocker, London, R.	5
Dr. G. W. Crowe, Worcester, R.	3
Dr. J. Cuming, Belfast, Vice-President	2
Dr. A. Dempsey, Belfast, R.	2
Dr. P. M. Deas, Exeter, R.	2
Dr. E. H. Dickinson, Liverpool, R.	3
Mr. E. Donaldson, Londonderry, R.	0
Dr. J. Langdon H. Down, London, R.	4
Dr. D. Drummond, D.C.L., Newcastle-on-Tyne, R.	3
Mr. George Eastes, London, R.	5
Dr. W. T. Edwards, Cardiff, Vice-President	1
Dr. W. A. Elliston, Ipswich, R.	6
Sir B. W. Foster, D.C.L., M.P., Birmingham, Vice-President	4
Mr. R. S. Fowler, Bath, R.	2
Professor W. T. Gairdner, Glasgow, Vice-President	1
Dr. J. H. Galton, London, R.	6
Dr. C. E. Glascott, Manchester, R.	1
Dr. Bruce Goff, Bothwell, R.	6
Dr. Ogilvie Grant, Inverness, R.	2
Dr. T. W. Grimshaw, Carrickmines, R.	3
Dr. H. Handford, Nottingham, R.	5
Mr. John D. Harries, Shrewsbury, R.	3
Mr. J. H. Hemming, Kimbolton, R.	5
Mr. G. F. Hodgson, Brighton, R.	2
Dr. Holman, London, Vice-President	6
Professor Sir G. M. Humphry, Cambridge, Vice-President	0
Mr. T. Vincent Jackson, Wolverhampton, R.	3
Mr. T. R. Jessop, Leeds, R.	3
Mr. Evan Jones, Aberdare, R.	5
Dr. W. M. Kelly, Taunton, R.	0
Dr. D. J. Leech, Manchester, R.	4
Mr. Jordan Lloyd, Birmingham, R.	5
Mr. C. N. Macnamara, London, Vice-President	2
Sir W. Moore, K.C.I.E., London, R.	2
Mr. W. Jones Morris, Portmadoc, R.	2
Mr. R. H. B. Nicholson, Hull, R.	5
Mr. C. H. W. Parkinson, Wimborne Minster, R.	5
Dr. C. Parsons, Dover, R.	3
Dr. F. M. Pope, Leicester, R.	4
Dr. W. Russell, Edinburgh, R.	4
Dr. R. Saundby, Birmingham, R.	4
Dr. A. Sheen, Cardiff, R.	5
Dr. E. Markham Skerritt, Clifton, R.	4
Mr. Noble Smith, London, R.	6
Mr. Henry Stear, Saffron Walden, R.	6
Dr. J. Strachan, Dollar, R.	3
Mr. Lawson Tait, Birmingham, R.	2
Mr. J. Taylor, Chester, R.	2
Dr. J. R. Thomson, Bournemouth, Vice-President	5
Dr. L. H. Tosswill, Exeter, R.	1
Dr. T. W. Trend, Southampton, R.	4
Dr. A. R. Urquhart, Perth, R.	3
Dr. W. F. Wade, Birmingham, Vice-President	3
Mr. F. Wallace, London, R.	4
Dr. A. T. H. Waters, Liverpool, Vice-President	0
Mr. C. G. Wheelhouse, Filey, Vice-President	3
Mr. G. E. Williamson, Newcastle-on-Tyne, R.	4
Mr. Alfred Winkfield, Oxford, R.	2

* The letter R signifies Representative of a Branch.

The General Secretary reported that the following gentlemen had been elected representatives of the various Branches for the ensuing twelve months:

Aberdeen, Banff, and Kincardine Branch.—J. Mackenzie Booth, 367, Union Street, Aberdeen. *Adelaide and South Australia Branch.*—M. J. Symons, Dumfries. *Barbados Branch.*—(No return.) *Bath and Bristol Branch.*—R. S. Fowler, 6, Belmont, Bath; E. Markham Skerritt, Thornton House, Richmond Hill, Clifton, Bristol. *Bermuda Branch.*—(No return.) *Birmingham and Midland Counties Branch.*—Langley Browne, F.R.C.S., West Bromwich; Jordan Lloyd, F.R.C.S., 22, Broad Street, Birmingham; Robert Saundby, 83A, Edmund Street, Birmingham. *Bombay Branch.*—Sir William Moore, K.C.I.E., 15, Portland Place. *Border Counties Branch.*—R. Somerville, 12, Abbotsford Road, Galashiels. *British Guiana Branch.*—(No return.) *Burmah Branch.*—Surgeon-Major D. Sinclair, 8, Osborne Road, Clifton.—*Cambridge and Huntingdon Branch.*—Henry Stear, Saffron Walden, Essex. *Cape of Good Hope Branch.*—(No return.) *Colombo (Ceylon) Branch.*—(No return). *Dorset and West Hants Branch.*—C. H. W. Parkinson, Wimborne Minster. *Dublin Branch.*—William Thomson, 54, St. Stephen's Green, E. Dublin. *East Anglian Branch.*—M. Beverley, 54, Prince of Wales Road, Norwich; W. A. Elliston, Ipswich. *East York and North Lincoln Branch.*—R. H. B. Nicholson, 21, Albion Street, Hull. *Edinburgh Branch.*—William Russell, M.B., 46, Albany Street, Edinburgh. *Glasgow and West of Scotland Branch.*—Bruce Goff, The Lindens, Bothwell, Lanarkshire. *Gloucestershire Branch.*—R. W. Batten, 1, Brunswick Square, Gloucester. *Griqualand West Branch.*—(No return.) *Halifax (Nova Scotia) Branch.*—(No return.) *Hong Kong and China Branch.*—(No return.) *Jamaica Branch.*—Hon. C. B. Mosse, C.B., c.o. Sir C. R. McGrigor and Co., 25, Charles Street, St. James's, S.W. *Lancashire and Cheshire Branch.*—James Barr, 72, Rodney Street, Liverpool; G. B. Barron, Summerseat, Southport; E. H. Dickinson, 41, Rodney Street, Liverpool; C. E. Glascott, 23, St. John Street, Manchester; James Taylor, Newgate Street, Chester. *Leeward Islands Branch.*—(No return.) *Londonderry and North-West of Ireland Branch.*—E. Donaldson, 49, Great James Street, Londonderry. *Malta and Mediterranean Branch.*—(No return.) *Manitoba and West of Canada Branch.*—(No return.) *Melbourne and Victoria Branch.*—Felix Meyer, 10, Keppel Street, Russell Square, W.C. *Metropolitan Counties Branch.*—J. S. Bristowe, F.R.S., 13, Old Burlington Street, W.; Andrew Clarke, 71, Harley Street, W.; H. Radcliffe Crocker, 121, Harley Street, W.; George Eastes, M.B., 35, Gloucester Place, Hyde Park, W.; Noble Smith, 24, Queen Anne Street, W.; Frederick Wallace, Foulden Lodge, Upper Clapton, N.E. *Midland Branch.*—H. Handford, 14, Regent Street, Nottingham; F. M. Pope, 4, Prebend Street, Leicester. *Montreal Branch.*—(No return.) *North of England Branch.*—David Drummond, 7, Saville Place, Newcastle-on-Tyne; G. E. Williamson, F.R.C.S., 22, Eldon Square, Newcastle-on-Tyne. *North of Ireland Branch.*—J. W. Byers, Lower Crescent, Belfast; A. Dempsey, 26, Clifton Street, Belfast. *North Wales Branch.*—W. Jones Morris, Portmadoc. *Northen Counties of Scotland Branch.*—Ogilvie Grant, Queen Mary's House, Inverness. *Oxford and District Branch.*—Alfred Winkfield, 26, Beaumont Street, Oxford. *Perthshire Branch.*—A. R. Urquhart, James Murray's Royal Asylum, Perth. *Punjab Branch.*—(No return.) *Reading and Upper Thames Branch.*—F. Bateman, Whitchurch, Oxon. *Shropshire and Mid-Wales Branch.*—John Davies Harries, 5, Belmont, Shrewsbury. *South-Eastern Branch.*—J. H. Galton, Chunam, Sylvan Road, Upper Norwood, S.E.; C. Parsons, 2, St. James's Street, Dover; T. J. Verrall, 97, Montpelier Road, Brighton. *South Indian and Madras Branch.*—Surgeon-General W. R. Cornish, F.R.C.S., C.I.E., 8, Cresswell Gardens, S.W. *South-East of Ireland.*—J. Cooper Stawell, Bagnalstown, co. Carlow. *South of Ireland Branch.*—A. W. Sandford, 13, St. Patrick's Place, Cork. *South Midland Branch.*—J. H. Hemming, Kimbolton. *South Wales and Monmouthshire Branch.*—Evan Jones, Aberdare; A. Sheen, 23, Newport Road, Cardiff. *South-Western Branch.*—William Gordon, Exeter; John Rolston, Stoke, Devonport. *Southern Branch.*—J. Ward Cousins, Riversdale, Kent Road, Portsmouth; Theophilus W. Trend, 1, Grosvenor Square, Southampton. *Staffordshire Branch.*—T. Vincent Jackson, Waterloo Road South, Wolverhampton. *Stirling, Kinross, and Clackmannan Branch.*—John Strachan, Gladstone Terrace, Dollar, N.B. *Sydney and New South Wales Branch.*—(No return.) *Trinidad and Tobago Branch.*—(No return.) *Thames Valley Branch.*—J. Langdon H. Down, 81, Harley Street, W. *West of Ireland District.*—(No return.) *West Somerset Branch.*—W. L. Winterbotham, Bridgwater. *Worcestershire and Herefordshire Branch.*—G. W. Crowe, 42, Foregate Street, Worcester. *Yorkshire Branch.*—J. S. Cameron, 6, Ridge Mount, Cliff Road, Leeds; T. R. Jessop, Park Square, Leeds.

At a meeting of the Council held in the Council Chamber, College of Medicine, Newcastle-on-Tyne, on Thursday, August 4th, 1893:—

Present:

Dr. J. Ward Cousins, President of Council, in the chair.
Dr. G. H. Philipson, President.
Dr. E. Long Fox, President-elect.
Mr. H. T. Butlin, Treasurer.

Dr. T. Bridgwater, LL.D., Harrow-on-the-Hill.
Dr. J. W. Byers, Belfast.
Dr. J. S. Cameron, Leeds.
Mr. Andrew Clark, London.
Surgeon-General W. R. Cornish, London.
Mr. G. Eastes, M.B., London.
Sir B. Walter Foster, M.D., M.P., London.
Dr. J. H. Galton, Upper Norwood.
Dr. B. Goff, Bothwell.
Dr. O. Grant, Inverness.
Dr. H. Handford, Nottingham.
Mr. Evan Jones, Aberdare.
Dr. W. Withers Moore, Burgess Hill.
Sir Wm. Moore, K.C.I.E., London.
Mr. R. H. B. Nicholson, Hull.
Mr. C. H. W. Parkinson, Wimborne.
Dr. C. Parsons, Dover.
Dr. W. Russell, Edinburgh.
Dr. E. Markham Skerritt, Clifton.
Mr. Noble Smith, London.
Dr. R. Somerville, Galashiels.
Mr. J. Taylor, Chester.
Dr. A. R. Urquhart, Perth.
Mr. T. J. Verrall, Brighton.
Dr. W. F. Wade, Birmingham.
Mr. Joseph White, Nottingham.

The minutes of the last meeting were read and found correct.

The Treasurer reported upon the extended report of the Anæsthetic Committee, and suggested that there should be certain copies struck off at a cost not exceeding £20.

Resolved: That 1,000 copies of the Report of the Anæsthetic Committee shall be printed at a cost of about £20.

The appointment of the Journal and Finance Committee was then considered, and in accordance with the by-laws the members longest on the Committee—namely, Dr. Skerritt ang Dr. Trend—were taken off for the twelve months.

The General Secretary reported that Mr. Crosse was dead, Dr. Grimshaw not a member of the Council now, and Dr. Ward Cousins had been appointed President of the Council, Mr. Lawson Tait had resigned, and one had to be taken off for the year 1890 out of three that were left—Dr. Bridgwater, Dr. Holman, and Mr. Wheelhouse.

Mr. Wheelhouse having attended the fewest number of times in accordance with the altered by-law passed on Tuesday, August 1st, his name was taken off the list.

Read letter from Dr. Glascott asking that a member of the Lancashire and Cheshire Branch should be appointed on the Journal and Finance Committee.

There appeared to be seven vacancies. Twelve gentlemen were nominated. Dr. Wade and Mr. Noble Smith were appointed scrutineers. A ballot having been taken, the scrutineeers reported that Dr. Barr, Dr. Crocker, Dr. Ogilvie Grant, Mr. Jessop, Dr. Withers Moore, Mr. Nicholson, and Dr. Saundby had the greatest number of votes.

Resolved: That the following be appointed the Journal and Finance Committee:

The President, the President-Elect, Dr. Ward Cousins, President of Council, Mr. H. T. Butlin, Treasurer, *ex-officio*; Dr. T. Bridgwater, Dr. Barr, Dr. Bristowe, F.R.S., Dr. Crocker, Dr. Bruce Goff, Dr. Ogilvie Grant, Dr. C. Holman, Mr. Jessop, Dr. Withers Moore, Mr. Nicholson, Dr. C. Parsons, Dr. A. Sheen, Dr. Saundby, Dr. J. Roberts Thomson, and Dr. W. F. Wade.

The President (Dr. Philipson) presented a drawing of the Memorial to be presented to Her Majesty, and moved:

"That a stereotype should be inserted in the Journal, and also that a copy of this should be placed in the library of the Association."

Resolved: That the seal be attached to the Memorial by a ribbon.

Resolved: That the Parliamentary Bills Committee be reappointed with the omission of Dr. Glascott, at request.

The President, the President-elect, Dr. J. Ward Cousins, President of Council, Mr. H. T. Butlin, Treasurer, *ex-officio*; Dr. B. Anningson, Mr. S. H. Agar, Mr. D. B. Balding, Dr. H. Barnes, Mr. J. Wickham Barnes, Dr. Robert Barnes, Dr. G. B. Barron, Dr. A. G. Bateman, Dr. R. W. Batten, Dr. T. Bridgwater, Dr. J. W. Browne, Dr. J. S. Cameron, Dr. E. M. Cooke, Surgeon-General W. R. Cornish, Dr. G. W. Crowe, Mr. W. B. Davies, Dr. Walter Dickson, Dr. E. Donaldson, Dr. J. Langdon H. Down, Mr. George Eastes, Dr. R. Esler, Mr. T. M. Evans, Dr. J. Ferguson, Mr. E. H. Galton, Dr. Bruce Goff, Dr. W. Gordon, Dr. Ogilvie Grant, Dr. W. C. Grigg, Dr. T. W. Grimshaw, Dr. C. Gross, Dr. A. J. Harrison, Dr. C. Harrison, Mr. Ernest Hart, Dr. Stanley Haynes, Mr. W. R. Heath, Mr. J. H. Hemming, Dr. C. Holman, Dr. A. Emrys Jones, Dr. Robert Jones, Mr. Jones-Morris, Mr. Hugh R. Ker, Dr W. G. Lowe, Dr. D. MacAlister, Mr. N. C. Macnamara, Dr. A. R. Manby, Dr. W. J. Mickle, Dr. Withers Moore, Dr. D. Nicolson, Professor A. Ogston, Dr. H. O'Neill, Dr. William Ord, Mr. C. H. W. Parkinson, Dr. H. H. Phillips, Dr. G. Reid, Dr. R. R. Rentoul, Dr. James Ritchie, Mr. Walter Rivington, Mr. Noble Smith, Mr. W. D. Spanton, Dr. J. Strachan, Mr. C. T. Street, Dr. James Stuart, Dr. G. D. P. Thomas, Dr. T. W. Thursfield, Professor E. R. Townsend, M.D., Dr. A. R. Urquhart, Mr. F. Vacher, Mr. F. Wallace, Mr. G. E. Williamson, Mr. A. Winkfield, and Dr. W. L. Winterbotham.

Resolved: That the following be appointed the Scientific Grants Committee:—

The President, the President-elect, Dr. J. Ward Cousins, President of Council, Mr. H. T. Butlin, Treasurer, *ex-officio*:—Dr. Anderson, Dr. T. L. Brunton, Dr. Radcliffe Crocker, Dr. Handford, Dr. C. Holman, Professor V. Horsley, Sir Joseph Lister, Dr. Withers Moore, Mr. N. C. Macnamara, Dr. C. Parsons, Dr. Russell, Dr. R. Saundby, Professor E. A. Schäfer, and Dr. Sims Woodhead.

Resolved: That the Inebriates Committee, with the exception of Dr. Moore and Mr. Nicholson, who asked to have their names taken off list, be re-appointed as follows:—

The President, the President-elect, Dr. J. Ward Cousins, President of Council, Mr. H. T. Butlin, Treasurer, *ex-officio*: Dr. T. Bridgwater, Mr. D. B. Balding, Mr. R. W. Branthwaite, Sir C. Cameron, M.P., Dr. G. B. Clark, M.P., Dr. C. R. Drysdale, Mr. George Eastes, Dr. J. W. Eastwood, Dr. R. Farquharson, M.P., Professor W. T. Gairdner, Dr. W. C. Garman, Dr. J. Hill Gibson, Dr. Alexander Grant, Mr. F. J. Gray, Dr. C. J. Hare, Dr. A. A. Jamison, Mr. H. R. Ker, Dr. Norman Kerr, Surgeon-Major G. K. Poole, Brigade-Surgeon R. Pringle, Fleet-Surgeon G. Robertson, Dr. G. D. P. Thomas, Dr. E. H. Vinen, Dr. Wynn Westcott, Dr. H. W. Williams.

Resolved: That the Premises and Library Committee be re-appointed as follows, with the addition of the names of Dr. J. S. Cameron and Dr. Withers Moore:

The President, the President-elect, Dr. J. Ward Cousins, President of Council; Mr. H. T. Butlin, Treasurer, *ex-officio*; Dr. T. Bridgwater, Dr. J. S. Cameron, Dr. W. C. Grigg, Dr. C. Holman, Mr. N. C. Macnamara, Dr. W. Withers Moore, Mr. C. Wheelhouse, Mr. Ernest Hart, Hon. Librarian.

Resolved: That the Trust Funds Committee be re-appointed as follows, with the addition of Dr. Withers Moore.

The President, President-elect, Dr. J. Ward Cousins, President of Council; Mr. H. T. Butlin, Treasurer, *ex-officio*; Dr. T. Bridgwater, Mr. N. C. Macnamara, Dr. W. Withers Moore, Dr. R. Saundby, and Mr. C. G. Wheelhouse.

Resolved: That the Therapeutic Committee be reappointed as follows:

Sir W. H. Broadbent, Dr. Mitchell Bruce, Dr. T. Lauder Brunton, Professor T. Cash, Dr. T. Cranstoun Charles, Dr. M. Charteris, Professor T. R. Fraser, Professor W. T. Gairdner, Dr. W. Hunter, Dr. D. L. Leech, Dr. James Little, Professor D. MacAlister, Dr. McKie, Dr. Sidney H. C. Martin, Dr. M. McHugh, Dr. W. Murrell, Dr. C. Y. Pearson, Dr. Sidney Ringer, Sir William Roberts, Dr. R. Saundby, Dr. R. Stockman, Dr. N. J. C. Tirard, and Dr. W. Whitla.

Resolved: That the Committee for Investigating the State of Board School Children be reappointed as follows:

Dr. H. Ashby, Dr. Fletcher Beach, Dr. T. Bridgwater, Dr. J. L. H. Down, Dr. C. Holman, Dr. W. W. Ireland, Dr. F. Needham, Dr. G. H. Savage, Dr. G. E. Shuttleworth, Dr. D. Hack Tuke, Dr. F. Warner, and Dr. D. Yellowlees.

Resolved: That the Medical Charities Committee be reappointed, with the addition of Dr. Alderson, Dr. Oswald, and Dr. Withers Moore, as follows:

Dr. J. Ward Cousins (President of Council), Mr. H. T. Butlin (Treasurer), Dr. Alderson, Mr. J. Wickham Barnes, Mr. W. G. Bott, Dr. T. Bridgwater, Dr. J. B. Brierley, Dr. J. S. Bristowe, Mr. George Brown, Dr. G. W. Crowe, Dr. J. L. H. Down, Dr. Ogilvie Grant, Dr. Major Greenwood, Dr. F. de H. Hall, Mr. Ernest Hart, Dr. G. Henty, Dr. J. Brindley James, Dr. W. Withers Moore, Dr. Oswald, Dr. J. R. Thomson, Mr. F. Wallace, and Dr. Hugh Woods.

Resolved: That the Reference Committee be reappointed as follows:

Dr. Ward Cousins (President of Council), Dr. T. Bridgwater (for Treasurer), Dr. Donald MacAlister, and Dr. Isambard Owen.

Resolved: That the Anæsthetic Committee be reappointed as follows, with the addition of Dr. Rowell's name as Assistant Honorary Secretary.

Professor T. Annandale, Dr. Joseph Bell, Mr. Woodhouse Braine, Professor G. Buchanan, Mr. H. T. Butlin, Dr. Dudley Buxton, Dr. J. W. Byers, Professor M. Cameron, Professor John Chiene, Dr. C. Childs (Honorary Secretary), Mr. John Croft, Professor E. Duncan, Mr. A. E. Durham, Mr. George Eastes, Dr. Galabin, Dr. Frederic W. Hewitt, Mr. Jonathan Hutchinson (Chairman), Sir Joseph Lister, Professor William Macewen, Mr. Mills, Professor A. Ogston, Dr. G. Rowell, Dr. W. V. Snow, Mr. T. Pridgin Teale, and Mr. David Wallace.

Resolved: That the Committee on the Control of Railway Servants' Eyesight be reappointed as follows:

Mr. W. M. Beaumont, Mr. T. H. Bickerton, Mr. G. A. Critchett, Dr. C. E. Fitzgerald, Dr. J. B. Lawford, Dr. D. Little, Mr. N. C. Macnamara, Dr. George Mackay, and Mr. Priestley Smith.

Resolved: That the President, the President-elect, President of Council, the Treasurer, Dr. Sheen, Dr. Wade, Mr. Williamson, Dr. Shingleton Smith, Dr. Henry Marshall, Mr.

Nelson Dobson, Mr. Henry Harsant, and Dr. Markham Skerritt, be the Arrangement Committee for the Annual Meeting of 1894.

SPECIAL CORRESPONDENCE.

SHEFFIELD.

Housing of the Poor—Rotherham Water Supply—Fatal Wasp Sting.

IT appears likely from the proceedings at the last meeting of the City Council that steps will be taken to do away with a district which has been recognised as a very insanitary one. The district is in the Crofts, and the proposal of the Sub-Committee for the Housing of the Poor is to sweep away entirely three of these crofts, namely, Hawley Croft, School Croft, and Sims Croft, and to run two streets, one 40 and the other 50 feet wide, through these regions. There may be some who will object to the plan on the score of increasing still more the heavily burdened rates, but there must be few who can believe that as a means of improving the health of the city it is not a good one.

The Rotherham Rural Sanitary Authority are taking steps to make their water supply better. It may be remembered that the Local Government Board made an inquiry which proved that the water was greatly at fault for the outbreak of typhoid which had occurred in the district. Now inquiries are being held by an inspector in the different districts, as the sanitary authority are anxious to borrow money to carry out the projected improvements.

A rapidly fatal case after wasp sting is reported from the neighbourhood of Retford. A woman, aged 61, was stung on the thumb of the left hand. The symptoms rapidly became alarming, and she died, it is stated, a quarter of an hour afterwards, before the medical man who had been sent for arrived.

CORRESPONDENCE.

THE ABUSE OF MEDICAL CHARITIES.

SIR,—The remedies proposed by your various correspondents for the generally admitted abuse of our hospital out-patient departments, form a series of "Studies in Social Therapeutics" of rather hopeless character. Mr. Nelson Hardy says the staff of hospitals are strong in defying reform. What they really resent is the imputation that their work is done carelessly. The assistant physician as he wearily leaves the hospital at 6 P.M., which he entered at 1.30 P.M., feels aggrieved at being told that he has not only robbed his brethren, but has done work which is worthless. Quite hopeless is the proposition made by two correspondents in the BRITISH MEDICAL JOURNAL of August 12th, that "letters" should be given solely by medical men. At the hospital with which I am best acquainted some 150 persons apply daily for relief. Imagine the addition to the work of the general practitioners of the town at being called on to examine daily 150 applicants from whom they expect no remuneration. The recommendation system works well in small country districts, but breaks down entirely in a large town.

What the hospital consultant wants is a small number of interesting cases—people who are really ill. What he does not want is a large number of the trivial cases—diarrhœa, slight bronchitis, and the like—which form so large a proportion of the ailments for which relief is sought. The latter require, as a rule, but one attendance, and I am convinced that a large number of these might well afford treatment at private hands. In the charity I have referred to above, out of the 150 persons who daily apply, not more than half come a second time. This means that about 75 persons ask for alms costing about £7 10s. per diem, at 2s. a piece. This is a sum which probably a large number could pay, and I believe a large proportion of the £7 10s. should find its way into the pockets of the general practitioners of the town.

The real difficulty of the problem consists in the fact that to decide on a fit object for medical charity the medical aspect of the case has to be considered, as well as the financial circumstances of the patient. For instance, a person earning 25s. per week, suffering from simple diarrhœa, bronchitis, or the like, should be referred to a private practitioner, while if the ailment be phthisis, cardiac disease, or some special affection of eye, throat, ear, or uterus, the case may be a fit one for the charity. No mere wage limit will distinguish these, and a wage limit, which is the only test which a lay authority could apply, would work very hardly.

Next, there is the argument of the hospital managers. Out-patients cost very little, a competent examining officer is costly. Rejection of patients brings the charity into bad odour, and stops subscriptions, especially where large sums are contributed by workmen's organisations, as is the case in several large towns in the North of England.

Lest I may be thought to offer merely destructive criticism, I beg to make one or two suggestions. 1. The employment at every charity of a skilled officer selected for kindliness of manner, no less than for general intelligence. He should sort the applicants into three groups: (1) those plainly unsuitable; (2) those manifestly very poor; (3) a doubtful class. These last, perhaps one-third of the whole, should be examined by one of the professional staff, and those whose ailments are trifling referred to a general practitioner or provident dispensary, those who are more seriously ill admitted as in- or out-patients. I except, of course, cases of urgency, about which there is very little difficulty as a rule. 2. The heads of the working men's organisations should be requested to assist and co-operate in this selection, either by investigating doubtful cases which are referred to them, or by suggesting from time to time a wage-limit which shall serve as one of the factors in the process of selection. As the result of some experience, I have formed a high opinion of the business capacity of the heads of these organisations. The difficulty is avowedly considerable. It requires to be faced calmly, and without the recriminations which have characterised so many of the communications on the subject lately published.—I am, etc.,

Leeds, Aug. 14th. ERNEST H. JACOB, M.D.

SIR,—All earnest workers must be glad to read the letters from Drs. Black and Hardy. Those who have carried on the work of the Medical Charities Committee of our Association should show their appreciation of their services by trying to put their recommendations into active operation. Their suggestion—that a printed notice should be affixed in the hall and waiting rooms of charities, notifying to applicants that the charity is for the benefit of the sick poor; and that an inquiry will be made into the social circumstances of each—is one which the medical practitioners connected with every charity should adopt. It has been in force for some years at the London Hospital. Why do practitioners systematically refuse to push forward such request? Are they like whipped curs—afraid of the hospital committees? Are they afraid that, if adopted, well-to-do persons shall be excluded, and that they will not have the power of drafting such patients from their "charity" into their private practice? Or are they afraid that, having club patients, they will not be able to draft these into the charities when they are tired of them? Here I would state that a number of practitioners who hold clubs are those who most abuse charities. A practitioner secures, after much touting, several clubs, being paid about 3s. 6d. per member per annum. He finds that this is not a paying transaction. Consequently he says to the club patients: "Oh, your case is one for the hospital. I shall give you a note to Dr. B." Dr. B., wishing to "keep in" with the club practitioner, admits the patient. The patient is well treated; tells all his club members of this, and with the result that all make up their mind to go to the hospital when ill. Formerly this gross imposition and fraud was provided against by charities having a rule which prohibited a practitioner from holding both a club and hospital appointment at the same time; but I am told this rule is often not enforced. In one case in a northern city, a practitioner was found to send his club patients to the charity for their medicines. I am informed of another similar case now in full swing; but, as all hospital scandals are hushed up, it is difficult to obtain absolute facts concerning it. If, however, practitioners will tackle this question, it can soon be settled. Let us adopt the Manchester system of checking imposture. I have given a full descrip-

tion of the working of this system in my book, *Reform of Voluntary Medical Charities*, which is, I think, in the library of our Association. Next, let us do away altogether with every club. In my opinion, every friendly society, tontine, and such like should not have a surgeon attached. Practitioners should be like other bodies of business men—let them manage their own affairs, and sell their own goods to the public. If we did so, we should no longer be the abject servants of medical aid associations or sick clubs. We are meant to be medical advisers, not medical servants. Now to effect such change, we should organise a Public Medical Service of England, such as I have described in the British Medical Journal and in my book. Let us have definite rules for the entire country; a regulated scale of fees, and by every means exclude every person from the management who is not a medical practitioner. If such a service be strictly confined to those earning up to a given standard of wages, due provision being made to check abuse, we shall be troubled no longer with medical aid societies or club touting. The question is, Will the present degrading competition in our faculty allow us to develop such a service? Will practitioners holding appointments at charities carry out their traditional policy of passive antagonism? Our faculty is to be greatly blamed for the present corrupt state of affairs. We have never tried to present any practical scheme of medical aid other than voluntary charities and the Poor Law. If we are worthy of self-government, then let us manage our own medical affairs. I cannot see why we should allow clubs, composed of sweeps, mechanics, or scavengers, to employ us as their servants. Let us give up all clubs, and form a well organised and publicly constituted Public Medical Service. This is the only solution of the question of medical aid associations, and one which will lead rapidly to hospital reform. We can settle it if we would only leave aside our low, petty jealousies and squabbling, and for once work upon business-like principles.—I am, etc.,

Liverpool, August 12th. Robert Reid Rentoul.

Sir,—"Not a General Practitioner" writes very positively, but his statements are very fallacious. In the first place hospital physicians and surgeons are strong simply and solely because there are as yet no conditions given with the large grants of money they receive from the charitable and benevolent. Once get the fact driven into the minds of large donors that their money is squandered upon persons who should never appear within the walls of a hospital, and consequently that money should be bestowed conditionally upon reformation, and their defiance (wherever present) would disappear.

I am sure, again, that it will not be generally conceded that general practitioners force this power upon hospital physicians. There is not, I submit, the slightest connection between the bickerings and differences of general practitioners and the abuse of medical charities. Moreover, "young and raw" members of hospital staffs are always men of experience in the special hospitals of their choice, and whether young or old, are the right men to call in (in their special department) to consult with general practitioners. I am glad to note that "General Practitioner" and Dr. F. J. Smith advocate the same course for reform which I myself submitted through your columns.

It appears to me now to be advisable to request hospital physicians to give good reasons why general practitioners should not have sole admitting power, or at once to reform accordingly.—I am, etc.,

West Kensington, August 14th. C. R. Illingworth, M.D.

Sir,—Dr. Frederick Smith's letter is an interesting and important one, as showing that modern ideas as to hospital management are gradually permeating the minds of the junior members of the staff, several of whose senior members have hitherto been most uncompromising opponents of out-patient reform, and have, indeed, more than once declared their "solemn conviction" that no reform was necessary.

Dr. Smith's letter, however, does not seem to me to show that any united attempt is being made by the staff of the London Hospital to formulate a plan by which the present abuse may be checked, and, in regard to the three points I mentioned, the statements in his letter, if examined by the light of other evidence, will show that the agreement between the practice of the hospital and our reasonable demands is more apparent than real; for whereas:

(1) We ask that inquiry should be made into the circumstances of all patients by a properly qualified officer, and Dr. Smith replies that a properly qualified officer is kept by the hospital for this very purpose—and so far well and good; but on turning to the evidence of the house governor of the London Hospital before the Lords' Committee,[1] I find that the number of cases into which this properly-qualified officer inquires is strictly limited, so that in a single year he does not inquire into more than about 800 cases out of a total of over 109,000 registered out-patients, to say nothing of diarrhœa cases, which are held to be "too unimportant for registration." In fact, the principal cases into which he is permitted to inquire are those bringing letters from governors (which might seem to outsiders to require it least), and as these number 22,800 odd, he naturally inquires about the 800, and lets the 22,000 pass without inquiry. As to the casualties, which amount to 68,342, or the diarrhœa cases, numbering 25,000, he has no authority apparently even to inspect them. There may possibly be some reason which does not appear on the surface for thus restricting the inspector's inquiries, though his whole time is devoted to them, to an average of two or three cases a day; but I do not think Dr. Smith will maintain that it is fully carrying out our first suggestion for reform.

(2) The indiscriminate supply of medicine, which we asked might be stopped, was that involved in what might be called the mechanical treatment of disease on the plan of supplying bottles of medicine for a week or a fortnight, the consultation being described by Mr. Nixon to the Lords' Committee in these words: "The patient goes before the clinical assistant, and he would say perhaps, 'How are you getting on?'"—"Very well." "Does your medicine suit you?"—"Yes, perfectly." Then he writes his *rep.* (that is to say, *repetatur*), and the patient passes on. (*Report*, p. 513). Dr. Smith seems to think he adopts the spirit of our suggestion by stamping his patients' books, "Further treatment not required"; but as he is careful to premise "as far as I am personally concerned," it appears that even in this very much modified form our second suggestion is not being fully carried out by his colleagues.

(3) I am bound, of course, to accept Dr. Smith's assurance that, so far as his knowledge extends, no unqualified student is ever allowed to prescribe for a patient at the London Hospital; but I may perhaps be excused a little wholesome scepticism about this matter, when I state that while the authorities of another great London hospital, from the treasurer downwards, were loudly declaring that no such thing was possible as for an unqualified student to treat patients at their hospital, I actually had in my house, acting as dispenser, a student of that very hospital, who assured me that he and other unqualified men constantly did so. I presume that Dr. Smith's disclaimer as to students extends to the treatment of the 68,000 casualties, and if so, I am happy to learn that such is the case.

If, knowing my scepticism about so-called facts in regard to hospital administration, Dr. Smith is still willing to facilitate my making personal investigation into out-patient work at the London Hospital, with a view to publishing the results in your columns, I shall be very glad to accept his invitation to visit the hospital at an early date.—I am, etc.,

Dulwich, August 14th. H. Nelson Hardy.

NITROUS OXIDE ANÆSTHESIA FOR THE REMOVAL OF TONSILS AND ADENOIDS.

Sir,—The regrettable occurrence of a death under chloroform administered for the removal of tonsils and adenoids, as reported in the British Medical Journal of August 5th, leads me to urge the adoption of nitrous oxide for these operations. I demonstrated several years ago the possibility of removal of tonsils or adenoids, or both, in the short period of anæsthesia afforded by nitrous oxide, the gas being on the experimental occasions administered for me by my friend Mr. Sibley Read. My colleagues at the Central London Throat and Ear Hos-

[1] See Report of Select Committee on Metropolitan Hospitals, p. 515.

pital adopted the method, and now many cases are operated on weekly in that institution under laughing gas. Given methodical preparation, well-conditioned instruments, suitable assistance, and reasonable dexterity, no surgeon of any experience in manipulating the fauces and naso-pharynx should have the slightest difficulty in accomplishing these operations under nitrous oxide. It is surprising to me that this is not better known, and I trust that all who read this letter will be induced to test the practice for themselves when the opportunity occurs.—I am, etc.,

DUNDAS GRANT, M.A., M.D., F.R.C.S.Eng.,
Surgeon to the Central London Throat and Ear Hospital, and to the West End Hospital for Nervous Diseases.
Upper Wimpole Street, W.

NAVAL AND MILITARY MEDICAL SERVICES.

THE NAVY.

THE following appointments have been made at the Admiralty: WILLIAM M. LORY, Staff-Surgeon, to the *Fearless*, August 4th; REGINALD T. A. LEVINGE, Surgeon, to the *Urgent*, August 12th.

Fleet Surgeon W. F. SPENCER, M.D., has been placed on the retired list of his rank, at his own request, August 11th. He was appointed Surgeon October 1st, 1872, and Staff-Surgeon twelve years thereafter. He was Surgeon of the *Thalia* during the Egyptian war of 1882, and has the Egyptian medal and Khedive's bronze star.

Staff-Surgeon S. F. HAMILTON is promoted to be Fleet-Surgeon, July 29th. His commission as Surgeon dates from April 1st, 1873, and that of Staff-Surgeon twelve years therefrom. He was Staff-Sugeon of the *Dolphin* during the operations in the Eastern Soudan in 1884-5 (medal with clasp, and Khedive's bronze star).

ARMY MEDICAL STAFF.

SURGEON-MAJOR-GENERAL CHARLES DODGSON MADDEN is placed on retired pay, August 1st. He was appointed Assistant-Surgeon December 14th, 1854; Surgeon, October 5th, 1867; Surgeon-Major, August 15th, 1868; Deputy-Surgeon-General, June 28th, 1876; and Surgeon-Major-General, May 7th, 1882. He served from January 18th to May 20th, 1855, in the Crimea and before Sebastopol (medal with clasp, and Turkish medal); with the 43rd Light Infantry in the Saugor Field Division, from December 24th, 1857, and in the Field Division under Colonel Primrose in the latter part of 1859 (medal); and as Surgeon of the 4th King's Own throughout the Abyssinian Campaign, being present as Field Surgeon of the 1st Brigade at the action of Arogee and capture of Magdala (mentioned in despatches, and promoted Surgeon-Major "for valuable services rendered during the campaign," medal).

Surgeon-Major C. R. WOODS, serving in the Madras Command, is granted an extension of leave from June 30th to September 29th on medical certificate.

Brigade-Surgeon-Lieutenant-Colonel C. A. ATKINS, in anticipation of promotion, is appointed an Administrative Medical Officer in the Bombay Presidency.

Surgeon-Major PETER HENRY ROE, L.R.C.S.Irel., died at Upper Norwood on August 6th, in his 70th year. He was appointed Assistant Staff-Surgeon on the Gold Coast in 1847, Surgeon to the Gold Coast Artillery in 1853, and was afterwards Staff-Surgeon and Principal Medical Officer on the West Coast of Africa. During his term of service on the West Coast he held, amongst others, the following appointments: Magistrate and Civil Commandant (M'Carthy's Island, River Gambia), Colonial Surgeon, Judicial Assessor, and Acting Chief Justice. He was also a member of the Executive and Legislative Council. He was made Surgeon-Major in 1858, and retired in 1859.

Deputy-Surgeon-General HENRY DAY FOWLER died at Bedford on July 19th. He entered the service as Assistant Surgeon December 19th, 1845, became Surgeon July 20th, 1855, and Surgeon-Major December 19th, 1865, retiring with the honorary rank of Deputy-Surgeon-General June 16th, 1875. He served with the 82nd Regiment in the Crimea subsequent to the fall of Sebastopol from October 11th, 1855, to the close of the war in July, 1856. He was also in the suppression of the Indian Mutiny in 1857-59, including the operations at Cawnpore under Windham, the defeat of the Gwalior Contingent on December 6th, 1857, the action of Kalee Nuddee, the advance on Futtehghur, the campaign in Rohilcund, and the defence of Shahjehanpore (medal).

ARMY MEDICAL RESERVE.

SURGEON-MAJOR PETER B. GILES is promoted to be Surgeon-Lieutenant-Colonel, August 16th.

Surgeon-Captain E. W. BARNES, 6th Volunteer Battalion the King's Liverpool Regiment, is appointed Surgeon-Captain, August 16th.

INDIAN MEDICAL SERVICE.

SURGEON-MAJOR A. ADAMS, M.D., Madras Establishment, Residency Surgeon in the Western States of Rajpootana, is appointed to officiate as Residency Surgeon and Chief Medical Officer in Rajpootana.

Brigade-Surgeon-Lieutenant-Colonel G. C. ROSS, Bengal Establishment, is granted the temporary rank of Surgeon-Colonel from June 16th, while officiating as Administrative Medical Officer and Sanitary Commissioner, Central Provinces.

Brigade-Surgeon-Lieutenant-Colonel J. H. NEWMAN, M.D., Bengal Establishment, is granted the temporary rank of Surgeon-Colonel from July 4th, while officiating as Inspector-General of Civil Hospital, Bengal.

Surgeon-Lieutenants C. B. PRALL, R. HEARD, and V. G. DRAKE-BROCKMAN, appointed to the Bengal Establishment, reported their arrival at Bombay on April 22nd.

Surgeon-Lieutenant-Colonel GEORGE HUTCHESON, M.D., Bengal Establishment, is promoted to be Brigade-Surgeon-Lieutenant-Colonel, June 27th. His commission as Assistant-Surgeon dates from October 1st, 1868.

Surgeon-Colonel G. THOMSON, M.B., Bengal Establishment, Administrative Medical Officer and Sanitary Commissioner of the Central Provinces, is appointed to officiate as Principal Medical Officer, Lahore District.

Surgeon-Major P. F. O'CONNOR, 6th Bengal Cavalry, is appointed to the medical charge of the Cantonment General Hospital at Meerut.

Surgeon-Captain J. T. DALY, 8th Bengal Cavalry, is appointed to the medical charge of the Cantonment General Hospital at Allahabad.

Surgeon-Captain T. GRAINGER, Bengal Establishment, is appointed Civil Surgeon of Khoolna, but to continue to act as Civil Surgeon of Chumparun.

Surgeon-Captain F. A. ROGERS, Bengal Establishment, is appointed Civil Surgeon of Bogra, but to continue to act as Civil Surgeon of Rajshahye.

Surgeon-Captain C. R. M. GREEN, Bengal Establishment, is appointed Civil Surgeon of Maunbhoom, but to continue to act as Resident Surgeon, Medical College Hospital, Calcutta.

Surgeon-Captain C. DONOVAN, Madras Establishment, is appointed to the medical charge of the civil dispensary at Fort White, Burmah, as a collateral charge.

Surgeon-Major J. L. POYNDER, Madras Establishment, Civil Surgeon of Sumbulpore, Central Provinces, is granted privilege leave for three months from July 10th.

Surgeon-Captain E. G. R. WHITCOMBE, Bombay Establishment, is appointed to officiate as Civil Surgeon of Sumbulpore, in addition to his own duties, and is appointed to the executive medical charge of Sumbulpore Gaol.

The three months' privilege leave granted to Surgeon-Captain E. C. HARE, Bengal Establishment, is commuted to leave on medical certificate for nine months.

Surgeon-Major J. MAITLAND, M.D., Madras Establishment, is appointed to act as Surgeon and Professor of Surgery and Clinical Surgery, Madras General Hospital.

The services of Surgeon-Captain C. L. WILLIAMS, M.D., Madras Establishment, are replaced at the disposal of the Government of Madras.

Surgeon-Major E. W. YOUNG, Bombay Establishment, is permitted to return to duty.

Surgeon-Lieutenant S. H. BURNETT, Bombay Establishment, is transferred from general duty in the Poona District to general duty in the Sind District.

Surgeon-Colonel G. C. CHESNAYE, Bengal Establishment, Principal Medical Officer Lahore District, is granted leave out of India for six months on medical certificate.

Brigade-Surgeon-Lieutenant-Colonel D. F. BATEMAN, Madras Establishment, is promoted to be Surgeon-Colonel from July 1st. His commission as Assistant Surgeon is dated March 31st, 1865.

The promotion of Surgeon-Colonel R. BOWMAN, Bombay Establishment, dated April 8th, will have effect from February 26th, the tenure of his appointment in the administrative grade of the Indian Medical Service, Bombay, reckoning from April 16th.

The promotion of Brigade-Surgeon-Lieutenant-Colonel C. T. PETERS, M.B., Bombay Establishment, dated May 10th, will have effect from February 26th.

Surgeon-Major J. S. WILKINS, D.S.O., Bombay Establishment, Acting Civil Surgeon of Broach, is allowed privilege leave for three months.

THE VOLUNTEERS.

THE undermentioned gentlemen are appointed Surgeon-Lieutenants to the corps specified, all dated August 12th: SIDNEY HERBERT SNELL, M.D., 1st Essex Artillery (Eastern Division Royal Artillery); JOHN NIGHTINGALE, M.B., 1st West Riding of Yorkshire Artillery (Western Division Royal Artillery); SYDNEY MONCKTON COPEMAN, M.D., 2nd London Rifles: JOHN WILLIAM TALENT, M.B., 3rd Volunteer Battalion the Manchester Regiment.

Surgeon-Lieutenant C. T. GRIFFITHS, 1st Volunteer Battalion the South Staffordshire Regiment (late the 1st Stafford), is promoted to be Surgeon-Captain, August 12th.

CHANGES OF STATION.

THE following changes of station among the officers of the Medical Staff of the Army have been officially notified as having taken place during the past month.

	From	To
Brig.-Surg.-Lt.-Col. W. H. Steele, M.D.	Dover ...	... Devonport.
Surg.-Lt.-Col. J. G. Williamson ...	,, ...	... Shorncliffe.
Surg.-Major W. P. Feltham	Okehampton	... Devonport.
,, W. J. Macnamara, M.D....	Portsmouth	... Gosport.
,, H. Sanders	Windsor ...	... Shorncliffe.
Surg.-Capt. J. J. C. Donnet	Dublin ...	... Portsmouth.
,, H. V. Dillon	Malta ...	... Horfield.
,, H. T. Baylor	Limerick...	... Cork.
,, J. B. Wilson, M.D. ...	Lichfield...	... Dublin.
,, W. Dowman	Dublin ...	... Wicklow.
Surg.-Lieut. G. J. Buchanan, M.B. ...	York ...	... Strensall Camp
,, G. S. Walker, M.B. ...	Wexford ...	... Cork.
,, G. A. Moore, M.B. ...	Kilkenny...	... ,,
,, H. W. H. O'Reilly, M.B.	Cork ...	... Belfast.
,, N. Marder	,, ...	... Curragh.
,, J. H. Farmer	Dublin ...	... ,,

THE VOLUNTEER OFFICERS' DECORATIONS.

THE *London Gazette* of August 11th contains a further list of volunteer officers upon whom the Queen has conferred the Volunteer Officers' Decoration, the following being among the number: Surgeon and Hon. Surgeon-Major D. Adams (retired), late 1st Huntingdonshire Light Horse Surgeon-Major J. Knill, 2nd Gloucestershire (the Bristol) Engineers

Surgeon-Major W. L. Winterbotham, M.B. (retired), 2nd Volunteer Battalion the Prince Albert's (Somersetshire Light Infantry); Surgeon-Major W. Johnstone, Galloway Rifles; Surgeon-Major P. B. Smith, M.D., 1st Volunteer Battalion the Gordon Highlanders.

MEDICO-LEGAL AND MEDICO-ETHICAL.

A NOVEL LUNATIC ASYLUM CASE: APPLICATION FOR A WRIT OF HABEAS CORPUS.

On August 10th Mr. Home renewed his application in the Queen's Bench Division, before Justices Cave and Wright, calling upon Mr. Woods, the Medical Superintendent of Hoxton House Asylum, to show cause why he should not produce the body of Mr. Harry Wyndham Carter, an alleged lunatic at present in the asylum. Counsel went on to show the difficulty that had been found in getting at certain documents to warrant Mr. Carter's detention, and produced an affidavit from Mr. W. Doveton Smyth, Mr. Carter's solicitor, bearing out his statement; and, further, that during an interview of nearly two hours, Mr. Smyth adds that Mr. Carter spoke to him in a calm and rational manner. The judges held that as no affidavit from Mr. Carter was produced, the application could not be granted. Mr. Home, on remarking that an affidavit from an alleged lunatic would be open to comment, was reminded by Mr. Justice Cave that his case was that Mr. Carter was not a lunatic, and consequently there would be no difficulty in his obtaining an affidavit. Mr. Home asked to be allowed to apply again; to this Mr. Justice Cave said: We cannot prevent you applying any number of times.

The unusual feature about a case of this nature is that an application should be made to the court for a writ of habeas corpus, instead of applying to the proper authorities for a *de lunatico inquirendo*, to test the mental condition of the alleged lunatic, especially with regard to his being able to manage himself and his affairs, and his fitness or unfitness to be detained in an asylum.

"BOLD ADVERTISEMENT."

X.Y.Z.—Disreputable, in our opinion, as are the facilities afforded for lucre's sake to quacks for advertising by otherwise "thoroughly reputable daily newspapers," as the *New Zealand Lyttleton Times* is reputed to be, it is much to be regretted that charlatanic professors of so pronounced a type as "Professor Richard, M.E.," would seem to be, should be abetted in their efforts to gull the public by according insertion in its columns to their glaring advertisements. Be that as it may, we may note that if the local profession care to take the matter in hand there would, we apprehend, be little difficulty in obtaining a conviction for illegal practice.

"COVERING" AN UNQUALIFIED PRINCIPAL.

Query writes: Is it permissible for a registered man to work a practice, open surgery or dispensary for an unqualified man or layman for salary or percentage; no partnership between them, and the registered man nominally the owner of practice?

*** Such an arrangement as that suggested would not only be exceptionally dishonouring to the registered man, but perilously near to "covering an unqualified man," even if it did not *de facto* constitute an obtainment of money under false pretences; and would very justly subject the practitioner to the punishment of having his name removed from the *Register* by the General Medical Council.

MEDICAL MEN AND THE LAY PRESS.

F.R.C.S. (Seaforth).—Although we see no valid objection to the insertion in the lay papers of the article of advice *re* "Across-Channel Travelling," it would, in our opinion, have been in stricter accord with the true ethical principle if either the surgical qualification or the local habitation of the writer had been omitted, inasmuch as, taken conjointly, they afford a more or less direct indication to the name of the practitioner.

DENTISTS AND DOCTORS.

Junior Member would be glad to know (1) If it is usual for medical men to charge fully qualified surgeon dentists for professional attendance upon themselves or their families? (2) Is it the custom for dentists to charge medical men or their families for extractions and fillings, and also for artificial cases?

*** We understand that it is not customary for medical men to charge dentists for any visits or prescriptions, but any out-of-pocket expenses ought to be refunded. For instance, to pay a visit and write a prescription occupies time but might be gratuitous, but drugs, surgical instruments, etc., should be paid for if supplied by the medical man. Similar rules apply to dentists. Any operation such as scaling or extraction should not be paid for, but the dentist should be remunerated for any material he may use in filling, or for the material, etc., used in manufacturing a denture. Sometimes a mutual arrangement is made by which half the usual fee is paid by each, and this is a very satisfactory arrangement; such arrangement should only include the wife and sons and daughters, and ought not to cover all the relatives.

WHO IS TO PAY?

Variola writes: Some time back I was going out for a walk with another gentleman when a police sergeant accosted me, and asked me to go with him to examine a body which was supposed to be that of a man who had died of small-pox. I am the medical superintendent of a hospital, but only visit cases notified by other practitioners in my duties as such. I went a mile with him, and found that death had been caused by hæmorrhagic small-pox, and gave a certificate to that effect, which was handed on to the coroner, and, of course, no inquest was held. I saw to all precautions as regards disinfection, etc., and was also delayed for three hours whilst my own clothes were being disinfected. Afterwards I sent in a bill for £3 3s. to the police inspector, but he says he has nothing to do with it. The coroner similarly returned the bill. Can you inform me who is liable to pay me for my trouble? The place is in my hospital district, but that is not one of the duties for which I am paid by the hospital board.

*** The only person liable, if anyone, seems to be the sergeant, who no doubt supposed the case to be one included under the hospital appointment, and, of course, never intended to incur any personal liability. If the local sanitary authority are disposed to be generous, they might under the circumstances allow a fee without having it surcharged by the auditor, but there is no power to compel them to make such an allowance. The case seems really to have been one in which medical services were volunteered, and where they will probably prove to have been given gratuitously.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS, Thursday, August 10th.

Treatment of Sewage.—Mr. H. Fowler, in answer to Mr. Mather, said it was the invariable practice of the Local Government Board to decline to sanction a loan for any scheme of sewerage or sewage disposal unless it provided that the sewage should be purified by being passed through land before being discharged into a river or stream to which the Rivers Pollution Prevention Act, 1876, applied. They considered that the requirements of the Act would be contravened unless the sewage was so purified. The Board were fully aware that by means of chemical and mechanical treatment very much may now be done to aid in the purification of the sewage, and they therefore approved of a very much less area of land being provided when the authority proposed to adopt such treatment; but they were not of opinion that these means alone, without the passing of the sewage through land, were sufficient. The acquisition of land for the purpose referred to was, no doubt, in some cases attended with difficulty and it must increase the cost of the scheme. It was also the case that delay had in some cases been occasioned where sanctions to loans had been withheld pending arrangements being made for the acquisition of land. He had considered the question as to instituting an inquiry, but apart from the difficulty of securing the services on such a committee of men of the necessary scientific and practical knowledge who could give the requisite time for such an inquiry at places at a distance from London, he was not prepared at present to say that such an inquiry was necessary. The inspectors of the Local Government Board, in connection with the inquiries which they had to hold with regard to sewerage schemes, were carefully watching the processes which were proposed in aid of land.

Monday, August 14th.

Typhoid Fever.—Sir C. Cameron asked the Secretary for Scotland whether his attention had been called to the threatened eviction of eighteen households at Auchintibber, Lanarkshire, in consequence of an outbreak of typhoid fever in the village, attributed to a contaminated water supply; whether any steps had been taken by the sanitary authority to provide a pure supply; whether the eviction proceedings had been taken at the instance of the sanitary authority, or at that of the proprietor of the houses; and whether the Board of Supervision had had their attention directed to the epidemic and its cause.—Sir G. Trevelyan, in reply, said: The attention of the Board of Supervision was called to the outbreak of enteric fever which took place at Clyde Rows, Auchintibber, in October last, in consequence of an impure water supply, by the annual report of the medical officer. The local authority, in the due performance of their duty, obtained a decree from the Sheriff ordering the proprietor to introduce a pure supply. It appears, however, that pure water is not to be had in the locality, and the proprietor has accordingly decided to close the houses, and served the necessary notices on the occupiers to quit. The local authority are making every effort to improve the sanitary condition of their district, and have undertaken a very extensive and costly scheme to supply the whole of the middle ward of Lanarkshire with an abundance of pure water. These works are in progress under the Lanarkshire Water Act, 1892, and when completed no district in Great Britain will be better provided for.

Factory and Workshops Acts.—Mr. J. Rowlands asked the Secretary of State for the Home Department whether he was aware that, as reported in the *Star* of August 10th, Mr. De Rutzen, one of the metropolitan magistrates, was going to hear again some summonses, under the Factory and Workshops Acts, previously dismissed by him; whether the summonses referred to were those against the decision on which notice of appeal was given by Her Majesty's Superintending Inspector of Workshops, Mr. Lakeman; whether those appeals had been withdrawn, and, if so, on what grounds; and whether the appeals against recent decisions by Mr. Plowden, another metropolitan magistrate, on other summonses under the same Acts, were to be proceeded with, and, if not, for what reason.—Mr. Asquith said: There were four cases before Mr. De Rutzen in which the summons was pronounced informal. He understood that fresh summonses were to be granted, and the cases heard on their merits. There was no appeal in cases that were dismissed, but application might be made for a case to be stated on a point of law. In these four cases no such application was made. There were two cases before Mr. Plowden, both dismissed, and in both a case was asked for. As to one of them, it was not thought a favourable case, and was dropped accordingly. As to the other case, he might refer to the answer he gave in the House on the 21st of last month.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF LONDON.

PRELIMINARY SCIENTIFIC (M.B.) EXAMINATION, July, 1893.—Pass List. Entire Examination:

First Division.—*J. T. Auld, Owens College; *H. W. Bruce, Guy's Hospital; J. F. Dobson, Yorkshire College; C. H. Fagge, Guy's Hospital; *R. C. Field, Yorkshire College; *Mildred May Gostling, Bedford College, London; Bessy Neilson Hamilton, University College, Dundee; Alice Mary Hawker, University College; *R. Kelsall Owens College; J. Mooney, Owens College; J. Morton, Owens College; S. Pearce, B.A., private study and University Tutorial College; G. E. Richmond, B.A., Owens College; J. H. Sheldon, Owens College; S. M. Smith, Epsom College; Mabel G. Stevenson, University College; W. H. M. Telling, Guy's Hospital; *C. J. Thomas, University College, Cardiff; F. E. Walker, Guy's Hospital; *P. M. Wright, Kingswood School.

Second Division.—E. W. Adams, Firth College; K. B. Alexander, Guy's Hospital; *J. Broadley, Yorkshire College; C. W. Chaplin, St. Olave's Grammar School, Southwark; H. H. Cheesman, Westminster Hospital; G. H. Coltart, Epsom College; S. W. R. Colyer, Charing Cross Hospital; H. Davies, University College, Aberystwith; W. A. Dewhirst, Yorkshire College; H. D. Everington, St. Bartholomew's Hospital; Lucinda C. Emily Foster, Bedford College, London; E. V. Foss, University College, Bristol; E. A. Gates, University College and private study; J. A. Glover, St. Paul's School; F. G. Greenwood, Yorkshire College; H. FitzN. Hine, Middlesex Hospital and University Tutorial College; W. J. Hirst, Yorkshire College; H. H. Jamieson, St. George's Hospital and St. Paul's School; H. S. Jenkins, Craigmore College, Bristol; *A. J. Knowlton, Hartley Institute and Royal College of Science; Ethilda Budget M. Meakin, University College; W. T. Milton, Guy's Hospital; E. W. Mole, B.A., private study; Edith Neild, School of Medicine, Edinburgh, and Heriot-Watt College; R. Norman, Epsom College; J. B. Page, St. Mary's Hospital; H. B. Palmer, Edinburgh School of Medicine and private study; P. A. Ross, University College, Bristol; W. T. Rowe, St. Bartholomew's Hospital; P. W. Rowland, St. Bartholomew's Hospital; C. Salkeld, B.A., Durham Colleges of Medicine and Science, Newcastle-on-Tyne; H. H. Scott, St. Bartholomew's Hospital and City of London School; A. P. H. Simpson, University College, Liverpool, and private study; *F. B. Skerrett, Newcastle-under-Lyme High School and Owens College; A. J. Stanley, Mason College; E. Taunton, private tuition and City Polytechnic; A. Tedman, University College, Bristol; W. H. Unwin, University and Cheshunt Colleges; R. F. C. Ward, Epsom College; Eliza Turner Watts, private study; G. E. Waugh, Epsom College; *C. A. West, Westminster Training University, Tutorial and City of London Colleges; R. W. Woodward, B.A., University College, Nottingham, and private study.

Honours Candidate recommended for a Pass.—J. A. N. Longley, King Edward High School, Birmingham, and Mason College, Birmingham.

Chemistry and Experimental Physics.—H. R. Beale, St. Thomas's Hospital and private tuition; J. W. H. Bendle, St. Mary's Hospital; †T. P. Berry, Guy's Hospital; S. O. Bingham, St. Thomas's Hospital; †H. Bond, St. Bartholomew's Hospital; †Susila Anita Bonnerjee, private study; †F. Brickwell, St. Bartholomew's Hospital; †J. D. Bridger, Guy's Hospital and private study; J. C. Bristow, King's College; Josephine Brown, private tuition; †Janet Waldegrave Carr, University Tutorial College; H. F. Cheshire, private study; W. H. Coltart, Mason College; †A. G. Colvile, University Tutorial College; B. N. Das, University College and Hughli College, Bengal; F. S. Dawe, University Tutorial College; †E. J. Distin, King's College; R. H. Dixon, private tuition; E. P. H. Dudley, Firth College; H. Dyer, Epsom College; C. E. Evans, Bourne College, Quinton, and University Tutorial College; H. A. T. Fairbank, Epsom College; E. L. Farncombe, Malvern and Mason Colleges; J. S. Gayner, University Tutorial College and St. Bartholomew's Hospital; †H. B. Gibbins, Leighton Park School, University Tutorial College, and private study; M. H. Greener, private study; †L. E. C. Handson, Guy's Hospital and private study; A. C. Haslam, St. Thomas's Hospital; R. Hatfield, St. Bartholomew's Hospital; E. A. Hodder, Bedford Grammar School; †J. G. F. Hosken, St. Bartholomew's Hospital; J. H. Howgate, private study and Yorkshire College; E. T. Jensen, Guy's Hospital; †F. H. Lawson, Middlesex Hospital and University Tutorial College; †F. A. Leete, private study and Birkbeck Institution; †F. C. Lewis, St. Mary's Hospital and Birkbeck Institution; †J. M. A. Manning, St. George's Hospital and Birkbeck Institution; †G. C. Marrack, St. Bartholomew's Hospital; †J. Matthews, Firth College; T. Morgan, University College, Aberystwith; A. Mort, Royal College of Science, Dublin; J. R. Morton, London Hospital; B. N. Mullan, Grant College, Bombay, University Tutorial College, and private study; J. S. New, private study; H. B. G. Newham, St. Thomas's Hospital and Birkbeck Institution; †A. P. Newton, Mason College, Birmingham, and private study; J. A. O Dowd, Mason College, Birmingham; †M. B. Oliver, University College and private study; A. Orme, private study; C. Pike, London Hospital; †B. E. Potter, Birkbeck Institution and Charing Cross Hospital; W. B. Prowse, Clifton Laboratory and private study; †Louise Rickword, Bedford College, London; †J. E. Robinson, St. Bartholomew's Hospital; †S. A. Ruzzak, Guy's Hospital; †F. W. Sheppard, University Tutorial College; †G. B. Thwaite, University Tutorial College; and J. F. West, King Edward School, Birmingham, and Mason College, Birmingham.

Biology.—E. G. Andrew, Guy's Hospital; D. A. Ashton, Owens College; Constance Mary Bourlay, Mason College and private study; Lucy Bramley-Moore, Bedford College, London; F. Butterfield, Owens College; H. Calvert, University College; E. T. Caton, B.A., University Extension College, Reading, and private study; W. H. Cazaly, B.A., St. Bartholomew's Hospital; F. G. H. Cooke, University College; F. W. Cotton, University College, Bristol; D. Davies, University College; E. F. Ellis, University College; E. Evans, University College, Bangor; T. Evans, University College, Aberystwith; C. B. Fairbank, Epsom and University Colleges and private study; T. L. Fennell, Owens College; B. G. Fiddian, University College, Cardiff; E. F. Fookes, Owens College; H. E. C. Fox, Guy's Hospital; F. A. Hadley, King's College; Helen Beatrice Hanson, Westcombe House, Brighton; W. C. Hill, University Tutorial College; B. F. Hussey, St. Mary's Hospital; O. Inchley, University College, Nottingham; †F. A. Johns, University Tutorial College; N. H. Joy, St. Bartholomew's Hospital; H. C. F. Keall, University College, Bristol; E. Leach, Owens College; †R. C. Leaning, Kent College, Canterbury, and University Tutorial College; T. F. R. McDonnell, St. Paul's School and private study; †O. Marriott, Guy's Hospital; Louisa Martindale, Royal Holloway College; Marion Bessie Mathieson, University College; †H. H. Mills, Westminster Hospital, Birkbeck Institution, and private study; J. Milne, Owens College; A. Moon, Guy's Hospital; R. R. Mowll, King's College; †H. L. Norris, St. Thomas's Hospital; E. M. Pearse, University College, Bristol; W. E. Peck, University College; †A. G. G. Plumley, Merchant Venturers' School, Bristol; E. C. Plummer, King's College; H. D. Pollard, High School and University College, Nottingham; †J. H. Rhodes, St. Bartholomew's Hospital; G. M. O. Richards, High School and University College, Nottingham; †H. E. Richardson, B.A., private study; A. Ricketts, University College; Adeline Mary Roberts, University Tutorial College; W. E. Ruttledge, University College; Mary E. S. Scharlieb, B.A., University College; W. P. Schreiner, Downing College, Cambridge; W. S. Sheldon, University College; W. B. Silas, University Tutorial College; †H. D. Singer, Merchant Taylors' School, University Tutorial College and private study; A. R. Spencer, Carlyon College and private study; E. Stott, Owens College; H. Stuart, University College; Margaret Helen Style, Royal Holloway College; J. G. C. Taunton, Mason College; H. J. Taylor, Owens College; H. S. Thomas, St. Bartholomew's Hospital; A. J. W. Wells, University Tutorial College; †W. D. Wiggins, St. Mary's Hospital; R. S. Williams, University of Edinburgh, and University College, Liverpool; R. E. B. Wilmot, St. Mary' Hospital; †B. M. Young, St. Thomas's Hospital.

* These candidates have also passed in the Mathematics of the Intermediate Examination in Science, and have thus become admissible to the B.Sc. Examination.

† These candidates have now completed the examination.

INTERMEDIATE SCIENCE AND PRELIMINARY SCIENTIFIC (M.B.) CONJOINTLY.—Examinations for Honours:

Inorganic Chemistry.—First Class: E. J. Russell, Int. Sc. (Exhibition), University College, Aberystwith; F. H. Painter, Int. Sc., private study; A. C. Wright, Int. Sc., Magdalen College, Oxford; *W. H. Sodeau, Prel. Sci., King's College. Second Class: R. E. Barnett, Int. Sc., Royal College of Science and private study; R. H. Pickard, Int. Sc., Mason College; A. L. White, Int. Sc., Yorkshire College and private study; *O. F. F. Grünbaum, Prel. Sci., Trinity College, Cambridge; *C. Nathan, Prel. Sci., private study and University Tutorial and Finsbury Technical Colleges. Third Class: W. Cammack, Int. Sc., University College, Aberystwith; W. Cormack, Int. Sc., private study; *T. A. Mayo, Prel. Sci., Epsom College; E. Stenhouse, Int. Sc., Royal College of Science; *A. S. Barnes, Prel. Sci., Mason College; J. G. Wells, Int. Sc., private study; T. J. Thomas, Int. Sc., University College, Aberystwith; E. A. Tyler, Int. Sc., Mansfield Gr. School and University College, Nottingham.

Experimental Physics.—First Class: J. W. Pickles, Int. Sc. (Neil Arnott Exhibition and Medal), Royal College of Science, Owens College, and private study; *W. H. Sodeau, Prel. Sci. (Neil Arnott Medal), King's College; B. Hopkinson, Int. Sc., Trinity College, Cambridge; E. A. Tyler, Int. Sc., Mansfield Gr. School and University College, Nottingham. Second Class: H. T. George, Int. Sc., University College, Cardiff. Third Class: *O. F. F. Grünbaum, Prel. Sci., Trinity College, Cambridge; A. G. Haynes, B.A., Int. Sc., Birkbeck Institute and University Tutorial and Carlyon Colleges; A. M. Stewart, Int. Sc., University College, Bangor; G. Finch, Int. Sc., University College.

Botany.—First Class: J. Belling, Prel. Sci., Mason College. Second Class: J. G. Wells, Int. Sc., private study; F. Douglass, Int. Sc., private study. Third Class: Elinor A. N. Twigg, Int. Sc., Mason and University Tutorial Colleges; G. W. Roome, Int. Sc., University College, Bangor, and private study; F. Escombe, Int. Sc., King's College; F. J. A. Beringer, Int. Sc., private study and University Tutorial College.

Zoology.—First Class: J. Belling, Prel. Sci. (disqualified by age for the Exhibition), Mason College; A. Edmunds, Int. Sc. (Exhibition), Birkbeck Institution and Islington High School. Second Class: H. A. Colwell, Prel. Sci., St. Bartholomew's Hospital. Third Class: Elinor A. N. Twigg, Int. Sc., Mason and University Tutorial Colleges; G. P. Tayler, Prel. Sci., St. Bartholomew's Hospital; S. A. Millen, Prel. Sci., St. Bartholomew's Hospital.

* These candidates have also passed in the Mathematics of the Intermediate Examination in Science, and have thus become admissible to the B.Sc. Examination.

UNIVERSITY OF EDINBURGH.

FIRST PROFESSIONAL EXAMINATION.—The following is the completed official list of those who passed the first professional examination at the last sitting of the Examiners:

F. T. H. Adamson, B. C. R. Aldren, J. Allison, E. B. Anderton, R. W. Anthony, E. Arkwright, F. G. Ballantyne, J. H. Bam, T. Biggam, F. M. Black, R. B. Black, H. F. Boland, L. Boyer, G. M. Bucher, H. N. Bundey, B. W. Burwood, C. A. Brugman, H. N. Chambers, G. L. Chiene, T. S. Church, C. B. Clarke, E. F. Coghlan, R. Craven, T. W. A. Daman, J. L. Davis, D. C. Dickson, J. Donaldson, J. Dorman, J. F. Falconer, G. L. Findlay, D. L. Fisher, A. W. Fletcher, J. G.

Forbes, J. Forrest, J. G. Forsyth, W. H. Fowler, A. F. Fraser, J. Fraser, J. M. Fraser, G. Gatenby, A. Gibson, J. C. Hamilton, W. Hamilton (with distinction), F. S. Harper, W. G. Heath, P. T. Herring, R. P. Hill, H. O. Hobson, G. B. Hollings, O. Horrocks, C. H. Johnson, J. M. Johnson, A. H. Keun, I. Khan, E. Laval, A. M. Limont, G. H. List, J. G. Lithgow, A. M. Little, J. S. Lyle, A. B. MacCarthy, A. J. M'Clymont, J. D. M'Crindle, I. L. MacInnes, J. W. M'Intosh, G. M'Keller, T. D. M'Laren, C. C. Macmillan, J. Malcolm, H. Malcolmson, W. Martin, T. M. Metcalfe, W. M. Milne, F. W. More, J. H. R. Morrow, W. Mowat, J. Muir, J. C. Noronha, N. Oliphant, M. J. O'Shea, G. H. Parry, J. K. Paterson, J. H. P. Paton, J. H. Patterson, T. H. Pemberton, E. E. Porritt, F. W. Price, A. E. Richard, J. Richards, R. G. Riddell, A. A. Robinson, G. Sander, J. T. Scott, G. S. Small, H. W. Smith, W. R. Somerset, J. F. Stewart, J. W. Struthers, J. P. Sturrock, M.A., H. V. Taylor, G. C. Thomas, H. M. Traquair (with distinction), T. B. Unwin, W. J. Veecock, G. A. Vincent, C. P. B. Wall, D. Wallace, D. C. Wallace, A. White, F. M. Willcox (with distinction), J. R. Williamson, W. M. Wilson.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

The following gentlemen having passed the necessary examinations and conformed to the by-laws and regulations, have been admitted Members of the College, namely:

Adcock, G. R., L.R.C.P.Lond.
Atkinson, J. P., L.R.C.P.Lond.
Baldwin, A., L.R.C.P.Lond.
Bamfield, H. J. K., L.R.C.P.Lond.
Barrow, W. D., L.R.C.P.Lond.
Bearblock, P. E., L.R.C.P.Lond.
Benjamin, J. K. K., L.R.C.P.Lond.
Bensley, C. H., L.R.C.P.Lond.
Bensley, G. E., L.R.C.P.Lond.
Benson, G. V., L.R.C.P.Lond.
Betenson, W. D., L.R.C.P.Lond.
Boyd, T. H., M.B. & B.S.Melb.
Bryett, W. R., L.R.C.P.Lond.
Buchanan, J. S., L.R.C.P.Lond.
Bunch, J. Le M., L.R.C.P.Lond.
Burton, J. C., L.R.C.P.Lond.
Cardinall, C. D., L.R.C.P.Lond.
Clarke, H. R. S., L.R.C.P.Lond.
Compton, J. H., L.R.C.P.Lond.
Cooper, P. R., L.R.C.P.Lond.
Corkery, C. M., L.R.C.P.Lond.
Coulson, J. E., L.R.C.P.Lond.
Cresswell, S. C., L.R.C.P.Lond.
Crump, J. A., L.R.C.P.Lond.
Cuff, A. W., L.R.C.P.Lond.
Darlington, W. W., L.R.C.P.Lond.
Davies, E. T., L.R.C.P.Lond.
Davies, H., L.R.C.P.Lond.
Davies, W. T., L.R.C.P.Lond.
Dayus, F. H., L.R.C.P.Lond.
Densham, A. B., L.R.C.P.Lond.
Dornford, A. C., L.S.A.
Duprey, A. J. B., L.R.C.P.Lond.
Dymoke, F., L.R.C.P.Lond.
Edmunds, F., L.R.C.P.Lond.
Edwards, F. H., L.R.C.P.Lond.
Ellison, A., L.R.C.P.Lond.
Elrington, N., L.R.C.P.Lond.
Elvy, F., L.R.C.P.Lond.
Elworthy, H. S., L.R.C.P.Lond.
Evans, W., L.R.C.P.Lond.
Eves, P. S., L.R.C.P.Lond.
Ewbank, A. G., L.R.C.P.Lond.
Eyre, J. W. H., L.R.C.P.Lond.
Farrant, M., L.R.C.P.Lond.
Fish, C. E., L.R.C.P.Lond.
Freyberger, L., L.R.C.P.Lond., M.D. Vienna
Grech, J., L.R.C.P.Lond.
Griffin, W. W., M.B., C.M.Otago.
Griffith, J., L.R.C.P.Lond.
Hacquoil, P. H., L.R.C.P.Lond.
Hall, C. B., L.R.C.P.Lond.
Harris, C. P., L.R.C.P.Lond.
Harrison, C. A., L.R.C.P.Lond.
Harrison, G. A., L.R.C.P.Lond.
Henley, W. F., L.R.C.P.Lond.
Hewett, J. W., L.R.C.P.Lond.
Hicks, T. R. H. C., L.R.C.P.Lond.
Hodgson, C., L.R.C.P.Lond.
Hodson, T. G. S., L.R.C.P.Lond.
Hughes, E. W. S., L.R.C.P.Lond.
Hughes, P. V., L.R.C.P.Lond.
Instone, N., L.R.C.P.Lond.
Jeans, T. T., L.R.C.P.Lond.
Jenkins, T. J. P., L.R.C.P.Lond.
Jones, B. S., L.R.C.P.Lond.
Jones, E. J. T., L.R.C.P.Lond.
Joynson, H. M., L.R.C.P.Lond.
Kirby, R. A., L.R.C.P.Lond.
Kirkpatrick-Picard, A. W., L.R.C.P. Lond.
Knight, E., L.R.C.P.Lond.
Langford, C. H., L.R.C.P.Lond.
Langmore, H. R., L.R.C.P.Lond.
Lawton, W. C., L.R.C.P.Lond.
Leigh, A., L.R.C.P.Lond.
Lewis, E. W., L.R.C.P.Lond.
Ley, B., L.R.C.P.Lond.
Linington, W. W., L.R.C.P.Lond.
Lockyer, G. E., L.R.C.P.Lond.
Lyle, H. W., L.R.C.P.Lond.
Martin, A. A., L.R.C.P.Lond.
Mason, W. B., L.R.C.P.Lond.
Miskin, E., L.R.C.P.Lond.
Moore, H. M., L.R.C.P.Lond.
Morley, H. W., L.R.C.P.Lond.
Morton, S. E., L.R.C.P.Lond.
Murdock, A., L.R.C.P.Lond.
Noonan, F. F., L.R.C.P.Lond.
Nuttall, A. P., L.R.C.P.Lond.
Oldfield, C., L.R.C.P.Lond.
Ord, R. W., L.R.C.P.Lond.
Owens, I. E., L.R.C.P.Lond.
Pauli, E. H. C., L.R.C.P.Lond.
Payne, W. H., L.R.C.P.Lond.
Quirke, J. J., L.R.C.P.Lond.
Rainier, N. R. J., L.R.C.P.Lond.
Rees, E. D., L.R.C.P.Lond.
Richardson, S. W. F., L.R.C.P.Lond.
Robertson, G. V. A., L.R.C.P.Lond.
Robinson, F. C., L.R.C.P.Lond.
Rock, E. A., L.R.C.P.Lond.
Rogers, J. E. G., L.R.C.P.Lond.
Rogers, K., L.R.C.P.Lond.
Rowstron, N. F., L.R.C.P.Lond.
Salter, S. C., L.R.C.P.Lond.
Sandall, T. E., L.R.C.P.Lond.
Sarjeant, J. F., L.R.C.P.Lond.
Scott, J. A. N., L.R.C.P.Lond.
Scrase, F. E., L.R.C.P.Lond.
Seller, J. D., L.R.C.P.Lond.
Sharp, A. J., L.R.C.P.Lond.
Shears, W., L.R.C.P.Lond.
Simmons, E. W., L.R.C.P.Lond.
Simpson, C. S., L.R.C.P.Lond.
Sly, E., L.R.C.P.Lond.
Smith, T. W., L.R.C.P.Lond.
Staniland, J. H., L.R.C.P.Lond.
Stanwell, St. J., L.R.C.P.Lond.
Stedman, T. B., L.R.C.P.Lond.
Stepanian, H. D., L.R.C.P.Lond.
Stephens, W. J., L.R.C.P.Lond.
Stevens, A. F., L.R.C.P.Lond.
Stuck, S. J., L.R.C.P.Lond.
Taylor, J. W., L.R.C.P.Lond.
Thomas, T. W., L.R.C.P.Lond.
Tomkys, L. S., L.R.C.P.Lond.
Vickers, K. B. J., L.R.C.P.Lond.
Wace, C., L.R.C.P.Lond.
Weekes, R. N., L.R.C.P.Lond.
Wells, J. E. B., L.R.C.P.Lond.
Wigginton, A. E., L.R.C.P.Lond.
Williams, F. E., L.R.C.P.Lond.
Willis, C. H., L.R.C.P.Lond.
Wilson, F. W., L.R.C.P.Lond.
Wilson, R. P., L.R.C.P.Lond.
Woodfield, T. H., L.R.C.P.Lond.
Woodward, C. R. M., L.R.C.P.Lond.
Worrall, C. S., L.R.C.P.Lond.
Worts, S. E., L.R.C.P.Lond.
Yelf, J. B., L.R.C.P.Lond.

CONJOINT EXAMINATIONS BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS OF IRELAND.

Final Examination, July, 1893.—The following candidates, having passed this examination, are entitled, if of age, to admission to the licences;

G. H. Ayres, H. C. Beasley, C. E. Cowen, R. C. Fisher, G. H. Freeman, R. J. Harvey, W. H. Hornibrook, P. K. Joyce, P. J. Liston, H. H. Moffatt, C. J. Nally, F. Nolans, W. O'Donnell, P. Peacocke, T. A. Poirotte, W. G. T. Posnett, J. H. Power, H. R. Sweeney, W. Taylor, A. H. White, J. C. Woodside.

Passed in Group A, Medicine.—E. F. M. Alleyne, J. B. C. Blatchley, H. Carre, L. F. Corbet, J. F. Duffy, A. A. Gibbs, C. R. Rothwell, Miss E. A. Tennant, T. Wilson.

Passed in Group B, Surgery, etc.—S. E. M. Butler, W. S. Crosthwait, J. F. Duffy, A. A. Gibbs, G. F. J. Luther, T. M. Morton, C. R. Rothwell, R. Somerville.

Passed in Group C, Midwifery, etc.—E. F. M. Alleyne, N. B. M. Blackham, W. J. Conrys, E. L. Hunt, T. M. Morton, E. Smith, R. Somerville, Miss Tennant, W. A. Woodside, E. A. Travers Stubbs.

OBITUARY.

ARTHUR ELLIS DURHAM, M.B., B.C., M.A.Cantab.

We much regret to announce the death of Arthur Ellis Durham, which occurred at the London Fever Hospital on August 6th, from a virulent attack of pharyngeal diphtheria, contracted while carrying on his duties as assistant medical officer. He was the eldest son of Mr. Arthur Durham, Senior Surgeon to Guy's Hospital. His early education was received at University College School, from which he matriculated with honours at the London University. Passing on to University College he obtained the gold medal in zoology, and subsequently went to Cambridge, where he was elected to a scholarship at Christ's College. There he devoted himself to natural science, graduating with first-class honours in Physiology in Part II, and second-class honours in Part I of the Natural Sciences Tripos. He also helped his college on the river. His medical education was completed at Guy's Hospital, where, besides the ordinary appointments, he held the post of House Physician, and won in 1890 the Treasurer's Gold Medal in Medicine. He then proceeded to Paris, and studied under M. Roux, and on his return home became clinical assistant at the Bethlem Hospital. Finally he was appointed assistant resident medical officer to the London Fever Hospital, Islington, and it was in the performance of his duties there that he met his sad and untimely end. He was first troubled with sore throat on Wednesday, August 2nd; on Friday, the 4th, the disease was recognised as diphtheria, and on Sunday, the 6th, he died. He had a brightness and originality of thought seldom met with. He was beloved by everyone, and his death will be mourned by all who knew him.

The Rev. George Henry, Medical Missionary at the Free Church Mission, Livingstonia, whose death is reported, was a native of Newburgh, and was educated at the Newburgh Public School and the Aberdeen Grammar School, where he was both silver and gold medallist. He afterwards graduated M.A. at Aberdeen University, where he also took his medical degree. In 1887 he went out to Africa in connection with the Livingstonia Free Church Mission. Dr. Henry was an accomplished linguist, and constructed a grammar of the Chinyanja language, which proved of great service to planters and traders. He also translated a hymn book into the same language, as well as the Book of Genesis, and he hoped to translate the entire Bible. His translation of the *Pilgrim's Progress* was in the press at the time of his death.

Dr. Alexander Wattie, who died recently at Bridge of Alford, Aberdeenshire, was educated in the University of Aberdeen, where he gained a bursary at the age of 14, afterwards graduating with honours in Mathematics and carrying off the Boxill Mathematical Prize. He studied medicine at Aberdeen, and afterwards at Edinburgh, where he took his degree in 1879. He was assistant medical officer at Crumpsall Hospital, Manchester, for three years and a-half, and afterwards practised with much acceptance at Echt, but after a time he had to retire from practice owing to ill health. He died at the early age of 38, leaving a widow and one son.

Mr. Francis Carr Beard, of Welbeck Street, who died on August 11th, at the age of 78, was a medical practitioner well known in literary circles. He was the trusted adviser and intimate friend of Charles Dickens for some thirty years, and he stood in the same relation to Wilkie Collins for a still longer period. Mr. Carr Beard, who learnt his profession

University College, became a Member of the Royal College of Surgeons of England in 1838, and a Fellow in 1853. He was formerly Surgeon to the Margaret Street Infirmary for Consumption.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 5,579 births and 4,136 deaths were registered during the week ending Saturday, August 12th. The annual rate of mortality in these towns, which had declined from 25.1 to 21.9 per 1,000 in the preceding three weeks, further fell to 20.9 during the week under notice. The rates ranged from 12.9 in Croydon, 15.0 in Huddersfield, 15.5 in Norwich, 16.1 in West Ham, and 17.1 in Bristol, to 27.8 in Sheffield, 28.2 Salford, 29.7 in Wolverhampton, 29.9 in Blackburn, and 34.1 in Preston. In the thirty-two provincial towns the mean death-rate was 21.8 per 1,000, and exceeded by 2.2 the rate recorded in London, which was 19.6 per 1,000. The 4,136 deaths registered during the week under notice in the thirty-three towns included 974 which were referred to the principal zymotic diseases, against 1,257 and 1,116 in the preceding two weeks; of these, 604 resulted from diarrhœa, 89 from measles, 82 from diphtheria, 76 from whooping-cough, 67 from "fever" (principally enteric), 47 from scarlet fever, and 9 from small-pox. These 974 deaths were equal to an annual rate of 4.9 per 1,000; in London the zymotic death-rate was equal to 3.9 per 1,000, while it averaged 5.6 in the thirty-two provincial towns, among which the lowest zymotic death-rates were recorded in Huddersfield, Swansea, Bristol, Brighton, and Birkenhead, and the highest rates in Portsmouth, Salford, Preston, Wolverhampton, Sheffield, and Blackburn. Measles showed the highest proportional fatality in Croydon, Plymouth, Sheffield, and Blackburn; scarlet fever in Leicester; whooping-cough in Norwich, Derby, and Bradford; "fever" in Portsmouth, Wolverhampton, Sheffield, and Preston; and diarrhœa in Hull, Sunderland, Salford, Preston, Blackburn, Sheffield, and Wolverhampton. The 82 deaths from diphtheria included 63 in London, 3 in Croydon, and 3 in Birmingham. Three fatal cases of small-pox were registered in Salford, 2 in London, 2 in West Ham, 1 in Manchester, and 1 in Bradford, but not one in any other of the thirty-three towns; 221 small-pox patients were under treatment in the Metropolitan Asylums Hospitals and in the Highgate Small-pox Hospital on Saturday last, August 12th, against 328, 280, and 246 at the end of the preceding three weeks; 26 new cases were admitted during the week, against 53, 38, and 40 in the preceding three weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 2,968, 2,965, and 2,944 at the end of the preceding three weeks, had further declined to 2,885 on Saturday last; 318 new cases were admitted during the week, against 282 and 351 in the preceding two weeks. The 201 deaths referred to diseases of the respiratory organs in London were 17 above the average, and were equal to an annual rate of 2.4 per 1,000.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday, August 12th, 848 births and 554 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 19.1 and 19.4 per 1,000 in the preceding two weeks, further rose to 19.7 during the week under notice, but was 1.2 per 1,000 below the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the lowest rates were 14.9 in Aberdeen and 15.4 in Leith, and the highest rates 22.8 in Dundee and 26.3 in Paisley. The 554 deaths in these towns included 114 which were referred to the principal zymotic diseases, equal to an annual rate of 4.0 per 1,000, which was 0.9 below the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Leith, Greenock, and Paisley. The 276 deaths registered in Glasgow included 13 from whooping-cough, 9 from measles, 8 from scarlet fever, and 6 from diphtheria. Six fatal cases of "fever" were recorded in Paisley. The death-rate from diseases of the respiratory organs in these towns was equal to 2.9 per 1,000, against 2.4 in London.

HEALTH OF IRISH TOWNS.

IN sixteen of the principal town districts of Ireland the deaths registered during the week ending Saturday, August 5th, were equal to an annual rate of 24.9 per 1,000. The lowest rates were recorded in Dundalk and Lurgan, and the highest rates in Drogheda and Kilkenny. The death-rate from the principal zymotic diseases averaged 6.6 per 1,000. The 194 deaths registered in Dublin were equal to an annual rate of 28.9 per 1,000 (against 30.3 and 29.2 in the preceding two weeks), the rate during the same period being 20.8 in London and 19.5 in Edinburgh. The 194 deaths in Dublin included 41 which resulted from the principal zymotic diseases (equal to an annual rate of 6.1 per 1,000), of which 27 were referred to diarrhœa, 5 to measles, 4 to whooping-cough, and 2 to diphtheria.

ENTERIC FEVER IN RYEDALE.

INSTANCES of water-borne enteric fever are just now becoming painfully numerous. Another has to be added to the list, this time also in Yorkshire. In the year ended with January last, 36 cases of fever occurred in the four villages of Nunnington, Ness, Butterwick, and Brawby, in the rural sanitary districts of Kirkbymoorside and Malton, with their 600 inhabitants; whilst only 17 cases occurred among the remaining 17,000 people in those districts; the incidence on the villages being thus sixty times greater than on the larger areas. These villages are all riverside places, and derive their water supply largely from the Rye, this being the only condition common to them. As matter of fact, every invaded household consumed river water, as was ascertained beyond doubt; and further, at Nunnington, where the people on the advice of the health officer took to boiling their drinking water, all fever ceased with a fortnight of this action. In other villages like precaution is credited with stamping out the disease. Dr. Bruce Low discusses at considerable length the various ways in which the river Rye is open to specific pollution, the chief means being by the sewage of Helmsley, and others being by way of manured fields strewn with human excrement from local privies, and with the night soil brought by rail from Leeds, and spread on land bordering the river. Moreover, the meteorological conditions preceding the outbreak which Dr. Low chronicles were such as to favour the washing of filth from the drainage area into the river in large amount; and whilst the reporter is unable to point his finger to any one factor as the *vera causa* of the prevalence of fever, he shows the extreme probability of actual relation between the October flood in the Rye valley and the fever that followed. Malton derives its water from a well 196 feet distant from the river Derwent and four miles from the junction of the Rye. The top of the well is but little above the level of the river, and floods at certain times have rendered the town supply thick and discoloured, usually through its connections with the river by means of pools. Expert engineers believe that river water gains access to the well by way of underground channels, and they have urged the adoption of a new scheme of supply. The scheme was not proceeded with, some heightening of the embankments round the well alone being done; and further raising of these embankments seems still to be locally trusted to do all that is essential to protect the well water. Dr. Low finds from the records of the town that both enteric fever and diarrhœa have persisted in Malton for twenty years past, and that public attention had been drawn to the fact that outbreaks of these diseases had followed seasons of flood in the river. It cannot be wondered at that Dr. Low should counsel reconsideration by the Town Council of the whole question of water supply.

INFECTION FROM SMALL-POX HOSPITALS.

THE North-Western Branch of the Incorporated Society of Medical Officers of Health, at a recent meeting, passed a resolution to the effect that it is desirable, in the interest of public health, that small-pox hospitals should not be on the same area as hospitals for the treatment of other fevers, and that they should also be at a distance from centres of population. The resolution was adopted at the conclusion of a discussion which followed on a paper read by Dr. Niven (of Oldham) on the baneful effects which the Westhulme hospital for small-pox has had during the past months on the aggregation of persons around it; Dr. Patterson, of the adjoining district of Chadderton, also reading a paper in which he declares that the potency of the hospital for harm has been demonstrated at a distance of 1,700 yards. Both these health officers dilated at some length on the subject, illustrating their statements by tables and maps, and whilst Dr. Niven would regard three-quarters of a mile as a reasonable minimum distance from populous centres at which to locate a small-pox hospital, Dr. Patterson demurs to the present plan of his authority in choosing a site a mile and a-half distant from any great mass of population, looking on two miles as alone sufficing. We thus see, at the end of a small-pox prevalence widely diffused, more especially in Northern England, a body of influential medical men versed in sanitary problems at last accepting the dictum long since laid down by the Local Government Board, that small-pox hospitals work harm to adjacent communities; much more to closely erected wards for the treatment of patients suffering from other diseases. In fact the view long held at Whitehall by Mr. Power and his colleagues has now come to be recog- as without question a demonstrated fact.

The persistent consistency of the Local Government Board in again and again refusing to accept plans locating small-pox hospitals in urban centres and as parts of institutions designed to receive differing diseases in them, seems to have been founded on sound bases; and it will be well if local authorities will profit by those rapidly-increasing instances in which hospitals designed to check the spread of small-pox have been proved to have acted as disease-disseminating agencies. We need only refer to Fulham, Hackney, Leicester, Warrington, and Oldham as typical examples. So long as vaccination and revaccination are not universally enforcable and enforced, small-pox will continue and must be isolated. It would be well if the means of isolation were made harmless to the healthy outside the walls of the wards set apart for lodgment of the sick.

TYNE SANITARY AUTHORITY AND THEIR MEDICAL OFFICER'S SALARY.

AT the meeting of the Tyne Sanitary Authority held on August 14th, a letter was read from the Local Government Board approving the increase of Dr. Armstrong's salary to £150, and also approving the gratuity allowed him for extra duties in connection with the cholera last year.

OUTBREAK OF SMALL-POX IN KILKENNY COUNTY.

SOME cases of small-pox have occurred at Mullinahone. They are bad cases, and have been removed to the Callan Workhouse, as isolation in their own home was considered impossible otherwise by the Local Government Board.

YELLOW FEVER IN BRAZIL.—Official statistics published in the *Gazeta Medica da Bahia* show that during the epidemic of yellow fever which prevailed in the province of Bahia, Brazil, in 1892, there were 161 cases, with 99 deaths and 35 recoveries; in 27 cases the issue of the case is unknown. The nationalities which suffered most severely were the Brazilians, the Portuguese, and the Italians. The statistics seem to show that the period of greatest liability to attacks from the first to the end of the second year of residence in the country. The majority of the cases occurred in persons under 40 years of age.

MEDICAL NEWS.

During the present year the New York Board of Health has destroyed 4,000,000 pounds of bad meat, fish, fruit, and vegetables.

A local committee has been formed for the promotion of a scheme to found a medical faculty at Linz in Upper Austria.

Prince Ferdinand, of Bulgaria, has decided to form a Medical Faculty in conformity with the spirit of modern science at Sofia.

New Hospital at Stourbridge.—The Corbett Hospital at Stourbridge recently opened by Lady Cobham is the gift of Mr. Corbett, who purchased the Hill Estate at Amblecote, and had the mansion altered and adapted for a hospital. Besides the gift of the estate Mr. Corbett contributed £2,500 for altering and fitting up the mansion as a hospital, and £500 towards the furnishing expenses. The hospital provides five wards, and in the outset there will be eighteen beds.

The St. Giles's Christian Mission.—We have received an account of the work done by the St. Giles's Christian Mission in such districts as Drury Lane and Seven Dials, showing Sunday school work, help for discharged prisoners, Bands of Hope, boys' home, women's refuge, all in full work. Such missions are full of usefulness, especially when worked locally with knowledge of the district, and very worthy of support.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently passed away are Dr. Amédée Poitevin, professor of descriptive anatomy in the University of Montreal; Dr. Benjamin A. Fordyce, of Union Springs, some time President of the New York State Medical Association, and for several years a High Priest of the Masonic Chapter, aged 70; Dr. James M'Cann, who organised the first medical college in Western Pennsylvania, in which he held the professorship of the Principles and Practice of Surgery until a few months before his death, aged 57; Dr. Friedrich Fischel, of Franzensbad, a well-known bacteriologist and author of numerous contributions to medical literature, the most recent of which was a monograph published this year, on the morphology and biology of the organisms which are the exciting causes of tuberculosis; Dr. Angelo Monteverdi, Director of the Ospedale Maggiore of Cremona, and founder of the *Bollettino Medico*, aged 66; and Dr. Justus Carrière, Professor of Zoology in the University of Strasburg, aged 39.

MEDICAL VACANCIES.

The following vacancies are announced:

ANDERSON'S COLLEGE MEDICAL SCHOOL, Glasgow.—Chair of Materia Medica and the Chair of Physics. Applications to John Kidstone, Secretary, 50, West Regent Street, Glasgow, by August 31st.

BOROUGH OF CHESTERFIELD.—Medical Officer of Health for the Urban Sanitary District. Salary, £300 per annum. Applications, endorsed "Medical Officer," to John Middleton, Town Clerk, by September 4th.

BRIDGNORTH AND SOUTH SHROPSHIRE INFIRMARY.—House-Surgeon; doubly qualified. Salary for the first year, £80 per annum, with board and lodging. Applications to the Honorary Secretary, Oldbury Rectory, Bridgnorth, by August 26th.

BRIGHTON, HOVE, AND PRESTON DISPENSARY, Board Room, Queen's Road, Brighton.—House-Surgeon, unmarried, doubly qualified. Salary, £140 per annum, with furnished apartments, coals, gas, and attendance. Applications to C. Somers Clarke, Honorary Secretary, by September 1st.

DENBIGHSHIRE INFIRMARY, Denbigh.—House-Surgeon; must be conversant with the Welsh language. Salary, £85 per annum, with board, residence, and washing. At the end of a year's engagement, if satisfactory, a gratuity of £15 is given by the Committee. Applications to W. Vaughan Jones, Secretary.

GENERAL HOSPITAL, Birmingham.—House-Physician. Salary, £70 per annum, with residence, board, and washing. Applications to Howard J. Collins, House Governor, by September 2nd.

LONDON COUNTY ASYLUM, Claybury, Woodford, Essex. Fourth Assistant Medical Officer, unmarried, doubly qualified, and not more than 35 years of age. Salary, £150, rising £5 a year to £160 per annum. Applications on specified form to R. W. Partridge, Clerk to the Asylums Committee, 21, Whitehall Place, S.W., by August 24th.

LONDON TEMPERANCE HOSPITAL, Hampstead Road, N.W.—House-Surgeon and Junior House-Surgeon, doubly qualified. Residence, board, and washing provided. Appointments for six months. The House-Surgeon will receive a salary at the rate of 50 guineas per annum, and the Junior House-Surgeon will receive an honorarium of 5 guineas on satisfactory completion of term of appointment. Applications to E. Wilson Taylor, Secretary, by August 31st.

NATIONAL DENTAL HOSPITAL, Great Portland Street, W.—Assistant Dental Surgeon. Applications to E. Almack, Secretary, by August 22nd.

QUEEN'S COLLEGE, Ireland.—Professor of Midwifery. Applications to the Under Secretary, Dublin Castle, by August 21st.

ROYAL UNITED HOSPITAL, Bath.—House-Surgeon; must be M.R.C.S. Eng. Salary, £60 per annum, with board, lodging, and washing. Applications to W. Stockwell, Secretary-Superintendent, by August 25th.

ST. LUKE'S HOSPITAL, London, E.C.—Clinical Assistant. Appointment for six months. Board and residence provided. Applications to Percy de Bathe, Secretary, by August 24th.

ST. PETER'S HOSPITAL FOR STONE AND URINARY DISEASES, Henrietta Street, Covent Garden.—House-Surgeon; must be M.R.C.S. Appointment for six months. Honorarium, 25 guineas, with board, lodging, and washing. Applications to the Secretary by September 11th.

SHEFFIELD GENERAL INFIRMARY.—Assistant House-Surgeon; doubly qualified. Salary, £80 per annum, with board, lodging, and washing. Applications to the Medical Staff of the Sheffield General Infirmary, to the care of the Secretary, by August 26th.

SHEFFIELD SCHOOL OF MEDICINE.—Tutor to take charge of Dissecting Room and to hold Classes in Anatomy and Physiology. Salary, £125 per annum. Applications to the Secretary by August 31st.

STAFFORD GENERAL INFIRMARY, Stafford.—Assistant House-Surgeon. Board and residence provided. Applications to the Secretary by September 9th.

TEIGNMOUTH, DAWLISH, AND NEWTON INFIRMARY, DISPENSARY, AND CONVALESCENT HOME.—House-Surgeon, doubly qualified. Salary, £60 per annum, with board, lodging, and washing. Applications to the Chairman of Committee by August 28th.

WESTON-SUPER-MARE HOSPITAL AND DISPENSARY.—Medical Officer for the Provident Dispensary attached to the Hospital; doubly qualified. Salary, £60 per annum, with board, lodging, and washing. Applications to the Honorary Secretary by August 30th.

WESTMINSTER HOSPITAL, Broad Sanctuary, S.W.—Surgeon. Must be Fellow of the Royal College of Surgeons of England. Applications with testimonials to the Secretary, S. M. Quennell, by August 22nd.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton.—House-Surgeon. Salary, £100 per annum, with board, lodging, and washing. Appointment for one year, but eligible for re-election. Applications, endorsed "Application for House-Surgeon," to Edwin A. White, House-Governor and Secretary, by August 28th.

WORCESTER COUNTY AND CITY LUNATIC ASYLUM.—Third Assistant Medical Officer, unmarried. Salary, £100 per annum, with board, lodging, and washing. Applications to Dr. Cooke, The Asylum, Powick, near Worcester, by August 25th.

MEDICAL APPOINTMENTS.

ADAMS, James, M.D.St.And., M.R.C.S.Eng., reappointed Medical Officer for the Barnes Sanitary District of the Richmond Union.

ARNOLD, W., M.R.C.S.Eng., appointed Medical Officer for the Great Milton and Little Milton Districts of the Thame Union.

BLACKER, G. F., M.B., B.S.Lond., F.R.C.S., appointed Assistant Obstetric Physician to University College Hospital.

BROCKBANK, Edward Mansfield, M.D.Vict., appointed Resident Medical Officer at the Royal Infirmary, Manchester.

BULLER, Mr. A. E., appointed Assistant Medical Officer to the Infirmary of the Parish of St. Pancras.

COURTENAY, K. J., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Wareham No. 1 and Morden Districts of the Wareham and Purbeck Union.

DODD, Percy V., M.A., M.R.C.S.Eng., L.R.C.P.Lond., reappointed Assistant Medical Officer of Health for Folkestone.

DRABBLE, Dr., appointed Medical Officer for the Walton District of the Chertsey Union.

FLETCHER, Wm. John Harvey, L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Uttoxeter and Leigh Districts and the Workhouse of the Uttoxeter Union.

FOWLER, James Stewart, M.B., C.M.Edin., M.R.C.S.Eng., appointed Resident Medical Officer to the Edinburgh Sick Children's Hospital.

FREER, John Henry, L.R.C.P.Lond., M.R.C.S.Eng., reappointed Medical Officer of Health for Rugeley.

FULLERTON, F. W., M.B., B.S.Durh., M.R.C.S., L.R.C.P.Lond., appointed Junior Assistant House-Surgeon to the Hull Royal Infirmary, *vice* Mr. Sims, promoted.

GERMAN, Arthur Wm., M.R.C.S., L.R.C.P.Lond., appointed Assistant Medical Officer for the Mill Road Infirmary of the West Derby Union.

GOWING, Benjamin C., M.R.C.S.Eng., L.S.A., reappointed Medical Officer of Health for the Penistone Urban Sanitary District.

GRIFFITHS, C. A., F.R.C.S.Eng., L.R.C.P.Lond., appointed House-Surgeon to the Swansea General and Eye Hospital, *vice* Dr. Wood, resigned.

HAYDON, T. H., M.B., B.C.Camb., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer of Health for the Marlborough Urban Sanitary District of the Marlborough Union, *vice* H. Cooper, M.R.C.S.Eng.

HEMMING, Charles Walter, L.R.C.P., L.R.C.S.Edin., appointed Medical Officer of Health for the Glyncorrwg District Local Board,

HEY, Harold D., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer for the Buckland Sanitary District of the Faringdon Union.

HIGGINS, Charles Hayes, M.D.St.And., M.R.C.P.Lond., F.R.C.S.Eng., appointed Medical Officer of Health for the Cleckheaton Urban Sanitary District of the North Bierly Union, *vice* R. S. Morrison, M.B., C.M.Edin.

HOBBES, Jonathan Lord, L.R.C.P., L.M.Edin., M.R.C.S.Eng., appointed Medical Officer for the Belbroughton District of the Bromsgrove Union.

HODGSON, J. W., M.D.Aberd., appointed Medical Inspector of Seamen for the Port and District of Exmouth.

HOLMES, F. D., B.A.R.U.I., L.R.C.P.Edin., appointed Medical Officer for the Duffield District of the Belper Union, *vice* E. J. H. Hoskyns, L.R.C.P., L.R.C.S.Edin., resigned.

HUTCHINSON, Joseph A., M.D.Durh., M.R.C.S.Eng., appointed Medical Officer for the Northallerton District and the Workhouse of the Northallerton Union.

JONES, H., L.S.A., D.P.H.Camb., appointed Medical Officer of Health for the Borough of Crewe.

KEANE, Bernard, L.R.C.P., L.R.C.S.Edin., L.F.P.S.Glasg., appointed Medical Officer for the Western District of the Hamlet of Mile End Old Town.

KENDALL, H. W., M.R.C.S., L.R.C.P.Lond., appointed House-Surgeon to the Great Northern Central Hospital, Holloway Road, N.

LANE, John, L.R.C.P., L.R.C.S.Edin., appointed *pro tem.* Medical Officer for the Timoleague Dispensary District, Cork.

MACKAY, Mr. J. D., appointed Medical Officer for the Knaresborough District of the Knaresborough Union.

MACKEITH, Alex. Arthur, M.B., C.M.Glasg., appointed Medical Inspector of Seamen for the Port and District of Exeter.

MANNING, N. S., L.R.C.P., F.R.C.S.Irel., appointed Medical Officer for the Eighth Sanitary District of the Barnstaple Union, *vice* G. H. Manning, M.B.Dub.

MINSHALL, Arthur G., M.R.C.S., L.R.C.P.Lond., appointed Assistant Medical Officer to the Infirmary of the Parish of St. Pancras.

MORLEY, H. W., M.R.C.S., L.R.C.P., appointed Assistant House-Surgeon to the Royal Portsmouth, Portsea, and Gosport Hospital, *vice* F. H. Bliss, M.B., B.C.Cantab, resigned.

PEACHEY, George Charles, L.R.C.P., L.R.C.S.Edin., L.F.P.S.Glasg., appointed Medical Officer of Health for the Wantage Rural Sanitary District.

ROBERTS, J. Dungey, M.R.C.S.Eng., L.S.A.Lond., appointed Medical Officer to the Ealing Cottage Hospital and Provident Dispensary, *vice* Dr. Warwick C. Steele, resigned.

SMITH, Thomas Hanson, L.R.C.P., L.R.C.S.Edin., reappointed Medical Officer of Health for the Reddish Urban Sanitary District.

STEELE, Dr. R., appointed Medical Officer for the Church Eaton District of the Cannock Union, *vice* T. W. S. Morgan, M.R.C.S.Eng., resigned.

STEVENS, Percy Richard, L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer of Health for the Braintree Urban Sanitary District.

WALLIS, Mr. J. H., appointed Medical Officer for the Igburgh District of the Swaffham Union.

WEBSTER, Trevor, M.R.C.S.Eng., L.S.A., appointed Medical Officer for the Bewdley District of the Kidderminster Union, *vice* W. Scott, M.D.Edin., resigned.

WOODS, George Thomas, L.R.C.P., L.R.C.S.Edin., appointed Medical Officer of Health for the Ripley Sanitary District of the Knaresborough Union, *vice* F. H. Saunders, M.B., C.M.Aberd., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTHS.

BROWN.—On August 6th, at Claremont, Higher Broughton, Manchester, the wife of Alfred Brown, M.A., M.D., of a son.

GAINER.—On August 13th, at Belmont House, Thrapston, Northants, the wife of J. W. Gainer, M.B.Edin., of a son.

MARRIAGES.

CRAMPTON—BERRIDGE.—On August 2nd, at Ratley Church, by the Rev. J. Rowbotham, assisted by the Rev. A. Blythman and the Rev. C. Parker, Chaplain to the Royal Free Hospital, Thomas Hobbs Crampton, L.R.C.P.I., L.R.C.S.I., Myddelton Square, London, to Augusta, youngest daughter of Thomas W. Berridge, The Uplands, Banbury.

HOPSON—THATCHER.—On August 9th, at St. Mary Abbots, South Kensington, by the Rev. J. S. Clementson, M.A., Montagu Frank Hopson, L.D.S.Eng., of Grove House, Rosslyn Hill, Hampstead, N.W., youngest son of Joseph Hopson, The Croft, Newbury, to Eva Kate, second daughter of John Thatcher, Enbourne, Newbury.

JAMES—ASHWIN.—On August 9th, at St. James's, Alveston, Warwickshire, by the Rev. W. Barnard, Rural Dean, John Angell James, M.R.C.S., L.R.C.P.Lond., of Odiham, Hants, son of the late John Angell James, of Bridgetown, Stratford-on-Avon, to Emily Cormell Ashwin, third daughter of Manley Cormell Ashwin, of Tiddington, Stratford-on-Avon.

DEATH.

DURHAM.—On August 6th, at the London Fever Hospital, of virulent diphtheria contracted while on duty as Acting Resident Medical Officer, Arthur Ellis Durham, M.A., M.B., B.C. (late scholar of Christ's College, Cambridge, and student of Guy's Hospital), aged 28, eldest son of Arthur E. Durham, F.R.C.S., of 82, Brook Street, W., and Guy's Hospital.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Hours of Attendance.*—Daily, 2. *Operation Days.*—Tu. S., 2.

CENTRAL LONDON OPHTHALMIC. *Operation Days.*—Daily, 2.

CHARING CROSS. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M., 1.30; Dental, M. W. F., 9; Throat and Ear, F., 9.30 *Operation Days.*—W. Th. F., 3.

CHELSEA HOSPITAL FOR WOMEN. *Hours of Attendance.*—Daily, 1.30 *Operation Days.*—M. Th., 2.

EAST LONDON HOSPITAL FOR CHILDREN. *Operation Day.*—F., 2.

GREAT NORTHERN CENTRAL. *Hours of Attendance.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Ear, Tu. F., 2.30; Diseases of the Skin, W., 2.30; Diseases of the Throat, Th., 2.30; Dental Cases, W., 2. *Operation Day.*—W., 2.

GUY'S. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 1. *Operation Days.*—(Ophthalmic), M. Th., 1.30; Tu. F., 1.30.

HOSPITAL FOR WOMEN, Soho. *Hours of Attendance.*—Daily, 10. *Operation Days.*—M. Th., 2.

KING'S COLLEGE. *Hours of Attendance.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, daily, 1.30; o.p., Tu. W. F. S., 1.30; Eye, M. Th., 1.30; Ophthalmic Department, W., 2; Ear, Th., 2; Skin, F., 1.30; Throat, F., 1.30; Dental, Tu. Th., 9.30. *Operation Days.*—M. F. S., 2.

LONDON. *Hours of Attendance.*—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9. *Operation Days*—M. Tu. W. Th. S., 2.

LONDON TEMPERANCE HOSPITAL. *Hours of Attendance.*—Medical, M. Tu. F. 2; Surgical, M. Th., 2. *Operation Days.*—M. Th., 4.30.

METROPOLITAN. *Hours of Attendance.*—Medical and Surgical, daily, 9; Obstetric, W., 2, *Operation Day.*—F., 9.

MIDDLESEX. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Th., 1.30; o.p., M. F., 9, W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu., 9; Skin, Tu., 4, Th., 9.30; Dental, M. W. F., 9.30. *Operation Days.*—W., 1.30, S., 2; (Obstetrical), Th., 2.

NATIONAL ORTHOPÆDIC. *Hours of Attendance.*—M. Tu. Th. F., 2. *Operation Day.*—W., 10.

NORTH-WEST LONDON. *Hours of Attendance.*—Medical and Surgical, daily, 2; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operation Day.*—Th., 2.30.

ROYAL FREE. *Hours of Attendance.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Dental, Th., 9. *Operation Days.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Hours of Attendance.*—Daily, 9. *Operation Days.*—Daily, 10.

ROYAL ORTHOPÆDIC. *Hours of Attendance.*—Daily, 1. *Operation Day.*—M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Hours of Attendance.*—Daily, 1. *Operation Days.*—Daily.

ST. BARTHOLOMEW'S. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, W. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. *Operation Days.*—M. Tu. W. S., 1.30; (Ophthalmic), Tu. Th., 2.

ST. GEORGE'S. *Hours of Attendance.*—Medical and Surgical, M. Tu. F. S., 12; Obstetric, Th., 2; o.p., Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopædic, W., 2; Dental, Tu. S., 9. *Operation Days.*—Th., 1; (Ophthalmic), F., 1.15.

ST. MARK'S. *Hours of Attendance.*—Fistula and Diseases of the Rectum, males, S., 3; females, W., 9.45. *Operation Days.*—M., 2., Tu. 2.30.

ST. MARY'S. *Hours of Attendance.*—Medical and Surgical, daily, 1.45; o.p., 1.30; Obstetric, Tu. F., 1.45; Eye, Tu. F. S., 9; Ear, M. Th., 3; Orthopædic, W., 10; Throat, Tu. F., 1.30; Skin, M. Th., 9.30; Electro-therapeutics, Tu. F., 2; Dental, W. S., 9.30; Consultations, M., 2.30. *Operation Days.*—Tu., 1.30; (Orthopædic), W., 11; (Ophthalmic), F., 9.

ST. PETER'S. *Hours of Attendance.*—M., 2 and 5, Tu., 2, W., 5, Th., 2, F. (Women and Children), 2, S., 4. *Operation Days.*—W. and F., 2.

ST. THOMAS'S. *Hours of Attendance.*—Medical and Surgical, daily, exc. W. and S., 2; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Tu. F., 1.30; Children, S., 1.30; Dental, Tu. F., 10 *Operation Days.*—W. S., 1.30; (Ophthalmic), M., 2.30, F., 2; (Gynæcological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Hours of Attendance.*—Daily, 1.30. *Operation Day.*—W., 2.30.

THROAT, Golden Square. *Hours of Attendance.*—Daily, 1.30; Tu. and F., 6.30; *Operation Day.*—Th., 2.

UNIVERSITY COLLEGE. *Hours of Attendance.*—Medical and Surgical daily, 1.30; Obstetrics, M. W. F., 1.30; Eye, M. Th., 2; Ear, M. Th., 9; Skin, W., 1.45, S., 9.15; Throat, M. Th., 9; Dental, W., 9.30; *Operation Days.*—W. Th 1.30; S., 2.

WEST LONDON. *Hours of Attendance.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th. S., 2; Ear, Tu., 10; Orthopædic; W., 2; Diseases of Women, W. S., 2; Electric, Tu., 10, F., 4; Skin, F., 2; Throat and Nose, S., 10. *Operation Days.*—Tu. F., 2.30.

WESTMINSTER. *Hours of Attendance.*—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1; Eye, M. Th., 2.30; Ear, M., 9; Skin, W., 1; Dental, W. S., 9.15. *Operation Days.*—Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

RENES would be glad to know where he can obtain photograph or engraving of Dr. Richard Bright, the famous Guy's physician.

FIDES asks for information with regard to the M.D.Erlangen. As several medical men hold that degree, he presumes that it is open to Englishmen.

W. F. T. writes: Can any of your readers inform me whether the O'Connor Patent Extension for the Lame has any advantages over the high sole and heel boot, especially in regard to comfort, safety, and convenience?

SURGEON-CAPTAIN F. D. ELDERTON (Gosport) writes: I should be glad to be informed, through the medium of the BRITISH MEDICAL JOURNAL, what is the best small book on household medicine or treatment for domestic use. An outline of anatomy and physiology should be included as a kind of introduction to the subject, and the print must be of good type.

ANSWERS.

TOXICOLOGY AT THE LONDON M.B. EXAMINATION.

CANDIDATE.—Taylor's *Manual of Medical Jurisprudence*, or Taylor *On Poisons*, are the best works for the purpose. Practical work in a laboratory is very important.

INSTRUCTION IN MASSAGE.

C. E.—We think that our correspondent would do well to place herself in communication with Professor von Mosengeil, of Bonn. It is a difficult and delicate matter to express an opinion respecting the capabilities of any particular masseuse.

HOME FOR UNMARRIED WOMEN.

LIEUTENANT-COLONEL H. EVERITT (Secretary of the White Cross League) writes: In reply to inquiry in your columns of August 5th as to a home for unmarried women of the wealthier class (first confinement), let me refer your correspondent to the St. James's Home, Fulham, S.W.; and for full particulars of this and other such homes, to the Secretary of the Church Penitentiary Association, 14, York Buildings, Adelphi.

"SUN" TREATMENT.

P. writes: In reply to Dr. R. Hughes, an article on the "Sun" treatment appeared in the *Practitioner* a few months ago.

DR. A BARRY BLACKER (West Eaton Place) writes: In reference to the query of Dr. R. Hughes, in the BRITISH MEDICAL JOURNAL of August 12th, respecting the so-called "sun" treatment, numerous letters and articles on the subject have appeared during the last few years in the lay press, but as far as I am aware, the only account of the treatment from a medical point of view was published in the *Practitioner* of April and May, 1892, under the title "Light as a Therapeutic Agent," by Dr. R. H. Clarke and myself, in which a description is given of the "sun cure" at Veldes, Oberkrain, Austria, where an establishment has existed for the last thirty years under the direction of Dr. Rikli, which is the only complete attempt made to utilise the various rays of the sun as therapeutic agents, although there are many more or less feeble imitations in various parts of the world.

The description of the "sun baths," "air baths," and "air huts" was written after a personal experience of the treatment, which was found to be exhilarating, but decidedly primitive. It is an unfortunate fact that the "Director" at Veldes is not a medical man; but an aged physician was in residence when the establishment was visited.

I should be happy to give Dr. Hughes any further information which may be in my power, and am sorry that the reprints of the article in the *Practitioner* are exhausted.

TYPEWRITING AT THE ANNUAL MEETING.

A LARGE number of members who attended the British Medical Association meeting at Newcastle-on-Tyne found their labours considerably lightened by availing themselves of the facilities offered in the use of Remington typewriters, operated by Mrs. Marian Marshall, of Cambridge, and assistant. Papers for reading in the different Sections and copies for publication were copied, the roughest notes being rendered most satisfactory.

DENTAL SURGERY AND ANÆSTHETICS.

LAUGHING GAS writes: Is a registered dental surgeon, a L.D.S. by law, allowed to give laughing gas, and to charge a fee for its administration, without the presence of a qualified medical man?

*** There is no law upon this subject. It is most unwise for any practitioner, either medical or dental, to administer anæsthetics alone with the patient. It is impossible for any one man to watch the respirations, take the pulse, and extract a tooth or perform any other operation all at one time. A coroner or magistrate would be justified in passing severe strictures upon any man, no matter what his qualification, who was guilty of such a proceeding. A skilful dentist and a skilled anæsthetist is the best that can be done for a patient, and, therefore, should always be adopted. It is the duty of medical practitioners in the country thoroughly to understand the administration of nitrous oxide gas, so that dental surgeons may with confidence rely upon them. This, we regret to say, is not the case; the dentist often can adminster the anæsthetic better than the doctor, because during the dentist's hospital career he has seen the laughing gas administered frequently, perhaps twelve to twenty times daily.

NOTES, LETTERS, Etc.

A SUBSTITUTE FOR ROME.

IN connection with the suggestion thrown out in the BRITISH MEDICAL JOURNAL of August 12th, that a visit to Chicago might in some degree compensate for the loss of the trip to Rome to which many of our readers were looking forward, the managing agents of the American Line write to point out that their ss. *New York* sails from Southampton on Saturday, August 19th, and should land her passengers in New York on Friday, August 25th. The ss. *Paris* sails on August 26th, landing her passengers in New York on Friday, September 1st. Southampton offers considerable advantages as a port of departure to Liverpool, especially for passengers from London and the South and West of England. A special train leaves Waterloo at 9.40 A.M. each Saturday, the steamers all sailing at 12 noon. This train runs direct alongside the steamer in the Empress Dock (under two hours), so that no expenses whatever are incurred in connection with the transfer of passengers and their baggage from the train to the steamer. The rates of passage include first-class railway ticket to Southampton.

THE CONDITION OF THE LONDON STREETS.

MR. G. T. JONES (Spring Gardens) writes: May I ask your kind assistance in calling attention to the extremely dirty condition of the London streets? When these were being paved with wood some few years back it was generally acknowledged that great care would be necessary to keep them in a wholesome condition; but I will instance particularly the Strand, Charing Cross, Whitehall, Parliament Street, and venture to say that for many years they have not been so neglected as during the present summer.

SIX HUNDRED DUTCH DOCTORS ON ALCOHOL.

UNDER the quaint but expressive title of "Six Hundred Doctors of Holland" a declaration has been published by the *Journal of Temperance*, which has been signed by the leading members of the profession in the university towns and in the country. The declaration sets forth that the use of spirits, even in moderate quantities, is always injurious; that alcohol retards digestion, does not increase the power of digestion, and is the cause of many gastric maladies often attributed to other causes. Among other pronouncements, it is declared that spirituous beverages are perilous and inimical to the moral and material interests of the population.

NASAL SPECULA.

DR. JAMES MACMUNN (Crouch End, N.) writes: There is described in the BRITISH MEDICAL JOURNAL of July 22nd an "Improved Nasal Speculum." May I point out that all two-bladed instruments are delusions? The blade approximated to the unyielding septum is only in the way. I beg to enclose you a simple speculum which anyone can make for himself in two minutes from a piece of wire, and which will give a better view of the nares than any I know. The great point is to have the blade long and narrow. It can be held by surgeon or by patient, or made self-retaining by fixing it to the ear of the latter by means of an elastic loop.

DEATH CERTIFICATES AND ALCOHOLISM.

WITH reference to the suggestion made recently in the BRITISH MEDICAL JOURNAL that a return of the cause or causes of death should be sent direct to some constituted authority and treated as a confidential document, a correspondent points out that the friends could purchase a copy of the certificate of death from the registrar, and thus learn the part played by alcohol. It has been suggested that this risk of causing pain to the surviving relatives might, perhaps, be avoided by the medical certifier forwarding a separate confidential statement (according to a prescribed form) either to the registrar or to, say, the medical officer of health. The actual entry in the register might be filled up from a certificate of the present character, a copy of which alone would be procurable by the survivors.

TREATMENT OF SEA SICKNESS.

MR. BRUCE HAMILTON (South Hampstead) writes: In reply to "M.A." I recommend the following: In the first stage, the patient should remain on deck, amidships, and lie on his back, though some cases do better from the first in a quiet and darkened cabin; warmth is very essential. A little neat brandy or iced dry champagne may be tried (hysterical women, I fancy, take the champagne best). Ice to suck sometimes does good, but more frequently does harm. Avoid giving fluid in quantity. Drugs are next to useless; oranges are better avoided. I cannot advise the wearing of a belt. In the second stage, hot beef tea is generally acceptable. Constipation, which is common, should be corrected by small doses (gr. ½) of calomel. Should vomiting continue, opium is, in my opinion, the best drug to employ. The tinct. opii mx. water to 1 drachm, or combined with acid. phosph. dil., frequently stops the retching after one, two, or three doses, producing sleep and allaying the soreness at the epigastrium. The compound powder of ipecacuanha may be used instead. I have been disappointed in cocaine hydroc., ammon. bromid., cerii oxalas, chloroform, amyl nitrite, and acid. hydrocyanicum. Serious mischief may result from the continued employment of large doses of the bromides. I recommend iced asparagus. Effervescent citrate of caffeine, with a few drops of tr. capsici added, relieves the after-headache. With respect to prophylaxis, I would say, "Cleanse the *prime vie*."

Dr. Grailly Hewitt advises either that the eyes be bandaged, or some fixed point selected upon which the gaze should be concentrated. Professor Charteris speaks well of bromide of potassium and chloralamide in 30-grain doses.

GALL STONES IN THE INSANE.

MR. CECIL F. BEADLES (Colney Hatch Asylum) writes: I had not proposed referring again to the subject of "gall stones in the insane" until I had a much larger number of cases on which to base my remarks; but I find the subject brought up in the EPITOME of August 12th. I may therefore perhaps be allowed to remark that although Snell confirms my statement[1] that gall stones are of far greater frequency in the insane, at least as regards females, he does not give as high a percentage as that which I first recorded. My number, 36 per cent., was remarkable, and I expressed the view that it would probably be found that this would not be maintained in the same proportion with an increase in the number of cases examined. This has to a certain extent been realised, for it has now dropped to a little over 26 per cent. Still this is considerably above that given by Snell. It is possible that in different countries, and even in different institutions, the numbers may vary considerably, but I believe the want of uniformity is greatly due to the fact that the necropsies are performed by different persons and with a variable amount of exactness. As much reliance can never be placed on a number of figures drawn from several sources, as on those obtained by the observer himself, even though the latter be fewer in number. For instance, in looking over our old *post-mortem* books, one might be led to believe that gall stones were very numerous one year and almost absent during another; but, what is more significant, they differed most remarkably in the practice of the various recorders. In the paper referred to in which I attempted to explain the cause of the frequency of these calculi in the insane I stated that there appeared to be very little difference in the number of melancholiacs and those suffering from recurrent mania so affected. I did not then go into the percentage in men beyond remarking that they had been rarely found in Colney Hatch. I may add that up to the present time I have found this to be between 4 and 5 per cent. This low figure, compared to what is considered the normal, and its want of proportion to the female sex are some of the most remarkable features of gall stones in the insane.

A MINISTER OF PUBLIC HEALTH.

MR. J. BRINDLEY JAMES (Jamaica Road, S.E.) writes: In your last week's report of the Presidential address delivered at the recent annual meeting of the British Medical Association in Newcastle-on-Tyne by Dr. George Hare Philipson, I find that gentleman closes the same with earnest suggestions for the appointment of a Cabinet Minister of Public Health. Now I am perfectly ready to admit the truth of the old adage, "Great wits jump," and the inferential possibility of Dr. Philipson having been struck with the idea of devising and suggesting such an appointment *sua sponte*, and totally in ignorance of my having done the same four years previously. It is consequently in no hostile spirit to that gentleman if, in justice alike to myself and to abstract verity, I beg to refer both himself and the medical public generally to the records of the Society's annual meeting held at Leeds in August, 1889, when I read an address exclusively devoted to the subject, and entitled A Minister of Public Health, and which no doubt can be very readily referred to in your own columns under that date. As I have intimated above, I do not venture to question Dr. Philipson's conscientious belief the idea has originated with himself; but I have no doubt he will be the very first, on investigation of the records of the August, 1889, meeting, to acknowledge the subject was on that occasion first mooted by myself, and even more fully dilated upon.

POLIO-ENCEPHALOMYELITIS.

DR. WILLIAM HARDMAN (Blackpool) writes: One of the results of a study of Dr. Dreschfeld's interesting and instructive article on polio-encephalomyelitis was a feeling of disappointment that he did not at the same time present us with a neology less cumbersome and less open to objection than the name he has accepted, but yet sufficiently distinctive to serve our present purpose of adequately naming a group of phenomena which are believed to indicate an as yet undefined, but probably distinct, pathological condition, but which name shall not connote any pathological assumption unjustified by what we as yet know of the etiology or morbid anatomy of the disease. Now, the name polio-encephalomyelitis contains or expresses the conception that the disease is an inflammatory affection of nerve substance, a conception which Dr. Dreschfeld most explicitly and emphatically demonstrates has neither macroscopic nor microscopic evidence as a basis, for in his case, and others he quotes, the appearances *post mortem* were almost normal though, as Dr. Dreschfeld hints, it is possible histological changes of an explanatory character may be discovered. I should think it exceedingly improbable that those changes would be indicative of a myelitis, which could not, one would imagine, exist to such an extent as would be requisite to cause such an extensive symptomatology without easily discoverable appearances. I hope you will be able to find space for me to put on record my protest against the introduction of a new term into disease nomenclature, which term assumes that which it is our business to prove, involves a theory which has as yet no pathological justification, actually effects a classification of a condition which ought to be viewed with the utmost independence, and tends to prevent (as far as a name can) etiological investigations in that field which I believe is destined to yield so productive a harvest—namely, autogenetic poisoning by ptomaines, etc. I invite—I might almost say entreat—Dr. Dreschfeld to amend Seeligmüller's misleading name, or to give us another, if possible shorter one, more consistent with our present knowledge and our desire to maintain a pathologic impartiality.

[1] *Journ. Ment. Sc.*, July, 1892.

LETTERS, COMMUNICATIONS, ETC., have been received from:

(**A**) Dr. P. S. Abraham, London; Messrs. Arnold and Sons, London; Messrs. Arthur and Co., London; Professor Clifford Allbutt, Cambridge; Dr. D. E. Anderson, Paris; Messrs. Allen and Hanburys, London; Mr. T. R. Atkinson, Sherborne; Mr. C. S. E. Addison, Colchester; A. G. (**B**) Messrs. Bailliere, Tindall and Co., London; S., Barwise, M.B., Derby; J. Barr, M.B., Bishton; G. F. Blacker, M.B., London; E. M. Brockbank, M.B., Birmingham; Dr. W. K. Bullmore, Falmouth; Mr. H. T. Butlin, London; Mr. C. F. Beadles, London; Dr. S. W. Bryant, Callander; Dr. A. B. Blacker, London; Mr. Lennox Browne, London. (**C**) Mr. R. B. Cullin, Tiverton; Mr. M. Clark, London; Mr. C. J. Cullingworth, Wooler; J. J. Clarke, M.B., London; Mr. T. Clemow, Cronstadt; Mr. A. B. Cruickshank, London. (**D**) Mr. W. H. Date, Culmstock; Messrs. Down Brothers, London; Mr. P. V. Dodd, Folkestone. (**E**) English Truss Company, Leeds; Mr. H. Everett, London; Mr. J. Edwards, London; Mrs. C. Ellis, Reigate. (**F**) Professor P. F. Frankland, Dundee; Mr. F. W. Fullerton, Hull; Fides. (**G**) Mr. J. Gay, London; G. F.; Mr. R. R. Giddings, Nottingham; Dr. D. Grant, London; Mr. G. H. Graham, Lamberhurst; Mr. C. A. Griffiths, Swansea. (**H**) Dr. Herrman, London; H. R.; Mr. H. N. Hardy, London; Dr. L. Henry, Melbourne; Mr. C. B. Harness, London. (**J**) J. F. G. A.; Dr. G. T. Jones, London; Dr. L. Jones, Cambridge; Mr. J. B. James, London; Dr. E. H. Jacob, Ilkley; Mr. K. Jaques, Glamorgan; Dr. Jepson, Durham; Mr. D. Jones, Liverpool. (**K**) Mr. F. W. E. Kinneir, Horsham; Mr. W. Kendall, London. (**L**) Laughing Gas; Mr. J. E. Lane, London; Dr. E. Liveing, London; J. R. Liddell, M.B., Portobello; Mr. B. M. Lewis, Pontypridd. (**M**) Mr. T. Marshall, South Shields; Mr. J. W. Morley, Portsmouth; J. R. Morison, M.B., Newcastle-on-Tyne; Dr. J. McCaw, Belfast; A. E. Mahood, M.B., Birmingham; Mr. J. Middleton, Chesterfield. (**N**) Dr. A. Newsholme, Keighley; Dr. A. Leith Napier, London. (**O**) Mr. H. O'Hara, Melbourne. (**P**) Dr. G. W. Potter, London; Dr. A. M. Paterson, Dundee; Dr. C. Porter, Stockport; Dr. Perry, London; Dr. L. Phillips, Birmingham. (**R**) Messrs. J. Richardson and Co., Leicester; R. B. Robson, M.B., Alnwick; Mr. A. E. Reynolds, London; Dr. H. Rayner, London; Mr. H. Redgate, Nottingham; Renes; Dr. T. H. Redwood, Cardiff. (**S**) Dr. H. R. Spencer, London; Mr. N. Smith, London; F. G. Swayne, M.B., London; G. Sharp, M.B., Ashton-under-Lyne; A Student; Mr. B. Spicer, New Barnet; W. G. Spencer, M.B., London; Dr. J. E. Squire, London; Mr. H. Smith, London; Surgeon-Captain A.M.S. (**T**) W. F. Thompson, M.B., Launceston; R. S. Thomas, M.B., Plymouth; Mr. A. S. Topham, Halifax. (**V**) Variola; Mr. H. B. Vincent, East Dereham. (**W**) Mr. T. Wilson, Wallsend; Mr. W. Wheatley, London; Mr. J. Wylie, Belfast; Mr. C. F. Wattie, Strathdon; Dr. F. Willcocks, London; Dr. H. B. Wynter, Exmouth; Mr. A. E. Williams, Liverpool; Mr. B. Welton, Penrith; Dr. T. S. Wilson, Edgbaston. (**X**) X.; etc.

BOOKS, ETC., RECEIVED.

Traité de Médecine. Par MM. Charcot, Bouchard, et Brissaud. Tome v, par André Petit, Ettinger, Brault. Paris: G. Masson. 1893. 20 francs.

Der Bau des Menschen. Von Dr. R. Wiedersheim. Leipzig: J. C. B. Mohr. 1893. M. 4.80.

Heath's Practical Anatomy. By W. Anderson. London: J. and A. Churchill. 1893. 15s.

The Diseases of the Male Organs of Generation. By W. H. A. Jacobson. London: J. and A. Churchill. 1893. 22s.

The Value of Hypnotism. By Thomas Cresfield. London: 34, Southwick Street, Hyde Park, W. 1s.

A Handbook of Local Therapeutics. By Harrison Allen, M.D. London: H. K. Lewis. 1893. 14s.

Wiesbaden as a Health Resort. By Dr. Emil Pfeiffer. Wiesbaden: J. F. Bergmann. 1893.

*** In forwarding books the publishers are requested to state the selling prices.

AN ADDRESS

DELIVERED AT THE OPENING OF THE

SECTION OF OBSTETRIC MEDICINE AND GYNÆCOLOGY.

At the Annual Meeting of the British Medical Association held in Newcastle-on-Tyne, August, 1893.

By JAMES MURPHY, M.A., M.D.,

Assessor in Clinical and Operative Surgery in the University of Durham; Honorary Surgeon to the Sunderland Infirmary.

My friends and colleagues: When I was offered the great honour of the Presidency of our Section, I gladly accepted it, for I felt, however unworthy I was of the office, that through your courtesy the duties of a president would be light, and I could not resist the temptation of being for once in a position where I could practically pick and choose an obstetrician and a gynæcologist from any country in the world to open any discussion I might select, and thus to interest you, and as a result of the combined discussion to extend the particular branches of our profession which we practise.

In obstetrics it seemed to my fellow office-bearers and myself that the question of puerperal septicæmia is at the present time the most important subject which our Section could debate. It is the most fatal disease that child-bearing women are exposed to, and though its frequency has been decreased of late, still there is much room for improvement, and its fatality has, I fear, been but little, if at all reduced. Being anxious that this most important discussion should be opened in a masterly manner by someone whose originality, scientific methods of research, intellectual capacity, and long experience would enable him to speak with authority, and whose facts and opinions would command our respect, and having, as I have said, the pick of the whole world, it is no disparagement to other obstetricians, however eminent, that I selected one whom you all will most heartily approve of, that great Nestor of obstetricians, Robert Barnes—a man well known and honoured in every country where obstetrics exists as a science and an art; a man who has taught the present and the last generations, and who is still as fresh, as full of vigour, and as much abreast of the times, if not in advance of them, as the youngest and most advanced of us; and looking at my old friend Robert Barnes now, I can see no reason why he should not live to teach the coming generation, to be revered and respected by them as he is by us, and that they shall regard him as we do, as a veritable "Grand Old Man."

In the division of gynæcology there are so many questions which are pressing, and which are being debated with great zeal, not to say warmth, during recent years, since surgery came to the aid of gynæcology and placed it in the position it now is as one of the best-known branches of our science, that I did not wish to take the responsibility of deciding which would be the most important question for us to discuss, but rather looked about for a gynæcologist who, from his high position in his profession, from the scope and character of his writings, and who, from his personal dexterity and from his exceptional and extended experience, holds the position of an expert we can all trust; and again I say it is no disparagement to the gynæcologists of this or any other country if for this man I looked across that channel which physically divides us from that country to which obstetrics and gynæcology owe so much—scientific France; and there from amongst the great gynæcologists I choose Professor Pozzi, who more than fulfils all the requirements I have laid down and whose international reputation is second to none. And he has selected for discussion "The Conservative Treatment of Diseases of the Uterine Appendages." Both these distinguished gentlemen graciously and cordially accepted the invitation, and I am sure I am but inadequately expressing your feelings when I, as your mouthpiece, thank them most warmly for having come, and most heartily welcome them amongst us.

These, then, are the subjects to which our attention will be principally devoted during this meeting; but there are many other papers which will come before us bearing upon matters of scarcely less importance; and while it is difficult, without being invidious, to select any one or two of these for special mention, it cannot be denied that the papers of Dr. Berry Hart and Dr. Webster, which will be read on Friday morning, treat of one of the most important and interesting questions which abdominal section may be said to have discovered and rendered amenable to treatment—I allude, of course, to ectopic gestation. If time permits, in addition to being a most attentive listener, I may have a word or two to say on this subject.

In the meantime I would wish to direct your attention to a few other important matters in obstetrics and gynæcology. In addition to septic risks in obstetrics, we meet from time to time with cases where labour is obstructed by narrowness of the pelvis, or from tumours (malignant or benign), or from faulty positions of the fœtus. Hæmorrhage claims its victims before and after parturition, and that diseased condition of the system which gives rise to, and which we call by its most prominent symptom, convulsions, adds largely to the mortality of childbirth. These three complications are the chief ones we are called upon to deal with. In the latter complication we have practically always to deal with kidney mischief, but how this mischief is to be prevented, and how it is to be treated when it exists, are questions which are by no means settled, and in the elucidation of them much may be learned from the investigations of those physicians who make the altered condition of the kidneys and the blood their special study, in the same way that our surgical colleagues can add to our knowledge of the causes and treatment of puerperal septicæmia. But while personally inclined to place most reliance on the free exhibition of chloroform and the speedy emptying of the uterus, the treatment of puerperal eclampsia is in by no means a satisfactory state, and much may be urged for very different lines of treatment.

It is now a well-recognised fact that in skilful hands, where the third stage of labour has been properly treated, *post-partum* hæmorrhage is of but rare occurrence, and it has been justly said that the man who has many cases of *post-partum* hæmorrhage in his practice is a man who does not treat his patients properly. It is of course quite unnecessary to even allude to the various modes of treating this complication, which will exceptionally occur even with the best obstetricians, but my surgical training leads me to put most reliance in the firm and continued pressure on the uterus by the hand grasping it through the abdominal walls, supplemented, if necessary by the counterpressure of the other hand through the vagina.

Of recent years placenta prævia has been shorn of its terrors, and the terrible mortality of its hæmorrhages—a mortality which, as Simpson graphically put it, "was greater than that of Asiatic cholera, and more than double that of the operation of lithotomy as performed in his time"—has now been reduced to something like 5 or 10 per cent., and even this might be further reduced if it were more fully recognised the great danger of letting a woman suffering from placenta prævia go on bleeding time after time while waiting for labour to commence. In my own practice I have had 61 cases of placenta prævia, with only 2 deaths, one of which was moribund when I saw her; and I attribute these results solely to the fact, if I may so put it, that in the treatment of placenta prævia I am more Robert Barnes than Robert Barnes is himself. That is to say, that in every case where placenta prævia is evident after the seventh month, or even before then, I bring on premature labour, and stop with the patient until, where the bleeding is severe or continuous, she is delivered, treating her on the lines laid down by Barnes, and thus reap the advantage of applying the sound and scientific treatment when my patient is in a good condition, and before she is exhausted; hence my small mortality.

Nothing of any great moment has recently been added to our means of correcting faulty positions of the fœtus during labour, but in slight narrowing of the brim various patterns of forceps are now almost, if not altogether, perfect; and while far be it from me to suggest that I am superficially acquainted with even a small percentage of the many, I will not say hundreds, that I have seen, my personal predilection is for the improved form introduced by Tarnier some six years ago—the third, I think, modification he has made.

In cases of greater deformity of the pelvis it has long been the ambition of the obstetrician, where it has been impossible to deliver a living child *per vias naturales*, to find some means by which that child could be born alive with comparative safety to the mother, and that time has now arrived. It is not for me to decide whether the modern Cæsarean section, Porro's operation, symphysiotomy, ischiopubiotomy, or other operation is the safest or most suitable, nor is there yet sufficient material for this question to be decided, but when such splendid and successful results have been achieved by Porro, by Leopold, by Sänger, and by our own Murdoch Cameron, I say it deliberately and with whatever authority I possess, and I urge it with all the force I can master, that we are not now justified in destroying a living child, and while there may be some things I look back upon with pleasure in my professional career, that which gives me the greatest satisfaction is that I have never done a craniotomy on a living child.

While the mortality of Cæsarean section was at 70 or 80 per cent. much could be urged in favour of craniotomy. But now that women can be delivered by abdominal section at a mortality of 10 per cent. or less, craniotomy is a perfectly unjustifiable operation, in my opinion, except in the case of a dead child or perhaps in some diseased condition of the fœtus such as hydrocephalus, and this is so even in cases of slight contraction of the pelvis, where craniotomy could be done with little or no risk; but in those cases where the conjugate diameter is less than two and a-half inches craniotomy is a more serious operation to the mother than delivery through the abdomen by skilful hands. This is generally recognised by the younger generation of practitioners, but the gentlemen I wish to impress it on are the senior practitioners who do not visit the operating theatres, where they would be always welcomed, and where they would have the opportunity of seeing for themselves the extraordinary and successful development of modern abdominal surgery. It may be urged, of course, that it is unreasonable to expect a practitioner who does not practise operative surgery to undertake the responsibility of an abdominal section, and this is undoubtedly true; but to do a craniotomy in a very narrow pelvis is a still more serious and difficult operation, and with the present enthusiasm, energy, and enterprise among modern gynæcologists and with our present means of communication it must be an exceptional thing for a medical practitioner to find himself not within measurable distance of another practitioner who is capable and ready to do the operation. Another objection one frequently hears is that the mother would never consent, but this is also a matter for the operator; for a successful operating surgeon is not only capable of inspiring confidence in his professional brethren to send him cases for operation and of doing these operations successfully, but he is also capable of getting the patient's consent when an operation is necessary.

What am I to say about gynæcology? I wish we had the opportunity of having a review of the subject from Dr. Robert Barnes, and of all the changes which have taken place in it during the twenty-three years which have elapsed since our Association last met at Newcastle-upon-Tyne, when he occupied the chair which I occupy to-day, and a still more interesting subject would it be if I could tell you the changes and advances that will take place in gynæcology before this Association meets here again. What has been termed the aggressive treatment of the various diseases of the uterine appendages, which has been created and developed within recent years, has revolutionised gynæcology and has taken the treatment of diseases of women from the physician and handed it over to the surgeon. Possibly abdominal section was done too frequently by its creators—certainly it was done too frequently by some of their disciples—but the pendulum has swung back and has now come to its normal beat, and left the operation in the soundest position of any surgical proceeding we possess. Professor Pozzi will direct your attention to what ought to be done by it and to what ought not to be attempted, and though the temptation is very strong for me to discourse to you on its principles and minute details, my regard for your time and your patience overcomes the temptation, and I leave it for you to discuss its merits and instruct me.

I am rejoiced to find that to-morrow we will have the question of the treatment of uterine cancer raised by no less an authority than the President of the British Gynæcological Society, Mr. Bowreman Jessett, and though the principles of the treatment of cancer belong to our foster parent surgery, the details of the treatment of uterine cancer are peculiarly gynæcological, and the safety and success of treatment of cancer of the uterus has within the last three or four years been as good, if not better, than the treatment of that dire disease in any other portion of the body. What I have felt in the treatment of uterine cancer is this, that the disease should be removed early, and should be removed freely, but while we may be practical gynæcologists we are not all advanced pathologists, and, while my respect for pathology is great, my anticipations were at one time still greater, but these anticipations have not been realised. My experience is: if you send a pathologist a portion of a growth, which surgically, you can say, is positively malignant, in one out of three cases he will tell you that before the specimen reached him it was rendered useless for examination; in another of the three cases he will tell you it is malignant, and sometimes gives you a prognosis which is not always correct; and in the third case he will tell you it is impossible to decide, and remind you, as if it were necessary, that pathology is not a perfect science. That is not what we gynæcologists require. In cases of advanced cancer the clinical signs are sufficient, and we will not take the evidence of the microscope against our own experience. But in the early stages, when by a radical operation we can most benefit our patients, and where the clinical evidence of cancer is not manifest, it is then we want the aid of the pathologist, and, in my experience, that aid is not to be relied upon.

The treatment of uterine myomata is still *sub judice*, but the present state of our knowledge was well laid before us at our meeting in Nottingham last year by Mr. Knowsley Thornton, and while the life-history of the uterine myoma differs from that of an ovarian cystoma, and in the latter we are all agreed it should always be removed, and further, that once having undertaken the operation, no matter what the adhesions are and what the difficulties in its removal may be, no case should be abandoned, but that we should thoroughly eradicate the whole disease, whereas in uterine myoma a large percentage—possibly the majority of them—give rise to little or no symptoms at all, others give rise to symptoms which may be successfully treated by constitutional remedies or by such a simple operation as curettage; others again demand more serious operations, such as the removal of the uterine appendages, while a small but material percentage require treatment by operations which frequently are the most dangerous and formidable that a gynæcologist can be called upon to undertake; and in this country most operators prefer working through the abdomen, whereas in France many of the leading gynæcologists remove myomata by the vagina, cutting them up in small pieces, a process which they call "*morcellement*." The battle between the extra- and intra-peritoneal treatment of the stump is yet going on, but there seems to be a tendency in all possible cases to treat the stump by the intra- or subperitoneal method, and at least one French gynæcologist of the first rank ties the stump by a stout elastic ligature, which he leaves on, as we do the silk ligature in ovariotomy, and his results have been very good.

But each case of uterine myoma must be treated on its own merits, some requiring no surgical treatment at all, others by the mildest form of surgical interference, and then some few requiring operations of the most formidable character that the mind of man ever conceived or his hand carried out. But it must be borne in mind that, active as is the present bent of gynæcology, and far-reaching as are its powers, it has to combat not only with these major forms of diseases, but with others which, though but trivial in their nature, cause grave and serious suffering to their victims; and it seems to me, since this recent advance in abdominal work, minor gynæcology has been thrown into the background, and that the tendency is, if a woman has not a huge bleeding myoma, or some such formidable disease, to regard her illness as purely chimerical, and to look upon her as a confirmed neurotic, though, had she been examined for other diseases than those requiring abdominal sec-

tion, it is probable that some slight but sufficient cause would have been found for her ailments. Of the minor operations, those which one is most frequently called upon to perform are, perhaps, curettage, trachelorrhaphy, and restoration of ruptured perineum. Curettage is an operation which has come every day more to the front, both as a means of curing a disease as, for example, when it is used for the treatment of uncomplicated endometritis—or for alleviating symptoms, as in some cases of bleeding myomata, but it, like other operations, must be done thoroughly and effectively to be of any use; and it is well to have the cervix dilated beforehand, so as to be able to get in a good broad curette, and thoroughly scrape in a regular and systematic fashion the whole of the inside of the uterus. In addition to which, the os very frequently requires trimming up, either by excision of the irregular and jagged portions, or else having fissures freshened up and sewn; and I must say, although I was for a long time opposed to the operation of trachelorrhaphy, I am now doing it much more frequently than formerly, and with the most satisfactory results as regards the relief of pain and nervous symptoms. Whether it is the moral effect of the operation or not, I do not know; but certain it is that the operation of trachelorrhaphy relieves, if it does not cure, many of the pelvic pains and nervous symptoms which we are called upon to treat, and which are often so puzzling as regards their causation. And, finally, there are few operations which, when successful, give more relief and satisfaction than the restoration of a ruptured perineum; and many as are the devices and ingenious plans to accomplish this object, none seem so simple and satisfactory as the flap-splitting operation of Lawson Tait.

AN ADDRESS

DELIVERED AT THE OPENING OF

THE SECTION OF DERMATOLOGY.

At the Annual Meeting of the British Medical Association held in Newcastle-on-Tyne, August, 1893.

By W. ALLAN JAMIESON, M.D., F.R.C.P.Edin.,

Extra-Physician for Diseases of the Skin, Edinburgh Royal Infirmary; Lecturer on Diseases of the Skin, Edinburgh School of Medicine.

ON THE GROWTH OF DERMATOLOGY.

The Advantages and Dangers of Specialism.—The Growth of Dermatology.—The Importance of "Soil" (terrain).—The Sebaceous Function in Disease.—The Effects of Treatment of the Soil.

In welcoming you to this Sectional meeting of the British Medical Association, over which you have done me the honour of electing me President, I desire in the first place to express my warm thanks for your having chosen me to fill this important and responsible position. I esteem it as a tribute especially to my native country, remembering that dermatology has been represented there for a period considerably prior to the time when I commenced the study of medicine, primarily by the late Professor Hughes Bennett, and subsequently by my friend the Professor of Clinical Medicine in the University of Glasgow. It is more than thirty years since he returned from Vienna, laden with spoils from Hebra's clinic, and he lost no time in rendering this valuable information available to the profession at large, in volumes which are still studied and referred to, a debt which he has since then from time to time supplemented out of his ripe experience.

Then specialism was, in this country at least, and to a large measure abroad, in its infancy; but now, owing in some degree to the immense growth of the science of medicine in the widest sense, it has become a necessity, though decried in some quarters, and possibly with some leaven of truth. There are, it may be, minds so admirably balanced that their fortunate possessors can devote the exact amount of attention to each subject which its needs require, and which find no difficulty in the rapid transference of thought from the consideration of one portion of the complex human system to another. But, speaking generally, most men are conscious that concentration of effort leads to much greater perfection than diffusion of aim. The rule applies to all trades, is admitted in law, and has high authority for its existence in the Church, but its applicability to medicine is not universally accepted.

It is almost a canon in our profession that the medical noviciate must rise by degrees from a lower to a higher grade of practice. If he finds himself too early in possession of an hospital appointment, he is apt to fail in impressing either patients or pupils, through lack of that well-grounded confidence in himself which can be acquired solely as the result of experience. Conversely, of course, he may be too late in reaching the goal of his ambition, youthful enthusiasm may have waned, and he is thus out of touch with those he attempts to instruct, and who are so much his juniors. So in specialism a solid basis of general knowledge in all branches of the profession, combined with practical acquaintance, is essential for the full equipment of the successful specialist. It is the want of this elementary training which has tended more than anything to induce misgivings as to specialism, for it has led some to magnify unduly the ailments of one particular organ, to the exclusion or detriment of others, less important it may be, yet still of consequence, thus thrown into the shade; or to claim a standard of skill unsupported by knowledge.

Our speciality is one capable of throwing light in many directions on disorders in less accessible parts. Much to us is within reach of ready and full inspection, or can be examined microscopically during life without harm or risk. We can gauge to a nicety the effect of our remedies, and can watch their action with an exactitude impossible in the case of many of the other organs of the body.

If the rights of dermatology to separate recognition are to be estimated by the area implicated, we can point to an extent of territory unequalled by any other region, the brain and nervous system regarded macroscopically hardly, perhaps, excepted. Or if the amount of literature be the measure, that of skin diseases will compare most favourably with any branch of medicine. The energy of the ever-increasing band of workers in its fascinating field is year by year rendering its position more and more impregnable. To the present audience, at any rate, it is an unnecessary task to insist further.

The subjects chosen for discussion have been selected with due regard to the interests and convenience of the majority of members attending this meeting, and not with special reference to the elaboration of abstruse points in dermatology. Two are of very common occurrence, ringworm and psoriasis; and the other deals only in part with a rarer disease, lupus erythematosus, though still sufficiently frequent to be met with now and again by any practitioner, and in all ranks of life; lupus vulgaris may be said to be fairly prevalent everywhere. They will be introduced to your notice by men eminently well suited to speak authoritatively on each, and while imparting their own views, to emphasise particulars in respect to which our knowledge is still defective. If in what has already been said allusion has been made to specialism more directly, it must not be forgotten how much has been and is being done for the advancement of medicine by busy country practitioners, all-round men, shrewd, ready, and observant, and to them now, as to our urban *confrères*, we look to reap many hints of value.

It is somewhat singular that in the diseases specially grouped for discussion more than one common bond of association can be discovered. One of these is the question of "soil," as the expressive French word "terrain" can be translated. While the form assumed by the disease, the mode in which it spreads, or the efficient agent by means of which it may be proved or is believed to be communicated must be noticed or inquired into unless the state of the skin in the individual be fully appreciated, the end of all our labour, the successful treatment of the case, may not be attained. It has seemed to me that there could be no better opportunity of directing general attention to this subject than the present, where the specialist and the general practitioner meet on common ground, with every facility for exchanging ideas.

The state of the skin considered as the soil on which the

eruption may be said to flourish may be altered from the normal in many ways. Any portion of the multifarious tissues and structures which go to make it up may suffer perversion, and so weaken it as a whole. In course of its progressive development with the growth of its owner, it undergoes much alteration ere it attains its perfection, and again during the period of decline its essential features sustain important modifications. Occupation in its turn marks its imprint on it, the kind of clothing worn, the rank of life, the food partaken of, or the beverage indulged in, the place of residence (whether permanent or occasional) all influence it more or less perceptibly. Certain drugs taken too constantly or too long, or some only once or but for a brief period administered, have power to change for the time or even permanently its characteristics.

Taking the diseases we are concerned with in order, we find that in chronic ringworm of the scalp the soil occupies an all-important place. The disease, as a rule, to which exceptions are few, is met with in children from shortly after infancy till puberty is reached, at which era or soon after it seems, in the immense majority of cases, even though untreated, spontaneously to get well. Now this is the period during which the sebaceous glands of the scalp, if not most active, are at least most liable to disturbance of function. During this time the hair there is becoming thicker and stronger; indeed, the hair-producing energy of the system is being expended almost solely in that area. While possibly it would be too much to say that seborrhœa of the scalp is then most frequent, it is certainly more readily set up than later on. Once the trichophyton has established itself, a condition indistinguishable from the drier form of seborrhœa, the pityriasis amiantacea of older writers, is set up, and this persists, unless kept in check by treatment, till, or in many cases even long after, the extinction of the parasite. So much is this the case that chronic ringworm in which the hair grows fairly well over the affected area is often mistaken for an ordinary example of dandruff. A form of seborrhœa is therefore closely connected with tinea tonsurans capitis, and this is also supported by a fact which has come under my observation in the few instances in which ringworm of the head in adults has come under my notice, that in them the scalp was particularly scaly.

But this will not account for certain facts, such as the relative frequency of the disease in Great Britain, France, and in some parts of the United States, as contrasted with its rarity in Germany, Austria, and even in India, where ringworm of the body is of such daily occurrence. Whether race or climatic influences play a part in this is undecided, but the state of the soil is at least a factor which must in all successful modes of treatment be taken into consideration. It is just possible that in consequence of the growth of hair in other regions at and after puberty, an alteration unfavourable to the luxuriant fructification of the trichopyton occurs in the scalp

Again, in psoriasis a seborrhœic element must be recognised in a very considerable proportion of instances. Unfortunately, I have no statistics of my own which bear on the age at which psoriasis is most frequent, but Nielsen, of Copenhagen, states that in 548 examples it was reported to have begun in 241, or 44 per cent., before the age of 14, showing a peculiar susceptibility of the integument to this complaint antecedent to puberty. Again, alcoholism, which favours materially the development of a seborrhœic condition, not only aggravates psoriasis, but induces the development of a worse type of the disease. In many cases we can easily determine this seborrhœic element; and indeed it is difficult in a certain proportion to say whether they should be classed as seborrhœic eczema or as psoriasis. This difficulty arises, perhaps, most often in connection with psoriasis of the scalp, but may also be encountered in cases where the complaint is principally or wholly confined to the trunk. Other examples, again, show little trace of this perversion of glandular activity. Dr. Byrom Bramwell showed to the June meeting of the Edinburgh Medico-Chirurgical Society an instance of psoriasis, which, when she showed herself at my out-patient *clinique* before her admission into his wards, presented a remarkable dryness of the skin, combined with a disposition to the production of, or transformation into, general exfoliative dermatitis. After treatment by thyroid feeding alone, and rest in bed, on which followed the separation of abundant flakes of dry cuticle, the skin eventually assumed a peculiar silky softness, accompanied by the total disappearance of the psoriasis. Here, so far as we can infer, the soil was directly influenced by the treatment, and to its modification we should ascribe the departure of the disease.

Lupus erythematosus is also associated with disordered sebaceous function, and though it is now agreed that the special inflammatory process, in which in so far as objective symptoms have revealed the disease mainly consists, does not necessarily start from the sebaceous glands or their investment of vessels; still, in many cases we can easily convince ourselves that the scaly or warty accretion which forms is closely connected with the sebaceous gland system. The disorder may eventuate in destruction of these glands and of the hair follicles, leading to permanent alopecia and general aridity of the surface implicated. The resemblance, too, which some instances at least of lupus erythematosus exhibit to some of psoriasis must have struck many observers.

Lastly, there is an item in common to all these ailments from the therapeutic side. There are at least three remedies which act more or less beneficially on all alike. These are sulphur, chrysarobin, and pyrogallic acid. Sulphur in one form or another has been found to do good service in ringworm of the head and in lupus erythematosus, as well as in the cases of psoriasis in which the seborrhœic element is most prominent. Though my own experience has not been great, authorities of note can be cited as to the alleged efficacy of pyrogallic acid in all three. In psoriasis the value of chrysarobin is undoubted; in tinea tonsurans capitis we have, among others, Duhring and Hutchinson ascribing to it the foremost place in obstinate cases; and quite recently the latter author has recorded some most interesting examples of cure in lupus erythematosus from the prolonged use of weak ointments of the drug. Part, at least, of this beneficial action is certainly due to the influence these agents exert on the soil. We may not yet, it is true, have the power to affect the soil on which we labour in as powerful a manner as the agricultural farmer can his by means of slag-phosphate powder. This, according to Professor Robert Wallace, when applied to the poorest description of exhausted pasture land, is known to have a marvellous effect in softening and sweetening the herbage generally, but more especially in developing the growth of white clover—an essential preliminary to the production of a thoroughly good and dense cover of permanent grass. Our object is rather to restrain the fertility of the extensive flora dermatologica, which Dr. Unna has shown to be so plentiful on the skin. The care of the soil is a factor in this, attention to which, it is to be hoped, will not be wholly omitted in the discussions.

PRELIMINARY COMMUNICATION ON THE PATHOLOGY OF ANEURYSMS, WITH SPECIAL REFERENCE TO ATHEROMA AS A CAUSE.

Read in the Section of Pathology at the Annual Meeting of the British Medical Association held at Newcastle-on-Tyne, August, 1893.

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AND
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OUR attention has been called to the pathology of aneurysm mainly by the frequency of this disease in Glasgow, and also by the divergent views held as to its causation. In this investigation it has been our object to obtain aneurysms at the earliest possible periods of their formation, it being obvious that their causation may be best studied in such cases. We have therefore carefully scanned the aorta in cases both of pronounced aneurysm and also in cases where no definite aneurysm existed, to find those small depressions or pouches

which are the beginnings of aneurysms. Such depressions we have frequently found, and we have bestowed much attention on their structure.

It may be proper here to enumerate some of the questions whose solution we have sought after in this investigation. The chief of them is the question of the relation of atheroma or arterio-sclerosis to aneurysm. Then comes the question of the relation of the tunica media to aneurysm; to what extent does rupture of this coat enter into its causation? There is also the question of inflammatory lesions in the media and adventitia, and the part they bear in the pathology of aneurysms.

It might be thought that it could be taken for granted that atheroma plays an important part in the causation of aneurysm, and that the only question remaining was as to the exact part which it plays. We are precluded, however, from assuming this position by the views of a number of observers, amongst whom is the honoured name of Recklinghausen, with Eppinger, Manchot, and others, who either deny that atheroma has anything to do with the causation, or give it an entirely secondary place.

We have no hesitation in adopting the older view—that atheroma is a dominant factor in the production of aneurysms. Taking the cases in which small aneurysms were visible in the wall of the aorta, we find that in 200 consecutive *post-mortem* examinations in which special attention was directed to the existence of such lesions, we found small commencing aneurysms in 6 cases. In all of these atheroma was present, and the aneurysms were directly related to the atheromatous patches. In a wider survey of the matter, we find that, in the museum of the Western Infirmary, 29 aneurysms of the aorta are preserved, and in all of them atheroma is present. Atheroma is usually regarded as a senile lesion of the arteries, and if it has nothing to do with the causation of aneurysms, one would expect, in cases where the aneurysm occurs in a comparatively young person, that atheroma would be absent. This is not the case, however. A case of thoracic aneurysm occurred in the Western Infirmary last November, in a man 29 years of age, death being due to rupture into the pleural cavity. In this case there were several small pouches or incipient aneurysms, and also many atheromatous patches. The virtually universal coexistence of atheroma in cases of aneurysm indicates a causal connection.

According to Recklinghausen and his followers, atheroma is not to be regarded as anything more than a coincidence where it occurs in cases of aneurysm, whilst all other inflammatory lesions in the walls of vessels affected with aneurysm are secondary consequences of the action of the dilatation. On the other hand, Thoma regards the atheroma as actually a compensatory process. According to this author dilatation of the vessel occurs first because of local weakness of the media. In consequence of this, and in order to strengthen the weakened vessel, that thickening of the intima occurs which we know under its various names of endarteritis, arterio-sclerosis, and atheroma.

We must hold that these views are mistaken. The almost universal occurrence of atheroma in cases of aneurysm, even in young persons, forbids the idea of mere coincidence, while the fact that atheroma so frequently occurs without any trace of dilatation of the vessel seems entirely to negative the idea of it being secondary and compensatory.

Our view of atheroma is that it is in some way a senile and degenerative process. We cannot explain how a degenerative process should be characterised by new formation of tissue, but so it is. In many cases the atheromatous process is largely diffused over the systemic arteries, and is not infrequently associated with another senile change—namely, calcareous infiltration of the middle coat. It remains for us to consider how this atheromatous condition leads to the formation of aneurysms.

Whilst differing from Recklinghausen and his school in regard to the relation of atheroma and aneurysm, we acknowledge the great importance of the observations of this school in bringing into prominence the fact that rupture of the middle coat plays an important part in the causation of aneurysm. Manchot, a pupil of Recklinghausen, has devised an excellent method of bringing the middle coat into prominence. This method, with certain modifications, we have adopted. It consists in staining the sections of the vessel with a concentrated watery solution of fuchsine, and afterwards treating them with glucose containing a small proportion of sulphuric acid. We find that a solution of methyl-blue has a similar effect to the sulphuric acid, and is much more expeditious in its action, whilst having the further advantage that it gives a faint nuclear stain as well. By this method the elastic tissue of the media is brought prominently out by being stained of a bright red colour. By this method as well as by others, we have studied the condition of the media, both under ordinary patches of atheroma and in cases of incipient aneurysm.

It may be said that in all cases which we have examined where a small pouch has proclaimed itself as the beginnings

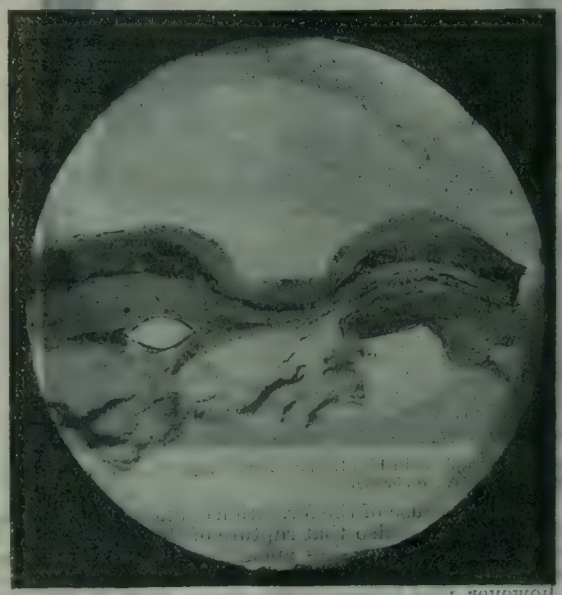


Fig. 1.—Photograph of a section of a commencing aneurysm (Case No. 3,004).—Atheromatous thickening of intima and wasting of media are shown.

of an aneurysm there has been a wasting, and in many cases an actual rupture of the elastic fibres of the media. This can often be determined even with the naked eye. The

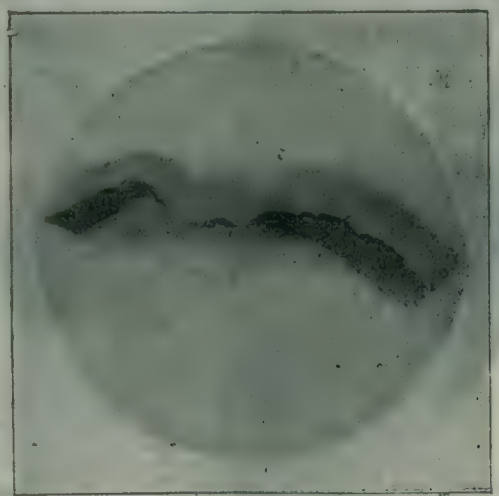


Fig. 2.—Photograph as in Fig. 1. There is rupture of elastic fibres in this case (No. 2,964).

opacity of the aorta is mainly due to the elastic tissue so abundant in its walls. If the aorta containing one of these small pouches be held up to the light, the translucency of the pouch indicates the loss of the elastic tissue. The change of colour of the tissue from yellow to white often gives a similar

indication. In microscopic sections this atrophy of the media is most strikingly manifest. Even in the smallest of these depressions the media tapers away, and is lost in many cases when the summit of the bulging is reached. Annexed are three photographic reproductions of preparations showing this atrophy of the media. These are from three different cases. We take it that loss of the media is not merely a consequence, but



Fig. 3.—Photograph as in Fig. 1. The media tapers off as the depression is reached (No. 3,062).

is the immediate cause of the formation of aneurysms in general. We acknowledge also that rupture of the elastic fibres is frequent in these commencing aneurysms, and is often the first step towards the formation of the aneurysm. We do not admit, however, that rupture of the elastic fibres is the only

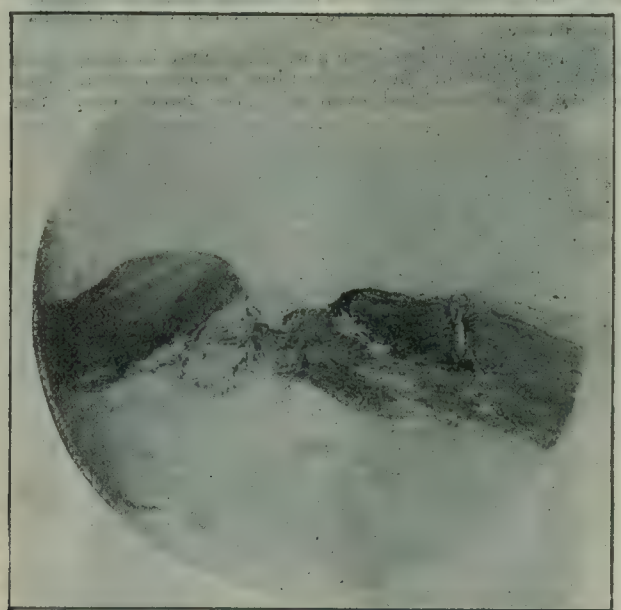


Fig. 4.—Rupture of media (from No. 3,185). In the preparation itself the curled ends of the ruptured elastic fibres are visible. There is in this section also the secondary inflammatory process referred to in the text below.

mode in which the loss occurs, and we entirely deprecate the proposal of Eppinger to designate simple aneurysm by the name of traumatic aneurysm, on the theory that traumatic rupture of the media is always the starting point of such aneurysms.

Atrophy and rupture of the media are the immediate cause of aneurysm. In many cases the appearances seem to us to be much more those of atrophy than of rupture. Our preparations show that frequently there is such a thinning or actual absence of the media as cannot be accounted for by the mere dilatation of the vessel and the passive stretching of the media. There is an actual loss of substance—sometimes very great—an atrophy, and disappearance of the elastic tissue. We have sometimes seen evidences of the actual mode of the atrophy. Although the histological details must be reserved for a fuller communication, we may here state that the elastic fibre sometimes assumes a curiously granular condition, which seems the first stage in the process of atrophy.

We have now to refer to the causes of atrophy and rupture of the media, and the relation of these to atheroma. It may be remarked, in the first place, that both of these changes in the media may occur independently of atheroma. Rupture of the fibres of the media may take place, as we believe, under the strain of the blood pressure should the media under any circumstances undergo a weakening influence. This we take to be the explanation of a case in which there were visible to the naked eye, on viewing the internal surface of the aorta,

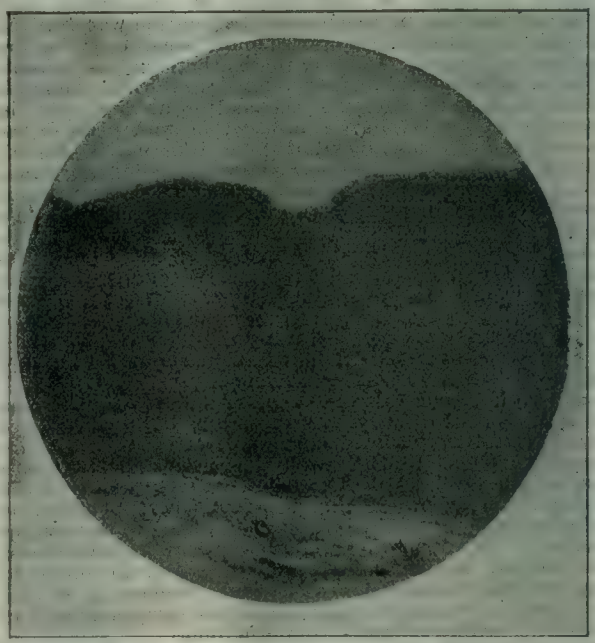


Fig. 5.—Ruptures of media without atheroma. Photograph with greater magnification. At the surface is a depression from rupture of superficial fibres of media. To the left is a clear area, where there was also rupture in the midst of media (No. 3,110).

a number of puncta, which were slightly depressed and somewhat translucent. These were found to be small ruptures of the media near the internal surface. The parted and retracted fibres caused a slight depression, into which the intima dipped. Besides these superficial ruptures there were others in the deeper layers of the media. In this case there were no aneurysms or pouches, but there were some small atheromatous patches, which were sometimes in connection with ruptures. The case was one of aortic and mitral disease with hypertrophy and dilatation of the heart, and the patient died of pneumonia and pleurisy with effusion. We take it that the acute disease had weakened the tissues and that the hypertrophied heart, producing in its systole an excessive pressure, had led to these numerous ruptures of the media.

Of considerable importance in this relation are certain cases in which degenerative changes in the media were present in consequence, apparently, of an emaciating malignant disease or other constitutional condition. In one of these cases there was cancer of the intestine, in another can-

cer of the stomach, and in a third Bright's disease. In these cases there was pronounced fatty degeneration in the muscular fibre cells between the elastic laminæ, and in certain of them a granular condition of the elastic fibre, which we took to be fatty. There was no true aneurysm in these cases, but in two of them a general bulging of the walls was present, almost amounting to aneurysm. The fatty degeneration above noted was almost exclusively confined to the bulgings. There was but little atheroma and no appearance of rupture of the media, but the general weakening had led to a certain yielding of the vessel wall.

It now remains for us to consider what part atheroma plays in producing atrophy and rupture of the media. In the first place, it may be pointed out that our sections show a close connection between atheroma and changes in the media. It is not only that wherever there is a pouch or commencing aneurysm with atrophy or rupture of the media there is atheroma, but that in connection with atheromatous patches without any such incipient aneurysm there are usually some changes visible in the media.

In order to the exposition of this part of our subject it will be necessary to say something about the structure of the atheromatous lesion. It may be premised that it is sometimes difficult to disentangle the atheromatous process from secondary changes, which, as we shall see further on, may ensue in both intima and media. These secondary changes often involve new formation of tissue, which may be confused with the new-formed tissue of the atheroma. In atheroma we have a process characterised by thickening of the intima. The thickening is localised in such a way that we speak of patches or nodes, and, in view of this, the disease is sometimes called endarteritis nodosa. These patches or localised thickenings are composed of dense tissue, which is often of quite cartilaginous consistence. The tissue is also prone to degeneration, so that it is a common observation to find in the deeper parts of a patch a yellow layer in which fatty degeneration is strikingly present. There is sometimes even a more direct necrosis of the deeper layers of the patch. The patch so constituted may affect the media in various ways, and some of these are shown in our preparations. To begin with, the new formation of this dense tissue may proceed outwards as well as inwards, and the internal layers of the media may be involved in the atheromatous lesion. This is apparent in some of our cases. Again, the degenerative process and even the necrosis may affect the proximate parts of the media in continuity with the intima. We believe also that the patch projected against the media may rupture its fibres. It is to be remembered that we have in the intima what is equivalent to a solid nodule. This, at every systole of the heart, is projected by the pressure of the blood against the media. It is to be remembered also that both atheroma and aneurysm are specially frequent in persons who are liable, from the nature of their occupation, to frequently recurring increase of blood pressure. The forcible projection of the hard nodule against the media, especially during the rise of blood pressure occurring in every violent exertion, seems to us an important element in the causation of aneurysm. The media is liable by this pressure both to atrophy and rupture. We have found ruptures not infrequently under the patches. We do not here exclude weakness of the media, which may be hereditary or acquired; but if such weakness exists, then we consider that the atheromatous patch will probably be more certain in its action.

It has been mentioned already that changes are often visible in the vessel wall which appear to us to be secondary. These consist mainly in cellular proliferation and new formation of tissue, occurring in all three coats of the vessel. These changes were regarded by Köster as part of the primary lesion, the primary lesion consisting in an inflammation of the vessel wall generally, and the atheromatous condition being merely a part of the general chronic arteritis, and really secondary to the inflammation in the media and adventitia. In our view the disturbance caused by the various changes referred to above induces as a secondary consequence inflammatory and other changes in the vessel wall, which are, at least in part, restorative or compensatory. The rupture of the elastic fibres in the media causes changes precisely equivalent to those produced by wounding of the tissues elsewhere, namely, cellular proliferation and new formation of connective tissue, in fact cicatrisation (see Fig. 4). Vessels and formative cells are invariably found in the breaches. The adventitia takes part in the process. Just as in the actual aneurysm, the sac does not merely represent the adventitia of the vessel, but the adventitia added to by new formation of connective tissue, so, in the arterial wall before actual dilatation, there is a similar new formation going on in the adventitia. In such conditions as this, as in many others, it is exceedingly difficult, perhaps impossible, to distinguish what is the direct effect of disturbance, and what is to be regarded as a restorative process, but we have not only in the actual aneurysm but also in the altered vessel wall both of these elements present.

In the case of the intima we have a still more complex problem in endeavouring to distinguish amongst these separate elements. There is, first, the original atheroma which is a new formation of tissue; secondly, new formation from direct disturbance of the tissue; and, thirdly, a compensatory new formation. There is often visible in the intima a new formation distinct from the atheroma, and evidently belonging to the two latter categories. In cases where, along with atheroma, there is considerable disturbance of the media with rupture or atrophy of the elastic tissue, the inflammatory new formation will often extend into the intima. This new formed tissue contains blood vessels, and is thus altogether distinct from that of the atheromatous patch which is always non-vascular. This new formation of tissue, therefore, which is technically inflammatory, we regard as in large part compensatory, it is strengthening to the weakened wall.

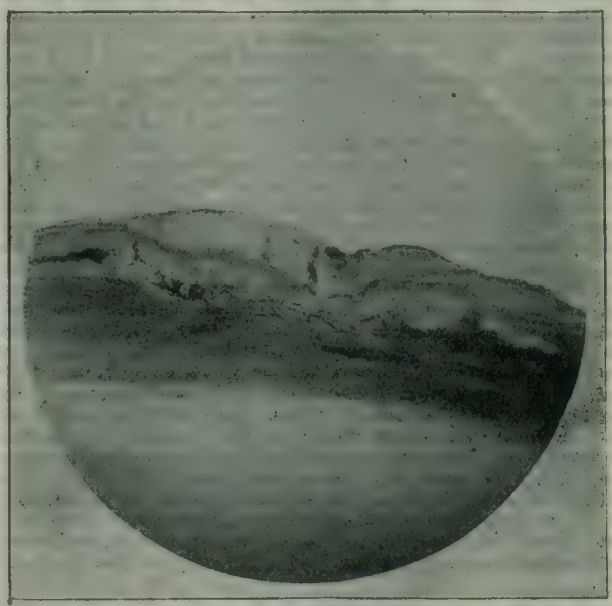


Fig. 6.—Section from case referred to in text. The intima in two layers. Compensatory hypertrophy was present. The media is considerably atrophied under the atheromatous patch, and a little to the left of the middle line is a rupture extending halfway through the media, the cells filling the breach being represented by the darker and irregular narrow area extending from intima. (No. 3,156).

We have observed in some instances what we regard as a more direct compensatory new formation of muscular tissue. In this connection one of our cases (No. 3,156) may be more particularly referred to as giving the clearest evidence of this compensatory process. The case was one of disease of the aortic valve, and hypertrophy of the left ventricle. The aorta was thus exposed to excessive blood pressure. There were numerous atheromatous patches in the thoracic aorta. In connection with some of the patches there was found, on microscopical examination, pronounced degeneration and atrophy of the media. This was partly a fatty and granular condition of the constituents of the media, and partly an actual thinning of it as in a commencing aneurysm. There was in connection with these conditions a pronounced cellular proliferation in the adventitia, and also in the intima.

The intima presented in one place the peculiarity that the thickening which constitutes the atheromatous patch was in two layers. Both layers are very cellular, but especially the superficial one. The two layers were distinguished by the existence of a more cellular layer between them. The cells, especially in the intervening layer, have all the characteristics of smooth muscle. They consist of well-formed elongated spindles, and they have rod-shaped nuclei. It is noted, also, that they frequently run in bundles, and that the bundles take different directions. The cells in the intervening layer mentioned above seem to be muscle cells, which in our sections have been cut transversely, whilst most of the others are seen longitudinally. We are aware that the existence of smooth muscle in the intima of the aorta and certain other arteries has been asserted by some and denied by others. The appearances which we have met with seem to confirm the view that they exist, and, like smooth muscle elsewhere, may undergo compensatory increase. It may be added that we have observed what we take to be a compensatory hyperplasia of smooth muscle in the media as well as in the intima.

It will be gathered from what has gone before that we regard the causation of aneurysms as comprising various elements, of which injury or atrophy of the media is the most important. We have also indicated our opinion that the process ordinarily designated atheroma is the most frequent cause of such injury to the media as may lead to aneurysm. In this connection there is one important fact which ought to be borne in mind, namely, that on the average aneurysms occur at a considerably earlier age than atheroma. It may be said that aneurysm is a disease rather of early middle life, whilst atheroma rather belongs to advanced middle life and old age. We believe the explanation of this to be that, along with atheroma, excessive blood pressure has an important part in the causation of aneurysm. Persons in early life are more exposed to, because they are more fit for, heavy strains in the way of their occupations or amusements than are those of more advanced years. At the meeting point of these two periods, namely, in early middle life, when on the one hand the tendency to sudden and severe exertion is scarcely diminished, and, on the other hand, the tendency to atheroma is just beginning, there we have the period in which aneurysm is specially prevalent. The well-known relations of aneurysm to occupation and sex are to be similarly explained, but need not be entered upon here. We may venture to say that were atheroma a disease of youth, the occurrence of aneurysm would probably be much more frequent than it is, especially in consequence of such strains on the circulation as must be frequent, say, in the football field.

Medical Education in the United States.—*Polk's Medical Register of the United States for 1893* contains the names of more than 105,000 practitioners, including "'paths" of every variety. Of the 137 lawfully established colleges in the United States and Canada, 23 now require four courses of instruction of not less than six months each; 23 require four or more years of study and three courses of not less than six months each; 55 require three or more years of study and three terms of not less than six months each. Of the remaining 36, all but 7 have announced a minimum requirement of three courses of instruction before candidates are admitted to the final examination. Nearly every medical college in the United States now requires clinical instruction, laboratory instruction in chemistry, toxicology, the analysis of urine, normal and pathological histology, bacteriology, pathology, and hygiene. More than 90 per cent. of the regular colleges in the United States now require preliminary education equal to or better than that required in high schools of the first class. Medical schools in the United States are not under Government control, but the medical profession does not recognise schools not lawfully chartered by the State and authorised to confer degrees after a prescribed course of study. The medical colleges are ministerial officers of the State authorised to confer degrees of rank and distinction in learning. The degree of M.D. is the only medical degree in the list of professional titles recognised by the laws of several States.

SIXTY-FIRST ANNUAL MEETING

OF THE

BRITISH MEDICAL ASSOCIATION

Held in NEWCASTLE-ON-TYNE August 1st, 2nd, 3rd, and 4th, 1893.

PROCEEDINGS OF SECTIONS.

SECTION OF PSYCHOLOGY.

Wednesday, Thursday, and Friday, August 2nd, 3rd, and 4th, 1893.

President, T. W. McDowall, M.D.

THE EFFECT OF THE RECENT CHANGE IN COUNTY GOVERNMENT ON ASYLUMS AND THE INSANE.

The President delivered an address on this subject which was published in the Journal of August 12th, p. 358.

Dr. Newington moved a vote of thanks to the President for his address, and congratulated him on taking so broad and favourable a view of the changes in asylum government. Speaking as a member of the Sussex County Council, he maintained that nothing but desire to do the work well animated them. He pointed out that the labourers and artisans had to be taken into account. When they remembered that the inmates of asylums were drawn from these classes, it would be quite certain that inefficient management of asylums would be speedily amended if and when the voters recognised their power. Then, if this were true, and if they allowed, as they must, that what was good for the patients would be good in the long run for both the asylum staff and the ratepayers, the change in asylum government could not but work good. He further pointed out that, though good committees of justices were in the majority, yet there were bodies that could not be said to have done their work satisfactorily; but these were quite irremovable. Now, however, it was quite easy to effect a change in the governing body.

Dr. Murray Lindsay very cordially seconded the vote of thanks to the President for his very comprehensive, suggestive, and instructive address. Dr. Lindsay on the whole endorsed the general conclusions arrived at by the President after a lengthened experience. That county councils were now taking a comprehensive grasp, an enlightened and liberal view of their new duties with regard to the management of asylums and the position of the staff, there could be no doubt, and they were zealously improving asylums and doing what they could to benefit the insane, whilst not forgetting the interests of the staff of asylums in the matter of pay, pension, and leave. It was to be expected that at first some experience and lubrication would be necessary before the new machine could work smoothly, but now much hard and really good work was being done by asylum committees. Whilst admitting that asylum committees had done much, he still believed that the process of education in asylum matters was not yet complete, and that there was still room for improvement in this respect. It must be acknowledged that our county asylums had been and were being improved under the *régime* of county councils, a *régime* which would unquestionably confer greater benefits upon the insane and upon the administration of asylums. Derbyshire was especially fortunate in having an excellent county council, and equally fortunate in having a hard-working asylum committee, who were endeavouring to advance and keep abreast of the times. Dr. Murray Lindsay condemned the questionable and unhealthy rivalry with regard to reducing and keeping low the weekly maintenance rate, and he also referred to the question of superannuation and the liberal practice of county councils in the matter of pensions.

THE ALLEGED INCREASE OF INSANITY.

Dr. Hack Tuke, in introducing for discussion the alleged increase of insanity, gave the reasons brought forward by those who maintained this view, and also the reasons advanced by those who denied the increased liability to

insanity while obliged to admit the great increase in the number of the insane. He brought before the Section a number of statistics in order to assist it in arriving at a conclusion. These covered the period which had elapsed since 1870. If the figures alone were regarded, he admitted that they no doubt presented a somewhat alarming picture; but he asked whether there were not circumstances which might partially or altogether account for this increase in numbers. Dr. Tuke summarised his own conclusions as follows: (1) There has undoubtedly been since 1870 a large increase in the number of patients in asylums and workhouses, but more in the former than the latter. (2) There has not been so great, but still a considerable, rise in the *admissions* of patients in asylums during the same period, after deducting transfers and re-admissions. (3) The advance in the number in detention holds good after allowing for the increase in population, but does not prove the increased liability of the community to insanity, seeing that there is a vast accumulation due to a lower death-rate (even since 1870), the chronicity of the disease, and its lamentable tendency to relapse. (4) Nor does the advance in admissions prove increased liability to insanity, as (*a*) the value and comfort of asylums are increasingly appreciated, (*b*) there has been a very large number of patients drafted from workhouses to asylums, and (*c*) there has been an ever-increasing encroachment on the mass of unregistered lunacy which the Census shows to exist. (5) The increase in numbers of the insane has taken place among the poorer rather than the well-to-do classes of society. While, however, Dr. Tuke did not accept lunacy figures as conclusive proof that insanity was on the increase, he lamented the undoubted fact that it had not decreased, in spite of all the efforts of physicians and social reformers to improve the condition of the race. This was the important lesson to take to heart.

Dr. Campbell (Carlisle) observed that, as Dr. Tuke had asked if anyone knew of factors which had tended to increase the accumulation of chronic patients in asylums, he might say that, in his opinion, the 4s. grant originally given in 1874 to pauper lunatic patients in county asylums caused a very great increase in the admissions to public asylums. The admission-rate in 1875 rose immensely at once. Mr. Corbet showed, in his paper in the January number of the *Fortnightly*, that the ratio per 1,000 lunatics had increased from 1.81 to 3.11 in the last thirty years, but there could be no doubt at all that the nominal registered increase was much greater than the actual. The 4s. grant had had much to do with that. Dr. Maudsley, in an able paper in the *Journal of Mental Science* for April, 1877, stated that "the Conservative Government had practically offered a premium to parochial authorities for every patient they could, by hook or crook, send into asylums; that shortly the race of sane paupers would disappear, as had been the case as regards wolves in England when a premium per head was offered for their extermination." Now his forecast had been found correct. Sane paupers had largely decreased; pauper lunatics had hugely increased since 1874. We should most undoubtedly do all in our power to get this 4s. grant given, as in Scotland, to such insane as were fit for workhouse treatment or were boarded with relatives or others, provided they were kept to the satisfaction of the Commissioners in Lunacy. This was a matter of very great importance. In some asylums the accumulation of chronic cases was much less than others: at Carlisle, for instance, during the last ten years 1,500 odd pauper patients had been taken in, and yet the increase had only been 56 in the time.

Dr. Merson said that a comparison of the ratio of existing lunatics to the general population over a series of years would show that though the ratio has been and was still increasing, yet the yearly increment was gradually diminishing, and it seemed a fair inference that it was due to special and temporary causes, and would ultimately vanish, and that, in fact, the ratio of lunatics to population was slowly tending towards a constant quantity. In the ten years from 1859 to 1869 the ratio of lunatics increased by 512 per million, while in the two subsequent decades it was only 361 and 212 respectively. Comparing this with the increase in the rate of admissions into asylums, which may be taken as roughly representing the proportion of freshly occurring cases among the population at large, it would be seen that the slight increase in this ratio did not warrant the inference that the increase in the ratio of lunatics to population was in any appreciable degree due to the occurrence of fresh cases. The slight increase observed from time to time in the admission rate appeared to be fully accounted for by the operation of the lunacy laws and the various changes that had from time to time been made leading to a more energetic action or an extension of the scope of their operations. After careful consideration of the circumstances, he had come to the conclusion that the increased ratio of lunatics to population was due mainly to accumulation of chronic cases in pauper asylums; that this tendency to increase had now reached its maximum effect and was diminishing; that the ratio tended to become constant, and that there was no material increase in the number of of freshly recurring cases among the population at large.

Mr. Peeke Richards thought that the statistics regarding lunatics were fallacious from the fact that there were so many patients who were not registered (single patients, etc.). Any facts, therefore, that were deduced from the returns issued were erroneous as to lunacy as a whole, but ought to be applied only to those that were registered. Lunacy statistical tables ought to be applicable only to those lunatics of whom a return was made; to apply the usual results from the tables to lunacy as a whole was fallacious, as there were, as was well known, so many insane individuals of whom no statistical notice was taken. On other grounds he disputed the alleged increase of insanity.

Dr. Eastwood said that, avoiding statistics, he would say a few words from the point of view of private patients. The increase of longevity was an important factor in keeping up the number of patients. Only this year two patients had died under his own care, one of whom was resident in his house for thirty-two years and another more than forty years. Last year another patient died after being a patient nearly fifty years. Such patients as these went on from year to year, living much in the same way, until at length some form of paralysis caused death. Amongst the private class he considered that increased longevity conduced largely to the number of patients actually living at a given time.

Dr. Howden directed attention to the change in the nature of employment of the working classes as an important factor in the apparent increase of insanity, or, rather, the increase of the number of lunatics sent to asylums. He referred to the change from home manual labour to the employment of machinery in public work; for example, fifty or sixty years ago handloom weaving and small farms or crofts permitted the relatives to attend to their weak-minded relatives while pursuing their occupations at home, whereas when they had to work at spinning mills or as servants on large farms, they were compelled to send their insane or imbecile relatives to asylums. This change in employment was still going on; the absorption of manual labour by machinery was still going on; shoemakers, tailors, and other old-fashioned trades were almost extinct, and, so long as this change continued, there would probably be a slight increase in the number of persons sent to asylums. Possibly, if the "three acres and a cow" experiment were carried out, the apparent increase of insanity might be partially arrested, but the inevitable change in modes of employment which goes on in spite of theories must be faced, and the inevitable increase in the number of insane persons sent to lunatic asylums accepted, although it was no proof of the alleged greater liability of the population to insanity.

Dr. Holmes, having been in asylum work for the earlier years of his professional career, then in general practice, and now finally engaged in lunacy practice, had watched the subject with interest. When he first engaged in general practice he found a much greater reluctance on the part of the friends to place their insane relatives in asylums. Now, however, they looked upon them as hospitals for the cure of the insane, and were therefore more willing to place them under proper care. During the last twenty-three years the apparent increase had been 5.3 per 10,000 of the population, during the last ten years it had been 1.2 per 10,000 of the population. This large increase might well be due to better care and the greater willingness of the friends to send their relatives to the asylums.

Dr. Yellowlees confirmed Dr. Howden's explanation of the apparent increase of the insane.

The PRESIDENT confessed himself unable to master statistics.

Dr. CAMPBELL supplemented his former remarks by adding three factors of insanity, which he had omitted to mention: (1) the standard both of sanity and insanity had altered much of late years; people were now certified as lunatics who long ago never would have been sent to asylums. (2) Old people suffering from simple dotage were now sent to asylums in much greater numbers than formerly; at the Carlisle Asylum 2 per cent. of the admissions during the ten years ending 1872 were above 70 years of age, 4 per cent. during the next ten years, and 6 per cent. during the ten years ending 1892. Now this was a vast increase; such old people could not be expected to get well; they would accumulate and use up the accommodation. (3) Trade depressions or booms in trade also had a great effect; for instance, in Cumberland, which was only some twenty miles from Ireland, was during prosperous times flooded by uneducated and uneducable Irishmen, who never had been accustomed to high wages, and who, when they got high wages, had not the sense to use their money judiciously.

Dr. TUKE, in reply, said that he agreed with Dr. Campbell that the 4s. grant partly caused the rise in the number of asylums, and that it ought to be extended to workhouses. At the same time, it would not account for the increase during the last five years as compared with the previous quinquennium. With regard to Mr. Richards's remarks on statistics, he would say that those who, like Mr. Corbet, hold that there had been an alarming increase in insanity, rested their contention on the Blue Books. Dr. Tuke, in conclusion, said that he was not prepared to deny that there might have been some increase in occurring insanity; but, on the other hand, he was unable to admit that statistics proved it.

CURRENT OPINION ON PSYCHOLOGICAL QUESTIONS IN GERMANY.

Dr. URQUHART read a paper which gave a rapid survey of the field of psychological medicine from the German point of view. The subjects touched on more specially were university teaching and clinics, the treatment of habitual drunkards and criminal lunatics, and the general attitude in reference to management of acute and difficult cases.

Dr. YELLOWLEES heartily thanked Dr. Urquhart, and endorsed many of the opinions expressed in the paper. He strongly approved of giving lectures on insanity to law students. Lawyers as a rule knew little or nothing of insanity, and the hope of enlightening the legal profession was in teaching its students. He agreed as to the importance of insisting on habitual drunkards paying for their comforts by their conduct and industry. An assemblage of drunken sots living in lazy and luxurious idleness could only develop increased demoralisation. The importance of treating every patient individually, and of regarding tone, demeanour, conversation, or the avoidance of it, as true mental medicine, was strongly endorsed.

Dr. TUKE said they must all feel indebted to Dr. Urquhart for his most interesting paper.

The PRESIDENT was glad to find that the experience and views of Professor Meyer concerning the treatment of dipsomaniacs and acute cases coincided with his own.

In reply, Dr. URQUHART acknowledged with gratitude the kind reception of his paper, and referred to the difficulty of entering into the discussion of the subjects with sufficient brevity. He would be urgent in pressing the adoption of Professor Meyer's method of teaching psychiatry to law students, and thought it was special matter for congratulation that the standard of comfort and of humanity was progressively increasing all over civilised Europe.

TREPHINING FOLLOWED BY DRAINAGE OF THE SUBARACHNOID SPACE IN GENERAL PARALYSIS OF THE INSANE.

Dr. EDWIN GOODALL (West Riding Asylum, Wakefield) remarked upon the disfavour with which the operation of trephining in general paralysis of the insane (introduced by Dr. Claye Shaw) was regarded by many alienists, and submitted that a study of the cerebral cortex in that disease afforded justification for this procedure, supplemented by drainage of the subarachnoid space. In an early stage there was vascular engorgement, nuclear proliferation of the adventitial lymph sheath, and leucocytal extravasation in and about the perivascular channels; rather later, distortion of the vessels and their perivascular sheaths by contraction of the vascular processes of spider cells, and hypertrophy and proliferation of the latter. Contemporaneously the nerve cells showed signs of degeneration; amongst them were seen the proliferating spiders. These morbid appearances about the blood vessels justified the belief that the perivascular lymph channels were partially blocked and overfull. At the same time, the existence of inflammation signified that there was an excess of waste material for removal. The facts pointed to an accumulation of lymph. This must be prejudicial to the nutrition of the nerve cell. If the view of Bevan Lewis, to the effect that the spider cells formed part of the lymphatic system, were correct, the hypertrophy and proliferation of these cells afforded further evidence of the overcharging of the lymphatics. This observer had, in fact, noticed enlargement of the spiders in affections of the cortex and its membranes, which led to obstruction of the lymph channels. These collective considerations pointed to the conclusion that complete degeneration of the nerve cells—which were supposed to be the essential elements—would result if the lymph flow was not promoted. The best means of promoting it appeared to be to make an opening in the lymph channel and to drain. Our knowledge of the cerebral lymphatics was obscure, but it was reasonable to suppose that the congested lymphatics would be relieved by draining the subarachnoid space. Prolonged drainage might be expected to rehabilitate the damaged nerve cell. Even if the initial disease were in the nerve cell (an unsupported assumption), the removal of the accumulated metabolic products could be only beneficial. Relying upon this line of argument, Dr. Goodall had operated on an early case of general paralysis presenting few symptoms.[1] After trephining, a horsehair drain was inserted into a large sulcus. This did not, however, act as desired. The amount of fluid which drained off in the course of several days was insignificant. The drain on removal was dry and contained clots in its meshes; it had evidently been ineffectual. Owing to the onset of certain symptoms (facial spasm, speech defect, etc.) the idea of substituting a fine drainage tube for the horsehair was abandoned. The patient's state remained unchanged. The case did not illustrate the treatment recommended. On a future occasion Dr. Goodall proposed to fix a fine drainage tube in the opened sulcus from the outset. This would afford the best means of drainage, and render it possible to judge whether, by removal of fluid from the subarachnoid space for a protracted period, improvement could be brought about in early general paralysis.

Dr. W. W. IRELAND observed that Dr. Goodall had recommended a very small opening. Dr. Macpherson had published the results of his operations with the same object, but he made much larger openings. This, at any rate, was more effectual in draining the subarachnoid fluid; but neither in Dr. Macpherson's nor in Dr. Goodall's operations had there been any improvement sufficient to justify its repetition. At the same time, in so desperate a disease as general paralysis, extreme remedies might perhaps be permitted. He held that in operations upon the cranium there should be some definite lesion to cut down upon and remove; but general paralysis was a disease which implicated not only the brain but the whole nervous system, and hence improvement from such a simple operation as puncturing the skull could scarcely be expected.

Dr. GEORGE M. ROBERTSON said in operating in general paralysis it was necessary to start with a theory of its causation. Dr. Goodall had started with the theory that there was something of an inflammatory nature present, with the presence of increased waste products. This might justify the operation; but there was also an alternative theory. He referred to the possible advantage which might follow the drainage of the subarachnoid space of the spinal cord.

Dr. GOODALL, in reply, observed that it was futile to say experience condemned the procedure of trephining followed by protracted drainage, for that procedure had not yet been employed. He desired to say that in operating he had pro-

[1] See BRITISH MEDICAL JOURNAL, July 15th, 1893.

ceeded on a distinct scientific theory, which itself was based upon microscopical examination of specimens. He agreed with Dr. Robertson that in future cases it would be desirable to consider the question of draining the subarachnoid space of the spinal cord.

PSYCHOLOGY AND MENTAL DISEASES.

Dr. J. W. Eastwood observed that at the present time words and phrases rapidly acquired new meanings. A good instance of this was to be found in the use of the word "psychology." In its early and proper meaning a knowledge of mind or soul was meant, but now it included the diseased mind, or whatever term might be used for the results of a diseased brain. Nor was the term "mental diseases" a correct one, for by using it it might be supposed that the mind was diseased apart from the brain. The use of these terms was apt to confuse ideas as well as practice, and it was the object of this paper to point this out, and try to return to first principles. A great variety of facts had been made out respecting the morbid results in the brain itself, and pathology had made considerable strides of late years, but perhaps not with such important results as in other departments of medicine. The results—that is, the pathology—were often not known until years after the morbid symptoms had shown themselves, and it was then almost useless to hope to gain anything from an examination of the brain. The knowledge gained did not materially assist the object in view—the cure of disease. Owing to losing sight of a true psychology, there was a liability to take the effect for the cause. The subject was a difficult one, but it had not been pursued with the same ardour as the pathological aspect of insanity, which was perhaps a preferable term to "mental diseases." To be practical, it was necessary to endeavour to learn more of the natural history of the mind of the individual—its true psychology. Amongst a crowd of patients the difficulty was very great, as the information was generally wanting, but its value was evident where it could be obtained. To learn the peculiarities of the healthy mind and character before the attack of the diseased condition would surely help in treatment; it would show what to avoid and how to produce health where pathology was out of the question. The psychology of the individual was therefore a first step in this investigation, and a second one was that of the family. The subject of heredity had a great future before it, as yet comparatively uncultivated. When it was known what causes brought about certain results, something was obtained which would guide and help in treatment. This meant a more individual treatment than could be generally arrived at. Dr. Eastwood did not desire to depreciate pathology, but to point out how to learn to treat insane patients better by understanding their mental condition in health, their natural predispositions, and the influence of heredity in the production of mental derangements.

CLAUSTROPHOBIA.

Dr. Harry Campbell (London) said that anything that interfered with the free movements of the limbs or with respiration was violently resented. If seriously threatened in either respect man was seized with panic, and made frantic efforts to secure perfect freedom of limbs and breathing. The craving for this twofold freedom and the fear which attended any threatened interference with it must exist very low down in the scale, and subserving as they did useful ends, must have come into being by the ordinary laws of organic evolution. Fear sometimes produced paralysis—a fact difficult of explanation, since such paralysis, far from being helpful in extremity, was generally the very reverse; but the particular fear under consideration generally provoked active, it might be even convulsive, movement. Once evolved, the instinct for freedom could not find satisfaction in mere physiological conditions. Claustrophobia, or fear of closed places, a disorder more common than was generally supposed, was an exaggeration of that fear normally excited by any inhibition of the movements of the limbs or the breathing. This might be expressed in another way by saying that anything which engendered a sense of captivity was highly repugnant to the individual. Not only did he resent having his limbs tied, or being placed in a tightly fitting wet pack, but being held captive in any way, as when a limb or the head was caught between two bars; the sense of captivity thus engendered might culminate in the direst panic. A similar, though less intense, panic might be induced by difficulty in doffing some garment, such as a coat with tightly fitting sleeves, or in getting off a boot, a skate, or even a finger ring; in all which cases there was the same sense of captivity. Sometimes a sense of suffocation might be excited in any of the above instances, but it was, of course, most pronounced when the breathing was actually interfered with. The claustrophobiac had a morbid fear of suffocation and of captivity. This statement expressed his condition in the most general psychological terms. To state simply that he feared closed places was to take a far too narrow view of the case. He feared to be in a room with the door closed, above all with the door locked. He might even be uneasy if he feels he could not rapidly get out of the house if so inclined, insisting that the hall door should be kept unlocked. He might object to be inside a church or theatre, and if he ventures there will probably insist upon being near the door. He often objected to travelling in trains, and had an abject dread of tunnels. He disliked a crowd or narrow passages, and might even be fearful of walking down a street with high houses on either side. The craving for free space might be so imperious that he was not happy unless he was in the wide open country, with not even a tree by. This was the borderland of insanity. In any pronounced case of claustrophobia a highly neurotic history, frequently one of insanity, would be found. The suddenness with which the panic arose in many of these cases was most remarkable. The claustrophobiac seldom complained to the physician of feeling fear when his limbs were hampered because he seldom found himself in such predicaments. If he did, however, he was far more likely to be seized with panic than an ordinary individual. He delighted in wide open spaces because they suggested the very antithesis not merely of captivity, but also of suffocation. Thus a lady inclined to be claustrophobic took intense delight in surveying a broad expanse of hill and moorland, and she had suggested that Shakespeare understood this feeling since he makes Lear's wicked daughter say: "He is dearer than eyesight, space, and liberty." It might seem that one of the words "space and liberty" were redundant; but the lady referred to was convinced that each had for the poet a very particular meaning, and that he himself must have experienced that glorious sense of being able to breathe freely which the prospect of a wide, open space inspired in her.

THE MENTAL SYMPTOMS OF MYXŒDEMA AND THE EFFECT ON THEM OF THE THYROID TREATMENT.

Dr. Clouston referred to the fact that in almost every fully reported case of myxœdema, from Sir William Gull's classical case onwards, mental changes in the patient of a pathological nature were noticed, though they did not necessarily amount to insanity. He reported on the mental symptoms in nine cases of myxœdema, one man and eight women, that had been sent to the Royal Edinburgh Asylum on account of their insanity. The mental symptoms of these cases differed greatly. One had the symptoms of suicidal melancholia, one was simple melancholia, and the other seven were cases classified as mania on their first admission. Two of them after their discharge were readmitted as cases of melancholia. The symptoms of the mania differed greatly in different cases and in the same case at different times, running upwards from general simple mental exaltation, systematised delusions of grandeur—one woman fancying herself "Duchess of Albany"—up to inability to understand simple questions and delirious incoherence of speech. They had all begun by slowness of mental action and lethargy; most of them had then been somewhat depressed, next there had appeared irritability, morbid suspicion, and loss of self-control. Under the discipline and life in the asylum four of the seven earlier cases had improved so much as to have been discharged as "recovered," that is, no longer technically insane. Two of these had relapsed and were readmitted. The cases that lasted long showed signs of general enfeeblement of mind after the early acute symptoms had passed off. Before death a very striking hebetude and mental torpor had come on. Three of the cases had died in the asylum. The two last

cases admitted had been treated with thyroid extract, and had made satisfactory recoveries, both from the myxœdema and the insanity. But one of them had died at home on the tenth day after discharge from syncope after over-exertion and whisky. An analysis of the symptoms in the nine cases showed that in seven of them sensation was blunted, the memory was affected in eight, the normal power of attention was diminished in all the cases, with an accentuation of the attention on disagreeable things and on delusions in six cases. There were hallucinations of the senses of sight, hearing, and smell in four cases. In every case the affective faculty was abnormal, natural affection being diminished in all, and in most hatred set up instead of love to near relations. There was depressed emotion in five cases and exaltation of feeling in three cases. The intellect was affected in all by slowness of working and by delusions—mostly of suspicion in six cases. Volition and the originating faculty was impaired in some way or other in all the cases. The effect of the thyroid treatment was manifest within the first month of treatment—in mental improvement. One of the cases treated had been for one year markedly insane, the other for three years. The myxœdema had existed for over five years in both. Both were enfeebled in mental power, this having succeeded exaltation, morbid suspicions and excitement at the beginning of the attacks of insanity. One case was cured in four months and the other in six. A slow intermittent treatment by small doses—one-sixteenth of a thyroid twice a week—was found to be, on the whole, the best. The mental improvement went on *pari passu* with the disappearance of the bodily symptoms until the general enfeeblement disappeared; the general sense of well-being became normal, the memory improved, the delusions disappeared, the affection for husbands and children returned, and the volition and originating power became gradually normal.

General Conclusions.—1. The mental functions of the brain are always affected in myxœdema. 2. In a very large proportion of the total number of cases of the disease the mental disturbances are so severe as to amount to insanity. 3. Though in the "sane" stage, the mental symptoms of most cases closely resemble each other, being characterised by slowness of mental action and lethargy, in the insanity they differ entirely. 4. Common sensation and the special senses, as well as all the mental faculties, were in a marked pathological state. 5. The attacks had mostly an acute period, which was succeeded by a condition closely resembling a mild dementia with delusions of suspicion. 6. Under thyroid treatment, which was found to be best carried out slowly by small doses of one-sixteenth of a thyroid, both cases got well within six months, mental defect gradually disappearing, the whole mental powers acquiring strength, and the normal enjoyment of life being restored.

DETACHED HOSPITALS IN CONNECTION WITH ASYLUMS.

DR. CLOUSTON, in opening the discussion, said that in the course of the evolution of the modern asylum for the insane various ideas had taken hold of the medical world, and been carried out. The latest idea was what might be called the "hospital" idea. Whilst an asylum was essentially a hospital in all its parts and management, yet the strictly medical and nursing functions were apt to become subordinate in some of the wards to the idea of safe custody and kindly care. In fact, general medical conditioning of the patients was almost all that was attempted or needed for many of the inmates. There were infirmary wards for the sick, and admission wards for the new cases. Dr. Clouston described how, in reconstructing and reorganising the Royal Asylum at Morningside, about twenty years ago, he had found two old "refractory" wards, detached buildings, and had converted them into "detached hospitals," making them suitable for treating not only the sick, but also many of the newly-admitted cases who were weak and needed much medical care and bodily nursing. He had treated these under specially trained nurses; they were the weak and the melancholic, the puerperal, lactational, and pregnant cases; the consumptive, the senile, the paralysed, and those who needed special care. He claimed as the result of now over fifteen years' experience of the system that it had the following advantages: (1) That in these hospitals the diet could be made very varied, and the routine of the asylum dietary set aside; they had their own kitchens. (2) That the nursing is more special and more efficient, and the staff of nurses much more numerous. (3) There is the absence of asylum discipline and routine. (4) That as all the patients there are curable, or need individual nursing and care, it raises the medical and nursing standard for the whole asylum, so the doctors are while in the hospital medical men rather than administrators. (5) They form admirable training schools for the new nursing staff, a very important matter. All the new nursing staff at Morningside are sent there at least three months first, and so get the notion of nursing patients rather the "keeper" idea. (6) The detachment of the buildings gives distinctiveness of use. They help the doctor to idealise his work to some extent. He advocated great variety of accommodation in each hospital—namely, dormitory day rooms, dormitories proper, day rooms proper, small three-bedded rooms, and single rooms, and that the hospital should be one-storeyed. The whole idea had spread in Scotland, so that most of the asylums had built or were building such hospitals, and the Scottish Lunacy Commissioners had taken up the idea, and were urging its adoption in some form in all asylums under their jurisdiction. He believed the movement had done good to the insane, and formed a part of that great and philanthropic advance in their treatment which had begun 100 years ago.

DR. WALLIS: Dr. Clouston's subject is most interesting to me, though my desire for a detached hospital rests on a different basis, and is not a wish to treat the sick and infirm only as the sick and a certain number of the recent admissions in this hospital, but rather to leave the ordinary sick and infirm to their present pavilion, which is sufficiently detached as it is, and provided with a separate kitchen and cook, so that the dietary and medical comforts may be as varied as possible. My object is rather to provide for the separate treatment of the recent acute and curable cases, and my contention is that in all asylums, and especially in large asylums, detached hospitals for the treatment of recent and curable cases should be provided. The asylum at Whittingham in my medical charge has at present about 1,900 inmates under the care of four assistant medical officers, a pathologist who does no special ward duty, and myself. Thus each of the medical officers has nearly 500 patients to look after, and the reception wards, being very limited in extent, it follows that recent cases are scattered over the asylum, and mixed up in a very undesirable fashion with chronic and incurable cases. I find it all but impossible to keep in touch with them, and the various medical officers have too much routine clerical and medical work to give as much time and attention to the recent cases as the importance of this class of case is justly entitled to. With this purpose in view the plans now before the meeting have been designed, and have been approved by the Lunacy Commissioners, and the Lunatic Asylums Board of Lancashire has voted a sum of £23,000, and £10,000 for nurses' and attendants' homes, a subordinate part of the scheme. The first consideration in a reception ward for recent cases is that it shall be of small and home-like extent, and the four subdivisions of either half of our contemplated hospital will therefore accommodate but 25 patients each, and the arrangements of each ward have been made as simple as possible; a type having been fixed has been followed as closely as possible, variations in day rooms, dormitories, single rooms merely occurring to meet the requirements of the various classes of patients occupying these wards. Two medical officers will reside in the centre blocks, having each charge of 100 patients. The pathologist will also reside in this block, and provision has been made for pathological chemical research, and photographic rooms. A dispensary will also be found in this block, and a lecture room in connection with the housing of nurses and attendants. Further, kitchens, and the necessary stores and offices, visiting rooms, chief attendant's quarters, and bedrooms for the domestic servants have also been provided. As every ward will contain a special dining room no dining hall has been contemplated, but a recreation hall intended to be con-

structed chiefly of glass and iron, like a winter garden, and intended to serve as a resort for the patients in rainy weather, formed but a part of the first design—this very important feature had to be sacrificed to the stern dictates of economy, there being little likelihood of passing the scheme if its cost exceeded materially £100 a bed. The various subdivisions comprise a sick ward, an excited ward, a subacute ward, and a convalescent ward. A full description will appear with the plan in some future number of the *Journal of Mental Science*, and need not be detailed here, but the points claimed for this scheme are a concentration of the curative element, more detailed and exact clinical study of individual cases, facility of supervision of curable cases by medical officers and superintendent, elaboration of training of nurses and attendants, all spending a period of training here as probationers, and furnishing a larger proportion of nurses and attendants than is usually allowed in the ordinary divisions of an asylum. The dietary also may be varied *ad libitum* without breeding jealousy or discontent in ordinary wards, and, finally, the patients treated at the hospital will have the advantage of realising continually their condition as sick people with a reasonable prospect of recovery in the near future, and will not be saddened by association with obviously incurable and unpromising patients.

Dr. Howden said that he was in most respects independent of the asylum. It was intended to treat acute mental cases in the hospital, and experiments in this direction had not proved satisfactory, though he placed any patient in it who, he thought, might be better treated than in the asylum proper. In working he had found the hospital a great success. He had no medical officer resident in the building. Being so near, and in telephonic connection with all parts of the asylum, he did not consider this necessary. The matron of the asylum had the supervision of the female department and of the cook-housekeeper, and both male and female departments were under the immediate charge of trained nurses. The plans which Dr. Wallis had shown in connection with the Whittingham Asylum were for a different class of cases, and could not be contrasted with the Montrose Hospital, but the new hospital just opened at Larbert was almost an exact counterpart of Montrose, and he doubted if it would be found suitable for the treatment of acute mental cases. Detached blocks for the treatment of certain classes of cases was, of course, no novelty. The West House of the Royal Edinburgh Asylum had originally a separate building attached to it for the treatment of acute cases, and about 1856 a second block of the same nature was erected. These blocks did not prove satisfactory for the treatment of acute cases, and Dr. Clouston had them adapted for the reception of sick and infirm patients. In the new Montrose Asylum, built in 1857, there was no adequate provision made for the physically sick, and the hospital erected in 1889 was to supply this deficiency. It was not found possible to provide suitable wards in connection with the main building, therefore a separate hospital was erected for 100 patients (a fifth of the entire population) entirely detached.

Mr. Peeke Richards thought that a separate hospital, although quite right in theory, was quite impracticable. There were so many patients who were maniacal, excited, and noisy, but who were exceedingly ill and ought to be in an infirmary, but yet from their propensities were quite unfit to be placed amongst the more quiet sick. In order to carry out Dr. Clouston's suggestion, two kinds of hospitals—one for the purely sick, and an intermediate one for the noisy and excitable sick—would be required.

Dr. Campbell Clark said there was one subject not much touched on by previous speakers which was essentially a part of the large question of asylum hospitals, and that was the question of nursing. There could be no question that the future development of asylum nursing required an increase of the nursing staff. If there were nurses' and attendants' homes, as had been planned for the new Lanark County Asylum at Hentwood, the nurses and attendants could not all be drawn from the dormitories unless the night staff were increased. The increase of the night staff, with a night superintendent, would give more efficient nursing, do away with all necessity for telltale clocks, and solve in some measure the difficult question of the reduction of the hours of duty for day nurses.

Dr. Urquhart spoke of the results of his experience in the Perth Royal Asylum, where hospital wards had been designed and built, but not entirely separated from the main building. That arrangement was found necessary in the interests of economy of working. The staff and patients were not sufficiently numerous to permit of entire separation, but the asylum, as a whole, was now used as a central hospital for acute and difficult cases, with separate and detached houses for the milder forms of insanity. These wings were erected to receive acute, sick, and excited patients, and so planned as to insure complete and necessary separation. He thought that there could be little doubt that this development of asylum practice and management was on the right lines, and that the old sick ward would be improved in the direction indicated. Dr. Urquhart referred to the absence of dining rooms on Dr. Wallis's admirable plans, and suggested that more variety in the style and finish of the wards might be introduced. He also spoke of the advantages accruing from a large common room for the patients built of glass, and so designed as to be a place of recreation. This had been found of undoubted benefit in the Home for Incurables at Perth, and had been erected at the St. Lawrence Asylum in New York State.

STATE AID FOR POOR PRIVATE INSANE PATIENTS.

Dr. Yellowlees, in introducing a discussion on State aid for poor private patients, asserted that such aid was wrong in principle, for, if victims of brain disease were to receive it, how could the victims of cancer or consumption be left unaided? There would be no limit if State aid were given where not absolutely needful. He condemned the clause of the recent Lunacy Act which authorised the reception of poor private patients into county asylums. It was impossible to separate them from the pauper patients, and the degradation of such association was a bitter aggravation of their affliction, both to the patient and to his friends. While the rich insane could purchase accommodation where they pleased and the pauper insane were well provided for in the county asylums, poor private patients could only look to the registered hospitals. They looked in vain, for the registered hospitals were far too few for the country's needs and the area of their benevolence far too limited. They afforded most comfortable and even luxurious homes for decayed gentlefolks, but at that moment it would not be easy to find accommodation in English registered hospitals for a patient who could pay £40 a year, and far less for those who could pay only £20 or £30 a year. In Scotland the Royal Asylums—erected by private benevolence, without any help from rates, and entirely self-supporting—did provide for such cases, and the loss they entailed was made good by the profits obtained from the higher class patients. In England the registered hospitals had become too often mere competitors with the private asylums, and failed to provide to any material extent for these most necessitous cases. England was far wealthier than Scotland, and was certainly not less benevolent. There was most urgent need of help for the poor private insane. It could not be that in England such patients could long be thus neglected if those who knew it sufficiently proclaimed the need.

Dr. Wallis agreed in every particular with Dr. Yellowlees as to the urgent demand for accommodation for private cases of the lower middle classes. Experience in England, especially in the largely populated counties with large towns, was that the demand was considerable. As in the asylums, for the most part, there was no such accommodation, these patients mostly come to the pauper asylums in virtue of an arrangement with the relieving officers or union law clerks, though in many cases they could well afford a rate of board which would enable them to receive many comforts, and that which many of them would value most of all—the society of patients of their own position as to education, etc. Many complaints had been made to him by patients' friends of this, to them, great hardship. He was quite satisfied that institutions especially erected for patients of these classes would become self-supporting, and might do much real charitable work. The chief difficulty was to find an authority willing to build such a hospital, or to find the money from any public or private source.

Dr. Bedford Pierce said that the difficulty was rather that the registered hospitals in England were not sufficiently

numerous, than that they did not do their utmost to receive poor private patients. He stated that many of them gave charitable aid liberally, and to the utmost of their ability.

Dr. CLARK felt that the question raised by Dr. Yellowlees was one for the registered hospitals to answer. No fair comparison could be made between the Royal asylums of Scotland and the registered hospitals, as the comparative deficiency of accommodation in the registered hospitals was perhaps explained by the fact that in the past they had not fulfilled the function of pauper asylums as well as asylums for private patients, as in the case of Scotch Royal Asylums. The latter, as they became relieved of pauper patients, where new district asylums came into operation, were able to take poor private patients at a self-supporting rate.

Dr. H. NEWINGTON said that, in his opinion, the new Lunacy Act went far to kill any attempt to provide such accommodation as desired by Dr. Yellowlees. If private benevolence (to which Scotland owed her provision for poor people above the pauper class) started such an attempt, it would be at once said that the Act provided for their care, but ratepayers would object to any provision being made for other than patients in their own district, who would be the last people to take advantage of institutions so near home.

Dr. CLOUSTON said that he agreed strongly with almost all that Dr. Yellowlees had said. He had had experience both in England and Scotland, and the need for accommodation in England was manifest. His experience in Cumberland and Westmorland was that when the asylum at Carlisle had some spare accommodation, it was at once taken advantage of, and in five years fifty private patients from their guardians were sent there at fourteen shillings a week. His experience was that the objections urged by Dr. Yellowlees as to the disadvantages and objections to mixing middle-class private patients with county patients were sentimental. The Cumberland farmers were perfectly content with the accommodation and treatment. Dr. Clouston was satisfied that a great benefit was conferred on the counties thus utilising the spare beds in the county asylum. He had long had the ambition to be able to admit every patient from Edinburgh as a private patient, and to place him in a private ward who could afford to pay 25s. a week, and would not desire to provide any better accommodation or diet or nursing than is provided by the English county asylums; such accommodation is quite sufficient; the wards should, no doubt, be somewhat smaller in size. He was quite sure that this was a great need in England, and that it had merely to be impressed on the English mind and conscience to be remedied. There was plenty of money, plenty of public-spirited men in England and Ireland, and the real needs of the country had merely to be sufficiently known and realised to be remedied within the next five years.

Dr. MURRAY LINDSAY desired to refer to his experience in Derbyshire, and to express his opinion that there was certainly a great need of some provision for private patients at moderate rates of board, from 15s. to 21s. per week in connection with the county asylum, which provision ought to be separate from pauper patients, not necessarily of an expensive kind, but still separate and apart from that for the pauper class. In the county of Derby this important question had engaged his attention and that of the Committee of Visitors of the Derby County Asylum for some time past, but the difficulty was to set in motion the permissive clause of the Lunacy Act, which empowered Committees to make provision for private patients. It was to be hoped that some means would be found, either through county councils or through private benevolence, whereby this urgent want might be met, and a particular class of private patients might be able to obtain accommodation suitable to their requirements in connection with county asylums.

Mr. PEEKE RICHARDS was of opinion that in the near future county councils would provide institutions for poor private insane patients, as suggested by Dr. Yellowlees. At the present time, the London County Council was making provision for such a class of patients in their recently opened asylum at Claybury. That this would be successful he had little doubt; and, if such were the case, there was every probability that the Asylums Committee would recommend further and increased accommodation of the same description, to provide for poor paying patients. The Lunacy Act of 1890 fully provided for such steps being taken. It would only want one county to take the lead satisfactorily, for all the other counties in Great Britain to follow its example. There certainly was great need for asylums, or additions to existing institutions, for poor private patients; and, as this need exists, there is little doubt that the want will soon be successfully provided for.

REMARKS ON THE OUT-PATIENT DEPARTMENT FOR MENTAL DISEASES AT ST. THOMAS'S HOSPITAL.

Dr. H. RAYNER (Lecturer on Mental Diseases, St. Thomas's Hospital) said: The insane are accumulating in English asylums at the rate of nearly 2,000 yearly, this increase necessitating an outlay of nearly £40,000 per annum for their maintenance, and probably of £200,000 on buildings for their accommodation. This large annual addition to the already heavy burden of insanity on the community will certainly predispose most persons to give consideration to any plan which offers a possibility of alleviating this vast amount of human suffering, and of reducing this heavy outlay. The hospital out-patient treatment for mental diseases, in which I desire to excite the interest of the profession, will most assuredly lead to this result.

The early treatment of fully-developed insanity has been long advocated by Lord Shaftesbury and alienist physicians as offering the best means of insuring recovery, but it is still more advantageous to treat the disorder in the incipient stages, although as yet little special provision has been made for this purpose.

In a letter to the *Times* (some ten years ago) I drew attention to the fact that the general hospitals took no part or share in the treatment of mental diseases. This evoked some correspondence, chiefly antagonistic to my contention that the hospitals were able to afford such help.

The argument I advanced was that mental disorders should be regarded as disease just as much as the other forms of human suffering which are treated at the hospitals, and that they had as great a claim for assistance from these charities. I pointed out that mental cases suffered not only from this neglect on the part of the hospitals, but were indirectly affected unfavourably by being thus separated as a class apart from all other diseases.

Out-patient departments in connection with asylums have also been largely advocated, and even established at Bethlem, Morningside, and Wakefield, but I have always felt that there would be much greater difficulty in getting incipient cases of mental disease to attend at an asylum than at a hospital, and this I still believe to be the case.

The governing body of St. Thomas's Hospital early in the present year authorised me to make trial of an out-patient department in connection with that hospital, on the results of which I venture to submit a few observations to-day.

These observations I should have deferred to a later date but that a recent discussion on the Wakefield out-patient system before the Medico-Psychological Association evoked the criticism that no definite examples were adduced in evidence of its usefulness; I therefore give some few examples of the kind of work which has been done at St. Thomas's. The following are specimens of cases treated and work done:

1. Delusions in a young woman, twice previously an inmate of an asylum. This case under treatment improved, and has probably postponed a recurrence of her insanity for some time.

2. A case of delusions of persecution founded on hallucinations of hearing. The man was sleepless, haggard, and had done no work for some time, was ripe for the commission of some act of violence on his imaginary persecutors. Removal of wax from the ears and general treatment completely restored him.

3. Delusions, founded on sensory hallucinations, in which a diseased condition of the ear membranes was found: case improving under treatment.

4. Melancholia, with delusions after chorea. This case has practically recovered.

5. Stuporous condition, with slight symptoms of Reynaud's disease; recovered.

6. Incipient melancholia, with frequently recurrent migraine, in a woman strongly predisposed to insanity.

Under treatment for an associated uterine affection, both melancholia and migraine have greatly improved.

7. Supposed imbecility, in which a large polypus nasi was found to exist. The polypus has been removed, but the extent of mental improvement is not yet ascertained.

8. Idiocy in a child, too young to be received in an imbecile asylum. The noise and crying of this child prevented the mother (a widow) from following her occupation. Under treatment the child has become much quieter.

These are examples of usefulness in treatment to which many others might be added.

Diagnosis has been useful in other instances. Thus, a young girl was brought, suffering, as was alleged, from imbecility from injury. A careful investigation proved it to be developmental.

A woman, thought to suffer from hysterical perversion only, was found to have definite melancholia with suicidal tendency.

A man, brought as suffering from lowness of spirits, was found to have general paralysis.

One great function consists in at once obtaining asylum care for cases which are unfit for out-patient treatment or whose circumstances do not admit of it and who might otherwise linger at home until evil had resulted. Both friends and parish authorities act, I think, more promptly on a certificate from the hospital.

Cases of acute melancholia with refusal of food, melancholia with suicidal tendency, senile insanity, and developing general paralysis have been, in this way, promptly relegated to the asylum treatment they needed.

These few examples of the work done are, I hope, sufficient evidence of the usefulness of the department—a usefulness which will become greater as it becomes better known and more completely organised in its means of help.

Several objections have been advanced against the system. One prediction was that it would be swamped by chronic hypochondriac cases. This prophecy has not been fulfilled, this class of cases being conspicuous by their absence; they probably do not consider that they come under the term mental diseases.

The impracticability of home treatment for such disorders has been also advanced. This, however, has been proved not to be the case in a certain number of instances in which improvement and even recovery has taken place. It is right, however, to point out that the one great danger of this system is that of attempting to treat unsuitable cases, and against this error the most vigilant watch should be kept.

The objection has been also made that if beef and wine cannot be given it is useless to give mixtures, white or black, as the case may be; but this appears to me to be an exaggerated view of the poverty of the out-patient class, and to imply a very limited estimate of remedial measures. Charity is so well organised now that it is not very difficult for the hospital physician to put really necessitous cases in touch with philanthropic aid.

In regard to the therapeutic limitation, it is scarcely necessary to point out that mental disorder is not commonly based on a single cause; the causal conditions are usually multiple, and the subtraction of one or more of these will often arrest or delay the developing disorder. Thus occupation unsuitable to the individual may be changed or modified. Habits, such as the abuse of alcohol, tobacco, purgatives, etc., may be amended. Associated conditions may be relieved, such as defective teeth, with imperfect mastication; dyspepsia in all its forms, and constipation. The relief of uterine troubles, and of sources of irritation connected with the eye, ear, or other part of the periphery. What neglect, too, of all healthy *régime* is found in many of these cases, and how much can be done to make even poor means healthful when rightly used. Much can be done for these conditions quite apart from the exhibition of food and medicaments. Change of air and scene, it has been urged, is what is really wanted. This is true in certain cases, and may often be obtained where required through the help of friends or charitable agencies.

Out-patient departments will, I trust, be the means of obtaining convalescent homes for the mental cases requiring them; at present mental cases are rigidly excluded from most of these; but if the need of such help can be authoritatively pressed on the public, this will soon be remedied, and the usefulness of out-patient treatment will be thereby greatly advanced.

The direct work of the out-patient department is not only to treat the cases suitable for treatment, but to relegate into proper channels those requiring change of air, hospital infirmary, or asylum care.

The indirect advantages are the removal from the popular mind of the idea that mental disease is something apart from all other disease, and the bringing of the alienist physician into more intimate contact with the rest of the profession, thereby breaking down the isolation of alienism which has hitherto existed. The advantages in treatment from being in close contact with and having the aid of the other specialists of a general hospital is too obvious to need comment, and this advantage will not be without reciprocity.

The claim may be fairly advanced for the out-patient department, little known as it is as yet to the class it intends to reach, that already some few admissions to asylums have been avoided, and that others have been sent thither, with a better hope of recovery than they would otherwise have had. I believe if three or four of the general hospitals in London, with those of the provincial cities, establish such departments, and if the philanthropy of the country be stirred up to provide country and seaside homes for suitable cases, that an appreciable advance will have been made in the preventive treatment of insanity.

SECTION OF DERMATOLOGY.

Wednesday, Thursday, Friday, August 2nd, 3rd, 4th.

W. Allan Jamieson, M.D., F.R.C.P.Edin., President.

COMPULSORY INSTRUCTION IN DERMATOLOGY.

At the conclusion of his introductory address, published at p. 455, the President moved: "That it be represented to the General Medical Council that students presenting themselves for the final examination for a diploma or a degree, should produce evidence of their having had opportunities for the study of the common forms of skin diseases." This was seconded by Dr. Roberts (Chester). After remarks by Dr. Leslie Phillips, Dr. Crocker, Dr. Walker, and the President, the following *Amendment* was proposed by Dr. Radcliffe Crocker, seconded by Dr. Fox, and carried: "That in the opinion of this meeting, since the five years curriculum has been established for only a short period, it would be advisable to defer the resolution proposed to a future meeting."

THE TREATMENT OF CHRONIC RINGWORM OF THE SCALP.

Dr. T. Colcott Fox said that the special difficulties in the way of the cure of chronic ringworm of the scalp were due chiefly to the situation of the fungus, to the anatomical structure of the follicle, and to the characters of the culture medium or soil. In ringworm of the general surface, speedy cure was, as a rule, possible, because the fungus did not, perhaps, find its most favourable habitat there; and its situation in the epithelium, in the shallow follicles, or in the downy hairs, was such that medicaments could be brought into effective contact with it; further the free desquamation or crusting, so readily induced, mechanically removed the diseased tissues with their contained fungus. In the hairy scalp, with its numerous, large, and deeply-implanted hairs, the fungus found a specially favourable soil, and rapidly seized on the hair structures to occupy the greater part or the whole of the shaft. The fungus flourished best in epithelial structures, especially those altered by keratinisation. The space between the hair and the internal root sheath was also frequently full of fungus, and specimens showed occasionally mycelial tubes sprouting in profusion into the upper part of the bulb. This distribution, with the occasional implication of the internal root sheath, was the full extent to which the fungus ordinarily involved the hair and its surrounding structures. Good observers, however, assert that the fungus might in certain cases pass these limits, and

invade the more succulent and non-keratinised epithelial layers, the whole bulb, and even the connective tissue.[1] The conduct of the favus fungus rather tends to support these observations.[2] The anatomical structure of the follicle creates further difficulty in treatment, its depth, its constriction or neck, its cavity filled with the hair and the products of the irritation set up by the fungus, its protective lubrication, and the growth of hair from below. The growth of the hair continually tended to bring the older parts of the hair to the surface, thus providing fresh material for the fungus to grow in. The deeper the implantation of the hair the greater the obstacle to be overcome. Thirdly, certain difficulties associated with the medium of cultivation (the soil) which were not at present fully comprehended. This was illustrated by the special proneness to attack of children's heads in certain countries, by the comparative insusceptibility of some children, by the relative degrees of tenacity with which the trichophyton flourished in different scalps, and by the frequency of ringworm of the body in the tropics and its rapid spread in the moist hot season each year, and in young animals with the onset of spring before they left their winter quarters. The gonidia in certain cases of ringworm were much larger than in others, but whether there were distinct species of fungus causing ringworm, or only varieties, was undecided. Dr. Colcott Fox found that his own statistics confirmed Crocker's observation that fair-haired children were not disproportionately attacked. Highly sensitive and delicate children were from various reasons more difficult to treat, but extensive and obstinate cases were constantly seen in children apparently robust; indeed, the difficulty of exciting inflammatory reaction in vigorous tissue was one of the causes of intractability. In long-standing cases the health may deteriorate by reason of unusual confinement, incessant application of remedies, and possibly by intoxication by the products of the fungus growth. While it would be obviously wrong to neglect to try and keep up or improve nutrition by every likely means, such as plenty of fresh air or change of air, exercise and cheerful surroundings, by a suitable liberal diet, by medicinal agents, etc. At the same time, experience taught that the power of controlling ringworm by affecting the nutrition of the tissues was distinctly limited.

LOCAL REMEDIES.

Resort must be had to local remedies, but for generation after generation dermatologists had tried over and over again the old remedies, and, except for increased knowledge relating to the fungus, and the more rational and precise use of remedies, not much advance had been achieved since the beginning of the century. Local remedies might be conveniently grouped for consideration into the mechanical, parasiticidal, and irritative, though in practice the several actions are often combined. Each method has long been known.

MECHANICAL REMEDIES.

It was an ancient observation that the disease was cured when the hairs came away. If the hair with its internal root sheath could be extracted entire, that particular follicle was probably cured. The operation of removal or epilation was carried out in various ways—by forceps, or by the thumb and a thin spatula, or by adhesive plasters or pencils which entangle the hairs. The ancient calotte or pitch plaster gradually fell into desuetude on account of the pain associated with its use. Nevertheless, adhesive plasters, applied on a small scale and with due regard to the sensitiveness of the child, and strictly limited to diseased areas, were very useful, but the extreme fragility of the hairs, when much infiltrated with fungus, greatly restricted the usefulness of epilation. Indiscriminate epilation was of little avail. To be effective the extraction of the hair must be carried out under one of three conditions; first, when the hair was not yet too fragile; secondly, when the greater part of the fungus had been killed and the hair had become less fragile—a stage only to be detected by trial; thirdly, when the attachments of the hair had become loosened by the production of inflammatory exudation around and into the follicle. Bazin attempted to secure this last condition by rubbing in alkaline pomades or oil of cade. Slight degrees of inflammation, as long as it picked out the follicle and was sufficiently deep seated, were often successful. Where crusts are formed the hairs become entangled, and could be successfully extracted by gently lifting such dried crusts. Collodion preparations repeatedly painted on so as to form a thick cake could be utilised in a similar manner. Again, in a certain small proportion of ringworm cases a condition analogous to alopecia areata sets in, not a mere falling of diseased hairs, but a production of smooth, bald patches with club-shaped atrophied stumps at the margin quite as in alopecia areata. Malcolm Morris, however, claimed that by the application of etherised and spirituous solution of parasiticides such as boric acid, salicylic acid, menthol, and thymol, the scalp was deprived of fat, an unnatural dryness supervened, and the diseased hairs fell. It was an agreeable mode of treatment, but Dr. Fox had not found it very successful. Quinquaud has in recent years introduced another method called rugination, which promised to be very useful. He scraped the ringworm patches with a particular form of curette so as to lay bare the dermis, and in doing so removed mechanically the superficial scales, and with them broken diseased hairs. This has the additional advantage of exposing the depth of the follicles more readily to the action of parasiticides. Depilatories only destroyed the upper portion of the hair, and practically did little more than shaving.

PARASITICIDES.

First one and then another parasiticide remedy or method had been announced to be infallible and rapid, but when tested by others on a sufficiently extended scale had failed to effect a sure and reasonably speedy cure in all cases. It was significant also that experienced and cautious observers shift their liking from one remedy or method to another. From laboratory experiments on the arrest of growth of various organisms a hasty conclusion might be drawn that the only difficulty was the penetration of the parasiticide. Besnier, Leslie Roberts (who had written an admirable memoir on the mould-fungi parasitic on man), and others had pointed out that the conditions under which the trichophyton grows on the child's scalp and in cultivation experiments were not fairly comparable. The penetration difficulty was a real one. Absorption of medicaments through the scalp undoubtedly occurred, as instanced by mercurial and other intoxications, but it was not safe to conclude that the deeper parts of the hair were efficiently penetrated. Under a parasiticide treatment the majority of cases did get well eventually from one cause or another, but however unremittingly and efficiently carried out, the purely parasiticide treatment had a disappointingly limited sphere of usefulness; but it was slow to cure; it unquestionably held the disease in check, and prevented extension, so that where it was vigorously carried out it was not necessary to epilate around each patch of disease a "zone of protection and surveillance." Attempts had been made to starve the fungus by the exclusion of air by impermeable dressings on the supposition that oxygen was necessary to its growth; but, as Besnier had pointed out, oxygen might probably be obtainable from the tissues.

IRRITATIVE TREATMENT.

The growth of the trichophyton fungus sets up a varying amount of inflammation in different cases. Usually the inflammatory reaction was very slight in the scalp, and it was only evidenced by some desquamation in the follicle or on the surface, or some slight sebaceous incrustation. Sometimes around every hair, or group of diseased hairs, a pustule

[1] Bristowe (*St. Thomas's Hospital Reports*, N. S., vol. 1, 1870) says the bulb and the epidermal portion of the root sheath may be affected. Balzer (*Arch. Génér. de Méd.*, 1881) states the hair sheath may be penetrated. Kaposi figures the fungus in the swollen internal root sheath, and Besnier acknowledges its accuracy. Majocchi (*Ann. de Derm.*, t. 8, p. 395) found fungus in the corium in kerion, and Robinson in sections of ordinary t. tonsurans; also Campana (*Tagelblatt der Kölner Naturforscher Versammlung*, 1888, p. 260). Pellizari (*Recherches sur le Trich. tons.*, Milano, 1888) demonstrated the penetration of the fungus into the corium beneath the nail. The internal root sheath, extracted with the hair, often appears full of fungus, but the squeezing of the specimen may often account for this.

[2] There is a like conflict of opinion with regard to the favus fungus. Unna says the spread of the fungus is arrested by the succulent epithelial cells. Balzer regards this statement as too absolute. See Weyl in *Ziemssen's Encyclopædia*, and *Kaposi's Lectures* (2nd French edition by Besnier and Doyon). Hoggan also states that it may grow into the corium.

formed, or a deeper-seated inflammatory nodule as in the beard, or a patch might be the seat of quite a considerable infiltration simulating a gathering abscess. This inflammatory process brought about its own cure, partly because the exudation loosened and separated the diseased hairs, and partly, perhaps, because the inflammatory serum or pus was inimical to the fungus, as Dr. Thin maintained. In severe cases the scalp might take some time to recover, but the hair always grew again, and the imitation of this process seemed to offer a most promising field of treatment. Unfortunately, so great were the variations in the reactions of different scalps to irritants, that the required inflammation could not be produced just how and when it was desired. Dr. Colcott Fox had sought for years to devise an application that would fulfil the conditions. He had added blistering fluid or croton oil to unguents and liniments, and compounded ointments with savin, resin, etc. The process had been assisted with poulticing, but nothing gave a uniform result. There were two things to avoid: (1) The setting up of a superficial eczema-like inflammation and excoriation, which was comparatively useless, and only delayed proceedings. For this reason he did not recommend ordinary blistering. (2) On the other hand, a degree of inflammation which will permanently injure the tissues must be carefully avoided. It was necessary to acquire a knowledge of the quality of any particular scalp, and then, with the special object in view, to so adjust the strength of an application that the requisite inflammation was set up. The hairs, being loosened, fell out or could be epilated, and then a parasiticide, promptly applied, had more chance of penetrating. If a crust was produced it could be removed with the entangled hairs as already described, and the process repeated if necessary. The well-known pigments associated with the names of Coster, Morrant Baker, and Toulmin Smith were undoubtedly useful agents. Croton oil was another invaluable remedy: it might be diluted with antiseptic oils or added to ointments or applied pure. It was a powerful application, and therefore required experience and care to prevent permanent injury to the tissues, and no one should employ it without carefully studying the directions set forth in the textbooks. Tartarised antimony ointment was not to be recommended, and he had seen disastrous results from Harrison's biniodide treatment.

Accessory Measures.

He was a strong advocate for shaving the head at suitable intervals. It was cleanly, it removed at once all disease above ground, so to speak, and, if carried out under proper antiseptic conditions, it was a valuable means of preventing the inoculation of fresh centres, for the whole scalp could be easily watched and readily kept dressed. Frequent scrubbing of the disease areas, and washing of the whole scalp with soft soap or sometimes other soaps was also to be recommended—in fact, a soap which would effect the desired end and which the scalp would bear. Afterwards the general surface should be anointed with a suitable unirritating parasiticide.

The Practical Application of Principles.

Having given directions, first, for the constant cutting of the hair around the patches, or where possible for the periodical shaving of the head under suitable antiseptic conditions, secondly, for the frequent washing and anointing of the head with a parasiticide to prevent auto-inoculation, a knowledge must be obtained of the degree of tenacity of the ringworm and the quality of the child's scalp. For this purpose he would begin with one of the well-known parasiticide treatments, such as salicylic acid ointment or liniment (℥j to ℥j), bichloride of mercury ointment (gr.v to ℥j), Illingworth's biniodide of mercury solution, equal parts of sulphur and salicylic acid ointments, Alder Smith's citrine, carbolic acid, and sulphur ointment, oleate of copper ointment, Foulis's turpentine and iodine treatment, iodine ointment or liniment, chrysarobin ointment, Cavafy's boric acid solution, etc. The selection of the particular parasiticide and of the incorporating medium depended on a variety of circumstances, such as the age of the child, the extent of the disease, the social status, and so on. No doubt some agents seemed to be more effective in certain cases than other applications, but there were no criteria. What was of greater importance than the selection of a particular parasiticide was the energetic supervision by the medical man. It was often of little avail simply to give directions. The medical man must make certain that he had in attendance on the case a reliable person who would take an intelligent interest in the treatment, and he must satisfy himself that his directions were thoroughly carried out. Due regard being paid to the personal characteristics and health of the child, the more frequent and determined the application of the remedy the better. Epilation should be tried from time to time to see if the hairs could be extracted without breaking. Every hair so extracted was a distinct step towards the goal. Cases in which the disease is not very tenacious, or at any rate the less affected areas, could in this manner be cured after a time. If, however, the disease were obviously resistent, and if a more rapid method of cure was necessary, the principle of irritation should be brought into action by gradually increasing the strength of the applications or by using the more irritant ones, as iodide of sulphur, red oxide or red iodide of mercury, etc., or by adding a little blistering fluid or croton oil to the application, or by painting on pigments of the type of Coster's paste. Epilation was an essential feature of this treatment, and should be carefully and systematically carried out, afterwards applying a parasiticide. Lastly, for very inveterate cases of limited extent, or for isolated diseased hairs, or for a very rapid cure in cases of urgency, the croton oil treatment should be resorted to.

Treatment of Ringworm of the Scalp.

Dr. Alder Smith (Christ's Hospital) contributed a paper in which he pointed out that it was not new "parasiticides" which were required, but some reliable means of getting them into contact with the deeply situated fungus. Cure of chronic ringworm was brought about almost always by producing some alteration in the nutritive condition of the skin, so that the diseased hairs come out leaving an artificial alopecia, or by causing irritation and exudation into the hair follicles, so that the invaded hairs, together with the fungus, were thrown off, and a temporary bare place left. The truth of this was proved by the fact that hairs once invaded by the trichophyton tonsurans did not recover under the use of parasiticides, but invariably came out, and were replaced by fine downy hairs not invaded by ringworm fungus. After twenty-three years' experience in treating a very large number of cases of ringworm, he was still of opinion that croton oil was the best irritant for the attempted artificial production of "kerion," or at least of sufficient exudation into the follicles to cause the diseased hairs to be thrown off with the discharge. The greatest attention should be paid to the details of this strong treatment, or else trouble or even slight scarring may result. One of the most important was that a parasiticide, such as carbolic glycerine (1 in 8) should be freely used; the places must be bathed and poulticed constantly day and night, so that no scabs can form under which ulceration might occur. For "disseminated ringworm," where there were isolated stumps about the scalp, the best plan was to cause each stump to be thrown off by individually needling each diseased hair follicle with a properly-shaped fine needle, dipped in croton oil, containing an eighth part of carbolic acid. If this caused too much pustulation creasote must be employed. If there were only a few stumps to be removed this might easily be accomplished by electrolysis. Lately he had used the croton-oil treatment for small patches of recent ringworm with great success, taking special care to prevent the spread of the disease by sulphur ointment. Cases might thus be cured in a few weeks, which would have taken as many months, or even much longer, under ordinary ointments or lotions. He was confident that in 90 out of every 100 cases really cured he had had to employ some croton oil sooner or later to the patches, or had had to needle out some isolated stumps left after other remedies had failed.

Treatment of Ringworm in School Children.

Dr. Alfred Eddowes could not agree with Dr. Fox's opinion that an eczematous condition should not be induced by remedies, because he believed that the natural cure which frequently occurred at puberty often assumed the form of an eczema. He thought the greatest mistake was to excite a deeper chronic infiltration with a fixed condition of the

scalp, and a formation of a dry, harsh surface, a condition unfavourable to the proper growth of hair. The common causes of disappointment in the treatment of the worst class of cases were, first and most injurious, the too prolonged and continuous employment of severe remedies, which produced and maintained a chronic dermatitis; next, insufficient removal of scales and secretion; and, lastly, insufficient dressing between the various applications of such remedies as iodine and chrysarobin. In consequence of the large number of rebellious cases with chronic dermatitis which came under his care, and which were not in a suitable condition for the employment of chrysarobin, he had tried many remedies in a variety of ways. The most useful, so far, had proved to be a combination of tar, salicylic acid, and vaseline frequently renewed, and the daily washing of the scalp with soft soap, hot water, and tow. Tar not only gives substance to the ointment, but, like chrysarobin, coloured the diseased hairs of fair children, and mechanically assists in excluding air from the follicles. The staining of the hair had the obvious advantage of rendering it more easy to estimate the extent and progress of a case. Under this treatment so many bad cases had been rapidly cured as to lead to the hope that it might render the employment of chrysarobin unnecessary as a rule. He drew the following conclusions:—(1) That, when properly treated, children should be allowed to attend school. (2) That the physiological functions of the skin might be stimulated but not impaired. (3) That the scalp should be, at least from time to time, thoroughly cleansed, so that remedies might come into perfect contact with the skin. (4) Air should be excluded as much as possible. (5) Mercurial and other poisonous preparations, though frequently very serviceable, should be applied to large surfaces with great caution, and never for a long period together without close supervision. (6) It was unnecessary to employ remedies in such a manner as to cause pain. (7) That it was wise to treat the whole scalp in nearly every case at first, and to pay special attention to rebellious patches later on. (8) That epilation was almost useless, and probably, when left to nurse or mother, often worse than useless.

M. SABOURAUD'S CULTIVATIONS.

Dr. PHINEAS ABRAHAM presented (on behalf of M. R. Sabouraud, of the Saint Louis Hospital, Paris) a typical series of cultivations and microscopical preparations of the fungi of various kinds of ringworm. Dr. Sabouraud's important investigations had attracted much attention among dermatologists, but it was probable that very few in this country had had the opportunity of seeing the actual specimens. He considered that the Section was under great obligation to M. Sabouraud for sending over the interesting series exhibited. The main conclusions arrived at by M. Sabouraud[1] may be thus briefly summarised:—1. There are two distinct types of the fungus trichophyton causing ringworm in man—one with small spores (2-3 μ), which M. Sabouraud calls T. microsporon, and one with large spores (7-8 μ), which he calls T. megalosporon. They differ in their microscopical appearances, in their mode of growth on artificial media, and in their pathological effects on the human skin and its appendages. 2. *T. microsporon* is the common fungus of tinea tonsurans of children, especially of those cases which are rebellious to treatment, and its special seat of growth is in the substance of the hair. One-third, however, of the cases of tinea tonsurans of children are due to a T. megalosporon. 3. *T. megalosporon* is essentially the fungus of ringworm of the beard and of the smooth parts of the skin, and when the hairs are implicated the prognosis as regards treatment is good. 4. The spores of T. microsporon are contained in a mycelium, but this is not visible, the spores appearing irregularly piled up together like "zoogloea" masses. They form a dense sheath around the hair. 5. The spores of T. megalosporon are always contained in distinct mycelium filaments, which may either be resistant or remaining when the hair is broken up, or fragile and easily separating up into spores. 6. The two types of fungi are never found together on the same head, and when the tinea spreads the spores keep their aspect, dimensions, etc., in all the individuals. 7. The artificial cultures (developing best on jellies but little azotised) of the two types show distinct and constant characters. The cultures of T. microsporon show a downy surface and white colour; those of T. megalosporon a powdery surface, with arborescent peripheral rays, and often a yellowish colour. 8. Although the morphological appearances, mode of growth, and clinical effects of each type of trichophyton show certain characters in general, yet there are certain constant minor differences which point to the fact that there are several different kinds or species of fungus included under each type. 9. The species included under T. microsporon are few in number, and with the exception of one which causes the common contagious "herpes" of the horse, almost entirely human. 10. The species of T. megalosporon are numerous, and fall under several natural groups, the members of which resemble one another both from clinical and mycological aspects. 11. Many animals are subject to the growth upon their skins of particular species of T. megalosporon, and these when contracted by man give rise to special forms of trichophytia. 12. Each form of human tinea is caused by a distinct species of trichophyton. 13. Dr. Sabouraud gives the following skeletal table of classification:

THE TRICHOPHYTONS.

	I.		II.	
Class:	Trichophyton microsporon.		Trichophyton megalosporon.	
	I.	II.	I.	II. III. IV. etc.
Group:	Tinea tons. of man.	Contagious herpes of horse.	The pyogenous trichophytia.	
Species...	... ...		1 2 3	etc.
			of horse. calf. pig.	

Dr. Sabouraud's conclusions are based upon an extensive series of microscopical examinations of cases of "tinea" in man and animals, of cultures on artificial media (of which the most suitable he found to be a "milieu d'épreuve" or "trial medium" made of gelatine 1.50, peptone 0.8, maltose 3.7, and water 100.0, and jellies containing from $\frac{1}{10}$ to $\frac{1}{2}$ of beer wort), and of artificial inoculations on man and animals. He has as yet only worked out thoroughly a few of the species, notably that species of pyogenous megalotrichophyton which causes the agminate folliculitis of man, as well as circinate sycosis and kerion of Celsius.

VARIETIES OF THE TRICHOPHYTON.

The PRESIDENT (Dr. W. Allan Jamieson) said that his observations had in the main confirmed those of M. Sabouraud as to there being at least two distinct varieties of the trichophyton—one, characterised by the presence of numerous small spores, having an average diameter of 3 m., enveloping the hair as a sheath, and with no obvious mycelium, and found alone, and, in the large majority of cases, of tinea tonsurans capitis; the other characterised by the presence of large spores, having a diameter of 7.8 μ, with evident mycelium, invariably present in tinea barbæ and corporis, and in a relatively small proportion of cases of tinea tonsurans capitis. All instances of ringworm in members of the same family presented the same variety of the parasite. Of more than twenty separate cases of ringworm of the head in children from different sources, only two exhibited the features of the trichophyton megalosporon; all the others showed those of the microsporon. According to Sabouraud the proportions were 35 and 65 per cent.; Dr. Jamieson's cases gave 10 and 90 per cent. All the cases examined of tinea barbæ, amounting to about ten, and all those of tinea corporis, five in number, showed the trichophyton megalosporon exclusively. The question arose, if the trichophyton megalosporon was relatively so rare in ringworm of the head in children, where was the source of infection in tinea barbæ and in tinea corporis, which had hitherto been ascribed either to the barber or the hairdresser, or to direct contagion, to be found? In exceptional cases it might be traced to the domestic animals. Flügge[2] had stated that "in man epiphytic development of pathogenic mould fungi is frequently met with on the external surface of the skin, where they set up diseases of the skin (favus, tinea tonsurans, etc.)." This saprophytic origin of the parasitic fungi had been more re-

[1] *Annales de Dermatologie*, November, 1892, February, 1893, and July, 1893; *Annales de l'Institut Pasteur*, June, 1893.

[2] Micro-organisms, *New Syd. Soc. Trans.*, p. 634.

cently suggested by Bodin, and subsequently by Sabouraud himself, and this, though still in the case of trichophyton and achorion an unproved hypothesis, was one which had much in its favour, as cases of ringworm of the body certainly, and sometimes of the head, the source of which was inexplicable on the contagion theory, were ever and anon cropping up. The view had obtained another supporter in Dr. Leslie Roberts in his most valuable and painstaking thesis, "On the Mould Fungi Parasitic in Man." Sabouraud had expressed the opinion that obstinate cases of ringworm of the scalp were due to the microsporon, while those associated with the megalosporon were more easily cured. On this point time sufficient had not yet elapsed to enable a decision to be reached, but a case of ringworm which had resisted well directed treatment for two years was found, when she came under Dr. Jamieson's care, to present the trichophyton microsporon; and one case in which the megalosporon was recognised yielded rapidly to the treatment described below. It had hitherto been held that the condition of health of the patient, or the fact that he or she was a blonde, ruled the intractability or otherwise of the case; this view must probably be modified in the light of the observations of Sabouraud, and the ready curability of ringworm of the body, and even of many cases of tinea barbæ, was now more easily explicable. Leslie Roberts held classification based on the size of the "spore" in respect of the commoner parasitic moulds—trichophyton and achorion, and their varieties—to be unsatisfactory. The "spores" he regarded as short-celled filaments, taking their shape from the peculiar features of their surroundings; they were cells with a vicarious function, not a permanently transmitted variation. This might perhaps be true from a strictly scientific point of view, though even this was debatable, but when it occurred as a constantly observed phenomenon, it formed at least a very convenient method of distinguishing varieties, even should the prognostic value ascribed to it by Sabouraud not prove to be borne out by further observation. It had hitherto been a remarkable and unexplained circumstance that while tinea capitis was so frequent among children, yet their fathers did not contract it in the beard unless in the habit of shaving. Sabouraud's researches had afforded a plausible explanation of this.

Chronic Eczema as a Complication.

There was no doubt that in some instances, at least, of obstinate ringworm of the scalp a state of chronic eczema was set up, with considerable redness and infiltration of the integument. This, in some degree, accounted for the long persistence of the disease, and rendered the action of remedies less efficacious.

Principles of Treatment.

The principles of treatment essential to the successful management of tinea tonsurans capitis were:

(*a*) *To keep the Scalp Scrupulously Clean.*—As a preliminary towards the accomplishment of this end, the hair must be taken off, either shaved at frequent intervals, or cut as short as sharp surgical scissors can clip it. Then the scalp must be washed daily, and for this purpose a potash soap unquestionably suited better than a soda one. For some time he had employed exclusively a fluid potash soap, neutral in reaction, and superfatted to the extent of 5 per cent. A small quantity of this was poured on a piece of flannel, previously moistened with warm water, and used with friction and the addition of more water, to free the scalp from all scales, broken hairs, and *débris*.

(*b*) *To Act on the Soil with the View of Removing Eczema and Seborrhœa.*—Nothing suited better to cure the eczema and keep the scalp free from seborrhœa than the ointment suggested by Dr. Bulkley, consisting of tannic acid 1 drachm, carbolic acid 5 grains, and cold cream 1 ounce. This was rubbed well in in small quantities each alternate day. It acted beneficially in two ways—as an antipruritic and as a mild antiseptic and parasiticide. Its main value, however, was to render the scalp smooth, and to make it more firm in texture, thus transmuting the soil into one less favourable for continued parasitic growth.

(*c*) *To Starve out the Fungus by the Use of Agents Inimical to its Growth.*—The agents which had proved most useful in his hand in fulfilling this indication had been sulphur in combination with a mercurial or oleate of copper. Of sulphur 1 drachm, with half a drachm of ammoniated mercury, of oleate of copper from 25 to 30 grains in an ounce of lanoline, the best expedient on the whole. These ointments were used in small quantity, but thoroughly rubbed in, on the alternate day to that on which the tannic ointment was employed. The sulphur had sometimes shown rather too drying an effect on the scalp; the oleate had now and again caused irritation. The latter had occasionally failed, and the cause had seemed to be the following: The hairs to all appearance became healthy, yet, on extracting some, a few spores could be seen on the exterior of the deepest part of the root, and, on discarding the treatment, recrudescence of the complaint took place. When, therefore, the treatment had been initiated by the oleate of copper, it was well to finish off with a course of sulphur and ammoniated mercury. The results of this mode of treatment could not be formulated statistically. Though he had been testing it for more than eighteen months, the irregularity with which out-patients at hospital attended had been vexatious, and the cases in private had not been numerous enough to permit of any wide generalisation. It was so far the most satisfactory he had employed, both viewed from a therapeutic and from a hygienic standpoint. When rigorously carried out, the absolute smoothness of the scalp, and, in all but a few cases, the complete freedom from any irritation in those subjected to it was most conspicuous. Other modes of treatment were tried and rejected. Thus an obstinate case of disseminated ringworm of the scalp in a well-grown girl was treated for a period of two months in the following way. The hair was kept short by shaving, and washed once a week. It was painted afresh after each washing with a solution of chrysarobin in chloroform, and this covered over with zinc glycerine jelly and absorbent wool. No appreciable improvement was observable; the case was afterwards cured by other methods. Hydronaphthol plasters were tested when that remedy was suggested, but the disadvantage of plasters was that the growing hair soon raised them from that close approximation which was essential, and hydronaphthol itself was soon found either to cause irritation or to be entirely inoperative. Glycerine and glycerine of starch were tried as excipients, but neither proved as efficient as fatty substances, which were both more permanent and more penetrating, and possessed no serious drawbacks, while they tended to exclude oxygen, and thus aided the incorporated medicament in starving out the parasite.

Tinea of the Nails.

Mr. David Walsh described a case of chronic tinea of the nails in a watchmaker, aged 35. The disease had lasted over two years, and affected all the nails of the left hand, with the exception of that of the ring finger. The invaded nails were broken down, discoloured, and ridged like whalebone. There was a clear history of primary infection from a barber's razor, with secondary invasion of the back of the hand, and, finally, of the nails. The nails of the right hand were unaffected.

Dr. Phineas Abraham observed that tinea of the nails was rare in adults. He had seen the case, examined the nails, and found abundant mycelium, evidently a trichophyton megalosporon. As regards the treatment of chronic ringworm of the scalp, he referred to a note on the subject he read at the Nottingham meeting in 1892, in which he advocated an ointment containing salicylic and carbolic acids, of each ℥ss to ℥j to the ounce of vaseline; that he had found very useful and efficacious as a routine application, particularly in out-patient hospital practice, where it was difficult to get the patients to carry out details of elaborate or disagreeable methods of treatment. He often observed large and succulent growths of spores in tinea cases, especially in spring; and in the light of Dr. Sabouraud's observations, this might be accounted for by the fact that these cases were due to the trichophyton megalosporon coming from animals which possibly at that period of the year were more prone to their special kinds of tinea.

Croton Oil, Tropical Ringworm, etc.

Dr. Thin said that his experience was not favourable to the treatment of ringworm of the scalp by croton oil, on account of the liability to the production of patches of alopecia. Although theoretically this ought to be prevented, practically it occurred; and some years ago he had seen several cases in

which baldness had been produced when croton oil had been employed by medical men themselves. He reminded the Section of experiments reported in the BRITISH MEDICAL JOURNAL, in which he had shown that the spores retained their vitality after being soaked seven days in this oil. When it cured, it did so only by the inflammation it caused. He believed that tropical ringworm was a different disease to that known in England as body ringworm. In relation to the life-history of trichophyton, he called attention to the fact that, when in hairs from the scalp spores only might be observed, in the body ringworm caused by inoculation of the same hairs mycelium was abundant. The persistence or not of the mycelium seemed to depend on the local conditions. When cultivated, the spores always produced mycelium. He agreed with the President in considering the proper handling of sulphur and mercurial ointments to be a very valuable method of treating ringworm.

DR. RADCLIFFE CROCKER agreed in the main with Dr. Colcott Fox. The chief aim should be to remove as much as possible of the diseased hairs. Epilation, no doubt, frequently failed on account of the hair being permeated with fungus, but all hairs which could be removed by this means should be so treated. Oleate of copper was of service in this direction, as it had a loosening effect upon the hairs, so that many of them could be removed entire, and with comparatively little pain. While the child was sufficiently old to bear a little pain, collodion and salicylic acid was very valuable in assisting to remove the stumps unless they were too rotten to bear the slightest strain. While, no doubt, croton oil was a dangerous remedy in unskilled hands, it was most valuable and almost indispensable in long-standing cases of disseminated ringworm where there were multiple foci of small groups of hair stumps, so rotten that they broke off at the slightest traction. A minute drop of the oil introduced by a needle to the bottom of the follicle enabled the stump to be removed entire, which was impossible by any other method except electrolysis, and this last procedure was too painful for any except nearly grown-up patients.

THE BOTANY OF TRICHOPHYTON.

DR. LESLIE ROBERTS contributed a paper on the management of ringworm. Advance in the knowledge of fungi generally and trichophytes in particular should cause the modern treatment of ringworm to be based on something more than a mere recognition of the existence of the parasite. There were many botanical facts about these fungi which had little or no bearing on the treatment of the disease. For example, it could be of no practical advantage for us to know that the gonidiophores of trichophyton were formed by the close adjunction of a part of the mycelium, or that no antheridium or archegonium had ever been observed in this fungus. But it was really important to know how the vegetations were influenced by heat and moisture, their manner of propagating their species, that is, of extending the disease, and perpetuating it through successive generations, and also their power of maintaining their vitality, or, to express it more practically, their contagiousness. The following points in the botany of the trichophyton had a practical bearing: 1. The parasite was a simple filamentous mould propagating itself from a solitary spore, or even (as was generally the case) from a segment of mycelium. 2. These spores might retain their vitality and infective character for four years. 3. Their vegetations were extremely sensitive to heat, moisture, acids, and alkalies; cold retarded their development, but a temperature of 0° C. did not kill the spores. Water was essential to them, but in quantity less than that required by the common putrescent organisms. Their growth was favoured to a certain degree by acids, and also by alkalies, but to a lower degree. Light had no influence. Free oxygen was essential to the higher developments, but they could vegetate to a slight extent in nutrient liquids which had been boiled and from which free air was excluded.

THE PARASITIC LIFE OF TRICHOPHYTA.

The parasitic life could be divided into three periods: 1. The period of invasion; 2. The occupation of the hair or horny structure by the parasite. 3. The period of tissue reaction. The process of invasion was preceded by the maturation of the spore and development of the germ tube. The spore was mechanically attached to the skin or sheath of the hair by the oily secretion of the integument. In about seventy-two hours the thorny sheath of the hair was sufficiently dissolved to allow the germ tube or mycelial filament to penetrate into the interior, when the second period of its life began, namely, the occupation of the shaft of the hair by the parasite. Its development was rapid and in the direction of greatest heat and nutriment, that is, towards the vascular papilla of the hair. This led to the period of tissue reaction, namely, the destruction of the hair and the disturbance of the vascular relations around the follicle. The decayed hairs broke near the mouth of the follicle, about one or two lines above it. The mouldy hair stumps had a dull white appearance, the cuticular scales became ragged and partially detached, while the whole affected area was surrounded by a raised margin of desquamating scales, beyond which the vascular disturbance might show itself by a zone of erythema. The ringworm parasite never of itself provoked suppuration. When suppuration accompanied ringworm it must be ascribed to accidental invasion by the staphylococcus albus and aureus. In this way ringworm must be converted into kerion. Ringworm of the scalp was not easily cured on account of the mechanical difficulties in the way of getting at the parasite. The parasite occupied the interior of the hair, and especially that part embedded in the follicle. Once this position was gained, the very structure of the hair and the skin afforded protection to the parasite. The horny epidermis sheltered both tissue and parasite from external influences. This was the chief cause of the chronicity of scalp ringworm. When the epidermal covering was thin and the follicles shallow these mechanical difficulties vanished. The parasites then often died spontaneously for want of sufficient protection and sufficient nourishment.

VARIATIONS IN RINGWORM ACCORDING TO SITE.

All rules for the management of ringworm must be based on a study of the structural variations of the integument in the particular site of the disease. For practical purposes three positions might be distinguished: 1. Parts characterised by thin epidermis, glands, and follicles diminutive and moderate in activity—example, the arm or upper part of the cheek. 2. Parts characterised by thick epidermis; glands and follicles abundant, well developed, and functionally active—example, the scalp. 3. Parts where perspiration was apt to be excessive, which were subject to friction and retention of moisture—example, the groin. In this country ringworm in the first of these positions was a trivial affection, often disappearing spontaneously, and seldom requiring much treatment. The parts might be painted with tincture of iodine in collodion, 5 to 10 grains to the ounce. One or two applications would be enough. Even weaker remedies than this would suffice, such as simple lard containing a little ammoniated mercury or carbolic acid.

TREATMENT OF RINGWORM OF THE SCALP.

For ringworm of the scalp the following rules might be laid down:

1. *Whenever Practicable, Shave the Entire Scalp.*—This did much more than merely facilitate treatment. It was a very considerable part of the treatment itself. Every hair in the scalp was a means of retaining heat and moisture, so the amount of heat and moisture retained by the whole mass of hair was very considerable, especially when the hair was long, as in girls. In fact, long hair influenced the vegetations of ringworm very much as a poultice influenced a boil. Further, shaving off the hair exerted a physiological influence on the disease by stimulating the growth of hair. Moral difficulties were often met with in attempting to carry out this rule of shaving the scalp. Under certain circumstances it might be better to contend with the extra mechanical difficulty of the hair than to remove it. This must always be done when it was certain that the disease was exactly limited to a very small area, and when the hair itself was an object of beauty and admiration.

2. *Disinfect the Whole Surface of the Scalp.*—It was not sufficient to treat the patch of ringworm itself, the vegetation must be prevented from invading other parts. If the case was seen early this could be perfectly accomplished by spraying the scalp morning and night with rectified spirits con-

taining a few grains of salicylic acid and a little glycerine, or by applying daily a pomade containing a parasiticide.

3. *Stimulate the Follicles containing the Diseased Hairs.*—At this point of the treatment the mechanical barrier of the horny epidermis was encountered. He was not convinced that remedies ever penetrated more than a very little way into the depths of the follicles. If a hair stump taken from a patch of ringworm of the scalp which had been treated for weeks with chrysarobin, resorcin, or iodine, or any substance which produced a dark stain were examined microscopically, the stained portion of the hair was seen to be separated by a sharp line from the unstained. There was sometimes an intermediate zone of a fainter colour, but this was very narrow, showing that the remedy had penetrated but a very little way into the follicles. The scalp ringworm was not to be cured by germicides as a septic process was cured by antiseptics. If it were, ringworm would be easily cured, for the trichophytic parasites were acutely sensitive to most germicides. Verujski has shown that even 10 to 15 per cent. of glycerine would arrest their development, and 4 per cent. of alcohol would arrest the development of the spores for many months. They were permanently killed, according to this observer, by the $\frac{1}{5000}$ of a gramme of corrosive sublimate, or the $\frac{1}{1000}$ of a gramme of carbolic acid, or the $\frac{1}{2500}$ of a gramme of silver nitrate. Germicides in scalp ringworm acted on the cells of the follicles through the nerves; in fact, they were neurotrophic stimulants. Possibly they might increase the migration of leucocytes into the medullary cavity of the hair shaft. Recent advances in pathology had shown that leucocytes did wander towards foreign bodies for the object of removing them. Dr. Roberts had observed cells closely resembling leucocytes in the medullary cavities of hairs infested with trichophyton, and had noted the same sort of cells between the fibrils. He did not advance this statement about the blood-cell migration as a fact, but merely as a suggestion, based, as yet, on very little evidence. But the trophoneurotic action of these so-called germicides was well supported by evidence, and from it could be deduced some valuable rules for treatment.

4. *Selection of Remedies.*—The choice of a remedy should not be confined to the germicides, but such agents should be selected as had influence on cell life: iodine, carbolic acid, ammonia, ether, chloroform, acetic acid, cantharides, capsicum.

Ringworm of the Groin.

The appearance of ringworm, or, more accurately speaking, trichophytosis, in this position was often so completely altered that its true nature was overlooked, and the disease mis-diagnosed as eczema. This alteration was due to the accumulation of heat and moisture which led to the maceration of the superficial cells and the increased vegetation of the parasitic plant. A genuine eczematous condition might be provoked by the constant friction of the parts. The indications for treatment were, first, to reduce the dermatitis by removing external irritation as far as possible; excessive moisture was removed by absorbent powder such as *kieselguhr*. Friction was reduced by applying a porous ointment or by a gelatine dressing. These remedies were not curative, and should be abandoned as soon as the artificial dermatitis was subdued. Further treatment was to be directed against the parasitic vegetations themselves, which should be completely destroyed by the application of strong germicides, such as iodine, mercury, carbolic acid, or sulphur.

Dr. Norman Walker agreed with Dr. Leslie Roberts that the term "spores" was a misnomer, and that they were merely short joints of mycelium. He would like more evidence that there was a pyogenous form of trichophyton. He believed that a good deal of the irritation caused by the fungus was due to the production of oxalic acid.

Dr. Brooke considered that the gradual swelling of the post-aural lymphatic glands which so generally accompanied the development of ill-health in children suffering from chronic ringworm spoke strongly for the gradual development of an organic poison (toxin) by the action of the trichophyton, and could not be due to the action of oxalic acid as suggested by Dr. Norman Walker. There was no doubt that there were occasional cases of ringworm which resisted for years the most careful and thorough treatment, cases in which undoubtedly the soil was more adapted to favour the growth of the fungus than the treatment to impede it, but the chronicity of the majority of cases was due to the imperfection with which the treatment was carried out. Success depended in such cases not so much on the particular kind of remedy selected, for many would effect the end, but in the care and thoroughness with which it was used. Much, therefore, was gained by selecting remedies which left the treatment as little as possible in the hands of the patient. For hospital practice he used a thick ointment basis of vaseline, starch, and kaolin, which covered the scalp permanently, and incorporated with it such parasiticides as creolin and sulphur. Croton oil was valuable if applied to cases which were kept under daily supervision by the medical man, otherwise it was distinctly a dangerous remedy.

Mr. Balmanno Squire, referring to Dr. Thin's remark to the effect that ringworm of the body, as occurring in tropical climates, presented characteristics which were not quite identical with the same complaint as occurring in England, said that in at least the majority of cases the tropical disease was not ringworm in any sense, but was ringed psoriasis and other ringed eruptions of a non-parasitic character. It was owing to his arriving at this conclusion, now very many years ago, that he had been enabled to propose for the first time chrysarobin as a remedy for psoriasis. It was gratifying to him to find in his old age that a remedy for ringworm proposed by him in his youth was now employed by Dr. Colcott Fox with apparently successful results, and that he was kindly named by Dr. Fox as the originator of it.

Dr. Colcott Fox, in reply, expressed his acknowledgments for the information elicited in the discussion. He was convinced that success often depended on keeping clearly in view the objects aimed at. A purely parasiticidal treatment took a very long time, and, if a speedier cure was desired, the irritative treatment was necessary. With regard to croton oil, Dr. Fox said he now never recommended it to be carried out by others. It was a powerful and most valuable remedy, but required experience and care. Nothing else he knew of could effect a rapid cure, and long experience had taught him its value.

The President, in closing the discussion, said that it could not be considered as one barren of valuable results. There were some small points in Dr. Colcott Fox's valuable introduction which were new. One was the fact to which he had drawn attention, that the constriction of the follicle caused a difficulty in treatment from interfering with the introduction of remedies. Another was the freedom of the bulb, which constantly pushed forward the diseased upper portion of hair. He scarcely agreed with Dr. Eddowes that a superficial eczema was favourable, since it was so apt to become transformed into a contagious form. The view expressed by Dr. Walker, that oxalic acid, and by Dr. Brooke that it might be a toxin produced by the fungus which poisoned the children and led to obvious ill health, was one worth working out further. As to the dangers of croton oil, he remembered that Sir Erasmus Wilson had discarded it for its uncertainty. It was undoubtedly important to cause falling out of the hairs by any safe means.

EMOL.

The President (Dr. W. Allan Jamieson) read the following therapeutic notes on emol. "Emol" is the discretional name of a natural product, refined and purified by various intricate processes, but unsophisticated in any way. I have had the opportunity afforded me of seeing the substance *in situ*, and of following all the stages through which it passes till it emerges as the delicate, soft, impalpable powder which is submitted to your inspection. The material from which emol is prepared is found in large quantity near Dunning in Perthshire, on the estate of Lord Rollo, where it occurs in close association with serpentine marble, chalcedony, onyx, and copper. My attention was directed to it some time since by two large firms of chemists and druggists in Edinburgh simultaneously. It has been examined and analysed by Dr. Readman, F.C.S., who has informed me that it is allied to fuller's earth, yet is distinct from most, if not all, varieties of fuller's earth hitherto in the market. Emol contains steatite as well as silica, alumina, with a mere trace of lime, and it is probably to the first ingredient named that its pecu-

liar properties, summarised in its adopted designation, are due. The delicate pink tint which it exhibits is owing to the presence of a very minute quantity of oxide of iron. When placed on the tongue there is an absence of the sensation of grittiness so perceptible when fuller's earth of the ordinary kind is tested in a similar way. The first effect noticed when a small quantity—say, a teaspoonful—is mixed with a hard water, such as is met with in limestone districts, in a basin, is its immediate softening influence. Used in this manner with warm water it acts as a natural soap, cleansing the hands, and at the same time leaving them soft and smooth. The workmen engaged in its preparation found that their previously horny palms became so much altered by continued contact with it that they were no longer fit for active manual labour, assuming, as one of them remarked to me, a softness more like that of a lady's hand; they could not use their hands for any employment which exposed them to friction. This experience led me to try it for the purpose of softening and removing those horny accretions encountered in some states of keratosis of the palms and soles. For the treatment of these salicylic acid in some form or another has hitherto proved the most effectual agent, but its application is accompanied with considerable pain, though otherwise successful enough for a time, if not permanently. When, however, a magma of emol was made by moistening some with water, so as to form a paste, applying it pretty thickly, and preventing evaporation by covering with an impervious material, such as oiled silk or gutta-percha tissue, the epidermic masses became softened and loosened, and could be peeled off in layers, eventually leaving the part so treated soft, smooth, and pink in hue. In this way I was able to remove the hard horny epidermis in several cases of eczema of the palm and sole. One of these cases was that of a gouty lady, tall and stout, in whom many different methods of management had been before tried with but indifferent effect. In her case the subsequent application of unguentum vaselini plumbicum, spread on cotton, had the result of restoring a healthy cuticle, which enabled her to undertake a prolonged Continental journey with ease and comfort. In another instance the disease attacked the palms; the patient was a soft flabby woman, who had had children at short and repeated intervals, and was anæmic. The application of emol produced the same beneficial consequences so long as its use was continued, but the condition returned on its discontinuance. In her case a weak solution of resorcin in glycerine of starch, made with double the amount of glycerine as that in the *Pharmacopœia*, acted better as a subsequent dressing. It is, indeed, the after-treatment of such cases which constitutes the greatest difficulty, and no one method is invariably successful in all cases. At the same time, the degree of benefit which has followed the application of emol in the instances in which I have tried it has induced me to bring it before the notice of the Section, so that it may receive independent trial, and its value or the reverse be thus definitely fixed. As an ordinary dusting powder, perfectly innocuous and inoffensive, it will be found superior to many now in use. It seems to possess some antipruritic power, for it has relieved very markedly the itching of the skin complained of now and then during the eruptive period of measles, or in cases of urticaria, while it has modified the stinging sensations felt after painting with tincture of iodine.

THYROID FEEDING IN SKIN AFFECTIONS.

Dr. BYROM BRAMWELL read a paper on the influence of thyroid feeding on the nutrition of the skin, and related certain cases in which this method of treatment had been of great benefit in psoriasis. (The paper will be published with illustrations at a later date.)

Dr. ARTHUR T. DAVIES related the history of four cases: two of psoriasis, one of ichthyosis, and one of chronic eczema, which had derived great benefit from feeding on thyroid tabloids. The case of ichthyosis and one of the cases of psoriasis had been entirely cured without any other treatment, the remainder had been much improved. The suggestion as to this treatment had originated with Dr. Byrom Bramwell.

Dr. SYMONS ECCLES cited a case of long-standing psoriasis in which injections of von Poehl's spermin appeared to be attended by marked amelioration, the severity and spread of the disease being distinctly checked. If von Poehl was correct in attributing the therapeutic value of spermin to its action as an oxidising agent it might be that all the animal extracts now employed depended on the existence of an oxidising ferment in them. The influence of spermin on the leucomaine tide was very marked, and he hoped that observations on this point in regard to thyroid and other extracts would be forthcoming.

ON A DEFINITE FORM OF SKIN DISEASE ALLIED TO ERYTHEMA AND URTICARIA.

Dr. W. RAMSAY SMITH (Rhyl) said that during the past three years he had had many opportunities of noting the occurrence and studying the phenomena of a form of skin disease so well marked in its symptoms, and so definite in its course, as almost to warrant a distinctive name.

He had first seen the rash on an infant aged 6 months. It partook of the nature of an erythema or an urticaria, and was distributed pretty much all over the body, but was specially abundant in a zone round the upper part of the abdomen. The spots were single, as a rule, although here and there some were so close as to appear confluent. The appearance of the spots raised a strong suspicion that they might be due to the bites of insects. The boy had been in the garden playing among grass, and several of the spots had a central mark. Subsequent observation showed that this theory was untenable. Some of the spots had no such mark, but were simply wheals, varying in diameter from an eighth to half an inch. Within an hour or two they became red, and this colour they maintained for four or five days, when they might fade away, other crops appearing in the meantime, and running a similar course. Some of the spots, however, became hard and shotty; some, especially on the dorsal aspect of the fingers and toes, became almost warty, and remained for a week or two. Others became vesicular, and burst, exuding a clear coagulable fluid; the skin in these cases would take two or three weeks to assume its normal appearance. Intense itchiness and considerable constitutional disturbance were associated with the appearance of the rash. The attack passed off, but recurred after a few weeks, when the same train of symptoms was repeated. No hypothesis I could frame would explain all the facts, and no light was cast on the subject until other patients suffering from the disease came under treatment. When the boy was about 2 years old, his sister, an infant of about four months, exhibited the same train of symptoms; both children suffered from attacks at the same time. One was being suckled, the other was being fed on a mixed diet, so that food (though not feeding) as a cause of the disease was to a certain extent put out of court. During the past eighteen months many attacks on both (about twelve or fifteen in all, and more frequently in summer than in winter) had been observed, and both were always attacked at the same time or within a day or two of the time. A study of the conditions under which the disease occurred established a few more points, in particular that an attack in the boy was almost always preceded by an ebullition of good spirits, which gave place to a nerve storm; the boy would become excited, walk or strut about, throw his arms about him; then this exuberance of good spirits would pass into an almost entire loss of control over his actions and speech, and then in a few minutes the rash would appear on his body and limbs. The girl did not show the same amount of excitement and disturbance, but she was naturally less nervous and less excitable.

Observation of the phenomena of the disease manifested in these two children gave an indication what to look for in other patients similarly affected, and Dr. Ramsay Smith had met with about fifty cases in all, presenting the same broad features and differing only in certain points of detail. He looked upon the affection as a constitutional one with a local manifestation, depending on the condition of the nervous system. The appearance of the rash was preceded by a certain amount of general constitutional disturbance, accompanied by a feeling of heat and itching locally. The rash might occur on any part of the body, but seemed to have certain seats of selection—for example, a zone on the upper part of the abdomen and the limbs. The character of the rash varied, but every variety might be seen on the same subject at one time. The appearance at first was usually that of wheals of a whitish or pale pink colour about a quarter of an inch in diameter. In a few hours the appearance changed. The spots became red and erythematous; some of them might become papular, hard and shotty; others, especially those on the dorsal aspect of the digits, might present the appearance of blebs and exude a clear fluid after bursting. The size and number of these spots varied in different individuals and on the same individual in different attacks. Sometimes the whole body was covered from head to foot, scalp included, with large, irregular, erythematous patches, but usually the spots were small, discrete, and confined to particular areas. In one case the whole train of symptoms was followed usually by the appearance of only one isolated spot. During the first day or two of the rash there was usually a great degree of local uneasiness and itching. This decreased from the third to the fifth day, but in the meantime fresh crops might appear with all the asso-

ciated symptoms. The papules usually took two or three weeks to disappear. The epidemic prevalence of the disease was remarkable. Individuals subject to the disease living far apart—say a mile or two—were attacked by it at the same time; and if it appeared on one inmate of a household, the other inmates that were liable to it usually had an attack within a couple of days. As regards geographical distribution, it appeared at first to be confined to certain definite areas, and locality would probably prove to have much to do with its incidence. On the other hand, the two little patients first referred to were attacked on removing from Edinburgh (their native place) to Rhyl in North Wales; and in one week at Rhyl Dr. Ramsay Smith saw three cases—two children from Birmingham, who had suffered from a disease there, and an adult, a native of the place. As to age and sex distribution, the large majority of cases had been seen in female children. With regard to treatment, Dr. Ramsay Smith heard of almost every known local application having been tried to relieve the intense itching and pain of the disease. Of local remedies, he had found Vinolia cream most useful in the early stage, when the spots had just appeared and were white in colour. It seemed to relieve the itchiness of the spots and of the surrounding skin, and so to prevent the appearance of fresh spots, which was an almost certain consequence of scratching or rubbing. In the later stages, when the spots had assumed the erythematous appearance, a 25 per cent. ichthyol and lanoline ointment was very effective. These were almost the only local remedies he now used; even these did not always succeed. Constitutional treatment was of paramount importance, since derangement of any of the bodily systems seemed to dispose to an attack. In children most benefit seemed to be derived from a smart purge by calomel, probably because gastro-enteric troubles formed a large proportion of children's complaints. Quinine in large doses at the beginning of an attack, and also antipyrin, were of some temporary advantage, but most trust was to be placed in calomel. In adults the disease was often very troublesome, and sometimes the treatment is very prolonged, and the improvement very slow indeed.

Dr. Pringle remarked that the recurrence of urticarial eruptions in several members of the same family without ascertainable cause was an acknowledged clinical fact. He had seen more than one instance of the recurrence, the most remarkable of which was related in full in Dr. Allan Jamieson's textbook.

MASSAGE IN DISEASES OF THE SKIN.

Dr. A. Symons Eccles read a paper in which he considered, in the first place, the direct and indirect effects of massage on the healthy skin. The local effects produced by different manipulations of the skin only were mentioned, and the extent to which they were modified by deeper manipulation of underlying tissues also. The effects produced by massage of one part on the skin of another part were also stated. The local effects varied with the character of the manipulations; these were discussed in reference to the musculature, nervous and vascular supply of the skin in health. The modifications of surface temperature, æsthesiometry, temperature, and tactile sense, produced both immediately by each manipulation and by daily massage, were briefly recorded. Reference was made to the effect of massage on galvanic conduction and absorption. The application of these effects of massage to the therapeutics of skin affections were then discussed, and the diseases in which it had been so employed by the author were indicated.

METASTASIS OR SHIFTING ELIMINATION AS A FACTOR IN CERTAIN SKIN INFLAMMATIONS.

Dr. David Walsh, M.B.Edin. (London), advanced the theory that certain forms of dermatitis, connected with abnormal conditions of the blood, might be directly due to the elimination of irritating substances. Of the unusual substances in the blood which were apt to inflame one or more of the channels of elimination, iodine might be taken as the type of a medicinal substance, uric acid of a specific chemical, and the scarlatina virus of a specific organic poison. Uric acid in excess was highly damaging to the epithelium of excretory organs, and was able to inflame one or all of the channels of excretory elimination; by such irritation the gouty poison gave rise to excretory dyspepsia, nephritis, diarrhœa, bronchitis, and some forms of dermatitis. Metastasis was often a marked feature in gout; for instance, a typical eczema sometimes occurred during an acute gouty attack, and disappeared under specific treatment by colchicum. Again, the skin trouble might alternate with bronchitis and asthma, or with diarrhœa. Rational treatment recognised this metastasis by keeping up the action of the skin and bowels, so as to relieve the more important organs. The scarlatinal poison, like uric acid, had an extremely irritant action on excretory epithelium, and affected all the organs of elimination. The stress of excretion might thus cause nephritis, dermatitis, and various inflammations of the respiratory and alimentary tracts. That the excretion in the first place starts in the glands of the skin might be regarded as probable because of the minutely punctate character of the primary rash, which might be of mixed origin, due to the excretion, partly of bacterial products, and partly of the organisms themselves. Iodide of potassium was excreted from the blood chiefly by the kidneys, without damage to their epithelium. Iodism may be regarded as the expression of its vicarious excretion by other channels. The papular rash of iodism might be due to skin glands inflamed by slowly excreting iodine; or having been excreted, say, by the sweat or the sebaceous glands, it might escape into the lymph spaces of the rete Malpighii, and there, by setting up irritative cell overgrowth, produce a solid papular lesion. Dr. Crocker[1] had insisted on defective elimination as a factor in eczema, and he also fully admitted the causative relationship between gout and eczema. He appeared to think, however, that gouty and dyspeptic conditions were, as he says, "all instances of irritation of the alimentary canal," with reflex capillary dilatation of the affected part. Dr. Walsh held, on the other hand, that if the uric acid be excreted by the bowel it would cause diarrhœa, by the skin dermatitis, by the kidney nephritis, and by the lung bronchitis; these various inflammations being the result of excretory irritation. In these cases the presence of uric acid could readily be demonstrated in the urine, sweat, fæces, and bronchial mucus respectively. The hot room of a Turkish bath caused simple sweating in most persons, but in a few it brought out a kind of papular eczema. The latter was probably due to irritation of the sweat glands by some abnormal substance in the blood.

DERMATOLOGICAL INSTRUMENTS.

Dr. Phineas Abraham exhibited a case of dermatological instruments lately made for him by Messrs. Maw, Son, and Thompson for use in minor dermatological operations. The case included two scalpels, two scarifiers, a curved scissors, dressing and grapnel forceps, caustic holder, two curettes, a curved bent-up epilatory forceps, a spatula for scraping in ringworm, lifting crusts, etc., a comedo extractor and compressor made in the form of a forceps with broad spoon-shaped blades, so notched as to be used as a watch key when together, and an acne and millium lancet-shaped bent needle.

The President remarked on their utility, suggested modifications of some of them, and specially commended the comedo extractor and spatula.

[1] Crocker, *Dis. of Skin*, 2nd ed

The sixty-fifth meeting of the Society of German Scientists and Medical Practitioners will take place at Nuremberg from September 11th to 15th.

The Medical Faculty of the University of Erlangen has conferred the honorary degree of Doctor of Medicine on Professor Huxley and on Professor Emil Fischer, of Berlin, the well-known chemist.

Spitting in Public Conveyances.—At the suggestion of the Council of Public Hygiene and Salubrity for the Department of the Seine, the Paris General Omnibus Company has placed the following notice in all its omnibuses: *Il est interdit de cracher sur le parquet* (It is forbidden to spit on the floor). English omnibus and railway companies, please copy. We are perhaps less open to reproach on this particular score than some of our neighbours, yet are we not without sin.

DEMONSTRATIONS AT THE ROYAL INFIRMARY, NEWCASTLE.

THE following list of cases, shown by Dr. Hume on Wednesday, August 2nd, was accidentally omitted last week. For the notes we are indebted to the courtesy of Mr. Frank Hawthorne, House Surgeon:

Cases Illustrative of the Results of Operations performed by Dr. Hume.—1. Operation—Thyroidectomy. October 9th, 1891:

W. M., aged 19 years, suffering from enlarged thyroid, accompanied by dysphagia, dyspnœa, and extreme anæmia. Right lobe excised. Primary union of wound. Left lobe afterwards atrophied. Patient now is strong, doing heavy work; voice good.

2. Operation—Thyroidectomy. July 24th, 1891:

M. E., aged 27 years. Enlarged thyroid, with great dyspnœa and loss of voice. Left lobe was excised. Wound healed by primary union. Right lobe atrophied. She is now perfectly well; voice good.

3. Operation—Thyroidectomy. February 22nd, 1889:

H. F., aged 14 years. Enlarged thyroid, with dyspnœa, partial loss of voice and frequent syncopal attacks. Whole of thyroid excised, except some small pieces attached to vessels. Primary union of wound. All symptoms abated. She is now at work, perfectly well.

4. Operation—Nephrectomy. September 26th, 1892:

J. D., aged 43, suffering from frequent and severe attacks of renal colic of three years' duration. Kidney, which was shown with patient, has large calculus in pelvis, and several smaller ones in calices. Patient made good recovery.

5. Operation—Nephrolithotomy. June 2nd, 1893:

W. D., aged 45, suffering from frequent attacks of renal colic of four years' duration. Calculus, which was shown, was of uric acid, and about the size of a cherry. Wound healed by primary union.

6. Operation—Nephrorrhaphy. July 11th, 1893:

J. H. aged 40, suffering from frequent attacks of renal colic, sometimes as many as five or six attacks a day, quite incapacitating her from doing work of any description; also losing flesh rapidly, and very weak. Kidney could be felt freely movable. Can now get about without any inconvenience.

7. Radical cure of hernia, Halsted's operation. January 15th, 1892:

J. H., aged 50, suffering from large inguinal hernia of right side, extending half way down thigh. Halsted's operation was performed, the incision extending from ant. sup. spine of ilium to pubes. Healed by primary union. There is now slight bulging at outer part of scar, which, however, gives him no inconvenience.

8. Radical cure of umbilical hernia. October 27th, 1892:

E. P., aged 64, suffering from large umbilical hernia of 28 years' duration, measuring 30 inches in circumference and 22 inches from side to side. Skin ulcerated in parts. Scar now firm, patient perfectly well. This case will shortly be published *in extenso*.

9. Operation—Cholecystotomy. October 28th, 1892:

M. S., aged 35, suffering from attacks of biliary colic accompanied by jaundice, recurring every seven or eight days, and of eighteen months' duration. Three large stones were removed, one impacted in cystic duct and one in common duct, which had to be crushed before extraction. Patient has had no further attacks and is now well.

10. Operation—Gastrostomy. September 9th, 1888:

J. R., aged 2, admitted suffering from stricture of œsophagus, due to swallowing caustic potash. Gastrostomy was performed. Subsequent passage of bougies failed to dilate stricture. Patient has therefore been fed ever since the operation—five years ago—through the gastrostomy tube, until a few months ago, since when she has taken nourishment by mouth. Tube still in position.

11. Plastic operation on nose. February 19th, 1893:

J. D., aged 51, rodent ulcer freely excised and flap of skin transplanted from cheek. Result perfect.

12. Plastic operation on arm. April 20th, 1893:

T. C., aged 14, contraction of arm to acute angle, resulting from burns ten years since. Lozenge-shaped flap about 8 inches by 4 inches, consisting of skin and subcutaneous tissue raised from chest wall, fitted into and attached to fresh raw surface on arm and forearm by three of its sides, the fourth side being left attached to chest wall. Arm firmly bound to side so as to take all tension off sutures. A fortnight later, when flap had become firmly united to arm its attachment to chest wall was divided. Corresponding side on arm was freshened and flap sutured. There is now free movement of forearm to almost complete extension and sensation has been gradually restored in transplanted skin from above downwards.

13 and 14. Two cases of large chronic ulcers of leg, one of three years' duration, the other of four years' duration:

Both operated on on April 5th, 1893, by grafting after Thiersch's method, the grafts being taken from the region of great trochanter. The ulcers were not looked at for three weeks after the operation, by which time the grafts had firmly adhered and the ulcers perfectly cured. The grafts now, except for some slight discoloration in one case, resemble closely the skin of the rest of the limb.

15 and 16. Two cases of bone implanting in skull after trephining:

In one case the discs of bone were broken in small pieces and the trephine holes filled. In this case all the pieces were thrown off prior to the wound healing.

In the other case the discs—three in number and three-eighths of an inch in diameter—were replaced whole, and in spite of some neighbouring suppuration from a large hæmatoma, all the discs remained in position, and now the skull can be felt perfectly even and smooth.

17. Operation—Proctectomy. October 10th, 1892:

M. L., aged 49, suffering from cylindroma about 1 inch from the anus, 2 inches in breadth and encircling the rectum. He has sphincter action of the anus.

18. Ligature of femorals for double popliteal aneurysm:

J. H., aged 27, had left femoral ligatured in June, 1891, for popliteal aneurysm of that side. In January, 1893, he was readmitted with popliteal aneurysm of the right leg, for which the right femoral was ligatured. There is history of syphilis. Patient is now perfectly well, doing heavy work. There is nothing to be felt in either popliteal space.

19. Partial excision of lower jaw.

Symphysis of lower jaw removed with floor of mouth for epithelioma. Has been done six months. No recurrence. Can eat solid food well. Very little deformity.

20. Excision of tongue, September 7th, 1890.

G. D., aged 41, for epithelioma. There has been no recurrence in stump, nor are glands affected. Patient can swallow and drink with ease.

21 and 22. Two cases of excision of breast for scirrhus.

The axillary glands were cleared out in one case. No drainage used in either case. Both healed by primary union, only being dressed once two weeks after operation for removal of sutures.

23, 24, 25, 26, and 27. Five cases of excision of knee for tuberculous disease, between ages of 8 and 15 years.

All firm union, two in slightly flexed position. Can all walk well with slight limp.

28 and 29. Two cases of Mikulicz's osteoplastic operation on the foot.

One case for injury, and the other for tuberculous disease. Both firm union, and can walk well.

After the demonstration Dr. Hume visited his wards, and there exhibited several cases under treatment.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

CASE OF SUNSTROKE.

P. M., aged 56, labourer, on August 16th and 17th, while at harvest work, complained of the intense heat of the sun and of feeling giddy. When starting to work on August 18th, at 4.45 A.M., he staggered a little when he first tried to walk. He had taken very little breakfast. At 4 P.M. he stopped work, as is usual, for half an hour. He could not eat anything, but only drank a little tea with some gin in it. On trying to resume work at 4.30 P.M. he fell down. Being quite unconscious, he was at once taken home, where I saw him about 5.30 P.M. He was then completely unconscious, breathing was very laboured, hurried, and stertorous (46 per minute). A brownish frothy fluid issued from his mouth. The pupils reacted to light, and were of normal size. The conjunctivæ were insensible to touch. The pulse was 160, rather full, and of moderate tension. The skin was exceedingly hot. The temperature in the axilla was 107°. The knee-jerks were absent. There were no convulsive movements. The bowels had acted involuntarily.

I at once applied cold water to the face and head (shaving was not necessary, as his hair was scanty and thin), simply pouring it from a small jug in a continuous stream, and occasionally dashing the water against the head. I also covered the chest and abdomen with cloths dipped in cold water, frequently changed. Sinapisms were applied to the soles and calves. In about a quarter of an hour the temperature was 105°; twenty minutes later 103.6°. Cold water applications were continued till the temperature fell to 102.4°. The breathing had by this time improved wonderfully, and soon was almost normal in character. The pulse had also decreased in frequency, and the conjunctivæ had regained sensibility.

I quite expected a speedy return to consciousness, but was much disappointed to notice the right arm being suddenly raised above the head and moved in a convulsive manner. Soon the left arm and both legs participated in these convulsive movements; also the facial muscles, while the head was turned towards the right arm, both eyes looking to the extreme right. The convulsions, which were rather violent, lasted quite half an hour, and then diminished in force, but did not cease entirely for several hours. At 8 P.M. the temperature was 99.9°, and the pulse about 112. I then left, having ordered the continuous application of cold water

cloths to the head, unless followed by any symptoms of collapse. I had passed a catheter; the bladder was not distended; urine normal.

August 19th. The patient had had a restless night. He recognised his wife early this morning, but had not yet spoken. The temperature was normal, also the pulse. The tongue was furred. The bowels had acted. He seemed only partially conscious. Several purpuric-like spots were to be seen on the chest, arms, and legs. A blister was applied to the nape of the neck. Three grains of calomel were given, but rejected by vomiting. His diet consisted of milk and soda water.

August 20th. The temperature was subnormal. He was quite conscious, but spoke in a somewhat slow and hesitating manner. The tongue was still furred. He had vomited twice this morning (bilious vomiting); vomited a third time later.

August 21st. He was decidedly better, but had had a rather restless night. The bowels had not acted. He was very thirsty and giddy. Two grains of calomel were given, and bromide of potassium twice daily.

Alderton, Woodbridge. T. Cuming Askin.

ENTEROSTOMY WITHOUT PLATES.

In considering enterostomy and gastro-enterostomy it has always seemed to me that the introduction of plates is somewhat of a cumbrous performance, which adds to the difficulty of the operation, and is at the same time unnecessary. I think the opinion as to its being unnecessary is borne out by the following case.

T. K., aged 28. The history up to eighteen months ago is obscure, but points to a chronic catarrhal condition of the stomach and intestine. I first saw the patient about eighteen months ago. He was then suffering much pain, the abdomen was distended and showed clear mapping out of intestinal coils, and he was vomiting fæcal matter. Not knowing the nature of the case before going, I was unprepared to operate, and it being late evening and several miles out of town, I ordered, as a tentative measure, a copious enema to be given through a long tube with the hips highly raised, intending to operate next morning. Coincident with the enema the symptoms were relieved, passage through the intestine was to a certain extent re-established, and the idea of an operation abandoned by the patient. From that time there was a condition of partial obstruction, becoming periodically complete, but never to the extent of fæcal vomiting.

On July 2nd I opened the abdomen, and after a short search found the obstruction slightly below and to the right of the umbilicus. The gut was contracted to half an inch in diameter, and for slightly over 3 inches in length, and resembled a hard round india-rubber band. On opening the gut the canal was found to be so nearly obliterated as to be imperceptible. The gut above the stricture was then united to that below in such wise as to form on completion the following connection: An outer ring of interrupted sutures: inside that a ring of continuous suture; an inner ring of continuous suture joining the four cut edges, leaving an aperture of 1¼ inch in length. The two outer rows did not go deeper than the muscular coat. After the operation the highest temperature reached was 101.8° on the sixth day. From that it fell to 97.6° on the eighth day, and from the ninth day onward it stood at 97.2°, with slight variation. On the third and sixth days the rectum was emptied by enemata. From the seventh to the eleventh day there was natural passage; on the thirteenth, sixteenth, and eighteenth enemata were required, and from that time there has been daily natural passage.

The constriction appeared to me to be the result of cicatrisation following ulceration, and I saw no reason for removing the affected portion of gut. I am inclined to think that the chance of ultimate closure in these cases would be minimised by removing an elliptical-shaped strip from each cut edge of the gut, and should adopt that method in future.

I am indebted to Dr. J. Rutherford Morison, Newcastle, for the idea of the three rows of stitches.

Bishop's Auckland. Mark Wardle.

REPORTS
ON
MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

ROYAL INFIRMARY, WINDSOR.

CASE OF SUNSTROKE: HYPERPYREXIA: DEATH.

(By W. F. Lloyd, House Surgeon).

M. W., female, aged 4½, admitted at 6.30 P.M. on August 17th, 1893. She was a badly nourished and very ill-developed child with beaded ribs and enlargement of the lower ends of the radii. There was a bruise on the forehead and several on the back, said to have been caused by the child knocking herself against a chair. The child was unconscious. The temperature in the rectum on admission was 107.6°F. She was sponged with tepid water and put into an ice bath. The temperature in fifteen minutes fell to 100.6°F., and in thirty minutes to 98°. The child seemed more comfortable and slept for some time.

At 8.30 P.M. an enema containing two teaspoonsful of brandy was retained. The temperature at 11.10 was 107.1°F., and the child was put into a cold bath and sponged with iced water. At 11.40 the temperature was 100°F., but rose again to 104.8°F. at 2.30 A.M. Sponging was continued occasionally during the night and next day. The temperature was thus kept between 100°F. and 105°F.

At 2 P.M. on August 18th the temperature was 100.4°F., and at 2.35 P.M. the child died.

Rigor mortis was well marked one hour after death. The body weighed 14 lbs. 2 ozs. *Post-mortem* examination was made seven hours after death. The ribs were beaded and the lungs slightly emphysematous, but there was no consolidation of the lungs. The brain, heart, liver, spleen, and kidneys, were apparently healthy. The spinal cord was not examined.

SOME NOTES ON THE EBERS PAPYRUS.

By F. LL. GRIFFITH,

British Museum.

Dr. Finlayson, in several recent numbers of the British Medical Journal, has given a most interesting and able summary of modern knowledge of ancient Egyptian medicine. It is to be hoped that the interest thereby aroused in an immense circle of readers may not be allowed to die out without bearing fruit. It is, perhaps, too much to expect that any utilitarian result will be reached by the study of ancient Egyptian pharmacy. It had two foundations: empiricism and superstition—the latter valueless, at least when faith in the superstition has passed away; while empirical knowledge, when duly sifted, may leave a very precious residuum. The ancient Egyptians, however, had only a limited region to draw upon for their drugs, while the modern practitioner wields far more powerful medicaments, obtained from every quarter under heaven.

Although the results for medicine may be *nil*, the history of medicine will be wonderfully lighted up when the Babylonian and Egyptian documents have been fully explained. The collections of the British Museum, as I am informed by Dr. Bezold, contain an immense store of medical texts in the cuneiform script of Assyria, probably copied from Babylonian originals. It would be of the highest interest to compare the system in use in the Euphrates valley with that of the dwellers on the Nile; but, alas! no one has yet seriously attacked the medical texts of the former class. A single short paper by the indefatigable Professor Sayce, with a hazardous translation of a few lines, in the *Zeitschrift für Keilschriftforschung* for 1885 is the only reference that Dr. Bezold's exhaustive knowlege of the literature of Assyriology can supply in addition to that quoted by Dr. Finlayson.

Quite otherwise is it with the Egyptian medical documents. Every Egyptologist has constantly to refer to the Ebers Papyrus for illustrations of philological questions.

I once noted down the qualifications required for the production of a thoroughly good translation of the Ebers Papyrus; they appear to be (1) knowledge of the Egyptian language; (2) sympathy with the ideas and methods of the ancient Egyptians; (3) knowledge of the substances likely to be available and used; (4) knowledge of savage and primitive medicine; (5) knowledge of classical and mediæval practice; (6) knowledge of modern Egyptian diseases and their native treatment. A scientific knowledge of anatomy, physiology, nosology, etc., would probably be quite beside the mark.

It is certain that no one combines all the above qualifications. One writer has attacked the problems from one point of view, and another from another. I venture to think that Dr. Finlayson has not taken sufficient account of the writings of the essentially philological school. Our knowledge of the vocabulary has increased greatly of recent years, and, more important still, thanks principally to the grammatical genius of Professor Erman, of Berlin, we can now read many passages by rule, where formerly we had to guess the meaning by common sense from the juxtaposition of a few words of known meaning. From the point of view of philology, therefore, I beg to offer translations of several important passages that seem to me incorrectly rendered in the account of the Ebers Papyrus by Dr. Finlayson, who relies principally upon early publications and the works of men of science.

Professor Erman has given a sound account of the Papyrus and of Egyptian medicine in his semi-popular work *Ægypten*, vol. ii, p. 476, with many translations. The same writer also identified the name of the king in whose reign it was written as Amenhotep I. of the XVIIIth Dynasty, by a reading of the signs which I can fully confirm. The date of 1550 B.C. agrees excellently with this identification. A very able pupil of Erman, Heinrich Schäfer, selected several passages of the Ebers Papyrus as the subject for his doctorial thesis in the present year (compare also *Zeitschrift für Ägyptische Sprache*, xxx, p. 35). I may also mention the discovery of a small fragment of a medical text by Dr. Spiegelberg, printed in the *Paris Recueil de Travaux*, vol. xv.

The Ebers Papyrus commences, page 1, with

"Beginning of the chapter of applying medicaments to every part of the patient.

"I have come forth from Heliopolis with the mighty ones of the Temple of the Sun, the wielders of protection, the princes of eternity.

"Rescuing (?) I have come forth from Sais with the Mothers of the Gods, who have given me their protection.

"I have magic formulæ made by the Universal Lord to drive out the stroke of god and goddess, the male Death and female Death, *et cetera*" (etc. is probably a direction *ad lib.* for the doctor speaking the formulæ); "that is in this my head, in this my neck, in this my shoulder, in this my flesh, in these my limbs: to punish the above-named enchanters (?) who introduce disturbance into this my flesh."

Such formulæ, evidently for recitation during the treatment, continue for a page and a-half. The book has thus no general title, but plunges at once into the mysteries of the profession.

Dr. Schäfer shows, with the help of the Berlin Papyrus, that the text must orginally have stated that there were twenty-two—not twelve—vessels connecting the heart with other organs, namely, two each for the breast, the thigh, the neck, the arm, the occiput, the forehead, the eyes, the eyebrows, the nostrils, the right ear, and the left ear. The section begins:

"Beginning of the mystery of the physician who knows the motion of the heart. There are vessels in it to every limb: when any physician, doctor, or amulet maker puts his fingers upon the top of the head, upon the occiput, upon the hands, upon the chest, upon the arms, upon the legs, he communicates (?) with the heart; for its vessels extend to every limb, wherefore it is called the starting point of every limb."

Lastly, for the sake of the measures, I will retranslate a few lines from the second page,[1] containing a complete prescription.

"Another (remedy) for the belly that is painful: Cummin $\frac{1}{32}$ *hin*, goose-grease $\frac{1}{8}$ *hin*, milk $\frac{1}{16}$ *hekt*; cool, strain, and drink."

The *hin* is about 29 cubic inches, and the $\frac{1}{16}$ *hekt* 18 cubic inches: the prescription is thus roundly $\frac{1}{2}$ cubic inch of cummin, 4 of goose fat, in half a pint of milk.

[1] BRITISH MEDICAL JOURNAL, 1893, vol. i, p. 752.

THE CHOLERA.

London.—Certain cases of death, preceded by severe abdominal symptoms, have occurred during the past week in London, and have given rise to rumours that cases of true Asiatic cholera had occurred. From inquiries which we have made, it does not appear that there is any reason to suppose that any one of these cases was Asiatic cholera. In one case, at Hackney, death was proved *post mortem* to have been due to perforation of the stomach, produced, it is believed, by plum stones. Two other cases which occurred at Shoreditch have been carefully investigated for the Local Government Board by Dr. Horne, one of the medical inspectors, who has, we understand, arrived at the conclusion that in the one case death was due to acute summer diarrhœa (so-called English cholera), and in the other to acute gastro-enteritis. A third case of similar character has been reported from Shoreditch in a young man aged 25, but it has not been possible to trace, in connection with these cases in Shoreditch, any history of importation of Asiatic cholera, and it is highly improbable that they are of this nature. At the same time, precautions as to disinfection have been taken as though the cases were Asiatic cholera, and a bacteriological examination has been undertaken by Dr. Klein, the results of which are not yet obtainable.

Austria-Hungary.—Up to the end of last week, both official and press notices of cholera in Galicia were very conspicuously absent for quite a fortnight previously. But an official report then issued shows the truth of our English press notices of the existence of cholera along the river Theiss and its tributaries, the disease having reached the town of Szolnok and villages in Szolnok county. The earliest cases occurred in the Upper Theiss, thence spreading to Marmoros county and to Eastern Galicia. Though there is no great epidemic in Galicia, yet the malady has undoubtedly grown much in extent; and now we learn, among other places, of Mikuliczyn, Delatyn, Dobrotoff, Tanoff, Tiulukoff, Nadvorna, and its district (the chief centre), Tisza-Bura, Roff, Szajal, Szolnok (60 miles from Buda-Pesth), Bozesko, Kolomea, and the province of Bukovina; whilst from many places the inhabitants have fled, thus adding to the danger of spread of infection. Something like 100 cholera cases have now occurred in Galicia, with half of them fatal. The incompetence of the local authorities is meeting with condemnation. Work on the railway in course of construction between Sziget and Voronienka has had to be suspended on account of the flight of the Italian navvies, who were panic-stricken by reason of the appearance of fatal cholera among their number.

Germany.—The revised cholera regulations, based on the Dresden Convention, have now been issued from Berlin. The Imperial Office of Health (not the Home Office) has been chosen as the recipient of telegraphic news of first cases of cholera on German soil. The 3 cases of cholera in Berlin reported last week remain the sole occurrences of that disease in the capital. Two of the cases proved fatal. All were in Polish Jews who had partaken of provisions from infected places in Russian Poland. The Poles in Berlin are uncleanly in their habits and very intemperate in their living, and form a distinct danger to the community. Careful watch is being maintained in regard to Russian immigrants coming to Germany secretly, since these people are looked upon as the chief source of danger to the empire. Fatal cases of cholera have occurred at Donaueschingen in Baden, the victim being a young man seized immediately on his return from Marseilles, and at Duisburg in Rhenish Prussia. A medical staff has left Berlin for the Russian frontier on account of the official report of cholera at the Russian villages of Colo and Conin.

Russia.—The death of a soldier in St. Petersburg is announced to have occurred from cholera in the middle of the month. In the south-west provinces of European Russia the disease has increased so enormously, and the mortality is so great, that eighty additional doctors have been ordered to proceed thither from the district of Odessa; and the Minister of the Interior has ordered the establishment of sanitary observation stations in the provinces of Bessarabia, Podolia, and Volhynia.

Italy.—Cholera continues in Naples to the extent of some 10 cases and 6 deaths per diem. The disease has broken out at Solmona, in the Apennines, and is still present at Fossato, in Campobasso province. We also learn of a few cases of cholera in the provinces of Aquila and Perugia and in the towns of Florence, Foggia, and at various places in Alessandria, the malady being rather widespread than intense. Two suspicious cases have occurred in Rome.

Roumania.—Cholera continues to form a daily feature of the death returns at Braila, Sulina, Galatz, and Czernawoda; and now Fetesci is also infected.

Asia Minor.—It is officially announced that the cholera at Smyrna is greatly on the increase, the returns showing some 20 cases and 14 deaths as a daily average. Many better class people have been attacked.

Malta and Gibraltar.—The steamship *George Fisher* arrived at Gibraltar last week from Malta, having had a non-fatal case of cholera on board. After provisioning and coaling in strict quarantine the vessel sailed for Stettin, all well on board. The steamship *Ninian Stuart*, whose boatswain died from cholera prior to her reaching Malta, had 3 other cases on board on arriving at Gibraltar, and was placed in quarantine for purposes of coaling and victualling. The steamship *Millfield*, from Braila, reported 6 cases of cholera on board on reaching Malta on Monday last, and was treated like the two vessels at Gibraltar.

THE Lords Commissioners of the Treasury have sanctioned a loan of £500, to be expended for the drainage of the town of Bantry.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1893.

Subscriptions to the Association for 1893 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, AUGUST 26th, 1893.

CHARCOT AND HYPNOTISM.

It would have been strange had so far-reaching yet profound a student of the nervous system in health and disease as Professor Charcot failed to include in his range of investigation the phenomena of hypnotism but for the fact that so many neurologists who preceded him had passed them by. It was, we well remember, suggested to him by an English physician some fifteen years ago, when he showed his cases of hystero-epilepsy at the Salpêtrière, that he would obtain great help in his neurological researches from the study of hypnotism, as described in the works of Mr. Braid. He responded to the suggestion. It was only a few months afterwards that he showed his experiments in hypnotism to the same physician, and bore testimony to the value of the researches of "le veritable initiateur dans ce genre d'études." Passing over these fifteen years we have it from himself, within a short period of his lamented death, that he had found in hypnotism "a rich field" for his studies in neurology.

Let us clearly understand the exact position which he took. We can speak of this with confidence. He held that the condition induced by artificial means is a neurosis, and a neurosis allied to hysteria. It is true he qualified this pronouncement by admitting exceptions, but this statement is essentially correct, and herein his teaching differed notoriously from that of the Nancy school, so ably represented by Bernheim. One explanation of this divergence of opinion on so cardinal a point is that the combatants were concerned with cases differing widely for the most part in their character and in the range of mental phenomena. Visits to Paris and Nancy at once proved that this was so. It may well be that both were right, and that a clear definition of the sense in which they employed the same word would have averted the misunderstanding which arose.

The fact is that the extreme and exclusive theories of either school are equally untenable. Charcot, on the one hand, triumphantly pointed to the hypnotic subject suddenly rendered cataleptic by the mere sound of a gong, without one word of suggestion. Bernheim, on the other hand, could readily demonstrate the enormous and unsuspected effect of suggestion in simulating the very phenomena which the great Salpêtrière physician induced without it. It is, however, a great mistake to suppose that the latter ignored its potency. He did nothing of the kind, although he may not have made sufficient allowance for its effect in misleading the observer, especially in his earlier researches. The formula of his rival "no suggestion, no hypnosis," was confuted, in the opinion of Charcot, by a single instance of spontaneous somnambulism. It is an advantage to have been able to look coolly on the rival theorists, and to hear what could be said on either side with great ability and force by two distinguished and honest men. Both have had the courage to investigate a singularly difficult class of phenomena—to some extent different, but closely allied—and both have had the merit of throwing much light upon them, although from opposite points of view. One of the strongest proofs of the occurrence of physical signs wholly independent of suggestion which Charcot was able to adduce was the highly interesting phenomenon of neuro-muscular hyperexcitability, one of the most certain characteristics, he used to say, of hypnosis. Delicate pressure on a point in a limb or on the face, which in the normal state produces no effect on the muscle, was found by him to be followed by its proper physiological action, when the subject was in a certain stage of hypnotism. He used this incontestable fact in a twofold manner, first to refute the explanation offered by the upholders of "suggestion" as a universal solvent, and secondly, to confute opponents who had recourse to "imposture" as the correct explanation, for he was accustomed to say that both objectors must believe an ignorant woman to possess as minute a knowledge of the action of each muscle as Duchenne himself.

Among the many examples of muscular contraction produced in susceptible persons in the hypnotic state, Charcot was fond of showing the delicate response to pressure on the ulnar nerve at the elbow, the subject's hand assuming the position termed *griffe cubitale*. But in truth this was but one of numberless clinical illustrations which the master gave. It is sad to think we can never witness them again. He has, however, left able successors imbued with his teaching and familiar with the nature and signs of hypnosis. More than this, he has left behind the solid and lasting results of his investigations in not only confirming, but extending, the conclusions at which Braid arrived; in reducing to something like order the multiform phenomena of artificial sleep, and in bringing within the range of medical science and the laws of physiology abnormal states of the nervous system, regarded by the vulgar as miraculous, and formerly by many medical men as fraudulent.

There was one circumstance bearing on Charcot's doctrine of the neurotic nature of the hypnotic state which must be given due weight, and that is that the patients upon whom he made his experiments were already in a highly nervous condition. Now this undoubtedly served to colour the symptoms he observed, and consequently the inference he drew as to the close alliance between hypnotism and hysteria. This is forcibly indicated by the fact that he has adopted for the title of his lucid article in the *Dictionary of Psychological Medicine* the significant words "Hypnotism in the Hysterical." Hence it was that his observations were mainly conducted upon the female sex, the result being a study of a special organisation. Making due allowance for this fact, which has been too much overlooked, he doubtless instituted an interesting parallelism between the two—the hypnotised and the hysterical—in his classic descriptions of the lethargic, cataleptic, and somnambulistic states, in the contractures and rigidity observed

in both, as also in the sleep itself. The mistake was made—and, it must be owned, not unnaturally—by other experimenters of looking for these stages in every case of hypnotism, and, when not found, blaming Charcot's descriptions as imaginary or possibly manufactured. He may have generalised too much; but whether he did so or not, it behoves us constantly to bear in mind that he was surrounded by a peculiar group of maladies, and that, when in other hands and in other environments, hypnotised persons do not belong to this category, the three foregoing stages may be looked for in vain. In a word, hysteria was the soil on which he experimented, and when experiments are made upon another soil, the results may be very different from those recorded by Charcot, being no longer stamped by the same hysteric seal.

In conversing with Charcot in regard to the therapeutic value of hypnotism, it was noticeable that he evidently felt less interest in this phase of the subject than in its purely clinical aspect, and it is certainly a singular circumstance that while the faith cure, homœopathy, and similar non entities are notoriously successful among the hysterical, hypnotism seems to be comparatively useless in this class of patients.

No man was more opposed to quackery, and to him is due the credit of helping to rescue artificial somnambulism from the illegitimate embrace of the charlatan. Fifteen years ago only a strong man could have given the demonstrations which he gave without endangering his professional status, and a few shallow visitors carped even at him; but he passed through the ordeal with impunity, and rendered it easy for others to prosecute the same studies. He left an example to other investigators of avoiding the rocks on which some of his *confrères* without his scientific instinct have foolishly run their craft and suffered well-merited shipwreck. Never did the illustrious professor at the Salpêtrière allow himself to be drawn aside from the path of inductive science. His scorn of the frauds and follies which sprang up in a credulous circle outside his own school was only equalled by that which he manifested for the incredulous ignoramuses in his own profession who sneered at phenomena which they could not understand but in which he recognised, like our own Laycock, a rich source of neurological and psychological knowledge.

POISONOUS COSMETICS.

SOME three months ago we published a report of a case in which the use of a mercurial solution for improving the complexion was attended with such serious consequences that necrosis of the jaw was probably prevented only by the removal of several teeth.[1] We then called attention to the mischief which may be caused by the recklessness with which preparations containing poisons are recommended as panaceas for various maladies through the medium of advertisements, and we showed that the public is in want of more effective protection against the arts by which the use of secret nostrums is promoted. Practically the law regulating the sale of preparations containing poisons is set at defiance by the concealment of the fact that poison is an ingredient of these articles, and it is commonly only when their effects become the subject of inquiry before a coroner that the truth is made manifest. This reprehensible state of things appears to owe its origin and its continuance to the division of responsibility for enforcing the provisions of the law. The Act of Parliament passed in 1868 declares that it shall be unlawful for any person to sell poison unless he possesses a specific qualification, and by the 15th Section of the Act the Pharmaceutical Society is empowered to prosecute offenders in this respect. That body is thus made responsible for enforcing the law in such a manner that the sale of poisons may be confined to the hands of legally-authorised persons. The Act also provides in the 17th Section that it shall be unlawful to sell any poison either by wholesale or retail without the observance of certain specified precautions designed for public safety. Evidently the intention of the Legislature was to prevent the sale of poisons by unqualified persons, and also to make their sale subject to appropriate conditions; but, unfortunately, in regard to this latter provision, no one is specially charged with the responsibility of enforcing the law. Anyone can institute a prosecution for a breach of the 17th Section, but what is everybody's business is nobody's business. The Pharmaceutical Society appears to be unwilling to take action under this section of the Act from fear of being thought desirous of unduly enforcing restriction of trade. Breaches of the 17th Section of the Act being offences affecting public safety, they might be supposed to come within the cognisance of the police or the Public Prosecutor, but here again there is some disinclination to take action. The result is that the salutary provisions of the Pharmacy Act are being largely evaded to the serious detriment of the public.

Under these circumstances we notice, with considerable satisfaction, a report in the *Irish Times* of August 19th, that the Pharmaceutical Society of Ireland has had the courage to come forward, in the interest of public safety, and institute a prosecution for the sale of the mercurial cosmetic referred to at the commencement of this article. Proceedings were taken under the 30th Section of the Irish Pharmacy Act against Mrs. Anna Ruppert. Evidence was produced that the preparation sold by her under the name of "Skin Tonic" was a solution of corrosive sublimate—a scheduled poison, and that she was not qualified under the Pharmacy Act to sell poisons. For the defence it was contended that there was no evidence to show that Mrs. Ruppert was the proprietor of the establishment where the preparation was sold, nor any proof that she sold the bottle, but the magistrate held that the preparation was proved to be a poison. He also pointed out that Mrs. Ruppert had attached a label to it indicating that it was poison; but the fact that this label was covered up so as not to be seen, would not have satisfied the requirements of the Act, even if Mrs. Ruppert had been legally qualified to sell poison. Her name being upon the bottle as the sole proprietor and manufacturer, she was held accountable for the sale, and a penalty imposed of five pounds, with six guineas costs. This decision will no doubt operate as a wholesome check to the sale of a very dangerous article, and it should encourage the Pharmaceutical Society of Great Britain to extend its activity in enforcing the law.

The disposition on the part of sellers of medicinal nostrums to take advantage of the divided responsibility as to the administration of the law relating to the sale of poisons is indicated by the question put to the Secretary of the

[1] BRITISH MEDICAL JOURNAL, April 29th.

Treasury by Mr. Frye in the House of Commons last Monday. The question had reference to the limitation of the action of the Public Prosecutor by direction of the late Attorney-General, as mentioned in the report of the Parliamentary Bills Committee of the British Medical Association. Mr. Frye appears to have assumed that the restricted action of the Public Prosecutor in regard to the sale of preparations containing a poisonous ingredient would extend also to the Pharmaceutical Society. A directly opposite inference would, however, be more reasonable; for in proportion as the administration of the Pharmacy Act is left to the Society, it will be the more incumbent upon that body to exercise its powers to the full extent. That view of the matter appears to be suggested by the reply given to Mr. Frye's question by Sir J. Hibbert, and it is quite consistent with the nature of the subject to be dealt with.

THE HEALTH OF THE ARMY.

The thirty-third Annual Report[1] has lately been issued with fairly commendable promptitude, when we consider the world-wide area from which its returns are drawn, the vast labour of their digest, and the limited staff at headquarters engaged in its compilation.

Of the many interesting, instructive, and sometimes curious facts set forth it is only possible to mention a few. The army of which the report treats numbered in 1891, roundly, 196,000 men, of whom rather more than one-half were stationed in the United Kingdom, 66,000 in India, 16,000 in the Mediterranean, including Egypt, and the rest scattered in small garrisons from Canada to Hong Kong.

The ratios of admission, constantly sick, deaths, and invaliding naturally vary widely under diverse conditions of living; but it would be misleading to gauge the relative salubrity of stations by such ratios alone. Other factors must be considered, such as the size of the garrisons, the degree of concentration or spread, the ages of the men, their period abroad, etc. The small garrison of Mauritius, for instance, in this report shows heavy sickness and mortality; but it would be unscientific to contrast by a numerical method alone such a small body living, probably, under intensely localised conditions with a huge mass, such as in India, spread over an extended and diversified area. Ratios, to be of absolute comparative value, must be deduced from statistics of equal relative value. But, for all practical purposes, these reports supply statistics of sufficient accuracy; they show there may be much sickness and inefficiency, with but a moderate mortality; so that there is no necessary or absolute proportion between admissions and deaths. In 1891 the admissions in the United Kingdom were higher than at Malta, but the deaths fewer. At the Cape the deaths were double that of the United Kingdom, while the ratio of admissions was practically the same. On the whole the ratios for 1891 were throughout under the average of the preceding ten years. At some stations there was great improvement. In Egypt the heavy mortality of the earlier years of occupation sank to almost the level of the Mediterranean garrisons. In India the admissions were rather under, but the mortality greater than the decennial average.

We are glad to notice that the ratios under enteric fever in the United Kingdom show a decrease; but Ireland is still the blot. The admissions in that country, and chiefly in Dublin, were just three times as numerous as throughout England and Scotland. There can be no explanation but defective sanitation. There was only one case of small-pox, and that in a recruit who doubtless had contracted the disease prior to enlistment.

The amount of inefficiency through venereal diseases, although somewhat less in 1891, continues to be a matter of the gravest moment to the army. At home in 1891 no less than 1,500 men—equal to two full battalions—were constantly non-effective through venereal affections, and it is not pleasant to reflect that the highest rate of admissions was at Aldershot, where, if anywhere, this class of disease might be most easily controlled.

The inscrutable law of average which impels men to self-destruction brought about 25 suicides in the army, against a decennial average of 20. As usual the suicides were not young soldiers, "driven mad," as often recklessly alleged, but men whose average age was 29 and average service ten years.

We can merely glance at the important statistics from India. As before, the admissions, death, and invaliding was greatest among men between 20 and 24 years of age; which, however, embraces half the soldiers serving in the country. It is evident there is still not a little to learn regarding the somewhat complex causation of tropical enteric fever, for there was hardly a station in all India free from it in 1891. Cholera was likewise widely diffused among the plain stations, although it scarcely attained epidemic proportions anywhere.

The statistics of recruiting continue to afford interesting information into the social and other conditions of the class from which soldiers are mainly drawn. In 1891, of the recruits found fit, 47.5 were between 18 and 19 years of age; 964.4 per 1,000 had marks of vaccination, 7.9 of small-pox, and 27.7 no marks of either; the first marks ratio constantly increases, the two last steadily decrease notwithstanding the mischievous folly of antivaccinators.

[1] The Army Medical Department Report for the Year 1891, with Appendix. Volume XXXIII; price 2s. To be obtained either directly or through any bookseller from Eyre and Spottiswoode, East Harding Street, E.C.; John Menzies and Co., 12, Hanover Street, Edinburgh, and 90, West Nile Street, Glasgow; or Hodges, Figgis and Co., 104, Grafton Street, Dublin.

THE RECENT HOT WEATHER.

According to the observations of Mr. G. J. Symons, F.R.S., whose lifelong study of meteorology entitles his opinion to the utmost respect, the morning of August 18th last, was hot beyond all precedent for more than a third of the century. During three consecutive days of the present month the maxima exceeded 90°, namely, August 16th, 90.7°; August 17th, 92.7°; and August 18th, 93.6°. Such a concurrence has not been noticed during the past thirty-six years.

THE OPIUM COMMISSION.

It is announced that the Opium Commission has been constituted as follows: Lord Brassey (Chairman), Mr. Caine, M.P., Mr. R. G. Mowbray, M.P., Mr. Arthur Pease, Sir William Roberts, Sir James Lyall, Mr. Fanshawe, the Rajah of Darbhungah, a landowner concerned in poppy cultivation, and a well-known Indian merchant. The Secretary of the Commission is Mr. Prescott Hewett. The Government have been fortunate in securing the services, as a medical member of the Commission, of Sir William Roberts, a physician of wide experience and varied learning. His special studies

render him particularly well qualified to deal with a complicated question of the kind which it will be the duty of the Commission to consider.

THE DANGERS OF HOSPITAL SHIPS.

A SOMEWHAT unreasoning section of the community is continually recommending a large extension of the system of hospital ships for the treatment of fevers, on the plan of the small-pox ships at Long Reach, instead of erecting more hospitals on land. Among other arguments—and they are not few—against such a plan is the great expense of maintenance. This is well illustrated by the case of the *Castalia*, one of the small-pox ships which has lately been found to be in urgent need of extensive repairs. The plating about the water-line has corroded in such a dangerous manner, according to the report of an expert, "as to jeopardise the safety of the vessel and imperil the lives of those on board." We understand that some of the patients are being put on board the hospital ship *Atlas* and others transferred to Gore Farm while the *Castalia* must be docked for repairs.

PROTECTION RUN MAD.

A LAY correspondent, writing to us from the Tyrol, draws attention to an extraordinary instance of the inconvenience which may be caused to the public by the existence of strict protection laws administered by uninstructed officials, who have more respect for red tape than common sense. He had gone to the Tyrol for the good of his health, with instruction from his London physician to make use of a particular prescription which, not unnaturally, he prefers to have prepared by an English pharmacist. Such a person not existing in the wilds of the Tyrol, he sent an order to a pharmaceutical chemist in this country, who duly carried it out, and forwarded the medicines. In a short time, however, the parcel was returned to the London chemist, with the information that medicines are not permitted into Austria unless the consignee gets permission from the local authority. This, it appears, in the particular instance before us, would involve a journey to Innsbruck, not exactly a desirable residence during the recent heats, and a delay there probably of several days to obtain the requisite permission from the local authority. It is probable that the matter only requires to be brought to the notice of the higher Austrian officials to have a remedy devised. This would not be very difficult, since the number of cases to be dealt with annually could not be very large.

THE CLOTHING OF THE POLICE.

THE worst of the hot weather having now passed away, we fear that the question of the clothing of the police force, which could not fail to attract the attention of everyone last week, will now fade into the limbo of things forgotten until again we find ourselves confronted with another blast of fervent heat, and another crowd of fainting constables. Nevertheless we might, in justice to a great number of most deserving public servants, consider well how far the present uniform is the best that could be devised for the purpose of clothing men who have, from the nature of their duties, to be exposed to the greatest possible variations of weather and the extremest alternations of temperature. No one can pretend that if one had to commence *de novo* to evolve a costume suitable for our guardians of the peace the present curious design could by any possibility have been hit upon. For a force which may any day, between leaving home and coming in again, have to be exposed to morning chills, to midday heats, and to cold drizzles in the afternoon, the uniform should not merely be warm and watertight, but capable of variation and ventilation. As it is, everything is sacrificed to correctness of appearance. No tightly-fitting tunic ever can be really satisfactory for the purpose. Nothing looks worse, either on soldier or policeman, than an unbuckled belt or an unbuttoned tunic, and the first step should be to get rid of these two articles, which between them make it impossible to obtain comfort without breach of discipline. Something of the nature of a Norfolk jacket is what is wanted—something which, by drawing the folds together and tightening up, can be made thicker and warmer in wintry chills, and yet can be loosened and freely ventilated in summer heats without appearing utterly disorderly.

GLASGOW UNIVERSITY LOCAL EXAMINATIONS.

THE Local Examination Board of Glasgow University have decided that they have fulfilled their function, and that a continuance of the examinations is no longer required in view of the falling off in the number of candidates, of the fact that the certificates of the Board are not accepted by the joint board of examiners for any university purpose, and that the leaving certificates of the Education Department are now open to scholars of public schools. This year the entries numbered only 250, about half the annual average. The scheme of the Local Examination Board has been in operation since 1877. During the whole period of its operation 7,991 candidates entered, an annual average of 470. The general results of a comparison of the number of entries and of the number of passes seem to show that subjects roughly classed as literary and linguistic are pretty generally taught with creditable proficiency in the schools, that mathematical teaching is more restricted, and that science subjects are not taught up to an advanced standard.

QUACK OCULISTS.

A CORRESPONDENT of the *Standard* has done well to call public attention to the cruel frauds perpetrated by unscrupulous quacks on their credulous dupes. The country is overrun at the present time by persons, of various and often doubtful nationality, who call themselves oculists, and grossly abuse the ignorance of the public. One of the instances quoted in the *Standard* was that of an old woman, an inmate of an almshouse, who was induced to give a guinea for a pair of "electric spectacles" to improve her sight, and at the same time to cure her rheumatism. In another instance a patient suffering from cataract was persuaded that "the skin" had been removed from her eye, and even signed a testimonial to that effect, but when she sought skilled advice the cataract remained. In other cases the quack does some operation—a crude form of couching, and many eyes are lost. We are glad to see that the London and Counties Medical Protection Society are taking legal action against one of these so-called Indian oculists, and that a warrant has been issued.

BURIAL ALIVE.

THE annals of Eastern nations furnish abundant examples of this custom, which has been resorted to from a variety of motives and under very different circumstances. The practice may be employed for the purpose of extinguishing life or maintaining life for a prolonged period without food or drink. There is, therefore, a fatal and non fatal kind of living inhumation. The most common description of burial alive (*jamadh*) is leper burial, which used to be very frequently resorted to in India, often at the request or urgent entreaty of the victims of this loathsome disease. A pit was dug by the relatives of the leper or by other lepers, and the unfortunate cast into it and smothered with earth. In some cases the wretch was burnt to death before being thrown into the pit. Opium water was freely drunk by executioners and executed on such occasions. This cruel rite lingered in Kashmir and some parts of Rajputana till within very recent years. Indeed, it is questionable whether it is even now altogether extinct. Lepers have been known in the extremity of their distress and misery to commit suicide by jumping into pits. Burial alive

has also in India constituted a mode of *suttee*, or voluntary sacrifice of life, by widows who have been cast by sympathising and obliging relatives, at their own earnest request, into the same graves as their deceased husbands. Homicidal burial alive has been used as a means of punishment of crime, torture, revenge, or murder, and the burial has been in such cases either complete or incomplete. The non-fatal form of living burial has always excited more interest than the fatal, which, however, supplies material for a strange and large chapter in the history of human crime. The phenomenon of hibernation yields some sort of countenance to the idea that the animal organism is capable, under certain circumstances—namely, conservation of body heat, perfect inaction, and preservation from all external stimuli—of living for weeks, if not months, without food or drink; and records of prolonged fasting, with or without sleep, are forthcoming with the regularity of the announcements of gigantic gooseberries, sea serpents, and eight-legged calves. The alleged proceedings of Indian fakirs and Persian dervishes are cited in support of the possibility of human hibernation in underground cells. The proceedings of these gentry must, however, be very liberally discounted. They certainly achieve some very extraordinary feats of endurance and self-abnegation. Their efforts to set at defiance the laws and inclinations of the body, and by contemplation, fasting, and neglect of the ordinary usages and requirements of life to mortify the flesh and become absorbed into the divine soul, which is, according to the tenets of pedantism, the spring and essence of existence, surpass physiological possibility and necessarily engender imposture, which may be conscious or unconscious or both. This element of imposture, involuntary or designed, enters into all their proceedings, and is seldom either diligently looked for or detected. The love of the marvellous is strongly developed among Orientals, and fakir stories must be taken with a liberal grain of salt. Tales of prolonged living burial are common enough in India, but in no case has the proceeding been subjected to scientific observation or systematic watching; and in some instances the grave in which the devotee has proposed to hibernate has been uncovered after the lapse of a few days and its occupant found dead. When, therefore, we are told that Seymour, the thought-reader, proposes at Chicago to be buried alive and "remain underground long enough for a crop of barley to be grown on his grave," we incline to share the general impression that, if he carries out his plan, "he will probably remain underground for good."

DEATHS UNDER CHLOROFORM.

We have to record two more cases of death under chloroform—one at Newcastle and the other at Plymouth. We are indebted to Mr. John Braithwaite, house-surgeon to the Royal Infirmary, Newcastle-on-Tyne, for the following particulars as to the case of a strong, healthy girl, aged 21, who was admitted on July 26th suffering from a small bony growth of the septum nasi, which interfered with her breathing, and which she was anxious to have removed. On August 9th chloroform was administered by one of the house-surgeons. It was given on a single piece of lint from a drop bottle. On auscultation the heart sounds were found to be normal. She did not take it well, repeatedly holding her breath. Once or twice during the operation she partly came out of the chloroform owing to the difficulty of administration, the operator being in the way of the chloroformist. Once she vomited. The operation lasted twenty minutes, at the end of which her breathing became stertorous and her face cyanosed. Her radial artery was felt, but there was no pulsation. The mouth was opened and the tongue pulled out with forceps. Artificial respiration was resorted to, ether injected, the sphincter ani dilated, the legs raised, the interrupted current applied, the throat swabbed out with brandy, amyl nitrite held to the mouth, tracheotomy performed, as the air did not seem to be entering the chest well, oxygen was administered by the tube, and, lastly, the heart was punctured by a needle, to which the battery was applied. These remedies were continued for over an hour without any response on the part of the patient. The pupils did not begin to dilate until half an hour after the operation was finished. A little over half an ounce of chloroform was given. A *post-mortem* examination was not allowed.—In the second the patient was also a girl, whose age was 17. Mr. C. E. Bashall, house-surgeon to the South Devon and East Cornwall Hospital, Plymouth, informs us that she attended at the out-patient department for the extraction of some teeth on August 9th. It was found necessary to extract nine teeth altogether, and she was advised to have an anæsthetic. Chloroform was administered by Mr. Bashall on a Skinner's inhaler, and the patient took the anæsthetic well, and was well under the influence of it in about five minutes. During the extraction of the eighth tooth she showed signs of recovery, so a few drops more were administered. During the application of the forceps to the ninth tooth the patient was noticed to be looking cyanosed. The operation was immediately stopped, the tongue pulled forward, and artificial respiration begun. At the same time she was found to be pulseless. After artificial respiration had been continued for a few minutes, and a subcutaneous injection of ether given, she gave a few gasps. Artificial respiration was then continued for forty-five minutes, together with the application of the battery and injections of ether; but the patient never rallied. The only pathological condition found *post mortem* was fatty infiltration of the muscular tissues of the heart and body; the heart was very pale and flabby.

THE SANITATION OF SCHOOLS.

The demand for improved sanitary schools, to which voice has recently been given by Mr. Acland, raises another question, an answer to which must be found before much progress can be made. Why are they insanitary? Most of them have been built within the last twenty years. Their plans have been submitted to and passed by the central authority, and it seems, to say the least of it, a questionable proceeding to ask the same people to put things right who have succeeded so admirably in putting them wrong. We fear it is the fact that many schools have been designed merely as places in which lessons can be taught, and with very little regard to the maintenance of health. All plans should be passed by sanitary as well as by educational experts, and all proposed repairs and alterations should be submitted to the same tribunal. By this time a large experience has been gained—at any rate in errors—and it ought to be possible to formulate some general principles; but we venture to doubt whether much progress will be made by encouraging local school boards to tinker their buildings at the suggestion of inspectors whose duties are primarily educational. In sanitary matters sanitary experts should be consulted.

TEMPERANCE AND INTEMPERANCE.

Clearly there was some misconception among the teetotalers as to the aims and limitations of the International Congress against the Abuse of Alcohol held at the Hague last week. It was not, in fact, a teetotal gathering at all; its protest was against the abuse and not the use of alcohol, which little fact must have been overlooked by a good many members or they would hardly have been so horrorstruck by the remarks of Sir Dyce Duckworth on the Physiological Effects of Alcohol on the Human Organism. We are told that as it became gradually evident that he was an advocate, not of total abstinence, to which the majority of those present were pledged, but of moderate drinking, as conducive to health and general wellbeing, his audience became greatly troubled. "From an early stage in the reading of the paper the faces of the audience became an interesting study. They expressed in rapid succession perplexity, suspicion, embarrassment, consternation, and indignation. Some were ap-

parently undecided whether to be angry or amused." As he descended the tribune there was slight applause mingled with some hissing. Nevertheless, Sir Dyce Duckworth had stuck strictly to his text, and had raised his protest against the very thing which the Congress had met to protest against, namely, the abuse of alcohol. On the point of temperance Sir Dyce Duckworth was sufficiently emphatic. He assumed that the utmost limit or equivalent of alcohol taken in any day should not exceed one ounce, or one ounce and a-half, whatever the nature of the liquid taken. This amount should be taken with a meal, and as a rule when the day's work was done. None should be taken between meals. He laid stress on the taking of alcohol only at meals, presumably at one meal only in the day, and never, unless medicinally, at other times. Any person requiring alcohol between his meals was a sick person needing medical care. Were this a universally recognised custom there would be hardly a question relating to alcoholic intemperance, the speaker held, to discuss or legislate for. Firmly, however, as Sir Dyce Duckworth speaks against all forms of excess, he speaks equally firmly, with all the conviction derived from a large experience among every class of society, in asserting that there is a legitimate use for alcohol, that it is a food, and that its use in moderation is beneficial to humanity. Whether or not alcohol is a food is, however, it must be confessed a somewhat academic question, and one which hardly touches on matters of daily life. In cases of severe illness, in which almost alone the nutritive value of alcohol itself is worth consideration, only the most violent of teetotal partisans would stand in the way of its medicinal prescription. And as to healthy people the amount of force to be got out of the small amount allowable cannot be of great practical utility. That alcohol is digested in the economy, that, in the process, it is turned into some combination of molecules having a lower potential energy, that the kinetic energy so developed is used in the body, and that it is in that sense a food, is plain enough. But the amount of this energy contained in the odd ounce of alcohol is a trifle, and practically unfelt amid that derivable from the mass of food commonly eaten, and if it becomes a question of filling a void and meeting a want, we feel sure that Sir Dyce Duckworth will agree that only as a merely temporary medicinal measure can it ever be wise to make alcohol a substitute for ordinary food. It is to something else besides its mere nutritive value that alcohol owes both its popularity and its usefulness, and also its danger. Its effect on the vascular and nervous systems, and what Sir Dyce Duckworth speaks of as its anæsthetic properties, are probably of far greater importance in this relation than the mere amount of energy it is capable of developing in the form of motion or of heat. Sir Dyce Duckworth pointed out that the greatest numbers of the best men and women doing the best work that could be done in the world took some form of alcohol with benefit to themselves and to their capacity for work. They found a very much smaller number of persons who could do as much and as good work without this, but a very few persons never attained their best health till they ceased to take even the little they formerly took. This was an idiosyncrasy, and not a law for everybody.

SCARLET FEVER IN PUBLIC SCHOOLS.

In reference to our comments in the British Medical Journal of August 19th concerning scarlet fever in Harrow School, we have received a letter from a medical officer of great experience, attached to one of the largest public schools in England, pointing out that Harrow is by no means alone in its deficiencies, and showing that after all it is the apathy of the parents in regard to sanitary matters which is at the root of the matter. "I should not comment now," he says, "upon your notice, except to point out the reason and its remedies. The reason is that the public will have it so; they are satisfied, or perhaps I should be more accurate if I said that they are not dissatisfied. If they were, such faults as you describe would be remedied at once. The remedies for these evils are: (1) That every public school should have its own medical officer, and such a system as divided medical responsibility should cease. (2) His salary should be adequate to ensure the services of a really able man. (3) He should be appointed by, and responsible to, the head master, but irremovable except by the governing body. Then such a deplorable state as you have recounted, and which is known to thousands of parents, could not exist for another term." All this is very true. Unfortunately, parents, however particular they may be about sanitary matters in their own homes, take but little interest in the sanitation of the schools to which they send their sons. The one essential seems to be that the school shall have a "name." While there is a sufficiency of parents willing to pay much money and demand little return, either in health or education, so that their sons can have the great privilege of being educated at one or other of the "great public schools," these happy hunting-grounds for house masters are not likely to improve.

NEEDED IMPROVEMENTS IN SANITARY LAW.

Last week the annual conference of the Sanitary Inspectors' Association was held in Glasgow on the invitation of the Glasgow Police Commissioners, and was attended by about 100 of the sanitary inspectors of Great Britain. Sir Benjamin Ward Richardson, the President, was unfortunately prevented by indisposition from attending, but an address was read on his behalf by the City Chamberlain of Glasgow. Glasgow was made a useful object-lesson on sanitary progress, and probably the most valuable proceedings of the Conference were the inspections, under the guidance of members of the corporation, of refuse and despatch works, Belvidere Fever Hospital, model lodging houses, and public baths and washhouses. On the second day after the proceedings a discussion on Needed Improvements in Sanitary Law was brought to a close by the Conference unanimously approving of the following proposals: (1) That every candidate for a sanitary inspectorship must possess a certificate of competency in sanitary law and practice, to be granted only after a Government examination. (2) That inspectors should have permanent tenure of office, and should be liable to dismissal only for misconduct or proved incompetence, with right of appeal to the Local Government Board. This is the law in Scotland as provided for in the Local Government (Scotland) Act, 1889. (3) That the duty of inspectors should include the inspection of their districts, the receiving complaints of nuisances, and the immediate serving of notices for the removal of the same, such notices to be as valid, if confirmed by the local authority, as if served by the order of the authority. (4) That inspectors should be required to devote their whole time to their duties, and that an adequate minimum salary should be presented. (5) That the Superannuation Allowances Act, 1866, 29 Vic., cap. 31, should be extended to include the officers of all urban and rural sanitary authorities within the United Kingdom, and that the said Act should be amended, giving thereby to all officers a legal claim to superannuation.

"TEMPORARY INSANITY."

Is it not time that some better means were found by which a jury could express its sympathy with a suicide than by branding him as temporarily insane? We have more than once lately drawn attention to the subject, and now again a case has occurred which may well serve as a text for a repetition of what appears to us the common-sense as well as the scientific view of this subject. Recently a man who had lost the sight of one eye, and had been told by an oculist that the sight of the other would surely go, and who had thus had full opportunity of realising the situation, and weighing well what life, under such circumstances, had to offer him, suddenly became blind in his remaining eye. He struck a match: it burnt his fingers, but he could not see it.

He knew what had happened, and that the time of his blindness had arrived; yet he did nothing suddenly or on impulse. He knew well all that blindness meant to him and to those on whom he would be dependent, and he determined not to be a burden to them. So fumbling for some notepaper, he scrawled in his darkness two letters, straggling in writing but perfectly consecutive and sane in sense, one to his mother, bidding farewell, the other to the landlord of the hotel, explaining the circumstances, and giving instructions as to communicating with his friends. Yet here again the verdict was "temporary insanity," and so another group of relatives are put in the position, when questions of marriage, or insurance, or responsible employment are under consideration, of having to confess that by verdict of a jury there is insanity in the family. The hardship caused to families by this foolish practice is very great, the training it gives to jurymen in the telling of white lies on oath is full of evil consequence to justice, the benefit to anyone is absolutely indiscoverable, except, may be, in Scotland, where the movable estates of the *felo de se* go to the Crown. In England, moreover, the old plea of tenderness to relatives is quite exploded, and what was meant in kindness is now the most gratuitous cruelty. When suicides are insane, as they mostly are, by all means let us say so without any qualification; but if they shuffle off this mortal coil in the full knowledge of what they do, let us at any rate have the truth.

HOT WEATHER AND CLINICAL THERMOMETERS.

It may not be amiss to warn our readers of a real risk which appears to be incurred in carrying a clinical thermometer in the waistcoat pocket during a period of exceedingly high temperatures such as that which lately prevailed, more especially by practitioners accustomed to drive in an open carriage. Under such circumstances the instrument may inadvertently be exposed to the direct solar rays, and a temperature of 120° F. be reached, which is above the usual graduation of clinical thermometers. As a result, the tube may be broken by the expansion of the mercury. A well-known West End practitioner, who usually rides in a victoria, writes that it has fallen to his lot to lose two instruments in this way—one last week, the other a few years ago. The fracture took place just above the extreme end of the bulb. In each instance the thermometer was enclosed in a well-plugged ebony case, the top being firmly secured by a screw.

DOES IMPRISONMENT CURE INEBRIATES?

Sir John Bridge, the well-known metropolitan stipendiary magistrate, has been utilising the improved state after three months' imprisonment of an inebriate female offender as an object-lesson teaching the value of incarceration in the cure of confirmed drunkenness. Sir John had committed Alice Saunders, in default of finding two sureties in £10, on a conviction for drunken and riotous behaviour. She, of course, after three months of abstinence from intoxicants, was greatly changed in appearance for the better. The magistrate deduced from this amelioration that committal to an ordinary prison was all that was needful in such cases, and that there was no occasion for special retreats. The Governmental Committee, after hearing Sir John's opinion in his evidence, came, however, to a different conclusion, and recommended the establishment of reformatory curative institutions for this class of offenders against the law. This recommendation was based on a consensus of expert medical testimony, in addition to the unanimous endorsement of special reformatory treatment by all the non-medical witnesses, who spoke on behalf of reformatory effort among drunken criminals. The Committee had reason for their suggestions. Enforced abstinence in a gaol always improves the physical and mental condition of inebriate prisoners, but very few cases of permanent reformation have resulted from this procedure. Sir John himself seems to have been influenced by some such misgiving; he discharged her from her recognisances on the understanding that the police-court missionary had found her a suitable home. Till special provision is made for therapeutically treating inebriates found guilty of offences against the law, we, however, highly commend the procedure now followed by Sir John Bridge and Mr. De Rutzen. It is infinitely better than the old system of fine or short imprisonment. Happily the Home Secretary has promised to introduce a Bill embodying the main recommendations of the Departmental Committee.

THE LATE M. VIGNAL.

It is with great regret that we announce the death of M. W. Vignal, who had been for many years the Paris Correspondent of the British Medical Journal. M. Vignal, who was a Doctor of Science, was a distinguished scientist, who was long attached to the laboratory of the Collège de France, where he was one of the collaborators of M. Malassez. He devoted himself in the first place especially to the study of histology, and subsequently gave much attention to the nature of fermentation. He also undertook important researches into the pathology of tuberculosis, and his name will long be remembered in connection with his discoveries as to zoogloeic tuberculosis. There is reason to fear that it was during the progress of this research that he contracted the disease to which he has now succumbed. He went to Teneriffe during last winter in the hope of combating his malady; from there he commenced a series of letters on the therapeutic effects of climate, characterised by the thoroughness and scientific precision which were the salient points of all his work; but the task was too great for his declining strength, and he was compelled to return to France only to die. He received during the course of his fatal malady the tender ministrations of his attached English wife, through whom he had been brought into close relation with many members of the medical profession in this country. By the death of M. Vignal, French science loses one who, if the achievements of early life may be taken as a criterion of the accomplishments of maturer age, would have contributed not a little to its lustre.

FOOD POISONING AT FOREST GATE DISTRICT SCHOOL.

We have already fully referred to the remarkable outbreak of food poisoning, and expressed our opinion that, from the clinical history of the cases, it appeared that the cause of the symptoms was an infection rather than an intoxication. We are now in possession of Dr. Stevenson's analysis. The latter found a considerable quantity of ptomaines in the viscera of the deceased children. These ptomaines on inoculation into animals proved to be extremely toxic, more poisonous, in fact, than any ptomaines Dr. Stevenson had previously met with in the viscera of children. These ptomaines might have been present in the food itself, and ingested as such, or they might have been generated in the human body by means of bacteria absorbed with the food. In the latter case we would have to deal with an infective process, and this seems to us to be the more reasonable view to take of this case, since a distinct incubation period could be traced. If the symptoms had been due to ptomaines taken in as such, they should have appeared quickly; but the epidemic lasted over several days, and this alone is against the assumption of an intoxication. Dr. Stevenson also seems to incline towards the infection theory, namely, that bacteria are taken in with the food, and in the intestinal tract produced their toxins. The latter he pronounces to be ptomaines, and we do not hear whether any other toxic substances were found. From Scholl's experiments it appears clearly that, besides ptomaines, extremely toxic albuminous bodies are found in putrifying food, chiefly toxopeptones, of such virulence that an intraperitoneal injection will kill guinea-pigs

in astonishingly short time. The writer is at present engaged in similar studies, and finds that a small quantity of the juices expressed from putrefying meat will kill a guinea-pig (one to three hours), and that the toxic principle is certainly an albuminous body. It is, therefore, necessary to modify our ideas about food poisoning, and to turn our attention from ptomaines to the so-called toxalbumins. These latter substances are produced by bacteria, and possibly such might have been separated from the viscera of the deceased children. We may remind our readers of some interesting cases recorded by Bernhard Fischer, who, during the cholera epidemic, came across several cases of food poisoning, erroneously diagnosed as cholera, in which he found in the diarrhœic dejecta vibrios which, though similar to Koch's and Finkler's spirilla, were yet quite distinct from them. Food intoxication has, as Metschinkoff tells us in a recent number of the *Annales de l'Institut Pasteur*, not infrequently occurred after partaking of cheese, and in such cases the symptoms may probably have been due to the vibrio of Deneke. This opens up many new questions of great bacteriological interest, and shows the importance of a thorough bacterioscopic, as well as chemical, examination of the food and dejecta. At a time when cholera is at our door, the bacteriological aspect of food poisoning grows in importance, and should, to our mind, not be left out of sight. To come back to our case, how did the bacteria get into the intestinal tract? The soup can hardly have been the receptacle, since one of the victims did not partake of it, and it is doubtful whether the meat was the *causa peccans*, since this was given out on the 21st, and some of the children did not become affected till the 27th, but it is impossible to express a decided opinion on the point. We are quite unable to offer any explanation as to how exactly the bacteria got into the food, and, like so many other cases of food poisoning, this outbreak must remain a mystery. In conclusion, we venture to point out an inaccuracy which we found in the reports of almost all the daily papers, which is all the more amusing, as it is put into the mouth of so learned an authority as Dr. Stevenson. Ptomaines in these reports are consistenly called "a species of bacteria produced by the consumption of unwholesome food." Our daily papers are so fond of dabbling in bacteriology and pathology, that such absurd errors might well be avoided, if they wish to keep up their "scientific" reputation.

AN INSANITARY LOCAL AUTHORITY AND THE COUNTY COUNCIL.

WE are indebted to the *Surrey Mirror* for an account of the circumstances which have led to the intervention of the County Council in the affairs of the Godstone Rural Sanitary Authority. The extremely unsatisfactory state of the sanitary arrangements in certain parts of the Godstone District has long been known, and the occurrence of an outbreak of diphtheria has afforded the County Council an opportunity of bringing pressure to bear upon the authority. An excellent report upon the outbreak was drawn up by Dr. Oldman, medical officer of health for the district, and upon it the chairman of the County Council requested the members of that council for the Godstone Division to call in Dr. Seaton, the county medical officer, and consult with him as to the best steps to be taken in order to remedy the unsatisfactory condition of things prevailing in consequence of the inaction and negligence of the rural sanitary authority. A meeting was held at Oxted, at which the three members of the County Council met Dr. Seaton and Dr. Oldman. Dr. Seaton briefly analysed Dr. Oldman's preliminary report, which, he said, was most excellent, showing a thorough knowledge of recent investigations as to the condition and circumstances which tend towards the development and spread of diphtheria. The outbreak at Oxted was mainly due to school influence, seconded by absence of notification and deficient scavenging. After the discussion of Dr. Oldman's report, and of the opinions expressed by the county medical officer of health, a strongly-worded communication was drawn up, addressed to the rural sanitary authority. This document, which urges forcibly the adoption of the Infectious Diseases Notification Act, points out that the question of proper water supply is a matter of urgent importance, and expresses gratification upon learning that the authority is taking steps to provide a hospital for the isolation of infectious disease. The desirability of the medical officer of health being present as a matter of course at the deliberations of the authority was also insisted upon. It is understood that the county medical officer is about to report upon the whole subject of scavenging and drainage to the Sanitary Committee of the County Council. We presume that the local sanitary authority will now take the steps which ought to have been taken years ago to put its district into a reasonable state of efficiency. The whole incident affords a good illustration of the way in which a county council, which has provided itself with the expert assistance of a skilled medical officer of health, can bring wholesome pressure to bear upon an authority which has systematically neglected the sanitary part of its duties. The *Surrey Mirror* has throughout lent its aid in giving publicity to all the facts of the case, and to the public opinion thus created may be attributed no small part of the action which has been taken.

FOREIGN GOVERNMENTS AND LEPROSY.

THE leprosy question for the French is by no means a matter of so much importance as it is for ourselves with our numerous lepers in India and the Colonies, but, with that fostering care in scientific matters so characteristic of foreign Governments, and so conspicuous by its absence from our own, it appears that another investigation is to be sent by France, at the public cost, to collect further information concerning leprosy. Why one of the competent medical officers of the St. Louis Hospital has not been chosen for such a work is perhaps not our business to inquire, but we must deprecate the entrusting of investigations of the kind to laymen in such matters. It appears that in this instance the investigator is to be a priest, who, like some other "noble workers among the outcast lepers," is being duly advertised in the usual sensational fashion. Father Sauton, it has been stated, asserts that there are genuine cases of leprosy in France contracted by Sisters of Charity while nursing leper patients abroad. Now similar statements have frequently been made by lay and clerical writers, but they have rarely stood the test of competent investigation. We would suggest that the cases referred to by Father Sauton be carefully inquired into by such men as MM. Besnier, Leloir, or other reliable authorities from the St. Louis Hospital, whose opinion can really be depended upon.

YELLOW FEVER IN BRAZIL.

THE British Consul at Santos in a recent report states that yellow fever has been present in Santos, Brazil, for the last five years. It has varied in intensity from time to time but has never disappeared. The mortality among seamen during the height of the pestilence last year was enormous, and as all who died were buried within two hours, it was practically impossible to trace individuals. In many cases no register was kept even of their names. It is known, however, that men were dying for weeks at the rate of thirty to forty a day. At the time of the Consul's report there were between two and three hundred cases of yellow fever in the hospitals. The danger was considerably aggravated by the fact that seamen during their enforced stay in Santos have every facility to obtain a very cheap and injurious form of rum called cascaca, and are thus encouraged to live a disorderly life. Recent regulations, however, have considerably alleviated their condition, since they are now permitted to be discharged from the ships on which they arrive, and to take ship on outgoing vessels at the first opportunity. The Consul also states that small-pox is extremely prevalent in Santos.

THE ANNUAL REPORT OF THE MEDICAL OFFICER TO THE LOCAL GOVERNMENT BOARD.[1]

The annual report of the Medical Officer to the Local Government Board for 1891-92 has at length seen the light. It is the first published under the direction of Dr. Thorne Thorne, and in the Introduction he pays a grateful tribute to his distinguished predecessor, Sir George Buchanan.

Vaccination.

The returns indicate a further increase in the amount of failure to comply with the law relating to vaccination, a circumstance which, as Dr. Thorne Thorne truly remarks, becomes serious in view of the extension of small-pox in many parts of the country. In 1889, the last year for which the digest of the vaccination officers' returns are available, 9.9 per cent. of children born in England and Wales were not known to be vaccinated; this percentage included 1.7 per cent. where revaccination was postponed under medical certificate, and 0.2 per cent. stated to be insusceptible. The returns show remarkable differences. Thus in the metropolis the percentage of non-vaccinated children was 11.6, while in the provinces, as a whole, it was 9.6. London, however, contrasts favourably with some of the urban centres. In not a few towns vaccinated children are apparently in a minority. Thus in Eastbourne 54.4 are unaccounted for—an extraordinary thing in a town which professes to be a health resort. In Northampton the proportion is 63.6 per cent., in Luton it is 64.3, in Oldham 71.0, and in Leicester 79.8. Even this is beaten by Keighley, where the proportion is 81.1 per cent.

County Councils and Recalcitrant Local Sanitary Authorities.

In four instances the Local Government Board were moved by the County Council of the West Riding of Yorkshire to hold special inquiries as to the efficiency, or rather inefficiency, of local sanitary authorities. The reports were all made by Dr. Barry, and have resulted in important improvements, though in one instance the Board had to resort to strong measures.

Town Manures.

Complaints have long been loud in suburban districts, especially in London suburbs, of the nuisance caused by the transport of town manure into agricultural districts. The offensive odour is obvious, and, though it is difficult to trace instances of illness to particular truck loads, it is hardly possible that such wholesale dissemination of nameless filth can be altogether without injurious influence on the health of the districts into which it is carried. A special inquiry into the subject has been conducted by Dr. Parsons, who has come to the conclusion that, in so far as bodily comfort and functional disturbance, at times involving general impairment of health, are concerned, exposure, especially recurring exposure, to these offensive effluvia does affect health; further, he considers that certain affections, such as "sore throat," not always to be differentiated from diphtheria, can with some degree of certainty be held to have a relation to the exposure to manure effluvia. In consequence of Dr. Parsons's report the Board has drawn up a new by-law dealing with the unloading and deposit of filth emitting stench in proximity to buildings used for human habitation or to places of public resort.

Diphtheria.

Dr. Klein discusses the relation of diphtheria to membranous croup. He points out that cases of membranous croup of the pharynx and larynx occur which are not connected as regards time and place with diphtheria. By bacteriological examination of a series of cases he is led to conclude that while membranous croup of the larynx and trachea occurring concurrently with diphtheria of the fauces is true diphtheria, so-called scarlatina diphtherial is not true diphtheria, but that diphtheria of the fauces and membranous croup following some time after scarlatina are both true diphtheria. Farther, he finds evidence that membranous croup of the larynx and trachea with diphtheria of fauces may be either true diphtheria, or fibrinous croup without the diphtheria bacillus, and therefore not true diphtheria. Dr. Klein also reports some experiments with acid broth and grape sugar gelatine to attenuate the bacillus of diphtheria. These experiments yielded only negative results.

Dr. Sidney Martin publishes a detailed report on the chemical pathology of diphtheria, and on diphtherial palsy produced experimentally by the chemical poison of diphtheria. The general character of the interesting results obtained are already known from previous reports in earlier volumes of this series, and from the Goulstonian Lectures which Dr. Martin delivered in 1892. Briefly stated, he finds that the bacillus diphtheriæ forms in the characteristic membrane and in culture media proteid products (albumoses and an organic acid) of the same chemical nature as those found in the bodies of patients dead of diphtheria, and possessing the same physiological action. He further states that the bacillus liberates in the membrane a ferment which when absorbed digests the proteids of the body forming albumoses of an organic kind, and that it is these products which are the agents in causing the fever and depression, in producing death, and in giving rise to the paralysis: Dr. Martin's paper is illustrated by reproductions of photographs of animals affected by experimental diphtherial palsy, and by photomicrographs of affected nerves, similar to those in the report of the Goulstonian Lectures published in the Journal in 1892.

Infective Endocarditis.

Dr. Sidney Martin also contributes a report of investigations of the chemical bodies found in infective endocarditis. This subject was also dealt with in his Goulstonian Lectures. The albumoses produced in this affection cause fever and retard the action of the blood. Dr. Martin concludes from his investigations, which have been extended also to anthrax, that their chemical products are specific, separable to a certain extent chemically, and to a greater extent by their physiological action from each other. The importance of the spleen as the chief seat of the fermentative changes is insisted on. The blood flows through the walls of its vessels into spaces, and in this almost stagnating fluid the digestion of proteids, either by micro-organisms or by ferment, is much facilitated. The infective agents themselves flourish in the pathological material, in the effusion of anthrax, the fibrinous membrane of diphtheria, or the vegetation on the cardiac valves in endocarditis.

The Influence of one Infection on another.

Dr. Klein has continued his observations on the interrelations within the body of different infective processes, and the effect on the growth of a given microbe of the introduction of the metabolic products and a different microbe. Experiments on the relation of erysipelas and vaccinia were brought to an end owing to the fact that calves were found to be insusceptible to erysipelas. Evidence of antagonism between the bacillus of malignant œdema and the bacillus of grouse disease were obtained. In guinea-pigs it was found that the injection of sterilised cultures of bacillus pyocyaneus showed a distinct power of delaying, if not averting, the tuberculous process. It is intended to extend these experiments to bovine animals.

The Resistance of Microbes.

Dr. W. H. Hamer reports some experiments on the chemistry of susceptibility and insusceptibility, from which it appears that the saliva has a distinct power of restraining the growth of the bacillus subtilis, a power which it has when boiled, but that pancreatic juice has no such power. Dr. F. W. Andrewes found that different pathogenic organisms differed very greatly in their power of developing in pus. The bacillus anthracis not only failed to grow in pus, but soon died, whereas the bacillus diphtheriæ grew.

[1] To be purchased either directly or through any bookseller from Eyre and Spottiswoode, East Harding Street, Fleet Street, E.C., and Westminster, S.W.; John Menzies and Co., 12, Hanover Street, Edinburgh, and 90, West Nile Street, Glasgow; or Hodges, Figgis, and Co., Limited, 104, Grafton Street, Dublin. Price 2s. 5d.

Professor Senator.—On August 7th Professor Senator, of Berlin, celebrated the twenty-fifth anniversary of the commencement of his career as a teacher in the University of Berlin, just two days before Professor Nothnagel, of Vienna. Professor Senator, who is now in his 60th year, qualified as a *privat docent* in Internal Medicine and State Medicine in 1868, and in 1888 was appointed Director of the University Poliklinik.

THE INFLUENZA EPIDEMIC.[1]

REPORT OF THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

A FURTHER report of the epidemic of influenza in 1889-92 has been issued by the Local Government Board. This report will be found to be among the most valuable contributions which has been made to the literature on influenza. It contains a report by Dr. Parsons, who prepared the admirable volume issued by the Board in 1891, and a report on the clinical and pathological aspects of the disease by Dr. Klein. The volume is prefaced by a lucid summary from the pen of Dr. Thorne Thorne.

Dr. Parsons has been able, by using the returns of England and Wales during 1890-91, and for London during 1892, published since his previous report, to bring together a considerable body of statistical information with regard to the epidemic periods, of which there were three—namely, the winter of 1889-90, April to June, 1891; and the winter of 1891-92.

Some evidence was obtained, pointing to the probability that a severe epidemic serves to produce a certain immunity against another in the same locality. The statistics are not altogether above cavil, since, as Dr. Thorne Thorne points out, the census report for 1891, when obtainable, may modify the conclusions as to the relations of age and sex to influenza. The figures show a distinctly higher death-rate among males, especially at the middle periods of life. This may probably be connected with the well-known influence of fatigue and exposure in rendering attacks of influenza more severe. The death-rate was higher in country districts than in large towns, and this appears to be in part explicable by the consideration that influenza is more fatal in old age. Dr. Parsons gives a very complete account of the epidemics in England and Wales, and a history of influenza abroad in the years 1891-92, and advances still more striking evidence in favour of the conclusion of his previous report to the effect that influenza is essentially propagated by personal intercourse, and that sanitary and other local conditions appear to be without effect, and there is no evidence that the contagion can multiply outside the human body, though it may probably be transmitted by soiled linen.

As to prophylaxis, Dr. Parsons, while admitting that isolation of cases in the early stage is effectual in preventing the spread of influenza, lays stress on the practical difficulties in the way of carrying out such isolation systematically, more especially as the duration of the period of infection is not definitely known, but may probably extend to several weeks. As a corollary he comes to the conclusion that the notification of influenza under the Act is not to be recommended as a general measure, though it might be of use in small and comparatively isolated health resorts, more especially if means could be devised by which fees should be payable only for the first cases in a house or the early ones in a locality. He also calls attention to the advisability of attention to disinfection of the discharges from the bronchial tubes and nostrils.

The provisional memorandum on precautions advisable at times when epidemic influenza is likely to be present or is prevalent, issued in January, 1892, by the Medical Department of the Local Government Board, is reproduced.

The second part of the volume contains a report of Dr. Klein, on the clinical and pathological aspects of influenza. In the investigations made for the purpose of this report, Dr. Klein was assisted by Drs. Andrewes, Cautley, and Schorstein. Dr. Klein gives a brief summary of previous observations on the bacteriology of influenza, and relates at length experiments made by himself, as to which a preliminary note was published in the BRITISH MEDICAL JOURNAL of January 23rd, 1892. The blood was examined in forty-three cases, and no bacterial forms could be discovered in thirty-seven. In the six cases in which the bacilli were found they were present in very varying number, and he concludes that their presence in the blood cannot be essential to the disease. Further, from cultivation experiments he is led to the conclusion that any bacilli that may gain access to the circulation lose their vitality, and are present in the blood only as dead bacilli. The bronchial sputum was examined in a series of cases, and it was found that during the acute stage of the disease characteristic minute non-mobile bacilli were generally present in abundance, occasionally almost in pure culture. As the disease declined they disappeared.

These observations confirm those of Pfeiffer, and Dr. Klein also states that in cases of acute influenza with bronchial expectoration the fluids of the mouth contain abundance of influenza bacilli. This part of the report is illustrated by a series of photomicrographs of the bacilli in the blood, in the sputum, and in cultivation. Dr. Klein thinks that the evidence in favour of this bacillus being the specific cause of influenza is very strong, but he points out that evidence is still wanted respecting its occurrence in those cases of influenza which are characterised less by disordered secretion of the bronchi than by disordered secretion of the mucous membrane, of the intestinal tract or elsewhere, and that more complete evidence is wanted that the bacillus does not occur in other conditions.

The evidence advanced both by Dr. Klein and Dr. Parsons is opposed to the theory that the disease called influenza in horses is identical with that of man.

[1] *Further Report and Papers on Epidemic Influenza, 1889-92*, with an introduction by the Medical Officer of the Local Government Board. To be purchased either directly or through any bookseller from Eyre and Spottiswoode, East Harding Street, Fleet Street, E.C., and Westminster, S.W.; John Menzies and Co., 12, Hanover Street, Edinburgh, and 90, West Nile Street, Glasgow; or Hodges, Figgis and Co., Limited, 104, Grafton Street, Dublin. Price 2s. 8d.

LITERARY INTELLIGENCE.

A NEW edition (the seventh) of Professor Henoch's *Handbuch der Kinderkrankheiten* has just appeared.

Messrs. W. Wood and Co. (New York) announce the early publication of *Medical Jurisprudence and Toxicology*, by "experts of acknowledged authority under the supervision and editorship" of Dr. R. A. Witthaus, of New York, and Mr. Tracy C. Becker, of Buffalo, N.Y.

A new medical journal, entitled *Bibliothek des Arztes*, has appeared at Moscow, under the editorship of Dr. D. P. Dubelis, *Privat-docent* of Balneology in the University of that city.

The *Dominion Medical Monthly* is the title of a new medical journal published in Toronto (Canada) under the editorship of Drs. W. H. B. Aikins and W. B. Nesbitt.

We have received Part V of the excellent *Illustrations of Pathological Anatomy*, by Professor Kast, of Breslau, and Dr. T. Rumpel, of Hamburg, revised and edited by Dr. Armand Ruffer (Baillière, Tindall, and Cox). The present number contains some exceptionally beautifully coloured illustrations of the cholera kidney, the mucous membrane of the small intestine from a cholera patient, with a section of gland of Lieberkühn full of comma bacilli, and one of the cholera exanthem.

ASSOCIATION INTELLIGENCE.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

NOTICE OF QUARTERLY MEETING FOR 1893. ELECTION OF MEMBERS.

A MEETING of the Council will be held on October 25th, 1893. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before the meeting—namely, October 4th, 1893.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election. Francis Fowke, *General Secretary.*

SYDNEY AND NEW SOUTH WALES BRANCH.

The 108th general meeting of the Branch was held in the Royal Society's Room on July 7th, 1893. Present: Dr. Ralph Worrall, President, in the chair, Drs. MacMurray, Wm. Chisholm, Huxtable, Maher, Jenkins, Newmarch, West, McCormack, McKay, Abbot, A. Jarvie, Hood, Shewen, Purser, Thring, Fiaschi, Rennie, O'Reilly, Roth, Angel Money, Pockley, Crago, Todd, Wright, Clubbe, Langhorne, Bennett, Coutie, Sawkins, Twynam, Grace Robinson, the Hon. Dr. Creed, M.L.C., Lennhoff, James Dick, Martin, Edwards, Marano, Foreman, Power, Jamieson, and Dr. Hoggin (visitor).

The minutes of the previous meeting were read and confirmed.

New Members.—The following new members were announced by the President: Dr. Camac, Pyrmont; Dr. Sawkins, Prince Alfred Hospital; Dr. Neill, Double Bay.

Communications.—Dr. McCormack exhibited a patient suffering from a Tumour of the Neck of a most peculiar and interesting nature.—Dr. Maher read some notes on cases of Paralysis of the Ocular Muscles due to Nuclear Disease.—The Hon. Dr. Creed, M.L.C., read some notes on a case of Hemiplegia treated by Hypnotism. The patient was exhibited and examined by the members. Drs. Shewen, Thring, Money, Maher, Chisholm, Huxtable, and Worrall discussed the case.—Dr. McKay exhibited a number of diagrams showing the method of performing Tait's Perineal Operation, and explained its advantages. A discussion ensued, in which Drs. Foreman and Worrall took part.—The Hon. Dr. Creed also read some notes on a case of Dipsomania treated by Hypnotism.

CORRESPONDENCE.

A MINISTER OF PUBLIC HEALTH.

Sir,—In reply to Mr. J. Brindley James, in the British Medical Journal of August 19th, p. 452, I beg to refer him to the *Lancet* of October 12th, 1878, p. 517, where, in a leading article, reference is made to a paper by Dr. B. W. Richardson, read before the Sanitary Congress at Stafford, entitled "On the Constitution and Functions of a Minister of Health for the United Kingdom." Further, in the article, "this proposal has, during the last dozen years, been repeatedly urged and defended by the *Lancet*." It will be apparent, therefore, that Mr. J. Brindley James is in error as to the statement in his letter that the subject of a Minister of Health was first mooted by him.—I am, etc.,

Newcastle-upon-Tyne, August 21st. George Hare Philipson.

THE ABUSE OF MEDICAL CHARITIES.

Sir,—There are some points I wish to notice in this correspondence. Dr. Smith informs Mr. Hardy that no students are allowed to treat the sick at the London Hospital. I ask, Is it not a fact that there is a large maternity department at this hospital, and are the women in their confinement not attended there by medical students? What is the use of quibbling over such a question?

Next, Dr. Jacob says that some patients may be admitted into a charity, no matter what their social circumstances are. What is the good of having inspection if the medical staff can pass in any patient they wish? Objection being raised, all the medical practitioners need say is, "Oh, this is an interesting case." This may be medical jargon, but it is not business.

Again, he says the expense of an inspector at the charity is costly. Such a statement is the outcome of want of knowledge of the subject. Every charity which has an inquiry officer pays from 25s. to 30s. a week. Take the cost of the Manchester system of inquiry. If reference be made to page 38 of my book on *Voluntary Medical Charities*, it will be noticed that five charities had inquiries made into 49,182 applications for treatment, at the cost of 1½d. each to the medical charity. It cost the Society engaged in the inquiry, on an average, 3¼d. for investigating 60,322 cases. If an extra 1¾d. be allowed for other expenses, such as rent, clerks, stationery, then the sum of 5d. will cover the cost of inquiry into each applicant. Now, there is no gainsaying these figures, for they are the outcome of practical experience. And if an out-patient costs 2s., here will be a saving to the charity of 1s. 7d.—an amount worth looking after when dealing with about 20,000 patients.

Next, a reference is made to urgency, or first aid, patients. Dr. Jacob thinks there is little difficulty about these as a rule. I think they are the most difficult of all charity cases to deal with. Supposing a rule is made "that all applicants shall receive first treatment, no matter what their social circumstances are." Well, suppose there are 8 to 190 medical charities in a city, this means that a patient can go 190 times to these charities, and no one can refuse him, because he is an "urgency" case. Such a rule would be ridiculous. No; we must make a rule that serious cases of urgency and illness only shall receive first treatment. And, following this, a by-law must be made giving the charity power to sue in court those cases which have received first treatment, but who are above the wage limit clause, for their cost of treatment given by the charity. The Poor-law system and sanitary authorities have such a rule, where even the relatives of the person who has received aid may be sued. We must have practical rules so long as well-to-do people will impose upon charity, and so long as these practically steal that money which has been subscribed for the sick poor only.

Let me strongly recommend those practitioners connected with voluntary medical charities to take this question of reform up. We are now getting upon solid ground. Let me advise those who help us to call upon the editors of the daily press and to insert letters in their papers also. The custom in England is to deny absolutely that anything is in a condition requiring amendment. But, at the same time, I have noticed that the suggested reforms are quietly put into operation.—I am, etc.,

Liverpool, August 20th. Robert Reid Rentoul.

Sir,—Dr. Jacob's argument in the British Medical Journal of August 19th only holds good in the case of the 150 applicants for relief being endowed with no more reasoning power than a lot of sheep, and it is further upset by the facts he adduces in its support. For when it becomes known that a general practitioner must endorse the application, fully 100 out of the 150 will at once consult the local medical man regarding their ailments, rather than go through the farce of trying to prove their inability to pay half-a-crown or more for advice and medicine; and this on equal division will give barely one patient each a day to the practitioners in the city of Leeds; to some, perhaps, the only one that day.

Again, the aid thus rendered by general practitioners in the furtherance of a stricter observance of equity on the part of applicants will not only prevent the double expense of officers and drugs, but will also prevent charities of this nature being brought into bad odour.

Finally, it will make the comfort of the sick and afflicted the common aim of both hospital and private practitioners, in its fullest and most complete sense, without let or hindrance.—I am, etc.,

West Kensington, W., August 21st. C. R. Illingworth, M.D.

MECCA AND THE CHOLERA.

Sir,—It is rather disheartening to find your able correspondent of August 19th inclined to pose as an apologist for Ottoman misrule in Arabia. It is quite true, as he says, that it will take more than a short time, and more than a moderate expense, to put Mecca and its surroundings into a proper sanitary condition, but that is no reason that a commencement should not be made. As long as the Hedjaz remains a closed book to the hygienic world, so long shall we be in danger from cholera. Since Turkey refuses to put her house in order, it is clearly the duty of the civilised world to take such steps as may be necessary to compel her to do so. At least an attempt to improve the quality of the water supply should be made. The pollution of the wells at Mecca is the

chief agent in the dissemination of cholera. The sacrifice of sheep under the scorching sun has nothing whatever to do with the diffusion of the specific germs. Water—and water alone—is the medium through which the pestilence spreads, and surely the cost of safeguarding the various sources should not be prohibitive.

Your correspondent is justly severe on the Indian authorities for their apathy in the matter of supervision; but the culpable inaction of the Turkish Government is not thereby palliated. According to his own showing, it was the Ottoman steamers that furnished the greatest proportion of gastro-intestinal diseases at El Tor. From every point of view the Turkish authorities are to blame; and it is almost incredible that Europe should allow a state of things to exist which is manifestly fraught with peril to the commonweal. Your correspondent further declares that the report sent in by the Egyptian delegate was not suppressed. His statement that a portion thereof was telegraphed to the *Times* is correct; but has the document ever been published *in extenso?* He adds that Egypt has become the country of panics. It is well that this should be so, for it is only under the influence of panic that the sanitary progress so much needed in the country ever makes the slightest advance.

It is intolerable in the nineteenth century that fanaticism should be allowed to close the doors to all humanising influences throughout a vast territory as extensive as half the continent of Europe. The whole question is so pertinently summed up by a lay contemporary of yours, that I venture here on a short quotation: "Is it not time, we ask again, that something were done? Is it not time that life in Paris and London were protected against the Old Coprophagan, the dirt-eating Death that abides at Mecca? Self-preservation is the first law of Nature. The Hadji must permit the setting of his house in order, or the Haj must not go on."[1]—I am, etc.,

August 21st. PYRAMID.

SIR,—I have read with keen interest your important article on cholera, and I agree with you in every respect, both as to the sources of cholera and the means of fighting against the scourge, and as to the places where it is produced, and the vessels and countries which are contaminated.

You are right. It is necessary, however, to be as severe in the Isthmus of Suez as at Malta or at Gibraltar; there lies my only objection. You are quite right to call attention to what takes place on the Ganges and at Mecca, and to demand an energetic sanitary intervention.—I am, etc.,

Mont Dore, August 17th. DR. DE VALCOURT.

LITHIASIS IN DEBILITY FROM LEUCORRHŒA AND OTHER CAUSES.

SIR,—May I say with reference to Dr. Reid's memorandum on the above subject[2] that I agree with him as to the facts but differ from him as to their explanation.

In all conditions of exhaustion and marasmus there is a fall in the formation of urea and in the acidity of the urine. A child which in health excretes, say 250 grains of urea and acid equivalent to 40 grains of oxalic acid in the 24 hours, will, if it suffers from marasmus, excrete only 100 grains of urea and acid equal to 15 or 20 grains of oxalic acid. The alkalinity of its blood will be found to be correspondingly increased, with the result that it becomes a better solvent of uric acid.

I have shown that all the most important organs and tissues of the body contain a considerable percentage of uric acid, and as the solvent powers of the blood increase some of this is taken up and passed through the blood into the urine, hence the excessive excretion noticed by Dr. Reid, and if the alkalinity of the blood is at any time intentionally increased a similar excessive excretion of uric acid is produced.

As regards the causation of anæmia the curves which I demonstrated in the Pathology Section at Newcastle show that it is open for Dr. Reid or anyone to produce blood changes which are practically those of anæmia in themselves simply by swallowing uric acid in place of iron, and that those blood changes are proportional to the amount of uric acid thus brought through the blood.

As to the way in which uric acid interferes with metabolism and produces these blood changes, as also albuminuria and Bright's disease, I have written at length in your pages[1] and in my book, *Uric Acid as a Factor in the Causation of Disease*, and I shall have much additional evidence to bring forward in the second edition of this work now in preparation.—I am, etc.,

Brook Street, W., August 8th. ALEXANDER HAIG.

GALL STONES AND CANCER.

SIR,—In connection with recently-published memoranda as to the great frequency with which gall stones are met with in the insane, it may be of interest to remind your readers, as I have elsewhere pointed out,[2] that they are also of very frequent occurrence in the cancerous. Of 44 consecutive necropsies tabulated by me on women dead of cancer of the breast, gall stones were found in 16 per cent.—a percentage twice as high as that which is stated to hold for women dead of causes other than cancer.—I am, etc.,

Preston, August 19th. W. ROGER WILLIAMS.

CHLORALOSE.

SIR,—*Apropos* of the case of poisoning by chloralose reported in the BRITISH MEDICAL JOURNAL of July 29th, the following experience of the drug may be of interest to the profession, as very little has as yet been written about the drug in English journals.

I had been suffering from insomnia for some time and was recommended to try the cachets of chloralose supplied by MM. Bain and Fournier of Paris. I took two of these (that is 40 centigrammes of the drug) at 11.45, and slept till 2 o'clock, when I woke up feeling quite wakeful; I accordingly took two more cachets and went off to sleep promptly. About an hour or two later I again awoke and got up to get a glass of water. This I with difficulty succeeding in doing, as I was trembling in every limb, and almost fell in trying to regain my bed.

I must have fallen into deep narcosis immediately, for I remember nothing until 2 o'clock the following afternoon, when I awoke feeling none the worse for my long sleep. My housekeeper informs me she came into my room twice and tried to awaken me but failed, and was just going to send for one of my colleagues when she heard me stirring. I felt no ill effects whatever that afternoon and evening, but, on the contrary, felt better than I had felt for weeks.

I was, however, wholly unable to sleep the following night. Since then I have used the drug in two other cases, with the most gratifying results.—I am, etc.,

R. J. BLACKHAM, L.R.C.P., L.R.C.S.E.,
Physician to Sidcup Cottage Hospital, London, S.E.

August 5th, 1893.

SIR,—Having observed the letter of Dr. Lang, published in the BRITISH MEDICAL JOURNAL of August 5th, in reference to the accident which happened to a patient through the use of impure chloralose, I forwarded this letter to my correspondents, the sole makers of pure chloralose, Messrs. Bain and Fournier, in Paris, and I annex a rough translation of their reply, which I trust you will do me the favour of publishing.—I am, etc.,

J. MORRISON BURNUP,
Sole Depositaire of Chloralose in Great Britain.

Paris, August 2nd, 1893.

To Mr. Burnup, London.

Dear Sir,—We have read with much interest in the BRITISH MEDICAL JOURNAL the remarks of Dr. Lang on a case of poisoning by chloralose not manufactured by our house. This does not astonish us, and in our pamphlets we advise doctors that this product is efficacious and without danger only in the case of its being absolutely pure, and that it is most important to be warned against imitations of our product.

We are, as you know, the inventors and sole proprietors of the word "Chloralose," and every product sold under that name not bearing our name and trade mark is therefore spurious. In Italy an imitation of our chloralose has produced poisonous results. The preparation of this new hypnotic is very difficult. Dr. Hauriot and Professor Richet, who have discovered this hypnotic, have given us their formula by which we produce and guarantee a perfectly chemically pure product.

In France, where the medical profession have definitively adopted chloralose, we do not know of one accident, though doctors daily used it during six months in hospitals and private practice.

† Here is a proof of the harmlessness of chloralose prepared by us. A case

[1] *The National Observer*, July 29th, 1893.
[2] BRITISH MEDICAL JOURNAL, vol. ii, 1893, p. 320.

[1] BRITISH MEDICAL JOURNAL, vol. i, 1890, p. 65.
[2] *Medical Chronicle*, March, 1893, p. 366.

happened in the ward attended by Dr. Landousy, Physician to the Necker Hospital. A young girl, wishing to poison herself, swallowed a whole box of chloralose cachets, containing 4 grammes. She simply became intoxicated, and, most remarkable, she never vomited, and her heart and pulse remained normal. Therefore our product, taken in the largest dose, does not produce any dangerous effect, as the heart remaining normal, the intoxication caused by an overdose does not cause any injurious results.

Yours faithfully,

B. Bain and Fournier.

AVOIDANCE OF SHOCK.

Sir,—Dr. Hume's remarks upon the avoidance of shock in surgical operations is worthy of the most serious attention. My object in this letter is to point out a way by which the shock of an operation may be easily reduced to a minimum. It is done by providing a room adjoining the operation theatre, as an ether room—a quiet, secluded room, into which the patient, with his or her nurse, goes, and there sees no one but the chloroformist or etherist. The operating table is there, and the patient is settled upon it before the anæsthetic agent is given. When insensibility is well produced, the door is opened, and the table wheeled into its proper place in the theatre, the surgeon and his assistants do the operation, and as soon as all is complete the table is rolled back into the ether room, where the nurse remains with the patient while she wakens, and until she is able to return to her bed. To save our time, we have a second table, so that as the first is being rolled back into the ether room, the second is taken out, and the next operation is done at once by means of two tables, five or six operations may be conveniently done in one morning. The saving this is to many patients we can scarcely over-estimate. A sensitive girl must have her leg amputated. With what a sense of dread does she look forward to her appearing in the operation theatre before the surgeons and their assistants with instruments all set out, and, more than all, the students gazing down from their seats. We must try to put ourselves in her position, with her broken health, if we would realise what this all means to her. When she is told of the quiet of the ether room, of the profound sleep induced, and of her awakening in the same place when all is over, she will experience a great relief; and who can tell the good this will do in mitigating the shock of the operation?

Every surgical hospital should be provided with an ether room next to the operator's room. Humanity demands this; let us then point out that it involves attention to certain details, which, however, when attended to will render the work much more perfect. A patient being made insensible in the ether room cannot be lifted off the couch and placed on the operation table in the theatre, without interfering with the anæsthesia, and besides, such carrying is very awkward. No; the patient must be put to sleep on the operation table, and it must be made to roll easily on wheels into its place.

In the Adelaide Hospital in this city, this has been working most satisfactorily for more than five years. We have two tables, each capable, by the movement of a lever, of being thrown on wheels; and when rolled into its place in the operation room, a reversal of the same movement easily throws it back on its four strong legs, and the table is as firm and steady as can be desired for any operation.

Todd, Burns, and Co., of Mary Street, in this city, make our tables, and the foreman over the upholstering department will have an order for similar tables expeditiously made. We can speak with confidence of the way in which the shock of operations has been avoided by this means.—I am, etc.,

John K. Barton, F.R.C.S.I.

Merrion Square, Dublin, Aug. 7th.

A CASE OF TYPHOID FEVER FOLLOWED BY PERFORATION AND RECOVERY.

Sir,—Dr. Barr, in his letter published in the British Medical Journal of July 22nd, stated that he thought my case one of appendicitis rather than a perforation into the peritoneal cavity, but I still maintain that the history of the case, the sudden collapse and the local signs, point to perforation at its usual site.

Further, appendicitis is negatived (1) by there being no premonitory swelling or tenderness, (2) by the position of the dulness, (3) by the pointing of the abscess where it did, namely, 6 inches from and on a level with the umbilicus, (4) by pus being passed *per rectum*, (5) by the feculent odour of the pus drawn from the abscess, and the amount of gas contained in it.

If the rupture had not taken place into the peritoneal cavity, and so set up adhesive peritonitis, how could the dulness have formed itself into a definite area eighteen hours afterwards?

When I state that the patient enjoyed comparatively good health whilst the pus was present in the abdominal cavity, I simply state a fact. Only the other day a man came under my care suffering from dyspnœa and dulness over the base of the left lung; I kept him under observation for a day or two, and at no time did his temperature exceed 99°, yet I ultimately withdrew half a pint of pus. He made a good recovery.

The opinion of other experienced men on the constitutional effects of localised pus might be instructive.—I am, etc.,

Conisborough, August 8th. Anthony McCall.

MEDICO-LEGAL AND MEDICO-ETHICAL.

HIGH COURT OF JUSTICE, CHANCERY DIVISION.

(Before Mr. Justice North.)

In *Re* Kutnow's Trade Mark.

According to the *Times*, this was an application by one Kutnow (trading as Kutnow and Co., 66, Holborn Viaduct, E.C.) for registration of a trade mark for Carlsbad powders. The trade mark comprised the words "Kutnow's Improved Effervescent Carlsbad Powder," with a picture of the well-known Hirschenprung, or "deer leap." The application was opposed by the municipality of Carlsbad, the chief objection taken being that by using the device of the rock and the chamois, persons buying Kutnow's powder would be likely to believe that they were buying the salts of which the municipality were the sole proprietors. It was objected further that the way in which the name Carlsbad was connected with the trade mark was calculated falsely to produce the impression that Kutnow's article was not an artificial manufacture, but the natural salt of some spring at Carlsbad, though it was admitted that the word was in common use in connection with artificial salts just as seidlitz powders and Epsom salts are.

Mr. Justice North decided all the points in favour of the applicant, as showing that the effect of the trade mark as a whole was not likely to deceive the public into the belief that the applicant's powder was the natural as opposed to the artificial product. His lordship observed that the mark described the powder as improved and effervescent. Kutnow's powder was improved, for it contained an addition which disguised or took away the nasty taste of the natural spring, and it was made effervescent, a quality which the natural salts did not possess.

IS BLOOD POISONING AN ACCIDENT?

Mr. T. Reuel Atkinson (Sherborne) writes: I should feel greatly obliged by an opinion from you in your next issue on the following case: A patient of mine, J. A., whilst beating a carpet raised a blister on his right hand. Shortly afterwards he was engaged in mixing up a ball for a horse, consisting of antimony, nitre, sulphur, etc. In so doing he supposes he got some of the drug into the blister, which rapidly became inflamed, and suppuration appeared in the palm and up the fingers, and he has been laid aside from his work for the last three weeks, free incision having been necessary. For many years he has been insured in an accident insurance company, and on my advice he has made a claim upon them, which they have refused to pay, on the ground that he is not suffering from the result of an accident, but from what they style "inoculation." The question now is shall I persuade him to go on with his claim, even to a court of law. Being myself insured in an accidental insurance company, I should feel aggrieved if, in a similar position, my company were to refuse me compensation. Is not blood poisoning, or septicæmia following a blister or cut or other abrasion, to be classed as an accident within the meaning of such a company's policy? An authoritative opinion from you would be acceptable to many, no doubt, as such cases cannot be very rare.

*** There can be no doubt that blood poisoning or septicæmia following a blister, or cut, or other abrasion is to be classed as an accident, and most accident insurance companies would pay the claim without demur. It would be well, however, before taking legal proceedings, to read over the terms of the policy of the company in question, as it is possible that the indirect results of an accident may be excluded.

LOCUM TENENS AND INQUEST FEES.

Locum Tenens asks whether it is customary for a *locum tenens* to hand over the fee received for giving evidence at an inquest to the gentleman for whom he is acting?

*** We believe that unless the agreement between the *locum tenens* and the principal provides otherwise, it is customary for the fees for giving evidence to be paid to the principal.

A COUNTY COURT JUDGE AND A DOCTOR'S FEES.

A. G.—A careful consideration of the points involved in "A. G.'s" communication leads us to the conclusion that its publication would be prejudicial alike to his own interest and that of the faculty: and though we professionally regret the official "cutting down" of the fees charged, especially as no exception thereto had been taken by the

debtor, we are clearly of opinion that his ("A. G.'s") "collector" erred in declining to accept the proffered payment of 10s. per month. We think, moreover, that "A. G." would have acted wisely in being prepared to defend his charges by *de facto* reference in court to the fees recommended in the *Manchester Tariff of Medical Fees*, or the *Medico-Chirurgical Tariffs*, in which latter the fee suggested for administering an anæsthetic is from £1 1s. to £2 2s., the general charges in which, moreover, have, in various instances, been sanctioned by the Court of Chancery and other legal tribunals.

MEDICAL AID ASSOCIATIONS.

AT a meeting of the medical profession of Kidderminster and district held on July 17th last, the following resolution was unanimously adopted: "That in consequence of the abuses brought to light by the inquiry into medical aid associations by the General Medical Council, we have decided that we cannot in any way countenance these bodies; and we therefore refuse to recognise their medical officers professionally, in consultation or otherwise, until such abuses are removed."—(Signed) S. Stretton, E. H. Addenbrooke, David Corbet, J. Lionel Stretton, W. W. Gibson, W. Hodgson Moore, O. C. Penrhys Evans, F. T. Frampton, H. L. Miles, C. Clifford Batten, H. Owen, A. T. Broadlick, W. Moore, E. T. Robinson, T. Webster, T. Pennington, M. Johnston, Dennis Fitch, C. S. Greensill.

TESTIMONIALS.

J. F. D.—With reference to the framed "certificate of merit which is exhibited in the window at 174, Kingsland Road, surrounded by pills for females, syringes," etc., and stated to have been given by certain practitioners to Mr. James Dawes White, their whilom assistant, bearing testimony, moreover, "to his high professional ability in pharmacy and general medical practice," having failed to find his name in the *Medical Register* or *Medical Directory*, we assume that he is trading as a chemist, and, through the medium of the "certificate of merit," hopes to attract customers, and, possibly, patients. If such be the case, and he proves to be neither a qualified chemist nor a L.S.A., he subjects himself to the penalties of the Pharmaceutical Act.

NAVAL AND MILITARY MEDICAL SERVICES.

ARMY MEDICAL STAFF EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post office order with the notice. The first post on Thursday mornings is the latest by which these announcements can be received.

SURGEON-CAPTAIN, stationed in one of the best districts in the Bombay Presidency, where there is only one station "headquarters" for the Army Medical Staff, and where the climate is so cool in the hot weather no punkahs are required, and it is not necessary to go to the hills, wishes to exchange with an officer in a Mediterranean, Egyptian, or any colonial station, who has only a similar period (two years) to serve abroad. Address, "Sahib," BRITISH MEDICAL JOURNAL Office.

THE NAVY.

THE following appointments have been made at the Admiralty: MICHAEL RONAN, B.A., Staff-Surgeon, to the *Swiftsure*, August 11th; G. D. TWIGG, Fleet-Surgeon, to the *Thunderer*, August 18th: GEORGE W. BELL, Staff-Surgeon, to the *Magicienne*, August 30th; ARCHIBALD MCKINLAY, Staff-Surgeon, to the *Melampus*, August 30th; A. C. QUEELY, Staff-Surgeon, to the *Warspite*, August 29th; ALFRED W. WHITLEY, Fleet-Surgeon, to the *Pembroke*, August 22nd; VALENTINE DUKE, B.A., M.D., Fleet-Surgeon, to the *Hibernia*, August 22nd; RICHARD A. MOWLL, Fleet-Surgeon, to the *Dreadnought*, August 22nd; ROBERT TURNER, Fleet-Surgeon, to the *Duke of Wellington*, August 22nd; FRANCIS R. M. LOFTIE, Staff-Surgeon, to the *Trincomalee*, August 22nd; GEORGE S. SMITH, Staff-Surgeon, to the *Euphrates*, August 22nd; ARTHUR S. G. BELL, Surgeon, to the *Aurora*, August 22nd; JEREMIAH SUGRUE, M.D., Surgeon, to the *Buzzard*, August 22nd; JAMES W. STEPHEN to be Surgeon and Agent at St. Dogmaels and Aberforth, August 22nd.

ARMY MEDICAL STAFF.

SURGEON-LIEUTENANT-COLONEL A. L. BROWN, serving in the Madras Command, in medical charge of the Station Hospital at Belgaum, is transferred to the medical charge of the station hospital at Mandalay, Burmah.

Surgeon-Lieutenant-Colonel R. H. ROBINSON, serving in the Madras Command, in medical charge of the Station Hospital at Wellington, is appointed to the medical charge of the Station Hospital at Belgaum.

Surgeon-Major I. B. EMERSON, serving in the Madras Command, in medical charge of the Station at Meiktila, Burmah, is transferred to the medical charge of the Station Hospital at Wellington.

Sergeant-Major WILLIAM HENRY BARTON, Medical Staff Corps, is appointed Quartermaster, with the honorary rank of Lieutenant, *vice* Hon. Captain H. Copping, retired, August 9th.

Surgeon-Lieutenant G. S. CRAWFORD, who is serving in the Madras Command, has passed the examination in Hindustani by the lower standard.

Surgeon-Major O. E. P. LLOYD, serving in the Madras Command, in medical charge of the Station Hospital at Mandalay, is appointed to the medical charge of the Station Hospital at Meiktila, Burmah.

Surgeon-Colonel J. WARREN, P.M.O. of the Bombay Army, is granted the rank of Surgeon-Major-General temporarily, pending the notification of his promotion to that rank.

The undermentioned Surgeons on probation are appointed Surgeon-Lieutenants, July 29th:—C. G. SPENCER, M.B., C. E. P. FOWLER, F.R.C.S.Eng., T. H. J. C. GOODWIN, H. E. B. PORTER, A. E. C. KEEBLE, A. J. LATTEY, D. J. COLLINS, M.B., ST. J. B. KILLERY, H. C. FRENCH, W. W. SMITH, W. P. BARTER, E. M. WILLIAMS, J. R. MCMUNN, J. B. ANDERSON.

INDIAN MEDICAL SERVICE.

THE services of Surgeon-Captain H. B. MELVILLE, M.B., Bengal Establishment, Civil Surgeon, North Lushai Hills, are placed temporarily at the disposal of the Government of the North West Provinces and Oude.

Surgeon-Lieutenants G. Y. C. HUNTER and B. R. CHATTERTON, appointed to the Bengal Establishment, reported their arrival at Bombay, the former on April 14th, the latter on April 22nd.

Surgeon-Captain J. W. WOLFE, Bengal Establishment, is appointed Civil Surgeon of Meiktila, Burmah.

Surgeon-Lieutenant G. BIDIE, Madras Establishment, has passed the lower standard examination in Hindustani.

Surgeon-Captains A. COLEMAN, H. R. C. BARBER, and C. H. JAMES, of the Bengal Establishment, whose services have been placed at the disposal of the Punjaub Government, have been appointed respectively Chief Superintendent Chinawan Central Gaol, Civil Surgeon of Jullunder, and officiating Deputy Sanitary Commissioner, Punjab.

The services of Surgeon-Captain D. T. LANE, M.D., Bengal Establishment, are placed temporarily at the disposal of the Government of the Punjab.

The services of Surgeon-Captain H. M. MORRIS, Bengal Establishment, are placed temporarily at the disposal of the Government of Bengal.

Surgeon-Captain D. M. MOIR, Bengal Establishment, officiating as Second Resident Surgeon Presidency General Hospital, Calcutta, is appointed to act as Deputy Sanitary Commissioner, Metropolitan and Eastern Bengal Circle, during the absence of Surgeon-Captain A. W. Alcock.

Surgeon-Captain C. L. WILLIAMS, M.D., Madras Establishment, is appointed to act as Resident Surgeon, Madras General Hospital, and as Professor of Pathology, Madras Medical College.

Surgeon-Captain J. PENNY, Madras Establishment, is appointed to the officiating medical charge of the 30th (5th Burmah Battalion) Madras Infantry.

Surgeon-Lieutenant J. P. MORTON, Madras Establishment, is ordered to do duty in the Myingyan District, Burmah.

Surgeon-Captains R. H. CASTOR and T. W. STEWART, Madras Establishment, have passed the examination in Burmese, the former by the lower standard the latter by the elementary standard.

Surgeon-Captain H. B. MELVILLE, M.D., Bengal Establishment, is appointed a supernumerary Civil Surgeon of the second class, and is posted to the medical charge of Banda District.

Surgeon-Captain R. C. MACWATT, Bengal Establishment, Superintendent of Raipore Central Gaol, is appointed to officiate as Civil Surgeon of Raipore, in addition to his own duties.

Surgeon-Major C. M. THOMPSON, M.B., Madras Establishment, Acting Surgeon 4th District, Madras, is appointed to act as Secretary to the Surgeon-General with the Government of Madras, without prejudice to his present duties.

The services of Brigade-Surgeon-Lieutenant-Colonel W. P. WARBURTON, M.D., Bengal Establishment, are placed at the disposal of the Government of India, Military Department, for temporary employment in the administrative grade of the Indian Medical Service.

Surgeon-Captain W. HENVEY, Bengal Establishment, assumed charge of the civil medical duties of Abbottabad on July 12th.

Surgeon-Captain F. H. BURTON BROWN, Bengal Establishment, is appointed to officiate temporarily as Civil Surgeon of Lahore, Superintendent of Lahore Lunatic Asylum, Professor of Midwifery and Forensic Medicine in Lahore Medical College, and medical officer in charge of the Government College, Lahore, in addition to his other duties.

The undermentioned gentlemen have leave of absence as specified: Surgeon-Major C. J. M'CARTIE, M.D., Bengal Establishment, for one year on private affairs; Surgeon-Captain B. K. BASU, Bengal Establishment, for one year in India, on medical certificate; Surgeon-Lieutenant-Colonel A. M'M. PATERSON, Bengal Establishment, 1st Battalion 2nd Goorkha Rifles, to Mussoorie, from July 15th to October 15th, on private affairs; Surgeon-Major D. W. D. COMINS, Bengal Establishment, Inspector-General of Gaols, for three months: Surgeon-Captain P. W. O'GORMAN, Bengal Establishment, officiating Civil Surgeon of Jessore, for six weeks; Surgeon-Major W. COATES, Bengal Establishment, Civil Surgeon of Lahore, privilege leave for three months, from July 11th; Surgeon-Lieutenant-Colonel B. EVERS, Civil Surgeon of Raipore, privilege leave for three months, from August 5th; Surgeon-Lieutenant-Colonel A. M. BRANFOOT, M.B., Madras Establishment, privilege leave for forty-two days; Surgeon-Captain F. J. CRAWFORD, M.D., Madras Establishment, privilege leave for two months, from August 1st.

Surgeon-Major JOHN CHARLES COLLINS, M.D., late of the Bengal Establishment, died at Stroud on the 20th inst., aged 71 years. Dr. Collins entered the service as Assistant-Surgeon December 22nd, 1847, was appointed Surgeon-Major December 22nd, 1867, and retired August 22nd, 1871.

THE VOLUNTEERS.

SURGEON-LIEUTENANT H. G. READ, of the Honourable Artillery Company of London, is promoted to be Surgeon-Captain, August 19th.

Surgeon-Major C. T. VACHELL, 2nd Glamorganshire Artillery, is promoted to be Surgeon-Lieutenant-Colonel, August 19th.

Surgeon-Lieutenant T. G. GARRY, M.D., 5th (Irish) Volunteer Battalion the King's Liverpool Regiment (late the 18th Lancashire), has resigned his commission, which was dated June 2nd, 1888.

Mr. JOHN HERBERT STACY is appointed Surgeon-Lieutenant to the 1st Volunteer Battalion the Norfolk Regiment (formerly the 1st Norfolk), August 19th.

Surgeon-Captain V. J. MAGRANE, 3rd Volunteer Battalion the South Staffordshire Regiment (late the 4th Stafford), is appointed Captain in the same corps, August 19th.

THE NETLEY BAND.

CRITIC writes: The asserted care of the military authorities for the pockets of medical officers is very amusing. It is to be feared there were other reasons for the refusal to sanction a band at Netley. Might it not give the medical officers too military an aspect in the eyes of the public? The invalids must go without it; while all others will have music subsidised by the public.

THE TITLES QUESTION.

Veteran, who had served twenty-one years and retired under the old surgeon-major title, protests against it, while he actually holds the rank of lieutenant-colonel.

*** The relative rank and the title not corresponding was always, of course, an absurd anomaly. Originally the title of surgeon-major was correct enough when it was conferred on certain senior medical officers, in the days when the regimental surgeon never rose above the rank of captain.

Alpha writes: The present dubious state of things as to the form which ought to be used in addressing army medical officers would be improved if civil medical men would invariably address their army *confrères* by their military titles alone, and the same should be followed in medical journals. By this means the public would not be long in recognising and following the lead; the letters M.S. or I.M.S. would, of course, follow the title, and indicate the branch of the service.

*** The suggestion is a good one.

I. V. R. C. writes: A high official, writing from Bucharest, states: "The medical officers of the Roumanian army are graded by military titles, from brigadier-general down to second lieutenant." In the four great armies of France, Germany, Austria, and Russia the medical officers have not yet got military titles; and the reason in part is the conscription, by which the doctors are tightly held. In these countries no civil physician willingly enters the army; the service is recruited by special military academies, where the students are stipendiaries of the State, and have to work out the money expended on them by service in the army. When war comes, the civil doctors are swept in (conscripted) by the hundred to fill the cadres of the hospital and corps. In democratic Italy the medical profession played an important part in bringing about the union of the country, and have their reward in a singular good position throughout. In the army they have double titles—the military one in front, as major-doctor. The efficiency of the Italian army medical service is well known. It is curious that, although Norway and Sweden are under the same Sovereign who controls both armies, the medical officers in the former have definite military rank and titles, but in Sweden are graded departmentally; the reason assigned being that "the generals object." Sweden is evidently blessed with "military advisers!"

*** Our correspondent's researches into this matter are very interesting.

A Correspondent in India writes: It is becoming more and more evident that, pending the formation of a corps where pure military titles would naturally be given, the present compound title must be reversed. The military portion, which is the essential, must be prefixed; the title would then be captain and surgeon, etc.

THE MEDICAL STAFF IN INDIA.

Army Medical Staff writes: The circulars with "Nitram's" scheme of retirement have not reached me and many others, or many more adhesions to it would have reached you, as there is practical unanimity that the three years rule of retirement in the upper ranks is operating most injuriously on the whole department. I am sorry to say dissatisfaction and discontent were never more rife in India. The grievances centre around the six years' tours, difficulty in obtaining private leave and rest, and withholding pay of rank and charge pay. It is the continuous grind of duty which makes the longer tours so trying, for the regimental and privilege leave, and the weekly holidays of Sunday and Thursday, so freely accorded to regimental, are practically unknown to medical officers. Even in sick leave there is less liberality shown to medical than other officers, and anything beyond six months has afterwards to be made up in the very climate which caused the breakdown. The denial of pay of rank to surgeon-captains under six years' service is a clear breach of warrants, and every regulation of the service: the refusal of charge pay to officers in charge of station hospitals, especially to brigade-surgeon-lieutenant-colonels, is against every precedent in India, and contrary to equity. These charges involve responsibility for every article in a large hospital, and for hundreds of pounds in pay of subordinates every month; yet the anomaly is seen of the officers in charge drawing the same pay as officers serving under them, but having no such financial responsibility. The climax of injustice would be the compelling the Medical Staff to assume charge of native regiments without the usual charge pay. The conditions of service in India are injuring the Medical Staff, and will lower the class of candidates seeking to enter it. I have never written to you before.

On the other hand, another correspondent, Twenty Years' Service in the Medical Staff, writes from India as follows: While many letters in your columns fairly represent medical grievances, others—not a few—grossly exaggerate them, and create false impressions on the members of the profession outside the department. Personally, during twenty years' service, I have never experienced slight or incivility from regimental officers, but, on the contrary, have had hospitality and kindness from nearly all; perhaps medical officers whose experiences are otherwise may have partly had themselves to blame; many so-called slights are either imaginary or due to the individual concerned. The main grievances I take to be the additional year of tour, and the question of rank and titles. Five years I think long enough, but the pictures of the dire result to health of the additional year are simply absurd, and something more than a mere exaggeration. As an example from one of your correspondents, I have never, during ten years' experience in India, known or heard of a sick medical officer forced to remain in bed and sign documents; such would have been at once remedied if represented. I have noticed that since the six years' tours many more medical officers obtain six months' leave home than formerly, and imagine that the majority are able to get this at least once in every tour. During the five years' tours a number of officers voluntarily remained out another year, so that the extra year is not such a hardship as some would wish to make it. I think the formation of a distinct corps would be of advantage to the department and to the army. The present titles, though rather cumbersome for use in social life, have answered very well, and have educated the public to the fact that there are distinct army grades among medical officers. My object is less to air my own opinions than to deprecate the tone of the letters which so frequently appear from medical officers, and to correct impressions which are apt to mislead and prevent good men from coming forward as candidates. The Medical Staff has real advantages to those who enter the service under 25 years of age.

*** We have summarised these antagonistic letters at considerable length with intent, for they exhibit the views and experiences of officers of standing, and it is good for truth to show contrasts. The tone—apart from the substance—of the great majority of our Indian letters is unfortunately so pessimistic that it is refreshing to lay hold of even one optimist correspondent. The tone of Indian letters probably depends not a little on the state of health of the writers, and, if this surmise be correct, then we congratulate our last correspondent on his evident good health. We can assure him, however, that while making some allowance for physical and mental irritability in our Indian correspondents, we do not estimate the weight of their grievances by the mere fluctuating health standard. Theirs is not the gross exaggerations of unhealthy sentiment. The writer of the first letter is careful to safeguard himself against the accusation of being an habitual grievance-monger by stating it is the first letter he ever wrote to us. It is needless to say that in a large body like the Medical Staff in India social and official experiences must be very varied; but in striking any balance we fear the weight of experience and testimony among our multitudinous correspondents are immensely against our last one. We can readily suppose exaggeration in not a few, and even misstatement in some correspondents in the setting forth of grievances, but these are far too real and substantial to be invalidated even by distorted sentiment. We would not knowingly ventilate any grievance we suspected to be unsubstantial; but we demur to the implication that the graphic description of real grievances is necessarily exaggeration. The genuine disabilities of the Medical Staff in India are patent enough without undue statement; they are continued and constant unhealthy duty for six years in an establishment not admitting of sufficient rest or leave to individuals; refusal to pay to the junior surgeon-captain rank; denial of charge pay, contrary to universal custom, to those weighted with heavy responsibilities; unfair and unworthy military discourtesy in high places. We see no reason why these grievances need not be speedily removed if the powers that be had the will, and it is for their removal that we contend.

I.M.S. MESS, HONGKONG.

On June 29th the P.M.O. and officers of the army medical staff in Hongkong entertained His Excellency the Governor at dinner in their mess at Queen's Gardens. The principal naval and military officers of the station were invited to meet His Excellency, and the band of the Shropshire Light Infantry was in attendance.

OMITTED AGAIN!

A Retired Surgeon writes: When His Royal Highness the Prince of Wales recently laid a foundation stone at Dover, a public entertainment was given by the Harbour Commissioners, to which the General Commanding and his staff, with the exception of the Principal Medical Officer, and representatives of every regiment in garrison were invited. Such is the position accorded to medical officers.

THE SIX YEARS' TOUR IN INDIA.

Himalaya writes: Hope deferred is sickening our hearts. We really thought that from the reception given to the deputations, the abolition of the six years' tour would not be long delayed. But weeks and months are passing, and yet no sign. Indian service is really a terrible burden on the medical staff. If the six years' rule is not abolished before the advent of the trooping season, those who have already served five years will have to stay out another year. Already, in view of an insufficient number of British medical officers to accompany the troops to England, volunteers for this duty are being called for from among Indian medical officers going on furlough in return for passage.

*** If this be true, what becomes of the assertion and argument that the services of a certain number of medical officers are annually "lost" in effecting reliefs?

Another Correspondent says: The War Secretary's pronouncement on foreign tours is anxiously awaited in India. Six years in some good stations may be bearable, but in the majority, without sufficient leave, becomes intolerable. Is it true that an embargo has been laid on the invaliding of medical officers?

SANITARY RECOMMENDATIONS.

Observer takes exception to some parts of the War Secretary's answer to Mr. Morton, in the House of Commons, July 25th. It was stated that when the Principal Medical Officer inspected barracks he was accompanied by the commanding officer, or an officer deputed by him. This is incorrect. The general commanding on such occasions directs an officer not under the rank of captain to accompany the Principal Medical Officer, not the commanding officer, *vide* Sec. xv., par. 21, Queen's Regulations. The War Secretary said he had every reason to believe that medical officers were fully supported in making sanitary recommendations. This, at all events, is not the invariable experience of those concerned. It is to be feared that an energetic Principal Medical Officer is no more popular

than an energetic health officer; he can only recommend, but little responsibility seems to attach if his recommendations are treated with apathy or indifference. On the other hand, there are generals and commanding officers full of sanitary zeal, not always, however, tempered with knowledge. The want of a chain of responsibility in army sanitation is the weak point. The public appear to think the responsibility rests on the medical officers, but only in so far as recommendation goes; he has no power beyond that.

VOLUNTEER AMBULANCE WORK IN SOUTH WALES.

ON August 19th Miss Bailey, daughter of Sir J. R. Bailey, Bart., honorary colonel of the regiment, presented the army ambulance certificates to the recruits of the regimental bearer company of the First Volunteer Battalion of the South Wales Infantry Brigade. Previous to the presentation the company, under the command of Surgeon-Major Hill, went through several movements in stretcher bearer drill. In addition to the certificates, Miss Bailey presented to Corporal Bruntnell a silver watch, the gift of Mr. W. K. Mason, for efficiency in musketry. At the close of the proceedings, which were witnessed by a large assembly, Surgeon-Major Hill presented Miss Bailey with an address thanking her for her presence. This bearer company was one of the first enrolled in South Wales, and has a good record of service. It took part in the Aldershot army field day last year.

NITRAM'S SCHEME OF RETIREMENT.

WE have received about fifty adhesions to this scheme, but, from what we can learn, that number is only an index of a very general approval of it throughout the service. It was published in the BRITISH MEDICAL JOURNAL of April 1st last, and, we would remind our readers, advocated the abolition of a hard and fast three years for pension in the higher ranks of the department, and the substitution of a graduated foreign service. There is at present no inducement or reward for foreign service, and it is proposed to make that a factor in retirement, as it was formerly. A correspondent declares the proposed relation between foreign service and retirement to be "equitable and just," and we fully agree with him. He further states the proportionate adjustment between foreign service and retirement is admitted in the Indian pension rules and in the conditions of service on the West Coast of Africa, so that it is no new thing. It would be a popular concession, and materially relieve the present deadlock in the administrative ranks. Another correspondent points out that the onerous conditions imposed upon the retirement in brigade rank of the Medical Staff do not apply to the Indian service.

SURGEON-LIEUTENANT-COLONEL characterises the scheme as exceedingly sound and fair, and deserving of the special consideration of the authorities. It would tend to lessen exchanges, render foreign service more popular, and bring about a natural adjustment in the promotion and retirement of the higher ranks.

UNIVERSITIES AND COLLEGES.

THE VICTORIA UNIVERSITY.

PASS LISTS.

First Examination.—Part II, Biology: F. H. Allen, Owens College; E. L. Anderson, University College; T. F. Bamford, Owens College; W. H. Bateman, Owens College; T. Bayne, Owens College; D. Berry, Owens College; W. Bradley, Owens College; A. G. S. Broughton, Yorkshire College; H. R. Clarke, Owens College; H. J. Crompton, Owens College; H. Davies, Owens College; L. O. Delecourt, Owens College; J. E. Dutton, University College; W. Graham, University College; A. S. Griffith, University College; J. I. Halstead, Owens College; R. Hamer, Owens College; T. W. Hart, Owens College; J. E. Healey, Owens College; D. G. Hurter, University College; J. Kemp, Owens College; M. R. Leeming, Owens College; F. T. A. Lovegrove, University College; H. A. Mawdsley, University College; W. T. Melling, Owens College; S. C. Moore, University College; C. H. Moorhouse, Yorkshire College; J. Prestwich, Owens College; S. T. Rowling, Yorkshire College; W. Sankey, Owens College; R. B. Scott, Owens College; H. Slater, Owens College; R. Sutherland, University College; H. Thorp, Owens College; J. H. Willett, University College; J. Williamson, Yorkshire College; W. Wright, Owens College; D. S. Wylie, Owens College.

Second M.B. and Ch.B. Examination.—T. W. Arnison, Owens College; G. F. Bowman, Owens College; S. R. Christophers, University College; C. Coventry, Owens College; J. H. Davies, University College; W. Dyson, Owens College; A. Firth, Yorkshire College; O. B. Goldschmidt, Owens College; A. Greenwood, Owens College; J. Hay, University College; F. B. G. Holmes, Owens College; R. B. Jones, University College; A. Lawson, Owens College; J. T. Marsden, Owens College; P. Nelson, University College; J. H. Phipps, Owens College; T. A. Rothwell, Owens College; R. A. Stevenson, Owens College; D. O. Williams, Yorkshire College; R. H. Wilshaw, Owens College; H. C. Woodhouse, Owens College.

The University Scholarship in Medicine was awarded to F. C. Moore, Owens College.

Final M.B. and Ch.B. Examination (Part I).—The following have satisfied the examiners:

C. S. Ashe, Owens College; G. H. Bishop, Owens College; S. W. Brook, Owens College; W. C. T. Brown, Owens College; W. W. Clemesha, Owens College; U. L. Desai, Owens College; F. W. Fish, Owens College; R. S. Hardman, Owens College; J. J. H. Holt, Owens College; R. T. Hughes, Owens College; M. B. James, Owens College; E. H. L. Lindon, University College; J. A. MacLaren, Owens College; F. S. Mathwin, Owens College; T. Morris, University College; W. A. Newall, Owens College; F. Radcliffe, Owens College; D. Seaton, Yorkshire College; J. S. Taggart, Owens College; W. B. Williams, University College.

Final M.B. and C.B. Examination.—(Part II.)—R. Alcock, Owens College; J. H. Ashworth, Owens College; H. A. Bold, Owens College; H. C. Cadman, Owens College; D. H. Cheetham, Owens College; J. G. Glegg, Owens College; E. L. Compston, Owens College; C. A. Davies, Owens College; E. A. Goulden, Owens College; W. D. Hayward, University College; H. C. Heathcote, Owens College; S. H. House, University College; V. E. H. Lindesay, Owens College; E. S. Miller, University College; E. D. Minshall, University College; R. W. Nesfield, Owens College; H. T. Nixon, University College; J. P. Nixon, University College; J. J. O'Hagan, University College; H. A. Robinson, University College; E. Spencer, University College; J. Stephenson, Owens College; W. W. Stoney, Yorkshire College; J. H. L. Tylecote, Owens College; and R. L. Wood, University College.

The following have been awarded Honours:—First Class: J. Stephenson, Owens College. Second Class: J. G. Clegg, Owens College; E. L. Compston, Owens College; H. T. Nixon, University College; and J. P. Nixon, University College.

Examination for Diplomas in Sanitary Science.—J. Dwyer, A. Greenhalgh, J. T. Neech, and W. O. Wolseley.

UNIVERSITY OF ABERDEEN.

THE following candidates have received degrees in Medicine and Surgery:

Degree of M.D.—E. T. Cox, M.B., C.M.; Thesis: Observations on Fourteen Cases of Miners' Nystagmus, with Investigations as to the Cause. G. H. Ede, M.B., C.M.; Thesis: Headache or Cephalalgia. J. W. Fraser, M.B., C.M.; Thesis: Remarks on the Types of Fever prevalent in Johannesburg in its Early Days. G. Grant, M.B., C.M.; Thesis: Phlebotomy in General Practice. G. D. Knight, M.B., C.M.; Thesis: Movable Kidney and Intermitting Hydronephrosis. D. G. G. Macdonald, M.B., C.M.; Thesis: Avian Tubercle Bacillosis: its Pathology and Etiology. A. R. Mackinnon, M.B., C.M.; Thesis: A Case of Acromegaly. D. Runnett, M.B., C.M.; Thesis: On the Progress of Enteric Fever in Aberdeen and other Principal Scotch Towns. E. G. S. Saunders, M.B., C.M.; Thesis: Clinical and Other Observations on General Paralysis of the Insane.

The thesis of G. D. Knight was considered worthy of "highest honours," and the theses of D. G. G. Macdonald and D. Rennet were considered worthy of "commendation."

Degrees of M.B. and C.M.—F. S. H. Ainley, G. G. McL. Black, M.A.; O. Bohrsmann, J. Broomhead, R. Burgess, J. B. Cruickshank, W. Cruickshank, H. Fraser, S. J. C. Fraser, F. A. Gill, J. F. Hall, H. T. Hinton, P. Howie, C. Kemp, M.A.; G. Leslie, P. McD. Lyon, C. E. Maguire, G. Marr, P. M. Muttukumaru, E. Philip, A. Ponnambalam, M. W. Renton, W. Shirreffs, C. Simpson, R. A. Slater, J. Smith, M.A.; A. Stables, J. Thomson, A. V. Trow, J. Wood, T. McK. Youngson.

R. Johnston and R. G. McGowan have passed the examinations for the degrees of M.B. and C.M., but will not graduate until they have attained the necessary age.

Graduation Honours.—P. Howie graduated with honourable distinction. The John Murray Medal and Scholarship—A. W. Mackintosh, M.A., M.B., C.M. The George Thompson Fellowship—A. W. Mackintosh, M.A., M.B., C.M.

Diploma in Public Health.—A. Inglis, M.B., C.M.Glasg.; J. McDonald, M.B., C.M.Aberd.

First Professional Examination for the Degrees of M.B. and Ch.B. (New Regulations).—A. W. Hare, H. P. Sheppard, N. J. Sinclair.

The following Graduates in Arts have passed in the subjects required to complete the *First Professional Examination (New Regulations).*—R. Bruce, M.A.; G. Denoon, M.A.; R. G. Henderson, M.A.; A. Ledingham, M.A.; J. S. Milne, M.A.; J. Pozzi, M.A.

First Professional Examination for the Degrees of M.B. and C.M. (Old Regulations.—First Division: F. J. Alexander, D. Buchan, G. Chalmers, M. Connon, A. Cruickshank, D. A. R. Farquharson, W. J. Flett, W. A. I. Fortescue, J. L. Gordon, J. S. Greig, T. Harper, W. Hunter, J. Innes, I. Macquarrie, J. G. MacWillie, H. F. Mitchell, J. G. Pirie, M. G. Robertson, J. A. Rose, A. Sharp, D. Sivewright, G. Stephen.

The following gentlemen have completed the *First Professional Examination (Old Regulations).*—G. Byers, C. Cameron, *G. Cowie, *H. Duffus, *G. M. Duncan, C. I. Ellis, **A. Fenton, D. V. Haig, L. G. Haydon, A. J. Hynd, P. W. Ironside, G. H. Johnston, R. Lindsay, J. MacCulloch, W. A. Milligan, A. G. Milne, W. Murray, **A. Robb, W. A. Salmond, H. E. Smith, J. R. Smith, *A. G. A. Thomson, J. W. Thomson.

Second Professional Examination (Old Regulations).—*J. A. Black, T. I. Bonnor, G. W. Brown, G. Bruce, W. Cartwright, R. Cruden, **A. Don, W. C. Edmonstone, W. J. Heppard, *W. C. Hossack, A. D. Kelly, J. S. Laing, V. V. Langenberg, *P. Macdonald, *J. M. H. MacLeod, J. S. Marr, J. G. Milne, P. Mitchell, C. L. Morrison, H. Munro, E. Oliphant, G. Reid, J. L. Salmond, *W. Thomson.

* Indicates that the candidates have passed "with credit."

** " " "with much credit."

SOCIETY OF APOTHECARIES OF LONDON.

PASS LIST, August, 1893.—The following candidates passed in:

Surgery.—D. D. Brown, St. Bartholomew's Hospital; F. J. Carter, St. Bartholomew's Hospital; D. H. Fraser, St. Thomas's Hospital; G. P. L. Gregory, Birmingham; H. P. Job, University College; R. Keatinge, St. Thomas's and London Hospitals; G. R. Northwood, Birmingham; S. W. Rhodes, Leeds; J. R. M. Richmond, King's College; G. C. Taylor, Cambridge and St. Bartholomew's Hospital; H. J. Van Leent, Guy's Hospital.

Medicine, Forensic Medicine, and Midwifery.—A. E. Bodington, Cambridge and Middlesex Hospital; A. J. Campbell, St. Thomas's Hospital; F. Chown, St. Mary's Hospital; A. W. V. Clarke, St. Thomas's Hospital; G. R. Northwood, Birmingham; S. J. Stuck, Middlesex Hospital; G. C. Taylor, Cambridge and St. Bartholomew's Hospital; E. H. J. Danaker, London Hospital.

Medicine and Forensic Medicine.—A. H. Bird, St. Mary's Hospital; H. E.

E. M. Greene, Royal Free Hospital; G. C. B. Hawes, St. George's Hospital; S. W. Rhodes, Leeds; E. H. Worth, St. Thomas's Hospital.

Medicine.—R. L. Chapple, Leeds; R. J. Farman, Charing Cross Hospital.

Forensic Medicine and Midwifery.—F. S. Hogg, Charing Cross Hospital; H. J. Van Leent, Guy's Hospital.

Forensic Medicine.—M. T. Archdall, Charing Cross Hospital; G. M. Hetherington, King's College; R. W. Nesfield, Manchester.

Midwifery.—A. W. Taylor, Edinburgh and London; J. Wood, St. Thomas's Hospital.

To Messrs. Bodington, Carter, Chapple, Clarke, Gregory, Hetherington, Hogg, Job, Nesfield, Northwood, Rhodes, Stuck, A. W. Taylor, G. C. Taylor, Van Leent, Wood, and Worth was granted the diploma of the Society entitling them to practise Medicine, Surgery, and Midwifery.

OBITUARY.

PROFESSOR CHARCOT.

Jean Martin Charcot, the news of whose unexpected death last week caused a shock to the whole medical profession, was born in Paris on November 29th, 1825. He was the son of a carriage builder in not very prosperous circumstances. He studied medicine in the Paris faculty under Piorry, Claude Bernard, and others, taking his doctor's degree in 1853. In 1856 he won by competitive examination the post of physician to the Bureau Central, the general sorting house, as it may be called, of the Paris hospitals. In 1860 he became *Professeur Agrégé*, and two years later he was appointed physician to the Salpêtrière, at that time simply a house of refuge for infirm and weakminded old women. In 1873 he was appointed Professor of Pathological Anatomy in the Paris Medical Faculty in succession to Cruveilhier, and in 1880 a special chair of clinical neurology was created expressly for him. He continued to lecture almost till the day of his death. In 1873 he was elected a member of the Academy of Medicine, attaining the supreme honour of membership of the Institute of France in 1883.

Early in life M. Charcot was rescued by marriage from that struggle for existence in which the eager flame of scientific ambition must so often be spent in making the domestic pot boil. Thus he was free to devote himself to the advancement of medical science, and in the Salpêtrière, with its 4,000 beds, he found a quarry of clinical material out of which he was able to raise an edifice of intellectual achievement, at once solid in structure and artistic in finish, which will form a *monumentum ære perennius* to his memory. He set aside three days in the week entirely for hospital work, and he was always most punctual in his attendance. By his influence the Salpêtrière was transformed from something corresponding to a Poor-law asylum into a great clinical school fully equipped for research as well as for teaching, and open to the whole profession. There he made the observations and delivered the lectures which made his name famous; there he trained several generations of pupils, some of whom are carrying on his work with a zeal for truth equal to his own, and with hardly inferior ability; there, too, came crowds of practitioners from all parts of the world to sit at the feet of the Gamaliel of neurology. His demonstrations were attended at one time or another by nearly all the leaders of contemporary medical thought, and the fledgling just escaped from the academic nest might sign his name in the visitors' book between those of Rudolf Virchow and Grainger Stewart.

Though limiting his time for private practice to the extent that has been mentioned, M. Charcot was consulted by patients from the very end of the earth. He seldom undertook the treatment of sufferers, preferring to act purely as a consultant. So far did he carry this mode of action that, we believe, he seldom prescribed, contenting himself with pointing out the clinical and pathological relations of the case and indicating the general principles on which the treatment should be conducted, leaving the practitioner in charge to apply them according to his lights.

M. Charcot was emphatically a hard worker all through his career, though in later years he applied the principle of devolution to a considerable extent. He was as fortunate in his assistants as they were in their master, and the excellence of their work must in great measure be credited to his inspiration and wise direction. Though fond of comfort and of luxurious surroundings, he was always at his desk by 6 A.M.; nor did he ever allow himself to be swept away by the vortex of social enjoyment, though his position might have made him free, had he so chosen, of all the inner mysteries of the fashionable world of Paris. He was passionately fond of art, and he had a highly-cultivated æsthetic sense; he was also skilful with his pencil and illustrated his demonstrations with sketches of considerable power. His house in the Boulevard St. Germain was a museum of artistic treasures, collected by himself with rare taste and judgment. His intellectual tastes were by no means limited to the field of medicine, he took a keen interest in natural history and was well versed in archæology. He was happy in his home life, and his only son is now qualifying himself to follow in his father's footsteps by going through the invaluable scientific discipline of the *internat* (house-physicianship) at the Salpêtrière.

M. Charcot, who spoke English well, though with a deliberation which was perhaps constitutional rather than due to a want of fluency, was more than once a visitor at the annual meetings of the British Medical Association, where he was always the cynosure of neighbouring eyes.

It is impossible to give here anything like a complete bibliography of M. Charcot's publications, many of which marked a distinct stage in the progress of scientific medicine. Among his most important works may be mentioned his *Leçons sur les Maladies du Foie*, and his *Leçons sur les Maladies Chroniques et des Vieillards*, an English translation of which was published by the New Sydenham Society in 1881; his *Lectures on the Localisation of Cerebral and Spinal Diseases*, published under this English title by the same Society in 1883; his famous *Leçons Cliniques sur les Maladies du Système Nerveux*, also translated for the New Sydenham Society (3 vols., 1887-89); and his *Leçons du Mardi à la Salpêtrière*. A complete edition of his works was published in 1886. In 1880 Charcot founded the *Archives de Neurologie*, which he continued to edit till his death; he also took a leading part in editing the *Revue de Médecine*, the *Archives de Pathologie Expérimentale*, and that wonderful album of hysteria and latter-day demonology, the *Nouvelle Iconographie de la Salpêtrière*. His literary style was in harmony with the excellence of his scientific matter, clear and strong, with happy turns of phrase which stamped a clinical fact or an ingenious explanation deep in the memory. He was an effective lecturer, generally speaking from notes which had been dictated at the bedside. His clinical lectures were generally delivered while sitting on an empty bed in the ward.

In person M. Charcot bore a striking resemblance to the first Napoleon; he had the same dome-like head, the same stooping shoulders and the same deep-set eyes, the physician's, however, being dark instead of grey, as the Emperor's were. He had for some time been in failing health, and about a fortnight before his death fainted while delivering a lecture. Nothing serious, however, seems to have been suspected by himself or by those about him, and he looked forward with confident anticipation of benefit from a short rest. He accordingly started on an archæological expedition to Morvan in company with Drs. Debove and Straus.

After a pleasant day, during which M. Charcot seemed to enjoy himself thoroughly, and delighted his companions with conversation at once sparkling and profound, the party stopped at a little inn at Settons, near Chateau Chinon. Plans were formed for the next day, but in the morning M. Charcot was found dead in his room with a half-finished letter to his son on his desk. The last words he had written being: "I hope to finish to-morrow, as we must rise before six. I must now try to sleep." The cause of death appears to have been angina pectoris.

M. Charcot was an honorary member of the British Medical Association, of the Royal Medical and Chirurgical Society of London, and of the Medical, Clinical, and Pathological Societies; of the Royal Academy of Medicine in Ireland; the Royal Medico-Chirurgical Society of Edinburgh, and of most of the leading scientific societies throughout Europe.

We are indebted to a distinguished English physician who knew the late Professor Charcot for the following estimate of his character and tribute to his memory:

"No more difficult task could have been laid upon me than that of writing some brief sketch of the late Professor Charcot, some record of himself, and some slight recognition of his work in medicine. To one who had held continuous and familiar intercourse with our great *confrère*, it would be no light task to bring back but a few rays of the light which has left those well-known features now still in death: it is a very hard task for one who, however cordially welcomed, saw Charcot but too rarely.

"I cannot remember when the friendship between Charcot and myself began; it began in some gradual way when the friendship of my old master Trousseau, of 'Duchenne' of Boulogne, of Maurice Reynaud, drew me more to Paris. Whenever this was—whenever 'in the sixties'—if the era be, the occasion is not forgotten. As I saw him then, I have many times seen him since; I see him now, standing calm and observant, in the midst of a group of eager faces, somewhat silent amid the profusion of earnest conversation.

"Like Sir William Gull, Charcot bore some likeness to Napoleon, an attribution which was said not to be displeasing to either physician; but save in its impression of reserved strength, his face implied no great likeness of character. Charcot was rather a counsellor than a director, a man rather of contemplation than of action. If Charcot spoke every tongue was stilled, but, as I have said, he was no great talker; to an observer unaccustomed to mark faces Charcot might have seemed at times but a student among students, as indeed he was; he might have seemed but an interested onlooker.

"Steadfast rather in mental balance than positive in assertion, he could watch and smile as he put a visitor on the scent of some clinical phenomena which he had previously tracked out for himself, contenting himself with a few guiding words or a brief demonstration, for he preferred rather to see the series unfold itself in the patient than to describe it with any elaboration of language. In this respect he differed from Trousseau, whose nature, if not more ardent, was more eager and effusive. Charcot, no less ardent, hungered and thirsted for knowledge with a more covert fire, and showed the intensity of it rather in his incessant labour and keenness of observation than in disputation or in formal exposition; admirable expositor as he was. Charcot's indifference, the breadth and equalness of his comprehension, had a quality almost Olympian, and one would read in that wide brow and powerful face a staidness which preserved him from oscillations of opinion, and from the infection of fashions. Undisturbed by remonstrance or ridicule, unshaken by the giddy agitation of the mesmerists, heedless of the flatteries of the gossips, Charcot steadily pursued his investigations in hysteria and other neuroses as if the Salpêtrière and himself were in Saturn. Thus in the phenomena themselves he watched the devices of the froward as calmly as he watched the undesigned sequences of Nature.

"If amid the whirl of neurological doctrines this ἀταραξία were more impressive, it was none the less persistent in other departments of medicine. No brilliant *aperçus* in the field of clinical medicine ever led him to forget the value of related facts in pathology; no new pathological discoveries weakened his grasp of the evolution of symptoms. Some of us may remember at a meeting of the British Medical Association, some time before Koch's discovery of the bacillus of tubercle, how Charcot was surrounded again and again by a group of distinguished physicians, who laboured to impress upon him that pulmonary phthisis was not one disease, but many—was tuberculosis, was caseous pneumonia, was hæmorrhagic injury, was "*la granulie*," and so forth—and how gravely Charcot listened to this and to that, how impartially he accepted such truth as there might be in the views of each speaker, and yet, when all was done, how quietly and surely he laid his hand upon his drawings of the dead tissues, and repeated, "Yet it is all *one process*." This confidence of his was soon afterwards justified by the discovery of a common proximate cause.

"It was this openness of temper which made Charcot so cosmopolitan. Like Virchow, whencesoever facts came, or earnest workers came, they were welcome to him. He always told me that his kindly regard for me was due to my having had the good fortune to publish the first case of his 'joint disease' in England. No Continental physician was ever more cordially esteemed by Englishmen—not even Trousseau—because none had been more open to English ideas or more familiar with English work, some of which—as that of John Weir—he edited in France. Often have I heard him indignantly repudiate the ignorant abuse of England which appears occasionally in the journals of France. For these reasons he received, through my hands, the unique compliment of an invitation to deliver the Address in Medicine at the meeting of the British Medical Association in 1890. He felt the compliment deeply; but unhappily the failure of health, whose issue we have now to lament, was even then casting its shadow before.

"I have spoken of Charcot's devotion to the hard labour of his profession; this devotion was the brighter example as affluence, or at least competency of wealth, was always assured to him, and his mind, by its very capacity, was open to many pleasures. His home, made so beautiful by his accomplished wife, and his rich and varied library, bore witness to the catholicity of his tastes. But, in his orderly temper, medicine, his chosen calling and his mistress, commanded his life. The following story is characteristic of him: One morning Charcot called for me at my hotel in a brougham and pair of horses which, even to an English eye, were flawless. We drove to the Salpêtrière, and had been in the wards but a short time when a scared porter entered, bearing in his arms books and papers tattered and torn, a fractured stethoscope, a battered umbrella or two, and the like *débris*. We learned that the horses, finding, no doubt, a court of that hospital very dull, had taken to scampering around it, forgetting to allow for the carriage or even for themselves. Charcot inquired anxiously for the coachman, and on hearing that he was safe, for he was *un bon garçon*, he proceeded imperturbably with a demonstration of some cases of Ménière's disease.

"If I seem to have written too much of the man, the fault lies with me; of his work, however, no final estimate can yet be given. Charcot's mind was so receptive that at times he seemed to collect material with more curiosity than discretion; minds like his need a long time for defæcation, and his was strong enough in time to hold the true and to reject the false. Again, to Englishmen he appeared too indifferent in the Salpêtrière, at any rate, of curative means as such. Still none can fail to see in him a penetrating observer and a powerful and deliberate thinker, free from all *vices d'ésprit*, and thus best fitted to grope in the dark and thorny subjects with which his name is chiefly associated. Let us not forget, however, that morbid functions of the nervous system were not perhaps the main subjects of his research. Although deeply interested in those mobile and evanescent phenomena, he kept his intellect sound and progressive by his hold on positive pathology. His investigations into the static changes of the nervous system were at least as fruitful as his studies of hysteria, and his lectures on diseases of the lungs and heart, on gout and rheumatism, and on the maladies of old persons, if in respect of their date they must fall behind the place of the science of to-day, yet can never fail, besides their intrinsic value, to present to younger men an example of the methods of a great teacher in his search after truth.

"T. C. A."

PERCY HARRY WHITE, M.B., C.M.EDIN., M.R.C.S.ENG., L.D.S.ENG.

ON July 24th last, after a brief illness, the subject of this memoir died of typhoid fever in the 38th year of his age.

He was the fourth son of the late Mr. Richard White, L.D.S., of Heathfield House, Norwich, who in 1885-6 was President of the British Dental Association. Dr. Percy White was educated at the Norwich Grammar School and Edinburgh University, where he graduated M.B. and C.M. in 1878. He subsequently became House-Surgeon at St. Mark's Hospital for Fistula, took the diploma of M.R.C.S.Eng., and in 1883 commenced practice at Woking, where he rapidly assumed a leading position, and won for himself an extensive and lucrative connection. In 1888 he accepted an offer which seemed to open up to him a bright future, and became associated with Dr. Medwin, of Bruton Street, Berkeley Square, W. After

taking the L.D.S.Eng., thus following in the footsteps of his esteemed father, he devoted himself to dental surgery. In 1891 he was appointed Assistant Surgeon to the National Dental Hospital, where his exceptional skill and his gentle and courteous bearing made him a general favourite.

His death came somewhat suddenly. On June 27th he officiated at the installation of his successor as Master of the Weyside Lodge of Freemasons, Woking, and was apparently enjoying his usual health. On July 1st he complained of *malaise*, and on July 11th he took to his bed with the disease which ultimately proved fatal.

Always bright, cheerful, and genial, having a kindly regard for the feelings of others, he leaves behind him a large circle of friends who mourn his loss with feelings of affectionate regret.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Thursday, August 17th.

Dublin Main Drainage Scheme.—In reply to Mr. W. Field, Mr. Campbell-Bannerman said that in view of the improved state of health of the troops in Dublin which might be looked for in the event of an efficient system of drainage being carried out for the city, he was as anxious as the corporation could be to facilitate its completion. The Army Sanitary Committee had, however, reported that the scheme proposed would be fraught with serious danger to the health of the garrison of Pigeon House Fort, and negotiations were in progress for the transfer to the corporation of Dublin of the site of the fort.—Mr. W. Field asked whether he was to understand that the right honourable gentleman would expedite this business, because it had been going on for a very long time, and no progress appeared to have been made.—Mr. Campbell-Bannerman, in reply, said that great progress had been made. It was necessary, when the scheme of the corporation was communicated to the War Office, to refer it to the Army Sanitary Committee to find out what the effect would be upon the men quartered in the Pigeon House Fort. They had conducted the inquiry on the spot, and it had taken some time. Since then the report of the committee had been communicated to the corporation, and the corporation had replied to that report, so that it would be seen that the negotiations were going on without any unnecessary delay. The question now turned upon whether the corporation and the War Office would come to terms as to the acquisition of the site.

The Public Health.—Mr. Byles asked the Secretary to the Treasury whether he had seen a letter in the *Standard* of Saturday, August 12th, from Mr. Herbert W. Seager, M.B., alleging that he rented a house from the Woods and Forests Commissioners, and that the house was at times uninhabitable by reason of its being filled with deadly gases from a neighbouring cesspool, for which his landlord was responsible; that his wife and child had already died there from blood poisoning; that the Woods and Forest Commissioners refused to take any action; and that the local sanitary authority refused to step in on the ground that it had no jurisdiction over Government property; whether these allegations were admitted to be true; and, if so, whether the Commissioners would be compelled to adopt such measures as would protect the health of the inhabitants.—Sir J. Hibbert, in reply, stated that the allegations were not admitted to be true. He was informed that the deaths referred to occurred in 1887, and that Mr. Seager made no complaint to the office of the Woods and Forests Commissioners about the cesspool until May, 1892. The cesspool had been made some time previously without any consent from the Department of Woods and Forests; but no complaint had been received respecting it from any other resident, though some were in closer proximity than Mr. Seager, nor from the local sanitary authority. The Commissioners of Woods and Forests, however, on seeing Mr. Seager's letter, at once communicated with the sanitary authority; but no reply beyond an acknowledgment had been received.

Religious Festivals and the Spread of Cholera.—Sir H. Roscoe asked the Under-Secretary of State for India whether his attention had been called to a resolution passed at the Public Medicine Section of the British Medical Association meeting at Newcastle on August 2nd, in which it was recommended that it be referred to the Parliamentary Bills Committee to take such steps as might be desirable to approach the British and foreign Governments with a view to obtain their intervention in securing measures for the suppression of cholera at the Hardwár and other Indian fairs, and at the Meccan pilgrimage, and that for this purpose also due submission of the facts be made to His Majesty the Sultan; and whether he would be willing to give the assistance requested in promoting efforts to check the extension of cholera at and from these religious festivals, and to co-operate with the Sultan in providing measures for arresting the extension of cholera by inspection of pilgrims at the respective Indian ports of exit prior to embarking on the pilgrimages, and of obtaining the assent and assistance of His Imperial Majesty the Sultan of Turkey towards taking corresponding steps at Mecca, in respect both to the sanitation of that holy place during the periods of pilgrimage and due inspection and sanitation of the land stations of caravans passing overland, as well as at Jeddah and El Tor.—Mr. G. Russell, in reply, said the Secretary of State for India had not yet seen the resolution mentioned, but he had seen abstract reports of some of the proceedings and addresses at the meeting. The Government had for some years past made efforts to prevent the occurrence of epidemic cholera at, and its spread from, the great fairs and religious gatherings by instituting strict sanitary control at and around such fairs and gatherings. He was glad to say that the great fair at Hardwár in the present year passed off without spreading cholera. These efforts would be continued by all authorities in India. Regarding the cholera at the Moslem holy places, the Under-Secretary for Foreign Affairs had recently given answers in that House. So far as the assistance of the Government of India could second the arrangements of the Porte for preventing the occurrence of cholera at Mecca, Medina, and the Red Sea ports, such assistance would be readily given.

Monday, August 21st.

The Sale of Patent Medicines.—Mr. F. C. Frye asked the Secretary to the Treasury, in view of the statement by the Parliamentary Bills Committee of the British Medical Association in their recent report on the sale of patent medicines that the further action of the Public Prosecutor in respect of actions taken by him had been limited by the directions given to the officers of the Treasury by the Attorney-General, first, to prosecute only in the event of a particular preparation being really poisonous or dangerous on the ground of poisonous ingredients; and secondly, that the mere presence of a poisonous ingredient, if not in sufficient quantity to make the article sold poisonous, would not justify proceedings under the 17th Section of the Act, whether the Pharmaceutical Society was justified, in face of this restriction, in continuing to demand penalties from tradesmen throughout the kingdom, and, if so, on what grounds.—Sir J. Hibbert, in reply, said the directions given by the late Attorney-General to the department of the Solicitor to the Treasury were correctly quoted, and they had been and were still acted upon by the Director of Public Prosecutions; but he was not prepared to give a legal opinion on the action to be taken by the Pharmaceutical Society in the exercise of its discretion or in accordance with the advice of its own legal advisers.

Army Medical Service Examinations.—Mr. Jacks asked the Secretary for War whether he had received a memorial from the Senate of the University of Glasgow concurring with a joint memorial presented to him by the three Scottish corporations who confer licences to practise medicine, surgery, and midwifery, in respect of the action of the War Department confining the selection of medical and surgical examiners for the competitive examinations for admissions to Her Majesty's Army Medical Service solely to the past and present examiners of the London Colleges of Physicians and Surgeons; and whether, having regard to the dissatisfaction and irritation aroused by such a course, the War Office could see their way to reconsider their decision.—Mr. Campbell-Bannermann, in reply, said: Yes, Sir, such a memorial has been received, and an answer had been sent to the effect that there was no intention whatever of conferring upon any medical corporation such a monopoly as that alluded to. The examiners had in the present instance been selected from the examiners to the Royal Colleges in London, but it was quite open to the Secretary of State to replace some of them, as vacancies occurred, by members from the examining bodies in Scotland and Ireland.

The System of Quarantine.—Sir C. Dilke asked the President of the Local Government Board whether his scientific advisers were of opinion that the system of quarantine was in any circumstance advisable.—Mr. H. Fowler, in reply, said it had only been necessary for the Local Government Board to determine the question as to the adoption of a system of quarantine in connection with cholera, and the scientific advisers of the department were strongly of opinion that quarantine in connection with that disease was very undesirable. The administration of the Quarantine Acts now devolved on the Privy Council, and not on the Local Government Board, and quarantine would be enforced only in cases of yellow fever and plague. He was informed that it had been considered desirable to have the power to put in force quarantine in these cases, in order to prevent the hindrance to navigation which might arise when yellow fever was prevalent in South America, if, in consequence of quarantine not being declared in England, ships coming from England were treated by other countries as liable to quarantine.

Tuesday, August 22nd.

The Report of the Tuberculosis Commission.—Mr. W. Field asked the President of the Local Government Board whether any progress was being made with respect to the publication of the Tuberculosis Report, and when its issue might be expected; and whether the Government were considering the adoption of means to compensate owners whose property was confiscated in the interests of the public.—Mr. H. Fowler said he was informed by the Royal Commission on Tuberculosis that two of the special inquiries which they had been undertaking were completed, and that the third would be finished by the end of next month. Immediately after that the Commission would meet to draft the final report. As to the second point, he could only state that the consideration of the question as to the adoption of means of granting compensation must be deferred until the Commission had made their report.

Vaccination Prosecutions.—Mr. Asquith, in reply to Major Rasch, said that at Grays, Essex, sixty-five warrants of distress were issued in June and July in regard to vaccination. In forty-six cases the penalties were paid, in six the goods were sold, in nine there were no effects, and four were still unexecuted. He was not aware that any of them were cases of a second prosecution for the same child. If he were to remit the fines he should be in effect repealing the Act of Parliament. He deprecated second prosecutions for the same offence, and if the Bill which he had introduced became law they would become impossible.

The Congress on Tuberculosis will be held at Paris in 1896, under the presidency of M. Nocard.

The first International Samaritan Congress, which was to have been held in Vienna this year, has been postponed till 1894 in consequence of the "insecure sanitary condition of Europe."

Successful Vaccination.—Dr. Percy Howard Day, Medical Officer and Public Vaccinator for the Stalmine District of the Garstang Union; Mr. C. Penruddocke, Medical Officer and Public Vaccinator for the Stapleford District of the Wilton Union; and Mr. J. T. Roger Miller, Public Vaccinator for the Leavening District of the Malton Union, have received the Government grant for efficient vaccination.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

STATISTICAL REPORT OF THE EGYPTIAN SANITARY DEPARTMENT.[1]

THE statistical report of the Egyptian Sanitary Department for 1890, which has only recently been published, appears in a somewhat abbreviated form, being shorter than its predecessor by eleven pages of letterpress and six of statistical tables. The information refers, as before, to nineteen towns in Lower and eleven in Upper Egypt, the aggregate native population of the whole thirty been given as 1,002,961[2]. The birth-rate is shown as 56.4 per 1,000, and is almost identical in the two groups of towns, but there is a considerable difference between the Northern and Southern death-rates; that of the former being 44.5 per 1,000, whereas the latter is 38.7.

The total number of deaths falls short of the previous year's return by 5,513, but this apparently favourable indication is considerably discounted by the fact that the births are also fewer by 2,838. The mortality under 5 years of age accounts for 59.1 per cent. of the whole. In 1889 the proportion was 64.9 per cent., so in this respect there has been some amelioration.

Gastro-enteritis, with its congeners, is still the chief cause of death, 10,782 fatal cases having occurred, but the ravages were one-fifth part less severe than during the preceding year. A great improvement in the mortality from small-pox, measles, and whooping-cough is observable. In 1889 these diseases caused 1,572 deaths collectively, but in the year under review, the fatality was only 469. Diphtheria shows a slight increase from 137 to 150.

The comparative incidence of the principal groups of disease is best shown in tabular form.

Diseases.	1889.	1890.
Small-pox, measles, and whooping-cough	1,572	469
Diphtheria	137	150
Fièvres typhiques	1,242	1,206
,, *malaria*	1,119	1,063
Dysentery	3,449	3.209
Phthisis pulmonalis	2,457	2,680
Other infectious diseases...	2,065	1,755
General and nervous diseases	11,236	10,576
Gastro-enteritis, etc.	13,616	10,782
Diseases of the liver	294	322
Other digestive diseases	507	353
Diseases of respiratory organs	9,040	8,504
All other diseases	1,256	1,236
Unknown	322	494
Total	48,312	42,799

As regards relative healthiness when measured by the comparison of mortality with natality, Damietta still easily maintains its place of honour at the head of the list with 48.7 deaths for each 100 births. Rosetta and Port Said stand next with 54.0 and 54.4 respectively, but then the proportion rapidly mounts up till it reaches 95.4 at Mansourah. The average for the nineteen towns of Lower Egypt was 79.2. The previous year it was 83.9. In Upper Egypt the lowest rate during 1890 was 58.3 at Akmim, and the highest 107.8 at Assouan.

The comparative salubrity of the maritime towns is very remarkable. As has often been pointed out, it is evidently connected with the fact that the inhabitants are unable to drink river water during the low Nile season, but have to depend on a supply stored in cisterns. Year after year the same thing happens with the regularity of clockwork, but the authorities seem unable to appreciate the moral conveyed in this great object-lesson.

Dr. Engel Bey, the compiler of the *Report*, observes: "A striking amelioration is evident for the year up to the age of 15; whereas there was an aggravation of the deaths at the higher ages, especially from 30 upwards." The latter circumstance he ascribes to the presence of an epidemic of influenza during the early months.

The general health among foreigners seems to have been satisfactory, in spite of the influenza, which is said to have claimed several victims. The total mortality was 1,774, against 1,897 in 1889, giving a ratio of 21.0 per 1,000 on an estimated population of 84,298. General and nervous diseases caused 426 deaths; gastro-enteritis, 243; diseases of the respiratory organs, 195; and diphtheria, 122. The latter affection was responsible the previous year for 94 deaths. It would appear, therefore, that one of the chief filth diseases is infinitely more prevalent amongst the European class, which is supposed to live under improved sanitary conditions, than it is amongst the natives.

There were 723 deaths from violence in the thirty towns against 766 in 1889. Of these 121 were the result of crime, including 10 foreigners. Eight cases of suicide were reported but only two were natives, and none took place in the Upper Egypt group of towns.

Fifty-one outbreaks of small-pox, eighteen of *fièvres typhiques*, and three of measles were treated in flying hospitals throughout the whole of Egypt during the year. The total number admitted was 1,838, of whom 374 died. In 1889 the respective totals were 2,591 and 557. The cases treated in the nineteen Government hospitals amounted to 14,253, with a mortality of 9.7 per cent.

At page 82 there is an interesting table showing the variation in the height of the subsoil water at Cairo compared with that of the Nile. The steady fashion in which the infiltration follows the rise and fall of the river is remarkable.

In conclusion we cannot but express our sympathy with Dr. Engel, who is forced to work on an unstable foundation. His labours are worthy of all praise, and, under the circumstances, have produced astonishingly good results, but the want of a trustworthy census would handicap the best demographist.

[1] Administration des Services Sanitaires, Bureau de Statistique, Gouvernement Egyptien, Rapport Annuel, 1890. (Le Caire: Imprimerie Nationale, 1893.)

[2] In a footnote we are informed that through an error in the Report for 1889 the population of the towns of Lower Egypt was shown as 784,153 instead of 824,297, but that the calculations had, nevertheless, been based on the latter figures.

THE LOCAL GOVERNMENT BOARD AND VACCINE LYMPH.

THE following letter has been sent by the Local Government Board to the Marylebone Board of Guardians in reply to a request for permission to purchase calf lymph for use at their vaccination stations:

In reply, I have to point out that the present system of public vaccination in England, with its periodical attendance at appointed stations and at fixed times, is designed to secure, as far as possible, vaccination with fresh lymph from arm to arm; that the official instructions to vaccinators under contract contains an express warning against departure from that system, and that the granting of special award is subject to certain special specified conditions, one of which is compliance with the regulations embodied in those instructions to the effect that the public vaccinator shall not, under ordinary circumstances, adopt any other method of vaccinating than with liquid lymph directly from arm to arm. The Board has not in any case given their sanction to departure from this rule; and at the present time, while the whole question of vaccination is under investigation by a Royal Commission, it seems to them specially undesirable, pending the issue of the report of that Commission, that they should give countenance to such an important change as would be involved in the habitual employment of stored lymph.—I am, your obedient servant, ALFRED D. ADRIAN, Assistant-Secretary.

HEALTH PRECAUTIONS OF THE ROYAL ARSENAL, WOOLWICH.

THE following order has been promulgated in the Royal Ordnance Factories, Woolwich Arsenal, each of the *employés*, who number several thousands, being supplied with a copy:—

"Infectious Diseases.—All persons employed in the Ordnance Factories are prohibited from coming to their work at any time when small-pox, scarlet fever, or other serious infectious disease is present in their families or in the house in which they reside. Any person violating this order will subject himself to dismissal. When infectious disease is present in the house of any *employé*, he should at once report the circumstance to the medical officer of the factory, and take steps for the isolation or removal of the patient to a hospital, or for his own removal to other quarters. To cover the time required for making such arrangements and for necessary disinfection, full pay will be allowed for a period not exceeding one week, on the certificate of the medical officer of the factory that the man was necessarily absent. On the expiration of the week the issue of pay will cease, but the man must continue to absent himself from work until such time as he may be declared by the medical officer of the factory to be free from infection. This regulation applies to all foremen and others ranking as such, and persons of higher rank."

ZYMOTIC MORTALITY IN LONDON.

The accompanying diagram shows the prevalence of the principal zymotic diseases in London during each week of the second quarter of the current year. The fluctuations of each disease during the period under review, and its fatal prevalence compared with that recorded in the corresponding weeks of recent years, can thus be readily seen.

Small-pox.—One hundred deaths from this disease were registered in London during the quarter under notice, the average number in the corresponding periods of the preceding ten years, 1883-92, being 82. Of these 100 deaths, only 90 were of London residents, of whom 12 belonged to Rotherhithe, 7 to Greenwich, 6 to Camberwell, 6 to Poplar, 5 to St. George Southwark, 4 to Limehouse, and 4 to Battersea sanitary districts. No fewer than 1,309 small-pox patients were admitted into the Metropolitan Asylum Hospitals during the quarter, against 506 in the preceding quarter, and 371 patients remained under treatment at the end of June.

Measles.—The fatal cases of measles, which had been 389 and 317 in the preceding two quarters, rose again to 439 during the three months under notice, but were less than half the corrected average number. Among the various sanitary districts of the metropolis the highest proportional fatality of measles was recorded in Clerkenwell, St. Luke, St. George-in-the-East, Greenwich, Woolwich, and Plumstead.

Scarlet Fever.—The deaths referred to this disease, which had been 389 and 335 in the preceding two quarters, were 336 during the three months ending June last, and exceeded by 121 the corrected average number in the corresponding periods of the preceding ten years. Among the various sanitary districts this disease showed the highest proportional fatality in St. George Hanover Square, St. Giles, Strand, Bethnal Green, Limehouse, St. Saviour Southwark, and St. George Southwark. The number of scarlet fever patients in the Metropolitan Asylum Hospitals, which had declined from 3,407 to 1,938 at the end of the preceding three quarters, had risen again to 2,653 at the end of June. The number of cases admitted to these hospitals, which had been 4,647, 4,545, and 2,725 in the preceding three quarters, rose again to 3,548 during the three months ending June last.

Diphtheria.—The fatal cases of diphtheria in London, which had steadily increased from 328 to 639 in the preceding five quarters, further rose to 677 during the three months under notice, a higher number than in any quarter on record, and more than double the corrected average. Among the various sanitary districts diphtheria caused the highest proportional fatality in Marylebone, Strand, Holborn, Clerkenwell, Shoreditch, St. George-in-the-East, Limehouse, Mile End Old Town, Poplar, and Bermondsey. The cases of diphtheria admitted into the Metropolitan Asylum Hospitals, which had been 713, 678, and 677 in the preceding three quarters, rose to 847 last quarter, and 295 patients remained under treatment at the end of June last.

Whooping Cough.—The deaths referred to this disease, which had been 170 and 531 in the preceding two quarters, further rose to 592 during the three months ending June last, but were 227 below the corrected average number; this disease showed the highest proportional fatality in Fulham, Chelsea, St. Luke's, Limehouse, Rotherhithe, and Battersea sanitary districts.

Fever.—Under this heading are included deaths from typhus, enteric fever, and simple and ill-defined forms of continued fever. The deaths referred to these different forms of "fever," which had been 167 and 105 in the preceding two quarters, rose again to 122 during the three months under notice, but were 20 below the corrected average. Of these 122 deaths from "fever," 114 were certified as enteric fever, 4 from typhus, and 4 from simple or ill-defined fever. There was no marked excess of fever mortality last quarter in any of the sanitary districts of the metropolis. The Metropolitan Asylum Hospitals contained 86 enteric fever patients at the end of June, against 113, 87, and 37 at the end of the preceding three quarters: the new cases admitted into these hospitals, which had declined from 212 to 122 in the preceding three quarters, rose again to 152 during the three months ending June last.

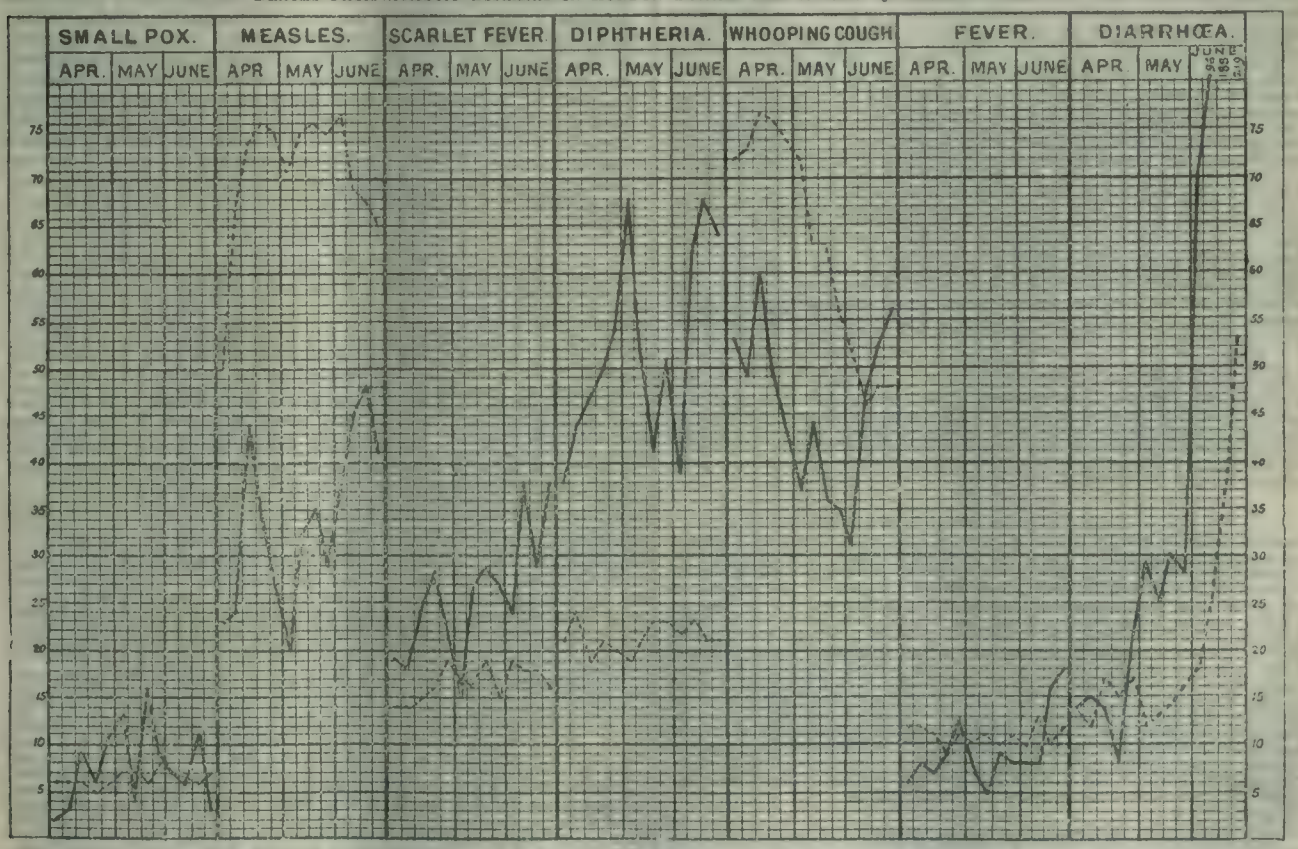
Diarrhœa.—The 757 fatal cases of diarrhœa recorded in London during last quarter were nearly three times the corrected average number; this disease showed the highest proportional fatality in Fulham, Clerkenwell, St. Luke, Shoreditch, St. George-in-the-East, Mile End Old Town, St. George Southwark, and Newington sanitary districts.

In conclusion, it may be stated that the 1,370 deaths referred to the principal zymotic diseases in London during the second quarter of this year were 540, or more than 65 per cent., above the corrected average number in the corresponding periods of the preceding ten years 1883-92. This excess was mainly due to the unusually early prevalence of summer diarrhœa. Among the various sanitary districts the lowest zymotic death-rates were recorded in Kensington, St. James Westminster, Hampstead, St. Martin-in-the-Fields, London City, Wandsworth, and Lewisham; the highest rates in Clerkenwell, St. Luke, Shoreditch, St. George-in-the-East, Limehouse, St. George Southwark, and Rotherhithe.

THE NOTIFICATION OF DIPHTHERITIC SORE THROAT.

A letter from the Local Government Board to the Holywell Local Board enters on the question how far cases of diphtheritic sore throat can be properly notified as diphtheria. The Board learned from their medical department that many outbreaks of diphtheria had originated in cases of sore throat which were not at the time of their occurrence regarded as true diphtheria. They therefore considered it desirable that all cases which there was reason to believe to be cases of diphtheria should be notified as such, even though they should not present all the typical clinical features of that disease. If this view of the matter should

Deaths from Zymotic Diseases in London during the Second Quarter of 1893.



Note.—The black lines show the *recorded* number of deaths from each disease during each week of the quarter. The dotted lines show the *average* number of deaths in the corresponding week of the preceding ten years 1883-92.

be generally accepted by sanitary authorities, it will largely increase the number of notifications, and, even if they lead to nothing more than the detention of children from school, a great deal of good will be effected.

LOCAL GOVERNMENT BOARD FOR IRELAND: ANNUAL REPORT.

IN the previous annual report attention was drawn to the fact that there had been a decrease in the average daily number of persons relieved, both in and out of the workhouse, as compared with the year preceding; and the present returns show a further decrease in the average daily number of persons relieved in the workhouses, and also in those who received out-door relief. The average daily number of persons in the workhouses was 40,454, of those maintained in public institutions and Trim district school 1,128, and of those on outdoor relief 59,137, making a total of 100,719, which represents 2.17 per cent. of the population, and is less than the total average daily number in previous return by 3,359. There was an increase of 4,976 in the number admitted to workhouses in sickness, and of 305 in the number admitted who were not sick. There was also an increase of 301 in the number suffering from fever or other infectious disease; and the total number of persons relieved in workhouses was greater than in the previous year by 4,214. The total deaths in workhouses from March 12th, 1892, to March 4th, 1893, was 9,581, which was a decrease of 1,356. Fever caused 307, as against 337 deaths; lung disease 1,707, or a decrease of 501, and consumption 1,139, or a decrease of 32. There was an increase in the number of fever cases attended by dispensary medical officers amounting to 88, and a decrease of 28 as regards scarlet fever. The dispensary tickets issued amounted to 400,858; the visiting tickets 187,500, or an increase of 26,138; while 86,200 persons were vaccinated. Of these latter, 70,907 were one year old or under when vaccinated, 12,482 above one year, and 2,811 were adults who were revaccinated. During the same year, 834 cases were vaccinated in workhouses. The total expenditure for medical and educational purposes, and for salaries under the Public Health (Ireland) Act amounted to £99,226 5s. 7d., or an increase of £1,170 17s. 8d.; while the medical charities expenditure came to £164,538 as compared with £166,330.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,510 births and 4,515 deaths were registered during the week ending Saturday, August 19th. The annual rate of mortality in these towns, which had declined from 25.1 to 20.9 per 1,000 in the preceding four weeks, rose again to 22.8 during the week under notice. The rates in the several towns ranged from 13.6 in Halifax, 14.1 in Birkenhead, 15.3 in Bristol, 17.4 in Plymouth, and 17.6 in Bradford to 26.2 in Burnley, 26.9 in Blackburn, 27.1 in Liverpool, 31.0 in Hull and Sunderland, and 33.1 in Preston. In the thirty-two provincial towns the mean death-rate was 23.1 per 1,000, and exceeded by 0.6 the rate recorded in London, which was 22.5 per 1,000. The 4,515 deaths registered during the week under notice in the thirty-three towns included 1,066 which were referred to the principal zymotic diseases, against 1,116 and 974 in the preceding two weeks; of these, 629 resulted from diarrhœa, 100 from whooping-cough, 92 from measles, 81 from diphtheria, 78 from scarlet fever, 76 from "fever" (principally enteric), and 10 from small-pox. These 1,066 deaths were equal to an annual rate of 5.4 per 1,000; in London the zymotic death-rate was equal to 4.9 per 1,000, while it averaged 5.8 in the thirty-two provincial towns, among which these diseases caused the lowest death-rates in Huddersfield, Plymouth, Derby, Cardiff, and Bristol, and the highest in Preston, Sheffield, Sunderland, West Ham, Blackburn, and Hull. Measles caused the highest proportional fatality in Sheffield and Blackburn; whooping-cough in Norwich, Croydon, and Swansea; "fever" in Birkenhead, Hull, Liverpool, and Preston; and diarrhœa in Wolverhampton, Burnley, Preston, Brighton, Sheffield, West Ham, Gateshead, Blackburn, Sunderland, and Hull. The 81 deaths from diphtheria included 63 in London, 5 in West Ham, and 3 in Leeds. Four fatal cases of small-pox were registered in Bradford, 3 in London, 2 in West Ham, and 1 in Birmingham, but not once in any other of the thirty-three towns: 209 small-pox patients were under treatment in the Metropolitan Asylums Hospitals and in the Highgate Small-pox Hospital on Saturday last, against 280, 246, and 221 at the end of the preceding three weeks. Twenty-six new cases were admitted during the week, against 40 and 26 in the preceding two weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital was 2,891 at the end of the week, against 2,965, 2,944, and 2,875 on the preceding three Saturdays; 365 new cases were admitted during the week, against 341 and 318 in the preceding two weeks. The 203 deaths from diseases of the respiratory organs in London were 27 above the average, and were equal to an annual rate of 2.5 per 1,000.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday, August 19th, 892 births and 521 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality, which had been 19.4 and 19.7 in the two preceding weeks, declined to 18.5 during the week under notice, and was 4.3 per 1,000 below the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the lowest rates were 15.5 in Edinburgh and 17.0 in Glasgow, and the highest rates 22.6 in Paisley and 24.5 in Dundee. The 521 deaths in these towns included 110 which were referred to the principal zymotic diseases, equal to an annual rate of 3.9 per 1,000, which was 1.5 below the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Paisley, Dundee, and Greenock. The 222 deaths in Glasgow included 20 from diarrhœa, 14 from whooping-cough, 5 from measles, 3 from scarlet fever, and 2 each from diphtheria and "fever." Six fatal cases of measles were recorded in Greenock, and 6 of whooping-cough in Dundee. The death-rate from diseases of the respiratory organs in these towns was equal to 3.2 per 1,000 as compared with 2.5 in London.

HEALTH OF IRISH TOWNS.

IN sixteen of the principal town-districts of Ireland the deaths registered during the week ending Saturday, August 12th, were equal to an annual rate of 24.3 per 1,000. The lowest rates were recorded in Lisburn and Newry, and the highest rates in Londonderry and Wexford. The death-rate from the principal zymotic diseases averaged 6.4 per 1,000. The 175 deaths registered in Dublin were equal to an annual rate of 26.1 per 1,000 (against 29.2 and 28.9 in the preceding two weeks), the rate during the same period being 19.6 in London and 16.6 in Edinburgh. The 175 deaths in Dublin included 41 which were referred to the principal zymotic diseases (equal to an annual rate of 6.1 per 1,000), of which 30 resulted from diarrhœa, 5 from whooping-cough, 5 from different forms of "fever," and 1 from measles.

HOSPITAL AND DISPENSARY MANAGEMENT.

INFIRMARIES AND NURSING STAFFS.

A MEMBER writes: Would you kindly give me your opinion *re* the nursing staff in a county town infirmary with which I am connected?

1. The infirmary consists of 1 male ward, 6 beds; 1 female ward, 6 beds; 1 children's ward, 4 beds; 1 isolation ward, 1 bed; total, 17 beds. The nursing staff consists of a matron and one nurse, the said nurse to look after all the wards; when requiring a night nurse, to hire any person (not nurse) that can be obtained in the town.

2. The matron goes away for one month's holiday, and leaves the institution entirely in charge of the nurse, both as regards nursing and the housekeeping, etc., of the institution, with the proviso that, if another nurse is required for a serious case by order of the medical staff, one to be telegraphed for.

3. The in-patients for last year were 135, out-patients 1,056, casualties 403; total 1,594.

As I do not consider the nursing staff sufficient, I should be glad of your opinion on the matter.

*** We are always reluctant to express an opinion upon questions of this kind without having very full particulars before us. In this instance we do not know the average number of patients in daily residence, nor the nature of the cases admitted. At the same time, we think that our correspondent has raised certain points which are well worthy of careful consideration by the managers of the hospital. It cannot be regarded as a satisfactory arrangement that the tending of the sick at night should be left to any untrained person "not a nurse, who can be obtained in the town." With reference to the second question, it is of importance to know how many patients remained in the wards during the matron's holiday. It is quite possible that, if the cases were few in number, and light in character, an energetic nurse might have attended to the housekeeping duties of the hospital without neglecting her proper work, though probably not without detriment to her own health, as she must have been unable to obtain proper outdoor exercise and recreation in the absence of any available substitute. If, however, the work of the hospital was as heavy as usual during the holiday month, then clearly the managers should have maintained the staff upon its normal footing by appointing a competent person to take the matron's duties. We trust our correspondent will raise these questions before the committee, and that he will at least be successful in inducing the authorities to appoint a trained nurse for night duty in their institution.

THE ASYLUMS OF THE COUNTY OF LONDON.

THE issue of the fourth annual report of the Asylums Committee of the London County Council reveals some interesting, though painful, facts. The number of insane persons for whom the county of London is responsible to provide asylum accommodation is increasing. Last year the number was 10,835, or an increase of 327 for 1892. The asylum accommodation of the county is still deficient to the number of 260 beds, in spite of the opening of the new asylum at Claybury, so that another asylum must be established as soon as possible. Substantial progress has been made towards reaching uniformity as to the various details of the general management of the asylums, and more attention is paid to the dietary of the patients. There is still room for improvement, however, in some of the asylums in the matter of diet. There is one point in the report which seems to merit more careful attention, namely, the fact that 38 male and 69 female patients of 70 years of age and upwards were admitted. The treatment required by these could be, it is thought, as well provided in an infirmary as an asylum. The cases had to be admitted by the officials at the various asylums as it is not within their power to refuse the admission of any persons duly certified. A subcommittee has been appointed to consider the question of establishing a seaside asylum, to be available for patients during convalescence. A subcommittee of the medical members of the Asylums Committee is gathering information as to the practice obtaining at foreign asylums in regard to pathological research, in order that London may be able to take a leading place in this scientific branch of medical work. As already stated, the subcommittee is also considering the appointment of a pathologist for all asylums.

Influenza was very prevalent in all the asylums in the spring, and among the admissions many had "influenza" given as the cause of the attack, and no doubt correctly so, owing to the depressing effect of the influenza as such, and by the consequent debility and want of rest and food. Dr. Shaw, of Banstead Asylum, draws attention to the fact that, although the condition of the admissions last year to that asylum was very unfavourable as to prognosis of recovery, yet the percentage of recoveries was a high one. Whether directly connected with it or not, he points out that it is worth noting that the high rate has been coincident with the abolition of beer as an article of ordinary diet. It is found that patients take their food better since the beer has been stopped. An examination of the causes of mental disorder shows little variation from year to year of the principal factors in the production of insanity—here-

dity, previous attacks, and drink towering above all the others. In examining the forms of mental disorder, the large number of cases of general paralysis is, as usual, striking. In the case of men, the increase at Hanwell Asylum has been from 16 per cent. in 1889 to 28 per cent. in 1892. With the exception of a few details, which could be soon remedied, the management of our asylums is satisfactory. It is regrettable, however, to chronicle the increase of lunacy in our midst.

THE CITY OF BIRMINGHAM LUNATIC ASYLUMS.

In the annual report upon these asylums, the Committee state that the average daily number of patients resident was 1,264, and that, as the present accommodation in the asylums is only for 1,256 patients, there are only eight beds vacant to meet the ever-increasing demand for more room. Mr. Whitcombe, referring to this subject, states that during the past year the accommodation has been much strained in consequence of an unusually large number of admissions, the result of which has been a considerable increase in the resident population, and the occupation of all available space. Of the 454 admissions, 36 were received from other asylums, and 76 from workhouses, 59 had been insane over twelve months, 14 were congenital, 45 were general paralytics, and 54 epileptics. Thirty-four suffered from heart disease, 9 from phthisis, and 37 from other chronic diseases in addition to their mental disease—a truly hopeless collection of cases, especially when we find that 62 were over 60 years of age. Still, in spite of the large number of admissions, the recovery-rate stands at 42 per cent., and this is eminently satisfactory. The death-rate was low, only reaching 8.1 per cent. The cost per head per week for each patient was 8s. 1¼d. Plans for the extension of the Rubery Hill Asylum have been passed, and the Committee expect that building operations will shortly be commenced.

THE DORSET COUNTY ASYLUM.

Here, as in other institutions for the insane, the number of patients steadily increases, and it is with the utmost difficulty that the existing buildings can be made to meet the pressure upon the space at the disposal of the authorities. Had it not been that the chaplain's house became available, the Committee state it would have been impossible to accommodate the present numbers. Every one of the inmates is a Dorset patient. To meet this demand for more accommodation new buildings are now in hand, the main body of which are being constructed at the contract price of £52,444. There were 496 patients resident at the end of the year, showing an increase of 24 upon the number in the asylum at the end of the previous year. The number of admissions during the year is the highest on record, and 30 per cent. above the average of the last thirty years. Dr. MacDonald tells us that with one exception all were suffering from actual mental disease, and more fit for asylum than workhouse care. The recovery rate is 33.3 per cent. and the death-rate 6.64 per cent. upon the total number under treatment. With regard to the providing suitable accommodation for idiots, Dr. MacDonald is of the opinion that instead of joining another county in providing an asylum for idiots, "an equally good and much more economical provision can be made by appropriating one block in our present asylum;" and he gives as his reasons that a joint institution for idiots would be more expensive, and that he thinks there are not sufficient cases to warrant the building of such an institution.

OVERCROWDING IN THE LIMERICK LUNATIC ASYLUM.

The resident medical superintendent has reported to the Asylum Board that owing to the great increase in the number of patients the institution is greatly overcrowded, and some of the inmates have to sleep on the floor. The Board have appointed a subcommittee to devise means for providing the necessary accommodation.

MEDICAL NEWS.

Dr. J. Farquhar, of Gurbage, Marlborough, has been awarded the Government grant for efficient vaccination in the Third District of the Pewsey Union.

It is stated that the drainage of Buckingham Palace is about to be taken in hand, and a new sewer constructed. The estimated cost of the improvements is £3,000.

Vaccination Grant.—Dr. O. C. Penrhys Evans has obtained the Government grant for successful vaccination at Kidderminster.

Professor Ehrendorfer has been elected Rector Magnificus of the University of Innsbruck for the academic year 1893-94.

Successful Vaccination.—Mr. J. S. Gettings, Public Vaccinator for the Ogley Hay District of the Lichfield Union, has received, for the fifth time in succession, the Government grant for efficient vaccination.

Dr. Braidwood, of Halkirk, has been presented by the members of his nursing class with a handsome reading-lamp. This is the third time Dr. Braidwood has been the recipient of a public testimonial within the last twelve months.

Vaccination in Ireland.—During the second quarter of the year there were 29,459 persons successfully vaccinated; in 3,046 the operation was postponed, and 38 children were reported as insusceptible of vaccination. The deaths of 1,467 unvaccinated children under 3 months old were registered during the quarter, making a total of 34,010 children with regard to whom particulars as to vaccination were ascertained.

University Extension Courses in Hygiene.—It is reported that several of the German universities have made arrangements by which courses of lectures on sanitation will be delivered in various towns by the university professors. The courses are intended especially for the benefit of officials in the employment of Government or municipal authorities, and will be varied to meet the particular wants of the various towns, and among the subjects mentioned are plumbing, drainage, disposal of refuse, laundry work, slaughtering of cattle, disinfection, and ventilation.

Leprosy in the Leeward Islands.—A report has been issued containing particulars as to the lepers in the Leeward Islands. There were 29 lepers in the Antigua Asylum in 1892; 3 were admitted during the year, and 4 died. In Antigua there is no law for the compulsory segregation of lepers, and the buildings in which lepers are received are not well suited for the purpose. In St. Kitts, where there is a law providing for pauper lepers, the new asylum at Fort Charles contained 66 inmates at the end of the year; 8 fresh cases were admitted, and 14 patients died; death was attributed in 4 cases to leprosy, in 3 to Bright's disease, in 1 to diarrhœa, 1 to dysentery, 1 to gastro-enteritis, 1 to dropsy, and 1 to influenza, with which disease nearly all the inmates were attacked in April and May. One child born in the asylum died.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently passed away are Dr. Libbrecht, of Ghent, one of the leading oculists in Belgium, aged 61; Dr. O. Rosenberger, a well-known bacteriologist and the oldest practitioner at Kösen, aged 87; Dr. G. Loomes Smith, of Seattle, Washington, U.S.A., the first President of the Washington State Medicine Society, aged 53; Dr. Jose Vargas, a leading physician of Bogota; Dr. Boéchat, of Fribourg, author of numerous papers on the Structure of the Thyroid Body, Alcoholism, the Antiseptic Treatment of Retropharyngeal Abscess, Iodoform in the Treatment of Goitre, etc., aged 46; Dr. Cramer, Professor of Psychiatric Medicine in the University of Marburg, aged 62; Professor Sommerbrodt, of Breslau, well known as a prominent advocate of the creasote treatment of phthisis; Dr. Blanche, a leading French alienist, aged 73; Dr. Gaston Dupré, of Brussels, founder of the Belgian medical journal *La Clinique*, and one of the first advocates of Listerism in Belgium; and Dr. Schrader, Surgeon-General of the 5th German Army Corps, and formerly Physician in Ordinary to the Emperor Frederick.

British Postal Medical Officers' Association.—The first annual dinner of the medical officers of the British postal service was held on July 6th at the Grand Hotel, Trafalgar Square. Dr. Matthew Coates, of Streatham, occupied the chair, and the following gentlemen were present: Dr. Adeney, Tunbridge Wells; Dr. Anderson, Hampstead; Mr. Brown, Wandsworth; Mr. Dunn, Wolverhampton; Mr. Giddings, Nottingham; Mr. Husband, Manchester; Mr. Iliffe, Derby; Mr. Lough, London; Mr. Moone, Exeter; Mr. O'Connor, Greenwich; Dr. Paramore, London; Mr. Phillips, Haverfordwest; Dr. Powell, London; Mr. Roberts, Reading; Mr. Thornton, Margate; Mr. Walker, Middlesboro'; Mr. Watson, Manchester; Mr. Wayte, Croydon; Mr. Weston, Stafford; Mr. Wright, London. Prior to the dinner a meeting was held, when—Dr. Coates having been called to the chair—it was unanimously agreed, on the proposition of Mr. Watson, seconded by Mr. Lough, that an Association of British Postal Medical Officers should be formed; and subsequently, in order to carry out and promote this decision, the Committee, vested with full powers, was constituted as follows: Dr. Adeney, Dr. Coates, Mr. Dunn, Mr. Husband, Mr. Thornton, Mr. Walker, and Mr. Wright, with Mr. Giddings as Honorary Secretary and Treasurer, and Dr. Dougan (Glasgow) as Honorary Secretary for Scotland. Mr. Frank Iliffe, of Derby, has been elected President of the Association for the ensuing year.

MEDICAL VACANCIES.

The following vacancies are announced:

ANDERSON'S COLLEGE MEDICAL SCHOOL, Glasgow.—Chair of Materia Medica and the Chair of Physics. Applications to John Kidstone, Secretary, 50, West Regent Street, Glasgow, by August 31st.

BOROUGH OF CHESTERFIELD.—Medical Officer of Health for the Urban Sanitary District. Salary, £200 per annum. Applications, endorsed "Medical Officer," to John Middleton, Town Clerk, by September 4th.

BRIDGNORTH AND SOUTH SHROPSHIRE INFIRMARY.—House-Surgeon; doubly qualified. Salary for the first year, £80 per annum, with board and lodging. Applications to the Honorary Secretary, Oldbury Rectory, Bridgnorth, by August 26th.

BRIGHTON, HOVE, AND PRESTON DISPENSARY, Board Room, Queen's Road, Brighton.—House-Surgeon, unmarried, doubly qualified. Salary, £140 per annum, with furnished apartments, coals, gas, and attendance. Applications to C. Somers Clarke, Honorary Secretary, by September 1st.

GENERAL HOSPITAL, Birmingham.—House-Physician. Salary, £70 per annum, with residence, board, and washing. Applications to Howard J. Collins, House Governor, by September 2nd.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—House-Physician. Appointment for six months. Board, residence, and allowance for washing provided. Applications to the Secretary at the office, 24, Finsbury Circus, E.C., by September 14th.

KENT COUNTY ASYLUM, Chartham, near Canterbury.—Junior Assistant Medical Officer, unmarried. Salary, £125 per annum, with furnished apartments, board, and attendance. Applications to the Clerk of the Committee of Visitors, Allen Fielding, Solicitor, Canterbury, by September 20th.

LONDON TEMPERANCE HOSPITAL, Hampstead Road, N.W.—House-Surgeon and Junior House-Surgeon, doubly qualified. Residence, board, and washing provided. Appointments for six months. The House-Surgeon will receive a salary at the rate of 50 guineas per annum, and the Junior House-Surgeon will receive an honorarium of 5 guineas on satisfactory completion of term of appointment. Applications to E. Wilson Taylor, Secretary, by August 31st.

ST. PETER'S HOSPITAL FOR STONE AND URINARY DISEASES, Henrietta Street, Covent Garden.—House-Surgeon; must be M.R.C.S. Appointment for six months. Honorarium, 25 guineas, with board, lodging, and washing. Applications to the Secretary by September 11th.

SHEFFIELD GENERAL INFIRMARY.—Assistant House-Surgeon; doubly qualified. Salary, £80 per annum, with board, lodging, and washing. Applications to the Medical Staff of the Sheffield General Infirmary, to the care of the Secretary, by August 26th.

SHEFFIELD SCHOOL OF MEDICINE.—Tutor to take charge of Dissecting Room and to hold Classes in Anatomy and Physiology. Salary, £125 per annum. Applications to the Secretary by August 31st.

STAFFORD GENERAL INFIRMARY, Stafford.—Assistant House-Surgeon. Board and residence provided. Applications to the Secretary by September 9th.

TEIGNMOUTH, DAWLISH, AND NEWTON INFIRMARY, DISPENSARY, AND CONVALESCENT HOME.—House-Surgeon; doubly qualified. Will be required to dispense and act as Secretary. Salary, £80 per annum, with board, lodging, and washing. Applications to the Chairman of Committee by August 28th.

UNIVERSITY OF ABERDEEN.—Eleven Examiners in Medicine. The Examiners in Medicine and Surgery will receive a grant of £50 each, and the other nine a grant of £40 each. Applications to Robert Walker, Secretary, the University Court, by September 25th.

WESTON-SUPER-MARE HOSPITAL AND DISPENSARY.—Medical Officer for the Provident Dispensary attached to the Hospital; doubly qualified. Salary, £80 per annum, with board, lodging, and washing. Applications to the Honorary Secretary by August 30th.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton.—House-Surgeon. Salary, £100 per annum, with board, lodging, and washing. Appointment for one year, but eligible for re-election. Applications, endorsed "Application for House-Surgeon," to Edwin A. White, House-Governor and Secretary, by August 28th.

MEDICAL APPOINTMENTS.

ADAM, John Law, M.B., C.M.Aberd., reappointed Honorary Surgeon to the Lewes Victoria Hospital.

BALLANCE, Herbert Stanley, M.B., B.S.Lond., M.R.C.S.Eng. appointed Resident Medical Officer to the Hospital for Consumption and Diseases of the Chest, Brompton, *vice* S. J. Allden, M.D., resigned.

BENSON, Henry Power D'Arcy, M.B.Edin., appointed Medical Officer for the Kentchurch District and the Workhouse of the Dore Union.

BETENSON, Wm. B., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer for the Second District of the Deepwade Union.

CARRUTHERS, E. J., W., M.B., C.M.Edin., appointed Junior Resident Medical Officer to the Hospital for Sick Children, Pendlebury, Manchester.

CORBETT, Henry, M.D., appointed Medical Officer for the Killoughey Dispensary District, *vice* Henry White, L.R.C.P.I., L.M., resigned.

DRABBLE, G. W., appointed Medical Officer of the Walton District of the Chertsey Union.

DRAKE, Alex. Thomson, M.B., L.R.C.S.I., appointed Medical Officer for the Fourth District of the Greenwich Union.

EDWARDS, E. C., M.B., C.M.Edin., appointed Assistant House-Surgeon to the East Suffolk Hospital, Ipswich.

FAWCETT, W. H., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Second District and Workhouse of the Wimborne and Cranborne Union.

HILLYAR, C. B., appointed Medical Officer for the Milton Abbott District of the Tavistock Union.

JAMISON, Alexander, M.A., M.B., B.Ch., B.A.O., appointed House-Surgeon to the Bristol Hospital for Sick Children and Women.

KERR, Daniel Oliver, M.B., C.M.Edin., reappointed Medical Officer for the Keelby District of the Grimsby Union.

MALING, W. H., M.R.C.S., L.S.A., appointed Honorary Surgeon to the Sunderland and North Durham Eye Infirmary, *vice* A. Bruce Low, M.D.Edin., resigned.

MAURICE, M. O., L.R.C.P.Lond., M.R.C.S., appointed Resident Clinical Assistant to the St. Marylebone Infirmary, Notting Hill.

MITCHELL, Patrick, M.D.Aberd., reappointed Parochial Medical Officer for Oyne.

OLDACRES, Chas. Everard, M.R.C.S.Eng., L.R.C.P.Edin., appointed Medical Officer of the Workhouse of the Daventry Union.

OWEN, Harold Edward, L.R.C.P.Lond., appointed Medical Officer of Health for the Kingsbridge Urban Sanitary District.

PRICE, Wm. Elliott, M.D.Durh., M.R.C.S.Eng., appointed Medical Officer for the Workhouse of the Ross Union.

RENNIE, George Edward, B.A.Syd., M.D.Lond., M.R.C.S.Eng., appointed Government Pathologist, Sydney, New South Wales.

ROBINSON, M.A., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Seventh District of the Deepwade Union.

ROGERS, Bertram M. H., M.B., B.Ch., M.R.C.S., L.R.C.P., appointed Physician to the Bristol Hospital for Sick Children and Women.

ROWELL, George, F.R.C.S., appointed Assistant Anæsthetist to King's College Hospital.

SNOWDEN, George Hugh, M.R.C.S.Eng., appointed Medical Officer for the Halford District of the Shipston-on-Stour Union.

STEPHENS, James Wm., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer of Health for the Cardigan Urban and Port Sanitary Authority, and Certifying Surgeon under the Factory Acts, and Inspector of Seamen for Cardigan.

THORPE, A. E., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Second District of the Newport (Salop) Union.

TROTTER, W. O., L.R.C.P.Edin., M.R.C.S.Eng., appointed Medical Officer for the Brandon District of the Thetford Union.

VASSALLI, Jerome Stephen, L.R.C.P., L.R.C.S.Edin., L.F.P.S.Glasg., appointed Medical Officer and Public Vaccinator for the Western Sanitary District of the Scarborough Union.

WEBSTER, Trevor, M.R.C.S.Eng., L.S.A., appointed Medical Officer for the Bewdley District of the Kidderminster Union.

WILLETT, George Gilmore Drake, M.R.C.S.Eng., reappointed Medical Officer for the Bilton and Merksbury Sanitary District of the Keynsham Union.

WINTLE, Colston, M.R.C.S., L.R.C.P., appointed Surgical Registrar and Out-Patient's Assistant to the Bristol Hospital for Sick Children and Women.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTHS.

BLACKER.—On August 22nd, at 15, West Eaton Place, S.W., the wife of A. Barry Blacker, M.D., B.S., M.R.C.S., etc., of a son.

COLLYNS.—On August 8th, at The Green, Dulverton, the wife of Robert J. Collyns, M.R.C.S., L.R.C.P.Lond., of a son.

DIXON.—On August 11th, at 2, Wootton Gardens, Bournemouth, the wife of J. R. L. Dixon, M.R.C.S., L.R.C.P., of a daughter.

ROE.—On August 22nd, at West Hill, Wandsworth, the wife of A. D. Roe, M.B.Cantab., M.R.C.S., of a son.

MARRIAGES.

BETENSON—WHITAKER.—On August 17th, at Enfield, by the Rev. G. H. Hodson, Vicar of Enfield, assisted by the Rev. E. H. Egles, William Betenson Betenson, M.R.C.S., L.R.C.P.Lond., L.S.A., of Bungay, eldest son of William D. Slyman, M.R.C.S., to Mildred Septima, daughter of Joseph Whitaker, F.S.A., of White Lodge, Enfield.

DE JERSEY—MILLER.—August 22nd, at the Abbey, St. Albans, by the Rev. C. Stewart Miller, brother of the bride, assisted by the Rev. Norman S. de Jersey, brother of the bridegroom, and the Hon. Archdeacon Lawrance, Rector of the Parish, Walter Brock de Jersey, M.B.Cantab., of 94, Finchley Road, N.W., son of the late Carey Brock de Jersey, Esq., of Grange Lodge, Guernsey, to Mary Stewart, youngest daughter of the late Major Dugald Stewart Miller, formerly of the Royal Fusiliers.

HARRISON—VALINTINE.—On August 22nd, at Shorne, near Gravesend, by the Rev. R. Espinasse, Rector of Birdham, Chichester, and the Rev. A. L. Coates, the Vicar, George A. Harrison, L.R.C.P. and M.R.C.S., elder son of Dr. A. J. Harrison, of Clifton, Bristol, to Miss Mabel Valintine, second daughter of the late Captain Valintine, of Goodwood, Sussex.

DEATH.

SHIMELD.—Winifred Shimeld, aged 36, wife of James Shimeld, L.R.C.P. & S.Edin., August 19th, 1893, at Southend-on-Sea.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Hours of Attendance.*—Daily, 2. *Operation Days.*—Tu. S., 2.

CENTRAL LONDON OPHTHALMIC. *Operation Days.*—Daily, 2.

CHARING CROSS. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M., 1.30; Dental, M. W. F., 9; Throat and Ear, F., 9.30. *Operation Days.*—W., Th. F., 3.

CHELSEA HOSPITAL FOR WOMEN. *Hours of Attendance.*—Daily, 1.30. *Operation Days.*—M. Th., 2.

EAST LONDON HOSPITAL FOR CHILDREN. *Operation Day.*—F., 2.

GREAT NORTHERN CENTRAL. *Hours of Attendance.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Ear, Tu. F., 2.30; Diseases of the Skin, W., 2.30; Diseases of the Throat, Th., 2.30; Dental Cases, W., 2. *Operation Day.*—W., 2.

GUY'S. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 1. *Operation Days.*—(Ophthalmic), M. Th., 1.30; Tu. F., 1.30.

HOSPITAL FOR WOMEN, Soho. *Hours of Attendance.*—Daily, 10. *Operation Days.*—M. Th., 2.

KING'S COLLEGE. *Hours of Attendance.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, daily, 1.30; o.p., Tu. W. F. S., 1.30; Eye, M. Th., 1.30; Ophthalmic Department, W., 2; Ear, Th., 2; Skin, F., 1.30; Throat, F., 1.30; Dental, Tu. Th., 9.30. *Operation Days.*—M. F. S., 2.

LONDON. *Hours of Attendance.*—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, S., 9.30; Skin, Th., 9, Dental, Tu., 9. *Operation Days*—M. Tu. W. Th. S., 2.

LONDON TEMPERANCE HOSPITAL. *Hours of Attendance.*—Medical, M. Tu. F. 2; Surgical, M. Th., 2. *Operation Days.*—M. Th., 4.30.

METROPOLITAN. *Hours of Attendance.*—Medical and Surgical, daily, 9; Obstetric, W., 2. *Operation Day.*—F., 9.

MIDDLESEX. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Th., 1.30; o.p., M. F., 9, W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu., 9; Skin, Tu., 4, Th., 9.30; Dental, M. W. F., 9.30. *Operation Days.*—W., 1.30, S., 2; (Obstetrical), Th., 2.

NATIONAL ORTHOPÆDIC. *Hours of Attendance.*—M. Tu. Th. F., 2. *Operation Day.*—W., 10.

NORTH-WEST LONDON. *Hours of Attendance.*—Medical and Surgical, daily, 2; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operation Day.*—Th., 2.30.

ROYAL FREE. *Hours of Attendance.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Dental, Th., 9. *Operation Days.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Hours of Attendance.*—Daily, 9. *Operation Days.*—Daily, 10.

ROYAL ORTHOPÆDIC. *Hours of Attendance.*—Daily, 1. *Operation Day.*—M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Hours of Attendance.*—Daily, 1. *Operation Days.*—Daily.

ST. BARTHOLOMEW'S. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, W. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. *Operation Days.*—M. Tu. W. S., 1.30; (Ophthalmic), Tu. Th., 2.

ST. GEORGE'S. *Hours of Attendance.*—Medical and Surgical, M. Tu. F. S., 12; Obstetric, Th., 2; o.p., Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopædic, W., 2; Dental, Tu. S., 9. *Operation Days.*—Th., 1; (Ophthalmic), F., 1.15.

ST. MARK'S. *Hours of Attendance.*—Fistula and Diseases of the Rectum, males, S., 3; females, W., 9.45. *Operation Days.*—M., 2., Tu. 2.30.

ST. MARY'S. *Hours of Attendance.*—Medical and Surgical, daily, 1.45; o.p., 1.30; Obstetric, Tu. F., 1.45; Eye, Tu. F. S., 9; Ear, M. Th., 3; Orthopædic, W., 10; Throat, Tu. F., 1.30; Skin, M. Th., 9.30; Electro-therapeutics, Tu. F., 2; Dental, W. S., 9.30; Consultations, M., 2.30. *Operation Days.*—Tu., 1.30; (Orthopædic), W., 11; (Ophthalmic), F., 9.

ST. PETER'S. *Hours of Attendance.*—M., 2 and 5, Tu., 2, W., 5; Th., 2, F. (Women and Children), 2, S., 4. *Operation Days.*—W. and F., 2.

ST. THOMAS'S. *Hours of Attendance.*—Medical and Surgical, daily, exc. W. and S., 2; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Tu. F., 1.30; Children, S., 1.30; Dental, Tu. F., 10. *Operation Days.*—W. S., 1.30; (Ophthalmic), M., 2.30, F., 2; (Gynæcological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Hours of Attendance.*—Daily, 1.30. *Operation Day.*—W., 2.30.

THROAT, Golden Square. *Hours of Attendance.*—Daily, 1.30; Tu. and F., 6.30; *Operation Day.*—Th., 2.

UNIVERSITY COLLEGE. *Hours of Attendance.*—Medical and Surgical daily, 1.30; Obstetrics, M. W. F., 1.30; Eye, M. Th., 2; Ear, M. Th., 9; Skin, W., 1.45, S., 9.15; Throat, M. Th., 8; Dental, W., 9.30; *Operation Days.*—W. Th 1.30; S., 2.

WEST LONDON. *Hours of Attendance.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th. S., 2; Ear, Tu., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, Tu., 10, F., 4; Skin, F., 2; Throat and Nose, S., 10. *Operation Days.*—Tu. F., 2.30.

WESTMINSTER. *Hours of Attendance.*—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1; Eye, M. Th., 2.30; Ear, M., 9; Skin, W., 1; Dental, W. S., 9.15. *Operation Days.*—Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

MEMBER would be glad to know where he could place a bed-ridden syphilitic patient, only able to pay £1 per week, in a home or hospital.

SUBSCRIBER writes: I have a patient who a few months ago suffered from thrombosis of the artery of the left lower leg. Gangrene set in, and a line of demarcation formed about four inches below the knee-joint, not even all round, but higher and lower. The gangrenous portion is now entirely separated, and the bones completely exposed at that point, and have been so for a few weeks. The patient, who is aged about 75 years has weak heart, and takes liquid nourishment well. The stump is healthy, and secretes a laudable pus. It is of course uneven, unlike a clean circular cut of the knife. A good deal of dead tissue still clings on the bones. The bones show no signs of dividing. Would it be safe to divide them on a level with the stump, or will nature amputate them in course of time?

TREATMENT OF PRURITUS ANI.

SURGEON asks for advice as to the treatment for a very obstinate case of pruritus ani in a man, aged 65 years, who has suffered for some years, and has so far resisted all treatment tried.

ANSWERS.

T. MARSHALL.—The results of the examination for entrance into the Royal Navy for medical officers was published in the BRITISH MEDICAL JOURNAL of November 25th, 1892, page 1199.

T. H. R.—The birth- and death-rates for England and Wales for 1892 were published in the BRITISH MEDICAL JOURNALS of May 7th, 1892, p. 999; August 13th, 1892, p. 392; November 5th, 1892, p. 1001; and February 4th, 1893, p. 271.

C. E. A.—We have made inquiries with regard to the assurance company to which our correspondent refers, and we believe that there is no reason why he should not become referee to the company provided that it is prepared to pay reasonable fees for the work done.

DELTA.—With regard to the question whether medical practitioners who are in the employment of medical aid associations can be considered to be covering the committee of the association, we may refer our correspondent to the *Report of the Medical Aids Committee of the General Medical Council on Medical Aid Associations*, recently issued, which can be obtained from Messrs. Spottiswoode and Co., publishers to the Council, price 1s. An analysis of the report appeared in the BRITISH MEDICAL JOURNAL of June 3rd, 1893, p. 1168.

MEDICAL PRACTICE IN THE ARGENTINE REPUBLIC.

DR. ALBERT ROSENAU (Kissingen) writes: In answer to Dr. T. Booth-Clarkson, I may say that an English medical man, to be able to practise in the Argentine Republic, has to pass a new and pretty stiff examination in Spanish language, which lasts at least two to three months. But there is no necessity for a stay of two years, like Dr. Burges erroneously pretends, as English as a rule learn easily enough the Spanish language. In Buenos Ayres, where they have got only seven English doctors, while fifteen German-speaking doctors, there would be undoubtedly a good opening for an English medical man. All the certificates submitted to the medical faculty at Buenos Ayres must be beforehand legalised by the Argentine consul in London. In Cordoba, the second Argentine medical faculty, the examination is less stiff, but its fees are greater (about 20 to 25 dollars). The best way for an English doctor to learn Spanish and to get known with the customs of the people is to obtain by a demand to the Consejo Nacional de Higiene the temporary licence to practise medicine in some small place (pueblo) where there

is no doctor yet. There are plenty of such places, where he is sure to get the licence for at least one year, and to make his living. The same holds good for Uruguay. There seems to me a very good opening for English medical men in Paraguay. In Brazil, where also an examination is necessary, they allow the use of Portuguese or French.

TREATMENT OF SEA SICKNESS.

DR. T. DUTTON (London) writes: "M.A.," I think, can entirely prevent sea sickness if he goes to sea with a "clean" stomach and liver, and takes 5 grains of fresh bromide of ammonium three times a day two days before starting, and 10 to 20 grains when on board. The diet should only consist of aërated milk, dry biscuits, and about twenty drops of bovinine every three hours until all symptoms of sickness have passed. I have tried this treatment on myself and also in hundreds of cases with perfect success. Dr. Graily Hewitt's advice concerning the eyes is a most useful adjunct to other treatment. All drugs, in my opinion, are useless without preparatory treatment.

TRAINING SCHOOLS FOR YOUNG NURSES.

J. F. G. A.—If the young lady is only 20 years of age, and desires to proceed with her training at once, it would be better that she should begin in a children's hospital, and she might write for the necessary information to the matron of one of the following; The Children's Hospital, Great Ormond Street, W.C.; the Evelina Hospital, Southwark Bridge Rd., S.E.: the East London Hospital for Children, Shadwell, E. We are assuming that the lady desires to be trained in London. There are children's hospitals of good repute in Manchester, Liverpool, and Birmingham. We must add that, in our opinion, a young lady at the age of 20 is not, as a rule, either old enough or strong enough to enter upon the arduous work of training for the profession of a nurse in the wards of a general hospital.

NOTES, LETTERS, Etc.

DENHOLM TESTIMONIAL FUND.

MR. ALEXANDER G. R. FOULERTON writes: The above fund has now reached £51 19s. 6d. The fund will be closed after the first week in September. The honorary secretaries, Mr. Fegen, M.R.C.S., 2, Mornington Road, Bow, and Mr. A. G. R. Foulerton, M.R.C.S., 122, Brompton Road, S.W., will be glad therefore if those who propose to subscribe will send in their names at once. Cheques and postal orders should be made payable to the "Denholm Testimonial Fund," and crossed "Messrs. Gurney and Co." Subscriptions will be received by either of the honorary secretaries, or may be paid in direct to the Denholm Testimonial Fund, at Messrs. Gurney and Co.'s, Thetford, Norfolk, or at any other branch of the same bank. The following have been received since the publication of the last list:

	£	s.	d.
Dr. Vawdrey Lush	0	10	6
Dr. A. A. Mumford	1	1	0

LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY.

DR. HUGH WOODS (Honorary Secretary) writes: A warrant has been issued for the apprehension of an Indian oculist styling himself Kream Bocesh, on a charge preferred against him by the London and Counties Medical Protection Society of maliciously and unlawfully cutting and wounding a patient.

It is earnestly requested that information as to any Indian oculists at present practising shall be at once forwarded to the Honorary Secretary of the Society, Dr. Hugh Woods, 11, Archway Road, Highgate, N.

WASP STINGS.

MR. J. LAWRENCE-HAMILTON, M.R.C.S. (Brighton) writes: (1) Permit me to supplement your annotation on Wasp Stings, in the BRITISH MEDICAL JOURNAL of August 19th, by suggesting, in addition to the application of ammonia or other available alkali, that subsequently a little Condy's fluid should be poured on the wound, so that in case of the wasp inoculating any putrid matter into the patient, then such poisonous material shall be at once disinfected.

(2) The immediate pain and itching from the bites and stings of insects seem due to something more than the mere acidity of a secretion. The pain and itching depend, probably, rather upon the introduction of some specific irritant, possibly distinct and peculiar to almost every large class of insect.

(3) The most serious cases of stings and bites of insects appear due to the animal having conveyed and inoculated a special, perhaps accidental, dose of putrefactive matter.

(4) Where practicable, especially owing to possible putrefactive properties, the sting should be extracted.

MR. C. G. READ, M.R.C.S. (Weston-super-Mare) writes: In your article on Wasp Stings in the BRITISH MEDICAL JOURNAL of August 19th you remark: "Occasionally a single sting will be rapidly followed by an acute cellulitis, death from which has in more than one instance been recorded." And lower down: "The possible necessity of tracheotomy in case of cellulitis and œdema of the larynx, following stings in the mouth and pharynx, must not be forgotten."

As the following notes tend to illustrate the dangers pointed to, whilst they prove the marvellous efficacy of the glycerinum boracis *B.P.* as an application for the relief of cellulitis in such cases, I trust you will deem them worthy of publication.

G. B., aged 15 years, attended at the surgery on July 23rd, 1875. His tongue was protruded from his mouth, swollen to more than twice its natural size. He could not draw it back into his mouth, and could not speak, but answered questions by nods or gestures. His distressed countenance and agitated manner indicated that he was in dread of suffocation, which, indeed, was rapidly impending. A man who drove him stated that he had been stung by a wasp more than an hour earlier, when eating some fruit. As a bottle of glycerinum boracis (then a novelty to me) was at hand, I thought I would give it a trial before resorting to operative measures. I therefore measured out 3j, and with a large camel's-hair pencil freely swabbed the tongue with it. To my surprise this caused a free flow of saliva and watery discharge, and so reduced the swelling that the poor fellow was enabled to blurt out, though very indistinctly, "Better." Encouraged by this measure of success, I quickly used a second 3j, and that with such good result that he drew up the greater part of his tongue into his mouth, and ejaculated with great delight, "Can speak." But as the tongue was still swollen I used a third 3j, and that so reduced the swelling that he drew the tongue completely into his mouth, rolled it freely from side to side, and swallowed his saliva. In short, he was cured by this very simple treatment.

Of course the cure will be regarded as a beautiful example of the law of "diffusion of fluids," or of endosmotic force, which was in this instance so effectually set up by the choice of the strongly hygroscopic substance in which the borax was dissolved—namely, the glycerine. With that inference I fully agree, although from subsequent experience of the comparative effects of the simple glycerine and the glycerinum boracis as applications to stings on the skin and mucous membranes, I am disposed to think that the efficacy in the above case was due in part to the antiseptic property of the borax.

As an immediate application to stings on the skin, I have found nothing answer so well as the tincture of iodine freely painted on the part.

LETTERS, COMMUNICATIONS, ETC., have been received from:

(**A**) Dr. A. E. Allen, Cincinnati; Axbridge; Professor C. Allbutt, Cambridge; Dr. T. C. Askin, Alderton; Dr. P. S. Abraham, London. (**B**) Dr. A. M. Buchanan, Glasgow; Mr. J. T. Brumwell, Kendal; Mr. E. Briscoe, Liverpool; J. E. Blomfield, M.B., Sevenoaks; Mr. J. T. Beale, Perranporth; Miss L. A. Bell, Cambridge; Mr. C. E. Bashall, Plymouth; Dr. J. Braithwaite, Newcastle-on-Tyne; Mr. B. F. Bradshaw, Hanwell; Messrs. Burroughs, Wellcome and Co., London; Lady Baker, Blandford. (**C**) Dr. C. L. Clift, Bournemouth; Messrs. Corbyn, Stacey and Co., London; Mr. R. J. Collyns, Dulverton; Mr. A. B. Cruickshank, London; Mr. T. H. Crampton, London; Mr. H. B. Collins, Kingston-on-Thames; Dr. T. Cooke, London; Dr. J. Coats, Glasgow; Dr. T. K. Clarke, Huddersfield; Dr. F. C. Coley, Newcastle; Mr. A. B. Clarke, Highampton. (**D**) Mr. E. R. Davies, Ross; Dr. T. Dutton, London; Dr. S. Davies, Plumstead; Dr. C. Dukes, Rugby; Mr. P. H. Day, Stalmine; Rev. J. Dewe, Scarborough. (**E**) O. C. P. Evans, M.B., Kidderminster; G. Elam, M.B., London; Mr. H. Emmerson, Bradford. (**F**) Dr. J. Farquhar, Burbage; Mr. A. G. R. Foulerton, London; A. H. Frere, M.B., Leeds. (**G**) Mr. A. I. Garland, Oomaru; Dr. H. R. Greene, Southsea; Mr. J. S. Gettings, London; Dr. W. R. Gowers, Southwold. (**H**) Mr. E. Heaton, London; Dr. F. de Havilland Hall, London; F. Hawthorn, M.B., Newcastle; Dr. F. T. Heuston, Dublin; Mr. H. N. Hardy, London. (**I**) Mr. J. M. Inglis, Thurso; Dr. C. R. Illingworth, London. (**J**) Mr. D. Jones, Liverpool; Mr. W. Jones, Ruabon; Mr. W. E. Jones, Walkley. (**K**) Messrs. Krohne and Sesemann, London; Dr. A. A. Kanthack, Cambridge. (**L**) J. Limont, M.B., Newcastle-on-Tyne; Messrs. Lilley and Skinner, London; Mr. J. K. Lunn, London; Mr. H. Lamond, Glasgow; Locum Tenens; Dr. F. Little, London; Mr. W. F. Lloyd, Windsor; Mr. J. J. Langston, Grantham; Mr. J. Lawrence-Hamilton, Brighton. (**M**) Member; Mr. G. H. Morley, Birmingham; Mr. H. C. Mackintosh, Dublin; Mr. C. A. Morton, Clifton; Mr. C. H. Miles, Stantonbury; Mr. W. H. Maling, Sunderland; Mr. J. T. R. Miller, Walton. (**N**) Mr. E. Nicholson, Liverpool; Mr. J. Nyland, London. (**O**) Messrs. Oliver and Boyd, Edinburgh. (**P**) Dr. W. S. Porter, Sheffield; Dr. Charles Porter, Stockport; Mr. G. Powell, London; Dr. J. W. Paton, Abbotsford; Dr. G. H. Philipson, Newcastle-on-Tyne; Dr. H. B. Pope, Kington; Mr. C. Penruddocke, Wylie. (**R**) Mr. E. Rice, Waterville; Dr. E. F. Ross, Southampton; Mr. C. G. Read, Weston-super-Mare; Royal College of Surgeons of Ireland, the Registrar of, Dublin; Mr. A. Roche, Dublin; R. H. Rozenweig, M.B., Malmesbury; T. Robson, M.B., Grosmont; Dr. G. E. Rennie, Sydney; Mr. G. Rendle, London. (**S**) Mr. M. Scott, London; Mr. F. W. Short, London; Professor M. Semmola, Naples; Mr. F. Style, Moreton-in-Marsh; School of Medicine, Edinburgh, the Secretary of, Edinburgh; Mr. J. W. Smith, Weaverham; Dr. G. Singer, London; Surgeon; Dr. E. Seaton, London; Mr. E. A. Shaw, Chatham. (**T**) Dr. H. Tuke, London; Mr. H. V. Thurston, Bermardymo; Mr. T. Tibbits, Walsall. (**W**) Mr. H. J. Waring, London; W.; Mr. R. W. Williams, Preston; Mr. M. Wardle, Bishop's Auckland; Dr. W. Hale White, London; Dr. A. Wallace, Rochdale; Mr. J. Wylie, Downpatrick. (**Y**) E. S. Yonge, M.B., Manchester; etc.

BOOKS, ETC., RECEIVED.

On the Nature and Treatment of Talipes Equino-Varus or Club-Foot. By Bernard E. Brodhurst. London: J. and A. Churchill. 1893.

Transactions of the Sanitary Institute. Vol. XIII. London: E. Stanford; 1893.

*** In forwarding books the publishers are requested to state the selling prices.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1893.

Subscriptions to the Association for 1893 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, SEPTEMBER 2ND, 1893.

THE MODES OF ENTERING THE MEDICAL PROFESSION.

It is admitted by all men of sense and feeling that the medical profession is one of the noblest to which a man can devote himself. To command success, true success, in this calling, a man needs to possess some of the highest moral and intellectual qualities. To achieve it in such degree as to make a man honoured by his fellows and respected by the community among whom he dwells, the student must set before himself a true ideal. Now it should be at once, and once for all, understood that this ideal must not be money getting. The young man who seeks to enter the medical profession in the expectation of achieving wealth will almost certainly be disappointed. A modest competence, and the inward satisfaction derived from the consciousness of good work honestly done, is the goal towards which he must strive, and which he may hope to attain. There is no blinking the fact that the public is not a good paymaster of the medical profession. Both in money and in honour it rewards with a more liberal hand the successful lawyer or the fortunate soldier. The first medical peer has yet to be created, and medical millionaires are still unknown.

The mode of admission to the medical profession in Great Britain is governed by Acts of Parliament, and the medical curriculum in its broad features is determined by regulations made by the General Medical Council under those Acts. The most important of these Acts are the Medical Act of 1857, which, to quote the words of its preamble, was adopted by the Legislature because "It is expedient that persons requiring medical aid should be enabled to distinguish qualified from unqualified practitioners," and the Amending Act of 1886. The General Medical Council, which was created by the Act of 1857, is charged with the duty of making and keeping the *Medical Register* of persons duly qualified to practise. The Council also keeps the *Medical Students' Register* and the *Dentists' Register*. A person can become duly qualified, and thus entitled to the entry of his name on the *Medical Register*, only by taking medical degrees from a university in the United Kingdom, or diplomas from certain medical corporations or colleges in the three kingdoms.[1] The degrees or diplomas must have been obtained after examination in Medicine, Surgery, and Midwifery, and the recipient must be certified to be competent in these three subjects. All the English, Scottish, and Irish universities grant such degrees; the corporations which grant diplomas are in England (1) the Conjoint Examining Board of the Royal College of Physicians of London and the Royal College of Surgeons of England; (2) the Apothecaries Society of London; in Scotland, the Conjoint Examining Board of the Royal College of Physicians of Edinburgh, the Royal College of Surgeons of Edinburgh, and the Faculty of Physicians and Surgeons of Glasgow; in Ireland (1) the Conjoint Examining Board of the Royal College of Physicians and the Royal College of Surgeons in Ireland; and (2) the Conjoint Examining Board of the Royal College of Surgeons in Ireland and the Apothecaries Hall in Ireland.

Upon one point a decision should be reached at the outset—if possible even before the intending student leaves school—and that is whether he intends to seek a university degree or a licence only. Formerly it was very much the custom, especially for London students, to seek only licences to practise; but during the last twenty years it has come to be very distinctly a disadvantage to a man engaged in general practice not to possess the degree of Doctor of Medicine. By common usage the title of "Doctor" is accorded by the public to all medical practitioners, but the want of a legal right to its use is apt to be a source of annoyance and inconvenience. From correspondence which has been addressed to us from time to time, it is not too much to say that there are at the present day in the United Kingdom, but especially in England, thousands of practitioners who are constantly regretting the initial mistake by which they are prevented from obtaining the degree of M.D. The difference in the professional curriculum required by the universities and that required by the medical corporations respectively has never been great, and since it has been enacted by the General Medical Council that all medical students must go through a course of five years' training, the difference has become still less. The real difference lies, and always has lain, at the outset, since the examinations in Arts and in the Preliminary Sciences required by the universities are, as a rule, of a higher standard.

It is, therefore, of the greatest importance that the proper preliminary examination should be determined upon while the candidate is still at school, and we would strongly advise that this should be an examination in Arts, conducted by, or accepted by, the university of the city in which the student eventually intends to prosecute his medical studies. In Scotland, where an excellent graduated system of progressive education has been in existence for generations, the student will have no difficulty. In Ireland he will have the choice of meeting the requirements of the University of Dublin or of the Royal University of Ireland, the regulations of the latter being more elastic with regard to the places in which professional studies may be carried on. In England the student proceeding to the Universities of Oxford and Cambridge, to the University of Durham Medical College (Newcastle-on-Tyne), to one of the colleges of the Victoria University—Owens College, Manchester; University College, Liverpool; Yorkshire College, Leeds, need have no hesitation; but the case is somewhat different with students intending to enter at a medical school in London, Birmingham, or Bristol—they must either content themselves with a diploma or look to the Universities of London or Durham for a degree.

For London students, at least, the natural course would be

[1] Colonial degrees are, in certain cases, registrable under special conditions.

to become members of the University of London. To do this they must pass the Matriculation Examination, which is by general repute difficult, and they must subsequently pass the Preliminary Scientific Examination, which is far from easy unless the candidate has been well taught. An agitation has been on foot for the last ten or twelve years to bring about the reform of the University of London, and, as one of the major improvements, so to modify its regulations with regard to degrees in medicine as to place them within the reach, as it is said, of the "average student." Two Royal Commissions have sat and taken evidence at great length, and the report of the second will, it is expected, be published shortly. The tenor of this report cannot, of course, be forecast accurately, but there are ominous rumours of dissension in opinion among the Commissioners. If this be so the whole question will be once more hung up for an indefinite period. It would not, therefore, be prudent for students entering at the present time to place any reliance on the result of this Commission being of such a nature as would have any effect upon the regulations of the University within their time. On the other hand, the difficulty of passing the two examinations indicated above has been sometimes greatly exaggerated, and there is no reason why a lad of average intelligence, who has been well taught and properly prepared for the examination, should not pass the Matriculation Examination[1] on leaving school. The Preliminary Scientific Examination may also be passed before joining a hospital medical school.[2] A diligent student who attends conscientiously the classes of a medical school and the practice of the hospital to which it is attached will find no difficulty in passing the Professional Examinations of the University for the degree of M.B.

An alternative opportunity of obtaining a degree in Medicine is afforded by the University of Durham, and at some of the medical schools special arrangements are made to this end with a view to meeting its requirement in regard to a year's residence.[3]

Finally, an English student would do well to consider seriously whether it may not be possible for him to become a member of the University of Oxford or Cambridge. At both the arrangements and appliances for teaching Preliminary Sciences, as well as Anatomy and Physiology, are first rate, and it is possible to take the degree of M.D. of the University of Cambridge after five years of study.[4]

Failing the power or the ambition to obtain a university degree, the student will be required to pass a series of examinations held by one or other of the corporations or examining boards already enumerated, and will have to fulfil the conditions of the five years' curriculum of the General Medical Council, attending the same classes, listening to the same lectures, sitting on the same benches as the university students, to receive at the end diplomas the value of which are not understood by the public. This may seem—this, in fact, is—a hardship, but it is one for the moment without remedy, and the student will do well not to subject himself to it.

The pages which follow contain sufficient particulars as to the regulations of the various universities and licensing bodies to guide the student in his choice. He should first make himself familiar with the requirements and recommendations of the General Medical Council, which govern the licensing bodies and the universities so far as the medical curriculum is concerned.

Formerly it was the almost universal custom to enter a medical school at the commencement of the winter session, and the first week of October was esteemed the beginning of the *annus medicus*. Recent alterations in the curriculum and the examinations have altered the circumstances of a medical student's course considerably, and it is now as well, if not better, to enter at the beginning of the summer session (May). By so doing he has the advantage of commencing the study of the Preliminary Scientific part of the curriculum early in the year, and may be able to pass an examination in Chemistry and Physics before beginning the study of Anatomy and Physiology, which are the proper subjects of work during the first winter session.

[1] The examination is held in January and June in London, and once, or in some cases twice a year, at numerous provincial centres: Aberystwith, Bangor, Birmingham,* Bristol,* Cardiff,* Edinburgh, Epsom,* Glasgow,† Leeds,* Liverpool, Manchester, Newcastle-on-Tyne,* Nottingham, Oswestry,† Plymouth,* Portsmouth,† and Sheffield. (At the places marked thus * the Matriculation Examination is held in January and June, 1894; at those marked thus † in January only; at the others in June only.)

[2] This examination is held twice a year in London (January and July); it will also be held in July, 1894, at the following centres: Aberystwith, Bangor, Bristol, Epsom, Glasgow, Leeds, Liverpool, Manchester, Newcastle, and Nottingham.

[3] Special arrangements exist at Guy's Hospital, but the student will probably find that his needs will be met at St. George's Hospital, Middlesex Hospital, or the Westminster Hospital, as well as at some other London hospitals, and at Mason College, Birmingham. The student is advised to enter the medical school selected at the beginning of the summer session (May).

[4] Arrangements to meet the requirements of Oxford and Cambridge students as to Practical Medicine, Surgery, and Midwifery exist at St. Bartholomew's, St. George's, Guy's, the London Hospital, the Middlesex Hospital, St. Mary's, St. Thomas's, and the Westminster Hospitals.

THE COST OF A MEDICAL EDUCATION.

AMONG the questions now agitating the parental mind in scores of cases in regard to the education of the rising generation, few are more pertinent than the inquiry, What will it cost? Can I afford it? A correct answer is of especial importance when it is a question of entry into the medical profession. If a medical education turns out more expensive than had been anticipated, if it cannot be afforded and fails to be carried through to the end, not only are the money and the time spent upon it thrown away—absolutely wasted from a money-earning point of view—but the student finds himself, at an age which makes an entry into business difficult, stranded without employment or profession, and his little capital gone. It is, then, of the greatest moment that before embarking in the study of medicine an accurate estimate of its probable cost should be formed, otherwise the student runs the risk, of which every year sees sad examples, of dropping out of his course in mid-career, his youth wasted, his future spoilt.

The expenses of the curriculum may be divided into two classes—one of which consists of fixed charges which can be accurately calculated beforehand, the other of things which, being personal to the individual, are liable to a certain amount of variation in individual cases.

In the first class come all the expenses directly connected with schools and examinations, in the second those connected with maintenance.

The fees for the various examinations differ, as also do the composition fees for hospital and school work at different places, but they are all published, and can be calculated to a penny.

Then there are certain other expenses, the exact amount of which cannot be found from published tables, and which also vary at different schools—namely, subscriptions to library, cost of "parts" for dissection, of chemical, biological, and pathological apparatus and materials; of books, bones, etc.; and the subscription to cricket, football, or rowing clubs, which, although not in the estimate, may be practically obligatory. As regards all these points, when the school and the diploma are provisionally decided on, a little correspondence, asking for definite answers to definite questions, ought to enable any man to make an estimate within a few pounds of the sum required. The great question to which no precise answer can be given is as to the cost of maintenance. Various attempts have been made to estimate the cost of living appropriate to the medical student, many of which are utterly futile owing to the fact that there is no standard of comfort acceptable to all, very little standard of dress, and absolutely none as regards amusements. The range of possibilities in this matter becomes obvious enough when we consider, on the one hand, at what wages an artisan can live, and, on the other, how easily £5 a week slips through the fingers of one not inured to petty thrift and to the care of pence. It is here that the nicely brought up youth finds himself at a disadvantage with those who, from early habits, do not feel the hardship of surroundings which to him would be constant misery; for there is no denying that it is possible, to one accustomed to the style of life, to pass through the curriculum on an artisan's wages added to the necessary fees. To one not trained to such economy the attempt would be folly, but many a black-coated clerk lives on £70 to £80 a year, and certainly scores of curates do not receive more than £100 to £130, and it appears to us that this last may fairly give an idea of what a gentleman willing to live carefully can keep himself upon. Here again locality has much to do with expense of living. It may possibly be the case that lodgings, in certain parts of Manchester or Dublin or Edinburgh, do not cost much less, if any less, than they do in London, but from the smaller size of these towns a greater range is available within a moderate distance, a walk which in London would make no appreciable difference in surroundings bringing one into those more open regions where cheaper lodgings are most likely to be found.

It may, we think, be taken broadly that all classes of expense tend to vary together, that cheaper rent often accompanies cheaper food and even cheaper style of clothing, and that, at the very places where the necessary expenses are least there the social expenses into which people are drawn by custom and imitation are also kept at a low level, partly, probably, because richer men tend to flock to more expensive schools where it is difficult to prevent them from setting the fashion in many ways.

It may be said, and with some truth, that at a large metropolitan school it is easier for a student to become lost in the crowd when he leaves the college gates and to live as he likes or as necessity may force him; but it must be at once insisted on that by such a mole-like existence, in which the student, however much he may sit with others in the class, hides himself from them in his private life, a youth loses a great part of those wider educational advantages which a more intimate association with his fellows ought to give.

An active companionable student life, full of intimacies, rivalries, and competitions, both in regard to work and play, not only brings out the best powers of a man's mind, but is a thing to look back upon with pleasure so long as life shall last. It is no small loss that a period so full of expansive possibilities should be turned into a time of penurious counting of petty cash, and we feel sure that it is better, as an educational proceeding, to send a youth, whose means are small, to a school so suited to his pocket that he can join in what is going on evenhanded with the rest, than to place him where he will have to study economy and even parsimony at the expense of sociability. We doubt, for example, the educational advantage of trying to live at Cambridge for less than £150 a year. What is gained in knowledge is lost in bitterness of spirit.

Nor must it be forgotten that the life of a medical student is a trying one, and that for the maintenance of health provision must be made for a considerable amount of outdoor exercise. Boating, cricket, tennis, football—things for which the solitary walk is no substitute—all mean clubs and subscriptions, and, although this is a side of student life which is often overdone, it is absolutely essential that some provision be made for it. Two years spent in laboratories and dissecting rooms form but a poor preliminary, from a health point of view, to the long study of disease which then has to be undertaken, in wards and out-patient rooms, mixing daily with the sick of every kind. The athletic side of education is really more necessary for the medical than for any other class of student.

Turning now to particulars, we believe that within half an hour's walk of most of the London hospitals a single room can be obtained for from 8s. to 12s. a week or a sitting room and bedroom from 10s. to 20s., and that partial board—meaning thereby breakfast with ham or egg, and plain dinner or meat tea in the evening—for from 21s. to 30s. a week. All these charges will come to less per head, and will command very much better food for the money, if two or three students chum together in the same rooms. Some greatly dislike this plan, saying they cannot work unless alone; but whenever two or three quiet, hard-working fellows can get together, not only may they be of immense assistance to each other in their studies, but they of necessity develop habits of punctuality and mutual forbearance which are very useful to them afterwards.

The midday meal (and beer, if taken) remains to be provided for, and also washing, boot cleaning, and fires. It is very difficult to see how these can be done for less than 10s. to 15s. a week, which at once brings up the living expenses to 31s. or 45s.; near the lower sum on the system of chumming, near, at any rate, 40s. living independently. Unless one lives very near the hospital, the midday meal must be taken away from home, and if it is to be a meat lunch it soon runs away with the money.

As regards the distribution of the meals, no rule will apply to all. A very short experience shows that the art of living economically largely depends on that of eating a good breakfast. The youth who plays with his food at breakfast time is ravenous at midday, and then is apt to nibble only at the evening dinner, which he pays for all the same. Unless, then, he arranges his meals according to his appetite, or *vice versâ*, if he can, he pays twice over.

Attached to several of the hospitals there are residential

colleges, at which students can live very comfortably, and halls of residence are also connected with such institutions as Toynbee Hall and University Hall. As regards expense, they do not seem to differ much from private lodgings; certainly they are no cheaper, although in some the accommodation may be better. There are, however, certain definite advantages connected with them which are worth bearing in mind. Some amount of supervision is exercised over the goings-out and comings-in; the warden also may be able to give a word in season, if he finds a student inclined towards "loafing" or dissipation; the sanitary arrangements are mostly good, which is more than can be said of lodgings; there is the great advantage, where food also is supplied, that the temptation to skimp the diet for the sake of pocket money is removed; and one has, at any rate, the satisfaction of feeling that a student at one of these colleges would not be allowed to drift into illness unnoticed and uncared for, as may easily happen in lodgings so long as the rent is paid.

The question of clothes, again, must vary with different people and different modes of bringing up, but it should be possible to keep within £20 a year if properly fitted out at the commencement.

As regards London, then, we seem to have something definite to go upon. Taking one of the more expensive schools and living at 40s. a week on the one hand, and one of the less expensive with living at 30s. on the other, and adding in each case the conjoint examination fees and £20 a year for clothes, we find the total expense of the five years curriculum in London as follows:

	£ s. d.	£ s. d.
Composition fee for school and hospital	157 10 0	115 0 0
Fees for instruction in vaccination and fevers	4 4 0	4 4 0
Materials (biology and chemistry), and parts	6 6 0	5 5 0
Clubs	8 8 0	5 5 0
Instruments, about	10 10 0	10 10 0
Books, about	10 10 0	10 10 0
Diploma fees	36 15 0	35 15 0
Five years of forty weeks at 40s. and 30s. a week respectively	100 0 0	300 0 0
Five years clothing at £20	100 0 0	100 0 0
Total	£734 3 0	£587 9 0

To this must be added provision for three vacations a year, with the necessary railway fares, or else proportionately increased charges for living. The only points in which this sum might be contracted are that in the fifth year it might be possible to act as assistant to a practitioner and so diminish the expense of living, but it must be remembered that in this fifth year a good deal of hospital attendance has to be put in, besides preparing for the final examination; and that it is out of the question to expect to be able, even in that year, to pay one's way, and we would say at once that the examinations are now so severe that any attempt to combine the work of student with that of assistant, in the early years, is merely to court failure.

In the provinces we believe that the curriculum can be gone through at a considerably cheaper rate. Not only are the hospital and school fees somewhat lower, but the expense of living is less. A correspondent at Leeds tells us that one guinea a week will pay for board and lodging; from Liverpool we hear that the cost of living can be comfortably kept within thirty shillings a week, and that a minimum of £1 a week might be stated; and from other places comes the same tale. Of course, in these estimates clothes are not included.

It would seem, then, that from what we have looked upon as the minimum expense of living in London, perhaps £20 per annum may be deducted, and from the total college fees £10, which means that the entire cost of entering the profession through a provincial school might not exceed £500.

Reports come from some parts of Scotland of phenomenally low rates of living, but it is probable that they are associated with a very different standard of comfort to that which we have had in our eye. Even the estimates we have given in regard to London and the provinces are such as will be looked upon as small by many students, and certainly they will not provide for more than a quiet stay-at-home life.

Some brilliant students are able materially to diminish their expenses by taking scholarships and prizes, and to those who have the knack of winning these things, the number of such possible additions to income attached to any school are great attractions in the choice of a place of study. Unfortunately, on the other hand, many students fail to pass their examinations at the proper time, and thus extend their course and increase its expense, besides having to pay extra fees for additional examinations. A little inquiry will show what a very great proportion of candidates get plucked at every examination, and how largely, therefore, the average expense of a medical education must exceed the estimated minimum. What this average excess may be it is impossible to say, but if there is any truth at all in the idea that examinations gauge the mental faculties, it is obvious that a youth who has only with difficulty scrambled through his school examinations, and who, either from want of knowledge or disorderliness of mind, has shied a time or two at his preliminary, will cost much more to educate than will one whose neat and trim intellect enables him to glide easily through the barriers set up by the examination system.

This point of intellectual fitness should certainly be borne in mind not only in the choice of one's career, but in the arrangement of one's studies. A sharp youth who shows promise of taking his examinations easily had better register as a medical student as early as he can, but it is otherwise with one of a duller type. The advantages of going through the course *pari passu* with the best men of his year, and the disadvantages of being thrown back among the laggards are so great, that we strongly advise the average student to go as far as he can before registering, that is, to pass in chemistry and physics, practical chemistry, and elementary biology, but especially in chemistry, before he becomes a medical student. When these are once done with the course is clear, and the chance of passing the examinations in their appointed seasons is much increased. It need hardly be said that all estimates are thrown overboard if tutorial help should be required. To some students it seems a necessity, but it is a most expensive addition to the cost of a medical education. It should be added, however, that in some schools special tutorial classes for certain examinations are held, and that these are in many cases included in the composition fees.

Some further facts as to actual expenses will be found at page 537.

REGULATIONS OF THE GENERAL MEDICAL COUNCIL

IN REGARD TO THE REGISTRATION AND EDUCATION OF MEDICAL STUDENTS.

The regulations of the General Medical Council as to registration, preliminary examination, and as to professional education must be followed by all medical students seeking to obtain degrees or licences to practise from the universities or medical corporations of the United Kingdom. The separate regulations of the universities and corporations are so drawn up as to meet the requirements of the General Medical Council.

PRELIMINARY EXAMINATIONS.

Every medical student must be registered by the General Medical Council at the commencement of his studentship. To obtain registration the student must pass a preliminary examination in general education, and must produce evidence that he has commenced medical study. The student must make application for registration on a special form to be had on application to the several qualifying bodies and medical schools.

The *Students' Register* is kept by the Branch Registrars, namely: in England, Mr. W. J. C. Miller, B.A., 299, Oxford Street, London, W.; in Scotland, Mr. James Robertson, 1, George Square, Edinburgh; in Dublin, Dr. R. L. Heard, 35, Dawson Street, Dublin.

The following is a list of examining bodies whose examinations in general education are recognised by the General Medical Council as qualifying for registration as a medical student:—

I.—Universities in the United Kingdom.

University of Oxford:
(1) Junior Local Examinations; Certificate to include Latin and Mathematics, and also one of these optional subjects (Greek, French, German).
(2) Senior Local Examinations; Certificate to include Latin and Mathematics.
(3) Responsions.
(4) Moderations.
(5) Examination for a Degree in Arts.

University of Cambridge:
(6) Junior Local Examinations; Certificate to include Latin and Mathematics, and also one of these optional subjects (Greek, French, German).
(7) Senior Local Examinations; Certificate to include Latin and Mathematics.
(8) Higher Local Examinations.
(9) Previous Examination.
(10) Examination for a Degree in Arts.

University of Durham:
(11) Examination for Certificate of Proficiency.
(12) Examination for Students at the end of their first year.
(13) Examination for a Degree in Arts.

University of London:
(14) Matriculation Examination.
(15) Preliminary Scientific (M.B.) Examination.
(16) Examination for a Degree in Arts or Science.

Victoria University:
(17) Preliminary Examination; Latin to be one of the subjects.
(18) Entrance Examination in Arts, to include all the subjects required.

University of Edinburgh:
(19) Local Examinations (Junior Certificate); Certificate to include English Literature, Arithmetic, Algebra, Geometry, Latin, and also one of these optional subjects (Greek, French, German).
(20) Local Examinations (Senior Certificate); Certificate to include English Literature, Arithmetic, Algebra, Geometry, Latin, and also one of these optional subjects (Greek, French, German).
(21) Preliminary Examination for Graduation in Science or Medicine and Surgery.
(22) Examination for a Degree in Arts.

University of Aberdeen:
(23) Local Examinations (Junior Certificate); Certificate to include all the subjects required.
(24) Local Examinations (Senior Certificate); Certificate to include English Literature, Arithmetic, Algebra, Geometry, Latin, and also one of these optional subjects (Greek, French, German).
(25) Preliminary Examination for Graduation in Medicine and Surgery.
(26) Examination for a Degree in Arts.

University of Glasgow:
(27) Local Examinations (Junior Certificate); Certificate to include all the subjects required.
(28) Local Examinations (Senior Certificate); Certificate to include English Literature, Arithmetic, Algebra, Geometry, Latin, and also one of these optional subjects (Greek, French, German).
(29) Preliminary Examination for Graduation in Medicine and Surgery.
(30) Examination for a Degree in Arts.

University of St. Andrews:
(31) Local Examinations (Senior Certificate); Certificate to include English Literature, Arithmetic, Algebra, Geometry, Latin, and also one of these optional subjects (Greek, French, German).
(32) Local Examinations (Junior Certificate), to include all the subjects required.
(33) Preliminary Examination for Graduation in Medicine and Surgery.
(34) Examination for a Degree in Arts.

University of Dublin:
(35) Public Entrance Examination.
(36) General Examination at end of Senior Freshman year.
(37) Examination for a Degree in Arts.

Royal University of Ireland:
(38) Matriculation Examination.

Oxford and Cambridge Schools' Examination Board:
(39) Certificate, to include the following subjects, an adequate knowledge of English Grammar and Orthography, as shown in the course of the Examination, to the satisfaction of the Examiners, being held as conforming to the requirements of the General Medical Council in regard to these subjects:
(*a*) Arithmetic, including Vulgar and Decimal Fractions;
(*b*) Algebra, including Simple Equations;
(*c*) Geometry, including the subjects of the first three books of Euclid;
(*d*) Latin, including Translation and Grammar;
(*e*) Also one of these optional subjects: Greek, or any Modern Language, or Logic.

II.—Other Bodies named in Schedule (A) to the *Medical Act*.

[1] *Apothecaries' Society of London:*
(40) Examination in Arts.

[2] *Royal Colleges of Physicians and Surgeons of Edinburgh:*
(41) Preliminary (Combined) Examination in General Education.

[2] *Faculty of Physicians and Surgeons of Glasgow:*
(42) Preliminary Examination in General Education.

[1] *Royal Colleges of Physicians and Surgeons in Ireland:*
(43) Preliminary Examination; Certificate to include Mathematics

III.—Examining Bodies in the United Kingdom, not included in Schedule (A) to the *Medical Act*, 1858.

College of Preceptors:
(44) Examination for a First Class Certificate, or Second Class Certificate of First or Second Division, Algebra, Geometry, Latin, and either a Modern Language, or Greek, or Logic, having been taken.
(45) Preliminary Examination for Medical Students.

Intermediate Education Board of Ireland:
(46) Junior Grade Examination } Certificate in each case to include
(47) Middle Grade Examination } all the subjects required.
(48) Senior Grade Examination }

Educational Institute of Scotland:
(49) Preliminary Medical Examination.

Scotch Education Department:
(50) Leaving Certificates in each Grade and in Honours.

IV.—Indian, Colonial, and Foreign Universities and Colleges.

University of Calcutta:
(51) Entrance Examination.

University of Madras:
(52) First Examination in Arts.

University of Bombay:
(53) Entrance Examination.

Ceylon Medical College:
(54) Preliminary Examination (Primary Class).

University of McGill College, Montreal:
(55) Matriculation Examination.

University of Bishop's College, Montreal:
(56) Matriculation Examination.

University of Toronto:
(57) Matriculation Examination.

University of Trinity College, Toronto:
(58) Matriculation Examination.

University of Queen's College, Kingston:
(59) Matriculation Examination.

University of Victoria College, Upper Canada:
(60) Certificate of Full Matriculation in Arts; or Second Class Provincial Certificate from Education Department.

College of Physicians and Surgeons of Ontario:
(61) Preliminary Examination.

Western University of Ontario:
(62) Entrance Examination in Medicine.

University of Manitoba:
(63) Previous Examination.

University of Fredericton, New Brunswick:
(64) Matriculation Examination.

University of Mount Allison College, New Brunswick, Canada:
(65) Examination for a Degree in Arts.

University of King's College, Nova Scotia:
(66) Matriculation Examination.
(67) Responsions.

University of Halifax, Nova Scotia:
(68) Matriculation Examination.

[1] "The Council has recommended that these Examinations be discontinued."

[2] These Examinations are conducted by the Educational Institute of Scotland (No. 49).

Dalhousie University and College, Halifax, Nova Scotia:
(69) Matriculation and Sessional Examinations.
Provincial Medical Board of Nova Scotia:
(70) Matriculation Examination.
University of Melbourne:
(71) Matriculation Examination.
University of Sydney:
(72) Entrance Examination for Medical Students.
University of Adelaide:
(73) Senior Public Examination.
(74) Junior Public Examination.
University of Tasmania:
(75) Senior Public Examination.
University of the Cape of Good Hope:
(76) Matriculation Examination.
(77) Examination for a Degree in Arts.
University of Otago:
(78) Preliminary Examination.
University of New Zealand:
(79) Preliminary Medical Examination.
Christ's College, Canterbury, New Zealand:
(80) Voluntary Examinations; Certificate to include all subjects required.
Codrington College, Barbadoes:
(81) English Certificate for Students of two years' standing, and Latin Certificate or "Testamur."
Germany and other Continental Countries:
(82) Gymnasial Abiturienten-Examen, and other corresponding Entrance Examinations to the Universities.
Egyptian Government:
(83) Secondary Education Certificate, Arabic being accepted as a classic language in place of Latin.

*** The list of Examinations at present received as fulfilling the conditions of the Council as regards preliminary education will be revised by the Education Committee, on Returns to be obtained by the Registrar by the end of the year 1893, so as to include only those the standard of examination of which, in the specified subjects of preliminary examination, comes up to the standard considered desirable by the Council.

The examinations in Divisions I, II, III at present entitle to registration on production of satisfactory evidence that the applicant has passed them. The examinations in IV are accepted if the certificates contain evidence that the examination passed included all the subjects required by the General Medical Council. These are:

"(*a*) English Language, including Grammar and Composition.
"(*b*) Latin, including Grammar, Translation from specified authors, and Translation of easy passages not taken from such authors.
"(*c*) Mathematics, comprising (*a*) Arithmetic; (*b*) Algebra, as far as Simple Equations, inclusive; (*c*) Geometry, the subject matter of Euclid, Books I, II, and III, with easy deductions.
"(*d*) One of the following optional subjects:
(*α*) Greek, (*β*) French, (*γ*) German, (*δ*) Italian, (*ε*) any other Modern Language, (*ζ*) Logic."

In the case of natives of India, or other Oriental countries whose vernacular is other than English, an examination in a classical Oriental language may be accepted instead of an examination in Latin.

The Council will not in future accept any certificate of pass in Preliminary Examination in General Education, unless the whole of the subjects included in the Preliminary Examination required by the Council for Registration of Students of Medicine have been passed at the same time. A certificate of having passed a University Examination required for graduation in Arts, or a Senior or Higher Local University Examination, or a Senior Grade Examination of the Intermediate Education Board of Ireland, or the Leaving Certificate Examination (honours and higher grade) of the Scottish Education Department, wherein the specified subjects of General Education are included, may be recognised for the purpose of registration.

PROFESSIONAL EDUCATION.

A.—Requirements.

The period of professional study between the date of registration as a medical student and the date of the Final Examination for any diploma which entitles its holder to be registered under the Medical Acts as a qualified practitioner shall be a period of *bonâ fide* study during not less than five years. The course of professional study and examinations must include the following subjects:

(i) Physics, including the Elementary Mechanics of Solids and Fluids, and the rudiments of Heat, Light, and Electricity. (ii) Chemistry, including the principles of the science, and the details which bear on the study of Medicine. (iii) Elementary Biology. (iv) Anatomy. (v) Physiology. (vi) Materia Medica and Pharmacy. (vii) Pathology. (viii) Therapeutics. (ix) Medicine, including Medical Anatomy and Clinical Medicine. (x) Surgery, including Surgical Anatomy and Clinical Surgery. (xi) Midwifery, including Diseases peculiar to Women and newborn Children. (xii) Theory and Practice of Vaccination. (xiii) Forensic Medicine. (xiv) Hygiene. (xv) Mental Disease.

The first four of the five years must be passed at a school or schools recognised by any of the licensing bodies (universities or medical corporations). The first year, however, may be passed at a university or teaching institution recognised by any of the licensing bodies, where the subjects of Physics, Chemistry, and Biology are taught. Further, graduates in arts or science of any university recognised by the General Medical Council, who have spent a year in the study of Physics, Chemistry, and Biology, and have passed an examination in these subjects for the degrees in question, are held to have completed the first of the five years of medical study.

B.—Recommendations.

The Council recommend that due time should be set aside for attendance at practical courses in which practical work is done by the student himself under the direction of a duly qualified teacher. It is also recommended that attendance on systematic courses should be concluded at the end of the fourth year of study, and that the fifth year should be devoted to clinical work in one or more recognised public hospitals or dispensaries, British or foreign, with the proviso that of this year six months may be passed as a pupil to a registered practitioner possessing such opportunities of imparting practical knowledge as shall be satisfactory to the medical authorities.

THE ENGLISH UNIVERSITIES.

UNIVERSITY OF OXFORD.

There are two degrees in Medicine (B.M. and D.M.), and two degrees in Surgery (B.Ch. and M.Ch.), which under the most favourable circumstances may be obtained in six or seven years from Matriculation.

B.A. Degree.

The degrees of B.M. and B.Ch. are conferred only on candidates who have taken the B.A. degree, for which residence for twelve terms within the University is necessary; the Examinations, however, for the degrees in Arts and Medicine may be passed in any order, provided the subjoined regulations are complied with.

The degree of B.A. may be obtained in either of the following ways:

(*a*) By passing Responsions (or one of the Extra-University Examinations, which are held as equivalent to it), Moderations, a Divinity Examination, or, in the event of a candidate objecting, an examination in some specified Greek book; and the Final Pass School in three subjects, two of which may be the same as the Preliminary Examination in Natural Science.

(*b*) By passing Responsions, an additional subject in Responsions, the Divinity Examination, and the Preliminary Examinations in the Natural Science School, and by passing the Final Honour Examination in Chemistry, Physics, Animal Morphology, Botany, *or* Physiology.

Responsions and the additional subject may be passed before a candidate is a member of the University;[1] Moderations can be pass in the fourth term; the Divinity Examination at any time after Responsions; the Final Pass School may be taken any time after Moderations; a Final Honour School may be taken at the end of the third or within the fourth Academical year, that is, twelve or sixteen terms respectively; the Preliminary Examinations of the Natural Science School may be taken as soon as Responsions have been passed.

Degrees in Medicine and Surgery.

Candidates for degrees in Medicine must take the degrees of B.M., B.Ch., to obtain which the following examinations must be passed:

Preliminary.—The preliminary examination of the Natural Science School must be passed. It is held in two parts, namely: (1) Mechanics and Physics, and (2) Chemistry in November and June, (3) Animal Morphology and (4) Botany in December and March.

Professional.—There are two professional examinations, held twice a year at the end of Michaelmas and Trinity

[1] Membership is constituted by Matriculation, and by becoming a member of a College or Hall, or a non-collegiate student.

Terms. The subjects of the first B.M. examination are Organic Chemistry, Human Anatomy and Physiology, Materia Medica, and Pharmacy. This examination may be passed at any time after the preliminary. The second examination, held in June, may be taken at any time after the first, but usually two or three years elapse. It comprises the remaining subjects of the medical curriculum, namely, Medicine, Surgery, Midwifery, Pathology, Forensic Medicine, and Hygiene.

D.M. Degree.—An M.B. who has entered his thirty-ninth term is admitted D.M. on presentation of a dissertation approved by the appointed professors and examiners.[2]

M.Ch. Degree.—An examination for this degree is held in June. The candidate must be in his twenty-seventh term.

Fees.—University: B.A., £16 or £17. B.M. and B.Ch., £14. D.M., £25. M.Ch., £17. Also an annual fee to the University of £2 for the first four years, reduced to £1 when the B.A. is taken.—College: Fees (varying in amount) on taking degrees and for first four years of membership. Tuition fees, £21 to £30. The cost of living for the four University terms cannot be stated at less than £120.

Scholarships, etc.—The several colleges grant scholarships of £80 a year tenable for four years in Natural Science, Chemistry, Physics, and Biology, and also exhibitions. Particulars can be obtained on application to the College tutors. A Radcliffe Travelling Fellowship of £200 a year, tenable for three years, is open annually to those who have taken certain position in university examinations, and who have taken, or intend to take, the degree of B.M.

Teaching.

Courses of lectures and demonstrations on Elementary Mechanics and Physics, on Inorganic Chemistry, on Animal Morphology, and on Botany are given at convenient periods, and are open to members of the university intending to proceed to a medical degree.

First M.B.—The instruction in Human Anatomy is by lectures and demonstrations; the dissecting room is open daily, and dissection may be continued during the vacation. The course of instruction in Physiology consists of a course of lectures extending over six terms, a course of practical instruction in Histology during two terms, and a course of Elementary Physiological Chemistry, with practical laboratory work during two terms. Special facilities are afforded to advanced students. Instruction in Organic Chemistry is also given in the Chemistry Department.

Second M.B.—Lectures on Materia Medica and practical instruction in Pharmacology are given during the summer term, and clinical lectures and tutorial instruction and demonstrations in Physical Diagnosis and Regional Anatomy are given in each term at the Radcliffe Infirmary.

UNIVERSITY OF CAMBRIDGE.

Bachelor of Medicine (M.B.) and Bachelor of Surgery (B.C.).

A student proceeding to this degree must (1) reside in the University during the required portion of each of nine terms, (2) pass (or obtain exemption from) the previous examination, (3) pursue medical study for five years.

There are three examinations for the degree of Bachelor of Medicine. They are partly in writing, partly oral, and partly practical. The examinations take place twice in the year, in the Michaelmas and Easter terms.

The First Examination is divided into two parts: 1. Chemistry and other branches of Physics; 2. Elementary Biology. These two parts may be taken together or separately. Before admission to this examination the candidate must have passed (or obtained exemption from) the previous examination. He must also produce certificates of diligent attendance on a course of lectures in Chemistry, and on practical instruction in Chemical Manipulations.

The Second Examination is divided into two parts, which may be taken together or separately: 1. Human Anatomy and Physiology; 2. Pharmaceutical Chemistry. Before admission to this examination the student must have passed both parts of the First Examination, must have attended hospital practice, and have practised dissection, during six months, and must produce certificates of diligent attendance on a course of lectures on each of the following subjects: 1. Human Anatomy; 2. Physiology.

The Third Examination is divided into two parts, called the First part and the Second part respectively. Before presenting himself for either part, the student must have passed both parts of the Second Examination. The first part includes Principles and Practice of Surgery and Midwifery and Diseases peculiar to Women. The second part includes Pathology, Principles and Practice of Physic, Elements of Hygiene, and Medical Jurisprudence. The student, before admission to the First part, must produce certificates of attendance on one course of lectures in each of the following subjects: Pathology, Principles and Practice of Surgery, Midwifery; he must have attended a course of Practical Surgery and acted as dresser or house-surgeon at a recognised hospital for six months; must have attended twenty cases of Midwifery; and must have obtained a certificate of proficiency in vaccination from an authorised vaccinator appointed by the Local Government Board. Before admission to the Second part, he must produce evidence that he has completed the course of medical study and certificates of diligent attendance on one course of lectures in each of the following subjects: Principles and Practice of Physic, Physiological Actions and Therapeutic Uses of Remedies, and Medical Jurisprudence; he must also have attended the Medical and Surgical Practice of a recognised hospital (with clinical lectures) during three years at least; must have been Clinical Clerk at a recognised hospital for six months at least, or have, subsequently to the completion of his attendance on Hospital Practice, attended to Practical Medicine or Surgery with special charge of patients in a hospital, dispensary, or parochial union, under superintendence of a qualified practitioner, unless the student himself be duly qualified. All candidates must also produce certificates of attendance during three months on (1) practical instruction in Pharmacy and Dispensing, (2) clinical instruction in Fevers at a general or special hospital.

Act.—After these examinations have been passed, an Act must be kept in the Schools in the following manner. The Regius Professor of Physic assigns a day and hour for keeping the Act, of which public notice has to be given eight days before. The candidate reads a thesis, composed by himself, on some subject approved by the Professor; the Professor brings forward arguments or objections for the candidate to answer, and examines him orally, as well as on questions connected with his thesis as on other subjects connected with medicine of a more general nature. As the Third Examination for the degree of M.B. includes operative and clinical surgery, the degree of Bachelor of Surgery is conferred upon candidates who pass the final examination for M.B., without further examination and without the Act.

Doctor of Medicine (M.D.).

This degree may be taken by an M.B. of three years' standing, or by an M.A. of four years' standing, who has been engaged in medical study for five years. In the latter case certificates of attendance on lectures and hospital practice as for the M.B. must be produced, and the examinations for the M.B. must be passed. In either case the candidate keeps an Act by reading a thesis, upon which he is examined, and writes a short extempore essay upon one of four topics (at his choice) relating severally to Physiology, Pathology, Medicine, or State Medicine.

Master in Surgery (M.C.).

This degree is granted to a candidate who has completed all that is required for the degree of B.C. at least two years previously; the candidate is examined in Pathology, Surgery, Surgical Anatomy, and surgical operations; the examination is both written and practical.

Dates, Fees, etc.

The dates of examinations are announced early in the Michaelmas and Lent Term. Each candidate pays £2 2s. to the Registrary of the University on giving notice of his intention to offer himself for either part of the First, Second, or Third Examination for M.B. He pays £3 3s. before that

[2] The regulations for Graduates who took the degree of B.M. previous to 1886 differ slightly.

for M.C. Schedules defining the range of subjects in the First M.B. Examination, and of the Pharmacy and Pharmaceutical Chemistry in the Second Examination, also schedules for the necessary certificates, and a list of the schools of medicine and hospitals recognised by the University, may be obtained on application to the Registrary of the University, The Registry, Cambridge.

UNIVERSITY OF LONDON.

DEGREE OF M.B.

EVERY candidate for a medical degree is required to take the degree of M.B. To obtain this degree four examinations must be passed:

Matriculation, held twice a year in January and June. This examination consists of the following subjects: (1) Latin, (*a*) translation of selected authors, (*b*) unseen translation, (*c*) translation of English into Latin, (*d*) Latin grammar; (2) one of the following languages: Greek, French, German, Sanscrit, Arabic; translation and grammar; (3) English Grammar, History (to the end of the 17th century), and Geography; (4) Mathematics, including Arithmetic, Algebra to Quadratic Equations, Geometry, including the subjects of the first four books of Euclid; (5) Mechanics (a general acquaintance with the apparatus by which the elementary principles of Physics can be illustrated and applied must be shown); (6) one of the following branches of science: (*a*) Chemistry, (*b*) Heat and Light, (*c*) Magnetism and Electricity, (*d*) Botany. The full text of the regulations, with schedules in each subject, can be obtained on application addressed to the Registrar of the University of London, Burlington Gardens, London, W. The candidate must be 16 years of age.

Preliminary Scientific (M.B.) Examination.—This examination is held for pass and honours in July, and for pass only in January. It consists of two parts, *(a)* Chemistry and Physics, *(b)* General Biology. The examinations are conducted by written papers, *viva voce*, and by practical tests. The two sections may be taken together or separately, and the candidate who passes in one section only, though presenting himself in both, will be credited with the one in which he is successful. Honours may be taken in *(a)* Inorganic Chemistry, *(b)* Experimental Physics, *(c)* Botany, *(d)* Zoology. Particulars as to the conditions of competition for honours and schedules of the subjects, both in the Pass and Honours examination, may be obtained on application to the Registrar, as above.

Intermediate Examination in Medicine.—This examination is held for Pass and Honours in July, and for Pass only in January. The candidate must have completed his nineteenth year, and must, subsequently to having passed the Preliminary Scientific Examination, have been a student in a recognised medical school for at least two years, have dissected for two sessions, have attended courses of Practical Chemistry and Practical Pharmacy, and have attended lectures in a recognised medical school. The subjects of the examination are: Anatomy, Physiology and Histology, Organic Chemistry, Materia Medica, and Pharmaceutical Chemistry. The examination is conducted by written papers, *viva voce*, and by practical examination. The examination in Physiology and Histology may be postponed by candidates who do not sit for honours. Honours may be taken in any one of the subjects of the examination under conditions stated in the *Calendar*, an extract from which containing these particulars, as well as schedules of the subjects, can be obtained from the Registrar.

M.B. Examination.—This examination is held for Pass and Honours in October, and for Pass only in May. The candidate must have passed the Intermediate Examination twenty-one months earlier, must have attended lectures and hospital practice in a recognised medical school for two years, one of which must be subsequent to the Intermediate Examination, must have conducted at least twenty labours, and have acquired proficiency in vaccination. The period between the passing of the Preliminary Scientific and the M.B. Examination must be at least four years. The examination, which is conducted by written papers, *viva voce*, and by practical examination, comprises the following subjects: Pathology, Therapeutics, Hygiene, Surgery, Medicine, Obstetric Medicine, and Forensic Medicine. The candidate must pass in all the subjects, Honours may be taken in Medicine, Obstetric Medicine, or Forensic Medicine.

DEGREES IN SURGERY.

Bachelor of Surgery (B.S.).—This degree is granted to Bachelors of Medicine after an examination held annually in December. The candidate must have attended a course of operative surgery. The examination comprises Surgical Anatomy and Surgery, and the candidate is examined by written papers and clinically, and is required to operate on the dead body. Candidates who pass this examination may be examined in Honours.

Master in Surgery (M.S.).—This degree is granted, after examination, to Bachelors of Surgery of at least two years' standing.

DEGREE OF M.D.

Doctor of Medicine.—The degree of Doctor of Medicine is granted to Bachelors of Medicine of at least two years' standing. The examination comprises Mental Physiology and Medicine, and is conducted by written papers, clinical examination, and *viva voce*. A candidate who presents a thesis approved by the examiners is excused the written examination.

Doctor of Medicine in State Medicine.—This degree is granted to Bachelors of Medicine after examination on producing evidence of having been engaged in the study of State Medicine for at least two years. The examination is the same as for the ordinary M.D., with the exception that State Medicine takes the place of Medicine.

FEES AND SCHOLARSHIPS.

The fees are as follows: Matriculation, £2; for the other examinations, in each case, £5. A rejected candidate, on again presenting himself, pays half the fee.

Exhibitions or Scholarships are granted to the first six candidates in the Matriculation Examination, and to the first candidates in honours at all the other examinations.

VICTORIA UNIVERSITY.

Colleges.—The Colleges of the Victoria University are Owens College, Manchester; University College, Liverpool, and the Yorkshire College, Leeds.

Entrance.—All candidates for Medical and Surgical degrees must obtain the degree of M.B. in this University. The first step is to pass the Entrance Examination in Arts, or some other examination recognised by the University. The candidate for the Entrance Examination in Arts, who must present a certificate from his last instructor to the effect that he is a proper person to be admitted to the examination, is examined in: (1) Latin; (2) Elementary Mathematics; (3) Elementary Mechanics; (4) English Language, including Grammar and Composition. (5) *One* of the following: i. Greek, ii. French, iii. German, iv. Italian, v. Spanish. Candidates may, by special permission of the Board of Studies, substitute any other modern language for either of the subjects named under (5). Candidates who propose to present themselves in Italian or Spanish, or in a modern language not included in the list, must give notice to the Registrar on or before March 31st in the year in question.

Matriculation.—Before matriculating, which consists in signing the University Register, candidates must produce proof that they are registered students of a College of the University, or of a medical school recognised by it.

DEGREES OF BACHELOR OF MEDICINE AND OF SURGERY (M.B., B.CH.).

Curriculum and Residence.—Five years must be spent in study at a recognised medical school subsequent to registration as a medical student; of these five years, two must be passed in a college of the University, and one of these two years must be subsequent to passing the First M.B. examination.

First M.B. Examination.—Candidates must have attended during at least one year courses of lectures and laboratory work in each of the subjects of the examination—namely: Part I. (*a*) Physics: (*b*) Chemistry). Part II. Physiology (Animal and Vegetable Morphology, Physiology, and Laboratory work). The two parts may be taken together or separately.

Second M.B. Examination.—Candidates must have attended winter courses in Anatomy and Physiology, and a summer course in Materia Medica and Pharmacy, must have dissected for two winter sessions and one summer, and must have had practical instruction in Physiology and in Materia Medica and Pharmacy. The subjects of the examination are: (1) Anatomy; (2) Physiology; (3) Materia Medica and Pharmacy. (3) may be passed separately.

Final M.B. Examination.—Candidates must produce certificates of having attended, in a recognised medical school, courses of instruction in all the subjects of the examination, which are:—Part I.: (*a*) Pharmacology and Therapeutics, (*b*) General Pathology and Morbid Anatomy, (*c*) Forensic Medicine and Toxicology and Hygiene. Part II.: (*d*) Obstetrics and Diseases of Women, (*e*) Surgery, (*f*) Medicine (including Mental Diseases and Diseases of Children). The two parts may be taken separately, and any one of the subjects of Part I. may be deferred and taken with Part II.

Degree of Doctor of Medicine (M.D.).

A candidate must have obtained the degree of M.B. at least one year previously. He must present a printed dissertation, and may be examined on any subject connected therewith.

Degree of Master of Surgery (Ch.M.).

A candidate must have obtained the degree of M.B. at least one year previously, must have been engaged in the study of Practical Surgery in the interval, and have held a surgical appointment for not less than six months in a hospital or other public institution. He must also produce certificates of having attended special courses in Operative Surgery, Surgical Pathology, and Ophthalmology.

Fees and Dates of Examination.

Entrance examination, £2; re-examination after failure, £1. First, Second, and Third M.B. Examinations, each £5; re-examination after rejection, £2. M.D., £10. Ch.M., £5 on examination, and £5 on the conferring of the degree.

The entrance examination in Arts is held in June and September. The First M.B. Examination is held in June (Part I.) and July (Part II.), and also in September. The Second and Final M.B. Examinations are held in March and July, and that for the Ch.M. in July.

UNIVERSITY OF DURHAM.

The University of Durham grants six degrees in the medical faculty—M.B., M.D., B.S., M.S., B.Hy., D.Hy. The degrees of M.D., B.S., and M.S. are granted only to graduates M.B. of the University. The degrees B.Hy. and D.Hy. are granted under certain conditions to registered medical practitioners (see page 542). The University also grants Licences in Medicine and Surgery; the curriculum and examinations as for the degree of M.B., except as regards the examination in general education before registration as a medical student. It is hardly necessary to say that every student intending to attend the University of Durham College of Medicine (Newcastle-on-Tyne) would do well to pass the necessary examination in general knowledge, and qualify himself to obtain the degrees of the University.

Degree of Bachelor in Medicine (M.B.).

Preliminary Examination in Arts.—A candidate must (*a*) pass the Preliminary Examination in Arts for the degrees in Medicine of the University of Durham, or (*b*) be a graduate in Arts of the University of Durham, Oxford, Cambridge, London, Dublin, Queen's University (Ireland), Edinburgh, Glasgow, St. Andrews, Aberdeen, Calcutta, Madras, Bombay, McGill (Montreal), Queen's College (Kingston), the Victoria, or the Royal University of Ireland, or (*c*) must have passed the Preliminary or Extra-professional Examination for graduation in the University of Cambridge, London, Edinburgh, Glasgow, St. Andrews, Aberdeen, Queen's (Ireland), the Victoria, or Royal (Ireland), or (*d*) have passed the Preliminary Examination in Arts which, until 1881, qualified for the F.R.C.S.Eng. Particulars as to the Preliminary Examination of the University of Durham (*a*) can be obtained from Mr. A. Beanlands, the University, Durham, to whom the fee (£1) is payable.[1]

Curriculum.—The curriculum extends over five years, of which one at least must be spent in attendance at the University of Durham College of Medicine, Newcastle-on-Tyne, and in the clinical practice of the Royal Infirmary there. Students are recommended to carry out the curriculum on some such plan as the following:—

First Winter: Anatomy, Dissections, Chemistry, Physics. First Summer: Practical Chemistry, Practical Physics, Practical Physiology, Elementary Biology, Dissections.

Second Winter: Anatomy, Physiology, Dissections. Second Summer: Practical Physiology, Practical Pharmacy, Materia Medica, Therapeutics, and Pharmacology, Dissections.

Third Winter: Medicine, Surgery, Hospital Practice, with Clinical Lectures, Midwifery and Diseases of Women and Children. Practical Midwifery. Third Summer: Pathology, Practical Pathology, Medical Jurisprudence, Hospital Practice, with Clinical Lectures.

Fourth Winter: Medicine, Surgery, Regional Anatomy, Public Health, Hospital Practice, with Clinical Lectures. Fourth Summer: Mental Diseases, Operative Surgery, Hospital Practice, with Clinical Lecture.

Fifth Winter: Infectious Diseases, and Clinical Lectures. Fifth Summer: Clinical Lectures.

Professional Examinations.—There are four professional examinations conducted in writing practically and *viva voce*, each held twice a year (April and September). *First Examination:* Elementary Anatomy and Biology, Chemistry, Physics. *Second Examination:* Anatomy, Physiology, Materia Medica, Therapeutics, and Pharmacology. *Third Examination:* Medicine, Surgery, Pathology, Medical Jurisprudence, Public Health, Practical Pharmacy. *Final Examination:* Clinical Medicine and Surgery, Midwifery, and Diseases of Women and Children. The *Calendar* of the University of Durham College of Medicine, Newcastle-on-Tyne, contains synopses of the subjects of the examinations and examination papers. Applications for further information should be addressed to Henry Fox, R.N., at the College. A candidate who has passed the First Examination of the Conjoint Board in England of the Royal College of Physicians of London and the Royal College of Surgeons of England, will be exempt from the First Examination of the University of Durham except in the subjects of Chemistry with Chemical Physics, and Botany with Medical Botany.[2] Candidates who hold a qualification from a recognised licensing board in the United Kingdom at the date of entry for the First Examination for the Degrees in Medicine, are in every case required to pass in Chemistry with Chemical Physics; and are also required to pass in Botany with Medical Botany, if they have not previously passed in that subject at one or other of their examinations for qualification; but they are exempt from examination in Elementary Anatomy and Physiology.[3] Candidates who have completed part of their curriculum elsewhere, may pass their First and Second Examinations *previously* to entering at Newcastle-upon-Tyne.

Degree of Doctor of Medicine (M.D.).

A candidate for this degree must have been engaged in practice for at least two years subsequent to obtaining the degree of M.B. in the University of Durham. The candidate is required to write an essay based on original research or observation, and is subjected to examination on the topic of his essay. For particulars as to the degree of M.D. for medical practitioners of fifteen years' standing without curriculum see page 538.

Degrees in Surgery.

Bachelor of Surgery.—A candidate must have passed the

[1] Candidates from Indian Universities must have passed a Matriculation Examination at one of the Indian Universities, and will have to reside for one academic year at the University of Durham College of Medicine, at Newcastle-upon-Tyne, before presenting themselves for the M.B. Degree Examination, in accordance with the regulation on page 50 of the *Calendar*. If the Matriculation Examination at the Indian University did not embrace Latin, and Persian, or Sanskrit, then it will be necessary for the candidate, in addition, to produce evidence that he has passed in Latin and one of these subjects, or in Greek, within twelve months of his presenting himself for the Examination for the Degree in Medicine.

[2] A candidate who has passed the First and Second Examinations of the University will be exempt from the First and Second Examinations of the Conjoint Board in England, and will be entitled to present himself for the Final Examination of the Board on the completion of the necessary curriculum.

[3] All candidates for the First Examination for the Degrees in Medicine, whether exempt from a portion of it or not, are required to pay the full fee—five pounds

examination for the degree of M.B.(Dunelm), and have attended courses of lectures on Operative Surgery and on Regional Anatomy. He is required to perform operations on the dead body, and to show practical acquaintance with the use of surgical instruments and appliances.

Master in Surgery.—A candidate must have obtained the degree of B.S.(Dunelm) at least two years previously and have been engaged in practice for that period. The subjects of the examination are: Surgery (Pathology, Anatomy, and Operations and Clinical).

LICENCES IN MEDICINE (L.M.) AND SURGERY (L.S.)

Particulars as to the conditions under which these licences may be obtained will be found in the College *Calendar* above cited. Intending students are strongly recommended to proceed to degrees in the University, and not to seek the licences.

DEGREES IN HYGIENE (B.Hy., D.Hy.).

For the regulations as to these degrees, see page 542.

FEES.

Preliminary Arts Examination for Degrees, £1. First, Second, and Third Professional Examinations (M.B.), each £5. Final (M.B.), £10. Examination for the degrees of M.D., B.S., and M.S., each £5. In addition to the University of Durham for each degree, £6. For the Licences in Medicine and Surgery, each £3.

THE ENGLISH COLLEGES.

THE Medical Corporations in England are the Royal College of Physicians of London, the Royal College of Surgeons of England, and the Society of Apothecaries of London. The two Royal Colleges now co-operate to hold a series of examinations, on passing which the candidate receives the diploma of Licentiate of the Royal College of Physicians (L.R.C.P.), and Member of the Royal College of Surgeons (M.R.C.S.). The Society of Apothecaries grants its diploma separately.

CONJOINT EXAMINING BOARD IN ENGLAND.

A candidate who desires to obtain the licence of the Royal College of Physicians of London and the diploma of Member of the Royal College of Surgeons of England is required to pass four professional examinations, and to produce evidence of having passed through a stated course of instruction at a recognised medical school. The candidate must pass an examination in Preliminary Education before entering the medical school (see page 509), and must register as a medical student within fifteen days of entering such school. Except in the case of Chemistry and Physics, Practical Chemistry, Practical Pharmacy, and Elementary Biology, professional studies commenced before registration will not be recognised.

FIRST PROFESSIONAL EXAMINATION.

The examination consists of four parts: (1) Chemistry and Physics, (2) Practical Pharmacy, (3) Elementary Biology, (4) Elementary Anatomy.

A candidate may take this examination in four parts at different times, or he may present himself for the whole at one time. A candidate will be admitted to examination in Chemistry and Physics, and Practical Chemistry and Elementary Biology before registration as a medical student by the General Medical Council, *and he may take Practical Pharmacy as part of the Third Examination;* but he will not be admitted to the examination on Elementary Anatomy earlier than the end of his first winter session, or than the completion of his first six months' attendance at a recognised medical school during the ordinary session, that is, exclusive of the months of April, August and September.

A candidate is required to produce evidence of having received instructions in each of the above-mentioned subjects. A candidate referred in any part or parts will not be admitted to re-examination for three months. If referred in Biology or Anatomy he must produce evidence of further instruction. A candidate who produces evidence of having passed an examination for a degree in Medicine on any of the subjects of this examination at a university in the United Kingdom, India, or a British colony, will be exempt from examination on the subjects in which he has passed.

SECOND PROFESSIONAL EXAMINATION.

The subjects of this examination are Anatomy and Physiology, and both must be passed at the same time. A candidate must have passed the First Examination at least six months earlier, and have attended during two winter sessions and one summer session at a recognised medical school lectures on Anatomy, Physiology, and a course of Practical Physiology and Histology. If rejected a candidate, before being admitted to re-examination, must continue his studies for not less than three months.

THIRD PROFESSIONAL EXAMINATION.

This examination consists of three parts: Part I, Medicine, Pathology, Pharmacology, Therapeutics, Forensic Medicine, and Public Health; Part II, Surgery; Part III,[1] Midwifery and Gynæcology. The examination may be passed at one time or in each part separately. Evidence of attendance at courses of instruction in the subjects of the three parts must be produced, and also of attendance on twenty labours. The candidate must have passed the Second Examination two years previously, and have been registered as a medical student. A rejected candidate must produce evidence of further instruction during three months.

FINAL PROFESSIONAL EXAMINATION.

The subjects of this examination are Clinical Medicine and Clinical Surgery, which must be passed at the same time. The Third Examination must have been passed one year previously, and the candidate must have been registered as a medical student for five years. A rejected candidate must reproduce evidence of three months' further instruction.

All applications with reference to the examinations for the Licence of the Royal College of Physicians of London and to the Diploma of Member of the Royal College of Surgeons of England, should be addressed to the Secretary, Examination Hall, Victoria Embankment, London, W.C. (Telegraphic Address, "Conjoint," London), from whom also synopses of some of the subjects can be obtained.

REGULATIONS FOR COLONIAL, INDIAN, OR FOREIGN CANDIDATES, AND UNIVERSITY CANDIDATES.

A person holding a Colonial, Indian, or foreign qualification is admissible to the Second, Third, and Final Examinations without any interval. Members of an English, Scotch, or Irish University are under certain conditions eligible for admission for the Third and Final Examination, without any intervals between them, two years after passing all the other required examinations.

A Doctor or Bachelor of Medicine or Surgery of an Indian or Colonial University recognised for the purpose, who shall have passed at his university in the subjects of the First and Second Examination will be eligible for admission to the Third or Final Examination two years after passing in the said subjects.

FEES, DATES, ETC.

First Examination, £10 10s. Re-examination, Part I, £3 3s.; Part II, III, IV, each £2 2s. *Second Examination*, £10. Re-examination, £6 6s. *Third Examination*, £10. Re-examination, Part I. Medicine, £3 3s.; Pharmacology, £1 1s.; Practical Pharmacy, £2 2s. Part II, £3 3s. Part III, £3 3s. *Final Examination*, £5 5s. Re-examination, £5 5s. Clinical Medicine only, £2 12s. 6d.; Clinical Surgery only, £2 12s. 6d.; Midwifery and Gynæcology, £3 3s. Members of an English, Scottish, or Irish University: For each examination, £5 5s.; for the diplomas, £26 5s.

The examinations are held in January, April, July, and October. A book of questions set at the several examinations is published annually, and can be obtained from Messrs. Taylor and Francis, Red Lion Court, Fleet Street, London, E.C.

[1] May be deferred to Final Examination.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

Licentiates.—Candidates who commenced professional study on and after October 1st, 1884, are subject to the regulations of the Conjoint Examining Board in England.

Members.—The Membership of the College is granted after examination to persons above the age of twenty-five years who do not engage in trade, do not dispense medicine, and do not practise in partnership.

Medical graduates of a recognised university are admitted to a pass examination, but others must have passed the examinations required for the licence of the College. The examination, which is held in January, April, July, and October, is partly written and partly oral. It is directed to Medicine, and is conducted by the President and Censors. Candidates under 40, unless they have obtained a degree in Arts in a British University, are examined in Latin, and either Greek, French, or German. Candidates over 40 are not so examined, and the Examination in Medicine may in their case be modified under conditions to be ascertained by applications to the Registrar. The fee for the membership is £31 10s., but if the candidate is a Licentiate the fee is £15 15s. In either case £6 6s. is paid before examination.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

Membership.—The candidates are now subject to the regulations of the Conjoint Board.

Fellowship.—The Fellowship of the College of Surgeons is granted after examination to persons at least twenty-five years of age, who have been engaged in professional studies for six years. There are two examinations, the first in Anatomy and Physiology, which may be passed after the third winter session; the second, chiefly directed to Surgery, which may be passed after six years of professional study. A graduate in Arts of a recognised university may pass the examination after five years of professional study. The Second Examination may be passed before attaining the age of 25, but the diploma is not granted until that age is reached.

Fees.—At First Examination: Members, £5 5s.; non-Members, £10 10s., £5 5s. returned if rejected. At Second Examination: Member, £10 10s.; if not a Member, £21. In latter case £10 10s. is returned in case of rejection. Further information can be obtained on application to the Secretary of the Royal College of Surgeons, Lincoln's Inn Fields, London, W.C.

SOCIETY OF APOTHECARIES OF LONDON.

The Society holds a special preliminary examination in Arts,[1] but other examinations in Arts recognised by the General Medical Council are accepted. The subjects of the Society's examinations, which are held in the first weeks of March, June, September, and December, are English, Latin, Mathematics, Elementary Mechanics, and one of the following subjects at the option of the candidate—Greek, French, German, Italian, Logic, Botany, Elementary Chemistry. In accordance with the regulations of the General Medical Council the subjects may be passed at one or more examinations, and no subject passed before any recognised examining body need be taken up again for the purpose of registration. Medical study before registration as a medical student does not count in the curriculum, with the exception of Chemistry, Materia Medica, Pharmacy, and Dispensing. A form of notice accompanying the regulations has to be filled up by the candidate, and sent with the fee (one guinea) fourteen days before the examination. Those who desire can present themselves for examination in special subjects. The fee for each special subject is one guinea. A pass list is published and sent to every candidate. The regulations as to the curriculum are framed in accordance with the directions of the General Medical Council, and the student is required to spend five years after the date of registration as a medical student. There are three professional examinations. (The Examiners in Surgery are nominated by the General Medical Council).

Primary Examination.—This examination consists of two parts: Part I.—Elementary Biology, Chemistry, the Principles of the Science which bear on the study of Medicine; Chemical Physics, including the Elementary Mechanics of Solids and Fluids; Heat, Light, and Electricity; Practical Chemistry, Materia Medica, including the Botany of the *Pharmacopœia;* Pharmacy and Prescriptions. A synopsis indicating the range of the subjects may be obtained on application. The examination may be passed any time after registration as a medical student. Evidence of instruction which may have been received prior to registration must be produced. Part II.—Anatomy and Physiology and Histology. The candidate must have completed twelve months' practical Anatomy. A candidate rejected in one or more subjects is not re-examined in the subjects in which he passed. The examination is held in January, April, July, and October.

Intermediate Examination.—This examination consists of two parts: Part I, Surgery and Surgical Pathology and Anatomy; Part II, (A) Medicine, Therapeutics and Pharmacology, Pathology; (B) Forensic Medicine, Hygiene, Vaccination, and Mental Disease. Candidates passing in either of the sections, A or B, will not be re-examined therein. The candidate must have been a medical student at a recognised school for not less than three winter and two summer sessions, and must have been registered for forty-five months. This examination is held monthly.

Final Examination.—This examination consists of three Parts: Part I, Practical Surgery and Surgical Anatomy; Part II, Clinical Medicine and Medical Anatomy; Part III, Midwifery, Gynæcology, and Diseases of Newborn Children. This examination, which is held monthly, cannot be passed before the end of the fifth year.

Fees.—The fee for each examination is £5 5s.; total for the licence, £15 15s.; re-examination—Primary, for each Part, £1 1s.; Intermediate, for each Part, £3 3s.; Final, for each Part, £3 3s.

Further information, with particulars as to the course of study and of the certificates required, can be obtained from the Secretary to the Court of Examiners, Apothecaries' Hall, E.C.

The licence is a registrable diploma in Medicine, Surgery, and Midwifery, and qualifies the holder to compete for public appointments.

THE SCOTTISH UNIVERSITIES.

IT will be convenient to give the regulations for Edinburgh more in detail, and then briefly indicate points of difference as regards the other three Universities.

UNIVERSITY OF EDINBURGH.

The new regulations apply to all who begin their studies after October 1st, 1892.

Four degrees in Medicine and Surgery exist, namely, Bachelor of Medicine, Bachelor of Surgery, Doctor of Medicine, and Master of Surgery. The degree of M.B. is not conferred separately from Ch.B., and *vice versâ*; but M.D. and Ch.M. are separable.

PRELIMINARY EXAMINATION.

This must be passed before beginning medical study; the subjects are: (1) English, including Grammar (analysis, parsing, derivation, and correction of sentences), Composition, Literature (general knowledge of life and works of the greater writers, and a more special knowledge of the works of two or three),[1] Geography (general knowledge of the world, and special of the British Empire), History[2]; (2) Latin, Translation, and Parsing, Prose Composition, Grammar, and Sentences; (3) Elementary Mathematics, Arithmetic, Algebra, and Geometry (including an easy deduction); (4) Greek or French or German—Translation and Parsing, Sentences and Grammar.

Excellence in one or more subjects will in some measure compensate for deficiency in others. The examination is

[1] The General Medical Council has recommended that this examination should be discontinued, but the Society has not adopted the recommendation.

[1] For next October these specially cited are Shakespeare's *Macbeth*, and *As You Like It*, and Scott's *Antiquary* and *Old Mortality*.

[2] For October, 1893, the outlines of the History of England and Scotland from the Roman occupation till the accession of James VI.

conducted by a Joint Board of the four Universities, and will be held from October 2nd to 4th, 1893, and from April 2nd to 4th, 1894. The standard of examination corresponds pretty nearly to the leaving certificate of the Scotch Education Department, or the lower certificate of the Oxford and Cambridge Schools. The whole examination must be passed at one time, save in the case of those who had already passed part under the old regulations. The examinations of a large number of bodies are taken as equivalents of the Preliminary; these will be found on page 4 of the Regulations of the Joint Board of Examiners. The fee is 10s. 6d. each time, and is payable to T. Gilbert, the University Clerk, twelve days before the examination.[3]

(*Note.*—It is particularly important that the candidate should observe that: (1) The entire examination must be passed at one and the same time. (2) The examinations in Latin, Greek, French, and German will be wholly on "unseen" passages, no special authors having been prescribed by the Joint Board.)

REGISTRATION.

The student must register within fifteen days after the commencement of medical study. There is no fee. Forms and information may be had from Mr. James Robertson, 1, George Square, Edinburgh, or at the office of the Faculty of Medicine.

PROFESSIONAL EDUCATION.

The course extends over five years. During the first four the student must attend Elementary Botany, Elementary Zoology, Physics, Practical Chemistry, Practical Physiology, Practical Pathology, and Medical Jurisprudence and Public Health during courses of not less than 2½ months each; Practical Anatomy during two courses of not less than 5 months each; Chemistry, Anatomy, Physiology, Pathology, Surgery, Materia Medica and Therapeutics, Medicine, and Midwifery and the Diseases of Women and Infants, during courses of not less than 5 months each. During the fifth, or final year, he must be engaged in clinical study for at least 9 months, and must attend a 9 months' course in Clinical Medicine and in Clinical Surgery. In all, before graduation he must have attended, for at least three years, a hospital which accommodates not fewer than 80 patients, and possesses a distinct staff of physicians and surgeons, and he must have acted as clerk in the medical and dresser in the surgical wards of such a hospital, or the practice of a dispensary, or of a physician or surgeon. He must have had approved opportunities of studying at a hospital, *Post-mortem* Examinations, Fevers, Diseases of Children, and Ophthalmology. He must have attended a course of 25 meetings on Practical Pharmacy, a course on Mental Diseases, been properly instructed in Vaccination by a certified public vaccinator, have attended 12 cases of labour, or had 3 months' attendance at a lying-in hospital, and have personally conducted 6 cases. Certificates for these various courses must attest regular attendance and due performance of the work of the class. The fees vary from 1 to 4 guineas for each class, and the total minimum cost in class, examination, and other fees for M.B. and Ch.B. may be set down as £150. Two of the five years' course must be taken in the University of Edinburgh. For students beginning their course in winter there may be given the following mininum curriculum for the degrees of M.B. and Ch.B., with suggested order of study and examination:

First Winter Session: Chemistry, including Practical Chemistry, Physics[4], or Elementary Zoology, Anatomy (Lectures), Examination in Chemistry, including Practical Chemistry, and either Physics or Elementary Zoology. First Summer Session: Elementary Zoology or Physics[4], Elementary Botany, Examination in Elementary Botany and Elementary Zoology or Physics.

Second Winter Session: Practical Anatomy, Physiology, Surgery. Second Summer Session: Practical Physiology, Practical Materia Medica, Clinical Surgery (with Dressership), Hospital.

Third Winter Session: Materia Medica, Practical Anatomy, Clinical Surgery (with Dressership), Hospital, Examination in Anatomy, Physiology, and Materia Medica and Therapeutics (the last may be postponed to the end of the following summer). Third Summer Session: Practical Pathology, Medical Jurisprudence and Public Health, Clinical Medicine, Hospital, Examination in Materia Medica and Therapeutics (if not previously taken).

Fourth Winter Session: Pathology, Medicine, Midwifery and Diseases of Women and Children, Clinical Medicine (with Clerkship), Hospital, Examination in Pathology, and Medical Jurisprudence and Public Health (the latter may be postponed to the end of the following summer). Fourth Summer Session: Examination in Medical Jurisprudence and Public Health (if not previously taken).

Fourth Summer and Fifth Winter Session: Clinical Medicine, Clinical Surgery, Mental Diseases, Ophthalmology, *Post-mortem* Examinations, Fevers, Diseases of Children, Out-practice of a Hospital, Dispensary, etc., Midwifery Cases and Practice, Vaccination, Hospital.

Fifth Summer Session: Examination in Surgery and Clinical Surgery, Medicine and Clinical Medicine, and Midwifery.

[3] A student whose native language is not English may substitute his own language for either French or German, and may substitute any other classical language for Latin or Greek.

[4] Three months' course.

PROFESSIONAL EXAMINATIONS.

These are four in number, and the first three may be taken in sections as indicated above.

First.—Botany, Zoology, Physics, Chemistry, taken any time after the full specified course in these subjects.

Second.—Anatomy, Physiology, Materia Medica, and Therapeutics, at the end of the third winter.

Third.—Pathology, Medical Jurisprudence, and Public Health, at the end of the fourth winter.

Final.—Surgery, Clinical Surgery, Medicine, Clinical Medicine, and Midwifery, at the completion of the fifth year.

Failure in one subject does not involve failure in the other subjects of that division. Candidates must be 21 years of age before admission to the degrees of M.B. and Ch.B.

Examination Fees for M.B. and Ch.B.

	First Time.	Re-Entry.
	£ s. d.	£ s. d.
Preliminary	0 10 6	0 10 6
First Professional	6 6 0	£1 1s. each time for each subject.
Any two Subjects of Ditto	3 3 0	
Second Professional	6 6 0	
Anatomy and Physiology	4 4 0	
Materia Medica, etc.	2 2 0	
Third Professional	4 4 0	
Final	6 6 0	

DEGREE OF M.D.

The candidate must be M.B. and Ch.B. of Edinburgh, must have been engaged for one year in the medical wards of a hospital, or at scientific work in a recognised research laboratory, or in the military or naval medical services, or two years in general practice, and must be 24 years of age. He must write a thesis on a subject not exclusively surgical, and he will be examined in Medicine, and in some of its special departments. The fee is £10 10s., and the stamp duty £10.

DEGREE OF CH.M.

The candidate must be M.B. and Ch.B. of Edinburgh, have worked one year in the surgical wards of a hospital, or been engaged in scientific work, or in the military and naval medical services, or for two years in practice not confined to medicine. He must be 24, must submit a thesis on a subject not exclusively medical, will be examined on Surgical Anatomy, Operations on the Dead Body, Clinical Surgery, and some of its special departments. The fee is £10 10s.

For further details the student is referred to *The University Calendar* (published by Mr. Thin, South Bridge, Edinburgh, price 3s., post free 3s. 6d.), or the medical *Programme*, price 2d., also published by Mr. Thin, or the Dean of the Faculty of Medicine, University of Edinburgh.

UNIVERSITY OF GLASGOW.

The new regulations came into force on January 1st, 1892. They are essentially the same as those given above for Edinburgh.

PRELIMINARY EXAMINATION.

This will be held from September 30th to October 5th, 1893; and from March 31st to April 5th, 1894. Fee 10s. 6d. each time. Names to be given in and fee paid by September 14th and March 7th to the Assistant Clerk, Matriculation Office.

REGISTRATION.

Printed form of application may be had from the Assistant-Clerk at the Matriculation Office, and this must be transmitted to Mr. James Robertson, Scottish Branch Registrar, 1, George Square, Edinburgh.

Professional Education.

The total minimum cost is about £126, and the course is the same as at Edinburgh.

Fees, etc.

The total examination fees for M.B. Ch.B. are the same as for Edinburgh but are differently distributed. The fee for the First and Second is £6 6s., and for the Third and Fourth £5 5s. each. In the event of a candidate being rejected in any of these he may be admitted once to re-examination without payment of further fee, but for a second and for each subsequent re-examination a fee of £2 2s. is charged.

For further details the student is referred to *The Glasgow University Calendar* for 1893-94, published by James Maclehose and Sons, 61, St. Vincent Street, Glasgow, price 3s., post free 3s. 6d. (see also p. 529).

Queen Margaret College, which provides a course of instruction for women, has now been affiliated with the University. For course of study, etc., see p. 529.

UNIVERSITY OF ABERDEEN.

The new regulations came into force at the beginning of the winter session of 1892-93. They are essentially the same as for Edinburgh.

Preliminary Examination.

The next Preliminary Examination will be held on October 2nd, 3rd, and 4th, 1893, and names must be intimated and fee paid ten days previous.

Professional Education.

The University Court has ordained that the candidate before admission to his Final Examination must produce certificates to the effect that he has acted for a period equal to a winter session both as a Clinical Clerk and Surgical Dresser, that he has attended not fewer than twenty-five necropsies, and taken part in some; that he has attended for at least three months a fever hospital of at least forty patients, and has had a three months' course on Disease in Children, and the same in Ophthalmology. The total minimum cost for M.B. and Ch. B. is about £115.

The fees for Professional Examinations are: Preliminary, 10s. 6d.; First, Second, and Third, £5 5s. each; Final, £7 7s. The fees for second and subsequent examination have apparently not yet been adjusted.

Further information will be given by the Secretary of the Medical Faculty, or will be got in the *University Calendar* for 1893-94, published by A. King and Co., Aberdeen; price, 2s. 6d., or post free, 2s. 11d.

UNIVERSITY OF ST. ANDREWS.

The new regulations have not come into force at St. Andrews, but will probably do so on October 1st, 1894. The degrees now conferred are M.B. and C.M., and M.D. The two former are not separable.

Preliminary Examination.

Although the new regulations are not yet in force, students beginning in session 1893-94 are recommended to take the examination as given above under Edinburgh, instead of that prescribed by the old regulations, and in any case *the whole examination must be taken at once.* The dates of examination are October 2nd to 4th, 1893, and April 2nd to 4th, 1894, and application for an examination schedule must be made to the Secretary of the University by September 10th, 1893, and that must be filled up and returned, along with a fee of 10s. 6d., to the Dean by September 20th. For Spring, 1894, these dates are March 5th and 15th.

Registration.

Forms may be had from the Dean or from the Branch Registrar for Scotland, named above under Edinburgh.

Professional Education

Extends over five years. Under the old regulations courses of only six months each are required in Clinical Medicine and Surgery, and two years' hospital attendance, otherwise the courses are pretty much what are given under Edinburgh. Two years' attendance at least must be in one or more of the following Universities or Colleges, namely: the University of St. Andrews; the Universities of Edinburgh, Glasgow, Aberdeen, Oxford or Cambridge; Trinity College, Dublin; Queen's College, Belfast; Queen's College, Cork; and Queen's College, Galway. The remaining years of medical study may be either in one or more of the universities or colleges above specified, or in the hospital schools of London, or in the School of the College of Surgeons in Dublin, or under such private teachers of medicine as the University Court may have recognised. The total minimum costs will necessarily depend on the fees of the various schools given above, where medical studies have been pursued. The University of St. Andrews has not in itself a completely equipped medical teaching staff.

Professional Examinations for M.B., C.M.

There are three, and they are held yearly in the end of March.

First on Chemistry, Botany, Elementary Anatomy, and Materia Medica, taken at end of second year.

Second on Advanced Anatomy, Zoology, with Comparative Anatomy, Physiology, and Surgery, taken at end of third year.

Third on Medicine, Surgery, Midwifery, General Pathology, and Medical Jurisprudence, taken at end of course.

Fees for Professional Examinations.

£7 for each of the three, and for a *first* failure in any and each of the divisions the student forfeits £2 2s., and the sum of £1 1s. for every subsequent failure in each.

Degree of M.D.

The candidate must be 24 years of age, be an M.B. and C.M., and must subsequently have been engaged for two years at a hospital, or in the military or naval medical ser- or in general medical and surgical practice. The fee is £5 5s., exclusive of stamp duty. For regulations as to degree of M.D. for practitioners see page 538.

Further information will be given by the Dean of the Faculty of Medicine, or will be got in the *University Calendar* for 1893-94, published by William Blackwood and Sons, 45, George Street, Edinburgh, price 2s. 6d., or post free 2s. 11d.

THE SCOTTISH COLLEGES.

The three medical corporate Colleges in Scotland—the Royal College of Physicians of Edinburgh, the Royal College of Surgeons of Edinburgh, and the Faculty of Physicians and Surgeons in Glasgow—now co-operate to hold a series of examinations, after passing which the student is presented with the diplomas of all three Colleges. Each College grants its single qualification only to persons who already possess another and opposite qualification (see below).

CONJOINT EXAMINATION.

A candidate who passes this series of examinations is granted the diploma of each of the co-operating bodies, and is entitled to register the three diplomas under the Medical Acts, and to write after his name—L.R.C.P.Edin., L.R.C.S. Edin., and L.F.P.S.Glasg.

Preliminary Examination.

The Educational Institute of Scotland conducts special preliminary examinations in Edinburgh and Glasgow for the the Colleges. Full particulars may be obtained from Thomas Morrison, LL.D., Free Church Training College, Glasgow, Secretary to the Examining Board of the Institute; or to Alex. Mackay, LL.D., 10A, South Saint Andrew Street, Edinburgh, Treasurer of the Institute. Certain other preliminary examinations, of which a list may be obtained on application, are also accepted.

Professional Curriculum.

The course of study after registration as a medical student must occupy not less than five years.[1] Professional studies

[1] This regulation does not apply to students who commenced medical study before January 1st, 1892.

commenced before registration will not be recognised, except in the case of Physics, Elementary Biology, Chemistry, Practical Chemistry, and Practical Pharmacy, but graduates in arts or science of any recognised university, who have spent a year in the study of Physics, Elementary Biology, and Chemistry, and have passed examinations in these subjects for their degrees, are held to have completed the first year of medical study. The fifth year must be devoted to practical clinical work, and six months of this year may be spent as a pupil of a registered practitioner.

The following order of study is recommended as conforming generally to the sequence of examinations, but is not imperative:—

First Summer: Physics, Elementary Biology. First Winter: Chemistry, Practical Chemistry, Junior Anatomy, Dissections. Second Summer: Histology, Dissections. Second Winter: Anatomy, Dissections, Physiology. Third Summer: Pathology, Materia Medica. Third Winter: Dissections, Surgery, Hospital Practice, with Clinical Surgery. Fourth Summer: Midwifery and Gynæcology, Medical Jurisprudence and Hygiene, Hospital Practice, with Clinical Surgery. Fourth Winter: Medicine, Hospital Practice, with Clinical Medicine. Fifth Summer: Clinical Medicine, Insanity, Practical Midwifery, Eye Diseases. Fifth Winter: Hospital Practice, Dispensary, Fevers, Vaccination.

Students are also recommended to study in the fifth year the following subjects:—Operative Surgery, Diseases of Children, Ear and Throat, Skin

PROFESSIONAL EXAMINATIONS.

During the five years of the professional curriculum the student has to pass four examinations. Each examination is held six times in each year, four times in Edinburgh, and twice at Glasgow, and a candidate may present himself at either place. He may pass two or more examinations at the same time. Schedules showing the course of study followed must be submitted before the examinations to one or other of the Inspectors of Certificates: in Edinburgh, Mr. James Robertson, solicitor, 1, George Square; in Glasgow, Mr. Alexander Duncan, B.A., Faculty Hall, 242, St. Vincent Street, to whom all inquiries as to professional examinations should be addressed.

TABLE SHOWING THE FEES FOR THE CONJOINT EXAMINATIONS IN SCOTLAND.

The Figures signify Pounds Sterling.

	Whole Examination.	Re-entry for all Divisions.	Re-entry in one or two Divisions.	Entry for one Division.	Re-entry for one Division.
Preliminary	1	10s.	—	—	—
Professional, First ...	6	4	3	3	2
,, Second ...	6	4	3	—	—
,, Third ...	6	4	3	3	2
,, Final ...	12	6	—	4	2

First Examination.—This examination may be passed at any time after registration as a medical student, by any candidate who has attended the obligatory courses. The examination consists of three parts: (1) Physics, (2) Chemistry, (3) Elementary Biology, and each division may be taken separately.

Second Examination.—This examination may be passed at any time after the end of the second year by a student who has attended courses of Anatomy, Physiology, and Dissections for six months each. The subjects of the examination are (1) Elementary Anatomy, and (2) Physiology including Histology. A candidate may pass in one subject while failing in the other.

Third Examination.—The student must have attended Practical Anatomy for twelve months and a course of Pathology and of Materia Medica before presenting himself for this examination, the subjects of which are (1) Advanced Anatomy, (2) Pathology, (3) Materia Medica and Pharmacy. It may be taken in three divisions, or at one time, at any time after the end of the third year.

Final Examination.—The student must be 21, may not pass this examination till the end of the fifth year. The subjects are (1) Medicine, including Therapeutics, Medical Anatomy, and Clinical Medicine; (2) Surgery, including Surgical Anatomy, Clinical Surgery, and Diseases and Injuries of the Eye; (3) Midwifery and Diseases of Women and of Newborn Children: (4) Medical Jurisprudence and Hygiene. Candidates may also be examined on Diseases of Children, Diseases of the Ear and Throat, Insanity, Vaccination, etc.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.

Licence.—The Licence is only granted as a separate qualification (in Medicine) to persons who already possess a recognised British, Irish, Colonial, or Indian qualification in Surgery. A candidate, who must not have been rejected within three months by any Licensing Board, is subjected to written and oral examination in Medicine, Materia Medica, Midwifery, and Medical Jurisprudence. The fee for the examination is £15 15s.; it is held in the first week of each month except September and October. A special examination can be obtained on showing cause, and paying £5 5s. extra. Eight days' notice must be given by all candidates to the Secretary of the College, from whom further particulars can be obtained.

Membership.—The candidate, who must be a Licentiate of a College of Physicians, or graduate of a British or Irish university, and 24 years of age, is examined in (1) Medicine and Therapeutics, and in (2) one of the following subjects chosen by him: (*a*) One or more departments of Medicine specially professed; (*b*) Psychological Medicine; (*c*) General Pathology and Morbid Anatomy; (*d*) Medical Jurisprudence; (*e*) Public Health; (*f*) Midwifery; (*g*) Diseases of Women. Further particulars as to other formalities can be obtained from the Secretary. A candidate 40 years of age and ten years in practice may be excused any part of or all the examination by the Council. The fee paid by a Licentiate of the College is £21 if licensed prior to August 1st, 1876, if subsequently £15 15s. Fee for others £31 10s. The examination is held quarterly (October, January, April, and July).

Fellow.—A Member, aged 25, and of at least one year's standing, may be elected a Fellow; he pays £56 10s. (including stamp duty).

ROYAL COLLEGE OF SURGEONS OF EDINBURGH.

Licence.—The Licence is only granted as a separate qualification (in Surgery) to persons (of either sex) who already possess a recognised British, Irish, Colonial, or Indian qualification in Medicine. A candidate, who must not have been rejected by any other Licensing Board in Surgery within three months, is examined on one day by written papers, and on a subsequent day orally, on specimens in the wards of a surgical hospital, and may be required to operate on the dead body. The fee is £15 15s., and is payable to Mr. James Robertson, Clerk to the College, 1, George Square, Edinburgh, from whom further particulars may be obtained, and to whom eight days' notice must be given. A special examination can be obtained on showing cause, and paying an extra fee of £5 5s.

Fellowship.—A candidate must have the diploma of the Royal College of Surgeons of Edinburgh, England, or Ireland, or of the Faculty of Physicians and Surgeons in Glasgow, must be 25 years of age, and must have been engaged in practice for two subsequent years at least. Candidates who are Licentiates of the Edinburgh College are examined in Surgery, including Clinical and Operative Surgery, and one optional subject; other candidates are examined also in Surgical Anatomy, and in other subjects not adequately included in the examination passed elsewhere. The optional subjects embrace: (*a*) Surgery in any one of its Ophthalmic, Aural, Laryngeal, Dental, Orthopædic, Syphilitic, or Genito-Urinary branches; (*b*) Advanced Anatomy; (*c*) Advanced Physiology; (*d*) Surgical Pathology and Morbid Anatomy; (*e*) Midwifery; (*f*) Gynæcology; (*g*) Medical Jurisprudence; (*h*) Hygiene; (*i*) Practice of Medicine and Therapeutics. The examinations are written, oral, and practical. Three weeks' notice must be given to Mr. James Robertson as above, from whom full particulars as to certificates required (among others two from Fellows of the College, of whom one must reside in Edinburgh) may be obtained. The fee is £30 (no stamp duty is payable on the diploma). Registered practitioners, aged not less than 40, may under special circumstances be elected without examination. Women are not admitted to the Fellowship.

FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

Licence.—The Licence is only granted as a separate qualification to candidates who already possess a recognised British, Irish, Colonial, or Indian qualification in Medicine. Candidates are examined in Surgery. The fee is £15 15s. The examination is held quarterly. Further particulars can be obtained on application to Mr. Alexander Duncan, B.A., 242, St. Vincent Street, Glasgow.

Fellowship.—Every candidate must be qualified for two years, and aged 24; he may pass one or two examinations. If he elects to take two examinations he is examined in Anatomy and Physiology at the first, and in Pathology and Surgery or Medicine at the second. If he elects to take one examination he is examined in Medicine or Surgery and an optional subject. The optional or alternative subjects are: (1) Human Anatomy, (2) Comparative Anatomy, (3) Physiology, (4) Pathology, (5) Midwifery and Diseases of Women, (6) Medical Jurisprudence, (7) Ophthalmic Surgery, (8) Aural Surgery, (9) State Medicine, (10) Psychological Medicine. Three examinations are held annually (April, May, October). Fourteen days' notice must be given. The fee to a non-licentiate is £25 unless he desires to qualify to hold office, when it is £50; to a Licentiate, £20 and £40 respectively.

THE IRISH UNIVERSITIES.

UNIVERSITY OF DUBLIN.

The University of Dublin grants two degrees in Medicine (M.B. and M.D.), two in Surgery (B.Ch. and M.Ch.), and two in Midwifery (B.A.O. and M.A.O.). A candidate for any one of these degrees must be a graduate in Arts, and have passed the Previous Medical Examination.

The following schools, in addition to the School of Physic, are recognised by the Board of Trinity College—the Schools of the Royal College of Surgeons in Ireland, the School of the Catholic University.

Previous Medical Examination.

This examination is divided into three parts—(1) Physics and Chemistry, (2) Botany and Zoology, (3) Anatomy, Practical Histology and Physiology. The three parts may be taken together or passed at separate examinations. The examinations are held in November, January, May, and twice in June.

Degrees in Medicine (M.B. and M.D.).

Degree of M.B.—The course for the degree of M.B. extends over five years, and the student must attend three courses of nine months' duration at Sir Patrick Dun's or other metropolitan hospital recognised by the Board of Trinity College. One year in a recognised London or Edinburgh hospital or two years in a recognised county infirmary or colonial hospital is counted as equivalent to one year in a recognised metropolitan hospital. A candidate for the degree is required to pass an examination in the following subjects: Medicine, Therapeutics, Pathology, Physiological Anatomy, Medical Jurisprudence, and Hygiene and Mental Disease. The examination is held in November, January, and June.

Degree of M.D.—The candidate must have taken, or have been qualified to take, the degree of M.B. three years previously, and must read a thesis or undergo an examination before the Regius Professor of Physic.

Degrees in Surgery.

Degree of B.Ch.—The candidate must, in addition to the course for the degree of M.B., take courses of Surgery, Operative Surgery, Dissections, and Ophthalmic Surgery. The examination is directed to Surgery, Surgical Pathology and Anatomy, and Ophthalmic Surgery.

Degree of M.Ch.—The candidate must be a B.Ch. of not less than three years' standing and have been engaged in practice for two years. Graduates of ten years' standing may be given a special examination.

Degrees in Obstetric Science.

Degree of B.A.O.—The candidate must attend special courses in Midwifery and Practical Midwifery, and is required to pass an examination in Practical Midwifery, Gynæcology and Obstetrical Anatomy.

Degree of M.A.O.—The candidate must have passed the M.B. and B.Ch. examinations. The examination is specially directed to Obstetrics and Practical Gynæcology.

University Diplomas.

The University grants diplomas in Medicine, in Surgery, and in Obstetric Medicine. A candidate must have completed two years in Arts and five years in medical studies.

Diploma in Medicine.—The medical course and examination are the same as for the degree of M.B., except that attendance is not required on lectures on Botany and Zoology, and that the candidate is not examined in these subjects.[1]

Diplomas in Surgery and in Obstetric Science.—The examination and courses necessary for these diplomas are the same as for the degrees of B.Ch. and B.A.O. respectively.

Fees.

Matriculation, 5s.; M.B., for the examination, £5, for the degree, £11; M.D., £13; B.Ch., for the examination £5, for the degree, £5; M.Ch., £11; B.A.O., £1; M.A.O., £5; diploma in Medicine, for the examination, £5, for the diploma, £5; diploma in Surgery, for the examination, £5, for the diploma, £5; for the diploma in Obstetrics, £1.

A schedule containing recommendations respecting the five years' medical curriculum can be obtained on application to the Registrar of the School of Physic in the University of Dublin.

ROYAL UNIVERSITY OF IRELAND.

The University grants two Degrees in Medicine, M.B. and M.D.; two in Surgery, B.Ch. and M.Ch.; and two in Obstetrics, B.A.O. and M.A.O. The course of five years for these degrees is reckoned from the completion of one academical year from the date of matriculation. Graduates in Arts or Science who have spent a year in the study of Physics, Chemistry, and Biology, and passed an examination in those subjects, are held to have completed the first of the five years.

Medical Curriculum.

The order in which the subjects of the medical curriculum are required to be studied is minutely stated in the *Calendar*; the general character of the curriculum is sufficiently indicated by the examinations held at the termination of each year.

Matriculation and First University Examination.

Candidates for any degree must pass the Matriculation Examination and First University Examination and Matriculation.

Matriculation.—This examination is held for pass and honours in June, and for pass only in September. Notice of intention to compete must be sent with the fee to the Secretaries, Royal University of Ireland, Dublin, on a printed form, not later than May 15th or August 15th respectively. The examination consists of the following parts:—I, Latin; II, any one of the following languages: Greek, French, German, Italian, Spanish, Celtic, Sanskrit, Hebrew, or Arabic; III, English Language; IV, Elementary Mathematics; V, Natural Philosophy (optional). A schedule of the subjects is contained in the *University Calendar*.[2]

First University Examination.—A candidate who has passed the Matriculation Examination in the autumn of one year may be admitted to the First University Examination in the summer of the next year, otherwise an academical year must elapse. The subjects are:—I, Latin; II, any one of the following languages: Greek, French, German, Italian, Spanish, Celtic, Sanskrit, Hebrew, or Arabic; III, English Language and Literature; IV, Mathematics; V, Natural Philosophy. Schedules are published in the *Calendar*.[2]

[1] A Diplomate in Medicine, on completing his course in Arts and proceeding to the degree of B.A., may become a Bachelor in Medicine by attending the lectures on Botany and Zoology, passing the Previous Medical Examination in those subjects, and paying the degree fees.

[2] Dublin: Alex. Thom and Co. London: Longmans, Green, and Co. Extracts can be obtained on application to the Secretary of the University.

DEGREES IN MEDICINE, SURGERY, AND OBSTETRICS.

A candidate must pass four examinations subsequently to the First University Examination.

First Examination in Medicine.—Candidates must have matriculated two years previously and must have completed the first year of the medical curriculum. The subjects are Natural Philosophy, Systematic Chemistry, Botany, and Zoology. Schedules are contained in the *Calendar*. The examination is written, oral, and practical.

Second Examination in Medicine.—Candidates must have passed the First Examination one year previously, and are examined in Anatomy, Physiology, and Practical Chemistry. Schedules will be found in the *Calendar*.

Third Examination in Medicine.—Candidates must have passed the Second Examination one year previously. They are examined in Anatomy, Physiology, Materia Medica, Pharmacology, and Therapeutics, and clinically in Physical Diagnosis.

Examination for the Degrees of M.B., B.Ch., B.A.O.—Candidates must have passed the Third Examination. The examination consists of three parts—(*a*) Medicine, theoretical and clinical, including Therapeutics, Mental Diseases, Medical Jurisprudence, Sanitary Science, and Medical Pathology. (*b*) Surgery, theoretical, clinical, and operative, including the use of instruments and appliances; Surgical Anatomy, Ophthalmology and Otology, Surgical Pathology. (*c*) Midwifery and Diseases of Women and Children. All candidates must enter for and go through the entire examination, but a candidate may be adjudged to have passed in any of the foregoing parts in which he satisfies the examiners. Successful candidates receive the triple degree.

Honours.—There are special examinations for honours held in connection with each of the four last examinations.

DEGREE OF M.D.

A candidate must have obtained the degrees of M.B., B.Ch., B.A.O. at least three years previously and must have spent at least two of these in practice. The candidate is examined in writing and orally in Medicine and Pathology and at the bedside.

DEGREE OF M.CH.

The candidate must have obtained the degrees of M.B., B.Ch., B.A.O. at least three years previously, two of which must have been spent in practice. The candidate is examined in Surgery, including Ophthalmology and Otology, at the bedside, and is required to write detailed reports on cases.

DEGREE OF M.A.O.

The candidate must have obtained the degree of M.B., B.Ch., B.A.O., at least three years previously, have been engaged in practice for two years, have had personal charge of at least twenty cases of labour, and have attended clinical Gynæcology for three months. The candidate is examined in writing, orally and clinically, in Midwifery, Diseases of Women and Children, and Pathology.

EXHIBITIONS AND SCHOLARSHIPS.

Two first class and two second class exhibitions are given after each of the four examinations in medicine. They are of the value at the first of £20 and £10; at the second of £25 and £15; at the third of £30 and £20; and at the degree examination of £40 and £25 respectively. A travelling medical scholarship, value £100, is awarded in October, after a special examination, to a candidate who has passed the Medical Degrees Examination in that year or the preceding year. Two Dr. Henry Hutchinson Stewart Medical Scholarships are awarded annually, the one of the value of £10, tenable for three years, in the subjects of the Second Examination in Medicine; the other of the annual value of £50, tenable for three years, for Proficiency in the Knowledge of Mental Diseases.

FEES.

Matriculation, £1; First University Examination, £1; First, Second, and Third Examinations in Medicine, for each £1. The Examination for Degrees, £2; for admission to the Degrees, £10; for the Degrees of M.D., M.Ch., M.A.O., each, £5.

THE IRISH COLLEGES.

CONJOINT EXAMINING BOARD OF THE ROYAL COLLEGE OF PHYSICIANS AND THE ROYAL COLLEGE OF SURGEONS IN IRELAND.

THE diplomas of these two bodies are now granted upon conditions and after examinations settled between the Colleges.

Preliminary Examination.—Examinations in general education, which fulfil the requirements of the General Medical Council, are accepted by the Colleges (see pages 509-10). The Preliminary Examination of the College is held twice a year, in March and September, and seven clear days' notice must be given to Greenwood Pym, Esq., Secretary of the Committee of Management, 47, Dawson Street, Dublin.[1]

PROFESSIONAL EXAMINATIONS.

There are four Professional Examinations:

The *First Professional Examination* may be passed not earlier than the end of the first winter session. It consists of four Parts: I, Chemistry and Physics; II, Practical Pharmacy; III, Biology; IV, Anatomy (Bones and Joints). The four Parts may be taken together or separately.

The *Second Professional Examination* may be passed at the end of the second winter session. It consists of four Parts: I, Anatomy; II, Histology; III, Physiology; IV, Materia Medica; the last named subject may be postponed at the option of the candidate, and if he fail in any one of the other three subjects, he may, at the discretion of the examiners, receive credit therefor.

The *Third Professional Examination* may be passed at the end of the fourth winter session. It consists of five Parts: I, Medicine; II, Surgery; III, Pathology; IV, Therapeutics; V, Public Health and Forensic Medicine. A candidate must present himself in the first instance in I, II, and III at least, but if he pass at either I or II he will obtain credit therefor.

The *Final Professional Examination* may be passed at the end of the fifth winter session. A candidate may present himself in all the subjects at one time, or in one or more in the following groups: (*a*) Medicine, including Mental Diseases, Medical Anatomy, and Clinical Medicine; (*b*) Surgery, including Ophthalmic and Aural Surgery, Clinical Surgery, Operations, and Surgical Anatomy; (*c*) Midwifery, including Diseases of Women and Newborn Children, and the Theory and Practice of Vaccination.

CURRICULUM.

The curriculum as above stated extends over five years, and its general arrangement can be gathered from the subjects of the examination, which are arranged to test the student's progress. Full details may be obtained on application to the Secretary as above.

FEES.

Preliminary Examination, £2 2s., except in the case of matriculated pupils of the Royal College of Surgeons, who pay £1 1s.; re-examination, £1 1s. First Professional Examination, £15 15s.; Second, £10 10s.; Third, £9 9s.; Final, £6 6s.

CONJOINT EXAMINATION OF THE ROYAL COLLEGE OF SURGEONS OF IRELAND AND THE APOTHECARIES' HALL OF IRELAND.

THE conjoint diploma is granted to candidates who pass through a prescribed curriculum and pass a series of examinations conducted by the two bodies jointly. The candidate is required to pass a Preliminary Examination and four Professional Examinations. The subjects of the Preliminary Examination are those prescribed by the General Medical Council. All examinations in general education recognised by the General Medical Council (see pages 509-10) are accepted.

SESSIONAL MEDICAL EXAMINATION.

First Year.—The subjects of the examination are Physics, Chemistry, Anatomy (Osteology and Elementary Biology, as defined by syllabus), and Pharmacy.

[1] The General Medical Council has recommended that this examination should be discontinued.

Second Year.—The subjects of examination are Anatomy, Physiology, Histology, and Materia Medica. The last subject may be deferred until the third year.

Third Year.—The subjects of the examination are Pathology, Therapeutics, Forensic Medicine, and Public Health. The candidate is also examined in Practical Dissection.

Fourth Year.—The candidate must produce evidence of having attended, subsequently to the Third Professional Examination, a medico-chirurgical hospital, lectures on Midwifery, Midwifery Practice, Operative Surgery, and of having studied fevers in fever wards.

Fifth Year.—The candidate is examined in Medicine, Surgery, and Therapeutics, Midwifery and Diseases of Women. The examination is conducted by written papers, by a clinical examination (including Ophthalmic and Aural Surgery). The candidate's skill is tested by being required to perform operations, and showing the knowledge of surgical instruments and appliances. A candidate is not admitted to the Final Examination until the end of the fifth year of medical study. Candidates who fail in examination are referred for three months.

Curriculum.

These examinations are arranged so as to test the candidate's progress during a stated curriculum, the general scope of which is indicated by the subjects of the various examinations. A pamphlet containing full particulars of these and on other points can be obtained on application to the Registrars of the College of Surgeons or of the Apothecaries' Hall.

Fees.

The total fees for the Diplomas of L.R.C.S.I. and L.A.H. will in future be £26 5s.—that is, £5 5s. for each of the First Three Examinations, and £10 10s. for the Final. The fee for re-examination is £3 3s.

ROYAL COLLEGE OF PHYSICIANS OF IRELAND.

This College continues to issue its Licence in Medicine and the Licence in Midwifery to registered medical practitioners whose names appear on the *Medical Register* of the United Kingdom.

Licence in Medicine.—The subjects of examination are: Practice of Medicine, Clinical Medicine, Pathology, Medical Jurisprudence, Midwifery, Hygiene, and Therapeutics. A candidate of five years' standing is exempt from examination by printed questions.

Licence in Midwifery.—The candidate must produce certificates of having attended a course of lectures on Midwifery, and of having attended Practical Midwifery and Diseases of Women, for six months, at a lying-in hospital or maternity recognised by the College; or, where such hospital attendance cannot have been obtained during any period of the candidate's course of study, of having been engaged in Practical Midwifery under the supervision of a registered practitioner holding a public medical appointment, the certificate in either case to state that no fewer than twenty labour cases have been actually attended. A registered medical practitioner of five years' standing is exempted from the examination by printed questions.

Fees.—Fee for the Licence to practise Medicine, £15 15s., except in the case of Graduates in Arts and Medicine of any University in the United Kingdom, when the fee shall be £5 5s. only. Fee for examination for the Licences in Medicine and Midwifery, if obtained within the interval of a month, £16 16s.—to be lodged in one sum[1]. Fee for special examination for the Licence to practise Medicine, £21. Fee for examination for the Licence to practise Midwifery, £3 3s. Fee for special examination for the Licence to practise Midwifery, £5 5s. The admission fee, less the sum paid to the examiners, will be returned to rejected candidates. The examinations for these licences are held in the week following the first Friday in February, May, and November. Notice must be given, and the schedule transmitted at least four days before the first Friday in each of the above months to the Registrar of the Royal College of Physicians of Ireland, Kildare Street, Dublin, from whom further information can be obtained. A special examination can be obtained under certain conditions which can be ascertained on application to the Registrar.

Membership.—A candidate for the membership of the College must be 25 years of age and a licentiate of the College of three years' standing, or if a graduate of arts of a university in the United Kingdom, a licentiate of one year's standing, or, if a practitioner of seven years' standing, then he is admitted to the membership after one year. He must not be engaged in trade, dispense medicine, or practise in partnership. He must also have held during at least six months the office of resident physician or resident medical pupil, or of having acted during the same period as medical clinical clerk in a recognised hospital, or of having been in medical charge for at least twelve months of a public institution for the treatment of the sick. Every candidate must pass an examination in: 1. Principles of Medicine, including Pathology, Morbid Anatomy, and Medical Chemistry; 2. Practice of Medicine, including Principles of Public Health; 3. Clinical Medicine. The fee for the examination is £21 (to graduates in Arts 15 guineas), which must be lodged in the Royal Bank, Dublin, before the applications and certificates are sent in. The examinations are held in January, April, July, and October.[2]

[1] Any candidate who has been rejected at the examination for the Licence in Medicine loses this privilege, and shall be required to pay the full fee of £3 3s for the Licence in Midwifery.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

Licence.

This College continues to grant its licence in Surgery to registered practitioners. Candidates who hold registrable Surgical Diplomas (including the Licence of the Apothecaries' Company of London, granted since October, 1886) will be admitted to examination without further evidence of study. Candidates who hold medical qualifications only (including the Licence of the Apothecaries' Company of London, granted before October, 1886) will be required to produce, in addition to their diploma, certificates of two courses of lectures in Anatomy and of Dissections, and one course of Practical Histology, one course of Lectures in Surgery, and one course of Operative Surgery.

Subjects of Examination.—Candidates are examined in Surgery, Clinical Surgery, Operative Surgery on the Subject, and Surgical Appliances, Ophthalmic Surgery.[1] Each of these examinations is partly written, partly *viva voce*, and partly practical.

Exemptions from Examination.—Licentiates of a Royal College of Surgeons of five years' standing are exempted from the written portions of the examinations. Licentiates of a College of Physicians, or Graduates in Medicine of a University recognised by the College, and candidates who have passed the examinations required for such qualifications, shall be entitled to be examined only in General and Descriptive Anatomy, Histology, Physiology, the Theory and Practice of Surgery, Operative Surgery, and Surgical Appliances. Licentiate Apothecaries must answer also in Medicine and Midwifery.

Special Examinations.—Candidates seeking a Special Examination must make application to the Council, and show special cause. A special fee of £10 10s. is charged in addition to that mentioned below.

Fees.—The fee is £26 5s., or in the case of Special Examination £31 10s., and must be paid at least fourteen days before the day specified for examination; £5 5s. is retained by the College in the case of unsuccessful candidates.

Fellowship.

The Fellowship of the Royal College of Surgeons in Ireland is granted after examination to graduates or licentiates in Surgery of a university or college recognised by the College, who are required to bring evidence that they have studied in a medical school, for not less than six years, three of which must have been spent in a recognised medical school in

[2] The admission fee, less the sum paid to the examiners, will be returned to the rejected candidates.

[1] Candidates who commenced study before July, 1879, are exempt from both the Certificate of Study and the Special Ophthalmic Examination, but are liable to be examined by the Surgical Examiners in Ophthalmic Surgery. Those who commenced before February, 1882, are exempt from the Special Examination on producing the certificate of three months' Clinical Ophthalmology required before that date. Those who commenced after February, 1882, must pass the Special Examination.

Great Britain. The other three may be spent in any foreign school of repute.

Examination.—The examination differs according to the standing of the candidate. *Grade 1.*—Licentiates or Graduates in Surgery of less than ten years' standing. Two examinations must be passed. Primary: Anatomy, Physiology, Histology (laboratory), Dissections. Final: Surgery, Clinical Surgery, Operative Surgery, Surgical Pathology. *Grade 2.*—Licentiates or Graduates in Surgery. One examination must be passed in Surgery, Clinical Surgery, Operative Surgery, and Morbid Anatomy.

Dates.—The examinations are held in February, May, and November. Special examinations may be granted, for which an extra fee of ten guineas is charged.

Fees.—Grade 1: For Licentiates of the College—for Primary Examination, £15 15s.; for Final Examination, £10 10s. For Licentiates in Surgery of other licensing bodies—for Primary Examination, £26 5s.; for Final Examination, £15 15s. *Grade 2:* Licentiates of the College, 25 guineas; Licentiates in Surgery of other licensing bodies, 40 guineas. In either case £10 10s. is retained by the College in case of rejection, and is not allowed in the fees of re-examination.

Further information can be obtained from the Registrar at the College.

APOTHECARIES' HALL OF IRELAND.

Licence.—The Apothecaries' Hall of Ireland does not now grant its licence except in conjunction with the Royal College of Surgeons in Ireland (see p. 521), or to qualified practitioners, whose names appeared on the *Medical Register*, who wish to add this to other qualifications. Doctors of Medicine, Licentiates of a College of Physicians, and Licentiates of a College of Surgeons, who have also a Certificate in Practical Pharmacy, may obtain the Licence of the Hall by undergoing examination—the first two in Pharmacy, the latter in Medicine and Pharmacy. The fee is ten guineas.

Certificate of Assistant.—The Hall grants a certificate of Assistant after examination to persons not less than 16 years of age who have spent two years at Practical Pharmacy under the superintendence of a duly registered Apothecary or Pharmaceutical Chemist. The examination, which is held monthly (except in August), embraces the subjects of Pharmacy, practical and theoretical, Materia Medica, the *British Pharmacopœia*, and the correct translation and compounding of Medical Prescriptions. Fee for examination and registration, £1 7s.

Further information can be obtained from Mr. R. Montgomery, M.R.C.S., Secretary.

NOTES ON MEDICAL SCHOOLS AND COLLEGES.

LONDON.

INTENDING students of medicine should take notice that the degrees of Doctor or Bachelor of Medicine are conferred only by universities, and that the holders of diplomas from corporations (Colleges of Physicians or Surgeons or Apothecaries Societies) have no legal right to the title of "Doctor." Students coming to London and desiring to obtain the title of Doctor there are specially warned that they should matriculate at the University of London before entering medical schools. Neglect of this precaution is a fertile source of disappointment and loss of time at a later period.

There are in London twelve medical schools or colleges, which provide a full medical curriculum. Each is connected with a large general hospital, where clinical instruction is given, and where students can obtain the necessary practical experience as surgical dressers and medical clinical clerks. In every instance arrangements are made by which students can attend the number of cases of midwifery required by the various medical examining bodies.

Great improvements have been made during the last ten years in the lecture-theatres and museums, and in the laboratories for practical instruction in Chemistry, Physiology (including Histology), and Pathology, and the facilities afforded at the present time, at the smaller as well as at the larger schools, compare very favourably with those which existed not many years ago. It will be unnecessary to reproduce in the following notes the details as to the course of instruction at the various schools; they are everywhere the same in principle, and differ only in the arrangement of details of minor importance.

ST. BARTHOLOMEW'S HOSPITAL MEDICAL SCHOOL.

The Hospital contains 750 beds.

Appointments.—Clinical Clerks to the Physicians, and to the Physician-Accoucheur, and Dressers to the Surgeons and in the casualty department are chosen from the most diligent students. Clerks and dressers are also selected to attend in the out-patient rooms, in the special departments (Ophthalmic, Orthopædic, Laryngological, Dermatological), and in the *post-mortem* room. Eight House-Physicians and ten House-Surgeons (who must be qualified to practise), and a Senior and a Junior Assistant-Chloroformist, are appointed annually. A Resident Midwifery Assistant and an Ophthalmic House-Surgeon are appointed every six months. Each of these officers receives a salary of £25 a year, except the Senior Assistant-Chloroformist, who receives £50. All, except the eight Junior House-Physicians and House-Surgeons, are provided with rooms.

There is a residential college within the precincts of the Hospital.

A special class is held for students preparing for the Preliminary Scientific Examination.

Entrance Scholarships.—Two senior open Scholarships in Science, value of each £75, tenable for one year, to be competed for at the end of September; candidates must be under twenty-five years of age. The subjects are Physics and Chemistry for one, Physiology and Biology for the other. Two Junior open Scholarships, value £150 and £50, will be competed for at the same time in the subjects of the London University Preliminary Scientific Examination. Candidates must be under twenty years of age. The successful candidates must enter at St. Bartholomew's Hospital in the October succeeding the examination. Jeaffreson Exhibition: £20; examination at the end of September; subjects: Latin, Mathematics, and any one of the following languages—Greek, French, German. Candidates for the open Scholarships and the Jeaffreson Exhibition must not have entered to the hospital practice of any metropolitan medical school.

Communications regarding the Hospital and Medical College must be addressed to Dr. T. W. Shore, Warden of the College, St. Bartholomew's Hospital.

CHARING CROSS HOSPITAL MEDICAL SCHOOL.

The Hospital contains 180 beds. Students are also admitted to the practice of the Royal Westminster Ophthalmic Hospital, which contains 30 beds.

Appointments.—Clinical Clerks and Dressers, Clinical Ward Clerks, Surgical Ward Clerks, and Pathological Assistants are appointed for three months. Assistant Demonstratorships of Anatomy and Physiology are also open to the students. Two House-Physicians, two House-Surgeons, and a resident Obstetric Officer are appointed by competitive examination for six months. They are entitled to rooms and commons in the hospital. A Medical and a Surgical Registrar, each with a salary of £40 a year, are appointed for twelve months. An Electrical Assistant is appointed every six months, and receives an honorarium of £12 12s. at the end of his term of office.

Entrance Scholarships.—Two Entrance Scholarships, of the value of 120 guineas and 60 guineas respectively, are awarded annually at the commencement of each winter session, after a competitive examination in the following groups of subjects: 1. English, including Language, History, and Geography; 2. Latin and Greek; 3. French and German; 4. Mathematics, including Arithmetic, Algebra, and Geometry; and Mechanics, including Statics and Dynamics; 5. Chemistry (Inorganic) and Physics, including Acoustics, Heat, and Electricity; and 6. Animal and Vegetable Biology. The

value attached to each group of subjects is 1,000 marks. Candidates must be under 25 years of age on the first day of the examination. No candidate may offer himself for examination in more than three of the above groups of subjects, the selection of the groups being left entirely to the candidate. Intending candidates must give notice before September 16th. The Examination will commence at the School on Monday, September 18th. The successful candidates must enter forthwith for their complete medical education at the Hospital. A Scholarship of the value of 60 guineas is open to students from the University of Oxford who have passed the First M.B. Examination, and to students of the University of Cambridge who have passed the Second M.B. Examination, and who have not entered at any London Medical School. Subjects: Anatomy and Physiology, including Histology. The examination for this Scholarship, which will be largely practical, will be held on September 18th and 19th. Notice to compete must be sent in on or before Saturday, September 16th. The successful candidate will be required to complete his curriculum at Charing Cross Hospital.

Further information may be had of the Dean, Mr. Stanley Boyd.

St. George's Hospital Medical School.

The Hospital contains 351 beds, of which 205 are devoted to Surgical, and 146 to Medical cases.

Appointments.—Four House-Physicians and House-Surgeons are appointed, half-yearly, from among the perpetual pupils; they hold office for twelve months, and reside and board in the hospital free of expense. An Obstetric Assistant is appointed annually; he must be a legally qualified practitioner. He resides and boards in the hospital, and receives a yearly salary of £100. A Curator of the Pathological Museum and a Medical and a Surgical Registrar are appointed annually from among the senior pupils, each with a salary of £50. An Anæsthetist is appointed annually, with a salary of £20 a year. As the result of a competitive examination held every three months, those students who desire to proceed to the offices of House-Physician and House-Surgeon are appointed in turn as assistants for three months in each special department. Two Demonstrators of Anatomy and a Demonstrator of Physiology are appointed annually, each with a salary of £50. Each pupil of the Hospital must act as Clinical Clerk and Dresser before a certificate of attendance on hospital practice can be signed.

Entrance Scholarships.—The following Entrance Scholarships are offered for competition: 1. A Scholarship, value £145, for the sons of medical men who have entered the school during the current year.[1] 2. Two Scholarships, each of £50, open to all students commencing their studies. The subjects for these three Scholarships will be Latin, French, or German, and Elementary Physics and Mathematics, and the examination will be held in October. 3. Two Scholarships, value £85, for students who have entered during the current year, and have been signed up for or passed the Oxford First M.B. or the Cambridge Second M.B. Subjects: Anatomy and Physiology. The examination for these Scholarships will be held during October.

Further information may be obtained from the Dean of the School; from any of the Lecturers; or from Mr. F. J. Marshall, the Resident Medical Officer at the Hospital.

Guy's Hospital Medical School.

The Hospital contains 695 beds, of which 500 are in constant occupation. Detached wards, containing 40 patients, are set apart for the purpose of instruction in clinical medicine.

Appointments.—All appointments are given according to the respective merits of the candidates, and without extra payment. There are appointed annually House-Physicians, House-Surgeons, Assistant House-Physicians, Assistant House-Surgeons, Surgeons' Dressers, and Medical Clinical Clerks, Dressers in the Eye Wards, Dressers in the Throat Department, Clinical Assistants, Assistant-Physicians' Clerks, Assistant-Surgeons' Dressers, Dressers in the Surgery, Obstetric Ward Clerks, Surgical Clinical Clerks, Assistant-Surgeons' Clerks, for three months; Obstetric Residents, *Post-mortem* Clerks, Dental Surgeon's Dressers, Aural Surgeon's Dressers, Obstetric Out-Patient Clerks, Extern Obstetric Attendants, Clerks in the Electrical Department, also Clerks to the Anæsthetists. A special honorary certificate is given to every gentleman who has diligently performed the duties of not less than three of the various offices; and special certificates are given to those who have attended 100 cases of midwifery.

Entrance Scholarships.—Four open Scholarships, two in Arts and two in Science, will be offered for competition in September, 1893. Entrance Scholarships in Arts: 1. A Scholarship of 100 guineas, open to candidates under 20 years of age. 2. A Scholarship of 50 guineas, open to candidates under 25 years of age. Subjects: Latin: Virgil, *Æneid*, Books VI and VII. Greek: Xenophon, *Anabasis*, Book IV. The principal passages for translation into English will be selected from the above works. Short passages will be given from other works. Questions on grammar and short passages in English for translation into Latin and Greek respectively will also be set. French; German. Passages in the above languages will be set for translation into English; also passages in English for translation into French and German respectively; and questions in Grammar and Literature. Arithmetic. Euclid, Books I, II, III, IV, VI. Algebra, to the Binomial Theorem and Permutations and Combinations inclusive. Candidates may choose between Greek and German, but will not be allowed marks in more than one of these subjects. Entrance Scholarships in Science.—1. A Scholarship of 125 guineas, open to candidates under 25 years of age. 2. A Scholarship of 50 guineas, open to candidates under 25 years of age. Subjects: Inorganic Chemistry, General Biology (Zoology, Botany), Experimental Physics, including General Properties of Solid, Liquid, and Gaseous Bodies, Acoustics, Heat, Magnetism, Electricity, and Optics. There will be a practical examination in Chemistry, in addition to the paper. Specimens will be given with the papers in Botany and Zoology. The successful candidate will be required to enter at the Hospital, as a Perpetual Student, in the October immediately succeeding the Examination. Names of intended candidates should be forwarded on or before September 24th, to the Dean, Guy's Hospital, London, S.E.

A Residential College within the precincts of the Hospital accommodates about sixty students.

Further information may be obtained on application to the Dean of the Medical School.

King's College Medical Faculty.

The Hospital contains 220 beds in daily use.

Appointments.—Resident Medical Officers, Clerks, and Dressers are chosen from matriculated students, and the former have rooms and commons free. Two Sambrooke Registrarships, of the annual value of £50 each, tenable for two years, open to matriculated students who have filled any of the higher appointments of the Hospital.

Entrance Scholarships.—Two Warneford Scholarships, for the encouragement of previous education,[1] each £25 per annum, for three years; one Additional Scholarship of £25 per annum for two years will be given in October, and one Warneford Scholarship of £25 per annum for two years, for third year resident matriculated student, at the close of the winter session. Two Sambrooke Exhibitions, one £60 and one £40, open to all matriculated students at the commencement of their course of study; subjects of examination, Mathematics, Elementary Physics, Inorganic Chemistry, Botany, and Biology. Rabbeth Scholarship, value £20, in July, for best

[1] Subjects: Latin, French, or German. Passages from authors usually read in schools with prose composition and grammatical questions. Mathematics; Euclid, Books i to vi; Algebra, including generative equations; Arithmetic. The examination in Elementary Physics will include Mechanics, Hydrostatics, Light, Heat, and Electricity.

[1] The examination will be in the following subjects: 1. Divinity, *Old Testament*, 1st and 2nd Samuel; *New Testament*, the Acts of the Apostles; the *Church Catechism*: Books recommended: Barry's *Notes on the Catechism*, or Maclear's *Class Book of the Catechism of the Church of England*. 2. English, Shakespeare, *King John*. 3. History, the History of England, from 1760 to 1798; Textbook, Bright's *History of England*. 4. Latin, Virgil, *Æneid*, Book VI. 5. Greek, Xenophon, *Anabasis*, Book IV. 6. French, Voltaire, *Le Siècle de Louis XIV*. 7. German, Chamissos's, *Peter Schlemihl* (Clarendon Press). 8. Mathematics, Arithmetic, Algebra, as far as and including Quadratic Equations, together with Proportion and Arithmetical and Geometrical Progression; Euclid, Books I—IV, or the subjects thereof.

vidence of early scientific training. Two Science exhibitions, given annually, in October, by the Clothworkers' Company, one of £30 per annum and one of £20 per annum, each tenable for two years, for proficiency in any four of the following subfects: Mathematics, Mechanics, Physics, Chemistry, Botany, Geology, Mineralogy, and Zoology, will be open to all candidates who are under the age of 19. Rooms are provided within the College for a limited number of matriculated students under the supervision of the Censor. The cost of the academical year varies from £50 to £60 for rent of rooms and dinner. The Dean of the Medical Department, Professor Curnow, attends daily (Saturdays excepted), at King's College, from 11.30 A.M. to 1 P.M., for the purpose of seeing students and their friends. Any letter addressd to the Dean during the vacation will receive early attention.

London Hospital Medical School.

The Hospital is the largest general hospital in the kingdom; it contains 786 beds.

Appointments.—Five House-Physicians, five House-Surgeons, and a Resident Accoucheur are appointed every six months; Two Receiving-room Officers, and a Senior Dresser to Out-patients every three months. Clinical Clerks, Surgical Dressers, and Clinical Obstetric Clerks are appointed every three months. Every student must act as a Clinical Clerk for three months in the medical out-patient department, after passing the first College of Surgeons examination. Maternity pupils reside in the hospital every week. Each student must attend at least twenty cases of Midwifery; those who have attended one hundred are entitled to a special certificate. Dressers reside and board in the hospital every week. Every student must act as a Dresser in the Surgical out-patient department for at least six months after the end of the first winter session. Three Clinical Assistants are appointed every three months for the Medical out-patients, and are eligible for re-election. Each receives a salary at the rate of £80 per annum. Unpaid Clinical Assistants are appointed in the Ophthalmic department. A Medical Registrar and a Surgical Registrar are appointed annually; each receives £100. An Instructor in Anæsthetics is appointed annually, and receives £50. Every student must act as a *Post-mortem* Clerk for three months. A Dental Assistant, Prosectors of Anatomy, and Dressers in the Ophthalmic and Aural departments, are also appointed. The holders of resident appointments are provided with rooms and board.

Entrance Scholarships.—Two Entrance Scholarships, value £75 and £50; examination at the end of September; subjects: Physics, Botany, Zoology, and Inorganic Chemistry. Successful candidates must forthwith become pupils of the hospital and school. Two Buxton scholarships, value £30 and £20, open to full students of less than six months' standing: October[1] Two Price Scholarships (interest on £5,000). The Epsom College Scholarship, open to students of Epsom College, represents a free medical education at the London Hospital.

Information may be obtained from the Warden, Mr. Munro Scott, at the College.

St. Mary's Hospital Medical School.

The Hospital contains 281 beds; the number will shortly be raised to 381.

Appointments.—Three House-Physicians and three House-Surgeons are appointed for six months each, and two Obstetric Officers for six months each; all live free of expense in the Hospital. All students must act as Clinical Clerks and Dressers for eight months after passing the Primary Examinations, and after having acted as Dressers two months in the Casualty Department. Demonstrators of Anatomy are appointed annually at salaries of £70; two Assistant Demonstrators and two Prosectors with an honorarium of £5 each; a Demonstrator of Physiology at a salary of £100, and two Assistant Demonstrators, who receive an honorarium of £5; a Demonstrator of Chemistry and Physics at a salary of £100, and an Assistant Demonstrator, who receives an honorarium of £5; a Demonstrator of Biology at a salary of £30; and two Demonstrators of Pathology, to assist the lecturers, who receive an honorarium of £5 each.

Entrance Scholarships.—One Scholarship in Natural Science, value £105, and three of the value of £52 10s. each; subjects, Inorganic Chemistry, Experimental Physics, and Elementary Biology. There will be a practical examination in each subject. The examination takes place at the end of September. The candidates must not have completed a winter session of study at a medical school in London. The successful candidates must enter as perpetual pupils of the Hospital, and pursue the full course of study there. A scholarship of £120, for students of Epsom College, who are sons of medical men. Two scholarships, each of £52 10s., open to students from a University, who have not entered at any London medical school: subjects, Physiology and Histology, and either Anatomy or Chemistry at the option of the competitor.

Special Classes are held for the Preliminary Scientific Intermediate M.B. and Final M.B. Examinations of the University of London, and for the Examinations for the Fellowship of the Royal College of Surgeons.

Students may reside in the College, 33 and 35, Westbourne Terrace, under the supervision of the Warden, Mr. E. Roughton. Terms, inclusive of all school fees, and including the assistance of the demonstrators on three evenings in the week, can be obtained on application to the Warden.

Further information may be obtained from the School Secretary or from the Dean of the School.

Middlesex Hospital Medical School.

The Hospital contains 320 beds.

Appointments, etc.—Eighteen Resident Appointments are open annually to competition among pupils of the Hospital. The officers reside and board in the Residential College free of expense. There are two Casualty Medical and two Casualty Surgical Officers appointed annually. Six House-Surgeons are appointed every year at intervals of two months, after examination; they must have a legal qualification. Six House-Physicians are also appointed annually at similar intervals; they must have a legal qualification, or hold a Broderip Scholarship. An Obstetric House-Physician (qualified to practise) is appointed every six months. Each of the above-mentioned resident officers pays (except the Casualty officers who receive a salary) £10 10s. on appointment. Non-Resident Physicians' Assistants are appointed in the out-patient department. Clinical Clerks and Dressers are appointed for six months. An Obstetric Physician's Clerk is appointed. In the out-patient department the appointments are: Dresser to the Assistant Surgeon and to the Dental Surgeon, Clerk to the Assistant Physician, Dresser to the Ophthalmic Surgeon, Clerk in the Department for Diseases of the Skin, Clerk in the Department for Diseases of Women, and Dresser to the Throat and Ear Department. There are also Extern Midwifery Clerks, and *Post-mortem* Clerks. The appointments are so arranged that every student may during his course take both a clerkship and a dressership. Each student must be an out-patient clerk or an out-patient dresser before being eligible to an in-patient clerkship or dressership. No student can be appointed to any office until he has passed the second examination of the Examining Board in England, or its equivalent. Clinical Assistants are appointed in the Ophthalmic, Skin, and Throat and Ear Departments.

Entrance Scholarships.—Two Entrance Scholarships, value £55 and £40, tenable for two years[1], are open to all gentlemen

[1] The subjects are:—1. The English Language and Literature, inclusive of writing from dictation, the English Grammar, and the Composition of a short Essay. 2. Arithmetic. Candidates must show a competent knowledge of the first four rules, simple and compound, of Vulgar Fractions, and of Decimals. 3. Algebra to Simple Equations inclusive. 4. The first four books of Euclid. 5. Latin: Cicero's *In Catilinam* and Virgil's *Æneid*. Book II. And one of the following subjects at the discretion of the candidate:—1. Greek: Xenophon's *Anabasis*. Book III. 2. French: *La Jeune Sibérienne*, by X. de Maistre, and *Zaïre*, by Voltaire. 3 German: Schiller's *Jungfrau von Orleans*. 4. Natural Philosophy, including Mechanics, Hydrostatics, and Pneumatics. Besides these translations into English, the candidate will be required to answer questions on the grammar of each subject, whether compulsory or optional.

[1] The following are the subjects for examination:—(1) Latin: The examination will consist of passages for translation into English; short passages for translation from English into Latin; and questions in grammar. September, 1893, Cicero, *De Senectute* and *Pro Archiâ*. September, 1894, Sallust, *Cataline*.—(2) Greek: The examination will consist of

commencing their medical studies at the Hospital in October, 1893. The successful candidates must become general pupils of the school. Examination on September 28th and following days. Candidates must send in their names to the Dean, stating the subjects they select, on or before September 21st.

Information may be obtained from Dr. Coupland, the Dean; from Dr. Pasteur, Secretary of the School; from any of the Lecturers; or from the Resident Medical Officer at the Hospital.

The Residential College is situated in Cleveland Street, W., and has its frontage in the Hospital garden; it accommodates about 30 students. The Warden is the Rev. F. Brindley, Chaplain of the Hospital.

St. Thomas's Hospital Medical School.

The Hospital contains 572 beds.

Appointments.—A Resident Assistant-Physician and a Resident Assistant-Surgeon, at a salary of £100 per annum each, with board, are appointed, and may hold office for a term not exceeding three years. Two Resident and two Non-resident House-Physicians, and two Resident and two Non-resident House-Surgeons, two Assistant House-Surgeons, a Senior and Junior Obstetric House-Physician, are selected from gentlemen who have obtained their professional diplomas, every three months. Two Ophthalmic House-Surgeons, chosen from qualified students, are appointed for six months, the senior receiving a salary at the rate of £50 per annum, and the junior being provided with commons. The Resident House-Physicians, the Resident House-Surgeons, the Senior Obstetric House-Physician, and the Dresser on Accident Duty are provided with rooms and commons. Clinical Clerks and Dressers are selected each year, to the number of at least one hundred for in-patients, and eighty to one hundred for out-patients. Clinical Assistants in the departments for Diseases of the Throat, Skin, and Ear are appointed every three months. Obstetric Clerks are from time to time appointed; also Assistants in the Physiological Laboratory, Prosectors, and Assistants to the Lecturer on Materia Medica, to Teachers of Practical Surgery, and to the Demonstrators of Morbid Anatomy. All students have the opportunity of being engaged in the performance of the practical duties in connection with the Medical, Surgical, and Special departments of the Hospital. Two Hospital Registrars are appointed, at an annual salary of £100, and an Obstetric Tutor and Registrar, at a salary of £50 per annum.

Entrance Scholarships.—Two Open Scholarships in Natural Science, value £150 and £60, are open to students who have passed a preliminary examination in Arts; subjects, Physics, Chemistry, and either Physiology, Botany, or Zoology; examinations in September. Notice must be given not later than September 17th. Successful candidates must become students of the Hospital.

Preliminary Scientific Instruction.—Classes in the subjects required for the Preliminary Scientific Examination are held from October to July, and for the Intermediate M.B. Examinations from January to July.

Further information may be obtained from Mr. G. Rendle, the Secretary to the Medical School, at the Hospital.

University College: Medical Faculty.

The Hospital contains 207 beds available for clinical instruction and study.

Appointments.—Eight House-Physicians, six House-Surgeons, eight Obstetric Assistants, Out-patients' Physicians' and Surgeons' Assistants, Clinical Clerks, Surgeons' Dressers, and Ophthalmic Surgeons' Assistants, are selected from among the students without extra fee. The House-Physicians, the House-Surgeons, and the Obstetric Assistants reside in the Hospital, paying for their board.

Entrance Scholarships.—Scholarships and prizes of the annual value of about £800 are given in the Faculty of Medicine as follows: Three Entrance Exhibitions, value £100, £60, and £40 per annum, to gentlemen who are about to commence their first winter's attendance. Subjects: Chemistry, Physics, and Biology. The examination will take place on September 26th and 27th. Notice of intention to compete must be given on or before September 24th.

Information respecting the College may be obtained from the Dean, Professor E. A. Schäfer; the Vice-Dean, Professor Victor Horsley; the Sub-Dean, Professor Thane; or the Secretary, Mr. J. M. Horsburgh.

Westminster Hospital Medical School.

The Hospital contains upwards of 200 beds.

Appointments.—A Curator of the Museum and a Pathologist are appointed annually, each with a salary of £50; and a Medical and a Surgical Registrar, each with a salary of £40. Two House-Physicians, two House-Surgeons, and a Resident Obstetric Assistant are appointed for six months, after examination, and are provided with rooms and commons. Senior Dressers are appointed to attend to the surgery patients, under the supervision of the House-Surgeons, and the dresser of the day is provided with commons at the Hospital table. Clinical Assistants to the Assistant-Physicians and Assistant-Surgeons, and to the officers in charge of special departments, are appointed from among qualified students. Every student must perform the duties of Out-patient Dresser for four months; and afterwards hold the office of In-patient Dresser for four months, of Out-patient Clinical Clerk for four months, and of In-patient Clinical Clerk for four months. Two Pathological Clerks are appointed every four months to assist in the *Post-mortem* Room. No student is eligible as In-patient Dresser or Clinical Clerk until he has passed the Second Examination of the Conjoint Board, or an equivalent examination. Clerks and Dressers in the Special Departments of Hospital Practice are periodically appointed. So far as vacancies permit students of other hospitals admitted to In-Patients' Dresserships and Clerkships on payment of a fee of £7 7s.

Entrance Scholarships.—An examination for three Entrance Scholarships, value respectively £60, £40, and £20, will be competed for on September 28th and 29th, 1893. The third is offered for competition to intending students of dentistry. The subjects of examination are: Latin (same subjects as those of the Matriculation Examination of the University of London of the same year), French or German, Mathematics, and Experimental Physics and Chemistry. A week's notice must be given to the Dean. An examination for a Natural Science Scholarship (Inorganic Chemistry, Physics, and General Biology), value £60, will be held on April 26th and 27th, 1894. On the same date will be held an examination for a Scholarship (Chemistry, Inorganic and Organic, and Physics), value £40. Two senior scholarships in Anatomy and Physiology are offered for competition to members of the University of Oxford or Cambridge. There is a Free Presentation open to pupils of Epsom School, and a Scholarship open to dental students. Classes will be held in the subjects of the Preliminary Scientific (M.B.) Examination. The total fees for these will be £12 12s. Students will also be required to attend the lectures on Chemistry and Practical Chemistry delivered in the School, the fees for which, £6 6s. and £4 4s. respectively, will be a first instalment of the General

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easy passages for translation into English, and questions in grammar: September, 1893, Xenophon, *Anabasis*, Book I. September, 1894, Xenophon, *Hellenica*, Book III. The books selected are those set for the Matriculation Examination of the University of London held in the preceding June.—(3) French or German: The examination will consist of passages (authors not set) for translation into English, short passages for translation from English into French or German, and questions in grammar.—(4) Mathematics: Comprising Arithmetic; Algebra up to and including Quadratic Equations; and Euclid, Books I, II. III.—(5) Mechanics and Experimental Physics: Comprising the composition and resolution of Statical Forces. Simple Machines, the ratio of the Power to the Weight in each. Centre of Gravity. General Laws of Motion. Law of the Motion of Falling Bodies. Pressure of Liquids and Gases. Specific Gravity, and the subjects included in the Schedule of Experimental Physics for the Preliminary Scientific (M.B.) Examination of the University of London.—(6) Chemistry: The range of subjects is comprised in the course prescribed by the University of London for the Preliminary Scientific (M.B.) Examination under the head of "Chemistry." The fundamental principles of the Science aptly illustrated will claim more attention than a detailed account of the manufacture of the Salts of the Metals.—(7) Botany: The use of recognised Botanical Terms. Vegetable Morphology. The outlines of Vegetable Physiology. The Features and Life-history of the various classes of the Cryptogamia. The Classification of the principal British Natural Orders. Demonstration of the characters of recent Specimens, and the recognition of Vegetable Tissues and Organs in prepared Microscopical Slides.—(8) Zoology: The Schedule will be that of the Preliminary Scientific Examination of the University of London.—Candidates will be required to examine Microscopic and other Specimens.—Candidates will be examined in any three, and not more, of the above subjects which they may select.

Composition Fees. These classes will commence in October. Special Classes for the Intermediate M.B., and for the First F.R.C.S. Examinations will be held, also commencing in October. For these an extra fee of £10 10s. will be charged for the former, and £7 7s. for the latter. Any of the above classes are open to other than Students of the School, on conditions to be learned on application to the Dean, from whom all particulars may be obtained.

London School of Medicine for Women.

Clinical Instruction is given at the Royal Free Hospital, which contains 160 beds.

Entrance Scholarships.—An Entrance Scholarship, value £30, is offered for competition at the end of September in each year. Candidates must have passed a Preliminary Examination in Arts, and the successful candidate must enter on a full course of medical study at the school. The Stuart Mill Scholarship, value £30 a year for four years, and a Dufferin Jubilee Scholarship, value £25 a year for four years, are offered to ladies willing to practise in India under the Dufferin Fund. A Medical Scholarship, value £100 a year for three years, for girls under 19, residing within the metropolitan area (St. Dunstan Trustees). The John Byron Bursary, value £20 a year for four years, is offered to ladies requiring assistance for the prosecution of their medical studies; the next award will probably be in 1894. The Fanny Butler Scholarship, value £20 a year for four years, for ladies guaranteeing to practise Medicine under the Church of England Zenana Missionary Society. The Gilchrist Scholarship of £50 a year for five years to the student of the London School of Medicine for Women who takes the highest position in the Preliminary Scientific M.B. Examination of the University of London. The Society for the Promotion of Christian Knowledge offers valuable scholarships on certain conditions. The Zenana Medical Mission Society assist ladies who wish to go to India as missionaries.

Cooke's Medical School, London.

(1) Pursuant to recognition by the respective Examining Bodies, "a limited number of earnest men will be taken on for the curriculum of the London University, the Society of Apothecaries, the Scotch Conjoint Board, etc., and to compete for the Bland Sutton Presentation, which confers the privilege of free education for the first two years' of Medical studies."[1] An explanatory pamphlet will be forwarded on application to Mr. Thomas Cooke, 40, Brunswick Square, W.C.

(2) By decision of the various Examining Bodies, gentlemen rejected at their Anatomical and Physiological Examinations (Second Conjoint, etc.) can get "signed up" from this school for the three or six months' supplementary work they are now required to put in before re-examination. The school also meets the requirements of qualified practitioners and advanced students, that is, gentlemen wishing either to obtain some of the higher qualifications, or to compete for appointments in Her Majesty's Army, Navy, and Indian Medical Services. For these special classes are provided.

The instruction is given on the dissected and undissected body, with normal and pathological specimens, microscopical preparations, chemical, physiological, and surgical apparatus, splints, etc. The operations of Surgery are performed on the dead body. The school possesses a collection of physiological and chemical apparatus, and gentlemen preparing for the higher examinations receive special instruction in the more difficult subjects, and have the advantage of personal use of the physiological apparatus.

PROVINCES.

THE Universities of Oxford and Cambridge afford facilities of the most complete and admirable kind for instruction in the Preliminary Sciences and in Anatomy and Physiology. Elementary instruction in Clinical Medicine, Surgery, and Midwifery is given by the University lecturers, and by the staffs of the Radcliffe Infirmary, Oxford, and of Addenbrooke's Hospital, Cambridge. It is, however, the custom—and one which, we believe, is fully approved by the teaching staff of the medical schools of these two great Universities—to spend the final two years of the five years' curriculum either in London or in some other great centre of population, where opportunities for seeing an extensive clinical practice are greater. It will be found, on inquiry, addressed to the Deans, that special arrangements are in existence in many schools to meet the circumstances of students who have commenced their medical studies in Cambridge or Oxford. Some care should be exercised in the selection of the school, in order to ascertain that the Oxford or Cambridge graduate is placed upon a favourable footing with regard to obtaining appointments of House-Surgeon, House-Physician, and other clinical offices. The circumstances of the various schools in this respect are liable to vary from time to time.

The other English medical schools outside London, which have arrangements for giving instruction in the full medical curriculum, are the three Colleges of the Victoria University—Owens College, Manchester, University College, Liverpool, and the Yorkshire College, Leeds; Mason College, Birmingham (the Queen's Faculty of Medicine); University College, Bristol (Medical School affiliated); the University of Durham College of Medicine, Newcastle-on-Tyne; and Firth College, Sheffield (School of Medicine). At Manchester, Liverpool, Leeds, Newcastle, Birmingham, and Bristol great improvements in the laboratories and college buildings have been carried out during recent years, and in all appliances for teaching these schools occupy a place in the first rank.

Mason College, Birmingham (Queen's Faculty of Medicine).

Clinical instruction is given in the General and Queen's Hospitals, which have a joint total of 400 beds.

Appointments.—General Hospital: Resident Medical and Resident Surgical Assistant, two Resident Dressers, tenable for six months. *Queen's Hospital:* Resident Obstetric Assistant, tenable for six months; Resident Dresser, tenable for three months.

Entrance Scholarships.—Queen's Scholarship, 30 guineas; Sands Cox, restricted to sons of medical men, 30 guineas; Sydenham Scholarships, one or more annually, restricted to orphan sons of medical men, elected by the Council, 30 guineas.

Further particulars may be obtained by application to Professor Windle, Dean of the Medical Faculty, at the College.

Bristol Medical School, affiliated to University College, Bristol.

Clinical instruction is given at the Royal Infirmary and General Hospital. The Royal Infirmary contains 264 beds, a large Library and Museum. The General Hospital contains 200 beds, a Library and Museum.

Appointments—Royal Infirmary: House-Physician, House-Surgeon, and Junior Resident Medical Officer; Clinical Clerks and Dressers, also Ophthalmic, Obstetric, and Pathological Clerks are appointed. The Dressers reside in the Infirmary in weekly rotation. *General Hospital:* House-Surgeon, Assistant House-Surgeon, and Physicians' Assistant; Clinical Clerks, Dressers, Pathological Clerks, and Obstetric, Ophthalmic, and Pathological Clerks are appointed. The Dressers reside in the Hospital in rotation free of expense.

Entrance Scholarships — Royal Infirmary: Two Entrance Scholarships (in subjects of general education), value £36 15s. and £10 10s. *General Hospital:* Lady Haberfield Entrance Scholarship, value, the interest of £1,000, at the beginning of the winter session, after examination in subjects of general

[1] The curriculum for the Apothecaries' Hall requiring twelve months of Anatomy, etc., instead of two winter and one summer sessions, and the school being open for Anatomical work, not only during the winter months but also during the summer months, opportunity is offered for taking out the course of studies up to the Examination in Anatomy and Physiology at the Apothecaries' Hall, in twelve consecutive calendar months starting from any date, instead of the customary two years starting from May 1st, or eighteen months starting from October 1st.

education. Second Entrance Scholarship, value £20. Clarke Surgical Scholarship, for third year students, £15 annually.

Further particulars respecting the Infirmary may be known on application to Dr. Prowse; respecting the Hospital, on application to Dr. E. Markham Skerritt. Information regarding the Medical School will be afforded by the Dean, Dr. E. Markham Skerritt.

Leeds School of Medicine: Medical Department of Yorkshire College.

Clinical Instruction, etc.—The General Infirmary has 443 beds. The West Riding Lunatic Asylum at Wakefield is open for the study of Mental Diseases. Students can also attend the practice of the Leeds Public Dispensary, the Fever Hospital, and the Hospital for Women and Children.

Appointments.—House-Physicians, House-Surgeons, Physicians' Clerks, Surgeons' Dressers, Ophthalmic and Aural Surgeons' Dressers, Gynæcological Ward Clerks, Assistant-Physicians' Clerks, Assistant-Surgeons' Dressers, Dressers in the Casualty Room, and *Post-Mortem* Room Clerks, are appointed during the year. The house-physicians and house-surgeons hold office for twelve months; the physicians' clerks and surgeons' dressers for six months; the others for three months. The house-physicians and house-surgeons must have at least one legal qualification. Appointments are also open to students at the Leeds Public Dispensary, at the Hospital for Women, and at the West Riding Lunatic Asylum.

University College, Liverpool: Medical Faculty.

Appointments.—Royal Infirmary: Three House-Physicians, three House-Surgeons, and one Extern House-Surgeon to the Thornton Wards are appointed for six months, after (if there be more applicants than vacancies) competitive examination. Candidates must have a legal qualification. Three Clinical Clerks for each Physician, three or more Dressers for each Surgeon, and two Clerks to the Thornton Wards for Diseases of Women are appointed for three months in October, January, and May. *Post-mortem* Clerks are appointed for six weeks. All students must perform this duty before the schedule for the final examination is signed.

Entrance Scholarships.—Holt Tutorial Scholarships: two are awarded annually by the Medical Faculty, each of the value of £100, for one year. Roger Lyon Jones Scholarships (each £21 for two years): one is offered annually as an entrance scholarship to students proceeding to the Victoria M.B. degree; the other is competed for by second year's students in Anatomy, Physiology, Chemistry, and Materia Medica.

Communications should be addressed to the Dean, Professor Gotch, F.R.S., University College, Liverpool.

Owens College, Manchester: Medical Department.

The Royal Infirmary contains 300 beds. Associated with it are the Monsall Fever Hospital (306 beds), and the Convalescent Hospital (136 beds), and the Royal Lunatic Asylum at Cheadle, which accommodates 260 patients.

Appointments.—The following appointments are made: A Surgical Registrar, at £100 per annum; a Pathological Registrar, at £100 per annum; a Medical Registrar, at £50 per annum; two Assistant Medical Officers, each at £80 per annum; an Anæsthetist, at £50 per annum; an Assistant Anæsthetist, at £50 per annum. Resident Medical Officer, two years, £150 per annum; ditto, at Cheadle, one year, £150 per annum; ditto, at Monsall, one year, £250 per annum; Resident Surgical Officer, one year, £150 per annum; four House-Surgeons and two House-Physicians, a Resident Assistant at Monsall (salary £100 per annum); and one at Cheadle, each for six months. The House-Physicians, House-Surgeons, and the Resident Assistant at Monsall must possess a qualification which can be registered. Four or more Clinical Clerks are attached to each Physician or Assistant-Physician, and four or more Dressers to each Surgeon and Assistant-Surgeon. Additional Clinical Clerks are appointed to assist in the departments for the Diseases of the Ear and Throat, and to assist the Surgical Registrar.

Entrance Scholarships.—Two Dauntesey Medical Scholarships, value £50, tenable for one year. Candidates must not have attended lectures in a medical school. Subjects of Examination: Zoology, Botany, and Chemistry. The successful candidates must enter for the full course of medical studies at the College. A Gilchrist Scholarship of £50 per annum, tenable for three years in the College, awarded biennially, upon the results of the June Preliminary Examination of the Victoria University; also one, annually, upon the results of the June Preliminary Examination of the Victoria University. Grammar School Scholarship, value £18, tenable for three years, open to scholars of the Manchester Grammar School between the ages of 16 and 21. Examination in June: subjects in 1893, Mathematics and Physical Science; in 1894, Classics and Mathematics. A subject for an English Essay will also be set each year. The successful candidate must enter to one of the departments of Owens College.

Prospectuses may be obtained from the Registrar, Mr. H. W. Holder, M.A.

Firth College, Sheffield: School of Medicine.

The General Infirmary contains 200 beds, including two ophthalmic wards. The Public Hospital and Dispensary contain 105 beds. Students are also admitted to the practice of the Jessop Hospital for Diseases of Women, to the Borough Fever Hospitals, and South Yorkshire Asylum.

University of Durham College of Medicine, Newcastle-on-Tyne.

The Royal Infirmary contains 280 beds.

Appointments.—Assistant Demonstrators of Anatomy, Prosectors for the Lecturer on Anatomy, Assistant Physiologists, Pathological Assistants, Assistants to the Dental Surgeon, and Assistants in the Eye Department are elected annually. The Assistant Demonstrators of Anatomy receive £5 each; the others are unpaid. Four times in the year Clinical Clerks and Dressers are appointed for three months.

Scholarships.—A University of Durham Scholarship, value £100, for proficiency in Arts, open annually at beginning of winter session to intending students, and to those who have attended only one winter and one summer session. The Dickinson Memorial Scholarship, value £15, with a gold medal, for Medicine, Surgery, Midwifery, and Pathology; open to perpetual students who have passed the primary examination of a licensing body. The Tulloch Scholarship, interest of £400 annually, for Anatomy, Physiology, and Chemistry. The Charlton Memorial Scholarship, interest of £700 annually, open to full students entered for the class of Medicine, at end of winter session. The Gibb Scholarship, interest of £500 annually, for Pathology, at end of summer session. The Goyder Memorial Scholarship, proceeds of £325, subjects, Clinical Medicine and Clinical Surgery. Luke Armstrong Memorial Scholarship, proceeds of £680. The Scholarship is open to all the Candidates for the Degree of Bachelor of Medicine, and will be awarded to the Candidate who obtains highest marks in the Honours Division in the Final Examinations in June and December in each year. The Stephen Scott Scholarship, interest of £1,000 annually, to promote the study of Hernia and allied subjects.

University College of South Wales and Monmouthshire, Cardiff.

This College has for some years prepared students for their Preliminary Scientific Examination (M.B.), and these students have continued their studies in London and elsewhere. By the foundation of two new Chairs of Anatomy and Physiology, and also of a Lectureship (shortly to be filled up) in Materia Medica and Pharmacy, students will be able to prepare for the Intermediate M.B. of London, and spend three out of their five years of medical study in Cardiff, proceeding subsequently to a London hospital for the remaining two years. A student wishing to graduate in Medicine at a Scottish university may spend his first two years and a-half at Cardiff, and a student preparing for a Conjoint College Surgical and Medical Diploma, or that of the Society of Apothecaries, may also spend two years in Cardiff. Believing that many students—more especially in Wales and Monmouthshire—will avail themselves of the opportunity of study near home, the Council has sanctioned the construction at considerable cost of new laboratories and lecture rooms for the teaching of Anatomy, Physiology, and Materia Medica and Pharmacy, which will be furnished with the newest and best appliances for teaching

and research. By an arrangement with the managing committee of the Glamorganshire and Monmouthshire Infirmary, students will have the privilege of attending a large and well-ordered hospital situated within a few minutes' walk of the College.

Students preparing for the Preliminary Scientific and Intermediate Examination in Medicine of the University of London, or for the corresponding examination in a Scottish university, may compound for their classes by paying a composition fee of £57 10s. Students who are preparing for the examinations of the Conjoint Board or of the Society of Apothecaries, London, may compound for their classes by paying a composition fee of £47 10s. In all cases the composition fees may be paid in instalments. The composition fees include hospital attendance. The teaching staff is as follows:

Physics.—Professor: J. Viriamu Jones, M.A.Oxon., B.Sc.Lond., Fellow of University College, London. Assistant Professor: A. L. Selby, M.A., Fellow of Merton College, Oxford. Demonstrator and Assistant Lecturer: W. S. Hensley, B.A., Christ's College, Cambridge.
Chemistry.—Professor: C. M. Thompson, M.A., Trinity College, Cambridge, D.Sc.Lond., F.C.S. Assistant Lecturer: E. P. Perman, D.Sc.Lond.
Biology.—Professor: W. N. Parker, Ph.D.Freiburg, F.Z.S. Assistant Lecturer: A. H. Trow, B.Sc.
Anatomy.—Professor: Alfred W. Hughes, M.B., F.R.C.S.Eng. & Edin.
Physiology.—Professor: John Berry Haycraft, M.D., D.Sc., F.R.S.E.
Materia Medica.—(Vacant.)
Registrar.—Ivor James.

The Glamorganshire and Monmouthshire Infirmary will have its accommodation raised within the next few months to 200 beds. Attached to the hospital is a large out-patient department, and special departments for the eye, ear, and throat.

SCOTLAND.

UNIVERSITY OF ABERDEEN.

Additional opportunities for practical instruction are afforded in the chemical, anatomical, physiological, pathological, and hygienic laboratories and anatomical and pathological museums throughout the day, under the direction of the professors. Practical instruction is given also in the toxicological, pharmaceutical, botanical, and zoological laboratories and in the surgical museum and laboratory. Courses of practical instruction are given in summer in Medical Jurisprudence and Hygiene, in Diseases of Children, at the Sick Children's Hospital; in Fevers, at the Fever Hospital; in Insanity, at the Royal Asylum; in Diseases of the Ear and Larynx, at the Dispensary; in Diseases of the Eye, at the Infirmary and Eye Institution; in Diseases of the Skin, at the Royal Infirmary and Sick Children's Hospital. The General Dispensary and the Lying-in, Vaccine, and Eye Institutions, and the Sick Children's Hospital are open daily. Practical Pharmacy, Operative Surgery, Practical Medical Jurisprudence, and Hygiene, fee to each class, £3 3s., except Anatomical Demonstrations, Practical Natural History, Practical Midwifery, and Gynæcology, each £2 2s.; Practical Ophthalmology, Insanity, Public Health, Diseases of the Ear and Larynx, and Diseases of the Skin, each £1 1s.; Matriculation fee, both sessions, £1; summer session alone, 10s.; Royal Infirmary: Perpetual fee, £6; or first year, £3 10s.; second year, £3. Clinical Medicine and Clinical Surgery, each £3 3s. The winter session begins on October 10th. Bursaries, scholarships, and fellowships, to the number of forty-six, and of the annual value of £1,028, may be held by students of medicine in this University.

EDINBURGH UNIVERSITY.

Practical Instruction.—The following means are afforded for practical instruction: Royal Botanic Garden, Herbarium, and Museum; Zoological Laboratory and Museum of Science and Art; Physical Laboratory; Chemical Laboratories; Dissecting Rooms, Bone Room, and Anatomical Museum; Physiological Laboratory; Medical Jurisprudence Laboratory; Materia Medica Museum and Laboratory; *Post-mortem* Department of Royal Infirmary, and University Pathological and Bacteriological Laboratory; Royal Infirmary of nearly 700 beds; Royal Hospital for Sick Children, with some 70 beds; Maternity Hospital; City Fever Hospital; Mental Diseases at Royal Morningside Asylum; Tutorial Classes of Practice of Physic, of Clinical Medicine, and Clinical Surgery.

1. *Fees.*—The Sessional Fee for Zoology, Botany (Garden Fee, 5s.), Chemistry, Anatomy Lectures, Physiology, Pathology, Materia Medica, Medical Jurisprudence, Surgery, Medicine, Clinical Surgery (Winter), Clinical Medicine (Winter), is £4 4s. each. A Second Course, £3 3s. The Third is free. A perpetual ticket, taken at beginning of first year, is £6 6s. Physics, Practical Chemistry, Practical Physiology, Practical Pathology, Clinical Surgery (Summer), Clinical Medicine (Summer), Practical Anatomy (Winter), Operative Surgery, Insanity, and Obstetric Operations, Eye Diseases are £3 3s. Practical Botany, besides charge of 10s. for Laboratory Expenses, Practical Zoology, Practical Anatomy (Summer), Anthropology, Anatomy, Demonstrations, £2 2s. Children's Diseases and Vaccinations, £1 1s. each. Matriculation Fee, £1 for each year, or 10s. for a Summer Session. Library open from 10 to 4, Saturday 10 to 1.

BURSARIES, SCHOLARSHIPS, AND FELLOWSHIPS OPEN FOR SESSION 1893-94.

A. *Bursaries.*—(1) Two Sibbald Bursaries of £30 a year, tenable for three years. (2 to 7) Six Heriot Bursaries, each of £30 a year, tenable for three years; open to students matriculating for the first time. Schedules and particulars from Treasurer, 20, York Place, after August 16th, and these must be returned by September 15th. (8 and 9) Two Thomson Bursaries, each of £25 a year, tenable for four years, one to be competed for each March and October at the Medical Preliminary Examinations. Preference to those of names Thomson and Traquair, or natives of Dumfries and Edinburgh. Preferential candidates apply to Traquair, Dickson, and Maclaren, W.S., 11, Hill Street, before September 22nd. (10 to 13) Four Grierson Bursaries of £20 a year each, to natives of the parishes of Crawford and Leadhills. Failing preferential candidates, tenable for one year, and open to competition thus: one to the best student in the Medical Preliminary; one for the best examination in Chemistry, Botany, and Zoology on October 21st, 1893; one for the best examination in Anatomy and Physiology on October 21st, 1893; one for the best examination in Materia Medica and Pathology, probably on October, 21st 1893. (14, 15) Two John Aitken Carlyle Bursaries, each of the annual value of £28, tenable one year; one to a first-year student for proficiency in class examinations in Anatomy and Chemistry; one to a second year's student for proficiency in class examinations in Anatomy and Physiology. (16, 17) Two MacKenzie Bursaries, each of £21 5s., awarded annually in Junior and Senior Anatomy for greatest industry and skill in practical work during winter. (18) Renton Bursary of £18 8s. 6d., tenable for one year; age between 16 and 21. For a student in Physics, Chemistry, Mathematics, and Political Economy, or some of these. Examination on November 4th, in English and Elementary Mathematics.

B. *Scholarships.*—(1, 2, 3) Three Vans Dunlop Scholarships of £100 each, tenable for three years. One for best class examinations in Botany, Zoology, Chemistry, and Anatomy; one for best class examinations in Anatomy, Physiology, Materia Medica, and Pathology; one in Chemistry and Chemical Pharmacy in March, 1894. (4) Murchison Memorial Scholarship. Proceeds of £1,000, tenable for one year. Students of from four to six years' standing. Examination in London, July, 1894. (5) Stark Scholarship in Clinical Medicine, of £100, tenable one year. Available next in July, 1894. (6) Buchanan Scholarship, proceeds of £1,000, annually for proficiency in Midwifery, etc. (7) James Scott Scholarship of £42 10s. annually for proficiency in Midwifery. (8) Ettles Scholarship in Medicine of £35, given annually to most distinguished M.B. of year. (9) Hope Prize Scholarship of £25, given annually to most distinguished junior student in Chemical Laboratory. (10) Mackay Smith Scholarship in Chemistry of £25 tenable for two years. Examination on March 26th, 1894.

C. *Fellowships.*—Syme Surgical Fellowship of value of £109 7s. 6d., tenable for two years, open to M.B.'s of not more than three years' standing for best thesis on Surgical subject. Freeland Barbour Fellowship of value of £100, in alternate years, for highest collective marks in Anatomy, Physiology, and Pathology. To be awarded in July, 1894.

D. *Lectureship.*—The Swiney Lectureship on Geology, value £144, tenable for five years, open to graduates in Medicine.

E. William Dickson Travelling Fund of £100 to aid in travel, study, and research.

EDINBURGH ROYAL INFIRMARY.

Fees.—Six months, £4 4s.; one year, £6 6s.; perpetual, £12 in one sum, or separate payments £12 12s.

Six resident physicians and five surgeons are appointed every six months; they live in the house free of charge, save laundry. They must be registered. Many non-resident clinical clerks are also appointed for six months. The physicians and surgeons appoint their own clerks and dressers, and assistants in the Pathological Department are appointed by the pathologists. Instruction is given in all the special departments.

SCHOOL OF MEDICINE, EDINBURGH.

The School of Medicine of Edinburgh claims antiquity; it dates from 1505. The teaching is similar to that of the Scottish universities, and the students receive similar certificates at the close of each session. The courses on the special subjects not included in the curriculum of the Examining Boards are also conducted by teachers specially qualified in each branch, and have for the last quarter of a century formed a special feature of the School.

This School of Medicine is composed of lecturers licensed by the Royal Colleges of Physicians and Surgeons, and who are also recognised by the University through their *licentiæ docendi*, though, for the sake of convenience, lecturing in several buildings near at hand to the Royal Infirmary. The lecturers form one body, are all subject to the same rules and

regulations, and enjoy the same privileges. The different buildings at present utilised for the purpose of lecturing are the following: 1. Surgeons' Hall, Nicolson Street; 2. Minto House, Chambers Street; 3. Nicolson Square; 4. Marshall Street; 5. Park Place, and several other places.

In accordance with the statutes of the University of Edinburgh, three out of the five years of medical study required for graduation may be taken at this School; but the regulations require that the fee of any class shall be the same as for the corresponding class in the University.

The whole education for graduation at the University of London may be taken here.

Fee for a first course, £3 5s.; for a second, £2 4s.; perpetual, £5 5s. To those who have already attended a first course in Edinburgh, the perpetual fee is £2 4s.; Practical Anatomy (six months' course), £3 3s.; Demonstrations, £2 2s.; Perpetual, £4 4s.; Practical Anatomy, with Demonstrations, £4 4s.; Practical Chemistry, £3 3s.; Analytical Chemistry, £2 a month, £5 for three months; Practical Pharmacy, Otology, Dermatology, Children, Tropical Diseases, each £2 2s.; Vaccination, £1 1s. For summer courses of Clinical Surgery and Clinical Medicine, each £2 4s.; Practical Anatomy, with Demonstrations, Operative Surgery, Medical Diagnosis, each £2 2s.; Insanity, £1 1s. Sixty-eight courses are given in winter and sixty in summer in connection with this school.

The appointment of Resident Physician to the Wards in the Royal Infirmary under the care of the ordinary physicians is open only to those members of their Clinical class who have "clerked" in their wards for at least six months. Six appointments are made during the year, for a period of six months each. Six Resident Surgeons are similarly appointed.

The Secretary is Dr. Stevenson Macadam, Surgeons' Hall, Edinburgh. Full particulars in the *Edinburgh Medical School Calendar*.

Edinburgh School of Medicine for Women.

No student is admitted under the age of 18, and a form of application must be got from the Secretary, filled up and returned at least a month before the beginning of each session. No one can be admitted to the classes until a favourable answer has been given. Students must conform to directions given by the Dean (Dr. Sophia Jex-Blake) from time to time; must take the advice of the Dean respecting her curriculum, both as to order of study and as to repetition of any class; cannot proceed to any professional examination without the sanction of the Dean, who will, when necessary, make arrangements for special probationary examinations, for which a small fee will be charged; must satisfy the Dean that lodgings selected by themselves are of a desirable character in all respects.

A full curriculum of instruction in all subjects is provided. Anatomy and Practical Anatomy, Chemistry and Practical Chemistry, Clinical Medicine and Surgery are given every year, and the other courses, as a rule, in biennial rotation. For winter 1893-94 the courses will be: *Anatomy, Practical Anatomy, Chemistry*, Physiology, Practice of Medicine, Clinical Medicine and Surgery, and Hospital. [Those in italics are for junior students.] For summer 1894, *Materia Medica, Practical Pharmacy, Practical Chemistry*, Histology (optional), Operative Surgery (optional), Pathology, and Hospital.

Cost.—The whole amount of a student's fees may be set down at about £120. This includes £26 5s. as examination fees for the "triple qualification." The cost of books, instruments, etc., will vary from £10 to £30, or more.

Scholarships.—There are some scholarships open to students—(1) an Entrance Scholarship of £20, given by the Executive Committee to those who need such assistance; (2) the Cropper Scholarship of £25 was competed for in July, 1892; (3) the Arthur Scholarship, which confers free education for three years; (4) the Dufferin Scholarship of £100, open to women who intend to practise in India; (5) certain missionary societies frequently give help in bearing the cost of education.

While the curriculum of this school is specially adapted to the requirements of the Scottish Conjoint Board, the classes also qualify for some of the other Examining Boards that are open to women—namely, the University of London, the Royal University of Ireland, the Conjoint Irish Colleges of Physicians and Surgeons, and the Society of Apothecaries of London.

Miss Black will be glad to assist students to find suitable lodgings or board. The latter can be obtained at about £1 per week, or more, according to requirements. Arrangements will be made to supply a substantial midday meal at the school during the session for those who cannot conveniently go home. The charge is £3 for a winter session, and £1 10s. for a summer. Further particulars from Miss Black, or in the *Edinburgh Medical School Calendar*, published by E. and S. Livingstone, 15, Teviot Place, Edinburgh. Price 1s. 6d.; post free, 1s. 9d.

Medical College for Women, Edinburgh.

Precisely the same facilities for medical study as are given to male students in the School of Medicine, Edinburgh. Arrangements, fees, and regulations are similar. All the teachers are qualified lecturers of the school, and their courses admit to the qualifying bodies for women. The classes are open to all ladies, whether taking a full medical curriculum or not. No matriculation fee is charged. The school is a large and vigorous one. Prospectus and all information from Miss D. M. Scott, 30, Chambers Street; and details of the classes are given in the *Edinburgh Medical School Calendar*, named above.

University of Glasgow.

The whole course of study presented by the University of Glasgow (*q.v.*) can be passed in the Medical School of the University.

For practical work there are available the Physical, Chemical (winter course, £10 10s.; summer, £5 5s.), Physiological, Zoological, and Botanical Laboratories; and the Botanic Gardens.

Partial Study Elsewhere.—Only two of the five years need be spent at the University, the remaining three may be spent in such universities or schools, or under such teachers, as are recognised by the University Court.

Hospitals.—The University is in the immediate neighbourhood of the Western Infirmary, with 400 beds, and near to the Lunatic Asylum, and Special Hospitals for Diseases of the Eyes, Skin, etc.

Fees.—The class fees are, as a rule, £3 3s., excepting Practical Anatomy and Anatomical Lectures (in summer), Operative Surgery, Lectures on Insanity, Diseases of the Eye, and Diseases of Women, which are £2 2s. A Perpetual Hospital Ticket costs £21, payable £10 10s. the first year, and the same the second, and this includes clinical instruction. The fees for degrees are for M.B. and Ch.B., 22 guineas, payable in part at each examination; for M.D., 10 guineas; for Ch.M., 10 guineas. The total class and hospital fees for the five years' course amount to about £94 10s., to which add the annual matriculation fee (£1) and the fees for M.B., Ch.B. (£23 2s.), making a total of £122 12s.

The Women's Department of the University (Queen Margaret College).—The course of study, degrees, regulations, fees, etc., are the same as for men, but women students have their own buildings, with Reading and Writing Rooms, Drawing Room, Library, etc., and are taught in classes apart from male students, but have all the rights and privileges of university students. Their clinical studies are taken in the Royal Infirmary, where wards are reserved for their exclusive use, and in its Dispensaries.

Bursaries.—Twelve bursaries and prizes in Medicine are open to competition during session 1893-94, the aggregate value of which is £263.

Class and Examination Fees.—The class and hospital fees, for the subjects enjoined by Ordinance as constituting a five years' course of study and clinical work, amount to about £94 10s. To this there has to be added £5 for matriculation fees, £23 12s. 6d. for examination fees, and £5 1s. for registration as a practitioner.

Board for Students.—Provision is not made in Queen Margaret College to receive resident students; but houses are recommended in which ladies attending the College will be accommodated as boarders.

For further information, male students may apply to W. Innes Addison, Matriculation Office, Glasgow University; women students to Miss Galloway, Queen Margaret College,

Glasgow, W.; or the *Queen Margaret College Calendar*, published by James Maclehose and Sons, 61, St. Vincent Street, Glasgow, price 1s., post free 1s. 2d.; and to the *Prospectus* for session 1893-94 by the same publishers.

ST. MUNGO'S COLLEGE, GLASGOW.

The class rooms and laboratories are within the grounds of the Glasgow Royal Infirmary, the wards of which are available for the students. The Winter Session opens on October 17th. Courses are given during the winter on Physics, Zoology, Embryology, Chemistry, Anatomy, Osteology, Surgery, Medicine, Materia Medica, Physiology, Histology, Pathology, Ophthalmology, Gynæcology, Diseases of Throat and Nose, Public Health Laboratory, and Dispensary; and during the summer in Botany, Surgery, Children, Anatomy, Medical Chemistry, Osteology, Practical Pathology, Hygiene, Practical Physiology, Clinical Medicine, Medical Jurisprudence, Dermatology, Otology, Bacteriology, Psychological Medicine, and Dispensary.

Sessional Fees.—First year, £15 15s.; second year, £15 15s.; third year, £10 10s.; fourth year (and perpetual), £5 5s. Total cost of qualifying course including Corporation Licence about £100.

Class Fees.—£2 2s. for each class, except Anatomy, £4 4s.; Pathology, £3 3s.; Otology, Throat and Nose, and Dermatology, £1 1s.

Hospital Fees.—First year, £10 10s.; second year (and perpetual), £10 10s.

Full information from the Dean of the Faculty of Medicine, Professor Clark.

GLASGOW: ANDERSON'S COLLEGE MEDICAL SCHOOL.

Lectures are delivered on all the subjects of the five years' curriculum. Hospital Practice and Clinical Lectures in Royal or Western Infirmary; Pathology in Royal or Western Infirmary; Vaccination and Dispensary Practice in Royal or Western Infirmary Dispensary. The above lectures qualify for all the Licensing Boards in the United Kingdom. They are recognised by the Universities of Glasgow, Edinburgh, etc., under certain conditions which are set forth in the *Calendar*.

Fees for each course of lectures (Anatomy, Chemistry, and Biology excepted), first session, £2 2s.; second session, £1 1s.; afterwards free. Anatomy Class Fees: Winter, first session (including Practical Anatomy), £4 4s.; second session (including Practical Anatomy), £4 4s.; third session, £2 2s.; Practical Anatomy alone, £2 2s. To those who have attended the necessary courses of Practical Anatomy the fee will be £1 1s. Chemistry Class Fees: First Course, £2 2s.; second ditto, £2 2s. Biology Fee (Botany and Zoology), £3 3s. Students who have attended classes at other schools will be admitted to such classes as they may have attended elsewhere at the reduced fees.

The new buildings are situated in Dumbarton Road, immediately to the west of the entrance to the Western Infirmary, within two minutes' walk of that institution and four minutes' walk of the University.

A *Calendar* containing full particulars of the school may be obtained from Professor T. Kennedy Dalziel, M.B., Dean, Anderson's College Medical School, Dumbarton Road, Partick, Glasgow.

UNIVERSITY COLLEGE, DUNDEE.

Students proceeding to the degrees of St. Andrews or any other Scottish university, the University of London, the Royal University of Ireland, and the licences of the Royal Colleges, can now complete the first two years of the curriculum by attendance on the classes of this department, which along with the practice of the Dundee Royal Infirmary are open to women.

The following order of study is suggested:—

First Winter.—Chemistry, Zoology, Anatomy and Physics.[1] *First Summer*—Botany, Physics,[1] Zoology (if not taken in winter), Anatomy (optional).

Second Winter.—Anatomy, Physiology, Surgery, Hospital. *Second Summer.*—Practial Physiology, Practical Pharmacy, Practical Anatomy, Hospital.

Royal Infirmary.—The Infirmary contains 250 beds, including a special ward for children. In addition, there were during last year 5,023 out-patients, and 6,623 patients seen at their own homes. Appointments: Two qualified resident medical assistants are appointed annually. Clinical clerks and dressers are attached to the physicians and surgeons, and students are appointed as assistants in the *post-mortem* room. There is in connection with the hospital course a class of Minor Surgery and Bandaging conducted by the assistant surgeon, and a class of Practical Pharmacy and Materia Medica held at the dispensary.

Royal Asylum.—Clinical instruction is given at the Royal Asylum. Appointments: one qualified resident assistant and one resident clinical clerk.

[1] Attendance during the winter session in the Ordinary Course of Physics for the Arts Degree will exempt from attendance in the summer session.

IRELAND.

STUDENTS desirous of prosecuting their medical studies in Ireland may attend the School of Physic in the University of Dublin; the Schools of Surgery of the Royal College of Surgeons of Ireland (including the Carmichael and Ledwich Schools), the Catholic University School of Medicine, Dublin; or the Schools of Medicine of the Queen's Colleges in Belfast, Cork, or Galway. The student will be guided in his arrangements for clinical instruction by the advice of the teachers of the School which he may select to attend.

DUBLIN.

SCHOOL OF PHYSIC IN IRELAND.

This school is formed by an amalgamation of the medical schools of Trinity College and of the King and Queen's College of Physicians; the King's Professors of Institutes of Medicine, Practice of Medicine, Materia Medica, and Midwifery, being appointed by the latter. (See also Table on p. 532.)

Clinical instruction is given by the staff of Sir Patrick Dun's Hospital. The following Hospitals are also recognised by the Board of Trinity College: Adelaide Hospital, City of Dublin Hospital, Dr. Steevens's Hospital, House of Industry Hospitals, Jervis Street Infirmary, Mater Misericordiæ Hospital, Mercer's Hospital, Meath Hospital, The National Eye and Ear Infirmary, St. Mark's Ophthalmic Hospital, St. Vincent's Hospital.

CATHOLIC UNIVERSITY MEDICAL SCHOOL.

Prospectuses and further information about this school, which provides complete courses of lectures as required by the examining bodies, may be obtained from the Registrar of the School, Cecilia Street, Dublin, who has written a very useful *Guide for Medical Students*. (See also p. 532).

SCHOOLS OF SURGERY: INCLUDING THE CARMICHAEL AND LEDWICH SCHOOLS; ROYAL COLLEGE OF SURGEONS IN IRELAND.

There is a laboratory for the study of Practical Physiology. The dissecting rooms open from October 1st. The dissections are under the direction of the Professors of Anatomy, assisted by several Demonstrators. There are complete arrangements for the whole course of lectures required by the examining bodies.

BELFAST.

QUEEN'S COLLEGE.

Clinical instruction is given at the Belfast Royal Hospital. The Ulster Hospital for Diseases of Women and Children, the Belfast Lying-in Hospital, the Belfast Ophthalmic Hospital, the Ulster Eye, Ear, and Throat Hospital, the Belfast District Lunatic Asylum, and the Belfast Hospital for Sick Children are open to students.

CORK.

QUEEN'S COLLEGE.

Clinical instruction is given at the North and South Infirmaries (each 100 beds). Students can also attend the Mercy Hospital (60 beds), the Cork Union Hospital, the County and City of Cork Lying-in Hospital, the Maternity, the Hospital for Diseases of Women and Children, the Fever Hospital, the Ophthalmic and Aural Hospital, and the Eglinton Lunatic Asylum. The session at Queen's College extends from October to April inclusive (thirty weeks), but the Hospitals are open to students in May, June, and July also.

Galway.

Queen's College.

Clinical instruction is given at the Galway County Infirmary and the Galway Town Hospital.

Prizes.—Attached are eight scholarships of the value of £25 each; four exhibitions of the value of £12 each; two exhibitions of the value of £16 each; and sessional prizes in each of the subjects of the curriculum are awarded annually. All scholarships and exhibitions of the second, third, and fourth years, may be competed for by students who have attained the requisite standing in any medical school recognised by the College Council, and have passed the Matriculation Examination in the College, or in the Royal University of Ireland.

Clinical Hospitals.

Sir Patrick Dun's Hospital.

Appointments.—A House-Surgeon is appointed annually, and four Resident Pupils half-yearly.

Richmond, Whitworth, and Hardwicke Hospitals.

These hospitals contain 312 beds: 110 for surgical cases, 82 for medical cases, and 120 for fever and other epidemic diseases.

The Richmond Lunatic Asylum, containing over 1,200 patients, adjoins these hospitals, affording facility for the study of mental diseases.

Appointments.—A Resident Surgeon and a Resident Physician are appointed every year, receive a salary, and hold office for one year. Eight Residential Clinical Clerks are appointed each half year, and provided with furnished apartments, fuel, etc. These appointments are open not only to advanced students, but also to those who are qualified in Medicine and Surgery. The dressers are selected from among the best qualified of the pupils, without the payment of any additional fee.

Further information can be obtained from the Honorary Secretary, Dr. G. P. L. Nugent, 17, Lower Fitzwilliam Street.

Adelaide Medical and Surgical Hospitals.

The Hospitals contain 140 beds. Three resident pupils are selected half-yearly.

Further particulars may be obtained from Mr. F. T. Heuston, or any of the members of the medical staff.

City of Dublin Hospital.

Appointments.—Clinical Assistants to the Physicians and Dressers to the Surgeons are appointed from the most deserving of the class, and certificates awarded for the faithful performance of their duties. Medical and Surgical Resident Pupils are appointed, and Special Certificates awarded if merited. A House-Surgeon is appointed annually.

For further particulars, apply to Mr. Arthur Benson, F.R.C.S., 42, Fitzwilliam Square, or at the Hospital.

Jervis Street Hospital, Dublin.

The hospital was founded in 1718, and was rebuilt in 1886.

Appointments. — Resident Pupils, Clinical Clerks, and Dressers are appointed every six months, without additional fee, and are awarded special certificates if their duties have been satisfactorily performed. Four interns are appointed each half-year, and are provided with apartments, etc., free of expense. *Fees:* Winter session, £8 8s.; summer, £5 5s.; winter and summer, £5 5s.

The hospital prospectus and any further information can be obtained from Dr. J. B. Coleman, 15, Westland Road.

Mater Misericordiæ Hospital.

This Hospital, the largest in Dublin, at present contains over 311 beds. Fifty beds are specially reserved for the reception of patients suffering from fever and other contagious diseases. Connected with the Hospital are extensive Dispensaries, which afford valuable opportunities for the study of general Medical and Surgical Diseases, Accidents, etc.

Appointments.—A House-Physician and two House-Surgeons will be appointed annually. They will hold office for one year. Eight Resident Pupils will be elected to hold office for six months from the most attentive of the class. A Resident Physician and two Resident Surgeons are appointed annually.

A prospectus containing in detail the arrangements for clinical instruction, prizes, etc., may be obtained from the Secretary, Dr. Redmond, 8, Clare Street.

Dr. Steevens's Hospital.

The Hospital contains 250 beds. There is a ward entirely devoted to syphilitic disease, and a detached building for fever cases.

Further particulars may be obtained from the Honorary Secretary, Dr. R. A. Hayes, 82, Merrion Square South, Dublin.

St. Vincent's Hospital.

This hospital contains 160 beds, and has attached to it a dispensary and three special dispensaries. The whole practice of the hospital is available for clinical instruction, which is carried on during the session in a systematic manner. Systematic courses are delivered on Medicine and Surgery. *Post-mortem* examinations are made in the pathological theatre, and frequent opportunities are given for the examination of morbid specimens. There is a museum in connection with this department. Instruction is also given daily in the dispensaries.

The hospital is in proximity to the principal colleges and medical schools. Its certificates are recognised by all the universities and licensing bodies in the United Kingdom. Two resident medical officers and sixteen resident pupils are appointed annually from amongst the most deserving members of the class. The fees for clinical attendance are the same as at the other Dublin hospitals.

Arrangements have been made with the Fever Hospital, Cork Street, and with other hospitals, for providing senior students with clinical instruction in infective fevers, as required by the licensing bodies, without extra charge.

Further particulars can be obtained on application to the Honorary Secretary, Mr. Tobin, 59, St. Stephen's Green, Dublin.

Rotunda Hospital.

Master—Dr. W. J. Smyly.

This institution consists of two distinct hospitals, namely, the Lying-in Hospital, into which 1,200 labour cases are, on an average, admitted annually, and the Auxiliary Hospital, set apart for the reception and treatment of patients suffering from the various forms of uterine and ovarian disease; about 500 patients are received into this hospital during each year.

There is also in connection with the hospital a large extern maternity (1,838 patients were in the past year attended at their own homes), and a Dispensary for Diseases Peculiar to Women, which is open daily.

Pupils are admitted to the practice of all these departments. Clinical Instruction in Midwifery and the Diseases of Women is given daily, and lectures are delivered regularly during the session on these subjects. Pupils can enter at any time.

The diploma from this Hospital is granted to pupils on their passing an examination before the Master and Assistants after a period of six months' attendance on the practice of the Hospital.

Accommodation is provided for a limited number of intern pupils.

Fees.—Intern pupils: six months, £21; three months, £12 12s.; two months, £9 9s.; one month, £6 6s.; extern pupils: six months, £10 10s.; three months, £6 6s.

Royal University of Ireland.—A medical studentship of the annual value of £200, tenable for two years, and open to competition among graduates of medicine of the Royal University of Ireland, has been founded recently by the Senate. The subjects of the first examination (held in October, 1894) will be pathology and bacteriology. From the regulations it would appear that the candidates will be required to show a practical acquaintance with the method of making *post-mortem* examinations, the methods of preparing microscopic specimens, methods of cultivation of bacteria, as well as the modes of arriving at a bacteriological diagnosis in tuberculosis, cholera, and typhoid fever.

TABLE OF FEES FOR HOSPITAL ATTENDANCE AND LECTURES—IN ENGLAND AND IRELAND.

	ST. BARTHOLOMEW'S.	CHARING CROSS.	ST. GEORGE'S.	GUY'S.	KING'S COLLEGE.	LONDON.	ST. MARY'S.
Composition Fee for all Systematic Lectures and Hospital Practice required by Examining Boards, with certain minor exceptions in some instances	£157 10s.; or 1st year, £42; 2nd year, £42; 3rd year, £42; 4th year, £42	£115 10s. in one payment, or £127 1s. in five instalments, namely: 1st win., £34 13s.; 1st sum., £23 2s.; 2nd win., £23 2s.; 2nd sum., £23 2s.; 3rd win., £23 2s.	£145 9s.; or, by four instalments, £150	£150; or 1st win. and 1st sum. each, £75 10s.; or 1st and 2nd year each, 50 gs.; 3rd year, 30 gs.; 4th year, 20 gs.	£135; or two years £70 each year; or three years, £48 each year; or four years, £37 each year	130 guineas by three instalments, or 120 guineas in one payment	£130; or 1st year, £40; 2nd year, £40; 3rd year, £30; 4th year, £25.
University students who have finished Anatomical and Physiological studies	£84, or £85 1s. in three instalments	Proportionate reduction	£85	£80, or instalments of £52 10s. and £31 10s.	—	£63	£26 5s. a year.
Fee to qualified practitioners for Hospital Practice and Clinical Lectures	£15 15s.	£10 10s.; six months, £7 7s.; three months, £5 5s.	—	Three months, £7 7s.; six months, £10 10s.; unlimited, £15 15s.	£10 10s. for one year; £5 5s. for any less period	—	Perpetual, £15 15s.

	MIDDLESEX.	ST. THOMAS'S.	UNIVERSITY COLLEGE.	WESTMINSTER.	LONDON SCHOOL OF MEDICINE FOR WOMEN.	MASON COLLEGE, BIRMINGHAM.	BRISTOL MEDICAL SCHOOL.
Composition Fees for all Systematic Lectures and Hospital Practice required by Examining Boards, with certain minor exceptions in some instances	£126; 1st win., £63; 2nd win., £42; 3rd win., £31 10s.	£150; or on entr., £85: 2nd year, £72 10s.; or, 1st year, £75; 2nd year, £50; 3rd year, £32 10s.; or, 1st year, £65; 2nd year, £50; 3rd year, £30; 4th year, £12 10s.	£136 10s.; or 1st year, £63; 2nd year, £52 10s.; 3rd year, £26 5s.	£115; or 1st win., £60; 2nd win., £60; or six payments of £27 and £17 alternately	£125; or 1st year, £40; 2nd year, £40; 3rd year, £30; 4th year, £25	£105, or two instalments of £52 10s.	£94 10s.; or for lectures, two instalments, £36 15s. and £26 5s.; and perpetual hospital, £36 15s.
University students who have finished Anatomical and Physiological studies	£73 10s., or instalments of £42 and £36 15s.	£80, or two instalments of £52 10s. and £31 10s.	—	£64, or two instalments of £34	—	—	—
Fee to qualified practitioners for Hospital Practice and Clinical Lectures	Ordinary class fees if certificates are required, if not £2 2s. for three months.	Perpetual, £15 15s.	Special arrangements may be made.	£12 12s.	—	—	—

	YORKSHIRE COLLEGE, LEEDS.	UNIVERS. COLL., LIVERPOOL.	OWENS COLL., MANCHESTER.	UNIVERSITY OF DURHAM COLL. OF MED.	SCHOOL OF PHYSIC, UNIVERSITY OF DUBLIN.	CATHOLIC UNIVERSITY SCHOOL OF MEDICINE.	SCHOOLS OF SURGERY, R.C.S.I.
Composition Fees for all Systematic Lectures and Hospital Practice required by Examining Boards, with certain minor exceptions in some instances	£115 10s., or two instalments of £59 16s.	£114 2s., or two instalments of £91 and £23 2s., or Comp. for Vict. M.B. Ch.B. three instalments, £24 15s., £51, and £51	£112, or two instalments of £57	£99 15s., or by two instalments of £61 19s. and £49 7s.; or by three of £59 17s., £42, and £27 6s.	£122 6s. 6d., or including degree fees, £150 18s.	R.U.I. course, total cost, including degree fees, £167 3s.; Conjoint course, R.C.P. and S.I., total cost, £169 1s.	Conjoint course, R.C.P. and S.I. Lectures and Hospital Practice, £121 5s.; total cost, including licence fees, £161 5s.; R.C.S.I. and A.H., £105 10s., and £131 15s. respectively.
University students who have finished Anatomical and Physiological studies	£67 4s., or two instalments of £34 13s.	—	—	—	—	—	—

CLINICAL HOSPITALS.[1]

In addition to the Medical Schools and Colleges where a complete medical curriculum may be obtained at the School and its attached general hospital or hospitals, clinical instruction may be obtained at certain other general and special hospitals. The student may sometimes be well advised to make use of these opportunities even during the third or fourth year; during the fifth year it will be frequently to his advantage to do so.

We give below some particulars as to the institutions at which special arrangements exist; hospitals in cities in which fully equipped medical colleges or schools exist are first given, and afterwards those in other cities are mentioned.

[1] Additions or corrections intended for future editions should be forwarded to the Editor not later than the end of July in each year.

LONDON.

A student attending a medical school in London may obtain clinical instruction in special subjects at certain hospitals, and at certain general and special hospitals he may obtain appointments.

GENERAL HOSPITALS.

Great Northern Central Hospital.—The practice of the hospital is open to practitioners and senior students. Clinical students are appointed in the Wards and Out-patient Department. Further information can be obtained on application to the Honorary Secretary of the Medical Committee.

London Temperance Hospital.—The hospital contains 110 beds. The medical and surgical practice is open to students

and practitioners. Special departments for Ophthalmology and Gynæcology. Classes arranged during the winter and summer sessions for students preparing for the Final Examinations at the Colleges and Universities. Appointments (vacancies for which are advertised in the medical journals), Registrar and Pathologist, Senior and Junior House-Surgeons. For particulars as to hospital practice and classes apply at the hospital to Dr. W. J. Collins.

Seamen's Hospital Society, Greenwich.—The hospital contains 235 beds, and the branch hospital 18 beds. Apartments are provided in the house of the Principal Medical Officer for students and others who may be desirous of studying diseases incidental to tropical climates before entering the services or going abroad.

Children's Hospitals.

Hospital for Sick Children, Great Ormond Street.—There are 127 beds in the hospital at Great Ormond Street, and 52 at Highgate. The physicians and surgeons of the hospital give Clinical Instruction in the wards during the winter session, and out-patients are seen every morning at 9 o'clock. Particulars as to times of Medical and Surgical visits and of Lectures are to be found in our advertisement columns, or can be obtained on application to the Secretary at the hospital.

East London Hospital for Children, Shadwell.—The hospital contains 102 cots, one-third being devoted to infants. Out-patient Clinical Clerks are appointed. Application should be made to the Assistant Physicians or Surgeons. Two House-Surgeons and two House-Physicians (holding office for six months) are appointed annually; board and lodging free; senior students are eligible.

North-Eastern Hospital for Children, Hackney.—The hospital contains 57 beds. Particulars of facilities for attending Medical and Surgical practice can be obtained on application to the Secretary.

Lying-in Hospitals and Hospitals for Women.

Queen Charlotte's Lying-in Hospital and Midwifery Training School.—This hospital receives nearly 1,000 patients annually, besides having a large out-patient department. Medical pupils are received at all times of the year. Pupils have unusual opportunities of seeing Obstetric complications and Operative Midwifery, on account of the very large number of primiparous cases—upwards of three-fourths of the total admissions. Clinical Instruction is given on the more important cases that present themselves. Certificates of attendance at this hospital are recognised by all Universities, Colleges, and Licensing Bodies. Pupil Midwives and Monthly Nurses are received and specially trained. *Fees.*—Medical pupils, £3 3s. for one week, £5 5s. for two weeks, and £6 16s. 6d. for four weeks, exclusive of board and lodging; Pupil Midwives, £26 5s. for three months; Pupil Nurses, £15 15s. for twelve weeks and £11 0s. 6d. for eight weeks, inclusive of board and lodging. For further particulars, application should be made to the Secretary, at the hospital.

Hospital for Women, Soho Square.—There is an organised School of Gynæcology open to qualified medical men, and students after their third year. A limited number of Clinical Assistants to the Physicians and Surgeons in the In-patient and Out-patient Departments are appointed every three months. A course of lectures on the Anatomy and Physiology of the Female Pelvic Organs is given during each quarter. Clinical lectures are given throughout the winter and summer sessions. Prizes are given annually after examination, open to past and present Clinical Assistants. *Fee* for the three months' course, £8 8s. Further information can be obtained by letter, addressed to the Dean at the hospital.

Chelsea Hospital for Women.—The hospital contains 60 beds. Qualified medical men are admitted to the consultations and operations. Clinical Assistants are appointed for a term of three months, upon a fee of £3 3s.

Ophthalmic Hospitals.

Royal London Ophthalmic Hospital, Moorfields.—There are 100 beds for in-patients, and a large out-patient department. Operations are performed daily, from 10 A.M. until 1 P.M. Gentlemen are admitted to the Practice, and to Lectures and Demonstrations. *Fees* for six months, £3 3s.; perpetual, £5 5s. A perpetual ticket admits to Lectures and Demonstrations free. Students of the hospital are eligible for the office of House-Surgeon, and may be appointed Clinical Assistants for twelve months, Junior Assistants for six months.

Royal Westminster Ophthalmic Hospital (near Charing Cross).—The hospital contains 50 beds, and an out-patient department. The practice is open to practitioners and students from 1 to 4 P.M. daily. Special instruction is given in the Diagnosis, Pathology, and Treatment of Eye Affections, including the Operations on the Eye, the Treatment of Errors of Refraction, and the Use of the Ophthalmoscope. *Fees:* Six months, £3 3s.; perpetual, £5 5s. For particulars, apply to Mr. T. Beattie-Campbell, the Secretary, at the hospital.

Fever Hospitals of the Metropolitan Asylums Board.

Students are admitted to study at the fever hospitals of the Metropolitan Asylums after they have completed the third year of medical education, provided they have held the offices of clinical clerk and dresser. The minimum duration of the course of study is two months, and attendance may be made on three days a week, and must be made for on days a week during that period. A record of attendances is kept, and a certificate, signed by the Medical Superintendent of the Asylum, is granted by the Board to students who have completed satisfactorily the course of study. The student is required to adhere to rules as to disinfection and as to general conduct drawn up by the Board. A *fee* of 3 guineas is charged for the first two months, and 1 guinea for each subsequent period of one month. Qualified medical men are admitted under similar terms and conditions.

Other Special Hospitals.

Bethlem Royal Hospital.—Two resident clinical assistants are appointed twice a year for six months from recently qualified medical students. Students who have completed the third year of study can attend the hospital practice for three months on application. Students of Guy's Hospital and St. Thomas's Hospital during the summer can attend special afternoon instruction. Qualified medical men are allowed to attend for three months on payment of a fee. Post-graduate courses are given from time to time.

Hospital for Consumption and Diseases of the Chest, Brompton.—There are 321 beds in the two buildings constituting the hospital, and a special throat department. Pupils are admitted to the in-patient and out-patient practice of the hospital. Fee: One month, £1 1s.; six months, £5 5s.; perpetual, £10 10s. Pupils of the hospital are admitted at half price to the London Post-Graduate Course Lectures. Certificates of attendance on the Medical Practice of this hospital are recognised by the University of London, the Apothecaries Society, and the Army and Navy and Indian Boards.

City of London Hospital for Diseases of the Chest, Victoria Park.—Information as to medical instruction can be obtained on application to the Secretary of the Clinical Subcommittee at the hospital.

Royal Orthopædic Hospital.—The hospital is open to all legally qualified practitioners, and students are admitted on payment of the following fees: Six months, £3 3s.; twelve months, £5 5s.; perpetual, £10 10s.

Central London Throat and Ear Hospital (Gray's Inn Road).—The hospital contains accommodation for seventeen in-patients, and has an extensive out-patient department, which is open to all medical practitioners and students for the purpose of Clinical Demonstration and Instruction. Fee for three months' attendance, £3 3s.; for six months, £5 5s.

St. Peter's Hospital for Stone and Urinary Diseases (Henrietta Street, Covent Garden).—Qualified medical men and students are admitted free to the practice of this hospital, which contains 24 beds, and has a large out-patient attendance (30,633 for 1891). New cases, 4,420. Operations are performed and consultations are held on Wednesdays and Fridays at 2. Clinical lectures and demonstrations are given regularly by members of the staff.

Royal Ear Hospital (Frith Street, Soho Square, W.).—The clinic of the hospital is open to medical practitioners and advanced students by previous arrangement with the Secretary.

LIVERPOOL.

Royal Southern Hospital: Clinical School.—The hospital is situated within convenient distance of the School of Medicine, and contains 200 beds. There is a children's ward, and beds are appropriated to the diseases of women. Clinical teaching is given in the hospital, and arrangements have been made to render it both thorough and systematic. The members of the staff visit the wards daily, and clinical lectures are given each week. Tutorial classes are also held each day, at which the junior students are instructed in the methods of diagnosis, and the seniors are prepared for their final examinations. The pathological department has a good laboratory attached, in which the students receive practical instruction. *Appointments:* In addition to the usual clinical and *post-mortem* clerkships, the resident post of Ambulance Officer is awarded every three months to the student whom the Board may consider most suited to hold it. *Fees:* Perpetual, £26 5s.; one year, £10 10s.; six months, £7 7s.; three months, £4 4s. *Terms:* (Exclusive of fees for Hospital Practice), £15 15s. per quarter. The practice of the hospital is recognised by all examining bodies. Further particulars may be obtained from the Dean, Mr. Robert Jones, 11, Nelson Street, Liverpool.

Northern Hospital.—The hospital contains 160 beds. There is a special ward for the treatment of children. Clinical lectures are delivered by the physicians and surgeons during the summer and winter sessions. Clinical clerkships and dresserships are open to all students without additional fee. *Fees:* Perpetual, £26 5s.; one year, £10 10s.; six months, £7 7s.; three months, £4 4s. Students can enter to the medical or surgical practice separately on payment of half the above fees. Practical Pharmacy, three months' fee, £2 2s.

Eye and Ear Infirmary.—The infirmary contains 46 beds. Evening courses of lectures on Refraction and Medical Ophthalmoscopy are delivered at this infirmary during the winter months by Mr. Edgar Browne. Students of medicine of University College, Liverpool, have free access to the practice of the infirmary.

Liverpool Infirmary for Children.—The infirmary contains 88 beds, and has a large out-patient department. In-patients (1892) 1,136; new out-patients, 11,917; out-patient attendances, 39,811. The practice of the hospital is free to students, and clinical instruction is given by the Medical Staff. For further particulars apply to the Secretary of the Medical Board.

MANCHESTER.

General Hospital for Sick Children, Pendlebury.—The hospital at Pendlebury contains 140 beds, including 28 for fever. The medical staff see out-patients daily at the Dispensary, Gartside Street, at 9 A.M., and visit the hospital at 10 A.M. The practice of the hospital and dispensary is free to students accompanying the medical staff.

Royal Eye Hospital.—The hospital contains 100 beds. The medical staff attend daily from 9.30 to 1. Clinical instruction is given to students.

St. Mary's Hospital for Diseases of Women and Children.—Fifty beds, including three for the reception of lying-in cases attended with special difficulty or danger. In the out-patient department students are taught the various methods of examination and diagnosis, and the use of gynæcological apparatus; while, in the wards, they have an opportunity of becoming familiar with the the diagnosis and treatment of graver cases, and of witnessing more important gynæcological operations. The large number of maternity cases attended annually (3,000) in connection with this hospital affords ample opportunity to students for receiving instruction in practical midwifery. Every student, on registering himself as a midwifery pupil, is supplied with a card, on which must be filled in the particulars of every labour at which he is present, each entry being attested by the initials of the medical officer or certified midwife in charge of the case. The hospital possesses a library, presented by the late Dr. Radford, consisting of nearly 4,000 volumes, chiefly on subjects connected with obstetrics and gynæcology. There is also a museum, containing a large number of pathological specimens, and a valuable collection of deformed pelves, casts, obstetric instruments, and anatomical models. The gynæcological practice of the hospital is free to third and fourth years' students. The fee for the midwifery practice, which includes attendance upon twenty cases of labour, as required by the examining bodies, is £2 2s. Application must be made to the House-Surgeon at the hospital.

NEWCASTLE-ON-TYNE.

Hospital for Sick Children.—There are 60 beds in the hospital, which the honorary staff visit every day. There is a large out-patient department. The practice of the hospital is open free to all students or qualified practitioners.

City Hospital for Infectious Disease.—Candidates for the Licence in Sanitary Science, and for the degree of B.Hy., attend clinical practice, lectures, and instruction at the hospital.

SHEFFIELD.

Jessop Hospital for Diseases of Women.—The number of beds is 45: in the Diseases of Women Department 36, and in the Maternity Department 9. Students can attend the practice of the hospital, and be supplied with cases of midwifery. (See also p. 527).

BRADFORD.

Eye and Ear Hospital.—The hospital contains 45 beds. The staff attend on Tuesdays and Saturdays for Diseases of the Eye, and on Thursdays for Diseases of the Ear, from 3 to 5. Operations on Tuesdays and Thursdays, at 5 P.M. The clinic of the hospital is open to medical practitioners and advanced students.

Infirmary and Dispensary.—The hospital contains 210 beds. Non-resident pupils are received, and have every opportunity of acquiring a practical knowledge of their profession under the superintendence of the House-Surgeon. One year's attendance is recognised by the Examining Boards. *Fees:* Perpetual, £10 10s.

BATH.

Royal United Hospital.—120 beds. The hospital is recognised by the Royal Colleges of Physicians, Surgeons, etc., and licensed for dissections. It contains a library and an excellent museum, in which are a large number of interesting specimens, both in Pathology and Comparative Anatomy. Fees for attendance: twelve months, £10 10s.; six months, £5 5s. (temporary pupils can also, by permission of the honorary staff, attend the practice of the hospital by the payment of £1 1s. for each month). Instruction in Practical Pharmacy for three months, £3 3s. For further particulars apply to the Registrar.

BRIGHTON.

Sussex County Hospital.—The hospital contains 173 beds, with separate wards for children and for cases requiring isolation; and the Out-patient Department is attended by 700 to 800 patients weekly. It is recognised by the College of Surgeons and by the Conjoint Board as a hospital where part of a medical course may be spent. Out-pupils are admitted to the clinical teaching and the classes at a fee of £21 for two years. The Ormerod Exhibition, of the average value of £30, is awarded annually, after examination, to the best student of those leaving to pursue their studies at a medical school. Further information may be obtained from the House-Surgeon.

DERBY.

Derbyshire Royal Infirmary.—The infirmary is about being rebuilt, and will provide for 200 beds. The accommodation now temporarily provided is for about 100 beds. Pupils are admitted to the practice of the infirmary at £5 5s. a year.

EXETER.

Devon and Exeter Hospital.—The hospital contains 214 beds, including a special children's ward. There are a good Library, Museum, Dissecting, and *Post-mortem* Rooms. Attendance on the practice at this hospital qualifies for all the Examining Boards. Two Resident Pupils are received. Arrangements may be made by which students can attend Midwifery. For further particulars as to fees, etc., apply to the House-Surgeon.

West of England Eye Infirmary.—The infirmary contains 50 beds. Arrangements can be made for students of the Exeter Hospital to attend the practice of the Eye Infirmary.

DEVONPORT.

Royal Albert Hospital.—The hospital contains 218 beds. The pupils of the medical staff are allowed to attend the hospital practice and to learn pharmacy on the payment of £2 2s. to the dispenser.

GLASGOW.

Royal Hospital for Sick Children.—This hospital, containing 70 beds for the non-infectious diseases of children, is open for clinical instruction, as is the dispensary, or out-patient department. Students, by paying the fee of £1 1s., are entitled to the practice of the hospital and dispensary for twelve months from the term of entry, which may be at the beginning of February, May, or November. Further particulars may be had by applying to the Resident Medical Officer, 45, Scott Street, Garnethill.

Glasgow Western Infirmary.—This hospital adjoins the University of Glasgow. Number of beds 400. The Clinical Courses are given by the Physicians and Surgeons, each of whom conducts a separate class, and students may attend whichever they select at the beginning of the session. Special instruction is given to junior students by tutors or assistants, and clinical clerks and dressers are selected from the members of the class. Special wards are set apart for Diseases of Women and for Diseases of the Skin. In the Out-Patients' Department there are special *cliniques* for Diseases of Women and for Diseases of the Throat, Ear, and Teeth. All the courses of clinical instruction are recognised by the University of Glasgow and the other Boards in the kingdom. Eight resident assistants are appointed annually without fee from those who have completed their course. *Fees.*—For the hospital practice, including the various courses of clinical instruction in Medicine and Surgery, £21 in one payment, or in two equal instalments for the first and second years; for six months, £7 7s.; and for three months, £4 4s.

Glasgow Eye Infirmary.—1. Gentlemen may attend as students on payment to the Treasurer of the following fees: for three months' attendance, £1 1s.; for six months' attendance, £2 2s.; for twelve months' attendance, £3 3s. 2. Students attending the Waltonian Lectures in the University of Glasgow may attend at the infirmary for clinical instruction during the University Session without fee. Former Waltonian students may attend on payment to the Treasurer of the following fees: for six months' attendance, £1 1s.; for twelve months' attendance, £2 2s. Further information may be obtained from the Secretary, Mr. W. G. Black, 88, West Regent Street, Glasgow.

GLOUCESTER.

The General Infirmary and the Gloucestershire Eye Institution.—The hospital contains 156 beds. Resident and non-resident pupils are admitted by the General Committee on the recommendation of a member of the Medical Board. Each pupil pays in advance £10 for the first half-year, and £5 for every subsequent quarter, or portion of a quarter, of a year. Each resident pupil has board and lodging in the house, for which he pays in advance 26 guineas for the first half year, and 13 guineas for every subsequent quarter, or portion of a quarter, of a year. Each pupil pays in advance to the House-Surgeon a fee of £5 5s. for instruction, and a further fee of £3 3s. for every subsequent year or portion of a year. One year passed at this hospital, after passing a preliminary examination, is recognised by the Royal College of Surgeons.

CANTERBURY.

Kent and Canterbury Hospital.—The hospital contains 102 beds. Over 700 in-patients and 1,200 out-patients attend every year. Lectures are delivered weekly to the students of St. Augustine's Missionary College on Practical Medicine by Dr. Gogarty, and on Surgery by Mr. T. W. Reid.

LINCOLN.

County Hospital.—The hospital contains 91 beds. The House-Surgeon is allowed to take two pupils, on terms arranged by the Weekly Board, himself, and the pupils. A fee of not less than £10 10s. is paid by every pupil to the hospital. The House-Surgeon is responsible for the conduct of his pupils. The pupils remain in the hospital only when occupied in performing or observing the actual work of the hospital.

NORWICH.

Norfolk and Norwich Hospital.—The hospital contains 220 beds. *Fees:* £10 10s. for six months, £15 15s. for twelve months' Medical and Surgical Practice. Pupils, resident and non-resident, are admitted.

NORTHAMPTON.

General Infirmary.—There are 160 beds and a large out-patient department. Out-pupils are received, and have every opportunity of acquiring a practical knowledge of their profession. Instruction is also given by the House-Surgeon in Anatomy, Materia Medica, and Pharmacy. Non-resident pupils are taken at a fee of £10 10s. Arrangements for board and residence, etc., can be made.

NOTTINGHAM.

General Hospital.—The hospital contains 160 beds. The Honorary Staff introduce pupils to witness the practice of the hospital on payment of £10 10s. annually in advance. The pupils receive instruction from the Resident Medical Officers.

PORTSMOUTH.

Royal Portsmouth Hospital.—133 beds. One year's attendance recognised by the examining boards. For particulars as to fees apply to the House-Surgeon.

SOUTHAMPTON.

Royal South Hants Infirmary.—The out-patient department contains an eye department, fitted with modern instruments, lamps, lenses, etc.; also an electrical department, containing a new set of modern batteries. The hospital contains 104 beds.

STAFFORDSHIRE.

Staffordshire General Infirmary.—There are 120 beds. The pupils of medical practitioners resident in the county of Stafford are allowed to witness the Medical and Surgical Practice of the infirmary, and to be present at operations. The pupils of the officers of the institution are admitted to these privileges gratuitously, those of other practitioners on the payment of £10 10s. with each pupil. The assistants of a medical practitioner, having gone through a complete curriculum, are admitted on the annual payment of £5 5s.

North Staffordshire Infirmary and Eye Hospital.—The infirmary has accommodation for 222 patients, including children's wards, eye department, and special ovarian wards. The attendance of pupils at this infirmary is recognised by all the Examining Boards. Particulars as to fees, etc., may be obtained from the Secretary, Mr. R. Hordley, Hartshill, Stoke-on-Trent.

SWANSEA.

Swansea Hospital.—The House-Surgeon is permitted to take two articled pupils, whom he binds himself to transfer to his successors in the event of his leaving the hospital during the term of their apprenticeship. The premium or fee on the introduction of pupils is such a sum as the Committee may consider reasonable. It is apportioned between the House-Surgeon and the institution, as the Committee for the time being may determine. The hospital contains 130 beds.

WINCHESTER.

Royal Hants County Asylum.—The hospital contains 108 beds. Apprentices are received by the Committee on payment of £100 per annum, and are bound to the House-Surgeon for five years. During the first two years they are

chiefly employed in dispensing; afterwards they may witness the practice, and attend clinical lectures and operations and *post-mortem* examinations. The Physicians and Surgeons are allowed to introduce a certain number of pupils; the House-Surgeon may also receive a pupil, on payment of £100 per annum. Pupils of qualified medical practitioners not belonging to the staff of the hospital may, with the consent of the Committee, become out-pupils, and see the practice of the hospital, under the direction of the House-Surgeon, on the payment of £10 10s. for one year, or £21 for unlimited attendance. Out-pupils are permitted daily (Sundays excepted) to read in the Library on payment of £1 1s.

WOLVERHAMPTON.

Wolverhampton and Staffordshire General Hospital.—The hospital contains 230 beds, and is a preparatory School of Medicine and Surgery. The pupils see the whole of the practice of the physicians and surgeons, and are trained in clinical work by the medical and surgical staff. Attendance at this hospital is recognised by all the Examining Boards. *Fees:* six months, £6 6s.; twelve months, £12 12s.; perpetual, £21.

INSTITUTIONS FROM WHICH CERTIFICATES ARE ACCEPTED BY THE CONJOINT BOARD IN ENGLAND.

I. Hospitals recognised for a part of the required attendance on Medical and Surgical Practice, for Medical Clinical Clerkship, and for Surgical Dressership, namely:

IN ENGLAND AND WALES.

Bath.—Royal United Hospital.
Bedford.—General Infirmary.
Bradford.—Infirmary.
Brighton.—Sussex County Hospital.
Canterbury.—Kent and Canterbury Hospital.
Cardiff.—Glamorganshire and Monmouthshire Infirmary.
Derby.—Derbyshire General Hospital.
Exeter.—Devon and Exeter Hospital.
Gloucester.—General Infirmary.
Hartshill.—North Staffordshire Infirmary.
Hull.—Royal Infirmary.
Leicester.—Infirmary.
Liverpool:—Northern Hospital.
Norwich.—Norfolk and Norwich Hospital.
Northampton.—General Infirmary.
Nottingham.—General Hospital.
Oxford.—Radcliffe Infirmary.
Plymouth.—South Devon and East Cornwall Hospital.
Portsmouth.—Royal Hospital.
Reading.—Berkshire Royal Hospital.
Salisbury.—General Infirmary.
Shrewsbury.—Salop Infirmary.
Southampton.—Eye and Ear Hospital.
Stafford.—Staffordshire General Infirmary.
Winchester.—Hampshire County Hospital.
Wolverhampton.—Wolverhampton and Staffordshire General Hospital.
Worcester.—Infirmary.

IN TASMANIA.

Hobart Town.—The General Hospital.
Launceston.—The General Hospital.

II. Institutions recognised for Instruction in Chemistry, including Chemical Physics, Practical Chemistry, and Elementary Biology.

Aberystwith.—University College of Wales.
Bradford.—The Grammar School.
Bristol.—University College; Merchant Venturers' School.
Cheltenham.—Public School of Science and Technical School, Clarence Street.
Chester.—School of Science and Art, Grosvenor Museum.
Clifton, Bristol.—The Clifton Laboratory (without Biology).
Epsom.—The College.
Hull.—Royal Institution (without Biology).
London.—Royal College of Science.
,, The Pharmaceutical Society (without Biology).
,, City of London School (without Biology).
Newcastle-upon-Tyne.—The Durham College of Science.
Reading.—University Extension College.
Swansea.—Technical College (without Biology).

III. Recognised Lunatic Asylums.

Banstead.—London County Asylum.
Birmingham.—Borough Asylum.
Cane Hill.—Lunatic Asylum.
Claybury.—Lunatic Asylum.
Colney Hatch.—Lunatic Asylum.
Hanwell.—Lunatic Asylum.
Rainhill.—Lancashire County Asylum.
Wakefield.—West Riding Asylum.

IV. Recognised Fever Hospitals.

London.—Metropolitan Fever Hospitals.
Liverpool.—Corporation Fever Hospitals.
Birmingham.—Corporation of the City of Birmingham Fever Hospital.

V. Laboratories recognised for instruction in Public Health for the Diploma in Public Health.

London.—St. Bartholomew's, London, University College, King's College, Charing Cross, St. George's, College of State Medicine.
Birmingham.—Mason College.
Bristol.—Medical School.
Liverpool.—School of Science and Technology.

COST OF MEDICAL EDUCATION.

THE cost of medical education and the cost of living in the various centres has been fully discussed at an earlier page (506), but the following additional details as to the expenses at some of the provincial schools and in Scotland and Ireland, which we extract from a large amount of correspondence on the subject, may be of interest:—

In Manchester there are two halls of residence in connection with Owens College, the expense at Hulme Hall for the academic year being £63 (exclusive of laundry), and at Dalton Hall £90. At Hulme Hall there are twenty-five scholarships of £25 per annum tenable for three years, of which six or more are offered annually for public competition. It is thought that for living in ordinary lodgings the minimum expense would be £50 per annum.

Students in Liverpool can manage comfortably on £1 10s. a week, and a minimum of £1 per week may be stated.

From Leeds we are told that a student can obtain board lodging for one guinea a week.

A correspondent at Bristol says that a student can live on from £70 to £90 a year.

In Newcastle there are plenty of lodgings close to the College and Infirmary, varying from 10s. to 20s. a week. A student's average expenses for living and rooms might fairly be put down at from £1 10s. to £3 per week. There are also cheap railway fares to outlying places.

In Edinburgh there is great variety both as to price and quality of lodgings. Students usually go into lodgings either by themselves or with a companion. The rent of a sitting room and bedroom in a good and healthy locality varies from 12s. 6d. to 30s. or more per week, the cost of food may be anything from 7s. 6d. upwards, fairly good living would be 12s. 6d. to 15s. Good plain board may be had from 5 guineas a month upwards, but this may not include a private sitting room. Residence with a medical practitioner, with some supervision of studies, 10 to 12 guineas a month. University Hall gives lodging at from 7s. to 16s. per week, and board might average 12s. 6d. Information as to lodgings can be obtained at the Students' Representative Council Office, or at the Students' Union.

At Cork very fair lodgings for students can be had close to the college for 6s. a week, food costing about 10s. in addition. There is also an institution called Berkeley Hall, at which the rent of rooms is £1 2s. 6d. a month, and the cost of breakfast, dinner, and tea 11s. 1d. per week; but luncheon would be required as well, and some linen would have to be provided.

MEDICAL EDUCATION OF WOMEN.

DEGREES, DIPLOMAS, AND SCHOOLS.

THE qualifying bodies in the United Kingdom which admit women as candidates for their degrees or diplomas are as follows: The University of London, the University of Glasgow, the University of St. Andrews, and the Royal University of Ireland, the Society of Apothecaries, London, and the Conjoint Board of the Royal College of Physicians and Surgeons in Ireland. Women candidates for qualification are subject to the regulations of the General Medical Council as to education and examination in precisely the same manner as men.

Women medical students can obtain a complete medical education by becoming students of the London School of Medicine for Women, the Edinburgh School of Medicine for Women, the Medical College for Women, Edinburgh, Queen Margaret College, Glasgow, and the Schools of Surgery of the Royal College of Surgeons in Ireland. The three first named schools receive women only. In the Schools of Sur-

gery of the Royal College of Surgeons in Ireland special rooms are set apart for lady students.

For the University of Glasgow a complete medical education is given at Queen Margaret College, which has been transferred or affiliated to that University. The University of St. Andrews does not as yet give a complete medical course, but women are admitted to the classes of Botany, Zoology, Physics, Chemistry, and Physiology; and recently it was resolved that the Lecturers of the Edinburgh School of Medicine should be held *ex officio* as giving qualifying courses in their various subjects for the degrees of M.B., C.M. of that University.

The classes available for women, University College, Dundee, are stated at page 530. The rest of the course must be taken elsewhere, it may be in Edinburgh, Glasgow, or London. If in Edinburgh it will necessarily be at one or other of the two schools alluded to at p. 529, and the course, examinations, fees, etc., of the second of these are those of the Conjoint Board given at page 517. The course at Queen Margaret College, Glasgow, is noted at page 529.

Some further particulars as to the London School of Medicine for Women will be found on page 526, but intending students should write to the Secretary of the School, Miss Heaton, 30, Handel Street, Brunswick Square, London, W.C. The prospectus of this School contains an article of advice to students which will be found very useful. A further note on the Edinburgh School of Medicine for Women will be found on page 529. Candidates may obtain a prospectus on application to the Secretary, Miss Black, School of Medicine, Surgeon Square, Edinburgh, who will also forward a pamphlet containing full particulars on medical facilities offered to women in the United Kingdom, published by the National Association for Promoting the Medical Education of Women (post free six stamps).

Before entering upon the career of a medical student a woman should consider well whether she is in a position to meet the serious calls which the career will make upon pocket and health. She must be prepared to spend at least five full years at a medical school (after passing a preliminary examination in Arts), and must remember that during this period she will find her time fully occupied, and should not attempt—in fact, if she does her duty should have no time—to earn a penny. Further, the work, which is severe and prolonged, and of necessity sometimes performed under somewhat unhealthy conditions, makes a serious call upon a constitution not naturally robust. A very serious percentage of male medical students break down in health.

POST-GRADUATE STUDY.

LONDON.

Powerful as is the British Medical Association as a means of knitting together the divided units of the medical profession, and influential as the Journal is in giving voice to its aspirations, it may be doubted whether this, which may be called the political aspect of medical journalism, is what is most appreciated by the great mass of our readers. To thousands of men dotted over the globe, in distant villages and up-country stations, the Journal is their one link with all that is progressive in medical science, and no one who has often to meet men in out of the way country places, knowing what their life is and seeing how up to date they often are, can for a moment doubt either the enormous influence for good exerted by the Journal, or the thirst for knowledge constantly present among the members of our profession. This love of knowledge is, however, insatiable, and notwithstanding the flood of lectures, papers, and clinical reports poured out upon the world by the enterprise of medical journalism, nay, possibly in consequence of the taste thereby encouraged, the number of those who wish not only to read but see, and who, for all that they are qualified, wish for the nonce again to become students, increases year by year.

Army or navy men between one appointment and another, ship surgeons ashore, young men who after being educated in the provinces wish to have a few months' study in the metropolis, medical officers of health studying bacteriology, men who have sold their practices and wish to polish up a little before entering on fresh fields of work, and a constant stream of Americans and Colonials on the search for what is new drift in a constantly increasing crowd towards London, where special arrangements are now made to cater for their wants.

First we should mention the London Post-Graduate Course, which, under the management of its secretary, Dr. Fletcher Little, has become a permanent institution. Three full courses are given every year, besides short ones on public health during the vacations. The courses for the ensuing sessions are to be given by members of the staffs of the following hospitals: The Hospital for Consumption and Diseases of the Chest, Brompton; the Hospital for Sick Children, Great Ormond Street, Bloomsbury; the National Hospital for the Paralysed and the Epileptic (Albany Memorial) Queen Square, Bloomsbury; the Royal London Ophthalmic Hospital, Moorfields; the Hospital for Diseases of the Skin, Blackfriars; Bethlem Royal Hospital for Lunatics, the London Throat Hospital, Great Portland Street; at the Bacteriological Department, King's College; and at the Parkes Museum. Also a course of lectures and demonstrations on Morbid Anatomy will be given at 101, Great Russell Street, Bloomsbury; and a course of clinical lectures on Medicine and Surgery at the Central London Sick Asylum, Cleveland Street, W. The fees are £1 1s. and £2 2s. according to the number of lectures in the course, and practitioners can enter for one or more courses as they may please. Any further information can be obtained from and fees paid to the Secretary, Dr. Fletcher Little, 32, Harley Street, Cavendish Square, W.

Certain of the school hospitals have also arranged special post-graduate courses independently. At Charing Cross, for example, a special series of clinical lectures and practical demonstrations, exclusively arranged for the convenience of practitioners and post-graduate students, are given by members of the staff throughout the year. The lectures for the year are arranged in three courses, each consisting of ten meetings, and lasting ten weeks. Two of these courses are held during the winter, and one during the summer. The class meets on each Thursday afternoon, at 4 P.M., in the Board Room of the hospital, and proceeds thence to the wards or other department in which the demonstration may be held. The fee at present charged for each course of ten lectures is £1 1s. The first of the two winter courses of the ensuing academical year will commence on October 12th next, and will be conducted by the following members of the medical and surgical staff:—Drs. Green, Bruce, Willcocks, Murray, Mott, Routh, Arkle, and Messrs. Bloxam, Boyd, and Waterhouse. Practitioners wishing to attend can receive any further information as to the dates and subjects by communicating with the Honorary Secretary, Dr. Willcocks, at the hospital.

A considerable number of special hospitals are open to students, and more especially to qualified men, on payment of certain fees (see page 532 *et seq.*).

Children, eyes, throats, chest, skin, bladder, rectum, consumption, cancer—all have their special hospitals, at most of which courses of lectures are delivered, the dates being advertised from time to time; and, so far as occasional visits go, these, like all the hospitals in London, are practically open to the profession, but for regular attendance a fee is required.

For those who wish not merely to "drop in" at a hospital, but to take up a careful study of any special subject, a certain number of appointments are available as clinical clerks or assistants. No doubt these posts are mostly filled by senior students or newly-qualified men, but as the special hospitals are not connected with schools, there is nothing to prevent senior men taking them up. The field is very large, and the opportunity for gaining technical knowledge is great, as the work is done in conjunction with, and under the eye of, a member of the staff. At the children's hospitals, both at

Great Ormond Street and at Shadwell, appointments of this kind can be obtained.

The large school hospitals are freely open to any practitioner with a card in his pocket, but it must be confessed that it is not at them that the occasional visitor will get most benefit or receive most attention. The reason is obvious; the staff is thoroughly employed in teaching, and, although a stranger is always courteously received by the professor, no visitor can help feeling himself an intruder when he perceives that every attention paid to him is so much taken from the class. The operating theatres, however, and the clinical lectures and consultations held in the theatres are freely open. Most of the large hospitals, however, make full provision for short time students, and a stranger wishing to spend a whole session in London might do far worse than attach himself to one of the large hospitals, entering as a student and paying the fee, which is not a large one, and thus gaining the right to the full practice of the hospital, including all the special departments, which at the larger schools are very well done. A man so entering ceases to be a stranger; he becomes one of the regular students of the place, and, if he be a man of conversation and sociability, gets a better view of the *vie intime* of the student world than he does by wandering from hospital to hospital. There is no doubt about the immensity of the field for study in London, or that the growing demand for post-graduate instruction is quickly opening the gates. Happy those who can enter and taste again the student life.

SCOTLAND.

At Edinburgh there are permanent post-graduate courses running for most of the year, among which may be noted:

1. Demonstrations on the Anatomy and Pathology of the Brain and Spinal Cord, by Dr. Alexander Bruce.
2. Demonstrations on Dermatology by Dr. Norman Walker.
3. Consumption and Diseases of the Chest, by Dr. R. W. Philip.
4. Ophthalmology, in the Royal Infirmary, by one or more of the ophthalmic surgeons.
5. Diseases of the Ear, Nose, and Throat, and Laryngology, at the Royal Infimary, by Dr. P. McBride.
6. Diseases of Children, by Dr. John Thomson, at the Children's Hospital or New Town Dispensary, and also by other physicians elsewhere from time to time.
7. Disease of the Tropics and Climatology, by Dr. R. W. Felkin.
8. Medical Electricity, including Electro-Physics, Diagnosis, and Therapeutics, by Dr. Dawson Turner.
9. Laryngology and Medical Ophthalmology, and the Uses of Electricity in Medical Treatment and Diagnosis, by Dr. John Wyllie.

The fees vary from £1 1s. to £3 3s., and the courses are of various lengths. Full particulars are advertised some time in advance, and inquiries may be addressed to the lecturers named.

DEGREES FOR PRACTITIONERS.

Owing to the fact that a large number of English students enter at the beginning of their career only for the diplomas of the Royal Colleges of Physicians and Surgeons or for that of the Apothecaries' Hall, a very considerable proportion of the fully-qualified registered practitioners in England and Wales are not graduates of any university, and are not legally entitled to make use of the title of "Dr." It is found that under certain circumstances, of not uncommon occurrence, the want of the degree of M.D. places a practitioner in a position of some disadvantage, and the desire to obtain such a degree not unnaturally arises. In the case of most universities a degree is only obtainable after passing a certain series of examinations covering the whole medical curriculum; and, as a rule, certain periods of residence are required also. Regulations of this nature put the degrees of these universities altogether beyond the reach of a man already busily engaged in the practice of his profession. The degree of M.D. can, however, be obtained under special conditions by registered medical practitioners from the Universities of London, Durham, and St. Andrews. The University of Brussels also grants the degree of M.D., which, however, is not now registrable, to practitioners after examination, without restriction as to residence or curriculum.

University of London.

Registered medical practitioners of not less than three years' standing, and not less than 25 years of age, who shall pass, or have already passed, the Matriculation and Preliminary Scientific Examinations, may proceed to the Intermediate and M.B. Examinations without the intervals prescribed by the Regulations, on producing certificates that they have gone through the required course of training *at any time* previously. (See page 512.)

University of Durham.

The degree of M.D. is granted by the University of Durham to registered practitioners of not less than fifteen years' standing, who have been qualified and in practice for that period, upon the following conditions without residence: The candidate must be 40 years of age, and must produce a certificate of moral character from three registered medical practitioners. If he have not passed previously to the professional examination in virtue of which his name was placed on the *Register* an examination in Arts, he is examined in classics and mathematics; if otherwise, he is required to translate into English passages from Cæsar, *De Bello Gallico* (first three books), Virgil, *Æneid* (first three books), or Celsus (first three books); he is afforded an opportunity to show proficiency in Moral Philosophy, Greek, or some modern language, but no extra marks are awarded for these subjects.

Professional Examination.—The candidate must pass an examination in the following subjects: i. Principles and Practice of Medicine, including Psychological Medicine, Hygiene, and Therapeutics; ii. Principles and Practice of Surgery; iii. Midwifery and Diseases peculiar to Women and Children; iv. Pathology, Medical and Surgical; v. Anatomy, Medical and Surgical; vi. Medical Jurisprudence and Toxicology. The examination is conducted by means of printed papers, clinically, in the Royal Infirmary, Newcastle, and *viva voce*. The classical portion of the examination may be taken separately from the professional, on payment of a portion (£10 10s.) of the full fee.

Foreign and Colonial Practitioners.—Natives of India or the British Colonies are placed on the same footing as natives of Great Britain. Natives of India may produce evidence from an Indian university that they have passed within one year an examination in Latin, and in Greek, Persian, or Sanskrit.

Fees.—The inclusive fee is fifty guineas; if a candidate fail to pass twenty guineas are retained, but if he present himself again forty guineas only are required.

Dates, etc.—The examinations are held twice a year at the end of April and of September. Notice, accompanied by the fee and certificates, must be sent to Frederick Page, M.A., M.D., Registrar of the University of Durham College of Medicine, Newcastle-on-Tyne, at least 28 days before the commencement of the examination.

University of St. Andrews.

The degree of M.D. may be conferred on any registered medical practitioner above the age of 40, of approved professional position and experience, and who shall pass a satisfactory examination in (1) Materia Medica and General Therapeutics, (2) Medical Jurisprudence, (3) Practice of Medicine and Pathology, (4) Surgery, (5) Midwifery and Diseases of Women and Children. Certificate of age, and certificates from three medical men of acknowledged reputation as to position and experience, must be sent in.

Fees.—The fee is 50 guineas, inclusive of stamp duty, and a Registration Fee of £1. Only 10 such degrees are conferred in any one year.

University of Brussels.

British practitioners of medicine holding legal, medical, and surgical qualifications are, in common with legally qualified practitioners in other countries, admissible without further curriculum to the examinations for the degree of M.D. of the University of Brussels.

Examination.—The examination is divided into three parts. The "First Doctorate" includes Medicine, Pathology (with microscopical examination), Therapeutics, Mental Diseases,

and Diseases of Women and Children. The "Second Doctorate" comprises Surgery, Ophthalmology, Midwifery, Hygiene, and Medical Jurisprudence. The "Third Doctorate" consists of clinical examination in Medicine and Surgery, examination in Midwifery with the mannequin, Operative Surgery (amputation, ligature of arteries in the dead subject), and Regional Anatomy with Dissections. Special importance is attached to practical knowledge. The examination is conducted in French through an official interpreter, but most of the examiners, it is stated, speak English fluently. The examination is *viva voce*, but a written examination may be obtained on paying a special fee of £1 for each part.

Dates.—The examinations take place on the first Tuesday in November, December, February, May, and June. It is desirable that the candidate should arrive in Brussels on the previous Saturday before 2 P.M. at latest. The whole examination (First, Second, and Third Doctorates) may be got through in about a week.

Fees.—Candidates are required to leave their diplomas with the Registrar of the University prior to the examination. The fees are for inscription of name, £8 12s.; for examination, £13; for legalisation of diploma, 8s; total, £22. If a candidate fail in the first part of the examination the fees for the second and third are returned to him; if in the second, the fees for the third. A rejected candidate may present himself again in three months on paying one half of the examination fees.

Further particulars may be obtained from Dr. Major Greenwood, Hon. Sec. Brussels Medical Graduates' Association, 243, Hackney Road, London, N.E. An article containing a full description of everything concerning the degree was published in the British Medical Journal on September 15th, 1888.

N.B.—This degree, if obtained subsequent to June, 1887, is not registrable.

PUBLIC HEALTH OR STATE MEDICINE.

A medical officer of health of any county or county district, or of any metropolitan district, or the deputy of any such officer, must be legally qualified for the practice of Medicine, Surgery, and Midwifery, and also either be registered in the *Medical Register* as the holder of a diploma in Sanitary Science, Public Health, or State Medicine under Section 21 of the Medical Act, 1886, or have been, during three consecutive years preceding the year 1892, a medical officer of a district or combination of districts in London or elsewhere with a population, according to the last published census, of not less than 20,000, or have, before the passing of the Local Government Act, 1888, been for not less than three years a medical officer or inspector of the Local Government Board.

Certain regulations for candidates for diplomas in Public Health have been laid down by the General Medical Council, and are binding on any candidate who may have been registered or become entitled to be registered as a medical practitioner after January 1st, 1890. These regulations are designed to ensure "the possession of a distinctively high proficiency, scientific and practical, in all the Branches of study which concern the Public Health." The Executive Committee of the General Medical Council has power in special cases to admit exceptions to the rules. The regulations are as follows: "(*b*) A period of not less than twelve months shall elapse between the attainment of a first registrable qualification in Medicine, Surgery, and Midwifery and the examination for a diploma in Sanitary Science, Public Health, or State Medicine. (*c*) Every candidate shall have produced evidence of having attended, after obtaining a registrable qualification, during a period of six months practical instruction in a laboratory approved of by the body granting the qualification. (*d*) Every candidate shall have produced evidence that, during a period of six months after obtaining a registrable qualification, he either has practically studied the duties of outdoor sanitary work under the medical officer of health of a county or large urban district, or else has himself held appointment as medical officer of health under conditions not requiring the possession of a special sanitary diploma. (*e*) The examination shall be conducted by examiners specially qualified, and shall comprise laboratory work as well as written and oral examination."

The rules as to study do not apply to "(1) Medical practitioners registered, or entitled to be registered, on or before January 1st, 1890; (2) Registered medical practitioners who have for a period of three years held the position of medical officer of health to any county, or to any urban district of more than 20,000 inhabitants, or to any entire rural sanitary district."

The examinations for diplomas in Public Health, granted by the various Universities and Medical Corporations, and the courses of study required are adapted to meet the regulations of the General Medical Council, and, as a rule, to fulfil the recommendations issued by that body from time to time. It will be unnecessary to recapitulate in every case details of this nature.

Books.

Inquiries are often made with regard to the most suitable books to be read by practitioners preparing for examinations in Public Health. The following list issued by the University of Cambridge will be found useful. It is not, of course, intended that candidates should read all, or even the majority, of these works, but it will not be difficult to make a selection. The books marked (*) may be used for reference.

Parkes's *Manual of Practical Hygiene* (Churchill); Wynter Blyth's *Manual of Public Health* (Macmillan); Grimshaw and others, *Manual of Public Health for Ireland* (Fannin, Dublin; and Longmans); Cameron's *Manual of Hygiene* (Hodges, Foster, and Co., Dublin; and Baillière, Tindall, and Cox); Seaton's *Handbook on Vaccination* (Macmillan); McVail's *Vaccination Vindicated* (Cassell); *Reports of the Royal Commission on Vaccination; *Army Medical Reports, *Reports on Hygiene* (Eyre and Spottiswoode); *Reports to Privy Council and Local Government Board by their Medical Officer (Eyre and Spottiswoode); Simon's works (Churchill).

On Chemistry; General Principles.—Watt's *Manual of Chemistry* (Churchill); Bloxam's *Chemistry* (Churchill); Roscoe's *Lessons in Elementary Chemistry* (Macmillan); *Miller's *Chemistry* (Longmans); *Thorpe's *Dictionary of Applied Chemistry* (Longmans).

Analysis.—Sutton's *Systematic Handbook of Volumetric Analysis* (Churchill); Frankland's *Water Analysis for Sanitary Purposes* (Van Voorst); Wanklyn and Chapman's *Water Analysis* (Trübner); Hartley's *Air and its Relations to Life* (Longmans); Wanklyn's *Air Analysis* (Trübner); C. Fox, *Sanitary Examinations of Water, Air, and Food* (Churchill); Wynter Blyth's *Foods, Composition and Analysis* (Griffin).

Physics.—Everett's *Textbook of Physics* (Blackie); Ganot's *Physics* (Longmans); Deschanel's *Physics* (Blackie); *Daniell's *Textbook of the Principles of Physics* (Macmillan).

Microscopy.—Macdonald's *Guide to Microscopical Examination of Drinking Water* (Churchill); Davis's *Practical Microscopy* (Allen); *Cornil and Babes's *Les Bactéries* (Alcan); Crookshank's *Manual of Bacteriology* (Lewis); Klein's *Micro-organisms and Disease* (Macmillan); *Flügge's *Micro-organisms* (New Sydenham Society).

Sanitary Engineering, Water Supply, Sewage, etc.—Eassie's *Sanitary Arrangements for Dwellings* (Smith, Elder, and Co.); Galton's *Healthy Dwellings* (Clarendon Press); Corfield's *Dwelling Houses, their Sanitary Construction and Arrangements* (Lewis); *Bailey-Denton, *Sanitary Engineering* (Spon); *Latham's *Sanitary Engineering* (Spon); *Bayles's *House Drainage and Water Service* (Williams, New York); Tomlinson's *Warming and Ventilation* (Lockwood); Corfield's *Treatment and Utilisation of Sewage*, 3rd edition, 1887, by Corfield and L. Parkes (Macmillan); *Report of Committee appointed by President of Local Government Board on Modes of Treating Town Sewage (Eyre and Spottiswoode); *Reports of Royal Commission on Pollution of Rivers, especially the Sixth on Doncaster Water Supply (Eyre and Spottiswoode); *Reports (two) of Royal Commission on Metropolitan Sewage Discharge; *Report from Select Committee on Public Health Act (1875) Amendment Bill, with the Evidence (Eyre and Spottiswoode); *R. Angus Smith's *Air and Rain* (Longmans).

On the Laws of the Realm and By-laws relating to Public Health.—For England: Public Health Act, 1875, and the Acts of Parliament relating to the various subject-matters within the domain of Hygiene passed since that date; Housing of the Working Classes Act, 1890; Vaccination Acts. For the Metropolis, or for Scotland, or for Ireland: Laws dealing with the same subject-matters as the above, and having application to the particular part of the United Kingdom; Model By-laws of the Local Government Board (Eyre and Spottiswoode), or the same annotated (Knight); Adulteration of Foods and Drugs Acts.

Statistics.—Newsholme's *Vital Statistics* (Sonnenschein); Lewis's *Digest of the English Census* (Stanford); *The articles on "Statistics" in the *Cyclopædia of Anatomy and Physiology* (Longmans); *Papers by Mr. Noel Humphreys in the *Journal of the Statistical Society*; *Dr. Farr's *Vital Statistics* (Stanford); *Dr. Farr's letters to the Registrar-General in the early Reports of the Registrar-General; *Reports of the Registrar-General (Eyre and Spottiswoode); *Deaths in England, Average Annual Proportion of Deaths, etc., 1861-70, Parliamentary Paper C. 874, Session 1873 (Eyre and Spottiswoode).

Construction of Hospitals.—Miss Nightingale's *Notes on Hospitals* (Longmans); Galton, *On the Construction of Hospitals* (Macmillan); Burdett,

Cottage Hospitals (Churchill); **Hospital Construction and Organisation*—Johns Hopkins Essays (W. Wood and Co.); **Mouatt and Snell's Hospital Construction and Management* (Churchill); **L'Etude et les Progrès de l'Hygiène en France*, article "Hôpitaux et Hospices" (Masson); **Dr. Thorne's Report on Infectious Hospitals*—Local Government Board (Eyre and Spottiswoode); **De Chaumont*, article "Hospitals" in the *Encyclopædia Britannica*, ninth edition.

The books recommended in the regulations for the licence in Sanitary Science and the degree of B.Hy. in the University of Durham are:

Professor A. Wynter Blyth, *Manual of Public Health*; Dr. Louis C. Parkes, *Hygiene and Public Health*; Dr. George Wilson, *Handbook of Hygiene*.

Bacteriology.—Professor Cruikshank, *Manual of Bacteriology*.

Sanitary Chemistry and Physics.—Dr. C. B. Fox, *Sanitary Examination of Water, Air, and Food*; Professor Wanklyn, *Analysis of Food and Water*; Mr. Noel Hartley, *Air, Water, and Disinfectants*.

Professor Corfield, *Dwelling Houses*; Professor Walley, *Meat Inspection*; Aitken's *Practice of Physic*—Medical Geography.

Law.—Knight and Co.'s *Public Heath Acts* (latest edition); Infectious Diseases Prevention Act, 1890; Housing of the Working Classes Act, 1890; Public Health Acts (Amendment) Act, 1890; Knight's *Model By-laws*.

University of Cambridge.

A diploma in Public Health is granted by the University, and any person whose name is on the *Medical Register* may apply to be examined provided that he can show that he has complied with the regulations laid down by the General Medical Council (see Regulations *(b)*, *(c)*, *(d)*, page 539). (These regulations do not apply to candidates registered or entitled to be registered on or before January 1st, 1890.)

The examination, which is held twice a year, on the first Tuesday in April and October respectively and three or four following days, is divided into two parts, both of which are partly oral and practical, and partly in writing. They may both be passed together. A fee of £5 5s. must be paid before admission to either part.

Part I comprises Physics and Chemistry. Candidates will be expected to show a general knowledge of the principles of chemistry, and of details which have a direct bearing on sanitary questions, and further a sufficient acquaintance with analytical chemistry to be able to interpret correctly the results of professional analysis and to apply ordinary chemical physical methods for the examination of samples, though not to make complete quantitative analyses of air, water, and food. Candidates will be expected to show a practical acquaintance with the use of the microscope and with the methods of bacteriological examination. They will also be examined in the laws of heat and the principles of pneumatics, hydrostatics, and hydraulics, with especial reference to ventilation, water supply, drainage; construction of dwellings, disposal of sewage and refuse, and sanitary engineering in general; sources of water supply; statistical methods in relation to public health.

Part II.—Candidates must show acquaintance with the sanitary laws in force in England, or the metropolis, or Scotland, or Ireland. They will be examined also on Epidemiology (including the distribution of disease in the United Kingdom, and the effects of soil and climate, vaccination, disinfectants, management of epidemic outbreaks, construction of hospitals, and vital statistics); on the effects of bad air, water, and food, and of unhealthy occupations; on water supply and drainage; on nuisances injurious to health; and on the inspection of factories, mines, workshops, schools, and common lodging-houses.

Applications for further information should be addressed Dr. Anningson, Waltham-sal, Cambridge, who will also supply particulars as to the course of instruction provided in the University.

Application for admission to the examination must be made to Mr. J. W. Clark, Registrary, University of Cambridge, not later than March 13th or September 21st, and must be accompanied by the proper fee. A candidate who has not been on the *Medical Register* for three years must show that he is in his 24th year at least when he presents himself for Part I. and at least 24 years old when he presents himself for Part II.[1]

[1] The Examination Papers set at former examinations can be obtained at the Cambridge University Press Warehouse, Ave Maria Lane, London. Price, 1s. each set, or by post 1s. 2d.

University of Oxford.

Certificates of proficiency in Preventive Medicine and Public Health are granted to persons holding the degree of M.B.Oxon., who shall pass a special examination, held annually in Michaelmas Term. The subjects of examination are Hygiene, Sanitary Law, Sanitary Engineering, and Vital Statistics. [This examination is at present suspended.]

University of London.

The University does not grant a Diploma in Public Health, but Sanitary Science is made a branch of the M.D. Examination, which is only open to persons holding the degree of M.B.Lond. Candidates must in addition have complied with the regulations laid down by the General Medical Council (see Regulations *(b)*, *(c)*, *(d)*, page 539).

Victoria University.

A Diploma in Sanitary Science is granted after an examination, which begins on the third Monday in July in each year. The candidate must fulfil the requirements laid down by the General Medical Council (see Regulations *(b)*, *(c)*, *(d)*, page 539. The examination is divided into two parts; the subjects in each part, and their scope, as defined in the regulations of the University, so nearly coincide with those of the University of Cambridge that it is unnecessary to reproduce them. Special mention is, however, made of the use of meteorological instruments, of the diseases of animals in relation to the health of man, and of "Sanitary Reporting," every candidate being expected to visit and report upon the sanitary condition of some actual locality assigned to him by the examiners.

Each part of the examination occupies two days, and the fee for each part is £4 4s. Application for admission to the examination must be made to the Registrar of the University, Owens College, Manchester, not later than July 1st, and the fee must be paid on or before July 5th.

Conjoint Board in England.

The diploma in Public Health of the Royal College of Physicians of London and the Royal College of Surgeons of England is granted to persons whose names are on the *Medical Register*, subject, so far as concerns those who have registered after January 1st, 1890, to the conditions laid down by the General Medical Council in Regulations *(b)*, *(c)*, and *(d)*. The examination is held in two parts, and Part I may be passed before fulfilling *(d)*. The subjects of the two parts of the examination are as follows:

Part I.—1. Physics, in their application to Health, with reference to—*(a)* Warming and Ventilation; *(b)* Water Supply, Sewerage, and Drainage; *(c)* Sanitary Construction. 2. Meteorology in relation to Health. 3. Chemistry with special reference to Food, Air, Soil, and Water. 4. Microscopical Examinations as applied to Air, Food, and Water. 5. Geology and Soil in their relation to Drainage and Water Supply.

Part II.—1. The origin, development, and prevention of Disease with reference to: *(a)* Special Pathology of Epidemic and Endemic Diseases, including the Natural History of the Specific Organisms of Diseases; *(b)* Influence of Climate, Season, and Soil; *(c)* Effects of Unwholesome Air, Water, and Diet; *(d)* Diseases of Animals in relation to the Health of Man; *(e)* Influence of Occupation and Lodgment; *(f)* Isolation, Quarantine, Disinfection, Vaccination. 2. Sanitary Work and Administration with reference to: *(a)* Health requirements of Houses, Villages, and Towns; *(b)* the Sanitary Regulations of Households, Establishments, and Occupations, including the Construction and Arrangement of Hospitals; *(c)* the Prevention and Control of Epidemic and Endemic Diseases. 3. Statistics in Relation to Health. 4. Statutes, Orders, and By-laws relating to Public Health. 5. Duties of Sanitary Authorities and their Officers. (The candidates may be required to visit and report on some premises selected by the examiners.)

The obligatory course of Laboratory Instruction must include the following subjects:

1. Physics. Gases; examination of their physical properties; their weight and bulk under varying alterations of pressure and temperature, and the movements thereby set up; diffusion, with especial reference to warming and ventilation. Anemometers, and their use. Liquids; their physical properties, their pressure, and flow through tubes and conduits;

their action on gases. Meteorological instruments, their construction and use. Barometers, thermometers, hygrometers, rain gauges. II. Chemistry. The analysis of water for drinking purposes, including the qualitative and quantitative estimation of total solids (lime, magnesia, chlorides, sulphates, nitrates and nitrites, ammonia and lead), and loss on ignition of solids; determinations of hardness, of organic impurities, and of acidity and alkalinity. Chemical methods of treating sewage. The examination of air for the detection of polluting gases. Simple methods of eudiometry. Estimation of the quantity of carbon dioxide in air. III. Microscopy. The recognition of the constituents of food, such as starches and muscular fibre. The recognition of the chief fibres of clothing, such as wool, cotton, and silk. The recognition of constituents of ordinary dust and deposits from water. IV. Bacteriology, including the cultivation and recognition of micro-organisms. V. Parasites and other organisms infesting foods stuffs or the human body.

The two parts may be passed separately or at the same time. The fee for each is £5 5s., and must be paid three days before the examination commences. Fourteen days' notice must be given to the Secretary at the Examination Hall, Victoria Embankment, from whom further particulars and the dates of the examinations (which are held in the months of January and June) may be obtained.

University of Durham.

The University grants a licence in Sanitary Science and the degrees of Bachelor in Hygiene (B.Hy.) and Doctor in Hygiene (D.Hy.).

Licence in Sanitary Science.—The candidate must be a registered medical practitioner, and, subsequent to qualification, must have attended special courses during a winter and summer session at the University of Durham College of Medicine, Newcastle-on-Tyne. A candidate registered, or entitled to be registered, on or before January 1st, 1890, is not required to attend the instruction in Newcastle. The examination comprises Sanitary Chemistry, Physics, Sanitary Legislation, Vital Statistics, Meteorology, Sanitary Medicine, and Practical Hygiene. The candidate is required further (1) to pass an examination on Medical Clinical Cases at the City Hospital for Infectious Diseases, or elsewhere; (2) to report upon the Condition of some actual Locality; (3) to analyse Liquids and Gases and Specimens of Food; (4) to describe the Construction and Use of Instruments employed in Meteorology. Formal notice of intention to compete, accompanied by the fee of ten guineas, must be sent at least twenty-eight days previous to the examination, to the Registrar of the University of Durham College of Medicine, Newcastle, from whom schedules and further information may be obtained. When the licence is granted, a further fee of five pounds must be paid to the Rev. Dr. Plummer, Senior Proctor, the University, Durham; for M.B.'s of Durham this fee is reduced to £3. The examination is held in April and September.

Bachelor in Hygiene.—The candidate, who must be a registered medical practitioner of not less than 22 years of age, must, subsequent to qualification, spend one winter and one summer session in attending a special course in Newcastle. The subjects of the examination are the same as those for the licence with the addition of Bacteriology and Nosology. The candidate is also required (1) to pass an examination on Medical Clinical Cases at the City Hospital for Infectious Diseases, or elsewhere; (2) to draw up outlines for Annual or other Reports of a Medical Officer of Health; (3) to report upon the Condition of some Actual Locality; (4) to analyse Liquids, Gases, and Specimens of Food; (5) to describe the Construction and use of Instruments employed in Meteorology, Hygienic Apparatus, and Sanitary Appliances; (6) to examine with the Microscope submitted Specimens; (7) to describe submitted Specimens of Diseased Organs and Tissues (Human and other). Twenty-eight days' notice must be given to the Registrar as above. The fee for the examination is ten guineas; a further fee of £6 is payable to the University of Durham when the degree is conferred. The examination is held in April and September.

Doctor of Hygiene (D.Hy.).—The candidate must be B.Hy., and have been engaged for two years as a Medical Officer of Health subsequent to taking that degree. The candidate is required to write an essay upon some practical hygienic subject. The fee for the examination is £5; a further fee of £6 is payable to the University of Durham upon the grant of the degree.

University of Aberdeen.

The University grants a diploma in Public Health. Candidates for the diploma must have graduated in Medicine in the University, or in a University in the United Kingdom, one year before they receive the diploma; and they must produce evidence of (1) having complied with the regulations of the General Medical Council (see p. 539); (2) of having attended a fever hospital, containing not fewer than fifty beds, for six months; (3) if not a graduate in Medicine of Aberdeen University, of having attended a course in the University in one or more of the subjects embraced in the examination for the diploma. The examination consists of two Parts: Part I (*a*) Physics, Engineering, and Meteorology; (*b*) Chemistry, Microscopy, and Bacteriology. Part II (*a*) General Hygiene; (*b*) Sanitary Law and Vital Statistics. The examination is held in March and July, and notice must be given to the Secretary of the Medical Faculty before the first day of the month in which the examination takes place. A detailed synopsis can be obtained from the Dean of the Medical Faculty. The fee, which must be paid at the time of giving notice, is £5 5s. The fee for re-examination, £1 1s.

University of Edinburgh.

This University confers two degrees in Science in the department of Public Health, namely, Bachelor of Science (B.Sc.) and Doctor of Science (D.Sc.).

Bachelor of Science.—Two examinations must be passed, and the candidate must produce evidence of having complied with the regulations of the General Medical Council (see p. 539), and have taken a degree in Medicine in the University of Edinburgh or in a university recognised by it. The subjects of the First Examination are: (1) Laboratory work, practical, written, and oral; (2) Elements of Experimental Physics, written and oral. The Second Examination may be taken at any time after the First. The candidate must have attended two courses of lectures in the University of Edinburgh. The subjects of the Second Examination are: (1) Medicine in its application to Public Health; (2) Practical Sanitation; (3) Sanitary Law and Vital Statistics; (4) Mensuration and Drawing. The examinations are held in March and July. The fee for each examination is £5 5s. Further particulars may be obtained on application to the Convener of the Science Degrees Committee, at the office of the Faculty of Medicine, University New Buildings, where the schedules for examinations are issued and the certificates of candidates examined.

Doctor of Science.—Bachelors of Science in the Department of Public Health may, after the lapse of one year, proceed to the degree of Doctor in the same Department, on producing evidence that they have been engaged in Practical Sanitation since they took the said degree of Bachelor of Science, and on presenting a Thesis on some subject in the Department of Public Health. Every such Thesis must be certified by the candidate to have been composed by himself, and must be approved by the examiners. The Thesis must be lodged with the Convener of the Science Degrees Committee on or before April 30th, in the year in which the candidate proposes to graduate. The fee is £5 5s.

University of Glasgow.

The diploma in Public Health may be obtained by any Bachelor of Medicine of the University on his passing the required examination twelve months at least after he has taken the degree of M.B. Every candidate for a diploma in Public Health shall produce certificates giving sufficient evidence: (1) that after obtaining the degree of M.B. he has undergone the practical laboratory training required by the General Medical Council (see page 539); (2) that he has for six months practically studied the duties of outdoor sanitary work under the medical officer of health of a county or large urban district.

The examination is written, practical, and oral. The subjects of examination are as follows: (*a*) Physics, Meteorology, and Climatology; (*b*) Chemistry and Biology; (*c*) General Hygiene; (*d*) Sanitary Law and Vital Statistics. The fee for the examination is five guineas. A course of instruction is provided by the University, the fee for which is ten guineas.

The Conjoint Board in Scotland.

The Royal Colleges of Physicians and Surgeons of Edinburgh and the Faculty of Physicians and Surgeons of Glasgow

will grant a conjoint diploma in Public Health, after examination by a Board on which these bodies are represented. Candidates qualified before 1890 will be admitted without evidence of special instruction (though even in their case such instruction is strongly recommended). Other candidates must produce evidence of attendance (subsequent to obtaining first qualification) for six months in a Public Health Laboratory, and for six months under a Medical Officer of Health of a county or large urban district. There are two examinations, and candidates may present themselves for both of them at one period, or for either examination separately. The First Examination embraces the following subjects in their relation to Public Health: Chemistry, Laboratory Work, Physics, and Meteorology. The Second Examination includes Epidemiology, Endemiology, Vital Statistics, Practical Sanitation, and Sanitary Law. The various subjects of both examinations are detached and limited by synopses given. The laboratory work embraces not only Chemical Analyses, but also Microscopical Examination, Bacteriology, Parasites, etc. At the Second Examination each candidate is required to submit a report on the sanitary condition of premises to which he may be sent for the purpose, and is examined on the Acts of Parliament included under "Sanitary Law." The fee is ten guineas, or five guineas in respect of each examination; and candidates referred are readmitted on the fee of three guineas in respect of each examination. The examination is held in Edinburgh or in Glasgow, there being two periods of examination yearly. Application for examination in Edinburgh to be sent to Mr. James Robertson, 1, George Square, Edinburgh; and in Glasgow to Mr. Alexander Duncan, 242, St. Vincent Street, Glasgow.

University of Dublin.

The diploma in State Medicine is conferred after examination upon M.D.'s or graduates in Medicine and Surgery of Dublin, Oxford, or Cambridge. The name of the candidate must have been on the *Medical Register* at least twelve months before the examination, and, subsequent to registration, the candidate must have completed six months' practical instruction in a laboratory approved by the University, and have studied practical outdoor sanitary work for six months, under an approved officer of health. [This condition does not apply to candidates registered or entitled to be registered on or before January 1st, 1890.] The examination is held in December, and candidates are required to send in their names at least a week before the first day of the examination to the Registrar of the School of Physic, from whom a full syllabus of the examination can be obtained. The subjects of examination are: State Medicine and Hygiene (paper); Chemistry (paper and laboratory); Physics and Meteorology (oral); Engineering (paper); Morbid Anatomy (oral); Vital Statistics (paper); Medical Jurisprudence (oral); Law (paper).

Further particulars can be obtained on application to the Registrar of the School of Physic, Dublin.

Royal University of Ireland.

The University grants a diploma in Sanitary Science, but only to graduates in Medicine of the University. The fee is £2. Further particulars will be found in the *Calendar* (see page 519).

Conjoint Examining Board in Ireland of the Royal College of Physicans and the Royal College of Surgeons.

A diploma in State Medicine is granted by these two Colleges after an examination conducted by them jointly. Candidates are required to comply with the regulations of the General Medical Council (see page 539). The regulations as to study do not apply to practitioners registered or entitled to be registered on or before January 1st, 1890. The examination comprises the following subjects: State Medicine and Hygiene, Chemistry, Meteorology and Climatology, Engineering, Morbid Anatomy, Vital Statistics, Medical Jurisprudence, Law. The candidates will be examined orally in the Law of Evidence, and practically in the reading of Plans, Sections, and Scales, as well as in Analytical Chemistry, with special reference to Air, Water, and Food, including the use of the Microscope. They will also be required to read meteorological instruments, and to explain their construction; and they may be called upon to make a practical Sanitary Report.

The candidate must return his name to the Secretary of the Committee of Management under the Conjoint Scheme, 47, Dawson Street, Dublin, three weeks before the examination, and lodge with him a testimonial of character from a Fellow of either of the Colleges, or of the Royal Colleges of Physicians or Surgeons of London or Edinburgh.

The fee for the examination is ten guineas; for re-examination, five guineas; the examinations begin on the Tuesday following the first Friday of the months of February, May, and November. The examination lasts three days.

A Special Examination for the diploma can be obtained on payment of five guineas, in addition to the ordinary fees mentioned above, and on giving notice at least one fortnight before the date of the proposed examination.

Schedules of the subjects can be obtained from the Secretary.

Instruction and Laboratory Classes.

Courses of lectures and laboratory instruction to suit the requirements of candidates for diplomas in Public Health have been organised at the following schools, and could probably be arranged for at other schools and colleges.

London.

St. Bartholomew's Hospital.—Inclusive fee, 20 guineas.
Charing Cross Hospital.—Inclusive fee, 20 guineas.
St. George's Hospital.—Inclusive fee, 20 guineas; for candidates registered before January 1st, 1890, 12 guineas.
Guy's Hospital.—Inclusive fee for six months' course of Laboratory Instruction and Lectures, 20 guineas.
King's College.
London Hospital.—Inclusive fee, 20 guineas; three months' course, 12 guineas.
St. Mary's Hospital.—Six months' course, inclusive fee, 12 guineas.
St. Thomas's Hospital.—Inclusive fee, 20 guineas; short course, 6 guineas.
University College.
College of State Medicine.

Provincial.

Cambridge University.
Mason College, Birmingham.
University College, Liverpool.
Yorkshire College, Leeds.
University of Durham College of Medicine.
University College, Bristol.

Ireland.

School of Physic, Dublin.
The Catholic University School of Medicine.
Royal College of Surgeons, Schools of Surgery, Dublin.

PSYCHOLOGICAL MEDICINE.

The facilities for the study of mental diseases are now vastly increased, and in addition to the regular lectures given in the different medical schools, post-graduate lectures are also given at the Bethlem Royal Hospital in connection with the London Post-Graduate Course, of which Dr. Fletcher Little, of Harley Street, is the honorary secretary. The London County Council is proposing to throw open their large asylums, and contemplate applying to the Conjoint Medical Boards for the recognition of all of them as teaching hospitals. Dr. Savage, at Guy's, and Dr. Rayner, at St. Thomas's, have special classes, with clinical instruction, at Bethlem Royal Hospital; Professor E. W. White lectures at King's College, and gives clinical instruction at the City of London Asylum, near Dartford; Dr. Hack Tuke is the Lecturer at Charing Cross; Dr. Claye Shaw at St. Bartholomew's; Dr. Mickle at Middlesex; Sir James Crichton-Browne at St. Mary's; Dr. C. Mercier at Westminster.

In the provinces, also, each medical school has a Lecturer on Psychological Medicine, who gives clinical instruction in a neighbouring asylum; and in Scotland and Ireland similar arrangements exist.

The Royal University in Ireland grants a diploma for proficiency in the treatment of mental diseases under the following conditions:—

The diploma is conferred only on Graduates in Medicine of the University.

Candidates must give notice, in writing, to the Secretaries of their intention to present themselves, and must pay the prescribed fee of £2 at least one month previous to the examination.

Candidates who satisfy the examiners will be required to pay a further fee of £3 before the diploma is conferred.

The subjects for this examination are those prescribed for the Hutchinson Stewart Scholarship for proficiency in the treatment of Mental Diseases.

The Medico-Psychological Association of Great Britain and Ireland also grants a Certificate in Psychological Medicine after a course of training, according to the rules of the Association, to candidates registered under the Medical Act. The examinations are held in London, Scotland, and Ireland twice a year. The fee for the examination is £3 3s. Full particulars may be obtained from the General Secretary, Dr. Fletcher Beach, 64, Welbeck Street, W. The Medico-Psychological Association further gives a Bronze Medal and £10 10s. to Asylum Assistant Medical Officers for the best dissertation on any clinical or pathological subject relating to insanity, and also the Gaskell Prize, value £30.

OPENING OF THE MEDICAL SCHOOLS.

According to long-established custom, the Medical Schools and Colleges in England open for the winter session in the first week in October. The day and time of opening is in nearly every case this year the afternoon of Monday, October 2nd. In some instances, specified below, the session will be opened by an introductory address; in others the opportunity will be taken to distribute prizes gained during the winter session of 1892-93 and the summer session of 1893; while in others again the only celebration of the occasion will be by a dinner of past and present students.

Metropolitan.

Charing Cross Hospital Medical School—Monday, October 2nd.

Guy's Hospital Medical School—Monday, October 2nd.

King's College, London, Medical Faculty—Tuesday, October 3rd; old students' dinner at Limmer's Hotel on October 2nd.

London Hospital Medical College—Monday, October 2nd; dinner of the past and present students in the New Library at 7 P.M., Sir Andrew Clark, Bart., M.D., F.R.S., in the chair.

London School of Medicine for Women—Monday, October 2nd; opening address by Miss Helen Webb, M.B.Lond., at 3.30 P.M.

Middlesex Hospital Medical School—Monday, October 2nd; introductory address by Dr. W. Pasteur at 3 P.M., followed by the annual distribution of prizes; in the evening, at the Holborn Restaurant, annual dinner of past and present students at 7 P.M., Mr. Arthur Hensman, F.R.C.S., in the chair.

St. Bartholomew's Hospital and College—Monday, October 2nd; annual dinner of old students, Dr. Andrew in the chair.

St. George's Hospital Medical School—Monday, October 2nd, at 4 P.M., introductory address in commemoration of the centenary of John Hunter, by Mr. Timothy Holmes, M.A., F.R.C.S.; annual dinner at the Whitehall Rooms, Hôtel Métropole at 6.30 for 7 P.M.

St. Mary's Hospital Medical School—Monday, October 2nd, at 4 P.M.; introductory address by Mr. J. E. Lane, F.R.C.S.; annual dinner of past and present students at the Hôtel Métropole, Mr. H. W. Page, M.B., F.R.C.S., in the chair.

St. Thomas's Hospital Medical College—Tuesday, October 3rd, at 3 P.M.; distribution of prizes by the Right Hon. Lord Thring, K.C.B.; annual dinner of past and present students at the Whitehall Rooms, Hôtel Métropole, at 6.30. P.M., Mr. A. O. Mackellar in the chair.

University College, London, Faculty of Medicine—Monday, October 2nd, at 4 P.M.; introductory lecture by Mr. Bilton Pollard, B.S., F.R.C.S. Dinner of past and present students at the Hôtel Métropole, Mr. Christopher Heath, F.R.C.S., in the chair.

Westminster Hospital Medical School—Monday, October 2nd, at 4 P.M.; introductory address by Dr. Hebb, followed by the distribution of prizes by the Rev. A. Alford Jones; annual dinner at the Holborn Restaurant on Monday, October 2nd, at 7 P.M., Dr. Donkin in the chair.

Pharmaceutical Society School of Pharmacy—Monday, October 2nd; inaugural address by Dr. Lauder Brunton.

Provincial.

Birmingham, Mason College—Monday, October 2nd.

Bristol, University College—Monday, October 2nd.

Leeds, The Yorkshire College—Monday, October 2nd, at 4 P.M.; introductory address by Dr. T. Clifford Allbutt, F.R.S., Regius Professor of Physic in the University of Cambridge; Professor Allbutt will also distribute the prizes.

Liverpool, University College—Monday, October 2nd.

Manchester, Owens College—Monday, October 2nd.

Newcastle, University of Durham College of Medicine—Tuesday, October 3rd.

Cardiff, University College of South Wales and Monmouthshire—Tuesday, October 3rd.

Sheffield School of Medicine, Firth College—Monday, October 2nd; introductory address at 4.30 P.M. by Sir James Crichton-Browne, M.D., LL.D., F.R.S. (Lecturers and local members of the profession will meet Sir James Crichton-Browne at dinner at the Royal Victoria Hotel.)

Scotland.

Aberdeen University—Monday, October 16th.

Dundee, University College—Tuesday, October 10th.

Edinburgh University—Tuesday, October 10th.

Edinburgh School of Medicine, Rooms and Laboratories—Monday, October 2nd; lectures, Tuesday, October 10th.

Edinburgh School of Medicine for Women—Tuesday, October 10th.

Glasgow University, Thursday, October 19th—Introductory address by Professor Charteris, M.D.

Glasgow, St. Mungo's College and Royal Infirmary—Wednesday, October 18th; address by Professor R. T. Kent, F.R.C.S.

Glasgow, Anderson's College Medical School—Thursday, October 19th; introductory address by Professor Thomas King.

Glasgow, Queen Margaret's College School of Medicine for Women—Thursday, October 19th.

Ireland.

Cork, Queen's College—Monday, October 23rd.

Dublin, Trinity College School of Physic, Dissecting Room and Chemical Laboratories—First week in October; lectures begin first week in November.

Dublin, Catholic University Medical School—Monday, October 2nd; introductory address by Dr. C. J. Nixon, Dean.

Dublin, Royal College of Surgeons, Schools of Surgery. Dissecting Rooms—First week in October; lectures, first week of November.

Dublin, Adelaide Medical and Surgical Hospitals—Monday, October 2nd. The Hudson Scholarship and Prize, with medical and surgical prizes for session 1892-3, will be presented to the successful students.

Dublin, City of Dublin Hospital—First week in October.

Dublin, Jervis Street Hospital—Monday, October 2nd.

King's College, London.—The following changes in the staff have occurred during the past year:—Sir Joseph Lister, Bart., has given up his charge of beds, and Mr. A. Boyce Barrow has been promoted to a full surgeoncy: Mr. G. L. Cheatle and Mr. P. T. Beale have been appointed assistant-surgeons. Professor Duffin will join Professor Beale in discharging the duties of the chair of systematic medicine: Dr. Dalton will have the sole charge of the lectures and demonstrations in pathology; and Mr. A. Carless will have the care of the patients in the skin department. Professor J. W. Groves has resigned the chair of botany and vegetable biology, and has been succeeded by Professor W. B. Bottomley, B.A., Ph.D.

THE PUBLIC SERVICES.

THE NAVAL AND MILITARY MEDICAL SERVICES.

THE Medical Services of the Royal Navy, of the Army Medical Staff, and of India offer careers which possess certain advantages, but are not without some drawbacks. The pay offered to the young surgeon on joining is fair, if not generous, and it ought to be possible for him, with care, to live upon it. On the other hand, the prizes of the services are few, and a man without private means may in middle life find himself in somewhat straitened circumstances if he has incurred the responsibility of maintaining and educating a family.

The prospects of officers entering the Indian Medical Service are not now what they were a generation, or even a decade, ago. A variety of circumstances have combined to bring about this unfavourable result, the chief among which may be mentioned the fall in the value of the rupee, which has not only diminished the actual purchasing power in this country of an income derived from India, but has also seriously hampered the financial resources of the Government of India. Representations have been made by the Parliamentary Bills Committee of the British Medical Association to the India Office, and the proposals made are now under the consideration of the Government of India. Medical officers will have the benefit of the recent regulation issued by the Government of India, which has undertaken, in view of the great depreciation in the value of the rupee, to make special allowance to officers whose pay does not amount to £1,000 a year, with regard to so much of that pay as they may wish to transmit to this country. This concession will be a great boon. The Indian Medical Service is a great and honourable service; it affords to earnest men almost unlimited opportunities of clinical work. It places within the reach of the more fortunate administrative posts of much importance and some dignity, and it has a splendid record of past service to the State, and to our Indian fellow subjects.

The Army Medical Department has long laboured under grievances with regard to military rank which sometimes appear to civilians to be mainly of a sentimental character, but which those who have served, or who are serving, know to be very real and substantial. These grievances have been ameliorated by the recent concession of the compound titles of Surgeon-Lieutenant, Surgeon-Captain, Surgeon-Major, Surgeon-Lieutenant-Colonel, Surgeon-Colonel, and Surgeon-Major-General. It is possible, we hope we may say probable, that the Army Medical Staff may eventually be converted into a Royal Corps. The reply received from the Secretary of State for War, which is printed at page 550, shows that, for the present at least, the authorities are indisposed to listen to representations made recently to the Secretary of State by a deputation of the Parliamentary Bills Committee of the British Medical Association.

As to the Medical Service of the Royal Navy, we mention it last, though the Royal Navy is the senior service, because at the present time the position of the Medical Department is on the whole satisfactory to medical officers belonging to it. And no man who feels he has a vocation for the Navy need be deterred from entering its medical department by the fear of meeting with ungenerous or harsh treatment at the hands of the authorities.

All candidates for these services must submit to an examination by a medical board into their physical fitness before being admitted to the entrance examinations. Special attention is given to the candidate's power of vision. A moderate degree of myopia is not considered a disqualification, provided it does not necessitate the use of glasses during operations, and that no organic disease of the eyes exists.[1]

[1] Further particulars as to the standard of eyesight will be found in the pamphlet by Sir J. Fayrer, M.D., K.C.S.I., etc., entitled *Regulations as to Defects of Vision*, etc., published by Messrs. J. and A Churchill, 11, New Burlington Street, London, W. Price 2s.

As the prospects of a medical officer of one of these services attaining to the highest administrative grades depend to a large extent upon the regulations with regard to compulsory retirement at the age of 55 if below a certain grade at that age, there is a distinct advantage in entering the service at as early an age as possible.

ARMY MEDICAL STAFF.

A candidate for a commission in the Army Medical Staff must be over 21 and not over 28 years of age at the date of the commencement of the competitive examination. He must be of unmixed European birth, and must be registered under the Medical Act.[1] He must produce a certificate of moral character, and a certificate to the effect that he is of steady habits, and likely to prove creditable to the department. Before admission to the examination his physical fitness must be determined by the Board of Medical Officers. These and some additional facts of minor importance must be embodied in a "declaration" upon a special form, which may be obtained on application to the Director-General of the Army Medical Department, War Office, London, W., who will also forward a memorandum on conditions of admission, pay, etc.

A competitive entrance examination is held twice a year, generally in February and August. Announcement of the date and of the number of vacancies is made by advertisement in the medical and some other papers.

ENTRANCE EXAMINATION.

The examination consists of two parts:

I. *Compulsory*, the subjects of which are (*a*) Anatomy and Physiology, (*b*) Surgery, (*c*) Medicine, including Therapeutics and the Diseases of Women and Children, (*d*) Chemistry and Pharmacy, and the Practical Knowledge of Drugs; 1,000 marks are given for each division (*a*, *b*, *c*, *d*). The examination in medicine and surgery is in part practical, and includes operations on the dead body, the application of surgical apparatus, and the examination of medical and surgical patients at the bedside. The examination in chemistry is limited to the elements of the science, and to its application to medicine, pharmacy, and practical hygiene.

II. *Voluntary.*—A candidate may be examined in the following voluntary subjects: *(a)* French and German (150 marks each), *(b)* Natural Sciences (300 marks). Competitors are urged to qualify in French and German, as a knowledge of modern languages is considered of much importance. The Natural Sciences include Comparative Anatomy, Zoology, Natural Philosophy, Physical Geography, and Botany with special reference to Materia Medica. A number less than one-third of the marks obtainable will not be allowed to count. An entrance fee of £1 is payable, and no candidate is allowed to compete on more than two occasions.

Successful candidates are arranged in order of merit, and are required to proceed to the Army Medical School at Netley as Surgeons on Probation; they receive an allowance of 8s. a day.

FINAL EXAMINATION.

Surgeons on probation at Netley attend courses in: 1. Hygiene; 2. Clinical and Military Medicine; 3. Clinical and Military Surgery; 4. Pathology of Diseases and Injuries incident to Military Service. At the conclusion of the Netley course a further examination in the subjects there taught is held, for which marks are awarded, and the final position of the candidate is determined by the number of the marks obtained at the Entrance and Final Examinations. On leaving Netley the Surgeon on Probation receives a commission of Surgeon-Lieutenant, the pay of which rank is £200 a year. The next grade is Surgeon-Captain, and after five years' service the pay is £250 a year. A Surgeon-Captain may be pro-

[1] He must have a diploma in medicine and in surgery, but the diploma of the Society of Apothecaries of London, obtained under the conditions of the Medical Act of 1886, is accepted as a double qualification. A candidate is required to produce also the following certificates: (1) Of having discharged the duties of a medical clinical clerk during six months, and of a surgical dresser during another period of six months, of which, in each case, not less than three months must have been spent in the wards of a hospital. (2) Of having attended a course of instruction during not less than three months at an Ophthalmic Hospital, or the Ophthalmic Department of a general hospital, which course shall include instruction in the errors of refraction.

moted to the rank of Surgeon-Major after twelve years' full pay service; to qualify himself for this promotion he must at any time after his seventh year of service pass a special examination in Surgery, Medicine, Hygiene, the Duties of Medical Officers, Hospital Organisation, Military Law, and the Administration of the Medical Staff Corps.

Retired Pay.—All officers under the rank of Surgeon-Colonel must retire at the age of 55; above this rank at the age of 60. An officer of ten years' service on full pay may be permitted to retire on a gratuity of £1,250; after fifteen years' service, £1,800; after eighteen years' service, £2,500.

INDIAN MEDICAL SERVICE.

All natural born subjects of Her Majesty between 21 and 28 years of age may be candidates: the conditions are otherwise the same as for the Army Medical Staff (see above), but there is an additional voluntary subject, Hindustani, for which 150 marks are allowed.[1]

The final order of merit is determined, as in the case of the Army Medical Staff, by the combined results of the Preliminary and of the Final Examinations, and, so far as the requirements of the Service will permit, candidates will have the choice of Presidency in India, according to their position in that list. The examinations are held, as a rule, twice a year, in February and August.

Free passage to India is provided. The rate of pay, until arrival in India, is 10s. a day. The minimum rate of pay in India is stated to be Rs. 317.8 a month. After seventeen years' service for pension the rate of retired pension is £292 a year; after twenty, £365; after twenty-five, £500; after thirty years, £700. Further particulars as to rates of pay, promotion, pensions, and half-pay will be found in Military Department Form 124, which can be obtained on application to the Under-Secretary of State, India Office, London, S.W.

It should be stated that much dissatisfaction is expressed as to the mode in which certain of the provisions as to pay and allowances is interpreted by the authorities. The Parliamentary Bills Committee of the British Medical Association is at present in communication with the India Office with a view of obtaining some remedy of the grievances alleged.

MEDICAL DEPARTMENT OF THE ROYAL NAVY.

The regulations for admission to examination for the Medical Department of the Royal Navy are generally the same as in the case of the Army Medical Staff (p. 544). The candidate must be between 21 and 28 years of age. The entrance examination consists of two parts; in Part I, *Compulsory*, the subjects are the same and the number of marks allowed for each the same as in the Army Medical Staff. Part II, *Voluntary*, consists of two divisions: (*a*) French and German (150 marks each). A knowledge of modern languages being considered of great importance, all candidates are urged to qualify in them. (*b*) Natural Sciences (biology, physics, and physical geography). Candidates will be examined in all, or any, of these sciences. Candidates who qualify in the compulsory subjects will be allowed to count marks in those of the three sciences only in which they obtain one-third of the maximum marks for each.

Biology.—The examination in biology will include the general principles of the science; structure and life histories of the chief animal and vegetable parasites; bacteria and their relation to disease; distinctive characters of the important groups of animals, with a special knowledge of the vertebrata; the elements of embryology; the general morphology and physiology of flowering plants; diagnosis of the chief British natural orders; medicinal plants.

Physics.—The examination in physics will be limited to the general principles of mechanics, acoustics, optics, heat, magnetism and electricity, such as: the properties of solids, liquids, and gases; conservation of energy, specific gravity, propagation and reflection of sound and light, temperature, specific and latent heat, thermometers, conduction of heat, properties of mirrors and lenses, chromatic dispersion of light, chief forms of batteries, faradaic, galvanic and frictional electricity, general properties of magnets.

Physical Geography.—The examination in physical geography will be limited to general principles, such as the relations of the earth to the rest of the solar system, movements of the earth, nature of the earth's crust and the chief kinds of rocks, general configuration of land and water, mountain ranges, plains, lakes, rivers, islands, glaciers and icebergs, the ocean currents, tides, the earth's atmosphere, winds and storms, dew, clouds, rain, climate, general distribution and nature of volcanoes, earthquakes, general distribution of animal and vegetable life.

The order of merit is determined by the total number of marks obtained in the compulsory and voluntary parts.

Successful candidates, immediately after passing the examination, will receive commissions as Surgeons in the Royal Navy, and will undergo a course of practical instruction in Naval Hygiene, etc., at Haslar Hospital.

The rate of pay of Surgeon is on entry, £209 17s. 6d. a year; after four years' full pay service, £246 7s. 6d. a year; after eight years' full pay service, £282 17s. 6d. A Surgeon at the expiration of twelve years' years service may, on the recommendation of the Director-General, be promoted to the rank of Staff-Surgeon, if he has passed the required examination at any time after completion of eight years' service. The pay on promotion is £383 5s.; after four years' full pay service in the rank, £438.

Retirement.—The age for compulsory retirement is 55, except in the case of Inspectors-General and Deputy-Inspectors-General, who retire at 60. Voluntary retirement and withdrawal is allowed as follows:—

(*a*) Every officer will have the option, subject to the approval of the Lords of the Admiralty, of retiring after 20 years' full-pay service on the scale of retired pay, or with a gratuity on the scale provided if not eligible for retired pay. (*b*) At the expiration of 8, 12, or 16 years' full-pay service, every officer will be permitted, subject to their Lordships' approval, to withdraw from the Naval Service, receiving a gratuity on the scale laid down.

Rank.	Gratuities.	Daily.	Yearly.
	£ s. d.	£ s. d.	£ s. d.
Surgeon and Staff-Surgeon:			
After 8 years' full-pay service	1,000 0 0	—	—
,, 12 ,, ,,	1,500 0 0	—	—
,, 16 ,, ,,	2,250 0 0	—	—
Fleet-Surgeon:			
After 20 years' service (including proportion of half-pay time)	—	*1 0 6	365 0 0
After 24 years' service (including proportion of half-pay time)	—	*1 2 6	410 12 6
After 27 years' service (including proportion of half-pay time)	—	*1 5 0	456 5 0
After 30 years' service (including proportion of half-pay time)	—	*†1 10 0	547 10 0
Deputy-Inspector-General ...	—	1 15 0	638 15 0
Inspector-General	—	2 0 0	730 0 0

* To obtain this rate an officer must hold the commission of Fleet-Surgeon.

† Or on compulsory retirement at the age of 55.

A memorandum containing the regulations as to the examinations, and as to rates of pay and retirement and conditions of service and promotion, can be obtained on application to Director-General, Medical Department, Admiralty, Northumberland Avenue, London, W.C.

PRISON MEDICAL SERVICE.

The prison department consists of two branches—the convict service and the local prison service. In the case of the smaller prisons the medical officer is usually a local practitioner, but in the case of the larger prisons the medical officers are appointed by the Convict Prison Board or the Prison Commission, and form practically a special service. The Chairman of both Boards is Sir E. Du Cane, K.C.B., and application for employment may be made to him on a special form which, we understand, can be obtained from his private secretary, Mr. C. S. Joseph, Prison Department, Home Office, London, S.W.

The number of vacancies is not large, and the prospects of promotion bad. This is due in part to the fact that the rate of pay of the higher appointments depends upon the number of prisoners in the particular prison, and that the total number of prisoners in the country is decreasing.[1]

The following was the staff in 1892:

Convict Service: Seven assistant surgeons at £250, rising by

[1] Candidates presenting themselves for examination in Hindustani are recommended to study some recognised textbook, such as the annotated edition of the *Taubat-un-Nasuk*, which is the text used by candidates for the Indian Civil Service.

[1] Intending applicants would do well to consult a memorandum prepared for the use of the Parliamentary Bills Committee of the British Medical Association, and published in the British Medical Journal on April 23rd, 1892.

quinquennial increments of £25 to £300; seven medical officers, at incomes ranging from £300 to £550.

Local Prison Service: Seven assistant surgeons, at £250, rising by quinquennial increments of £25 to £300. Six medical officers at £250. Four medical officers at £320, rising after five years to £350. Four medical officers at £400, rising by quinquennial increments of £50 to £500.

COLONIAL MEDICAL SERVICES.

THERE are a certain number of appointments in the Medical Services of the following Colonies, which are from time to time filled up by the Colonial Office: British Guiana, Jamaica, Trinidad, Windward Islands, Leeward Islands, British Honduras; Fiji; Sierra Leona, Gambia, Gold Coast, Lagos; Ceylon, Straits Settlements, Hong Kong; Cyprus, Gibraltar, St. Helena, and the Falkland Islands.

All applicants for medical employment in the Colonies must be between the ages of 23 and 30, and must be doubly qualified; preference will be given to those who have held hospital appointments as house-physicians and house-surgeons; certificates of moral character and of sobriety will be required, and every officer before being appointed will be medically examined by one of the consulting physicians of the Colonial Office.[1]

Applications for medical employment in the tropical Colonies from persons in the United Kingdom must be addressed to the Private Secretary, Colonial Office, Downing Street, S.W., during the month of April in each year. Out of the total number so applying a list of candidates will be made who will be eligible to fill any vacancies which may occur during the year, but no promise whatever is held out that candidates will eventually receive an appointment.

It is not possible to forecast either the number or the nature of the vacancies which will arise in the course of any given year. The number during the last six years has varied from eight to eighteen, the average being between thirteen and fourteen a year. The list of candidates applying in April usually comprises sixty names. In Ceylon and Jamaica vacancies are almost always filled locally by the appointment of qualified native candidates.

It is for the West Indies and the West African Colonies that medical officers are chiefly required. The majority of the West Indian appointments involve medical charge of a district, including, as a rule, the care of a hospital, poor-house, asylum, or other institution, and free attendance on the aged and children. In West Africa the medical officers are also required to take charge of any hospital, public dispensary, lunatic asylum, or other Government institution at their respective stations, to supervise the sanitation of the district, to perform vaccination, and to give gratuitous attendance to all Government officials, and, in most cases, to the families of such officials also.

The rates of pay vary in the different colonies and depend to some extent upon whether private practice is permitted. In British Guiana the pay starts at £300 a year with quarters, is £500 to an officer in charge of a district, and rises to £900. In Trinidad the salary is £250 with quarters on appointment, £400 for a district appointment, with a quinquennial increment of £50 a year. In the Leeward Islands the salary in most cases is £250, in the Windward it varies from £200 to £400. In the Gold Coast the assistant colonial surgeons are paid £350 a year, rising by triennial increments of £25 to £400. In Lagos the commencing salary is £250, rising by triennial increments of £25 to £300 a year. Full details upon these and other points are contained in a memorandum[2] which will, we understand, be forwarded by the Private Secretary, Colonial Office, London, S.W.

Passage money on first appointment and leave of absence on half pay (in case of sickness or after six years' service, if the medical officer has given satisfaction in the discharge of his duties) are granted to medical officers under the colonial regulations; and those serving in West Africa are allowed six months leave with full pay and free passages home and out again after every twelve or fifteen months of continuous residential service. With regard to pension, medical officers are usually on the same footing as other Government servants, but in cases where private practice is allowed the rule is that they are not entitled to pension except in West Africa.

[1] Dr. Gage Brown, 88, Sloane Street, London, S.W., Sir D. S. Maclagan, 28, Heriot Row, Edinburgh, and Dr. Hawtrey Benson, 57, Fitzwilliam Square, Dublin.

[2] Miscellaneous, No. 90, printed for the use of the Colonial Office.

BRITISH PRACTITIONERS ABROAD.

FOREIGN practitioners can practise medicine in Great Britain without restriction, but unless registered cannot recover their fees by legal process nor give medical evidence in courts of law, nor hold public medical offices. Under the Medical Act of 1886 the General Medical Council may recognise equivalent qualifications granted in countries which treat this country with reciprocity; after certain formalities such qualifications would be registrable. At present, however, no foreign countries have arranged to treat this country with reciprocity, and as a rule British practitioners are required in European countries to pass an examination of more or less severity. The following list contains particulars as to the regulations of the British Colonies as well as of foreign countries:

BRITISH COLONIES AND DEPENDENCIES.

AUSTRALASIA.

Australia.—The applicant must be registered by the Medical Board of the colony in which he proposes to practise. He may be required to prove the genuineness and authenticity of his diplomas.

New Zealand.—Certain legal formalities must be gone through, but there is no examination.

Tasmania.—A diploma must be verified by the Medical Examining Board.

DOMINION OF CANADA.

Except in British Columbia and Ontario it is necessary only to register British diplomas, but evidence of authenticity and genuineness may be required. For this registration a fee is charged, and in some cases there is also an annual tax. In British Columbia the Medical Council of the colony holds an examination, and there is a fee of 100 dollars; in Ontario an examination is held by the College of Physicians and Surgeons of Toronto.

SOUTH AFRICA.

There is a Colonial Medical Council both in the Cape of Good Hope and Natal. British diplomas are registrable after inspection and verification.

WEST INDIES.

British qualifications are everywhere recognised. In some instances they must be registered, for which a small fee is charged.

EUROPE.

Austria.—It is necessary to pass the State examination, or obtain a University Degree in Medicine, and to become an Austrian subject. Exemptions may be granted under very special circumstances.

Belgium.—Upon the advice of a jury which has a right to grant the diploma of Doctor, the Government can give permission to practise medicine to a foreign subject who possesses a diploma in Medicine, Surgery, and Midwifery.

Denmark.—Foreigners are required to pass the State examination.

France.—Under the new law a degree of M.D. obtained by examination before a French faculty will be indispensable.

Holland.—Foreigners are required to pass the State examination.

Germany.—Any person may practise medicine, but if he has not passed the State examination he does so at his own peril, and is liable to fine and imprisonment if convicted of a mistake.

Greece.—A State examination must be passed, but graduates of foreign schools may take their examination in French or English.

Italy.—A foreigner must (*a*) obtain an authorisation (*abilitazione*) from one of the Royal Universities of Italy; or (*b*) if he desire to practise only among foreigners he is at liberty to do so.

Portugal.—The State examination must be passed.

Roumania.—A State examination must be passed (*vivâ voce*).

Russia.—The State examination must be passed; but if the applicant possess the degree of M.D. from a university of high repute, the Minister of Education may give an authorisation after requiring the candidate to compose and defend a dissertation.

Norway.—The State examination must be passed.

Spain.—The State examination must be passed, but exemptions are sometimes granted on application through the British Ambassador.

Sweden.—The State examination must be passed.

Switzerland.—British practitioners are not allowed to practise even among their own countrymen, unless they have passed the State Examination conducted in French or German at one of the Universities—Bâle, Berne, Geneva, or Zurich.

Turkey.—An examination must be passed (fee £1 10s.) at Constantinople.

NORTH AMERICA.

United States.—The law varies in the different States and Territories

A. No regulations or inoperative.

Connecticut	Kansas	Ohio
District of Columbia	Maine	Rhode Island
Indian Territory:	Massachusetts	Utah
Creek Nation		

B. Diploma to be registered with State or county officials.

Arizona	Idaho	Nebraska
Arkansas	Indiana	Nevada
Delaware	Michigan	Wyoming
Georgia		

C. Diploma to be endorsed by a college "in good standing," or by the State Medical Society, or by the State or Territorial Board of Examiners; or by the State Board of Health.

* Signifies that the applicant may be submitted to examination by the State or District Board of Medical Examiners.

*California	Lousiana	Pennsylvania
*Colorado	Maryland	*South Dakota
*Illinois	*Missouri	*Tennessee
*Indian Territory:	*Montana	*Texas
Choctaw Nation	New Hampshire	Vermont
Iowa	*New Mexico	*West Virginia
Kentucky	*Oregon	Wisconsin

D. Candidate is examined by State, Territorial, County, or District Board of Medical Examiners, or Board of Censors.

Alabama	Mississippi	North Dakota
Florida	New Jersey	South Carolina
Indian Territory:	New York	Virginia
Cherokee Nation	North Carolina	Washington
Minnesota		

Mexico.—No special requirements.

SOUTH AMERICA.

Argentine Republic.—The applicant's diplomas must be verified by the Argentine Consul in this country (fee £1 4s.). This should be done before leaving this country. On arriving at Buenos Ayres, the endorsement of the Argentine Consul in this country must be verified by the Argentine Foreign Office. Three examinations must be passed in the University of Buenos Ayres or Cordova:—First Examination: Anatomy with Dissections, Physiology, Pathology, Ophthalmology, and Gynæcology. Second Examination: Clinical and Operative Surgery, Histology, Materia Medica, and Mental Diseases. Third Examination: Clinical Medicine, Pathology, Midwifery, and Toxicology. The fee for examination is 300 dollars, half of which is retained in case of rejection. The examinations can be passed consecutively at a few short intervals or separately; a rejected candidate is not readmitted to examination until after the lapse of six months. The examination is conducted *vivâ voce* in Spanish. Temporary authorisations to practise for six months may be obtained from the governor of a province, and the applicant may utilise this time to improve his knowledge of Spanish. The regulations for graduates of Spanish Universities are less onerous.

Brazil.—A State examination must be passed which is conducted in Portuguese or French.

Chili.—The regulations resemble those in the Argentine Republic; examination by the University of Santiago.

Peru.—An examination must be passed before the University of Lima. It is conducted in Spanish.

Uruguay.—The conditions are similar to those in the Argentine Republic; examination by the University of Monte Video.

DENTAL SURGERY.

REGULATIONS OF THE GENERAL MEDICAL COUNCIL.

Candidates for a diploma in Dental Surgery are required to produce certificates of having been engaged during four years in professional studies, and of having received three years' instruction in Mechanical Dentistry from a registered practitioner. One year's *bona fide* apprenticeship with a registered dental practitioner, after being registered as a dental student, may be counted as one of the four years of professional study. The three years of instruction in Mechanical Dentistry, or any part of them, may be taken by the dental student, either before or after his registration as a student; but no year of such mechanical instruction shall be counted as one of the four years of professional study unless taken after registration.

A *Register of Dental Students* is kept by the Registrar of the General Medical Council, 299, Oxford Street, London.

Preliminary Education.—Dental students are subject to the same regulations as regards preliminary education as medical students. (This does not apply to dental students who were apprenticed or had commenced attendance upon professional lectures before July 22nd, 1878.)

THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

Licence in Dental Surgery.

The candidate must be 21 years of age, must fulfil the conditions of the regulations of the General Medical Council, and must pass through the following curriculum:

(1) Instruction in Chemistry and Materia Medica, which may be attended before registration. (2) Attendance at a recognised medical school on (*a*) Anatomy (one winter session), and Dissections (twelve months), (*b*) Physiology (six months), and Practical Physiology (three months); (*c*) Medicine (six months), and Surgery (six months), and Clinical Surgery (two winter sessions). (3) Attendance at a recognised school for two courses of lectures upon each of the following subjects: Dental Anatomy and Physiology (Human and Comparative), Dental Surgery, Dental Mechanics, and one course of lectures on Metallurgy, by Lecturers recognised by this College. Students are required to attend examinations which are held in the several classes, and to spend not less than three years in acquiring a practical familiarity with the details of Mechanical Dentistry, under the instruction of a competent practitioner. In the cases of qualified surgeons evidence of a period of not less than two instead of three years of such instruction will be sufficient. This instruction may be taken prior to the date of registration as a dental student, attended at a recognised dental hospital, or in the dental department of a recognised general hospital, the practice of Dental Surgery during the period of two years.

Examination.—The examination, which is held in May and November, comprises the following three parts:—

Written.—General Anatomy and Physiology, General Pathology and Surgery, Dental Anatomy and Physiology, and Dental Pathology and Surgery.

Practical.—(*a*) On the treatment of Dental Caries, and may be required to prepare and fill cavities with gold or plastic filling or material, or to do any other operation in Dental Surgery (candidates must provide their own instruments). (*b*) On the mechanical and surgical treatment of the various irregularities of children's teeth. (*c*) On Mechanical Dentistry.

Oral.—The several subjects included in the curriculum of professional education, and is conducted by the use of preparations, casts, drawings, etc.

Special Exemptions.—Candidates who have passed the Second Examination of the Examining Board in England, or who shall produce evidence of having passed the examination in Anatomy and Physiology required for the Licence in Surgery of the Royal College of Surgeons of Edinburgh, the Royal College of Surgeons in Ireland, or the Faculty of Physicians and Surgeons of Glasgow, or an Examination in Anatomy and Physiology required for a Degree in Medicine or Surgery at a University in the United Kingdom, will be exempt from re-examination in those subjects. Candidates who are Members of the College, or who have passed the Examination in Surgery of the Examining Board in England, or who shall produce evidence of having passed the Examination in Surgery for the Licence in Surgery of the Royal College of Surgeons of Edinburgh, the Royal College of Surgeons in Ireland, or the Faculty of Physicians and Surgeons of Glasgow, or an Examination in Surgery for a Degree in Medicine or Surgery at a University in the United Kingdom, will be exempt from re-examination in General Surgery and Pathology.

Fee.—The fee for the Diploma is £10 10s. over and above stamp duty. Further particulars may be obtained on application to the Secretary of the Royal College of Surgeons, Lincoln's Inn Fields, London, W.C.

THE ROYAL COLLEGE OF SURGEONS OF EDINBURGH.

Licence in Dental Surgery.

The candidate must fulfil the conditions of the regulations of the General Medical Council (see above); and the regulations as to curriculum are generally the same as those of the Royal College of Surgeons of England.

Examinations.—First: Anatomy, Chemistry, and Physiology (lectures on these subjects must have been attended). *Second:* Surgery, Medicine, Therapeutics, and the special subjects of Dental Anatomy and Physiology, Dental Surgery and Pathology, and Dental Mechanics.

Special Exemptions.—Candidates who have passed the first and second examinations for the triple qualification will be exempt from the first dental examination, and will have the advantage of being admissible either to the final dental examination or to the final examination for the triple qualification, or to both. But the first dental examination will not be held as equivalent to the first and second triple examination, and will admit to the final dental examination only. Candidates who are Licentiates of this College, or who may be registered medical practitioners, will require to produce certificates of attendance on the special subjects only, and will be examined in these only for the Dental diploma. And candidates who shall produce satisfactory evidence of having passed in any of the subjects of the first dental examination before any Dental or Surgical Licensing Board recognised by the Royal College of Surgeons of Edinburgh, will be exempt from examination in such subject or subjects; but no examination will be recognised as giving exemption unless it is coextensive in its scope with the examination of this College, and is the only or final examination on the subject or subjects required by the Board at which it was passed.

Candidates who commenced their studies prior to October 1st, 1890, are only required to attend a modified curriculum.

Fee.—The fee for the diploma is £10 10s.

A copy of regulations, giving a list of preliminary exami-

nations recognised for this, as well as of the subjects of the professional examinations, may be obtained from Mr. James Robertson, Clerk to the Royal College of Surgeons, at 1, George Square, Edinburgh.

FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

The regulations as to certificates, curriculum, number of examinations, fees, and examinations are in effect similar to those of the Royal College of Surgeons of Edinburgh. There is special provision for candidates who intend to qualify both under the Medical and the Dentists' Act, and there is an examination in Practical Dentistry conducted in a dental hospital.

THE ROYAL COLLEGE OF SURGEONS OF IRELAND.

LICENCE IN DENTISTRY.

Every candidate must pass a preliminary examination in general education recognised by the General Medical Council, and be registered by that Council as a student.

PROFESSIONAL EXAMINATIONS.

Primary.—A candidate must have attended subsequently to registration a course of (*a*) Lectures on Practical Anatomy, (*b*) Demonstrations and Dissections, (*c*) Lectures on Theoretical Chemistry, (*d*) Physiology (winter courses), (*e*) Practical Chemistry (summer or winter course), (*f*) Histology (summer course), (4) of having attended Medico-Chirurgical Hospital for nine months. The subjects of examination are Physics, Chemistry, Anatomy, Histology, and Physiology.

Exemption.—Candidates who have passed in Chemistry or Physics at a First Professional Examination under the Conjoint Board with the Royal College of Physicians in Ireland, or with the Apothecaries' Hall, or an equivalent examination, recognised by the College, are exempted from examination in these subjects, at the Primary Dental Examination.

Final.—Candidates must have passed the primary dental examination or an equivalent, and must produce evidence:—

(1) Of having attended the following courses of Lectures recognised by the College:—Special: Dental Surgery and Pathology, Dental Mechanics, Dental Anatomy, Dental Metallurgy. General: Surgery. (2) Of having attended for two years the practice of a Dental Hospital recognised by the College, or of the Dental Department of a General Hospital so recognised. (3) Of having subsequent to passing the Primary Dental or an equivalent examination attended for a period of nine months as Extern, or six months as Intern Pupil, the practice of a recognised Medico-Chirurgical Hospital. (4) Of having been engaged for at least forty-five months in acquiring a knowledge of Dentistry. The candidate is recommended to devote at least three years to acquiring a practical knowledge of Dentistry under the instruction of a Registered Dentist.

Exemptions.—Candidates who have passed in Surgery at a Third Professional Conjoint or equivalent examination recognised by the College, are required to produce Certificates of Attendance on the Special Subjects only, and will be examined in these only for the Diploma in Dentistry. Candidates holding a Diploma in Surgery are not required to produce certificates in Dental Anatomy and Physiology. Candidates holding a Diploma in Surgery are only required to produce certificates of one year's attendance at a Dental Hospital, where such attendance has been subsequent to the date of diploma. This remission has been made on the understanding that the Surgeon devote his whole time to Dental work. Candidates educated in England or Scotland are admitted to examination under the conditions existing in those countries.

The subjects of examination are (*a*) General Surgery, (*b*) Dental Surgery—Theoretical, Clinical, and Operative; Dental Mechanics—Theoretical and Operative; Dental Anatomy and Physiology; Metallurgy in relation to Dentistry.

Examinations for the Licence in Dentistry sine Curriculo.—The Council has power to admit to examination, *sine curriculo*, candidates who were in practice before July, 1878, whose names are on the *Dental Register*. Application must be made on a special form to be obtained from the Registrar of the College. A special examination may be granted if the candidate pays an additional fee of five guineas.

FEES.

Primary Examination, £10 10s.; Re-examination, if rejected, £5 5s. *Final Examination.*—Candidates holding L.R.C.S.I., £10 10s.; Dental Students of the College who have passed Primary Dental, or First and Second Professional of the College, £10 10s.; Re-examination, £5 5s. Fees for Final Examination of all other Candidates, £26 5s. Re-examination, £10 10s.

DENTAL SCHOOLS AND MEDICAL SCHOOLS HAVING SPECIAL DENTAL DEPARTMENTS.

DENTAL HOSPITAL OF LONDON AND LONDON SCHOOL OF DENTAL SURGERY, LONDON.

Students can attend lectures in the special subjects of the dental curriculum and practical work and dental hospital practice.

Appointments.—There are five house-surgeons, and these appointments may be held by students as soon as they are qualified. Twelve senior dressers for extraction under anæsthetics, and eighteen junior dressers for ordinary extractions, are appointed every month.

Fee for two years' hospital practice required by the curriculum, including lectures, £31 10s. The *Calendar*, containing further particulars, may be obtained on application to the Dean, at the hospital, Leicester Square, London, W.C.

NATIONAL DENTAL HOSPITAL AND COLLEGE, LONDON.

Students can attend lectures in the special subjects and dental hospital work required by the colleges.

Exhibition.—An entrance exhibition of the value of £15 will be awarded at the commencement of each summer and winter session after an examination in Elementary Physics (Statics, Dynamics, and Electricity), Physiology (Functions of Respiration, Circulation, and Digestion), Osteology (Bones of the Head), Chemistry, and Dental Mechanics (Theoretical and Practical).

Appointments.—Dresserships in the extraction room are held for two months by six senior and twelve junior students of the hospital.

Fees.—Total fees for the special lectures and hospital practice required, £25 4s. Perpetual fee to all lectures and to hospital practice, £15 15s. each. Information respecting the hospital practice and the college may be obtained from the Dean, at the hospital, Great Portland Street.

GUY'S HOSPITAL DENTAL SCHOOL, LONDON.

The buildings for the purposes of the dental school have recently been enlarged, and the arrangements for teaching perfected, so that students can now obtain a complete curriculum.

Appointments.—The following appointments are allotted to dental students: Three dental house-surgeoncies; two assistant dental house-surgeoncies; four demonstratorships in the conservation room; two curatorships of the laboratory; dresserships in the extraction room; dresserships in the conservation room; an assistant demonstrator of dental microscopy.

Fees.—(*a*) For general and special lectures and demonstrations, and the hospital and dental practice requisite for the L.D.S.R.C.S.Eng., £60 on entrance, or 30 guineas on entrance and 30 guineas at beginning of second year. (*b*) Special lectures or demonstrations, and dental practice only, 30 guineas on entrance. (*c*) Inclusive fee for students entering for the M.R.C.S., L.R.C.P., and L.D.S.Eng., £170 in one sum, or 170 guineas in four annual instalments. Prospectuses may be obtained from the Dean, at Guy's Hospital.

MASON COLLEGE, BIRMINGHAM.

The teaching of Dentistry is undertaken by the Mason College, acting in association with the Birmingham Dental Hospital and the Birmingham Clinical Board, so that students may fully qualify themselves for the dental diploma of the Royal Colleges. The new college buildings contain a special dental museum and a dental laboratory. The dental hospital is situated near the college.

Entrance Scholarship.—A scholarship of £15 is open to competition by students entering in October.

Fees.—Hospital, Dental, Composition, £10 10s.; Non-composition, £14 14s.; General Surgical Hospital, two winters, £10 10s. A Composition Fee of £42, payable in one sum—or in two sums—namely, £21 at the beginning of the first year, and £21 at the beginning of the second year of studentship—admits to the full curriculum required for the Dental Diploma. Students wishing to take the diplomas of M.R.C.S. and L.R.C.P. in addition to a dental qualification pay a Com-

position Fee of £73 10s., payable in two annual instalments of £31 10s. and one of £10 10s.

Owens College, Manchester.

Arrangements have been made for dental students to attend the hospital practice at the Manchester Royal Infirmary and the practice at the Victoria Dental Hospital. Lectures on the special subjects will be given in the College.

Fees.—For course of Metallurgy, £3 3s.; other lectures, one course, £3 3s.; two courses, £4 4s. Dental practice for two years at the Manchester Royal Infirmary, £10 10s.; at the Victoria Dental Hospital at Manchester, £12 12s., paid in advance, or £8 8s. for the first year and £5 5s. for the second year.

Further particulars can be obtained from the Dean of the Dental School, Victoria Dental Hospital, Manchester.

University College, Liverpool.

There is a school of Dental Surgery in connection with the medical faculty. The curriculum includes Lectures and Demonstrations on all the subjects required for the Licences in Dental Surgery of the Royal Colleges of Surgeons of London, Edinburgh, and Dublin, and of the Faculty of Physicians and Surgeons of Glasgow.

Practical instruction in Dentistry is given at the Dental Hospital in Mount Pleasant.

Fees.—A payment of £50 on entrance, or in two equal instalments (one-half on entrance and the remainder within twelve months), entitles the student to attendance on all lectures and demonstrations (medical and special) required for the Dental Licence of the College of Surgeons. The fee for two winters' surgical practice is £10 10s., and for two years' dental hospital practice £12 12s. The total expenditure for the whole curriculum is £73 2s.

Further information can be obtained from Professor Gotch, F.R.S.

The Incorporated Edinburgh Dental Hospital and School.

The following lectures are given in the School: Dental Anatomy and Physiology (winter); Dental Surgery and Pathology (summer); Mechanical Dentistry; Practical Demonstrations.

Fees.—The fee to Hospital Practice, including one course of Demonstrations in Gold-fitting, is £15 15s.; one course of Dental Anatomy, Dental Surgery, and Mechanical Dentistry, £9 15s.

Further information can be obtained from the Dean at the School, 5, Lauriston Lane, Edinburgh.

Glasgow Royal Infirmary Dental Department.

The following course in the curriculum can be taken at St. Mungo's College: Anatomy, six months; Practical Anatomy, nine months; Physiology, six months; Chemistry, six months; Practical Chemistry, with Metallurgy, three months; Surgery, six months; Medicine, six months; Materia Medica, three months; Clinical Surgery, six months; Dental Surgery, six months; and attendance for two years on the Dental Department of the hospital. The attendance on the dental clinic is free to students of the hospital; to dental students, one year, £5 5s.; perpetual, £10 10s. Lectures on Dental Surgery, £2 2s.

Devon and Exeter Dental Hospital.

Attendance at the practice of this hospital is recognised by the Royal College of Surgeons of England as qualifying for its Dental diploma. Pupils of any member of the staff, or other registered practitioner (being a Life or Annual Governor), are permitted to attend the practice of the hospital, subject to the approval of the Medical Subcommittee, on payment of £5 5s. annually to the funds of the institution.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

Cancer, Brompton (Free). *Hours of Attendance.*—Daily, 2. *Operation Days.*—Tu. S., 2.

Central London Ophthalmic. *Operation Days.*—Daily, 2.

Charing Cross. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M., 1.30; Dental, M. W. F., 9; Throat and Ear, F., 9.30 *Operation Days.*—W. Th. F., 3.

Chelsea Hospital for Women. *Hours of Attendance.*—Daily, 1.30. *Operation Days.*—M. Th., 2.

East London Hospital for Children. *Operation Day.*—F., 2.

Great Northern Central. *Hours of Attendance.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Ear, Tu. F., 2.30; Diseases of the Skin, W., 2.30; Diseases of the Throat, Th., 2.30; Dental Cases, W., 2. *Operation Day.*—W., 2.

Guy's. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 1. *Operation Days.*—(Ophthalmic), M. Th., 1.30; Tu. F., 1.30.

Hospital for Women, Soho. *Hours of Attendance.*—Daily, 10. *Operation Days.*—M. Th., 2.

King's College. *Hours of Attendance.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, daily, 1.30; o.p., Tu. W. F. S., 1.30; Eye, M. Th., 1.30; Ophthalmic Department, W., 2; Ear, Th., 2; Skin, F., 1.30; Throat, F., 1.30; Dental, Tu. Th., 9.30. *Operation Days.*—M. F. S., 2.

London. *Hours of Attendance.*—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, S., 9.30; Skin, Th., 9, Dental, Tu., 9. *Operation Days*—M. Tu. W. Th. S., 2.

London Temperance Hospital. *Hours of Attendance.*—Medical, M. Tu. F. 2; Surgical, M. Th., 2. *Operation Days.*—M. Th., 4.30.

Metropolitan. *Hours of Attendance.*—Medical and Surgical, daily, 9; Obstetric, W., 2. *Operation Day.*—F., 9.

Middlesex. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Th., 1.30; o.p., M. F., 9, W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu., 9; Skin, Tu., 4, Th., 9.30; Dental, M. W. F., 9.30. *Operation Days.*—W., 1.30, S., 2; (Obstetrical), Th., 2.

National Orthopædic. *Hours of Attendance.*—M. Tu. Th. F., 2. *Operation Day.*—W., 10.

North-West London. *Hours of Attendance.*—Medical and Surgical, daily, 2; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operation Day.*—Th., 2.30.

Royal Free. *Hours of Attendance.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Dental, Th., 9. *Operation Days.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

Royal London Ophthalmic. *Hours of Attendance.*—Daily, 9. *Operation Days.*—Daily, 10.

Royal Orthopædic. *Hours of Attendance.*—Daily, 1. *Operation Day.*—M., 2.

Royal Westminster Ophthalmic. *Hours of Attendance.*—Daily, 1. *Operation Days.*—Daily.

St. Bartholomew's. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, W. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. *Operation Days.*—M. Tu. W. S., 1.30; (Ophthalmic), Tu. Th., 2.

St. George's. *Hours of Attendance.*—Medical and Surgical, M. Tu. F. S., 12; Obstetric, Th., 2; o.p., Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopædic, W., 2; Dental, Tu. S., 9. *Operation Days.*—Th., 1; (Ophthalmic), F., 1.15.

St. Mark's. *Hours of Attendance.*—Fistula and Diseases of the Rectum, males, S., 3; females, W., 9.45. *Operation Days.*—M., 2., Tu. 2.30.

St. Mary's. *Hours of Attendance.*—Medical and Surgical, daily, 1.45; o.p., 1.30; Obstetric, Tu. F., 1.45; Eye, Tu. F. S., 9; Ear, M. Th., 3; Orthopædic, W., 10; Throat, Tu. F., 1.30; Skin, M. Th., 9.30; Electro-therapeutics, Tu. F., 2; Dental, W. S., 9.30; Consultations, M., 2.30. *Operation Days.*—Tu., 1.30; (Orthopædic), W., 11; (Ophthalmic), F., 9.

St. Peter's. *Hours of Attendance.*—M., 2 and 5, Tu., 2, W., 5, Th., 2, F. (Women and Children), 2, S., 4. *Operation Days.*—W. and F., 2.

St. Thomas's. *Hours of Attendance.*—Medical and Surgical, daily, exc. W. and S., 2; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Tu. F., 1.30; Children, S., 1.30; Dental, Tu. F., 10 *Operation Days.*—W. S., 1.30; (Ophthalmic), M., 2.30, F., 2; (Gynæcological), Th., 2.

Samaritan Free for Women and Children. *Hours of Attendance.*—Daily, 1.30. *Operation Day.*—W., 2.30.

Throat, Golden Square. *Hours of Attendance.*—Daily, 1.30; Tu. and F., 6.30; *Operation Day.*—Th., 2.

University College. *Hours of Attendance.*—Medical and Surgical daily, 1.30; Obstetrics, M. W. F., 1.30; Eye, M. Th., 2; Ear, M. Th., 9; Skin, W., 1.45, S., 9.15; Throat, M. Th., 9; Dental, W., 9.30; *Operation Days.*—W. Th 1.30; S., 2.

West London. *Hours of Attendance.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th. S., 2; Ear, Tu., 10; Orthopædic; W., 2; Diseases of Women, W. S., 2; Electric, Tu., 10, F., 4; Skin, F., 2; Throat and Nose, S., 10. *Operation Days.*—Tu. F., 2.30.

Westminster. *Hours of Attendance.*—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1; Eye, M. Th., 2.30; Ear, M., 9; Skin, W., 1; Dental, W. S., 9.15. *Operation Days.*—Tu. W., 2.

THE GRIEVANCES OF ARMY MEDICAL OFFICERS.

REPLY OF THE SECRETARY OF STATE FOR WAR.

THE Secretary of State for War has sent the following reply to the representations of the Parliamentary Bills Committee. We can only characterise it as eminently unsatisfactory and disappointing. Somehow the officers of the Army Medical Service had been led to expect better things of the present War Secretary, which will make their disappointment all the keener. We venture to say astonishment will be mingled with regret, for the reply is not merely in the usual *non possumus* strain, but has an element of *non volumus* as well.

Not one of the representations have met with a favourable response; not a point has been granted, except that retired medical officers, liable to recall to service, may use the new compound titles. This was a concession so obvious and necessary that not even official wrong-headedness could advise the War Minister to refuse it.

It is evident that those who oppose every concession towards medical officers have won the official ear. The reasons set forth for the various refusals will be subjected to the close criticism they demand and deserve. We fear this letter may prove a new starting point in the further ventilation of medical officers' grievances, which might, as we hoped, have been prevented by a little more sympathetic treatment of and concession to what we must characterise as both reasonable and easily-met demands. We will return to the subject matter of the letter in a future article.

4840/686 War Office, Pall Mall, S.W., August 26th, 1893.

SIR,—I am directed by the Secretary of State for War to acquaint you that he has had under his careful consideration the various points affecting the status and organisation of the Medical Staff of the army, which were submitted to him by the deputation of the Parliamentary Bills Committee that attended at this office on May 15th last, and which had formed the subject of previous correspondence.

Following, for convenience sake, the order in which these several points were formulated in the printed memorandum handed in by the deputation, I am now instructed to convey to you the decision at which Mr. Campbell-Bannerman has arrived.

I.—FORMATION OF A CORPS.

It is observed that the proposal for subverting the existing status of the Medical Staff, and converting it from a departmental into a regimental organisation is not sustained by arguments which tend to show the necessity for such a course. It was admitted by the deputation that the question was largely one of sentiment; and, though it is alleged that such a measure would be for the "advantage of the army generally and would increase the efficiency of the Medical Department both in peace and war," no evidence can be traced in support of these general propositions.

Under the present system the control of the medical officers over their men of the Medical Staff Corps is complete and indisputable, and the standard of efficiency is adequately maintained. Mr. Campbell-Bannerman regrets, therefore, that he can see no ground for adopting an arrangement which even its own advocates fail to justify by any tangible argument, and which will certainly give rise to many serious administrative and technical difficulties.

II.—FOREIGN SERVICE.

To this subject I am to state that Mr. Campbell-Bannerman has given the most careful consideration, particularly in its bearing upon the health of the Medical Staff. It was urged by the deputation, and asserted with more detail in the memorandum, that invaliding has steadily increased since the imposition of the six years' rule; and also that the chief invaliding occurs in the last two years of service in India. The Secretary of State has, consequently, caused a close inquiry to be made into the invaliding returns for a term of years, with the view of determining whether any prejudicial effect has been wrought by the prolongation of the tour of service from five to six years. In the result it has been demonstrated beyond a doubt that invaliding reaches its maximum after four years of foreign service, and thenceforward steadily declines, so that from a hygienic point of view medical officers are not prejudiced by the extension of service so much deprecated. On the other hand, any diminution in the length of the tour would offer great disadvantages, in that its inevitable effect would be to shorten the period of home service by increasing the frequency of the foreign tour. It is true that this might be obviated by an increase to the establishment, involving considerable additional expenditure, but, in view of the facts stated, Mr. Campbell-Bannerman does not feel justified in imposing this charge upon the public.

III.—TITLES.

The titles now enjoyed by officers of the Medical Staff were conferred after much discussion and mature deliberation. They were recommended by Lord Camperdown's Committee, and accepted as a satisfactory settlement by Sir Andrew Clark, who was spokesman of the deputation from the medical corporations of the United Kingdom. The modifications now proposed—namely, the obliteration of the rank of Brigade-Surgeon-Lieutenant-Colonel and the interpolation of the word "and" between the word "Surgeon" and the military affix do not, I am to state, recommend themselves to the Secretary of State's approval. A Brigade-Surgeon is an officer of higher rank than a Surgeon-Lieutenant-Colonel, and attains that rank on promotion by selection. The alteration of titles has not affected the gradations of substantive rank, and the prefix "Brigade-Surgeon" must therefore be retained to differentiate a body of officers from those who are junior not only in service but also in rank. As it was of the essence of the new titles that the professional qualifications should be joined to the military rank, the insertion of the word "and" is inadmissible. I am to add, however, in this connection, that Mr. Campbell-Bannerman is prepared to admit the claim of retired medical officers who are liable to be recalled to service to be invested with the new titles, and steps will be taken at an early date to give effect to this decision.

IV.—THE RETIREMENT REGULATIONS.

Exception is taken to the provision that three years' service in a rank should be a condition precedent to voluntary retirement in such a rank; but whilst the equity of this provision is clear in the interests of the public, who should not be called upon to pay rates of pension for which no adequate service in the rank has been rendered, nothing was urged against the existing conditions except the anxiety of officers to retire upon the higher rates, and the facilities for promotion which the satisfaction of this anxiety would create. I am to state that Mr. Campbell-Bannerman cannot see his way to modify this important condition, holding as he does that three years' service is a fair and reasonable period wherein to qualify for an increased scale of pension on voluntary retirement, and I am to add that the condition is of universal application throughout the service.

V.—EXTENSION OF SERVICE FOR SURGEON-MAJOR-GENERALS.

The regulation that provides for the retention of Surgeon-Major-Generals up to 62 years of age limits its application to cases in which it is considered that the interests "of the public service would be materially advanced by it."

In such a case personal claims must clearly be subordinated to the public interests, and it would not be right to force out an officer whose services are required, simply in order to replace him by another, less suitable, on account of some theoretical claim for promotion, or to second him in order to promote an officer for whom no employment could be found.

These cases can seldom occur, and when they do occur public interest must have the first consideration.

VI.—The Detailing of Medical Officers for Service in Particular Presidencies.

As it has been found necessary to refer this subject to the Government of India for consideration, I am to state that Mr. Cambpell-Bannerman's answer on this point will be conveyed to you later on.

VII.—Officers of the Medical Staff being Compelled to take Charge of Native Troops.

It has been ascertained that no information has reached the Secretary of State for India of any proposal for placing officers of the British Medical Service in charge of native troops in India. Mr. Campbell-Bannerman feels, therefore, that no remarks are called for from him upon this subject.

VIII.—The Extension of the Warrant of 1879 to India in its Financial Aspects.

Mr. Campbell-Bannerman understands that this matter has already been the subject of a direct communication from the Parliamentary Bills Committee to the India Office; but I am to observe that when the Royal Warrant of 1879 was promulgated it was expressly announced that its financial conditions would not be "applicable to Army medical officers while in India or on the Indian Establishment," and that "no additional emolument would under its provisions accrue to medical officers serving in that country." This stipulation was contained in the Secretary of State's instructions printed as an addendum to the Warrant, and issued simultaneously with it. From this position the India Office has never receded, so that one of the deputation was in error when he stated that the attitude of the India Office upon the question was not duly communicated to all army medical offiers when the Warrant was promulgated. I am to remark that if Royal warrants for the army at home and in the colonies are to have force in India, as contended for by the deputation, it would have the effect of considerably reducing the emoluments of all the other ranks of the Department.

IX.—Study Time on Full Pay.

On this subject I am to observe that provision already exists for granting special leave when the circumstances of the case appear to justify it. The concession of the indulgence is obviously limited by the necessity of providing for the duties of the absentees, but, as a matter of fact, very few applications have been received even within the limit assigned.

X.—Exchanging.

Mr. Campbell-Bannerman agrees with the Parliamentary Bills Committee in its estimate of the value to be attached to this privilege; but he considers that the rules which now govern exchanges are as liberal as is compatible with efficient departmental administration. Surgeon-Majors and Surgeon-Captains are, unless there are special reasons to the contrary, allowed to exchange twice in their several ranks. There is no interdict against exchanges after the issue of instructions for foreign service; but, having in view the strain upon health of a tour in India, a period of twelve months at home is exacted before officers who have been abroad are permitted to exchange back to the foreign roster.

I think that I have now dealt with all the points brought forward by the deputation, and I am desired by Mr. Campbell-Bannerman to express his regret that, after the most careful consideration, he has not found it possible to meet on most of them the view entertained by your Committee; but he trusts that the explanation I have given will be found satisfactory.—I am, Sir, your obedient Servant,

Arthur L. Haliburton.

The Chairman of the Parliamentary Bills Committee of the British Medical Association, 429, Strand, W.

It is stated that three persons who have suffered from small-pox within a month have recently left the Black Country with parties of hop pickers now at work in the Herefordshire and Worcestershire hop gardens. The incident illustrates the difficulty which sanitary authorities have in tracing the movements of vagrant persons who are known to be in an infectious state.

THE ALLEGED INCREASE OF INSANITY.

The publication of the third volume of the Detailed Report on the Census in 1891 throws additional light upon the alleged increase of insanity in England and Wales, which was the subject of an interesting discussion at the recent meeting of the British Medical Association, introduced by Dr. Hack Tuke. It now appears that at the census in 1891 the number of persons described in the householders' schedules as mentally deranged (including lunatics, idiots, and imbeciles) was 97,383. At the two preceding censuses in 1881 and 1871 the numbers were respectively 84,503 and 67,019. Previous to the census in 1871 no provision was made in the Census Act or Schedule for the collection of statistics of such infirmities as blindness, deaf-mutism, or mental derangement. It may here be pointed out that in 1871 and 1881 attempts were made to differentiate the mentally deranged into lunatic and idiot or imbecile, without, however, any satisfactory result. In the report just issued this subdivision has not been attempted, as the census schedules do not afford the means for such classification, and the mentally deranged are only tabulated in the report under two headings: those described in the schedules as mentally deranged from childhood, and those not so described. The 97,383 persons returned at the census in 1891 as suffering from various forms and degrees of mental derangement undoubtedly understate to some extent, as at previous censuses, the true number of the mentally deranged, owing to unwillingness on the part of the householders at the time of the census to admit the existence of this defect in members of their families. The returns, indeed, afford obvious evidence that in the case of children the understatement of the amount of mental defect was not inconsiderable.

We shall have to refer to this branch of the subject when we consider the proportions of mental derangement at different ages, but we may in the meantime state that there is every reason to believe that the returns have shown increasing accuracy at each successive census, and that the understatement as to mental derangement is a decreasing understatement. It may be noted that the total number of persons returned as mentally deranged in 1891 was equal to 3.36 per 1,000 of the population in England and Wales, the proportion having been 3.25 per 1,000 in 1881, and 3.04 in 1871, when this information was first collected. It is therefore true that the ratio of mental derangement to population showed an increase in each of the two last intercensal periods; but it should be noted that while the increase of this ratio was equal to 7.04 per cent. in the ten years 1871-81, it fell to 3.23 per cent. in the more recent decennium.

Judged by the census returns, the proportion of declared mental derangement continues to be somewhat higher among females than among males. It appears that the ratio in 1891 was 3.23 per 1,000 for males, and 3.48 for females; and, stated in another way, it appears that in equal numbers living there were 1,077 mentally-deranged females to 1,000 males similarly afflicted. Measured in a similar way, the proportion of mentally-deranged females to 1,000 males was 1,043 in 1871, and 1,065 in 1881, thus affording grounds for believing that the amount of existing mental derangement is relatively increasing at a greater rate among females than among males. We should, however, bear in mind that these figures are merely based upon the statements of mental derangement made in the census

schedules by the rather more than six millions of householders or separate occupiers in England and Wales. It is obvious that a very large proportion of the occupiers who had to fill up these schedules could scarcely be trusted to define with much uniformity the degree of mental infirmity which justified or required the insertion of the words "lunatic," "imbecile," or "idiot" in the last column of the schedule. The greatest caution should therefore be observed before the recorded increase of mental derangement at successive censuses is accepted as proof of real increase of existing lunacy—still less of occurring cases of insanity.

It has been shown that, according to the census returns, the percentage of increase in the ratio of mentally-deranged persons declined from 7.04 in 1871-81 to 3.23 in 1881 91; the percentage of increase among males similarly declined from 5.89 to 2.60, and among females from 8.09 to 3.73. Relatively, therefore, the decline in the rate of increase was somewhat greater among males than among females, which fact it is proposed further to consider on a future occasion with reference to the age incidence of mental derangement. It is also proposed to defer to another opportunity the consideration of the proportions of the mentally deranged returned in England and Wales at the last three censuses, in public asylums, in private asylums, in workhouses, or residing outside those institutions.

According to the census returns of England and Wales, recently issued, there were, on the appointed day in 1891, 18,936 male members of the medical profession and 101 female. There were 53,057 female sick nurses or invalid attendants, and 601 males engaged in similar occupations. There were 2 female veterinary surgeons against 3,191 males.

DEATH OF DR. GRAILY HEWITT.

We regret to have to announce the death, at the age of 65, of Dr. Graily Hewitt, for many years Professor of Obstetric Medicine in University College, London, and obstetric physician to the hospital. Dr. Hewitt's contributions to the special branch to which he devoted his life were numerous and important, and his personal character caused him to be much beloved by students and colleagues alike. We hope to publish a full obituary notice at an early date.

THE SIX YEARS' TOUR IN INDIA.

In consequence of there being an insufficient number of officers of the Medical Staff who have completed six years in India to supply the wants of the homeward troopers, it was proposed by the Military Secretary to the Government of India that the medical officers of the Indian Medical Service should be invited to volunteer for the duty. We are, however, able to state that this suggestion has been thrown out, and that the deficiency is to be made up by sending home a sufficient number of officers of the Army Medical Service who have completed five years abroad.

UNIVERSITY COLLEGE, CARDIFF, MEDICAL SCHOOL.

Owing to the very rapid increase in the population of Glamorganshire and Monmouthshire and the consequent increase in the infirmary accommodation, the basis on which to build a medical school in South Wales is simply sufficient for every need. University College, Cardiff, has for some years past prepared students in Physics, Chemistry, Zoology, and Botany, and these students have in considerable numbers passed these subjects as part of their medical curriculum, and have finished their studies elsewhere. This year the Council, by the appointment of a Professor of Anatomy, a Professor of Physiology, and the proposed appointment of a Lecturer on Materia Medica and Pharmacy, propose to afford facilities to students who may wish to continue their studies in Cardiff until the end of their third year. Large laboratories, still in process of construction, will be ready by the winter session. They comprise large lecture rooms, to seat 100 students each; a dissecting room, anatomical museum, bone room, and preparation room; a class room for practical physiology, physiological preparation and research rooms, photographic, and instrument rooms.

THE UNIVERSITY OF WALES.

On Tuesday afternoon the Bishop of Chester moved in the House of Lords: "That, in the opinion of this House, it is desirable that the assent of Her Majesty be withheld from the draft Chater of the proposed University of Wales until such portions of the aforesaid draft Charter shall have been omitted as prevent the inclusion of St. David's College, Lampeter, in the county of Cardigan, as a constituent College of the aforesaid proposed University of Wales." After an animated debate this resolution was carried by 41 to 32. Ten Bishops voted in the majority. This reverse to the Charter was repaired a few hours later by a signal victory in the House of Commons. At midnight Mr. Bryn Roberts moved an address to the Crown to withhold assent to the Charter in its present form, "and until it be amended so as to enable students unconnected with the University Colleges of Aberystwyth, Cardiff, and Bangor to present themselves for the examination for degrees." The resolution, moved in the interest of "private student" candidates, was strongly supported by Mr. Stanley Leighton on behalf of Lampeter; but by half-past one the entire case for the opposition had been so completely routed that but one solitary voice was heard to say "Aye" when the Speaker put the question. Sir Walter Foster and Dr. Farquharson were both present in support of the scheme. After so unmistakable an expression of opinion on the part of the Commons, it is presumed that the Government will proceed with the Charter, a course which the abstract resolution passed in Lords does not preclude their taking.

HOLIDAYS FOR IRISH DISPENSARY MEDICAL OFFICERS.

At the last meeting of the Cork Union, Mr. M. Ahern moved the following resolution: "That the medical officers of the various dispensary districts of the union get annual holidays of fourteen days as is customary with most medical officers, the board paying their substitutes." The motion was seconded by Dr. Taylor and supported by Mr. Lenihan, but opposed by Dr. Donovan, Mr. Atkins, Sir George Colthurst, and Mr. Cummins, mainly on the score of expense—about £160 a year. It was eventually carried, 14 voting for it and 11 against. Mr. Atkins gave notice of a motion at the next meeting to rescind the resolution.

THE WOODS AND FORESTS AND THE PUBLIC HEALTH.

With reference to the report, published in the British Medical Journal of August 26th, of the reply of Sir J. Hibbert to a question by Mr. Byles in the House of Commons, on August 17th, as to the defective sanitary administration of the Woods and Forests Commissioners, Dr. Herbert Seager, by whom the question was raised in connection with certain houses at Hampton Court, requests us to state that he does not accept Sir J. Hibbert's reply as accurate. Dr. Seager's original letter to the newspapers undoubtedly disclosed a very disgraceful state of affairs, for which the Woods and Forests Commissioners must be held to be responsible. Sir J. Hibbert appeared to be disposed to shift the responsibility partly on to the tenants of the Commissioners and partly on to the local sanitary authority.

The latter find they have no legal power to interfere. The Commissioners appear to be bound either to submit their property to the control of the ordinary sanitary law or to exercise due control over the insanitary appliances which their tenants may desire to introduce.

THE EIGHTH INTERNATIONAL CONGRESS OF HYGIENE AND DEMOGRAPHY.

The arrangements for this Congress, which will be held at Buda-Pesth in 1894, are making good progress. The selection of subjects for discussion in the various sections is nearly complete, and lists of these subjects will be issued within the next few weeks. The Executive Committee are taking steps to realise the recommendations of the London Congress, and one of these has already been carried out by the organisation of a separate section for tropical countries. The President of this Section will be Dr. Theodor Duka, and the Secretaries Dr. Isambard Owen and Mr. S. Digby. The honorary presidents of the several sections will be chosen by the Executive Committee as soon as the names of those who intend to be present are known. Excursions are being arranged, and it is proposed that one should be to the Iron Gates of the Danube, to Belgrade, and to Constantinople. The Chief Secretary of the Executive Committee is Professor Dr. C. Müller, Rochus Hospital, Buda-Pesth.

POISONOUS COSMETIC.

Mrs. Anna Ruppert, in the well-founded assurance that it is always our wish "to be correct and just," has forwarded to us an article from the *International Courier* which she says "conveys the facts of the case in the recent prosecution by the Irish Pharmaceutical Society," and as she considers that "great injustice" was done to her by the report of the case in the British Medical Journal of July 26th, she begs us to give publicity to the representations contained in the *International Courier*. We regret that it is not in our power to do so without violating that regard for being "correct and just" for which Mrs. Ruppert gives us credit. We have carefully read the article in the *International Courier*, and cannot do less than say that it is throughout a most flagrant perversion of the truth in regard to the "skin tonic" for the unlawful sale of which Mrs. Ruppert was prosecuted and fined at the instance of the Pharmaceutical Society of Ireland, as reported in the Journal of July 26th. There is no question of the fact that Mrs. Ruppert's "skin tonic" contains a poison which can be lawfully sold only by qualified persons. There is no question that Mrs. Ruppert is not so qualified, and consequently that her sale of the article is a breach of the law. We have satisfactory ground for stating that Mrs. Ruppert has long since been made aware of these facts, and that upon the strength of that knowledge she promised to alter the composition of her "skin tonic," so as not to break the law. On that ground we understand that forbearance has been shown towards her by the body authorised to prosecute offenders against the Pharmacy Act in this country. Over and above that Mrs. Ruppert has been informed of the danger attending the use of corrosive sublimate as a lotion for the skin, and her continued assertion that her "skin tonic" is harmless, must be regarded on the most lenient interpretation, as evidence that she is not aware of the danger which the use of such a poisonous substance as corrosive sublimate involves. On that point the case, reported in the British Medical Journal by Mr. Staveley and Mr. Denison Pedley, furnishes positive evidence. On all grounds, therefore, we are of opinion that the recommendation of corrosive sublimate as a cosmetic application to the skin is most objectionable, and that the use of this potent mercurial poison should never be ventured upon except under competent medical advice and supervision. The indiscriminate sale of such an article, under assurances that it contains nothing injurious, is a serious offence. We are pleased to see that the Pharmaceutical Society of Ireland has taken that view of the matter, and has done its duty in prosecuting the offender. There cannot be any longer reason for the English society to abstain from doing the same. As for the unfounded insinuations and the false issues raised by the writer in the *International Courier*, they are so foreign to the actual question that they may be dismissed as altogether irrelevant, except in so far as they afford Mrs. Ruppert protection from injudicious friends.

CHOLERA AND CHOLERA RUMOURS.

Disquieting rumours as to the occurrence of cases of cholera in Hull and Grimsby have been prevalent during the last week. The Local Government Board has despatched a medical inspector to each of these ports. Dr. Thompson has proceeded to Hull, and there is reason to believe that there has been no case of Asiatic cholera in this port. Dr. Reece, who is the inspector who has visited Grimsby, has not yet made a formal report, but the facts elicited are causing much anxiety, although from inquiries which we have made, there is still room to hope that the suspicious cases may turn out to be examples of so-called English cholera (cholera nostras), and not of the true epidemic Asiatic cholera. The epidemic is now officially admitted to be spreading in Galicia, to be present in Buda-Pesth, in Berlin, in certain parts of Posen, at Nantes, where a medical student has succumbed to the disease contracted in the hospital, at Amsterdam, and several other towns in Holland, and in many districts of Italy.

CHOLERA AND RAGS.

In regard to the attempt made in the House of Commons to raise again the question of the importation of rags from cholera-infected districts, it is worth bearing in mind that the whole matter was gone into at the Dresden Conference, and that it was then found impossible to lay hands on a single case in which infection could be traced to rags imported in compressed bales as ordinary articles of merchandise. It is quite otherwise in regard to the loose soiled linen of travellers from infected districts, but this does not come under the same classification. It is believed that the rags of merchandise are sometimes years in reaching their final destination at the shoddy mill or the paper manufacturer, passing as they do through the hands of collectors and dealers of various degree. Not only, then, is it quite unproven that such rags have ever given rise to cholera, but a consistent attempt to stop the introduction of infection by their means would demand an almost permanent prohibition of their importation.

DEATH CERTIFICATION.

It is hoped that the Select Committee on Death Certification will soon present its report. The principal recommendations proposed are understood to be that the production of a certificate of death signed by a registered medical practitioner, or by a coroner after inquest, should be a condition precedent to registration, and that all certificates issued by medical practitioners should be in a prescribed form, and should be sent direct to the registrar instead of being handed to the representatives of the deceased. In cases where no medical certificate is forthcoming, and no inquest is necessary, it is suggested that a public official shall, supply the deficiency, to which end it is proposed that a registered medical man should be appointed for the purpose in each sanitary district. As regards the further proposal that medical men should personally inspect all bodies before certifying, it is obvious that this would be a most onerous duty and one which in country districts would be most difficult of execution. So far the certification of the cause of death has been done gratuitously by the profession, but, if medical men are to

undertake the certification of the fact of death and to make special visits of inspection for the purpose, a remuneration at least equal to the fee for an ordinary visit should be offered for so doing. We feel sure that a committee presided over by Sir Walter Foster will recognise this and do justice in the matter.

THE OPIUM COMMISSION.

It is officially announced that the Queen has approved the following names as members of the Royal Commission to inquire into the opium question: Lord Brassey, K.C.B. (chairman), Sir James B. Lyall, G.C.I.E., Sir William Roberts, M.D., Mr. W. S. Caine, M.P., Mr. Arthur Upton Fanshawe, Bengal Civil Service; Mr. R. G. C. Mowbray, M.P., Mr. Arthur Pease, Mr. Haridas Veharidas, late Dewan of Junagarh; and Mr. John Prescott Hewett, C.I.E., as Secretary to the Commission. It is stated that before leaving London, the Commissioners appointed by the Home Government—Lord Brassey, Mr. Caine, Mr. Mowbray, Sir William Roberts, and Mr. Arthur Pease—will hear evidence tendered on behalf of the Anti-Opium Society by Sir Joseph Pease and others, and will also take some evidence from the India Office. The first meeting will probably be held on September 8th.

ASSOCIATION INTELLIGENCE.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

NOTICE OF QUARTERLY MEETING FOR 1893. ELECTION OF MEMBERS.

A meeting of the Council will be held on October 25th, 1893. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before the meeting—namely, October 4th, 1893.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election. Francis Fowke, *General Secretary*.

THE MIDDLEMORE PRIZE, 1893.

The Council of the Association not having awarded the Middlemore Prize this year on the subject of the Diagnosis and Treatment of Diseases of the Lymphatics of the Eye, the author of the essay bearing the motto "Strive" can have the essay upon application at the office of the Association.

Successful Vaccination.—Mr. G. H. Carrington, M.R.C.S., Robin Hood's Bay, has been awarded the vaccination grant for efficient vaccination in the Tylingdales District of the Whitby Union.

Strike of House-Surgeons.—The house-surgeons of the Cincinnati Hospital lately went on strike on the question of fees for evidence at inquests in murder cases where the victim dies in the hospital. Till lately, it appears, these officials recovered a fee of two dollars for their evidence under such circumstances. With the advent of a new coroner, however, *novus rerum nascitur ordo*, and the house-surgeons raise the voice of mourning for their fees because they are not.

SPECIAL CORRESPONDENCE.

LEEDS.

The Proposed Nurses' Home at the Union Infirmary.—Accidental Death of a Patient at the General Infirmary.

It is proposed to build a nurses' home in connection with the workhouse hospital, and the Infirmary Committee have recommended the acceptance of tenders amounting to £7,788; to this £2,000 will have to be added for furnishing. Mr. Benson Jowett, who attended the meeting as an *ex-officio* guardian and Honorary Treasurer of the Leeds Infirmary, pointed out the necessity of having an efficient nurses' home, especially in view of the not far-distant prospect of an extension of the workhouse hospital, and the fact that it was the duty of the guardians to provide for the nursing of the sick outdoor paupers. He did not think the expenditure proposed was at all excessive.

A man, aged 38, was admitted to one of the medical wards at the General Infirmary on August 26th suffering from pneumonia. Shortly after his admission he got up, remarking that he must go home to his wife and family. Without warning he rushed to the end of the ward and jumped from the lavatory window, a distance of 24 feet, fracturing his skull, from which he died the following day. The coroner, in deference to a request from the jury, asked what steps had been taken to protect the windows in view of a similar accident, which had occurred a few weeks previously. Mr. Benson Jowett, the Honorary Treasurer, remarked that, until the accident referred to, there had been no casualty for four years, although the windows had remained in the same condition. The partitions were very narrow, but in order that there might be no risk in the future, the House Committee had decided to effect alterations in fifty of the windows on the first and second floors.

CORRESPONDENCE.

ABUSE OF MEDICAL CHARITIES.

Sir,—I have nowhere said that all applicants, of whatever social standing, would be accepted by a hospital consultant if they were interesting cases; but that consultants would be glad of any system which weeded down the great mass of applicants to a few cases of serious disease. Again, by cases of urgency I do not mean any person on his first visit, but people obviously very ill; and there is very little difference of opinion on these cases.

The Manchester system, praised by Dr. Rentoul, admits everyone to first aid, which, as he himself says, and I have endeavoured to point out, constitutes a great abuse.

Next, as to the expense of inquiry. Dr. Rentoul puts it down as 25s. to 30s. a week per charity. This may be the case in Manchester, but the figures taken from his own book, which he has been good enough to send me, show that in Manchester the cost of inquiry is nearly £900 a year, of which the charities pay £155. The balance, however, must be found by someone. The cost of inquiry is estimated at 5d. per head. An out-patient at the Leeds Infirmary costs 1s. 4d. Taking the two principal charities in Leeds—the Infirmary and the Public Dispensary—70,710 cases were treated last year, which would bring the cost of investigation to £1,473, or £750 for the Infirmary alone. No doubt, as the system became known, applicants for relief would be fewer, and consequent investigation expenses would be smaller; but on the Manchester system this expenditure would have to be faced for a year or two, and it is a rather serious matter. It is much easier to raise money to relieve distress than for machinery to investigate imposture.

Dr. Illingworth's assertion that the 150 applicants for relief would be reduced to 50 if the certificate of a medical practitioner were the sole recommendation necessary for a hospital, and that these 50 would distribute themselves equally to the various practitioners, can hardly be taken seriously. The 50 patients would crowd the surgeries of a certain small number of medical men, who would give them scant attention. I expect the opinion of the case suitable for a hospital would

vary greatly if the advice of medical men were sought whose fees were, say, 6d., 2s. 6d., 5s., £1 1s. per visit.

I am convinced that abuse exists, but the difficulties are great, and hardly appreciated by those who are not intimately acquainted with the working, both from the lay and the professional side, of a large hospital or dispensary. That there is a way of meeting the difficulty I have no doubt. The indiscriminate feeding of the poor at the gates of the mediæval monasteries has been succeeded by organised parochial relief. Already medical relief, as organised by parochial authorities in London and some of our large towns, is but little under the level of the voluntary hospital. The exact function of the medical charity requires to be defined anew under the altered circumstances of the present.—I am, etc.,

Leeds, August 28th. ERNEST H. JACOB, M.D.

SIR,—The practical difficulty in giving the control of the distribution of out-patient letters to general practitioners mentioned by Dr. Jacob in his letter of August 14th seems rather far-fetched. It is true, if all patients had to go first to see a general practitioner before admission to the out-patient department, that general practitioners would have more work to do than they have at present. Of these patients, some would pay small fees; while as to the others, the general practitioner would scarcely complain of having to see some poor persons for nothing, in view of the amount of money which would pass into the pockets of the profession through a removal of out-patient abuses. At the present time hospitals in competition with one another and with the medical profession do great harm, and unless some check such as the one I have suggested be adopted, the evil will only increase. It is a question whether hospitals would not be more efficient if placed under State control.

As regards the quality of the work in the out-patient department, Dr. Jacob feels that the imputation of carelessness is undeserved. In many hospitals the out-patient physician and his clinical assistant see between them often over 150 patients in three hours or less. However conscientious the men may be, it is a physical impossibility for two men to see anything like that number in the time, and do justice to the cases. The fault lies with the system, which allows the out-patient halls to be crowded regardless of consequences. The general practitioners in England should not allow this matter to drop, but in view of the ever-increasing competition among themselves, they should learn from other professions and callings how to organise, and by organisation how to put down the crying evils of unrestricted hospitals, clubs, and medical aid associations. This lesson we are learning now, and in time our efforts will be successful.—I am, etc.,

Aug. 22nd. GENERAL PRACTITIONER.

A DOCTORLESS COMMUNITY.

SIR,—At the present time, when a Commission has recently been sitting to consider the question of improving the accuracy of the certified registration of deaths in the British Isles, and when all parties are agreed as to the necessity of every death being either certified by a registered medical practitioner or by the coroner, it will, perhaps, be a surprise to some to learn that there is a certain part of North Britain, with a population of over 300, where no death can be certified by a medical practitioner, for the best of reasons: that in this locality there is no doctor to be got for love or money, and the inhabitants pass their lives without any attention from the faculty beyond the periodic flying visits of a Government medical officer for the purpose of vaccination.

I allude to Fair Isle, a small island midway between the Orkneys and Shetland, which I had the opportunity of visiting during my summer holiday. The population of this island appear to be fairly healthy, although their struggle for existence must be very severe; and, as far as I could ascertain, their death-rate was not conspicuously higher than that on the mainland of Shetland; but there was no doubt, from questions that I put to inhabitants—the postmaster, registrar, etc.—that this inability to procure medical aid in emergencies was very serious, and felt by all to be a great hardship. Instances were told me showing how urgent was their necessity in this respect at times. Only a year ago a woman in childbed was in imminent danger; the whole island was aroused, but could do nothing. It fortunately happened, however, that just at this time a steamship from Leith was seen off the coast, and, it being summer time, the islanders were able to signal to her and put off a boat to see if any surgeon might happen to be on board her. Fortune favoured them; a surgeon bound for Norway for his holiday was a passenger, and, recognising the urgency of the islanders' appeal, generously gave up his proposed holiday, went ashore in the boat, successfully delivered his patient, and earned the everlasting gratitude of these simple people, adding one more contribution to the long list of unobtrusive, self-sacrificing actions, so often performed by members of the profession in the cause of humanity.

Yet from a public point of view I must maintain that such an emergency as this ought not to be possible, and it makes one shudder to think how slender the chance of relief in this way would usually be, especially in the winter, when no communication between the island and the mainland is possible for months at a time. It often happens that it is impossible for passing ships to land anyone owing to the roughness of the sea and the fact that there are only two places in a coast line of about twelve miles where a landing can be effected at any time. In the summer the usual communication is by the mail boat, a cutter of 13 tons burden, once a fortnight, but the punctuality of her visits cannot be relied upon.

In an interview with the proprietor of the island he pointed out to me how impossible it was for him to provide medical aid. He told me that if he were to give the whole of the rentroll of the island it would not furnish a sufficient salary for a medical man to reside there, that he had, further, petitioned the Trinity House to assist him, for there are two lighthouses on the island, the keepers of which and their families are equally shut off from medical aid, but the pittance they offered to contribute—some £20 per annum—was quite inadequate for the purpose. Further, the parish on the main land to which Fair Isle belonged was a very poor one, and, in his opinion, unable to take any further burden on its rates.

It seems to me that these 300 subjects of the Queen ought not to be deserted in this manner. I was under the impression that it was the duty of every parish throughout the United Kingdom to furnish medical aid to necessitous poor, and it could hardly be argued there were none of this class in Fair Isle, where the condition of the most wealthy was more necessitous than many of those to whom in Ireland orders for medical relief are given as a matter of course. Even in the case of the lighthouse keepers, although they are only one or two families they still are distinctly Government servants. Are not the Trinity House bound to see that they get suitable medical aid in time of need?—I am, etc.,

MAJOR GREENWOOD, M.D., D.P.H.Lond.

Hackney Road, N.E., Aug. 23rd.

GALL STONES AND CANCER.

SIR,—The question has been again raised, Is there an increased liability to gall stones in those suffering from malignant disease? For my own part, I think not. In 63 necropsies on cases of malignant disease (including 38 of scirrhus of the breast) at the Cancer Hospital, gall stones existed only in 3, each of which was a case of primary carcinoma of the liver. In the few cases I have seen, where cancer was the cause of death in the insane, gall stones have not been present. May not the large number stated by Mr. Roger Williams be accounted for by the fact that they were taken from the Middlesex Hospital, where the patients had remained a long time bedridden in the special cancer ward?—I am, etc.,

Colney Hatch Asylum, Aug. 25th. CECIL F. BEADLES.

BIMECONATE OF MORPHINE.

SIR,—I should like to draw your attention and that of the medical profession in general to the action—idiosyncratic or otherwise—of the above named drug. For many years I have suffered from spasmodic cardiac pains, also extreme enteric weakness, but natural health has enabled me to overcome or rather submit to them. In the latter part of last year the cardiac pains became very severe, and although I had been to see specialists and had been passed by medical examiners for life insurance societies, I consulted our usual

medical man and his brother, both of whom, after examining me, pronounced the heart's action as normal and the organ in good condition. Nevertheless, the pain and spasms continued, and one evening, whilst at my laboratory performing an important analysis, the pain was almost unbearable. Remembering that bimeconate of morphine was the preparation of opium the least liable to affect the head—according to textbooks, and in my lectures to students at St. George's Hospital, where I was demonstrator or teacher a few years back, I gave the note—one-tenth of a grain was taken; this producing no beneficial results, a larger dose was absorbed, but without any desired effect beyond making the decimal points in the progress of the analysis seem hazy.

A few days afterwards, previous to paying a visit to a friend at Exeter, the pains again were severe, and I had recourse to the same drug with about 3 ounces of whisky, and on the journey down took about 3 grains of the bimeconate, eating it with a bun; this to a great extent relieved the pain, and on my arrival I enjoyed a good meal. Afterwards we adjourned to the billiard table, but during the whole evening I only had half a glass of ale. During the night I had such symptoms as I have never had before, and, although my head was dazed, vomiting and purging accompanied it.

The next morning a medical man was called in, and a half or quarter bottle of whisky being found in my bag, my case was put down at once as being one of delirium tremens.

On the following day I returned to London, not (excepting the half glass of ale and at the most two tablespoonfuls of whisky) having touched alcohol. On arriving home the spasms were worse than ever, and in desperation I swallowed, it must have been, nearly 10 grains of bimeconate of morphine in milk. This was the *finale*; for four days delirium was extreme, and my medical attendant informed my wife and friends that it was delirium tremens. This I knew was wrong, and suffered severely by giving up the bimeconate and any other stimulant, and you cannot imagine the shame which I felt.

A short time ago (in fact, last week) these cardiac pains recurring, I tried $\frac{1}{20}$ grain of acetate of morphine; the relief was instantaneous, and no mental disturbance followed. This led me to suspect the meconic acid contained in the bimeconate of morphine; consequently, small, full, and overdoses I tried, and with results that eyesight was imperfect, brain power doubtful, and muscular action impeded; in fact, similar symptoms to what I had experienced in taking the morphine preparation.

The experiments on myself are borne out in their veracity by a dental patient of mine, who had been taking, according to her medical man's prescriptions, two draughts, each containing 10 minims of liquor morphinæ bimeconatis, and, as she said, it nearly drove her mad.

My letter, Sir, is long; but I think the faculty should know of these actions of meconic acid combined with morphine, by which the sedative action of the latter is nullified.—I am, etc.,

F.C.S., F.L.S.

August 3rd.

MEDICO-LEGAL AND MEDICO-ETHICAL.

MEDICAL DEFENCE UNION, LIMITED.

A COUNCIL meeting was held at the rooms of the British Medical Association, London, on August 23rd, 1893, at 4 o'clock P.M.; Mr. Victor Horsley in the chair. Thirteen new members were accepted, and one rejected. It was resolved to report a dentist to the General Medical Council for assuming the title of "Dr." Authority was given to report three medical men to the General Medical Council for covering unqualified practitioners. Advice was given to several members in questions involving difficulties in their practices. Several matters of minor moment were dealt with.

MEDICAL AID ASSOCIATIONS.

W. M. writes: *Apropos* of the insertion in the BRITISH MEDICAL JOURNAL of August 26th, of a resolution passed at a meeting of the medical men of Kidderminster and district, I wish to say that undoubtedly the time has now arrived when the growth of medical aid associations and the resulting injury to the medical profession and the small wage-earning class of the public, can and should be lessened, and possibly ended. The committee appointed by the General Medical Council have fully investigated the whole question, and proved that these associations (as now for the most part conducted) are very pernicious, and recommended the Council to pronounce the conduct of medical men who acted as officers to medical aid associations to be reprehensible. The General Medical Council declined to issue any such pronouncement, because they had no legal power to inflict any penalty. It remains, therefore, for medical men to combine in districts and (guided by the recommendation of the committee) take a similar action to that of the medical profession of Kidderminster and district, and treat medical officers of medical aid associations as conducting themselves professionally in a reprehensible manner. If in all districts where medical aid associations exists such action is taken, the result would undoubtedly be that these societies would either be amended or ended. I trust that your insertion of this may lead to some such general action as I have indicated.

DOCTORS AND DENTISTS.

M.D., F.R.C.S. writes: I think that the rule as to fees between doctors and dentists is very one-sided, that is to say, the doctors apparently rarely charge the dentists, whilst the dentists almost invariably charge the doctors for services rendered. Following the advice given in the BRITISH MEDICAL JOURNAL, I have never taken a fee from a dentist, and yet I have always been charged by dentists, even when the latter have been personal friends. Dentists appear to charge medical men half fee, that is to say, half a guinea for stopping a tooth, etc. I enclose the names of dentists whom I have consulted. You will see that all are qualified medical men. Personally, for obvious reasons, I prefer to pay a fee.

THE LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY.

THE organisation of the proposed Northern Division suggested at the conference held during the meeting of the British Medical Association at Newcastle-on-Tyne is progressing most satisfactorily. The Division will consist of the four northern English counties and the Border Scottish counties, being practically identical with the areas for organisation purposes adopted by the Branches of the British Medical Association. The adhesion of influential medical men throughout the Division is most satisfactory. The Divisional Presidency has been accepted by Dr. Thomas Oliver, Physician to the Royal Infirmary, Newcastle-on-Tyne, and the secretaryship by Dr. F. W. Clarke. The counties will retain their special organisation, but for the purposes of arranging the annual and other meetings and general working it is felt great advantages will accrue and that the creation of a powerful northern division under able leaders will be most beneficial. The organising secretary, Dr. Geo. Borthwick Mead, has spared neither time nor pains, both during the meeting of the Association and subsequently, in perfecting the scheme of organisation.

NAVAL AND MILITARY MEDICAL SERVICES.

ARMY MEDICAL STAFF EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post office order with the notice. The first post on Thursday mornings is the latest by which these announcements can be received.

A SURGEON-MAJOR, with nearly two years of foreign tour completed, due to return to Bombay Presidency in December next, wishes to exchange with a Surgeon-Major having a good position on home roster.—Apply to "India," care of Messrs. Holt and Co.

Wanted, by a Surgeon-Captain one year home from foreign service, an Exchange for whole or part tour in a colony, Bermuda, Halifax, or the Cape preferred.—Address "Viator," care of Messrs. Holt and Co., 17, Whitehall Place, S.W.

ARMY MEDICAL STAFF.

The following is the list of successful candidates for commissions in the Medical Staff of Her Majesty's Army at the recent examination in London:

	Marks.		Marks.
1. A. E. Master	2,421	7. E. S. Clark	2,043
2. H. V. Pryme	2,373	8. M. Boyle	2,036
3. G. Dansey Browning	2,271	9. A. C. Fox	2,012
4. K. B. Barnett	2,117	10. W. Tibbitts	2,009
5. C. M. Fluery	2,090	11. W. J. Corbett	1,986
6. K. M. Cameron	2,050	12. S. F. St. D. Green	1,978

INDIAN MEDICAL SERVICE: COMPETITIVE EXAMINATION.

THE following is a list of the candidates for Her Majesty's Indian Medical Service who were successful at the competitive examination held at Burlington House on August 14th and following days. Twenty-seven candidates competed for twelve appointments, twenty-one were reported qualified:

	Marks.		Marks.
1. G. Lamb	2,777	7. C. H. Evans	2,366
2. H. Burden	2,517	8. C. Thomson	2,209
3. B. H. F. Leumann	2,503	9. A. A. S. Harriss	2,152
4. H. Bennett	2,476	10. E. S. Peck	2,116
5. E. C. MacLeod	2,460	11. A. E. Berry	2,109
6. J. Fisher	2,377	12. H. St. J. Fraser	2,065

THE NAVY.

THE following appointments have been made at the Admiralty: ROBERT N. NICHOLSON, Surgeon to Haslar Hospital, August 30th; BASSETT C. E. F. GUNN, Surgeon to Portsmouth Division Royal Marines, August 30th; JOHN W. SLAUGHTER, M.B., B.A., Surgeon to the *Wildfire*, August 30th.

The undermentioned Surgeons, having served twelve years, are promoted to be Staff-Surgeons, August 25th: ERNEST EDWARD BRAY, JOHN LEONARD AHERNE, B.A., EDWARD JAMES BIDEN, EDWARD GOFFE SWAN,

William Eames, Charles William Sharples, Robert William Anderson, John Ottley. Staff-Surgeon Eames was Surgeon of the *Sultan* at the bombardment of the Alexandrian forts in July, 1882, and during the Egyptian war (medal with clasp and Khedive's star); Staff-Surgeon Ottley was Surgeon of the gunboat *Starling* in the Niger Expedition in 1883, and landed at Abo with the Naval Brigade, and saw some severe fighting (mentioned in despatches).

ARMY MEDICAL STAFF.

Surgeon-Major T. Lucas, who is serving in Burmah, in the Madras Command, has been mentioned in the despatches of Brigadier-General Palmer, commanding the troops during the recent operations in the Chin Hills, for his services during the trying and laborious work undertaken by the troops engaged.

Surgeon-Captains F. J. W. Stoney and H. S. Peeke, who are serving in the Bengal Command, have leave of absence for four months on urgent private affairs.

Surgeon-Captain V. H. W. Davoren, serving in the Bombay Command, has leave to England for six months on private affairs.

Surgeon-Major Robert Haselden died at Netley, on August 19th, at the age of 40. His commission as Surgeon dated from February 5th, 1881, and that of Surgeon-Major twelve years thereafter. He served in the Egyptian war of 1882 (medal and Khedive's star), and with the Nile Expedition in 1884-5 (clasp).

Surgeon-Captain W. H. Lendrum, M.D., retires from the service, receiving a gratuity, August 30th. He was appointed Surgeon-Captain, August 4th, 1883.

ARMY MEDICAL RESERVE.

Surgeon-Captain George Middlemiss, 1st Volunteer Battalion the Durham Light Infantry, and Surgeon-Lieutenant W. B. Macdonald, M.B., 1st Haddington Artillery Volunteers, to be Surgeon-Captains August 30th.

INDIAN MEDICAL SERVICE.

Brigade-Surgeon-Lieutenant-Colonel T. Ffrench, Bengal Establishment, Civil Surgeon of Bikanir, is appointed to hold temporary charge of the current duties of the office of Political Agent in Bikanir.

Surgeon-Major-General P. S. Turnbull, M.D., Bombay Establishment, is awarded a good service pension from February 26th.

Brigade-Surgeon-Lieutenant-Colonel J. C. G. Carmichael, Bengal Establishment, 1st Battalion 3rd Goorkha Rifles, in anticipation of his promotion to the temporary rank of Surgeon-Colonel, is appointed to officiate as P.M.O. Bundelcund and Nerbudda Districts, during the period Surgeon-Colonel E. O. Tandy is on leave.

Surgeon-Lieutenant P. St. C. More, Bengal Establishment, assumed charge of the civil medical duties of Mardan on July 16th.

Surgeon-Captain H. Fooks, Bengal Establishment, assumed charge of the civil medical duties of Dera Ghazi Khan on July 17th.

Surgeon-Captain C. H. James, Bengal Establishment, is appointed to officiate as Deputy Sanitary Commander, Punjab, from July 20th.

Surgeon-Major W. Deane, Bengal Establishment, Civil Surgeon of Moradabad, is appointed to hold visiting medical charge of Bijnore District in addition to his own duties.

Surgeon-Captain J. S. S. Lumsden, M.B., Bengal Establishment, is appointed to hold civil medical charge of Almora District, in addition to his military duties, from July 21st.

Of the Surgeons lately passed out of Netley, nine are posted to Bengal, one to Bombay, and five to Madras.

Surgeon-Colonel J. Richardson, M.B., Bengal Establishment, Inspector-General of Civil Hospitals, North-West Provinces, goes on eight months' leave on September 19th, and then retires from the service: he will, it is stated, be succeeded by Surgeon-Colonel J. G. Pilcher from Bengal; Surgeon-Colonel R. Harvey, who will later on take up Dr. Pilcher's appointment in Bengal, goes shortly on two months' privilege leave.

Surgeon-Lieutenant-Colonel A. S. Reid, M.B., Bengal Establishment, Medical Officer, 2nd Battalion 4th Goorkha Rifles, has been nominated to act as Medical Storekeeper, Calcutta, during the absence of Surgeon-Major C. J. H. Warden, on deputation.

The undermentioned officers have leave of absence as specified:—Surgeon-Colonel C. P. Costello, Bengal Establishment, Principal Medical Officer and Sanitary Commissioner, Assam, for three months on private affairs; Surgeon-Colonel J. Richardson, M.B., Bengal Establishment, Inspector-General of Civil Hospitals, North-West Provinces and Oude, for eight months on private affairs; Surgeon-Lieutenant-Colonel S. M. Salaman, M.D., Bombay Establishment, Superintendent of Yerrowda Gaol, special leave for six months from September 1st on urgent private affairs.

THE VOLUNTEERS.

Surgeon-Lieutenant T. W. Wright, 2nd Volunteer Battalion Queen's Own Royal West Kent Regiment (late the 3rd Kent), has resigned his commission, which dated from July 23rd, 1892.

A further list of names of officers upon whom the Volunteer Officers' Decoration has been conferred appears in the *London Gazette* of 25th ult., but it does not include the name of any medical officer.

INDIAN MEDICAL OFFICERS AND THE LOWER STANDARD EXAMINATION.

Our attention has been drawn to correspondence on this subject in the columns of the *Civil and Military Gazette of India*. The treatment dealt out to Indian medical officers is contrasted with that accorded to other Indian army officers on the question of passing in the language. It takes the medical officer a full year to pass the lower standard, during which time he does not draw staff pay, a loss of rupees 100 per month. Is this because he is reckoned inefficient until he passes? That cannot be, else why is he put to do full duty with full responsibility at once? Besides, he gets no leave or facilities for passing the language. On the other hand probationers for the Staff Corps and all other juniors of the Indian army are granted full staff pay for the first two years of their service, and need not pass in any language until the expiry of that period. Moreover, they are all granted six months' leave in order to pass it. On the calculation that thirty junior surgeons join the Indian service annually, this invidious treatment of them saves the Government some 31,500 rupees yearly, deducting the 180 rupees given to each as a reward for passing. Of course, passing in the language is obligatory on Indian officers, and we presume the probationer who fails to pass is sent back to his regiment. But surely some fairer method might be pursued towards medical officers, such as refunding full staff pay on their passing, and giving better facilities for study of the language.

MEDICO-PARLIAMENTARY.

HOUSE OF LORDS.—Tuesday, August 29th.

University of Wales Charter.—The Bishop of Chester moved a resolution to the effect that it was undesirable that the assent of Her Majesty should be given to the draft charter of the proposed University of Wales until it had been so modified as to permit the inclusion of St. David's College, Lampeter. He asserted that the reason why it was excluded was that it was connected with the Church of England.—After the Bishop of St. David's had supported the motion, Lord Aberdare argued that the peculiar constitution and privileges of Lampeter placed it in a different category from the three colleges of Aberystwyth, Bangor, and Cardiff, embraced in the scheme.—Lord Kimberley pointed out that there was a clause in the draft charter providing for the admission from time to time of other colleges under proper conditions.—The resolution was adopted by 41 votes to 32.

HOUSE OF COMMONS.—Monday, Aug. 28th.

Parish Doctors in the East End.—Mr. W. Isaacson asked the Home Secretary whether his attention had been drawn to the case of Samuel Ely Hobbs, a dock labourer, lately residing at Love Lane, Ratcliff, who died at the Bromley and Stepney Sick Asylum of inflammation of the lungs, accelerated by destitution and privation, whether he was aware that there was only one doctor to the union, which contained the parishes of Limehouse, Stepney, and Radcliff, and that the wife of the deceased was two days before she could obtain the medicine prescribed by the parish doctor, and whether immediate steps would be taken to remedy the present system.—Sir W. Foster, in reply, said the attention of the Local Government Board had been called to this report. They had applied to the Coroner for copies of the depositions, and were in communication with the Board of Guardians.

The Public Health (London) Act (1891) Amendment Bill.—This Bill passed through Committee, and was read a third time.

Tuesday, August 29th.

University of Wales Charter.—Mr. Bryn Roberts moved an address to Her Majesty praying that assent should not be given to the charter of the University of Wales until it had been so amended as to enable students unconnected with the University colleges of Aberystwyth, Cardiff, or Bangor, to present themselves for degrees. He contended that the University would not be really a teaching university, and pointed to the history of the Queen's University in Ireland, as showing that the best policy was to throw degrees open to all who could pass the examination.—The resolution was seconded by Mr. D. A. Thomas.—Mr. Leighton supported the motion, on the ground that Lampeter College ought not to have been excluded.—Mr. D. B. Jones said that there had never been any serious demand in Wales for the creation of a University independent of the three University colleges. The charter proposed that the University should have power to grant diplomas or certificates, and to institute extra-university courses.—Mr. Kenyon observed that a clause was inserted in the charter with the express purpose of including in the future any constituent colleges which might commend themselves to Her Majesty for inclusion.—Mr. S. Evans pointed out that, taking all the Welsh colleges together, out of a total number of 2,718 pupils, 1,857 belonged to the artisan or labouring classes.—Mr. Acland said that all the petitions presented in this matter were laid before an impartial committee of the Privy Council, composed of the Lord President, Sir H. James, Lord Knutsford, Lord Playfair, and himself. The object of the scheme was to draw the poorer students to the University colleges by means of the Act of the late Government for intermediate education, and he was convinced that the Scotch system was the best for that purpose, and that the people of Wales would find that it would meet all their wants. Lampeter College was governed in a very limited manner, and was primarily a theological college.—The motion was negatived without a division.

Ventilation of War Ships.—Dr. Farquharson asked the Secretary to the Admiralty whether in H.M.S. *Anson*, although pipes and valves had been provided, a sufficiency of fans had never been fitted to carry out the proper ventilation of the ship, whether the general ventilation of ships of low freeboard might not be improved by a more general use of cowls fixed on the upper decks, removable at the discretion of the officers, and whether regulations could be made to prevent the removal of cowls necessary for the effective ventilation of the living quarters of such ships.—Sir U. Kay-Shuttleworth said that experience gained on actual service indicated that when the ships were battened down at sea for some time some additional artificial ventilation was desirable. One or two ships of the class were altered, more fan power being introduced, and in these the improved system was tested with success. It was then decided to alter the other ships as opportunity offered. The *Anson* was now in hand. The work was originally intended to be done in the *Anson* in 1892-3, but had to be deferred. In answer to the question whether he would consider if the general ventilation of ships of low freeboard might be improved by a more general use of cowls fixed on the upper decks, removable at the discretion of the officers of the ship, he might say that such arrangements were always carried out as far as practicable. No special regulations were considered necessary for the effective ventilation of the living quarters of such ships. The matter should be within the discretion of the captain.

Alleged Cholera at Hull.—Mr. MACDONA asked the President of the Local Government Board whether he was aware that on August 24th a boy named James Henry Fortman, aged 11 years, died of Asiatic cholera at Havelock Terrace, Dansom Lane, Hull, in the midst of a densely populated part of the town; and whether he could inform the House how the disease was imported, or where it originated.—Sir W. FOSTER said that, as additional circumstances had come to light, the Government had sent down inspectors to Hull to inquire into the case.

The Army Medical Service.—Mr. A. C. MORTON asked the Secretary of State for War whether the War Office, in allotting bearer company and field hospital equipment to various garrisons for training the medical service for the army, would include Netley in the distribution, so that the medical officers for the Indian army could benefit by instruction there.—Mr. CAMPBELL-BANNERMAN, in reply, said: The officers of the Imperial Medical Service receive their special training in ambulance and hospital field duties at Aldershot. The question as to the sufficiency of the training of Indian medical officers is one for the Government of India.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

FEES UNDER THE NOTIFICATION ACT.

A CORRESPONDENT writes that he notified a case of infectious disease in August, 1892, and rendered an account for payment of the fee of half a crown in respect of the same in January, 1893. The local authority declines to pay the fee, on the ground that the account should have been rendered at Michaelmas, 1892, the fees for certificates under the Notification Act being dealt with each quarter, and the claim advanced in January being therefore "out of date." Our correspondent appears anxious to press the authority for payment, and asks for advice in the matter.

*** Surely the common sense view of the case is that our correspondent should take care in future to send in his claims for payment with due regularity, and so avoid any possibility of their being declared "out of date."

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,392 births and 4,283 deaths were registered during the week ending Saturday, August 26th. The annual rate of mortality in these towns, which had been 20.9 and 22.8 per 1,000 in the preceding two weeks, declined to 21.6 during the week under notice. The rates in the several towns ranged from 13.4 in Croydon, 15.0 in Plymouth, 15.1 in Birkenhead, 15.9 in Portsmouth, and 16.6 in Gateshead to 26.4 in Bradford, 26.6 in Wolverhampton, 27.0 in Hull, 27.9 in Sunderland, 28.0 in Sheffield, and 33.2 in Blackburn. In the thirty-two provincial towns the mean death-rate was 22.2 per 1,000, and was 1.4 above the rate recorded in London, which was 20.8 per 1,000. The 4,283 deaths registered during the week under notice in the thirty-three towns included 1,026 which were referred to the principal zymotic diseases, against 974 and 1,066 in the preceding two weeks; of these, 707 resulted from diarrhœa, 74 from whooping-cough, 66 from diphtheria, 62 from measles, 55 from scarlet fever, 55 from other forms of "fever" (principally enteric), and 7 from small-pox. These 1,026 deaths were equal to an annual rate of 5.2 per 1,000; in London the zymotic death-rate was equal to 4.4 per 1,000, while it averaged 5.8 in the thirty-two provincial towns, among which these diseases caused the lowest death-rates in Birkenhead, Bristol, Swansea, Croydon, and Portsmouth, and the highest in Salford, Burnley, Blackburn, Sunderland, and Hull. Measles caused the highest proportional fatality in Sheffield; "fever" in Preston; and diarrhœa in Norwich, Sheffield, Preston, Burnley, Bradford, Leeds, Salford, Blackburn, Sunderland, and Hull. In none of the thirty-three towns did the rate from scarlet fever or from whooping-cough reach 1.0 per 1,000. The 66 deaths from diphtheria included 56 in London, 2 in Brighton, 2 in Leicester, and 2 in Manchester. Three deaths from small-pox were registered in London, and one each in West Ham, Leicester, Oldham, and Blackburn, but not one in any other of the thirty-three towns; 181 small-pox patients were under treatment in the Metropolitan Asylums Hospitals and in the Highgate Small-pox Hospital on Saturday last, against 246, 221, and 209 at the end of the preceding three weeks. Nineteen new cases were admitted during the week, against 26 in each of the preceding two weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital was 2,894 at the end of the week, against 2,944, 2,875, and 2,891 on the preceding three Saturdays; 341 new cases were admitted during the week, against 318 and 365 in the preceding two weeks. The 162 deaths from diseases of the respiratory organs in London were 10 below the average, and were equal to an annual rate of 2.0 per 1,000.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday, August 26th, 851 births and 571 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality, which had been 19.7 and 18.5 per 1,000 in the preceding two weeks, rose again to 20.3 during the week under notice, and was 1.3 per 1,000 below the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the lowest death-rates were 15.7 in Aberdeen and 18.2 in Greenock, and the highest rates 24.0 in Perth and 27.4 in Dundee. The 571 deaths in these towns included 158 which were referred to the principal zymotic diseases, equal to an annual rate of 5.6 per 1,000, which was 0.4 above the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Leith, Greenock, and Dundee. The 265 deaths in Glasgow included 37 from diarrhœa, 19 from whooping-cough, 6 from scarlet fever, 4 from "fever," 2 from diphtheria, and 1 from measles. Twenty-seven fatal cases of diarrhœa and 8 of whooping-cough were registered in Dundee, and 4 of measles in Greenock. The death-rate from diseases of the respiratory organs in these towns was equal to 2.3 per 1,000 as compared with 2.0 in London.

HEALTH OF IRISH TOWNS.

IN sixteen of the principal town-districts of Ireland the deaths registered during the week ending Saturday, August 19th, were equal to an annual rate of 23.8 per 1,000. The lowest rates were recorded in Limerick, Newry, and Lisburn, and the highest rates in Londonderry and Wexford. The death-rate from the principal zymotic diseases averaged 5.3 per 1,000. The 179 deaths registered in Dublin were equal to an annual rate of 26.7 per 1,000 (against 28.9 and 26.1 in the preceding two weeks), the rate during the same period being 22.5 in London and 15.6 in Edinburgh. The 179 deaths in Dublin included 31 which were referred to the principal zymotic diseases (equal to an annual rate of 4.6 per 1,000), of which 12 resulted from diarrhœa, 10 from different forms of "fever," 7 from whooping-cough, and 2 from measles.

INDIA AND THE COLONIES.

INDIA.

RESIDENCY SURGEONS AT NATIVE COURTS.—Some of our Indian contemporaries seem to be exercised in their minds at some recent appointments made in Rajputana. Dr. Hendley, the residency surgeon at Jeypore, has declined "the greatly superior appointment at Mount Abu." The reason for this officer's refusal need be no mystery. Superior in a technical sense the Abu appointment may be, but in point of emolument the one at the native court is probably worth more than double the "superior" appointment at Abu. The grievance seems to be that Dr. Hendley was not "seconded" when he declined to leave his position at Jeypore, where, as at all native courts, the field for lucrative private practice is much greater than at nine out of ten civil stations. In bygone days the practice of "seconding" medical officers did not obtain; residency surgeons at native courts were required to vacate their appointments only on promotion to a higher grade in the service. A more unusual departure from the old system is also noted and unfavourably commented on. The residency surgeon at Jodhpore has been allowed to accept the Abu appointment, retaining the personal allowance of Rs. 500 per mensem from the Maharajah of Johdpore. The effect of this will be that his successor as residency surgeon at the Jodhpore Court will have his emolument curtailed by the above-named sum. No reason is officially given for this certainly novel arrangement. It is probable that if the successor of Dr. Adams at Johdpore proves to be a *persona grata* to the Maharajah, he will not be allowed to suffer this pecuniary loss; but, without some good reason not divulged, this peculiar arrangement seems a little "rough" on the native prince as well as on the successor of Dr. Adams. Medical officers are not the only men who stick to office at native courts as long as possible. It appears that officials from other branches of the service, when so employed, are as reluctant as the doctors to leave their posts.

MEDICAL NEWS.

CHANGES AT ST. THOMAS'S HOSPITAL.—At St. Thomas's Hospital the following changes have occurred during the past year: Dr. Harley and Sir William MacCormac retire from the staff—Dr. Harley by virtue of age, Sir William MacCormac on having served the full term of office of twenty years. As an acknowledgment of the valuable services rendered by Sir William to the medical school, he has been offered, and has accepted, an Emeritus Lectureship on Clinical Surgery. Mr. Bernard Pitts has been elected to the Grant Lectureship, vacant by the retirement of Sir William MacCormac. The school has to deplore the premature death of Dr. Hadden; he is succeeded in the Grant Lectureship by Dr. H. P. Hawkins. Dr. H. W. G. Mackenzie has been appointed an assistant physician. A vacancy for a third assistant physician will shortly be filled up. Mr. Lawford succeeds Mr. Nettleship in the lectureship on diseases of the eye. Mr. S. W. G. Toller has been appointed Demonstrator of Practical Medicine, Mr. H. B. Robinson Demonstrator of Morbid Histology, and Mr. E. C. Stubb Demonstrator of Practical Surgery. Two larger wings are being added to the medical school buildings; one will be devoted to laboratories for the use of classes in pathology, elementary biology, and operative surgery; the other will contain a large dining room on the ground floor, and above it on the first floor a reading and smoking room for the use of members of the amalgamated clubs.

MEDICAL VACANCIES.

The following vacancies are announced:

BOROUGH OF CHESTERFIELD.—Medical Officer of Health for the Urban Sanitary District. Salary, £200 per annum. Applications, endorsed "Medical Officer," to John Middleton, Town Clerk, by September 4th.

CAMBERWELL HOUSE.—Junior Assistant Medical Officer; unmarried. Initial salary, £100, with subsequent increase, board, lodging, and washing. Applications to the Medical Superintendent, 33, Peckham Road, S.E.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—House-Physician. Appointment for six months. Board, residence, and allowance for washing provided. Applications to the Secretary at the office, 24, Finsbury Circus, E.C., by September 14th.

DENBIGHSHIRE INFIRMARY, Denbigh.—House-Surgeon; must be conversant with the Welsh language. Salary to commence £85 per annum, with board, residence, and washing. (At the end of year's engagement, if satisfactory, a gratuity of £15 is given.) Applications to W. Vaughan Jones, Secretary.

GENERAL HOSPITAL, Birmingham.—House-Physician. Salary, £70 per annum, with residence, board, and washing. Applications to Howard J. Collins, House Governor, by September 2nd.

KENT COUNTY ASYLUM, Chartham, near Canterbury.—Junior Assistant Medical Officer, unmarried. Salary, £125 per annum, with furnished apartments, board, and attendance. Applications to the Clerk of the Committee of Visitors, Allen Fielding, Solicitor, Canterbury, by September 20th.

ST. PETER'S HOSPITAL FOR STONE AND URINARY DISEASES, Henrietta Street, Covent Garden.—House-Surgeon; must be M.R.C.S. Appointment for six months. Honorarium, 25 guineas, with board, lodging, and washing. Applications to the Secretary by September 11th.

STAFFORD GENERAL INFIRMARY, Stafford.—Assistant House-Surgeon. Board and residence provided. Applications to the Secretary by September 9th.

UNIVERSITY OF ABERDEEN.—Eleven Examiners in Medicine. The Examiners in Medicine and Surgery will receive a grant of £50 each, and the other nine a grant of £40 each. Applications to Robert Walker, Secretary, the University Court, by September 25th.

UNIVERSITY OF DURHAM.—Professor of Comparative Pathology in the University of Durham College of Medicine, Newcastle-on-Tyne. Applications to the trustees of the late Dr. G. Y. Heath, care of Dr. Philipson, 7, Eldon Square, Newcastle-on-Tyne, by September 9th.

WEST LONDON HOSPITAL, Hammersmith Road, W.—House-Physician and House-Surgeon. Appointment for six months. Board and lodging provided. Must be registered under the Medical Act. Applications, with testimonials, must be sent to R. J. Gilbert, Secretary-Superintendent, by September 20th.

MEDICAL APPOINTMENTS.

ALLARDICE, Wm. C., M.B., C.M.Glasg., appointed Senior House Surgeon to Macclesfield General Infirmary, *vice* A. L. Macleod, M.B., C.M.Glasg., resigned.

ANDERSON, Jas. Keith, M.D., L.R.C.S.Edin., reappointed Parochial Medical Officer for St. Vigeans.

ANDERSON, William H., M.B., C.M.Glasg., appointed Medical Officer for the Third District of the Birkenhead Union.

BATHE, Anthony John, L.R.C.P.Lond., M.R.C.S.Eng., appointed Surgeon to the Southampton Dispensary.

BENSON, H. P. D. A., appointed Medical Officer for the Skenfrith District of the Monmouth Union.

BETENSON, W.B., L.R.C.P., M.R.C.S., appointed Medical Officer for the Bungay District of the Wangford Union.

BIRD, G. W. H., B.A., M.B., B.C.Cantab., L.R.C.P., M.R.C.S., appointed non-Resident House-Physician to the St. Thomas's Hospital.

BOSTOCK, John, M.R.C.S.Eng., L.S.A., reappointed Medical Officer for the Wymesfold District of the Loughborough Union.

BOWER, H. E., M.B., C.M.Edin., appointed Medical Officer for the Budworth District of the Runcorn Union.

BOYD, J. W., M.B., C.M.Glasg., appointed Junior House-Surgeon to the Macclesfield General Infirmary, *vice* W. C. Allardice, M.B., C.M., resigned.

BROWN, James M., M.B., B.Ch.R.U.I., appointed Medical Attendant to Gilford Mill and Hospital, Surgeon to R. I. Constabulary and Certifying Factory Surgeon, *vice* Dr. S. Swann, deceased.

CADELL, M.A., M.D.Brussels, L.R.C.P.&S.Edin., L.F.P.S.Glasg., appointed Medical Officer to the Church of Scotland Mission (Aberdeenshire Branch) at Sialkot, India.

CHANCE, R. F., L.R.C.P., M.R.C.S., appointed Junior Obstetric House-Physician to the St. Thomas's Hospital.

COLEMAN, Matthew Owen, M.D.Aberd., reappointed Medical Officer and Public Vaccinator for the Surbiton District of the Kingston Union.

DAY, Francis Wm. Hy. Langston, L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer of Health for the Hitchin Rural Sanitary Authority of the Hitchin Union.

DEWAR, James Alex., M.D., L.R.C.S.Edin., reappointed Parochial Medical Officer for the East District of St. Vigeans.

FAWCETT, W. Herbert, M.D.Brux., D.P.H.Eng., L.R.C.P., L.R.C.S.Ed., L.F.P.S.Glasg., appointed Medical Officer and Public Vaccinator to the Second District of the Wimborne and Lanbourne Union and Surgeon to the Workhouse.

FISHER, J. H., F.R.C.S., L.R.C.P., appointed Senior Obstetric House-Physician to the St. Thomas's Hospital.

FOWLER, F., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer for the Fourth District of the Stroud Union.

GRIFFIN, Dr., appointed Surgeon to the Southampton Dispensary.

HAINWORTH, E. M., B.Sc.Lond., L.R.C.P., M.R.C.S., appointed Assistant House-Surgeon to the St. Thomas's Hospital.

HICKS, T. W., L.R.C.P., M.R.C.S., appointed Resident House-Physician to the St. Thomas's Hospital. (Extension.)

HOLMES, F. D., B.A., R.U.I., L.R.C.P.Edin., appointed Medical Officer for the Duffield District of the Belper Union and Medical Officer for the Fourth District of the Shardlow Union.

JAFFÉ, C. S., L.R.C.P., M.R.C.S., appointed Clinical Assistant in the special departments for diseases of the throat of the St. Thomas's Hospital. (Extension.)

JOHNSON, Francis, L.R.C.P.I., M.R.C.S.Eng., reappointed Medical Officer and Public Vaccinator for the Hedgerley Sanitary District of the Eton Union.

JOHNSON, Frederick, M.B.Lond., F.R.C.S.Eng., appointed Senior House-Surgeon to the Deaconess's Institution and Hospital, Tottenham, N.

LEACHMAN, Albert W., M.D.St.And., M.R.C.S.Eng., appointed Medical Officer of Health for the Petersfield Urban Sanitary District.

MERRY, W. J. C., M.A., M.B., B.Ch.Oxon., appointed Clinical Assistant in the special departments for diseases of the Skin of the St. Thomas's Hospital.

MILTON, A. R. O., L.R.C.P., M.R.C.S., appointed Assistant House-Surgeon to the St. Thomas's Hospital.

MOORE, H. M., L.R.C.P., M.R.C.S., appointed Clinical Assistant in the special departments for diseases of the Ear of the St. Thomas's Hospital.

NODES, John D. S., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer for the Second District of the East Preston Union.

NORTHCOTE, P., L.R.C.P., M.R.C.S., appointed non-Resident House-Physician to the St. Thomas's Hospital. (Extension.)

PERSHOUSE, Frederick, L.R.C.P., M.R.C.S., appointed Clinical Assistant in the special departments for diseases of the Skin of the St. Thomas's Hospital. (Extension.)

PLANCK, C. P., M.A.Cantab., L.R.C.P., M.R.C.S., appointed House-Surgeon to the St. Thomas's Hospital.

PURVIS, W. P., M.B., B.Sc.Lond., L.R.C.P., M.R.C.S., appointed Clinical Assistant in the special departments for diseases of the Throat of St. Thomas's Hospital.

REDPATH, W., L.R.C.P., M.R.C.S., appointed House-Surgeon to the St. Thomas's Hospital.

ROGERS, Bertram M. H., M.D., B.Ch., M.R.C.S., appointed Physician to the Bristol Hospital for Sick Children and Women.

SMITH, E., L.R.C.P., M.R.C.S., appointed House-Surgeon to the St. Thomas's Hospital.

STEINTHAL, Mr. William M., appointed Assistant Medical Officer to the Manchester Union.

THOMPSON, G. W., B.A., M.B., B.C.Cantab., L.R.C.P., M.R.C.S., appointed Resident House-Physician to the St. Thomas's Hospital.

THORNE, Leslie C. Thorne, M.R.C.S., L.R.C.P., appointed Assistant House-Surgeon to the Infirmary for Children, Liverpool, *vice* C. Parker, resigned.

TURNER, Mr. Richard T., appointed Assistant Medical Officer to the Manchester Union.

TWEEDIE, Francis King, M.B.R.U.I., B.Ch., appointed Medical Officer of Health for the Hucknall-under-Huthwaite Urban Sanitary District of the Mansfield Union, *vice* Freperick Wm. Style, L.R.C.P., M.R.C.S., resigned.

WALLACE, C. S., F.R.C.S., L.R.C.P., appointed House-Surgeon to the St. Thomas's Hospital.

WARD, M.A., M.D.Dub., F.R.C.S.I., appointed Medical Officer of Health for Rathmines.

WHITWELL, George Groves, M.B., C.M.Edin., appointed Medical Officer for the Atcham District of the Atcham Union.

WILSDEN, Alfred, C.M., M.B.Aberd., appointed Junior House-Surgeon to the Deaconess's Institution and Hospital, Tottenham, N.

WOODCOCK, A. H., L.R.C.P., M.R.C.S., appointed Clinical Assistant in the special departments for diseases of the Ear of the St. Thomas's Hospital. (Extension.)

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTHS.

STAVELEY.—August 9th, at 13, South Eaton Place, S.W., the wife of W. H. C. Staveley, F.R.C.S., of a son.

WHITAKER.—August 25th, at Blunt House, Willoughby Road, Hornsey, N., the wife of George Herbert Whitaker, M.R.C.S., of a son.

MARRIAGES.

COOPER—WILKINSON.—On August 24th, at All Hallows, Tottenham, by the Rev. W. Starey, M.A., Ernest Frederick Cooper, M.R.C.S., of 10, Belsize Road, N.W., to Vernon Wilkinson, recently of the nursing staff of Charing Cross Hospital, only surviving daughter of the late James Wilkinson, of Newcastle-on-Tyne.

OXLEY—MELLISH.—August 23rd, at St. John's Church, Buckhurst Hill, by the Rector, the Rev. T. W. Peile, Frederick John Oxley, M.R.C.S., L.R.C.P., of Notting Hill, eldest son of Frederick Oxley, solicitor, 8, Crosby Square, to Madeline, younger daughter of Charles Mellish, of the Ferns, Buckhurst Hill.

RONALDSON—WATERHOUSE.—On August 16th, at St. Peter's Church, Brighton, by the Rev. C. Beanlands, Vicar of St. Michael's Church, Robert Miller Ronaldson, M.B.Edin., M.R.C.S.Eng., youngest son of the late George Ronaldson, Barn Hall, Leixlip, co. Kildare, to Katherine Mabel, fourth daughter of the late Rev. C. J. Waterhouse, M.A., of Her Majesty's Indian Service.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

ANSWERS.

W.—An M.R.C.S.Eng., L.S.A.Lond., is not legally entitled to make use of the title of "Dr."

INQUIRER.—Information as to "brassfounders' ague" will be found in Dr. Arlidge's *Hygiene, Diseases and Mortality of Occupations*. As to the ague in England and Wales, our correspondent might consult Dr. Davidson's *Geographical Pathology*, vol. i, p. 106, *et seq.*

POST-MORTEM EXAMINATION OF STILLBORN CHILDREN.

W.D.U.—The consent of the parents is what the law requires. Under the circumstances stated such consent might probably be presumed, and there seems to be practically no legal objection to performing a *post-mortem* examination.

THE MEDICAL PROFESSION AND POLICE CALLS.

LEX.—The police have no legal right to compel the attendance of any duly qualified medical man in cases of accident. They are directed by police orders (which for them are equivalent to law) to summon the nearest surgeon if their own police surgeon is not at hand, and in cases of extraordinary emergency where the immediate attendance of a medical man is necessary to save life, and it is impossible either to remove the patient to hospital or to obtain other help, they are directed to ask the attendance of a house-surgeon as a matter of charity. This at once disposes of the question of legal right.

NOTES, LETTERS, Etc.

THE LATE DR. FISHER.

WE are requested to publish the following communication, which has been sent to us by a correspondent with whom we are well acquainted:

Will you allow me, through your columns, to make an appeal which I most earnestly trust may touch the hearts of your readers. Two years ago Dr. Henry Fisher, of Oakley Street, Chelsea, died suddenly, leaving a widow and two young daughters to face utter destitution, his kindly nature having made his practice more wide than lucrative. By dint of weary toil and many enforced privations the family has struggled to keep clear of debt, but within the last fortnight a terrible affliction has been sent to them. The youngest daughter, upon whose exertions the family was chiefly dependent for their daily bread, fell a victim to fever, rendered fatal by worries and anxieties, and this bright young life, which had fought so bravely and cheerfully against weariness, hunger, and disappointments, was snatched away from the two whose sunbeam and stay she was.

Efforts are being made to obtain for the mother a yearly pension from the United Kingdom Beneficent Association, commencing at £20, and increasing at the end of two years to £50; but, to achieve this, it is necessary to obtain some 2,000 or 3,000 votes, each vote costing five shillings, or to sink their equivalent in the funds of the Association. Is it asking too much from those of your readers who have received a bountiful share of the comforts of this life to think with compassion upon the broken-hearted mother and sister who have experienced infinite difficulty to procure the wherewithal to lay their darling in her last resting place? Surely those who have enjoyed the happiness of watching their own children grow strong and well at the seaside or in the country will not begrudge a few shillings to soften, in a small degree, the bitter sorrow of a fellow-being to whose child the blessing of health was denied.

The case is strongly recommended by the following ladies and gentlemen; those marked * will gladly undertake to acknowledge all contributions.

Lady Wilde, 146, Oakley Street, S.W.
*Mrs. Bright, 6, Onslow Houses, South Kensington.
*Mrs. Keith Abbott, 167, Oakley Street, S.W.
E. D. Mapother, Esq., M.D., F.R.C.S.I., 32, Cavendish Square.
W. G. Frankish, Esq., M.D., L.R.C.P., 102, Sloane Street, S.W.
Oscar Wilde, Esq., 16, Tite Street, S.W.

HYPERTROPHIC ELONGATION OF THE CERVIX AS A CAUSE OF OBSTRUCTED LABOUR.

DR. ALBERT J. GARLAND (Oamaru, New Zealand) writes: An abstract of a paper read by Dr. Griffith appeared in the BRITISH MEDICAL JOURNAL of May 6th, p. 918, in which he reports two cases. In Case I it is stated that the patient was seen on November 17th with severe, but irregular, pains, and a patulous os, and was left until November 24th—sequel, rupture of uterus and death. I think that dilatation of the os by means of Barnes's bags should have been carried out, and the patient delivered within a few hours of the first attendance. In Case II the following occurs: "We applied the forceps again, but as soon as we did so the pains stopped altogether; we had therefore to remove them, etc. The pains did not return until Monday." Here the reason for removing the forceps seems inadequate, the pains might never have returned. Should not the woman have been delivered and contraction produced by first a dose of ergot, and secondly manipulation even to the extent of the introduction of an aseptic hand if necessary?

LETTERS, COMMUNICATIONS, Etc., have been received from: (A) Alpha; Dr. B. Anningson, Cambridge; Mr. G. J. Atkinson, Liverpool. (B) Messrs. Burroughs, Wellcome, and Co., London; Mr. W. J. M. Barry, Southport; Mr. G. Bainbridge, Middlesbord'; Mr. A. Boyce, London; Mr. C. F. Beadles, London; J. Brunton, M.B., Galashiels; W. H. Bishop, M.B., Newcastle; Mr. H. F. Butler, London; Professor W. B. Bottomley, London; Mr. J. Bosson, Barnstaple; Dr. R. E. Burges, Chester. (C) Mr. F. Chapman, London; Mr. E. Cripps, Shoreham; Mr. J. Collins, Whitehaven; Dr. A. Carline, Lincoln; Dr. F. W. Clark, Newcastle-on-Tyne; Dr. H. Cameron, Edinburgh; Mr. J. L. Couch, Penzance; Dr. F. G. Clemow, Cronstadt; F. Cadell, M.B., Edinburgh. (D) Mr. R. A. Dove, Edinburgh; Dr. H. G. Dwyer, Ringwood; D. D. S.; Mr. F. W. Davies, Liverpool. (E) E. C. Edwards, M.B., Ipswich; Mr. D. C. Edwards, Llanelly; Mr. L. Eschenard, London; Dr. J. Edmunds, London. (F) Far Away; Mr. J. C. Freeman, Maldon; Mr. E. H. Freeland, London; Messrs. Fannin and Co., Dublin; Forester. (G) Dr. M. Greenwood, London; Mr. F. Geraud, Faversham; Dr. F. E. Green, London; Mr. J. L. Griffith, Holyhead. (H) Mr. R. N. Havard, Weymouth; Messrs. Hirschfeld Bros., London; Mr. T. Hopgood, Sunderland; G. E. Helme, M.B., London; Messrs. T. R. Harding and Son, Leeds; Dr. F. de Havilland Hall, London; Mr. H. N. Hardy, London; Dr. W. H. Hamer, London; Dr. W. J. Horne, London; Mr. W. G. S. Harrison, Folkestone; A. Howie, M.B., Westbury. (I) Inquirer; Inquirens; Ignoramus. (J) Mr. T. Jones, Portmadoc; Mr. D. M. Jones, Cardigan; Mr. W. R. H. Jordan, Teignmouth; Mr. J. A. Jones, Port Talbot; Justitia; J. W. S.; Dr. E. H. Jacob, Leeds; Dr. R. Jones, Liverpool. (K) Mr. D. S. Kemp, London; Dr. D. King, Ayr. (L) Lex; Mr. C. H. Leet, Liverpool. (M) Mr. C. A. Morton, Clifton; Mr. W. J. Midleton, Harston; Dr. E. D. Mapother, London; Professor C. Muller, Buda-Pesth; Dr. L. Minter, Paignton; M.B. (N) Mr. R. B. Nicholson, Lowestoft. (O) Mr. C. L. Oxley, London; W. Y. Orr, M.B., London. (P) Dr. G. H. Philipson, Newcastle; Mr. J. T. Preston, Barrow-in-Furness; Dr. L. Phillips, Birmingham; Mr. H. P. Potter, London; Mr. G. Pauli, Bristol; Mr. J. A. Potts, Broseley. (Q) Query. (R) Mr. C. H. Robinson, Leicester; Mr. E. D. Rowland, New Amsterdam; Mr. T. E. Rice, Cosham; Dr. A. Rattray, Portobello; Mr. D. Rawsthorne, Preston; Mr. P. O. Reed, Bridgwater; Mr. G. Rindle, London; Mr. H. D. Rowan, Bradford; Mrs. T. H. Ruddy, Corwen. (S) Subscriber; Mr. W. Stirling, Manchester; W. G. Spencer, M.B., London; Dr. L. E. Shaw, London; Mr. R. Stoney, Bromsgrove; Mr. H. R. Sainsbury, Birmingham. (T) Mr. J. Tildsley, Fleetwood; Mr. L. C. Thorne Thorne, Liverpool; Mr. T. Taylor, London. (U) Messrs. J. T. Usher and Co., Bristol. (W) Dr. H. Woods, London; Dr. A. E. Welsford, Dover; W. K.; Mr. R. Wilks, Dover; Mr. C. F. Wightman, London; Mr. H. Whitcombe, Bridgnorth; Mr. H. C. Wanklyn, Colchester; Mr. E. S. Weymouth, London; Dr. W. Wise, Bristol; Mr. W. Wickham, Stirling; H. J. Waring, M.B., London; W. M.; etc.

BOOKS, Etc., RECEIVED.

Health on one Hand, Death on the other. By J. A. Marsden. Manchester: John Heywood.

The Happy Reader. By E. L. Young. London: Simpkin, Marshall, Hamilton, Kent, and Co.

Tell Me the Story of Jesus. By Mrs. Elizabeth Day. London: Day and Sons.

Whispered by the Leaves. By Kathleen Lucas. London: Day and Sons.

Sewage Treatment and Disposal. By Thomas Wardle. Manchester: John Heywood.

Dissections Illustrated; a Graphic Handbook for Students of Human Anatomy. By C. G. Brodie. London: Whittaker and Co. 10s.

Physiology of Sport. By Dr. G. Kolb. London: Kröhne and Sesemann. 1893. 7s8.

Diseases of the Lungs and Pleuræ, including Consumption. By Dr. E. D. Powell, London: H. K. Lewis. 1893. 18s.

*** In forwarding books the publishers are requested to state the selling prices.

SIXTY-FIRST ANNUAL MEETING
OF THE
BRITISH MEDICAL ASSOCIATION

Held in NEWCASTLE-ON-TYNE August 1st, 2nd, 3rd, and 4th, 1893.

SECTION OF OTOLOGY.

H. Bendelack Hewetson, M.R.C.S., F.L.S., President.

THE SYMPTOMS AND TREATMENT OF SEPTIC INFECTION OF THE LATERAL SINUS AS ILLUSTRATED BY TEN CASES.

By W. ARBUTHNOT LANE, M.S.

Assistant Surgeon and Demonstrator of Morbid Histology and Practical Surgery, Guy's Hospital; Assistant Surgeon to the Hospital for Sick Children, Great Ormond Street.

The following are the descriptions of ten cases of septic infection of the lateral sinus on which I have operated. I will state them as briefly as possible.

Case I.—C. S., aged 10, admitted into Guy's Hospital under Dr. Perry. Recurrent attacks of pain in right ear for eight years and a-half. Last attack commenced ten days before operation in August 18th, 1888. Symptoms were pain in and about ear, headache radiating from the mastoid process on the same side, redness and tenderness of skin over mastoid process, recurring rigors, with dulness of intellect and optic neuritis. At the operation a subdural abscess was found which involved the lateral sinus, the wall of which was softened. The internal jugular vein was tied, and the lateral sinus was cleared as thoroughly as possible till healthy clot was reached at no great distance from the torcular. The patient recovered.

Case II.—W. S., aged 7 years and 9 months, was operated on on December 24th, 1888. There was a four years' history of recurrent attacks of otorrhœa and pain. The last attack commenced on December 17th. On December 23rd he had two rigors and two on December 24th. There was headache and pain about the affected ear, with well-marked optic neuritis. There was very offensive pus in a much cancellated mastoid process, and the petrous bone was extensively diseased. There was much pus in the posterior fossa extending over the lateral sinus, whose walls showed very little change. The slightest prick of the needle produced free bleeding through the punctures. Rigors occurred at intervals, and the child died on January 6th. At the *post-mortem* examination there was found simply a slight roughness of the lining membrane of the outer wall of the sinus over a small area, but there was no sign of thrombosis whatever. I regret very much that I did not obliterate the sinus, as though infection may have occurred from a small vein in the petrous or mastoid bone, and not from the inflamed wall of the vein, occluding the lumen of the sinus would almost certainly have stopped it. At the same time, it is, I suppose, probable that infection may have continued to be taken from the slightly inflamed inner coat of the vein after the subdural abscess which produced it was removed.

Case III.—D. D., aged 3 years, admitted into Guy's Hospital under my care, and operated on on May 31st, 1889. There was a history of acute otitis of four weeks' duration, with facial paralysis following onset of attack. There were ten rigors before the operation. No optic neuritis was present. At the operation a subdural abscess was found covering the lateral sinus. On pricking the sinus blood flowed freely. Ligature of the internal jugular vein was followed by so much collapse that it was determined to postpone laying open and plugging the sinus till the child had recovered from the shock. A rigor occurred on June 2nd. On June 3rd the wound was reopened, when the sinus was found to be completely blocked by thrombus. From that day the child rapidly recovered.

Case IV.—M. M., aged 7, admitted into Guy's Hospital on November 19th, 1890, under Dr. Hale White, with a history of discharge from the right ear for four months. On November 15th the child complained of headache and pain about the ear and vomited. She rapidly became worse, and had rigors. On admission, temperature 102.4°; no optic neuritis; had a rigor. November 20th. Another rigor. Minute subdural abscess found on sinus. No evidence of thrombosis, the slightest prick of a needle being followed by hæmorrhage. The internal jugular vein was ligatured. November 23rd. Rigor. Lateral sinus tied. Still no evidence of thrombosis. November 24th. Rigors, which recurred almost daily till death. November 29th. Swelling of eyelids on affected side. Died December 6th. At the *post-mortem* examination the cavernous sinus on the same side and the circular sinus were blocked with a thrombus that had extended from the lateral sinus along the superior petrosal sinus. The lungs, etc., showed the usual changes.

Case V.—S. L. B., aged 19, under the care of Dr. Roe Carter, of Norwood. Had suffered for several years from chronic discharge from left ear. On May 29th, 1890, he wrote to Dr. Carter, complaining of intense headache in and about the left ear, of shivering and feverishness, who at once ordered him to return home, which he did on the following day. He had a pulse of 120, temperature 101°, intolerance of light and sound, and intense unilateral headache. There was no tenderness or pain on pressure on the mastoid process at this period or subsequently. The temperature became very variable, at one time being up, and within a short period subnormal On June 5th he had the first distinct rigor. The headache gradually increased in area and intensity. June 11th. He had another severe rigor in the afternoon of this day. I was asked to see him, and operated the same afternoon. Optic neuritis was then present. There was no pus in the few minute spaces which existed in the mastoid process, but there was a very large abscess in the posterior fossa covering the lateral sinus. The wall of the abscess was very soft, and as there was apparently much inflammation of the arachnoid cavity, if it were not already opened up by a perforation of the dura mater, it was determined to leave the treatment of the sinus to a subsequent date, when, should the pyæmic symptoms continue, further measures could readily be adopted to meet it. Besides, it was difficult in the sloughy-looking floor of the abscess to determine with any certainty the locality of the sinus. He recovered perfectly.

Case VI.—Mrs. B., aged 40, a patient of Dr. Bernard Scott, of Bournemouth. She had suffered for four years from discharge from the left ear, associated at times with attacks of pain and tenderness about the ear and headache, radiating from the mastoid process. About the middle of April, 1892, the last attack developed. She had three rigors on May 24th, 31st, and June 2nd. The operation was performed on June 2nd, when a large subdural abscess was found. There was partial thrombosis of the lateral sinus. The internal jugular vein was tied, and the sinus was laid open, scraped free of clot, and the hæmorrhage was stopped by plugging the sinus with iodoform gauze. The patient recovered perfectly.

Case VII.—M. H., aged 22, was admitted into Guy's Hospital under my care on June 24th, 1892, and was operated on at once. She had suffered for many years from discharge from one ear with recurring attacks of pain, tenderness, and headache in and about the ear. She had had a rigor on June 4th, and another on June 11th, and besides these she had had several considerable and abrupt rises of temperature. There was no swelling or redness about the mastoid process, though there was pain on percussion. There was double optic neuritis and photophobia. The patient was wandering, complaining much of headache, especially in the back of the head, which was retracted. A large subdural abscess was found, covering a considerable extent of sinus and the adjacent dura mater. The dura mater as well as the wall of the sinus appeared soft and sloughy, though a drop of blood was obtained on puncturing freely in the position of the sinus. It is probable that it was completely or nearly completely blocked by thrombus. Owing to the very unsatisfactory condition of the dura mater, and to the evident presence of considerable arachnitis, it was determined to leave the thrombosed sinus alone and only to ligature the vein, should the patient have another rigor or considerable rise of temperature. The symptoms of arachnitis increased in severity, and she was very ill for several days, at times delirious, at others dull and stupid or apparently quite unconscious. She finally got quite well. At no period after the operation was there any evidence of septic infection from the clot in the lateral sinus.

Case VIII.—C. B., aged 19, under the care of Mr. Burton and Dr. Scott, of Blackheath. He had suffered from recurrent attacks of otorrhœa in the right ear for thirteen years. He was operated on on July 11th, 1892. Seven weeks previously he was attacked with pain in the ear and one-sided headache, which was never severe. The eyelids on the same side became swollen. The temperature fluctuated very irregularly between 102° and normal. On July 8th, the temperature rose rapidly to 102°, and he experienced a feeling of chilliness, though he did not shiver. On July 9th it rose in a similar way to 103.6°, and on July 10th it reached 104°; on the last occasion he had an ill-defined rigor. At the operation a very small abscess, not more than an eighth of an inch in diameter, was found lying upon the lateral sinus at a distance from the antrum, with which it was found to be continuous by means of a minute track. The lumen of the sinus was completely blocked by thrombus. The internal jugular was ligatured below the thrombus, and the proximal portion of the clot was cleared from the sinus, and then the distal portion was completely removed, the profuse hæmorrhage from the open sinus being stopped by a plug of iodoform gauze. From that date he rapidly recovered. His hearing capacity was improved very greatly by the antrectomy.

Case IX.—W. S., aged 15, under the care of Dr. Henderson, of Highgate, had, on December 24th, 1892, influenza and pneumonia, from which he recovered. On January 10th, 1893, he developed earache, and his temperature went up. Pus escaped from the meatus, and pain and headache of a severe character were complained of about the mastoid process. The temperature fluctuated rapidly and irregularly, running up to 104° and falling nearly to normal. On January 23rd he was operated on, when a large subdural abscess was opened. It covered a considerable extent of sinus as well as adjacent dura mater. The wall of the sinus was much inflamed. The internal jugular was tied, and, a free incision being made into the sinus, a quantity of thrombus, which only partly blocked the lumen of the sinus, was rapidly removed, hæmorrhage being readily controlled by a plug of iodoform gauze. Recovery was rapid and complete.

Case X.—G. D., aged 18, under the care of Dr. Philip, of Boulogne, was operated on on February 7th, 1893. He had had otorrhœa for many years with attacks of pain; the last developed on June 11th, with pain and headache about the affected ear. The temperature became very irregular and fluctuating. The first definite rigor occurred on June 18th, and on each of the four ensuing days he had a rigor; then they ceased for a few days and again returned, and continued till the operation. He had no pain or tenderness on pressure being made over the mastoid process. A large subdural abscess was found in the posterior fossa, the internal jugular vein was tied, the sinus was cleared of the thrombus, which for a very short distance completely blocked the lumen of the sinus, and the hæmorrhage was stopped by a plug of iodoform gauze. Recovery was uninterrupted and complete.

From the consideration of the preceding cases we arrive at the following conclusions:

1. That septic infection of the lateral sinus is always due to the extension of an inflammatory process from an abscess between the bone and dura mater, through the wall of the sinus. Therefore, the symptoms which result from the infection of the blood in the sinus are preceded by, and are associated

with, those due to the presence of a subdural abscess, or rather, to speak more accurately, an extradural abscess.

2. The symptoms which a subdural abscess presents are dependent almost entirely on the fact of the dura mater being involved, and the chief indication of this condition is deepseated pain and headache, radiating from the seat of inflammation. Therefore, it is impossible to determine in many cases whether one has to deal with a patch of inflamed dura mater, without the existence of an abscess, the inflammatory process having extended from the antrum to the dura mater in its immediate vicinity, or with a case in which the inflammation has been more intense, and pus has already formed. In either case the patient derives immediate relief from operative interference, and though in the former case the degree of inflammation in the dura mater may not be sufficiently intense to result in the formation of pus, yet one has no guarantee that it will not develop, and then, if not removed, it will very probably terminate the patient's life.

3. A subdural abscess may cause death by producing a suppurative arachnitis, or, by infecting the contents of the lateral sinus, it may produce death by pyæmia. The abscess may, however, discharge itself through the antrum, middle ear, and meatus, or through the mastoid cells, or through the mastoid bone by absorption of the superjacent bone, or through the opening for the mastoid vein. Still, this course should not be counted upon, and, even if it does take place, it is most advisable to perform antrectomy.

4. In a large subdural abscess, besides the presence of the deep-seated pain and radiating unilateral headache, you may have a varying degree of inflammation of the arachnoid cavity, producing symptoms of arachnitis. These vary considerably in severity, probably in a direct relation to the area and intensity of the inflammation, and are represented by headache in the lower and back part of the head, retraction of head, etc. When the dura mater is much inflamed optic neuritis is usually present. The amount of deep pain and headache present in inflammation of the dura mater seems to bear a direct relation to the degree of the inflammation and the extent of the area of this membrane involved.

5. Whether, in the case of a subdural abscess, the mastoid process be tender or painful on pressure depends entirely on its structure. If there be no mastoid cells, as is frequently the case, the mastoid process may be pressed on or manipulated forcibly without the patient experiencing any discomfort. Even when this symptom is absent, if the mastoid process be struck smartly with a plexímeter, deep-seated pain and tenderness is at once experienced.

6. Whether a subdural abscess produces an infection of the contents of the lateral sinus or not depends, to a great extent, on the situation of the abscess. For instance, such an abscess in the posterior fossa may not overlie the sinus at all, or, on the other hand, its area may be very limited, so that its floor may be formed entirely by the outer wall of the sinus. A subdural abscess usually develops in a case of chronic purulent otitis, and complicates one of the many attacks of pain, etc., these patients suffer from. Rarely, however, it follows immediately upon a first attack of inflammation of the middle ear.

7. The symptoms of septic infection of the lateral sinus develop upon, and are superadded to, those of subdural abscess. They consist solely of irregular, rapid fluctuations of temperature, very often amounting to a well-marked rigor, but not necessarily so. Of course, at a later period, other symptoms, due to the formation of secondary foci, etc., arise; but before these appear, apart from these fluctuations in the temperature, there is no other symptom that I am aware of.

8. For the development of secondary foci elsewhere, it does not seem necessary that throughout the whole course of the case there should be any naked-eye evidence of thrombosis. Inflammation of the wall of the sinus, intense enough to cause only an opacity of the intima, may be sufficient to produce, and can continue to produce, secondary foci, even after the subdural abscess, which originally determined the inflammation of the wall of the vein, has been thoroughly cleared out.

9. Unfortunately, too often septic thrombosis of the lateral sinus escapes notice till too late: for, as in the more simple antecedent condition—subdural abscess—the surgeon frequently expects to find tenderness or swelling of the mastoid process, pain on percussion, pain or swelling in the position of the internal jugular vein, etc., none of which are necessary symptoms of this condition. The explanation of this was fully pointed out in an abstract of clinical lectures on inflammation of the middle ear and its complications, published in the *Lancet*, September 26th, 1891, and in other papers. It would seem usual that the less extensive the thrombus that develops, the more virulent are the clinical symptoms of septic infection, the thrombosis being apparently an effort on the part of the organism to lock up the intruding micro-organisms and destroy them. It occasionally happens that when there is obvious thrombosis of the lateral sinus, and clinical evidence of it as evidenced by the temperature, such thrombosis will cease to produce symptoms when the subdural abscess has been thoroughly evacuated by surgical interference, or spontaneously. In septic infection of the sinus, apparently without thrombosis, ligature of the internal jugular vein, after the subdural abscess has been evacuated, may stop the rigors only after the sinus has become thrombosed, but not till then.

10. Again, ligature of the vein and sinus in a case of septic infection, apparently without thrombosis, may not stop the progress of secondary foci, even though coagulation takes place in the sinus, owing to the extension of the septic process along the petrosal sinuses to the cavernous sinus.

11. When extensive thrombosis exists, it does not seem necessary to remove the whole of the proximal and distal portions of the clot. This was illustrated more forcibly still by a remarkable case published by Mr. Parkin, of Hull, in the *Lancet* of March 11th, 1893. In that he found that the jugular vein was thrombosed beyond the lowest point at which he was able to ligature it.

12. The same case showed very well that the presence of secondary foci of septic infection does not preclude the possibility of recovery, provided the further supply of septic emboli be stopped.

13. However advisable it may seem to ligature the internal jugular vein beyond the limit of the thrombus, and perhaps to remove its proximal part, there is no evidence to show that the complete removal of the distal portion of the clot is necessary, or that leaving it produced any effect that was prejudicial to the health of the patient.

14. In spite of the variations in the activity and character of the conditions which result from septic infection of the lateral sinus, it would seem that the most scientific and most certain measure to adopt in every case is, after performing antrectomy, which is a necessary antecedent of every operation of this sort, ligaturing the internal jugular vein, and clearing out the extradural abscess, to remove as much as possible of the proximal portion of the clot, then the whole of the distal portion, or, if there be no thrombosis, to slit up the sinus beyond the limits of the abscess wall and plug it with gauze and iodoform.

I cannot close this paper without again expressing our indebtedness to Mr. Horsley for his original suggestion, which has opened up such a large field for operative measures, not only in cases of septic thrombosis, secondary to middle-ear disease, but also, as I have shown, in similar conditions in other parts of the body, all of which had for so long been regarded by surgeons as hopeless, and were consequently relegated to the care of the physician, who, with all his skill, was unable to influence the course of events by drugs.

Dr. Adolph Bronner (Bradford) drew attention to the great difficulty in diagnosing thrombosis of the lateral sinus. Exactly the same symptoms were often present in cases of diseased mastoid process, or even in extensive caries of the middle ear. Dr. Bronner mentioned several cases in which rigors and severe pain seemed to point to disease of the lateral sinus, and in which scraping out the middle ear or the mastoid cells at once removed the symptoms. It was, therefore, perhaps rather risky to at once open the cerebral cavity and puncture the lateral sinus. Dr. Bronner thought it very remarkable that the opening of the cranial fossa and the puncture of the sinus, surrounded as it was by fœtid pus, should not be more frequently followed by fatal results.

Dr. Robertson said that, as Mr. Lane had pointed out, there existed a series of symptoms that were quite characteristic

of implication of the dura mater, on the supervention of which it was incumbent upon the surgeon that he should open the antrum. These symptoms, as Mr. Lane's cases showed, were deep-seated pain in the ear, pyrexia, and rigors associated with chronic purulent discharge from the ear. It might be well in these cases to determine definitely if pressure precisely over the mastoid fossa, the part nearest the antrum, gave rise to pain. This, with the sensations of deeper pain, and associated with chronic otorrhœa, determined operation. Phlebitis of the jugular was to be diagnosed from Bezold's form of mastoiditis, which often filled up the retro-maxillary space with phlegmonous infiltration.

Report of a Case.

By Hugh E. Jones, L.R.C.P., M.R.C.S.,
Assistant Surgeon to the Liverpool Eye and Ear Infirmary, and Assistant Ophthalmic and Aural Surgeon to the Wigan Infirmary.

Mr. Ballance, in his well-known paper[1] on this subject, said that, owing to the conformation of the torcular Herophili, it was very unlikely that mischief would extend from one lateral sinus into the other. Dr. Newton Pitt[2] collected 22 cases. In 4 the clot extended into the longitudinal sinus, in 3 into the opposite lateral sinus, and in 1 case into all the sinuses. Not only, therefore, is it not an unlikely occurrence, but a comparatively common one. Whether in the following case the lesion at the torcular had commenced before the operation or not it is impossible to say. When the clot was removed from the proximal end of the sinus a gush of blood followed, but as the greater part of the sinus between the superior petrosal sinus and the torcular was filled by *post-mortem* clot it was probably patent up to the last. The question, therefore, presents itself, Is it worth while to cut off one avenue for extension of the mischief while another, quite as open, remains unclosed? I suggest that some effective means of plugging the proximal end of the sinus should be adopted as well as the tying of the internal jugular vein. The plan that appears to me to be the best is the following: (1) Expose the sinus as near as possible to its junction with the torcular, compress it there so as to control the hæmorrhage completely; (2) clear out the septic clot in the usual way; (3) scrape out the whole of the intima, from the compress to the sigmoid flexure, and plug with antiseptic gauze. If the clot be removed without the preliminary compression suggested above the hæmorrhage is so great that only a very hasty and imperfect plugging can be accomplished, and there would certainly not be time to scrape out the intima. In conclusion I must acknowledge the valuable assistance of our house-surgeon (Dr. Munro) in the after-treatment of the case.

Septic Thrombosis of the Lateral Sinus; Internal Jugular Vein Tied and Sinus Cleared Out; Extension of Phlebitis to the opposite Lateral Sinus.

History.—A little girl, aged 6 years, had ear discharge nine months, following an attack of measles. No history of tubercle. For fourteen days previous to admission had had frequent attacks of shivering and vomiting. Two days before admission a large superficial abscess over the mastoid was opened by the medical man in attendance. Next day our then senior house-surgeon, Dr. Carter, was asked to see the case outside, and at once diagnosed septic thrombosis of the lateral sinus. March 28th. Patient admitted into the Wigan Infirmary under my care. For twenty-four hours there had been a marked lull in the symptoms, due probably to a more or less effective isolation of the septic material by clot. On this account I on this day contented myself with clearing out the antrum and tympanum. March 29th and 30th. All the classical symptoms returned in full force, the temperature oscillating between 97.6° and 105° F. There was only very slight tenderness along the internal jugular vein, and no swelling.

Operation.—Trephined over the sinus adjacent to the opening in the mastoid. Extradural abscess, which communicated by a small hole with the cavity in the mastoid, evacuated; about ʒj of pus escaped. Anterior wall of sinus was found to be sloughy, and was removed. Internal jugular cut down on and tied in two places near the omo-hyoid muscle. Vein full of blood from the facial vein, etc. Sinus then scraped out and irrigated. The clot from the upper part came out easily, and free bleeding necessitated plugging the upper part with gauze. For twenty four hours there was a distinct improvement in the symptoms. On April 1st the patient became worse, and I curetted the sinus again. No improvement followed, and the patient died on April 6th, that is, seven days after the internal jugular had been tied. No chest complications beyond a slight cough without expectoration had become apparent.

Post-mortem Examination.—Permission was obtained with great difficulty to examine the head, and that alone. With the exception of slight discoloration of the portion of the cerebellum in contact with the diseased sinus nothing abnormal was found in the brain. From the junction of the superior petrosal sinus with the lateral sinus up to within half an inch of the torcular Herophili the walls of the sinus were healthy, but here commenced a patch of phlebitis about one inch long, to which layers of breaking-down clot were adhering. This patch extended across the middle line into the superior longitudinal sinus and right lateral sinus. There was also a small separate patch at the lower border of the right lateral sinus.

[1] *Lancet*, i, 1890.
[2] British Medical Journal, i, 1890.

THE TREATMENT OF CHRONIC SUPPURATION OF THE MIDDLE EAR BY EXCISION OF THE AUDITORY OSSICLES.

By WILLIAM MILLIGAN, M.D.,
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In certain cases of chronic suppurative otitis media the diseased process is confined to those portions of the middle ear which are situated behind the membrana flaccida Shrapnelli. Whether the origin of this localised suppurative process is to be explained by the propagation of such inflammatory affections as eczema, furunculosis, or impacted cerumen (especially when associated with otomycosis) along the superior wall of the external auditory meatus, or whether it is due to extension of disease *per tubam* I do not at present stop to discuss. The first theory is warmly advocated by Walb,[1] the second, or "tubal theory," is the one more commonly accepted, however. Whatever may be the actual sequence of events in the production of suppuration in this region, all aurists are at any rate agreed as to the great difficulties encountered in its successful treatment. These difficulties of treatment are partly of a mechanical nature, are partly due to the anatomical arrangement of the mucous membrance in this segment of the middle ear, and partly also to the pathological changes set up by the existing morbid process.

The recessus epitympanicus forms the highest portion of the middle ear, and is when diseased frequently shut off from the general tympanic cavity by the formation of inflammatory adhesions. This fact explains in many cases the uselessness of washing out the middle ear *per tubam*, or of using Politzer's air douche as methods of treatment; for in the one case the fluid fails to reach the diseased mucous membrane, and in the other the stream of air merely inflates the cavum tympani, and does not succeed in driving the purulent secretion from the recessus. In 75 per cent. of the cases examined by Schmiegelow air failed to pass from the Eustachian tube through the perforation in the membrana flaccida. Then, again, we usually find that the accompanying perforation of Shrapnell's membrane is too small, and situated at too high a level upon the surface of the membrane to permit of efficient drainage. Also the anatomical structure of the lesion is such that numerous loculi are formed by folds of mucous membrane which normally exist in this region; and the results of pathological processes are such that these loculi, becoming shut off from one another, tend to retain inflammatory products. In addition, chronic suppurative affections of the mucous membrane lead rapidly to caries of the surrounding bony parietes, from the fact that the mucous membrane is in reality the mucoperiosteum of the part. The head of the malleus and the body of the incus being enveloped in these folds, and being kept constantly bathed in putrid pus, are prone to become diseased. Thus carious spots are frequently found upon these ossicles, either alone or in combination with caries of the surrounding bony walls.

Ludwig,[2] who has done excellent work in this department, states that of the three ossicles the incus is the one most frequently found diseased. In 32 cases of hammer-anvil extraction, he found the incus carious in 11, or 34 per cent., both malleus and incus in 16, or 50 per cent., the incus thus being carious in 27, or 84 per cent., of the cases. The stapes, from the fact that it receives a double blood supply, is much less frequently attacked. When it is so, however, the disease is usually confined to its crura. The number of different methods of treatment which have been advocated at different times by different surgeons is perhaps the best indication we could have of the great difficulties which are encountered in successfully combating disease in this situation.

There exist among our ranks those who think that no form of procedure short of surgical interference is of any use whatever, while others, though by no means rejecting the employment of radical surgical methods, have a marked leaning to

a more conservative line of action, and prefer to try, for a time at any rate, some of the milder forms of treatment.

Such methods as syringing the external auditory meatus, the employment of Politzer's air douche, or even the washing out of the middle ear *per tubam*, are in almost all cases, I think, insufficient of themselves to effect a cure from reasons already mentioned. Washing out the diseased recessus, however, by means of any of the intratympanic syringes now in use is a valuable method. This may be followed up by the insufflation of powders, as recommended by Bezold, Gomperz, and Liebermann, or by tamponing of the part, as recently suggested by Gruber.[3] Yet the most assiduous care on the part of the surgeon and the greatest patience on the part of the patient will, however, frequently fail to effect a cure, owing to the fact that localised carious areas exist either upon the ossicles or tympanic walls or upon both together—areas which resist local methods of treatment in the most stubborn fashion. So long as these foci exist, so long does the disease tend to perpetuate itself, and so long is the patient subjected to the risks incident to the presence of chronic suppurative middle-ear disease.

The question of excising the diseased ossicles and any portion of the membrana tympani which may remain was first proposed by Schwartze, and the operation has of late been frequently carried out. The indications for its performance are (1) chronic purulency of the middle ear with caries of the ossicles, and (2) the presence of cholesteatomatous masses in the tympanic cavity. In favour of the performance of this operation, it may be said that in almost every case where it has been put in practice, purulency has either been arrested or, at any rate, has been much diminished in amount. Such symptoms as headache, tinnitus, vertigo, and constantly recurring attacks of earache are also usually promptly relieved. Against the performance of the operation it may be said that in those cases where parietal caries exists at the same time, the operation is insufficient to effect a cure.

It must be borne in mind, however, that by removal of the diseased membrane and the carious ossicles ample space is secured for effecting free drainage, and that thus any accompanying carious foci are rendered more accessible to the spoon or small curette, and can, therefore, be much more thoroughly treated. The operation has now been so frequently performed both at home and abroad, and the after-history of the patients has been so carefully followed up, that it is now possible to gauge the various *pros* and *cons*, and to arrive at some definite conclusions as to its utility or otherwise.

Schwartze, Ludwig,[4] Stacke, Grunert, Wetzel, Rheinhardt, Kessel, Sexton,[5] Burnett,[6] Colles,[7] and many others have published the records of their work with more or less gratifying results. Ludwig, in an analysis of 32 cases, obtained the following results:—Cured, 20 cases; uncured, 11 cases, dead 1 case. The death in this last case was not, however, due to the effects of the operation. In another analysis[8] of 43 cases the following results were obtained;—Cured, 22 cases; uncured, 5 cases; under treatment at time of report, 9 cases; result unknown, 5 cases; dead, 2 cases. In these 43 cases the following results were found regarding the condition of the ossicles:—Malleus healthy, incus carious, in 12 cases; malleus carious, incus carious, in 25 cases; malleus carious, incus uncertain, in 2 cases; malleus carious, incus healthy, in 1 case; while in 3 cases the attempt to extract the ossicula failed. In 43 cases recorded by Grunert, cases which were kept under observation for periods varying from 1¼ to 1¾ years, there were 55½ per cent. of cures and 44½ per cent. of failures. Among 30 cases recorded by Rheinhardt[9] there were 16 cures, and the hearing power was improved in 50 per cent. of the number.

Schmiegelow, in 20 cases operated upon, obtained recovery in 9 patients, improvement in 8, no change in 2, and an unknown result in 1 case. In Colles's 13 cases, 8 patients recovered, and 5 were improved.

In the performance of the operation, a strong and steady light is essential. I have in all my operations made use of the light from a limelight apparatus reflected by means of a forehead mirror. The patient should be placed under the influence of an anæsthetic, and the head allowed to rest upon a firm and flat sand pillow. The meatus and the skin of the external ear should be carefully cleansed with some antiseptic lotion, and then filled with a 20 per cent. solution of cocaine for a few minutes. By doing so, the vascularity of the tissues is considerably reduced—a by no means unimportant advantage. A circular incision round the remaining portion of the membrane is now to be made with a probe-pointed straight knife. The tendon of the tensor tympani, if still intact, should now be divided close to its insertion into the long process of the malleus. The superior ligament of the malleus is then divided, and the ligaments of the malleo-incudal joint severed as completely as is possible. A fine pair of forceps or the loop of a delicate snare should now be made to grasp the handle of the malleus, and gentle traction exerted until the ossicle comes away. If on examination the incus is now found diseased, it should be drawn down into the field by means of a fine hook, for example, that of Kretschmann, Ludwig, or Ferrer, and the ligaments of the incudo-stapedial joint divided by a specially-devised angular knife. If, however, the incus is found to be diseased prior to the performance of any operation, it is advisable, after having divided the membrane, to cut the ligaments of the incudo-stapedial joint first of all, and then to remove incus and malleus together.

During the performance of the operation, any oozing of blood should be rapidly mopped up with cotton-armed probes (the operator should have a number lying ready at his side). The ear should then be irrigated with a warm solution of boracic acid, the parts carefully dried, and a small quantity of some antiseptic powder insufflated at once. In those cases complicated by the presence of parietal caries, small curettes or spoons should be used to scrape away as much of the disease as is possible. The chorda tympani nerve, if not already gone, is in imminent danger of being wounded, or even completely divided. Loss of taste over the corresponding side of the tongue results, but as a rule is recovered from. The facial nerve may be injured, and in several recorded cases has been so, but permanent paresis or paralysis is unusual. The patient should be kept quiet for a few days after the operation, and light and non-stimulating diet given.

In the following 15 cases the operation was carried out as described, and with the following results: Cured, 11; improved, 2; still under treatment, 2.

The condition of the ossicula was as follows: Malleus healthy, incus carious in 5 cases; malleus carious, incus healthy in 6 cases; malleus carious, incus carious in 4 cases. Among the 15 cases operated upon a new membrana tympani has formed in 10. In 2 cases described as improved, and in 1 of the cases described as cured, there is no sign of regeneration of the membrane. In the 2 cases still under treatment a new membrane is showing signs of forming. Among 13 cases operated upon (the 2 cases at present still under treatment are not included) hearing was found more or less improved in 8, remained as before in 3, and was rendered distinctly worse in 2.

At the same time it must be borne in mind that operative interference is directed in the first instance to check the suppurative process, and not to restore the hearing power.

CASE I.—L. B., female, aged 24, suffered from an attack of scarlet fever eight years ago. During the course of the fever the right ear was attacked by suppurative inflammation, and has since that time continued discharging. At times the discharge was fœtid, at times bloodstained. The hearing power upon examination was found to measure $\frac{5}{204}$ of the normal. A large soft gelatinous polypus was seen growing from the upper portion of the tympanic cavity, and protruding through a perforation in Shrapnell's membrane. On this being removed the malleus was carefully examined with the probe, and was found carious. Injections into the tympanic attic with intratympanic cannulæ were tried, but without in any way influencing the course of the disease. It was accordingly decided to remove the diseased ossicle and the remaining portions of the membrana tympani. The operation was carried out as previously described. Slight discharge of pus was found in the meatus twelve hours after the operation. The dressings were accordingly changed, and the ear packed lightly with iodoform powder. Since that time the ear has remained perfectly dry. Ten months after the operation the following condition was found. Springing from the fringe of membrane originally left was a new membrane of a dull opaque lustreless appearance. The attacks of pain and vertigo, which previous to operation had been frequent, had entirely subsided, and the hearing power had improved from $\frac{5}{205}$ to $\frac{53}{200}$ of the normal.

CASE II.—M. W., female, aged 34, had suffered since childhood from purulent middle-ear disease upon the left side. Recurrent attacks of pain were frequent and the discharge was at times very fœtid. The hearing power measured $\frac{50}{200}$ of the normal. On examination a large soft poly-

pus was found protruding through the upper part of the membrana tympani. The superior and posterior walls of the tympanic attic and the posterior wall of the external meatus were found carious. The head of the malleus was embedded in soft granulations. Operation was conducted as in the previous case. The process of repair went on uninterruptedly, and at the present time, now two and a half years after the operation, the following condition is found: A new membrane has formed; the hearing power is greatly improved; attacks of pain and tinnitus have certainly ceased.

Case III.—M. M., female, aged 26, had suffered from right-sided purulent middle-ear disease for twenty-one months. There had been, however previous disease of this ear during childhood, and the patient was unable to state definitely if the discharge had ever really ceased. On the left membrana tympani a cicatrised perforation was found. Constant tinnitus and occasional severe pain were felt upon the right side of the head. The right membrana tympani was found upon examination to be almost completely destroyed. The long process of the malleus was seen hanging free in the meatus, and the short process was embedded in granulation tissue. The malleus was excised and the tympanic attic freely opened up. Since the time of the operation, now a year and a half ago, there has been no suppuration. The pain and tinnitus have ceased and the hearing power is much improved.

Case IV.—E. M., female, aged 6, had a severe attack of typhoid fever fifteen months ago. During the fever both middle ears were attacked by suppurative inflammation and since that time have discharged freely, especially the right ear. Both membranes were, upon examination, found to be largely destroyed. The handle of the malleus upon the right side was rough and carious. The ossicle was removed under chloroform and the attic freely opened up. The ear soon became dry, but no regeneration of the membrana tympani took place. This operation was performed on October 15th, 1891, and up to within two months ago no further trouble was experienced. About this time the patient had a sharp attack of measles, and during the illness both ears began to discharge again. A few weeks of treatment served to check the purulent discharge, and at the present time the middle ear mucous membrane is dry, the hearing power is good, and there is no tinnitus or pain. There is no attempt, however, at regeneration of the membrana tympani.

Case V.—E. C., female, aged 18, had suffered from left-sided suppurative middle-ear disease for the last sixteen years. The actual cause of trouble was unknown, but the history shows that she had been constantly subject to "head colds." On examination the left membrana tympani was found perforated in its anterior segment, and granulation tissue was found protruding through the perforation. Discharge was copious and fœtid. Careful search with the probe proved the existence of caries of the malleus and of the tympanic roof. The hearing power upon the affected side measured $\frac{3}{60}$ of the normal. The tuning-fork tests showed no impairment of auditory nerve function. In addition to the ear affection, the patient was found to be suffering from greatly enlarged tonsils and naso-pharyngeal adenoids. Treatment was first directed to removal of the tonsils and the naso-pharyngeal adenoids. The small mass of granulation tissue protruding from the perforation in Shrapnell's membrane was subsequently removed with ring forceps, and the recessus epitympanicus irrigated regularly with warm antiseptic lotions by means of an intratympanic syringe. This line of treatment was persevered with for many months, and, although marked improvement resulted, the disease was by no means eradicated. The patient was accordingly put under chloroform, and the membrane removed by means of a circular incision. The malleus was freed from its connections and extracted. Having now by this means gained free access to the tympanic cavity, it was possible to make a more thorough examination. The incus was also found to be diseased, and was accordingly removed. The carious area upon the roof was then scraped with a small spoon, the parts thoroughly dried, and dusted lightly with iodoform powder, and the meatus packed loosely with iodoform gauze. Rapid recovery took place, a complete new membrane forming. Headache soon ceased altogether. The hearing power at the present time, now twelve months after the operation, measures $\frac{20}{60}$ of the normal. Inflation with Politzer's bag has very little effect, the hearing being about the same both before and after. The general condition of the patient has vastly improved.

Case VI.—M.E., male, aged 34, has suffered from suppurative disease of the middle ear since an attack of typhus fever twenty years ago. Pain and tinnitus, although frequently present, have not been prominent symptoms, but the discharge from the ear has been a source of constant annoyance. On examination the left membrana flaccida was found perforated. Search with the probe showed that the posterior meatal wall, close to the attachment of the membrane, was carious. The head of the malleus was also demonstrated to be diseased. From January 28th, 1892, to November 6th of the same year, various plans of local treatment were adopted, but without success. Accordingly, upon November 7th, the patient was put under an anæsthetic, and the remaining portion of the membrane and the diseased malleus were removed. By January 5th of this year a complete new membrane had formed, and the cavity of the middle ear had become perfectly dry. Considerable difficulty was found in treating the carious area upon the posterior meatal wall, but eventually this healed up also. The hearing power, which previous to operation measured $\frac{1}{60}$ of the normal, at the present time measures practically the same.

Case VII.—W.E., male, aged 42, has suffered from purulent disease of the right middle ear since childhood. The exact cause of the disease is unknown. For many years past he has been constantly troubled with recurring attacks of earache of a severe type, and with distressing tinnitus. His occupation being that of traveller for a large firm, he is exposed to all sorts of weather, and is the subject of frequent colds in the head, many of which lead on to acute earache. On examination the right membrana tympani was found perforated, and a considerable mass of soft granulation tissue was seen protruding through the perforation. Examination with the probe revealed ossicular and parietal caries. For many months local treatment was adopted. The granulation tissue was removed, and the intratympanic syringe constantly used, but with hardly any appreciable effect upon the disease. Upon October 25th, 1892, he was put under an anæsthetic, and the membrana tympani, the malleus, and the incus were removed. The carious area upon the upper tympanic wall was scraped, and the cavity packed with iodoform gauze. On the 31st of the same month the tympanic mucous membrane had ceased discharging, and a new membrane was already in process of formation. Since that time he has been free from headache, from attacks of tinnitus, and from earache. The patient was seen by me six weeks ago, and the following condition noted: A complete new membrane has formed; the hearing power measures $\frac{1}{60}$ of the normal, the same as before the operation. The patient states that his general condition has vastly improved, and that since the operation he has not had a single attack of earache.

Case VIII.—M. R., female, aged 38, has suffered from right-sided middle-ear disease since she was 10 years old. The cause of the trouble is stated to have been due to a severe attack of cold in the head. The right membrana tympani was found perforated in two places—namely, in the lower segment of the membrana tensa and in the posterior part of Shrapnell's membrane. Discharge was copious and fœtid. Ossicular caries was easily demonstrated, and operation was advised, but declined. During the three years from October, 1889, to October, 1892, the patient was seen at frequent intervals, and various forms of local treatment were adopted. In November, 1892, she consented to undergo the necessary operation for removal of the membrane and ossicula. The malleus and incus were accordingly removed under chloroform. The patient made a good recovery, and in December of last year the cavity of the middle ear was found to have ceased discharging. On May 10th, 1893, I had the opportunity of making a farther examination, and noted the following: Right membrana tympani partially re-formed, cavity of the middle ear dry; no pain or tinnitus. The hearing power measures $\frac{20}{60}$ of the normal, whereas previous to operation it had measured $\frac{1}{60}$ of the normal.

Case IX.—K. C., female, aged 20, has suffered from right-sided suppurative middle-ear disease for the last three years, consequent upon an attack of measles. She suffers from occasional pain in the head, and from almost constant tinnitus. The hearing power measures $\frac{10}{60}$ of the normal. Examination shows the right membrana flaccida perforated, and the perforation almost entirely occupied by a mass of granulation tissue. The probe reveals no carious area. From February, 1890, to December, 1892, she was seen at intervals, and various plans of local treatment were adopted. About this time, however, ossicular caries was found to exist, and operation was advised. The operation was performed in December, 1892, and by the end of January of this year the cavity of the middle ear was found to be dry. At the present time her condition is as follows: A complete new membrane has formed; the hearing power, which previous to operation measured $\frac{36}{60}$ of the normal, now measures $\frac{2}{60}$, or a decrease of 24 inches. The patient states that headache and tinnitus have entirely disappeared, and that her general condition is now better than it has been for many years.

Case X.—B. A., female, aged 12, has suffered for some considerable time past (the patient was first seen in December, 1890) from a constant discharge from the right ear, and from attacks of earache and tinnitus every time she takes cold. The actual cause of her ear trouble is unknown, but is thought to have been due to a severe influenza cold. On examination the right membrana flaccida was found perforated, and the perforation was occupied by a small mass of granulation tissue. Careful investigation with the probe at this time failed to demonstrate any evidence of caries. The treatment adopted was (1) removal of the granulation tissue mass, and (2) frequent irrigation with and injection of warm alcoholic solutions of boracic acid. This line of treatment was adopted during the whole of the year 1891, the patient being seen regularly twice a month. On February 29th, 1892, the ear was found perfectly dry, but the membrana tympani was uncicatrised. The patient was not seen again for some months, but in October, 1892, she returned to hospital with the ear again discharging, and with definite evidence of the presence of ossicular caries. Operation was advised, and was performed in December of last year. Rapid recovery ensued, and upon March 16th of this year the following note was made. The right membrana tympani has reformed. No discharge is present. Tinnitus and earache have entirely ceased. The hearing power measures $\frac{1}{60}$ of the normal, whereas previous to operation it measured $\frac{1}{60}$. The patient was seen a few weeks ago, and was found to be in a very satisfactory condition.

Case XI.—B. L., male, aged 17, has suffered for the last six years from left-sided suppurative middle-ear disease consequent upon an attack of scarlet fever. At first both ears discharged, but for the last few years the right ear has ceased to suppurate. The right membrana tympani was found almost entirely calcified. The left membrana flaccida was found perforated, and the probe revealed the presence of ossicular caries, and in addition a large carious area upon the posterior meatal wall near the attachment of the membrane. The hearing power upon the right side measured $\frac{1}{60}$ of the normal, and upon the left side the watch was heard only upon pressure. Enlarged tonsils and a naso-pharynx full of adenoid growths added to the difficulties of the case. Treatment was first directed to the throat and naso-pharynx. The tonsils were removed, and the adenoids scraped away. Upon September 20th, 1892, the left membrana tympani, the malleus, and the incus were removed under chloroform, and the carious area upon the posterior meatal wall was scraped with a small spoon. At the present time suppuration from the middle ear has ceased. The carious surface upon the posterior meatal wall has, however, not quite healed up. There is no change in the condition of the hearing power, the watch being heard upon pressure just as before the operation.

Case XII.—J. W., male, aged 35, has suffered for the last twenty years from frequently recurring attacks of headache, earache, tinnitus, and vertigo. His left ear has been discharging during all these years, at times profusely and at times very sparingly. He has always been subject to head colds, and states that for some years his right ear discharged also, but has now been dry for some time past. On examination the right membrane was found perforated in its posterior segment, while the anterior is occupied by a large calcareous patch. The hearing power upon the right side measured $\frac{1}{60}$ of the normal. Upon the left side a perforation of Shrapnell's membrane was found, with a small mass of granulation tissue protruding through it. This mass was removed on August 9th, 1892, and regular irrigations made with the intratympanic syringe. On September 12th, 1892, the ear was found to be perfectly dry, but the perforation had not cicatrised. The patient was not seen again until March of this year, when he returned complaining of a recurrence

of the discharge. Examination showed that the tympanic mucous membrane was again suppurating, and the probe revealed the presence of a carious area upon the head of the malleus. The ossicle was accordingly removed, and an excellent recovery ensued. Upon June 29th I have made the following note: Left ear dry, a new membrana tympani has formed. There is no complaint of pain, tinnitus, or vertigo. The hearing power measures $\frac{3}{20}$, or a gain of 20 inches.

CASE XIII.—M. G., female, aged 30, has for the last six years suffered from left-sided purulent middle-ear disease, stated to have been caused by a severe head cold. She has never been subject to headache and has seldom been troubled with tinnitus. The hearing power measures only $\frac{1}{10}$ of the normal. Examination showed that the left membrana flaccida is perforated in its anterior segment, and the probe detects a carious area upon the head of the malleus. From September 13th, 1892, to December 31st, 1892, she was treated by means of regular irrigations with the intratympanic syringe and subsequent instillation of a saturated alcoholic solution of boracic acid, followed by an intratympanic insufflation of iodoform powder. As little or no real progress was being made operation was advised, On January 11th, 1893, the patient was put under chloroform and the membrane and malleus removed. Since that time there has been a steady decrease in the amount of discharge. The following note was made upon June 13th: Left ear dry, meatus partially occluded by a plug of cotton wool, upon removal of which the tympanic cavity is exposed. There is no attempt at the formation of a new membrane. The hearing power remains just as before operation.

CASE XIV.—C. M., male, aged 24, has suffered for the last seventeen years from left-sided suppurative middle-ear disease following an attack of measles as a child. He has been constantly subject to severe headache, and at times has suffered from tinnitus and vertigo. The discharge has been copious, fœtid, and frequently blood stained. The hearing power measures $\frac{1}{10}$ of the normal. On examination the left meatus was found entirely blocked up by a mass of granulation tissue. The probe detected a carious area upon the superior wall of the meatus, but the exact situation and extent was impossible to gauge. The patient was put under chloroform upon December 14th, 1892, and the granulation tissue mass removed and the carious area scraped. It was now found that Shrapnell's membrane was perforated in its anterior segment, and that ossicular caries existed. Owing to the way, however, in which the patient took chloroform it was deemed inadvisable to continue the operation so as to remove the membrane and the ossicles. From December, 1892, to the end of April, 1893, regular intratympanic irrigations were made, but without completely arresting the disease. Accordingly on May 11th the patient was again anæsthetised and the remains of the membrane and the two ossicles, the malleus, and incus were removed. Suppuration ceased rapidly and a new membrane began almost at once to form. On July 11th the following note was made: A new membrane has formed with the exception of that portion corresponding to the membrana flaccida Shrapnelli. There is no suppuration, pain, or tinnitus, and the hearing power has improved, more especially with regard to the power of hearing conversation.

CASE XV.—E. W., female, aged 25, has suffered from left-sided suppurative middle-ear disease for some considerable time. The exact duration and the cause of the trouble are unknown. On examination the left membrana flaccida is found perforated in its anterior segment, while the whole of the membrana tensa is adherent to the mucous membrane covering the promontory. There is a profuse purulent fœtid discharge from the lining membrane of the recessus epitympanicus, and the probe detects both ossicular and parietal caries. The hearing power measures $\frac{1}{10}$ of the normal. For many months the usual routine methods of local treatment were adopted, but suppuration persisted. At the beginning of May of this year the malleus was removed, and the roof of the middle ear carefully scraped. Upon June 22nd the following note was made. The lining membrane of the middle ear is dry. Cicatrisation of Shrapnell's membrane has not taken place. There is no pain or tinnitus. The hearing power measures $\frac{1}{10}$ of the normal, or a gain of 30 inches.

Regarding the after-effects of the operation, vertigo is at times a troublesome symptom. In one of my cases this symptom was so pronounced that for three days the patient was unable to walk across the room without staggering. Ludwig has observed after extraction of the malleus and incus a passing loss of hearing, alteration in gait, and facial paresis. These symptoms he attributed to injury to the bony wall of the labyrinth and Fallopian aqueduct during the extraction of the incus. Healing with formation of a new membrane appears from the reported records to occur in the minority of cases. In 51 cases operated upon by Lucae, the membrane remained uncicatrised in 34, while complete cicatrisation took place in the other 17 cases. Ludwig, in 20 recorded cases, found complete cicatrisation 5 times. In my own series of 15 cases, cicatrisation has taken place 10 times. Careful consideration of the histories of the above recorded cases and of other similar cases recorded in various journals leads me to believe that, even after the most painstaking and careful local treatment has been persevered with for many months, cure is the exception rather than the rule. At the same time, I must state that a few cases have passed through my hands where, with perforation of Shrapnell's membrane and with formation of granulation tissue, cure has been accomplished after the employment of purely local measures. In these cases disease had, however, existed for but brief periods, and were cases where no bone disease was present. Where caries—either ossicular or parietal—has once manifested itself, I am now inclined to think that the surgeon who trusts to the effects of local treatment will be disappointed, and that sooner or later resort will have to be made to some form of operative interference. Whether excision of the membrane and the ossicles *per meatam* is the form of operation best suited to the needs of such cases is, of course, a matter of individual opinion.

In favour of this operation it may be said that its risks are slight, but against it it must certainly be pointed out that its performance is difficult. The lumen of the meatus allows but scanty space for the free play of instruments, and the obscuring of the field of operation from the oozing of blood is a source of constant annoyance to the operator. At the same time, in those cases of "attic disease" where ossicular caries can be demonstrated, this form of procedure seems to me to answer the requirements of the case.

Should this operation fail to arrest suppuration, it is always possible to resort at a later date to opening the antrum and clearing out the contents of the middle ear. Recovery is decidedly more rapid after the excision operation than after antrectomy, and the pain of the subsequent dressings is decidedly less. At the same time, the cases in which such an operation is useful are not numerous.

The following conclusions are, I think, justifiable:

1. That when in those cases of chronic suppurative middle-ear disease accompanied by perforation of Shrapnell's membrane, and the presence of parietal or ossicular caries, the most careful local treatment has been carried out, and has failed to effect a cure, the operation of excision of the membrana tympani and of the ossicula auditûs should be performed.
2. That, as a rule, purulent inflammation ceases, or, if not, is at least greatly reduced in intensity, after the performance of the operation.
3. That such symptoms as vertigo, tinnitus, etc., are either cured or greatly relieved.
4. That recurring attacks of earache are checked.
5. That the hearing power is either improved or remains as before.
6. That in a few cases the hearing is rendered rather worse.
7. That in cases of chronic attic disease, with normal atrium, the only perforation being in the membrana flaccida Shrapnelli, the performance of this (or some similar) operation is probably the only means of cure.

REFERENCES.

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Dr. ROBERTSON thought that Dr. Milligan had very fully, correctly, and lucidly represented opinion both in England and on the Continent on this subject. So long as the process of caries or necrosis was confined to the bonelets, then their excision and removal might do good, but if disease were presumably in the attic and extending into the antrum by the aditus, then it could scarcely be hoped that the otorrhœa, which was really dependent on a deeper cause, could be cured. The head of the malleus and incus formed a floor to the attic, which if removed might lead to a better drainage of the attic space. It was of importance to consider the question of an anæsthetic; a general anæsthetic was not required. Cocaine, and just at last a whiff of ether, which could be given in the more erect attitude, was sufficient. Dr. Robertson's results had agreed in the main with Dr. Milligan. The hook used in removing the anvil must be carefully guarded, so that no injury happened to the tegmen tympani. By keeping near the membrane the anvil was more readily met with. The hook itself should never exceed 3 min. in weight.

Dr. WILLIAM HILL (London) said that he had performed the operation of removal of the ossicles in middle-ear suppurative conditions associated with pain and caries. In his last case the treatment resulted in the cure of the discharge and the total relief of pain, but the patient suffered from great prostration, marked vertigo, and distressing tinnitus for nearly a fortnight, and the hearing power was decidedly worse. He thought the operation should not be undertaken without informing the patient that it was one by

which the hearing would not be likely to be improved, and that the deafness might even be increased thereby.

Dr. Adolph Bronner thought that although the operation was undoubtedly useful in some cases, still there was a great danger of recurrence. It had been proved that in most cases in which the ossicula were affected the wall of the attic and mastoid antrum were also diseased. In these cases the only radical mode of treatment was to open the antrum and establish free drainage. Of four cases in which Dr. Bronner had removed the ossicula several years ago the membrane had healed in a few weeks, but in three of the cases there had been recurrence of the discharge after one year or more, and the mastoid antrum had to be opened. Dr. Bronner therefore thought that the most reliable method of treatment was to enlarge, if necessary, any opening in the membrane, and syringe the attic or middle ear; then, if the discharge did not cease, to open the mastoid antrum in two or three months, and establish free drainage.

Mr. Richard Ellis (Newcastle) would like the indications to be very clear before removing the membrane and ossicles. Nature, no doubt, extracted necrosed ossicles with safety, but to operate to see if they were diseased was a procedure not to be undertaken lightly. To introduce a fishhook-like instrument to catch, as it were, a minute bone, jarred against the surgeon's feelings. The question of hearing did not arise in connection with this serious operation, but, if life was considered to be in danger from their presence, then, no doubt, their removal was justifiable.

Mr. Arbuthnot Lane considered that the bones of the middle ear were only of secondary importance in the production of the chronic purulent discharge, and that in the operation of removal of the bones the advantage gained resulted from the removal of the membrane and the establishment of a more thorough drainage from the middle ear and the antrum. He thought that antrectomy should be performed in such cases. Antrectomy gave a better result both to the hearing capacity of the individual, and in the more or less complete suppression of the purulent discharge. Judging from Dr. Milligan's account, it was infinitely less risky than the operation he suggested.

Dr. Milligan, in reply, thanked the members of the Section for the candid criticism upon his paper. Regarding the question of anæsthesia, he had always used a general anæsthetic, fearing that if the patient were merely under the influence of local anæsthesia any sudden movement might be attended by dangerous results. The instruments used were those designed by Sexton of New York. He wished again to emphasise the fact that the operation was primarily designed to try if possible to assist suppuration, and had no special relation to the question of the condition of the hearing power. Mr. Arbuthnot Lane, he considered, had mistaken the true *rationale* of the procedure. That localised areas of caries were found upon the ossicula auditûs, and that such areas had a definite relation to the existence and the continuance of suppuration, was a fact well known to every aural surgeon. In suitably selected cases the operation had proved of value in his hands, and the records of many foreign and American surgeons testified to the same result.

DISCUSSION ON THE SURGICAL TREATMENT OF MASTOID DISEASE AND ITS COMPLICATIONS.

I.—William Macewen, M.D.,

Regius Professor of Surgery in the University of Glasgow.

Professor William Macewen, in introducing the subject, said that he supposed that the term "mastoid disease" which had been used in the title of the subject for discussion, meant the extension of middle-ear disease to the mastoid region, and that it included for the most part infective disease of the middle ear and excluded tubercle and carcinoma. In the first place, with regard to the pathology of pathogenic infective disease, he found, as he had no doubt was the common experience, that the greater majority of these diseases travelled from the middle ear to the mastoid antrum and cells, and that they invaded, after destruction of the mucous membrane, the bone, and dura mater, the membranes of the brain. In many instances after erosion of the bone, masses of granulation tissue extruded themselves from the dura mater, which, on removal, prompted reinfections by a fresh surface coming into contact with the infective material pent up in the middle ear. Speaking generally, he agreed with Schwartze in his recommendations as to the time when operations should be performed upon the mastoid in infective purulent diseases of the middle ear, and in such cases the mastoid antrum and the mastoid cells ought to be thoroughly ablated. He then referred to the surgical anatomy of the mastoid region, pointing out the relative position of the mastoid antrum, the sigmoid sinus, and the facial canal, and he showed that the safety zone lay in a space, which he had operated in for the last ten years, and found that he was always successful in striking the antrum, and which he named the suprameatal triangle. This triangle was free from the sigmoid sinus, and if one operated on the upper and external bone of it he was free from the facial canal. The facial canal lay on the floor of the passage between the antrum and the middle ear, and traversed the floor of this passage to the inner side. As a rule, after opening the antrum, the attic of the middle ear was exposed by enlarging and opening the osseous bone forwards. After exposing the attic the ossicles were removed, and the whole of the granulation tissue of the middle ear cleared out. After this was done the tegmen of the attic was scrutinised by an efficient light, and, if eroded, was fully opened up, the granulation tissue removed from the dura mater, and the brain laid bare, and, if necessary, opened into. The abscess in the brain could be tapped from this region, but it had also to be opened above in order to remove sloughs of cerebral tissue, which could not otherwise come away. The sigmoid sinus was likewise dealt with in cases where the disease had spread in its direction. In all these cases it was necessary to remove the focus of infective matter in the bone, and to cut off the parts by which they travelled from the brain, and, therefore, although the opening might be made into the abscess from the squamous part of the temporal, the pathway by which the affection travelled into the brain would require to be dealt with. With regard to infective thrombus of the sigmoid sinus, he preferred to lay the sigmoid sinus fully open, to turn out the contents, to separate the outer wall of the sinus, and to involute this membrane upon the inner walls of the sinus itself, retaining it in this position by means of abundant powder of iodoform and boracic acid, and also by iodoform gauze. He preferred this method to ligaturing the internal jugular, because the ligature of the internal jugular did not wholly prevent the infective matter from getting into the lungs, as it passed by the large veins at the base of the skull from the interior and posterior condylar foramina, and so into the vertebral, and so into the subclavian. But there were cases where the internal jugular vein was involved, and in such a case he would advise the application of a ligature to that vein. With regard to the mastoid antrum, after having fully exposed the whole of the cavity, and ablated its connection with the mastoid cells as well as the mastoid cells themselves, he did either of two things. After the whole of the disease was removed, he stuffed the part, and allowed it to heal by granulation tissue from the bottom, so that the masses of fibrous tissue formed in the spaces formerly occupied by the antrum and cells. If the disease in the petrous portion of the temporal bone had not been thoroughly evacuated on account of the depth of the situation and the intricacies of the passages in which it lay, he preferred to keep a permanent opening between the petrous bone and the external part of the head behind the ear, and he did this by "papering" the passage by means of epithelium spreading both from the middle ear and the skin without. With regard to the results, he had operated upon 80 cases of mastoid disease alone, and in those where the disease had already been obliterated by the operation, he found a permanent cure resulting, but in those where the disease had spread into the petrous portion, it was necessary to keep this opening permanent, and there was in a good many such an amount of discharge of a sero-purulent kind. With regard to meningitis following upon infective disease of the middle ear, although at first he had had a doubt as to the propriety of operating where infective purulent meningitis had developed, he now

had no hesitancy in performing such operations, and in a great majority of them he found very excellent results. The disease, although being present to a marked extent, had been arrested by this. In cerebral abscess there was no difficulty about performing the operation. It was one of the most satisfactory operations that could be performed upon the head, because it was urgently required. They were taking away a pathological product, and the results were eminently successful. With regard to the sigmoid sinus he had to make a like remark, provided always that the case was got prior to implication of the lungs.

II.—VICTOR HORSLEY, B.S., F.R.C.S., F.R.S.,

Professor of Pathology in University College, London; Surgeon to the National Hospital for the Paralysed and Epileptic, and University College Hospital.

MR. VICTOR HORSLEY said that his own experience of these cases coincided with almost everything Professor Macewen had advanced. He would therefore pass on to other points. The first and most important, so far as the interests of the patient were immediately concerned when the case was one of simple otitis media purulenta, was the question as to how long effort was to be made by ordinary antiseptic treatment to get the cavity to heal up before the radical operation of clearing the tympanum and mastoid was undertaken. He suggested that one year would be a convenient limit, and that if the granulations had not subsided, and if cicatrisation did not occur within that period the antrum of the mastoid should be laid open and the opening continued into the tympanum, so as to make one space of both cavities. In this way the grave risks to life of persistent discharge from the ear, such as blood poisoning, destruction of the bone, plugging of the venous sinus, inflammation of the membranes of the brain, and cerebral abscess could be avoided. As the operation of opening the mastoid was unattended with any risk to life, it was obvious that the only possible drawback to undertaking the radical cure was a chance of damaging the hearing, which was, of course, already disordered. On this point his experience showed that the hearing was sometimes perfectly normal after the operation, was sometimes improved by the operation, and was sometimes diminished to a certain degree. It was, therefore, quite clear that the question of risk to the hearing was not an important one, and ought not to contraindicate the operation, which was undertaken to remove the risk to life which these patients ran. In connection with this point, he expressed his opinion that there was no advantage in leaving the stapes in position, and he quoted a remarkable case in which the tympanic cavity had been scraped out no fewer than three times, and in which, nevertheless, the hearing was perfectly preserved. After speaking of the value of prolonged drainage in bringing about a radical cure, and referring to the fact, also observed by Professor Macewen, that the best results were obtained in cases where the bone of the mastoid region had been more attacked than the bone in the petrous portion, he proceeded to discuss the treatment of the facial nerve, and pointed out that, where the nerve had been exposed by disease, twitching of the facial muscles, if an instrument were passed across it, would warn the operator of its proximity, and so avoid accident to the nerve itself. In very distressing instances of complete destruction of the nerve by tuberculous disease he believed there was some possibility of restoring it by nerve grafting in a suitable case. He then passed on to the dangerous complication of plugging of the venous sinus, and referred to his original suggestion that in these cases the jugular vein should be ligatured in the neck to prevent the clot becoming loose, and so cause embolism of the heart or lungs. The brilliant results of Lane and Ballance showed the value of the measure, and the criticism that had been passed upon it from the point of view of connection of the sinus with the emissory veins had no substantial foundation, because the clot in these cases often extended beyond the veins in question, and consequently only the ligaturing of the jugular could in such cases save the patient. He agreed that in cases of abscess of the brain the cavity of the ear must be completely opened and disinfected at the same time that the matter was let out from the brain.

PROFESSOR MACEWEN, replying to MR. VICTOR HORSLEY at the close of the discussion, said that in the first place there was a difficulty in being quite sure of the position of the facial canal in cases of sclerosed mastoid. In ordinary cases, however, the facial canal was well marked, and especially relatively to the tissue by which it was surrounded. The twitching of the facial nerve produced by the touch he always asked the chloroformers to watch for, and advise him at any time that such occurred. Under these circumstances the operation was a marked advantage. The dressings he usually applied on the operating table, and the parts were not again touched for a fortnight or sometimes three weeks, unless there were some causes such as high temperature or discharge.

III.—HUGH E. JONES, L.R.C.P., M.R.C.S.,

Liverpool.

MR. H. E. JONES drew attention to a method of determining the condition of the mastoid before operating. If an auscultation tube were used in the ordinary way, and the tuning fork applied over the mastoid, it would be found that the intensity of the sound varied considerably with the spot on which the fork was pressing. He had examined a large number of cases in this way. The results had been briefly as follows: (1) In the vast majority of cases the tuning fork was heard best and longest when placed over the small depression, described by Professor Macewen as the supra-meatal triangle, which existed just below the posterior zygomatic ridge, and a little above and behind the osseous meatus. From this point it died away quickly when moved upwards or backwards, and in a less degree downwards. This difference was not a very marked one, but if carefully listened for it could not be missed. This spot was the point at which the antrum came nearest the surface, and consequently the spot at which it could best be opened. (2) In a few cases the sound appeared to be nearly equal over the whole mastoid, but the upper and posterior margins were well defined. In one such case, in which the sound was unusually well conducted, on opening the mastoid it was found to contain one large cavity, which was filled by a cholesteatomatous mass. Another case, still under observation, presented the same auscultatory symptoms, and, moreover, had cholesteatoma of the meatus and tympanum, but operation had been refused. In cases in which the sound was diffused but not unusually loud, or perhaps less loud than usual, he had found a diplöetic or sclerosed mastoid with a small deep-seated antrum. Lastly, he desired to suggest, though he could not confirm the suggestion by a case, that where the lateral sinus came far forwards and outwards its unusual position might be discovered by this method of examination. During the last year he had two cases of complicated middle-ear disease, which had convinced him of the importance of operating in the manner described by Professor Macewen on otitic cerebral abscesses—namely, of commencing with the antrum, and working from there in the direction indicated by the symptoms.[1] One was a case of temporo-sphenoidal abscess opened by trephining half an inch above the floor of the middle fossa. He afterwards discovered that there was a communication with the tympanum, and although the patient made an excellent recovery, Mr. Jones thought it would have been better to have first of all exposed the tegmen tympani. The second was a similar case, with all the symptoms of brain abscess, including subnormal temperature. Trephining was performed, but no abscess was found. Next day there was a free discharge of pus from the tympanum, and the patient recovered. Was this case an example of brain abscess or extradural abscess, or simply septic absorption? If either of the two latter, why was the temperature subnormal? In conclusion, Mr. Jones referred to the case of septic thrombosis of the lateral sinus reported elsewhere (see page 563). He then raised the question whether it was much use to close one means of exit for the septic products when another quite as convenient remained open. To meet this difficulty he would suggest that a separate trephine opening should be made near the torcular, and the sinus there compressed (not tied), and that the portion between

[1] *Liverpool Medico Chirurg. Journal*, January, 1893.

this point and the seat of mischief should be plugged. After hearing Professor Macewen's observations, he would prefer to adopt his practice of pushing in the outer wall throughout its whole length.

IV.—William Hill, M.D.

Assistant in Aural Department, St. Mary's Hospital, London.

Dr. Hill showed a number of specimens of the temporal bone prepared, some by Mr. Jackson Clarke and some by himself, which bore out many of the anatomical points insisted on by Professor Macewen. In most of the specimens the postero-supero-meatal triangle with its pit could be well seen, and when this portion of the bone was removed, as in some of the bones shown, the temporal antrum was found at a variable depth beneath. The term mastoid antrum was a misnomer; the antrum was bounded superiorly and externally by the squamosal bone, internally by the petrous, and inferiorly only by the mastoid portion of the petro-mastoid bone. The term temporal antrum appeared to be free from objection.

V.—W. Robertson, M.D.

Surgeon Newcastle-on-Tyne Throat and Ear Hospital.

Dr. Robertson said that Professor Macewen had very correctly remarked that while in acute otitis media purulenta recovery was the result in the majority of cases, in chronic discharges from the ear that organ was subject to infection, which might lead to invasion of important structures lying close at hand. It would appear that the secretions in acute otitis could withstand these infections, but that the secretions in chronic cases could never do so. Professor Macewen spoke only of section of the mastoid as proposed by Schwartze some twenty years ago, but neither he nor Professor Horsley alluded to the excellent mode of operating introduced by Stacke. This was an operation which protected the sinus facialis and semicircular canal. The reference of Professor Horsley to one year as being the limit to which a chronic otitis should be confined, and that then the patient ought to be advised as to operation, was eminently practical. Processes such as cholesteatoma once established became rebellious to treatment, and apt to spread along connective tissue strands to the dura, eroding bone in its course.

VI.—Rushton Parker, B.S., F.R.C.S.,

Professor of Surgery University College, Liverpool.

Mr. Rushton Parker thought it desirable to fix upon some routine treatment on which reliance could be placed in cases of otitis media before resorting to operation. He practised and advocated the routine use of carbolised glycerine (1 in 20) as suggested to him by Mr. Pagan Lowe, of Bath, in preference to antiseptic injections, which could not act thoroughly before the mastoid opening was made, and tended to drive inwards, without removing, the septic agents and products confined in the bony cavity. If suppuration were not speedily checked by this means, or especially if febrile symptoms supervened, he would advise early opening of the mastoid region by a small gouge. Even after successful opening of the mastoid region thus effected, the febrile symptoms sometimes continued several days before disappearing altogether. In dealing with lateral thrombosis, he appreciated highly Professor Macewen's proposal not necessarily to tie the jugular vein, substituting local occlusion by exposure and plugging; ligature, however, became advisable if the thrombus extended into the neck.

VII.—Wm. Milligan, M,D.

Dr. Milligan thought the tympanic attic should be opened up and explored in cases of chronic suppurative middle-ear disease at the same time as the antrum was opened. The attic proved such an admirable space for the production and propagation of septic material, that it should be the surgeon's aim to clear it thoroughly of all its putrid contents. If necessary, diseased ossicles should be removed at the same time. The hearing power in such cases was sometimes remarkably benefited, especially with regard to the power of appreciating conversation. The method advocated by Stacke of dividing the posterior meatal wall, and folding the flaps backwards into the cavity of the bone formed during the process of opening the antrum was useful. He thought that in all cases in which intracranial abscess was diagnosed and operated upon, the mastoid antrum should be opened at the same time. In all chronic cases the antral mucous membrane was affected, and, unless the part was cleared of disease, recurrence might quite possibly take place.

NOTES ON SIXTY CASES OF DISEASE OF THE MASTOID PROCESS IN WHICH THE ANTRUM WAS OPENED.

By Adolph Bronner, M.D.,

Surgeon to Bradford Eye and Ear Hospital, Laryngologist to Bradford Infirmary.

During the last eight years I have operated on a number of mastoid cases, and it might perhaps be of interest to record the results of 60 cases of which notes have been kept. Of these 60 cases 19 were under 10 years of age, 20 under 20 years, 12 under 30, and 8 over 30 years of age; 39 were males, and 21 females; 25 were acute, and of under one month's duration. In 17 cases there was an external fistula, in 21 there was a mastoid abscess, in 10 the mastoid process was thickened, in 8 there was no swelling, but pain on pressure, and in 4 there were no objective or subjective symptoms whatever in connection with the mastoid process. In 45 cases there was either a fistula or some superficial caries of the bone found at the time of operation, and in 15 we had to chisel to some depth before striking pus or the antrum. In 8 cases the operation failed to relieve the symptoms, and the patient died in one to fifteen days. The ear disease was due to influenza in no fewer than 5 of these cases. Brain abscess was the cause of death in 2 of these cases, meningitis in 3, and disease of the lungs in 3, in 2 of which we found thrombosis of the lateral sinus, and in 1 the sinus was normal. Of the 52 cases which were relieved, 3 showed signs of disease of the lungs, in 2 of which the mischief was diagnosed before the operation, and in 1 the day after the operation; 36 of the 52 were cured within one year—that is, the discharge from the ear had ceased, whereas 9 still had discharge at the end of one year, and 7 were lost sight of. The number of cases in which the discharge still continues is very large, but this is, in my opinion, due to the fact that the after-treatment is so frequently neglected. The patients have had discharge from the ear for so many years that they no longer trouble about it. In private cases the percentage of cures is very much higher. The operation itself is only the beginning of the cure, and prolonged and careful after-treatment is absolutely necessary. As regards the method of operating, there can be no doubt that the operation as first described by Schwartze is by far the best. The skin over the mastoid process is shaved and disinfected, and a vertical incision is made down on to the bone, 1 to 1½ cm. behind the attachment of the auricle, about 4 to 6 cm. long, extending to the apex of the mastoid process. The periosteum is then cut through and detached and the edges of the wound drawn back by hooks. The bone is exposed and carefully examined to see if we can detect any fistula or small areas of diseased bone. If this be the case, the opening is enlarged with the sharp spoon or chisel, if possible to such an extent as to permit of the introduction of the finger, with which we can feel if there is any loose bone. When there are no external signs to guide us, we make an opening in the bone about 1 cm. behind the upper margin of the external meatus. The small chisels introduced by Schwartze are now generally used in preference to the trephine. Thin layers of bone are removed, the direction of the opening being downwards, forwards, and inwards. At a depth of 10 to 20 mm. we in most cases reach the antrum, or at least some mastoid cells. We then try to open up a free communication between the middle ear and antrum. In some cases this is not possible. Frequently there is rather

severe hæmorrhage from veins in the mastoid process, which may be mistaken for a lesion of the lateral sinus. In some rare cases the position of the lateral sinus is such as to make it impossible to proceed with the operation, and we then may try to open the antrum from the external meatus. It is of great importance to know when we should operate. I think that in these cases we cannot do better than again carefully follow the indications suggested by Schwartze. When there is any doubt as to whether we should operate at once or wait, the best plan is to operate. We cannot do very much harm by operating too soon, but we may risk the life of the patient if we wait too long. Schwartze suggests that we should always operate: (1) In cases of acute (primary or secondary) inflammation of the mastoid process, if, under ordinary treatment, the swelling, fever, and pain do not subside within five to seven days. (2) In cases of chronic disease of the process with recurrent attacks of swelling, or cases of fistula, or of secondary abscesses in the throat or neck, even if there should not be any dangerous symptoms. (3) In cases of chronic otorrhœa without any visible signs of disease of the process, as soon as there are any dangerous symptoms of retention of pus or of cholesteatoma. (4) In cases of persistent neuralgic pains in the process. (5) In cases of chronic otorrhœa, as soon as we feel convinced that the disease is not confined to the middle ear.

PILOCARPIN IN AURAL AFFECTIONS.

By G. Metcalfe, M.B., B.S., L.R.C.P., M.R.C.S.,

Surgeon to Newcastle-on-Tyne Throat and Ear Hospita

It has been shown by Professor Politzer, and confirmed by the observations of Drs. Barr, Field, Bronner, and others, that the daily hypodermic injection of $\frac{1}{4}$ gr. of pilocarpin cures certain cases of inflammatory, syphilitic, and hæmorrhagic deposit in the labyrnith, especially when of recent and sudden occurrence, and when the tuning fork is heard longer opposite the meatus than on the mastoid (positive experiment of Rinne). These cases I believe to be exceptions; the following cases are some examples of failures:

Case I. *Syphilitic Disease of Labyrinth.*—T. W., aged 39. Extreme deafness came on suddenly three weeks ago, commencing on the Sunday night, with tinnitus at 9 P.M., and deafness at midnight; had syphilis two years ago; has had pains in legs for one year; has now serpiginous and fœtid ulcers on calf of right leg; has vertigo on turning over when in recumbent position.

Treatment.—November 30th, 1891. Pilocarpin, $\frac{1}{4}$ gr. hypodermically daily for fourteen days, then, after a short interval, again for another week. Iodide of potassium and mercury internally, and iodoform ointment for ulcers. The ulcers healed, but there was no improvement to hearing.

Case II. *Hæmorrhage into Labyrinth of Both Ears.*—W. B., aged 50, fell down some steps ten days ago on left side of head; was totally deaf in both ears for three days; is now very deaf in right ear (side opposite to blow), and slightly deaf in left ear (same sides as blow); has a hæmatoma 3 inches by 2 inches on left temple.

Treatment.—October 23rd, 1892. Iodide of potassium internally for one week. Hearing improved during first three days only; at the end of a week $\frac{1}{4}$ gr. of pilocarpin was injected daily for ten days. No improvement either in hearing or in hæmatoma. In December blisters were repeatedly applied, both to mastoid and temple, when hearing improved in both ears, and hæmatoma disappeared.

Case III. *Œdema (?) of Internal Ear.*—M. J. R., aged 48, a case of deafness occurring in the course of Bright's disease, with slight general anasarca.

Treatment.—October 20th, 1890. Pilocarpin subcutaneously for one week. General improvement, but no improvement to hearing.

Case IV. *Menière's Disease.*—J. S., aged 60, suffers from deafness, tinnitus, with occasional attacks of vertigo, when he feels as if he were turning rapidly round and round, and has to catch hold of some support to prevent himself from falling.

Treatment.—Pilocarpin injections from September 18th to November 20th, 1890. No improvement.

Case V. *Labyrinthine Complication of Acute Suppurative Otitis Media.*—J. B., aged 37, has suffered from acute otorrhœa with perforation for fourteen days, with deafness, tinnitus, giddiness, and staggering gait, and Rinné.

Treatment.—June 27th, 1892. Boracic lotion for syringing, and pilocarpin hypodermically and by Eustachian catheter. Tympanic suppuration was cured permanently, hearing power improved, and giddiness and staggering disappeared, but labyrinthine symptoms relapsed again at the end of a fortnight.

In old standing syphilitic cases, and in cases resulting from meningitis, I have never observed the slightest benefit from pilocarpin medication. Progressive sclerosis of the middle ear is not amenable to this remedy. In chronic middle-ear catarrh, with coexisting internal ear deafness, I have had many cases which improved slightly, for a week or so under subcutaneous injections alone, but afterwards relapsed, and the continuation of the treatment was of no benefit; the majority of these cases were not in the least improved by pilocarpin hypodermically, though many of my patients received the injections daily for six weeks. The other method of using pilocarpin, recommended by Politzer, namely, by injections through the catheter into the Eustachian tube and middle ear, has yielded me some favourable results in chronic middle ear catarrh, either with or without labyrinthine symptoms, after routine treatment had failed. I inject into the catheter about six drops of a 1 in 40 solution of pilocarpin, then force it onwards with the air bag; sometimes a little escapes into the pharynx, some is lost in the Eustachian tube, and some is heard to enter the tympanum. A diminution of tinnitus and a slight improvement in hearing power very frequently results. When from Eustachian obstruction air enters the middle ear with difficulty, after injecting the solution air frequently passes easily and freely; this effect is immediate, and is probably due to the mechanical force of the fluid overcoming the obstruction. The specific effect appears to me to be due to the stimulation of the normal secretion of the Eustachian tube and tympanum, so bringing them into a healthier condition, and leading to increased mobility of the conducting apparatus. I am inclined to think that the results obtained in mixed middle-ear and labyrinthine cases by some observers who have used hypodermic injections and injections by the tube concurrently have been brought about by the local applications to the Eustachian tube and middle ear, and not to the subcutaneous medication. The following is a case which bears out this opinion.

Case VI. *Chronic Tympanic Catarrh.*—Mrs. R., aged about 35, deafness; can hear loud conversation; and aggravated tinnitus, which is growing worse; has been under prolonged special treatment during last ten years without benefit.

Treatment.—March 3rd, 1893. Applications of pilocarpin to middle ear *per tubam* for one month; tinnitus diminished so as not to cause much distress, and hearing improved so that moderately loud conversation could be heard. At the end of a month pilocarpin was given subcutaneously as well as by the catheter for a fortnight, when the tinnitus and deafness relapsed to their previous proportions. Treatment was discontinued for a fortnight, and then applications by the catheter only were resumed, and the tinnitus and deafness again improved.

I think that pilocarpin medication to the tympanum and Eustachian tube is often a useful method of treating chronic tympanic catarrh, when routine treatment has failed. Very often when the hearing power is not increased for watch, patients are positive as to their subjective improvement. Pilocarpin drops, 8 grains to the ounce, with glycerine and water, applied to the external auditory meatus, in dry conditions of the meatus and membrana, often afford some relief, but I have never noticed any good effect when given by the mouth. There is a great difference between the action of different samples of pilocarpin. I have often found $\frac{1}{10}$ grain produces free perspiration, when, in the same series of patients, $\frac{1}{3}$ grain obtained from another source has produced no effect.

Dr. William Hill remarked that Mr. Field's percentage of successes with pilocarpin injections, which appeared higher than most other observers, was probably due to careful selection and to the fact that he had dealt with such a large number of cases. Dr. Metcalfe had done well to test the use of Eustachian injections through the catheter apart from hypodermic injections. Mr. Field had used these methods concurrently in the same patients, and it might be impossible in any given case to say which method was responsible for the improvement. A large percentage of failures must be expected in the present imperfect state of our knowledge, but the question had been advanced a stage by Dr. Metcalfe.

Dr. Milligan was bound to say that his experience of pilocarpin was decidedly disappointing. He had tried it in numerous cases, but the results had been such as not to warrant his persevering with the drug. He thought that in many cases where good results had been recorded the improvement was not so much due to the effects of the drug as to regular catheterisation and Politzerisation which had been employed at the same time.

Dr. Adolph Bronner had tried pilocarpin subcutaneously

in many cases. The most suitable cases were those of disease of the internal ear, of recent origin, especially if due to syphilis. The internal use of pilocarpin had not proved very successful in his hands.

Mr. Richard Ellis agreed upon the whole with the conclusions arrived at by Dr. Metcalfe. He had seen many of his cases, and he was aware that Dr. Metcalfe had treated a very large number of cases by the pilocarpin method. He believed that a large number of cases would derive as much benefit from some of the old drugs—guaiacum for instance—or full diaphoresis from the pack or the Turkish bath.

Dr. Robertson could not speak favourably of pilocarpin. Politzer confined its use for the most part to syphilitic cases. Dr. Robertson had used it without success in a few such cases.

IMPLICATION OF THE EAR BY DISEASE OF THE NOSE AND NASOPHARYNX.

Dr. Robertson (Newcastle) said that no better proof of the origin of the deafness in these cases could be offered than the demonstration of the rapid cure of the ear following upon the cure of the nasal affection, while, on the other hand, no success attended the merely local therapeutics of the ear. As examples of the influence of nasal diaphragms two illustrative cases were mentioned. The main lesion of the ear was the tubal catarrh occasioned by the abnormal obstruction to respiration through the nasal passages. On both sides of the diaphragm collection and decomposition of discharge occurred, and might even affect the ear in all the different ways by which infection was occasioned—by the tube, by the blood vessels, and by the lymphatics. Upon perforating the diaphragms and restoring respiration the hearing spontaneously improved. Presumably the tubal catarrh resolved itself, and normal patency to aëration and secretion was restored within the tympanum. There was a great tendency for the ear to become involved in suppuration of Highmore's antrum. In the milder affections of the ear in these states, tubal catarrh with depressed drum and the anomalies of hearing connected with a deficient aëration of the cavum tympani were found. Tinnitus was present and a blush on the membrana suggestive of impending dry catarrh in the drum cavity. Judicious treatment also of Highmore's antrum interrupted the process in the ear and led to cure. Probably the catarrhal condition of the middle turbinal was communicated to the region of the ostium tubæ and thence propagated to the middle ear. With a freer flow of pus from Highmore's antrum into the nose acute purulent infection of the middle ear was a danger constantly impending, and it was probable that in these cases a primary inviting cause was the *congestio ex vacuo* arising from a precursory tubal catarrh. In such cases there was a history of tinnitus and fulness of the ear. Nothing cured the ear complication quicker than the immediate and satisfactory opening of Highmore's antrum. When ozæna and disease of Highmore's antrum existed combined, the ear was especially apt to become involved. The only hope for permanent and complete recovery as regards the ear was to be found in radical treatment of the antral and nasal conditions. This alone restored the ear to health without the aid of further aural therapeutics. He described a case in which otitis media purulenta healed up spontaneously in a week after liberating diseased products in Highmore's antrum, and another in which the opening and draining of the left antrum cured a purulent otitis in five or six days, and that without much attention being paid to the ear. In chronic interstitial and purulent ethmoiditis with or without polypi, in many cases more or less implication of the middle ear was found. In both instances there was no doubt bacterial infection, which might readily get conveyed directly or by the blood or lymphatics to the ear. The mucosa of the pharyngeal vault in every such case had its vitality impaired, a condition which ultimately led to thickening and swelling of the ostium tubæ. This at once lowered the vitality of the mucous membrane of the tympanum, and paved the way for bacterial infection and subsequent otitis. Dr. Robertson showed a case of suppuration within the sphenoidal sinuses. He pointed out that the tympanum was in a high grade of congestion. When the patient presented herself she complained of loud beating in the right side of the head, roaring, tinnitus, deafness, and right nasal obstruction. The right nostril was totally obstructed by a hard induration of the lower turbinal. It was scored deeply with a knife, and the nostril distended with an antiseptic plug. In a day or two the nostril was somewhat dilated, and an indurated swelling of the middle turbinal found. This was treated similarly. A view of the interior of the nostril was thus obtained, and with a probe pus and necrosis in the sphenoidal sinus found. The nostril, being now patent, was freely douched. In a day or two the hearing returned. Crusts still formed in the postnasal cavity, but not to the same extent as formerly. The intranasal condition continued to improve. In this case paracentesis of the right tympanum allowed the escape of a considerable amount of viscid secretion, which immediately cured an irritating tinnitus which remained after the hearing was bettered.

EUSTACHIAN SYNECHIÆ.

Dr. Wm. Robertson, after referring to his paper on this subject, published in the British Medical Journal some years ago, said that when the pharynx tonsil became abnormally enlarged in a naso-pharynx of perhaps restricted development associated with ostia tubæ, protruding more than usual into this space, as was often noticeable in this crowded condition of parts, adhesions were apt to take place between tufts of the pharynx tonsil overlying the upper limits of the ostia tubæ. According to the subsequent changes in the tonsil, these adhesions remained of a fleshy consistence, or, as the tonsil receded and atrophied, they were found to resemble white fibrous bands of a length corresponding to the limits of the space and the degree of retraction of the tonsil. This recession of the tonsil and retraction of adherent bands gave rise to various forms of deformity of the mouth of the tube. A rosy red injection and a thickening of the substance of the ostium was observed in the neighbourhood of the insertion of the synechiæ. The normal round character of the opening of the tube was in these cases always altered. When the synechia was attached to the upper limits of the tube, then the opening was triangular. When attached to the posterior aspect, then the opening became slit-shaped. It was difficult in any case to say how far these synechiæ were potent in the etiology of deafness. It would be admitted that where they existed the middle ear had for long from other causes been exposed to the evil influences of catarrh in the naso-pharynx, as these bands presumably only arose in cases in which extreme hypertrophy of the pharynx tonsil had been in existence. That these bands perpetuated catarrhal conditions in the tube at their insertion into it could be actually observed and demonstrated. These catarrhal conditions might be propagated into the middle ear. It would also, probably, be admitted that the distorted opening of the ostium militated against the free egress of mucus from the tube, and hampered free ventilation of the tympanum, so necessary to the function of hearing. The thick fleshy adhesions formed by the meeting of thick bands of lateral granular pharyngitis with the lower aspect of the ostium must also be noted. In considering the question of how far in any case these synechiæ affected a case, and the share they bore in the etiology of the accompanying deafness, the condition of the middle and external ear must be investigated. In some cases synechiæ were discovered where little injury to the middle ear or to hearing was apparent. Generally the case was otherwise. Now and then cases were met with in which it was the only lesion discoverable, but was associated with tubal catarrh with depressed drum, etc. Rupture of the synechiæ and after-applications of the air douche restored hearing to a satisfactory extent in such cases. In another class of cases these synechiæ were associated with a condition of middle-ear catarrh of a more insidious and less curable character due to the long exposure of the ear to the repeated assaults of catarrh and swelling in the pharynx. Even before these synechiæ had been formed the ear had probably suffered severe change. These facts showed the imperative necessity of an early and complete removal of the pharyngeal

tonsil. If sclerosis of the tympanum, or if a previous suppuration within the tympanum were associated with these synechiæ, the mere treatment of the latter would not affect a great improvement, but as the diagnosis of any case was narrowed down to the existence of mere tubal catarrh, it could be safely stated that the treatment of these synechiæ would immensely favour the desired result. For the purpose of destroying these bands the galvano-cautery was impracticable and useless. A much more extensive destruction was necessary. The finger was the best means to effect this, carried up to the bands, which were readily felt. The resistance to rupture was often considerable. The finger was carried round the tube, so as to rupture not only those attached superiorly, but also those extending from bands of later granular pharyngitis inferiorly. There was often considerable bleeding, which of itself often acted beneficially on the ear. Subsequently the periphery of the tube was daily swabbed with a 4 per cent. solution of nitrate of silver to remove the collateral hyperæmia of the mucous membrane which was present. The air douche with catheter or Politzer's bag was, of course, to be used. When only tubal catarrh had been the cause then recovery was rapid and satisfactory, but even in more advanced and chronic conditions with the tympanum the same treatment must be carried out.

Dr. MILLIGAN (Manchester) congratulated Dr. Robertson on so clearly drawing attention to the relation between intranasal and aural conditions. Due attention to the condition of both the anterior and posterior nares in all aural conditions was of paramount importance. He agreed with Dr. Robertson as to the etiology of the production of Eustachian synechiæ, and thought that the best plan of destroying them was to scrape them away with the finger nail.

Dr. BRONNER (Bradford) was glad to see that Dr. Robertson had again drawn attention to the intimate relations between the diseases of the nose, the naso-pharynx, and the middle ear. Swelling and synechiæ near the Eustachian prominence were fairly common, and due in many cases to hypertrophy of the adenoid tissue situated there. The best method of treatment was to remove the synechiæ and swelling by the finger nail or curette. Many cases of middle-ear disease were caused by the injudicious use of the nasal douche in cases of disease of the nares.

Mr. HUGH E. JONES (Liverpool) thought that deviation of the nasal septum, apart from its more direct effect, often kept up middle-ear inflammation in an indirect way by interference with treatment. Where there was any secretion in the naso-pharynx it was better to avoid, if possible, the use of Politzer's method of inflation, as by it the objectionable secretions must almost inevitably be forced into the Eustachian tube. When the Eustachian catheter could not for this reason alone be passed, it was necessary to excise the projecting portion of the septum. In illustration of this he mentioned a case with naso-pharyngeal catarrh and mucous catarrh of the tympanum, in which catheterism was impossible owing to extreme deviation of the septum. After excision of the most prominent portion of the septum catheterism became possible, the mucous discharge from the tympanum soon stopped, and the hearing improved from W. *nil* to W. 18".

A NEW INTRATYMPANIC SYRINGE.

DR. WILLIAM MILLIGAN (Manchester) said that in cases of suppurative disease of the middle ear the first indication was to cleanse the tympanic mucous membrane in such a way that local applications might be applied directly to the diseased surface. The difficulties of thoroughly cleansing the parts were, however, at times very great. This was more especially the case when the accompanying perforation was small or when it was situated high up upon the surface of the membrana tympani, for example, when the perforation was in the membrana flaccida Shrapnelli. In such cases the ordinary procedure of syringing along the external auditory meatus was insufficient. Hardly any of the fluid found its way through the small perforation into the cavity of the middle ear to flush the diseased mucous membrane. Washing out the middle ear by way of the Eustachian tube was no doubt a satisfactory method in many cases, but unfortunately many patients resented the passing of the Eustachian catheter. Intratympanic syringes for passing along the external auditory meatus and through the perforation into the cavity of the middle ear had been designed by various aural surgeons, amongst others by Hartmann, Blake, Politzer, and Pritchard, and had been found of much service. These syringes were, however, somewhat difficult to manipulate, and from the position in which they had to be held, partially obstructed the view of the deeply-lying parts of the ear. In addition, it was difficult to steady the instrument while at the same time the process of syringing was taking place. These difficulties were in a measure overcome by using an intratympanic syringe fed from an elevated reservoir. The advantages of this form of syringe were (1) that it could be held perfectly steady while the fluid was streaming from the reservoir into the middle ear; (2) that during the whole manipulation the point of the syringe was kept constantly in view; (3) that by altering the weight of the reservoir the pressure of the outgoing fluid could be regulated according to the special requirements of any particular case.

A CASE OF FOREIGN BODY IN THE MASTOID CELLS.

DR. WALTON BROWNE (Belfast) related a case in which two prongs of a fork two inches long penetrated in front of the tragus, and passed downwards and backwards into the mastoid cells. The prongs were lodged for nineteen months, and caused no serious symptoms. They were removed successfully.

REPORTS
TO THE
SCIENTIFIC GRANTS COMMITTEE
OF THE
BRITISH MEDICAL ASSOCIATION.

REPORT ON
IMMUNITY AGAINST "CHOLERA."
AN EXPERIMENTAL INQUIRY INTO THE BEARING ON IMMUNITY OF "INTRACELLULAR" AND "METABOLIC" BACTERIAL POISONS.

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IN a recent paper, Dr. Klein[1] has opened up a new question with regard to bacterial poisons, a question which before him was partially already touched upon by R. Pfeiffer.[2] Klein showed that when emulsions of various cultures grown on agar agar, prepared in the same manner as that employed by Haffkine[3] in his "anticholeraic vaccinations," are injected into the peritoneal cavity of guinea-pigs, the result is the same as that following on a similar injection of an emulsion of an agar-agar culture of cholera bacilli. Klein used cultures of cholera bacilli, of the vibrio of Finkler, the bacillus coli, proteus vulgaris, the bacillus prodigiosus, and the bacillus of typhoid fever. By means of intraperitoneal injections of non-fatal doses, he rendered the animals refractory against further intraperitoneal injections of fatal doses; and he found that "the refractory condition produced by intraperitoneal injections of a non-fatal dose of one of the above six species holds good against all the other five." He argues from his experiments that while employing agar-agar culture in this manner, the bacilli are used without their specific poisons, and that the pathological changes produced

in the animals under such conditions are due to the "protoplasmic" or "intracellular" poison of the micro-organisms; and that probably the "intracellular" poison of these different species of bacteria is identical, since they mutually protect the animals. He further contends that a notable difference exists between the "intracellular" poison and the toxins elaborated by the bacilli in the culture medium, and concludes that though protected against such "intracellular" poison by such methods of vaccination as practised by Haffkine, the animals are not necessarily protected against the toxins elaborated in the culture medium (for example, gelatine) by the bacilli. In proof of this, he mentions that guinea-pigs which have survived the intraperitoneal injection of fatal doses of Haffkine's *virus fort*, when subsequently inoculated intraperitoneally with old liquefied gelatine cultures of cholera bacilli promptly succumb.

Hitherto it was generally believed that an immunity artificially produced against the bacillus itself was sufficient to protect the animal against the specific infection produced by such bacillus, and so far as immunity is concerned, no distinction was drawn between the "intracellular" and the "metabolic" poisons. Klein's researches suggested so many new questions of vital importance, that it seemed inviting to examine this matter more fully, and to investigate whether an immunity acquired against the "intracellular" poison will also be efficacious against a true specific infection with the same bacillus.

A priori it would seem sufficient to protect the animal in such a manner as to enable the organism to destroy the bacillus itself, thus giving the latter no time or possibility to elaborate its toxins, and no doubt for all practical purposes where preventive inoculation is likely to come into play, this would be all that is required. It is well known that in some cases it is difficult, in others even impossible, to immunise an animal against the specific toxin, administered in lethal doses, although small doses of such toxin introduced by subcutaneous or intraperitoneal injections will readily render the animal refractory against the microbe manufacturing the toxin. This is so well known that a few examples only need be mentioned here,[1] Gamaleïa has observed that guinea-pigs immunised against the vibrio Metschnikovi remain as sensitive to the toxin of this vibrio as non-immunised animals.[5] Charrin and Gamaleïa further have shown that this is true also for the bacillus pyocyaneus and its toxin,[6] and Selander[7] and Metschnikoff[8] have confirmed the same for the microbe of hog cholera and its toxin. Issaeff,[9] lastly, has demonstrated that rabbits immunised against infection with the diplococcus pneumoniæ are, nevertheless, extremely sensitive against the toxin of this microbe.

It is thus evident that the acquired immunity against certain bacteria is not necessarily accompanied or followed by a resistance against the specific poisons of such bacteria, although these poisons were employed to establish the immunity. These facts may explain Klein's remarkable result, that animals resistant against large doses of highly virulent comma bacilli succumbed to large doses of old liquefied gelatine cultures, since it is quite possible that the gelatine cultures used by him contained lethal doses of the specific poison in addition to the bacilli present.

We have repeated some of Klein's experiments, and extended them in various directions, and have obtained results which may throw some fresh light on the important question of the relation of immunity to the "intracellular" specific poisons. As might have been expected, we have been able to confirm most of Klein's results.

(1) In our own experiments we have employed the bacillus prodigiosus, bacillus pyocyaneus, and the vibrio of cholera. Agar emulsions of any one of them injected into the peritoneal cavity of guinea-pigs proved fatal, the appearances being identical with those described by Klein. Whatever microbe was used for intraperitoneal injections, it was found that in all the fatal cases the bacilli had multiplied enormously in the peritoneal cavity, were almost invariably present in the heart's blood, and, when looked for, also found in the pleural cavity.[10] This shows that death in all cases was due to a true infection and not an intoxication, as Pfeiffer[11] assumed. The multiplication of the proliferation are a *sine quâ non*, and are especially striking when small doses of agar emulsions are used. In regard to cholera infections, Gruber and Wiener[12] have already pointed this out. A similar proliferation also invariably followed on fatal intramuscular or subcutaneous inoculations of the agar emulsions. On the strength of these facts it seems at least doubtful that the fatal lesions should be the result of poisoning by "bacterial proteins." It is more reasonable to assume that we are dealing here with a true infection.

(2) According to Klein, sterilised agar emulsions intraperitoneally injected produce the same result as the agar emulsions, namely, peritonitis and death. As far as cholera is concerned, R. Pfeiffer[13] agrees with him. Gruber and Wiener,[14] on the other hand, disagree, and come to the conclusion that the "protoplasmic" poison of the vibrio has nothing to do with the typical infection. Our own experiments in this direction were limited, but we have failed to produce fatal results with sterilised emulsions prepared from half an agar culture of bacillus pyocyaneus and vibrio of cholera, although one-fifth of living agar emulsions sufficed to kill a guinea-pig. We have not followed up this matter, as it lay somewhat outside the purpose of this research, and we are thus unable to reconcile the contradictory statements of Klein and Pfeiffer on the one hand and of Gruber and Wiener on the other.

(3) As might have been expected from Klein's results, we found that intraperitoneal injections of an emulsion of an agar-agar culture of the bacillus prodigiosus prepared in the same manner as that employed by Haffkine in his inoculations will immunise rabbits and guinea-pigs without fail against similar inoculations with agar cultures of the bacillus pyocyaneus. It is immaterial whether the immunising emulsion is given intraperitoneally or subcutaneously, or whether it is living or sterilised; the result is the same, and the animal will resist a subsequent peritoneal inoculation of a scraped agar culture of the bacillus pyocyaneus.

(4) *A fortiori* a subcutaneous or intraperitoneal injection of an emulsion of an agar culture of the bacillus pyocyaneus, sterilised or living, will immunise a guinea-pig or rabbit against a subsequent similar intraperitoneal injection of an agar culture of the bacillus pyocyaneus.

(5) This, then, is in full accordance with Klein's experiences, and requires no further comment. Now, if it be a question merely of one "intracellular" poison against another "intracellular" poison, a guinea-pig or rabbit immunised by the above methods might be expected to succumb to an inoculation with old but living bouillon cultures. It was found, however, that such animals resisted large doses of such cultures, which killed control animals in eighteen hours.

(6) Rats are insusceptible to anthrax, but extremely susceptible to an infection with the bacillus pyocyaneus. It was found that our white rats would resist enormous doses of anthrax cultures (eighteen hours old) scraped off agar agar, and made into an emulsion, while they would die after even small doses of similar emulsions prepared with bacillus pyocyaneus, whether they had previously been treated with intraperitoneal injections of anthrax emulsions or not. From these results we must conclude that anthrax grown on agar agar contains no "intracellular" poison, or that if it does its "intracellular" poison does not immunise against that of the bacillus pyocyaneus. It should be mentioned, however, that though the anthrax cultures used were only eighteen hours old, there were already spores in many of the bacilli, although most of the bacilli were quite free from spores.

There seems to be some special relation between the so-called "intracellular" poison and the pathogenic property of a bacillus, or, differently expressed, if a bacillus is pathogenic to a certain species of animals, then its "intracellular" poison is also pathogenic. Again, if the "intracellular" poison be the same for various species of bacilli, then the lethal doses should be identical for the various bacterial species. Now, it is well known that rabbits are comparatively resistant against cholera infection, and we found that, in spite of injecting large doses of Haffkine's *virus fort* (a whole tube) intraperitoneally into even young animals, they were none the worse after it, although one-twelfth of a culture of cholera bacilli would kill a guinea-pig. On the other hand, one-fifth of a culture of bacillus pyocyaneus intraperitoneally injected was invariably fatal to rabbits. Again, it required much larger doses of "prodigiosus emul-

sion" than of "pyocyaneus emulsion" to kill rabbits; the agar cultures least. And also in the case of guinea-pigs "pyocyaneus emulsion" was found to be more virulent than "prodigiosus emulsion." It appears, therefore, that there is something besides the "intracellular" poison which decides the fatal issue. In fact it seems that it is the active metabolism of the bacillus by which the specific toxic substances are produced in the body of the animal.[15] Why is it that the one bacillus should protect an animal against another or several others, we do not attempt to explain. It may be a purely local immunity. How important the local predisposition and resistance are we know from various experiments, amongst which we may refer to those of Blagovestchensky[16] and Roger.[17]

(7) While testing this question still further, we immunised guinea-pigs by Haffkine's method, and found that subsequently they resisted intraperitoneal injections of large doses of bouillon and even liquefied gelatine cultures of comma bacilli. So far as gelatine cultures are concerned, our results are in direct contradiction to Klein's. Our gelatine cultures were two months old, and it is possible that they did not contain so much toxin as Klein's. Large doses were used, however, half a culture for each inoculation, which killed the controls in less than twelve hours. If we are justified in assuming that bouillon and liquefied cultures contain the specific cholera toxin, from our experiments it would seem that previous inoculations of non-lethal doses of agar culture emulsions immunise also against the comma bacillus *plus* its metabolic products. Moreover, we found that the converse holds good, namely, that,

(8) By means of subcutaneous injections of small doses of virulent bouillon cultures of comma bacilli, guinea-pigs are immunised against intraperitoneal injections of large doses of Haffkine's *virus fort*. We must conclude, therefore, that, after a typical infection short of death, the animal will easily resist the "intracellular" poison.

(9) The result was in no way modified when, instead of living bouillon cultures, cultures heated up to 70° C. for ten to thirty minutes were used for subcutaneous vaccination. Animals vaccinated in this manner comfortably resisted large doses of the *virus fort*. In most cases the cultures were not filtered; the issue, however, was the same when cultures were employed for protective vaccination which had been deprived of their bacilli by means of filtration through a Hankin's porcelain filter. Guinea-pigs treated with such filtered cultures proved resistant against Haffkine's *virus fort*. It is, of course, doubtful whether our filtered or heated cultures contained the true cholera toxin. Large doses of such sterilised cultures, which had been grown under ordinary aërobic conditions, failed to produce death. Others (van Ermengen, Cantani, Nicati and Rietsch, etc.) have succeeded, by means of filtration through Chamberland's filters, in obtaining more active toxic bodies. Hueppe[18] and Scholl[19] again claim to have separated from cultures in eggs and choleraic dejecta extremely toxic substances. Gruber and Wiener[20] have thrown considerable doubt on Scholl's results, at least so far as the toxin extracted from eggs inoculated with comma bacilli is concerned, and Hüppe's method of extraction of toxins from choleraic dejecta is naturally open to criticism. The whole toxicology of cholera is at present in a chaotic condition, and as yet we know but little of the nature of cholera toxins, and so long as the results of various investigators are so contradictory criticism is impossible. We have assumed that our bouillon cultures contain the metabolic products of the cholera bacillus. It is worthy of note, however, that even 5 c.c. of such cultures sterilised by heat injected intraperitoneally failed to produce death. Gruber and Wiener[21] similarly found that the sterilised peritoneal exudation of animals which had succumbed to intraperitoneal injections of cholera bacilli, even when injected in comparatively large doses, had no fatal effect, while equal or smaller doses of the non-sterilised exudation produced death at least at the first transmission.[22]

That a protection against an infection with comma bacilli can be effected by inoculation with sterilised or filtered bouillon cultures has already been shown by others, notably by Vincenzi,[23] Gamaleïa,[24] and Klemperer,[25] but we have further shown that this immunity holds good also against the inoculation of the intracellular poison or Haffkine's *virus fort*.[26]

All these experiments throw some doubt on the too narrow or distinctive conception of an intracellular poison, and it seems that within certain limits the virulence of the poison varies with the pathogenic property of the bacillus—that is, with the power of its metabolic toxin. Immunity against bouillon cultures means also immunity against agar-agar cultures—that is, the "intracellular" poison and *vice versâ*; and immunity against the latter implies immunity against gelatine cultures, unless, perhaps, these cultures contain an excessive dose of toxin. Immunity produced by any one method employed by us—that is, Haffkine's method or preventive inoculation with bouillon cultures, living or sterile, filtered or not—amounts to immunity against any other form of inoculation, at least so long as we are dealing with the same bacillus.

It is no doubt difficult to explain why an intraperitoneal or subcutaneous injection of "prodigiosus agar emulsion" should protect rabbits or guinea-pigs against an intraperitoneal injection of pyocyaneus agar emulsion, but that it is hardly a question of one intracellular poison against another seems probable from the fact that it is possible, by means of intraperitoneal injections of old bouillon cultures of the bacillus prodigiosus to render rabbits immune against intraperitoneal injections of "pyocyaneus agar emulsion." The whole matter requires further study on broader lines, and this must be left for future investigation.

(10) The following observations also compel us to regard a too dogmatic or systematic distinction between "intracellular" and metabolic poisons in their relation to immunity with some doubt. Guinea-pigs were immunised against "cholera" by various methods, and their serum used to immunise other guinea-pigs.[27] It was found that (1) the serum of an animal immunised by Haffkine's method will readily immunise another guinea-pig against Haffkine's *virus fort*; (2) it will also immunise against intraperitoneal injections of large doses of virulent bouillon cultures. Similarly it was found that the serum of one of us inoculated by Haffkine's method will immunise guinea-pigs against intraperitoneal injections of Haffkine's *virus fort* or virulent bouillon cultures in large doses. It may here be mentioned that it is quite immaterial whether the serum be injected subcutaneously or intraperitoneally, and that large doses of serum (4 to 6 c.c.) often caused severe and extensive ulceration of the abdominal wall when injected subcutaneously. In one case a copious intraperitoneal injection caused death in two days, the animal suffering from the usual symptoms of a subacute intoxication. In all cases, whether our own serum or that of immunised guinea-pigs was used, large doses of serum (2 c.c. and more) caused the animals to be ill and feverish for some time (three to four days). There was loss of appetite, and the coat was rough, and the animals hid themselves in the straw. It is quite possible, therefore, that the immunising serum contains some active, if not the specific toxic substance.

(11) It was further found that the serum of guinea-pigs immunised by repeated subcutaneous injections of bouillon cultures heated to 65° or 100° C. will immunise others against intraperitoneal injections of large doses of Haffkine's *virus fort* or virulent bouillon cultures.

One of us was treated by subcutaneous injections of virulent bouillon cultures, while at the same time large doses of sterilised bouillon cultures were administered per os, the gastric secretion having previously been neutralised with a solution of carbonate of sodium. In this case also the serum immunised guinea-pigs against Haffkine's *virus fort*. Unfortunately, we omitted to test the immunising power of our own sera before the auto-inoculations. Klemperer[28] has shown that the serum of some normal individuals has a weak immunising action. It is, however, very slight compared with that of the serum after treatment. Now in our case the immunising power was well marked, since 0.25 c.c. readily immunised guinea-pigs against large doses of Haffkine's *virus fort*. The serum of normal guinea-pigs, so far as our own experience goes, has no immunising action whatever.

(12) It should also be mentioned that one of us, having been inoculated with repeated subcutaneous injections of virulent bouillon cultures, subsequently, when his serum

possessed marked immunising properties, showed only slight local reaction against a large dose of Haffkine's *virus fort* (half tube). This, again, tends to show that the view of the distinct kinds of poisons should not be taken too narrow.

The above-mentioned serum experiments are possibly of some importance if Klemperer's law of the specificity of immunising serum holds good for all cases. The Klemperers insist on the truth of this law, and Behring[29] agrees with them. According to this law the serum of an animal immunised by inoculations with the bacillus prodigiosus would immunise against this bacillus only, and not against any other infection: and similarly the serum of an animal immunised against "cholera" should not immunise against an infection with the bacillus prodigiosus. This question has also been touched upon; it will, however, require further careful and critical examination, because fallacies may easily be introduced by reason of the fact that the sera also of naturally immune animals have more or less marked immunising properties.[30]

We have found, in accordance with Klemperer's law, that the serum of one of us treated by Haffkine's method will not protect guinea-pigs against intraperitoneal injections of "prodigiosus and pyocyaneus agar emulsions." So far too few experiments have been performed, but if our results be confirmed and Klemperer's experiments with the serum of cholera patients taken into consideration,[31] it would bring us a step nearer the elucidation of the etiology of Asiatic cholera. Judging from Klein's theory of the intracellular poison and from his unequivocal results, we might have expected that the serum obtained from a person treated by Haffkine's method would protect animals against intraperitoneal injections of both "prodigiosus and pyocyaneus agar emulsions," but it was found that such serum will protect against any form of intraperitoneal injection of cholera bacilli only.

Without laying undue stress on the experiments just mentioned, we are led to the following conclusions after a survey of our own observations and those of others. As far as the cholera bacillus is concerned, (1) any one mode of immunisation will protect an animal against an infection by any other form of inoculation used; (2) the serum of an animal immunised by any one method also protects guinea-pigs against an infection by any one of the various forms of inoculation mentioned; (3) the distinction between an "intracellular" and a "metabolic" poison in their relation to artificial immunity must not be made too narrow.

We do not deny that an actual distinction between the metabolic and the protoplasmic poisons exists. Buchner's "proteins" apparently are what Klein calls the intracellular poison, and it is well known, from the researches of Buchner, Römer, and others, that the "proteins" produce reactions often different from those produced by the bacilli and their metabolic substances. Here, also, we must not be too exclusive. Whether Koch's tuberculin belongs to the proteins, as Buchner asserts, seems somewhat doubtful after the careful chemical studies of Hunter,[32] but, on the other hand, it is almost certain that it does not contain the specific toxin, at least not in a potent form. Now Vissmann[33] has shown that after injecting dead tubercle bacilli scraped off agar agar into the ear vein of rabbits typical tubercles appear in the lungs and liver, which, however, show no inclination towards caseation, but rather towards cicatrisation. Unfortunately, Vissmann has omitted to investigate the influence of such intravenous injections on immunity. If, however, as Klein and Buchner assume, tuberculin be the intracellular poison, then Kitasato[34] has shown that by inoculations with this poison it is possible to protect guinea-pigs against a tuberculous infection—a result which confirms our own conclusion that the "intracellular" poison protects against the bacillus and its specific toxin.

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THE PRESENT POSITION OF THE SURGERY OF THE HYPERTROPHIED PROSTATE.

Abstract of an Address delivered before the American Surgical Association.

By J. WILLIAM WHITE, M.D.,

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Professor White alluded to the admirable papers in which Harrison,[1] McGill,[2] Belfield,[3] and Moullin[4] had so thoroughly reviewed this subject, and acknowledged his indebtedness to them for the basis of the address.[5] The main practical points in reference to enlargement of the prostate are to be classified as follows: 1. The nature and chief varieties of the prostatic enlargement and their relation to the vesical changes found associated with them. 2. The symptoms in relation to diagnosis and prognosis, *(a)* subjective, *(b)* objective. 3. The indications for *(a)* non-interference, *(b)* medical treatment, *(c)* palliative treatment, *(d)* operative treatment. 4. The choice of operation. 5. The methods of operation.

1. As to the nature of the enlargement, he rejects the view which assigns prostatic hypertrophy to the class of disseminated arterial scleroses (Guyon); and that which makes it secondary to vesical changes (Harrison), and thinks we are warranted in believing the function of the gland to be chiefly sexual, and in provisionally accepting the theory which recognises that the growth or growths which make up the enlargement in prostatic hypertrophy are analogous to those fibromyomata so frequently found in the uterus. This, if true, could scarcely be said to be a full explanation of their occurrence, but by allying them to a well-known group of tumours would certainly bring us a step nearer to their comprehension. The importance of the conclusion lies in its effect upon prognosis and treatment. If the condition is merely a part of a general or constitutional state, or if it is secondary to changes in the vesical walls themselves, it is obvious that comparatively little is to be expected from treatment, operative or otherwise. If, on the other hand, it is a local condition, dependent on causes at present unknown, but which may be said to be inherent in the structure or in the functional condition of the gland itself, and if the changes in the bladder walls and the accumulation of residual urine are the result of the precedent prostatic disease, treatment of the latter, if early and judicious, offers much more prospect of success.

The changes in the bladder are occasioned by (1) the mechanical obstruction which the enlarged prostate offers to the ready and complete evacuation of its contents, (2) by the circulatory disturbance incident to pressure on the prostatic veins into which the blood from the vesical veins passes, and (3) to septic infection. Septic infection of a healthy mucous membrane by the pyogenic microbes of acute or chronic cystitis is not possible, even though such bacteria are present in the urine; when, however, the vesical mucous membrane is congested in consequence of obstruction to venous return, and by distension and frequently recurring contractions of the detrusor muscles, it offers but slight resistance to the microbic invasion. The pyogenic microbes are generally carried to the bladder by dirty instruments, or, if these are rendered sterile, through failure to cleanse the anterior urethra before the instrument is introduced into the bladder. Often cystitis develops independently of the use of instruments, probably as a result of infection conveyed by way of the urethral mucous membrane.

The pathogenic microbes usually found are the bacillus coli communis and the staphylococcus pyogenes aureus. These cause vesical lesion either by direct action or indirectly through their ptomaines, and, acting upon the urea, produce ammoniacal decomposition. The ammoniacal urine, in its turn, acts as a powerful irritant to the bladder walls; but is the effect not the cause of the cystitis?

[The subjective and objective symptoms of enlarged prostate were considered in detail.]

As to diagnosis: symptoms of obstruction to the free passage of the urine, associated with symptoms of cystitis when occurring in a man over 40 years of age, are generally due to enlarged prostate. If, on physical examination, there is no obstruction within seven inches of the meatus; if rectal examination shows that the prostate is enlarged; if the urethra is markedly lengthened; if soft or *coudé* instruments pass when Thompson's sounds are arrested, and if there is residual urine, the diagnosis is rendered nearly positive.

Cystitis with atony, vesical calculus, and urethral stricture cannot be confounded with enlarged prostate after careful examination, though all of these conditions may be co-existent; indeed, the first two are very commonly associated with prostatic hypertrophy. Cancer and tuberculous prostatitis may at first exactly simulate prostatic hypertrophy, but pursue an essentially different clinical course.

The classification of cases of hypertrophy of the prostate may be made from various standpoints, but he says that the following factors are most worthy of mention as having direct bearing upon treatment, and should be taken into account in deciding upon the management of any particular case:

(1) The predominant character of the growth, whether soft, indicating excess of glandular and muscular elements, or hard, showing advanced fibroid change; (2) the seat of the growth; (3) the presence or absence of general sclerosis; and (4) infection of the vesical mucosa.

TREATMENT.

1. A purely expectant treatment is proper only in those in which enlargement has produced no symptoms, and catheterism is easy and shows no residual urine. Such cases would include chiefly those in which the prostatic condition is recognised during a rectal examination instituted for other purposes. They are not infrequent. They often occur in comparatively young men.

2. As regards medical treatment: Ergot is the only drug which offers any prospect of usefulness, and it must be admitted, first, that it is indicated in only a small proportion of cases, and, next, that it is far from demonstrated that it has any distinct effect even then.

3. Palliative treatment consists (*a*) in the systematic use of steel sounds for purposes of dilatation; or (*b*) in the employment of the catheter, and is of the greatest value in a very large number of cases. (*a*) *Dilatation.* A patient who presents the symptoms of the prostato-vesical congestion of the early stages of hypertrophy, who is disturbed once or twice at night, who has an enlargement of moderate density, appreciable through the rectum, but not offering much resistance to the introduction of an ordinary catheter, and who has but little residual urine, is likely to derive great benefit from the systematic introduction of full-sized steel sounds. (*b*) *Catheterism* should be systematically employed in cases in which the quantity of residual urine is 3 or 4 ounces or more, and in which the introduction of the instrument is easy and painless, and the urine is sterile. The frequency should be proportionate to the amount and character of the residual urine.

The objections to habitual catheterism in prostatics are (1) the risk of vesical infection; (2) the production of vesical atony.

1. In what cases should some operative procedure be recommended? It may be said at once that in those patients with but moderate obstruction, or with a high grade of compensatory hypertrophy of the bladder, with a small amount of residual urine which remains sterile, and in whom catheterism is easy and painless, operation is not to be thought of. The time may come when, by perfecting our methods of diagnosis and our operative *technique*, this class of prostatics may be benefited by active surgical interference, but it has not yet arrived. Dilatation and catheterism, as above described, at present represent the best therapeutics, and, if the rigid observance of details of antisepsis is never lost sight of, will in a fair proportion of instances see the patient comfortably through his life.

But it must be said with equal positiveness that in the great majority of cases it is at the termination of this stage, when the approaching "break down" in catheter life first begins to manifest itself, when instrumentation becomes more difficult, more painful, or more frequent, when the urine shows fermentative change and the vesical congestion merges into a true cystitis, that the most valuable time is lost to both patient and surgeon. It is just then that, on the one hand, operation is for the first time clearly indicated and justified, and, on the other, that it promises most.

In the absence of evidence of advanced and threatening renal disease of an infective character, but few prostatics, no matter how marked their local symptoms, should at the present day be denied the chance of relief afforded by operation. In this statement are included not only the cases with pronounced vesical asepsis, but also those with atony; with more or less complete retention; with general sclerosis, rigid vessels, polyuria and hyaline casts; with even the toxæmia above alluded to. The evidence already presented to the profession seems to warrant this opinion, in spite of the unfavourable views as to operative interference formed and expressed by such excellent and experienced observers as Socin, Guyon, and Sir Henry Thompson.

As to the choice of operation, we are limited to the following methods, which are mentioned in the order of their gravity, as estimated by their probable risk, or by their mortality as determined by existing statistics, (1) overstretching of the prostatic urethra, (2) perineal prostatotomy, (3) perineal prostatectomy, (4) suprapubic prostatectomy, which is the operation to be preferred in all those cases in which, palliative treatment having failed, there are unmistakable indications that the local conditions are growing worse, the general health remaining as yet unaffected. The best possible period is that before the development of marked and continuous cystitis, while some power still remains in the vesical walls, and the bladder is neither thinned and dilated, nor rigid and contracted. Under these circumstances, in the presence of a patient who reports that he is disturbed at night with increasing frequency, that he is obliged to use the catheter oftener, and not only does so with greater discomfort but with less relief in the interval, that the urine is occasionally turbid and offensive, that he has recently had one or more attacks of complete retention, and that he is beginning to lose flesh and appetite, the indications for operative interferences are unmistakable, and the suprapubic method is obviously the one to be selected.

Professor White concluded his address as follows: I have one further thought which I have decided to mention to this Association, although I do so with a reluctance born of the fear of being considered illogical or impracticable—or perhaps both. It occurred to me some time ago that possibly, if the analogy between uterine fibromyomata and prostatic overgrowth was a real one, castration might have the same effect upon the latter that oöphorectomy does upon the former, and cause a shrinkage or atrophy which would result in the practical disappearance of the obstruction. At the time I had never heard or read of the alleged prostatic atrophy in eunuchs, geldings, etc., which I have already mentioned. While I was unaware that any allusion even had been made in medical literature to this subject, I instituted a series of experiments which were carried on for me by Dr. E. R. Kirby, of the University of Pennsylvania, and the results of which are subjoined. The microscopic specimens are here for examination by the members of the Association. In the experimental work dogs were used partly for convenience, partly because it is known that in this animal the prostate occasionally undergoes changes similar to those which are found in the human prostate. The literature was carefully looked up, and no reference as to the average or normal weight of the prostate in dogs could be found. For control experiments thirty-five dogs and their prostates were weighed, and their average weight taken as a standard. The average weight of the prostate was found to

be 15.3748 grammes. The relative weight of the prostate to the weight of the dog was also taken into consideration, and is given in each case. The dogs were castrated and killed at different intervals. The prostates were hardened in alcohol, cut by the freezing colloidin method, stained with borax carmine, and mounted in Canada balsam.

No. 19. Weight of dog, 15 kilos.; average weight of prostate in dogs weighing from 14 to 16 kilos. inclusive, 15 g. Dog killed at the end of seventeen days; weight of prostate, 5.420 g. In this specimen the normal relation of the different structures seems to exist; no change noted.

No. 21. Weight of dog, 14 kilos.; average weight of prostate in dogs weighing from 13 to 15 kilos. inclusive, 13 g. Dog killed at the end of twenty-one days; weight of prostate, 5.700 g. In this specimen commencing changes in the glandular structure are seen. The muscle fibres show but little change. From this it would seem probable that the glandular elements are the first to undergo atrophy.

No. 20. Weight of dog, 14 kilos.: thirty days; weight of prostate, 2.600 g. The glandular structure shows well the beginning atrophy. The glands are irregular in outline, smaller than normal, and separated from each other by considerable connective tissue. Very few muscular fibres are to be seen.

No. 4. Weight of dog, 20 kilos.; average weight of prostate in dogs weighing from 19 to 21 kilos. inclusive, 19 g.; thirty-two days; weight of prostate, 2.620 g. The picture is here about the same as that seen in No. 21.

No. 16. Weight of dog, 15 kilos.; average weight of prostate in dogs weighing from 14 to 16 kilos. inclusive, 14 g.; forty-one days; weight of prostate, 5.700 g. In this specimen the glandular elements are but slightly atrophied, especially in some places. Many muscular fibres can be seen, all, however, atrophied.

No. 13. Weight of dog, 31 kilos.; average weight in dogs weighing from 29 kilos. upwards, 30 g.; fifty-four days; weight of prostate, 4.420 g. Atrophic changes well marked; the connective tissue elements predominating.

No. 14. Weight of dog 23 kilos.; average weight in dogs weighing from 22 to 24 kilos. inclusive, 21 g.; 54 days; weight of prostrate, 2.700 g. The glands show somewhat better in this specimen, but are widely separated from each other by bundles of connective tissue. The muscular fibres cannot be distinguished from connective fibres, and the longitudinal stripes are well marked.

No. 24. Weight of dog, 15 kilos.; 60 days; weight of prostate, 1.500 g. Presents practically same picture as No. 13.

No. 9. Weight of dog, 22 kilos.; average weight of prostate in dogs weighing from 21 to 23 kilos., 21 g.; 61 days; weight of prostate, 4.000 g. Here and there in this specimen may be seen masses of closely packed cells evidently the remains of the glands. Few muscular fibres can be made out. Longitudinal stripes well marked. No nuclei to be seen.

No. 8. Weight of dog 25 kilos.; average weight of prostate in dogs weighing from 21 to 29 kilos., 21 g.; 65 days; weight of prostate, 64.500 g. There is considerable atrophy of both the glandular and muscular elements, connective tissue predominating.

No. 5. Weight of dog 26 kilos.; 72 days; weight of prostate, 3.920 g. In this specimen but little of the glandular structure remains. What gland acini can be seen are very small and irregular in outline. There are but few muscular fibres to be seen, and their outline is not sharply defined. No nuclei can be seen.

These results, which I believe may be relied upon, place beyond all peradventure the influence of castration (in the dog at least) upon the condition of the prostate, and show clearly that that operation is followed invariably, and with a promptness which I must confess was to me surprising, by atrophy first of the glandular and then of the muscular elements, and by a coincident reduction in both bulk and weight. Since instituting them I have become familiar with Griffiths's admirable papers,[6] and have learned from them the following corroborative facts:

John Hunter observed that in the mole the prostate gland in winter was "hardly discernible, but in the spring becomes very large and filled with mucus."[7] Owen confirms this, and adds that "the prostate gland in the mole begins to increase in February, and acquires an enormous size, and conceals the urinary bladder towards the end of March." Owen found similar changes in the prostate of the hedgehog. Griffiths examined for himself the generative organs of the mole and the hedgehog in and out of the rutting season, and found the above observations to be correct. He made a number of sections of the gland in the quiescent state and others during the period of sexual activity. During the former period he found it composed of a few tubules lined by flattened and small epithelial cells, undoubtedly functionless as regards the production of any secretion, but possessing the power of reproducing glandular epithelial cells at the appropriate period. Precisely similar phenomena were observed in the seminiferous tubules of the testicle, and in both the changes were preceded by an increased vascularity of the whole tract, determining an increased growth of all the glands and parts concerned in generation. As to the effects of castration, Hunter again was the first to note[8] that while the prostate of the perfect bull is soft and bulky, that of the castrated animal is "small, flabby, tough, and ligamentous."

Griffiths contributes four observations of his own, two in the dog and two in the cat, the castration having been performed for other reasons years before, in all of which the prostate had been transformed into a mass of fibrous connective tissue containing the remains of the once active gland tubules with a small number of atrophied muscle fibres. He also examined the generative organs of the pig, bullock, sheep, and horse after castration, and found that in each case like changes had supervened.

I learned further that Gruber[9] had observed marked atrophy of the prostate in a man aged 65 who had been castrated in early youth; that Bilharz, in a thesis on the *Anatomy of the Genital Organs of Two Ethiopian Eunuchs* (Berlin, 1859), confirmed Gruber's observations; and that Pelican, in a book devoted to the study of a peculiar sect in Russia[10], says that the prostates in eunuchs are about the size of those found in children.

Furthermore, Civiale has noted the fact that in doing a lithotomy on a man who had undergone complete castration for the cure of a double hernia, he found that the prostate had practically disappeared.[11]

In a case of arrested growth of the external genitals, including the penis, scrotum, and testicles, so that in a man aged 33 they were only of the size of those of a boy of 6 or 7 years, rectal examination showed that nothing more than a transverse ridge could be felt in the position of the prostate. Micturition was normal.[12] In cases of sterility in the male, it has been noted by Harrison that the prostate was atrophied.[13]

Let me now briefly marshal the facts which bear upon the affirmative side of this question.

The uterus and the prostatic vesicle originate from allied portions of the embryonic structures, the Mullerian ducts, and the urogenital sinus, the glandular portion of the prostate itself springing from the mucous membrane of the latter.

I am not arguing for absolute homology between the prostate as a whole and the uterus. This is denied by most modern authorities on apparently good embryological grounds. The important point to establish is that the prostate is essentially an appendage of the genital and not of the urinary apparatus, and this is demonstrated by its origin, its absence in the female, the facts of comparative anatomy, and the observations above quoted.

As to its gross anatomy and pathology it is certainly made up largely of the same tissue as the uterus, and is subject to the same varieties of morbid growths occurring at parallel periods in the life of the individual.

The uterine tumours do not appear after the menopause, or, if present already, undergo atrophy. After a certain period of life there is no increase in the tendency to enlargement of the prostate, but rather the reverse.[14]

In the female oöphorectomy causes a disappearance of these growths and an atrophy of the uterus itself. Castration almost certainly has the same effect upon the normal prostate in our species, and I have experimentally demonstrated that it has such an effect in dogs.

It remains to ask: (1) Does this evidence warrant us in believing that castration in cases of hypertrophied prostate would be followed by a disappearance or diminution of the growth? (2) If so, is it likely that the fact can ever be taken advantage of as a therapeutic measure?

In answer to the first question it may be said that one important piece of evidence is lacking, the absence of which renders incomplete the parallelism between the uterine and prostatic growths.

We have no recorded instances of the spontaneous shrinking of a hypertrophied prostate after the patient has reached a certain age.

In reply, however, it may be stated that there is no definite or fixed period in the male at which the sexual life culminates and begins to wane, and after which procreation becomes impossible; and further, that we have no knowledge whatever of the relation of cases of prostatic enlargement to the sexual function. That it may cause erection, or unnatural sexual excitability, on the one hand, or may be associated with a form of impotence or of sterility on the other is of course recognised, but the true relation of the growth to the period of functional activity—the secretory life of the testicles—is absolutely and entirely unknown.

Moreover, what may called the accidental concomitants of the condition (accidental in the sense of being due to anatomical propinquity)—the vesical and renal changes—usually cause death in the very cases which might otherwise demonstrate the truth of the theory, those subjects whose advanced years might of themselves, through sexual failure, prove curative.

An examination of Messer's tables, founded on a dissection of 100 prostates in men over 60 years of age,[15] discloses one interesting fact in this connection. Assuming arbitrarily that 80 may be taken as the age at which, in the great majority of men, the sexual life is absolutely and finally ended, we find that, among those subjects whose prostates weighed over 6 drachms, the percentage of octogenarians or their elders was only 22.8. While among those whose prostates weighed less than 6 drachms (many of them less than normal) the percentage was 35.3, more than half again as great.

This is not only confirmatory of Desnos's observation already mentioned, that after a certain period in life the frequency of notable hypertrophy diminishes, but it suggests the possibility that in many of these cases physiological atrophy had already begun. The subjects were not selected from among patients but just as they happened to come within reach of the investigator.

The uncertainty as to the exact duration of sexual life in the male also weakens the force of the statement that the condition does not manifest itself until after the period of life when it should occur, if it were truly homologous with the uterine growth. In addition it may be said that there is accumulating evidence that prostatic hypertrophy begins much more frequently than was formerly supposed during middle life, and that the statistics on which we have been accustomed to rely, based on museum specimens and on the experience of surgeons to whom the patients apply only when distinct subjective symptoms have developed, are, to an extent, unreliable.

I do not desire to be understood as insisting upon the truth or even upon the probability of the above hypothesis. I have simply, with much hesitation, determined to follow out publicly a line of thought that had occupied my mind at odd times, and to submit it to your criticism.

As to the second question, the possibility of employing castration as a therapeutic method in prostatic hypertrophy, I imagine that the final answer must be left to our patients. Of one thing I am convinced, however, that if we ever reach a point in certainty of knowledge in this direction comparable to that already attained in regard to oöphorectomy in relation to uterine fibroids, and can promise equivalent results, there will be no lack of cases willing to submit to an operation almost painless, with a low mortality, and followed by no such unpleasant conditions as accompany persistent fistulous tracts either suprapubic or perineal, even although the operation carries with it the certainty of sacrificing whatever sexual power has survived the excessive, and often intolerable, sufferings of such patients.

I might admit, finally, that I have not had the courage of my convictions, and have never seriously sought to recommend the operation, but it would be truer to say that I have as yet no definite convictions, and that I am simply seeking enough light upon the subject to convince me either that it is worth pursuing further, or, on the other hand, that it offers no possibility of practical usefulness.

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MR. R. JULYAN GEORGE, M.B., C.M., of Port Isaac, has been awarded the grant for successful vaccination in the No. 1 District of the Bodmin Union.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

SCARLET FEVER IN A MAN AGED 79.

ON August 1st I saw a hale old man of 79 with sore throat; the soft palate, fauces, and pharynx were intensely red, with some small white patches on one tonsil, but no prominence of the tonsils. The pulse was 84, and the highest temperature 100. I looked for a rash, but all that I could find was a slightly reddened prominence of the cutis at the points of emergence of the hairs on the skin of the legs over the tibialis anticus muscle—there and nowhere else—a mere accentuation of the natural condition. His daughter said the legs were always like that, and, as he had not been from home for a long time and I could not connect the case with any previous case of scarlet fever, I did not notify him, although we spoke of scarlet fever. The drains were in a most offensive state, and I set it down as one of these indefinite sore throats due to the effluvia from bad drains.

The case did well, but I was summoned to see him again on August 18th, as "there was something the matter with his hands." I found them peeling freely. There was no albumen in the urine.

I may add that some weeks previously I had a case of scarlet fever in a man of 52, the children in the house afterwards taking it. He was seven miles from the man of 79, but the interesting point is that the rash was well marked, but discrete, on the same parts of the legs, and there only. The temperature was 102 with slight delirium, and that case I at once notified as scarlet fever.

Westbury, Salop. ALEX. HOWIE.

A CASE OF POISONING BY CHLORIDE OF ZINC: RECOVERY.

THE following notes of a case of poisoning by chloride of zinc are interesting on account of the comparatively few recorded cases of poisoning by this agent:

July 8th, 1893. At 3.30 this afternoon S. H., aged 15 months, a robust male child, about five minutes after a meal of bread and milk, swallowed by mistake a teaspoonful of chloride of zinc soldering fluid. [This fluid is prepared by adding strips of metallic zinc to undiluted HCl till H ceases to be liberated.] Vomiting occurred immediately after, and was repeated every two or three minutes till my arrival at the patient's home at 3.45. On learning the facts of the case, I gave at once ʒij of fluid magnesia—which was the most convenient antidote—and, on hurried examination, observed that his face was pale, his body limp in his mother's arms and his pulse 140 per minute, very feeble, and scarcely regular. Chalk and milk were at once procured and given freely after each act of vomiting. 4.35 P.M. Face flushed, with short intervals of pallor, the latter being the precursors of vomiting, which still continues, though not so frequently. Vomited matters consist of tough mucus along with the milk and chalk. Bowels up till now have moved three times, the motions being yellow and fluid. Pulse less irregular. 7.45 P.M. Face still flushed, with decided look of exhaustion. Great thirst; drinks large quantities of milk. Bowels have moved three times since last note, the motions now being white, and consisting chiefly of curdled milk and chalk. Pulse 164, weak, and again more irregular. Temperature 101° F. 10 P.M. Very pale and still more exhausted in appearance. Lies limp in his mother's arms, with occasional tossing of his arms or extension of his body and crying, as if pained in the abdomen. Still very thirsty. Vomiting now ceased. Abdomen soft, not tympanitic, with no apparent tenderness on palpation. Sweating profusely. Pulse 168, very feeble. Temperature, 102.8°. Got ♏1½ tinct. opii.

July 9th. 10.30 A.M. Passed a restless night, with occasional sleeps of five minutes' duration. Twitching at angles of mouth during sleep. Skin dry. Still very thirsty, and swallowing first mouthful of a draught seems painful. Excoriations are visible on lips and gums. Mucous membrane of fauces and pharynx red and swollen. Tongue dry, covered with white fur (chiefly milk and chalk) on dorsum

except at tip, which is raw-looking. Has passed water without noticeable discomfort. Abdomen not tender. Pulse 144, more regular and full. Temperature, 101.8°. Lungs normal. 4.30 P.M. Slept since last note, except at 12 noon and 3, when vomiting returned. Vomited matters at the former time consisted chiefly of milk, at the latter of bilious fluid. Pulse, 138. Temperature, 100°4. Ordered ℞ tr. opii., ♏ 2. Bismuth subnit., gr. 8. p. trag. co., q.s., aq. ad ʒj. Sig. ʒj, every two hours till half is taken, then every four hours.

July 10. 10 A.M. Slept all night. Looks bright. Bowels moved three times during night, motions being green and and curdled. Mouth still very tender. Pulse, 111. Temperature, 98.6°.

July 12th. Fauces and pharynx still tender, only liquids as yet being swallowed, and these sometimes regurgitate through nose. Otherwise patient is well, pulse and temperature being normal.

August 1st. A tendency to diarrhœa has been shown on three occasions since last note.

Besides the remedies before mentioned, cod-liver oil, white of egg, oatmeal gruel, and brandy were made use of from time to time.

SUMMARY.

1. The symptoms above detailed enable us to classify the case among those of irritant poisoning, the shock and inflammatory fever being both marked.

2. Restoration to health may be said to have been attained after three days.

3. The only sequela was a slight degree of irritability of the bowels.

Stranraer. JOHN A. ANDERSON, M.D.

SEVERE HÆMATEMESIS: RECOVERY.

B. P., aged 27 years, after premonitory hepatic symptoms accompanying a distended gall bladder, vomited about a pint of arterial blood. Subsequent motions contained altered blood and numerous calculi, some as large as horse beans. Hæmatemesis recurred on the fifth and tenth day; with the first hæmorrhage was ejected a gall stone larger than any passed *per rectum*. Considerable collapse followed the last hæmorrhage. At no time was jaundice present, nor did the urine contain bile. Treatment consisted in giving the stomach and body absolute rest, with the local application of ice. Abdominal section was considered in conjunction with Dr. Wade, but not deemed advisable, as manipulation would probably separate recent adhesions of the bladder to the duodenum, upon which safety depended, and again open the blood vessel, which might be difficult to secure. Rectal feeding was supplemented after three weeks by the administration in gradually increasing quantity of liquid nourishment by the mouth.

Gatcombe, Wolverhampton. JOHN A. LYCETT, M.D.

CONGENITAL ABSENCE OF RIGHT KIDNEY AND SUPRARENAL CAPSULE.

THE following case may be worth recording: A man, aged 51, was admitted into the asylum suffering from melancholia. He was a fairly well developed man but rather poorly nourished. The skin of his face and body was of a dusky brown colour, the pigmentation being deeper in the regions of the axillæ, penis, and scrotum. The heart's action was weak, and he had a small, feeble pulse. He complained of a feeling of nausea and frequent vomiting and retching. A tentative diagnosis of probable Addison's disease was made, and he was placed under special observation. The patient committed suicide by strangulation on August 17th. At the *post-mortem* examination the ordinary signs of strangulation were found; but the point of interest was that there was an entire absence of the right kidney and suprarenal capsule. On dissection, no trace of the missing organ could be found, nor was there any vestige of a renal or suprarenal branch of the aorta or vena cava on that side. The right ureter also was entirely absent, and on opening the bladder only the left ureteral aperture could be found. The left kidney was quite healthy but of large size, weighing 9½ oz.

ERNEST W. JAMES, M.R.C.S.,
Junior Assistant Medical Officer and Pathologist, Kent County Asylum, Barming Heath.

HYPERPYREXIA DUE TO SUN'S RAYS.

A.B., a strong, healthy, ablebodied seaman, inadvertently exposed the back part of his head and nape of neck to the direct rays of the sun by passing beneath an unprotected chink between two awnings with his head uncovered. He immediately felt faint and giddy, and fell down unconscious, but recovered in a minute or two. When I saw him, perhaps ten minutes later, he told me that he thought he had been caught by the sun. He complained of intense headache, faintness, and general muscular pains. He was quite conscious, but looked much distressed. The temperature was 102° F.

Progress and Treatment.

Date.	Temperature.	Treatment.		Remarks.
October:				
24th—Morning	102.0°	Ice bag to head, pot. brom. ʒss. st.		
—Evening	102.6°			
25th—Morning	102.8°	Sp. etheris, sp. ammon. ar. āā ʒss. 4tis. horis mist. sennæ co. ʒjss.		Tongue coated on dorsum, red at tip and edges
—Evening	104.2°	Pil. col. c. hyos gr. x. h. s. s		
26th—10 A.M.	105.6°	Quin. sulph. gr. x.		B.O. j. freely
—2 P.M.	105.6°	Quin. sulph. gr. x. ice pack		Condition alarming
—4 P.M.	105.0°	Omit ice pack		Shivering
—6 P.M.	105.4°	Sodii salicyl. gr. xxx.		
—10 P.M.	104.0°			
—Midnight		Sodii salicyl. gr. xv. 4tis horis		
27th—Morning	99.2°	Do.	Do.	B.O. ij. freely
—Evening	98.6°	Do.	Do.	
28th—Morning	99.0°	Do.	Do.	All symptoms gone
—Evening	99.0°	Do.	Do.	
29th—Morning	101.0°	Do.	Do.	
—Evening	99.8°	Do.	Do.	
30th—Morning	98.4°	Quin. sulph. gr. ij. ter		Convalescent
—Evening	98.4°			

REMARKS.—The above record affords an opportunity of observing the comparative value of three different antipyretics—quinine, ice pack, and sodium salicylate. Quinine (10 grs.) had no effect whatever in checking the rise of temperature. Quinine (10 grs.), combined with ice pack for two hours, reduced the temperature 0.6°, but only to rise again 0.4° in the next two hours. Sodium salicylate (30 grs.) reduced the temperature 1.4° in four hours, and 15 grs. of the same drug, given every four hours for the following twenty-four hours, brought it down to normal; and administered during another forty-eight, kept it there. Within a week of this case I was favoured with three similar ones, but not so severe, and was pleased to find that the salicylate in doses of 20 grs. every four hours acted most satisfactorily, bringing the temperature down to normal, and keeping it there, within forty-eight hours, with marked and speedy amelioration of all symptoms. All the above cases occurred in the southern part of the Red Sea during the latter part of October. Since these cases occurred I have treated several cases of heat fever with the same drug with equally good results.

London, W. E. HARDING FREELAND.

A CASE OF MENIÈRE'S DISEASE CURED BY SALICYLATE OF SODIUM.

I THINK the following case worth recording. The patient, a lady, aged 65, had a weak, probably fatty, heart, and an enlarged liver, having a hard nodule near the edge, that has existed some years, but showing no signs of increase nor other symptoms connected with it. She had no evidences of gout, and was certainly not an alcoholic.

The patient had suffered from indefinite "giddy attacks," with sickness, since September, 1889. In April, 1890, she first had definite attacks of Menière's disease, diagnosed by Dr. T. B. Scott, of Bournemouth, who tells me that she gained some advantage from gelseminum, till its physiological action necessitated its discontinuance, and confirmed by Mr. Cumberbatch. She came to live in London, and when I first saw her—in August, 1890—she had distinct attacks, suddenly feeling that the walls of her room were falling in upon her, that she was rolling over and over, and this was accompanied by increasing deafness in one ear. These attacks were at this time as frequent as eleven or twelve a day. I commenced by

giving her 3 grains of salicylate of soda three times a day. The effect was marked, at once reducing the frequency of the attacks. She continued to have attacks, though less frequently, about two or three times a week for some months afterwards, though some of the purely "giddy" attacks may have been due to the heart, or to general weakness. The salicylate was continued steadily.

By March of 1891 she was much better, but had considerable heart weakness. She went to Bournemouth, where she picked up greatly. In May, 1891, she reported herself as much better, only having an attack once during the month, and once in June. By November, 1891, she considered herself quite cured, having had no attacks for some time, and to the present time she has remained free from any symptoms of her disease beyond the deafness in one ear.

The treatment has lasted rather more than a year, during the greater part of which time she took the salicylate steadily, though during the last six months she had considerable intervals without it. I think there can be no doubt as to the nature of the disease.

Putney. JOHN GAY, M.R.C.S., L.R.C.P., D.P.H.

NOTE ON THE TREATMENT OF THE PEDICLE IN NEPHRECTOMY.

IT is probable that amongst the majority of surgeons the rule of tying the pedicle of the kidney *en masse*, either with or without transfixion, is still adhered to in some cases in which it can be done, the ureter being perhaps first isolated and treated separately. Doubtless the routine treatment of the ovarian pedicle has had considerable influence in this matter, as in others, but in the case of the kidney I think not altogether rightly so. The cord or pedicle of the testicle is not nowadays tied *en masse* (or, indeed, should not be); and there are, I believe, certain cases requiring nephrectomy, in which a similar plan should be adopted. I refer to cases of disease of some standing, in which there has been more or less perinephritis, and in which the operation chosen will probably be the lumbar one; a previous nephrotomy with resulting adhesions, and with or without a permanent sinus, may also have been performed. It is in such cases as these, frequently septic, that the pedicle consists of a dense fibrous mass; and if divided close to the kidney—through the pelvis, in fact, as it must be in those cases in which the capsule is left—instead of a few large vessels a number of small shrunken vessels are encountered, which can easily be ligatured separately, while the ureter, if non-separable, can be left. A temporary controlling ligature can be applied, if desirable. If, from the depth of the wound and the dense fixation of the parts, there should be any difficulty in applying the ligatures, a number of pressure forceps can be applied, and left for twenty-four hours, packed round with gauze, thus draining the wound. It is especially in septic cases, I think, that this method will be found valuable, as I have found in two recent cases.

No doubt in cases in which there has been no perinephritis, and in tumours of the kidney, the removal of which will often be undertaken from the front, the pedicle can be tied easily and safely by one ligature, including even the ureter, if uncontaminated by diseased urine; but even here, although I have only at present had experience of the older method, separate ligature will, I think, be eventually the rule. It would be instructive to know the experience of those who have had large experience in nephrectomy in this matter; as, in addition to its bearing on a principle of scientific surgery, it is a point of considerable practical importance.

C. J. BOND,
Honorary Surgeon, Leicester Infirmary.

POPLAR HOSPITAL FOR ACCIDENTS.—The enlargement of the Poplar Hospital for Accidents, which has been for some time in progress, has been so far completed that the new wing, which has cost £22 000, and affords accommodation for 100 beds, was opened by Lord and Lady Knutsford, on September 4th.

PRESENTATION.—Mr. Arthur Stedman, M.R.C.S., of Great Bookham, Surrey, has recently been presented with a handsome silver tea and coffee service by the inhabitants of Ranmoor. The presentation, in itself very gratifying, is rendered more so by its being accompanied by a suitable address, beautifully illuminated by a Dorking artist.

REPORTS
ON
MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

MUTTRA SADR DISPENSARY, N.W. PROVINCES.

ANEURYSM OF RIGHT COMMON CAROTID ARTERY.

(By J. FAYRER, M.A., M.D., F.R.C.S.E., Surgeon-Captain A.M.S.)

G., Hindu (Khadi), aged about 18 years, was admitted on December 15th, 1892, with an aneurysm of the right common carotid artery. Four months before he was playing with another boy and got his neck twisted. A few hours after the accident he noticed a small swelling on the right side of the neck at about its centre; the swelling had very slowly but steadily increased in size.

Description of Tumour on Admission.—It was about the size of an average man's fist, very hard to the touch, and occupied principally the anterior triangle of the neck. The tumour felt and looked like a glandular tumour, but on closer examination, its true character was easily ascertained, and upon the following grounds: (*a*) The tumour pulsated, the pulsations being perceptible in all directions; (*b*) stethoscopic examination elicited a loud and characteristic *bruit*; (*c*) both pulsation and *bruit* disappeared when pressure was applied to the artery below the tumour.

Surgeon-Major G. A. Hughes, assistant surgeon, Dr. Man Mohan Dass, and myself having diagnosed the case as one of aneurysm of the right common carotid artery, and, as the tumour was of large size, very tense, increasing in size, and causing by pressure pain, difficulty of breathing, and partial loss of voice, it was agreed that an operation should be performed.

Operation and Peculiarities Connected with it.—On December 17th, the artery having been exposed by the usual incision below the omohyoid muscle, it was ligatured with thick silk, both ends of the latter being cut off short. The operation was difficult and complicated, first on account of the presence of the tumour itself, which, as stated above, was very tense, requiring the greatest care in manipulation, and, secondly, because during the operation, before the artery was exposed, a considerable vein (middle thyroid) was accidentally opened; this not only caused the greatest anxiety on account of the admission of air, but owing to the hæmorrhage and frothing up of the dark venous blood at every expiration, the discovery of the vessel was rendered extremely difficult. However, with the greatest care and the expenditure of considerable time the vessel was safely secured without further mishap. On the ligature of the latter the pulsation in the tumour ceased instantly. As after the operation the oozing from the wound was free, and as the complete closure thereof always produced bagging and also a recurrence of frothing, with a hissing sound, only three sutures were inserted, the main portion of the wound being left open for drainage. From the time the vein was injured to the date of the patient's recovery no embarrassment to either the heart's action or respiration was noticed.

After-Treatment.—The course and progress of the case is thus stated by Assistant-Surgeon Dr. Man Mohan Dass:

After the operation there was a slight rise of temperature for about three days, reaching 102° F. After this period, however, the temperature dropped to normal, and remained so—with the exception of two days, December 29th and 30th—till the date of his discharge completely cured.

There were no brain symptoms, such as syncope, giddiness, or hemiplegia. When admitted he had hoarseness of voice and somewhat shallow and obstructed breathing, and these continued for some days after the operation. Congestion of the lungs—apprehended as a result of the operation with its accidents—did not occur, and the lad made an excellent progress towards recovery, and when he was actually discharged, January 24th, 1893, the tumour had entirely disappeared, his breathing was natural and unencumbered, and his voice quite clear.

On December 29th—that is, twelve days after the operation—the incision wound had healed up; the next day, however, a considerable swelling was perceived at the seat of the original tumour, and at the same time there was a rise of temperature. Suppuration of the sac was apprehended; indeed, from the facts that since the operation the tumour had been gradually diminishing in size, that all pulsation had subsided, and that the existing swelling was soft to the touch, there

could be but little doubt as to the nature of the new mischief, and that the surmise was correct. Poultices were applied every four hours, and on the third day a large quantity of thin sanious fluid came away from the site of the original incision wound, which, being the weakest point, had given way. This wound, with a view to free evacuation, was kept open during the subsequent progress of the case by the insertion of a piece of lint.

Another complication or accident of interest on January 11th, that is, twenty-four days after the operation. While the patient was sitting on a charpoy (bed) in the yard, he suddenly lost a profuse quantity of blood, which he says came out in jets and saturated his *dhoti* (girdle cloth). When I arrived I found that the hæmorrhage had ceased, and that it had come away from a small opening in the centre of the tumour, where a small abscess had appeared. This burst and gave vent to the hæmorrhage; from the small opening purulent matter was oozing. He was put to bed and kept at rest for a week, being very carefully watched all the time.

Remarks.—1. Aneurysm is uncommon in India. The assigned etiology in this case seems both doubtful and insufficient. There is, however, no other history to account for its appearance. 2. The hissing noise during inspiration and frothing up with oozing during expiration, pointing to injury to a large vein and entrance of air into it, were most alarming. 3. The entire absence of cerebral and lung symptoms, which may occur after deligation of this vessel, is worthy of note. 4. The suppuration of the sac led to profuse hæmorrhage, the blood coming, as it were, from a suddenly opened bladder. This simile I should say was a good one, as immediately the "bladder" was evacuated, the collapse thereof occluded the patent vessel through which flowed the newly-established collateral circulation.

GLASGOW ROYAL INFIRMARY.

CASE OF OVARIOTOMY IN A WOMAN OF 74.

(By Henry E. Clark, Professor of Surgery in St. Mungo's College, Glasgow.)

Sir G. M. Humphry has called attention to the fact that old people frequently bear operations well, and that their wounds heal more rapidly and with less constitutional disturbance than those of young people. The case herein reported is chiefly interesting as a confirmation of this generalisation, but contains other points of interest worthy of publication.

Mrs. N., aged 74, a native of Ayrshire, was admitted into my female ward on February 11th, 1893, suffering from a typical ovarian tumour. She was the mother of seven children, of whom five survived. She was perfectly healthy till ten months before admission, when it was noticed that her abdomen was swollen, and she complained of shortness of breath. The tumour was tapped eight times between the end of July and the date of her admission, the last occasion being February 7th; the amount removed at each tapping varied from 10 to 15 pints. The fluid was on each occasion drawn off by her medical attendant, Dr. McGill, of Coylebank, near Tarbolton.

Ovariotomy was performed on February 18th. Notwithstanding the numerous tappings there was not the slightest adhesion between the cyst and abdominal wall. The tumour consisted mainly of one large cyst, but with a great number of smaller cysts at its base; the pedicle was exceedingly short so that it was found necessary to ligature and amputate the right uterine cornu. There was one small adhesion to the mesentery in the pelvis.

She bore the operation well, and made an excellent recovery. The temperature never rose above 99.6°; the whole wound healed by first intention, excepting the inferior angle, where a glass drainage tube had been inserted. The cyst weighed 3 lb. 7 oz., and the fluid removed from it during the operation measured 136 oz. She was dismissed on March 10th, when she was able to take a long journey by rail and conveyance without injury; her doctor informs me that she is now in excellent health. The rapid growth of the tumour at such an advanced age, the frequency of the tappings, and the fact that the trochar punctures did not cause adhesion, are all circumstances worthy of note.

KILKENNY COUNTY INFIRMARY.

CASE OF RUPTURE OF URETHRA: RECOVERY WITHOUT OPERATION.

(By C. E. James, M.B., L.R.C.S.I.)

On the evening of April 25th, while dismounting from a bicycle, the patient slipped and fell astride the mud guard. Almost immediately after he passed a quantity of blood by the urethra, and complete retention ensued. Notwithstanding this, he did not seek medical aid until about 4 A.M. on the morning of April 27th, when he was seen by Dr. White, and shortly after by me in consultation with him. All attempts to pass a catheter into the bladder failed, but produced smart hæmorrhage. We decided that perineal section offered the only hope of relief, and he was advised to come into the County Infirmary for the operation. This he could not make up his mind to do until 3 P.M. on April 27th, when his distress became intolerable. On admission he passed about an ounce of blood-stained urine. When in position for the operation, a final attempt was made with a No. 9 silver catheter, which, although it did not appear fully to enter the bladder, drew off about a pint of clear urine. The point of the instrument (which could not be fully depressed) could be felt from the rectum to be in the prostatic portion of the urethra, and seemed very close to the finger. Urine continued to flow until the patient made an unfortunate movement, when hæmorrhage recommenced through the catheter. At 9 P.M. the same evening the instrument was removed, and found blocked. It was reintroduced, the bladder emptied, and the catheter tied in. At 3 A.M. on April 28th it again became obstructed, but, by careful manipulation, the urine came in a full stream, which could be increased on pressure over the pubes.

The patient continued to progress favourably, and on the sixth day after admission to hospital the catheter was removed, urine being passed freely by the urethra. On May 10th he was allowed to sit up, and on May 18th discharged.

The points of interest in this case are the length of time retention lasted without urgent symptoms. The absence of extravasation, there being no perineal swelling or marked tenderness, and the success obtained with a silver catheter after complete failure with all kinds of soft ones.

The case affords a parallel in many respects to the case recorded by Dr. R. P. Ryan from the Norfolk County Asylum in the British Medical Journal of June 24th, p. 1322.

REVIEWS.

Zoology of the Invertebrata. By A. E. Shipley. London: A. and C. Black. 1893. (Demy 8vo, pp. 466, 263 illustrations, 18s.)

The purpose of this addition to our textbooks is to present to those students who have passed through a course of elementary biology a general survey of the animal kingdom without unnecessary or minute detail. We welcome the book, both on account of its native origin and for its plan. It is not written designedly for students going in for any particular examination, yet those intending to take honours in the Intermediate or Preliminary Scientific at the London University will find it a considerable aid to their studies. It is, however, in no sense a "cram book."

The plan of the book recalls that of Huxley's *Anatomy of Invertebrated Animals*. An example of each great group is pretty fully described with regard to general anatomy; and then follows a survey of the whole of the group, with the characteristic and differential features of its various subdivisions. Each chapter is headed by a table of classification, and a summary of the characteristics of the group. The various groups are rather unequally treated, and the "types" are not always well chosen; for instance, Arenicola is about as bad an example of a polychæte as could have been chosen; nor is this group so well treated, as, for instance, the Planarians or Echinoderms. Again, whereas the hexapod insects are dealt with at considerable, and unnecessary, length—the characters of the families, even, being given in a condensed form—the Ascidians, except for the type Ciona, are somewhat poorly treated. The chapters on peripatus and balanoglossus will be welcomed by the less advanced student who cannot give the time to reading original memoirs.

We regret that the author decided to give no references, for a brief list of well-selected books and memoirs in the more important periodicals would have increased the value of the work. A list of illustrations is also a useful addition to a book of this kind.

Traité de Chirurgie de Guerre [A Treatise on Military Surgery]. Par E. Delorme, Médecin Principal, etc. Paris: F. Alcan. (Two vols. demy 8vo, with numerous illustrations in the text, Vol. i, 1888, pp. 668; vol. ii, 1893, pp. 1018. Two vols. 26 francs.)

The first volume of this treatise on military surgery, by Dr. Delorme, who is one of the professors at the French Army Medical School of the Val-de-Grâce at Paris, appeared more than five years ago—in January, 1888. The second volume, which completes the work, has only just been published. In the first volume the history of military surgery was given, and the subject of wounds of the soft parts by weapons of all descriptions, together with their complications, was discussed. In the second and more bulky volume, which has now appeared, the wounds and injuries of special regions and particular anatomical structures of the body are described, and an account is added of the military medical arrangements and personal organisation by which the needs of the wounded are by the French official regulations to be dealt with in time of war.

More than half the first volume is devoted to the history and gradual development of military surgery, from the date of the introduction of gunpowder down to the present time. Although it is both interesting and instructive to study the advances made by surgeons of successive generations towards a right appreciation of polemical wounds and their treatment—to trace the knowledge of to-day back through the dearly bought experience in field surgery gained in the wars of days long past—the subject is here pursued to an extent that hardly seems desirable in a practical work. The author divides his review into six periods, and the histories of a number of army surgeons and surgical authors who lived at each period are recounted at considerable length. The retrospect is not confined to the surgeons of the author's own country, for towards the close of each section of the subject the progress of military surgery in the other countries of Europe during the period embraced in the section is described. So extended and laudatory, however, are the notices of French surgeons and their works, and so curt, and in some instances so disparaging, the sketches of what was done in similar directions in other countries, that a casual reader might be led to suppose the improvements made in military practice had been wholly due to French surgeons. As regards England, the author hardly appears to have much acquaintance with the work done by some of our early surgeons. Thus, while nearly seventy pages are devoted to the French surgeons of the seventeenth century, scarcely a dozen lines are bestowed on those of England during the same period, and the only works mentioned—those of Clowes, Woodall, and Wiseman, who is erroneously designated surgeon to James II—are dismissed with the sentence "Such authors are scarcely of any account" (*de pareils auteurs comptent à peine*). The author would have done better to have limited his historical review of military surgery strictly to the advances accomplished by the distinguished surgeons of his own country, with which he is well acquainted, and to have omitted altogether his partial accounts of what has been done in the same direction elsewhere.

Dr. Delorme has carried out with commendable zeal and perseverance a very large number of original experiments on the dead body for determining the varieties of lesions caused by rifle projectiles at different distances. As he had not at his disposal the necessary length of range for studying the effects of the projectiles at remote distances, Dr. Delorme arranged the charges of the rifles so as to cause the missiles fired from them to travel with the same speed, and therefore to strike the parts of the body aimed at, although near at hand, with the same amount of force as would be remaining in the projectiles had they been fired at objects at the greater distances contemplated. By the employment of this experimental method, the author has been enabled not only to produce types of the characters of the lesions inflicted by projectiles armed with varying amounts of force, but also to contrast them with the lesions caused by projectiles of other dimensions, forms, and composition under similar conditions. The reduction in weight of the charges of powder necessary for impressing on the Gras rifle bullet—the bullet first used in the trials—the amount of force which would precisely correspond with the remaining force which the same bullet would possess at the various given distances in view, was calculated for Dr. Delorme by Captain Jaricot, who was at the time a member of a committee for settling the best form of firearm for adoption in the French army. A description by Captain Jaricot of his method of calculation has been inserted in the text at page 459 of the first volume, and a diagram is annexed which shows at a glance the different weights of powder required to cause the Gras bullet to effect at a distance of 12.5 metres (nearly 14 English yards)—the distance at which the trials were made—the same results as it would produce at all the points of its range from 100 to 1,800 metres (109 to 1,968½ yards). Corresponding information is furnished in the more recently-published second volume for the 8mm. small-bore Lebel rifle bullet, which has very nearly the same diameter as the British Lee-Metford rifle bullet. The results of the experimental trials alluded to, as regards both the soft and the solid structures of the human body, are described in the text and are shown in the numerous illustrations, mostly drawn by the author himself, with which the work abounds. Such observations are undoubtedly very instructive, for although there are certain conditions of the living body which cannot be imitated in experiments on the dead body, the physical effects produced must closely coincide, and will probably serve as sources of information on many details of the injuries that result from actual warfare. The different types of the fractures produced by such trials in the epiphyses and diaphyses of the long bones, in the flat bones of the cranium, and the modifications in their features according to the velocities of the projectiles by which they have been produced, or, what is equivalent, to the distances at which the parts concerned have been struck, may be expected to bear a near resemblance to the injuries which would occur in the living body under similar circumstances, and a study of their characters may often help to determine the treatment to be adopted by surgeons under whose charge such cases may happen to fall in time of war.

The description of the wounds and injuries of special parts of the body and their treatment, which occupies the greater portion of the second volume, embodies the principal facts and observations collected in the surgical histories of the successive wars which have taken place in modern times from the Crimean war downwards. The vast experience gained during the prolonged War of the Rebellion in the United States, and in the war between France and Germany in 1870-71, is especially brought to notice in this part of the work. The chapters which follow on medical organisation in time of war embrace an account of the duties which devolve on the officers and men of the hospital corps over all the zones of a theatre of warfare—from the position of the army operating in the field in front, through the intermediate hospitals on the lines of communication, back to the invaliding hospitals in rear. The varieties of ambulance conveyances, inclusive of the several kinds of hand-litters, mule-litters, wheeled vehicles, and railway ambulance trains, authorised for use by the French military regulations, are fully described. Like other parts of the work, this part is largely illustrated by woodcuts in the text.

Lastly, in an addendum to the work, Dr. Delorme gives an account of the most recent kinds of firearms and projectiles, already adopted, or in process of being introduced, not only in the French army, but also in the armies of all the leading Powers of Europe. The qualities of the new weapons are compared with those of the weapons which they have just displaced, or are displacing at the present time, and their probable effects in future wars are considered. On the whole, the author considers that the wounds which modern projectiles are calculated to produce will be less grave, and their treatment more successful, than was the case with the wounds which resulted from the projectiles in use hitherto, in consequence of the diminished diameters of the new bullets, their less frequent fragmentation, and the rarer occurrence of their lodgment in the tissues of the body. But he observes that it is pushing the love of paradox too far to speak, as some have done, of the change which has been made in the latest firearms as "humanitarian," seeing that one of the new projectiles will traverse the bodies of six men at a distance at which one of the old ones would only pass through one or two, and that it

has the power of exercising its wounding and often deadly action over a zone of more than 3,000 metres.

Dr. Delorme's work throughout exhibits a vast amount of research as well as of practical observation, while the views put forth in it are the more strongly impressed on the mind of a reader by the numerous cases of wounds and injuries which he brings to notice in illustration of them. If the European war which is constantly threatened by the ever-increasing displays of force on the Continent, notwithstanding the enormous sacrifices in time and money which they entail, should unhappily break forth, there is no existing work of the kind which will be more in demand among the many surgeons who will be called upon to take part in it, and which will be more useful than the work which we here notice.

Diseases of the Skin: their Description, Pathology, Diagnosis, Treatment, etc. By H. Radcliffe Crocker, M.D.Lond., F.R.C.P., Physician for Diseases of the Skin in University College Hospital. Second Edition, with 92 illustrations. London: H. K. Lewis. 1893. (8vo, pp. 972; 24s.)

In reviewing the first edition of this work in 1888, we ventured to prophesy that it would "take a good place amongst the excellent annuals that have lately appeared in this country." This prophecy has been completely fulfilled, and a demand has in due course arisen for a second edition. The book may be considered from two points of view. It may be estimated as a work for students, or as a general work of reference on dermatology. That the second object has been well fulfilled will, we think, be generally acknowledged, and we know of no work to which the practitioner may turn with more confidence to obtain the results of the most recent investigations whether as to pathology or treatment. This is as true for the commoner as for the rarer diseases. The value of the work to a specialist is increased by the numerous references, and also by the fairness with which, as a rule, the views of other authorities are stated by the author, who does not fail to indicate the opinion which he holds himself. Under the head of "Morvan's Disease" sufficient prominence is not given to the fact that a large proportion of Morvan's own cases have been proved to be leprosy, but probably all the evidence was not available at the time this edition was going through the press. To many also it will seem that the author does not attach as much importance as it deserves to seborrhœic eczema; we suspect that the general practitioner would have been grateful for a fuller description of the characters of the disorder and for diagrams of its seats of election. There is little doubt that it forms a large percentage of all the cases of skin disease in adults which come under treatment, perhaps a larger percentage in general than in special practice, and there are few which are more amenable to correct treatment. This criticism is not meant to detract from the value of the book, and is directed rather to a question of manner than of matter.

As a student's book the volume is at the disadvantage that it is rather large, but this has been discounted as far as possible by the address to students, which the author prints as a kind of preface. If the student reader will follow the instructions as to the use of the book there given, he will find the amount of reading to be done is manageable, and he may rest assured that he could not find a more trustworthy guide. The additions made in the second edition appear to be most judicious, and the volume in its present form will certainly confirm and extend the high reputation gained on its first appearance.

Lectures on Sanitary Law. By A. Wynter Blyth, M.R.C.S., Professor of Hygiene, College of State Medicine. London: Macmillan and Co. 1893. (Demy 8vo, pp. 298. 8s. 6d. nett.)

This work consists of twelve lectures delivered by the author at the College of State Medicine, and is apparently intended for the benefit of such students as aspire to obtain appointments as medical officers of health. The information given in the lectures is accurate as far as it goes, and the author has been at the pains in many instances to set out various Acts of Parliament verbatim in order to avoid the chance of error. When this has been said the chief merit of the work has been stated. It probably is the fault of the system, which apparently requires the lecturer to deal with the whole subject of our sanitary laws in a course of twelve lectures. The subject is too large for such treatment. Important matters are touched on too briefly. For instance, Lecture VI, on the statutory provisions with regard to the prevention of disease, touches on such different topics as (1) cleansing; (2) disinfection; (3) exposure of infectious persons; (4) letting for hire infectious rooms; (5) epidemics; (6) special regulations with regard to milk [why not unsound food generally, which subject well deserves a chapter to itself?]; (7) hospitals; and (8) disposal of the infectious dead. On the other hand, the subject of adulteration was altogether omitted from the lectures, and the Sale of Food and Drugs Acts are merely printed in the appendix, without any reference to the numerous decisions by which the courts have elucidated their meaning.

The author in his preface says that the lectures have been collected and published for the use of those "who desire to obtain in a small compass a *general* view of the powers and duties of local authorities in relation to the public health. This object is obtained by the lectures, and the book will therefore fulfil a useful purpose. Those who desire to obtain a *full* knowledge of the subject must seek for it in larger treatises, to which these lectures may form a reliable introduction.

The Practitioner's Handbook of Diseases of the Ear, and Affections of the Nose and Naso-Pharynx Relating to Aural Therapeutics. By H. Macnaughton-Jones, M.D., M.Ch., M.A.O. (Hon.), F.R.C.S.I. and E., late Examiner in the Royal University, and University Professor in the Queen's University, formerly Surgeon to the Eye, Ear, and Throat Hospital, Cork; and W. R. H. Stewart, F.R.C.S.Edin., etc., Aural Surgeon to the Great Northern Central Hospital, Surgeon to the London Throat Hospital, late Surgeon to the Throat Hospital, Golden Square; Surgeon-in-Charge of the Throat and Ear Department, North-West London Hospital. Fourth Edition. London: Baillière, Tindall, and Cox. (With Coloured Plates and 152 Woodcuts, 392 pp., 10s. 6d.)

This handbook is one of the best of its kind. It is specially intended for the use of those engaged in general practice as a guide to the diagnosis and treatment of the more common diseases of the ear and those affections of the upper respiratory passages upon which they so often depend.

The due recognition of disordered conditions of the nasal and post-nasal cavities, and the timely adoption of suitable measures for the removal of such morbid states is of such importance as to constitute the first essential to success in the relief of deafness and other aural derangements in a large majority of instances. The sections devoted to the regions indicated and to their pathological relations to ear affections will therefore be found a valuable feature of the present manual.

The design of the work being essentially practical, its aim has been successfully attained in the measure in which this consideration has been adhered to by the authors. Some account of the principles upon which a clear comprehension of good practice is founded was of course necessary, and these have on the whole been sufficiently well indicated. In some instances, however, greater explicitness would have been desirable; for example, in regard to the diagnosis between middle and internal ear disease. It may perhaps be doubted whether an enumeration of the anatomical and physiological possibilities in connection with so difficult a subject as tinnitus is not out of place in a work of this description. Rather more attention might have been directed to increased typographical accuracy. Thus, *inter alia*, we find "trocular herophyte" doing duty for torcular Herophili, and "maladies Coreilli" for maladies d'oreille. The sections on treatment are good throughout, and constitute the most useful portions of the book, to which a very serviceable collection of formulæ of various kinds is appended.

ALTE ERFAHRUNGEN IM LICHTE DER NEUEN ZEIT UND IHRER ANSCHAUUNGEN UEBER DIE ENSTEHUNG VON KRANKHEITEN. [Old Experiences in the Light of Recent Times, and their Bearings upon the Origin of Disease.] Von Dr. CARL WENZEL. Wiesbaden: J. F. Bergmann. 1893. (Super Roy. 8vo, pp. 144.)

THE subjects treated in this book are (1) the protection against the dangers of scarlet fever and measles, (2) the natural and artificial evacuation of the stomach through the mouth, and (3) a series of pathological observations. These chapters are preceded by a short review of the work of the last fifty years, in which the enormous advances made in all branches of medical science, including the last and certainly not least—namely, bacteriology—are referred to. A very short but interesting sketch is given of the universities of Giessen, Vienna, Prague, Paris, including their more celebrated teachers between 1839 and 1845. Little need be said of Sections I and II. The former is almost exclusively taken up with Schneemann's treatment ("Speckeinreibung") of the diseases in question, and the author seems to be a warm advocate of it. In the latter the beneficial effects of inducing vomiting in the early stages of some acute illnesses is dwelt upon. The author appears to be no great friend to the use of the stomach tube for diagnostic purposes.

The most valuable part of the work, however, lies undoubtedly in the thirty pathological observations, which are preceded in all instances by a short account of the clinical manifestations during life. Many rare examples of morbid anatomy are included here, and special reference may be made to (1) cases of narrowing of the lumen of the bowel from various causes, including stenosis of the ileo-cæcal valve; (2) two instances of vesicular mole in tubal gestation; and (3) a case of obstruction of the abdominal aorta. The value of these observations might have been increased if the author had added a few comments of his own connecting the symptoms during life with the changes found after death.

INVESTIGATIONS INTO CAUSATION, ETC., OF TEXAS OR SOUTHERN CATTLE FEVER. By Dr. T. SMITH and Mr. F. L. KILBORNE. Published by authority of the Secretary of Agriculture, Bureau of Animal Industry, United States Department of Agriculture. (Large 8vo, pp. 300, with 10 full page coloured illustrations and 7 woodcuts.)

THIS publication gives a most comprehensive history of that most mysterious and fatal malady long known as Texas fever in cattle. In a historical notice the authors observe that the disease is transmitted from southern to northern cattle, and that the former (as in the case of Russian cattle suffering from rinderpest) are capable of conveying the disease to others with which they may come in contact while themselves exhibiting no external manifestations of the malady. They state that the power of transmission by southern cattle when depastured in the northern States is gradually lost. In 1889 experiments made by the Bureau showed that the malady is due to a micro-organism whose habitat is the interior of the red blood corpuscles. The period of incubation presents great variations, from ten to ninety days. Experimentally symptoms of illness can be induced in about six days or less. Two clinical types are recognised: an acute or fatal, and a chronic or benign; the former occurring during the summer, the latter in the autumn. In the acute form invasion is sudden and pronounced, and the duration of the disease varies from four to fourteen days. In the benign form the symptoms are considerably modified, and the cytolitic processes less pronounced, hæmoglobinuria being seldom observed. An acute attack may be followed, after an interval more or less prolonged, by a mild attack.

The pathological changes observed on necropsy generally confirm the view of the authors that the cardinal lesion is a hæmal one. Capillary engorgement, blood extravasation—especially epi- and endocardial—effusion of blood plasma, enlarged and congested spleen, liver, and kidneys, with material alterations in the tissues of these organs, and grave changes in the blood corpuscles, being amongst the most pronounced pathological phenomena observed; but, curiously enough, no special reference is made to the condition of the lymph glands. The authors believe that the malady is not due to bacteria but to protozoa. As these protozoa do not in their morphological character correspond with those of any known genera, a new genus (pyrosoma) has been created for them, and inasmuch as they are generally found in pairs in the red corpuscles, they have been named by the authors pyrosoma bigeminum. The specific organisms are described as pear-shaped bodies, varying in length from 2 to 4 μ, and in width from 1.5 to 2 μ. In the pairs the tapering ends are directed towards each other. These organisms are only found in the acute form, those described as existing in the blood in the mild form partaking more of the character of cocci, a few only of the pyriform bodies being present.

These two forms are looked upon as only different stages in the life history of the parasite, and a parallel is drawn between them and some of the coccidiæ, but much importance is attached by the authors to these different phases of the parasite in connection with the transmission of the malady through the agency of ticks. The authors affirm that this transmission is effected only by young ticks. Two alternative methods of transmission are suggested: (1) That the microparasite undergoes certain migrations and perhaps certain changes of state in the body of the adult tick and finally becomes lodged in the ovum, subsequently becoming localised in certain glands of the young tick, from which it is discharged into the blood of cattle. (2) The parasite may enter the body of the mature tick through the medium of the blood of cattle, while in the spore state or about entering in that state, and the young ticks, as they are hatched near the body of the dead female, may become infected by this blood, the infection clinging to their mouth parts and being thus introduced into the blood of the cattle whose bodies they may subsequently infest.

A point of the greatest importance in connection with Texas fever is the sanitary aspect of the question as it affects meat inspection in this country. We can but think that the flesh of animals suffering from such a malady ought unhesitatingly to be condemned as an article of consumption.

BIBLIOGRAPHIE DER KLINISCHEN HELMINTHOLOGIE. Heft V u. VI: Ascaris, Oxyuris, Trichocephalus, Ankylostomum. Von Medicinalrat Dr. J. CH. HUBER. München: J. F. Lehmann. 1893. (Royal 8vo., pp. 86, M. 3.60.)

WHOEVER has had to search through the numerous volumes of the *Index Medicus*, or other contrivance for facilitating literary research in things medical, will appreciate Dr. HUBER'S effort to lighten such labours in at least one department of medical study. Although the part before us applies to only four—ascaris, oxyuris, trichocephalus, ankylostomum—of the dozens of entozoa affecting man, it extends to 82 pages. Some idea may be got from this of the labour involved in an exhaustive study of what might be termed almost a subordinate department of medical science. It indicates also how necessary some such arrangement and classification of medical literature has become.

The completeness and method of Dr. Huber's work are highly commendable. One little point we fail to understand, and that is the reason for rendering the title of an English, French, or Italian article in some instances into German, whereas in other instances it is given in the language in which it was originally written. Doubtless there is a reason for this. In this particular the apparent want of system and uniformity show up, because they are in contrast with the admirable method and thoroughness characteristic of the work as a whole. It is a book with which our medical and zoological libraries and all interested in helminthology should be provided.

AN INTRODUCTION TO SCIENTIFIC CHEMISTRY. By F. S. BARFF, M.A. Revised by TEMPLE ORME. London: O. Newmann and Co. 1893. (Cr. 8vo, pp. 200, 3s. 6d.)

THIS little book does not exhibit the high degree of accuracy of detail which is demanded from a revised edition, supposed to be brought up to date. Some of the inaccuracies which are most remarkable are detailed below. On p. 12, l. 6 *et seq.*, the student is told that calcic chloride for drying gases is to be melted during its preparation. It

is, however, universally acknowledged that the porous calcic chloride obtained by heating short of the melting point is far more efficacious as a drying agent for gases. On p. 29, l. 20 *et seq.*, an account is given of the physiology of respiration—a subject which is quite out of place in a work on chemistry—which can only be described as entirely erroneous. The experiment, described on p. 37, for proving the nature and quantity of the products of combustion of a common candle might serve for the first purpose, but the quantitative results would be quite worthless, inasmuch as no arrangement is described for removing moisture and CO_2 from the air in which the combustion takes place, and no allowance is made for the escape of uncondensed water vapour with the CO_2 or for retained CO_2 dissolved by the condensed water. One of the most extraordinary blunders in the book is the statement made on p. 53, middle paragraph, and repeated on p. 90, l. 3 *et seq.*, that N_2O_3, which is called "nitrous acid," is formed when nitric oxide combines with free oxygen. The gas formed in these circumstances is, in modern works on chemistry, designated "nitric peroxide," with the formula NO_2. If it were possible to obtain N_2O_3 in a state of purity—a feat which is far more difficult than the author of the book is aware of—it may be confidently predicted that the products of its action upon water would not be NO and hydric nitrate, as here stated, unless the water were hot. Again, the action of chlorine gas upon water is not usually represented as described on p. 111, l. 6 *et seq.* The action there described is a slow one, brought about by the action of light upon an aqueous solution of chlorine gas, and most certainly does not represent what happens when that gas is "passed into water." In short, the book is wanting in the only quality—namely, accuracy—which could render such a book valuable.

Diseases of the Eye: A Practical Treatise for Students of Ophthalmology. By Geo. A. Berry, M.B., F.R.C.S.Edin. Second edition. Edinburgh and London: Young J. Pentland. 1893. (Imperial 8vo, pp. 705, 25s.)

The second edition of Dr. Berry's book bears ample testimony to the careful revision it has undergone, and we may say at once that the volume before us is a great improvement upon its predecessor, and this without disparaging the first edition.

The second edition contains some 55 pages more than the first, and more than 50 new illustrations. Some of these replace similar figures in the first edition, but the greater number are new, mostly coloured, and drawn for the author from cases under his care.

Although the general plan of the book remains the same, a few noticeable alterations have been made. There are still three sections. Section 1, containing 470 pages, is, as before, almost entirely clinical, but it now begins with a chapter on the Examination of the Eye, which was formerly part of Chapter xvi in Section 2. This is an improvement in a book written for students.

The majority of the new coloured illustrations appear in Section 1. With a few exceptions they are very good, but as the coloured drawings constitute a peculiar and very attractive feature of Dr. Berry's work, it is, we think, a matter of regret that these few should have been passed by the author.

Section 2, which deals with refraction and accommodation, the theory of the ophthalmoscope and affections of the ocular muscles, is carefully written. It bristles with mathematical figures and formulæ, and the average student will find as much as, and perhaps more than, he wishes to know concerning the theoretical part of ophthalmoscopy and the refraction of the eye. Several of the optical diagrams in this section have been enlarged, a boon which most readers will fully appreciate.

Section 3, on operations, has undergone but little alteration. It fills 65 pages as against 64 in the first edition, and contains one new figure. No additional operations are described, unless destruction of the lachrymal sac by the thermocautery can be so designated. We notice that the author omits the condemnation, contained in his first edition, of those who ventured to use a Graefe knife for the performance of iridectomy for glaucoma. He still makes the statement that slitting the lachrymal canaliculi in the method introduced by Bowman "is now always performed with the narrow probe-pointed knife introduced by Weber." We would suggest that for the word "now" the words "in Edinburgh" might be substituted.

When treating of operations for cataract, Dr. Berry adds a few remarks upon the vexed question of iridectomy. He seems more opposed to the simple operation without iridectomy than previously.

NOTES ON BOOKS.

Medical Electricity. By E. S. D'Odiardi, Medical Electrician. (London: Swan Sonnenschein and Co. 1893. Foolscap 8vo, pp. 67.)—This book is the production of a person who is, we believe, unqualified, and contains thirty-two pages of "reports of cases," followed by twenty-two more of ignorant vapourings on medical matters. The author tells us, in an introduction, that he does not wish to be considered an ignorant empiric, but the following quotation is enough to show the character of the book: "She was treated also for consumption. Cured by my lung healer, pneumo-dynamometer, and the deep plunge electrode, combined with the healing cup." For how long is pestilent rubbish of this kind to discredit the name of medical electricity?

Manuel de Petite Chirurgie de Jamain (Jamain's Manual of Minor Surgery). Par Professeur F. Terrier et Dr. Péraire. (Paris: F. Alcan. 1893. 7th Ed. Grand in.-18, p. 786, fig. 415. Fr. 8.)—This excellent French work upon minor surgery has been re-edited by Professor Terrier and M. Péraire. Many additions have been made since the original edition of Jamain. The whole is now divided into three parts. The first treats of dressings and instruments; the second of bandaging, trusses, the treatment of fractures and transport of wounded; and the third part treats of the minor surgical operations. As is usual now in works on minor surgery, the precautions for asepsis are fully described. Three methods are mentioned—the antiseptic, the aseptic, and the mixed. In this book, as in many others of the same kind, much valuable space is wasted in explaining how not to do it. This may have been necessary some years ago, but nowadays gross mistakes are only perpetrated by the wilfully ignorant and careless, or by those whose conceit puts them above criticism. The directions given for sterilisation of skin, instruments, sponges, ligatures, and dressings are clear, and probably efficient. The extraordinary array of sterilisers makes the book rather like an instrument maker's catalogue, and, for ordinary work, most of them are absolutely unnecessary. It is a pity to obscure the great principle of aseptic surgery with a mass of trivial details. The articles upon bandages and trusses call for no comment except that that which is called the *bandage Anglais* has no title to that designation. It is of a kind the patent of which has lately expired and which is seldom used, and not the most efficient. With regard to the rest of this work, which deals with all the minor operations, we have nothing but unqualified praise. The book thoroughly deserves the success which it has won.

OBITUARY.

WILLIAM MORSE GRAILY HEWITT, M.D.Lond., F.R.C.P.Lond., F.R.S.Ed.

With the death of this distinguished obstetric physician at the comparatively early age of 65, there has passed away from us one of the most eminent and respected of British gynæcologists.

The end, which was somewhat sudden, and was due to uræmia, had not been altogether unexpected. Indeed, for some years past the condition of Dr. Graily Hewitt's health had been such as to cause considerable anxiety to his friends. He suffered from asthma and chronic bronchitis, and, although he was always remarkably benefited by his autumn holiday, it was deemed advisable for him to relinquish his practice, and winter last year in Egypt. He returned much

improved in health; but, during the last few months, symptoms of renal disease developed, and culminated in the fatal attack of uræmia on the morning of Sunday, August 27th.

William Morse Graily Hewitt was born in 1828, and was the eldest son of Mr. William Hewitt, of Badbury, in Wiltshire. He received his medical education at University College, London, where he was the contemporary and lifelong friend of the late Dr. Wilson Fox and Dr. Russell Reynolds, and where he had a distinguished career.

In the year 1850 he became a Licentiate of the Society of Apothecaries, a Member of the Royal College of Surgeons, and graduated M.B. at the University of London, obtaining honours in all subjects. In due course he obtained the M.D. degree and the Membership and the Fellowship of the Royal College of Physicians.

After graduation he was appointed Surgical Registrar to St. Mary's Hospital, and in 1860 Lecturer on Comparative Anatomy and Zoology at the medical school of that hospital. In 1864 he was elected Assistant Physician-Accoucheur to St. Mary's, and a year later he was appointed Professor of Midwifery and Obstetric Medicine at University College, London, and Obstetric Physician to the hospital. He occupied the Chair of Midwifery for twenty-two years, and on his resignation in 1887 the Council conferred on him the title of Emeritus Professor and Consulting Obstetric Physician to the hospital. Dr. Graily Hewitt was also for some time Physician to the Westminster General Dispensary, Assistant Physician to the Samaritan Hospital for Women and Children, and Physician to the British Lying-in Hospital.

A number of learned societies claimed Dr. Hewitt as a member, amongst others the Obstetrical, the Royal Medical and Chirurgical, the Pathological, and the Harveian. He was also elected an Honorary Fellow of the Obstetrical Societies of Berlin and Boston, and of the Medical Society of Helsingfors, and he was made a Fellow of the Royal Society of Edinburgh in recognition of his contributions to obstetric science. Dr. Hewitt occupied an important position in the Obstetrical Society of London from the time of its formation in 1858, when he was elected as the first Honorary Secretary. In 1869 he was chosen President, and he has been a constant attendant at its meetings and contributor to its *Transactions*, no fewer than thirty-two of the thirty-four volumes published having received contributions from his pen.

During the early part of his career he published several papers upon general pathological subjects, and he was a prolific author of works dealing with his special branch of medicine. His chief work, the *Pathology, Diagnosis, and Treatment of Diseases of Women*, was for many years one of the most popular textbooks in this country and America, and it attained to a fourth edition. In 1878 a great impression was made in medical circles by the publication of *The Mechanical System of Uterine Pathology*, which traced a large number of gynæcological troubles to uterine displacements. In 1867 he gave as an introductory lecture at University College, "Nutrition the Basis of the Treatment of Disease," a subject upon the importance of which he always insisted in his lectures, pointing out especially the ill-fed condition of many gynæcological cases, and urging the frequent feeding of these cases as an essential part of their succesful treatment. Dr. Graily Hewitt has not always received the credit he deserves in being one of the first to indicate the importance of this method of treatment.

In 1877 he published a paper on "Abnormal Softness of the Uterus as a Factor in the Etiology of Uterine Distortion, and as a Cause of Impairment of Power of Locomotion;" and, ten years later, a communication was made to the International Medical Congress at Washington on "The Relation between Changes in the Tissues and Changes in the Shape of the Uterus."

In 1858 he published a series of papers on "Coagula formed in the Veins during the Puerperal State," and the first volume of the Obstetrical *Transactions* is enriched by a paper on "The Hydatidiform or Vesicular Mole: its Nature and Origin." Other important contributions to the *Transactions* are "The Vomiting of Pregnancy: its Nature and Treatment," and "The Severe or so-called 'Incontrollable' Vomiting of Pregnancy." The author endeavoured to show that the vomiting was due to flexion of the uterus, and was relieved by the correction of the displacement. In 1890 he published an elaborate work dealing with this subject. In a paper published in the BRITISH MEDICAL JOURNAL in 1870, Dr. Graily Hewitt called attention to a condition termed "strangulation of the uterus," which he attributed to the compression of the uterine vessels by flexion of the organ. This condition is an important one, and had not previously been sufficiently recognised; but researches in the anatomy of the uterine circulation showed that the vessels (running outside the uterine tissue) could not be compressed by flexion of the organ, but that the strangulation was due to the compression of the veins by the utero-sacral ligaments or other bands, and occurred chiefly in exaggerated cases of retroflexion.

Other important works were "Contributions Illustrating the Pathology of Diseases of Women and Children," and "The Kidneys in a Case of Puerperal Convulsions," published in the Pathological Society's *Transactions*; "Clinical Conferences in Midwifery," *Lancet*, 1864; "Operation of Transfusion in Obstetric Practice," BRITISH MEDICAL JOURNAL, 1863; "Clinical Notes on Sterility," *Lancet*, 1887. He was also the author of numerous minor papers dealing with general pathology and diseases of children, and of a large number of valuable contributions to the Obstetrical *Transactions* upon obstetrics and gnyæcology; and his name will ever be associated with the ingenious pessaries he devised for the treatment of displacements of the uterus.

It was to this subject of displacements of the uterus that the greater part of the life work of Graily Hewitt was devoted; and although it is perhaps too early to foretell the exact value which the future will assign to the conclusions at which he arrived, although there are indications obtained from the examination of healthy women, and from abdominal sections, that these displacements may be unattended by symptoms, and that the symptoms attributed to them may be due to unrecognised local disease; yet no history of this branch of medicine can be complete without a full recognition of the work done by Graily Hewitt.

His method of work was admirable: slowly, carefully, with much investigation and accurate note taking, he pursued his subject, waiting long before he published his observations, and never publishing for the sake of advertisement, but always with the object of advancing medical knowledge. And in the learned societies, where his work was sometimes subjected to vigorous criticism, he was always courteous in considering his opponents' views, and never abusive in defending his own. Indeed, Dr. Graily Hewitt in debate set an example of dignity and courtesy which has rarely been equalled.

In hospital, as in private work, he combined the greatest gentleness with thoroughness of examination, and he was always careful to see that the clinical clerk took down his exact words, and that he himself stated no more than his examination justified. Here is a note he dictated on a case of ectopic gestation: "At a spot just above and to the right of the umbilicus, on deep pressure there was perceived once only a distinct impression, which seemed precisely identical with what would be produced by a fœtal movement." A less scrupulously accurate observer might have contented himself with recording "fœtal movement felt."

Dr. Graily Hewitt was a careful but slow operator; during the last twenty years he had almost entirely confined himself to vaginal operations; although earlier in his career he performed a number of ovariotomies.

In his younger days he was a remarkably handsome man, his tall slight figure, aquiline nose, clean-cut features, and penetrating eyes giving him a look of great distinction and intelligence. In manner he was somewhat reserved and reticent, but in his own charming home he was always a most genial host, and of his many assistants there is not one who will not miss the pleasant social gatherings to which they were so constantly invited in the house in Berkeley Square, and be grieved that the dignified master who presided with so much kindliness and grace is no more.

Dr. Graily Hewitt had a large and aristocratic practice and an extensive circle of friends, and few physicians inspired such confidence in their patients.

He married in 1853 Miss Hollis, who survives him, and he leaves a family of three daughters and a son to mourn their loss.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1893.

Subscriptions to the Association for 1893 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, SEPTEMBER 9TH, 1893.

ASIATIC CHOLERA IN ENGLAND.

The official notifications made during the past week prove beyond a doubt that our first line of defence has been forced, and that cases of Asiatic cholera have occurred in Hull and in Grimsby, not among ships' crews, but among permanent residents. The first recognised case was that of a boy in Hull, on whom an inquest was held on August 25th. The inquiry was adjourned, in order that a bacteriological examination might be made. The material was transmitted to Dr. Klein, into whose custody it came on August 28th. Cultivations were immediately made, and on the following morning, August 29th, the sanitary authority in Hull was informed by telegraph that the case was undoubtedly one of Asiatic cholera. At the same time the same information was transmitted to the Local Government Board, who at once despatched Dr. Thompson to Hull. As suspicious cases had occurred in Grimsby, where diarrhœa had been prevalent severely for several weeks, Dr. Reece was directed to proceed to that port. On August 30th a woman died with typical symptoms of cholera; a *post-mortem* examination was made, and Dr. Reece returned to London with a part of the ileum and some typical rice-water stool from this case. Cultures made from these specimens gave, after the usual intervals of about twelve hours, typical growths of the vibrio of Asiatic cholera, and on August 31st a telegram was despatched to Grimsby to this effect. On the following day, September 1st, similar materials were received from a second case which had been subjected to *post-mortem* examination on that day. The cultivation test again gave unmistakable evidence of Asiatic cholera, and the Grimsby authorities were so advised on September 2nd. Meanwhile a woman who lived in the same street in Hull as the boy upon whom the inquest was held on August 25th had been taken ill, and died. A *post-mortem* examination was held on September 1st, and a bacteriological examination was made on the same day; the cultivations again gave unmistakable evidence of Asiatic cholera. This case gave rise to a third, the woman's daughter, who, on receipt of the news of her mother's illness, went to nurse her, was taken ill within twenty-four hours, and died with symptoms of Asiatic cholera.

Since then other cases have occurred both in Hull and Grimsby, which have presented symptoms pointing to Asiatic cholera, although the diagnosis has not been confirmed by bacteriological examination. Elaborate precautions are now being taken in both of these ports, but it cannot be denied that the position remains serious. The Mayor of Grimsby has addressed a letter complaining that exaggerated statements have appeared in the press, and that, "whilst Grimsby is sparing no expense or trouble in adopting the most stringent measures to prevent the introduction of cholera into this country, it is being ungenerously and cruelly treated in return."

It is inevitable, however, that considerable alarm should be felt throughout the country, although we are glad to recognise that there are no signs of panic. At the same time we learn with some surprise that the railway excursion traffic to Cleethorpes, which is a suburb of Grimsby, has not been stopped, although it seems to be made a matter of complaint that it has been perceptibly affected, the number of excursionists being several hundreds below the average.

It is astonishing to learn that the efforts of the Rotherham Corporation to induce the Manchester, Sheffield, and Lincolnshire Railway to abandon a special excursion train to carry people from Grimsby to Rotherham, to attend a football match, have been unsuccessful. The reason alleged is that there is no serious epidemic at Grimsby. The infection of Asiatic cholera is present in Grimsby, and Asiatic cholera, whatever the dimensions of the epidemic may be, is always serious.

That the continuance of excursion traffic may facilitate the dissemination of the disease is shown by the history of the case of Asiatic cholera which has occurred at Rotherham. The patient was a miner, who, we learn, visited Grimsby on September 4th; he was taken ill on September 5th, and died the same day. Bacteriological examination proved that he had been suffering from Asiatic cholera.

Without wishing to bear hardly upon the sanitary authorities of Hull and Grimsby—brought face to face with a serious emergency, the full significance of which there may have some natural indisposition to recognise—we cannot help feeling that they would have been well advised to have had recourse at an earlier date to the bacteriological method of diagnosis.

Our Special Commissioner, who has visited Grimsby, furnishes us to day with facts (see p. 600) which afford grounds for at least a strong suspicion that some of the cases of "cholera" and "diarrhœa" which occurred during the third week in August may have been really due to Asiatic cholera. Since August 20th 20 deaths have occurred in Grimsby from acute forms of diarrhœa, of which 18 have been returned as "cholera" or "choleraic diarrhœa." The mortality, as our Commissioner points out, was high, and might well have aroused suspicion. The precautionary measures now in force are admirable, but it is possible that, had a bacteriological examination been made a week earlier, they might have been then enforced with the effect of saving life and protecting the trade of the port of Grimsby from the serious injury which it is inevitable it must now suffer.

In the British Medical Journal of July 29th was published an article on the Examination of Cholera Discharges, which explained fully the methods now in use in bacteriological laboratories, and we mentioned then the names of various laboratories in this country in which bacteriological work is carried on and in any one of which the necessary examination would, we have no doubt, be promptly made.

[1] The laboratories mentioned in the article referred to as those to which specimens might be sent were the College of State Medicine in Great Russell Street, the laboratories of the Conjoint Royal Colleges of Physicians and Surgeons, on the Victoria Embankment, the laboratories in

It may be well to add that the best material to forward is either some of the rice-water stool, or, if the case has terminated fatally, a portion of the lower ileum about eight or twelve inches in length. If a specimen of the stool is sent it should be put in a glass stoppered bottle, previously washed out with spirit, and the stopper tied down and sealed. If a piece of the ileum be sent it should be tied above and below and placed in a wide-mouthed glass-stoppered bottle, previously washed out with alcohol. In neither case should any preservative or other fluid be added to the specimen contained in the bottle. The bottle should be thickly wrapped in cotton wool and packed in a tin box. If no specimen of the stool or the intestine can be obtained a portion of a sheet soiled by the discharges should be cut out, folded, wrapped in guttapercha tissue, enveloped in cotton wool, and packed in a tin box.[2]

THE ALLEGED INCREASE OF INSANITY.

II.

WE pointed out last week that, in the third volume of the Census Report, just issued, the subdivision of cases of mental derangement into lunatics and idiots or imbeciles, which was attempted in previous Census Reports, is abandoned—a course which was abundantly justified by the unsatisfactory result of this attempt in the Reports on the census in 1871 and 1881. It may be desirable briefly to refer to the somewhat new departure made on the present occasion by the separate return of cases described in the householder's schedules as "from childhood." We believe that this separation was due to a request addressed to the Registrar-General on the subject, before the census was taken, by representative and special alienists, on behalf of the Medico-Psychological Society. The Census Report shows that 7,722 of the 97,383 cases of mental derangement enumerated in England and Wales at the census in 1891 were stated to be "from childhood." An examination of the proportion of these cases returned at different age periods proves, however, that the return is of more than doubtful value. Only 301 cases of mental derangement were returned at the first quinquennial age period—0-5 years—while in the next period—5-10—the number rises to 1,794. It is obvious, however, that, as the probability of living is less among mentally deranged than among other children, the number of such children living in the first five years of life must really exceed the number living in the second five years. In the three following quinquennia the numbers of cases described as "from childhood" are 661, 844, and 851. Thus, of 3,081 mentally-deranged children aged between 10 and 15, only 661 were described as "from childhood," which figures evidently afford a most incorrect indication of the true proportion between congenital and new cases at these ages. It is much to be regretted that, concerning the number of cases of congenital idiocy, the census returns afford no trustworthy information beyond what may be surmised from the ages at which the cases are returned.

It has already been pointed out that the number of cases of mental derangement in England and Wales returned in 1891, and their ratio to population, showed an increase upon the figures in 1881, but that the rate of increase in the ratio, which had been 7.04 per cent. in the 10 years, 1871-81, fell to 3.23 per cent. in the more recent 10 years, 1881-91. It is well known that during a long series of years the proportion of the total insane treated in asylums has constantly and steadily increased, and that the rate of mortality among the insane is not only much lower among the inmates of asylums than among those not so treated, but that the rate of mortality in asylums has also very considerably declined. These facts obviously suggest survival and accumulation of the insane, causing increase in the number of existing cases at any given time, without necessarily implying any increase in the ratio of occurring cases to the population. It is desirable, therefore, carefully to examine the age distribution of the cases of mental derangement returned at the last census, and to compare such age distribution with that which prevailed at the two previous censuses in 1871 and 1881. Of 1,000 cases returned in 1871, 69 were under 15 years of age, while the proportion declined to 65 and 53 per 1,000 in 1881 and 1891. At the age periods, 15-25 and 25-45, a similarly steady decline occurred in the proportions returned at these successive censuses. At all ages under 45 years of age the proportion was 594 per 1,000 in 1871, 571 in 1881, and 545 in 1891. It follows, therefore, that above 45 years there was a corresponding increase in the proportion of returned cases; it was 406 per 1,000 in 1871, 429 in 1881, and 455 in 1891. These figures certainly suggest accumulation, but it is desirable to examine the proportion of mental derangement to the enumerated population at each of these age periods since, in consequence of the steadily declining birth-rate in England and Wales, the proportional age distribution of the English population has considerably changed in recent years.

The ratio per 1,000 of mentally deranged persons under 15 years of age in England and Wales was 0.58 in 1871 and in 1881, and declined to 0.51 in 1891. Between 15 and 25 years, the ratio per 1,000 was successively 2.30, 2.16, and 2.00 at the three censuses; and at the next age period—25-45—it was 4.50, 4.79, and 4.76 There was, therefore, a decided decline in the ratio of cases under 25 years, and between 25 and 45 the increase was very slight. If we consider all ages under 45 years in the aggregate, we find that the ratio of mental derangement to population at the same ages was sucessively 2.24 per 1,000 in 1871, 2.29 in 1881, and 2.26 in 1891. It may be said, therefore, that the ratio at these ages showed no increase in the twenty years, that in fact it was stationary. An examination of the ratio of insanity above 45 years yields, however, a very different result. In the age period 45 to 65, the ratio was 6.16 per 1,000 in 1871, 7.20 in 1881, and 7.83 in 1891; and above 65 years of age the successive ratios were 6.95, 8.00, and 8.61 respectively. If we consider all ages above 45, in the aggregate, we find that the ratio was 6.35 in 1871, 7.40 in 1881, and 8.02 in 1891.

The figures given above appear, therefore, to justify the following conclusions: (1) That, assuming the proportional deficiency in the census returns of child cases of mental deficiency to have been constant in the last three censuses, the ratio of congenital idiocy, judged by the proportion of existing cases under 25 years of age to the population at the same ages, has shown an actual decline during the twenty years 1871-91, which decline is probably understated because

the University and King's Colleges, St. Bartholomew's, Guy's, and St. Thomas's Hospitals in London; the pathological laboratories in Cambridge, Manchester, Liverpool, and Newcastle; the pathological and public health laboratories in the University of Edinburgh, the laboratory of the Royal College of Physicians, Edinburgh, and the laboratories in the Universities of Glasgow and Aberdeen, and University College, Dundee.

[2] When sending specimens it is desirable to telegraph to the laboratory stating by what train the parcel may be expected.

the proportion of such young people under treatment in institutions is constantly increasing, and their death-rate is consequently declining; (2) that the very slight increase in the ratio of insanity between the ages of 25 and 45 is probably more than accounted for by the same causes, namely, the increasing proportion under special care and treatment, and the consequent reduction in the rate of mortality; (3) that practically the entire increase in the ratio of insanity in England and Wales, as recorded in the census returns between 1871 and 1891, has occurred above the age of 45 years, which distinctly points to accumulation as the main cause of the increase. There is, moreover, another cause—other than real increase of occurring cases of lunacy—which undoubtedly tends to the increase of recorded cases of mental derangement at the advanced ages, namely, the inducements offered by the State for the removal of troublesome cases of senile imbecility from workhouses to asylums. It is true that such a transfer should not affect ratios based upon the census figures; but it is more than probable that many cases on the border line of imbecility would not be returned as idiots or imbeciles while in workhouses, whereas they would inevitably be so returned after removal to an asylum.

All these considerations point, at any rate, to the absence of any conclusive evidence of true increase of lunacy in England and Wales. It should, however, be pointed out that real increase of occurring cases above 45 years of age is not negatived by actual evidence, which can alone be supplied by careful and uniform statistics, on a large scale and extending over a series of years, respecting cases coming under observation for the first time; and also respecting discharged cases in asylums and workhouses, such discharges including both recoveries and deaths. These statistics can alone be collected and dealt with through the agency of the Lunacy Commissioners.

THE GRIEVANCES OF ARMY MEDICAL OFFICERS.

We have already expressed an opinion that the reply of the Secretary of State for War, published in the British Medical Journal for September 2nd, to the representations of the Parliamentary Bills Committee on the grievances of army medical officers will be received by the latter with keen disappointment and discouragement, not alone as a mere present refusal of their prayer, but as a prospective closure of future appeals, on the ground of the grievances having already been found unsubstantial. We are confident Mr. Campbell-Bannerman would give no decision on matters he had not personally considered, but we know from long experience that on such subjects as those contained in the memorandum Ministers are not only largely influenced, but mainly led by the opinions of the official advisers they call in; if these are hostile the answer is almost certain to be unfavourable. That his advisers in this instance were hostile is evident, so that we do not stretch surmises unduly or violate probabilities rashly in recognising in the reply the advice of old irreconcilables towards the medical service. If you make up your mind to refuse a reform the best line of resistance is simply to deny the abuse attacked; any halting or qualified admission of its existence might be fatal; this is the method of the reply. It can then be said, How can you ask for redress of a non-existent grievance? And this insoluble question affords a ready made answer to all future representations. Should these grievances be set before a future Minister, what so easy as for the permanent official to "draw the papers" from the registry, and triumphantly read, "Your predecessor in office herein records these grievances to be mythical.

That such procedure is not at all uncommon or unfamiliar, anyone who has had recurrent disputes with public officers knows full well. We are, therefore, quite prepared to see it tried in future with all and sundry who venture to interfere in the grievances handled in this reply.

Our attitude towards the denial of the grievances set forth is simply this: the Parliamentary Bills Committee, having no love of agitation for its own sake, would positively refuse to champion reforms in the Army Medical Service if they thought them undesirable, or believed the evils upon which they rested unreal. But, from a very wide and confidential field of correspondence, which, for obvious reasons, cannot be directly open to high placed administrators, the Committee have not the least doubt of the genuineness of the grievances placed before Ministers by the deputation; and contend that they at once press destructively on the medical service, and thereby are opposed to army efficiency. Take the matter of the extended tours, which is one of health and strain, are the medical officers themselves to be held incapable of feeling where the shoe pinches? Or, in the matter of corps formation: everyone not positively or wilfully blind must be aware that, whatever the elaboration on paper, the present inchoate medical corps organisation renders it weak and unfit for war. But when we, therefore, suggest the more complete fusion of the medical officers and men into a consolidated corps, thereby giving them a better army status, and by increased cohesion and efficiency securing advantage to the army generally, we are met by the flat rejoinder that "no evidence can be traced in support of these general propositions."

When the strain and inevitable break-down in war comes, we fear the now little sought for evidence will be only too obtrusive. Probably also, as before, the first to make bitter complaint at the collapse of the department will be those who now deny its grievances, and refuse reforms. But the representations and replies at the instance of the Parliamentary Bills Committee will remain recorded in the evil day, so that the public will be able to place the responsibility on the right shoulders. We will return to the detailed arguments in the reply in a future criticism.

THE MERCHANT SHIPPING BILL.

The Government Bill to Repeal and Consolidate the Present Merchant Shipping Acts, which is backed by Mr. Mundella, Mr. Asquith, and Mr. Burt, forms a huge document of 357 pages, and consists of 774 clauses divided into 14 parts. There are also 18 schedules appended to the measure. The memorandum prefixed to it states that the Consolidation Act of 1854 has now been in force for nearly forty years, and has been amended by some twenty-four subsequent Merchant Shipping Acts, besides other enactments. The number and complexity of the enactments on the subject of merchant shipping have made the law difficult to administer, difficult to observe, and difficult to amend, and the need for consolidation and simplification has become urgent. The Bill, in accord

ance with the policy adopted by the Joint Committee of this session on Consolidation Bills, reproduces existing enactments with such alterations only as are required for uniformity of expression and adaptation to existing law and practice, and does not embody any substantial amendment of law. It is not, however, intended by consolidation to stereotype the existing law, but, on the contrary, to facilitate the making of such amendments as may appear to be required. But any such amendments could be more appropriately embodied in a separate and subsequent measure.

Obviously the Bill is not expected, or even intended, to become lew without some amendment. The fullest criticism has been invited from all the Shipowners' Associations throughout the United Kingdom, and it is only reasonable to infer that the Government will be glad to consider any suggestions that may proceed from other quarters.

Sanitary law, which is "difficult to administer, difficult to observe, and difficult to amend" in the merchant service at the best of times, assumes an importance at the present which cannot be overestimated. Whilst in port, it may perhaps be convenient, in the words of the Public Health Act, to regard a ship as a house, but the sanitary condition of a ship at sea and in foreign ports, and the condition of the crew and passengers are matters which cannot possibly come within the purview of the Local Government Board; and the Board of Trade is the only body which can exercise the necessary power in such matters. The expediency of introducing a clause either into the Bill, or into the second Bill which is promised, to meet the necessity of the case is only too apparent. Mr. Mundella has now an opportunity of advancing the sanitary interests of the merchant service by authorising the publication of an annual report upon the subject similar to those which are now issued by medical officers of health throughout the country, which would do much to expose the dangers to health and life to which merchant seamen are liable, and facilitate amendments of the law which are very desirable, both in the interests of owners and of crews.

Notice has, we understand, been given to move in Committee of Supply for the issue of a Commission to inquire into the sanitary condition of the merchant service, and, should the President of the Board of Trade be disposed to entertain the proposal, a point which might advantageously be included in the memorandum of instruction is one raised by the Report of the Royal Commission to Inquire into the Loss of Life at Sea. That report contained a recommendation to the effect that a judicial investigation should be made in the case of every death from accident that might occur on board ship. Previous to such an inquiry, and in connection therewith, would be required a medical report upon the nature of the injury and of the probable cause of death. Some years ago the Economic Section of the Social Science Association passed a resolution to a somewhat similar effect; but its terms applied more particularly to a verification of the cause of deaths at sea, whether they occurred in consequence of either accident or disease.

Captain Dawson, R.N., of the Missions to Seamen, wrote a very interesting article upon the subject in *Colborne's United Service Magazine* of 1886. The time for consideration has passed by and the time for action has arrived, and we believe that no one who is acquainted with the peculiar circumstances of the case, and who has any regard for the interest of merchant seamen, would hesitate to give his hearty approval to the publication of an annual report such as we have suggested, which would embrace investigations into these and kindred matters affecting the health of the merchant service.

A preliminary meeting of the Royal Commission on the Opium Trade was held on September 7th to determine the course of procedure. The first meeting to hear evidence is to be held this day (Friday). It is understood that the Committee will sit on Saturday and again on Tuesday next, the taking of evidence being thereafter continued from day to day until the whole of the witnesses in this country have been examined. Sir Charles E. Bernard, of the India Office, is acting as secretary *pro tem.* to the Commission.

A VICTIM TO DUTY.

We regret to learn that Mr. R. L. Swan, surgeon to Steevens's Hospital, Dublin, is suffering from pyæmia. About three weeks ago he was inoculated while dressing a wound, and the usual symptoms followed, with a temperature of 106°. He was supposed to be almost convalescent, when on Saturday last symptoms of pneumonia developed on the right side, apparently due to an embolus, and for a time his condition was regarded as very critical. He is, however, progressing satisfactorily.

DUBLIN WATER SUPPLY.

The Waterworks Committee of Dublin has warned the citizens that the water supply is becoming dangerously low, and has urged the utmost economy in its use. The Corporation has found it necessary to cease watering the streets, and deputations have been sent to the various townships asking close watching by the several public boards. The reservoirs, although still holding enormous quantities, have never been so low, and it is not improbable that the whole supply will be cut off, except for a few hours during the day.

BRITISH DENTAL ASSOCIATION.

The summer meeting of the Irish branch of this Association was held in the Dental Hospital, Dublin, on August 30th, when Mr. H. N. Grove, L.D.S., of Walsall, gave some demonstrations of facial restorations by mechanical means. In the afternoon, a meeting was held in the Royal College of Surgeons, under the presidency of Mr. Theodore Stack, F.R.C.S. Specimens were exhibited by Mr. D. Corbett, jun. A discussion took place on the subject of evasions of the Dentists Act in Ireland, introduced by a paper by Mr. O. Duffey. Mr. Stack read a paper on "Dental Advertising." In the evening the members met at supper in the Hôtel Métropole. Amongst the speakers were Dr. Atthill, Sir Wm. Stokes, Mr. Thornley Stoker, and Mr. Theodore Stack.

DUBLIN SLAUGHTERHOUSES.

In Dublin the Public Health Committee has decided to recommend the Corporation to close all private slaughterhouses in the city, owing to the fact that tuberculosis has been found in some of the animals killed in these places. Of course there has been an indignation meeting of the victuallers, who declare that the very reasonable recommendation is simply meant to increase the income of the public abattoir, and they boast that they will beat the Corporation in the struggle. That body has not earned a character for stiffbackedness, and it is quite probable that the prophecy of the victuallers will prove to be right. The owners of the dairy yards—those centres of shocking uncleanness in Dublin—have managed thus far to hold their ground, and they have set an example which will be of use to the butchers. If the Corporation desires to better its reputation it will take the opportunity now. Private slaughterhouses are a

public nuisance, and there is in Dublin no reason for their existence, when a well-equipped public abattoir is available.

THE REVENUE FROM ALCOHOL.

The Commissioners of Customs report a considerable decrease in the revenue from intoxicating liquors of all kinds in the year ending March 31st, 1893. In rum the diminution in the duties paid was £256,612. In 1875 this liquor attained its highest point. The decline compared with that year has been 20 per cent. against an increase of 15 per cent. of the population. The impetus given to rum has, however, not quite faded away, the consumption last year exceeding that of 1888 by 407,000 gallons. Brandy has gone down in the course of the year by £89,615. In wine there was a decrease of £22,560. Tea has also been less by £18,787, but tobacco has gone up £175,625. On the whole, these figures point to the slightly improved sobriety of the nation, though the loss to the revenue from alcohol is more probably attributable to the contraction of trade. A substantial diminution in the consumption of strong drink would mean a substantial gain to the health of the community.

INEBRIATE RETREATS.

The report of the inspector (Dr. Hoffman) on the operations of the Inebriates Acts during 1892 shows that the aggregate number of patients admitted, under the provisions of the Acts, to licensed retreats was 124. This has been the highest number received since the passing of the original Act of 1879. In 1890 there were 109, and in 1891 115. The licences of all the retreats formerly licensed, except in one case in which no application for renewal was made, have been renewed. There are now three retreats exclusively for men, three for women, and two for both sexes. From all the licensees there is an urgent plea for an extension of the Acts in the direction of involuntary consignment of suitable cases to a retreat, for provisions for the poor or inebriates of limited resources, and for the admission and detention of voluntary applicants without the formidable and deterrent existing appearance before two justices. It is to be desired that the Home Secretary, in the Bill which he has intimated his intention to place before Parliament in the autumn session, will go beyond the recommendations, excellent as they are, of the Departmental Committee on Inebriates and legalise the reception and detention of inebriates applying of their own free will on a simple agreement in writing attested by a commissioner, medical practitioner, or clergyman, as is the practice in some of the United States and of our own Colonies.

THE MOCKLER COLLECTION OF JENNER RELICS.

It is just seventy years since the death of Jenner, and now, for the first time, the relics and memorials of his life and career are shown in public in the Fine Art Section of the Bristol Industrial Exhibition, opened on August 28th (Exhibit No. IV). These are the property of Mr. Frederick Mockler, of Wotton-under-Edge, Gloucestershire, to whom many of them have descended, in a direct line, as heirlooms. The collection has, however, been largely added to by subsequent acquisitions since it came into his possession, and as a whole, it is of considerable interest. There are six half-length oil portraits. That of Thomas Jenner, President of Magdalen College, Oxford, grandfather of Edward, is very well executed—probably by Kneller or one of his pupils. Then there are portraits of his sister, Elizabeth; his nieces, Mary and Elizabeth; his son, the Rev. Stephen Jenner, vicar of Berkeley, and of his son, the illustrious Dr. Edward Jenner, the great discover. There is another portrait of Edward, a line engraving, commenced by W. Sharp and completed by W. Skelton, after the original oil painting by W. Hobday; it was published in 1827. There are also some half-dozen miniatures on ivory of Edward and members of his family; some finely-finished drawings, which show the effects of vaccination in the various stages; a few water-colour caricatures by Edward's nephew, ridiculing the opponents of vaccination, and an antique silver cup and other personal belongings of Jenner himself. In frames and under glass are shown some of his numerous diplomas, addresses, presentations, and the grants of the freedom of the cities of London and Dublin, and many such documents, forming a complete collection of all that were granted to him. His visiting books have been carefully preserved; one appears open at an entry of a visit to the Duke of Clarence (afterwards William IV), 1794. There is the draft of his will in his own clear and elegant hand. His extensive correspondence with the great people of his time; that from Marie, Dowager Empress of Russia, sending him a diamond ring—where is that ring now?—and his reply drafted in English and in French, the latter pronounced by our ambassador to the Court of Russia, who undertook its transmission, to have been "very well done;" letters touching the release of certain English prisoners in France, which on more than one occasion he was successful in procuring. It was when one of these petitions to Napoleon, having been pushed aside unopened, was taken up and read by Josephine, who exclaimed, "De Jenner!" "Ah! de Jenner," remarked the Emperor, "on ne peut rien refuser à cet homme là!" Whereupon the petition was granted. He was not equally successful in similar enterprises with the English Government for the release of French prisoners in England. But then it must be allowed that our then Government used him vilely, and the correspondence shows this clearly enough. Further, there are many manuscripts—his own writings; and all the controversial literature of the period attacking and defending the great discoverer, his discovery itself, and his title to have discovered vaccination. From the materials here assembled, all authentic, it would be possible to write his biography afresh. A copy of one, it should be said, is also here in two vols. 8vo, from the pen of his friend Dr. Baron.

RUGBY HOSPITAL.

It seems almost inconceivable that at the close of the nineteenth century the cry of religious persecution should be raised in this country—more astonishing still that it should be raised in connection with hospital work, which should be unscathed by the scars of religious strife. In 1884 a wealthy gentleman, with rare generosity, presented to the town and neighbourhood of Rugby a hospital of 32 beds, costing £15,000, standing in its own grounds of eleven acres, together with an endowment of £10,000, the gift amounting in all to £30,000, to the sick and suffering poor for ever, without any restrictions. In 1893 he has endeavoured with his left hand to restrict its benefits on account of two nurses—and a probationer after she left the hospital—becoming Roman Catholics, although it is well known that they were all three all but Catholics when they received their appointments. After several inquiries, the board of management declared the evidence that they had been tampered with, as was suggested, to be worthless. At first it appears that an endeavour was made to dismiss the nurses from the hospital; but, as no one could find any fault with them, except that they claimed liberty of conscience, this was frustrated. But, failing in this, the donor influenced the board of management to place, by a bare majority, the following resolution on the minutes: "That in future no Roman Catholic nurse or servant be engaged, and that any nurse or servant becoming a Roman Catholic be requested to send in her resignation." It is not to be wondered at that the Roman Catholics resident in Rugby and its neighbourhood took umbrage, and decided to exercise their right and call a special meeting of governors. In the report of this meeting now before us, we notice that it was a large and representative one, among those present being the Earl of Denbigh, Lord Henley, the head master of Rugby School, the Catholic clergy, the senior physician to

the hospital, many of the Rugby masters, and a large proportion of the governors. The majority of the speakers were clergymen, who one and all spoke against this mediæval intolerance and persecution of those who differed from themselves. The meeting unanimously resolved; "That this special meeting of governors of the Rugby Hospital, while always desiring to meet the wishes of the founder, and thanking the board of management for the successful and excellent manner in which they have generally conducted the affairs of the hospital, is of opinion that the resolution passed by the board on May 11th last is not in accordance with the unsectarian character of the hospital, and ought to be rescinded." We have inquired as to what action has been taken on this resolution, and we find that, as the majority of the board of management are from home, the request of the governors cannot be considered until the October meeting. We cannot feel very sanguine at the prospects of peace while the donor continues to write such letters as are before us in the local paper. In one of these he calls upon those members of the board who differ from him to resign their posts. He seems never to have realised that, whatever his own convictions may be, a hospital is the last place in the world that should be made the battle-ground for religious differences. Most heartily do we wish the Rugby Hospital safely through its struggle against the rejuvenescence of the religious persecution of the seventeenth century.

ALLEGED "CURES" FOR INEBRIETY.

We have received requests from readers asking for our opinion of a variety of undisclosed remedies which are asserted by a number of philanthropists, as well as by the proprietors of the articles themselves, to render inebriates, even with liquor in their possession, incapable of getting drunk. The attribution of apparently miraculous virtues to certain usually mysterious medicinal substances is as old as is the history of medicine. In these latter-day modern panaceas, lauded and patronised by the clerical, charitable, and often fashionable worlds, there is exhibited the credulity, enthusiasm, and mental contagion which have again and again heralded wondrous "cures" of various disorders. There is nothing new in the rapid reformation of flocks of drunkards. The wondrous epidemic temperance waves of Father Mathew in Ireland and of the Washingtonian crusade in America were accompanied by a multitude of cases of reformed drunkenness. Hundreds and thousands of notorious inebriates were transformed in a day into sober and industrious citizens, who solemnly and passionately vowed that they were quite cured, that they loathed the very sight and smell of liquor, and that no power on earth could ever induce them to drink another drop of strong liquor; yet these remarkable movements, with their long train of drunken converts to abstinence, faded away, and, after the lapse of some years, comparatively few of the reformed remained steadfast in temperance. Nearly all drunkards, in a few days after they have been under judicious and acceptable treatment, as the immediate effects of the drink wane, are sanguine and boastful. They feel so much better and are so elated, that they are sure they will never be so stupid and silly as to taste strong drink again. This is seen specially in the patients in ordinary inebriate homes, but no intelligent manager of such an institution would ever parade or rely on such an aspiration, even if formulated in a written expression of the patient's determination, as he knows this is an early incident in most cases, even if the inebriate be not permanently cured. It will be noted that nearly all these wonderful records of success in "curing" drunkenness have been witnessed not by medical men, but by clerical and other kindly disposed philanthropic workers. If there is any genuine discovery in therapeutics, the medical journals and medical societies are available for the ventilation and promulgation of the discovery. Already a large number of alleged "cures" have been announced, and their efficacy vouched for by a cloud of non-medical witnesses. There is no adequate reason, if any remedies are genuine and of real value, why they should not be laid before competent medical bodies, their character and composition of course being declared, for skilled consideration and criticism by those who, by their acquirements and knowledge, are alone qualified to give them intelligent consideration, and to pronounce an intelligent opinion upon them. Medical societies and medical journals are open for the free discussion of the merits of all declared and straightforward therapeutic remedies and processes.

A NATIONAL DANGER.

A memorial, signed by all the medical men practising in King's Lynn, Norfolk, drawing attention to the condition of the water supply of that town, is about to be published. The town, which is a port of some local importance, is known to have a bad water supply, and the Corporation adopted a scheme for supplying pure water. As an Act of Parliament is necessary the proposed expenditure had to be sanctioned by the ratepayers, and on August 29th a public meeting was held, at which the ratepayers present, by 60 to 1, refused to sanction the scheme. A poll has been demanded, and will take place on September 28th, when it is to be hoped that the ratepayers in general will show that they are men of more knowledge and intelligence than the wiseacres who attended the public meeting. The ratepayers have not been without a proof of the disastrous consequences of their present sanitary deficiencies. The town has recently suffered from an epidemic of typhoid fever. Altogether 131 cases occurred, with 21 deaths; in addition, there were 107 cases of continued diarrhœa, considered to have been abortive typhoid. The medical men of the town, in the memorial to which we have referred, write: "We have none of us the slightest doubt that the above epidemic arose from our polluted water supply and from it alone. With regard to cholera, we would point out that our present water supply is as liable to be contaminated by this disease as it was by typhoid fever. We, therefore, feel it to be our duty earnestly to impress upon our fellow townsmen the importance of embracing the present opportunity for improving our water supply." We trust that this warning may be regarded. No doubt of the truth of the inference drawn as to the danger of cholera in towns where typhoid fever prevails in consequence of an impure water supply can remain in the mind of any man of ordinary intelligence who will make himself acquainted with the rudiments of hygiene. King's Lynn is in frequent communication with Hull and Grimsby; everything, therefore, is ready, the train is laid, and the match has but to be applied. King's Lynn, as we have said, is a port of some importance, and it owes a duty not only to itself, but to the counties of Norfolk, Cambridge, and Lincoln, and, indeed to the whole country.

DEATHS UNDER CHLOROFORM.

We have to record two cases while under the influence of chloroform. Dr. H. B. W. Plummer, of West Bromwich, informs us that he was asked by G. H., a domestic servant, aged 21, to administer chloroform to her, as she wished to have a number of teeth extracted. It was arranged, as being more convenient to the patient, that it should be done at the surgery, Mr. A. Horton being the dentist. On the morning of August 25th she was put under chloroform by Dr. Plummer, who gave it on a piece of lint while in the dorsal position. She took it well, but required a slightly larger dose than usual before being fully under. Mr. Horton had extracted about ten teeth, when, as she was coming round, it was necessary to give a little more. This was done, and about three more teeth extracted, when Dr. Plummer noticed the breathing, which had up to that moment been regular and good, suddenly stop. The chin was instantly pulled forward, and the head lowered; the pulse was then

beating feebly, but it stopped within a minute. Artificial respiration was at once resorted to; nitrite of amyl and ammonia were applied to the mouth and nostrils; cold water to the chest and hypodermic injections of ether were also resorted to, but were of no avail. No sign of life could be distinguished, although artificial respiration was kept up for nearly half an hour. A little over ℥vj of chloroform (Duncan and Flockhart) had been given. What impressed me, adds Dr. Plummer, was the awful suddenness of the death. No premonitory signs that anything was going wrong. There was slight lividity of the lips just as the breathing stopped; the pupils dilated widely at the same time. There had been no stertor or difficulty in breathing till the moment when it failed, and then all was over in about half a minute. G. H. was a fairly-nourished girl, rather anæmic, with weakened heart action, but no organic disease—nothing to contraindicate the administration of chloroform. Death appeared to me to be due to paralysis of the respiratory and cardiac centres—that of respiration first, but only slightly so.—The second case occurred at the District Hospital, West Bromwich, and for a report of it we are indebted to Dr. G. Edgar Helme, M.B.: On August 19th a patient, suffering from pelvic cellulitis and general peritonitis, was about to be operated upon in the theatre. Fifty minims of Duncan and Flockhart's chloroform had been given in three minutes, from a drop bottle on to a piece of lint, when the patient was "under," and the chloroform stopped. A skin incision was made, when, one minute after the chloroform had been discontinued, the pulse was reported to be weak, and an ether hypodermic ordered, but before this could be given the pulse had stopped, the pupils dilated, and the breathing was sighing. Artificial respiration was begun, and under this the patient made efforts to breathe for five minutes, but in spite of a continuance of this for half an hour, together with the other restoratives, she never rallied. At the *post-mortem* examination signs of syncope were found, and at the inquest the jury returned a verdict of "Death from syncope, not due to chloroform." The woman had had several attacks of syncope in the ward, and three weeks ago remained in a state of collapse for two and a half days after one of these attacks. Previous to August 19th an operation was contraindicated owing to bronchial catarrh. Although this had nearly disappeared it was nevertheless considered advisable to give chloroform in preference to ether.

THE PROPHYLAXIS OF ANTHRAX.

A recent fatal case of anthrax reported from Worcester draws attention afresh to the dangers to which workers in the wool and hair trades are exposed from handling the hair and raw hides imported from Russia and South America. In the present case a boy had inoculated himself by rubbing a small boil on his cheek shortly after handling some canvas bagging in which raw hides had been imported. When admitted to the Western Infirmary he was already in a serious condition, and died nine days later. The risks to which the workers in such factories are exposed from this source have long been known to the profession, but it appears from the evidence given at the inquest that they are not so widely known to those immediately concerned as would seem at all desirable. Dr. Greenfield and others conclusively showed a good many years ago that the "wool-sorter's disease" met with in Bradford was in reality anthrax, and that the disease was carried by the hair and raw hides imported chiefly from Russia. The name formerly given to the disease of "Siberian plague" fitly denoted the relation between the disease and its chief source. Those who work with raw hides are also liable to infection, and thus it is not uncommon at London wharves, where this trade is chiefly carried on. The risk of infection is variable, and, fortunately, in most cases, preventable. So long as the bales are intact there is little or no danger, unless, as sometimes happens, they have been torn up in transit. It would almost appear as if, in course of transit, the anthrax virus multiplied or gained increased virulence. Be that as it may, the fact remains that by adopting suitable precautions for disinfection of the bales before they are opened, the risk of infection is reduced to a minimum, or abolished altogether. It is satisfactory to note that the employers of the boy whose death has just been noticed have decided for the future to adopt such a method, and their example is one which cannot be too strongly pressed on the attention of others engaged in the same trade. The bales should be disinfected by steam before being opened, the sooner after their arrival the better. With the large disinfecting apparatus now available, such as is employed in all our fever hospitals, there ought to be no difficulty in doing this easily and efficiently. The problem how to prevent the spread of anthrax has a further interest at the present time. A number of outbreaks amongst cattle have been reported from various parts of the country. There can be no doubt that the chief source of infection is the bodies of animals dead of the disease. Burial alone is not sufficient. The researches of Pasteur and others have clearly shown how resistant the spores of the anthrax bacillus are, and how long they may lie dormant in the soil. The only real efficient method of disposing of the carcasses of animals dead of the disease is by burning them. Some suitable and efficient method for doing this, put into force by the Board of Agriculture, would do more to control and finally exterminate the disease than any other measure which could be adopted.

INDIAN HEMP.

Previous to the meeting of the Indian Hemp Drugs Commission, a memorandum was issued giving particulars as to the method in which the Commission proposes to conduct its inquiry. The Commission in the first place arranged to take evidence from persons who desire to see the preparation and sale of ganja or other hemp drugs further restricted or entirely prohibited. In the next place, evidence is to be taken on the cultivation and manufacture of the drugs, with special reference to the use of the wild hemp plant for this purpose. As to the trade in these drugs, the Commission propose to rely mainly on the excise returns, and it is believed that these will also afford the best index of the proportion of the different hemp preparations consumed in various parts of the province. But these returns will no doubt require to be largely supplemented by other information, and the Commission desire to obtain evidence from witnesses, official and non-official, who will be able to state what preparations are used to any extent in different tracts, by what classes of the people they are mainly consumed, whether habitually or otherwise, and with what other ingredients they are used; how far the use of hemp drugs forms among certain classes a social or religious ceremony; how far it forms a substitute for other intoxicants, and to what extent the use of the latter would be likely to be extended if the former were restricted. The Commission intend next to take expert evidence chiefly from medical officers in charge of hospitals, gaols, or lunatic asylums, as to the effects of hemp preparations. Finally, evidence will be taken as to excise administration, control and taxation of the hemp plant, and the preparations made from it. The Commission commenced its sittings on August 7th at Calcutta.

INSANITARY CAVALRY BARRACKS AT WINDSOR.

Sir William Hart Dyke's question to the Secretary of State for War on the sanitary condition of the Windsor cavalry barracks elicited a rather disingenuous reply, and, from inquiries made locally, we fear that the state of the sewers and drains of the Windsor Barracks are even worse than was admitted by Mr. Campbell-Bannerman. Mr. Campbell-Bannerman allowed that as far back as last December the

general officer commanding the Home District sent in a report on the state of these barracks, and we learn that the Royal Engineers estimated the cost of putting them in good sanitary order at from £4,000 to £5,000. It is understood that the financial authorities have twice refused the money, and that, consequently, nothing has been done. Between last December and August of the present year a good deal of fencing went on, and at last some small sum of £100 was allotted for "tinkering" the most obtrusive defects about the officers' mess. During August Mr. Tyndale, sanitary engineer to the War Office, made a special investigation of these barracks, and it is understood he reported most unfavourably on the whole system of drainage and sewerage, and further expressed his opinion that money spent on patching up the present system would be money wasted. It was reported in the papers that the Principal Medical Officer of the Home District was to make a special thorough examination of the whole place, but up to the present the result of his inspection has not transpired, though it is currently stated to be confirmatory of the report of the Royal Engineers and the sanitary expert attached to the War office. We hope some member of Parliament will call further attention to the subject, and insist on having the reports in question "laid on the table." What should most be insisted on is that the opinion of the medical authorities should be made public, especially as to whether these barracks are or are not fit for occupation. Also whether it is possible to carry out the necessary reconstruction of the drains and sewers while the barracks are in occupation. It should also be made clear whether the Army Sanitary Commission has investigated the condition of these barracks, and if not, why?

THE BLIND AND THE DEAF AND DUMB AT THE LAST CENSUS.

THE last volume of the report of the census of England and Wales in 1891, vol. iii, contains some particulars as to the blind, deaf and dumb, deaf and mentally deranged, in England and Wales. The total number of blind persons was 23,467. But all ages up to 65 there is a marked preponderance of males, though the number of blind old women is much larger than that of blind old men. The total number is divided into two classes: those blind from childhood, 4,005; and those who became blind after 10 years of age, 19,462. In both classes the males preponderate, the disparity in early life being very remarkable. In another table, the occupations followed by the blind are shown; basket-making and other similar occupations take the lead, the number so employed being stated at 839 males and 135 females. The next most numerous class are musicians and music masters, of whom there are 523 men and 57 women. Next come general labourers, 278; and costermongers, 282. There are 228 brush makers, 142 mat makers, 151 farmers, and 193 farm servants. There are stated to be 6 blind members of the medical profession, 3 blind dentists, 2 blind veterinary surgeons, and 13 blind nurses or invalid attendants. The strangest entry of all is, perhaps, that of 2 blind photographers. The deaf and dumb population number 14,192. Among them, the male sex predominates until 75. As to the occupations followed by the deaf and dumb, it appears that 537 are shoemakers, 497 tailors, 413 farm servants. Carpentry and cabinet making are also popular occupations, 303 persons being so engaged. There are said to be 2 deaf and dumb dentists, and 5 religious teachers.

COLOUR BLINDNESS IN THE MERCANTILE MARINE.

ACCORDING to a Parliamentary paper issued recently giving the results of the examination in colour vision of various persons in the mercantile marine, it appears that the number of persons who presented themselves for the purpose during the year amounted to 5,200, of whom 101 were rejected. Among the errors made by the candidates as to the colour of the test cards, the naming of pinks and drabs as greens figure most largely, while in naming the colour of the glasses by far the most frequent error was describing various colours, such as pink, yellow, green, and especially bottle-green, as red. In Table II the percentage of rejections in each year, from 1877 to 1892, is given, and from the extraordinary variations in the percentages so given we cannot but infer that the strictness or the accuracy of the examination has varied greatly from time to time. The Board of Trade have, however, under consideration the question of giving effect to the recommendations contained in the Report of the Committee of the Royal Society on Colour Vision, and they contemplate the establishment of an entirely new system of examination so soon as the necessary arrangements can be completed. It will be remembered that these recommendations included: compulsory testing both for form and colour for certain occupations to be scheduled by the Board of Trade; the certification of examiners by the central authority; the use of Holmgren's wools as a colour test, followed by naming without hesitation the colours which are employed as signals or lights, and also white light; the use of Snellen's tests for form, half the normal vision in each eye being probably demanded; re-examination in form tests every three years: the enforcement of uniformity in the colours used for lights on board ship and for lamp signals on railways.

LEPROSY IN FINLAND.

SOME statistics have recently been published of the numbers and general conditions of persons suffering from leprosy in Finland. They were obtained as the result of a request circulated among the medical profession in the principality to furnish all the information in their power upon this subject. The replies were received by Professor Saltzmann, and their contents have been tabulated by Dr. Fagerlund. It appears that at the present time there are 51 lepers in Finland, of whom 32 are males and 19 females. Of three additional cases it is uncertain whether they are still living. The largest number of cases are found in the centre and west, fewer are in the north and south, and none at all in the east. The disease is disappearing from many parts of the country. Thus in Töfsala and Gustaf, where leprosy was formerly almost endemic, there is now not a single case. In Aland, where there was at one time a hospital devoted to lepers, there is now only one person affected with the disease. Most of the cases are of considerable standing, only a few are in the early stages. Of 27 children born of leprous mothers and 1 of a leprous father (included apparently in the 27) 23 are healthy and 4 developed the disease at varying periods after births. In certain cases the infectiousness of leprosy is said to be established beyond doubt. Thus the wife of a labourer in whose family there were no cases of leprosy, visited frequently a leprous neighbour. They habitually drank coffee together and went to the baths together. In 1882 the woman showed signs of leprosy, and seven years later her husband also developed the disease. In another case a woman became leprous in 1858 and died ten years later. Her husband married again, with the early signs of the disorder upon him, he died in 1874. Of seven children of the first marriage only one remained at home with his parents; he manifested the disease in 1873, and died eleven years later. The second wife also developed leprosy and died from it in 1892.

STUDENTS' UNION, BELFAST.—A sum exceeding £3,600 has been subscribed towards the erection of a building for the use of the students of the Belfast College. A fancy fair is being organised in aid of the funds by the ladies' commttee, who have interested themselves in the matter. The Union Buildings, when complete, will provide a hall for the reception of the students' societies, a reading-room, dining-room, and other apartments.

THE FORTHCOMING WASHINGTON MEDICAL CONGRESS.

[From a Special Correspondent.]

Resolution of Congress.—Constituent Countries.—General Officers of the Congress.—Means of Access.—Treatment and Prevention of Sea Sickness: The Most Useful Formulæ.—An American Autumn Holiday.

Washington, August 22nd.

The date fixed for the International—as it is here quaintly styled the "Intercontinental"—Pan-American Congress is rapidly approaching. The reports of cholera in Naples and Rome, and the postponement of the Medical Congress at Rome, will set free many medical men from all parts of Great Britain and the Continent who had otherwise intended to reserve their autumn weeks for a visit to the Eternal City. The prospect of being "butchered to make a Roman holiday," whether by cholera microbes or the more obvious gladiators of the arena, was, however, probably never very attractive to the possible victims; and no doubt the desire to avoid the autumnal malaria of the Campagna will be quickened and reinforced by the shadow of the cholera spectre and the ugly rites of frontier quarantine, and the superstitious rites of harbour medical inspection. Easter will, it is generally felt, be a more appropriate period for visiting Rome than September; and it is to be hoped that the pleasures and glories of the Roman Congress will be increased rather than lessened by the postponement to that date.

The attendance of American physicians would have been somewhat lessened by the attractions of the Washington gathering and of the World's Fair at Chicago, which is replete with interest to everyone, and especially to medical men, sanitarians, and social observers. For, apart from its general artistic and industrial features and the unrivalled architectural and landscape attractions of the Chicago exhibition, its ethnological, demographic, and medical and surgical exhibits are of surprising extent and completeness; and furnish abundant material for those who care to unite intervals of serious study with general sightseeing on a great scale. In anticipation of the needs and wishes of those who may now be disposed to substitute an American tour for the Roman pilgrimage, I forward some details which may readily be supplemented from the usual sources.

Joint Resolution of the Congress of the U.S.

First as to the constitution and authority of the Pan-American Medical Congress: "A joint resolution was unanimously adopted by the Senate of the United States June 3rd, 1892; concurred in by the House of Representatives July 14th, 1892; and approved July 18th, 1892, by which the President was authorised and requested to invite the several Governments of the Western Hemisphere to send official delegates to the meetings of the Pan-American Medical Congress, to be held in the City of Washington, September 5th, 6th, 7th, and 8th, 1893."

General Regulations.

The membership of the Congress will consist, according to the general regulations, of such members of the medical profession of the Western Hemisphere, including the West Indies and Hawaii, as shall comply with the special regulations regarding registration, or who shall render service to the Congress in the capacity of foreign officers.

Constituent Countries.

The following are the constituent countries of the Congress: Argentine Republic, Bolivia, Brazil, British North America, British West Indies (including British Honduras), Chili, Dominican Republic, Honduras (Spanish), Mexico, Paraguay, Peru, Salvador, Republic of Colombia, Republic of Costa Rica, Ecuador, Guatemala, Haiti, Kingdom of Hawaii, Spanish West Indies, United States, Uruguay, Venezuela, Danish, Dutch, and Mid-West Indies.

The Sections of the Congress are as follows:

(1) General Medicine, (2) General Surgery, (3) Military Medicine and Surgery, (4) Obstetrics, (5) Gynæcology and Abdominal Surgery, (6) Therapeutics, (7) Anatomy, (8) Physiology, (9) Diseases of Children, (10) Pathology, (11) Ophthalmology, (12) Laryngology and Rhinology, (13) Otology, (14) Dermatology and Syphiligraphy, (15) General Hygiene and Demography, (16) Marine Hygiene and Quarantine, (17) Orthopædic Surgery, (18) Diseases of the Mind and Nervous System, (19) Oral and Dental Surgery, (20) Medical Pedagogics, (21) Medical Jurisprudence, (22) Railway Surgery.

The first Pan-American Medical Congress will be held in the city of Washington, D.C., on September 5th to 8th. The registration fee is 10 dollars (£2) for each member residing in the United States, but no fee will be charged to foreign members. Each registered member will receive a card of membership and be furnished with a set of the *Transactions*. The abstracts of papers (not to exceed 600 words in each) will be translated into English, French, Spanish, and Portuguese, and will be published in advance of the meeting for the convenience of the Congress.

General Officers of the Congress.

Among these are included, as President, Dr. William Pepper, of Philadelphia: as Vice-Presidents and Trustees, Surgeon-General Crane, M.D., Honorary Surgeon U. S. Navy; Dr. George J. Shrady, New York; Dr. W. S. Davis and Dr. Andrews, Chicago; Dr. A. Vander Veer, Albany; Dr. Isaac Love, St. Louis; Dr. H. O. Marcy, Boston; Dr. Hunter McGuire, President of the American Medical Association; and a long list of well-known local representatives. The Secretary-General, on whom a large share of the responsible organising duties necessarily falls, is Dr. Charles A. L. Reed, 311, Elm Street, Cincinnati, O., and Dr. Samuel S. Adams is Chairman of the Committee of Arrangements.

A Congress so constituted cannot fail to present many features of novelty in the science and practice of medicine, and is sure to be well governed.

Additional security for these features will be found in the officering of the Sections, which includes, in the Section of Medicine, names so well known as those of Dr. Delafield and Dr. Loomis, of New York; Dr. Fitz, of Boston; Dr. Osler, Baltimore; Dr. Wilson, Philadelphia; Dr. Ouchterlony, Louisville; and Dr. Wast, of Galveston: in General Surgery, Drs. Sayre, New York; Senn, Chicago; Wyeth and Bryant, New York; Yandell, Louisville; Pancoaster and Roberts, Philadelphia; Charles Warner, Boston. In Obstetrics, Engelman, St. Louis; Harris and Parom, Philadelphia; Lusk and MacLane, New York; Gibbons, San Francisco; and Wright, Toronto. In Gynæcology, Emmet, Frank Fenton, Paul Munde, Rohé, Ross, of Toronto. In Diseases of Children, Warrington, Earle, Meigs, Putnam, Lewis Smith, Love. In Ophthalmology, Knapp and Chisholm; and so on through the whole range of subjects. It will be seen that all the leading practitioners and *savants* of America are represented. If all be present, or even a fair proportion of those whose names appear, it will be by far the most notable gathering ever held on this continent, and it will afford a pleasant and ready means for visitors from Great Britain to make the acquaintance and enter on personal relations with the flower of the American profession. British visitors will be sure of a cordial welcome here, as always on American soil. Congress has voted a handsome sum towards the costs of reception and organisation, in addition to that which will be available from the £2 subscription of the American members.

Means of Transport and Remedies for Sickness.

As so many English medical men are visiting America this autumn, it may be useful to discuss some points connected with the transatlantic journey, which to some is a source of attraction as implying a delightful ocean holiday and interval of perfect rest, and to others an interlude of discomfort and distress. By those for whom sea journeys have no terrors, and who can boast the happy privilege of complete immunity from sea sickness, no advice is needed; and to those for whom Britannia can never rule the waves sufficiently straight, and to whom "the multitudinous laughter of the waves" is derisive and grief-compelling, no advice is of great use. But for the majority to whom sea sickness is not unknown, but is only an occasional early or passing distress, there are means of alleviation which large experience of ocean travel suggests.

Apart from the customary precautions of clearing out the *prima viæ* before going on board ship, those whose discomfort

is usually felt during the first twenty-four or forty-eight hours may often secure complete immunity by the preliminary use, for a day or two (not more) before going on board, of pills or granules of hyoscyamine, containing from $\frac{1}{200}$ of a grain to $\frac{1}{100}$ of a grain, and, given every two or three hours, they are very useful. Dr. Finucane, the accomplished and experienced senior surgeon of the Cunard Steamship Company, speaks very highly of the services which they have rendered to sufferers from sickness under his care and observation. He employs it three or four times a day in the rather full dose of $\frac{1}{100}$ of a grain for two or three days prior to the commencement of the journey, and for the first days on board ship until nausea has disappeared.

At the commencement of a sea trip constipation and liver inaction are frequent and disagreeable. An altogether excellent, agreeable, and efficient aperient in such cases is a cascara pill, compounded according to the formula of Mr. Martindale, the well-known London pharmaceutist. It has the merits of certain and gentle action, continuing beyond the first day. His usual formula is as follows: ℞ Extract. cascaræ sagr., gr. iss.; extract. nucis vomicæ, gr. ½; extr. radicis belladonnæ, gr. ½; sacchari lactis, gr. j. Ft. pil.; take before dinner or at bedtime. Or for those who prefer a laxative tincture a similar result may be obtained by the formula: ℞ Extr. casc. liq.; tinct. nucis vomicæ; tinct. belladonnæ; sp. ammoniæ aromat.; spirit. chloroformi, āā ℥j; dose ℥ss to ℥j, mixed with water. For a laxative aperient at sea of more than immediate temporary value that is hard to beat. *Crede experto.*

A formula which has been much recommended by Dr. Charteris of Glasgow, and which has well stood the test of Atlantic ocean experience, is based on the combination of 20 grammes each of chloralamide and bromide of potassium; both of them individually useful, but which seem to act better in combination, and may be flavoured with liquorice or tincture of orange peel. A "speciality" has been made of this under a "registered" trade title, I know not by whose authority or for whose benefit. A very effectual and pleasant form in which to administer this compound is as follows: Tinct. aurantii recentis, ℥iv; chloralamide, ℥ij; pot. bromidi, ℥ij; aquæ chloroform., ℥ij; aquæ dest., ad ℥viij; dose, ¼ part. Chloralamide is incompatible with alkalies, and is soluble in about 1 in 20 of water. This combination is particularly valuable in the frequent cases of sea sickness, with insomnia; it does not interfere with the digestion or temperature. Dr. Johnson of the Cunard s.s. *Aurania* tells me that he has tried it extensively, and with excellent results.

Where there is much pain as well as irritability, the sipping of ice water is often very soothing; and it is here that cocaine tablets of $\frac{1}{200}$ or $\frac{1}{100}$ of a grain find their appropriate sphere of usefulness. They are usually prepared with chocolate, quickly eaten, and swallowed at intervals of half an hour or an hour. Where there is pallor, faintness, and more or less tendency to "collapse," as in some severe cases, very great relief may be found from the use of nitroglycerine tablets. The tablets have the nitroglycerine in solution in chocolate in a perfectly safe, stable, portable, and palatable form. Tablets of $\frac{1}{200}$ of a grain are a sufficient dose to ward off sea sickness. The small bulk, precise dose, and quick action, if well munched and swallowed, render this mode preferable for administering nitroglycerine.

I do not refer to minor details and warnings, because this is written for medical men, who will have had precautions present in their mind as to warm clothing, dry feeding, and reasonable resistance to the temptations to overeating and indolence on board ship. The admirable commissariat and hotel arrangements on the great ocean steamers are in close rivalry with the best hotels on land, but it is not always safe to yield to the temptations of the multiple courses of the frequent repasts in the saloon, or the sedentary amusements of the smoke room. So great is the advance in the rapidity and stability of steam transit, so perfect the arrangements for sound and sick, and so effective the resources of therapeutics against severe sea sickness, that an Atlantic journey in the summer months is now becoming an easy and delightful holiday for numbers of well-to-do people on either continent. Medical men have, perhaps, been slower to follow the stream than most other of the professional classes, but it is probable that the combined attractions of the World's Fair at Chicago and the Pan-American Congress at Washington may, under the existing state of things, tempt many, even at the last moment, to utilise for an American holiday the month of September which they had set aside for Rome. To see both Washington and Chicago comfortably, six weeks might with advantage be set aside instead of a month. Very economical arrangements can be made by those who desire it, and there is a considerable advantage in deciding beforehand the general line of route, and taking through tickets for the round journey.

The tour should include Niagara by the return journey, and this can easily be done by taking the New York Central and Hudson River route, stopping over at Buffalo. Going out it will be well to use the Baltimore and Ohio Railroad, which enables the traveller, without extra expense, to visit Washington, the National Capitol, the "memory-haunted" Potomac, and the far-famed scenery of the Alleghany mountains; the ride for more than a hundred miles along the delightful scenery of the Potomac is in itself a dream of scenic loveliness and beauty, while the "billowy ranges" of the Alleghany mountains are a region of romance and grandeur which has been the despair of the word painters of a century of American literature. These points can be seen either in going to or coming from Chicago (but on this occasion in going) without extra expense. Not to do so is to squander a great opportunity. After going over to Washington from New York, and spending what time is convenient there, Washington should be left by the vestibule train at 11.30, which enables the tourist to enjoy fully the scenery of the Potomac and the Alleghanies, and reach Chicago the next day at noon. Through tickets, which he can secure in London or at New York, enable him to return by Niagara Falls, or by any other northern route, if desired.

DEATH CERTIFICATION: REPORT OF THE SELECT COMMITTEE OF THE HOUSE OF COMMONS.

THE report of the Select Committee of the House of Commons, appointed on March 27th, to inquire into the sufficiency of the existing Law as to the Disposal of the Dead, for securing an accurate Record of the Causes of Death in all Cases, and especially for detecting them where Death may have been due to Poison, Violence, or Criminal Neglect, was issued this week. The report deals first of all with the defects of the existing law, and points out that, so far as affording a record of the true cause of death and the detection of it in cases where death may have been due to violence, poison, or criminal neglect is concerned, the class of certified deaths leaves much to be desired.

Among the class of certified deaths are to be found many deaths attended by unqualified assistants and certified by qualified practitioners who may never have seen the cases; deaths certified by medical practitioners who have not seen the patient for weeks or months prior to death, and who only know by hearsay of death having occurred; and deaths in which the true cause is suppressed in deference to the feelings of survivors. Such cases are numerous, but in addition evidence was given as to cases, accidentally brought to light, of deaths registered, with a view to insurance or other frauds, of persons afterwards discovered in some cases to have been murdered, and in other cases to be still alive; deaths registered under circumstances suggestive of fraud, regarding which it was not known whether the subjects had or had not died, and coffins buried, alleged to contain corpses, the deaths of which had not been registered, and concerning which all that is known is that no such persons as those alleged to have been buried had died at the address given to the burial authorities.

In spite, however, of the defects of the existing system, it is stated that it has a powerful influence as a deterrent of crime, and as an illustration of this reference is made to the evidence of the Registrar-General for Ireland, who furnished an analysis of 28,863 deaths which occurred in the Dublin Registration District (population in 1891, 349,594) during the three years 1890-92, and the number and percentage of these deaths which were "uncertified" as to cause. The

figures presented in this table bring out in a striking manner the fact that the percentage of uncertified deaths is at its minimum at the period of life when men and women are self-supporting, when their lives are economically most valuable as bread-winners, namely, between 20 and 40, and that it increases on each side of that age period precisely as childhood or old age renders the deceased, as a class, a burden on their friends. Thus, between 20 and 40, the percentage of uncertified deaths was 3.2, and this we may take as the normal figure. Among deaths between 40 and 60 years of age it had increased by over one-half, and was 5 per cent.; between 60 and 80 the normal figure had doubled, and become 6.9 per cent., while above 80 it had more than trebled, and was 12.5 per cent. On the other side of the normal point, of the deaths of persons between 5 and 20 years of age, the percentage of uncertified deaths was 4.8, or nearly half as much again as the normal figure; between the ages of 1 and 5 it was 10.8 per cent., or more than treble; between 1 month and 1 year it was more than six times the normal percentage, being 20.6; while in the case of infants under 1 month the ratio was more than twelve times as great as it was between 20 and 40, being no less than 41.2.

Again, an analysis of uncertified deaths occurring in London in 1882-84, handed in by Dr. Ogle, and dealing with close on a quarter of a million of deaths, though not in such a striking manner, points to the same result.

The same lesson is emphasised by an analysis of the death statistics of Glasgow, extending over five years, made by Dr. Russell, the medical officer of that city. It Scotland the status of illegitimate children is recorded in registering their deaths, and Dr. Russell's figures show that during the years over which his analysis extends, 27.5 per cent. of the illegitimate children born died under 1 year of age, against 13.7 per per cent. of the legitimate; and that of the deaths of illegitimates under 12 months, 21.6 per cent. were uncertified, against 10.9 per cent. of the deaths of illegitimate children of the same age. In other words, of the 1,863 illegitimate children who, in the five years, died in Glasgow under 1 year of age, 940 would, presumably, have lived had they received the same amount of care and attention as would have been accorded to them had they been born in wedlock.

The report then deals with the law of death registration in England and Wales, in Scotland, and in Ireland separately, and a special section is devoted to the peculiarities of Scotch procedure. The most salient point in which the Scottish law differs from the English and Irish is that in Scotland there are no coroners and no system of public inquiry into cases of sudden, violent, or suspicious deaths. The duty of investigating such cases in Scotland devolves on the procurator fiscal (or public prosecutor), and the officials of the Crown Office.

In every case of sudden or suspicious death, whether from accident or disease, it is the duty of this officer, on information from the police or other informant, to inquire into the case and submit the evidence to the Crown Office, with which rests the decision as to whether criminal proceedings shall or shall not be taken. It is an absolute rule of the Crown Office that, wherever a dead body is found, there must be a medical report as to the cause of death, and, if the medical man called in declined to certify without a necropsy, there would have to be one.

As to the efficiency of the system, witnesses were unanimous in declaring that, owing to the Treasury regulations as to payment, *post-mortem* examinations were not allowed in many cases where medical men called in to report considered them necessary, and on the whole it would appear that the system is not so perfect in practice as in theory. In Scotland the percentage of investigation of deaths was 4.9, whereas in the whole of England it was 5.5, and in London 8.8. The Committee are of opinion that the present rule of secrecy in all cases might with great advantage be abandoned, and the result of precognitions, or the precognitions themselves, when desired by representatives of the deceased, be communicated to them, subject always to refusal by the Crown authorities, in cases where they considered that the interests of justice rendered divulgence undesirable. No legislation would be needed to introduce this change. There is unmistakable evidence to the effect that the number of uncertified deaths registered (that is, those without a certificate of a medical practitioner or of a coroner), though still considerable, has been diminishing of late years, and in the last report the proportion of uncertified to total deaths registered in England and Wales was only 2.7 per cent. As regards Ireland, the figures as to deaths certified and uncertified cannot be given, but it appears that in the year 1891 the number of deaths registered, where the causes were unspecified or ill defined, was 5,803 out of a total of 85,999, or 6.7 per cent. As regards uncertified deaths in Scotland, a great decrease has of late years taken place. Their proportion was formerly very high, and it is still much larger than in England, being, according to the return for 1890 of the Registrar-General for Scotland, 4,569 out of a total of 79,004 deaths, or 5.8 per cent.

In many districts the percentage of uncertified deaths is greatly above the average, North Wales, for example, showing 8.5 per cent. as against 1.2 in London; while in Scotland, Inverness-shire gives the astounding proportion of 42 per cent. of the whole as uncertified, against 3 per cent. in Glasgow and 1 per cent. in Aberdeen. The maximum figure in each case must be taken as indicating the state of things which may occur under the existing system, while the minimum shows what can be achieved by judicious administration combined with the intelligent co-operation of the different authorities and officials concerned.

With regard to the proposal to appoint medical officials throughout the country whose duty it should be to inquire into the cause of all deaths not certified in the usua lway by a medical practitioner, the Committee express the opinion that the proposal is a good one, and they think that the medical officer of health for each district would be the proper person to discharge this duty, and that the assignment to him of this additional work would be a further argument in favour of his being required to devote the whole of his time to the duties of the joint offices of medical officer of health and medical certifier. The Committee recommend that in every case in which the medical certifier is apprised of a death in which a certificate of death from a medical man in attendance is not forthcoming, he should be required to attend at the place where the body is lying, and make such inquiries and such an examination of the body, including, if necessary, a *post-mortem* examination, as he may think necessary to enable him to form an opinion as to the cause of death. If he is satisfied that the death is due to natural causes, he should forthwith forward a certificate to the registrar. If, however, he is of opinion that the death is due to accident, violence, poison, or neglect, or that the circumstances are in any respect indicative of foul play, he should be required to report the case to the coroner or the procurator fiscal as the case may be.

The Committee are also of opinion that the medical attendant giving a death certificate in the manner which is now customary should, in addition, be required to certify the fact of death, and that for this purpose he should be required to inspect the body after death. In this way opportunities which now exist for fraud would be taken away, and the innovation would have the further advantage that in some instances a skilled observer only is able to pronounce whether life is extinct. As, however, in certain districts the requirement that he should pay a special visit in person to verify death might justifiably be regarded as burdensome and unreasonable, the Committee recommend that as an alternative the medical attendant might issue a death certificate on being furnished with a certificate signed by two persons, neighbours of the deceased, one of whom should be a householder, verifying the fact of death. He should also append to the certificate given in such a case a statement of the reasons which have prevented him making a personal inspection of the body.

The Committee recommend that the precedent of the Infectious Diseases (Notification) Act, 1889, shall be followed, and that a fee of 2s. 6d. should be payable to a medical man out of public funds for every death certificate issued by him; as to stillbirths, that the system of registration which they have advocated in the case of ordinary deaths should be adopted in the case of stillbirths—that is, that registration should take place upon the production of a certificate from either (1) the medical man in attendance, (2) the medical certifier for the district, or (3) the coroner. Upon registration the registrar should be required to issue a burial certi-

ficate or order, which should be the only authority for the burial, and it should be made a penal offence to bury or otherwise dispose of the body of a stillborn child without the production of such order.

The recommendations of the Committee are summed up in the following ten paragraphs:—

1. That in no case should a death be registered without production of a certificate of the cause of death signed by a registered medical practitioner, or by a coroner after inquest, or in Scotland by a procurator-fiscal.

2. That in each sanitary district a registered medical practitioner should be appointed as public medical certifier of the cause of death in cases in which a certificate from a medical practitioner in attendance is not forthcoming.

3. That a medical practitioner in attendance should be required, before giving a certificate of death, to personally inspect the body; but if, on the ground of distance or for other sufficient reason, he is unable to make this inspection himself, he should obtain and attach to the certificate of the cause of death a certificate signed by two persons, neighbours of the deceased, verifying the fact of death.

4. That medical practitioners should be required to send certificates of death to the registrar, instead of handing them to the representatives of the deceased.

5. That a form of certificate of death should be prescribed, and that in giving a certificate medical practitioners should be required to use such form.

6. That it should be made a penal offence to bury or otherwise dispose of a body, except in time of epidemic, without an order from the registrar stating the place and mode of disposal, which order, after it has been acted upon, should be returned to the registrar who issued it.

7. That it should be made an offence to retain a dead body unburied or otherwise legally disposed of beyond a period not exceeding eight days, except by permission of a magistrate.

8. That the practice of burial in pits or common graves should be discontinued.

9. That stillbirths which have reached the stage of development of seven months should be registered upon the certificate of a registered medical practitioner, and that it should not be permitted to bury or otherwise dispose of the stillbirth until an order for burial has been issued by the registrar.

10. That, subject always to the discretion of the Crown Office, the result of precognitions taken by the procurators fiscal in Scotland, or the precognitions themselves, should be communicated to the representatives of the deceased when application is made for the same.

RETURN OF MECCA PILGRIMS AND QUARANTINE AT TORR AND NAKHEL.

[FROM A CORRESPONDENT.]

IN my former communications[1] I have given you statistics of the return pilgrims only who have arrived at the quarantine station of Torr. I have now to add the land quarantine station of "Nakhel." Nakhel is a point on the Sinai peninsula selected by the Egyptian Quarantine Board this year, instead of Akaba as formerly, as the point of quarantine observation for pilgrims arriving in caravans to enter Egypt by land. Up to August 15th two caravans had arrived bringing 149 adults and five children, conveyed by 299 camels. Twenty-six of the pilgrims were suffering on arrival from "ordinary diseases;" the health of the others was good, and no cholera existed amongst them. The sanitary agent of the station does not state if cholera existed amongst them on the way.

Up to this date 19,860 pilgrims have finished their quarantine and left Torr. At the station at date of latest information there were encamped 5,664—all Egyptians. No case of cholera has occurred since August 2nd. In the hospital for ordinary diseases there are 150 patients, the prevailing illness being still diarrhœa and dysentery. Outside the pilgrims one case of cholera has occurred, in a bashi-bazouk acting as policeman in the village of Torr. The nature of the case was ascertained both clinically and by bacteriological examination, but unfortunately the medical men have been unable to trace how the disease was caught. Dr. Ardouin Bey, the Inspector-General, who is now on the spot, throws out the crude suggestion that the man "may" have had about him some soiled effects of a choleraic pilgrim, but gives no explanation as to his connection with the pilgrims, how he came by these effects, "if even he had them," nor how they gave him cholera. None of the others who have been handling infected clothing, attending to the sick, washing the dead, have taken cholera.

The great Egyptian caravan, or Mahmal, with the Holy Carpet is expected shortly to arrive by land at El Widje, whence a special steamer will transport the members to Torr to undergo their quarantine. The arrival of this caravan is practically the end of the return pilgrimage.

The 6,000 to 7,000 pilgrims who were stranded at Yambo for want of means of transport, and reported to be starving, have been relieved by the Egyptian Government, which sent them provisions, and also steamers to transport them to Torr, where they are now arriving in large numbers. No case of cholera has occurred amongst them on the passage nor since their arrival. There still remain at Yambo about 1,200.

A few Egyptian notables organised a subscription for the relief of their co-religionists at Yambo, and, according to a local paper, have contracted for the supply of 10,000 okes of biscuits, ten barrels of olives, and ten barrels of cheese. This fare will no doubt be greatly relished by the majority, but is hardly dietetically suited for the diarrhœa, dysentery, and fever from which they were reported to be suffering.

Several sections at Torr have finished their quarantine, and wait for means of transport, the steamers which would have taken them on having been sent to Yambo to relieve the pilgrims there. Besides the arrivals by steamers there have been several arrivals from El Widje, by the *Sambouks*, chiefly of pilgrims for Kosseir and places on the Red Sea Coast. These are all obliged to pass by the quarantine station of Torr.

A new and useful feature in the quarantine operations at Torr this year has been a systematic bacteriological investigation into the nature of the numberless cases of diarrhœa formerly regarded by many as "suspected cases." Dr. Ardouin Bey reports that the sanitary agent and one of the doctors of the Turkish mission to Torr superintending the Turkish pilgrims have made daily bacteriological researches, and are of opinion, from this and from clinical observation, that none of the cases of intestinal complaint under treatment at the station are of choleraic character. So strongly did some of the medical members of the Quarantine Board hold the opinion that these numerous cases of diarrhœa amongst the pilgrims were in times of epidemic only a modified form of cholera capable of propagating the disease, that one of them, the delegate of an Eastern European Power, during the return pilgrimage of 1890 proposed to the Board to prolong the quarantine until the last case of diarrhœa had disappeared—this would probably have coincided with the disappearance of the last pilgrim—and the proposal was rejected.

All the pilgrims for ports in the Mediterranean and Levant may now be said to have passed the Suez Canal, those remaining at Torr and to arrive from Yambo being nearly all Egyptians.

All ships for the Canal are examined, before entering, by the sanitary agent at Suez, who has reported favourably on the general health in every case. No complaint of overcrowding has been made by him, except in the case of the British steamship *Etna*, which he reports was very much overcrowded.

The usual annual recriminations amongst the different medical staffs at Torr which take place at the end of every pilgrim season are beginning to be talked of. The Turkish and other commissions accusing the staff of the Egyptian Quarantine Board of inefficiency—laxity in surveillance, inefficacy of their disinfection, etc. Although the work of the station is entirely under the control of the agents of the Egyptian Quarantine Board, the Turkish authorities have of late years sent from Constantinople a medical staff to aid in superintending the Turkish pilgrims. The Austro-Hungarian Government also sends a medical man to superintend and report on the Bosnians and Herzegovinians. A little national and professional jealousy sometimes shows itself rather bitterly, but on the whole it serves as a wholesome criticism for the Egyptian Board to benefit by.

[1] The last article of this series was published in the BRITISH MEDICAL JOURNAL on August 19th, p. 437.

INFANT MORTALITY IN CAIRO AND DAMIETTA.

The following table, compiled from the weekly returns published by the Egyptian Sanitary Department, exhibits in a remarkable manner the influence exercised by a pure water supply on infant mortality:

1893, Week Ending	Cairo.			Damietta.		
	Percentage of Deaths under 1 Year.	Percentage of Deaths under 5 Years.	Deaths under 5 per 1,000 Births.	Percentage of Deaths under 1 Year.	Percentage of Deaths under 5 Years.	Deaths under 5 per 1,000 Births.
June 1st ...	38.2	58.5	738	21.2	30.3	357
,, 8th ...	34.4	63.0	752	11.5	34.6	225
,, 15th ...	35.9	64.9	860	25.6	43.3	224
,, 22nd ...	30.5	64.7	859	20.9	55.8	727
,, 29th ...	35.8	65.0	883	34.4	58.6	435
July 6th ...	38.4	70.2	889	23.5	58.8	476
,, 13th ...	33.7	67.9	938	23.8	61.9	448
,, 20th ...	39.7	71.2	871	7.4	29.6	190
,, 27th ...	40.3	69.4	1,048	32.1	42.8	218
Aug. 3rd ...	42.3	76.2	916	9.5	57.4	413
Average ...	36.9	67.1	865	21.0	47.3	371

It is well known to readers of the British Medical Journal that the inhabitants of Damietta are unable to drink Nile water during the summer, when the river is low, on account of its admixture with the sea, which the current is no longer able to repel. Well-to-do people are in the habit of storing water in cisterns at flood time, and the Government does the same for the poorer classes. Till recent years a similar state of affairs existed at Rosetta—the sister town at the mouth of the Canopic branch: but unhappily, a canal on a higher level than the river having been opened in 1890, the cisterns were left empty, and since then the summer mortality has risen, as far as the indigent population is concerned, to the level of the other towns.

During the ten weeks referred to in the table the death-rate exceeded the birth-rate in 13 out of the 19 towns in Lower Egypt of which the vital statistics are published. The exceptions are Damietta, Rosetta, Suez and Ismailia taken together, Damanhaur, and Zagazig. In the last two towns the difference between the rates is very small; in the other three the figures referring respectively to births and deaths are as follows: Damietta, 395, 292; Rosetta, 141, 111; Suez and Ismailia, 166, 131. Taken together, the thirteen remaining towns show an excess of deaths over births amounting to 1,861, which gives for the nineteen towns a net diminution of population during the period equal to 1,662.

As infant mortality in England is usually expressed by the comparison of deaths under one year of age to births, it may, perhaps, give a clearer idea of the dreadful sacrifice that is now going on in Egypt generally—and in Cairo in particular—if the same method be applied to the latter city. During the ten weeks above noted the mortality under twelve months was equal to 478 per 1,000. In London the rate last year was 154 per 1,000, and this was said to be higher than the average.

When, out of every 1,000 children born, 865 die before they reach the age of 5 years, it is surely high time that something should be done to prevent such a frightful slaughter. It is clearly the water supply that is in fault. In every other respect Damietta is as insalubrious as Cairo, if not more so, and yet the infant mortality in the former town is considerably less than half what it is in the capital. It is manifestly the duty of the authorities to apply a portion of the reserve millions—which we are told exist—to the remedying of a monstrous evil.

Dr. A. Emrys-Jones has been placed on the Commission of the Peace for the city of Manchester.

Professor Pflüger, of Bonn, has been made a Knight of the Civil Division of the Ordre Pour le Mérite.

THE COUNTY COUNCILS AND TECHNICAL INSTRUCTION.

From a return recently issued by the Science and Art Department,[1] showing the manner in which the councils of the counties and county boroughs have used the funds at their disposal for the purposes of science, art, technical, and manual instruction, it appears that nursing instruction has been assisted in 20 cases, ambulance in 17, plumbing in 15, hygiene in 8, and pharmacy in 1 (Nottingham County Borough).

The importance of cookery appears to have obtained nearly universal recognition, and it will not be the fault of good arrangements on paper if the next generation do not attain to considerable excellence in an art in which they are at the present sadly wanting.

We subjoin a tabulated list of the councils which have organised or assisted courses of instruction in nursing, ambulance, sanitation, or plumbing.

Nursing.[2]	Ambulance.
Berkshire	Chester County Borough
Buckingham	Cumberland
Chester County	Derby County
Chester County Borough	Plymouth County Borough
Cumberland	Durham County
Derby County	Ely, Isle of, County
Ely, Isle of, County	Lancaster County
Essex	Leicester County
Gloucester	Lincoln, Parts of Holland, County
Hereford	Lincoln, Parts of Lindsey, County
Kent	Northampton County
Lancaster County	Northumberland County
Leicester County	Peterborough, Soke of, County
Middlesex County	Salop
Northumberland County	Stafford County
Somerset County	Suffolk, Eastern Division, County
Sussex, Eastern Division	Berwick County
Warwick County	
Durham	
Berwick	

Sanitation or Hygiene.	Plumbing.
Liverpool County Borough	Lancaster County
Lincoln, Parts of Holland, County	Bolton County Borough
Norfolk County	Manchester County Borough
Bath County Borough	Oldham County Borough
Brighton County Borough	Rochdale County Borough
Birmingham County Borough	Lincoln County Borough
York, West Riding, County	Norwich County Borough
Inverness	Northumberland County
	Newcastle-on-Tyne County Borough
	Nottingham County Borough
	Croydon County Borough
	Birmingham County Borough
	Coventry County Borough
	York, West Riding, County
	Cardiff County Borough

LITERARY INTELLIGENCE.

Mr. G. W. Bloxam, Assistant Secretary of the Anthropological Institute, has prepared a very useful Index to the publications of the Ethnological Society of London and the Anthropological Society of London. In 1871 these two Societies joined together under the title of the Anthropological Institute of Great Britain and Ireland; since that date the Institute has published twenty volumes of its *Journal*, the contents of which are indexed by Mr. Bloxam. The publications of the first two Societies were issued under several different titles, and papers contained in them are often very difficult to find; this difficulty is now removed by the publication of Mr. Bloxam's Index.

Baily's Magazine of Sports and Pastimes for September contains the first part of the excellent practical address on the Doctor's Horse and Stable, which was delivered by Mr. R. J. Collyns at the annual meeting of the West Somerset Branch of the British Medical Association. We gave a summary of the main points in the address shortly after its delivery, but the whole is well worth perusal by those who have to make large use of horses in country practices.

In the *Contemporary Review* for September Professor August Wiesmann makes an elaborate reply—entitled The All-

[1] Eyre and Spottiswoode, East Harding Street, Fleet Street, E.C., and Westminster, S.W.; or John Menzies and Co., 12, Hanover Street, Edinburgh, and 90, West Nile Street, Glasgow; or Hodges, Figgis, and Co., Limited, 104, Grafton Street, Dublin. Price, 3½d.

[2] In West Suffolk there is a rather mysterious entry of "nursery," which may be a misprint for "nursing."

sufficiency of Natural Selection—to the criticisms which Mr. Herbert Spencer has directed against his recent works on Heredity. Professor Weismann's arguments in this article are based largely on the existence among the ants and bees of neuter individuals which have become specially modified into workers. Professor Weismann concludes by asserting once more "that all hereditary adaptation rests on natural selection, and that natural selection is the one great principle that enables organisms to conform, to a certain high degree, to their varying conditions by constructing new adaptations out of old ones. It is not merely an accessory principle, which only comes into operation when the assumed transmission of functional variations fails; but it is the chief principle in the variation of organisms, and compared to it the primary variation which is due to the direct action of external influences on the germ plasm is of very secondary importance."

In the *Contemporary Review* also Mr. Andrew Lang contributes an interesting and learned article on Comparative Psychical Research. In it he gives many instances of the curious way in which certain "psychical manifestations," as they are now called, keep cropping up in different ages and in different quarters of the globe. He is more particularly concerned with "the Miraculous Conformist," one Valentine Greatorex, whose curious performances and strange stories were very gravely detailed by Dr. Henry Stubbe, a physician of Stratford-on-Avon, in "a letter to the Honourable Robert Boyle, Esq.," published by the Oxford University Press in 1666. "Levitation" (of a butler), "spirit-rapping," a visible hand, and other modern "psychical" manifestations were all observed in connection with Mr. Greatorex, and Mr. Lang refers also to the cases of "spectral evidence" gravely recorded by Corton Mather in New England, and the queer things which befell Miss Hetty Wesley, the sister of the great preacher. "Our only conclusion," writes Mr. Lang, "is that the psychological conditions which begat the ancient narratives produce the new legends. These surprise us by the apparent good faith in marvel and myth of many otherwise credible narrators, and by the coincidence, accidental or designed, with old stories not generally familiar to the general public. Do impostors and credulous persons deliberately 'get up' the subject in rare old books? Is there a method of imposture handed down by one generation of bad little girls to another? Is there such a thing as persistent identity of hallucination among the sane? This was Coleridge's theory, but it is not without difficulties." Mr. Lang is never wholly serious, and there is a vein of banter through his article, but nevertheless he has made a striking contribution to the discussion of a subject of no little present interest.

DR. ANTON WEICHSELBAUM has been appointed Professor of Pathological Anatomy and director of the Institute of Pathological Anatomy in the University of Vienna.

THE vintage began in the Médoc on August 17th—an unprecedentedly early date. Only once before has the vintage commenced in August during the present century; that was in 1822, when the gathering of grapes began on August 31st. The yield this year will be large, and there is some reason to hope that the quality also will be good, as experience shows that a copious yield is generally of fine quality.

DEATHS IN THE PROFESSION ABROAD.—Professor Dr. Cramer, Director of the Clinic for Mental Diseases, and of the State Lunatic Asylum at Marburg, died there recently in his 62nd year.—The death is announced, at the age of 56, of Dr. S. J. F. Miller, who was at one time superintendent of the Insane Asylum at Dayton, Ohio, and surgeon to the Soldiers' Home, Milwaukee; he had recently acted as surgeon at the Soldiers' Home, Tonqus, Me.—Dr. Daniel Jerome Macgowan, a native of Massachusetts, but for half a century a resident in China, died recently in his 79th year. Dr. Macgowan, who was believed to have been the oldest foreign resident in China, was at one time a medical missionary, but had for many years held an appointment in the Customs Department.—The death is announced of Professor Sommerbrodt, of Breslau.—Dr. Richard Schmitz, a leading practitioner at the baths at Neuenahr, and known as a writer on diabetes, died on August 26th.

THE CHOLERA.

THE OUTBREAK AT GRIMSBY AND HULL.

[BY OUR SPECIAL COMMISSIONER.]

GRIMSBY.

THE continued presence of cholera in Grimsby is the cause of considerable anxiety, not merely from the number of deaths, but from the indication it gives of what might happen to any town if once the infection became firmly implanted within its bounds.

EARLY CASES OF "CHOLERA" AND DIARRHŒA.

It must by no means be imagined that the case which died on Tuesday, August 29th, and which was pronounced by Dr. Klein to be one of cholera, was the beginning and origin of the epidemic. During July and August the deaths from intestinal trouble in Grimsby increased to a very large degree, being four times their usual number, 93 deaths taking place this year against 23 in the same period in 1892. If this fact stood alone, it would have been enough to have given rise to considerable anxiety, but followed as it has been by the occurrence of true cholera, and by the reported death from cholera in Stromness of a sailor from Grimsby, one cannot keep down the suspicion that some of these 93 cases may also have been of the same nature. Wherever the infection came from, there can be little doubt that since the middle of August cholera has existed in Grimsby, or at any rate, if that is a more welcome way of putting it, that the same disease has been going on which they have now among them, which has been officially recognised as cholera, and which, judging by its clinical features, its rapidity, virulence, and mortality, cannot be called by any other name. The following is a list of the cases of cholera, choleraic diarrhœa, and diarrhœa notified. It is, however, obvious that this return only covers the more severe cases of diarrhœa. The majority of cases of cholera have been returned as cholera nostras, but I have ventured to put them all under one heading, the mortality of the early cases being quite unlike that of cholera nostras, and in fact being very typical of the onset of an epidemic of Asiatic cholera.

	Notified.		Died.
August 11	1	Cholera	1
,, 20	1	,,	1
,, 24	1	,,	1
,, 26	2	,,	2
,, ,,	5	Choleraic diarrhœa	—
,, ,,	1	Diarrhœa	—
,, 27	2	Choleraic diarrhœa	1
,, ,,	1	Cholera	1
,, 29	1	,,	1
,, 31	1	Choleraic diarrhœa	1
,, ,,	1	Cholera	1
Also in August—exact dates not ascertained	2	,,	2
	1	Choleraic diarrhœa	1
September 1	3	Choleraic diarrhœa	1
,, ,,	2	Cholera	—
,, ,,	2	Diarrhœa	1
,, 2	3	Cholera	3
,, ,,	19	Choleraic diarrhœa	—
,, ,,	2	Diarrhœa	1
,, 3	4	Diarrhœa	—
,, ,,	2	Choleraic diarrhœa	—
,, 4	6	,, ,,	—
,, ,,	2	Cholera	2
,, 5	8	Choleraic diarrhœa	—
,, 7	7	Diarrhœa	—

The fact that all cases of diarrhœa are now notified, whereas at first they were not, makes the list of notifications not altogether reliable; but there seems, unfortunately, no doubt that 21 deaths have taken place since August 11th from acute forms of diarrhœa, 19 of which have been returned as cholera or choleraic diarrhœa.

This is a very serious list, and whether from deficient notification or from the intensity of the disease, the proportionate mortality at first was very great. Grimsby cannot be fairly described as a very charming town, and New Clee, the part which at first was principally affected, is even less pleasing than the rest a district of small houses extending eastwards from Grimsby towards Cleethorpes. It is worth noting, however, that although at first the cholera was principally in

the region of New Clee, the diarrhœa of the preceding month had been widely distributed, and that now again the choleraic attacks are occurring at widely scattered spots, and not altogether among the poorer classes, and it seems not unlikely that the local conditions favouring the occurrence of diarrhœa are capable also of encouraging the dissemination of the more serious disease. Where the infection has come from is a difficult matter to decide, but it is here considered that Antwerp is the starting point; and, in fact, the simultaneous development of cholera in Hull, which also is so intimately connected with Antwerp, points in the same direction, and a strong feeling is entertained that the Local Government Board is not acting fairly by the east coast ports in giving them so little information as to what is going on in foreign ports. It is felt that, not only is all the expense of protecting the country from cholera being cast upon comparatively small towns, but that they are not being aided by the early notification of infected Continental ports, which they have a right to expect.

Preventive Measures.

As regards preventive measures, two extra medical officers of health have been appointed, who, however, are also engaged in the hospital work; and it is proposed immediately to appoint six more and divide the town into districts, each with its own health officer. A staff of assistant sanitary inspectors have been set to work to cleanse and disinfect the town, and special flushing of the sewers has been undertaken.

Medical men have been asked to notify all cases of diarrhœa, and they are paid for the notification of these as of other cases. The Infectious Diseases Hospital, containing 63 beds, has been made ready for cholera patients, and 7 cases have already been treated as in-patients, 5 still being there now. The ship *Bradford* has also been fitted up as a cholera hospital, and contains 16 beds. Both these hospitals are being nursed by the Grimsby Nursing Institute, who have also supplied nurses for the cases which have not been removed. The sanitary authority sends these nurses.

Where cases are removed to hospital and also when death takes place at home careful disinfection of the houses is performed and the bedding, etc., is destroyed, the sanitary authority compensating for the loss.

About half the houses have waterclosets, the rest are provided with tubs of a somewhat offensive wooden pattern, which are emptied once a week.

The water supply is said to be good. It is derived from artesian wells.

The Fish Trade.

The epidemic is said to be causing enormous loss to the town by diversion of trade, especially in regard to fish. It should, however, be borne in mind that the Dresden Conference carefully considered this matter and saw no reason to stop the movement of fish from infected areas, and there seems no reasonable ground for the panic which seems to have affected the fishmongers. Perhaps one ought to make a difference, however, in regard to cockles and mussels gathered in the neighbourhood.

Grimsby lies low, and for nearly half the day the drains are tidelocked, the sewage lying in the drains waiting for the ebb. Now the drains open a little east of the fish docks on to the wide expanse of sand which extends thence to Cleethorpes. The tide goes out about a mile and on the surface of sand so laid bare there are large areas on which cockles and mussels are found and on which the sewage from the town, and also probably some from Cleethorpes, swings backwards and forwards with the tide. It seems almost certain that so long as the Grimsby drains are cholera-infected these cockle beds must be poisoned, and the sanitary officials seem to be of opinion that the earlier cases about New Clee were to be partly attributed to people dabbling on this sewage-poisoned sand and eating cholera-poisoned cockles.

Foreign Trade and Passenger Traffic.

It is an interesting point, illustrating the influence which the Dresden Conference has had in moulding opinion on the Continent, that, notwithstanding the large publicity which has been given to the outbreak, Grimsby trade has not been interfered with by any foreign nation, with the exception of Spain and Portugal. Antwerp, however, requires that a ship leaving Grimsby for that port shall be medically inspected on leaving the dock, and shall carry a certificate that up to that time all was well. Otherwise the trade goes on as usual.

Ordinary passenger traffic is not interrupted except by the inspection, which may take half to one hour, but emigrants are stopped by the companies refusing to grant third-class passages from doubtful ports. They still arrive, however, *viâ* Gottenburg.

Both as regards Grimsby and Hull the question will arise whether this outbreak is an importation from Antwerp, or even further off, and in regard to Hull whether it is a recrudescence of traces left over from last year, as seems to have happened in so many places in Russia, for example.

The sanitary officials in both ports naturally, after the immense trouble they have taken, tend to question how their first line of defence can have been broken through. But after all, strong and perfect as is the defence given us by port sanitary authorities, it is a thin, a very thin, line. A port sanitary line of defence at the other end of a long sea voyage ought to be a perfect check to the importation of the disease, but so long as the sea passage is shorter than the time of incubation of the disease, it is obvious that even the strictest inspection at the frontier cannot keep out cases which are still in a stage of incubation.

The point of interest is that with modern rapidity of travel such cases may crop up at inland as well as seaport towns, and that what has happened at Grimsby and Hull might happen anywhere in the kingdom. It therefore behoves every sanitary authority to consider the immense expense these towns are being subjected to, and to weigh well whether it is not better to spend money in the daily improvement of their sanitary condition, rather than run the risk of admitting cholera and having to fight it within their gates.

Importance of Early Recognition.

In any case, however, it is of the greatest importance that whenever doubtful cases arise certainty as to their nature should be arrived at as early as possible, and for this purpose there should be no delay in submitting such cases to bacteriological investigation. We would be inclined to say that whenever autumnal diarrhœa, instead of being confined to infants, begins to affect grown-up people fatally, there is grave cause for suspicion. It is only a few weeks since the Journal, in anticipation of this very contingency, gave details not only as to the processes of bacteriological examination, but also the names of places where such examination can be undertaken.

HULL.

At Hull the number of deaths from cholera so far has been small, only 5 having been recorded so far. In view, however, of the sanitary conditions inherent in the locality, the tidelocked drains, the almost level sewers, the multiplicity of privies, and the proximity of the subsoil water, it has been thought best to leave no stone unturned to make matters as safe as possible. In addition to the hospital ship and launch for port purposes, there are 70 hospital beds actually available, and 200 more in tents could be put up in a couple of hours.

Dr. Buchanan Young, from the public health laboratories of the University of Edinburgh, has been engaged as an assistant to Dr. Mason, the medical officer of health.

A letter has been addressed to medical practitioners requesting them to notify all cases of choleraic diarrhœa on the usual notification form, for which a fee will be paid.

A supply of diarrhœa mixture will be forwarded to the various police stations and fire escape stations for gratuitous distribution; disinfectants are also distributed in like manner, and the whole of the medical men are supplied with order forms for the same.

Complete hospital accommodation has been provided, and a supply of tents is kept in readiness. Ambulance arrangements have been provided for the immediate removal of patients, and a reserve is in readiness if required.

The sanitary offices are kept open till after midnight, and are connected by telephone with the police offices, fire escape stations, hospitals, etc. All cases of cholera in private practice are removed to the mortuary, and are interred in an isolated portion of the cemetery, under the direction of the

medical officer of health, the sanitary officers acting as bearers, and every sanitary precaution being taken.

All the dejecta of cholera patients and the contents of privies from suspected cases are removed, and are burned at the destructor.

The Cholera Subcommittee has been empowered to take every precaution they may deem necessary in the interest of the public health, which practically means *carte blanche*. There is no doubt that the arrangements made to meet the emergency are most thorough, and are being carried out with the greatest possible energy.

Halifax.

A case of a somewhat suspicious nature occurred at Halifax on September 5th, but we gather that no bacteriological examination has been made. During last week 2 cases presenting similar symptoms occurred, but they were less acute, the patients being ill for forty-eight hours. No other cases have occurred. For the following particulars of the case which died on September 5th we are indebted to Dr. D. Ainley, Medical Officer of Health for Halfax:

On September 4th a man aged 68, named Culpan, was working about five miles away. After he got home at night he complained of sickness. After taking some refreshment he went to bed, and slept until about 1 o'clock, when he awoke very sick and purged in his bowels. This continued until 8 A.M., when a doctor was called in. The doctor was so struck with his condition that he at once came for me. When I arrived he was dead, never having rallied from the first. On September 4th he had partaken of cold meat-pie for dinner, with beer. From the first he had rice-water stools, but no pain or cramps.

Rotherham.

On September 5th a miner died in Rotherham after suffering from symptoms which pointed to Asiatic cholera. The case was notified as Asiatic cholera, and the death has been certified as such by the medical attendant. A *post-mortem* examination was made on September 6th, and a portion of the ileum was forwarded to Dr. Klein in order that he might make a bacteriological examination. This has shown that the patient was suffering from Asiatic cholera. For the following notes of the case we are indebted to Dr. Alfred Robinson (medical officer of health for Rotherham), who has ascertained that the man visited Grimsby on the day before his seizure:

W. B., aged 35, miner, had suffered from diarrhœa, but, being better, went to Grensbro' Dam to fish on September 5th, 1893. He was there seized with severe vomiting and purging, with cramps; the evacuations were stated to be nothing but water. He was seen there by a medical man, and under his advice was brought home immediately. When seen by me at 3 P.M. he was in a state of collapse, and the pulse at the wrist could not be perceived. The extremities were cold and pale, having a macerated, shrunken appearance; the trunk was warm. His face was very dark, the lips were nearly black. There was no diarrhœa or vomiting after arrival at home. He was seen again at 5 P.M., when his condition was much the same, though the lips were scarcely so black. At 7 P.M. he was said to be "gone," but occasional gasping respiration still occurred, and the impulse of the heart was very faintly perceptible at first, but later could not be noticed. Breathing improved a little for a quarter of an hour after my visit. He was seen again soon after 8 P.M. After a careful examination of the heart, I felt satisfied that he was dead.

Bradford.

From inquiries which we have made it appears to be clear that the death at Bradford, which has been very generally stated to be due to Asiatic cholera, was caused by acute diarrhœa. The patient was a dealer in shellfish, who died on September 4th of exhaustion, due to severe diarrhœa. Dr. Arnold Evans, the medical officer of health, after consultation with the medical man who had attended the case, was satisfied that the cause of death was acute diarrhœa, not cholera. The man had eaten some mussels; the remainder of these, which had been kept in the cellar, were purchased and destroyed, and the interior of the house was cleansed and whitewashed.

THE CONTINENT AND ABROAD.

Austria-Hungary.—The cholera is spreading widely in the empire, especially in Galicia and Hungary. Ignorance prevails, placing difficulties in the way of the doctors. Cases have occurred in Vienna and Buda-Pesth, whilst in Hungary 94 new places were attacked last Friday and Saturday, making 282 places infected to that date, with some 900 attacks last week and 500 deaths. In Galicia there were 150 cases recorded and 100 deaths in the week. The widespread character of the epidemic, and its virulence, are the prevailing features, rather than the grouping of large prevalences. Maladministration is the bane of the country. The disease has reached the confluence of the Theiss and Danube, and has indeed crossed the latter river.

Italy.—Cholera continues to prevail fatally in Naples, and news comes also of fatal cases at Cassino, Solmona (106 cases, 70 deaths in all), Palermo, Salerno; and at Rome suspicious attacks have taken place, one of cholera being announced on Friday last. At Naples the malady has already attacked 434 persons, 360 fatally.

Germany.—The 3 cases of cholera under treatment at the end of the previous week in Berlin increased last week end to 8, in addition to 20 suspected cases. In the latter half of August, 11 cases and 8 deaths were reported in Germany. The waters of the Spree have been declared infected. We hear of the disease at Neuss, Dinsburg, Emmerich, Schultz-on-Vistula, and Andernach-on-Rhine, among other places.

Holland.—The cholera at Rotterdam (6 deaths to end of August, and 6 since to the end of last week) is thought here to be much worse than local reports show. The list of towns attacked is steadily growing, 16 appearing in last week's returns. Leerdam seems to be the town chiefly invaded. Among other places are Alfen-on-Rhine, Kralingen, Charlois, and Hanswcerts.

Belgium.—Cholera continues at Antwerp, with not much short of a score of deaths in August. As a consequence, the Royal Mail Company have for the present abandoned their Continental sailings.

Russia.—The provincial returns show continued increase of cholera, with the disease in the frontier districts, thus affording constant menace to other countries. In the last week of August, in only eleven provinces there were 3,384 cases and 1,209 deaths, against 2,400 and 850 in the previous week. In St. Petersburg there were 40 cases and 15 deaths, and in Moscow 102 cases and 58 deaths.

Malta.—Vessels from Ibrail continue to touch at Malta with cholera cases on board, and to be placed under strict quarantine while coaling and provisioning. Malta has imposed twenty-one days' quarantine on all European cholera-infected countries.

America.—A death due to Asiatic cholera was announced from Jersey City last week, where 4 other cases had occurred, in addition to many suspected attacks.

DIARRHŒA MORTALITY IN ENGLISH SEAPORTS.

The admitted fact that Asiatic cholera has actually invaded our shores makes it advisable to carefully watch the mortality from diarrhœal diseases in our seaport towns. An examination of the most recent statistics reveals the fact that the mortality from diarrhœal diseases in three of our north-eastern ports, namely, Hull, Sunderland, and Gateshead is vastly greater than in any other English port for which statistics are available. The rates of mortality from diarrhœa, per 1,000 persons living, in the principal English seaport towns during the past four weeks are as follow:—

	Aug. 12.	Aug. 19.	Aug. 26.	Sept. 2.
London	1.6	1.9	2.3	2.1
Portsmouth	5.6	3.7	1.6	2.2
Plymouth	3.0	0.6	2.4	1.8
Bristol	1.6	1.2	0.7	1.2
Cardiff	2.9	0.7	2.9	2.2
Liverpool	4.2	2.7	3.7	4.4
Newcastle	1.9	2.4	2.6	3.4
Gateshead	4.6	6.9	3.4	8.0
Sunderland	6.2	8.1	11.3	8.5
Hull	6.2	11.2	12.7	11.5

From the above figures it appears that Hull, where Asiatic cholera admittedly exists, shows by far the greatest mortality from diarrhœal diseases; and after Hull come Sunderland and Gateshead, far ahead of any other towns. While in Bristol the diarrhœa death-rate during the past four weeks has averaged only 1.2 per 1,000 in London and in Plymouth 2.0, and in Cardiff 2.2, it was as high as 5.7 in Gateshead, 8.5 in Sunderland, and no less than 10.4 in Hull. It is a significant and disquieting fact that the death-rate from all causes and from diarrhœal diseases in the two last-mentioned towns has been higher during the past three weeks than in any other of the thirty-three large English towns for which statistics are available.

THE CHOLERA ORDER FOR GRIMSBY OF THE LOCAL GOVERNMENT BOARD.

The Local Government Board have issued a special cholera order to the sanitary authorities of Grimsby and Cleethorpes and the Port Sanitary Authority of Grimsby. It directs that a meeting of the local authority or of a special committee of such authority shall be held daily. It requires that in every district, or if necessary in subdistricts, a legally-qualified medical man shall be appointed to act as medical visitor, to act under the superintendence of the medical officer of health, and shall be provided with all needful medical assistance, and other assistance if required. The medical visitor or one of his assistants shall at least once daily visit those parts of the district or subdivision

which are inhabited by the poorer classes, or wherein the disease is present, and shall there inquire at every house as to the existence of cholera or diarrhœa, and shall enter in a report book to be kept by him for the purpose the facts as to all cases he may meet with; and shall, without delay, give, or take the proper steps for causing to be given, all necessary medical assistance to the sick. The medical visitor or assistant shall, when visiting the part assigned to him, be provided with medicines for immediate administration in urgent cases, and shall be held to be in medical charge (which shall include giving directions as to preventing the spread of the disease) of all cases of cholera or diarrhœa which he may meet, unless or until other provision for their medical attendance be made. He shall also, so far as possible, when visiting such part, investigate whether any conditions dangerous to health exist therein, and in particular whether there is any accumulation of excremental or other filth, and whether any unwholesome water supply is in use.

The medical visitor is required to make daily reports to the medical officer of health as to cases of disease, to point out all unwholesome conditions discovered and make any suggestions. The local authority is required to act immediately on these reports, and to carry out at their own cost if necessary cleansing operations. The medical visitor is authorised to communicate directly to the relieving officer as to any case of destitution requiring relief. The local authority shall, under the advice of the medical officer of health, provide a sufficient number of dispensaries to be open night and day, at convenient places within the district, and with an adequate supply of such medicines, medical appliances, and disinfectants as the medical officer of health shall recommend, and with a legally-qualified medical practitioner or skilled assistant always in attendance at each; and such medicines, medical appliances, and disinfectants shall be dispensed without charge by such medical practitioner or assistant to persons bringing orders for the same from a medical visitor or his assistant, and to any other persons who need immediate medical treatment, and by or on behalf of whom application may be made for the same. The names and addresses of all such other persons shall be sent to the medical visitor of the place in which they reside.

In every case of cholera or diarrhœa where the patient is not otherwise under medical care and treatment, the local authority shall, with the utmost expedition, cause medical assistance to be rendered, as well as provide such aid and comfort, nourishment and accommodation, as the circumstances of the case may require.

The local authority is also required to provide competent nurses to aid the medical visitors, to provide hospital accommodation, to appoint to it a legally-qualified medical practitioner, with the requisite nurses and attendants, and to provide ambulances and litters for carrying the sick. Further, if the medical officer of health so advise, the local authority is requested to provide properly furnished houses of residence for healthy persons living in infected houses, and in case it is not advisable to remove a patient from a private house the local authority must cause the healthy persons in the house to be removed to the house of refuge. The local authority is required also to provide proper disinfectants, and the medical visitor is required to give full and particular instructions as to the best method of using such disinfectants, and shall, so far as practicable, see to the same being so used.

The local authority must also provide proper means for removing and disinfecting or destroying articles of clothing, bedding, or furniture, and shall compensate the owners in the event of destruction. The local authority is directed to take special steps to guard the purity of the water supply, to provide fresh water supply, and to close public or private wells. They must also make special arrangement with undertakers and burial authorities for the immediate interment of bodies and no assembly of persons in the room where the corpse of a cholera patient is, and no waking of the dead shall be allowed. Finally, a special return shall be made daily to the Local Government Board of the number of cases of cholera.

The authorities to whom the order was directed have already taken action on the order, and in particular the directions as to medical visitors have been carried out.

ASSOCIATION INTELLIGENCE.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

NOTICE OF QUARTERLY MEETING FOR 1893. ELECTION OF MEMBERS.

A meeting of the Council will be held on October 25th, 1893. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before the meeting—namely, October 4th, 1893.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election. Francis Fowke, *General Secretary.*

BRITISH GUIANA BRANCH.

The quarterly meeting of this Branch was held in the Pathological Laboratory of the Public Hospital, Georgetown, under the presidency of the Hon. R. Grieve, M.D., on July 27th. There were present: Drs. Wallbridge, Williams, Godfrey, Neal, Ozzard, Reid, Texeira, Bezbaroa, Conyers, Ferguson, Kennard, Daniels, Egan, Veendam, Barnes, and the Secretary.

British Institute of Preventive Medicine.—The Secretary read a letter of thanks from Dr. Armand Ruffer for subscription sent to the Institute of Preventive Medicine.

Auditor's Report.—The Auditor's report was laid upon the table, and was considered satisfactory, showing a balance of 50 dols. to the credit of the Branch.

Etiology and Treatment of Pneumonia.—In the absence of Dr. Gomes, the Secretary read a paper on the etiology and treatment of pneumonia. Dr. Gomes dwelt at some length on the specific nature of this disorder, but considered the evidence not yet sufficient to allow a positive affirmation to be made.—An interesting debate followed, in which Drs. Godfrey, Ozzard, Ferguson, Rowland, and Bezbaroa took part. Most of the speakers considered the evidence in favour of the specific nature of pneumonia stronger than Dr. Gomes had admitted.—The President closed the debate by rapidly reviewing the evidence, both clinically and experimentally.—A cordial vote of thanks was passed to Dr. Gomes for his interesting paper.

SPECIAL CORRESPONDENCE.

PARIS.

Quarantine and Cholera.—Contagious Ophthalmia.—Congress of Mental Diseases.—The Mecca Pilgrims.

At a recent meeting of the Paris Academy of Medicine, M. Ollivier read a note from Babés, of Bucharest, on cholera and quarantine. M. Babés had drawn attention at a previous meeting to the immunity from cholera enjoyed by the Roumanians, which he attributed to the fact of quarantine being rigorously observed. This year quarantine is abolished, and Roumania is attacked. In Bulgaria quarantine is maintained, and cholera has not appeared. M. Proust declared quarantine, as a supposed preventive, might exercise some good moral effect.

A pavilion attached to the École Breulle for the blind will be opened this month, where purulent oph-

thalmia will be treated, thus preventing contagion among the healthy blind.

At the Congress for Mental Diseases held in August, the following subjects were discussed: The relation of mental diseases to auto-intoxication; delirium after ovariotomy; on the insane giving false witness; on the societies for protecting the insane leaving asylums. M. Charpentier regretted that for political reasons Government had not organised an institution similar to the one successfully carried on by private charity. M. Drouineau stated that, according to documents furnished by the Minister of the Interior, the work done by the insane in one establishment covers the expense incurred by employing them; in twenty-one their work means a loss, and brings a slight profit in twenty-one others. M. Ramadier, of Rodez, stated that he had observed that goître was frequent among the insane of the Aveyron department.

It is estimated that 500,000 pilgrims visited Mecca this year, and have been more sorely tried than the preceding by epidemics. The Mahomedans of Bosnia and Herzegovina, although accompanied by a sanitary service, sent with them by the Austrian Government, lost half their number. Nevertheless, the water supply was better than formerly, but insufficient, as were also the arrangements for burying the dead and the refuse of animals slaughtered for food, six battalions of infantry were sent to Mecca from Yemen to perform these offices and maintain order; these soldiers suffered most severely; the first case of cholera appeared among them. The pilgrims from Morocco, Algeria, and Tunis suffered severely, the Egyptians less; the Government of the Khedive had furnished them with medicine. At Jedda, where the pilgrims land and embark, some cases were turned into hospitals, but their sanitary condition was deplorable. The dead were buried, and their clothes burned in those instances in which they were not taken possession of by rapacious relatives. A vessel was sent out from Constantinople with medical men and medical comforts, but it arrived too late, after the pilgrims had left. The lazarettos organised by the Egyptian and Turkish Governments, according to the proposals adopted at the Venice Conference, are excellent, but inadequate to treat the immense crowd of pilgrims.

LIVERPOOL.

Precautions against Cholera.—Donations to the Royal Infirmary.—Annual Cleaning.—Electric Lighting of the Medical Institution.

THE existence of cholera in numerous European and other ports has necessitated exceptional vigilance on the part of the sanitary authorities of Liverpool, where numerous vessels arrive from all quarters by every tide. All ships arriving from infected ports are medically examined. In this Dr. Hope, the medical officer of the port, is assisted by Dr. Moore and Dr. N. E. Roberts, who visit the ships arriving by alternate tides. Among the precautions insisted on by the medical officer is the pumping out of bilge water in the case of all ships arriving from infected ports. The sanitary officers act in conjunction with the Customs authorities, an arrangement which greatly facilitates the business of the port. The sanitary authority has at its disposal a hospital on the Cheshire side of the Mersey, specially prepared for the reception of cases of cholera or of suspected cholera. This establishment stands in ten acres of ground, and has been placed in a state of thorough efficiency. Two or three suspected cases have been isolated there, but they proved not to be cases of true cholera, and no persons suffering from the disease have as yet reached the port. Mr. Thompson, one of the medical advisers of the Local Government Board, has recently visited Liverpool, and has expressed his satisfaction with the precautionary measures adopted.

The Royal Infirmary has lately been the recipient of two handsome donations, £1,000 from Mr. S. A. Yates Thompson and £500 from Mr. Edward P. Thompson, both in memory of their father, the late Mr. S. H. Thompson, of Thingwall Hall, who was himself a generous supporter of the local hospitals. The latter sum has been given for certain purposes in connection with the out-patient department, the rapid development of which has necessitated a considerable addition to the instruments and other appliances at the disposal of the medical officers in charge of it. Among other needs a splint fund for the relief of out-patients seems to be one of the most pressing.

During the vacation the infirmary undergoes its annual cleaning, which, carried out in successive blocks, goes on throughout August and September. The cleaning consists chiefly of whitening the ceilings and washing the glazed walls. A fair number of students have this year continued to attend the practice of the infirmary during the summer.

The Medical Institution is at present closed. During the recess the building has been fitted up with the electric light.

CORRESPONDENCE.

THE NOTIFICATION OF CHOLERA.

SIR,—I fail to comprehend the object of the enclosed circular which is being sent out to us by the various sanitary boards of the metropolis. It emanates obviously from the Asylums Board, but its utility, in my opinion, is extremely doubtful. Does the Metropolitan Asylums Board wish to have all the cases of diarrhœa occurring at the present time notified as cholera? Their circular says that: "for some weeks past the number of deaths registered in London as from cholera had been considerably in excess of the number of cases notified," but this only shows the laxity of many members of our profession in giving death certificates, as no one believes for a moment that up to the present we have had a single case of true cholera, that is to say, of the cholera which is notifiable under the Act. It certainly seems to me very ill-judged to officially tempt medical practitioners to notify any slightly exaggerated case of diarrhœa under the name of cholera, to the alarm of the public, and to the further vitiating of the accuracy of our contagious disease notification, which, according to the evidence of some of our medical officers of health, is not too accurate with regard to certain other diseases.—I am, etc.,

MAJOR GREENWOOD, M.D., D.P.H.

Hackney Road, N.E., September 5th.

Townhall, Hackney, N.E., September 4th, 1893.

Department of Medical Officer of Health.

DEAR SIR,—I beg to ask your consideration of the attached copy of a letter received from the Metropolitan Asylums Board, drawing my attention to the fact that deaths have been registered in London as due to cholera, yet have not been notified in accordance with Section 55 of the Public Health (London) Act, and suggesting that these facts should be brought to the notice of the medical practitioners of this district.—Yours faithfully,

J. KING WARRY, M.D.,
Acting Medical Officer of Health for the Hackney District.

[Copy.]

The Metropolitan Asylums Board, Norfolk House, Norfolk Street, W.C., August 14th, 1893.

Public Health (London) Act, 1891.

DEAR SIR,—At the last meeting of this Board attention was drawn to the fact that for some weeks past the number of deaths registered in London as from cholera had been considerably in excess of the number of cases of the disease notified under the provisions of Section 55 of the above-named Act.

This seems to suggest that there is a general impression amongst medical practitioners that cholera is not a notifiable disease.

If that be the fact, I think the attention of all medical practitioners should be drawn to the matter, and I shall be glad to hear what action you or your Board propose to take with that object.—Yours faithfully,

T. DUNCOMBE MANN.
Clerk to the Board.

ARMY MEDICAL STAFF EXAMINATION.

SIR,—The agitation going on *re* appointment of examiners from the provincial colleges is very absurd, and, if acceded to, in my opinion, calculated to have a bad effect on the service. A great department like the Medical Staff should examine candidates for admission to that staff. I think it is a slur on the department to go to outside bodies to get examiners; and, again, the examiners taken from the Medical Staff itself could have no favouritism; being dissociated so long from their colleges, etc., they would be free from personal considerations. I think, also, the examiners,

if chosen from the Medical Staff, would be more suitable judges of the qualification of the candidate for duties of the staff.—I am, etc.,

Erdington, August 2nd. William Donovan, M.D.

GALL STONES AND CANCER.

Sir,—In a recently-published memorandum referring to the presence of gall stones in the insane, Mr. Beadles says: "In different institutions the percentage may vary considerably, but I believe the want of uniformity is greatly due to the fact that the necropsies are performed by different persons, and with a variable amount of exactness. As much reliance can never be placed on a number of figures drawn from several sources, as on those obtained by the observer himself, even though the latter be fewer in number," etc. In this I entirely concur. The difference between the statistics to which Mr. Beadles refers and mine is probably due to this cause.

A large proportion of the forty-four breast cancer necropsies, on which my remarks are based, were made and recorded by myself, and I paid special attention to the presence of gall stones. Had I made the whole series, the percentage of gall stones would probably have been higher, for tired pathologists are only too apt to regard gall stones as hardly worth the *gêne* of recording.

A singular fact brought out by my analysis is, that gall stones are much more frequently found in association with cancer of the breast than with cancer of most other parts of the body.—I am, etc.,

Preston, September 2nd. W. Roger Williams.

ABUSE OF MEDICAL CHARITIES.

Sir,—Dr. Jacob's arguments as to the course adopted by the fifty deserving cases, and their treatment by the medical men they go to, are weak. The very consciousness of their honourable position as legitimate applicants would lead them to apply to the nearest practitioner they know, and this of itself would effect distributions of applications for endorsement. Further, any attempt to obtain hospital benefits dishonourably could easily be checked in the detail of the scheme, the endorsement distinctly stating either that the applicant was resident in his immediate district, or was personally known to the medical man.

If, as Dr. Jacob admits, general practitioners have been and still are grossly wronged by the hospital system, it is only reasonable to grant them a voice and a hand in preventing the continuance of the evil; and so far, the endorsement scheme of prevention has the best of the argument.—I am, etc.,

West Kensington, September 2nd. C. R. Illingworth.

NAVAL AND MILITARY MEDICAL SERVICES.

ARMY MEDICAL STAFF EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post office order with the notice. The first post on Thursday mornings is the latest by which these announcements can be received.

A Surgeon-Major, with nearly two years of foreign tour completed, due to return to Bombay Presidency in December next, wishes to exchange with a Surgeon-Major having a good position on home roster.—Apply to "India," care of Messrs. Holt and Co.

THE EXAMINATION FOR ADMISSION INTO THE ARMY AND INDIAN MEDICAL SERVICES.

The papers set at the recent examinations for the admission to the Army and the Indian Medical Services were identical, as is the custom, and appear to have been on the whole well drawn up, with the exception of that on Chemistry and Pharmacy. This was not a practical paper and contained little pharmacy. The questions set were as follows:

1. Describe fully experiments by which you can prove—
   (a) That atmospheric air is a mixture and not a chemical compound.
   (b) That its approximate composition by volume is O = 21, N = 79.
   (c) That its composition by weight is about O = 23.14, N = 76.86
2. Enunciate and explain the "periodic law" of Mendeléeff. Illustrate the scientific importance of this law.
3. Describe how ordinary ethylic alcohol can be synthetically prepared. Mention the chief products of the oxidation of ordinary alcohol, and show how they can be prepared from it.
4. Mention the alkaloids and organic acids contained in the cinchona barks. What are the tests for the more important alkaloids? Enumerate the official preparations made from the barks and their alkaloids.

It would be well if the examiners before the next examination would consider well whether some alteration might not be made in the kind of question set in order to render the paper more practical. It must be remembered that among the duties of medical officers is the examination of drugs and other medical stores on receipt from contractors; they are required to express an opinion as to whether the drugs supplied are pure or otherwise of the quality contracted for. It would, we believe, be far better that the questions should be directed to test practical knowledge rather than an acquaintance with theories.

The paper ought to be designed to test especially a candidate's knowledge of the analysis of potable water and of foods, not going into minute details even here, but ascertaining whether he has such a preliminary acquaintance with the subjects as will enable him to take full advantage of the special instruction given at Netley. Further, some practical knowledge of drugs, their appearance and common impurities, ought to be required.

THE NAVY.

Staff-Surgeon T. D. Gimlette is promoted to be Fleet-Surgeon, August 13th. He was appointed Surgeon October 1st, 1879, and Staff-Surgeon April 1st, 1885. He was Surgeon of the *Seahorse* during the Egyptian war in 1882 (medal and Khedive's bronze star). As Surgeon of the *Euryalus*, flagship, he landed with the Naval Brigade in the Soudan in 1884, and was present at the battles of El Teb and Tamaai, where he highly distinguished himself (mentioned in despatches, promoted to Staff-Surgeon for these services, April 1st, 1885, Suakin and El Teb-Tamaai clasps). He accompanied Admiral Sir W. Hewett as Medical Officer on his mission to King John of Abyssinia in 1884.

The following appointments have been made at the Admiralty:—P. W. Bassett Smith, Surgeon to the *President*, additional, August 28th; G. T. Collingwood, Surgeon to the *Widgeon*, August 30th; Ernest D. Minter, Surgeon to the *Pembroke*, August 30th; R. W. Anderson, Staff Surgeon to the *Lion*, August 31st; Frank Bradshaw, Surgeon to the *Vernon*, additional, September 12th; W. H. Stewart, Fleet Surgeon to the *Empress of India*, September 11th; T. D. Gimlette, Fleet Surgeon to the *Caledonia*, September 11th; C. L. Vasey, Staff Surgeon to the *Anson*, September 12th; H. P Shuttleworth, Surgeon to the *Empress of India*, September 11th; C. J. Mansfield, Surgeon to the *Anson*, September 12th; J. A. Moon, Surgeon to the *Britannia*, September 12th; James M. Rogers, Surgeon to the *Cockatrice*, September 2nd; George Welch, Surgeon to Portsmouth Dockyard, September 2nd; Hugh St. D. Griffiths, Surgeon to the *President*, additional, September 14th; Charles W. Sharples, Staff Surgeon to R.N. Rendezvous, Spring Gardens, temporarily, September 5th.

ARMY MEDICAL STAFF.

Surgeon-Captains A. M. Davies, H. W. Hubbard, T. E. Noding, J. R. Yourdi, M.B., J. C. Culling, R. I. D. Hackett, M.D., G. T. Trewman, M.B., H. H. Johnston, M.B., E. M. Wilson, E. J. E. Risk, W. G. Birrell, M.B., Michael Dundon, M.D., C. W. S. Magrath, M.D., A. V. Lane, J. W. Beatty, M.D., G. E. Weston, G. H. Younge, F.R.C.S.I., W. G. Clements, William Babtie, M.B., R. F. O'Brien, C. W. Thiele, M.B., F. P. Nichols, M.B., John M'Laughlin, M.D., S. H Creagh, F. J. Lambkin, W. L. Reade, H. J. Peard, S. J. Rennie, John Carmichael, F.R.C.S.I., G. W. Brazier-Creagh, F. T. Wilkinson, and John Semple, who date as Surgeon-Captains from July 30th, 1881, are now promoted to be Surgeon-Majors from July 30th last.

Surgeon-Captain R. H. S. Sawyer, M.B., F.R.C.S.I., having completed twelve years' full-pay service, is promoted to be Surgeon-Major from August 15th. He entered the service as Surgeon February 5th, 1881, and was six months from November 16th, 1884, to May 26th, 1885, on half-pay on account of ill-health.

Surgeon-Major F. B. Maclean, who is serving in the Madras Command, is granted an extension of leave from July 26th to September 3rd on medical certificate.

Surgeon-Lieutenant-Colonel R. H. Robinson, serving in the Madras Command in medical charge of the station hospital at Wellington, is transferred to the medical charge of the South Station Hospital, Secunderabad, in the same command.

Surgeon-Major P. M. Carleton, M.D., on his return from England, is appointed to the medical charge of the station hospital at Mandalay, in the Madras Command.

The undermentioned officers, borne on the strength of the Bombay Establishment, are granted leave of absence to remain in England, in extension, as follows: Surgeon-Lieutenant-Colonel A. L. Browne, M.D., from July 29th to October 28th, on medical certificate; Surgeon-Major J. H. Day, M.B., from August 7th to the date of embarkation of the officer with whom he exchanges; Surgeon-Major W. J. Baker, from August 7th to December 6th, on medical certificate.

Brigade-Surgeon-Lieutenant-Colonel C. A. Atkins obtains promotion to the rank of Surgeon-Colonel on the approaching advancement of Surgeon-Colonel J. Warren.

INDIAN MEDICAL SERVICE.

The promotion of Surgeon-Lieutenant-Colonels G. G. MacLaren, M.D., Bengal Establishment, and C. W. MacRury, Bombay Establishment, to be Brigade-Surgeon-Lieutenant-Colonel, and which has been already announced in the British Medical Journal, has received the approval of the Queen.

The retirement of Brigade-Surgeon-Lieutenant-Colonel J. B. THOMAS, Madras Establishment, is dated May 13th, 1893, and not as stated in the *London Gazette* of August 1st.

The rank on retirement of Brigade-Surgeon-Lieutenant-Colonel G. G. MACLAKEN, M.D., Bengal Establishment, is as now described, and not as in the *London Gazette* of August 1st.

Surgeon-Captain W. VOST, Bengal Establishment, Civil Surgeon of Bahraich, is appointed to hold visiting medical charge of Gonda District, in addition to his own duties.

Surgeon-Captain H. HERBERT, Bombay Establishment, is appointed to act as Superintendent of the Central Gaol of Yerrowda, during the absence of Surgeon-Lieutenant-Colonel S. M. Salaman, M.D.

Surgeon-Lieutenant-Colonel S. L. DOBIE, Madras Establishment, Superintendent Lunatic Asylum, Madras, and acting Principal Medical Storekeeper, is appointed Principal Medical Storekeeper, Madras, dated July 1st; he is also granted privilege leave for sixty days, from August 1st, Surgeon-Captain D. Simpson performing the duties of the appointment on Surgeon-Lieutenant-Colonel Dobie's responsibility.

Surgeon-Captain H. GREANY, M.D., Madras Establishment, has returned from furlough out of India.

Surgeon-Majors W. A. CORKERY and J. M'CLOGHRY, Bombay Establishment, are permitted to return to duty.

Brigade-Surgeon-Lieutenant-Colonel J. C. G. CARMICHAEL, M.D., Bengal Establishment, is granted the temporary rank of Surgeon-Colonel, from July 25th, while officiating as Principal Medical Officer of Bundecund and Nerbudda Districts.

Surgeon-Lieutenant E. N. HUGO, appointed to the Bengal Establishment, reported his arrival at Kurrachee on January 12th.

Surgeon-Lieutenant P. ST. C. MORE, appointed to the Bengal Establishment, reported his arrival at Bombay on April 22nd.

Surgeon-Major F. R. SWAINE, M.B., Bengal Establishment, is appointed Surgeon-Lieutenant, Chota Nagpore Mounted Rifles.

Surgeon-Lieutenant-Colonel W. F. MURRAY, M.B., Bengal Establishment, Honorary Surgeon Chittagong Volunteer Rifles, has resigned his appointment.

Surgeon-Major W. H. THORNHILL, M.D., Madras Establishment, Additional Medical Officer, Ootacamund, is appointed Superintendent of the Lunatic Asylum at Madras.

The services of Surgeon-Captains G. H. BAKER and A. E. ROBERTS, M.B., Bengal Establishment, are placed permanently at the disposal of the Government of the North-West Provinces and Oude.

Brigade-Surgeon-Lieutenant-Colonel T. FFRENCH-MULLEN, Bengal Establishment, received charge of the duties of Political Agent at Bikanir on July 24th.

Surgeon-Major S. T. AVETOOM, Bombay Establishment, and Surgeon-Lieutenant B. G. SETON, Bengal Establishment, have passed the lower standard examination in Pushtu.

Surgeon-Captain J. B. GIBBONS, Bengal Establishment, Resident Physician, Medical College Hospital, and Professor of Pathology, Medical College, Calcutta, is appointed to act as Superintendent of Campbell Medical School and Hospital, Sealdah, during the absence of Brigade-Surgeon-Lieutenant-Colonel S. Coull Mackenzie.

The undermentioned gentlemen have been granted leave of absence as specified: Surgeon-Major D. FFRENCH-MULLEN, M.D., Bengal Establishment, Civil Surgeon of Ajmere, and in medical charge of the Merwara Battalion, privilege leave for three months, from August 26th; Surgeon-Colonel E. O. TANDY, Bengal Establishment, Principal Medical Officer, Bundelcund and Nerbudda Districts, for six months, from April 6th, on medical certificate; Brigade-Surgeon-Lieutenant-Colonel S. COULL MACKENZIE, Bengal Establishment, Superintendent of the Campbell Medical School and Hospital at Sealdah, for one year, on medical certificate; Surgeon-Lieutenant-Colonel R. C. SANDERS, Bengal Establishment, Ophthalmic Surgeon, Medical College Hospital, and Professor of Ophthalmic Surgery, Medical College, Calcutta, privilege leave for two months and two days, from August 13th; Surgeon-Major G. W. P. DENNIS, Bengal Establishment, Civil Surgeon of Delhi, privilege leave for two months and twenty-nine days, from July 20th; Surgeon-Major D. F. DYMOTT, Madras Establishment, privilege leave for three months, from September 1st; Surgeon-Major T. J. H. WILKINS, Madras Establishment, privilege leave for three months, from September 20th; Surgeon-Major R. H. CAMA, Madras Establishment, for six months, on medical certificate.

ARMY MEDICAL RESERVE.

SURGEON-CAPTAIN GEORGE R. GILRUTH is promoted to be Surgeon-Major September 6th.

THE VOLUNTEERS.

SURGEON-CAPTAIN W. S. LIMRICK, 4th Volunteer Battalion the King's Liverpool Regiment (formerly the 15th Lancashire Rifles) is promoted to be Surgeon-Major, September 2nd.

Mr. JOHN HIGHET, M.D., is appointed Surgeon-Lieutenant to the 2nd Volunteer Battalion the Royal Scots Fusiliers (formerly the 2nd Ayrshire Rifles, September 2nd.

NON-COMBATANTS AS GENERAL STAFF AND EXECUTIVE OFFICERS.

A COMMUNICATION under the above title lately appeared in the *Times*, bearing almost the impress of semi-official inspiration, and having a literary style not unfamiliar. It doubtless represents views widely, and we will say not altogether unjustly, prevalent in the army; it is clearly from the pen of one who knows, and who unmistakably claims to belong to, the so-called "fighting caste"; but it is all the same deserving of serious attention.

The arguments turn on the definition of the term Staff, as applied in our army, and we fear his elucidation is not altogether satisfactory. The term literally means support or prop, and as such is well applied to officers who are the executive eyes and ears of general officers commanding. But in our army it has also long been applied to departmental and other officers, non-regimental and unattached. Such was its origin in application to medical officers. The general staff of specially-trained and selected officers has been well termed the "brains of an army." It is not for us to say whether officers of the Army Service Corps, against whom the writer's arguments are specially directed, are fitted for the functions of the combatant staff; but as the medical service gets dragged in, we protest that medical officers have never laid claim to eligibility for the general staff, any more than to general command. They draw a clear, and we maintain easily supported, distinction between definite military title and status and staff or general command; there is no necessary connection between them. The writer asserts: "There is no absolute guarantee that non-combatant officers will not assume executive command in the field." There is, as far as medical officers are concerned, a definite regulation forbidding it, which they have no desire to alter. Let a similar rule apply to the Service Corps, of which he is so fearful, and his apprehensions may vanish. There is much in the arguments of the writer deserving serious and immediate consideration, but nothing, we maintain, directly bearing on the medical service which is dragged in, or on the broad and separate question of military rank and titles to so-called non-combatants.

THE CASUAL NEWSPAPER REPORTER.

SURGEON-LIEUTENANT writes: In the newspaper report of a late inspection of a volunteer corps the medical officer is not enumerated among the officers present, but grouped with the bandmaster and sergeant of cyclists.

*** The vagaries of a probably casual newspaper reporter are scarcely worthy of notice. The writer probably knew no better.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,601 births and 4,075 deaths were registered during the week ending Saturday, September 2nd. The annual rate of mortality in these towns, which had been 22.8 and 21.6 per 1,000 in the preceding two weeks, further declined to 20.6 during the week under notice. The rates in the several towns ranged from 15.5 in Norwich, 15.9 in Portsmouth, 16.7 in Swansea, and 16.8 in Plymouth, to 24.6 in Leeds, 26.0 in Preston and in Sunderland, 26.6 in Liverpool, 27.2 in Wolverhampton, and 31.5 in Hull. In the thirty-two provincial towns the mean death-rate was 21.8 per 1,000, and exceeded by 2.8 the rate recorded in London, which was 19.0 per 1,000. The 4,075 deaths registered during the week under notice in the thirty-three towns included 1,006 which were referred to the principal zymotic diseases, against 1,066 and 1,026 in the preceding two weeks; of these, 677 resulted from diarrhœa, 73 from diphtheria, 73 from whooping-cough, 63 from measles, 62 from "fever" (principally enteric), 48 from scarlet fever, and 10 from small-pox. These 1,006 deaths were equal to an annual rate of 5.1 per 1,000; in London the zymotic death-rate was equal to 4.2 per 1,000, while it averaged 5.7 in the thirty-two provincial towns, among which these diseases caused the lowest death-rates in Bolton, Bristol, Swansea, and Plymouth, and the highest rates in Gateshead, Wolverhampton, Blackburn, Sunderland, and Hull. Measles caused the highest proportional fatality in Huddersfield, Sheffield, and Blackburn; whooping-cough in Brighton; "fever" in Croydon, Hull, Preston, and Sunderland; and diarrhœa in Salford, Bradford, Burnley, Wolverhampton, Gateshead, Sunderland, Blackburn, and Hull. The mortality from scarlet fever showed no marked excess in any of the large towns. The 73 deaths from diphtheria recorded during the week under notice in the thirty-three towns included 56 in London, 4 in West Ham, and 3 in Manchester. Four fatal cases of small-pox were recorded in Bradford, 3 in West Ham, 2 in Bradford, and 1 in Birmingham; 144 small-pox patients were under treatment in the Metropolitan Asylums Hospitals and in the Highgate Small-pox Hospital on Saturday last, against 221, 209, and 183 at the end of the preceding three weeks. Eight new cases were admitted during the week, against 26 and 21 in the preceding two weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital was 2,884 at the end of the week, against 2,875, 2,891, and 2,894 on the preceding three Saturdays; 303 new cases were admitted during the week, against 365 and 341 in the preceding two weeks. The 138 deaths from diseases of the respiratory organs in London were 22 below the average, and were equal to an annual rate of 1.7 per 1,000.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday, September 2nd, 904 births and 584 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality, which had been 18.5 and 20.3 per 1,000 in the preceding two weeks, further increased to 20.7 during the week under notice, and very slightly exceeded the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the lowest death-rates were 15.8 in in Greenock and 17.6 in Leith, and the highest rates 22.5 in Dundee and 25.7 in Perth. The 584 deaths in these towns included 116 which were referred to the principal zymotic diseases, equal to an annual rate of 4.2 per 1,000, which was 0.9 below the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Dundee, Leith, and Perth. The 280 deaths in Glasgow included 30 from diarrhœa, 8 from whooping-cough, 5 from diphtheria, and 4 from scarlet fever. Two fatal cases of diphtheria were recorded in Aberdeen. The death-rate from diseases of the respiratory organs in these towns was equal to 2.6 per 1,000, against 1.7 in London.

HEALTH OF IRISH TOWNS.

IN sixteen of the principal town-districts of Ireland the deaths registered during the week ending Saturday, August 26th, were equal to an annual rate of 22.2 per 1,000. The lowest rates were recorded in Wexford and Dundalk, and the highest in Waterford and Galway. The death-rate

from the principal zymotic diseases averaged 5.1 per 1,000. The 146 deaths registered in Dublin were equal to an annual rate of 21.8 per 1,000 (against 26.1 and 26.7 in the preceding two weeks), the rate during the same period being 20.8 in London and 18.9 in Edinburgh. The 146 deaths in Dublin included 30 which were referred to the principal zymotic diseases (equal to an annual rate of 4.5 per 1,000), of which 23 resulted from diarrhœa, 3 from whooping-cough, 3 from enteric fever, and 1 from diphtheria.

PUERPERAL FEVER IN THE GARW VALLEY.

We have referred in former issues to the great outbreak of puerperal fever in the Agmore and Garw Valleys, South Wales, thirty-four deaths having occurred within the first two months of the present year. When we last commented on the subject, the events were under investigation by the county medical officer. His report has now been drafted. It ends with the following suggestions:

1. That each midwife, after attending a case of puerperal fever, be not allowed to attend another case for two months, and that instructions be given them as to how to disinfect themselves and clothing. 2. That the bedding and clothing of each puerperal patient be destroyed by burning, and that the bedrooms be properly disinfected by competent persons. 3. That until the midwives are better instructed, trained, and registered, the disease must go on in such a district as this. The origin of the disease is still obscure, and the local medical practitioners hesitate to express the opinion that the midwives were the means of spreading it, yet the precautionary measures now adopted are very properly based upon the supposition that such might have been the case. I am of the opinion that the midwives, infected bedding, and articles of clothing, aided by insanitary surroundings, were the vehicles by means of which which the disease was spread.

The advice contained in the above will, we think, commend itself to the profession as the best that, in the circumstances, could be given. The only point on which some high authorities would differ from the author of the report is as to the necessity of the two months' absence from practice which the report puts in the first place. They would say that the infective qualities of dirty clothes and instruments, and the possibilities of infection arising from dirty habits are not removed or lessened by two months' enforced idleness, while if strict cleanliness is maintained, and disinfection properly done, prolonged abstention from practice is unnecessary. But very many, whose opinions are entitled to great respect, think that abstinence from practice for a time gives increased safety; and while this is so we cannot quarrel with the medical officer for recommending it.

PRIVATE SLAUGHTERHOUSES AND TUBERCULOUS MEAT.

A special meeting of the Public Health Committee of the Dublin Corporation, held on August 29th, had under consideration a report by the medical superintendent officer (Sir C. A. Cameron) relating to the prevalence of tuberculosis in cattle, and recommending the closing of private slaughterhouses in the city. The report stated that quite recently several carcasses of cows in a very advanced stage of tuberculosis had been seized and condemned. The disease, it was pointed out, is communicable, and well known in man as phthisis. It was beyond doubt that the flesh and milk of tuberculous cows were capable of conveying this disease to man, while there was not a large urban centre in the three kingdoms in which phthisis was more fatal than it was in Dublin. It was therefore most important to prohibit the use of the flesh and milk of tuberculous animals as human food. It was much easier to recognise a tuberculous carcass than tuberculous milk, and therefore much easier to prevent the sale of it, but the carcass when cut up and distributed in small joints was not easily recognised as tuberculous.

Inspection to be effectual must be on the premises where the slaughtering is done, and not in the butchers' shops. Nearly all the cases of tuberculosis which had been met with recently had been detected at the Corporation abattoir. When tuberculous cattle were killed elsewhere in the city there was reason to believe they often escaped detection. Two good reasons were given why private slaughterhouses should be abolished. First, the animals slaughtered therein cannot be properly inspected; and, secondly, the slaughtering and dressing cannot ordinarily be conducted in a cleanly, wholesome way and without nuisance. The Committee resolved to report to the Council in favour of abolishing private slaughterhouses, in accordance with the terms of the Dublin Corporation Act, 1890, those which were most offensive and objectionable to be dealt with first.

This is a sanitary reform, a step in advance of anything attempted, or at least effected, on this side of the Irish Channel. Many local authorities will wish they had private Acts containing powers similar to those about to be enforced in Dublin. The great obstacle in the way of efficient meat inspection, hitherto, has been the private slaughterhouse. Once established by licence or long use, there are few things more difficult to to get rid of than a slaughterhouse. That any sanitary authority has power to get rid of a whole cityfull of slaughterhouses by simple resolution seems scarcely credible. We shall watch the results of the action of Sir Charles Cameron and his Committee with interest, and wish them all success. One thing is certain; the sale of tuberculous meat will never be effectually checked as long as private slaughterhouses continue as they are.

ATTENDANCE ON SMALL-POX CASES.

Enquirens.—The district medical officer may be called upon to attend any pauper cases of small-pox within his district, whether in hospital or not; but the usual and proper course is for the authorities to make special arrangements for medical attendance upon hospital cases.

S. F. W.—A letter addressed to the Secretary of the Local Government Board, Whitehall, London, S.W., would probably lead to a communication (enclosing a copy of the original letter) being sent to the local authority. Assuming the case to be a strong one, the Board might be induced to put some pressure upon the guardians, but their power of actual compulsion in such matters is unfortunately very limited.

THE LETTER OF THE LAW.

M. O. H. asks if his duty with regard to certain insanitary dwellings is ended when he has reported them as such to the sanitary authority and the authority take no action.

*** He has fulfilled his statutory duty in the matter, but the facts ought to be set forth in his next annual report.

THE NOTIFICATION ACT.

Inquirens propounds the following case for comment. A. is called in to visit a patient of B.'s on a Sunday, as they fear B. will not come until Monday. A. finds it is a case for notification. Is it A.'s duty to notify or not?

*** The Act prescribes that "Every medical practitioner attending on or called in to visit the patient shall forthwith, on becoming aware that the patient is suffering from an infectious disease to which this section applies, send to the medical officer of health of the district a certificate," etc. It would appear, therefore, to be A.'s duty to notify the case.

MEDICO-LEGAL AND MEDICO-ETHICAL.

PROSECUTION OF INDIAN OCULISTS.

At Richmond, on Monday, September 4th, Khair Bedeen, of Morley, and Shahab Bedeen, of Bradford, oculists, were separately charged with conspiring with others to obtain money by false pretences, and also with unlawfully and maliciously wounding Jones Russell, of Richmond, on August 23rd, 1892, and on previous and subsequent dates. Kream Bocesh is at present under remand on similar charges. The prisoners were undefended, and gave their evidence through an interpreter. The case was presented for the prosecution by Mr. Broughall Woods, who appeared on behalf of the London and Counties Medical Protection Association. Mr. Woods, according to the report in the *Times*, from which we quote, stated that the *modus operandi* of the prisoners was that when persons consulted them about their eyes the patients were told by one or other of the prisoners, after a few visits, that they could be cured. Russell was informed that he had an excrescence on the surface of his eye, and also that there was a disease of the head which must first be killed or cured. In general the "excrescence" was relied upon, and a piece of skin about the size of a threepenny piece was cut from the surface of the eye, then stretched on a piece of silk and handed round the room in the presence of the patient's friends and others, who were next asked to sign a testimonial to the effect that the operation had been successfully performed. In regard to Russell, Shahab Bedeen held his eye open while Kream Bocesh cut a piece of conjunctiva from it.

Counsel exhibited a small hook resembling an ordinary-sized button-hook, blackish in colour, and added that the hook was in a filthy condition and liable to set up inflammation. Russell was, in fact, hopelessly blind from optic atrophy, and this treatment was a piece of barbarity which could have no good effect. There were a number of instances of the operations performed by the men, whose oculistic work seemed to have extended, not only over London and the suburbs, but over a great part of the country. Some dozen or twenty of the men associated with Kream Bocesh, who all went under that name as the name of the firm, met at Verandah House, Richmond, and had a heated discussion. This discussion took place on a date subsequent to the coroner's inquiry as to the death of a child in East London, whose eye they had operated on. The case for the prosecution was that these alleged oculists were utterly ignorant, unscientific men, who obtained money from ignorant and poor people.

On the conclusion of the evidence the prisoners were remanded.

On the resumption of the case on September 6th, Mr. Woods said he proposed to put in evidence to show that Bocesh was not on the *Medical Register*. Mr. Jarvis objected to the *Medical Register* being put in, and contended that the question whether Bocesh was a duly-qualified doctor was irrelevant, seeing that the prosecution was not instituted under the Medical Act. Mr. Woods submitted that it was of the most vital importance that he should show that the prisoners were not legally-qualified medical men, because his not doing so would raise the presumption that the prisoners knew what they were about, and would suggest the possibility of what he had described as barbarous treatment being skilled treatment by properly-qualified doctors. Mr. Cave said he would take the *Register* for what it was worth. Mr. Woods handed the volume to the chairman, and pointed out that the name of Bocesh did not appear therein.

Frederick Turner, stonemason, 3, Redknap's Cottages, Sion Road, Twickenham, said his son was nearly 4 years old. He saw Bedeen and Bocesh at Merton Road, Wandsworth, on June 10th, and they examined his eyes with a handglass. Bedeen took some small cones, and after dipping his finger in water rubbed one of them on a slate, producing a pasty substance, some of which he put on the child's eyes with a thin-pointed yellow rod resembling a needle. A second application was made later in the day. On the next day the boy was again taken, a guinea was paid, and Bedeen put some more of the stuff upon the child's eyes. The visits, at 10s. per visit, continued each week, except three weeks, when the parents had no money. One or other of the prisoners gave at different times snuff and pills and little cones for making paste to put into the child's eyes, also some powdered stuff. Subsequently witness saw Kream Bocesh at Verandah House, the Green, Richmond. Bocesh dipped a piece of wadding in some stuff and applied it to the right eye, in order, as he said, to deaden the pain. It made the child cry very much, and he asked to go home. After a few minutes' interval Bocesh took the wadding off, and then took an ordinary sewing needle threaded with white cotton. He commenced at the corner of the eye next the nose, and pushed the needle through the skin of the eye. Finding it a bit hard, Bocesh placed his finger at the other side of the eye to keep from pushing it round. He drew the needle through the skin and about half of the cotton. The boy laid his head on witness's arm for three or four minutes. Bocesh

was smoking a pipe in the interval, and remarked to the boy that it would be all right presently. Bocesh then went to the boy, took hold of the cotton, and, retaining it in his hand, began to saw the skin off with his penknife. He at length got off a piece about a quarter of an inch in diameter. The skin cut off was jagged and was about the thickness of a threepenny piece. The sawing occupied a few seconds as the knife cut badly. Two pounds was paid by witness on the day of the operation. Altogether he had paid from £14 to £16, and produced a recept signed by a Hero Shan.

Cross-examined.—His boy was suffering from inflammation, not cataract.

Mr. Woods asked the Bench to grant a remand for a week. He opposed the granting of bail as he said that were any of the prisoners released they would not be seen again.

Bail was granted in two sureties of £100 each and each prisoner in £200. Prisoners, however, stated that they could not find the amounts.

During the hearing of the case another Asiatic in court was arrested on evidence given by a person named Parsons, residing at Hammersmith. The accused were remanded for a week.

UNQUALIFIED PRACTICE.

DR. G. DANFORD THOMAS held an inquest on September 5th, at Islington Coroner's Court, on the body of James D. Barr, aged 4 years, the son of a labourer. The evidence of Ellen Allen, a laundress, of 1, Surr Street, Barnsbury, grandmother of the child, showed, according to the report in the *Standard*, that three weeks ago, when it became seriously ill, she went to the dispensary, 106, Roman Road, Barnsbury, which had been carried on, and was still ostensibly conducted, by Dr. J. W. Smyth, a duly qualified medical man, residing at Colebrook Row, City Road, whose name was retained on the facia of the shop. Dr. Smyth, eighteen months previously, had attended one of her own children. He had then an assistant whom witness knew as Mr. Bowd, and she took him to be a duly qualified man. Mr. Bowd attended her grandchild until its death on September 1st, and when witness asked that Dr. Smyth might see the child she was told he was out of town. After death Mr. Bowd wrote the certificate produced, which gave as the primary cause of death "cerebral meningitis," and as the secondary cause "convulsions," and was signed "J. W. Smyth, L.R.C.P., M.R.C.S., 106, Roman Road, N." Witness's son took the certificate on Friday night to Mr. W. H. Messer, registar of the Islington South-West Subdistrict—Mr. Messer said, being suspicious, he went to 106, Roman Road, N., and saw a gentleman there. Witness told him his position, and asked if his name was Dr. Smyth. The gentleman replied "No." Then witness asked him if he had signed the certificate produced, and he replied in the affirmative. Asked upon what grounds he did this he made no answer, but at witness's request signed his name "J. W. Bowd" at the back of the certificate. Witness informed him that he should report the circumstances to the coroner.—Answering the Coroner, Mr. Connell, the coroner's officer, said when he visited 106, Roman Road, to serve Mr. Bowd with a summons to attend that inquiry, he saw Mrs. Bowd, who said her husband had gone to the North of England, but she was ignorant of his precise whereabouts.—Dr. J. W. Smyth, 13, Colebrook Row, being shown the certificate, stated that it was not in his handwriting, but was a very good imitation of his writing. It was in the handwriting of his brother-in-law, John William Bowd, who was an unqualified man. Witness had the dispensary at one time, and employed Mr. Bowd as his assistant; but after twelve months he gave up the dispensary, but Bowd said "he should remain there till he became qualified, in spite of everyone." Witness cautioned him against continuing to practice there, and never gave him any authority to make use of his name. His name was afterwards retained, against his will, on the facia of the shop, and he was legally advised that he could only get it removed by entering an injunction against Bowd, a process the expense of which he was unwilling to incur. Witness had warned and threatened Bowd repeatedly.—The Coroner: I think notwithstanding your relationship you should, as a matter of duty, have proceeded against your brother-in-law.—Dr. F. H. Stokes, of Highbury Crescent, who had made a necropsy, stated that the death of the child was due to exhaustion, following general tuberculosis.—The jury found accordingly, and added: The jury having heard in evidence that the deceased was attended by an unqualified person named John William Bowd, and that such person forged the death certificate by signing it in the name of John William Smyth, a qualified medical practitioner, desire to represent the same to the Registrar-General, with a view to immediate prosecution, and the jury further regret that Dr. Smyth did not take legal steps to repudiate the connection which the said Bowd claimed as his assistant.

THE CORONER'S DISCRETION AS TO INQUESTS.

HADJI STAVROS.—Case A. (*a*) Whether the inquest was necessary or not is a matter for the coroner's discretion. The facts of the case do not seem to make it a strong one on which to call his action in question. (*b*) The registrar is quite right to refer any doubtful certificate to the coroner, on whom the responsibility lies. (*c*) It is only usual for the coroner to pay one fee; if he give more, he runs the risk of having it disallowed, in which case he would have to pay it out of his own pocket. (*d*) If the coroner has acted wrongly the way to get redress is to write to the Home Secretary. Case B. The question is one for the coroner's discretion. Probably recent agitation about the registration of stillborn children has quickened his zeal.

MONTHLY NURSES AND THEIR FEES.

MEMBER would be glad to know how to advise his patient, X., to act under the following circumstances. X. engages a nurse to attend her in her confinement, which she expected August 21st. She distinctly informed the nurse she would not engage her if she had any other engagements near. She assured her she had none. In August X. is confined 14th inst., telegraphs to nurse, who wires back, "Cannot come until 18th inst.; am engaged with another case." X. engages another nurse as a matter of course. First nurse demands her fee in full. Has she a legal claim?

*** From the statement of our correspondent it would appear that the engagement by X. of the nurse in question was conditional upon the latter having no other engagement for the month of August; or, at any rate, upon her being ready to go to X. at any time during that month that she might be required, and that she made default. If these facts can be proved we do not think that X. can be made to pay. There may, however, in the absence of any written agreement, be some difficulty on the question of proof; in fact, it is most probable that there may be some dispute as to the precise terms of the engagement, and we should recommend X. to compromise the claim, if it could be effected by payment of some small sum. If the default of the nurse is not proved, X. would probably be held liable for the amount of the agreed payment in full, exclusive of board.

CLUBS AND THEIR MEDICAL OFFICERS.

QUERY writes: A. has several clubs, some of the members of which are dissatisfied, and the clubs propose to amalgamate and advertise for a fresh medical officer, who would receive the same price per member as now. There would be no restriction as to private practice. B., though a non-resident, is well known in the town, where his father formerly practised for several years. B. has always been on friendly terms with A. B. has been asked if he would take the clubs if offered to him. It should be added that there are two other practitioners in the town in addition to A., Neither of whom the clubs desire to have. B. has in no way touted for the clubs. What should his line of conduct be?

*** Accepting in good faith our correspondent's assurance that "B. has in no way touted for the clubs" referred to and that he is, in fact, solicitous for our opinion as to what his line of conduct should be under the circumstances related, we would suggest that the proposed amalgamation of the several clubs should first be effected and that beforehand due notice be given to A. by the members and also of their intention to advertise for a medical officer to the conjoined societies. Subsequently, if B. be solicited by the united clubs to accept the appointment that he (B.) should, prior to such acceptance, call upon A. and fully explain the position in which he is placed. Further, in view of the fact that he is on terms of friendship with A. he should be more or less guided in his ultimate decision by A.'s feeling and bearing in the matter; for it would, in our opinion, be far better to decline the overture of the clubs than sacrifice the friendship of a brother practitioner and at the same time not improbably entail upon himself the life-long enmity of the ousted medical officer. B,, moreover, should be alike explicit with the club executive in reference to his contemplated interview with A.

OBLIQUE ADVERTISEMENT.

OBSERVER.—Inasmuch as it is, we believe, legally essential that the dissolution of a partnership should be published in the local paper, we attach less importance to Dr. E. J.'s and Dr. B.'s public announcement than to T. W.'s, especially in view of the fact that for well-understood reasons it is of more or less moment that the revocation of a partnership arrangement heretofore existing between them should be made known; at the same time it would have been more in accordance with medico-ethical traditions and rule if an autograph or other note to that effect had been transmitted to the patients of the late firm.

The case, however, of T. W.'s published testimony in favour of a commercial article is widely different, for not only has he assumed a title to which, apparently, he has no legal claim, but has also ignored the honourable tradition of the faculty in relation to directly or indirectly, soliciting practice by advertisement, for such does the publication of his certificate to the Willesden Park Dairies Company *de facto* amount to, and he thereby justly subjects himself to professional reprehensive criticism.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Thursday, August 31st.

Bethlem and St. Luke's Hospitals.—Mr. H. FOWLER, in reply to Mr. A. C. MORTON, said he was informed that Bethlem Hospital was the property of the Corporation of the City of London by grant from King Henry VIII in the year 1547. The governing body of the hospital were a committee elected from and by the governors; and the governors were the aldermen of the City of London, twelve Common Councilmen elected by the Court of Common Council of the City, and certain donation governors who had each given £50. The income of the hospital in 1892 was £33,389, of which £24,606 was derived from rents, dividends, and interest, £7,767 from patients and boarders, £179 from donations, and £817 from other sources. St. Luke's Hospital originated in the benevolent designs of a few private persons in 1751. The governing body were a committee elected by the subscribers to that hospital of 30 guineas and upwards. The income of the hospital in 1892 was £14,697, of which £4,582 was derived from rents, dividends, and interest, £8,746 from patients, £73 from donations, £1,079 from legacies, £157 from annual subscriptions, and £60 from other receipts. These hospitals formed part of the general provision for the insane of the United Kingdom as public institutions and patients not of the pauper class. The Commissioners in Lunacy stated that they thought that both hospitals deserved praise for their work, and were, under their present management, very useful institutions.

Cholera at Mecca.—Sir H. ROSCOE asked whether information had been received by Her Majesty's Government that, in spite of the outbreak of cholera at Mecca, many pilgrims, who were British subjects, had been compulsorily detained at that city by the illegal action of the governor when desirous of proceeding at once to the coast to embark.—Sir E. GREY, in reply, said information to this effect had been received, and urgent representations immediately made at Constantinople by Her Majesty's *Charge d'Affaires*. Instructions had been then sent by the

Sultan to the governor of Mecca not to interfere with the departure of the pilgrims. It appeared, however, that such interference did take place to an extent which was said to have caused great injury to the pilgrims and considerable loss to certain British shipowners. Her Majesty's Government were now investigating the circumstances in view of the possibility of being able to advance claims for damage inflicted, and in order to prevent the repetition of any such injustice on a future occasion.

Friday, September 1st.

The Importation of Rags from Cholera Districts.—Mr. MACDONA asked the President of the Local Government Board whether he was aware that there were now lying on the wharves at London Bridge over 300 tons of rags imported from cholera-stricken places in Europe, which the rag merchants of London refused to touch or take from a fear of introducing cholera into our midst; whether, if this were so, the Local Government Board would immediately issue an order to have these bales of rags shipped back to the ports whence they came, or have them at once destroyed by burning; and whether, in consideration of the fact of the Asiatic cholera having already been imported into Grimsby, the Local Government Board would forthwith rescind the order of August 9th, and prohibit the further introduction of rags.—Mr. H. FOWLER, in reply, said that all possible inquiries had been made by the Local Government Board as to the rags which the hon. member stated were lying at London Bridge, but no trace of them at all could be found. The hon. member had no doubt put down his question with the assurance that the statements made in it were correct, and therefore if the hon. member would give him privately the information as to where these rags were to be found, the Board would order a full investigation. As to the latter part of the question, he must act on the advice of the competent medical advisers of the Local Government Board, in whom he had perfect confidence; and he also had the advantage of the advice of the Parliamentary Secretary to the Board (Sir W. Foster). The medical experts concurred, and it was on their advice that the order was issued. The advice had the full approval of the Parliamentary Secretary, and he saw no reason to alter it.

The Army Medical Examiners.—Dr. KENNY asked the Secretary of State for War whether he had considered the memorial recently addressed to him by the Scotch medical licensing bodies on the subject of the recent changes in the method of appointing examiners for the Army Medical Service, which complained of the new arrangements as an unjust monopoly in favour of the English medical corporations, and as a measure of centralisation tending to attract students to the London medical schools, and tending to aggravate the evils of the cramming system; whether the objections urged against the system of the Scotch Colleges were in the main identical with those previously urged against it by the Irish Colleges; and whether he had taken any, and, if so, what steps to alter the new system.—Mr. CAMPBELL-BANNERMAN, in reply, said the memorial, which was in the main identical with that received from the Irish Colleges, had been under his consideration, and he had replied to it that the new system involved no such monopoly as was apprehended, as he had already explained on August 21st, in answer to his hon. friend the member for Stirlingshire.

Monday, Sept. 4th.

Cholera in England.—Mr. HENEAGE asked the President of the Local Government Board whether he would give any definite and reliable information with regard to the number of cases of Asiatic cholera in the Humber ports.—Sir W. FOSTER, in reply, said he was sorry to have to inform the right hon. gentleman and the House that they had received from the Humber ports news of a very unsatisfactory character. Early last week it came to the knowledge of the Local Government Board that a fatal form of diarrhœa had been prevalent at Grimsby. On obtaining the information they immediately sent an inspector to that port, and found that the persons who had already died had been speedily buried. While he was there—in fact, on the day after his arrival—another death occurred which had since, from *post-mortem* examination and subsequent investigation by experts, proved to be a case of Asiatic cholera. There had been a second death on August 31st, and two deaths on September 2nd, in the Grimsby district from Asiatic cholera. As regards the port of Hull, three deaths, at least, from cholera had occurred within the last few days. They had no information from Hull or Grimsby as to the course of the disease on September 3rd, and that was so far favourable as regards the position since September 2nd.—Mr. HENEAGE asked if it was not a fact that the number of cases which had been actually ascertained to be Asiatic cholera was limited to five at Clee and two at Cleethorpes, and that there was not a single case in the town or port of Grimsby.—Sir W. FOSTER, in reply, said the cases were given to him as occurring in those ports to which the right hon. gentleman alluded. The two cases at Cleethorpes occurred one on August 31st and the other on September 1st; but the serious element in the situation lay not so much in the number of cases as in the fact that for some weeks past there had been a fatal form of diarrhœa prevalent in that port.—Mr. HENEAGE asked if all the five cases were not at least a mile from the town or port of Grimsby.—Sir W. FOSTER, in reply, said he did not dispute the accuracy of the topography of the right hon. gentleman. The cases were returned to them by the urban sanitary authority, and therefore he had been obliged to give the facts broadly as occurring in their district. They had every reason to think that during the past week, and possibly previously, the local authorities had done all they could to prevent the spread of the disease.—In answer to a further question by Captain BETHELL as to the character of the cases in Hull, Sir W. FOSTER said he was sorry to say the three in Hull were cases of Asiatic cholera.

Tuesday, September 5th.

Unvaccinated Pupil Teachers.—Mr. HOPGOOD asked the Vice-President of the Council by what authority the department declined to admit young persons as pupil teachers on the ground that they were not vaccinated; whether there was any statute making the above a condition precedent; whether the Education Department could exclude from the schools any child as scholar on the ground that it was not vaccinated: and whether he was aware that by law no one over the age of 14 years could be compelled to be vaccinated.—Mr. ACLAND, in reply, said: There was no statutory authority in this matter; but it was laid down in the code which had been approved by Parliament that candidates for admission must produce a medical certificate in a form prescribed by the department. If this form did not show that the candidate had been successfully vaccinated, it had been the practice of the department for many years, under successive Governments, to refuse admission. He did not think it desirable to alter these arrangements pending the report of the Royal Commission. It was the case that no one over 14 could be compelled to be vaccinated. The Education Department had no power to exclude any child from a school on any ground whatever.

Insanitary Drains at Windsor Barracks.—In reply to Sir WILLIAM HART-DYKE, Mr. CAMPBELL-BANNERMAN said several reports had been received on the drainage of the Cavalry Barracks at Windsor. The first, from the general officer commanding, complaining of the system, was received in December, 1892. Two others had been received from him on July 26th and August 23rd, 1893. Two had been received from the War Office Sanitary Inspector, one dated August 1st and the other August 29th. The system of drainage appeared to be old fashioned and bad in principle, but the health of the troops had not in any way suffered. The sanitary inspector found no direct escape of gas from the drains into the building, but the bad smells were sufficiently accounted for by the proximity of latrines and numerous escapes of lighting gas within the building. He recommended certain alterations and repairs, which were now being effected, and the whole system of drainage at the barracks in question was under consideration.

Wednesday, September 6th.

Vivisection.—In Supply Colonel LOCKWOOD urged that there should be an increase of the number of inspectors under the Vivisection Act. He maintained that inspection was very defective, and some of the laboratories were not visited at all. It was advisable and necessary that from time to time a searching public examination should be made into the working of the Act, in order to guard against its abuse. At present the Act was carried out in a misleading and unsatisfactory manner. He wished to ask the Home Secretary whether in future inspectors under the Act could not be appointed by him in conjunction with the Society for the Prevention of Cruelty to Animals and the Antivivisection Society, whether the character of the experiments made could not be stated in future reports, how many visits were made by the inspectors to each place, and whether it could not be arranged that all the visits of the inspectors should be surprise visits. He also wished to impress on the Home Secretary that it was widely and strongly felt that the carrying out of painful experiments on dumb animals before bodies of students in order to demonstrate for their instruction facts already known was unnecessary cruelty and ought to be discontinued.—Mr. ASQUITH, in reply, said he had only to carry out the existing law. If any hon. gentleman thought that vivisection ought to be abolished he should take steps to get the Act under which it was now carried on repealed. For himself, he might say that no part of his duty had given him more care and solicitude, and to which he paid more attention. In no instance was a licence granted to experiment upon dogs, cats, and the higher class of animals without the case having come before himself personally, and the greatest care was taken that these licences should not be granted except to fully-qualified persons, whose aim and desire for scientific research was undoubted. An additional security was afforded by the fact that none of these experiments were allowed to be conducted in private places; and, for the most part, they took place in the great medical schools and laboratories of pathological institutes. In the whole United Kingdom there were only fifty-nine licensed places, and these were contained in thirty-seven different institutions, so that the inspector had only thirty-seven places to visit. Every one of these places was visited once or more than once in the year; and, although the Act only required inspection of the registered places, he quite agreed that the inspector would not be doing his duty properly were he not to make himself personally acquainted with the manner in which the experiments themselves were conducted. They ought not, however, to look on the class of eminent scientific men who conducted these experiments as if they were criminals, to be caught out at attempted infractions of the law. The large increase in the number of experiments was due to inoculations, but in regard to these it was a rigid condition that if pain supervened afterwards the animal was to be at once killed. The great bulk of the increase was due to experiments on account of the Royal Commission on Tuberculosis.

HOSPITAL AND DISPENSARY MANAGEMENT.

CORK SOUTH INFIRMARY.

THE trustees of this institution have issued a special appeal for funds to carry out certain necessary improvements. The sanitary arrangements, it appears, are of an unsatisfactory character, and, in the interests of the patients, they must be altered without delay. An entirely new system of lavatories will be provided, and the old lavatories will supply a long-felt want—a suitable wardmaid's scullery on each landing of the hospital. These alterations will cost about £1,000, one half of which has been contributed by friends of the institution. A prompt and generous response from the charitable public is confidently expected by the trustees, who have already commenced operations.

INDIA AND THE COLONIES.

INDIA.

Total Abstinence in the Army in India.—From the report of the Army Temperance Association for 1892-93—(the efforts of this Society have recently been highly commended by Lord Roberts)—we learn that in March last the abstainers in our army in India numbered 21,270. As the strength of the British forces in India is estimated at 68,000, there is well on to one-third who are abstinent. The trials by court-martial were, among non-abstainers, 5.04 per cent., and among abstainers, only 0.08 per cent. For minor offences, the entries among abstainers were 1.5 per cent., against 6.7 per cent. among non-abstainers.

MEDICAL NEWS.

Alderman J. B. Richardson, M.D., has been placed on the Commission of the Peace for the Borough of Torquay.

Emin Pasha, whose murder by Arabs in Central Africa has been reported with much circumstance this week, was the son of a merchant named Schnitzler, of Oppeln, in Silesia. He was born in 1840, and was educated for the medical profession at Breslau and Berlin, taking the degree of M.D. in the latter University in 1864. Shortly after taking his degree he settled in Constantinople, and adopted the Turkish name of Emin. He became attached to the household of Ismail Pasha, Governor of Scutari, and after Ismail's death married his widow and became a Mahomedan. In 1876 he became a surgeon in the Egyptian army, and shortly afterwards was sent to Khartoum on the staff of General Gordon. Two years later he was made Governor of the Equatorial Province of Africa. There he maintained himself with fluctuating fortunes until he had to admit himself beaten by the insurgents in 1887. The Stanley Expedition followed, and subsequent events are too well known to need recapitulation. Emin was essentially a naturalist rather than a physician or a statesman, and the fruits of his labours as a collector, especially of entomological specimens, have been valuable.

MEDICAL VACANCIES.

The following vacancies are announced:

BETHLEM HOSPITAL.—Two Resident Clinical Students, doubly qualified. Apartments, rations, and attendance provided. Applications, endorsed "Clinical Assistantship," to the Treasurer, at the Bethlem Hospital, by October 2nd.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road. Registrar, Pathologist, and Anæsthetist. Candidates must undertake to hold office for twelve months. Applications to Richard Kershaw, Secretary, by September 18th.

CENTRAL LONDON THROAT, NOSE, AND EAR HOSPITAL, Gray's Inn Road.—Clinical Assistants. Applications to be made to Richard Kershaw, Secretary.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—House-Physician. Appointment for six months. Board, residence, and allowance for washing provided. Applications to the Secretary at the office, 24, Finsbury Circus, E.C., by September 14th.

KENT COUNTY ASYLUM, Chartham, near Canterbury.—Junior Assistant Medical Officer, unmarried. Salary, £125 per annum, with furnished apartments, board, and attendance. Applications to the Clerk of the Committee of Visitors, Allen Fielding, Solicitor, Canterbury, by September 20th.

PARISH OF ST. LEONARD, Shoreditch.—Provisional appointment of Medical Officer of Health. Salary, £400 per annum. Applications, with not more than three testimonials, marked "Medical Officership," to the Secretary, H. Mansfield Robinson, by September 21st.

ROYAL ALBERT ASYLUM FOR IDIOTS AND IMBECILES OF THE NORTHERN COUNTIES, Lancaster.—Assistant Medical Officer, doubly qualified; unmarried. Salary, £150 per annum, with board and apartments. Applications to the Secretary by September 14th.

ST. MUNGO'S COLLEGE, Glasgow.—Chair of Chemistry. Applications, with thirty copies of testimonials, to the Secretary, H. Lamond, by October 2nd.

ST. PETER'S HOSPITAL FOR STONE AND URINARY DISEASES, Henrietta Street, Covent Garden.—House-Surgeon; must be M.R.C.S. Appointment for six months. Honorarium, 25 guineas, with board, lodging, and washing. Applications to the Secretary by September 11th.

SCARBOROUGH HOSPITAL AND DISPENSARY.—House-Surgeon. Salary, £80 per annum, with board. Applications and testimonials to the Honorary Secretary, at the Hospital, by September 20th.

STAFFORD GENERAL INFIRMARY, Stafford.—Assistant House-Surgeon. Board and residence provided. Applications to the Secretary by September 9th.

STOURBRIDGE DISPENSARY.—House-Surgeon and Secretary, doubly qualified. Salary, £120 per annum, with furnished rooms, coal, and gas, with extra allowance of £25 for travelling expenses. Applications to the Honorary Secretary, T. F. Bland, Norton, Stourbridge, by September 20th.

UNIVERSITY OF ABERDEEN.—Eleven Examiners in Medicine. The Examiners in Medicine and Surgery will receive a grant of £50 each, and the other nine a grant of £40 each. Applications to Robert Walker, Secretary, the University Court, by September 25th.

UNIVERSITY OF DURHAM.—Professor of Comparative Pathology in the University of Durham College of Medicine, Newcastle-on-Tyne. Applications to the trustees of the late Dr. G. Y. Heath, care of Dr. Philipson, 7, Eldon Square, Newcastle-on-Tyne, by September 9th.

WEST LONDON HOSPITAL, Hammersmith Road, W.—House-Physician and House-Surgeon. Appointment for six months. Board and lodging provided. Must be registered under the Medical Act. Applications, with testimonials, must be sent to R. J. Gilbert, Secretary-Superintendent, by September 20th.

WEXFORD UNION, BROADWAY DISPENSARY.—Medical Officer. Salary, £100 per annum, with £15 yearly as Medical Officer of Health and the usual registration and vaccination fees. Applications to Mr. Wm. Pettit, Honorary Secretary, Rathmore, Broadway. Election on September 11th.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—House-Physician, who will be required to act as Chloroformist, Pathologist, and Medical Registrar. Salary, £100 per annum, with board. Testimonials to the Chairman of the Medical Committee, by September 25th.

MEDICAL APPOINTMENTS.

Finley, Harry, M.B.Lond., M.R.C.S., L.R.C.P.Lond., appointed House-Surgeon to the Cumberland Infirmary, Carlisle.

Goodman, Francis George, B.A., M.D.Dub., L.M.R.C.P.I., appointed Medical Officer of the Workhouse of the Glandford Brigg Union.

Grant, F. W., M.D., appointed Police Surgeon to the Standing Joint Committee of the County Council of Elgin, *vice* Dr. Whyte, resigned.

Griffith, William, M.B., Ch.B., appointed House-Surgeon to the London Temperance Hospital.

Hearnden, Mr. C., appointed Medical Officer and Public Vaccinator for the Parish of Headley of the Epsom Union.

Jones, H. J. Rutherford, M.R.C.S., L.R.C.P., L.S.A., appointed Junior House-Surgeon to the Poplar Hospital for Accidents.

Longbotham, George F., M.B., C.M.Edin., appointed House-Surgeon to the North Riding Infirmary, Middlesbrough, *vice* George Victor Miller, M.B., C.M.Edin., resigned.

Lovell, Mr. H. H., appointed Medical Officer for the Third District of the Market Harborough Union.

Mackenzie, Hector William G., M.D., M.R.C.P., M.R.C.S., appointed Assistant Physician to St. Thomas's Hospital.

Proctor, Mr. W. J., appointed Medical Officer and Public Vaccinator for the Great and Little Bookham Parishes of the Epsom Union, *vice* Arthur Stedman, M.R.C.S.Eng., resigned.

Stein, Charles Guthrie, M.B., C.M.Edin., appointed Medical Officer of Health for the Ampthill Urban Sanitary District of the Ampthill Union.

Stephens, James William, L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer of Health for the Cardigan Rural Sanitary District of the Cardigan Union, *vice* W. Davies, deceased.

Stubb, E. C., appointed Demonstrator of Practical Surgery at St. Thomas's Hospital.

Tawse, G. W. H., M.B., C.M.Aberd., appointed House-Surgeon to the Whitehaven Infirmary.

Templeton, George, M.B., C.M.Edin., L.R.C.P.Lond., M.R.C.S.Eng., appointed Junior House-Surgeon to the London Temperance Hospital.

Toller, S. W. G., M.R.C.S., L.R.C.P., appointed Demonstrator of Practical Medicine at St. Thomas's Hospital.

Weatherbe, Louis Johnstone, M.B., C.M.Edin., appointed Medical Officer for the Kimberworth District and Public Vaccinator for the Rotherham and Kimberworth District of the Rotherham Union, *vice* Bernard Walker, M.R.C.S.Eng., L.S.A., resigned.

Welsford, George Frederick, B.A., M.B.Camb., M.R.C.S.Eng., appointed Medical Officer for the Cruwys District of the Tiverton Union.

Williams, R. T., appointed Medical Officer of Health for the Porthcawl Urban Sanitary District of the Bridgend and Cowbridge Union.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTHS.

Batterham.—On August 30th, at St. Leonards-on-Sea, the wife of J. W. Batterham, M.B., F.R.C.S., of a daughter.

Hunt.—On September 5th, at Beaufort Lodge, St. Thomas, Exeter, the wife of H. Rochfort Hunt, M.B., of a son.

Knaggs.—At Couva, Trinidad, B.W.I., on August 5th, the wife of R. H. E. Knaggs, J.P., M.R.C.S., L.S.A., of a daughter.

MARRIAGE.

Bryden—Taylor.—On August 23rd, at St. Peter's, Woolwich, by the Rev. A. Groomes, Richard Joseph Bryden, M.R.C.S.Eng., L.S.A.Lond., of 21, Harmer Street, Gravesend, Kent, eldest son of Richard Bryden, M.R.C.S.Eng., L.S.A.Lond., of 31, Lower Phillimore Place, S.W., and formerly of Beech House, Uffculme, Devon, to Edith Maria, daughter of the late John Taylor, of Hope Villa, Maryon Road, Charlton, Kent.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Hours of Attendance.*—Daily, 2. *Operation Days.*—Tu. S., 2.

CENTRAL LONDON OPHTHALMIC. *Operation Days.*—Daily, 2.

CHARING CROSS. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M., 1.30; Dental, M. W. F., 9; Throat and Ear, F., 9.30 *Operation Days.*—W. Th. F., 3.

CHELSEA HOSPITAL FOR WOMEN. *Hours of Attendance.*—Daily, 1.30 *Operation Days.*—M. Th., 2.

EAST LONDON HOSPITAL FOR CHILDREN. *Operation Day.*—F., 2.

GREAT NORTHERN CENTRAL. *Hours of Attendance.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Ear, Tu. F., 2.30; Diseases of the Skin, W., 2.30; Diseases of the Throat, Th., 2.30; Dental Cases, W., 2. *Operation Day.*—W., 2.

GUY'S. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 1. *Operation Days.*—(Ophthalmic), M. Th., 1.30; Tu. F., 1.30.

HOSPITAL FOR WOMEN, Soho. *Hours of Attendance.*—Daily, 10. *Operation Days.*—M. Th., 2.

KING'S COLLEGE. *Hours of Attendance.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, daily, 1.30; o.p., Tu. W. F. S., 1.30; Eye, M. Th., 1.30; Ophthalmic Department, W., 2; Ear, Th., 2; Skin, F., 1.30; Throat, F., 1.30; Dental, Tu. Th., 9.30. *Operation Days.*—M. F. S., 2.

LONDON. *Hours of Attendance.*—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, S., 9.30; Skin, Th., 9, Dental, Tu., 9. *Operation Days*—M. Tu. W. Th. S., 2.

LONDON TEMPERANCE HOSPITAL. *Hours of Attendance.*—Medical, M. Tu. F. 2; Surgical, M. Th., 2. *Operation Days.*—M. Th., 4.30.

METROPOLITAN. *Hours of Attendance.*—Medical and Surgical, daily, 9; Obstetric, W., 2. *Operation Day.*—F., 9.

MIDDLESEX. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Th., 1.30; o.p., M. F., 9, W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu., 9; Skin, Tu., 4, Th., 9.30; Dental, M. W. F., 9.30. *Operation Days.*—W., 1.30, S., 2; (Obstetrical), Th., 2.

NATIONAL ORTHOPÆDIC. *Hours of Attendance.*—M. Tu. Th. F., 2. *Operation Day.*—W., 10.

NORTH-WEST LONDON. *Hours of Attendance.*—Medical and Surgical, daily, 2; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operation Day.*—Th., 2.30.

ROYAL FREE. *Hours of Attendance.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Dental, Th., 9. *Operation Days.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Hours of Attendance.*—Daily, 9. *Operation Days.*—Daily, 10.

ROYAL ORTHOPÆDIC. *Hours of Attendance.*—Daily, 1. *Operation Day.*—M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Hours of Attendance.*—Daily, 1. *Operation Days.*—Daily.

ST. BARTHOLOMEW'S. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, W. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. *Operation Days.*—M. Tu. W. S., 1.30; (Ophthalmic), Tu. Th., 2.

ST. GEORGE'S. *Hours of Attendance.*—Medical and Surgical, M. Tu. F. S., 12; Obstetric, Th., 2; o.p., Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopædic, W., 2; Dental, Tu. S., 9. *Operation Days.*—Th., 1; (Ophthalmic), F., 1.15.

ST. MARK'S. *Hours of Attendance.*—Fistula and Diseases of the Rectum, males, S., 3; females, W., 9.45. *Operation Days.*—M., 2., Tu. 2.30.

ST. MARY'S. *Hours of Attendance.*—Medical and Surgical, daily, 1.45; o.p., 1.30; Obstetric, Tu. F., 1.45; Eye, Tu. F. S., 9; Ear, M. Th., 3; Orthopædic, W., 10; Throat, Tu. F., 1.30; Skin, M. Th., 9.30; Electro-therapeutics, Tu. F., 2; Dental, W. S., 9.30; Consultations, M., 2.30. *Operation Days.*—Tu., 1.30; (Orthopædic), W., 11; (Ophthalmic), F., 9.

ST. PETER'S. *Hours of Attendance.*—M., 2 and 5, Tu., 2, W., 5, Th., 2, F. (Women and Children), 2, S., 4. *Operation Days.*—W. and F., 2.

ST. THOMAS'S. *Hours of Attendance.*—Medical and Surgical, daily, exc. W. and S., 2; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Tu. F., 1.30; Children, S., 1.30; Dental, Tu. F., 10 *Operation Days.*—W. S., 1.30; (Ophthalmic), M., 2.30, F., 2; (Gynæcological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Hours of Attendance.*—Daily, 1.30. *Operation Day.*—W., 2.30.

THROAT, Golden Square. *Hours of Attendance.*—Daily, 1.30; Tu. and F., 6.30; *Operation Day.*—Th., 2.

UNIVERSITY COLLEGE. *Hours of Attendance.*—Medical and Surgical daily, 1.30; Obstetrics, M. W. F., 1.30; Eye, M. Th., 2; Ear, M. Th., 9; Skin, W., 1.45, S., 9.15; Throat, M. Th., 9; Dental, W., 9.30; *Operation Days.*—W. Th 1.30; S., 2.

WEST LONDON. *Hours of Attendance.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th. S., 2; Ear, Tu., 10; Orthopædic: W., 2; Diseases of Women, W. S., 2; Electric, Tu., 10, F., 4; Skin, F., 2; Throat and Nose, S., 10. *Operation Days.*—Tu. F., 2.30.

WESTMINSTER. *Hours of Attendance.*—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1; Eye, M. Th., 2.30; Ear, M., 9; Skin, W., 1; Dental, W. S., 9.15. *Operation Days.*—Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

MEDICAL MEN AND LITERATURE.

SIGMA will be much obliged if any of our readers can furnish him with names of, or information as to, any medical men who are known for their work in general literature in the present or past.

ANSWERS.

MEDICAL MEN AND "FOUNDERS' SHARES."

J. J. L.—Our correspondent will see that the action to which he refers was a subject of comment in the BRITISH MEDICAL JOURNAL of August 12th, page 383.

MEDICAL PRACTICE IN THE ARGENTINE REPUBLIC.

DR. R. E. BURGES (Chester) writes: I think Dr. Albert Roscnau might have been more careful in his use of the English language when he charges me with "erroneous pretension." I do not see that there was any pretension, erroneous or otherwise, in my giving the information I had obtained from a gentleman resident at Buenos Ayres in the year named in my former note on the above subject.

FORESTERS' COURTS AND THEIR MEDICAL OFFICERS.

FORESTER.—1. It is usual for the medical officers to Foresters' Courts to attend to "cases of surgical injury occurring among their members" without extra charge beyond their usual salaries; this would naturally be expected, as the usual appellation given to the medical officer is "court surgeon," medical officer being quite a novel term; at the same time, it must be added that in surgical cases, where special surgical apparatus is required by the patient, the court surgeon is not expected to supply this at his expense.

2. As to dentistry, this is another question. Originally it was doubtless included under the head of surgical treatment; but, since it has become an independent profession, we do not think that members of Foresters' courts can claim such services from their surgeon, especially where there are regular dentists, unless their surgeon notoriously practises dentistry: in this latter case we think he would be wise to give his court members the benefit of this—that is, as far as simple extraction of teeth is concerned.

3. We have repeatedly expressed our opinion in the columns of this JOURNAL that the Medical Aid Company, Limited, is not a society we could advise a medical practitioner to have any dealings with.

NOTES, LETTERS, Etc.

FRANCO-ENGLISH.

A CORRESPONDENT has sent to the *Times* a copy of the following circular, which he states was issued from the Foreign Office by the late Lord Granville to British representatives abroad about ten years ago:

"Lord Granville desires to call the attention of all members of Her Majesty's Diplomatic and Consular services to the necessity for greater care as regards the use of pure English in official correspondence. The following specimens of bad English, mostly due to mistranslations of French words, have been taken from despatches recently received at the Foreign Office. A despatch was received with the following docket: 'Copy of King's speech, with appreciation thereon!' 'Demission' for dismissal, 'transaction' for compromise, 'franchise of duties' for freedom from duties, 'veridical' for true, 'arrestation' for arrest, 'incessantly' for immediately, 'signalise' for point out, 'prorogation' for prolongation, 'increasement' for increase, 'category' for class, 'expose' for state or explain, 'destitution' for dismissal, 'minimal' for very small, 'rally themselves to' for come round to, 'antecedent solidarity' for previous understanding, 'took act' for took note, 'suscitated' for raised, 'debarred of' for debarred from, 'disrecommended' 'unnotived,' 'spiritiste,' etc."

Taking the Oath with Uplifted Hand.

"London Scottish" writes: I am very glad to find from the frequent letters in the British Medical Journal that taking the oath according to the Scotch custom is becoming common in all parts of England. I hope, however, that the oath is being administered in the same impressive manner that it is in Scotland. It is far more likely to come into general use if this be the case. But let me quote my experience. I had to give evidence at the Brentford County Court some time since. On my requesting to be sworn according to the Scotch custom the judge said, "Oh, all right, go on; the words are the same." I ventured to correct him, but nobody appearing to know what to do, I ended the matter by holding up my hand and saying the proper words alone. The Coroner for West Middlesex administers the oath by making the witness merely hold up his hand, whilst he (the coroner) says the words of the oath. So in the one case the witness does all the talking; in the other he remains mute.

The Hausa Association.

Mr. Charles H. Robinson (The Infirmary, Leicester), writes: I should be extremely grateful if you would allow me to make known through the medium of your paper a want which perhaps some of your readers can enable me to supply. I am proposing shortly to make a journey from the mouth of the River Niger to Tripoli, by way of Lokoja and Kano, and thence across the Great Sahara Desert to the Mediterranean. The journey, about 2,500 miles in all, will probably occupy about eighteen months. Its object is partly that of missionary exploration, and partly to study the Hausa language, which is spoken by 15,000,000 people in the country through which I should pass. I am anxious to find a qualified medical man to accompany me who would be in full sympathy with the missionary character of the proposed journey.

Bite from a Horse on the Pudenda.

Dr. R. Stoney (Bromsgrove) writes: The following case may be of interest to some:—A woman, Mrs. W., brought her daughter, aged 12, to me on August 25th in a very excited, nervous state, walking with difficulty, and complaining of having been bitten by a horse on the genitals. On examination I found a severely contused circumscribed lacerated wound of the right labia majora about 2 inches in diameter. The child stated that she had been bitten through her clothes, and showed me a rent in her apron and dress. The horse was tied by a long rope to a telegraph pole, and, as the child was passing with some others, it charged, biting her as described. Not having heard of a similar injury before, I send you this for publication.

London School of Medicine for Women.

Mrs. Isabel Thorne, Hon. Sec. (Handel Street, W.C.) writes: Will you kindly allow me to make known the fact that at the last meeting of the University Court of St. Andrews a resolution was passed specially appointing the Lecturers of the London School of Medicine for Women "for the instruction of women in Medicine," so that students at this school can now take a complete course of instruction for the M.D. and C.M. degrees of the University of St. Andrews should they desire to do so?

Ascarides Lumbricoides.

Alpha writes: Fleet-Surgeon T. Corrie reports in the British Medical Journal of July 15th a case of ascaris lumbricoides, causing, in his opinion, marked constitutional symptoms. I think another interpretation can be put on the case. The patient was getting better before he got rid of the worm, so the worm was not the cause of the epigastric pain by irritating the stomach all the time. To assert that the worm produced symptoms while in one part of the alimentary canal, but not in another part, and that although present for days or perhaps weeks in the bowels, acted on three particular days, is exactly what we want proof of. Cases of fever are met with where no cause can be discovered, not even worms; and the treatment of the patient by making him "vomit most freely" is an excellent way with some physicians for treating fever, as it is supposed to act as a substitute for washing out the stomach.

The Society for the Relief of Widows and Orphans of Medical Men.

Mr. John Marshall, L.R.C.P.Lond. (Dover) writes: The sad case of the widow and orphan of the late Dr. Fisher should have the effect of inducing every medical practitioner residing in London or within twenty miles of Charing Cross to become a member of the Society for the Relief of Widows and Orphans of Medical Men, a most excellent Society established in 1788. The subscription is only one guinea per annum. If the late Dr. Fisher had been a member of this Society his widow would now have been in receipt of £40 per annum, more or less, according to circumstances, without publicity or the trouble and expense of obtaining votes. Forms of application can be obtained from Mr. J. B. Blackett, Secretary, 20, Hanover Square, W. As an old member, I venture to suggest that the wife of every medical man residing in the district above mentioned should give her husband no peace day or night until he becomes a member of this Society.

Ophthalmic Discs: a Hint.

Mr. T. L. Pennell, F.R.C.S., Medical Missionary (Dera Ismael Khan, North India) writes: In a largely itinerating practice the gelatine eye discs of atropine, cocaine, and many other drugs are invaluable, but one danger has been brought to my notice several times. It is this, that a single brush is supplied with each tube of discs, and I have known users thereby tempted to apply discs to several eyes in succession with it. The great danger arising from this when some of the cases are such as granular or purulent conjunctivitis is evident, and it is impossible to effectually purify the brush between each case in a morning's work, and I know that it is often not done; thus this useful contrivance is in danger of becoming the cause of ill instead of benefit. This may, however, be obviously avoided if the brush be only used to remove the disc from the tube, and placing it on a piece of clean paper or the back of the hand, from which it can readily be transferred to the conjunctival sac by a probe (the tortoiseshell eye spatula is very inconvenient), or even in case of emergency, as may happen when itinerating, by a small folded piece of soft clean paper. My knowing that the risk of transferring disease from one eye to another by means of discs is often run is my reason for calling attention to this.

LETTERS, COMMUNICATIONS, Etc., have been received from:

(A) Dr. G. A. Anderson, Stranraer; Mr. C. E. Abbott, Braintree; Anxious Inquirer; Mr. F. G. Archer, King's Lynn; T. M. Allison, M.B., Newcastle. (B) Mr. A. Bitteridge, London; Mr. R. J. Bryden, Charlton; J. W. Batterham, M.B., St. Leonards; Messrs. Burgoyne, Burbidges, and Co., London; Bengal Cavalry; Mr. D. Butler, Bristol; Mr. R. H. Browne, London. (C) Dr. R. K. Casley, Ipswich; Messrs. Clifford and Co., Birmingham; D. J. Caddy, M.B., London; Dr. W. Campbell, Harray. (D) Dr. W. Donovan, Birmingham; A. C. Dutt, M.B., Whitby. (E) Dr. M. Eustace, Quetta; Mr. C. G. Edmonds London. (F) Mr. F. Farthing, Durham; W. F. Farquharson, M.B., Carlisle; Mr. J. Furley, Folkestone; Mr. L. A. Francis, Uxbridge; H. Finley, M.B., Carlisle. (G) Dr. R. George, Port Isaac; S. Gibbon, M.B., London; Dr. M. Greenwood, London; Dr. W. J. Gow, London; Mr. C. E. Gun-Munro, Newcastle; Dr. W. A. Greenhill, Hastings; Messrs. C. Griffin and Co., London. (H) Mr. E. Heaton, London; Dr. Herman, London; G. E. Helme, M.B., West Bromwich; Mr. G. Huntly, London; Sir G. M. Humphry, Cambridge; Dr. W. H. Hamer, London; H. B.; H. P. Hawkins, M.B., London. (I) Mr. L. G. Irvine, Edinburgh; Dr. C. R. Illingworth, London. (J) Dr. A. E. Jones, Manchester; Mr. J. R. Jones, Penrhyndendraeth; Dr. J. M. Johnston, Leith; Mr. R. Jeffreys, Bromley. (K) Dr. R. Kirk, Partick; Mr. F. Kelly, Maryport; Mr. S. P. Kramer, London; Mr. R. H. E. Knaggs, Trinidad. (L) Mr. D. G. Lawson, Granton; Mr. J. J. Langston, Grantham; Mr. G. Longbotham, Middlesbrough; Dr. J. A. Lindsay, Belfast; Messrs. T. H. Lloyd and Co., Leicester; Mr. J. Lawrence-Hamilton, Brighton. (M) M.D.; Mr. A. McKinlay, Kingston; A. R. McKinnon, M.B., Leamington; Mr. L. W. D. Mair, Croydon; Mr. G. Millson, London; Mr. J. W. Marshall, Dover; M.B.Durh.; A Member; M.D. and M.O.H.; D. McNicol M.B., Glasgow; Mr. S. B. G. McKinney, London. (O) Observer; Mr. J. J. Owen, London; One of the Sufferers. (P) Mrs. H. B. Plummers, London; Mr. G. F. Poynder, Salterton; Mr. G. W. Pauli, Bristol; Mr. H. Pope, Todmorden; Dr. C. B. Plowright, King's Lynn. (R) Royal Surgeon; Dr. H. L. Roberts, Liverpool; Mr. J. E. Rickards, Birmingham; Mr. G. A. Roberts, London. (S) Dr. J. Stevenson, London; Surgeon-Lieutenant; Mr. G. Stevens, Bury St. Edmunds; Mr. H. T. Saunders, Eton; Strophanthus; Sigma; Splint; Mr. C. R. W. Stokes, Tenby. (T) G. W. H. Tawse, M.B., Carlisle; Mr. R. M. Talbot, London; Mr. J. Thorne, London; J. C. Taylor, M.B., Las Palmas; A. H. Tubby, M.B., London; Dr. D. Thomas, Ystalyfera; Miss I. Thorne, London; Mr. E. W. Taylor, London. (U) Mr. W. H. Underhill, London; Dr. A. R. Urquhart, Elie. (V) Dr. C. B. Voisey, Liverpool. (W) Mr. S. Welch, Manningtree; W. B. H.; Dr. F. P. Wightwick, London; Dr. H. Woods, London; Mr. W. R. Williams, Preston; Mr. E. S. Wood, Pontypool; Mr. E. W. Wallis, London; Mr. W. H. Williams, Sherborne; Mr. T. C. Winn, London, etc.

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Non-Toxic Remedies. By Dr. F. von Heyden Nachfolger. London: Burgoyne, Burbidges, and Co. 1893.

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*** In forwarding books the publishers are requested to state the selling prices.

ON THE

ORIGIN OF BIOLOGY AND ITS RELATION TO OTHER BRANCHES OF NATURAL SCIENCE.

Being a part of the Presidential Address delivered before the British Association for the Advancement of Science at Nottingham on September 13th, 1893.

By J. BURDON SANDERSON, M.A., M.D., D.C.L., F.R.S.,
Professor of Physiology in the University of Oxford.

Origin and Meaning of the term "Biology."

The word "biology," which is now so familiar as comprising the sum of the knowledge which has yet been acquired concerning living Nature, was unknown until after the beginning of the present century. The term was first employed by Treviranus, who proposed to himself as a life task the development of a new science, the aim of which should be to study the forms and phenomena of life, its origin and the conditions and laws of its existence, and embodied what was known on these subjects in a book of seven volumes, which he entitled *Biology, or the Philosophy of Living Nature.* He desired to found the new science on the fundamental distinction between living and non-living material. In discussing this distinction, he takes as his point of departure the constancy with which the activities which manifest themselves in the universe are balanced, emphasising the impossibility of excluding from that balance the vital activities of plants and animals. The difference between vital and physical processes he accordingly finds, not in the nature of the processes themselves, but in their co-ordination—that is, in their adaptedness to a given purpose, and to the peculiar and special relation in which the organism stands to the external world. He defined life as consisting in the reaction of the organism to external influences, and contrasts the uniformity of vital reactions with the variety of their exciting causes. This idea suggests the "idea of organism" as that to which all other biological ideas must relate. It also suggests, although perhaps it does not express it, that action is not an attribute of the organism but of its essence—that if, on the one hand, protoplasm is the basis of life, life is the basis of protoplasm; their relations to each other are reciprocal. We think of the visible structure only in connection with the invisible process.

The origin of life—the first transition from non-living to living—is a riddle which lies outside of our scope. No seriously-minded person, however, doubts that organised nature as it now presents itself to us has become what it is by a process of gradual perfecting or advancement, brought about by the elimination of those organisms which failed to obey the fundamental principle of adaptation which Treviranus indicated. Each step, therefore, in this evolution is a reaction to external influences, the motive of which is essentially the same as that by which, from moment to moment, the organism governs itself. And the whole process is a necessary outcome of the fact that those organisms are most prosperous which look best after their own welfare. As in that part of biology which deals with the internal relations of the organism, the interest of the individual is in like manner the sole motive by which every energy is guided. We may take what Treviranus called selfish adaptation—*Zweckmässigkeit für sich selber*—as a connecting link between the two branches of biological study. Out of this relation springs another, which, I need not say, was not recognised until after the Darwinian epoch—that, I mean, which subsists between the two evolutions, that of the race and that of the individual.

Biology naturally falls into three divisions, and these are even more sharply distinguished by their methods than by their subjects, namely: Physiology, of which the methods are entirely experimental; morphology, the science which deals with the forms and structure of plants and animals, and of which it may be said that the body is anatomy, the soul development: and, finally, œcology, which uses all the knowledge it can obtain from the other two, but chiefly rests on the exploration of the endless varied phenomena of animal and plant life as they manifest themselves under natural conditions.

Origin and Scope of Modern Physiology.

Just as there was no true philosophy of living nature until Darwin, we may with almost equal truth say that physiology did not exist as a science before Johannes Müller. Müller taught in Berlin from 1833 to 1857. During that time a gradual change was in progress in the way in which biologists regarded the fundamental problem of life. Müller himself, in common with Treviranus and all the biological teachers of his time, was a vitalist, that is, he regarded what was then called the *vis vitalis*—the *Lebenskraft*—as something capable of being correlated with the physical forces. But during the period of Müller's greatest activity times were changing, and he was changing with them. During his long career as professor at Berlin he became more and more objective in his tendencies, and exercised an influence in the same direction on the men of the next generation, teaching them that it was better and more useful to observe than to philosophise: so that, although he himself is truly regarded as the last of the vitalists—for he was a vitalist to the last—his successors were adherents of what has been very inadequately designated the mechanistic view of the phenomena of life. The change thus brought about just before the middle of this century was a revolution.

From structure to function, from microscopical observation to physiological experiment, the transition was inevitable. Anatomy was able to answer some questions, but asked many more. Fifty years ago physiologists had microscopes but had no laboratories. English physiologists—Bowman, Paget, Sharpey—were at the same time anatomists, and in Berlin Johannes Müller, along with anatomy and physiology, taught comparative anatomy and pathology. But soon that specialisation which, however much we may regret its necessity, is an essential concomitant of progress, became more and more inevitable. The structural conditions on which the processes of life depend had become, if not known, at least accessible to investigation; but very little indeed had been ascertained of the nature of the processes themselves—so little, indeed, that if at this moment we could blot from the records of physiology the whole of the information which had been acquired, say in 1840, the loss would be difficult to trace—not that the previously known facts were of little value, but because every fact of moment has since been subjected to experimental verification. It is for this reason that, without any hesitation, we accord to Müller and to his successors Brücke, Du Bois-Reymond, and Helmholtz, who were his pupils, to Ludwig, in Germany, and to Claude Bernard[1] in France, the title of founders of our science.

What were the conditions which brought about this great advance which coincided with the middle of the century? There is but little difficulty in answering the question. I have already said that the change was not one of doctrine but of method. There was, however, a leading idea in the minds of those who were chiefly concerned in bringing it about. That leading notion was that, however complicated may be the conditions under which vital energies manifest themselves, they can be split into processes which are identical in nature with those of the non-living world, and, as a corollary to this, that the analysing of a vital process into its physical and chemical constituents, so as to bring these constituents into measurable relation with physical or chemical standards, is the only mode of investigating them which can lead to satisfactory results.

The old meaning of the term "adaptation" as the equivalent of "design" had been abandoned, and no new meaning had yet been given to it, and consequently the word "mechanism" came to be employed as the equivalent of "process," as if the constant concomitance or sequence of two events was in itself a sufficient reason for assuming a mechanical relation between them. As in daily life so also in science the misuse of words leads to misconceptions.

In an eloquent Harveian oration, delivered last autumn by Dr. Bridges, it was indicated how, after Harvey's great discovery of the circulation, men were too apt to found upon it explanations of all phenomena whether of health or disease, to such an extent that the practice of medicine was even

prejudicially affected by it. In respect of its scientific importance, the epoch we are considering may well be compared with that of Harvey, and may have been followed by an undue preference of the new as compared with the old, but no more permanent unfavourable results have shown themselves. As regards the science of medicine, we need only remember that it was during the years between 1845 and 1860 that Virchow made those researches by which he brought the processes of disease into immediate relation with the normal processes of cell development and growth, and so, by making pathology a part of physiology, secured its subsequent progress and its influence on practical medicine. Similarly in physiology, the achievements of those years led on without any interruption or drawback to those of the following generation; while in general biology, the revolution in the mode of regarding the internal processes of the animal or plant organism which resulted from these achievements prepared the way for the acceptance of the still greater revolution which the Darwinian epoch brought about in the views entertained by naturalists of the relations of plants and animals to each other and to their surroundings.

The Specific Energies of the Organism.

When in 1826 J. Müller was engaged in investigating the physiology of vision and hearing, he introduced into the discussion a term, "specific energy," the use of which by Helmholtz in his physiological writings has rendered it familiar to all students. Both writers mean by the word "energy" not the "capacity of doing work," but simply activity, using it in its old-fashioned meaning, that of the Greek word from which it is derived. With the qualification "specific" it serves, perhaps, better than any other expression to indicate the way in which adaptation manifests itself. As every living cell or tissue is called upon to act in the interest of the whole, the organism must be capable of influencing every part so as to regulate its action.

In general there is no difficulty in determining both the nature of the central influence exercised and the relation between it and the normal function. It may help to illustrate this relation to refer to the expressive word *Auslösung* by which it has for many years been designated by German writers. This word stands for the performance of function by the "letting off" of "specific energies." Carrying out the notion of "letting off" as expressing the link between action and reaction, we might compare the whole process to the mode of working of a repeating clock (or other similar mechanism), in which case the pressure of the finger on the button would represent the external influence or stimulus, the striking of the clock the normal reaction. And now may I ask you to consider in detail one or two illustrations of physiological reaction—of the letting off of specific energy?

Probably everyone is acquainted with some of the familiar proofs that an object is seen for a much longer period than it is actually exposed to view; that the visual reaction lasts much longer than its cause. More precise observations teach us that this response is regulated according to laws which it has in common with all the higher functions of an organism. If, for example, the cells in the brain of the torpedo are "let off"—that is, awakened by an external stimulus—the electrical discharge, which, as in the case of vision, follows after a certain interval, lasts a certain time, first rapidly increasing to a maximum of intensity, then more slowly diminishing. In like manner, as regards the visual apparatus, we have, in the response to a sudden invasion of the eye by light, a rise and fall of a similar character. In the case of the electrical organ, and in many analogous instances, it is easy to investigate the time relations of the successive phenomena, so as to represent them graphically. Again, it is found that in many physiological reactions the period of rising "energy" (as Helmholtz called it) is followed by a period during which the responding structure is not only inactive, but its capacity for energising is so completely lost that the same exciting cause which a moment before "let off" the characteristic response is now without effect. As regards vision, it has long been believed that these general characteristics of physiological reaction have their counterpart in the visual process, the most striking evidence being that in the contemplation of a lightning flash—or, better, of an instantaneously illuminated white disc[2]—the eye seems to receive a double stroke, indicating that, although the stimulus is single and instantaneous, the response is reduplicated. The most precise of the methods we until lately possessed for investigating the wax and wane of the visual reaction were not only difficult to carry out, but left a large margin of uncertainty. It was therefore particularly satisfactory when M. Charpentier, of Nancy, whose merits as an investigator are perhaps less known than they deserve to be, devised an experiment of extreme simplicity, which enables us, not only to observe, but to measure with great facility, both phases of the reaction. It is difficult to explain even the simplest apparatus without diagrams; you will, however, understand the experiment if you will imagine that you are contemplating a disc, like those ordinarily used for colour mixing; that it is divided by two radial lines which diverge from each other at an angle of 60°; that the sector which these lines enclose is white, the rest black; that the disc revolves slowly, about once in two seconds. You then see, close to the front edge of the advancing sector, a black bar, followed by a second at the same distance from itself, but much fainter. Now the scientific value of the experiment consists in this, that the angular distance of the bar from the black border is in proportion to the frequency of the revolutions—the faster the wider. If, for example, when the disc makes half a revolution in a second the distance is ten degrees, this obviously means that when light bursts into the eye the extinction happens one-eighteenth of a second after the excitation.

In all the instances, excepting the retina, in which the physiological response to stimulus has a definite time limitation, and in so far resembles an explosion—in other words, in all the higher forms of specific energy, it can be shown experimentally that the process is propagated from the part first directly acted on to other contiguous parts of similar endowment. M. Charpentier has now been able, by a method which, although simple, I must not attempt to describe, not only to prove its existence, but to measure its rate of progress over the visual field.

It has been lately assumed by some that vision, like every other specific energy, having been developed progressively, objects were seen by the most elementary forms of eye only in chiaroscuro, that afterwards some colours were distinguished, eventually all. As regards hearing it is so. The organ which, on structural grounds, we consider to represent that of hearing in animals low in the scale of organisation—as, for example, in the Ctenophora—has nothing to do with sound, but confers on its possessor the power of judging of the direction of its own movements in the water in which it swims, and of guiding these movements accordingly. In the lowest vertebrates—as, for example, in the dogfish—although the auditory apparatus is much more complicated in structure, and plainly corresponds with our own, we still find the particular part which is concerned in hearing scarcely traceable. All that is provided for is that sixth sense, which the higher animals also possess, and which enables them to judge of the direction of their own movements. But a stage higher in the vertebrate series we find the special mechanisms by which we ourselves appreciate sounds beginning to appear; not supplanting or taking the place of the imperfect organ, but added to it. As regards hearing, therefore, a new function is acquired without any transformation or fusion of the old into it. We ourselves possess the sixth sense, by which we keep our balance, and which serves as the guide to our bodily movements. It resides in the part of the internal ear which is called the labyrinth. At the same time we enjoy along with it the possession of the cochlea, that more complicated apparatus by which we are able to hear sounds and to discriminate their vibration rates.

As in all sensations of colour the sensation of brightness is mixed, it is obvious that one of the first points to be determined is whether the latter represents a "specific energy" or merely a certain combination of specific energies which are excited by colours. The question is not whether there is such a thing as white light, but whether we possess a separate faculty by which we judge of light and shade when a spectrum projected on a white surface is watched, while the intensity of the light is gradually diminished. As the colours fade away they become indistinguishable as such, the last seen being the primary red and green. Finally, they

also disappear, but a grey band of light still remains, of which the most luminous part is that which before was green. Whether or not the faculty by which we see grey in the dark is one which we possess in common with animals of imperfectly developed vision, there seems little doubt that there are individuals of our own species who, in the fullest sense of the expression, have no eye for colour, in whom all colour sense is absent, persons who inhabit a world of grey, seeing all things as they might have done had they and their ancestors always lived nocturnal lives. In the theory of colour vision, as it is commonly stated, reference is made to such a faculty as we are now discussing.

Professor Hering, who was among the first to subject the vision of the *totally* colour blind to accurate examination, is of opinion, on that and on other grounds, that the sensation of light and shade is a specific faculty. Very recently the same view has been advocated on a wide basis by a distinguished psychologist, Professor Ebbinghaus.[3] The recent elaborate investigations of Captain Abney[4] (with General Festing), representing graphically the results of his measurements of the subjective values of the different parts of the diminished spectrum, as well as those of the fully illuminated spectrum as seen by the totally colour blind, are in the closest accord with the observations of Hering, and have, moreover, been substantially confirmed in both points by the measurements of Dr. König in Helmholtz's laboratory at Berlin.[5]

At present the inference seems to be that such a specific energy as Hering's theory of vision postulates actually exists, and that it has for associates the colour-perceiving activities of the visual apparatus, provided that these are present; but that whenever the intensity of the illumination is below the chromatic threshold—that is, too feeble to awaken these activities—or when, as in the totally colour blind, they are wanting, it manifests itself independently.

Experimental Psychology.

It is by anatomical researches relating to the minute structure and to the development of the brain by observation of the facts of disease and, above all, by physiological experiment, that those changes in the ganglion cells of the brain and spinal cord which are the immediate antecedents of every kind of bodily action have been traced. Between the two—that is between sensation and the beginning of action—there is an intervening region which the physiologist has hitherto willingly resigned to psychology, feeling his incompetence to use the only instrument by which it can be explored—that of introspection.

I will make no attempt even to ennumerate the special lines of inquiry which, during the last decade, have been conducted with such vigour in all parts of the world, all of them traceable to the influence of the Leipzig school; but will content myself with saying that the general purpose of these investigations has been to determine with the utmost attainable precision the nature of psychical relations. Some of these investigations begin with those simpler reactions which more or less resemble those of an automatic mechanism, proceeding to those in which the resulting action or movement is modified by the influence of auxiliary or antagonistic conditions or changed by the simultaneous or antecedent action on the reagent of other stimuli, in all of which cases the effect can be expressed quantitatively; others lead to results which do not so readily admit of measurement. In pursuing this course of inquiry the physiologist finds himself as he proceeds more and more the coadjutor of the psychologist, less and less his director; for whatever advantage the former may have in the mere *technique* of observation the things with which he has to do are revealed only to introspection, and can be studied only by methods which lie outside of his sphere. I might, in illustration of this, refer to many recent experimental researches—such, for example, as those by which it has been sought to obtain exact data as to the physiological concomitants of pleasure and of pain, or as to the influence of weariness and recuperation, as modifiers of psychological reactions. Another outwork of the mental citadel which has been invaded by the experimental method is that of memory. Even here it can be shown that in the comparison of transitory as compared with permanent memory—as, for example, in the getting off by heart of a wholly uninteresting series of words, with subsequent oblivion and reacquisition—the labour of acquiring and reacquiring may be measured, and consequently the relation between them; and that this ratio varies according to a simple numerical law.

Phototaxis and Chemiotaxis.

Considering that every organism must have sprung from a unicellular ancestor, some have thought that unless we are prepared to admit a deferred epigenesis of mind, we must look for psychical manifestations even among the lowest animals, and that as in the protozoon all the vital activities are blended together, mind should be present among them not merely potentially but actually, though in diminished degree.

In this connection it will be of interest to discuss the phenomena which relate to what may be termed the behaviour of unicellular organisms and of individual cells, in so far as these last are capable of reacting to external influences. The observations which afford us most information are those in which the stimuli employed can be easily measured, such as electrical currents, light, or chemical agents in solution.

A single instance, or at most two, must suffice to illustrate the influence of light in directing the movements of freely moving cells, or, as it is termed, phototaxis. The rod-like purple organism called by Engelmann "bacterium photometricum"[6] is such a light lover that if you place a drop of water containing these organisms under the microscope, and focus the smallest possible beam of light on a particular spot in the field, the spot acts as a light trap and becomes so crowded with the little rodlets as to acquire a deep port-wine colour. If, instead of making his trap of white light, he projected on the field a microscopic spectrum, Engelmann found that the rodlets showed their preference for a spectral colour which is absorbed when transmitted through their bodies. By the aid of a light trap of the same kind, the very well-known spindle-shaped and flagellate cell of Euglena can be shown to have a similar power of discriminating colour, but its preference is different. This familiar organism advances with its flagellum forwards, the sharp end of the spindle having a red or orange eye point. Accordingly, the light it loves is again that which is most absorbed, namely, the blue of the spectrum (line F).

These examples may serve as an introduction to a similar one, in which the directing cause of movement is not physical but chemical. The spectral light trap is used in the way already described; the organisms to be observed are not coloured, but bacteria of that common sort which twenty years ago we used to call bacterium termo, and which is recognised as the ordinary determining cause of putrefaction. These organisms do not care for light, but are great oxygen lovers. Consequently, if you illuminate with your spectrum a filament of a confervoid alga, placed in water containing bacteria, the assimilation of carbon and consequent disengagement of oxygen is most active in the part of the filament which receives the red rays (B to C). To this part, therefore, where there is a dark band of absorption, the bacteria which want oxygen are attracted in crowds. The motive which brings them together is their desire for oxygen. Let us compare other instances in which the source of attraction is food.

The plasmodia of the myxomycetes, particularly one which has been recently investigated by Mr. Arthur Lister, may be taken as a typical instance of what may be called the chemical allurement of living protoplasm. In this organism, which in the active state is an expansion of labile living material, the delicacy of the reaction is comparable to that of the sense of smell in those animals in which the olfactory organs are adapted to an aquatic life. Just as, for example, the dogfish is attracted by food which it cannot see, so the plasmodium of Badhamia becomes aware, as if it smelled it, of the presence of its food—a particular kind of fungus. I have no diagram to explain this, but will ask you to imagine an expansion of living material, quite structureless, spreading itself along a wet surface; that this expansion of transparent material is bounded by an irregular coastline, and that somewhere near the coast there has been placed a fragment of the material on which the Badhamia feeds. The presence of this bit of stereum produces an excitement at the part of the plasmodium next to it. Towards this centre of activity

streams of living material converge. Soon the afflux leads to an outgrowth of the plasmodium, which in a few minutes advances towards the desired fragment, envelops, and incorporates it.

Very shortly after the publication of Engelmann's observations of the attraction of bacteria by oxygen, Pfeffer made the remarkable discovery that the movements of the antherozoids of ferns and of mosses are guided by impressions derived from chemical sources, by the allurement exercised upon them by certain chemical substances in solution—in one of the instances mentioned by sugar, in the other by an organic acid. The method consisted in introducing the substance to be tested, in any required strength, into a minute capillary tube closed at one end, and placing it under the microscope in water inhabited by antherozoids, which thereupon showed their predilection for the substance, or the contrary, by its effect on their movements. In accordance with the principle followed in experimental psychology, Pfeffer[6] made it his object to determine, not the relative effects of different doses, but the smallest perceptible increase of dose which the organism was able to detect, with this result—that, just as in measurements of the relation between stimulus and reaction in ourselves we find that the sensational value of a stimulus depends, not on its absolute intensity, but on the ratio between that intensity and the previous excitation, so in this simplest of vital reagents the same so-called psycho-physical law manifests itself. It is not, however, with a view to this interesting relation that I have referred to Pfeffer's discovery, but because it serves as a centre around which other phenomena, observed alike in plants and animals, have been grouped. As a general designation of reactions of this kind, Pfeffer devised the term chemotaxis, or, as we in England prefer to call it, chemiotaxis. Pfeffer's contrivance for chemiotactic testing was borrowed from the pathologists, who have long used it for the purpose of determining the relation between a great variety of chemical compounds or products and the colourless corpuscles of the blood. I need, I am sure, make no apology for referring to a question which, although purely pathological, is of very great biological interest—the theory of the process by which, not only in man, but also, as Metschnikoff has strikingly shown, in animals far down in the scale of development, the organism protects itself against such harmful things as, whether particulate or not, are able to penetrate its framework. Since Cohnheim's great discovery in 1867 we have known that the central phenomenon of what is termed by pathologists inflammation is what would now be called a chemiotactic one; for it consists in the gathering together, like that of vultures to a carcass, of those migratory cells which have their home in the blood stream and in the lymphatic system, to any point where the living tissue of the body has been injured or damaged, as if the products of disintegration which are set free where such damage occurs were attractive to them.

The fact of chemiotaxis, therefore, as a constituent phenomenon of the process of inflammation was familiar in pathology long before it was understood. Cohnheim himself attributed it to changes in the channels along which the cells moved, and this explanation was generally accepted, though some writers, at all events, recognised its incompleteness. But no sooner was Pfeffer's discovery known than Leber,[7] who for years had been working at the subject from the pathological side, at once saw that the two processes were of similar nature. A variety of researches of great interest demonstrated the importance of chemiotaxis in relation to the destruction of disease-producing microphytes. Much discussion has taken place, as many present are aware, as to the kind of wandering cells, or leucocytes, which in the first instance attack morbific microbes, and how they deal with them. The question is not by any means decided. It has, however, I venture to think, been conclusively shown that the process of destruction is a chemical one, that the destructive agent has its source in the chemiotactic cells, that is, cells which act under the orders of chemical stimuli. Two Cambridge observers, Kanthack and Hardy,[8] have lately shown that, in the particular instance which they have investigated, the cells which are most directly concerned in the destruction of morbific bacilli, although chemiotactic, do not possess the power of incorporating either bacilli or particles of any other kind. While, therefore, we must regard the relation between the process of devitalising and that of incorporating as not yet sufficiently determined, it is now no longer possible to regard the latter as essential to the former.

There seems, therefore, to be very little doubt that chemiotactic cells are among the agents by which the human or animal organism protects itself against infection. There are, however, many questions connected with this action which have not yet been answered. The first of these are chemical ones—that of the nature of the attractive substance and that of the process by which the living carriers of infection are destroyed. Another point to be determined is how far the process admits of adaptation to the particular infection which is present in each case, and to the state of liability or immunity of the infected individual. The subject is therefore of great complication. None of the points I have suggested can be settled by experiments in glass tubes such as I have described to you.

It is possible that many members of the Association are not aware of the unfavourable—I will not say discreditable—position that this country at present occupies in relation to the scientific study of this great subject—the causes and mode of prevention of infectious diseases. As regards administrative efficiency in matters relating to public health, England was at one time far ahead of all other countries, and still retains its superiority; but as regards scientific knowledge we are, in this subject as in others, content to borrow from our neighbours. Those who desire either to learn the methods of research or to carry out scientific inquiries have to go to Berlin, to Munich, to Breslau, or to the Pasteur Institute in Paris to obtain what England ought long ago to have provided; for to us, from the spread of our race all over the world, the prevention of acute infectious diseases is more important than to any other nation. At the beginning of this address I urged the claims of pure science. If I could, I should feel inclined to speak even more strongly of the application of science to the discovery of the causes of acute diseases. May I express the hope that the effort which is now being made to establish in England an institution for this purpose not inferior in efficiency to those of other countries, may have the sympathy of all present?

Conclusions.

"Organism" is a fact which encounters the biologist at every step. In referring it to any general principle, such as adaptation, we do not explain it. No explanation will be attainable until the conditions of its coming into existence can be subjected to experimental investigation, so as to correlate them with those of processes in the non living world. The patient endeavours which were made to obtain experimental proof of what was called *abiogenesis*, although they conduced materially to that better knowlege which we now possess of the conditions of life of bacteria, failed in the accomplishment of their purpose. The question still remains undetermined; it has, so to speak, been adjourned *sine die*. The only approach to it lies at present in the investigation of those rare instances in which, although the relations between a living organism and its environment ceases as a watch stops when it has not been wound, these relations can be re-established, the process of life reawakened, by the application of the required stimulus.

I was also desirous to illustrate the relation between physiology and its two neighbours on either side, natural philosophy (including chemistry) and psychology. As regards the latter, I need add nothing to what has already been said. As regards the former, it may be well to notice that although physiology can never become a mere branch of applied physics or chemistry, there are parts of physiology wherein the principles of these sciences may be applied directly. Thus, in the beginning of the century, Young applied his investigations as to the movements of liquids in a system of elastic tubes, directly to the phenomena of the circulation; and, a century before, Borelli successfully examined the mechanism of locomotion and the action of muscles, without reference to any excepting mechanical principles. Similarly, the foundation of our present knowledge of the process of nutrition was laid in the researches of Bidder and Schmidt in 1851, by determinations of the weight and composition of the body, the daily gain of weight by food or oxygen, the daily loss by the respiratory and other dis-

charges, all of which could be accomplished by chemical means. But in by far the greater number of physiological investigations, both methods (the physical or chemical and the physiological) must be brought to bear on the same question—to co-operate for the elucidation of the same problem. In the researches, for example, which during several years have occupied Professor Bohr, of Copenhagen, relating to the exchange of gases in respiration, he has shown that factors purely physical—namely, the partial pressures of oxygen and carbon dioxide in the blood which flows through the pulmonary capillaries—are, so to speak, interfered with in their action by the "specific energy" of the pulmonary tissue, in such a way as to render this fundamental process, which, since Lavoisier, has justly been regarded as one of the most important in physiology, much more complicated than we for a long time supposed it to be. In like manner Heidenhain has proved that the process of lymphatic absorption, which before we regarded as dependent on purely mechanical causes, that is, differences of pressure—is in great measure due to the specific energy of cells, and that in various processes of secretion the principal part is not, as we were inclined not many years ago to believe, attributable to liquid diffusion, but to the same agency. I wish that there had been time to have told you something of the discoveries which have been made in this particular field by Mr. Langley, who has made the subject of "specific energy" of secreting cells his own. It is in investigations of this kind, of which any number of examples could be given, in which vital reactions mix themselves up with physical and chemical ones so intimately that it is difficult to draw the line between them, that the physiologist derives most aid from whatever chemical and physical training he may be fortunate enough to possess.

There is, therefore, no doubt as to the advantages which physiology derives from the exact sciences. It could scarcely be averred that they would benefit in anything like the same degree from closer association with the science of life. Nevertheless, there are some points in respect of which that science may have usefully contributed to the advancement of physics or of chemistry. The discovery of Graham as to the characters of colloid substances, and as to the diffusion of bodies in solution through membranes, would never have been made had not Graham "ploughed," so to speak, "with our heifer." The relations of certain colouring matters to oxygen and carbon dioxide would have been unknown, had no experiments been made on the respiration of animals and the assimilative process in plants; and, similarly, the vast amount of knowledge which relates to the chemical action of ferments must be claimed as of physiological origin. So also there are methods, both physical and chemical, which were originally devised for physiological purposes. Thus the method by which meteorological phenomena are continuously recorded graphically originated from that used by Ludwig (1847) in his *Researches on the Circulation;* the mercurial pump, invented by Lothar Meyer, was perfected in the physiological laboratories of Bonn and Leipzig; the rendering the galvanometer needle aperiodic by damping was first realised by Du Bois-Reymond—in all of which cases invention was prompted by the requirements of physiological research.

References.

[1] It is worthy of note that these five distinguished men were nearly contemporaries: Ludwig graduated in 1839, Bernard in 1843, the other three between those dates. Three survive—Helmholtz, Ludwig, Du Bois-Reymond. [2] The phenomenon is best seen when, in a dark room, the light of a luminous spark is thrown on to a white screen with the aid of a suitable lens. [3] Ebbinghaus, "Theorie des Farbensehens," *Zeitschr. f. Psychol.*, vol. v, 1893, p. 145. [4] Abney and Festing, "Colour Photometry," Part III, *Phil. Trans.*, vol. clxxxiiiA, 1891, p. 531. [5] König, "Ueber den Helligkeitwerth der Spectralfarben bei verschiedener absoluter Intensität," *Beiträge zur Psychologie*, etc., Festschrift zu H. von Helmholtz, 70 Geburtstage, 1891, p. 309. [6] Pfeffer, *Untersuch. a. d. botan. Institut z. Tübingen*, vol. i, Part III, 1884. [7] Leber, *Die Anhäufung der Leucocyten am Orte des Entzündungsreizes*, etc.; *Die Entstehung der Entzündung*, etc., pp. 423-464, Leipzig, 1891. [8] Kanthack and Hardy, "On the Characters and Behaviour of the Wandering Cells of the Frog, *Proceedings of the Royal Society*, vol. lii, p. 267.

During the second quarter of this year the birth-rate in Hamburg showed a remarkable decrease of about 10 per cent. It is believed that this may be attributed to the cholera epidemic in that city last autumn.

ABSTRACT OF AN ADDRESS ON

THE INFLUENCE OF THE ERECT POSITION ON THE DEVELOPMENT OF THE HUMAN BODY, AND ESPECIALLY OF THE BRAIN.

Delivered before the Section of Anthropology of the British Association for the Advancement of Science at its Meeting on September 14th,

By ROBERT MUNRO, M.A., M.D., President, Edinburgh.

After a few introductory remarks on the scope of anthropology, Dr. Munro proceeded to deal with the following propositions:—

1. The mechanical and physical advantages of the erect position.
2. The differentiation of the limbs into hands and feet.
3. The relation between the more perfect condition of these organs and the development of the brain.

The primary object of locomotion, he said, is to enable the organism to seek its food over a larger area than is attainable by a fixed position. In the higher vertebrates this is accomplished by means of the well-known mechanism of four movable limbs capable of supporting and transporting the animals. As these quadripedal animals became more highly differentiated in virtue of the struggle for existence and the necessities of their surroundings, the limbs become modified in various ways so as to render them suitable for various kinds of locomotion, and for other purposes in the animal economy. The anterior limbs have been specially subject to these changes, but man alone has been able to divert them altogether from their primary function. This has resulted from his attaining the erect position, which has necessitated a complete division of labour in the functions of the limbs, the anterior pair having become restricted in their use to manipulative and prehensile purposes, while the posterior have retained their original function of locomotion. Coincident with this notable specialisation in function of the limbs a new field for advancement was opened to man, in which intelligence and mechanical skill became the leading factors in his further development. The maintenance of his body in the erect position has necessitated great changes in its structure, not only in the osseous system, but also in the soft parts. In the distal segments of the limbs the most remarkable changes took place. The changes which have occurred in the foot to make it the perfect mechanism for progression that it is, as well as an efficient basis for supporting the weight of the body, were then enumerated. The modifications which the hand has undergone are quite as radical, but in an entirely different direction, namely, towards rendering it capable of performing the most delicate and intricate prehensile movements. The possession of such a perfect piece of mechanism at the extremity of a movable arm attached to the upper part of the trunk gives man a superiority in attack and defence over all other animals. Moreover, he possesses the power of performing a variety of movements, and of assuming attitudes and positions eminently adapted to the exercise of his manipulative skill, by which he is able to counteract the superior brute force of many of his antagonists. All his morphological peculiarities have been brought about without the destruction of any of the primary and typical homologies common to all the higher vertebrates.

It is, however, the intellectual and psychical manifestations of the brain—the organ of the mind—which gives to man's life functions their most remarkable character. We are forced to the conclusion that conscious sensation invariably takes place by means of nerve cells, whose functional activity requires to be nourished in precisely the same way as the muscular force required in walking. The brain is a dual organ, consisting of a double series of distinct ganglia, and connected to some extent by a complex system of nervous tissues not only with each other but with the central seat of consciousness and

volition. In reflex action the efferent message is often under the control of volition, which may prevent the motor action from taking place, and can affect a similar movement *de novo* without the direct intervention of external impressions, and it has been proved that the volitional stimulus regulating movements of the body starts from definite portions of the brain. This shows that the homology which characterises the structural elements of animals' bodies extends also to their brains, and the law which differentiates animals according to the greater specialisations of function has its counterpart in the brain; an increase of brain substance is naturally expected therefore whenever the functional activity of a specific organ is extended. That man's brain and his intelligence are correlated to one another is well known. A question of much interest is to account for the evolution of so large a brain under the influence of existing cosmic forces. Dr. Munro stated his belief that it is the result of natural laws, and that one of the main factors in its production was the conversion of the upper limbs into true hands. From the moment man recognised the advantage of using a club or a stone in attacking his prey or defending himself, the direct incentives to a higher brain development came into existence Acquaintance with the mechanical powers of Nature would gradually extend, and there would also be a corresponding development of his reasoning faculties. Particular sounds would be used to represent specific objects, and these would become the first rudiments of language. All these mental operations could only occur through the medium of additional nerve cells, hence the brain became more bulky and complex in its structure.

On the question as to whether natural selection has been sufficient to account for the great growth of man's brain, the ideas of Huxley and Wallace were discussed, and the conclusion arrived at was that the higher development of humanity is nothing more than the gradually acquired product of the reasoning faculties themselves. The reasoning power of man is virtually a higher intelligence, which has to a certain extent superseded the laws of natural selection. A note of caution was sounded regarding the inferences to be drawn by comparing the weight and mass of the brain of animals and man. Evidence was brought to show that probably savage man is in a more degenerate condition than his forefathers, who originally acquired higher mental qualities under natural selection. This would account for the savage possessing a brain greatly in excess of his requirements.

On the supposition that at the start the evolution of man's hand and the development of his higher sensory faculties were synchronous, the question arises, When, where, and in what circumstances did it take place? Imperfect as are the materials to answer it, the osseous remains yet found indicate that during the quaternary period he had already acquired his human characteristics; this throws our search back to the tertiary period for his appearance in Europe. His corporeal structure shows that he has passed through a stage when his limbs were adapted to arboreal life. In the gradual lowering of the subtropical temperature which occurred in Central Europe and Asia during the eocene and pliocene periods and culminated in the great Ice Age, also in the concurrent changes in the distribution of land and water, there exist such conditions as would have necessitated a change in such arboreal habits and even his form. During this early and transitional period might was right, whether from strength of arm, skill of hand, or cunning of brain; the weak would succumb, and ultimately there would survive only such as could hold their own.

The Cork Corporation have granted a presentment to the North Fever Hospital for a sum of £550.

Cork Hospital Saturday will be held the last Saturday in this month—namely, the 30th inst.

Successful Vaccination.—Mr. Edward T. Turnbull, public vaccinator for the East District of the Patrington Union, has received for the second time in succession the Government grant for successful vaccination.—Dr. Henry Longford, medical officer of the Thirsk Union workhouse, and public vaccinator of the Knayton District of that Union, has received for the fifth time in succession the Government grant for efficient vaccination

SIXTY-FIRST ANNUAL MEETING
OF THE
BRITISH MEDICAL ASSOCIATION

Held in NEWCASTLE-ON-TYNE August 1st, 2nd, 3rd, and 4th, 1893.

SECTION OF OBSTETRICS.

James Murphy, M.A., M.D., President.

THE CONSERVATIVE TREATMENT OF DISEASES OF THE UTERINE APPENDAGES.

By S. POZZI, M.D.,
Professeur-Agreg.; Surgeon to the Lourcine-Pascal Hospital, Paris.

The question of the conservative treatment of the uterine appendages is vast; it comprehends the study of all therapeutic means of operation designed to cure these organs without removing them. Now in this list we may include all methods of treatment of the uterus diseased at the same time as the tubes, which have for object the cure of the latter, by extending the cure from the uterine mucous membrane as far as the mucous membrane of the Fallopian ducts. This is what I have named "indirect treatment of salpingitis;" this treatment includes chiefly curetting, cauterisation, and electricity. I believe all these may be useful in the first phases of acute catarrhal salpingitis, but illusive the moment that pus begins to form, or in chronic cases where the tubal walls are attacked by chronic inflammations which have thickened the walls and united the fimbriæ.

Another kind of conservative treatment is that designed directly to the diseased uterine appendages, but without operation, so to speak, such as massage or weak electric currents. I consider massage useful only in a few chronic cases when the tubes contain no liquid, above all when suffering is kept up by adhesions to neighbouring parts. Massage, on the contrary, is extremely dangerous in cases of cystic salpingitis, because it may cause the rupture of the cyst in the peritoneum. It is also dangerous in cases of acute salpingitis, as it may lead to rupture of blood vessels and infection. Tubular and ovarian electrisation also seems to me to merit the same reproach, and it also should only be applied in chronic cases. Again its action is doubtful; it acts principally upon the neuralgic element. Of course I speak here of weak currents producing no cauterisation.

I must speak now of a kind of conservative operation which has been proposed in cystic salpingitis in order to induce the evacuation of the liquid by dilatation of the uterus and of the ostium internum of the tubes. I am opposed to this so-called prudence, more dangerous than audacity. There is danger of provoking inflammation of the neighbouring peritoneum by this manœuvre. There have been numerous accidents of this kind, some of them fatal. The end pursued is, moreover, delusive. As a matter of fact, in the immense majority of cases, the purulent, bloody, or serous collections in the tubes cannot empty themselves into the uterus when dilated, as there is an extensive obliteration of the tubes in the vicinity of the uterine cavity. All experienced surgeons will be of my opinion; thus the evacuation of the hydrosalpinx and pyosalpinx into the uterus by the dilatation of that organ is a theoretical idea, nothing more. If improvement or cure has followed dilatation, it has been due simply to antiseptic medication of the uterus at the same time. Of course, in the cases of so-called cure of pyosalpinx, hydrosalpinx, etc., there has been an error of diagnosis. It was a question, not of cystic salpingitis, but of acute rekindled salpingitis, with surrounding œdema, giving rise to tumefaction.

I have rapidly sketched the general question of conservative treatment of diseases of the uterine appendages. I have only wished to trace the outline of the discussion in its principal lines. Permit me now to limit myself to a very small portion of the subject, which is new. I wish to speak

of operations bearing directly upon the ovaries or tubes for removing the diseased and respecting the healthy part—that is, resection and ignipuncture of the ovary.

Progress in surgery must necessarily lead this science to become more and more conservative. Each of its branches has already given indications of this evolution. One of the most striking examples is certainly the substitution of resections in the surgery of bones and joints. Is it not possible to apply the same principle to the therapeutics of the Fallopian tubes and the ovaries? In a certain number of cases can we not limit the sacrifice to a part of the organ so as to preserve the woman's fecundity? This problem, in spite of its great importance, has only yet been broached by an extremely limited number of gynæcologists. Partial operations have, in effect and *a priori*, given rise to a legitimate distrust analogous to that with which the first attempts at articular resection were received when first suggested. Is it not to be feared that by these limited interventions a part of an organ already diseased or in morbid imminence may be allowed to remain, and remain liable to recurrence? In short, is the organ thus preserved useful, and is it worth while to substitute a complicated operation for a simple one in order to obtain a delusive result?

The specious objections with which the works of Moreau, Park, etc., were received at the outset have definitely fallen to the ground in the presence of the magnificent results obtained by contemporaneous surgery. In my opinion, the contradictions which the object of this communication cannot fail to give rise to will have the same ending. Moreover, no arguments can prevail against truthful observations. Above all, I wish to present *facts* which seem to me encouraging. I cannot, however, conceal from myself that they are too few and too recent to carry with them entire conviction. My object will be gained if I can but provoke new researches in a direction which is surely that of progress.

Before giving a summary of my personal observations, and recalling to notice what has been done elsewhere in the same sense, if not by following the same *technique*, it is necessary to state precisely in what conditions and within what limits conservative surgery of the uterine appendages may be practised. In fact, I believe that all chances of success depend upon this starting point. My meaning will be better understood by an example.

When, after the operation of laparotomy in response to clinical indications, we find ourselves in presence of lesions which have profoundly disorganised the appendages, as for instance, a pyosalpinx with abscess of the ovary, or, again, an entire cystic transformation of the ovary, and parenchymatous alteration of the Fallopian tube, it goes without saying, the only thing practicable is ablation. But in many cases operators practise extirpation for less serious lesions.

Suppose the case in point to be hydrosalpinx, with relative integrity of the ovary, simply strewed with small follicular cysts of the size of a pea; or else suppose the Fallopian tube to be found intact and permeable in all its extent, while the ovary alone is found to be attacked by diffuse ovaritis, sclerosis, and microcystic degeneration, or containing cysts larger but limited. Certainly in cases of this kind total extirpation may appear too radical a procedure. In point of fact, a certain quantity of normal ovarian tissue still remains, and the Fallopian tube is permeable, or susceptible of becoming so. We may then conceive the hope of preserving a part of the ovary, and restoring the functions of the oviduct in re-establishing its orifice and calibre. The first of these hopes has led to the performance of partial resection of the ovary; the second has given birth to salpingostomy, or re-establishment of an artificial ostium, by partial resection of the Fallopian tube.

I hasten to say that I have no faith in operations performed with the hope of restoring the functions of a diseased Fallopian tube. I believe that once having been attacked by acute inflammation it has become definitely incapable of fulfilling its physiological *rôle*. The abdominal aperture may be reopened by detaching the agglutinant fringes, or even an artificial orifice created at the side of the normal one now obliterated, as Skutsch and Martin have done; but I believe this work to be useless, as is easily proved by the following considerations. In the first place the calibre of the Fallopian tube, momentarily re-established by catheterism, will always have a tendency to be obliterated again; also, even were the calibre to remain fixed, it would not suffice to assure the migration of the ovules. The *rôle* of the Fallopian tube is not that of an inert duct; this tube is essentially active; the integrity of its texture, the persistence of its vibratile epithelium, and its contractile fibres, are conditions indispensable to its function. Thus an inflammation of some duration must surely destroy or definitely paralyse these active elements.

For these reasons I eliminate partial resection of the Fallopian tubes from the number of conservative operations. I believe that these may be attempted only when the Fallopian tube is healthy, the ostium open, and its calibre permeable. In other words, I consider partial operations justifiable for the ovary only.

I shall not be long in demonstrating that a small quantity of ovarian tissue suffices to assure the regularity of menstruation and to permit fecundity. The richness of ovules in this organ is well known; however small may be the fragment preserved it contains several thousands of germs.

Here we have, however, more than theoretical considerations to bring forward. In the case of partial resection of the ovary the persistence of menstruation is constantly remarked, and several observations prove that its fecundity is preserved. In the first observation, that of Schröder, the patient was a woman upon whom he had practised the ablation of an ovarian cyst on one side, and partial resection of the other ovary containing a dermoid cyst. The woman became pregnant shortly afterwards, and was delivered at term. More recently A. Martin has observed several women become pregnant after the ablation of one ovary and partial resection of the other. What gives intrinsic value to Martin's observations is that that they bear upon a series of twenty-seven partial resections of the ovary, observed during a period of five years; during this short period of time one patient in three became pregnant. On the other hand, Martin had one death and two recurrences of the morbid symptoms.

It remains to be determined in what cases of lesions of the ovary a partial operation may be made, and to decide the nature and *technique* of this operation. I would establish as a general rule that whenever the Fallopian tube is healthy, and the ovary alone diseased, we must endeavour to preserve a part, and only at the last extremity resign ourselves to a total sacrifice.

The most favourable cases are evidently those in which the diseased process has affected one region of the ovary, leaving an entire segment of the organ intact. The typical lesion, and that which can leave no doubt in regard to the persistence of the functions of the remainder of the ovary, is an isolated cyst (dermoid, proligerous, and follicular cysts). In these cases the operator must, in the first place, ascertain that the Fallopian tube is completely permeable by introducing a stylet through the ostium, and pushing it as far as the uterine cavity. This manœuvre is accomplished with the greatest facility. In the second place, while the assistant fixes the ovary between his fingers, the surgeon performs the resection of the diseased parts by two incisions, which circumscribe a cuneiform segment. The two lips of the wound are reunited by the aid of a continuous suture in catgut, which guarantees simultaneously coaptation and hemostasis. Should this not be complete, it can be obtained by adding a few stitches deeper, either with catgut or fine silk. It suffices, further, to hold the ovary for a few seconds compressed in an aseptic compress to cause the cessation of the oozing, due to the needle puncture.

Again, we may have recourse to the resection of a segment of the ovary in cases of microcystic degeneration, in which the disease has left a zone of ovarian tissue intact. It is then frequently found that the whole convexity of the ovary is covered with little transparent or bluish specks, characteristic of the presence of small serous or hæmatic cysts, whilst in the region of the hilum a band of tissue exists untouched by disease. An incision can be made along this line, removing the greater part of the ovary, but preserving the base of the organ, and uniting the lips with a continuous suture of catgut. Such was my method of procedure in my first operations. I have now added a complementary manœuvre, the fixation of the ostium of the Fallopian tube upon the ovarian stump by means of a few points of suture. This salpingor-

rhaphy is designed to prevent the Fallopian tube from falling away, so to speak, from the rest of the ovary, and contracting adhesions which would render the conservative operation useless. This suture is particularly indicated when it has been necessary to liberate the Fallopian tube in tearing off adhesions capable of being reproduced.

Latterly I have modified my method, and practised ignipuncture instead of resection. When the ovary presents dispersed lesions such as cysts of small volume, it is much more expeditious, and doubtless more efficacious, to substitute the cautery for the sharp instrument. By the aid of sight and touch it is easy to discover all the transparent and depressible points on the surface of the organ. These small cysts are opened successively by the small knife, or thermocautery, and burned on their internal surface. When we find ourselves in presence of a diffuse ovaritis, where the ovary has increased in volume, and there is infiltration of liquid, it is advisable to make the point of the thermocautery penetrate rather deeply into the œdematous stroma. We may thus hope to modify advantageously the embryonic proliferation tissue, which is diffused in every direction, as is indicated by the microscope in cases of this kind. There is no doubt, in fact, that the action of the actual cautery produces a distinct modification, and acts, as said the ancients, after the manner of an energetic melting of the chronic inflammations of the ovary, as in those of other tissues.

I admit that certain objections may be raised. Is there not the danger of creating scarred nuclei on the surface, or even in the depth of the organ; of inducing sclerosis, which is our aim to cure, and of provoking the formation of new cysts by obstructing the normal development of Gräfian follicles?

I might be excused from answering this objection by invoking the results already obtained by my operation, but they are too recent to be considered as conclusive. It is, then, expedient to examine carefully the theoretical objections which I have mentioned.

Can the actual cautery occasion sclerosis? Assuredly this might be the case were the cauterisation followed by the falling away of the eschar from suppuration and granulation. But in the interior of the peritoneal cavity the process is quite different; it is essentially aseptic. The eschar is reabsorbed molecule by molecule, without inflammatory process or embryonic proliferation susceptible of becoming a nodule of fibrous tissue.

On the contrary, the results of clinical observation lead us to suppose that the irritation produced by the actual cautery in the heart of tissues already attacked by sclerosis favours their reabsorption. This is what happens. The plastic exudations surrounding an articulation or diseased bone are pierced by ignipuncture.

Can ignipuncture induce microcystic degeneration of the ovary? How is this possible? One can conceive that the action of the cautery, bearing upon an organ containing glands in clusters, as the cervix of the uterus, may obliterate the mouths of some of these glands, and bring about their cystic transformation; but here it is a question of closed follicles, and all those not traversed by the cautery may develop freely. It seems to me that this does away with arguments which might be invoked *a priori* against ignipuncture of the ovary. Moreover, this question can only have a momentary interest, and the last word belongs to experience, already so prosperously begun.

I come now to the result of my practice in conservative operations of the ovary. I have performed resection of the ovary six times, and ignipuncture eight times. All my patients have recovered perfectly and rapidly from the operation. In all, either immediately or later, the pains ceased or were greatly diminished. I have had no persistent recurrence among these patients. In those who before this menstruation was irregular the menstrual flux has returned with greater abundance, and this result, which appears paradoxical, seems to me due to the amelioration of the general health.

Finally, one of my patients is pregnant, three months. I must say a few words respecting her case. The operation was performed on December 22nd, 1892. I had made twelve deep points of ignipuncture in the left, and eleven in the right ovary. The ovaries were white, smooth, and enlarged as the kidney in Bright's disease, and affected with diffuse ovaritis. The symptoms presented by the patient before the operation were continuous pain, with severe exacerbation at the moment of menstruation. They have disappeared since the first menstruation which followed cauterisation of the ovaries.

Among the patients operated on by ignipuncture I have performed complementary fixation of the uterus or hysteropexy three times to remedy a retrodeviation of the uterus. The entire duration of the operations in these two cases did not exceed half an hour. My first puncture of the ovaries dates from December 16th, 1892. I believe I am the first who has practised it systematically and worked out its *technique*. One must not limit one's self to opening cysts, but cauterise their internal surface carefully, and penetrate deeply into the ovarian tissue if œdematous.

In resection of the ovary my experience is longer. I first performed resection of the ovary on May 9th, 1891, more than two years ago. The second operation was on July 3rd, 1891; the last, and sixth, on February 10th, 1893. Thus the first two patients have been under observation for more than two years. They are cured of pains which, before this, had made them invalids. I have seen them again recently; both are in flourishing health, and their menstruation is satisfactory, although both have only about a third of the right ovary, and the left has been entirely removed.

I have practised complementary hysteropexy upon one only out of my six patients. Upon four I have practised salpingorrhaphy, or suture of the Fallopian tube to the uterine stump. (I have also been the first to indicate this modification of *technique* which I think important in cases of broken adhesions). In five out of my six patients I removed the uterine appendages on the side on which I did not perform resection.

To summarise my results: Fourteen women in whom I have performed conservative operations on the ovary have all recovered from the operation; all have been completely cured or immensely improved. In each case menstruation has continued, and one of them has become pregnant. My experience is recent, and extends over a period of a little more than two years. The results are, however, very encouraging, and, taken together with those of Martin, may serve to encourage operators in a new path.

Dr. MORE MADDEN (Dublin) had always maintained that in the treatment of diseases either immediately affecting the uterine appendages, or consequent thereon, the object of the treatment should be not only the removal of disease, but also the restoration of the structural and functional integrity of the affected organs. It was not necessary to refer to the removal of the ovaries, which a few years ago was too frequently resorted to, not only in cases of rapidly growing myoma in which oöphorectomy was often necessary, but also in neurotic and other cases in which operation was unnecessary and unjustifiable. With regard to the removal of the tubes for pyosalpinx and hydrosalpinx it might be found possible, in many instances at least, by conservative treatment, medical as well as surgical, and more especially by the cautious catheterisation of the Fallopian tubes, or by tapping the collection under antiseptic conditions by the aspirator, to empty the cyst and cure the patient without the necessity for any mutilating operation whatever. He thought such operations as salpingotomy would be found by the majority of surgeons utterly impracticable. It was impossible in dealing with a thinned out and distended tube to employ such an amount of force by massage as would suffice to break down adhesions, without at the same time running extreme risk of rupture of the pyogenic or other cyst, and thus leading to fatal consequences. Finally, Dr. More Madden referred to the value of medical as well as surgical measures in the conservative treatment of the uterine appendages.

Dr. FANCOURT BARNES had listened with much interest to the various methods described by Professor Pozzi. Catheterisation of the Fallopian tubes was very problematical, and it was difficult to conceive how the surgeon could possibly tell whether the sound had left the uterine cavity and entered the Fallopian tube, or passed through the uterine tissue into the peritoneum. With regard to ignipuncture of small superficial cysts of the ovary, it would seem unnecessary to run the risk of suppuration when merely rupturing and

emptying them would be sufficient to destroy them. A form of conservative surgery of the uterine appendages which had not been touched on was the breaking down of adhesions as far as possible in the pelvis without attempting to remove anything at all. Even when the abdomen was opened, and the surgeon had the parts between his fingers, he could not make a diagnosis. He could not distinguish one part from the other. In a series of cases, after opening the abdomen, Dr. Fancourt Barnes had found himself unable to do more than break down adhesions, and free to a certain extent organs which could not be drawn out without undue violence. Several of these patients recovered, and all their symptoms disappeared. This, therefore, might be regarded as conservative treatment of the appendages. It could not, however, be done until the abdomen was opened for the diagnosis to be made. The removal of healthy ovaries was to be deplored.

Dr. Robert Bell expressed his conviction that in the majority of instances in which disease of the appendages existed, the pathological condition had had its origin in disease of the endometrium which had extended to the tubes, and that then, by retrograde absorption, the ovaries had become affected. When there was oöphoritis, or salpingitis, or both, treatment should be commenced at the uterus, clearing out the disease, then, by curetting thoroughly, and afterwards treating the diseased membrane by weekly applications of iodised phenol, with bi-weekly applications of ichthyol tampons, a 10 per cent. solution in glycerine being employed. By these means, in the majority of instances, if the case were not too far advanced, complete resolution of the inflammatory and hypertrophied conditions might be obtained. If the disease had gone beyond medical treatment then the operation must be radical, or most surely the disease would recur, and another operation, sooner or later, be required. He objected, therefore, to resection of the ovaries.

Dr. W. J. Smyly said diagnosis and differentiation were the chief points and the most difficult of attainment, both before and after opening the abdomen. He corroborated Dr. Pozzi's experience as to the value of the curette and massage in certain cases, including under the latter the breaking down of adhesions by Schultze's method without opening the abdomen. He would not with his present knowledge feel justified in resecting a tube distended with fluid, and, as regarded the conservative treatment of diseased ovaries, the difficulty again was diagnosis, but, given an ovary with evidently healthy tissue, it would be a decided advance could that part be left with safety.

Dr. Murdoch Cameron considered that preventive treatment was as important as the conservative treatment. He thought that too much importance could not be paid to the treatment of leucorrhœa and endometritis. He was opposed to the treatment by massage, but favoured the use of electricity in the form of an interrupted current. He advocated the removal of the diseases of the ovary and Fallopian tube, or both, but would limit the operation to the affected side. He, in conclusion, expressed himself as more inclined to abdominal section than to puncture even by the cautery.

Dr. Brewis said he felt greatly indebted to Professor Pozzi, and thought that among the cases suitable for conservative treatment should be classed those instances of adherent appendages which were healthy in other respects. Dr. Brewis mentioned a case in which he returned the ovaries, which were to all appearance healthy, back into the abdomen after liberating them from surrounding adhesions. The operation entirely cured the patient of her symptoms. With regard to diagnosis, he was of opinion that it was impossible to make out the exact condition of the appendages without opening the abdomen, and he held that it was justifiable to do so in every case in which the symptoms did not yield to palliative measures, and then to adopt conservative or radical treatment as was found necessary. The tapping of cysts *per rectum* was a most dangerous proceeding owing to the risk of septic infection, and one which would involve much greater risk to the patient than an abdominal section.

Mr. John W. Taylor, F.R.C.S., said in some of the cases Professor Pozzi had narrated the operation of ignipuncture was associated with hysteropexy, and how far the benefit derived should be put down to the elevation of the ovary was a question which needed consideration. There could be no doubt that for pain due to ovarian prolapse there were no more useful methods of treatment than those plastic operations—such as hysteropexy and shortening of the round ligaments—which tended to keep the ovary at a higher position in the pelvis. Mr. Taylor agreed with Professor Pozzi that in acute conditions of the tubes, especially in cases due to gonorrhœal infection, curetting of the uterus was apt to be very dangerous. He had noticed cases of this kind in which curetting had been followed by acute pyosalpinx, and for this he had had to open the abdomen without delay. A conservative operation which had not been referred to in the discussion was worthy of some notice. In broad ligament cysts involving the free portion of the ligament, which were usually treated by removal of the cyst, together with the corresponding tube and ovary, Mr. Taylor had found the enucleation of the cyst through a small opening, followed by suture of the broad ligament incision, to be a perfectly feasible proceeding, and followed by very good results.

Dr. Cullingworth entirely agreed with Professor Pozzi that partial and so-called conservative operations on the Fallopian tube were useless. In the case of the ovary conservative surgery was of much greater importance. It was very desirable that menstruation should, if possible, not be arrested after these operations, and by saving even a very small amount of ovarian tissue the function of menstruation was generally preserved. Fortunately, the results of conservative surgery on the ovary had been much more successful than on the tube. Professor Pozzi had added to our operative resources by his interesting suggestion of the use of ignipuncture. Another most valuable suggestion was that of securing the separated fimbriated extremity of the Fallopian tube to the ovary after resection. Unless this were done, it was obvious that the conservative object of the operation would be in danger of being defeated by the recurrence of adhesions in a faulty situation.

Sir Spencer Wells asked Dr. Pozzi for further information as to his practice when one ovary was healthy and the other diseased; whether it might not be better to remove the whole rather than only a part of the diseased ovary. The healthy ovary was sufficient to maintain menstruation, and it might possibly be wiser to trust to one rather than one and part of the other. In many cases of removal of an extra-ovarian cyst, he had removed the cyst only and left the Fallopian tube and the ovary, or, perhaps, removed some elongated part of the ovary stretched on the wall of the extraovarian cyst. He would be glad to know from Professor Pozzi more as to the advantages of ignipuncture over simple puncture in cases where, after removal of an ovarian tumour on one side, the other ovary might be found somewhat enlarged, with an irregular surface caused by some small cysts, or rather enlarged Gräfian follicles. In several cases he had been content with simply puncturing, and the patients had recovered and borne children. Conservative surgery, or no surgery, was well known by general practitioners to be often far better than the abuse of surgical operations. Many men in large practice could record cases in which removal of ovaries and tubes had been urged upon young women, who afterwards had perfectly recovered and borne children.

Dr. Heywood Smith said that one of the most important points was the question raised by Dr. Cullingworth and Sir Spencer Wells as to what was to be done with an ovary, perhaps not greatly enlarged, studded on the surface with small cysts. At the time of the operation there were only a few seconds for decision, and it could not be known whether there were not also similar cysts lying deeply. Professor Pozzi recommended deep ignipuncture, but still it would be difficult to say whether all cysts had been attacked or as to whether both ovaries should be removed. There was no doubt a great advantage to a woman in having some ovarian tissue left, but if a suspicious ovary were left it was not improbable that a subsequent operation might be necessary. The benefit which no doubt was afforded in many cases by the faradic current was merely temporary where disease was organic. There was no doubt that in many cases of endometritis the curette was eminently useful, and might arrest any further creeping upwards of the disease. Among curettes that of Dr. R. Bell's was a decided gain. In the ordinary spoon-shaped curette scrapings were made longitudinally on the mucous membrane, leaving ridges behind; whereas in

the dredge curette of Dr. Bell the tissue was not only scraped off uniformly, but also the *débris* was brought away for examination. The curette, however, of Mr. F. B. Jessett was better still; one only was necessary, as by a screw it could be increased in size; as it enlarged at the upper part it enabled the fundus to be denuded of growths where they often lay.

POST-PARTUM OVARIOTOMY.

By A. E. AUST-LAWRENCE, M.D.,
Physician-Accoucheur Bristol General Hospital.

I BELIEVE we are all agreed upon the propriety of removing a cystic tumour of the ovary as soon as it is recognised, at all events in a woman who is not pregnant. My object to-day is to produce evidence that will enable us to say that this rule must also hold good in the case of a woman who, having an ovarian tumour, is also pregnant, and that our line of treatment should be to remove the ovarian cyst as soon as it is discovered, and leave the uterus alone. I advocate this upon two grounds: (1) the comparative small mortality when the tumour is removed during the course of pregnancy; and (2) upon the greatly increased risk to the tumour, and, of course, to the woman, by the complication of pregnancy. The number of cases recorded where the operation of ovariotomy has been performed successfully in pregnant women, these women going on to their full time and being delivered of living children, is considerable. Upon this point I can only speak from my reading. If others, from their experience, can tell us that the risk of operation is not greater in pregnancy, and that in those cases where the operation is done early in the course of pregnancy that they do not find the serious complications which are found after delivery, as my cases show, then I consider my point is proved, and that we must lay down as an absolute rule that an ovarian cyst found in the abdomen of a pregnant women should be removed as early as possible; for I am sure that ovarian cysts in pregnant women run special and very great risks which do not occur to anything like such an extent in those non-pregnant. My cases will illustrate this point, and I will now relate them very briefly under the following headings: (1) Condition of the woman during pregnancy; (2) condition of the woman during labour; (3) condition of the woman after confinement.

CASE I.—During pregnancy noticed that she was very much larger than usual, but otherwise, except from the increased weight and pressure, did not complain. During labour not much difference was noticed between this and former labours. After confinement, on the third day was taken with acute abdominal pain, which persisted, with high temperature and very swollen abdomen, for three weeks, when I saw her and found her very ill, with an enormous amount of free peritoneal fluid, and also an abdominal cyst. The case was supposed to be one of puerperal peritonitis, but I diagnosed an ovarian cyst with twisted pedicle and recent peritonitis. I opened her abdomen and found this diagnosis was correct. I removed the ovarian cyst, which was very adherent. The patient made a good recovery.

CASE II.—During pregnancy suffered from severe attacks of abdominal pain from the fourth month until her labour set in. During labour pain was severe all the time, but with the expulsion of the placenta a most agonising pain came on in the abdomen, and the woman fainted, but shortly afterwards rallied. After her confinement she lay for six weeks very ill indeed, with great abdominal pain and distension; during the whole of this time she was attended only by a midwife. On admission to the hospital I found her abdominal cavity full of fluid, and I suspected either that some obscure tubal disease was the cause of the peritonitis, or she had a ruptured ovarian cyst, the latter proved to be correct. On opening the abdomen a very large amount of fluid escaped, partly peritoneal and partly ovarian. After the greater part of the fluid had escaped I passed my fingers into the abdominal cavity, but was unable to feel any of the abdominal or pelvic viscera. I appeared to be in a large empty cavity. As I was feeling at the back of this cavity I picked up what appeared to be a portion of a collapsed cyst, and upon bringing this to the surface I found it was the empty cyst, and on opening this I found the intestines and pelvic viscera could now be felt. I removed the damaged cyst, drained the peritoneal cavity, and the woman made a good recovery. I consider that in this case the ovarian cyst rose with the pregnant uterus, contracted adhesions high up in the abdomen, and as the uterus contracted down towards the pelvis the cyst wall was torn, and the fluid escaped. Peritonitis increased the amount of fluid, which eventually lodged in front of the damaged cyst, pushing this back like an apron over all the organs, and it was only after cutting through this covering that the viscera could be got at

CASE III.—During pregnancy suffered a great deal of abdominal pain for the last six months of gestation, and was very much larger than in previous pregnancies. During labour suffered far more pain than she was accustomed to in her confinements. After confinement she had several severe attacks of abdominal pain, accompanied by sickness and high temperature. I saw her five weeks after her confinement, and found a semi-solid tumour rising up from the pelvis to the umbilicus, equal in size to a six months pregnant uterus. I diagnosed an ovarian cyst, with most likely a twisted pedicle and hæmorrhage into the cyst, giving it its peculiar feel. I opened the abdomen and found a cyst everywhere adherent to the parietes, intestine, and omentum. I separated all these adhesions, and with my fingers and forceps picked a portion of the cyst wall from what appeared to be a thickened piece of omentum. When this was done the cyst was absolutely free, and was removed from the abdominal cavity without a single ligature being required. The woman made a perfect recovery. What had happened was this: The cyst rotated and the pedicle became twisted to such an extent that its vessels were absolutely blocked, and it would have become gangrenous had it not contracted adhesions to the surrounding parts and so drawn its nourishment. The cyst on removal showed all its vessels blocked with coagulated blood, as if they had been injected with black wax; there was also a layer of blood under the peritoneal coat of the cyst, and I should have said that on tapping it at the operation a large amount of blood and blood clot escaped with the ovarian fluid. The uterus was drawn up and to a certain extent embedded in the mass of adhesions which fixed the cyst.

CASE IV.—During pregnancy noticed nothing peculiar, but as this woman was unmarried and rather given to tell falsehoods, one cannot rely much on her statements. The case is important, as a line of treatment advocated by some authors was here adopted by the woman herself—namely, she procured an abortion when she was five months pregnant, with very serious results. Up to the time of the abortion she was apparently perfectly well. A medical friend of mine was called in to see her because she was in great pain. He found her with a high temperature, distended abdomen, and signs of recent delivery. He sent her into the hospital under my care. I found a large and tender cystic tumour in the abdomen and a good deal of the peritoneal fluid. I opened the abdomen and removed this cyst, which had its pedicle twisted, and I removed the other ovary also because it had become cystic. The woman made a good recovery. I believe the first thing that went wrong was that, after the uterus was emptied, the cyst rotated, and that I consider is one of the dangers that will come on with the altered relations of the full and empty uterus, and I consider it a strong point against inducing labour in these cases, as in this case the serious symptoms came on directly after the abortion.

CASE V.—During pregnancy was very ill from the third month, with more or less constant abdominal pain and sickness, and was very large. During labour suffered a good deal of pain, and the forceps had to be used to assist delivery. After confinement pain still continued, with high temperature and sickness, and had an attack of white leg. I saw her four weeks after her confinement, and diagnosed a large ovarian cyst, which I removed, and found most extensive adhesions to the intestines, and the pedicle was twisted. She made a good recovery.

CASES VI, VII, VIII, IX, and X all presented similar symptoms. During pregnancy all noticed that they were bigger than in former pregnancies; all suffered more or less abdominal pain. During labour all experienced more pain and difficulty in the delivery. After confinement all had high fever, abdominal pain, and distension. In all there was free peritoneal fluid, and the cysts were masked. I was asked to see them all as cases of puerperal peritonitis. I operated on all of them successfully, and found in each case a twisted pedicle and extensive adhesions.

My cases are set down as cases of *post-partum* ovariotomy, and so they were, but the whole tenour of my paper is to advise against *post-partum* ovariotomy when you have the chance of doing it *ante partum*. It is singular that in all these cases no one knew the women had ovarian cysts before labour set in, the reason being that these women were all poor, and did not consult a medical man, for although several of them suffered a good deal of pain, they put it down as natural to their condition.

Another important point is that in several of the cases after delivery, and when the acute symptoms were present, the cysts were overlooked by the medical men in attendance, and the cases were regarded as puerperal peritonitis. I wonder how many women have died of so-called puerperal peritonitis when a timely operation would have saved them.

Another point of interest is the existence of that usually serious complication twisted pedicle, caused, I believe, in the manner I have already indicated. There is one very practical point in this subject—namely, What are you to do when you first see your patient in labour, and recognise the presence of ovarian cyst? I consider the line of treatment should be to deliver the woman with as little loss of time as possible by forceps, etc., and to watch her carefully, and, in the event of any symptoms like I have mentioned coming on, then to open the abdomen at once. If no such symptoms occur, then wait, say, one month before operating for the ovarian tumour.

I hope that this short and imperfect communication may have the effect of directing attention to the question of treatment of an ovarian cyst in pregnancy, and also to the possibility of its presence being the cause of *post-partum* trouble.

Dr. ROBERT BELL agreed that it was always advisable to remove the tumour during the progress of the pregnancy if the diagnosis could be accurately made. He had done the operation on three occasions, and with the best results. The first case was an ovarian multilocular cyst in a woman, from whom, about two years previously, Dr. Bell had removed a

parovarian cyst. In another case he had removed a very large ovarian cyst from a very stout woman, aged 35, and the mother of nine children, within six weeks of her confinement. The tumour in this case had enlarged very rapidly since parturition. All the cases made uninterrupted recoveries.

Dr. Heywood Smith said that in the consideration of these cases of ovarian tumour associated with pregnancy the position of the tumour was important, for, if the tumour was low in the pelvis and likely to obstruct the labour, it was necessary to operate at once, and if done between the third and fourth month the operation was generally successful, the pregnancy going on to term. If from shortness of pedicle the ovarian tumour was drawn up out of the pelvis it might be as well to leave it alone until after labour.

LITHOTOMY IN THE FEMALE BLADDER.

Dr. Fancourt Barnes related the following case of lithotomy in a woman :—

A. D., aged 30, was admitted into the Chelsea Hospital for Women suffering from painful and frequent micturition, which had been present for about six years. On admission she complained of intense burning pain in the bladder. The urine contained a copious deposit of pus and phosphates, with a strongly ammoniacal odour. As the symptoms pointed to cystitis the patient was placed under ether in order that the bladder might be explored. On the sound being passed into the bladder the presence of a large stone was detected. Vaginal lithotomy was performed, and a calculus of light porous texture, weighing 20 grains, measuring an inch and a quarter in length, and an inch in width, was extracted. The stone consisted of a small uric acid nucleus, surrounded by phosphatic layers, outside of which was a radiating layer of uric acid surrounded again by phosphatic layers. The calculus was a good example of uric acid, urate of ammonium, and mixed phosphates indicating uric acid diathesis. As usually happened in these cases there was secondary cystitis, and the bladder contained a large quantity of pus; it was therefore washed out with a solution of boracic acid. The vesico-vaginal wound was left unclosed, as it was deemed inexpedient to close it in the presence of so much pus and vesical inflammation. The bladder was washed out daily with boracic acid solution, and at the end of ten days the incision in the bladder had completely healed.

When vaginal lithotomy was resorted to most surgeons closed the opening into the bladder immediately. This, however, was not, in Dr. Fancourt Barnes's opinion, necessary, as if the wound did not heal by itself, there was no difficulty in performing the ordinary operation for vesico-vaginal fistula later on when the cystitis had diminished or had disappeared, and the tissues were in a better condition for healing. Of the three methods employed in the treatment of vesical calculus in the female—namely, dilatation of the urethra, lithotrity, and lithotomy, vesico-vaginal or hypogastric, vesico-vaginal lithotomy was the safest and most satisfactory. Forced dilatation had many advocates, and one of the reasons in favour of it was the apparent facility of its execution. It was, however, liable to be followed by incontinence of urine, which was not surprising, seeing that the so-called dilatation by the dilators of Guyon, Dolbeau, or Hegar was really a laceration of the urethra and surrounding tissues.

In the operation for vesico-vaginal lithotomy, the incision was best made exactly in the median line, not too close to the urethra, as reunion was more difficult at this point. As a rule, uric calculi were voided from the female bladder before they had attained any marked size; the specimen was therefore rare. In a case of phosphatic calculus, which had formed round a hairpin in the bladder, Dr. F. Barnes had also resorted to vesico-vaginal lithotomy. The wound did not heal, but was closed by the ordinary operation for vesico-vaginal fistula three weeks afterwards. The stone was soft, and crumbled away as it was being drawn out of the bladder.

Dr. Aust-Lawrence related two cases of vaginal lithotomy in completely prolapsed uteri, and advocated this operation for removal of stone rather than that by dilating the urethra, etc.

FLEXIONS OF THE UTERUS.

Dr. R. Bell (Glasgow) said that, to expect satisfactory results in the treatment of flexions of the uterus by mechanical means alone invariably ended in disappointment not only to the patient, but to the medical attendant as well. A perfectly healthy uterus would not assume an abnormal position; there must be some departure from the health of the organ or injury of its normal supports and the sacro-uterine ligament, or displacement by some redundant deposit or growth. In the treatment, therefore, of uterine displacements, the first point to attend to was to ascertain if the surrounding parts, which influenced mechanically the position of the organ, were perfect. After having ascertained that the anatomical relations of the uterus were normal, or had been restored to their normal condition, means must be taken to remove the pathological conditions existing without which there would be no flexion. As a rule, the unhealthy condition took its start from the endometrium; in some cases, however, it arose from subinvolution after childbirth, but even in these circumstances it would appear that the lining membrane was primarily at fault. It was only through the lining membrane that the health of a diseased uterus could be restored. Before attempting any curative measures, it would be necessary to ascertain the condition of the cervix. If, therefore, one or more lacerations existed, these should either be repaired by trachelorrhaphy, or, if the pendulous portions were hypertrophied or numerous, the most expeditious plan would be to amputate them and thus leave an even surface. If the endometrium were thickened, the beneficial results of treatment would be very much accelerated by first of all curetting the whole surface, after which iodised phenol should be freely applied to the entire surface, and one or more tampons saturated with glycerine of alum and borax introduced, so as to retain the uterus in position. The tampons should be removed every third day and fresh ones applied, while once a week the application to the uterine canal should be repeated. At each application, if the tendency to flexion continued, the uterus should be replaced by means of the applicator, and retained in position by means of the tampons introduced. During the menses it was always advantageous to introduce a pessary for the time being, preferably one covered with soft rubber and hinged above and below, so as to promote its easy introduction, and remove any tendency to rigidity which might otherwise irritate the sensitive organ. If a lacerated perineum existed, it would be necessary to supplement the treatment of the uterus by restoring the parts to their normal condition. The daily evacuation of the bowels so as to do away with any mechanical cause of pressure from above was essential. Dyspeptic symptoms, especially those accompanied by a distended condition of the abdomen, should be simultaneously treated and removed by carefully regulating the diet and promoting the digestion by suitable measures. High-heeled boots and tight lacing should also be prohibited, and the patient should be debarred from any treadle movement of the feet, such as was induced by riding on a tricycle or bicycle, working the sewing machine, or playing the harmonium. Finally, the general hygienic condition of the individual should be attended to.

DISCUSSION ON PUERPERAL SEPTICÆMIA.

I.—Robert Barnes, M.D., F.R.C.P., F.R.C.S.,

Consulting Obstetric Physician to St. George's Hospital.

Introduction.

In taking up the study of any great question one is naturally tempted to begin with a historical survey. It is an eminently fit and instructive method; but time and the consciousness that I cannot tell you more than you know forbid this introduction. It is enough for me, in this city—famous for so many achievements—to recall the memory of one of its most illustrious citizens, whose name is justly celebrated in this connection. I need hardly say it is that of John Armstrong. I well remember that his book was the first medical work I read. Let us then at once state the question: What is "puerperal septicæmia?" This raises the cognate question: "What is "puerperal pyæmia?" These terms are often used in an arbitrary and general sense. If we adopt the strict etymological meaning of the terms, we, of course, understand by "septicæmia" empoisonment of the blood by putrid or decomposing matter; whilst by "pyæmia" we understand empoisonment by pus.

And here we have to face a difficulty so frequent when we attempt to frame a rigid definition of a pathological state. Can we declare that either putrid matter or pus ever form in

the parturient canal without the intrusion of air, or unless excited by other matter from without? Or, to state the problem in other words, Is there such a thing as true endogenetic puerperal septicæmia or pyæmia? I doubt it. There is no such entity as simple puerperal septicæmia or pyæmia. If, then, we continue to use these terms we must be content to use them in their abstract or etymological significance. It is far more philosophical and practical to use a general term, as puerperal pyrexia or fever in a lying-in woman, which is comprehensive of all forms of blood disorder, and which commits us to no dogmatic or absolute theory, but which indicates resort to clinical and pathological analysis.

Definition, or unconscious synthesis, is too often the blind muddling together of unknown factors; whilst analysis is the rational pursuit of truth by the careful tracing of its component elements.

CHILDBED FEVER A PREVENTABLE DISEASE.

It is not necessary to dwell upon the usefulness of this discussion. Although the subject has been constantly under consideration for half a century or more, although our knowledge of septicæmia in its various forms has been greatly extended, it cannot be said that the application of that knowledge has been altogether satisfactory. Puerperal septicæmia or fever still prevails, and causes a deplorable mortality. One great commanding fact, however, is established; it is this: wherever medical authority and skill have had free action, the mortality in childbed has been reduced almost to the minimum; wherever this authority has not prevailed, excessive mortality in childbed still prevails. I will not enter into statistical elaboration to support this proposition. It is enough to cite the broad conclusions. Dr. Boxall,[1] bringing the figures of the Registrar-General down to the latest date, has confirmed what was already known—namely, that the death-rate from childbirth in England and Wales has not appreciably diminished, that puerperal fever has actually increased in the provinces, whilst in lying-in hospitals the success in preventing puerperal fever has been so striking as to establish beyond a doubt that childbed fever is amongst the most preventable of diseases. Dr. Williams of Cardiff, in evidence recently given before the Select Committee of the House of Commons on the Registration of Midwives, stated that in a population of 13,000 there fell 32 victims to puerperal fever in five years, and that this calamity was due to the practice of unskilled and careless midwives, who, in many cases, carried disease from patient to patient. Similar experience, we know, is not uncommon. It enforces the argument for subjecting all obstetric practice to the same control as that which has made hospital practice safe. Here we see the justification of the discussion. So long as death from puerperal fever figures in the mortality returns, so long must the attention of the profession, and of our sanitary authorities, be vigilantly maintained. I still think the first and most rational and most useful division of the causes of puerperal fever is into:

1. Those causes which arise in the subject herself, which are essentially the product of the puerperal process.
2. Those causes which arise externally to the patient, and which are inoculated or engrafted upon her.

I originally used the terms "autogenetic" and "heterogenetic." The terms "endogenetic" and "exogenetic" are more strictly correct.

A.—ENDOGENETIC SEPTICÆMIA.

Endogenetic septicæmia may be described as follows: The matter which is perhaps the first to be taken up into the circulation after labour is the fluid exudation, mostly serous, in the uterine and periuterine tissues. This is often considerable in quantity, especially if the kidneys have not been acting well, as when there is albuminuria. The second matter absorbed is Virchow's "physiological fat," the proceeds of the fatty liquefaction of the now superfluous tissues. A third matter is the accumulation of lactic acid and other products of the muscular waste attendant upon labour. This process is strictly physiological, and serves the purpose of filling up the vacuum in the circulating septum with healthy matter, and so of helping the secretion of milk, and thus of excluding, or, at least opposing, the invasion of unhealthy matter. Then there is the lochial discharge, which lies free in the cavity of the uterus and vagina; for the first twenty-four hours or so this is almost pure blood. It ought to be discharged externally, but, if retained in the parturient canal, it is apt to be absorbed. Pure blood, of course, is harmless, and may even be beneficial.

So far there is no poison, no sepsis; but the absorbed matter has to be disposed of in one of two ways: (1) undergoing normal metabolism; it is used up in the formation of new tissue and in the secretion of milk; (2) the residual portion, not so converted, has to be eliminated by the excreting organs. Now suppose that this healthy process is checked. The retained matter, missing its proper metabolic changes and destination, undergoes other changes of a noxious character engendering fever. Here we have the simplest type of endogenetic septicæmia.

Another form of endogenetic septicæmia arises when the lochial discharge, unduly retained in the parturient canal, undergoes putrefactive change and is then absorbed. This form is closely allied to, and easily merges into, the second or exogenetic form of septicæmia. It is indeed doubtful whether a real distinction can often be drawn. If blood be retained in the uterus, air being excluded, putrefaction will hardly take place. It is true—I speak from close observation—that blood long retained in a sealed uterus does undergo noxious changes, and, being absorbed, gives rise to a form of toxæmia; but there is an essential difference between this strictly endogenetic process and that where air is admitted; in this case the air may carry germs, and set up in a congenial soil putrefaction. Here, then, we have a mixed condition of endogenetic and exogenetic septicæmia.

B.—EXOGENETIC SEPTICÆMIA.

This leads us to the second order of cases of exogenetic septicæmia, in which a poison or poison-producing factor is introduced into the system from without, and which acts with special virulence in the puerperal constitution.

It is not, indeed, always easy to distinguish between the several forms of endogenetic and exogenetic forms at the bedside; but the distinction has its practical as well as its scientific value. Recognising the truth of the theory that there are two great sources of puerperal fever, we at once see that precautions must be coextensive, so as to meet every possible source of danger. The true line of action then is, first, so to prepare and fortify the lying-in woman as to obviate all the endogenetic causes; and, this accomplished, we shall have gone a long way in guarding her against the invasion of the exogenetic causes. And if we cannot succeed in repelling these exogenetic attacks, we shall at any rate have reduced their virulence by putting the system in the best condition to subdue them.

THE PREVENTION OF ENDOGENETIC SEPTICÆMIA.

Let us begin by inquiring how to obviate the endogenetic forms of puerperal fever. The first, the most comprehensive, antiseptic of all is the rational conduct of labour. This depends upon a right conception of the physiology of gestation, of parturition, of puerpery, and lactation. The whole process should be complete; failure or disorder at any stage entails the danger of perversion of the physiological order of progression. The vascular system, including the structure of the heart and vessels and the quality of the blood and secretions, is deranged. The result of this is more or less acute toxæmia. If the subject entered upon her trial in sound condition, the equilibrium may be restored, and all may go well. But if she were of feeble organisation, the glandular system especially imperfectly developed, the function of elimination is imperfect; stuff that ought to be converted or excreted is retained, and, undergoing noxious forms of metabolism, kindles fever.

In the right balance of functions lies the safeguard against most forms of endogenetic puerperal fever. In this lies the explanation why hard-working women, whose glandular system is highly developed, pass through trials which crush the delicate pampered daughters of Pluto. Many women of this class are unable to complete the allotted task; they may survive the stage of gestation and break down under the trial of labour; others may struggle through labour and puerpery, but are unequal to the duty of lactation. It is in

[1] *Lancet*, July, 1893.

this class that we find the most numerous victims of endogenetic puerperal fever. On the other hand, I believe that women of the working classes are more especially exposed to the invasion of exogenetic ills. And this may explain to some extent the persistent mortality in childbed in the provinces. And this again has its relation to the reduced mortality in lying-in hospitals. The majority of the patients belong to the working classes. If we set aside the exceptional contingent of single women primiparæ, hospital patients are comparatively safe from endogenetic disease. It is certain that the hospital mortality was mainly due to infection from without. If lying-in hospitals have justified their existence, we cannot say as much of lying-in wards in general hospitals. These are absolutely condemned by experience.

Now I will endeavour to enumerate briefly the main points to be observed to safeguard the puerpera from endogenetic mischief. All these will be of service also in diminishing the risk of exogenetic invasion.

1. Avoid "meddlesome midwifery." Avoid the tampon or plugging.

2. Labour involves traumatism. The bared surface left by the detachment of the placenta, bruising, laceration of the cervical canal and vagina, laceration of the perineum are wounds, open gates, for the entrance of foul stuff from the parturient canal; that is, open wounds exposed to air and not allowed to heal are liable to suppurate; hence "pyæmia." We cannot altogether close the uterine wound, but I insist that the lacerated perineum should be stitched up on the spot or within twenty-four hours. Even the traumatic surface of the uterus may be practically closed by ensuring contraction of the organ. During and after the expulsive stage the uterus should be compressed, and pressure must be maintained by careful abdominal bandaging. To most men of experience it may seem superfluous to mention this, but I have known men who do not practise it; I may, therefore, be excused if I point out the danger of neglecting it. The use of a good binder obviates suction from without. The danger of hæmorrhage is not the only risk from want of contraction, and we must never forget that hæmorrhage, by creating or augmenting the vacuum in the circulating system, increases the centripetal suction force, and thus greatly promotes the absorption and retention of actual and potential poison elements. Again, when the uterus becomes flaccid, its cavity enlarges, and falling back and upwards into the abdomen, shrinking from the pelvis, a vacuum is created producing suction, not alone of foul stuff in the vagina, but also of foul air and other stuff from without, and air may be drawn into the open mouths of the veins, thus causing sudden death.

3. Having shut the gates as far as possible against poison, take care to remove actual or potential poison. Cleanliness will do this. One rule is to preserve the dorsal decubitus with the head and shoulders somewhat raised. This helps drainage; blood and secretions flow out, and this position also impedes suction. Then there is the question of injection and irrigation. Here we touch on the perilous borderland of "meddlesome midwifery." I am persuaded that, as a general rule, irrigation is better avoided. Of course there are exceptions, as after hæmorrhage, or where clots accumulate. Examine the placenta to see if it is entire. If pieces remain *in utero* attached to the walls, the question of curetting arises. This operation demands the greatest gentleness and care. The wall of the uterus is easily torn. I believe the removal of adherent bits of placenta is best done by the finger, a sentient instrument which may be trusted to know what it is doing.

4. The antiseptic diaper should be used, and the external parts should be washed with a carbolic solution.

5. Another safeguard upon which I have long insisted is the administration of oxytoxics, if I may so call them, after labour. Quinine, ergot, hamamelis in moderate doses three or four times after labour, have an excellent effect, not alone as general tonics, but in keeping up steady contraction of the uterus.

6. There is a condition of the lying-in woman which is the main factor in the production of toxæmia. This lies in the sudden transition from evolution to involution or regression. A sudden increase of the force of absorption takes place. The thirsty circulating system may be said to suck in all superfluous stuff. I need not insist here on the absorption of the now superfluous tissues of the heart vessels and uterus. This is a gradual process, not immediate. The first immediate indraught is exercised on the effused fluids surrounding and in the tissues of the uterus and pelvic organs. This presents the first trial to the circulating and excreting organs, but we must never forget that the absorptive energy now developed does not always end with the sucking-in of effete matter, and that metabolism and elimination must keep pace with absorption. If the due balance is not maintained the blood becomes loaded with effete matters, and, thus retained, undergoes unknown changes. There is endogenetic toxæmia. One important safeguard in fortifying the system against the tendency to fill up the parturient vacuum by the absorption of injurious matter is the supply of wholesome easily assimilated food.

The Prevention of Exogenetic Septicæmia.

Now we are brought face to face with the danger of exogenetic poisons. The absorptive energy is still the active factor. Whereas in the endogenetic form the poison is formed in the system or absorbed from the genital tract, in the exogenetic forms we have superadded one or more of a multitude of poisons, some of which may be absorbed from the genital tract, having been carried there by the obstetric hand or instruments, or some of which may enter by other gates, as the lungs, the skin, the stomach. Here we have a complex condition. The poison taken in from without may immediately come into contact and fusion with the endogenetic poison, or by disturbing the natural excreting power an endogenetic poison is produced. And thus we have a compound form of toxæmia resulting from the interreactions of the endogenetic and exogenetic poisons. Here I must ask indulgence for a little criticism. It has been said that "scarlatina, for example, in a puerpera is scarlatina and nothing more." According to this specious dogma, the puerperal state, with its exaggerated absorptive energy, with its blood loaded with effete, even poisonous, stuff is an unimportant factor. This is to contend that the culture ground has no influence upon the morbid germs. Clinical observation proves the absurdity of this dogma. I think clinical observation has proved that, although endogenetic toxæmia may be a comparatively simple condition, an exogenetic poison entering the puerpera must necessarily result in a compound of endogenetic and exogenetic elements, and that in many cases, if not in all, new poisons will be formed of their mutual reactions. A simple exogenetic toxæmia there cannot be. Why is it that lying-in women are especially prone to the invasion of zymotic poisons? This being so, does it not follow that the puerperal constitution is peculiarly susceptible to the injurious working of the poison?

It may be stated broadly that the prevention of zymotic infection falls within the province of general hygiene. I will not encumber this discussion by dwelling upon this branch of the subject. It must be enough to urge that the strictest rules of cleanliness must be enforced upon all who come into relation with the puerpera. This applies to the doctor as well as to the nurse. It is not, indeed, always possible for the doctor to avoid attending a labour within a short time of a visit to a zymotic patient. Amongst the precautions to be taken, I may be permitted to urge that the nurse should be made to take an open-air bath two or three hours a day. It is a wise thing for himself as well as for his patients for the doctor to ride on horseback, or on a cycle, or in an open carriage, and not to wear gloves. A healthy physician is likely to make healthy patients. Nothing purifies like fresh air and exposure to the sun. It would be impertinent to insist upon the observance of the ordinary rules of cleanliness.

In discussing the question of the origin and treatment of puerperal toxæmia, we ought not to omit the influence of meteorological conditions. The curves of mortality from puerperal fever run in remarkable uniformity with the curves of mortality from zymotic diseases in the general population. Like them, puerperal fever is more rife in autumn, winter, and spring. This coincidence naturally suggests the inference that puerperal fever is largely due to zymotic infection. This, no doubt, is true; but it also raises the question

whether the atmospheric conditions, which start and give virulence to the zymotic epidemics, may not also act in producing the more purely endogenetic forms of puerperal toxæmia. My own observations—many made under the most favourable conditions—confirm this hypothesis. One condition of the atmosphere especially efficient in the production of endogenetic fever is dampness, or the saturation of the air with water. Under this condition pulmonary exhalation is seriously impeded. The lungs become surcharged with a large excess of humidity, which permeates their tissues and encumbers the air passages. The contact of cold damp air also stops cutaneous evaporation. The increase of urinary secretion and evacuation by the bowels may in some measure compensate for the insufficient exhalation by skin and lungs, but hardly enough to maintain the physiological equilibrium. Again, sunshine and light favour the respiratory work. A high barometric pressure increases the absorption of oxygen and the exhalation of carbonic acid. Low pressure has the contrary effect.

The practical lesson to be drawn from these facts is to secure a good airy bedroom facing south, and to maintain dryness of the air and ventilation by fires.

In addition to the ordinary zymotic poisons, we must not forget the cadaveric poison which originates in the dead body, and which may be communicated by the hand of the obstetrist who has been engaged in dissection. This subject is inseparably associated with the name of Semmelweiss. It is superfluous to discuss it in any detail. His work has been of incalculable value on the Continent, where lying-in hospitals are more numerous and more crowded than in this country. A form of cadaveric poisoning I have observed is that which arises during the carrying of a dead child. One point, however, in this connection I think is necessary to distinguish. It is this: not questioning the existence of a specific cadaveric poison, we must not conclude that this is the active factor in every case of poisoning conveyed to the lying-in woman by one recently engaged in dissecting. The body dissected may be that of a person who had died of typhoid, of scarlatina, or other zymotic disease, and the poisonous element conveyed to the puerpera may really be zymotic, or a compound of the zymotic and the cadaveric poisons. Of this I have seen very striking examples. The characters that stamp a zymotic, say scarlatina, in a non-pregnant person may be so suppressed or changed in the puerpera, as not always to be recognised. The great—the crucial—test of zymotic infection is the development of the zymotic disease with its characteristic features after contact, mediate or direct, from an infected puerpera to another person. Another proof, in my opinion, is the successive propagation of fever to puerperæ through the direct agency of the doctor, midwife, or nurse.

I doubt whether the pure endogenetic toxæmia is propagated in this way. Where contagion is traced, the presumption is strong that the disease conveyed is of zymotic or exogenetic nature. But the penalty of error is so great that I do not think we should ever assume that a given case is of simple zymotic nature, and so be led to neglect the usual precautions.

ANTISEPTIC MIDWIFERY.

It will be useful to test by the experience of those present the value of some of the principal antiseptic measures and agents which are relied upon at the present time. This will be conveniently done by describing the means adopted of late in the lying-in hospitals. These means find, of course, application in domestic practice.

1. Each patient should have a room to herself.
2. The room, after use, should be empty for a fortnight, and undergo purification.
3. The walls should be varnished, not whitewashed.
4. Air and sun should be let in.
5. Vapours of iodine, bromine, chlorine, hydrochloric acid, and subnitrous acid are useful in destroying germs.
6. Of all agents for antisepsis, I believe the best is atomised carbolic acid. This is used during and after labour.

The experience of the British Lying-in Hospital is especially instructive. Since 1881 there has been no puerperal fever in it. The proportion of difficult cases requiring operation has been about 8 per cent. The deaths during fourteen years have been 1 in 176. Carbolic spray is constantly kept up, and Dr. Barr reports that Tarnier, since his visit to the hospital, adopted this plan of Dr. Fancourt Barnes in his Maternité.

I believe there is a virtue in this atomisation of carbolic acid apart from that of sterilising the germs in the air. Inhaled and then absorbed into the blood it acts as an antidote or corrective to any poison that may be developed in, or have been introduced into, the systems. During the cholera epidemic of 1866 I introduced a similar system on board the *Dreadnought*, and, I believe, with beneficial result. It is an excellent *route* for the administration of remedies, preventive and active.

An important argument in favour of vaporous or aërial disinfection is that not alone the puerpera, but also the doctor and attendants, are purified in body and clothes. A point of great importance is the selection of efficient and safe antiseptics. I quote a list of the principal agents employed; they have been classified thus:

1. *Simple Bodies.*—Oxygen, iodine, chlorine, bromine, sulphur, charcoal, mercury.
2. *Mineral Acids and Salts.*—Nitric, arsenious, chromic, boracic, sulphurous acids; chloride of zinc, chloride of lime, sulphate of iron, nitrate of silver, nitrate of lead, alum, iodide of potassium.
3. *Organic Compounds.*—Hydrocyanic acid, tannic acid, gallic acid, iodoform, camphor, chloral, eucalyptol, menthol, tar, oil of tar, salicylic acid, tolu, benzoin, quinine, ether, carbolic acid.

Some of these may without loss be left out of consideration. The selected agents may be used in three or more ways:

1. Externally in the form of gas or spray; for ablution to destroy poison germs which might attack the puerpera.
2. They may be used as lotions, powders, or unguents introduced into the genital tract to prevent the development of septic matter or to destroy it if formed.
3. They may be used as ordinary medicines, that is directly introduced into the system by inhalation, by absorption, by the skin, by the mouth, or by injection into the veins, or by subcutaneous injections.

Some agents will act in two or more of the above ways. Which of these shall we select? Those of which we have the most experience are carbolic acid, iodine, chlorine, mercury, sulphur. All are possessed of valuable qualities. But the first condition is that they be used in suitable cases and in a judicious manner. This qualification is no more than what rules in general therapeutics. Most agents possessed of healing properties may act injuriously if used in excessive doses or otherwise improperly. If they are powerful for good, they are also powerful for evil. Thus, although we have the most incontrovertible evidence of the value of carbolic acid in various forms, it is also known that if absorbed in undue quantity it may cause hæmoglobinuria and even death. Chlorate of potash acts in some degree as a remedy. The bichloride of mercury, so much extolled by Tarnier, and which has given him and others such brilliant results, has also its dangers. Cases of poisoning by it are not rare. It can hardly be trusted in the hands of midwives or nurses. Some definite rules as to the strength and modes of using it should be rigidly enforced. Hofmeier and Auvard observed that the presence of nephritic complication greatly increased the danger of using corrosive sublimate. Iodoform in powder applied to wounds has acted in a poisonous manner. Turpentine, an old-fashioned remedy, as an intravaginal or rectal injection is fairly safe. Iodine is, I believe, the most valuable antiseptic, in the proportion of iodine 5 to water 1,000. Eucalyptus is, I understand, used in the Glasgow Maternity.

CONCLUSIONS.

To sum up this very imperfect exposition of a great subject, let me briefly recapitulate, stating the leading points in index form:

1. What do we understand by the terms "puerperal septicæmia" and "puerperal fever?"
2. What are the different forms of puerperal fever?
3. The care of the pregnant woman and the puerpera.
4. The causes and sources of puerperal fever in the general population.
5. The means of preventing the external causes of infection as zymotics.
6. The fortifying the system of the puerpera against invasion, and counteracting the poison if invasion have been effected.

7. The cadaveric poison.
8. The chief antiseptic agents, their relative efficacy, the dangers attending them, and the modes of using them.

The discussion of these and other connected topics which I may have omitted is now in your hands. That discussion will, I am confident, be fertile in facts and arguments that will make amends for the imperfect manner in which I have performed the task allotted to me.

II.—A. R. Simpson, M.D.,

Professor of Midwifery in the University of Edinburgh.

The Necessity for Cleanliness.

Professor Simpson expressed the indebtedness of the Section to Dr. Barnes for his interesting contribution to the discussion of the important subject of puerperal septicæmia. He would at once say that he believed the analytical tendency of Dr. Barnes's intellect had led him to lay too great a stress on the distinction between what he now spoke of as endogenetic and exogenetic septicæmia. Professor Simpson thought that what the obstetrician had to consider in face of any case that might occur in his practice was whether the poison had been brought to the patient through his own hands or the hands of some other attendant; and in general practice we had all to try to find out what were the sources whence we might bring danger to the lying-in room. Dr. Simpson would eliminate from this discussion all zymotic cases. There might be various puerperal fevers, for the puerperal woman might be affected with scarlatina or other zymotics, but the greatest improvements had resulted from noting the various sources for the development of dangerous microbes. Whatever theories might be entertained as to the nature and mode of action of streptococci and other germs, it was clear from our present standpoint that it was of prime importance that we should recognise their danger, and see to it that both our own hands and instruments, and those of the nurse and other attendants, were scrupulously disinfected. One of the important injunctions we would lay on ourselves and on younger practitioners was to cultivate the power of recognising the conditions of labour by abdominal palpation, and to avoid all unnecessary internal examination.

III.—C. J. Cullingworth, M.D., F.R.C.P.

Cases of Puerperal Fever in overwhelming Proportion Exogenetic.

Dr. Cullingworth, referring to the question of the possibility of an occasional endogenetic origin of puerperal septicæmia, expressed his opinion that the answer depended on a point not yet finally settled—namely, the possibility of non-pathogenic organisms in the parturient canal becoming pathogenic. He called attention to a valuable paper on the bacteriology of puerperal septicæmia in the July number of the *American Journal of the Medical Sciences*, by Dr. Whitridge Williams of the Johns Hopkins Hospital, Baltimore, in which the present state of our knowledge was ably summed up. Practically, however, the safest assumption was that puerperal septicæmia was due to infection from without, and and that in the overwhelming majority of cases the infection was carried by the fingers or instruments of the doctor, the midwife, or the nurse. That patient would be the most safe whose attendant, during and after labour, acted on this assumption, and concentrated his efforts on the disinfection of himself, the nurse, and the instruments.

The Dangers of Douching.

With regard to the methods of antiseptic midwifery, Dr. Cullingworth desired to emphasise the danger, in using douches, of carrying infectious micro-organisms from the lower part of the genital tract into the upper. Owing to this danger he was of opinion that the douche ought never to be administered except by the doctor himself, or by a thoroughly skilful and well-trained nurse. Fortunately, the douche was a non-essential; in fact, so far as private practice was concerned, it was not at all certain that the patient was not safer where no douche was used. Far too much attention had been paid to douching to the neglect of the really important measures. With reference to the danger of sublimate poisoning alluded to by Dr. Barnes, he would remind the Section that no case of poisoning had occurred where the douche had been omitted. Poisoning by sublimate absorption could only take place when the solution was used internally. Employed as a disinfectant of the practitioner, the nurse, and the instruments, the legitimate objects for disinfection, corrosive sublimate was absolutely safe, and there could be little doubt, from the comparative observations made by Dr. Boxall at the General Lying-in Hospital, that corrosive sublimate was, for obstetrical purposes, the most efficient antiseptic at present known. Dr. Barnes had expressed a desire that an authoritative code of instructions should be drawn up for the use of antiseptics in midwifery. Dr. Cullingworth was glad to inform the Section that such a code had been prepared by the Medical Committee of the General Lying-in Hospital, York Road, Lambeth. The Committee consisted of Dr. John Williams, Dr. Champneys, Dr. Herman, and himself. The code had been printed by the Board of Management, and could be obtained from the Secretary of the hospital at the trifling cost of one penny.

IV.—Dr. Robert Boxall.

The Technique of Antisepsis.

Dr. Robert Boxall considered that no more apt subject could be presented for discussion. Not only was the mortality from this disease very grave, but the after-effect of illness, even when the patient escaped death, was a serious item. Those attacked by this disease were not the old and decrepid, but women in the prime of life, often the most healthy. On these grounds, this disease was a serious calamity from an economic standpoint, serious especially from the point of view of the patient and her family, and serious, also, on the doctor's account, unfortunately leading not infrequently to resignation of his practice. But serious as it undoubtedly was, the experience of lying-in hospitals, of outside maternities, and of private practice had alike shown that puerperal septicæmia was a disease essentially of a preventable character. The grave mortality which still persisted ought not to be laid entirely to the door of the medical profession, considering that, as far as could be judged, half, or even more than half, the total midwifery practice was in the hands of a class of self-styled midwives, who had but the crudest notions of ordinary cleanliness, let alone aseptic midwifery. Even when a doctor was in attendance, a vast amount of mischief might be, and often was, wrought by an ignorant and incompetent nurse. The safe conduct of a labour case in the hands of a medical attendant was largely a matter of training and experience in antiseptic measures. In this connection, Dr. Boxall would join issue with Dr. Robert Barnes as to the possibility of establishing lying-in wards if not in, at any rate in conjunction with, general hospitals. Recent experience had shown that it could be safely accomplished. Aseptic midwifery required attention to numerous points of practical detail which could be taught much more efficiently at the bedside if the patient were in hospital. Dr. Boxall had no intention of discussing these details on the present occasion. But the position which should be assumed in the conduct of a labour case might, perhaps, be easily grasped by bearing in mind the analogy presented by the precautions adopted to secure asepsis in abdominal section. The essential aim in both was to prevent the introduction of septic material from without. And though scrupulous attention to the hands, and, in fact, everything likely to be brought into contact with surfaces capable of absorption, was most essential, he would not omit an attempt to render aseptic the field of operation—in other words, he would consider the necessity of douching the vagina before delivery as on a par with disinfection of the skin of the abdomen preparatory to ovariotomy. For this purpose he would employ a strong antiseptic solution (sublimate 1 in 2,000), which at this stage, at any rate, was unattended with danger. And, again, immediately after delivery, in analogy with careful washing and disinfection of the wound prior to the application of the dressings in ovariotomy, he would also douche the vagina. This required no little care, and should never be entrusted to a nurse. But, subsequently, he would not use the douche or other antiseptic device except under special circumstances, comparable to such as occasionally necessitated removal of the dressings in ovariotomy. Under these circumstances, the parts about the vulva having been first disinfected, the vagina should be douched. After this had been done, should

the necessities of the case demand it, the intrauterine douche should be resorted to. It would, perhaps, not be stretching the analogy too far to compare this exceptional measure with opening up and flushing the abdomen under exceptional circumstances. And, where specially indicated, he would not hesitate to employ a strong antiseptic solution, with a view of determinating the mischief speedily. As regards the choice of antiseptic agents, he would emphasise the fact that, despite its many drawbacks, sublimate had as yet given the best results. For external purposes, such as disinfection of the hands, it was not to be surpassed, and as a douche, provided due care were exercised, it might be used with safety. Generally speaking, unless specially contraindicated, he would recommend sublimate in preference to any other antiseptic agent.

V.—ELIZABETH GARRETT ANDERSON, M.D.,
THE LOW MORTALITY IN LYING-IN HOSPITALS.

MRS. GARRETT ANDERSON thought nothing less should be aimed at than the complete disappearance of puerperal septicæmia. Statistics showed that lying-in hospitals had now a much lower mortality than they had formerly, even lower than that in private practice, and this was a great encouragement for the future. If septicæmia could be banished from hospitals, it could not be impossible to banish it from private practice. She knew of a midwifery charity carried on at Clapham by Miss McCall in which out of nearly 3,000 cases there had been a maternal mortality of one case. This result had been gained by immense care in detail as to the aseptic condition of the hands of the doctor in charge and the nurses. The method followed was that formulated at Vienna. No douching was done after parturition.

VI.—J. W. BYERS, M.D.,
Belfast.

DR. BYERS said the great feature of Dr. Barnes's paper was the fact which he had brought out most—while puerperal fever had been banished out of lying-in hospitals, the mortality was still high in private practice, therefore, he thought we should take lying-in hospitals as a model, and aim in private practice at following out the principles adopted there, with, of course, certain modifications suited to private practice. He spoke of the value of local treatment in puerperal fever, of drainage, and of the advantage of corrosive sublimate as an antiseptic, only, however, to be used by a doctor or experienced nurse. He thought that if a medical practitioner had a case of puerperal fever, if he took every precaution to disinfect himself, changed his clothes, and used full antiseptic precautions, he might shortly resume practice. As Esmarch said, "Time did not destroy septic dirt."

VII.—THOMAS OLIVER, M.A., M.D., F.R.C.P.,
Physician to the Royal Infirmary, Newcastle-on-Tyne.

INEVITABLE CHILDBED MORTALITY.

WE must all admit that a very large amount of puerperal septicæmia is preventable, but there will still remain a large number of cases over which we can have no control, such, for instance, as cases like the following: A large rent occurred in the posterior wall of the vagina, high up close to the uterus, and a few hours after parturition there was a rigor, followed by rise of temperature. When I saw the lady in consultation, on the twenty-first day, she was comatose. There was paralysis of the right arm, and paralysis of the left leg, with irregular pupils, pointing—although no cardiac murmurs were detected—to thrombosis of cerebral vessels, accompanied probably by septic meningitis. Here is a case quite beyond our control and prevention. Again, there are accidents occurring during the pregnancy, such, for instance, as happened in a patient whom I saw nearly a year ago. This woman, in her eighth month of pregnancy, had a severe uterine hæmorrhage. It lasted for two or three days. A week or two afterwards she had a severe rigor, and for a few days there was a rise of temperature. This, however, subsided, and she went on to the termination of the pregnancy, but a day or two before parturition there was again a rise of temperature and a fleeting paralysis of arms and legs, evidently due to multiple neuritis, and dependent upon the circulation of toxic material in the blood. The doctor was not present at the confinement. The baby was born, and the placenta was expelled before he came. When I saw the patient, on the third day after her confinement, she was dying from puerperal peritonitis. Or, again, take another case such as I saw only a few months ago, where a patient in the early part of the ninth month of pregnancy developed a left-sided phlegmasia alba dolens, with effusion into the knee-joint. I regard most cases of phlegmasia as septic, and I must confess that I was rather anxious for the safety of this patient; and yet she went to her full time—went through the process of parturition satisfactorily, and made a good recovery. I mention these to show that there will always be a number of cases of puerperal septicæmia attributable to causes that we cannot always regard the medical attendant as specially responsible for. The same remarks, too, apply to cases where there has been old pelvic peritonitis, salpingitis, or an abscess of the ovary. During labour, and after its completion, when the uterus is firmly grasped by the hands of the accoucheur, there must be breaking up of adhesions and absorption of pus. It is in these and similar cases, where there have been undoubted signs of pelvic peritonitis associated with pus in the tubes or ovary, or where the peritonitis has become generalised, that abdominal section, with antiseptic irrigation, is called for. Only the other day in Hull I saw a lady who on the third day after her confinement was dying from puerperal peritonitis, with pus in abdomen. I feel certain that had abdominal section been early performed she might have recovered, as was the result in a case seen not long before, where an abscess of ovary and tube were removed in a puerpera with an excellent result.

VIII.—A. G. AUST-LAWRENCE, M.D.,
Bristol.

PRACTICAL PRECAUTIONS.

DR. AUST-LAWRENCE considered that the two great things to do were (1) for the medical attendant to render himself absolutely aseptic; (2) to keep the patient from poisoning herself. This was to be done (*a*) by preventing her becoming exhausted in her labour; (*b*) by securing and maintaining firm contraction of the uterus afterwards; and (*c*) maintaining an aseptic condition of the discharges.

THE TREATMENT OF RETROVERSION OF THE GRAVID UTERUS.

By C. E. PURSLOW, M.D.Lond.,
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I HAVE had a series of six cases of backward displacement of the gravid uterus in the obstetric ward of the Queen's Hospital, under my care, during the past twelve months; and the divergent rules laid down in textbooks for dealing with this condition have led me to think that a brief summary of the different methods advised may not be considered out of place. I will first of all briefly note the rules which have been laid down.

Denman, in his treatise on *Midwifery* published in 1794, writes very fully on this condition, and gives complete directions as to treatment. In his opinion, retention of urine was the cause of the retroversion, and he even goes so far as to say that the displacement cannot occur without previous retention. Though undoubtedly distension of the bladder may be the direct cause of retroversion, it is usually considered now that in many cases the displacement already exists from the onset of pregnancy, and that the distension of the bladder is produced by the gradually increasing uterus eventually filling the pelvis, and obstructing the urethra, and this is proved by the fact that in some cases the displacement may be diagnosed before any bladder trouble has arisen; and if not replaced, retention of urine ensues.

Denman lays down precise directions as to the method of emptying the bladder, advising the use of a flexible male catheter, and drawing attention to an important point which is not referred to in many later textbooks, namely, that in some cases the flow of urine ceases before the distension is removed, and says that this sometimes happens in such a manner as to give us the idea that the bladder is divided into two cavities.

In a case reported by Dr. Halliday Croom in the *Edinburgh*

Medical Journal, April, 1890, in which death ensued, and in which frozen sections were made *post mortem*, it was found that the urethra was not compressed or distorted, but that the retroverted uterus had compressed the bladder walls against the pubes. The part compressed included the trigone, except a small part under the left ureter, which opened into the distended portion; the right ureter opened into the compressed portion. In this case, a catheter passed its whole length, but no urine was withdrawn, what probably happened being that the catheter coiled itself up in the portion of bladder below the compression; in consequence of this, the abdominal swelling was thought not to be a distended bladder. The pressure in this case was due to the fundus, the cervix being thinned out and soft; and this is probably usually the case, the mere position of the cervix having no effect on the results, and the division into retroflexion and retroversion being practically immaterial.

Denman points to the futility of attempts to replace the uterus before the bladder is emptied, and to the fact that in all fatal cases death was directly due to the bladder obstruction, and that, apart from that, the displacement did not seem to do much harm. It appears that before Denman's time it had been considered necessary to replace the uterus at once after emptying the bladder. He very strongly controverts this view, and I may sum up his views in his own words: "We may then bring the matter to this conclusion. If the uterus when retroverted can be replaced by art without the exertion of much force or the risk of mischief, the immediate reposition, though not absolute necessary, is at all times an event to be wished, as farther apprehension and trouble are prevented, the safety of the patient ensured, and her mind quieted. But when the uterus cannot be replaced without violence, it seems more justifiable to wait for its return, and to satisfy ourselves with watching and relieving the inconveniences produced by the retroversion." He makes no direct mention of the genu-pectoral position, nor does he advise a pessary after replacement. Rigby, in his *Obstetric Memoranda* published in 1856, in giving the treatment of this condition, advises pressure by the hand in the vagina, bleeding to syncope, and, in cases where replacement does not follow these methods, tapping the uterus, but does not mention the genu-pectoral position.

To come to the rules laid down in the present day, Spiegelberg, in the translation of his work issued by the New Sydenham Society in 1887, advises that after emptying the bladder the uterus should be replaced by the fingers in the vagina, with the patient lying perfectly horizontal, with pelvis raised and thighs flexed. He discountenances attempts at replacement by india-rubber bags in the vagina, and says that by their presence they would tend to excite bearing-down efforts, and so increase the displacement. He differs from all the other authors I have consulted in advising that attempts at reposition should be made even with the bladder distended if it has proved impossible to pass the catheter, and for that purpose advises pressure with two fingers *per rectum*, the patient being under chloroform. One would be inclined to look on this as somewhat dangerous, and to regard the usual plan of emptying the bladder by aspiration above the pubes, where catheterisation proved impossible, as being preferable.

Playfair, in his treatise on *Midwifery*, advises that, after emptying the bladder, the method of replacement to be adopted should be the introduction of an india-rubber bag into the vagina, which is to be distended with water and so exercise constant pressure. Failing this, he advises that the patient should be placed in the usual obstetric position at the edge of the bed and thoroughly anæsthetised, and one or more fingers or the whole hand passed into the rectum, and so replacement effected; and with reference to the genu-pectoral position he says—and I would especially draw attention to this point, as his book is accepted as a guide to midwifery practice by many: "Others recommend the hand and knee position as facilitating reposition; but this prevents the administration of chloroform, which is of more assistance than any change of position can possibly be." And it is this statement that suggested to me that I should narrate the cases I mentioned at the beginning of this paper, as in them the superiority of the treatment by position was very marked. Of these cases, in three there was incarceration with retention of urine and distended bladder, and in the other three there was no incarceration. I will venture to give briefly the history of the first case, as it is interesting as bearing on the pathology of the condition. As I mentioned before, it is generally held that the condition is due to pregnancy taking place in an already retroverted uterus, and in nearly all cases as the uterus enlarges there are various symptoms preceding the absolute retention of urine, the most prominent being bearing down sensation and irritability of the bladder; but in this case the retention came on suddenly and was not preceded or accompanied by any other symptoms.

Case I.—The patient, aged 27, had had four children, and had last menstruated fourteen weeks before admission. She was admitted at 6 P.M. on August 1st, 1892, and stated that she passed water without any inconvenience or pain at 11 A.M. the previous day; on attempting to do so again at 3 P.M. on the same day, she found she could not, and did not pass any more until admission. She had gradually increasing painful desire to micturate, but no other symptom. On admission, the bladder formed an abdominal tumour, and the retroverted fundus could be felt on vaginal examination. Fifty ounces of urine were drawn off by catheter, and with patient in left lateral position an attempt was made to replace fundus with fingers first in vagina and then in rectum, but without effect. The advisability of giving chloroform was considered, but meanwhile it was determined to try genu-pectoral position. Patient was placed in that position, and immediately felt something move, and on examining her it was found that the uterus had completely righted itself. She passed water naturally a few hours afterwards. She was kept in bed a few days afterwards, being enjoined to lie on face or side and not on back. An elastic ring pessary was introduced. She was allowed to go home. She was kept under observation for two months afterwards and had no further difficulty with micturition.

Case II.—In this case the patient had had retention for a week, but had had the catheter passed twice daily by the medical man who was attending her. The same method was adopted with a satisfactory result.

Case III.—A primipara, aged 19; she had not menstruated for about three months and a half, and had been complaining of gradually increasing difficulty of micturition for a fortnight, and of complete stoppage for thirty-six hours. She had been under a medical man, and had been treated by medicine, but no examination had been made. The catheter was passed, and 60 ozs. of urine withdrawn; the patient was then placed in genu-pectoral position, and pressure made on fundus with fingers first in vagina and then in rectum. The fundus could be elevated just above the brim, but could not be made to resume a completely normal position. She was directed to lie on her face, and in a few hours passed water herself, and the next day the uterus was found to have gone back into a normal position.

Of the three cases in which there was no incarceration, in one the uterus was replaced in the genu-pectoral position, and in the other two the mere assumption of the prone position by the patient was sufficient. One of these case was interesting, inasmuch as there was so great an amount of prolapse associated with the retroflexion that the cervix protruded externally. To sum up, I would say that in all cases of backward displacement of the gravid uterus (retroversion or flexion) associated with retention of urine, after passing the catheter, an attempt should be made to replace the uterus with the patient in the genu-pectoral position before proceeding to administer an anæsthetic, and that should this not be successful it is probably better to keep the patient in bed lying as much as possible on the face, and to use the catheter at regular intervals, repeating the attempts at replacement in the genu-pectoral position for a day or two, rather than to place her under an anæsthetic and use considerable force in endeavouring to secure replacement.

The subsequent treatment after replacement has been effected is, I think, important, and consists in keeping the patient in bed for a few days, strictly forbidding her to lie on her back, and the insertion of a ring pessary before she is allowed to get up, with subsequent strict injunctions as to the necessity of not neglecting the calls of Nature. In all the cases in which these precautions were observed there was no recurrence of the displacement or subsequent bladder trouble. The pessary may be removed at the termination of the fifth month of pregnancy, after which date the size of the uterus will preclude the possibility of its again descending into the pelvis.

Dr. Heywood Smith thought the consideration of this condition of the gravid uterus of great importance, and agreed with Dr. Purslow that it was better to attempt to replace the uterus in the genu-pectoral position without anæsthetic, as the patient's feelings were a sort of guide to prevent undue pressure, and that the pressure should be made gradually and without the use of too much force. He also advocated the use of the tilted bed, which he had found useful also in cases of fibrous tumour of the uterus and congestion of the ovaries; it was the bed lifted at its foot by blocks of wood 8

or 9 inches high. This gradual plane often effected a cure without any other interference.

Dr. AUST-LAWRENCE observed that in some cases the ordinary symptoms of retroflexed gravid uterus might be present, and yet the pelvic tumour was not the body of the uterus, but a retro-uterine blood tumour. He mentioned cases in which this tumour was an extra-uterine pregnancy. He recommended that the bladder should be emptied, and the patient put in Sims's position or knee-elbow, if necessary, and attempts made to replace the uterus without an anæsthetic; if this could not be done at once, the patient should be kept in bed, and the attempt renewed in a few days. The main danger lay in the bladder; it was therefore necessary to keep it relieved, and some days might be allowed to elapse before the replacement. Dr. Aust-Lawrence mentioned one case that was allowed to go on for six months, when he replaced the uterus; and also one case that went on to full term and died.

SECTION OF PSYCHOLOGY.

T. W. McDOWALL, M.D., President.

INSANITY FROM THE ABUSE OF INDIAN HEMP.

DR. THOMAS IRELAND (Government Medical Officer, British Guiana) said that the excessive use of Indian hemp, or cannabis indica, had long been recognised in Eastern countries as one of the most common vices, and as a very prolific cause of insanity. It had been introduced into British Guiana and the West Indies by the East Indian coolie immigrant. The vice was almost entirely confined to the male sex and to Hindus, Indian Mahomedans being rarely addicted to it. In British Guiana, fully 30 per cent. of the coolie patients admitted into the Berbice Lunatic Asylum showed a history of having been habitual smokers of the drug. Dr. Ireland then proceeded to describe the different forms in which Indian hemp was prepared and used, bhang being the cheapest and commonest, producing quiet, pleasant delirium and stupor. Churrus, which was the dried sticky resin, caused excitement attended with violence. The drug was also used in the form of a sweetmeat called majoom, and smoked as ganja, made from the dried flower tops, the latter preparation being the one generally employed by the coolies in British Guiana and the West Indies. After describing the different stages of incipient mental disorder, and the course of the various types of insanity due to the excessive use of Indian hemp, with their prognosis and treatment, Dr. Ireland remarked that as yet no special pathological change had been observed in such cases, except the common occurrence of asthma in ganja smokers. He illustrated his remarks with a clinical account of three typical cases of the extreme forms of insanity, the first being one of acute mania with homicidal impulse; the second acute melancholia, with attempted suicide; and the third one of chronic dementia.

Dr. MURRAY LINDSAY was greatly impressed by one fact mentioned in the paper, namely that the use of Indian hemp was confined to the male sex, and he desired some explanation on this point, because it was well known that in the United Kingdom the alcohol and opium habits were by no means confined to one sex.

Mr. PEEKE RICHARDS asked Dr. Ireland whether any legislative action had been attempted to prevent the injurious results described.

Dr. TUKE asked Dr. Ireland whether, in his experience, the condition which was called "running amok" by the Malays was caused by cannabis indica. Dr. Gismore Ellis, who resided in the Malay peninsula, in a recent paper on this peculiar condition, stated that he did not find that it was due to Indian hemp or any similar drug.

Dr. CAMPBELL CLARK suggested that the Section might express an opinion on the use of the drug. Dr. Clark had found it useful in utero-ovarian cases, especially at the climacteric, when it was often a reliable sedative.

Dr. URQUHART referred to a case of adolescent melancholia, with some degree of stupor, who on admission was found to have in his pocket a quantity of powdered vegetable matter which could not be identified. The patient recovered in a short time, and stated that he had been smoking cannabis indica in Algiers before his mental symptoms occurred. Although this patient was highly neurotic, it might be that the insanity was caused in some measure by the drug.

Dr. R. H. NOOTT remarked on the close resemblance between the effects of the abuse of Indian hemp, and the effects of the abuse of alcohol.

Dr. ALEX. PATTON mentioned that he had treated two very severe cases of traumatic tetanus with the steady use of 1 drachm of the tincture of Indian hemp, repeated as often as the spasms recurred or increased in violence. Both cases recovered; one in three weeks, the other in a shorter period.

Dr. T. IRELAND, after thanking the meeting for the very kind manner in which his paper had been received, said, in reply to Dr. Lindsay, that the reason why the abuse of Indian hemp was confined to the male sex amongst Hindus was that the female sex did not get the chance to use it. The male member of a Hindu family was the head of the house, and enforced his position as such with a big bamboo stick on the female members. In reply to Mr. Richards, he said that stringent laws had been made in Trinidad with the purpose of preventing the coolies getting Indian hemp, but as yet nothing had been done in that direction in Guiana. It was generally believed that persons who made homicidal attacks on others (running amok) were at the time under the influence of Indian hemp. The irresistible impulse to kill was one of the characteristic symptoms of intoxication from this drug, and might exist without the existence of any delusions or hallucinations to account for it. It was difficult to gain a correct knowledge of the mental state of such persons unless they remained insane. He agreed as to the value of Indian hemp as a sedative and soporific in some other forms of insanity.

NOTE ON THE BACTERIOLOGY OF CHOLERA NOSTRAS.

BY E. J. McWEENEY, M.A., M.D.,
Professor of Pathology and Bacteriology in the Catholic University of Ireland; Pathologist to the Mater Misericordiæ Hospital, Dublin.

IN the beginning of August I received from Dr. Finegan, Medical Superintendent of the Asylum, Mullingar, a specimen of stools from a patient in the institution, with the request that I should examine it bacteriologically and ascertain if the case were one of Asiatic cholera. The patient had been suddenly attacked with vomiting, severe diarrhœa, and cramps chiefly in the calves of the legs, and had become collapsed, the temperature falling to 97°. The condition of the patient had become critical in the extreme, and was highly suggestive of the algid collapse of Asiatic cholera.

I at once proceeded to examine the dejecta, and was struck by their typical rice water character; small whitish translucent flocculi could be seen floating in the turbid liquid portion. The odour was peculiar, like sour milk, and not in the least fæcal in character. Cover glass preparations of a flocculus stained with Loeffler's blue showed numerous bacilli of various lengths, mostly short and "plump." Dumb-bell forms were frequent, and many slightly curved forms were met with, scarcely distinguishable from comma bacilli save by the absence of constancy in the curve, the neighbouring organisms being mostly straight.

Cultivations were made in three ways: A. On ordinary faintly alkaline nutrient gelatine; B. On nutrient gelatine that had been rendered strongly alkaline (in accordance with the suggestion of Dahmen),[1] so as to accord better with the known preference of Koch's vibrio for an alkaline substratum; C. A flocculus was held in sterile forceps, rinsed in three successive glasses of sterile water, and introduced into a test tube containing 15 c.c. of sterile 1 per cent. solution of peptone in 0.5 per cent. solution of common salt. Several such tubes were prepared.

Plates were poured of A and B into Petri's double dishes, and placed in the low-temperature incubator regulated for 22° C. The tubes described under C were incubated at 37° C. in a slanting position. Within forty-eight hours the colonies on the gelatine plates were fully developed and ready for determination. On none of the plates was there a single

[1] *Centralbl. f. Bakt. u. Parasitenk.*, Bd. xii, p. 620.

liquefying colony. All were similar, and obviously belonged to the same species, which was readily determined to be bacillus coli communis (Escherich). The Schottelius tubes contained pure cultivations of the same organism, as was readily ascertained by plating out. Two c.cm. of the liquid in one of these tubes, intraperitoneally injected, killed a rabbit in thirty-six hours. *Post mortem*, acute peritonitis, with slight turbid effusion containing, no doubt, the bacilli in a state of exalted virulence; but the matter was not pursued further.

There can thus be no doubt that the case was not one of Asiatic cholera, but of choleraic diarrhœa, due to the micro-organism which existed in pure cultivation in the evacuations. It is highly interesting to note that this observation agrees exactly with that of Lesage and Macaigne,[2] who found that the severer the symptoms the more undisputed is the possession of the bowel by this virulent variety of Escherich's bacillus, to which Gilbert and Girode give the name of *B. coli "cholerigène."* Hueppe[3] seems to have been the first to point out organisms of the typhoid group as the cause of many cases of cholera nostras.

Turning now to the points of interest presented by this case, I shall mention, first of all, one that will be of interest chiefly to bacteriologists. It is of course well known that the reaction, and no doubt other less easily ascertained characters of the substratum, exercise a marked effect upon the appearance of the culture. This fact was strikingly exemplified by the difference that existed between the colonies of B. coli on the plates (A) above and those on the plates (B). In the former case they were bluish-white opaque with wavy margins, and of equal thickness, or nearly so, from centre to margin; in the latter the colony was bordered round by an extremely delicate widespreading transparent veil-like border, which extended round it, following its every bend and angle, and from 1 to 2 mm. broad. This border was constant round the superficial colonies on the highly-alkaline plates, and had an observer met with it in describing the organism for the first time he would have been inclined to insist upon this feature as characteristic. And yet it was consistently absent from the colonies on the faintly-alkaline medium.

Another point of interest is the behaviour of the Schottelius tubes. There was no semblance of membrane or zoogloœa at any time; only a diffuse turbidity and abundant precipitate of organisms as a flocculent deposit. There is, of course, nothing new in this observation; but at a time like the present, when cholera has set foot in England, it is as well that the behaviour towards the cholera tests of organisms which are likely to occur in suspected dejecta should be confirmed by experiment and made known as widely as possible.

The same remark applies to the last observation I shall make, namely, as regards the result of the microscopic examination of the flocculi. Curved forms, indistinguishable from Koch's vibrio, were quite numerous. Yet the crucial test of culture showed that none were present. Of course the skilled observer would have been struck by the absence of the arrangement in rows, described as typical by Koch, and by the transitional form to the straight plump rods and dumb-bell forms. But even a careful microscopist, unaccustomed to bacterial work, might have been tempted to look upon the curved objects as comma bacilli.

By active treatment Dr. Finegan succeeded in bringing his patient safely through the collapse, and, after four days' severe illness, she recovered.

[2] *Sém. Méd.*, 1892, p. 40.
[3] *Berl. klin. Woch.*, 1887, p. 591.

Medical Stores in India.—We are glad to see that the Government of Madras has taken a sensible view of the question of the supply of drugs to civil hospitals and dispensaries. It appears there was a rule limiting the home indents for medicines to the average amount expended during the three previous years, so that when there was an increase in the number of civil dispensaries or hospitals the supply of drugs ran short. This has now been altered, and when a reasonable explanation can be given for exceeding the three years' average the civil surgeon-general is authorised to indent for what may be necessary. This is only common sense, as when hospitals and dispensaries are established they would be useless without an adequate supply of medicines.

REVIEWS.

The English Baby in India. By Mrs. Howard Kingscote. With a preface by Surgeon-Captain R. H. Firth, Army Medical Service. London: J. and A. Churchill. 1893. (Crown 8vo., pp. 194, 2s. 6d.)

This little book is intended not so much for the educated women as for their sisters in bungalow and barrack, to whom a small and simple book containing sensible and practical advice is of great value. There are many excellent books written for the help and instruction of the wife and mother, but they deal with these matters from an English point of view, and frequently contain statements and advice that are not applicable to the circumstances of life in India.

A careful perusal of Mrs. Kingscote's book shows at once its strength and its weakness. It is strong in that it is evidently the outcome of the personal experience of a sensible and thoughtful woman. It is weak in that she has no adequate knowledge of medical facts; that she confounds a part of India with the whole, and frequently uses expressions which are unintelligible save to those who have lived where they are used. Thus, on page 173 we are told some remedy is to be administered "in doses of from one to two mashas." This word is unintelligible to many who have lived long in India.

The second chapter deals very wisely with the question of clothing a baby in India, but in the third there are a few points which appear unsound. For instance, the expectant mother is advised not to engage a nurse recommended by her doctor, because he "can only judge of her capacity for work, and not whether she is clean and pleasant in the lying-in room, bright, willing, etc. She should, therefore, have one of whom she has heard something through some friend." It is to be remembered, however, that the safety and comfort of the mother and infant are the physician's responsibility, while much of the after-care necessarily devolves on the nurse. Unless the medical attendant can rely on her adequate knowledge and absolute conscientiousness, his anxiety and work are very greatly increased. He usually knows more about the nurse's personal character than can any friend outside the profession, and seldom employs any woman whose conduct in former cases has not been in all respects satisfactory. It is also to be remembered that a nurse who suits one patient well may not be so acceptable to another; what one patient likes and applauds as "carefulness," irritates another, who looks on the same amount of attention as "fussiness."

Again, Mrs. Kingscote tells us that "another great mistake made during the lying-in month in India is that of washing and tidying the patient too early, and a medical man should be asked not to visit before 9 or 10." Surely this is a mistake. How can a nurse dictate to the doctor when the visit is to be paid? Distances are great in India, and should two or three lying-in patients live in different parts of the town, it is not possible to see them all and fit in the usual morning round unless a start is made in the early hours of the day. No reasonable attendant will be displeased if the washing, etc., be not finished at the time the visit is paid.

The book is marred by a want of method; for instance, Chapter III begins with the choice of a nurse, but this is immediately interrupted by some details as to the management of the child—after a few lines of this comes the advice to which we have objected as to the friends' recommendation being preferred to the doctor's—to this succeed a list of baby clothes, and some excellent advice as to attitude of mind for the expectant mother, and then again the authoress returns to the qualities requisite in a nurse. On the next page is a well considered dietary for the mother; all good except that the use of wine and "home brewed ale" (we wonder where that is to be got on the plains of India) is too generally sanctioned. The nurse then has another turn, and is cautioned as to personal cleanliness, smartness, etc. It is a pity so to mix the subjects; the women for whose use the little book is written want advice clearly stated, ready for immediate reference.

We are very glad to note that the authoress recommends the use of the douche at least twice a day until all discharge ceases, but it is to be regretted that no mention is made of

the risk incurred in employing the ordinary vaginal tube which has a terminal hole; pains, fever, and great alarm may be caused by the entrance into the uterus of some of the fluid used.

The advice in Chapter IV as to diet appears very judicious and sensible, but the idea that milk can be kept sweet by standing the vessel containing it in another containing boiling water, and then not putting it on the fire will lead to disappointment. If milk is to remain sweet, the germs in it must be destroyed, and that cannot be accomplished by such means.

The fifth chapter deals with vaccination, and the source of the virus is discussed. Here we are glad to see that the anxious mother is advised to rely on her physician's advice, but Mrs. Kingscote is in error in saying: "It must never be forgotten that vaccination from arm to arm, that is from one child direct to another is the only sure, safe, and certain means of efficient vaccination."

The advice in Chapter VII on air and exercise is very good, and should be followed by those who have the care of children in India. Especially wise is it to remind them that the sun is equally strong all over India, even in the coolest stations. The succeeding chapters are the most purely medical. They are in the main well written and very useful. Here and there are passages with which we do not agree; for instance, on page 134, the mother is told to take the child's temperature by placing the bulb of the thermometer in the axilla. In children this method cannot lead to trustworthy results, there being so small a mass of tissue, and the little patient so restless. The best way of testing the child's temperature is to put the bulb of the thermometer into the rectum, and to remember that the reading will be about 1° higher than the axillary temperature. Again, on page 145 we are told that scarlatina is the same disease as scarlet fever, only a mild form. Is it not better to let the public know at once that scarlatina is merely the Latin name?

On the whole, Mrs. Kingscote's little book is a valuable addition to the class of mother's manuals, while it is so specially the outcome of personal experience of India and its trials that we should like to see a copy of a revised edition in the hands of all European mothers and nurses in India.

Der feinere Bau des Nervensystems im Lichte neuester Forschungen. [The Minute Structure of the Nervous System Viewed in the Light of Recent Investigation.] Von Professor Dr. Mich. v. Lenhossek (Basel). Berlin: Fischer's Med. Buchhandlung. 1893. (Pp. 139, with 4 plates and 33 illustrations. M. 5.)

This short work is an account of the minute structure of the nervous system, and especially the entirely new ideas on the subject which have been brought about by the recent staining methods of Golgi, and others who have modified and improved on his method.

The author divides his work into three parts: 1. The *technique* of Golgi's method. 2. General remarks on the nerve cell. 3. On the spinal cord, including: *a*, the neuroglia; *b*, the nervous elements.

After an introduction in which it is set forth that the problem to be solved is: how the nerve cells stand with regard to each other, and how the nerve fibres arise and how they end in the brain and spinal cord; the author proceeds to describe Golgi's method. This method, as is now well known, consists of hardening in bichromate of potash, and afterwards developing the piece of tissue in solutions of bichloride of mercury or nitrate of silver; three different ways of carrying out the method are here given.[1]

The question of imbedding is carefully discussed, and the preference given to imbedding in elder pith, the sections must not be too thin and should be mounted in Canada balsam without a cover glass. When successful preparations are made the appearance of the cells and their processes is very beautiful, but there have been frequent complaints, as with Weigert's method, about the instability of the results. According to Professor Lenhossek this should not be so, as he has had preparations unchanged for over two years. The application of the method to different parts of the nervous system of the vertebrata and invertebrata, as the earthworm, is described.

In the second part, on the general description of the nerve cells, the author traces the observations of Wagner, Remak, Deiters, and Gerlach to the discovery of Golgi that the protoplasmic processes of the cells end free in points or in terminal bulbs, and anastomoses do not take place, as was formerly thought, between the processes of neighbouring cells. As regards the axis-cylinder process, two types are described by Golgi: (1) This process preserves its individuality after leaving its cell, and is continued direct into a nerve fibre of the white substance—this forms the cell type of Deiters; (2) the axis-cylinder process, after leaving its cell, breaks up into a branching plexus in the grey matter—this forms the cell type of Golgi. It is supposed by Golgi that the first type is that found in the connection of the anterior motor roots with the cells in the anterior horn of the spinal cord, while the sensory fibres of the posterior horn are in connection with cells by the second method, forming a thick network of fibres, but it seems doubtful whether this difference can be taken as a hard-and-fast line between motor and sensory cells.

The axis-cylinder process was formerly thought to be unbranched, but, according to Golgi, it gives off collateral branches and sometimes forms a T-shaped junction. It thus appears as if the nervous system was made up of a number of units which are quite distinct, and which do not come into actual contact with each other. Each unit consists of (1) the nerve cell; (2) the principal nerve fibre leaving the cell; (3) thin end branchings from the cell. To this unit Waldeyer has given the word "neuron," while to the branching protoplasmic processes the word "dendrites" has been applied.

In the last part, on the spinal cord, the neuroglia is first described in the embryo, as being composed of club-shaped cells arranged radially round the central canal, and from the outer end of each cell a process passes radially to the periphery of the spinal cord dividing in its way into two or three branches, and thus forms a scaffolding for the arrangement of the other neuroglia elements. The general appearance of the glia cells is described and their distinction from the nerve cells is shown by noticing their stiff straight branches, their thin fringe resembling the fibres of a root, as well as by the small size of the cell body.

The question is discussed whether the neuroglia cells have an ectodermal origin, and are developed also from the epithelium cells of the central canal, and the author concludes that the spinal cord is throughout an ectodermal organ. The existence of a "ground substance," either as a network, granular matter, or as a homogeneous mass, is referred to, and where formerly only a structureless mass was seen, now we have a wonderful rich network of fibres.

Lastly, the arrangement of the nerve elements in the spinal cord is described. It is impossible to go into the details of all the different tracts, but it may be observed that there seems no doubt that the anterior motor roots end direct as the axis-cylinder process of an anterior horn cell, but that the posterior sensory root is not in connection with cells in the cord, but joins the general network of fibres or passes into the nerve "feltwork" of the grey substance, giving off collateral branches in its course. In some observations the posterior root fibres bifurcate in the substantia gelatinosa Rolandi into branches, which pass up and down the columns of Burdach, while collateral fibres are given off into the grey matter and pass forwards to the cells of the

[1] The slow method in which after 20 days in a 2 per cent. bichromate of potash solution, the pieces are put in a 0.75 per cent. silver nitrate solution for 1 to 2 days: the second method, in which after 5 days in bichromate of potash the piece is put into a mixture of 1 per cent. osmic acid (2 parts), and 2 per cent. pot. bichrom. (8 parts), for 24 to 36 hours, and last into the silver nitrate solution as above; and thirdly, the modification of Golgi's method by Ramon y Cajal, constituting the rapid process, in which the pieces of nervous tissue are put direct into 1 per cent. osmic acid (1 part) and 3.5 per cent. pot. bichrom. (4 parts), for from 2 to 7 days, according to the amount of staining required, the neuroglia taking less time than the nerve cells or fibres, and then into the silver solution, which should contain a trace of formic acid. The manner of procedure is given with minute detail, and also the various mistakes which may arise are indicated. This is of very great practical importance, as there is probably no new method of staining the nervous system which has given such uncertain results as Golgi's method, owing no doubt to want of necessary care.

anterior horn, which they surround with the network of their end branches; or, instead, a cell and its processes in the white columns intervene between the collaterals of the sensory fibres and the cells of the anterior horn, but without being in actual contact with either.

This work will be of much value to those who wish to be conversant with the latest discoveries in the minute anatomy of the nervous system, discoveries which have completely revolutionised the views held ten years ago. Professor Lenhossek is to be congratulated on having handled so complicated a subject with so much success. The plates and drawings showing the extraordinary richness of fibres are very clear and well executed, and a diagram is given at the end showing the different forms of cells and fibres in the spinal cord.[2]

Klinik der Verdauungskrankheiten. [Diseases of the Digestive Organs.] Von Dr. C. A. Ewald. II. Die Krankheiten des Magens. [Diseases of the Stomach.] Dritte neu bearbeitete Auflage, mit 34 Holzschnitten. Berlin: A. Hirschwald. 1893. (Royal 8vo, pp. 610; 14 marks.)

This book on diseases of the stomach is so widely known and appreciated that little need be said of it. It has been translated into five different languages, and the English and American editions have already been noticed by us.[3]

In this third edition every page has been subjected to a close revision, and the many points in gastric disease which have been investigated since the last edition appeared (1889), receive ample attention. Among the latter the following subjects may be referred to. Under the heading of the quantitative estimation of the acidity of the stomach much that is new will be found. Leo's method is the one that is chiefly recommended for clinical work. Considerable additions are made under the head of the treatment of chronic gastric catarrh. The author says that he has used orexin with varying results. Creasote and guaiacol are highly spoken of, and resorcin (a stomach antiseptic) is warmly recommended. We are glad to see that Professor Ewald has added some remarks on the operative treatment of strictures at the pylorus, including malignant disease. He has wisely omitted any account of actual *technique*, such as was supplied for instance in former editions by Professor Sonnenburg in the case of gastrostomy. The statistics of the operations in question are given, and so far as the experience of six of his own cases (four pylorectomies and three gastro-enterostomies) operated upon by various surgeons will permit him to speak, he would advise pyloric resection only in non-malignant growths and gastro-enterostomy in other cases. The subject of enteroptosis, including gastroptosis, rightly receives much attention, and the services of M. Glénard in this respect are recognised. The author, however, does not agree with Glénard's views in regard to causation—namely, kinking of the transverse colon. Professor Ewald thinks that enteritis membranacea is not an inflammatory condition at all, but due to the overproduction of intestinal mucus. This is interesting, as colotomy has been suggested and even carried out for this affection. Under gastric neurosis the author also feels compelled to say a word about treatment by suggestion. He seems to be no great friend to it, but he adds that occasionally it may be useful. The good effect, however, is not permanent, and then a second or third application is without benefit.

In conclusion it will suffice to say that the third edition of this book more than fully maintains the high reputation of its author, and that it illustrates at every turn the value of a judicious application of scientific knowledge to the detection and treatment of disease.

[2] We may mention that those interested in this question will find, in a paper by Professor Schäfer in Part lxi of *Brain*, on the Nerve Cell considered as the Basis of Neurology, a very clear account of the same subject as that treated by Professor Lenhossek.

[3] British Medical Journal, 1892, i, p. 1257; and 1893, i, p. 73.

Notice to Correspondents and Authors of Communications.

In view of the great and constantly-increasing pressure on our space, we would urgently request correspondents and authors of communications to assist us in endeavouring to place their views before our readers by condensing their communications to the utmost extent.

CONSUMPTION HOSPITALS AND TUBERCULOUS DUST.

The steady drift of opinion, especially among the younger of our physicians, in favour of the infectious nature of tuberculous phthisis has led us to make some inquiry at the hospitals especially devoted to the treatment of consumption as to the nature and extent of the precautions which they have thought well to take, or the warnings which they have thought it desirable to give to their patients, with the object of preventing or limiting the spread of that disease.

At the onset, one may take it as pretty widely accepted that the growth of the bacillus is the cause of the lesion, that in some way or other the infection gets across from one patient to another, and that where the larynx or the lung is the seat of the primary lesion the probabilities are strong that the infection has entered by the inspired air. It also is generally admitted that the way in which it so enters with the air is in the form of dust, either stained by the tuberculous expectoration, or itself consisting of the dried and pulverised sputum. The point on which the practice of all the hospitals agrees is the necessity of keeping the sputum wet until it is removed, and it certainly is a matter of surprise to us that some of these hospitals should go so far as they do in their dealings with the expectoration, taking trouble which surely is wasted labour except on the hypothesis of infection, and still should fail to carry matters to their logical conclusion in their dealings with the general dust of the institution.

Hospital for Consumption, Brompton.

At the Brompton Consumption Hospital certain definite measures are taken as regards the sputum, but for the rest the precautions for the prevention of the spread of infection resolve themselves mainly into matters of fresh air and cleanliness. The patients are instructed always to use spittoons, and this regulation is strictly enforced. Spitcups are provided for each patient in the wards, and spittoons are freely distributed in the corridors. These are emptied twice a day by porters into pails carried round the hospital for the purpose, and their contents are ultimately mixed with a quantity of coal dust and burned on the furnace fire. After being emptied the spittoons are washed at a sink reserved for that purpose and the emptying of bedpans and water bottles, and wiped by special spittoon cloths, which are sent afterwards to the common laundry. The spitcups in the wards are of the ordinary cup and funnel pattern, with a loose funnel and no spout, and they are usually charged with 1 to 30 carbolic lotion, but when the sputum is very adhesive a solution of caustic soda is used instead. The spittoons in the corridors are not of a good pattern, the funnel portion being of so slight a slope that the expectoration is apt to lodge and dry upon it. The cavity below is charged, like those in the wards, with carbolic acid lotion. In the chapel and the concert room no spittoons are provided, and there, at any rate, the patients can for once forget that they are consumptives, and can spit in their handkerchiefs like other Christians.

Although the patients are instructed only to spit into spittoons, they naturally wipe their mouths afterwards with handkerchiefs, which they stick under their pillows, and flip as occasion may require. Those also who are very ill use handkerchiefs; at any rate, no other means are provided for them, and, as everyone knows, those who are seriously ill are apt to soil the sheets. All, however, go as they are to the laundry of the establishment, and, although no doubt the high temperature at which cotton articles are washed destroys all infection, no special precautions seem to be taken to protect the laundrymaids from the dust involved in sorting. There is no provision of substitutes for handkerchiefs in the form of rags which can be burned after being used. No special measures are taken in regard to fæces. The bedpans generally contain a little carbolic lotion, but beyond that the responsibility of the authorities is looked upon as ending at the trap of the watercloset.

As regards the cleansing of the place, no attempt seems to be made to prevent the raising of a dust. The brush and

the duster are in universal use. The whole hospital is kept in very good order, and the beautiful teak flooring lends itself admirably to the enforcement of absolute cleanliness, but there is no substitution of damp cloths for dusters.

The hospital trains its own probationers, and in the lectures they are properly instructed as to the nature of the tubercle bacillus and the manner in which infection is transmissible by dust, but it may be doubted whether in the daily hospital routine they see much beyond the use of the spittoons and the collection of the expectoration to remind them of its importance.

No printed warnings or instructions are given either to in- or out-patients.

The leading idea of the management seems to be that, however injurious the bacilli may be collectively, it is possible, by means of careful housekeeping and an elaborate system of ventilation, to prevent them ever collecting in sufficient force to do much mischief.

City of London Hospital for Diseases of the Chest.

At the City of London Hospital for Diseases of the Chest, Victoria Park, strict rules are laid down that all expectoration is to be received in spittoons. These are open vessels; in fact, they are small child's chambers, and are always kept about half full of 1 to 30 carbolic lotion. The wardmaids collect the spittoons, and pour their contents down a sink, which is used only for that purpose and for washing bedpans and emptying slops. Over this sink there is a tap which supplies very hot, although not actually boiling, water by which the spittoons are washed, and before they are used again they are charged afresh with carbolic lotion.

The patients are strictly forbidden to spit into their handkerchiefs; nevertheless, after using the spittoon, they do frequently wipe the mouth, the handkerchiefs then finding their way under the patients' pillows or into their pockets, or anywhere else. Dr. Heron, however, does not allow this, and in his wards every bed has a little wire basket attached to contain the handkerchief.

Patients who are very ill and who cannot use a spittoon are supplied with small squares of rag in which to expectorate, and in winter these are thrown at once into the fire, but in summer their destruction is a difficulty, and various extempore little fires, by the aid of turpentine, etc., have to be invented for the purpose.

In severe cases sheets are very apt to get soiled with saliva and expectoration, but no special precautions seem to be taken to separate them from the other soiled linen of the institution, all of which, so far as we could gather, goes out to be washed there being no laundry on the premises. A tank of carbolic lotion is, however, provided, in which sheets soiled by diarrhœa, or badly soiled from any cause, can be soaked.

The handkerchiefs and body linen of the patients are taken away by their friends, and washed at home, the process not always being very efficiently performed. Beyond the use of a little "Sanitas" to the bedpans, and the occasional pouring of carbolic acid down the watercloset, no special precautions are taken in regard to the fæces. The floors are scrubbed with soap and water once a week, but they are swept with a dry brush every day, and there is a good deal of matting in the passages which is only removed at considerable intervals, and which seemed to us to be very dusty. The paint (dados, etc.) is washed with some soda solution at cleaning down times, but the daily cleansing of everything is done with dry dusters.

There is no training of nurses carried on here, but a traditional teaching is passed on by the Sisters as to the necessity of care in the treatment of the expectoration. No printed rules or warnings on the subject are exhibited, and none are given to the out-patients.

It should be added as a matter of interest, details of which will no doubt shortly be made public, that during the past year a careful investigation of the hospital dust (by inoculation, etc.) has been carried out by Dr. Heron and Dr. Chaplin, with results which, although not entirely negative, show that the dust of a well-kept English hospital is far less virulent than we had been led to expect by the researches of Dr. Cornet in hospitals abroad.

North London Hospital for Consumption.

At the North London Consumption Hospital the following regulations are framed for the in-patients, and every effort is mode to enforce them:

Patients must keep their spittingcups with them throughout the day, and spit nowhere but into them whilst in the house.

Out of doors spit into a handkerchief or piece of rag, which must be placed in bucket provided on coming in.

Never spit on the floor, either in the rooms or lavatories.

The spitcup must be emptied into a porcelain vessel provided for that purpose, and afterwards washed over sink in lavatory. Spitcups must not be emptied down closets or washed in lavatory basins.

The spitcups have the usual loose funnel-like cover, and are charged with 1 in 20 carbolic lotion. Every morning they are emptied into a covered porcelain pail, having a layer of sawdust at the bottom with some crude carbolic acid, but these pails are accessible to the patients, who can empty their spittoons more frequently if desired. Each morning the pails are removed, and their contents mixed with coal dust and burned in the furnace. The spittoons are washed at a special sink, used for nothing else, and at once recharged with carbolic lotion. The patients, however, do to some extent use their handkerchiefs; in fact, they are instructed to do so when out of doors, and although there is a rule that on return they shall be placed in a bucket provided for the purpose, it is found impossible to enforce it, owing to the fact that the handkerchiefs belong to the patients, and are taken away and washed by their friends, as also is their linen. It is difficult even to secure a sufficiently frequent change of handkerchief. The hospital does not possess a laundry, and everything goes out to be washed; care is, however, taken that the linen used by the officers, nurses, etc., is not sent to the same laundry as that of the patients, an arrangement probably more satisfactory to the officers than to the general public. No substitutes for handkerchiefs are provided.

The evacuations are disinfected with perchloride of mercury (1 in 1,000), and the bedpans after use stand with carbolic lotion in them; in case of diarrhœa the closets are specially flushed.

A general absence of carpets and hangings is observable throughout the institution, although a few squares and mats still remain; the floors are varnished, and the lower portions of the walls are painted, but the upper part is not washable.

Dusters are used, but the maids are specially instructed not to raise a dust; there is even a general direction that the dusters should be damp, but it is doubtful whether it is really carried out in practice.

There is no training of probationers, but care is taken to ensure that the nurses understand the reason and the necessity for care about the sputum.

The following printed directions are given to every out-patient:

Directions to Out-Patients.

As it is now known that the phlegm coughed up in consumption contains the seeds of disease—

Do not swallow your expectorations. This habit may lead to consumption of the bowels.

Do not spit about the floor, nor into any utensil unless it contains a disinfectant.

Do not spit about the streets.

Indoors, use a special spitting cup or other vessel in which is some disinfectant.

Outdoors, use a pocket handkerchief, or else use a piece of rag or paper, which must be burned as soon as you get home.

You can get some disinfectant from the dispenser for use in the spittoon or spitting cup.

The contents of this spittoon should be mixed with some more disinfectant before being emptied.

The spittoon should be emptied into the pan of the watercloset or into a bright fire, but *never* anywhere else, not even into the dust heap.

If you spit into a pocket handkerchief, it must be boiled for five minutes as soon as it is done with.

Keep your room well aired, throw the window wide open when you leave the room, and always keep it open a little at the top all night.

If there is a fireplace in the room, do not stop up the chimney, but always keep it free for the passage of air.

Keep your room clean, do not allow dust to remain on the floor.

Consumptive patients should sleep alone.

Mothers who are consumptive should not suckle their children.

Royal Hospital for Diseases of the Chest, City Road.

The Royal Hospital, City Road, is at present closed for cleaning, but we could not learn that any precautions are taken there for the prevention of the diffusion of infection except general cleanliness, the use of spittoons and keeping the expectoration wet. No printed instructions are given to the patients.

Royal National Hospital for Consumption, Ventnor.

Dr. Sinclair Coghill has been kind enough to supply us with details regarding the precautions taken at this hospital, of which the following is a summary:

The arrangement of the building in isolated blocks, each containing from 12 to 18 patients accommodated in separate bedrooms, with a large number of sitting rooms, together with ample ventilation by a large steam-driven fan, are the principal means looked to for reducing to a minimum the risks of contagion. The walls are all oil painted, and are washed down periodically, the patients being removed for the time being. Latterly a weak solution of perchlor. hydrarg. is used for this purpose. The patients' sitting rooms and passages are laid with glazed kamptulicon; their bedrooms have merely strips of carpet, which are regularly removed and cleaned. The beds are disinfected in a superheated dry air chamber. The patients have covered porcelain spittoons, which are emptied and cleansed in lavatories. Diarrhœa seems to be uncommon, even in advanced cases, in this hospital. The usual mode of disinfecting such stools is carried on. The whole of the closets discharge direct by a Greenhill valved disconnection externally into a trapped drain, which flows into a main drain, carrying the whole sewage of the hospital by a tunnel through the cliff to the sea.

A carefully worded set of instructions to patients is posted up in every room containing in simple popular language an explanation of the infectious nature of tuberculosis, and pointing out the danger of the infected dust. In it appears the following passage:

Patients are earnestly requested not to spit on the ground, floor, or fireplace, but to expectorate into the proper vessel. When this is not possible the handkerchief should be used without fail; but in order that the expectoration may not become dry it has been arranged that a clean pocket handkerchief shall be supplied to each patient daily, the soiled one being at the same time removed, for the double purpose of disinfection and washing. *It is to be distinctly understood that spittoons shall always be used when possible and that the handkerchief is only supplementary* to prevent spitting on the ground.

The handkerchiefs supplied by the hospital are all of one pattern, easily recognised, but not too conspicuous. A clean one is supplied every morning to each patient. The soiled ones are collected at the same time and received in a covered porcelain-lined metal pail by a woman who is solely occupied with the laundry work in this connection, They are taken to a completely isolated room in the subway, well lighted, and ventilated to the open air, where they are boiled in a steam-heated cylinder and then washed and ironed.

Contrary to expectation the patients have taken very kindly to this system and entered quite intelligently into the spirit of the instructions placed before them as to the need of precautions in the disposal of their sputa.

National Sanatorium, Bournemouth.

Considerable stress is here laid on the system of free natural ventilation. Three sets of rooms are in use—bedrooms, sitting-rooms and large corridors, and dining rooms—and care is taken to ventilate them all in turn when not actually occupied. The whole institution is closed during July and August, when the building is thoroughly washed and cleaned, and much painting and whitewashing is done. Dr. Snow says that "where space is given and ventilation and cleanliness enforced no fear of infection need be entertained." As far as can be done, however, the patients are treated as if tuberculosis were transmissible from one to the other. Each patient is provided with a covered spitcup, charged with carbolic lotion (1 to 20), which is emptied at a special slop sink, washed with boiling water, and at once recharged with disinfectant. Patients are told not to use handkerchiefs, but it it is found impossible entirely to stop them from doing so. No substitutes, however, are provided.

Most of the patients are semi-convalescent, that is, not confined to bed, and no special measures are taken with regard to the waterclosets, but where bedpans or commodes are used a solution of carbolic acid or perchloride of mercury is placed in them.

In cleansing the wards a disinfectant is frequently, but not always, added to the water used for scrubbing. Damp dusters are employed for dusting purposes, moistened in ordinary tap water. Verbal instructions are given to the patients always to use the spitcup, and anyone spitting anywhere else inside the building is punishable by instant dismissal.

The nurses are instructed as to the necessity of ventilating the wards and carrying out such disinfecting process as is used. There are no out-patients, and therefore no printed instructions are distributed.

Manchester Hospital for Consumption.

At this hospital all patients are supplied with printed directions telling wherein the danger lies. The following paragraphs may be noted:

All matter coughed up from the chest should either (*a*) be spat in the fire or (*b*) should be received into a vessel lined in such a way with a piece of paper that the paper and its contents may be lifted out and burnt.

Rags that can be burnt should be used instead of pocket handkerchiefs, and if a pocket handkerchief be used it should be well boiled before the matter upon it has had time to become dry and powdery.

N.B.—The Medical Officer of Health for Manchester undertakes to purify, *free of cost*, any house that may be notified to him by competent medical men. Forms of application may be obtained at the dispensary, Hardman Street.

The spittoons in the hospital are charged with a solution of carbolic acid (1 in 20), and are washed with the same after being emptied. The bedpans are treated in the same way. The waiting rooms are washed daily with soap and water.

Victoria Dispensary for Consumption, Edinburgh.

Dr. Philip informs us that in the waiting rooms, etc., all patients make use of spittoons charged with carbolic acid, which are washed with boiling water. The whole institution is thoroughly cleaned and washed every week. Printed advice is given to the patients warning them of the risk of inhaling the dried expectoration, and giving certain directions, from which the following passages are extracted:

The breath of the consumptive is *not* directly infectious.

The patient should expectorate into a jar or cup containing a tablespoonful of strong carbolic acid or other disinfectant.

The vessel should be changed once in twelve hours, or oftener. It should be cleansed by being filled up with boiling water. The combined contents should be poured down the watercloset. The vessel should then be washed with boiling water.

When the patient is out of doors he should carry a pocket spitting flask (such as Dettweiler's or the Victoria Dispensary's simpler model). The flask should be used and cleansed like the jar. The patient should never spit on the streets.

The patient should not use handkerchiefs for expectoration. If this ever has to be done, the handkerchief should be of an inexpensive material, that it may be burned after use. Squares of rag or paper, which may be used for convenience, should be similarly treated.

The expectoration should, on no account, be swallowed, for thereby the disease may pass to other organs.

Consumptive patients should, if possible, have separate table utensils (spoons, forks, etc.). Failing this, great care must be exercised in the cleansing of such articles with boiling water.

Although outside the exact limits of the inquiry we have undertaken, we should state that other agencies besides the hospitals have concerned themselves in disseminating useful knowledge with the view of checking the spread of consumption. Last year the North-Western Branch of the Society of Medical Officers of Health drew up a memorandum on the subject, which has been pretty widely distributed in the North of England. In this memorandum the infectious nature of consumption is definitely laid down, and dried sputum, in the form of dust, is indicated as the vehicle of the contagion. A series of distinct rules is given for general guidance, including the treatment of the sputum, the evacuations, the utensils, the clothing, and the dwelling of the consumptive patient.

It will be noted at once how much more definite is the position taken up by those who are responsible for this memorandum than that of the authorities of some of the London consumption hospitals. But the Lancashire people are not content with the mere expression of a pious opinion on the subject; they have gone so far as this: that sanitary authorities print and distribute warnings on the subject: that they receive in some places an informal notification of cases of tuberculosis; and that they go to the expense of free disinfection of houses where consumptives dwell.

The following is a handbill distributed by the Oldham authority:

COUNTY BOROUGH OF OLDHAM.

Precautions against taking Consumption.

[*You should nail this handbill up in some room for reference.*]

1. Consumption is an infectious disease.
2. The "phlegm" from consumptive people should be destroyed a

home by being at once burned, in the workshop by being spat into wooden spittoons containing a solution of corrosive sublimate, or into a hand dish containing water. If the phlegm is left to dry and gets dispersed, the infection gets on the walls, ledges, etc., of the room, and the disease is communicated to others. The contents should be poured into a drain, and the spittoon or hand dish disinfected with boiling water every day.

3. When it is settled that any member of a household is consumptive, the house should be at once thoroughly cleaned, including the walls and ceiling. The house should be disinfected after a death from consumption.

4. To prevent children taking consumption, all cow's milk should be thoroughly boiled before used.

5. When a mother is consumptive, she should on no account suckle her child.

6. Consumptive people should as far as possible be isolated.

7. When a child has consumption, infection from it should be prevented by boiling the underlinen directly it is taken off.

8. The lungs should be protected from injury such as arises from damp and overcrowded dwellings, and from dusty occupations. If you have to complain of any nuisance injurious to health such as damp walls, a defective roof, smells from your drains, or slop pipe, etc.; or if your slop pipe goes into the ground and does not appear outside, cut off from the drain, you are advised to inform the medical officer of health or sanitary inspector at 2, Mill Street, Oldham.

JAMES NIVEN, Medical Officer of Health.

In France there is a society (Ligue Préventive contre la Phthisie Pulmonaire) which busies itself with the dissemination of similar information, hoping to bring to the common knowledge of every family the means necessary for the prevention of the spread of consumption.

The following is extracted from one of its pamphlets:

Of every six persons one dies of tuberculosis. Out of the 850,000 deaths which take place every year in France more than 140,000 are caused by pulmonary phthisis. And this number, instead of diminishing, goes on each year increasing. There is hardly a family which does not pay to it a sad tribute. No malady, no plague, can then be compared to tuberculosis in regard to the number of its victims, and all the epidemic and infectious diseases united (typhoid, small-pox, scarlet fever, measles, diphtheria, cholera) do not together destroy half as many men.

We should be mad then if, knowing how to diminish in large proportion the ravages of our most terrible enemy, we left the public ignorant of the means of so doing. It is known that the consumptive patient is in no way dangerous either by propinquity or even contact. That it is neither his person nor his breath which is harmful, and that one can talk with him for long hours, live with him during years, and even sleep in his room and give him the most constant care without running serious risk on condition of taking certain precautions, of which the chief is to collect the expectoration and not to wait before destroying it till it has had time to dry and get spread through the air in the form of dust.

The most frequent and powerful source of infection lies in the expectoration of the consumptive patients. Although almost harmless so long as they remain in the liquid state, the sputa become especially dangerous when they are reduced to dust. They quickly take on this form when they are projected on to the ground, the floor, the walls, when they soil clothing, counterpanes, bedclothing, curtains, etc., when they are received into handkerchiefs, napkins, etc. It is then that, dried and pulverised, they are set in movement by the sweeping and dusting, the beating and brushing, of stuffs and furniture, of bedclothes and garments. This dust suspended in the air penetrates into the respiratory passages, deposits itself on the cutaneous and mucous surfaces wherever they are deprived of their epidermic covering, and on materials serving for food, and thus becomes a permanent danger to those who dwell in an atmosphere so befouled. In consequence, it is necessary: (1) To be well convinced of the necessity of taking the greatest precautions in regard to the matters expectorated by consumptives; they should always and everywhere be received in spittoons containing a certain quantity of liquid, instead of powdered materials such as sand or bran, or ashes. The spittoons should be emptied every day into the fire, and cleaned with boiling water. They should never be emptied on to the rubbish heap, or into the yards and gardens, where they might tuberculise the fowls which eat them. The use of spittoons should not be confined to hospitals or private houses; it is indispensable that they should be used in all public establishments (barracks, workshops, railway stations, and other places where people wait). (2) Not to allow linen stained by tuberculous dejecta to dry, but to soak it and let it stay some time in boiling water before being handed over to the laundress, or even to burn it. (3) Not to use objects contaminated by consumptives (linen bedclothes, dresses, toilet articles, hangings, utensils, playthings) till after previous disinfection, etc.

Among these various recommendations certain points of difference are observable, especially as to the treatment of the handkerchiefs, which by some authorities are prohibited altogether; by others allowed, even while the danger caused by them is admitted. Probably nothing short of the constant use of substitutes which can be burned will meet the difficulty. There is, however, so large a consensus of opinion as to the material and the manner of infection—even among those connected with hospitals which in their practice appear to ignore the probability of its occurrence—and as to the importance of dealing properly with the sputum that anyone who chooses to accept *in toto* the contagionist hypothesis, and to act up to it in his daily work, will not now find himself without friends nor feel the want of influential support.

INFANT MORTALITY IN CAIRO AND DAMIETTA.

II.

LAST week we published under the above heading a table showing the influence exercised by a comparatively pure water supply on infant mortality in Egypt. Since then two more hebdomadal returns have reached us, from which we extract the supplementary information given below.

Week Ending:	Cairo.			Damietta.		
	Percentage of Deaths under 1 Year.	Percentage of Deaths under 5 Years.	Deaths under 5 per 1,000 Births.	Percentage of Deaths under 1 Year.	Percentage of Deaths under 5 Years.	Deaths under 5 per 1,000 Births.
Approximate average of ten preceding weeks ...	36.9	67.1	865	21.0	47.3	371
August 10th	35.0	71.4	882	0.0	23.5	114
August 17th	37.0	69.1	844	20.0	46.6	304

In the nineteen towns of Lower Egypt, from which alone statistics are furnished, there were 1,757 deaths during the fortnight. Of these, 1,217 were infants under 5 years of age, giving a percentage of mortality in that class equal to 69.2 of the whole. In Rosetta it was 42.8; but in the next best town, Chibin, it rose to 59.3; the average, excluding Cairo, Damietta, and Rosetta, being 72.9. The ratio in the eleven Upper Egypt towns was 69.0 per cent. for the same period.

Such a hecatomb is absolutely appalling, and whatever may be the cause—whether it be true or not that foul water is at the bottom of a preventable mortality—it is perfectly clear that an official and genuine inquiry should be instituted to determine facts and propose remedies. It is intolerable that a state of things should be allowed to continue which is nothing less than a scandal and a reproach to the boasted civilisation of the nineteenth century.

During the week ending August 10th, the Nilometer at Rodah showed the first rise of the season, amounting to 1.69 metre, and the following week there was a further increase equal to 1.43 metre. The good effects of this flushing are not as yet apparent, but of course it takes time before the seeds that were sown during the stagnant period can die away and disappear. In a week or two more we may expect to see a considerable amelioration in the death-rate; and it will be very interesting to observe the effects of the rising river on the general health. It is nearly always rash to prophesy unless one knows, but in this case it may safely be predicted that the returns of the present week will show when they reach us that in most of the towns considerable strides were made in the direction of the Damietta standard. A similar result has been observed over and over again, year after year, with unfailing regularity, and it would be strange indeed were there to be a breach in the series on this occasion.

If the question be considered calmly and dispassionately, it can surely be no wonder that a people who habitually make use of their sole drinking source as a sewer should suffer from the poisonous effects of their own filth when the current fails and the stream becomes stagnant. One would suppose that those in whose hands is the power could see the reasonableness of this deduction, and that some effort would be made to prevent fouling at the critical time at least, if not throughout the year. It is an extraordinary, an inexplicable fact, however, that no real attempt is made to keep the water pure and fresh. It is true that numberless ordinances exist, but they are far more honoured in the breach than in the observance, and it is quite a common thing to see the officials themselves committing the offences they are supposed to prevent.

The chief sinner against public salubrity in Egypt is the Irrigation Department. In order to retain a sufficiency of water for the fields its agents erect barrages and dams with-

out number, and any little current that would be left is thereby destroyed. The crops flourish and the revenue comes in, but the children die. There is no possibility of getting away from the horns of this extremely unpleasant dilemma.

THE SEVENTH INTERNATIONAL PHARMACEUTICAL CONGRESS, AT CHICAGO.

[FROM A CORRESPONDENT.]

The American Pharmaceutical Association.—Foreign Delegates to the International Congress.—Presentation of the Hanbury Medal.—Uniformity in Pharmacopœias.—Resolution in Favour of the Adoption of the Metric System.—Pharmaceutical Education,—"The Common Chemist of the Common People."

In the week commencing August 14th, the American Pharmaceutical Association held its meetings under the presidency of Professor Remington, of Philadelphia, in the Memorial Art Palace of Chicago, and on August 21st the seventh International Pharmaceutical Congress was commenced in the same building. Several scientific congresses were held simultaneously, and these were welcomed collectively in the Hall of Columbus by Dr. Bonney, President of the World's Congress Auxiliary. Dr. Oldberg, of Chicago, introduced the foreign pharmacists, and Mr. W. Martindale (London) made a suitable response.

On assembling, the Pharmaceutical Congress appointed Professor Remington, the late President of the American Pharmaceutical Association, President of the Congress. Delegates were received from the various countries represented, those from France and Germany being conspicuous by their absence. Great Britain was represented by Messrs. Carteighe (President of the Pharmaceutical Society of Great Britain), Martin (Newcastle), and Martindale (London). Belgium, Austria, Norway, Sweden, Denmark, Canada, and Queensland also sent delegates. The Hanbury medal, in commemoration of the late Daniel Hanbury, was presented by Mr. Carteighe. It had been awarded to Professor Maisch, of Philadelphia, who was unfortunately on account of severe illness unable to be present; in his absence it was received by his colleague, the President, who in feeling words expressed his thanks for the honour Great Britain had thus conferred on America. Among the subjects for discussion was the possibility of formulating a universal *Pharmacopœia*. This was thought to be unattainable, but it was thought to be desirable that a small *Pharmacopœia* of potent remedies might be compiled, showing the comparative strength of the active galenical preparations; and that as revisions of the official *Pharmacopœias* were being produced, an attempt to approximate uniformity in these preparations should be made. A permanent committee, consisting of Mr. Remington, Mr. Carteighe, and Herr von Waldheim, of Vienna, was appointed to confer with the *Pharmacopœia* authorities in each country, and endeavour to carry out this scheme. The American Pharmaceutical Association has voted 1,000 dollars towards this object.

A resolution was passed recommending the universal adoption for dispensing medicines of the metric system of weights and measures; not weights only, but both measures and weights, as introduced into the new *United States Pharmacopœia*.

The subject of Pharmaceutical Education was also discussed, and resolutions adopted that (1) a preliminary examination should be passed before apprenticeship; (2) a not less than four years' apprenticeship, which should include a year at a college or school of pharmacy, the latter being (3) a compulsory curriculum.

On the subject of Sanitation and Adulteration it was resolved: "That in the judgment of this Congress the educated pharmacist is a natural and proper expert for measures of public health, not only in the prevention of adulteration, but in the inspection of water supplies, the enforcement of good sewage, etc. The pharmacist is by virtue of his profession the common chemist of the common people."

An Executive Committee for the continuation of, and preparation for, the next Congress was appointed.

ROYAL COMMISSION ON OPIUM TRADE.

The Royal Commission to inquire into the opium question held its first sitting to take evidence in a committee room of the House of Lords on September 8th. The Commission is constituted as follows:—Lord Brassey, K.C.B. (Chairman), Sir James B. Lyall, G.C.I.E.; the Maharajah of Darbhanga, K.C.I.E.; Sir Wm. Roberts, M.D.; Mr. W. S. Caine, M.P.; Mr. Arthur Upton Fanshawe (Bengal Civil Service); Mr. R. G. C. Mowbray, M.P.; Mr. Arthur Pease; Mr. Haridas Veharidas (late Dewan of Junagarh); and Mr. J. P. Hewett, C.I.E., as Secretary to the Commission. The reference of the Commission is (1) Whether the growth of the poppy and the manufacture and sale of opium in British India should be prohibited except for medical purposes, and whether such prohibition could be extended to the native States. (2) To note the existing arrangements with the native States in respect of the transit of opium through British territory, and on what terms the arrangement could be with justice terminated. (3) The effect on the finance of India of the prohibition of the sale and export of opium, taking into consideration (*a*) the amount of compensation payable, (*b*) the cost of the necessary prohibitive measures, (*c*) the loss to the revenue. (4) Whether any change short of prohibition should be made in the system at present followed for regulating and restricting the opium traffic and so raising revenue therefrom. (5) The consumption of opium by the different races and in the different districts of India, and the effect of such consumption on the moral and physical condition of the people. (6) (*a*) The disposition of the people of India in regard to the use of opium for known medical purposes; (*b*) their willingness to bear in whole or in part the cost of prohibitive measures.

First Day's Proceedings.

The first witness examined was Sir Joseph Pease, who, as the mouthpiece of the Anti-Opium Society, denounced the traffic as an immoral one, and read copious extracts from the writings and speeches of many of the leading men of the country on the question. He did not go into the medical aspect of the case.

Professor James Legge, Professor of Chinese Literature at Oxford, who resided for many years in China, whilst working for the London Missionary Society, stated that the feeling of the Chinese was that indulgence in the drug was a vice. The practice of opium smoking was introduced into China by the Spaniards from Java. The trade was formerly in the hands of the East India Company, but as an edict was passed in 1729 by the Chinese Government against the importation of the drug the trade was a smuggling one till the war with England. He had not observed any national deterioration of health from the indulgence, but many persons suffered from the habit.

Dr. Maxwell, Secretary of the Medical Missionary Society, London, said that from 1863 to 1885 he was a medical missionary in the island of Formosa. He opened a dispensary, and in the first four months out of 649 patients 257 were opium smokers, and 109 of them came expressly to be cured of the habit. In 1869 he opened another hospital and dispensary and had 250 opium patients. That was the experience of every medical missionary in China, and he calculated that no fewer than 20,000 patients passed through their hands in a year. That was apart from the opium refuges and the large number who went to Chinese practitioners seeking help in their difficulty. Some first took the drug for the pleasure it gave. Some in the first instance were recommended to take it for some complaint. Some patients sought advice of their own notion, others at the solicitation of their friends who knew the effect of the vice. A few attended because they were ashamed of the moral degradation, and others because of their bad financial position.

The Chairman: Can you from your experience draw a contrast between the effect of opium smoking and the effect of tobacco smoking and dram drinking?

Witness said that in Formosa almost everyone smoked tobacco, but the natives never asked to be cured of that. On the other hand, they looked on the opium smoking as a vice. He thought there was a considerable amount of drinking, which was due to some extent to the opium smoking. At the same time, he had never had a patient come and ask to be delivered from dram drinking. It was hard to draw any distinction amongst the smokers, as they were all habitual smokers. The minimum for a smoker would be 60 or 70 grains a day, but still he was just as much an habitual smoker as one who took an ounce of the drug in a day. When a man tried to give the habit up he found the physical ordeal too great. If he passed the time of his usual indulgence and could not get the drug he began to yawn and show great lassitude, and if his abstinence continued his eyes and nose began to run. He got colicky pains, his bones began to ache, and he was unable to pull himself together; he was unable to sleep or work, and was thoroughly miserable. Persons indulging in the drug would kill themselves rather than suffer the misery of being without it.

The Chairman: Can you describe the physical evils of opium?

Witness said he found most of the patients emaciated. Dr. Pritchard, of Pekin, estimated that a man taking opium became 20 lbs. below the weight he should be. Besides that, the smoker was very susceptible to many diseases ordinary patients were not subject to. In tropical climes such as Formosa they had fevers, cholera, etc., and his experience was that opium smokers were susceptible to those diseases, and succumbed to them to an extraordinary degree. They also suffered from carbuncles, ulcers, and other disorders which showed weakened vitality. Constipa-

tion was a marked effect, and the bowels would not move for seven or eight days. They also were subject to attacks of diarrhœa, to which they often succumbed. They did not see many die directly from the indulgence, although many died of starvation. They died from diseases which came upon them from weakened vital condition.

The CHAIRMAN: It is said that opium is very necessary as medicine in countries subject to malaria?

WITNESS said on that he had a very decided opinion. Formosa was, perhaps, the most malarious district in China, and he found that he had to put every patient under the influence of quinine, but, during the ten years he was there, he never once heard it suggested by the Chinamen that opium was ever reckoned to be a prophylactic of fever. On the other hand, in the higher districts, where malaria was not prevalent, opium smoking went on to a worse extent.

The CHAIRMAN: What is your view of the state of the medical opinion in this country on the subject?

WITNESS said every medical man would look with grave concern on a man taking opium as he would on a patient injecting morphine or taking laudanum. In the leading textbooks of the profession they were told that at first the drug was stimulating, but afterwards depression followed; that the nervous system suffered, and that there seemed to be an inability in the person to distinguish between truth and falsehood. In 1843 Sir Benjamin Brodie and twenty-four distinguished medical men raised their voice against the evils of the practice and its pernicious consequences. In 1891 there was an appeal issued against the practice, and 5,000 medical men of Great Britain and Ireland signed it. They described the unrestricted sale of the drug as a great danger, and urged the prohibition of its growth except for medical purposes. As to the medical opinion of India, there was a petition to the House of Commons against the sale of the drug, signed by forty-nine native medical practitioners of Bombay. There were about 120 European and American medical practitioners in China who were unanimous on the question of the pernicious effect of opium smoking.

Sir WM. ROBERTS: I was much struck by your statement that no organic disease was found in the opium patient.

WITNESS said that no pathological examinations were made in China, but he believed if they were some organic disease would be found. He believed opium eating was worse than smoking.

By Sir JAMES B. LYALL: He believed the craving for opium was far more deeply seated than the craving for drink.

SECOND DAY'S PROCEEDINGS.

Saturday, September 9th.

The Rev. J. S. ADAMS, of the American Baptist Mission, said that before going to China as a missionary in 1879 he worked for about four years in Upper Burmah, and found that amongst the races there the Burmese were the most susceptible to the influence of the drug, and the Chinese living there the least; but in all cases the smokers became emaciated, and their moral characters also suffered. Ninety-five per cent. of the people who were treated for opium smoking returned to the habit after a short time. A man taking opium for diarrhœa and dysentery would not feel the ill effects, but his experience had shown him that after the complaint had passed away the habit continued until the danger line was passed. The natives never used opium to prevent fever, and they found in China that the coolies who used opium suffered most from ague. The cultivation of the poppy was largely increasing in China, and one could not go for a walk without seeing fields of it. He agreed with Dr. Maxwell that opium smoking was worse than drinking.

By Sir JAMES LYALL: He had known men take opium for ten years and show little signs of it, but at the last they went rapidly to the bad. He admitted that the mass of opium smokers lived as long as anybody else, but when fever or cholera came they seemed predisposed to the disease, and rapidly succumbed.

The Rev. J. HUDSON TAYLOR, M.R.C.S., founder and director of the China Inland Mission, said he had worked as a missionary in China since 1853. Lately opium had been very much more largely grown in China. The physical effects of the habit were interference with the nutritive system. When a man was unable by circumstances to indulge in his usual allowance of the drug he became very thin. It also affected the nervous system, and in a serious manner the generative system. The children of opium smokers were weakly. If the habit was long continued the smokers suffered from spermatorrhœa, and impotence and sterility was common in the men and women. The smokers got on all right until attacked by a fever or epidemic of some kind, then they could not recover. He did not think, as a rule, opium smokers were so long lived as non-smokers. The mental system was at first stimulated by the drug, but this was followed by great depression. The traffic was an immoral one, and should be abandoned. He believed that the feeling of all the higher officials in China was against it.

The CHAIRMAN pointed out that, from the statement of Sir James Fergusson in the House of Commons, the Chinese Government had the power to put a prohibitive tax on opium.

The WITNESS thought a communication to that effect should be sent to the Chinese Government.

Sir WM. ROBERTS asked if witness, as a medical man, could distinguish between a moderate and an excessive opium smoker, as one could distinguish between a moderate drinker and a sot.

WITNESS: A moderate smoker is a rather peculiar term. If you mean a man who can give it up, they are very few.

Sir WM. ROBERTS: You say that opium smokers live to an old age. Do those who use the drug liberally live to an old age?—I do not know anyone over 70 or 80 who uses it in large quantities.

Sir WM. ROBERTS: Well, that is a good span, isn't it?—Yes, it is; but they are very few.

We are told the coolies and chair-bearers are very industrious and yet take opium?—Yes, but their labour is not continuous. When they are not under the influence of the drug they are absolutely useless.

Then the opium allows him to proceed with his work without eating?—Yes, often.

You as a medical man know everything is done under a sort of stimulation, and we have heard on the one hand that the Chinese are extremely strong and perform their work well and nevertheless take opium, which we are told affects their system. Can you give any statistics of the rate of mortality of smokers?—No, it would be mere guesswork. A great many died from diarrhœa and dysentery, from which they had no power to rally.

The Rev. C. C. FENN, M.A., one of the secretaries of the Church Missionary Society, gave extracts from communications of various missionaries in China on the evils of the custom.

The Rev. G. PIERCY, founder of the Wesleyan Missions in China, and for thirty-two years resident in the South of China, also spoke of the ill-effects the smoking had on the morals of the people and the hindrance it was to the spread of religion.

Mr. ALEXANDER, Secretary to the Society for the Suppression of the Opium Trade, formally put in several pamphlets on the question, and the Commission then adjourned.

THIRD DAY'S PROCEEDINGS.

Wednesday, September 13th.

Mr. BROOMHALL (Secretary of the China Inland Mission, said his views were formed on communications and personal statements of missionaries. He believed that physically, morally, and socially, opium smoking was the most awful vice in the world, and the encouragement of the habit one of the greatest blunders and crimes possible.

In answer to the CHAIRMAN, WITNESS said that most of the opium smoked was home grown, although fifty years ago the penalties against growing it were very heavy. They believed that if the export of Indian opium was stopped, the Chinese would make a great effort to save their country.

The CHAIRMAN: In what way can it be said that the Indian Government encourages the trade?—By allowing the growth of the monthly sales at Calcutta.

Sir JAMES LYALL: You think that, whether it will lead to anything practical or not, the traffic should be stopped on moral grounds?—Certainly.

Mr. GEORGE GRAHAM BROWN, for six years a lay missionary in China, described the effects of the opium smoking as physically and morally bad. There was much sterility amongst the women. A good many women smoked in their labour, and he had known women giving birth to eight, nine, and as many as fourteen children, of whom not more than one lived. He knew of one woman who smoked three ounces of opium a day. At Chang-shu, at the time of the influenza epidemic, there were not enough coffins in the city to bury the dead, and he noticed that those who did not smoke came out of the ordeal best.

Sir JAMES LYALL: What do you think the practical results would be if the Indian Government prohibited the export of opium?—My candid opinion is that the Chinese authorities would do their best to stop the habit.

At the present moment I understand that the Indian opium is a luxury to the Chinese?—Yes.

Sir WM. ROBERTS: You say nine-tenths of the men are opium smokers?—Yes.

And how long has the habit been carried on?—It is increasing every year.

Do the population appear decrepit as they walk along the streets?—Yes; I can always distinguish between the men who take opium and those who do not.

The Rev. A. ELWIN, for twenty-three years missionary in China in connection with the Church Missionary Society, said his experience was principally at Hang Chan. The great mass of the people nearly lived on opium, as they could not get both the drug and the food. Undoubtedly good living counteracted the effects of the drug.

Mr. MARCUS WOOD, of the China Inland Mission, said that during the seven years he lived in the country he had never met a native who defended the habit of opium smoking. Although not a medical man, he had formed the opinion that the race was degenerating.

Mr. BROWN said he had lived in China for ten years and a half as a missionary in connection with the Methodist Episcopal Church Mission. The physical deterioration of the opium smoker was marked, and he found that the smoker was the first man to fall under the strain of scarcity of food. Their mission was a large educational one, but they found that when the son of an opium smoker entered the colleges, he was unfit to compete with the sons of those who did not smoke.

Brigade-Surgeon PRINGLE, M.D., said he had been thirty years in the Indian Medical Service, twenty of which were in the North-West Provinces. When used for medical purposes, opium was invaluable, but it was entirely unsuited for dietetic purposes. He had never heard it suggested as a febrifuge in malarious districts. He considered that the Indian as yet was protected by his very high moral tone of self-respect from coming under the slavery of opium. He considered, however, that opium was of such value for medical purposes that he did not wish to say one word against its growth for those purposes. He considered that the opium traffic was the one blot on our rule in India.

Sir JAMES LYALL: Did you have charge of a gaol?—Yes.

Was it your custom to stop the supply of opium to the prisoners?—Yes, in every case except where any serious risks to life were incurred, but I have lived long enough in India not to come to the conclusion that no opium found its way into the gaol.

I believe it is the custom to dole it out in very small quantities to heavy smokers?—Yes.

Is it the general idea that you can stop the use of opium without risk to life except in the case of a very aggravated opium eater, coming into the gaol in a very low condition?—Yes, everything depends upon the state of the man's health.

Mr. MOWBRAY: Do you regard as a medical purpose the supply of small quantities of opium to those who have used it and cannot do without it?—Yes, but only to prevent a fatal issue.

Sir WILLIAM ROBERTS: Do you think it well for the Government to supply quinine in malarious districts instead of opium?—Yes, it is a most desirable thing. I am glad to say that the effect of their doing so has been such as to put away any idea of opium being substituted.

And when there is no epidemic is it possible to supply quinine and place it within the reach of the people?—I think it not only possible but practicable at the present cheap rate.

(To be continued.)

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1893.

Subscriptions to the Association for 1893 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, SEPTEMBER 16th, 1893.

DEATH CERTIFICATION.

I.

The report of the Select Committee on Death Certification, of which we published a summary last week (p. 596), is an important document, which will well repay careful study. It marks a distinct advance in public opinion, and has evidently been drawn up with the greatest care, and with that full knowledge of the subject which might be expected when it is remembered that the Committee was presided over by Sir Walter Foster, who has thus, while discharging his official duties as Parliamentary Secretary to the Local Government Board, been able to render an extremely valuable service to the public and to the profession of which he is a distinguished member. The report itself contains a very full analysis of the evidence of the thirty-two witnesses examined, and contains an able discussion of all the obvious as well as other possible objections to the present system of death registration and certification. No one reading the twenty-seven pages of this elaborate report can longer doubt, even if they doubted before, that the system needs reform in order to remove its more patent defects. Many of the Committee's recommendations, moreover, should they ever become legislative enactments, would manifestly constitute important improvements of the system.

The first of the principal recommendations is to the effect that no death should be registered without the production of a certificate of its cause, signed either by a registered medical practitioner or by a coroner. In order to provide for the certification of the causes of the above 15,000 deaths per annum in England and Wales, which under the present imperfect system are not so certified, it is suggested that in each sanitary district a "registered medical practitioner should be appointed as public medical certifier" of causes of death not otherwise certified. In the body of the report, it is proposed that "the medical officer of health for each district should discharge this duty," and that in certain cases this official should be permitted to delegate the duty to another registered medical practitioner as his deputy. While in principle this recommendation appears to be most excellent, it is obvious that certain difficulties stand in the way of its application in the present state of sanitary administration. One of these, which arises from the fact that it is only a comparatively small minority of medical officers of health who are not engaged in private practice, is referred to in the report which suggests that the medical man appointed to the offices of medical officer of health and medical certifier, should be required to devote the whole of his time to the duties of these offices. But if this difficulty were overcome, the doubt must remain whether even medical officers of health debarred from private practice could undertake this new and onerous duty, especially in the 575 rural sanitary districts, where uncertified causes of death are most numerous, and where the area of the districts is almost invariably very large, thus necessitating much travelling for the "medical certifier."

According to the Census Report just issued, there were at the close of last year very nearly 1,600 sanitary districts in England and Wales, and it necessarily follows that, whether this duty of certification is performed by medical officers of health or by other registered medical practitioners specially appointed for the purpose, and whether these medical certifiers are paid by salary or by fees, with travelling allowances, the cost of this important work will constitute a very considerable addition to the present cost of the registration of deaths. We are inclined to the opinion that a more satisfactory, and in the end less costly, provision for the certification of the causes of death now registered as uncertified could be attained by appointing a skilled medical referee to each coroner, whose services might be also utilised to obviate the necessity for holding many inquests that would thus become unnecessary; the net cost of the medical certifier would thus be reduced.

The third and fourth recommendations are, from a professional point of view, of primary importance. They are (*a*) to the effect that "a medical practitioner in attendance should be required, before giving a certificate of death, to personally inspect the body;" and (*b*) that medical practitioners should be required to send these certificates direct to the registrar, instead of handing them to the representatives of the deceased.

In the body of the report it is suggested that, in consideration of the proposal that the duty of verifying the fact of death, and of transmitting the certificate to the registrar, should be imposed upon the medical practitioner, the precedent of the Infectious Diseases (Notification) Act, 1889, should be followed, and that a fee of 2s. 6d. should be payable to a medical practitioner out of the public funds for each death certificate issued by him. There can be no doubt as to the justice of the claim for some pecuniary recognition for the service rendered by medical practitioners to the State by furnishing these medical certificates.

On the other hand, it cannot be overlooked that this payment would signify an addition of about £70,000 per annum to the cost of registration. At present the medical practitioner is not bound to certify to the fact of death, which responsibility rests with the legal informant of the death, under penalty of fine or imprisonment in case of false information, and we are not fully persuaded that the suggestion to put this responsibility on the medical practitioner, on the proposed terms, is one that would be acceptable to the profession. Moreover, the suggestion that "if on the ground of distance, or for other sufficient reason," the practitioner is unable to verify the fact of death himself, he should "obtain" and attach to the certificate a statement of death signed by two neighbours of the deceased, although providing a means for evading this troublesome duty, leaves it very doubtful who would be responsible for obtaining and producing this signed statement, which is to be attached to the certificate in such cases.

In the interest both of registration and of the profession we much doubt the expediency of the proposal that medical certificates of the cause of death should be sent by the medical practitioner direct to the registrar instead of being handed to the representatives of the deceased. Such a course would not only be the source of troublesome responsibility to the medical practitioner, but would undoubtedly cause in many cases much public inconvenience by delaying registration and burial. It would, moreover, probably fail to secure the object of the provision—namely, that relatives of the deceased should not, in certain cases, be aware of the cause of death certified by the medical attendant. Any such attempt at secrecy in such a case must necessarily fail, because (*a*) a relative of the deceased is generally the legal informant of the death, and the cause of death would be entered in a column of the entry in the death register before the signature of the entry by the informant, whose duty it is to read through the entry before signing it; and (*b*) because a certified copy of the entry in the death register is almost invariably required by the relatives of a deceased person for legal purposes, and the assigned and registered cause of death would thus become known to them. It may also be pointed out that this mode of dealing with medical certificates of the cause of death has long been in practice in Scotland, and has been assigned as one of the main causes of the excessive proportion of uncertified deaths in that part of the United Kingdom.

The fifth recommendation, to the effect that the form of certificate of the cause of death should be legally scheduled, and that medical practitioners should be required to use such form, in view of the proposed payment for medical certificates, is one to which no reasonable objection could be made, and which would inevitably prove a distinct gain to the registration system. The report suggests, moreover, that the form now in use should be modified so as to include an expression of opinion that the death is due to disease and not to any form of violence or criminal neglect, which would materially add to the value of the certificate by facilitating the differentiation of those cases that should be referred to the coroner or the medical certifier.

We propose to defer to next week the consideration of the remaining recommendations of the Committee's report, which deal mainly with burial certificates and with the registration of stillbirths.

CHOLERA VIBRIOS.

DR. D. D. CUNNINGHAM was the first observer who showed clearly that in choleraic stools several distinct kinds of comma bacilli or vibrios may be found, some of these being distinguished by such marked characters that they may be considered to be not mere variations or sports of the common type, but different species. Cunningham's work was severely criticised at the International Congress of Hygiene in London by Hueppe and others, who would not allow that the various forms shown by him were distinct species. No one who has seen Cunningham's preparations can question the fact that in cholera stools several more or less distinctive kinds of vibrios are found. It is quite possible that the majority of the ten or twelve forms shown by him were simply varieties of a common type, but many bacteriologists accept the opinion of Pettenkofer that Cunningham separated at least two distinct species, and his researches demand the most serious consideration, since they were pursued in a locality where cholera is endemic, and where errors of diagnosis are improbable. Since the recent outbreak of cholera in Hamburg and Paris bacteriologists have paid special attention to the morphological and biological characters of the comma bacillus, and at present opinions are greatly divided in regard to the existence of various kinds or species of cholera vibrios. Thus Gruber and Wiener compared the vibrios obtained from Paris (1892), India, and Tonkin with Koch's vibrio, and found appreciable microscopic and biological differences. They came to the conclusion that possibly the term "cholera vibrio" might include various allied kinds of organisms, which are perhaps distinct species, a view before them expressed by Cunningham. The effect of intraperitoneal injections on guinea-pigs of these different varieties was identical. This, however, helps us but little, since many other bacteria injected in the same manner act similarly, as shown by Klein and Gruber and Wiener. Finkelnburg, on the other hand, made careful comparisons between the Hamburg and Paris vibrios, and found only slight differences, not sufficiently marked to warrant him to consider them to be species differing from our ordinary laboratory form, which is derived from Koch's original Indian cultures. He believes, however, that the cholera vibrio, through being grown in a laboratory, may lose some of its vital energy, and undergo a gradual attenuation. The latter opinion is, we believe, now generally accepted. It can, therefore, no longer be denied that various kinds of comma bacilli occur in the stools of cholera patients, forms allied to Koch's original vibrio, yet quite distinct. All these are distinguished easily enough from the vibrio of Finkler and Prior, or of Deneke, and the vibrio of Metschnikoff, and also from that recently described by B. Fischer, and obtained from a case of acute food poisoning with choleraic symptoms, originally diagnosed as cholera nostras.

The inexperienced observer might, no doubt, have difficulties in coming to a definite conclusion whether he is dealing with one of the true cholera vibrios or with one of the other forms which occasionally find an abode in the human intestinal tract. Matters might be easy enough for the skilled bacteriologist, if the vibrios occurred exclusively in the human body; but, unfortunately, various kinds or species have recently been found in water. These might easily be mistaken for true cholera bacilli, and a faulty diagnosis might obviously lead to the most serious consequences. Günther, while examining the Spree water supplied by the Stralau waterworks for cholera bacilli, found suspicious colonies, very similar to those of Koch's vibr . A careful objective study, however, established differenc important enough to convince him that he was dealing with a microbe essentially distinct from the true cholera vibrio. Weibel found another vibrio similar to that of cholera, but different from any hitherto described. Bujwid, again, discovered bacteria in the water of the Vistula, which microscopically could not be distinguished from Koch's comma bacillus. The culture method, however, cleared up all doubt. Orlowski also found an organism in the water of a well at Lublin of still greater resemblance to the true cholera vibrio. Fokker likewise described a comma bacillus which he cultivated from water, and which was very similar

to the genuine Koch's comma, but on careful comparative examination was quite distinct. He considers both his and Günther's vibrios to be degenerate cholera bacilli, altered on account of a change of soil and surroundings. How great the influence of these conditions may be appears from the fact that it is possible to alter the true cholera vibrio in such a manner that it permanently loses its power of liquefying gelatine. Finally, Gärtner also separated from water a vibrio closely resembling Koch's bacillus.

The moral to be drawn from these facts is that in any doubtful case the bacterioscopic examination should be performed by skilled and patient workers. The microscopic appearances alone are utterly inadequate. We must make ourselves familiar with the various kinds of vibrios known, make careful and painstaking comparisons as to growth in various media, liquefaction of gelatine, fermentation of milk, etc. All possible care is necessary, and the bacterioscopic investigation of any suspected matter should be conducted with a keen appreciation of the great responsibility incurred, and of the consequences to which an error might lead. We cannot accept Fokker's opinion that the various water vibrios described are simply degeneration forms of the comma bacillus. The same logic would lead us to the belief that the vibrio Metschnikovi is merely a modification of Koch's comma.

A point of much practical importance raised by these recent researches is the diagnostic value of the comma vibrio in suspected cases of cholera, which has been seriously questioned by Professor Liebreich. We shall not attempt to answer or discuss the latter's objections here, since they are academic rather than actual and real, and leave them for future consideration.

THE GRIEVANCES OF ARMY MEDICAL OFFICERS.

II.

According to our contemporary, the *Army and Navy Gazette*, with whom we agree, the reply of the Secretary of State for War to the suggested alterations and reforms in the Army Medical Service is especially regrettable in the entire want of conciliatory tone. There is nothing to smooth the harshness of total refusal, which makes it all the more necessary to examine the grounds upon which such an extreme and uncompromising stand is made. We regret to say the more the arguments or, rather, statements are looked into the more merely negative and the less conclusive do they appear. The very form of the reply but too plainly indicates that it was framed, not merely as a present refusal, but also as a ready weapon against anticipated prospective demands. It was doubtless felt by the military advisers that the controversy was becoming uncomfortably narrowed to plain issues; therefore, it was desirable to closure further awkward importunities. So long as this might be temporarily done, it mattered little how. And so, this long, laborious, and weary controvery has for a time culminated—probably with some sense of relief and rest to the less ardent spirits. But, unless we are wholly belied by the past, the lull will not be long, for hitherto apparent quiescence in the department has proved but a prelude to the renewal of insidious attacks and consequent rousing to defence. If we are mistaken in this forecast it will come to us as a new revelation. After all that has been said and done by the Parliamentary Bills Committee, the medical schools, and by individual representatives in this contest, it is, of course, not possible to let the reply remain unchallenged; and, therefore, we propose to traverse it rapidly in detail, so that, when the certain revival of the controversy comes about, we may know where we are, and have some ready arguments at hand.

The first and most fundamental of the matters in dispnte is the formation of a consolidated medical corps. The suggestion that such would bring much solidarity, efficiency, and contentment to the medical service is characterised in the reply as a "subverting of the existing status of the Medical Staff," probably on the old untenable ground of the difference between staff and regimental allowances. But as no more money is asked or required, the adjustment of allowances is a mere accountant's bogey. We challenge any army administrator to say whether the existing status or conditions of the medical service, as a whole, would for a moment be contemplated or followed if it were necessary to create a medical corps *de novo*. The existing relations between officers and men of the Army Medical Service are wholly anomalous, because they had their origin in adventitious and almost fortuitous circumstances. The Medical Staff, as we find it, is simply the result of unification between the old regimental and unattached medical officers; the present Medical Staff Corps is a body of which the Medical Staff were not even the original officers, but others, called lieutenants and captains of orderlies. But the administrative absurdity of these intermediary officers led to their abolition, and brought the Medical Staff and the Medical Staff Corps into direct but, at the same time, very anomalous contact, and so they still remain.

But if it follows, which we wholly deny as in any degree necessary, that organic union between the corps and the officers would subvert the status of the latter, then what is the status of the officers in the organic unit called the Volunteer Medical Staff Corps? Will it be denied that the organic union in that corps better fits it for service in war? The truth is that the auxiliary medical service is ahead of the regular in everything pertaining to corps organisation and field efficiency. We altogether deny, on the best of testimony, that in the present haphazard and scratch arrangements between the Medical Staff and the Medical Staff Corps for field service "the standard of efficiency is adequately maintained," as the reply asserts. The officers and men have no proper bond of union, not to mention opportunities of drilling together as bearer company and field hospital units; until a closer corps organisation is brought about we look for no improvement in this absolutely serious state of field efficiency in the medical department. Instead of subverting, a proper corps organisation would raise and define the army status of medical officers; but this. we fear, is just what is not wanted by a powerful section of the army, whatever the risks and costs towards efficiency. We venture to think the subject of corps organisation in the medical service will soon force itself on the authorities.

The question of foreign service was one in which concessions were confidently expected from the very nature of the case, so that a cold and hard refusal of any modification whatever must prove profoundly discouraging. We know the exacting nature of foreign service is already, on wary

advice, deterring capable candidates from competing for commissions in the medical service; and this will increase in the absence of any amelioration. The determination to apply the screw in India at any risk will speedily react on the popularity of the service. It may be argued, surely, if the conditions of service in European hospitals in India are such as to break down and cause a "maximum" of invaliding after four years, can it be a paying policy to take six out of the survivors?

We can imagine a man in his fourth year, even if in weakly health, struggling on for one more, who could not possibly face a sixth; is it unlikely then, that not a few are unwillingly driven in their fourth year to take refuge in the unpopular mercies of a medical board? The broad accuracy has never been impugned of our statistics concerning the unhappy fate of the first batch of twenty-nine young medical officers sent to India under the new six years rule. More than half succumbed, one way and another, to the conditions of service, and yet that seems twisted into an argument for extracting the last possible pound of flesh from the survivors. We do not, of course, have data before us to afford positive actuarial deductions, but are morally certain that when the cost by death, invaliding, sickness, and ultimate non-effectiveness are duly summed up the sixth year in India will be proved a financial mistake. On this ground alone, and on no higher, for it never had a higher, notwithstanding the vague talk of increasing home service, do we think it will be abandoned. Meanwhile it is persisted in, and a very valuable and deliberate recommendation of the Camperdown Commission thereby ignored. The other points in the reply must be held over for future remark.

THE CONDEMNATION OF UNSOUND FOOD.

Though somewhat similar difficulties have arisen before, the spectacle recently witnessed outside Southwark Police Court is surely without parallel. The sanitary inspector of St. George-the-Martyr had applied to Mr. Slade for an order to destroy certain herrings seized at a fishcurer's in the Borough. The officer said there were eighty-five barrels of the fish in a putrid state, and he thought the better course would be for his Worship to visit the premises where the stuff was stored and inspect it there, as, if brought through the streets, it would endanger the public health. However, Mr. Coates, the clerk to the magistrate, said: "All the herrings must be brought here." Accordingly, the same afternoon, five large mud carts belonging to the vestry were loaded with the fish, and brought through the Borough up to the court, when the magistrate promptly inspected the lot, and made an order for its destruction.

Can the ruling of the magistrate's clerk in this case be good law? It is certainly not common sense, and we are glad to notice that the Home Secretary has frankly acknowledged that, if the interpretation of the law is good, the law is bad and must be amended. The statutory powers as regards the seizure and condemnation of unsound food for the metropolis are contained in Section 47 of the Public Health (London) Act, 1891. The sanitary inspector is empowered to seize the "animal or article" intended for food of man, etc., which appears to him "to be diseased, or unsound, or unwholesome, or unfit for the food of man," and he may carry it away himself or by an assistant in order to have it dealt with by a justice.

Then follows what is required of the magistrate: "If it appears to a justice that any animal or article which has been seized, *or is liable to be seized*, under this section, is diseased, or unsound, or unwholesome, or unfit for the food of man, he shall condemn the same and order it to be destroyed or so disposed of as to prevent it from being exposed for sale or used for the food of man."

It seems to us that the words which we have printed in italics were inserted to enable magistrates to deal with applications similar to that lately made at Southwark. The words do not occur in the "unsound meat" sections—Sections 116 to 119—of the Public Health Act, 1875, on which Section 47 of the Public Health (London) Act is modelled. If an inspector finds a quantity of unsound meat or fish (intended for food of man, exposed for sale, or deposited for the purpose of sale, or of preparation for sale), "he *may* seize and carry away the same," but if his doing so would endanger the public health, and amount to an offence under the Public Health Act, obviously he has the option of doing something else. He can leave the stuff (getting an assistant to watch it if he thinks this necessary), and make an application at the court, as the inspector of St. George-the-Martyr did. On such an application being made, what is the duty of the magistrate? Are he and his clerk to insist on an intolerable effluvium-nuisance being created to the annoyance of the whole neighbourhood? Certainly not. If it appear to the magistrate on the sworn evidence submitted that the food seized, or liable to be seized, is diseased or unsound, etc., he *shall condemn* the same and order it to be destroyed.

But it may be said there is no Section in the Public Health Act which compels a magistrate to visit the premises where the seizure is made or to be made, and most magistrates would be unwilling to condemn a large quantity of food without seeing it. This is so, but there does not appear to be anything in the Act to prevent a magistrate from going to inspect noxious food when there are excellent reasons why it should not be brought to him.

BIOLOGY IN GREAT BRITAIN.

The word "biology" has become so familiar and is so convenient that it is only on reflection that we realise that in the nature of things it could only have come into use within comparatively recent times, and Professor Burdon Sanderson did well to recall in his address to the British Association this week the circumstances under which it was introduced. For Treviranus, who first introduced it, it was equivalent to "the philosophy of living Nature." Professor Sanderson's address was an interesting exposition of the phases through which the study of biology has passed during the present century, and it is significant that in dealing with the proper subject of the philosophy of living Nature he had to draw his illustration almost entirely from modern researches. It is the fact that only in recent years, during a period which certainly does not antedate the publication of Darwin's epoch-making work, have we had presented to us any large generalisation in biology, or has any effectual effort been made to study the higher problems of the nature of life. Not that the middle portion of the century was barren of great achievements in the field of biology, but the field was so wide and so untilled that the workers

saw that all theories of wide scope must have an insufficient basis until a much larger accumulation of facts had been made. The physiologists of the middle of the century have been accused of taking a mechanistic view of the phenomena of life, but, as Professor Sanderson showed, the fact rather was that they abandoned theory and speculation for experiment and the accumulation of facts. "Physiologists ceased to theorise because they found something better to do." At the present day biologists have taken heart of grace to attack the problem which Treviranus formulated, though it must be admitted with no immediate prospect of finding a complete solution.

Professor Sanderson insisted that there is one principle—that of adaptation—which separates biology from the exact sciences, and that the end we have to keep in view is not merely to investigate the relation between a phenomenon and the antecedent and concomitant conditions on which it depends, but to gain this knowledge in constant reference to its effect on "the interests of the organism." The idea of organism is the central idea of biology; and Professor Sanderson pointed out that it must never be overlooked that specific activity is of the essence of organism—"that if, on the one hand, protoplasm is the basis of life, on the other, life is the basis of protoplasm."

The address was directed to the discussion not only of the origins and present tendencies of biological thought, but also of the relations which subsist between biology and other branches of natural science, and the speaker made an appeal, which we may hope will meet with a generous response, to workers in all branches of science to combine to support, with all the strength of their united influence, the demands made by the various branches for a larger measure of public support and official recognition. In particular we may hope that his appeal on behalf of the British Institute of Preventive Medicine will not fall upon deaf ears. If it be true that, as regards administrative efficiency in matters relating to public health, this country still maintains a position of superiority, it is lamentably true also that as regards the scientific study of the causes and mode of prevention of infectious diseases we are content to borrow from our neighbours, and to send our students to Berlin, to Munich, to Breslau, or to Paris, to obtain the instruction and to find the laboratories which ought to have been provided in this country long ago. We reproduce in another place the greater part of Professor Sanderson's admirable address, which will be read with interest by many to whom the technicalities of modern physiology are distasteful. How closely medicine is linked to other branches of biological study is apparent in every line, and no better illustration of the light which may be thrown upon the obscurer problems of mammalian physiology by the study of unicellular organisms could have been found than in the section of the address which deals with phototaxis and chemiotaxis.

Sir Mortimer Durand, who is leaving Simla on September 15th on a mission to the Ameer of Affghanistan, will be accompanied by Surgeon-Major Fenn, A.M.S., Surgeon to the Viceroy of India. We understand that during Surgeon-Major Fenn's absence his duties will be discharged by Surgeon-Colonel Harvey, I.M.S.

Dr. William Calwell has been appointed registrar to the staff of the Royal Hospital, Belfast, by a unanimous vote of the staff, with whom the appointment rests.

TEACHING OF HYGIENE IN GERMANY.

The prospectus of the German University Extension Courses in Hygiene has now been published. The courses, which are designed for the use of officials, will be given in connection with the Hygienic Institutes of Breslau, Königsberg, Berlin, and Marburg. Each course will last a fortnight. The general prospectus for the courses divides the subject into the following eight heads: 1. General hygiene, vital statistics, etiology, pathogenic parasites. 2. Soil and water, water supply, filtration, springs, domestic filters. 3. Sanitation of houses, air, ventilation, heating, local and central heating apparatus, schools, hospitals, cottages, workmen's dwellings, prisons. 4. Disposal of refuse, drainage, storm water, scavenging. 5. Dietary, cost in public institutions, alcoholism, adulteration, inspection of abattoirs, market police. 6. Trade hygiene. 7. Burial. 8. The prevention of infectious diseases.

DUBLIN WATER SUPPLY.

The Corporation of Dublin has given notice that in the absence of a copious rainfall the Vartry supply will be cut off from the south-western area of the city on September 18th. This has become necessary owing to the fall of the water in the reservoirs to 22 feet below normal level. The greatest previous fall was to 17 feet in 1887. The area for which the Vartry was originally intended has been greatly exceeded, and the added townships have made great demands upon the supply during the present summer. The Corporation propose to use the water from the Grand Canal at a point some miles from the city. A reassuring note is published as to its quality, but it is recommended that the water should be boiled before using. The new arrangement will cause much inconvenience if not risk, because the pressure will be inadequate to raise the supply to the tops of the highest houses. The question will now arise whether an additional reservoir should not be provided, or whether some of the townships should not be left to obtain an independent supply for themselves.

PROSECUTION OF A CHEMIST.

The Pharmaceutical Society of Ireland have prosecuted Mr. Francis Leonard for retailing a poison, within the meaning of the Act, to wit, Kay's compound essence, he not being a qualified person. Professor Tichborne deposed that in one bottle he found one-eighth of a grain of morphine to the drachm, and in a second one-third of a grain to the ounce. Dr. Auchinleck said a spoonful would kill a child. For the defence, Mr. John Shaw, the manager of Kay's works, said the small bottle contained 10 drachms, and the quantity of morphine would be $\frac{1}{12}$ of a grain. There was $1\frac{1}{4}$ drop of sulphuric ether. The quantity of chloroform was $11\frac{1}{4}$ drops. Spirits of wine were used to combine the chloroform and sulphuric ether. The other elements in the compound would act as emetics. If, then, by any chance a child happened to swallow the entire bottle, there would not be the slightest fear of any fatal result, as the dangerous element would be got rid of. Mr. Foy and Sir Charles Cameron were examined for the defence, and the magistrate reserved judgment until October 12th.

THE THIRD AND FOURTH GENERATION.

M. G. Lagneau communicated to the Académie de Médecine recently the concluding part of an interesting statistical paper on the Population of Paris, in which he proved that the extinction of families of Parisians proceeds with extraordinary rapidity. A little over 60,000 children are born annually in Paris, and the expectation of life at birth is 28.05

years. The population of Paris at the last census was 2,424,703, and M. Lagneau calculates that if not recruited from the country the population, at the end of one generation, would be reduced to 1,698,679, a diminution of more than a third; at the end of the second it would have fallen to 1,190,100, at the end of the third to 833,720, and so on until at the end of the eighth generation *la ville lumière* would contain only 140,700. Probably the real figures would be even less favourable, for as a matter of fact it is almost impossible to find a Parisian whose ancestors for three generations have been Parisians. The same, or very much the same, holds good in London. Some ten years ago Mr. James Cantlie, in a lecture which he gave for the National Health Society, challenged anyone to produce a Londoner of the fourth generation, a challenge which was not, we believe, taken up. The causes of this dying out of town populations are, no doubt, complex, but M. Lagneau points out two which, in Paris at least, are the most important—the enormous mortality during the first year of life and the very high death-rate from tuberculous diseases. This death-rate appears to be twice as great in Paris as in London, and M. Lagneau appears to attribute a part of this difference at least to the less density of population on the surface in London. The Londoner has 84 square metres, whereas the Parisian has only 39.

THE SANITARY STATE OF THE CAVALRY BARRACKS AT WINDSOR.

Since we last commented on this case questions have been asked in the House of Lords and also in the Commons on this subject, and it is worthy of remark that responsible Ministers have in both places fenced with the inquirers. In the Lords the opinion of the medical authorities was quietly omitted, while in the Commons Mr. Campbell-Bannerman said it was not usual to submit Departmental reports. It has, however, been made quite clear that the general sanitary state of the barracks is about as bad as it can be, and the arguments of the Secretary of State for War to the effect that the state of these barracks was no worse than that of many others in the country, and that because there has been no outbreak of disease or unusual sickness, that therefore there is no urgency, is certainly unworthy of a responsible Minister of the Crown. We hope that some independent member will insist on the House being made acquainted with the opinion of the medical authorities, as they should certainly be made public in the interests of the troops.

"HIS EXCELLENCY THE GOVERNOR."

Dr. Donovan's Report on the Lepers' Home at Spanish Town, Jamaica, contains the extraordinary allegation that "In November, 1891, in compliance with instructions, received through the superintending medical officer, from His Excellency the Governor [Sir Henry Blake, K.C.M.G.], the medical officer appears to have been constrained to subject a number of his patients to the 'Mattei treatment!'" It seems that nineteen patients were so treated for a considerable time—in some cases the treatment being persisted in for from nine to twelve months—with the natural result that "no amelioration has taken place in a single instance and that in a few the disease appeared to have been aggravated during the treatment." We have reason to believe that the medical officer was at first properly averse to having anything to do with a treatment which, on the face of it, is nonsenical, and that he was actually coerced, against his better judgment, by the fear of dire consequences from the Government of the colony. Another surprising feature in the affair is that the "superintending medical officer," a man of high position in the medical profession, allowed himself to be the medium through which the Governor's ideas and instructions as to the medical treatment of the inmates of the asylum were conveyed to the medical officer in charge. It should be made clear whether such interference in questions of pure therapeutics is a proper function of a lay governor, who is necessarily ignorant of such matters, and who may readily become the dupe of irresponsible faddists and vendors of quack remedies.

AN ASYLUM ATTENDANT CONTRACTING LEPROSY.

In the report of Dr. Donovan, of the Lepers' Home at Spanish Town, Jamaica, for the year ending March 31st, 1893, recently published in the *Jamaica Gazette*, there is a history especially worthy of comment. It is well known that clear and authenticated instances of attendants in leper asylums developing leprosy are extremely rare, and it is obvious that positive facts bearing upon alleged cases are of extreme importance. Among the administrative changes recorded in the home during the year, we learn that the cook, who had been employed in the institution for seventeen years, had developed symptoms of leprosy, and had been invalided and granted a compassionate allowance. Dr. Donovan gives the following brief history of the case:

> Patient has been for seventeen years working in the institution; during the greater portion of the time has been acting as cook, a couple of male inmates of the asylum assisting in the kitchen peeling yams and other work. He is the eldest of five children, all alive and healthy. Father died of dropsy, mother of fever. First manifested the prodromal symptoms of the disease about 1891, lassitude, want of tone, loss of sexual power, and increasing anæsthesia of the left hand and forearm, which was soon followed by the development of tubercles about the left ankle and on the forearm; the nose subsequently became enlarged and the lobes of the ears somewhat pendulous; the left hand presents well marked features of anæsthetic leprosy. Has no knowledge that any member of his family or relative, however distant, has ever been affected. He is married but has no children.

The diagnosis, it is clear, cannot be doubted, nor the fact that the man has developed the disease after many years' service among the inmates of the asylum, and that heredity may be left out of the question. But by what channel or channels—the skin, alimentary canal, or what not—the poison has entered his system is a problem as yet unsolved.

THE INFLUENCE OF ISOLATION HOSPITALS ON THE SPREAD OF SCARLET FEVER.

In ordinary times the metropolis possesses in the admirable organisation of the Asylums Board a reasonable amount of facility for the isolation of scarlet fever; and it is a nice and almost insoluble problem how much scarlet fever is by these means prevented. Some light is, however, thrown upon this by a recent report of Mr. Wynter Blyth on the isolation of fever in Marylebone. Owing the insufficiency of accommodation at the Asylums Board throughout the whole of the metropolis, with the exception of St. Marylebone, a certain proportion of cases, which in times of less stress would be received in the Asylums hospitals, have to be treated at home, while in St. Marylebone a temporary scarlet fever hospital isolates all cases the Asylums Board refuse. It is, therefore, perfectly clear that a careful statistical inquiry as to the spread of scarlet fever in the one district in which all cases, or nearly all, are isolated in hospital, as compared with other districts in which only a certain small percentage is thus isolated, should reveal a proportionate less amount of fever, presuming that rapid removal from the places in which fever occurs does any good at all. Mr. Wynter Blyth has, by the aid of the printed list of notification issued by the Asylums Board, worked out the rate of scarlet-fever cases per annum and per mille of the population in every London district for two periods, the one of four weeks the other of five weeks. During the first (the four-week period), St. Marylebone was in the same position as the rest of the metropolis, but during the second (the five-week period) it possessed superior facilities for isolation. During the first of these periods the rate of scarlet-fever sickness in St. Marylebone was 10 per 1,000 per annum, and out of thirty nine parishes it stood in order

sixteenth on the list, that is to say that there were twenty-three districts in which a similar or greater prevalence of scarlet fever was indicated. In the second or "isolation" period St. Marylebone rose to the tenth place, the fever having remained in proportion to its population stationary. Moreover, with the exception of four districts, an increase in the prevalence of fever was shown in every London district. In many cases the increase was serious; in one district, for example, the increase was from 12 to 28 per mille. It may be reasonably objected that the periods are too short to be entirely trustworthy as a basis, but it must be remembered that very similar facts were brought out with regard to St. Marylebone when that local authority established a temporary hospital in 1892, and probably enough a longer period will only accentuate the differences as regards the prevalence of fever in districts in which, perforce, there is imperfect isolation and a district in which there is as perfect isolation as the law allows. In the same report Mr. Wynter Blyth makes some remarks as to isolation of scarlet fever cases in private houses, expressing his belief that in many there is fairly good isolation practised during the acute stage of the malady, when the patient is in bed, but that during the convalescent stage parents make very bad gaolers, and children feeling perfectly well, although dangerously infectious, are not kept within four walls, but sent into the parks to get air and sunlight, to their own great advantage, but to the disadvantage of the public. He believes that it is absolutely necessary to establish ample accommodation for those classes who are willing to pay for it, and, once that is done, then to alter the law and make it compulsory for every person, irrespective of wealth or social position, suffering from infectious fevers to be segregated from the community in the special hospitals established for that purpose.

UNQUALIFIED MEDICAL MISSIONARIES.

Charity, no doubt, covers a multitude of sins, and while we readily admit that in many cases half a loaf is better than none, the giver should surely call it by its proper name. Is it not time that some definition were arrived at of the term "medical missionary?" By what right do people who, to a smattering of theology, have by book-learning added a smattering of medical terms, arrogate to themselves the title? Truth will no doubt prevail among intelligent races, and the unqualified medical missionary on the male side will die out. On the female side, however, there is a greater danger. Lady doctors have not yet become so firmly established in the land that they can afford to allow, without protest, the intrusion in their midst, and the acceptance by leaders in society of a mass of unqualified female practitioners, even though the goodness of their aim may cast a halo of respectability over the badness of their method. A large and increasing number of women are now every year entering the medical profession, to a great extent picked women, who have put aside the ordinary ambitions of their sex in the hope of thereby doing greater good. They have gone through the full curriculum, have passed qualifying examinations on a level with their male competitors, have spent five of their best years in obtaining knowledge, and are legally qualified to practise their profession. Is it right then that when a certain standard of education has been imposed by Act of Parliament on all who wish to practise medicine in this country, and when women have bravely faced the difficulty and passed the standard, that others with the merest smattering of knowledge should be palmed off on our fellow subjects by religious societies as proper and fit persons to undertake the most responsible duties of the profession? It must be understood that the training through which these female medical missionaries have gone, except in regard to a little midwifery, is of an absolutely theoretical nature. That they are not even qualified as nurses, nor would they be accepted as such by the best institutes, and that, even as regards midwifery, the chances of their ever having seen a difficult case are very small; yet they are to be sent to India to positions in which they will be absolutely isolated from all assistance or possibility of consultation, and left to face as best they may all the difficulties and possibilities of a style of practice in which they must take everything as it comes. It is a system which is injurious to the good name of medical science, which must injure the position of our medical women, and which casts an unpleasant shadow on the doing of associations and societies which ought at least to teach men to do as they would be done by.

THE SENSATION OF PLEASURE.

It will be remembered that the philosopher physician of Weinsberg anatomises the inner man as a triplicate, *Seele*, *Nervengeist*, and *Geist*, thus adding a member to the older twofold division of *Nous* or *Phren* and *Psyche*. Contrariwise, it has been the aim of modern psychology to obliterate the classic division of the soul as twofold, and explain even the very subtlest of man's powers and finest of his emotions as, in ultimate analysis, pure affections of the Psyche or animal half, as used to be thought, of that entity. Thus we have seen the analytic method applied to the reduction of the will itself to a system of sensations, and now we have Dr. Bourdon[1] exhibiting Psyche as the parthenogenetic mother of Pleasure without any co-operation whatever on the part of the celestial Eros—her divine spouse according to the delightful old Greek fable. This denial of a loftier birth—claim and "bringing down of pleasure from a height between heaven and earth," as Dr. Bourdon phrases it, and "tying her up to a merely sensorial origin" will be, as he contends, a new gain, should the case be thought proven, for physiological psychology, whatever loss may ensue to the poet and the moralist; but thorough inquiry into the nature of this phenomenon appertains to the province of psychology, which need not too greatly concern itself with the moralist's teaching,—a dictum to which no one certainly will deny the merit of candour. At the same time it should be said that this remark is made in another connection. While no one, says Dr. Bourdon, has ever claimed for this phenomenon (of pleasure) the character of an innate conception, the propriety, on the other hand, of ranking it among our sensations has seldom been mooted. Yet that the pleasurable sense rests on a physical basis is implied in the very expression. But what that organic substratum may precisely be is a question hitherto not solved unless it is now solved satisfactorily in the essay before us. And the solution he gives—not finding any either in Wundt's theory or in the observations of Bravis, Mantegazza, and others cited—is that it is a special sense having its organs in the skin, and is of the same nature as the sensation of tickling *(chatouillement)*. No doubt a pleasurable feeling is the normal concomitant of every function of the organism in a good state of health—a state less common, by the way, than many suppose. But this pleasurable feeling or sense of the agreeable Dr. Bourdon is careful to distinguish from that special pleasure sense, which he has in view and seeks to locate anatomically, just as what is disagreeable seems distinct from what is painful. For this distinction he instances bitterness, and remarks that the gustative sensation evoked by this quality is disagreeable, but not painful like that caused by mustard essence or acetic acid. He suggests, or rather affirms, that the general tendency to identify the disagreeable with the painful and the agreeable with the pleasurable is due to the fact that in one case there arises desire for bodily approximation, for taking close to oneself, and in the other of avoidance and repulsion of contact. He shows from anatomical and physiological considerations the various pleasures arising from the action of the special senses, and so, too, that created by mental emotion, are each and all accompanied by a gentle diffuse cutaneous excitation analogous to that produced by tickling *(chatouillement)*. Taking the auditory sense, for example, he

[1] *Revue Philosophique*, September, 1893.

remarks that all the sounds we utter are accompanied by mechanical excitation, not merely in the buccal region, but often also in a considerable portion of the entire body. And, in fact, do we not know that no fewer than forty-six muscles are concerned in every pulmonic effort? Our bodies vibrate to all sounds, and it is, in part, though the perception of these vibrations that deaf mutes learn in our day to speak. Simple experiments are suggested to show this, so that "one may boldly affirm," says Dr. Bourdon, that the hypothesis which would make the sense of pleasure in audition really due to gentle cutaneous excitation explains extremely well the depth and extent of the emotions which sounds are apt to cause us to experience. As an instance of the mode in which a mere emotion unconnected with sense may arouse the pleasurable feeling we may take that of joy. Joy and pleasure, he remarks, are often taken as synonymous. Now one of the characteristic phenomena of joy, set well in relief by Lange, is the dilatation of the capillary vessels, and consequently the afflux of the blood to the whole periphery of the body. But this afflux sets up a gentle excitation of the skin like that produced by tickling. Joy, too, as Lange shows, induces also muscular excitation, but even in default of this the result would not fail. Dr. Bourdon affirms that there would be no difficulty in showing that what are metaphorically termed elevated pleasures are no less susceptible of the application of his hypothesis, which, in short, proposes to substitute for the theory that the pleasurable sense is a common element in all sensation, or may be so, the idea that it is a special sensation having special structures as an organ, and that this sensation is a diffuse tickling of the cutaneous envelope *(chatouillement)* of very moderate intensity. Thus the last phenomenon and only one which the new psychology has not made its own would, like the rest, be henceforth included with them in the domain of the senses. That Dr. Bourdon has succeeded in his demonstration we would hesitate to affirm, but he has written an interesting article.

TRADE INTERESTS AND SANITARY NEEDS.

IN 1890 Parliament, in the Public Health Acts Amendment Act, gave to sanitary authorities the opportunity of strengthening for local purposes some of the many weak points of the Public Health Act of 1875, by the adoption of Part III. of the Amendment Act of that year. Among the powers thus offered are much-needed means of control over food supplies, slaughterhouses, closet accommodation, drainage, building sites, scavenging, etc., together with extended powers of making by-laws. While many towns and minor urban districts have lost no time in taking advantage of the new order of things, others have preferred inaction, for reasons which are more obvious than creditable to the authorities responsible for the sanitary government of the towns in question. Derby affords a recent and instructive example in point. The sanitary committee brought before the Town Council a report indicating the advantages to be gained by adopting Part III., and advising that that course should be followed. They were met by a vigorous opposition on the part of the manufacturers of the town, whose supposed interests seem to be singularly well represented on the council. It was not denied that the powers sought were important, and some of them necessary, but it was demanded that these should be sacrificed because one effect would be to place some restrictions upon trade effluents being passed into public sewers, if by their temperature or composition they would cause nuisance or interfere with the flow of sewage. This was represented as entailing of necessity the ruin of the important manufacturers of the town, and of course the usual irrelevant protests were made against the invasion of trade premises for the purpose of inspection, and the multiplication of inspectors, and what obstructionists in the way of sanitary progress delight to call "officialism." It is needless to say that the 1890 Act is silent as to the appointment of additional inspectors, and gives no new powers of entry or inspection. It assumes that each town already has an efficient sanitary staff, but apparently in the opinion of a section of the Town Council such is not the case at Derby. In the end the opposition proved successful by a large majority, and for the present Derby must remain content to lag behind its neighbours in divers matters materially concerning the public health and safety, including the control of food supplies, with the unpleasant reflection that the commercial prosperity of the town is in such a precarious state that it depends upon manufacturers being left at liberty to turn hot or offensive effluents in a crude state into the sewers. It will be interesting to watch the fate of other and larger communities, Nottingham for example, which have adopted a different course.

INDIAN SANITATION.

IN the BRITISH MEDICAL JOURNAL of July 15th we placed on record a strong opinion that to procure sanitary reform in India, more particularly in the small towns and villages and hamlets, the work must be done by those municipal and local bodies to which the care of commercial interests and affairs has been entrusted. A correspondent, to whose opinion we attach high value, has written to point out that a sanitary organisation, rather than a municipal organisation, is necessary to accomplish sanitary work in India. Our observation expressly indicated the need of skilled sanitary agencies, to advise and execute; but we held, and still hold, that these agencies must be placed in responsible and effective relation to the bodies which have been entrusted by the Government of the country with the power and the purse. Sanitary laws and by-laws have been enacted throughout India, to guide and govern these bodies; but something more is required—pressure from above to insist on these laws being observed, and an agency to procure and direct their application. The local bodies have been largely entrusted with measures of medical relief—why not with measures of medical prevention also? Medical men, educated in our schools and taught the principles of hygiene, are scattered throughout the country. Local bodies should utilise the knowledge possessed by these men for public health purposes, as the services of practitioners have been used in England for like objects, and as in India the services of civil surgeons have already, with the best results, been devoted to sanitary improvements. By all means let the central local governments have their departments to advise, to report, to inspect; but, for the sanitation of towns, villages, and hamlets in the interior a "department" is not the cheapest or best means of devising or executing measures necessary for improving the health of the people.

AN APPARATUS FOR STERILISING WATER BY BOILING.

THE apparatus for boiling water of Werner von Siemens is described at some length by Professor Rubner and Dr. Davids in the *Berliner klinische Wochenshrift* for September 4th. The principle of the apparatus consists in the passage of the water to be heated through a coil of tube which is bathed and surrounded by the outflowing stream, and in this way the ingoing water abstracts heat from the outgoing, and the latter is cooled, while the temperature of the former is already appreciably raised before it enters the vessel in which boiling takes place. An early form of the apparatus was experimented with last autumn, and it was found that 25 litres of water which was practically sterile could be obtained per hour, by means of the burning of 309 litres of gas. In the course of the present summer an improvement was devised, whereby the flow of fresh water into the apparatus was automatically regulated in such a way that the temperature to which it was subjected should always be maintained at boiling point. Moreover, the improved form of apparatus yielded 30 litres per hour, and

for every litre of water heated 11.35 litres of gas were expended. The cost of 1 cubic metre of gas being 16 pfennigs, it is calculated that 1,000 litres of water can be sterilised for 1.89 marks. Experiments were made, not only with ordinary dirty water, but with water highly polluted with the bacilli of cholera and of typhoid fever. The results as regards the sterilisation of the water were in every way satisfactory. Experiments in which the temperature instead of being raised to boiling point only attained 60, 70, and 80 degrees centigrade respectively were also conducted. For raising a litre of water to 80° centigrade 9 litres of gas were found to be necessary, and 1,000 litres of water could thus be heated to the extent specified at a cost of 1.44 marks. The results as far as the destruction of the bacilli of typhoid and cholera were concerned were practically identical with those obtained when the water was raised to boiling point.

EVICTIONS FROM INSANITARY HOUSES.

It is, perhaps, a matter of legitimate curiosity to inquire where and how the people of this country would be lodged if all insanitary dwellings and houses with defective water supply were at once to be shut up. The question is suggested by what is going on in the village of Auchintibber, in Lanarkshire. For some months past this place has been infested with enteric fever, and at the present moment ten of the villagers are accommodated in the district hospitals After careful investigation the outbreak has been traced to the water supply connected with Clyde Rows. The owner of these houses, however, says he has done all he can to provide pure water, and that, as the district pays the general water rate, the county ought to make good the supply pending the completion of the Glengavel water scheme—probably some three years hence. The result is that last week eighteen tenants were to be evicted. They are nearly all miners; they have nowhere to go to, and, the condition of affairs having got abroad, the factors are refusing any tenants from Auchintibber unless furnished with a medical certificate that their houses were not amongst the fever-stricken. The tenants not unnaturally declined to leave their houses, asking that the wells should be closed, and expressing willingness to carry water from other parts if only they be left undisturbed. This is but another chapter of the lesson that sanitary progress should be steady, gradual, and continuous. Jerky sanitation—sanitation which comes only when led by epidemics—is sure always to be attended with hardship, of which these Lanarkshire evictions are but a type.

INDIA AND THE COLONIES.

INDIA.

Residency Surgeons and Native Courts.—In reference to the paragraph in the British Medical Journal of September 9th respecting residency surgeons at native courts, it should be mentioned that the arrangements regarding Surgeon-Lieutenant-Colonel Hendley, C.I.E., and Dr. Adams are, so far, only temporary. It is well known that Surgeon-Lieutenant-Colonel Hendley has rendered certain services—political, social, and professional—to the Jeypore Durbar, which renders his removal from Jeypore a more difficult question than Government generally has to deal with in medical appointments in the Rajputana. Surgeon-Lieutenant-Colonel Hendley has been something like twenty-four years in Jeypore. Dr. Adams has proceeded to take over the Abu appointment as a purely temporary measure, pending, it is believed, certain decisions relating to the appointment by Government. The personal allowance of 500 rupees allowed Dr. Adams by the Maharajah of Jodhpore necessarily follows him while he is still virtually the permanent medical officer of the State. Personal allowance is not usually granted to any medical officer until he has been some considerable time in the service of the State. It is purely optional to give it on the part of the State, though before it is given it has to be sanctioned by the Government. Many men never obtain personal allowance, so that it is unlikely that anyone will suffer by Dr. Adams continuing to draw it while acting in a temporary appointment. Of course, if Dr. Adams continues in his new appointment he will lose his allowance.

Presentation.—Mr. Herbert Jones, L.R.C.S.I., D.P.H. Camb., has been presented with a gold watch and a cheque by some of his patients and friends in Shipley upon his election to the post of Medical Officer of Health to the Borough of Crewe.

THE CHOLERA.

SPORADIC OUTBREAKS IN ENGLAND.

[BY OUR SPECIAL COMMISSIONER.]

The Problems of the English Outbreaks.

From the reports which we continue to receive from various parts it seems evident that the cholera has broken through the outworks we have set up against it, and has invaded the inner line of our defences. We can but congratulate ourselves that this event has been so long delayed, and that the cooler season has come upon us before the cholera has made itself seriously felt.

Whatever else may be in doubt regarding the etiology and dissemination of this disease, it is abundantly clear that the multiplication of the contagium outside the body is largely influenced by temperature, and that an amount of infection of, say, a water supply, which in hot weather would inevitably lead to an epidemic, may in a cooler season have its development so restrained as to pass harmlessly away; but there are many other influences at work of which we know but little, and these are those which require investigation, and on which it is earnestly to be hoped some light will be thrown by careful inquiry into the habits and surroundings of the sufferers from those isolated outbreaks which are almost sure to crop up here and there during the next month, and again next spring.

We know well enough that cholera is, in 99 epidemics out of 100, disseminated by means of water; what we want to know is, How else? Where whole populations are simultaneously affected, water is almost certainly the vehicle. As happened at Hamburg, as happens every day in India, and almost every year at Mecca, the drinking of water directly poisoned by choleraic excreta produces cholera again in turn. It is thus truly described as a waterborne disease. In no other way than by means of water is any widespread epidemic likely to arise, for in no other way can widespread excremental poisoning take place.

Plumbism may be, and often is, a waterborne disease. We should, however, have an incomplete conception of lead as a cause of illness if we contented ourselves with the consideration of this aspect of the question.

And so in cholera; while accepting to the full that cholera is a filth disease and waterborne, and while recognising the still further limitation that the infection must go in at the mouth, it must be admitted that water, though its ordinary, is not its only, vehicle. The provision of a pure water supply is an elementary necessity for protection against cholera, still it will not do everything. Without pure water, the extinction of cholera in India is hopeless, yet even with it that consummation cannot be reached until the very habits of the people, the outcome of centuries of water starvation, have been altered.

For this purpose every possible chance of fæcal befoulment of both food and drink must be prevented. A pure municipal water supply is an essential and the chief means to this end. But it will not serve as a complete protection if other elementary hygienic provisions are neglected. Grimsby, for example, has a water supply which is said to be pure, is derived from deep wells, is pumped into the town and delivered at high pressure, the service being on the constant system; the ordinary fittings do not include cisterns, except for baths, and the taps are connected directly with the rising main; and yet Grimsby has furnished a considerable cholera mortality.

What, then, are the other means besides water carriage by which the cholera poison can gain access to the system? or, putting the question another way, what are the means other than wholesale water infection, by which the poison can be conveyed, retail, so to say, to foods and drinks in such a manner as to produce cholera in those who consume them?

The careful elucidation of the surroundings of each individual case is the direction which English investigation ought now to take. Where cases occur in crowds, as in great epidemics, when infection is so widespread that it is more difficult to eliminate than to prove exposure to it, this

becomes next to impossible; but in such isolated outbreaks as we are now witnessing the exact mode of access ought to be worked out as far as possible in every case.

The conveyance of cholera by water is no longer a hypothesis; that is now axiomatic. We now want to know the local—we may perhaps call them the domestic—influences which are concerned in the production of isolated cases.

First comes the vexed question of the *modus operandi* of defective drainage, and the extent to which a particulate infection can be disseminated by movement of damp air within sewers. If the bacillus of enteric fever can be thus distributed why not that of cholera? Grimsby ought to give facilities for an investigation of this character, for in consequence of the tide-locking of its drains, the sewer air must twice a day be driven back by the tide, and must escape by such ventilators and imperfect traps as may exist. The condition of traps and the relation of drains to larders in every infected house is, then, a subject worthy of most careful investigation. Then the possible connection of the cases with special foods, such as fruit or fish, is full of interest. Last week we indicated the possible dangers connected with the consumption of shell fish, but there are many details of the fish and fruit trade which deserve full investigation.

The sanitary condition of the docks in which fishing vessels discharge their cargo is not always above suspicion, and it might possibly be discovered that the foul dock water is used for washing decks, and that in such ways risks are run.

The association of the trade in fruit with that in fish, and the handling of the most delicate of Nature's products by hands fresh from the fish counter, is one of the unpleasant curiosities of trade, but in this connection it becomes even more offensive.

The influence of dust is also one not entirely to be put aside. Anyone who has watched the building of sand hills on the coast will see that a wind blowing over an expanse of sand which has been washed by the discharges of cholera-infected sewers might readily give rise to a certain amount of food poisoning.

These are but examples of possibilities, and it is in the careful and minute investigations of such that we shall best utilise the epidemic with which we are threatened.

HULL.

Our correspondent informs us that the total number of deaths from cholera at Hull, so far recorded, has been seven. No cases had been reported or admitted to hospital from September 7th to September 11th, but on September 12th a man, aged 40 years, who had been engaged in the collection and disposal of excreta and town's refuse, sickened suddenly about 8 A.M. No medical advice was obtained until about 2 P.M., although a supply of diarrhœa mixture had been obtained from one of the branch police stations, the officials at which immediately communicated with the medical officer of health by telephone. In the interim the patient was seen by a medical man, who ordered the friends to communicate with the sanitary department forthwith. After investigation the case was believed by the medical officer of health to be one of Asiatic cholera, and the patient was immediately removed to the hospital in the ambulance. He succumbed early the following morning.

A case was also notified on September 12th as suffering from acute diarrhœa. The woman died suddenly, but it appears after due investigation not from Asiatic cholera.

The authorities seem fully alive to the importance of the situation, and are taking every possible precaution against the spread of cholera. A printed bulletin is issued daily containing information of the number of notifications received under the Infectious Diseases (Notification) Act, together with cases of choleraic diarrhœa in the various districts and streets in which they have occurred.

The medical practitioners have been notified by the Sanitary Committee that they will be allowed the same fee for notification of cases of choleraic diarrhœa as for any other infectious diseases included in the Act. The medical practitioners have willingly responded to the request.

Closely covered iron carts are used to collect the excreta from cases of choleraic diarrhœa, and the contents thereof are removed to the destructor for cremation. There are at the present time two suspicious cases remaining in the hospital.

The statement which appeared in the BRITISH MEDICAL JOURNAL of September 9th that in Hull the authorities were not fully alive to the significance of having recourse to bacteriological examination for purposes of diagnosis is in need of correction.

It appears that early in July the medical officer of health issued a circular to the medical practitioners in the borough, asking for the voluntary notification of diarrhœa cases of a suspicious character, and immediately upon the death of the first suspicious case—namely, the boy Fortnum, on August 24th, and who, it should be stated, died before medical attendance, which had been summoned, had arrived—an inquest was held, and portions of the viscera were forthwith submitted to Dr. Klein for bacteriological examination. A second case of sudden death, although medically attended, was dealt with in a similar manner.

In justice to the Sanitary Committee, we should state that last year the town was divided into various districts, to each of which members of the Committee were appointed to investigate for themselves the sanitary condition of the respective areas allotted to them.

The staff was materially increased for the purpose of carrying out house-to-house inspection, the limewashing of courts, etc., and the flushing of subsidiary drains. This staff has been maintained, and has been working steadily since, so that the statement that "no town in England is better prepared to stand fire than Hull" appears to be fully justified.

GRIMSBY.

The deaths from cholera and choleraic diarrhœa, and the new cases notified since the last report, have been as follows: September 7th, 1 death and 13 new cases; September 8th, 1 death; September 9th, 1 death and 4 fresh cases; September 10th, 2 deaths and 2 fresh cases; September 11th, 1 death and 6 fresh cases; September 12th, 2 deaths, 1 fresh attack, and 1 suspicious case on board a vessel in dock. At Cleethorpes there were 2 cases of choleraic diarrhœa notified on September 7th, and 1 death on September 8th; on September 12th there was 1 fresh case. How many of all these cases were true examples of Asiatic cholera does not appear. At the beginning of the week 73 cases, including all diarrhœal cases, remained under treatment in Grimsby.

ROTHERHAM.

Another case of Asiatic cholera has occurred in the borough of Rotherham. The patient, a foreman in the paving department of the Rotherham Corporation, was taken ill on September 10th, and came under the treatment of Dr. A. W. Statter, who immediately communicated with the medical officer of health, Dr. Alfred Robinson, to whom we are indebted for the following particulars:—

"J. W., aged 50, was seized with diarrhœa at 10 o'clock on September 10th in the evening, had about twenty motions on the night of September 10th, and on the following day an uncounted number. His wife describes them as being like water with white flakes floating about. I saw the man at 8.30 on the evening of September 11th, and found him in a very feeble and collapsed state, with hands and legs cold and a dusky appearance. Complains of constant vomiting. The face was blue and cadaverous; voice thin and small; skin and breath cold; urinary secretion diminished; violent cramps in abdomen and extremities; pulse at wrist imperceptible; temperature in the mouth, 98°. He rapidly got worse, and died at 12 midnight, three hours and a-half after my visit.

As the symptoms pointed so strongly to Asiatic cholera no bacteriological examination was made. The house was taken possession of and the body immediately enclosed in a coffin filled up with slaked lime and buried at 4.30 in the afternoon. The wife and neighbours were strongly urged to undergo a few days' quarantine in the borough isolation hospital, but obstinately refused. Their clothing was disinfected, so was the house, and in a day or two will be limewashed and repapered.

No connection could be traced with Grimsby or Cleethorpes, and he had not attended the football match on Saturday, when an excursion train had been run into Rotherham from Grimsby with between 400 and 500 excursionists. In all probability many of the neighbours had done so, and the infection may have been brought by this means.

Most careful precautions are being taken by the sanitary authority of Rotherham to prevent the spread of the disease.

All cases of diarrhœa are being notified, placards recommending precautions have been displayed, printed slips have also been distributed, and disinfectants are supplied gratis.

Leicester.

Dr. Joseph Priestley has been good enough, in response to our request, to forward us the following particulars of the case of Asiatic cholera which occurred in Leicester on September 9th:

On September 9th a case of cholera was reported by Dr. Pratt to Dr. Priestley, with the result that a consultation was held. The patient, aged 74 years, died on September 10th, and the *post-mortem* examination, which was made immediately, revealed the following: Internal organs all healthy, with the exception of the ileum and about 1 inch of the cœcum past the ileo-cœcal valve, in which position there were unmistakeable signs of congestion. Bacteriological examination showed the comma bacilli, and in this view of the case Drs. Pratt and Priestley have since been supported by Dr. Klein, to whom a portion of the ileum was immediately sent. The clinical symptoms of the disease were well marked: Violent purging and vomiting; absence of pulse at wrists and in brachial arteries; extremities shrunken and blue; suppression of urine (?); husky, whispering voice; severe cramps in legs and arms; pain at seat of epigastrium, but not over abdomen generally; stage of collapse well marked, and from this stage patient never rallied; ether and atropine were injected subcutaneously.

The most stringent sanitary precautions have been taken, and as the case is probably imported from Cleethorpes through the medium of oysters, there is no reason to fear an extension of the disease. All oysters found on the premises (including bags, tubs, etc.), together with all the contents of the room in which the case was, that is, bedding, carpets, etc., were taken to the destructor and burnt, after being thoroughly well soaked with strong acid perchloride of mercury solution, The walls were stripped, and the whole of the premises limewashed.

London.

Three cases have now occurred in London, in each of which the symptoms were those of Asiatic cholera, and in each of which the "comma bacillus" has been found by bacteriological examination. In the first case (that of a sweeper in the House of Commons, who died at her lodgings in Marsham Street, Westminster, on September 7th) Dr. Klein, who made the bacteriological examination, writes: "I myself have no doubt about the case. In my humble opinion Mrs. Bayley died of typical Asiatic cholera. In respect of the pathological condition of the intestine, the microscopic characters of the intestinal contents, the nature, aspect, and chemical reaction of the cultures in the different media, the case is as typical a case of Asiatic cholera as any that I have had to examine hitherto." Cases have since occurred in Fulham and Kennington in which the comma bacillus has also been found.

The publication of Dr. Klein's opinion makes it clear that, in the present state of knowledge concerning the bacteriology of Asiatic cholera, no further word remains to be spoken concerning the diagnosis of the disease of which the charwoman at the House of Commons died. Again, the report from the Local Government Board, published on September 10th, states that "the cases at Kennington, Fulham, Retford, and Marsfield are, in so far as bacteriology is concerned, not distinguishable from true cholera."

In the case of the London patients, however, there appears to be a complete absence of any evidence as to a possible source of contagion, and in spite of the almost universal recognition of the comma bacillus as the pathognomonic sign of true cholera, the lack of any clue as to means of infection in the Westminster, Kennington, and Fulham cases presents certain difficulties.

The Medical Officer of Health of the County of London has been authorised by the London County Council to arrange with Dr. Klein for bacteriological examinations in London in all cases suspected to be the subject of Asiatic cholera. This arrangement is an eminently satisfactory one, and cannot fail to add to our knowlege with regard to such cases. We refer elsewhere to the recent researches of Dr. D. D. Cunningham, with regard to the bacteriology of cholera Asiatica. His conclusions have been severely criticised, but, in the face of the scattered occurrences of choleraic disease in this country at the present time, it is clear that the subject ought to be thoroughly investigated.

The problem is one which it is almost impossible to work out in endemic areas, or during large epidemics, and the present opportunity is one which ought not to be lost.

We are indebted to Dr. H. J. Batters of College Park, W., for the following report of the symptoms in a case of choleraic diarrhœa which occurred last week in Harlesden:

E. E., aged 60, had been spending three weeks with a relative in the Cleethorpes Road, Grimsby. On September 1st the patient felt queer after passing by some stale fish on the pontoon. On September 2nd had oysters, but did not know where they came from. On September 5th diarrhœa began. September 7th. Travelled up to town with two relatives similarly suffering; their address was taken, and the medical officer of health of district warned. September 8th. Fifteen or 20 motions; urgent; watery, tinged with yellow; sickness came on during night. September 9th. Seen for the first time by me at 7 P.M. Five or six motions during the day, all thrown away; has vomited food twice; is sitting up; extremities cold; pulse 84, feeble; mitral systotic murmur; temperature in mouth, 97°. Sanitary authority communicated with. Motions to be kept. September 10th. Three motions since last night. I am indebted to Dr. Skinner, Medical Officer of Health for Willesden, for a copy of his report: "Contains undoubtedly a few comma-shaped bacilli, which in size and aspect resemble those of cholera; but owing to the enormous crowds of other bacteria the material is not suited for cultivation." Morning temperature: Mouth 95.6°, axilla 96.4°. 7 P.M. three motions; mouth 96°, axilla 96.6. September 11th. Morning, four motions; has vomited once. Mouth 95.2°, arm 96.4°. Evening: Mouth and axilla, 97.2°. No motion or vomiting since morning. Patient had lost all cramps and colic, which had not been very severe throughout the illness. September 13th. Steady improvement. No diarrhœa or vomiting; temperature still abnormal, and higher in axilla than mouth. Treatment consisted of milk with two teaspoonfuls of brandy every two hours, with mx chlorodyne after each motion.

Sporadic Cases of Cholera and Choleraic Diarrhœa.

Reports of the occurrence of sporadic cases of cholera or choleraic diarrhœa of a very severe type have been received from many parts of the country. At Halifax there was one death from "English cholera" on September 11th. The patient was a man aged 58, who was taken ill on the evening of September 10th with sickness, purging, cramps, and collapse. He died at 4 A.M. on September 11th. Four other deaths from diarrhœa have been registered in the borough during the week. A series of cases of English cholera, leading to seven deaths, have occurred at Ashbourne, and a medical inspector of the Local Government Board has gone there to confer with the sanitary authorities and the medical officers of health. A death occurred in the Doncaster Infirmary on September 7th. The patient, who was the landlord of an inn in Leeds, ate some oysters at a shop before proceeding to Doncaster races. He became ill in the train, and when he arrived at Doncaster was in a state of collapse, and died shortly afterwards. A *post-mortem* examination was made, and the case has been reported to be one of Asiatic cholera. We are indebted to Mr. W. R. Willey, house-surgeon, General Infirmary, Doncaster, for the following notes of the case:

R. P. H., aged 45, a publican, living at the Abercrombie Inn, Burmantofts, Leeds, who had travelled from there to Doncaster on the morning of September 7th, 1893, was seen in the waiting room at the Doncaster station by Dr. Webb, who found him on a couch in a state of extreme collapse, pulse at wrist almost imperceptible, hands, feet, and legs quite cold but the trunk warm; face cold and dusky, covered with a profuse cold perspiration, his hair being quite wet, eyes sunken, pupils equal but somewhat contracted, voice scarcely above a whisper. He complained of cramps in his thighs, calves, feet, and hands; no abdominal pain. He stated that he had eaten some "relaid" oysters before leaving Leeds for Doncaster, and that he had vomited twice, and his bowels had acted three times. He was removed to the infirmary at once. On admission, about 1.30 P.M., I found him in the above state, with this addition, that he was almost livid, and he complained of severe abdominal pains. Despite of all treatment, he gradually sank, and died about 5.15 P.M., which was 3¾ hours after admission. Rigor mortis came on very quickly, commencing within a few minutes after death. There was no purging, and he only vomited once. A *post-mortem* examination was made the same night; on opening the abdomen the intestines were seen to be fairly distended, filling the abdominal cavity; portions of the bowels were of a faint rosy tint on their serous aspect; the contents consisted of a thin whitish opaque fluid. The lungs were rather remarkable, being shrivelled, dry, and tough. The spleen was contracted and leathery. Heart normal, but contracted and empty. Blood dark-coloured and thick. Nothing very noticeable about the other organs. A portion of intestine with its contents were forwarded by Dr. Mitchell Wilson, the medical officer of health, to Dr. Klein, who replied stating that investigations showed the presence of comma bacilli. I was informed afterwards by his friends that he left home in apparently good health after having enjoyed his breakfast, which consisted of ham, etc. Between 9.30 A.M. and 10.0 A.M., previous to his leaving Leeds for Doncaster, he went to a fish shop and ate some oysters, which were "relaid," and came from Cleethorpes; he went from there to the station. Whilst in the train he complained of feeling ill, and vomited out of the window. After that he became worse. On reaching Doncaster some brandy was given to him, when he vomited. He was taken to the waiting-room, where he rapidly fell into a collapsed state. I might add that when he was staying at Morecambe in July last he had a very

bad attack of diarrhœa, and that recently one of his children died from the same complaint.

A fatal case has occurred in Boston, and, according to the official report, the result of the examination has been "to confirm the Asiatic type of the disease." Three cases have occurred in Retford, with 1 death, which is officially attributed to Asiatic cholera. Other cases have been reported from Penge, Gainsborough, Islington, and St. Marylebone, but these are not believed to be of the Asiatic type.

We learn that at the Flower's Mission Home, Clacton-on-Sea, a child, on September 9th, was suddenly seized with cramps, vomiting, and diarrhœa, and died within twenty-four hours. On the following day a number of slighter cases occurred. The outbreak is supposed to be one of English cholera, and is being investigated by Dr. Cook, the medical officer of health.

At Billericay, in Essex, one of the medical men was taken suddenly ill on September 7th, with symptoms resembling those of Asiatic cholera, and we are informed that for two hours his life was despaired of, but we are glad to learn that he has recovered completely.

At West Hartlepool a suspicious case occurred on board the steamer trading from the Black Sea and Antwerp, but which had touched last at Limerick.

PRECAUTIONS IN HOLLAND.

The precautions taken in Holland are governed by the law of December 4th, 1872, which provided for the compulsory notification of Asiatic cholera, typhus, typhoid fever, variola and varioloid, scarlet fever, diphtheria, and measles. We are indebted for some particulars as to the provisions of this law to Mr. H. S. J. Maas, Acting Consul-General of the Netherlands in London.

Under Article 19 the head of a family, the keeper of a lodging-house or hotel, the master of a vessel, the directors of benevolent institutions, of prisons, of asylums, etc., are required to notify within twenty-four hours to the burgomaster of their commune that a case of contagious disease has occurred in their houses or institutions. The same obligation is placed upon the commanders of war vessels in harbours, and to commanders of troops in barracks. The penalty for neglect to notify is a fine of from 10 to 100 florins (16s. 8d. to £8 6s. 8d.), or, in the alternative, imprisonment for not less than three days or more than one month. The person convicted may be subjected to both fine and imprisonment.

Article 20 provides that the burgomaster shall cause to be affixed, within twenty-four hours, to the house or vessel in which a contagious disease occurs a placard bearing the words "Contagious Disease," and the name of the disease. The placard must remain in position until a medical practitioner has certified that there is no longer any danger of infection. The penalties for removing, displacing, and rendering invisible or illegible such placards are the same as for failure to notify.

Under this law also the burgomasters are required to publish each day the number of persons who have died during the previous twenty-four hours from Asiatic cholera. It is the custom, although not required by law, to publish daily also the number of persons attacked, and the number of cases remaining under treatment. Further, Mr. Maas states that at the present time all cases which present suspicious symptoms of cholera are notified.

PRECAUTIONS IN BELGIUM.

A Royal decree has been issued in Belgium requiring the notification to the burgomasters of every case of cholera, under which term is included "choleraic diarrhœa, cholera nostras, etc." The notification must be made within twenty-four hours by the medical attendant, and by the householder or nearest relative. If the case occurs on board ship, the captain is required to make the notification. The burgomasters are required immediately to inform the President of the Medical Commission and the Central Health Department in Brussels of the receipt of such a notification.

The same decree directs that a bacteriological examination shall be made in every suspicious case, on the ground that "it is the surest method of recognising the nature of the disease, and of determining whether it is an example of true cholera. In fact, it is now proved that the presence of the cholera bacilli is a certain means of diagnosing cholera." Such examinations will be undertaken by Professor Firket at the bacteriological laboratory of the University of Liége, or by Professor Van Ermengen in that of Ghent.

PRECAUTIONS IN GERMANY.

New regulations with regard to the prevention of cholera amending those issued in August of last year have been issued by the German Government. Certain modifications have been suggested, in part by the experience furnished by the cholera outbreak of 1892, and in part by the conclusions arrived at by the Dresden Conference; and it has been felt advisable to embody these modifications in a new set of regulations, notwithstanding the fact that the whole question of dealing with infectious disease is under consideration, and will shortly be dealt with by the Legislature.

There can be no doubt that the alterations introduced are a step in the right direction, inasmuch as some of the more oppressive restrictions upon personal liberty and upon traffic contained in last year's regulations have been modified or removed. Thus Regulation 5, relating to the keeping of the persons newly arriving in a district under medical observation, is limited in its application to those who have come within a period of five days from an infected area. Again, each district (Regulation 7) is to be responsible for preventing materials likely to convey infection from leaving any area within it which is infected; and, this being the case, one district is not to prohibit the productions of another district being brought within its borders. Any restrictions upon the import of the productions of foreign lands are to be limited to the materials specified by the Dresden Conference, and are to be imposed, not by individual districts, but by the central authority. It will be the endeavour of the latter to disturb trade relations as little as possible.

A special appendix deals with the regulation of traffic on waterways, the importance of combating this means of spread of the infection having been demonstrated last summer in Germany. There is another appendix dealing with railway traffic. There is, moreover, an appendix relating to the bacteriological investigation of suspected material, which practically repeats, however, the directions given in a former circular.

The regulations and accompanying appendices constitute a perfect encyclopædia of the methods to be adopted in dealing with a cholera epidemic; they are full of valuable hints with respect to matters of detail, and if they appear to the English mind to still err on the side of unnecessary precaution and undue interference with individual liberty, they are at all events an advance on anything that has hitherto emanated from the German Government.

CHOLERA ABROAD.

Austria-Hungary.—During last week the daily records of cholera in Hungary showed an aggregate of 259 cases and 194 deaths, the totals in Galicia being 34 cases and 28 deaths; but the returns do not include Sunday of the week as regards Galicia, the figures for that day not having come to hand. One death was registered in Vienna on September 3rd, the victim having come from the district of Marmaros. The disease is gradually spreading over the whole of Hungary, leaving the old and attacking the fresh places, ninety-four new towns being infected in forty-eight hours, while in Galicia fifteen communal districts are officially declared infected, and Cracow has had a fatal case. The whole of Bukowina is stated to be free from infection.

Germany.—Only one fatal attack of cholera was reported from Berlin last week, 13 cases in all having occurred this summer, the hospitals at the close of the week being absolutely free of cholera cases. Solingen had 9 attacks and 1 death; 2 cases occurred in the Rhine Province; and at Cologne, Ruhsort, Andernach, and Mannheim single attacks were recorded. All bathing establishments on the Rhine have been closed. One case last week in Berlin was that of a boy who fell into the river Spree, and involuntarily drank of its waters.

Italy.—Suspicious cases continue to be heard of in Rome, and during last week Naples returned 30 cholera deaths, Cassino 21 cases and 6 deaths, Salerno 7 cases and 2 deaths, Solmona 9 cases and 3 deaths, having previously had 106 cases and 70 deaths; Palermo had 44 cases and 29 deaths to record, whilst at the end of the week Leghorn had had 26 cases and 7 deaths, and Pettorano 15 cases and 10 deaths since August 24th.

Holland.—The number of places attacked by cholera—chiefly on the numerous waterways—continues to increase rapidly. During last week cases to the number of 39 and 27 deaths were reported from twenty-three different towns. Rotterdam contributed 9 cases and 4 deaths, and Leerdam 10 cases and 4 deaths. One case occurred in Amsterdam on September 4th. Up to the end of the week the disease in Rotterdam had caused 15 deaths, in Leerdam 18, and in Henkelom 7 deaths in all.

France.—During the first seven days of September 5 cholera deaths occurred in Prades. At Villefranche, near at hand, and in the canton of Olette, the disease is increasing. In the canton of Mont Louis 1 death occurred. At Nantes many cases are being recorded, due, it is said, to contamination of the Loire. In the south the disease is declining.

COTTAGE NURSES AND THE ORGANISATION OF VILLAGE NURSING.

[From a Correspondent.]

That a three years hospital-trained nurse is one of the most valuable products of modern civilisation will be freely granted even by the advocates of cottage nursing. That she is at the same time in certain cases not only an expensive luxury but an impossible one is, alas, equally indisputable. As this is frequently the case especially among those who live in poor and remote country districts, it may not be amiss to consider how her talents may be utilised to the best advantage by raising up a band of cottage nurses as assistants under her.

It seems at least worth considering whether she and her sisters might not act as drill sergeants to a large body of the rank and file who only require the guidance of superior intelligence and knowledge to marshal them into a useful and effective force.

In every country district there are a certain number of untrained women who are already engaged, probably for years, in nursing. These women may as a rule be divided into three classes:

1. Middle-aged mothers of notable families who from their experience and general capability come to be run for in any case of accident or emergency till they have gradually assumed the character of the village wise-woman or nurse.

2. Women to whom the traditions of a former "Gamp" have been handed down and who have slipped into her place.

3. Young women of blemished character who, having been turned away from ordinary occupations have taken to nursing as a *pis-aller*.

Now the sins and shortcomings of the two latter have, perhaps, blinded us to the real value of the former. That those of the third class often become, from their own experience of sorrow and shame, most tender of unskilled nurses no one need doubt, but the character of the nurse must be, like the knight of old, "Sans peur et sans reproche," and such should be set aside at once, especially in their native place, as impossible to put on the recognised staff.

Those of the second class are often so strong in the stubbornness of inherited traditions that they are frequently unwilling to learn, and thus place themselves beyond the pale of possibility. Those of the first class, on the other hand, may, by a judicious course of combined testing and training, be converted into most valuable coadjutors of the hospital nurse under the name of cottage nurses. If the name comes to stand for as much and no more than it should imply, there will be no danger of the one being mistaken for the other.

There should be in every village, if possible, one such cottage nurse, who, after three or more months' training and testing, would be put on the recognised district staff and work in connection with a central hospital-trained nurse and one or more medical men, who would supervise and continue, where possible, her nursing education. She would have to work at a given scale of charges, and, in order to insure a hold over her, she should be paid either by the job or yearly by a committee, who should manage the village nursing club.

Members of the club could either subscribe a small sum yearly to have the services of the nurse at a reduced rate when ill, or they could pay a larger yearly subscription and have the nurse free.

It seems possible that by this plan a large band of useful women might be organised who would prove invaluable to country practitioners; in fact, many of them have been the first to bring forward the name of some such woman who has worked under their guidance, and often instruction, for years, and of whose character and capabilities he is the best judge—women who would be glad to exchange for regular and systematic work the hand-to-mouth existence they sometimes now enjoy. By a judicious system of interchanging nurses at an agreed-upon rate, the affiliated villages might afford each other mutual help when more sickness happened to be in one place than another.

So much for the possibilities. Perhaps it will be only fair to say a word as to the difficulties of the scheme.

First and foremost comes that of persuading the right women to put themselves into harness. The most suitable woman to select is, if possible, either an active middle-aged widow, with children no longer dependent on her, or some married woman with a daughter living at home, who can see to her husband in her absence. To many such, employment of this kind would be a godsend, their former maternal experiences of real utility.

The period of testing or training is again another stumbling block, but one that a little management will often overcome, especially if it can be arranged for in the neighbourhood, either at a local cottage hospital, or under one of the central district trained nurses. It is of vital importance to prove her suitability for the work, and to ascertain and supply deficiencies. At the end of the period of training, a medical examination and certificate of suitability for the work should be required. The most important of all the knowledge instilled during the course would be what to attempt and what not to attempt, and to remove from their minds what may be called the courage of ignorance; impressing upon them that their special vocation is to carry out faithfully and carefully the doctor's orders, or to do their best till he comes. They should be strictly prohibited from advising or administering remedies of their own—a point on which even skilled nurses need sometimes to be cautioned; it should in all cases be made clear to them that they are strictly under orders. They must also understand that they can in no way compete with the regular hospital-trained nurses, but be content to be, what their name implies, cottage nurses, that is, simple homely women, cottage-born and cottage-bred themselves.

The third difficulty is the expense of the three months' training, but this may be met in various ways: (A) by private benevolence, interested in some particular woman. (B) by a special fund raised for that purpose; or (C) by grants received from the funds in the hands of the county councils for technical instruction, which may be used for training, though not for maintaining, local nurses. The cost of training may be roughly estimated at £10, including uniform for the three months. The wages of a cottage nurse would be not less than 10s. a week, rising according to whether or not she is provided with board and lodging. In order to organise the system it will be necessary to form district associations throughout a county, having small towns for their centre, with a first-class hospital-trained district nurse, established if possible on the benefit system, and working the town district herself, with the help of one or more probationers. Village branches can then be formed, or affiliated to the district, each undertaking to maintain its own local woman as cottage nurse, after she has been properly trained or tested by the medical committee.

It is by this system of affiliation that the services of a thoroughly trained central hospital nurse can become invaluable in raising the standard of nursing throughout a whole district. She can do this in two ways: (1) by training local women as probationers for cottage nurses under her, by three months at a time, and testing their capabilities; and (2) when they have risen to the standard required by the medical committee for cottage nurses, and have returned to work in their own district, by continuing, through constant friendly intercourse, and by acting as referee and adviser, to keep them up to their work. In country districts, where the local carriers ply almost daily between small towns and villages, such intercourse on their part would be comparatively easy, and an occasional surprise visit on her part would be an additional incentive to steady work. Many a little hint could be given, and many a difficulty removed, if these women had someone to refer to. Thus their willing and strong hands might be supplemented by her extra knowledge and experience, and her influence reach far beyond the limit of her own immediate work.

At a meeting of the medical officers of health of Tyneside, under the presidency of Dr. H. E. Armstrong, Medical Officer of Health for Newcastle, a series of resolutions were adopted with a view of preventing disease from the drinking of Tyne water by workmen. Owners and managers of manufactories were recommended to supply boiled water; owners of shipyards were also advised to put in a special supply of drinking water, and to cut off any supply of unfiltered Tyne water.

THE DROUGHT AND THE URBAN WATER SUPPLY.

By G. J. Symons, F.R.S.

Although the absolute drought ceased about the middle of May and the partial drought soon after, and although torrential rains of three inches and upwards in a few hours have fallen in some places, 1893 continues dry and beautiful. March to August have probably rarely had so little rain. The following table shows that during the six months at the three stations there is only one case of the average being exceeded in any month, and even that was by less than a tenth of an inch. The table, moreover, shows that in London and Bodmin the total has been only just over half the average, and in Manchester only two-thirds of the average. It is therefore not surprising that in many towns and cities the supply of water is stinted, and even the reduced supply is maintained with difficulty.

Rainfall at Typical Stations during the Spring and Summer of 1893.

	Monthly Rainfall.			Total Rainfall from March 1st.			Monthly Deficiency from Average.			Total Deficiency from Average.		
	London.	Bodmin.	Manchester.	London.	Bodmin.	Manchester.	London.	Bodmin.	Manchester	London.	Bodmin.	Manchester.
	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.
March ...	0.32	0.39	0.65	0.32	0.39	0.65	−1.29	−3.39	−1.57	−1.29	−3.39	−1.57
April	0.24	0.28	0.47	0.56	0.67	1.12	−1.50	−2.79	−1.24	−2.79	−6.18	−2.81
May.....	0.80	1.32	1.94	1.36	1.99	3.06	−1.10	−1.21	−0.41	−3.89	−7.39	−3.22
June	0.73	1.06	1.52	2.09	3.05	4.58	−1.28	−1.69	−1.13	−5.17	−9.08	−4.35
July	2.46	4.70	3.11	4.55	7.75	7.69	−0.22	+0.09	−0.68	−5.39	−8.99	−5.03
August ...	1.61	2.62	2.51	6.16	10.37	10.20	−0.27	−0.23	−0.58	−5.66	−9.22	−5.61
Total	6.16	10.37	10.20				−5.66	−9.22	−5.61			

Having already pointed out the evil of the present state of things and its remedy we leave the responsibility for short supply with the parties concerned. Far more rain falls in this country than would suffice for every conceivable purpose. If towns are on short supply it is because they will not pay the price needed to secure it.

We append a summary of such recent reports as we have been able to collect.

Barnsley, July 12th.—The reservoir at Ingbirchworth is 15 feet 10 inches below the level of the overflow sill.

Birmingham, September 6th.—The water in the Edgbaston reservoir has fallen 30 feet below its normal level. Warnings as to waste again issued.

Bolton, August 5th.—In the Turton and Edgworth districts some of the householders have for several weeks been obliged to carry their water more than half a mile.

Canterbury, June 24th.—At Stone Street, a few miles from Canterbury, the rainwater stores are quite exhausted, and the inhabitants have to obtain their supply from ponds which are fast drying up.

Festiniog.—June 21st.—The quarries have stopped for want of water.

Hartlepool, August 31st.—The local gas and water company is cutting off at 2 o'clock daily the water used for manufacturing purposes, and notifies to the public that, if the drought continue, the stock of water will be exhausted in a fortnight.

Huntingdon, September 5th.—Watercourses are dried up. Streams which were never before known to fail are now dry.

Ludlow, August 18th.—Owing to the drought, the corporation have issued notices that the water supply will be turned off from 9 P.M. to 6 A.M. The river Teme is lower than it has been for years.

Manchester, August 7th.—The stock of water in the Longdendale reservoir is equal to only forty-one days' supply. August 18th.—The series of reservoirs in the valley between Woodhead tunnel and Hadfield, running in length for about five miles, contain only a quarter of their normal quantity. Near Crowden railway station, what is ordinarily a wide lake of considerable depth is now a desert of mud, dried and cracked by the sun. Even the wide stream which comes down from the hills over Woodhead tunnel, and sometimes washes over the railway, is almost dry. The Longendale reservoirs have only a thirty-seven days' supply. September 4th.—Only twenty-seven days' supply left. September 7th.—Only twenty-four days' supply left. September 8th.—Only twenty-three days' supply left. The water is now turned off at 8 o'clock at night, and resumed at 5 o'clock the next morning.

Menai Bridge, June 21st.—The water supply has nearly failed.

Nantwich, August 31st.—There is only a month's supply of water in stock, and the local board has restricted the supply to six days per week.

Newquay, August 25th.—In consequence of the drought, the water supply is cut off from 6 P.M. to 6 A.M.

Orkney, July 11th.—At Kirkwall, owing to the long-continued drought, the supply is "cut off during the day, and again at night."

Wolverhampton, August 18th.—The Waterworks Committee have issued notices that, in consequence of the drought, they can give only an intermittent supply of water, unless the consumers co-operate with them in preventing waste.

LITERARY INTELLIGENCE.

Princess Christian has written an article on the Royal British Nurses Association, which will be published in the October number of *Atalanta*.

Sir William Jenner's volume of collected essays on *Fevers*, to which we made reference some time ago, will be published by Messrs. Rivington, Percival, and Co., on September 25th.

Dr. Armand Ruffer will contribute to the number of the *Liberty Review*, to be published on September 25th, an article in defence of vivisection, under the title "Should Experiments on Animals be Prohibited by Law."

According to the *Medical Record* of New York, the first medical journal in Brazil was started by Dr. Sigaud in 1827. It only survived one year, but three years later the same editor started another journal, which lived some three years. Since then some forty other medical journals have been started, but very few have survived. *O Brazil Medico*, edited by Dr. de Azevedo Sodré, is, however, in its seventh year.

Our Melbourne Correspondent writes that it is proposed to federate the surgical work and literature of the Australian Colonies by publishing a journal to be called the *Intercolonial Quarterly Journal of Surgery*. The originator of this scheme is Dr. W. Gardner, of Melbourne, who recently filled the position of President of the Section of Surgery at the recent Intercolonial Congress, Sydney. This magazine is to appear quarterly, and will not enter into competition with the already existing journals of the medical societies. The editorial staff is strongly representative of the leading surgeons in the different colonies. Dr. Gardner will be the editor for Victoria, Dr. M'Cormick for New South Wales, Dr. Poulton for South Australia, Dr. Lockhart Gibson for Queensland, Dr. Batcheler for New Zealand, and Dr. Jameson for Western Australia.

Dr. Horatio R. Storer, of Newport, Rhode Island, has published in the *American Journal of Numismatics* a further part of his catalogue of the medals, jettons, and tokens illustrative of the science of medicine. The instalment before us is concerned mainly with prize medals given by universities, colleges, and societies. In obtaining descriptions of some of the more modern medals he has been assisted by Sir W. O. Priestley. The catalogue is sufficiently comprehensive to contain notices of medals given as prizes in chemistry, as, for instance, the Davy Medal of the Royal Society.

ASSOCIATION INTELLIGENCE.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

NOTICE OF QUARTERLY MEETING FOR 1893. ELECTION OF MEMBERS.

A meeting of the Council will be held on October 25th, 1893. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before the meeting—namely, October 4th, 1893.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should

apply to the Secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election. Francis Fowke, *General Secretary*.

BRANCH MEETINGS TO BE HELD.

North of England Branch.—The autumnal meeting will be held at the County Hotel, Durham, on Tuesday, October 17th, at 4.30 P.M. Dr. Hern will read a paper on the Treatment of Fractures of the Jaw. The dinner after the meeting will take place at the County Hotel at 6 P.M.; 6s. 6d. each, exclusive of wine. Members wishing to read papers, etc., are requested to write at once to the Honorary Secretary.—G. E. Williamson, F.R.C.S., Honorary Secretary, 8, Eldon Square, Newcastle-upon-Tyne.

South-Eastern Branch: East Kent District.—The next meeting will be held at the Beach Rocks Convalescent Home, Sandgate, on Thursday, September 21st, at 3 P.M.; Mr. W. L. Chubb, in the chair. Dr. Colville: Alcoholic Paralysis. Dr. Washbourn (Lecturer on Bacteriology at Guy's Hospital): Bacteriology and its Practical Bearings. (This address will be illustrated with the microscope.) The Chairman will be glad to see members to luncheon at the Royal Kent Hotel from 1 to 2 P.M. Members intending to lunch with the Chairman are particularly requested to send acceptances by Tuesday, the 19th, or they will not be expected. Tea and coffee will be served at the Chairman's residence, Darenth House, after the meeting. After the meeting the members will have an opportunity of visiting the scene of the recent landslip, under the guidance of the Chairman. All members of the South-Eastern Branch are entitled to attend these meetings, and to introduce professional friends.—Thos. F. Raven, Honorary District Secretary, Broadstairs.

South-Eastern Branch: East Surrey District.—The next meeting will be held at the White Hart Hotel, Reigate, on Thursday, October 12th, at 4 P.M., Mr. H. W. Ewen, of Redhill, in the chair. Dinner at 6 P.M.; charge, 7s., exclusive of wine. All members of the South-Eastern Branch are entitled to attend and to introduce professional friends. Agenda: (1) Minutes of Croydon meeting. (2) To decide where the next meeting shall be held, and to nominate a member to take the chair thereat. The following papers, etc., have been promised:—Mr. J. Bland Sutton: Cystic and Solid Tumours of the Kidneys, their Diagnosis and Treatment. Mr. C. J. Symonds: The Local Treatment of Laryngeal Tubercle. Dr. Horrocks: Three Cases of Extrauterine Fœtation. Mr. C. Wray: Weak Eyesight in Children. Members desirous of exhibiting or reading notes of cases are invited to communicate at once with the Honorary Secretary, who would be much obliged if members would kindly inform him by post-card whether they intend, if possible, to be present at the meeting, and if likely to remain to dinner. By so doing they will very materially facilitate arrangements and promote the success of the meeting.—Henry J. Prangley, Honorary Secretary, Tudor House, Anerley.

South-Eastern Branch: East Sussex District.—A meeting of members of this District will be held at the Calverley Hotel, Tunbridge Wells, on Friday, September 29th; Dr. Ranking will preside. Meeting at 3.30 P.M. Dinner, 5.30; charge 6s., exclusive of wine. The following communications are promised: Dr. Ranking: On Hæmatoporphyrenuria, with notes of cases and specimens. Mr. Cleland Lamminan will show (1) Fallopian Tube removed (successfully) in consequence of rupture in the sixth month of tubal pregnancy; (2) Patient recovered from Double Ovariotomy. Mr. J. Bulkley Footner: Cases of Inguinal and Popliteal Aneurysm. Notice of other business should be sent to the Secretary, J. W. Batterham, Bank House, Grand Parade, St. Leonard's.

South Midland Branch.—The autumnal meeting of this Branch will be held at Towcester on Thursday, October 5th, 1893. Members wishing to bring forward communications at the meeting are requested to send the titles of the same as soon as possible to C. J. Evans, Honorary Secretary, Northampton.

SPECIAL CORRESPONDENCE.

PARIS.

Cholera in France.—The Congress of the French Association for the Advancement of Science.—The Sanitation of Toulon.—The Danger of Night Refuges.—School Sanitation.—A Costly Child.—Medical Honours.—General News.

Cholera broke out at Pradés a month ago, and has caused 71 deaths, some of which were terribly rapid. The Minister of the Interior has sent a member of the Central Council of Hygiene to inquire into the causes of the epidemic and to take the necessary measures to eradicate it. Medical men from Montpelier have already gone to Pradés, and the local doctors are in attendance at the Mairie night and day. In the south of France, with the exception of the outbreak at Pradés, cholera is diminishing; in that locality there were 18 deaths in fourteen days; in the Bouches du Rhone department 3 deaths in eleven days; in the Var, Hérault, and Alpes-Maritimes departments cholera has almost died out. In a small locality of Eycherboul, in Ariège, containing 250 inhabitants, there have been 8 deaths. In the west of France matters are much worse. At Nantes there have been 10 deaths a day. M. Chantemesse directs the sanitary measures intended to combat the epidemic. The epidemic continues in the Island of Molena. In Finistère, from August 13th to September 1st there were 37 deaths, only 5 the last five days; at Brest also the epidemic has appeared and travelled to neighbouring communes. M. Martin Durr, house-surgeon, has been sent to Finistère, his reports will be published. At Noirmontier, in the Vendean district, some cases occurred on August 25th; from that date up to September 1st there have been 17 deaths. At Nantes M. Chantemesse states that the drinking water is supplied by the Loire at a point which formerly was pure but now, owing to the growth of the city, is almost in its centre, and polluted by sewage. In 1892 an arrival from Paris attacked by cholera was the cause of an outbreak at Nantes. The stools of the patient were thrown into the Loire. The news from Nantes, dated September 9th, announces a considerable improvement.

The recent Congress of the French Association for the Advancement of Science at Besançon was presided over by M. Bouchard, who chose as the subject of his address the Past and Present Condition of Science, especially Medical Science. He bitterly regrets the overcrowding of the Paris Medical Faculty, which is hurtful to the faculty and its pupils. A great many provincial faculties have been created, but students still invade the central faculty, and Professor Bouchard asserts that the entries at the provincial faculties might be doubled and trebled without inconvenience to pupils or professors.

The sanitation of Toulon is at last to be improved. The system to be adopted "is circulation, not stagnation." House sewage will be passed into closed receptacles, and thence sent into the sea by means of ejectors of the "Shone" system. Dr. Sambuc, municipal councillor, has studied the Shone system in England. Dr. Proust declares that at Eastbourne, which is crowded during the summer months, the mortality during that season has been lowered to 13 or 14 per mille since the Shone ejectors have been adopted.

The recent Paris epidemics, especially the one of typhus fever, has called attention to the night refuges, which are hotbeds of infection. The police prefect has commissioned Dr. Dujardin-Beaumetz to send in a report on the sanitation of these establishments and on the means of disinfecting them. In Paris there are several kinds of night asylums: there are the municipal night refuges, others supported by private charity and directed by two societies—the Philanthropic Society and l'Œuvre de l'Hospitalité de Nuit—in which men only are admitted. There are also workmen's refuges (*asiles ouvriers*) of two kinds: one where they are lodged, the other which lodges them in other houses. Those houses where the poor are lodged at night for a very small price escape sanitary inspection. The municipal night refuges are model establishments: there are baths and shower baths; all the inmates are washed with soft soap, their clothes are changed, and their sheets disinfected when they leave. Dr. Dujardin-Beaumetz has only one objection to urge against the sanitation of the municipal night refuges—the poor are allowed to keep their boots, these are never taken from them. The Philanthropic Society, in the refuges under its superintendence, has organised as perfect a system of sanitation as far as cleanliness goes, but there is one capital defect in them, their clothes are not disinfected, but this will be soon remedied. The Œuvre de l'Hospitalité de Nuit is inferior to the Philanthropic Society, there are no baths. The hands, feet, and face are washed, the body is not disturbed in its disease-spreading dirt; soap even has not yet found its way there. The sheets are changed every fifteen days, but it is promised that serious improvements will be made. The most dangerous night refuges, those which are most active in spreading epidemics, are those where the inmates pay twopence for a bowl of soup or glass of wine and shelter, but not a bed. The owners of these establishments refuse to allow them to be visited to ensure their sanitation, alleging that as there are no beds they do not come within the jurisdiction of the law. Dr. Dujardin-Beaumetz thinks otherwise, and the commission has drawn

up the following rules: Private asylums are to be disinfected by the service of the Seine Prefecture. The Œuvre de l'Hospitalité de Nuit are to establish baths and use soft soap in all the night refuges under its direction. In night refuges too small to be able to have baths the inmates are to be sent to a municipal asylum before being lodged for the night. All furnished lodgings are to be carefully inspected. The wineshops where the poor and vagabond classes pass the night are to be submitted to the same rules and regulations as furnished lodgings.

The Minister of Public Instruction has adopted the advice of the Superior Council of Public Instruction, and, among other sanitary rules, has ordered that the books and copybooks of pupils attacked by an infectious disease are to be burned; after school hours the floors are to be washed, not swept; after a pupil has been sent home with an infectious disease the schoolroom and bedroom inhabited by the patient are to be disinfected and books and toys burned.

A department in France has lately been fined £160 for the birth of a child under the following circumstances: A married woman was a patient in the asylum for the insane; a few years after her entry she was delivered of a child. The husband proceeded against M. Tondu, the director of the asylum. An official investigation was made without any results. The family of the patient demanded £2,000 damages. The Première Chambre du Tribunal Civil de Lyon relieved M. Tondu of all responsibility, but condemned the department to pay £160 damages.

The following medical men have received the grade of "Chevaliers de la Legion d'Honneur":—Dr. Guillemère, Dr. Fiquet, M. Bertillon (*chef* of the judicial identity service at the police prefecture), Dr. Thulié, Dr. Bouilly, Dr. Doléris, Dr. Babinsky, Dr. Tuffier, Dr. Garetta, Dr. Albert Chambay, Dr. Cazaux, Dr. Delabost. Dr. Napias has been promoted to the grade of "officier." Fifty-six medical men have been elected members of the Chamber of Deputies at the recent election.

The modern pavilions attached to the St. Antoine Hospital for patients suffering from contagious diseases will in a few days be pulled down, and the site will serve for the new maternity hospital. This hospital will cost £24,000, and will contain sixty beds. All the pavilions will be heated by hot air and lighted by electricity.

M. Cherillon has bequeathed £2,000 to endow a bed at a Paris hospital.

MELBOURNE.

The Victorian Branch of the British Medical Association: Dr. Gresswell and the Board of Works.—Treatment of Rheumatoid Arthritis.—Epidemic of Measles.—Bacteriological Demonstration.—Operation for Vesico-Vaginal Fistula.—The late Dr. Graham.

AT the last meeting of the Victorian Branch of the British Medical Association, a letter was read from the Metropolitan Board of Works in which Dr. Gresswell, the Medical Officer of the Board of Health, was very severely handled. The attack was made in relation to a report issued by Dr. Gresswell on a recent outbreak of dysentery which was limited to a certain part of the city, and which he attributed to a contamination of the water supply, owing to the defective condition of our system of water plugs. As the Board of Works, in their reply, appended a report in which allusions were made to Dr. Gresswell's "disgusting exagerations," and to his making the laws of Nature and other considerations bend in harmony with his own preconceived theory, it was resolved to refer the report to a small committee to answer.

Dr. Springthorpe exhibited a rather interesting case of rheumatoid arthritis. The patient, a woman, bore the history of the usual neuroses and subsequent joint troubles which had resisted for years all attempt at treatment by the usual alkaline remedies, but, on a change being made to tonic treatment and the administration of syrup of the iodide of iron, a rapid disappearance of nearly all symptoms became manifest.

At the same meeting, Dr. Carstairs (Geelong) read an interesting epidemiological and statistical paper on the present outbreak of measles. He thought that we had distinct and well-defined epidemic periods with long intervals, and that subsequent outbreaks were not revivals of previous ones. Had the same vigilance been shown in preventing the spread of measles as we were in the habit of exhibiting towards small-pox, no repeated epidemics would have been recorded. Each outbreak was to be traced to importation from passenger boats from Europe spreading through channels of intercommunication to the country districts, and sometimes existing there a year or more after it had ceased in the metropolis. The rash of influenza has at times simulated measles rash. The President, Dr. Gresswell, expressed it as his belief that the virus of measles increases in virulence as the affection progressed. If vessels infested with measles were to be quarantined, it would put a stop to commerce. We have no means at our disposal at present to isolate all cases, and to do so in a small-pox hospital would be surrounded with very great risks. The subject has a particular interest at the present moment, as we are suffering from a very severe epidemic. Most of the State schools about the city have had to be temporarily closed, and something like 20,000 children and adults have been attacked. So far the mortality has been slight, and, with the exception of symptoms of concurrent influenza, there has been nothing untoward in the character of the outbreak.

At the close of the meeting, Dr. Nelly, who with Dr. M'Inerney is engaged in bacteriological research, exhibited some beautiful microphotographs; among which were protozoa of cancer, coccidium oviforme of rabbit, and the bacillus of tetanus, from their own cultivation.

Dr. Rowan, honorary physician to the Women's Hospital, has recently successfully operated on a case of vesico-vaginal fistula in a rather novel manner. The patient, a widow, who had had thirteen children, suffered for six years from a fistula, which had been repeatedly operated on. The posterior vesico-vaginal wall and adjacent tissues had in consequence been so denuded that very little was left to work on. As at the same time but very little of the anterior lip of the cervix uteri remained, practically nothing was left to deal with in the ordinary way. Under the circumstances Dr. Rowan felt himself justified in flexing the cervix uteri into the interior of the bladder, freshened the vesico-vaginal walls, and brought them into contact by silver sutures, so as to obliterate the opening. This being done, a self-retaining catheter was passed into the bladder, and left there till the sutures were ready for removal. After the bladder had been washed out for a few days and the vagina douched, the sutures were removed in about twenty-five days after the operation, and union was found to be complete. The patient has complete control over bladder and experiences no great inconvenience during the catamenial period, for at each time she daily washes out the bladder herself. She is in very good health.

Dr. Graham, who succumbed to an attack of angina pectoris within a few days of his expected arrival in London, was one of the pioneers of the Victorian Branch of the British Medical Association, and a few years ago he filled the presidential chair. He was a man who held the esteem of his fellows by virtue of a strong and genial individuality, and he always identified himself with every movement intended to improve the status of his profession. The Council of the Branch have forwarded a letter of condolence to Mrs. Graham.

SHEFFIELD.

Cholera.—The General Infirmary.—The Medical School Buildings. Drainage of the Fever Hospital.

THE case of cholera at Rotherham, which Dr. Klein from his examination has pronounced to be of Asiatic type, has brought the reality of the presence of this malady in the country closely home to the people here. Though quite distinct towns, the two are at points almost continuous. The condition of the water supply, to which reference has been before now made in these letters, makes the presence of only a solitary case at Rotherham a matter of some anxiety. The man is reported to have visited Grimsby the day before he was seized with his illness. Though diarrhœa has been prevalent in this city, and often fatal in a way that has given

rise to suspicion, the medical officer of health has stated that the cases have not been of Asiatic type. A case is also reported at Retford.

At the annual meeting of the governors of the infirmary recently held, it was stated that for the past year the expenditure had exceeded the ordinary income by no less a sum than than £1,800, a result due more to increased work of the charity than from any falling off in the subscriptions. Another matter alluded to was the decision arrived at to establish a department for the treatment of skin disease under the charge of a special officer. An excellent local candidate in the person of Mr. Dale James is already in the field for the proposed office.

The Medical School buildings have just undergone renovation, and it will be pleasing to the members of the Medico-Chirurgical Society to have the comfort of the electric light in the library where their meetings are held.

The City Hospital Committee have decided to act upon the advice of Dr. Littlejohn, the medical officer of health, and to recommend to the Council to adopt a water carriage system of drainage instead of an irrigation one for the Lodge Moor Fever Hospital. The cost of the former is estimated at about £6,000, whilst the latter is only put down as £1,600.

CORRESPONDENCE.

CASTRATION IN ENLARGEMENT OF THE PROSTATE.

Sir,—The question of castration as a means for procuring involution of the enlarged prostate, raised by Professor J. W. White in his address to the American Surgical Association, deserves more than passing consideration. In all probability it has occurred already to many, as a natural corollary of the work that has been done of late years in connection with this subject. In November of last year, I discussed it fully with an old gentleman who was suffering from prostatic trouble, and who might, I thought, from his having some acquaintance with anatomy, be disposed to regard it favourably; but while he agreed with me upon the abstract question, he, perhaps not unnaturally, declined the honour of being a pioneer, and preferred to continue with palliative measures.

The analogy, it is true, that is supposed to exist between uterine fibroids and prostatic overgrowth is not worth much; the uterus is developed from Müller's duct, the prostate is not; uterine growths are fibroid or muscular; those in the prostate are primarily glandular. But without regarding this in the least, there can be no question of the close relationship that exists between the development of the testes and that of the gland. There are two ways in which further evidence might be obtained. Dogs, as they grow old, and I believe boars, are some of them at least subject to prostatic overgrowth of a similar character to that which occurs in men, though, from a difference in the anatomical relations of the parts, it does not produce the same effects in them. The influence of castration might be tried on them, of course not in England; we are debarred from that. And occasionally it happens that for other reasons, such as extensive epithelioma of the penis or scrotum, complete castration is performed in men. If in such a case—I know they are rare, and rarer still in conjunction with overgrowth of the prostate—the operator would note the condition of the gland at the time of the operation, and again three months later, taking urethral as well as rectal measurements, some additional light might be thrown upon the subject.

As Professor White remarks, the final answer must in any case be left with our patients, but one single instance in which definite reduction in size was proved to have taken place would be of incalculable value, and I am writing now in the hope that by drawing attention to this in your columns some such case will be noted before long.—I am, etc.,

Wimpole Street, Sept. 9th. C. Mansell Moullin.

DEATHS UNDER CHLOROFORM.

Sir,—There are two points which cannot fail to strike the reader of the reports of "Deaths under Chloroform" which appear with such unfailing regularity in your columns. The first is, as a rule, the triviality of the operation for which the chloroform has been given; and the second point is either that only a small amount of the drug has been administered (in one case only 50 minims were used), or that the patient had been allowed partially to come to during the operation. Of course, death in these cases is due to reflex cardiac inhibition. Chloroform, if administered with proper care, is really not a dangerous drug. The time when the patient is on the brink of eternity is when any operation, however trivial, is performed before the patient is fully under. Full surgical anæsthesia should always be induced before even the skin is incised. When this rule is acted upon universally, the number of chloroform deaths per annum will become very small.

Chloroform first abolishes sensation, next, reflex action; later, if pushed, the respiratory and heart centres. Both sensation and reflex action should be abolished before the operation is commenced, and this state should be maintained throughout till the operation is completed. If sensation only and not reflex action be abolished, there is grave danger either of reflex vagus inhibition of heart, or of paralysis of respiratory or vasomotor centres. Death may occur from either cause.

Although the administration of chloroform requires the greatest care, yet there is no reason to be afraid of the drug, and timidity in administration is most dangerous. Overdosing can with reasonable care be easily avoided, and this is very rarely a cause of death. Of course, many chloroform deaths are practically unavoidable, and are most distressing because so unexpected, but one cannot help feeling that some at least of the cases one reads about would have done better had more chloroform been administered before the operation.—I am, etc.,

Dover, Sept. 10th. Arthur Welsford, M.D., F.R.C.S.

EWALD'S *MAGENKRANKHEITEN*.

Sir,—My attention having just been drawn to Dr. Robert Saundby's letter on my translation of Ewald's *Diseases of the Stomach*, in the British Medical Journal of January 21st, 1893, I deem it my duty, even at this late day, to state my position in the matter. This is all the more necessary, inasmuch as Dr. Saundby has made certain statements which are not justified, as the following facts will show:

In the first place I must deny Dr. Saundby's statement that his work (on the second volume) was begun "when I applied for permission to translate." Professor Ewald granted me this privilege in November, 1889, while I was in Frankfort; the date of the contract with my publishers was December, 1890. It was when the work was about half finished that, through an advertisement in your Journal (about March, 1891), I became aware that Dr. Saundby was also engaged in the task. Then it was that I wrote to Professor Ewald concerning the infringement of my rights. How these letters can be construed as requests for permission to translate I fail to see. Hence it was through my courtesy that the Sydenham translation appeared, rather than the contrary.

Secondly, no claim was ever made by me as to the relative priority or superiority of the two translations. In my preface I gave due acknowledgment to Dr. Saundby's work, a courtesy which, I regret to say, the latter did not see fit to accord to me.

Finally, the preface from which your reviewer drew his facts was written for my translation by Professor Ewald himself. Surely I ought not be held responsible for "unintentional inferences," nor do the latter justify imputing motives.—I am, etc.,

New York, Aug. 22nd. Morris Manges.

The Hardy Norseman.—It is reported that at the recent meeting of the Norwegian Medical Congress in Christiania, it was resolved that the next annual meeting should be held on board a yacht, and that the time of the meeting should be spent in cruising about from place to place. Norwegian medical men are, it may be supposed, inured to the perils of the sea, and superior to the qualms of sea sickness, but out of consideration for the suffering of other nations this ought surely to be one of the subjects of discussion in the section of therapeutics.

NAVAL AND MILITARY MEDICAL SERVICES.

THE NAVY.

THE following appointments have been made at the Admiralty:—SAMUEL W. VASEY, Staff Surgeon, to the *Sirius*, September 7th; JOHN J. DINNIS, Staff Surgeon, to the *Nelson*, September 7th; SIDNEY H. YOUEL, Surgeon, to the *Mistletoe*, September 7th; FREDERICK W. STERICKER, Surgeon, to the *Royal Arthur*, September 11th.

ARMY MEDICAL STAFF.

SURGEON-CAPTAIN B. J. INNISS, doing duty at the North Station Hospital, Bangalore, Madras Command, is confirmed in the medical charge of the Cantonment Hospital, Bangalore, without prejudice to his other duties, from April 1st.

Surgeon-Major F. B. MACLEAN, on return from England, will do duty in the Madras District.

Surgeon-Major J. S. WILKINS, D.S.O., Bombay Establishment, is appointed to the medical charge of the 1st Bombay Grenadiers, *vice* Surgeon-Major W. P. Carson, M.B., transferred to the 28th Bombay Infantry.

Surgeon-Major W. P. CARSON, Bombay Establishment, is appointed to the medical charge of the 28th Bombay Pioneers, *vice* Surgeon-Major F. Burness, deceased.

The undermentioned officers, whose tour of foreign service in the Bombay Command will expire during trooping season 1893-94, will proceed to England in Her Majesty's troopships, doing duty with troops on voyage: Surgeon-Lieutenant-Colonel F. LYONS, M.D., *Crocodile*, March 28th, 1894; Surgeon-Major B. W. WELLINGS, *Serapis*, March 3rd, 1894; Surgeon-Captain A. HOSIE, M.B., *Malabar*, October 21st; Surgeon-Captain G. F. H. MARKS, M.D., *Euphrates*, November 4th.

Surgeon-Colonel JOHN WARREN is gazetted Surgeon-Major-General from August 1st, *vice* C. D. Madden, retired. Surgeon-Major-General Warren entered the service as Assistant-Surgeon November 9th, 1857; became Surgeon March 1st, 1873; Surgeon-Major April 1st, 1873; Brigade-Surgeon June 1st, 1883; and Surgeon-Colonel from October 24th, 1888. He served in medical charge of the 15th Hussars in the Afghan war of 1878-80, including the advance to Khelat-i-Ghilzie, and with the Thull Chotiali Field Force under Major-General Biddulph (medal); in the Egyptian war of 1882, in charge of No. 5 Movable Field Hospital (medal and Khedive's star); and in the Soudan campaign in 1885 (mentioned in despatches, clasp).

Brigade-Surgeon-Lieutenant-Colonel C. A. ATKINS is promoted to be Surgeon-Colonel, *vice* Warren, August 1st. His previous commissions are dated as follow: Assistant-Surgeon September 30th, 1863; Surgeon March 1st, 1873; Surgeon-Major April 28th, 1876; rank of Lieutenant-Colonel September 30th, 1883; and Brigade-Surgeon-Lieutenant-Colonel from September 12th, 1888. He accompanied Sir Garnet Wolseley to the Gold Coast in September, 1873; served at the attack and destruction of Essaman and Amphinee, and in medical charge of Russell's Regiment throughout the Ashanti war of 1873-74, including the repulse of the Ashanti army at Abrakrampa during November 5th and 6th, capture and destruction of Adubiassie, battle of Amoaful, capture and destruction of Becquah, advanced guard engagement of Jarbinbah, skirmishes and ambuscade affairs between Adwabin and the river Ordah, battle of Ordahsu, and capture of Coomassie (mentioned in despatches, medal with clasp). He was also in the Afghan war in 1879-80, and was present at the night attack at Zaidabad, in the engagement at Charasiab on October 6th, 1879, and in the operations around Cabul in December, 1879, including the defence of Sherpore (mentioned in despatches); accompanied Sir Frederick Roberts in the march to Candahar, and was present at the battle of Candahar (mentioned in despatches, medal with three clasps, and bronze decoration).

Surgeon-Lieutenant-Colonel M. M. GALLWEY, M.D., is promoted to be Brigade-Surgeon-Lieutenant-Colonel, *vice* Atkins, August 1st. He was appointed Assistant-Surgeon October 1st, 1867; Surgeon March 1st, 1873; Surgeon-Major October 1st, 1879; and Surgeon-Lieutenant-Colonel from October 1st, 1887. He has no war record in the army lists.

INDIAN MEDICAL SERVICE.

THE services of Surgeon-Captain F. J. DRURY, Bengal Establishment, are placed at the disposal of the Government of Bengal.

Surgeon-Captain J. CHAYTOR WHITE, M.B., Bengal Establishment, officiating medical officer Meywar Bheel Corps, is appointed to officiate as Civil Surgeon of Ajmere, and Medical Officer of the Merwara Battalion, from July 26th.

Surgeon-Major F. S. PECK, Bengal Establishment, civil surgeon of Moozufferpore, is appointed to act as Ophthalmic Surgeon of the Medical College Hospital, and Professor of Ophthalmic Surgery, Medical College, Calcutta, during the absence of Surgeon-Lieutenant-Colonel R. C. Sanders.

Surgeon-Captain C. C. CASSIDY, Bengal Establishment, Officiating Civil Surgeon of Nuddea, is appointed to act as Civil Surgeon of Rungpore, during the absence of Dr. P. A. Rigby from July 1st.

Surgeon-Captain A. W. T. BUIST SPARKS, Bengal Establishment, is appointed to act as Resident Physician, Medical College Hospital, and Professor of Pathology, Medical College, Calcutta.

Surgeon-Major J. MAITLAND, M.D., Madras Establishment, is appointed Professor of Medical Jurisprudence, Madras Medical College, but to continue to act as Professor of Surgery and Clinical Surgery, Medical College.

Surgeon-Major C. M. THOMPSON, M.B., Madras Establishment, is appointed to act as Professor of Medical Jnrisprudence, Madras Medical College.

Surgeon-Captain T. C. MOORE, Madras Establishment, is appointed to act as Professor of Anatomy, Madras Medical College.

Surgeon-Major A. J. STURMER, Madras Establishment, is appointed to act as Professor of Midwifery, Madras Medical College.

THE VOLUNTEERS.

SURGEON-CAPTAIN J. J. K. DUNCANSON, M.D., 1st Edinburgh (City) Artillery, is promoted to be Surgeon-Major, September 9th.

Mr. THOMAS STEVENSON, M.B., is appointed Surgeon-Lieutenant to the 2nd Lancashire Artillery, September 9th.

Surgeon-Lieutenant F. PRESTON has resigned his commission (which was dated March 4th last) in the Norwich Company of the Volunteer Medical Staff Corps, September 9th.

CHANGES OF STATION.

THE following changes of station among the officers of the Medical Staff of the Army have been officially notified as having taken place during the past month.

		From		To
Brig.-Surg.-Lieut.-Col.	C. A. Atkins	Devonport	...	Bombay.
,,	W. H. Climo, M.D.	Bengal	...	Home District.
Surg.-Lt.-Col.	J. G. Williamson	Shorncliffe	...	Dover.
Surg.-Major	A. A. Lyle	Strensall Camp		Aldershot.
,,	R. E. Morse	York	...	Strensall Camp.
,,	C. W. S. Magrath, M.B.	Portsmouth	...	Gosport.
,,	A. V. Lane	Dumfries	...	Ayr.
Surg.-Capt.	W. A. Morris	Netley	...	India.
,,	J. P Myles	—		Aldershot.
,,	M. O'D. Braddell, M.B.	Sheffield	...	York.
,,	P. J. R. Nunnerley	Stafford	...	Preston.
,,	C. H. Melville, M.B.	Dunbar	...	Leith Fort.
,,	J. B. Wilson, M.D.	Dublin	...	Newry.
,,	J. Kearney, M.D.	Chester	...	Home District.
,,	F. A. Saw, M.B.	Blackpool	...	Chester.
,,	G. Hilliard, M.B.	—		Dover.
Surg.-Lieut.	C. B. Martin, M.B.	York	...	Newcastle-on-T.
,,	H. W. K. Reade	Devonport	...	Aldershot.
,,	C. E. Pollock	Gosport	...	Portsmouth.
,,	B. W. Longhurst	Portsmouth	...	Aldershot
Quartermaster	W. T. Vidler	Bermuda	...	Shorncliffe.

The newly-appointed Surgeon-Lieutenants, namely, C. G. Spencer, M.B., C. E. P. Fowler, F.R.C.S., T. H. J. C. Goodwin, H. E. B. Porter, A. E. C. Keeble, A. J. Lattey, D. J. Collins, M.B., St. J. B. Killery, H. C. French, W. W. Smith, W. P. Barter, E. M. Williams, J. R. McMunn, and J. B. Anderson, are stationed at Aldershot.

THE WAR SECRETARY'S REPLY.

ROYAL SURGEON writes: Further action to the reply should be of a guarded kind, the department wants rest, and hostile influences are still in the ascendant. The formation of a corps by amalgamation of officers and men would lend symmetry, but it is difficult to estimate its real advantages. It would have been advantageous to have advocated the equalisation of all foreign tours, bringing the medical into line with the general staff, which has a five years at all stations, whether called healthy or unhealthy: it would improve the home roster. Titles should for a time be left severely alone; they are, of course, imperfect, but good policy meanwhile inculcates reticence. The cost of the non-effective vote will always be quoted with effect against expediting retirement; the terribly slow promotion might be overcome by a carefully guarded system of selection. My views may be unpalatable to ardent reformers but they are shared by not a few cautious spirits.

*** Our correspondent is a judicious adviser, and his wary and tentative policy at the present juncture deserves every consideration.

MEDICO-LEGAL AND MEDICO-ETHICAL.

A YELLOW CARD.

H. H. W.—"Dr. Pinder's" yellow card, left in the letter-box of various houses, deserves increased publicity through the medium of the BRITISH MEDICAL JOURNAL. It may act as a caution to others. If the circulation of the card continues, we would suggest to our correspondent the advisability of transmitting one of the cards in question to the diploma-granting authorities of the respective Colleges of which the practitioner is a Member, with a view to the enforcement of their disciplinary laws. Such practitioners, we need scarcely add, justly deserve to be ignored by their professional brethren.

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,, ,, per week ...	1s.
Single Visit at Patients' Homes and Medicine...	1s.
Weekly Attendance	3s.
Vaccination	1s.

Teeth Extracted, 6d.
Midwifery ... ... from 10s. 6d.

ATTENDANCE ON THE CLERGY.

PUZZLED.—Inasmuch as the rule appertaining to professional attendance on the clergy and their families has been repeatedly inserted in

the BRITISH MEDICAL JOURNAL, and in view, moreover, of the fact that it is too long for reinsertion in the present crowded state of our columns, we are reluctantly constrained to refer our correspondent to the *Medico-Chirurgical Tariffs*, published by Mr. H. K. Lewis, 136, Gower Street, W.C., on page 9 of which he will find the special rule relating thereto, and at the same time be able to refer to the fees recommended in accordance with the principle therein laid down.

CONTRACTS NOT TO PRACTISE.

MESSRS. C. AND CO.—We are of opinion that F., having contracted not to practise in B., is entirely at liberty to practice out of that city, provided nothing in the contract modifies this. The line as to where his liability ends is the boundary line of the capital city. It must, however, be clear that F. must in no way exercise his profession within the boundary line, the prohibition must not be considered as applying merely to residence. The terms of contract are of course injudicious, the moral understanding between the contracting parties is probably very different from the medical aspect.

IRREGULAR PRACTITIONERS IN LAW AND MEDICINE: A CONTRAST.

JUSTITIA writes: In reading the *Liverpool Daily Post* of August 24th the following paragraph arrested my attention:

"*Strange Revelation at a Coroner's Inquest.*

"Yesterday, in the City Coroner's Court, Mr. Sampson and a jury held an inquiry on view of the body of Mary Donohoe, aged 2 years, daughter of a dock labourer, residing at 9, Pleasant View, Kirkdale. From the evidence of the mother it appeared that the child, which had been delicate from its birth, became very ill a fortnight ago, and was attended by a Mr. Arthur Frederick Hill, who was practising in Foley Street. She believed him to be a duly qualified doctor, as there appeared on his door 'F. Hill, son of Dr. Hill,' and as he had circulated handbills in the neighbourhood. He prescribed for the child, who died, however, on Saturday. After the child's death Mr. Hill came to the house with Dr. M'Gregor, and the latter gave a certificate that death, in all probability was from tabes mesenterica and diarrhœa. The certificate being found by Mr. Webster, the Registrar, to be irregular, he gave the father of the child a form to take to the coroner. Mr. Hill, on being sworn, stated that he called in a qualified man to examine the child after death, and give a certificate, so as to make himself doubly sure whether he should report the case to the coroner or not. The jury, remarking that they would leave the irregularity to be dealt with by the medical faculty, found a verdict of 'Death from natural causes.'"

The scant legal protection afforded to the general medical practitioner would tend to make one regard the jury guilty of an attempt at sarcastic humour when they remarked "that they would leave the irregularity to be dealt with by the medical faculty." Like many of my professional brethren I shall anxiously watch to see how the medical faculty will deal with the irregularity. From the same paper I also cut the following paragraph:

"*A Debt Collector as Solicitor.*

"At the Manchester City Police Court yesterday afternoon, Thomas Haslam, of Westmorland Street, Longsight, was summoned at the instance of the Incorporated Law Society for wilfully and falsely pretending to be a solicitor. Mr. Beckton said the defendant was a debt collector, and on July 12th he handed to Mrs. Tye, a neighbour, a letter, which was in the following terms:—'Dear Madam,—Mr. Harper has handed me your account for collection, and also to say if it be not paid on or before Friday next in the morning, we shall at once take proceedings for the recovery of the same.' This was the offence complained of. Mrs. Tye was led by the letter into the belief that the defendant was a solicitor.—Mr. Roberts, solicitor, Manchester and Rochdale, who appeared for the defendant, said Mrs. Tye had known the defendant for a dozen years, and, as she knew that he was not a solicitor, she could not have been deceived by the letter. As a matter of fact, on the defendant not being paid, the defendant consulted him, and a writ was issued. The prosecution was vindictive on the part of Mrs. Tye.—Mr. Headlam, the stipendiary, said the defendant had no right to write a letter such as that which had been read. There would be a fine of 20s. and costs."

Now, here we have a man who merely writes a letter in a legal fashion, and because he is not a solicitor he is prosecuted by the Incorporated Law Society, and fined 20s. and costs. Where is our Incorporated Medical Society? Will our Medical Council or Defence Union take any action against Hill, who, without any qualification whatever, openly practises as a medical man, or will any notice be taken of Dr. McGregor's most irregular action in the matter? I am well aware that the medical profession has not the same protection as the legal, but surely there is some redress for such a deplorable case as I have quoted.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Friday, September 8th.

Alleged Case of Cholera in the House of Commons.—Sir W. FOSTER, in reply to Mr. KNOWLES, said that whilst a careful inquiry had thus far failed to ascertain any connection direct or indirect betweeen the case of Mrs. Bayley and any cholera infection, yet the scientific investigations since made gave a very unfavourable aspect to the case. There was evidence that the woman had for some time past suffered from diarrhœa and ill-health, and that she was in a weakly condition, and that her home was in some respects in an unsatisfactory sanitary state. Dr. Sweeting, one of the Board's inspector, had been instructed to communicate at once with the officers of the vestry as to the measures being immediately taken with regard to the sanitary condition of the premises where Mrs. Bayley lived, if that had not already been done. An assurance was given to the medical officer of the Board that these matters would be attended to forthwith, and they had no reason to doubt that the officers of the vestry had done so.—Mr. T. G. BOWLES asked if the right hon. gentleman had observed a very noxious smell in the "aye" lobby?—Sir W. FOSTER: No, sir.

Monday, September 11th.

Sanitary Precautions.—Mr. JAMES ROWLANDS asked the Home Secretary whether his attention had been drawn to a case heard before Mr. Slade at the Southwark Police Court on September 8th, when the authorities of St. George-the-Martyr were compelled to bring five cartloads of putrid herrings through the crowded streets of the parish to the Police Court in order to have the fish condemned, whether there were any other means by which the magistrate's sanction could be secured without endangering the health of the populace, and whether, if no such power existed, he could see his way to have the law amended.—Mr. ASQUITH, in reply, said that the magistrate informed him that in his view of the law he had only power to condemn what he had seen himself. If that was so, in his opinion the law was in an unsatisfactory state, and he would consider whether further legislation was necessary.

The Cholera.—Mr. KNOWLES inquired whether the Local Government Board had any further information which they might think it desirable to impart to the House in reference to the cholera.—Sir W. FOSTER, in reply, said that the information to hand at present was, so far, satisfactory. There had been no deaths at Hull, and there were only four cases in the hospital. At Grimsby, up to September 10th, at midnight, there were two additional deaths; and he therefore regarded the condition at Grimsby as, so far, satisfactory. At other places some cases which had been reported as cases of cholera had been proved to be due to other causes.—Mr. STANHOPE inquired as to the case of choleraic diarrhœa reported from Boston.—Sir W. FOSTER, in reply, said it was an exceedingly suspicious case, and one which, as far as microscopical and bacteriological examination went, the authorities were bound to regard as a case of cholera.

Tuesday, September 12th.

Insanitary Bakehouses.—In reply to Mr. CREMER, Mr. ASQUITH said that the jurisdiction of the Home Office over the bakehouses was transferred by Parliament in 1883 to the local sanitary authorities. In London the matter was regulated by the Public Health (London) Act, 1891. Whether the local authorities were performing their duties was a question for the Local Government Board. If that Board reported to him that there was in any district a failure of duty on the part of the local authority he would consider whether he should exercise the powers conferred on the Secretary of State by the Factory Act of 1891.

The Case of Cholera at Westminster.—Sir HENRY ROSCOE asked the First Commissioner of Works whether his attention had been called to the 'act that the house in which Mrs. Bayley resided in Westminster was found to be in an insanitary condition, and whether he would make representations to the Westminster Sanitary Authority as to the necessity of improving the admittedly unsatisfactory condition of the Westminster drains.—Mr. SHAW LEFEVRE said he had learnt only from the papers what the hon. member had stated as to the sanitary condition of the premises referred to. He had, however, decided on more general grounds to make representations to the Westminster authorities with reference to their drainage. He had been in communication with the London Council on the ventilation of the main drain under their charge, and had almost come to a conclusion with them. But he was informed by them that arrangements would have to be completed for the improvement of the drain under the charge of the Westminster Sanitary Authority.

Civil Service Estimates.—Mr. LONG said that while everybody felt the greatest confidence in the Local Government Board, he thought there ought to be at the disposal of that Board a larger power of spending money in emergencies. At present the department had no funds to undertake experiments, and in his opinion there ought to be a stronger staff and more medical inspectors.—Sir HENRY ROSCOE heartily sympathised with the opinion expressed by Mr. Long. He had the highest opinion of the medical officers of the Local Government Board, but their number and the means at their disposal for carrying out important investigations were too small. There was nothing in this country comparable to the institutions existing in Berlin, St. Petersburg, and Paris. He believed that the country was free at present from the danger of anything like a large outbreak of cholera.—Mr. MACDONA urged the President of the Local Government Board to prohibit entirely the importation of rags.—Mr. H. FOWLER said, in reply, that he would be glad to have more money to spend, especially in scientific inquiries as to differences between English cholera and Asiatic cholera. The Treasury had assented to all his applications for additional help during the year. But, as a matter of fact, the expenditure of the Board had only been increased by £4,000 for the services of additional medical inspectors. He had asked for two permanent and four temporary medical inspectors and an additional temporary engineering inspector. With that aid it would be possible to grapple with all emergencies. As to the cholera scare, there was danger in exaggeration. The Local Government Board felt it to be their duty to state to the public the true facts of the case, neither extenuating nor exaggerating them, and he did not think that more could be done in the matter than was being done. The medical department was most active, and the Board were receiving the strongest support from the local authorities in the present emergency. As to the importation of rags, if the Board were satisfied that these rags were a source of disease they would necessarily have to take the strongest precautions against their importation, but at the recent conference at Dresden the opinion of the scientists of Europe was that there was no known case of cholera or any other infectious disease having been communicated by rags which were imported under the circumstances under which rags were now allowed to be imported into this country. All rags were prohibited except rags compressed by hydraulic force into bales, fastened with iron bands, and marked with the place from which they came. The rags now being imported were three or four years old, and he was informed that if he wished to stop the rags collected in 1893 he would have to wait until 1896 or 1897.

Small-pox in London.—Mr. BENN asked, with reference to the number of cases of small-pox among the vagrant or casual class, and to the recent occurrence in the Salvation Army shelter, whether power could be given to sanitary authorities to inspect charitable refuges in the same manner as the Metropolitan police now inspected common lodging-houses.—Sir

WALTER FOSTER said he believed it was the case that a large proportion of the persons suffering from small-pox admitted into the hospitals of the Metropolitan Asylums Board had been of the vagrant or casual class, and he was aware of a report which was made by the Medical Officer of Health of St. George the Martyr, Southwark, as to the Salvation Army shelter at Blackfriars Road. The provisions of the Public Health (London) Act, with reference to overcrowding and the sanitary condition of premises, applied to those shelters in like manner as to any other house used as a dwelling. The Act gave the right to members of the sanitary authority and any officer authorised by them of entering, at any time between 6 A.M. and 9 P.M., any premises for the purpose of examining as to the existence thereon of any nuisance liable to be dealt with summarily under the Act referred to. In the event of a refusal to admit, an order might be made by a magistrate requiring the admission; and, where a house was alleged to be a nuisance, an order of a magistrate might authorise the entry at any hour of the day or night specified in the order. He could not at present give any undertaking to propose legislation on the subject.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

SEWAGE PURIFICATION.

RECENTLY the Oxygen Sewage Purification Company invited a number of guests to inspect their system, which has been for some time in operation at the Criminal Lunatic Asylum, Dundrum, Dublin. The company included the Lord Mayor of Dublin, Lord Powerscourt, Sir Charles Cameron, and General Sankey, Chairman of the Board of Works. The method was explained by Mr. W. E. Adeney, F.C.S., curator of the Royal University, and Mr. W. Kaye Parry, M.A., C.E., who are the patentees, and it may be thus summarised. Nearly the whole of the matter in suspension in the crude sewage is first separated by simple mechanical subsidence; the sewage is then subjected to chemical oxidation and precipitation by treatment with manganate of soda. The organic matters in the sewage and the manganate quickly react upon one another, the greater portion of the former being decomposed into carbonic acid and other harmless bodies, and the brown insoluble peroxide of manganese subsides to the bottom of the tank, and carries down with it lighter particles. The partially purified sewage is subjected to a further precipitation by treatment with sulphate, or preferably chloride of aluminium. After this treatment the purified liquid is clear, free from smell, and practically free from suspended matter; the organisms existing in the crude sewage are also largely, if not entirely, precipitated with the oxides of manganese and alumina. The purified liquid also contains but a very small fraction of the organic matters originally present in the crude sewage. The organic matters which remain in the liquid are of such a character that they can only be decomposed and converted into harmless forms of matter on a large scale through the agency of micro-organisms. The subsequent treatment has in view the furnishing of proper conditions for the healthy life processes of colonies of fresh organisms, the germs of which are derived principally from surrounding objects and air. This is effected by adding to the purified liquid small quantities of nitrate of soda, a substance which it has been found the organisms can decompose, and from which they can abstract the oxygen necessary for their own healthy life processes. After this treatment the purified sewage may be discharged into any ordinary outfall—for example, a river or stream—without any danger of putrefaction being afterwards set up in the waters thereof.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,149 births and 3,980 deaths were registered during the week ending Saturday, September 9th. The annual rate of mortality in these towns, which had declined from 22.8 to 20.6 per 1,000 in the preceding three weeks, further fell to 20.1 during the week under notice. The rates in the several towns ranged from 13.0 in Halifax, 13.2 in Plymouth, 14.4 in Croydon, and 14.8 in Bristol to 23.3 in Bradford, 23.5 in Manchester, 29.9 in Blackburn, and 30.2 in Hull and in Sunderland. In the thirty-two provincial towns the mean death-rate was 21.0 per 1,000, and exceeded by 2.1 the rate recorded in London, which was 18.9 per 1,000. The 3,980 deaths registered during the week under notice in the thirty-three towns included 916 which were referred to the principal zymotic diseases, against 1,026 and 1,006 in the preceding two weeks; of these, 564 resulted from diarrhœa, 96 from whooping-cough, 86 from diphtheria, 65 from scarlet fever, 62 from "fever" (principally enteric), 39 from measles, and 4 from small-pox. These 916 deaths were equal to an annual rate of 4.6 per 1,000; in London the zymotic death-rate was 3.8 per 1,000, while it averaged 4.6 in the thirty-two provincial towns, among which these diseases caused the lowest death-rates in Halifax, Croydon, Bristol, and Plymouth, and the highest rates in Sunderland, Gateshead, Burnley, Blackburn, and Hull. Measles caused the highest proportional fatality in Blackburn; scarlet fever in Leicester and Derby; whooping-cough in West Ham, Swansea, and Norwich; "fever" in Portsmouth, Wolverhampton, Salford, Hull, and Sunderland; and diarrhœa in Wolverhampton, Burnley, Blackburn, Leeds, Sheffield, Hull, Sunderland, and Gateshead. The 86 deaths from diphtheria recorded during the week under notice in the thirty-three towns included 65 in London, and 5 in West Ham. Two fatal cases of small-pox were recorded in Bradford and 2 in West Ham, but not one in London or in any other of the thirty-three large towns; 121 small-pox patients were under treatment in the Metropolitan Asylums Hospitals and in the Highgate Small-pox Hospital on Saturday last, against 209, 183, and 144 at the end of the preceding three weeks. Twenty-four new cases were admitted during the week, against 21 and 8 in the preceding two weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital was 2,883 at the end of the week, against 2,891, 2,894 and 2,884 on the preceding three Saturdays; 310 new cases were admitted during the week, against 341 and 303 in the preceding two weeks. The 150 deaths from diseases of the respiratory organs in London were 9 below the average, and were equal to an annual rate of 1.8 per 1,000.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday, September 9th, 911 births and 585 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality, which had increased from 18.5 to 20.7 per 1,000 in the preceding three weeks, further rose to 20.8 during the week under notice, and exceeded by 0.7 per 1,000 the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the lowest rates were 12.0 in Perth and 14.5 in Aberdeen, and the highest rates 23.3 in Paisley and 26.4 in Dundee. The 585 deaths in these towns included 136 which were referred to the principal zymotic diseases, equal to an annual rate of 4.8 per 1,000, which was slightly above the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Paisley and Dundee. The 283 deaths in Glasgow included 26 from diarrhœa, 14 from whooping-cough, 9 from "fever," and 3 from diphtheria. Five fatal cases of "fever" were recorded in Paisley. The death-rate from diseases of the respiratory organs in these towns was equal to 2.1 per 1,000, against 1.8 in London.

HEALTH OF IRISH TOWNS.

IN sixteen of the principal town districts of Ireland the deaths registered during the week ending Saturday, September 2nd, were equal to an annual rate of 25.3 per 1,000. The lowest rates were recorded in Armagh and Drogheda, and the highest in Lisburn and Kilkenny. The death-rate from the principal zymotic diseases averaged 6.9 per 1,000. The 195 deaths registered in Dublin were equal to an annual rate of 29.1 per 1,000 (against 26.7 and 21.8 in the preceding two weeks), the rate during the same period being 19.0 in London and 20.5 in Edinburgh. The 195 deaths in Dublin included 48 which were referred to the principal zymotic diseases (equal to an annual rate of 7.2 per 1,000), of which 36 resulted from diarrhœa, 6 from "fever," 5 from whooping-cough, and 1 from measles.

BISHOP AUCKLAND WATER SUPPLY.

WITH cholera in our midst, the last quarterly report presented by Dr. Eustace Hill to the Durham County Council is by no means pleasant reading. He records the fact that over 70 cases of enteric fever occurred in 61 houses in Bishop Auckland and its vicinity during the six months ending with April last, 34 cases in 30 houses taking place in January. This phenomenal prevalence in the winter months led Dr. Hill to look for some common cause, and this he soon found to be the water supply. The water is drawn from the Wear at a point above which the river is subject to all manner of gross sewage pollution. Thus the river receives, directly or indirectly, the sewage of all the towns and villages in the upper portions of the Wear Valley, in addition to the raw sewage of several thousand persons within a few miles of the intake, some of these persons being themselves consumers of the water. The supply undergoes filtration through a natural sand and gravel bank prior to reaching the distributing reservoir, but is turbid in times of flood. The water has been pronounced on analysis to be chemically pure, a sample from just below the entry of sewage being held to yield "very faint indications of the presence of actual sewage pollution." The filtration cannot be regarded as always effective; and Dr. Hill finds evidence of specific pollution of the river by the contagion of enteric fever at a time coincident with the outbreak and prevalence of the disease in Bishop Auckland and the adjoining rural district, having only the water supply as common factors. Yet the Local Board have determined to expend £12,000 in fresh works to be erected, with the view of increasing their supply from the river a little higher up—probably freed from some local pollutions, but still contaminated by towns and villages more distant, as at present. Dr. Hill states that the data of the past four years show that Bishop Auckland has a higher fever rate than any other district in the county, save three where epidemics of the disease have prevailed. He looks to a continuance of this unenviable state of things so long as the river Wear furnishes the drinking water. It needs but the presence of cholera in the upper reaches of the river to enforce the lesson which fever seems to have been unable to teach. We hope the Local Board will think better of the matter, and resolve to expend their money in securing a water supply free from suspicion of pollution ere they suffer further from preventable disease.

THE DIAGNOSIS OF SMALL-POX.

THE following series of questions have been submitted to us in a letter signed by several practitioners practising in the town referred to:

1. Has any medical practitioner the right of entry to a small-pox hospital without permission of the medical officer of health or the chairman of the sanitary authority, there being no resident surgeon at the hospital, the medical officer of health having sole charge?

2. A medical man, Dr. A., in this town reported to the medical officer of health what he believed to be a case of small-pox in a young man. He was confirmed in his opinion by three other medical men, including the medical officer of health, who admitted the case to the small-pox hospital. After the admission of the case another medical man, Dr. B., declaring that he had the authority of a certain surgeon, Dr. C., a town councillor and a member of the Health Committee, forced his way into the hospital, saw the patient in question, and told him he was not suffering from small-pox, the result being that the patient eventually commenced an action for damages against Dr. A., who first notified the case. From a perusal of the notes of the case, taken on admission by the medical officer of health—a copy of which we enclose—was Dr. A., in your opinion, justified in reporting this case as small-pox? and also, What is your opinion of the conduct of Dr. B.?

3. On the same day that the above patient was admitted, another case was notified by Dr. A.—namely, that of a young woman who had been in the company of the first case. The landlady with whom the young man lodged, twelve days after his admission to the hospital (and three days after his discharge), herself fell a victim to a severe attack of confluent small-pox, and was admitted to the hospital. Bearing in mind the connection between the young man and the young woman and the landlady

does not the sequence show that Dr. A. was justified in believing the case of the young woman to be a case of small-pox?

4. We have referred to Town Councillor Dr. C. as being on the Health Committee of the borough. When the cases we have laid before you came up for discussion at the Health Committee, in consequence of the grave reports current in the town, arising from the threatened action for damages, Dr. C. sought to get it recorded in the minutes that a case had been admitted to the small-pox hospital which was not a case of small-pox. What is your opinion of Dr. C., bearing in mind that the legal proceedings referred to were a matter of public notoriety?

5. When the young man came out of the hospital he was sent by Dr. B. to a physician in a neighbouring city for an opinion as to whether he had had small-pox or not. Is it possible, ten days after an attack of modified small-pox, to give a definite opinion that such a patient had not had small-pox?

6. Seeing that Dr. A. had acted throughout in good faith and out of regard for the welfare of the patient, as well as in the public interest, ought not Dr. C. to have upheld his brother practitioner, Dr. A.

**** (1) There can be no right of entry to a small-pox hospital any more than to another institution, independently of the permission, expressed or understood, of the governing body or its representatives *ad hoc*.

(2) There are two questions here: (*a*) The notes which we have received of the case referred to in the query are insufficient of themselves to establish the diagnosis, but any medical man is justified in reporting what he believes to be a case of disease notifiable under the Act. Indeed, he is more than justified, for, having formed his opinion, he has no choice: he is bound to notify. And the occurrence of an undoubted case of small-pox in the same house, at the interval stated in query 3, is strong evidence in confirmation of the correctness of the opinion formed. (*b*) Assuming the facts to be as stated, Dr. B. may have believed that Dr. C.'s sanction gave him a right of entry to the hospital. Whether or not he was mistaken here depends on Dr. C.'s powers as a member of the Health Committee. But, having gained admission to the hospital, the ordinary rules of medical ethics came into force as regards Dr. B.'s relation to the patient and his medical attendant for the time being. Under these rules, it is obvious that Dr. B. had no right to examine the patient without the knowledge of his medical attendant, nor had he any right to tell the patient he was not suffering from small-pox.

(3) The facts stated in the query are insufficient. If the patient had the earlier symptoms and appearances of small-pox, in however mild a form, Dr. A.'s belief was justifiable. Of course the relationship of this case to the other two is not so close as is the relationship between the other two cases. Still it counts for something.

(4) Again assuming the facts to be as stated, Dr. C.'s action is quite indefensible. But, supposing that he had succeeded in putting the Health Committee into the ridiculous position of minuting what would have amounted to a diagnostic opinion on a disputed case of small-pox, we can hardly think that any court of law would have paid the slightest attention to the intermeddlings of laymen in such a matter. It hardly adds to the absurdity of the position that the negative lay diagnosis would have been made *in absentiâ*. But the publication of such a minute in the local press might have injured Dr. A., and for such injury Dr. C. would have been so far responsible.

(5) In a much modified case of small-pox the evidences on the skin are so trifling and disappear so quickly that we would attach very little value to an opinion expressed in the circumstances indicated.

(6) Medical men who act in good faith should always be upheld, especially by their brother practitioners.

BOOKS ON FOOD INSPECTION.

M.D. and M.O.H. asks to be referred to books on the inspection and examination of food stuffs such as fish, meat, etc., suitable for a medical officer of health.

**** Our correspondent might consult Wynter Blyth's *Foods Composition and Analysis* (London: Griffin), or Fox's *Sanitary Examination of Water, Air, and Foods* (London: Churchill). Walley's *Meat Inspection* (Edinburgh and London: Young J. Pentland) is a useful book if our correspondent wishes to look up chiefly the question of meat.

HOSPITAL AND DISPENSARY MANAGEMENT.

LUNATIC ASYLUMS, IRELAND: ANNUAL REPORT.

ON January 1st last there were resident in Irish district asylums 12,133, Dundrum Criminal Asylum 147, private asylumms 644, and workhouses 4,918, being a total of 1,724, or an increase of 436 as compared with the previous year. This increase is not exceptional, and if the returns of the past twelve years are examined it will be found that in 1880 the number of lunatics under care amounted to 12,982, and year by year the number has increased until last year it was 17,124.

As regards district asylums, the insane located in them numbered 12,133, and of these 1,189 were discharged recovered, 593 unrecovered, and 995 died, equal to a percentage of 8.3 on the average number resident. Of the 995 deaths, 259 were due to phthisis, 145 to other diseases of the lungs, 71 to epilepsy and convulsions, 61 to dysentery and diarrhœa, 60 to organic disease of the brain and spinal cord, and 44 to apoplexy and paralysis. Overcrowding to a considerable extent exists in the district asylums, the accommodation being inadequate for the number of patients admitted. The average cost per head on the total expenditure in district asylums was £23 0s. 8d. The number of pauper lunatics and imbeciles residing in workhouses was 4,918, showing an increase during the past year of 18. In four poorhouses contracts exist between the governors of the district asylums and the guardians of these poorhouses to maintain a certain number of the insane inmates of these asylums, under the provision of 38 and 39 Vict., cap. 67, section 9, and at present 136 of the insane are supported in the poorhouses under contract. But the inspectors of lunatic asylums believe that the provisions of the section of the Act referred to have not proved of benefit to the insane poor of Ireland, as in consequence of divided authority between the asylum governors and the guardians the care and comfort of the insane inmates have not always received that attention which their helpless condition requires. As regards the remaining inmates of unsound mind in Irish workhouses, the inspectors have no returns showing admissions, discharges, and deaths.

OBITUARY.

Surgeon-Major THOMAS HEAZLE PARKE.

The announcement of the sudden death of Surgeon-Major Parke will be received with great regret. He was staying with the Duke of St. Albans at Alt-na-Craig, Scotland, when the fatal event occurred on September 10th. He was taken ill while in church, but recovered and appeared to be in his usual health in the evening, but was found dead next morning in his room still dressed, so that death must have occurred on Sunday evening.

Thomas Heazle Parke was the second son of the late William Parke, J.P., of Clogher House, Kilmore, co. Roscommon. He became a Licentiate of the Royal College of Surgeons in Ireland, in 1878, and of the Royal College of Physicians in Ireland in 1879. He passed the entrance examination of the Army Medical Department in August, 1880, and was gazetted Surgeon-Captain in February, 1881, and almost immediately afterwards saw active service in the Egyptian war of 1882, for which he received the medal and Khedive's star. He again served with the Nile expedition, 1884-85, and was present at the action of Abu Klea, and in the *reconnaisance* at Metemmeh. For these services he received two clasps. In the interval he had acted as Senior Medical Officer at the Helouan cholera camp during the epidemic in Egypt in 1883.

In 1887 he was selected by Mr. H. M. Stanley to accompany him in his famous expedition for the relief of Emin Pasha. The splendid character of his services during this expedition were fully recognised by Mr. Stanley, who refers to Parke's priceless services, and described him as ever-striving, patient, cheerful, and gentle. Again, in speaking of the events at Kavalli, in March, 1889: "This expedition possesses the rarest doctor in the world. No country in Europe can produce his equal, in my opinion. There may be many more learned, perhaps more skillful, older or younger as the case may be, but the best of them have something to learn from our doctor. He is such a combination of sweetness and simplicity. So unostentatious, so genuinely unobtrusive. We are all bound to him with cords of love. We have seen him do so much out of pure love for his 'cases' that human nature becomes ennobled by this gem. He is tenderness itself. He has saved many lives by his devoted nursing..... At Abu Klea our doctor was great; the wounded had cause to bless him; on the green sward of Kavalli, daily administering to these suffering blacks, unknowing and unheeding whether any regarded him, our doctor was greater still."

On the return of the expedition to Zanzibar, Dr. Parke was detained some time owing to the accident to Emin Pasha. The accident, which was of a very severe character, for some time placed Emin Pasha's life in danger, and during that period Surgeon-Captain Parke showed himself a most devoted attendant, and finally he had the pleasure of seeing his patient completely recover.

On his return to this country he was very warmly welcomed by the public at large, and received many tokens of recognition from his brethren of the medical profession. He was elected a Fellow of the Royal College of Surgeons of Ireland, and was presented with the gold medal of the British Medical Associa-

tion. He also received medals from the Royal Geographical Societies of London and Antwerp, and was elected a Fellow of the Royal Geographical Society, and an honorary member of the Geographical Societies of Belgium and Antwerp. He was also made an honorary Associate of the Order of St. John of Jerusalem.

He described some of his adventures in Central Africa in his work entitled *Experiences in Equatorial Africa*. Since his return he has been employed in this country chiefly at London and at Netley, and was promoted to Surgeon-Major on February 5th, 1893. Only recently we noticed a work from his pen, entitled *A Guide to Health in Africa*, which contained also numerous notes on the country and its inhabitants.

We fear it must be confessed that Surgeon-Major Parke did not receive from the Government of this country the official recognition which he had well deserved. Other officers were the recipients of special honours or were granted special promotion, but Parke received no decoration and remained a Surgeon-Captain until the termination of twelve years' full pay service; the only consideration shown him was that he was allowed to count his time in Africa with Stanley as full pay service.

Our Dublin Correspondent writes:

Dr. Parke was educated at the school of the Royal College of Surgeons in Ireland, and attended the City of Dublin Hospital. When he had finished his courses there he entered at the Richmond, Whitworth, and Hardwicke Hospitals as an intern surgical pupil for six months. After his return from Africa the Irish College of Surgeons conferred upon him the honorary Fellowship, and he was entertained at a banquet by the Fellows. It is a noteworthy fact that during his stay in Dublin on that occasion he was taken ill in church, and had to be removed to his residence. The attack seemed to be of the character of syncope, and was, we believe, associated with his weakened condition on his return. He was very well known in Dublin, and everyone who knew him admired his gentleness, industry, and unostentatious courage.

SEVERIN WIELOBYCKI, M.D.

The medical centenarian, Dr. Severin Wielobycki, whose reception by the Society for the Study of Inebriety on his 100th birthday we noted in January last, died on September 7th, at his residence in St. John's Wood, London, aged 100 years and 8 months. The son of a judge, he was born in the Polish province of Volinia on January 8th, 1793. While fighting as a cavalry officer for the freedom of his native land in thirty-six engagements, he had often to sleep in the open with the snow on the ground, which exposure originated a deafness which lasted during the rest of his life. After a hurried nocturnal flight to avoid being taken prisoner by the Russians, he reached Edinburgh, where he was practically half-starved for ten years, during which he taught French, having learnt English from a dictionary and the public journals. Aided generously by his professors, he took the degree of M.D. at Edinburgh University, where he graduated in 1841, then also taking the diploma of the Edinburgh College of Surgeons. He became a naturalised British subject. He first practised for ten years in Nova Scotia, and thereafter in England and Scotland. He worked very hard at his professional duties, finally retiring twenty-eight years ago to London. He wrote some medical papers, and was an active promoter of sanitation. He sat on the Marylebone Vestry for three years. On the occasion of the Inebriety Society Centenarian reception an official document was read from the Senatus of the University of Edinburgh, congratulating him on the completion of his 100th year. The librarian truly stated that the letter from the Senatus on the centennial event, and Dr. Wielobycki's reply, constituted a unique record in university archives.

Till three years ago, when he was broken down by influenza, the deceased was a ruddy, erect, soldierly-looking, vigorous man, walking twelve miles a day, beginning with the ascent of Primrose Hill at 5 A.M. To the last he could read the smallest print, although he never wore spectacles. He never smoked or used tobacco in any form, and had been an abstainer from all intoxicants for over sixty years. He was out for a short daily constitutional up till within three days of his death, which was due to the effects of a third attack of influenza, with embolic complication. He was conscious to the last, dying without pain; and, though unable to speak, pressed the hand of his medical attendant (Dr. Norman Kerr) in token that he was conscious and understood what was said only a few minutes before death.

The funeral took place at Paddington Cemetery. Representatives of medical, temperance, and sanitary associations, among whom were Dr. Thomas Marton (Medical Temperance Association), Dr. Norman Kerr (Society for the Study of Inebriety, of which deceased was a vice-president), Dr. Greenly, Dr. Johnston, and Dr. Burford, formed a part of the funeral *cortége*.

William Bradley, M.R.C.S., J.P., of Winckley Square, Preston, died on September 5th, of bronchitis, aged 71. Of the older school of medical men, of fine appearance, gentle and considerate, Dr. Bradley was a well-known figure in Preston. Catholic and other charities will lose a warm supporter, and his many friends and patients will deeply mourn his loss.

We regret to have to announce the death of Dr. Simon Holford Hobley, of Southampton, at the early age of 48. The deceased took the diploma of M.R.C.S.Eng. in 1869, that of L.R.C.P.Lond. in 1871, and the degree of M.D.Durh. in 1891. For some time he was house-surgeon at the Royal South Hants Infirmary. Dr. Hobley was the medical officer at Southampton to the Board of Trade. The cause of death was internal cancer, from which he had suffered for the last three years.

It is with regret we have to record the sudden death of Mr. G. St. G. Tyner. The deceased became a Fellow of the Royal College of Surgeons, Ireland, in 1874, and a Member of the Royal College of Physicians, Ireland, in 1882. He was also a member of the Royal Dublin Society, the Natural History Society, Dublin, and of the British Medical Association. Mr. Tyner resided in county Galway for many years. In 1863 he became resident surgeon at Steevens's Hospital, Dublin. This appointment was for two years, but at the expiration of this time he was requested to hold the office for another similar period. In October, 1867, he was appointed resident medical superintendent of the auxiliary lunatic asylum at Clonmel, and in December, 1868, he was promoted to Down District Lunatic Asylum. At the time of his decease Mr. Tyner was one of a party driving round the coast of Antrim, and was apparently in good health when attacked by cerebral hæmorrhage.

MEDICAL NEWS.

At the last meeting of the Belper Local Board it was decided to increase the salary of the medical officer of health by £10 per annum.

Presentation.—Dr. R. Grant, who is leaving Ellon, was recently entertained at a supper and presented with a gold watch and chain by his many friends in the district.

Medical Magistrate.—Mr. Thomas Henry Cheatle, M.R.C.S., of Burford, Oxon, has been placed on the Commission of the Peace for the county of Oxford.

Successful Vaccination.—Dr. W. H. Torbock has been awarded, for the fourth time, the Government grant for efficiency of vaccination in the 5th District of the Liskeard Union.

Sir Matthew White-Ridley opened on September 11th, at Blackpool, a bazaar to remain open for a week in aid of the new hospital which is being built, and of which the Mayor of Blackpool laid the foundation stone on August 5th.

We regret to have to record the death, by suicide, of Dr. Andrew R. Mackinnon, house-surgeon to the Warneford Hospital, Leamington. Dr. Mackinnon had for some time been in a depressed state of mind, and apparently in a moment of unreasoning depression took a dose of prussic acid. The jury returned a verdict of "Suicide while of unsound mind."

International Medico-Legal Congress.—The Second International Medico-Legal Congress has been held, under the presidency of Mr. Clark Bell, at Chicago. The following papers by British writers were read:—Dr. Daniel Clark, of Toronto, on Physiology in Thought, Belief, and Conduct; Dr. Norman Kerr on Legal Recognition of Diseased Inebriate Conditions as a Valid Plea, Illustrated by Recent Cases; and Mr. A. Wood Renton, of London, on the New English Departure in Regard to Inebriety.

Deaths in the Profession Abroad.—Dr. Faudel, who died recently in Colmar, aged 68, had achieved considerable reputation as a student of the history of prehistoric man. He was curator of the Museum of Colmar, which contains a fine collection of prehistoric remains.—The death is announced, at the age of 70, of Dr. Seth Rogers, of Danby, Vermont. He was surgeon to a negro regiment during the civil war, and subsequently after a period of retirement owing to broken health, he practised for some years in Florida. He is described as a man of remarkable character and an eager opponent of slavery.—Professor Tirifahy, of Brussels, a well-known surgeon and teacher, died recently after a long illness.—The death is also announced from Brussels of Dr. Charlier, who succumbed to an attack of infectious pleuro-pneumonia, contracted during the exercise of his profession.

State Contributions to Scientific Education in France.—The budget of the various colleges, to use the nearest English equivalent, in France for the year 1892 has recently been published in the *Journal Officiel*. There are seven medical faculties in France, but in three cases they are linked with the Faculty of Pharmacy (Bordeaux, Lille, Lyone). The total receipts of the seven faculties, stated in round numbers, is 820,000 francs; of this sum the State contributed directly 662,000 francs. The State contribution varied from 291,000 francs to the Faculty of Medicine of Paris, down to 25,000 francs to the Faculty of Medicine in Algiers. Lyons received 90,000 francs, Montpelier 82,000 francs, Bordeaux 72,000 francs, Lille 53,000 francs, and Nancy 48,000 francs. There are sixteen faculties of science, whose total income from all sources is 947,000 francs. The contribution from the State amounted to 729,000 francs. Of this total Paris receives 191,000 francs, the next on the list being Montpellier, which received 66,000 francs, the votes to the other faculties ranging from 41,000 francs in Nancy down to 22,000 francs in Poitiers. These figures are exclusiue of sums voted by communes and departments.

MEDICAL VACANCIES.

The following vacancies are announced:

ANCOATS HOSPITAL, Manchester.—Junior Resident House-Surgeon. Salary, £60 per annum, with board and washing. Applications to the Secretary by September 20th.

BETHLEM HOSPITAL.—Two Resident Clinical Students, doubly qualified. Apartments, rations, and attendance provided. Applications, endorsed "Clinical Assistantship," to the Treasurer, at the Bethlem Hospital, by October 2nd.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road. Registrar, Pathologist, and Anæsthetist. Candidates must undertake to hold office for twelve months. Applications to Richard Kershaw, Secretary, by September 18th.

COUNTY ASYLUM, Lancaster.—Clinical Assistant. No salary. Board, etc., provided. Appointment for six months. Applications to the Medical Superintendent.

COUNTIES ASYLUM, Carlisle.—Junior Assistant Medical Officer. Salary, £80 per annum, with board. Applications to Dr. Campbell, Medical Superintendent, by September 18th.

GOREY UNION, KILLENAGH AND WELLS DISPENSARY. — Medical Officer. Salary, £120 per annum, with £15 yearly as Medical Officer of Health, registration and vaccination fees. Applications to Mr. Benjamin Furney, Honorary Secretary, Ballycanew. Election on September 25th, when candidates must be in attendance.

KENT COUNTY ASYLUM, Chartham, near Canterbury.—Junior Assistant Medical Officer, unmarried. Salary, £125 per annum, with furnished apartments, board, and attendance. Applications to the Clerk of the Committee of Visitors, Allen Fielding, Solicitor, Canterbury, by September 20th.

LEITH HOSPITAL.—House-Physician, House-Surgeon, and Surgeon for the Out-patient Department. Appointments for six months. Salary attached to each office is at the rate of £50 per annum, with board in the hospital. Applications to the Secretary, Mr. George V. Mann, 33, Bernard Street, Leith, by September 30th.

LONDON FEVER HOSPITAL, Liverpool Road, N.—Assistant Resident Medical Officer. Applications to the Secretary by September 18th.

NATIONAL HOSPITAL FOR DISEASES OF THE HEART AND PARALYSIS, 32, Soho Square, W.—Two Clinical Assistants; doubly qualified. Applications to the Secretary by September 25th.

NEW HOSPITAL FOR WOMEN, 144, Euston Road, N.W.—Clinical Assistant for In-patient Department. Appointment for six months. Applications to M. M. Bagster, Secretary, by September 29th.

NORTHUMBERLAND COUNTY ASYLUM, Morpeth.—Clinical Clerk. Board and residence provided. Applications to Dr. McDowall at the Asylum.

ROYAL ISLE OF WIGHT INFIRMARY AND COUNTY HOSPITAL, Ryde, I.W.—House-Surgeon and Secretary. Salary, £60 per annum, with board, lodging, and washing. Applications to the Secretary by September 19th.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—House-Physician. Appointment for six months. Salary at the rate of £40 per annum, with board and lodging. Applications to the Secretary by September 26th.

SEASIDE CONVALESCENT HOSPITAL, Seaford, Sussex. — Resident Medical Officer. Salary, £60 per annum, with board. Applications to F. Maitland, Secretary, Bank Chambers, 1, Long Acre, W.C.

ST. MUNGO'S COLLEGE, Glasgow.—Chair of Chemistry. Applications with thirty copies of testimonials, to the Secretary, H. Lamond, by October 2nd.

SCARBOROUGH HOSPITAL AND DISPENSARY. — House-Surgeon. Salary, £80 per annum, with board. Applications and testimonials to the Honorary Secretary, at the Hospital, by September 20th.

STOURBRIDGE DISPENSARY.—House-Surgeon and Secretary, doubly qualified. Salary, £120 per annum, with furnished rooms, coal, and gas, with extra allowance of £25 for travelling expenses. Applications to the Honorary Secretary, T. F. Bland, Norton, Stourbridge, by September 20th.

UNIVERSITY OF ABERDEEN.—Eleven Examiners for degrees in Medicine. The Examiners in Medicine and Surgery will receive a grant of £50 each, and the other nine a grant of £40 each. Applications to Robert Walker, Secretary, the University Court, by September 25th.

VESTRY OF THE PARISH OF ST. LEONARD, Shoreditch.—Medical Officer of Health. Salary, £400 per annum, rising by annual increments of £25 to a maximum of £500 per annum. Applications, on forms to be obtained of H. Mansfield Robinson, Solicitor and Clerk, Town Hall, Shoreditch, to whom they must be sent marked "Medical Officership," by September 21st.

WEST LONDON HOSPITAL, Hammersmith Road, W.—House-Physician and House-Surgeon. Appointment for six months. Board and lodging provided. Must be registered under the Medical Act. Applications, with testimonials, must be sent to R. J. Gilbert, Secretary-Superintendent, by September 20th.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—House-Physician, who will be required to act as Chloroformist, Pathologist, and Medical Registrar. Salary, £100 per annum, with board. Testimonials to the Chairman of the Medical Committee, by September 25th.

MEDICAL APPOINTMENTS.

Bubb, William, M.R.C.S.Eng., L.R.C.P.Lond., appointed Third Assistant Medical Officer to the Worcester County and City Lunatic Asylum.

Boyd, Alexander B., M.B., B.Ch.Oxon., M.R.C.S., L.R.C.P.Lond., appointed House-Physician to the Radcliffe Infirmary, Oxford.

Brown, Geo., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer of Health for the Upper Soothill Urban Sanitary District of the Dewsbury Union.

Cameron, Alexander, M.D., M.S.Glasg., reappointed Medical Officer of Health for the Caistor Rural Sanitary District.

Cholmeley, William, M.R.C.S., L.R.C.P., appointed House-Surgeon to the Wolverhampton and Staffordshire General Hospital.

Cleaver, W. F., L.R.C.P.Lond., M.R.C.S., appointed Medical Officer of Health for the Phillack Urban Sanitary District.

Coad, Stanley A., M.R.C.S.Eng., L.R.C.P.Lond., appointed Junior House-Surgeon to the Royal South Hants Infirmary, Southampton.

Caudwell, Francis Bernard Hy., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer for the Coggeshall District of the Braintree Union.

Cuming, J., M.D.Q.U.I., reappointed Physician to the Belfast Royal Hospital.

Drake, A. T., M.B.R.U.I., L.R.C.S.I., appointed Medical Officer for the Fourth Sanitary District of the Greenwich Union, *vice* Geo. P. Rogers, L.R.C.P.Edin., L.R.C.S.I., resigned.

Doman, Mr. G. H., appointed Medical Officer for the West Houghton District of the Bolton Union.

Eccles, G. T., M.B., appointed Medical Officer of the Workhouse of the Braintree Union.

Fagan, John, F.R.C.S.I., reappointed Surgeon to the Belfast Royal Hospital.

Fowler, F., L.R.C.P.Lond., M.R.C.S., appointed Medical Officer for the Fourth Sanitary District of the Stroud Union.

Freer, John H., L.R.C.P.Lond., M.R.C.S., reappointed Medical Officer o Health for Rugeley.

Galletly, Wm., M.D., L.R.C.S.Edin., appointed Parochial Medical Officer for Elgin and Public Vaccinator for the Burghal District.

Griffith, William, M.B., Ch.B.Vict.Univ., appointed House-Surgeon to the London Temperance Hospital.

Gilchrist, Miss Elizabeth T., L.R.C.P.& S.Edin., L.F.P.S.Glasg., appointed Resident Medical Officer in Grove Street Hospital for Women and Children, Edinburgh, *vice* Miss Edith Collett, L.R.C.P., L.R.C.S.Edin.

Howden, Robert, M.B., M.S.Edin., appointed Medical Officer of Health for the Burgh of Haddington.

HEASMAN, Wm. Gratwicke, M.R.C.S., L.R.C.P.Lond., appointed Medical Officer for the Workhouse and the Wokingham District of the Wokingham Union.

HAWKINS, A. F., F.R.C.S.Edin., L.R.C.P.Lond., M.R.C.S., appointed Surgeon to the Chelsea, Brompton, and Belgrave Dispensary, *vice* Bertram T. Reid, resigned.

HODGSON, Mr. J. C., appointed Medical Officer of the Schools of the Cockermouth Union.

HUNT, A. H. W., L.R.C.P.Lond., M.R.C.S., appointed Honorary Gynæcologist to the Wolverhampton General Hospital.

KNOWLES, Thomas, M.B., C.M.Edin., appointed Medical Officer for the Kirkbys Malham District of the Settle Union.

LESLIE, C. Thorne Thorne, M.R.C.S.Eng., L.R.C.P., appointed Assistant House-Surgeon to the Infirmary for Children, Myrtle Street, Liverpool.

STEVENSON, R., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer of Health for the Rothwell Urban Sanitary District of the Hunslet Union.

TEMPLETON, George, M.B., C.M.Edin., L.R.C.P.Lond., M.R.C.S., appointed Junior House-Surgeon to the London Temperance Hospital.

TWEEDY, Charles, M.R.C.S.Eng., appointed Medical Officer of Health to the Northallerton Local Board.

WALLIS, J. H., L.R.C.P., L.M.Edin., L.F.P.S.Glasg., appointed Medical Officer for the Igburgh Sanitary District of the Swaffham Union, *vice* Frederick W. Joy, L.R.C.P.Edin., M.R.C.S.Eng.

WADE, M. A., L.R.C.P., L.M., L.R.C.S.I., appointed Junior Surgeon to the Police Force, Liverpool.

WHITLEY, A. W., L.R.C.P., L.R.C.S.I., appointed Principal Medical Officer to the Chatham Dockyard.

WATSON, D., M.B., C.M.Glas., appointed Medical Officer for the North Welney District of the Downham Union.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTHS.

DAVIES.—On August 30th, at Snainton, York, the wife of H. Havelock Davies, M.B., of a son.

GORDON.—At Nowgong, C.I., on August 17th, 1893, the wife of Surgeon-Captain P. C. H. Gordon, Army Medical Staff, of a son (prematurely).

O'BRIEN.—At The Grove, Crossboyne, Claremorris, Ireland, the wife of T. M. O'Brien, M.D., Catchgate, Durham, England, of twins (premature).

ROGERS.—On September 8th, at New Malden, Surrey, the wife of Waller Temple Rogers, L.R.C.P., L.R.C.S., etc., of New Malden, of a daughter.

SCOTT.—On September 9th, at Westbourne Villa, Ealing, the wife of Alfred Langston Scott, M.R.C.S., of a daughter.

THOMAS.—September 4th, at Heckmondwike, Yorks., the wife of W. Peart Thomas, M.B., C.M., of a son.

WILLIAMS.—On August 16th, at Akyab, Lower Burmah, the wife of Surgeon-Captain C. L. Williams, M.D., Indian Medical Service, of a daughter.

MARRIAGES.

CALEY—AUSTIN.—On September 7th, at Lingfield, Surrey, by the Rev. Charles Bird, Guthrie Neville Caley, M.D., M.S., of Ealing, to Ethel Mary, youngest daughter of Sydney Charles Austin, M.R.C.S., of Lingfield.

JACOB—FRASER.—On September 6th, at St. Peter's Church, Bramley, Leeds, by the Rev. Canon Jacob, D.D., and the Rev. S. W. Copes, M.A., Ernest Henry Jacob, M.A., M.D., of Leeds, to Emma Louisa, eldest daughter of James B. Fraser, of Claremont, Horsforth.

LEWITT—PICKERING.—On September 7th, at All Saints Church, Leicester, by the Rev. H. S. Gedge, Rector of Aylestone, assisted by the Rev. A. O. James, Vicar of All Saints, Frederick William Lewitt, L.R.C.P., M.R.C.S., of Abbotsleigh, Belgrave Road, Leicester, to Louise Blanche, elder daughter of Henry Pickering, Highcross Street, Leicester.

MACNIDDER—PURVES.—At St. James Episcopal Church, Edinburgh, on September 12th, by the Rev. C. J. Jenkins, Rector, James MacNidder, M.B. & C.M.Edin., son of the late James MacNidder, of Ayr, to Edith Helen, daughter of P. W. Purves, 12, Warriston Crescent, Edinburgh. At Home, Dunallan House, Carr Lane, Hull, October 19th and 20th. No cards.

PENNELL—LAFONE.—On September 1st, at Lomas, Buenos Aires, by Rev. Canon Pinchard, George Herbert Pennell, M.D., F.R.C.S., to Frances Lucy, eldest surviving daughter of the late William Lafone, Esq., of Monte Video.

ROBERTS—SALMOND.—On September 5th, at St. Margaret's, Ilkley, by the Rev. Irton Smith, Vicar, Astley Carrington, eldest son of Dr. Bransby Roberts, of Eastbourne, to Edith Mary, younger daughter of David Salmond, J.P., of Eldermere, Ilkley, Yorkshire.

SOUTTER—ADAMS.—On September 13th, at Mann's Grand Hotel, Aberdeen, by the Rev. Mr. Brown, Mansfield Knox Soutter, M.R.C.S., L.R.C.P.Eng., A.K.C.Lond., eldest son of the late Dr. Soutter, of Finsbury Park, London, to Annie, eldest daughter of John Adams, Esq., Hammerfield House, Great Western Road, and niece of the late Drs. Chas. and John Crombie, of Aberdeen.

WILLIAMSON—FARWELL.—On the 6th inst., at St. Bartholomew's, Horley, Surrey, by the Rev. H. T. Lewis, Vicar, Charles Frederick, L.R.C.P., M.R.C.S., L.S.A., of Horley, son of James Williamson, M.D., of Mildmay Park, London, to Mary Elizabeth, widow of James W. G. Farwell, M.R.C.S., L.R.C.P., of Horley.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Hours of Attendance.*—Daily, 2. *Operation Days.*—Tu. S., 2.

CENTRAL LONDON OPHTHALMIC. *Operation Days.*—Daily, 2.

CHARING CROSS. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M., 1.30; Dental, M. W. F., 9; Throat and Ear, F., 9.30 *Operation Days.*—W. Th. F., 3.

CHELSEA HOSPITAL FOR WOMEN. *Hours of Attendance.*—Daily, 1.30 *Operation Days.*—M. Th., 2.

EAST LONDON HOSPITAL FOR CHILDREN. *Operation Day.*—F., 2.

GREAT NORTHERN CENTRAL. *Hours of Attendance.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Ear, Tu. F., 2.30; Diseases of the Skin, W., 2.30; Diseases of the Throat, Th., 2.30; Dental Cases, W., 2. *Operation Day.*—W., 2.

GUY'S. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 1. *Operation Days.*—(Ophthalmic), M. Th., 1.30; Tu. F., 1.30.

HOSPITAL FOR WOMEN, Soho. *Hours of Attendance.*—Daily, 10. *Operation Days.*—M. Th., 2.

KING'S COLLEGE. *Hours of Attendance.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, daily, 1.30; o.p., Tu. W. F. S., 1.30; Eye, M. Th., 1.30; Ophthalmic Department, W., 2; Ear, Th., 2; Skin, F., 1.30; Throat, F., 1.30; Dental, Tu. Th., 9.30. *Operation Days.*—M. F. S., 2.

LONDON. *Hours of Attendance.*—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, S., 9.30; Skin, Th., 9, Dental, Tu., 9. *Operation Days*—M. Tu. W. Th. S., 2.

LONDON TEMPERANCE HOSPITAL. *Hours of Attendance.*—Medical, M. Tu. F. 2; Surgical, M. Th., 2. *Operation Days.*—M. Th., 4.30.

METROPOLITAN. *Hours of Attendance.*—Medical and Surgical, daily, 9; Obstetric, W., 2. *Operation Day.*—F., 9.

MIDDLESEX. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Th., 1.30; o.p., M. F., 9, W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu., 9; Skin, Tu., 4, Th., 9.30; Dental, M. W. F., 9.30. *Operation Days.*—W., 1.30, S., 2; (Obstetrical), Th., 2.

NATIONAL ORTHOPÆDIC. *Hours of Attendance.*—M. Tu. Th. F., 2. *Operation Day.*—W., 10.

NORTH-WEST LONDON. *Hours of Attendance.*—Medical and Surgical, daily, 2; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operation Day.*—Th., 2.30.

ROYAL FREE. *Hours of Attendance.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Dental, Th., 9. *Operation Days.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Hours of Attendance.*—Daily, 9. *Operation Days.*—Daily, 10.

ROYAL ORTHOPÆDIC. *Hours of Attendance.*—Daily, 1. *Operation Day.*—M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Hours of Attendance.*—Daily, 1. *Operation Days.*—Daily.

ST. BARTHOLOMEW'S. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, W. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. *Operation Days.*—M. Tu. W. S., 1.30; (Ophthalmic), Tu. Th., 2.

ST. GEORGE'S. *Hours of Attendance.*—Medical and Surgical, M. Tu. F. S., 12; Obstetric, Th., 2; o.p., Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopædic, W., 2; Dental, Tu. S., 9. *Operation Days.*—Th., 1; (Ophthalmic), F., 1.15.

ST. MARK'S. *Hours of Attendance.*—Fistula and Diseases of the Rectum, males, S., 3; females, W., 9.45. *Operation Days.*—M., 2., Tu. 2.30.

ST. MARY'S. *Hours of Attendance.*—Medical and Surgical, daily, 1.45; o.p., 1.30; Obstetric, Tu. F., 1.45; Eye, Tu. F. S., 9; Ear, M. Th., 3; Orthopædic, W., 10; Throat, Tu. F., 1.30; Skin, M. Th., 9.30; Electro-therapeutics, Tu. F., 2; Dental, W. S., 9.30; Consultations, M., 2.30. *Operation Days.*—Tu., 1.30; (Orthopædic), W., 11; (Ophthalmic), F., 9.

ST. PETER'S. *Hours of Attendance.*—M., 2 and 5, Tu., 2, W., 5, Th., 2, F. (Women and Children), 2, S., 4. *Operation Days.*—W. and F., 2.

ST. THOMAS'S. *Hours of Attendance.*—Medical and Surgical, daily, exc. W. and S., 2; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Tu. F., 1.30; Children, S., 1.30; Dental, Tu. F., 10 *Operation Days.*—W. S., 1.30; (Ophthalmic), M., 2.30, F., 2; (Gynæcological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Hours of Attendance.*—Daily, 1.30. *Operation Day.*—W., 2.30.

THROAT, Golden Square. *Hours of Attendance.*—Daily, 1.30; Tu. and F., 6.30; *Operation Day.*—Th., 2.

UNIVERSITY COLLEGE. *Hours of Attendance.*—Medical and Surgical daily, 1.30; Obstetrics, M. W. F., 1.30; Eye, M. Th., 2; Ear, M. Th., 9; Skin, W., 1.45, S., 9.15; Throat, M. Th., 9; Dental, W., 9.30; *Operation Days.*—W. Th 1.30; S., 2.

WEST LONDON. *Hours of Attendance.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th. S., 2; Ear, Tu., 10; Orthopædic; W., 2; Diseases of Women, W. S., 2; Electric, Tu., 10, F., 4; Skin, F., 2; Throat and Nose, S., 10. *Operation Days.*—Tu. F., 2.30.

WESTMINSTER. *Hours of Attendance.*—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1; Eye, M. Th., 2.30; Ear, M., 9; Skin, W., 1; Dental, W. S., 9.15. *Operation Days.*—Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

INQUIRER would be glad to know the significance of a persistent sweet taste in the mouth and on the lips in a neurotic woman, aged 54. Polyuria may occasionally exist but never any traces of sugar.

THE relatives of John Hulbert (who was born in 1817, took the diploma of the Royal College of Surgeons in 1842, and the degree of M.D. of the University of Edinburgh in the same year) are anxious to know whether any of his contemporaries and friends survive. Dr. Hulbert obtained an appointment in India under the East India Company, but, before proceeding to India, he went over to Paris, where on January 10th, 1847, he died from suppurative fever caused by an accident in dissection.

MANAGEMENT OF WEAK-MINDED GIRL.

F. H. R. asks where a girl of weak intellect could be received. She is 19 years of age, is very obstinate, and inclined to low company.

*** The only way to deal with such a case would be to send the patient under certificates to an asylum. No institution could take the case without certificates.

GAS STOVES.

DR. RENTOUL (Hartington Road, Liverpool) will be much obliged to any member who would give him information regarding the use of gas stoves for heating his office, a room of about 3,500 cubic feet.

DISLOCATION OF THE PATELLA.

SPLINT writes: I have a patient, aged 16 years, who, about eleven months ago, suffered from a partial dislocation outwards of the patella. This was reduced at the time of occurrence, and the limb subsequently kept fixed by a splint and rest in bed until all pain and swelling had disappeared, and the limb, although weak, appeared quite sound. The patient then left for school, and while away had a return of the swelling and increased weakness, probably through too much walking. On her return home about a month ago I was again called to see the knee, and found it of the same size as the other, and painless, but when moving the patella up and down when the muscles are relaxed there is a grating felt, evidently between the patella and the head of the tibia, as if there was denudation of the cartilage. I have tried fixation by splint again and rest but with no success as yet. Can any of your readers, who perhaps have had similar cases, help me as to treatment, either externally, internally, or locally?

ANSWERS.

H. D. R.—Except in time of war the British National Aid Society is not in communication with any other societies, but on the outbreak of war it draws assistance from any that may be qualified to give it.

J. E. R. should consult the Educational Number of the BRITISH MEDICAL JOURNAL, published on September 2nd, 1893.

W. H. W.—A form of agreement between employer and assistant was published in the BRITISH MEDICAL JOURNAL of July 12th, 1890, p. 115.

THE phenomenon referred to by "Senex" is not described in any textbook of physiology. He will find a full account of it in *Mémoires de Madame Roland*, of which Fangére's is the best edition.

TREATMENT OF INEBRIETY IN IRELAND.

G. R. L.—1. We are not aware of the existence of any home for inebriates in Ireland.

2. Under the recent Lunacy Act, any person can become a voluntary boarder in any asylum the managers of which agree to receive him as such, without any specification of the cause of his disease.

ACCIDENT ASSURANCE POLICIES.

J. R. A.—The point raised in our correspondent's communication is a purely legal one, and turns entirely upon the wording of the policy. As we have before pointed out, it is most important that every intending insurer in an accident insurance company should carefully scan the terms of the document.

VACCINATION LITERATURE.

J. C.—Our correspondent will find the following works useful in preparing a speech on vaccination: *Vaccination and Small-Pox*, by Edward J. Edwardes, M.D., London, Churchill, price 1s.; and *Vaccination Vindicated*, by Dr. McVail, Cassells, price 5s. Being shorter, the first-named would probably be the more suitable for our correspondent's purpose. But neither of them is a mere leaflet.

MEDICAL AID ASSOCIATIONS.

STROPHANTHUS.—The advertisement referred to is one of those emanating from a kind of medical aid society, where the medical officer gives his whole time to the service of the society, and binds himself by a bond not to practise in that locality for a certain number of years after the vacating of his appointment. In appointments of this kind it is really the society, through its committee, which carries on a medical practice by its medical officer, that is to say, the independence of the latter is of a very limited character; and the medical profession generally undoubtedly regards those societies with suspicion, and has a tendency to look askance at those who accept the medical appointments. We believe their advertisements are generally declined by the medical press. Our correspondent must, therefore, consult his conscience whether under the circumstances he ought, or ought not, to accept such an office.

MEDICAL MEN AND LITERATURE.

MR. J. FOSTER PALMER (Chelsea College, S.W.) writes: Among numerous other medical *literati* might be mentioned Professor Volkmann, who, under the name of "Leander," has written a book of fairy tales; Farini, the author of *Stato Romano*; Donnegan, author of the Greek Lexicon; Arbuthnot, author of *Scriblerus*, etc.: Thomas Phayer, translator of Virgil; Erasmus Darwin, Robert Anderson, John Abercrombie, Sir William Wilde, John Cains, James Gregory, J. Mason Good, J. H. Green, Samuel Garth, Gabriel Naudé, Samuel Jebb, Zimmermann, John Lettsom, John Leyden, Thomas Young, Robert Sibbald, Rudbeck, Thomas Trotter, Andrew Thomson, David Ramsay, Renaudot, Akenside, John Armstrong, Thomas Browne, Berkenhart, Blackmore, T. Bowlder, van Berkhey, Cuvier, J. Currie, N. Cotton, W. Coward, J. Combe, Sir H. Halford, Sir A. Halliday, Sir J. Hill, D. Hartley, B. Hoadley, Sir J. Mandeville, J. Moore, J. Parsons, T. Percival, T. Pettigrew; also the Arabian schoolmen, Averroes and Avicenna; the Greek historian Ctesias. Sigma will hardly need to be reminded of such well-known names as O. W. Holmes, Albert Smith, Charles Reade, Oliver Goldsmith, Tobias Smollett, and Servetus. Livingstone and Mungo Park also wrote non-medical works.

THE TITLE OF "DR."

E. G. D. asks: Is an M.B. legally entitled to make use of the title of "Dr.?"

*** According to a recent decision of the High Court, it would seem that only those who hold the registrable degree of M.D. are, strictly speaking, entitled to make use of the title of "Dr."

H. G. A.—The opinion expressed in the BRITISH MEDICAL JOURNAL that, strictly speaking, only those who hold the registrable degree of M.D. are entitled to prefix the title "Dr." to their names is based on a somewhat recent decision of the High Court, on an appeal from a decision of the magistrates of Birmingham.

CHOLERA AND BUTTER.

J. J. W.—1. The researches of Hein of Bavaria have shown that the vibrio of cholera can live and even flourish in milk, and is not killed when the milk goes sour. Butter, owing to its consistency, is not easily infected, but, if infected, the vibrio may live in it for a month. The same observer found that the typhoid organism lived in milk for many weeks, and in butter for at longest a month. Further particulars will be found in an article published in the BRITISH MEDICAL JOURNAL on October 1st, 1892, page 762. 2. The incubation period of typhoid fever is usually twelve to fourteen days, but it is believed that it is occasionally as short as four or five.

NOTES, LETTERS, Etc.

THE MILK CAN.

MR. RICHARD JEFFREYS, M.R.C.S. (Bromley, Kent), writes: A few weeks ago my suspicions were aroused that our milkman was not supplying us with the best article, as often we had noticed it had a most unpleasant smell and disagreeable taste; moreover, on one occasion, a member of my family, in the absence of servants, received the can, and discovered, when it was emptied, that the bottom of it was thickly covered with decomposed cream, probably the accumulation of weeks, so offensive that it could not be tolerated in the house—in fact, to call it filthy would be using a mild term. If such an experience was isolated, I should not have considered it worthy of publicity, but unfortunately many others could tell the same tale.

If the small London milk can, which is an abomination, could be dispensed with, each purchaser providing himself with an earthenware jug or basin, which could be filled from the stock can as it is delivered in the North of England and Midland counties, there would be no further trouble of this kind. Also in the interests of the public, I would suggest that surprise visits be periodically paid to all dairies by responsible sanitary officers. This is most desirable, especially at the present time, when cholera has infected our shores.

ACID LEMONADES.

IT was pointed out last year that as acid fluids are extremely inimical to the vitality of the cholera vibrio, it might be useful, and certainly

could not be harmful, to make use of acid lemonades as a beverage. Citric acid lemonade was recommended and used pretty extensively; the following is a convenient prescription:

Citric Acid Lemonade.

Citric acid, ½ oz.: the juice and peel (cut small) of two lemons; boiled water, 1 gallon; sugar to taste, ¾ lb. To be made fresh every twenty-four hours.

Sulphuric Acid Lemonade.

Made as above, substituting acid sulphuric dil., 1 oz., for the citric acid.

Syrup of lemons or orange, 1 pint; boiled water, 4 gallons; dilute sulphuric acid, 2 ozs.

Nitric Acid Lemonade.

With 1 oz. dilute nitric acid instead of the citric acid.

We are indebted to Mr. J. Evans, assistant to Mr. Martindale, of New Cavendish Street, for these substitutes, which, if less palatable, have the advantages of keeping better, of being a little cheaper, and perhaps more effective.

RECTAL ENEMATA.

MBER writes: The bulbous vaginal nozzle of the ordinary syringe passes the sphincter ani more easily and is safer for the patient and the rectum is more tolerant of the diffused injection through the numerous apertures in this nozzle than of the direct stream through the rectal nozzle, and a large enema is better tolerated so as to pass into the colon if desired, and a nutritive enema is better retained.

BINIODIDE TREATMENT OF CHRONIC RINGWORM.

DR ALF. J. HARRISON (Clifton) writes: In the article on the Treatment of Chronic Ringworm of the Scalp, read by Dr. T. Colcott Fox, at the recent Newcastle meeting, and published in the BRITISH MEDICAL JOURNAL on August 26th, he rather goes out of his way to "sling a stone" at me when he speaks of my "biniodide treatment." He made the statement publicly, will he state how and what "disastrous results" he has seen from my treatment?

WASP STINGS.

DR C. R. ILLINGWORTH, (West Kensington, W.) writes: I was called in last year to see a case of wasp sting of the tongue. The patient had been eating jam, and a wasp was in the first mouthful. No time was lost between the receipt of the injury and my seeing him, perhaps ten minutes afterwards. I applied a 1 in 500 solution of the biniodide of mercury in sodium iodide with a camel's hair pencil freely to the tongue, and I then relieved the pain of the sting with a 4 per cent. solution of cocaine. I gave 5-minim doses of the perchloride of iron by the mouth every hour, and told the patient I would see him again in eight hours. On calling to see him I found that the tongue had never swelled and that he had remained quite free from pain. Whatever the nature of the poison may be it is certain from the symptoms produced that there is destruction of the fibrin elements passing progressively from the point of inception inwards and leading to effusion of defibrinated blood elements into the invaded tissues. The treatment, therefore, as I suggested in the BRITISH MEDICAL JOURNAL of April 7th, 1888, should be directed not only to the destruction of the poison locally, by antifermentative, alkaline, penetrating antiseptics, but to the strengthening of the blood by recognised fibrin-giving hæmatinics like the perchloride of iron internally.

CONDITION OF THE LONDON STREETS.

DR. A. M. T. RATTRAY (Portobello, Scotland) writes: I have just seen the note by Mr. G. T. Jones, complaining of the neglected condition of the London streets. During part of July, when in the great metropolis, one of the many things which pleased me was the cleanliness of the streets and thoroughfares, in spite of the tremendous traffic which passes over them both day and night.

Several of my friends also remarked upon the matter, and we all agreed that, taking the city as a whole, its streets, etc., are kept wonderfully clean and tidy, which must reflect great credit upon "the powers that be."

PAINFUL STINGS.

SURGEON-MAJOR JAMES D. DAY, A.M.S. (Dublin) writes: It may be interesting to some of your readers to know that the pain arising from the sting of a scorpion can be immediately alleviated by the application of a small quantity of kerosene oil, which can always be procured.

LITHOTRITY: A WARNING.

MR. T. L. PENNELL, F.R.C.S., Medical Missionary (Dera Ismael Khan, North India), writes: An unusual accident occurred to me during a lithotrity the other day. A moderately soft stone in a man of about 65 had been successfully crushed by a non-fenestrated Thompson's lithotrite, and I had screwed it home preparatory to withdrawal to within the last one-sixteenth of an inch, when there was a loud snap. After withdrawing it, not seeing the broken end, I at once did a lateral lithotomy, but only found broken pieces of the stone, then, and only then, finding the broken end of the female blade on the ground, where it had evidently fallen unobserved immediately after withdrawal. The broken piece had been held in position by the detritus between the blades until after removal; and the fact that I was operating in an out-of-the-way place, without trained assistants, accounts for its being unobserved. This may be a hint to others, as it was a warning to myself.

THE LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY, LIMITED.

DR. HUGH WOODS writes: At the Thames Police Court on Thursday, September 7th, Abraham David Blumberg, of 230A, Commercial Road, E., was brought up, on remand, charged by the London and Counties Medical Protection Society with obtaining money by false pretences from a Mrs. Donenberg. With a view to proving that Dr. Blumberg was not competent to practise medicine, evidence was given showing that Dr. Blumberg administered a poisonous and almost fatal dose of morphine to a Mrs. Goodman, the dose being taken out of a bottle of the alkaloid by guess on the point of the penknife. Dr. Blumberg was committed for trial on the above charge, and the summons under the Medical Act adjourned till after the trial.

ERRATA.—In the memoir of Dr. Charcot published in the BRITISH MEDICAL JOURNAL of August 26th, the name of John Weir was substituted at a moment of haste for that of Reginald Scot. John or Jehan Weir, whose book, *De Præstigiis Dæmonum*, Charcot edited, was not an Englishman but a Netherlander. Also in the same column for "vices d'esprit" read "vues d'esprit."

LETTERS, COMMUNICATIONS, ETC., have been received from:

(**A**) Dr. P. S. Abraham, London; Mr. T. R. Atkinson, Sherborne; Mr. D. Ainley, Halifax. (**B**) Dr. W. J. Branch, Basseterre; Messrs. Burroughs, Wellcome, and Co., London; Mr. S. C. Blanche, Bristol; Dr. Baliadhurji, Bombay; Dr. G. Brown, Colchester; J. W. Batterham, M.B., St. Leonards. (**C**) Constant Reader; F. W. Clark, M.B., North Shields; Dr. F. G. Clemow, Cronstadt; Mr. M. Christyfen, London. (**D**) Mr. W. F. Dearden, Manchester; Mr. E. G. Dutton, Plymouth; Dr. Dreschfeld, Manchester. (**E**) E. L. R.; Edinburgh Hospital for Women and Children, Secretary of the, Edinburgh; Enquire. (**F**) Mr. F. J. Freeland, Antigua; Mr. G. W. Farrow, London; Dr. E. Fenn, Dover; Far Away; Messrs. Fletcher, Russell, and Co., Warrington; T. Fentem, M.B., Bakewell. (**G**) Dr. F. W. Grant, Elgin; Mr. G. Griffith, London; A Graduate; Dr. H. R. Greene, Portsmouth; Dr. J. G. Garson, London. (**H**) Dr. Herman, London; J. M. Hurt, M.B., Exeter; Dr. J. J. Hanley, Ormskirk; Dr. F. Hollingshead, Selley Oak; Dr. W. H. Hamer, London; Mr. H. J. Holman, Eastbourne; G. E. Helme, M.B., West Bromwich; Dr. A. Haig, London; Mr. B. F. Hartzhorne, London; Mr. C. F. W. Hirsch, Fiji; H. D.; Mr. T. G. Horder, Cardiff. (**I**) Dr. C. R. Illingworth, London. (**J**) Mr. W. R. Jones, Bala; Justice; Mr. B. Jones, Leigh; Jaëger's Sanitary Woollen System Company, Limited, Manager, London; J. C. M.; Mr. H. Jones, Crewe; J. J. W. (**K**) Dr. N. Kerr, London; Kismet Hadji Hakim; J. R. Kaye, M.B., Huddersfield; Dr. R. Kirk, Glasgow. (**L**) Lex; Mr. G. R. Lawless, Sligo; Mr. H. Longford, Thirsk; Dr. H. H. Littlejohn, Sheffield; Mr. J. E. Lane, London; Mr. F. W. Lowndes, Liverpool; Mr. C. J. Lathbury, Dunstable; Mr. T. W. S. Locke, Redcar; Mr. H. K. Lewis, London. (**M**) Mr. T. A. Middleton, Walton-on-the-Naze; G. H. Mapleton, M.B., London; M.D.; Dr. A. B. R. Myers, London; Dr. C. W. M. Moullin, London; Dr. E. J. McWeeney, Dublin; Mr. L. McKinnon, Aberdeen; Dr. W. F. Murray, Forfar; Mr. J. Martin, Farnworth; Mr. N. J. Maas, London. (**N**) Mr. J. T. Neech, Tyldesley; Dr. J. Niven, Oldham; Dr. G. P. L. Nugent, Dublin; Dr. G. E. Nicholas, London; Nemo. (**P**) Puzzled; Mr. H. Pullen, London; Dr. C. B. Plowright, King's Lynn; Mr. J. F. Palmer, London; W. Peart-Thomas, M.B., Heckmondwike; Dr. T. L. Pennell, Punjab. (**Q**) Querist. (**R**) Mr. T. E. Rice, Cosham; Dr. W. E. Risdon, London; Dr. J. Russell, Glasgow; Mr. F. J. Rogers, Tunbridge; Mr. H. Redgate, Nottingham; Mr. R. P. Ryan, Norwich; Mr. J. B. Ronaldson, Haddington; Mr. T. E. Ratcliffe, Accrington; Messrs. Romeike and Curtice, London; Dr. A. Robinson, Rotherham; Mr. H. M. Rainsford, London; Mr. J. F. Rebman, London. (**S**) J. F. J. Sykes, M.B., London; Dr. W. J. R. Simpson, Calcutta; Dr. A. F. Street, Westgate-on-Sea; Mr. W. B. Sanderson, Aldeburgh; Dr. C. E. Shaw, Belfast; Mr. G. Smith, London; Senex; Mr. W. W. Shrubsall, Shantung; Subscriber; Messrs. A. de St. Dalmas and Co., Leicester; C. Stuart, M.B., Perth; Mr. W. Stow, London. (**T**) Dr. Tomlinson, London; Dr. M. Tuchmann, London; Mr. E. T. Turnbull, Hull; Dr. J. C. Thresh, Chelmsford. (**W**) Dr. G. E. Williamson, Newcastle; Mr. H. H. Woods, London; Dr. A. Welsford, Dover; Mr. C. F. Williamson, Horley; Mr. W. Wingrave, London; etc.

BOOKS, ETC., RECEIVED.

Brown's "South Africa." London: Sampson Low, Marston, and Co. 1893. 2s. 6d.

The Cholera Epidemic of 1892 in the Russian Empire. By Dr. F. Clemow. London: Longmans, Green, and Co. 1893. 5s.

Medicacion y Medicamentos Cardio-Motores. Por Dr. A Espina y Capo. Madrid: Administración de la Revista de Medicina y Cirugía Prácticas. 1893.

Anæsthetics and their Administration. By Dr. F. W. Hewitt. London: C. Griffin and Co. 1893. 10s. 6d.

St. Thomas's Hospital Reports. Vol. 21. Edited by Dr. T. D. Acland and Mr. B. Pitts. London: J. and A. Churchill. 1893. 8s. 6d.

Diseases and Injuries of the Teeth, including Pathology and Treatment. By Morton Smale. London: Longmans, Green, and Co. 1893. 15s.

The Clinical Use of Prisms and the Decentering of Lenses. By Dr. E. E. Maddox. Bristol: John Wright and Co. 1893. 4s. 6d.

Sciatic Neuritis: its Pathology and Treatment. By Robert Simpson. Bristol: John Wright and Co. 1893. 1s.

Annual of the Universal Medical Sciences. Vols. 1 to 6. Edited by Dr. C. E. Sajous, and seventy Associate Editors. London: F. J. Rebman. 1893.

*** In forwarding books the publishers are requested to state the selling prices.

SIXTY-FIRST ANNUAL MEETING
OF THE
BRITISH MEDICAL ASSOCIATION

Held in NEWCASTLE-ON-TYNE August 1st, 2nd, 3rd, and 4th, 1893.

SECTION OF PATHOLOGY.

Professor C. S. Roy, M.D., F.R.S., President, in the Chair.

ON THE VALUE OF EXPERIMENTAL TUBERCULOSIS IN DIAGNOSIS.

By SHERIDAN DELÉPINE, M.B.,
Professor of Pathology, Owens College, Manchester.

Preliminary Remarks.

The importance of the inoculation method in the study of tuberculosis is recognised by all investigators. Putting aside the imperfect attempts of Klencke, it may be said that since 1865, when Villemin published the results of his most careful and convincing investigations, most of the observers who have studied tuberculosis have used his method.

Subcutaneous inoculations were at first supposed to be open to serious objections, to which allusion has been made by Koch in his celebrated paper on the Etiology of Tuberculosis,[1] where he speaks of "unnoticed errors of manipulation," and of "mistaking spontaneous tuberculosis for an artificially induced form of the disease." To remove these objections some previous observers had introduced modifications of Villemin's method. Thus Cohnheim and Solomonsen, in 1877, had used inoculation into the anterior chamber of the rabbit's eye; and Hippolyte Martin, in 1879, had insisted upon the importance of inoculations in series.

Nevertheless Villemin's method apparently became obsolete on the day when Koch was able to demonstrate the bacillus of tuberculosis in tuberculous products. Some observers, however, mostly of the French school, have pointed out that the bacillus tuberculosis was often so very difficult to discover in certain tuberculous products that the inoculation method had still many applications, this being not only true of surgical tuberculous products but also of those that come under the notice of the physician.[2]

Anybody who has had an opportunity to look for the tubercle bacillus in specimens in which bacilli were very scanty, knows how long and discouraging such a search is at times, and when after tedious efforts one finds nothing, and the symptoms point distinctly to a tuberculous process, one is not tempted to attach undue importance to the negative results of the microscopical examination.

If it could be proved that the inoculation method is free from the objections to which I have alluded briefly, one would be ready to admit that this method does present great advantages in doubtful cases, one of the chief advantages being that negative results may, if proper precautions be taken, be considered to be practically as reliable as positive results.

Nature of this Investigation.

It is my object here to show that Villemin's method of subcutaneous inoculation is capable of giving most definite and reliable results within a much shorter space of time than is generally supposed to be necessary. In this I agree with Verneuil and Clado.[3]

The remarks which I will now offer are based upon experiments, made in the course of various investigations, on 90 guinea-pigs, rabbits, rats, and mice, during the last year. Of these experiments some need not be further alluded to since they were made with non-tuberculous products and served only as control experiments. The experiments on other animals than guinea-pigs may also for the present be left out, as I wish specially to show the value of the guinea-pig as a living reagent for tuberculosis. I may say, however, that I consider the rabbit an unsuitable animal for work of this kind.

I inoculated 28 guinea-pigs with tuberculous matter from various sources. The place of inoculation which I have selected after a few trials was the inner aspect of the leg at about the level of the knee. I may say at once that subcutaneous inoculation at this spot gives, in practically the same time, far more typical results than inoculation into the peritoneal cavity. Arloing has come to the same conclusion.[4]

I will confine my remarks to the results obtained with tuberculous sputa, or with very small quantities of pure cultivations of human tubercle bacilli, but I have experimented also with other tuberculous products. The sputa were from different sources, some very rich, others very poor in tubercle bacilli. The cultivations used were very virulent; the bacillus had been cultivated outside the body for more than a year, and for about six months it had been cultivated on glycerine agar-agar, on which it grew with considerable difficulty. I will not give here a lengthy description of the results obtained after guinea-pigs have been inoculated; this has been done by many observers. I will only point out the order in which the most important lymphatic ganglia, as well as the spleen, liver, and lungs, become affected. The guinea-pigs being killed at various intervals after inoculation were dissected so as to display in each case the following parts:—

The popliteal ganglia on both sides, the superficial and deep inguinal ganglia on both sides, the sublumbar ganglia, the retrohepatic ganglion, the mediastinal and bronchial ganglia, the deep cervical ganglia, the subscapular ganglia, the spleen, liver, and lungs.

In all the cases some of the lesions were examined microscopically and tubercle bacilli found in them. Pure cultivations of tubercle bacilli were also obtained from the spleen and sublumbar ganglion in two cases.

Results.

The results obtained with pure cultivations presented a remarkable uniformity; with sputa there were slight irregularities in the rate of extension, but the results obtained were quite as clear and definite as in the experiments made with pure cultivations. I will now sum up the results obtained in a few typical cases.

Twelve days after inoculation on the left side with about $\frac{1}{10}$ of a small colony of bacilli (under 1 mm. in diameter), the following parts were found affected:—Left popliteal ganglion quite distinctly; the left superficial inguinal ganglia distinctly; the left sublumbar ganglion distinctly; the retrohepatic ganglion was slightly affected; the spleen slightly affected.

Twenty Days after Inoculation with a Pure Cultivation.—The above organs were much more enlarged, and several ganglia were already undergoing cheesy degeneration. In addition, the following organs were also distinctly affected—liver, mediastinal and bronchial ganglia.

(*Twenty Days after Inoculation with Certain Specimens of Sputa.*—The following parts were already distinctly affected:—Left popliteal ganglion, left superficial and deep inguinal ganglia, left sublumbar ganglia, the retrohepatic ganglia, the mediastinal and bronchial ganglia, the spleen, the liver. The lungs were much congested, and possibly tuberculosis was beginning to extend to them.)

Twenty-six Days after Inoculation with Pure Cultivation.—All the above organs were still more affected, and in addition there were distinct changes in the following: The subscapular ganglia, the inferior deep cervical ganglia; the lungs showed signs of becoming involved.

Thirty Days after Inoculation with Pure Cultivation.—The lungs were certainly affected. The right superficial inguinal ganglia were beginning to be involved.

(*Forty-three Days after Inoculation with Sputum.*—All the above organs were affected with the exception of the right inguinal ganglia.)

Fifty-two Days after Inoculation with Sputum.—The right inguinal ganglia were enlarged.

Sixty-two Days after Inoculation with a Pure Cultivation.—The same organs were affected as at the earlier dates, but the cheesy degeneration of tubercles, the enlargement and necrosis of the liver and spleen were very much more marked.

Seventy-four Days after Inoculation with a Pure Cultivation.—There was a slight indication of swelling of the right sublumbar ganglion; the right popliteal was still normal in appearance.

These results agree in the main with those given by Arloing, but there are, however, some differences.

According to Arloing the mode and rate of extension are as follows: *Fifteenth Day.*—Superficial and deep inguinal ganglia on the side of inoculation. *Twentieth Day.*—Sublumbar ganglia. *Twenty-second to Twenty-fifth Day.*—Spleen, retrohepatic ganglia. After this the bronchial ganglia and the lungs would become affected. *Sixtieth Day.*—The tuberculosis would be general.

It will be evident from this that I have found evidence of affection of the lymphatics on the same side of the body, and also of the liver, spleen, and lungs at much earlier dates than

[1] New Sydenham Society. Microparasites in Disease. *Selected Essays*, p. 69. 1884.

[2] See Arloing, Congrès pour l'Etude de la Tuberculose, 1888, p. 404. Leloir, *ibid.*, p. 412. Verneuil and Clado, *ibid.*, p. 415.

[3] *Loc. cit.*

[4] *Leçons sur la Tuberculose*, 1892, p. 112.

Arloing had, in fact more than a week earlier. On the other hand, I would not feel inclined to say that tuberculosis had, in my case, become general on the 60th day, nor even on the 74th or 97th or 106th day, since at those dates I have only found a few lymphatics of the lower part of the body on the ide opposite to that inoculated showing any signs of tuberulosis.[5]

As I do not wish here to deal with any other point than he diagnostic value of inoculation, I will not discuss the acts which I have just brought forward, but I will summarise them as follows:

Products containing even a small number of tubercle bacilli will, when inoculated under the skin of the inner aspect of the leg of a guinea-pig, at the level of the knee, cause tuberculosis of a certain number of organs in the following order:



Diagram of a guinea-pig four or five weeks after subcutaneous inoculation of tuberculous matter on the inner aspect of the left leg. The black outline indicates approximately the normal size; the lighter outline the size of the organs when the tuberculous processes have become established. 1. Popliteal ganglion. 2. Superficial inguinal ganglion. 3. Deep inguinal ganglion. 4. Sublumbar ganglion. 5. Spleen. 6. Retrohepatic ganglion. 7. Mediastinal and peribronchial ganglion. 8. Subscapular ganglia. 9. Inferior deep cervical ganglia. D. Diaphragm.

During the Second Week.—The lymphatic ganglia on the same side of the body below the diaphragm and the spleen.

During the Third Week.—The liver, mediastinal, and bronchial ganglia.

During the Fourth Week.—The lungs, cervical and axillary ganglia.

[5] It must be remembered that these differences may be due to external circumstances or to the breed of animals used. I do not wish, however, to do more than indicate this slight discrepancy in the results obtained by Arloing in Lyons and myself in Manchester.

After the Fourth Week.—Some of the lymphatic ganglia of the opposite side of the body below the diaphragm become gradually affected, but this takes place extremely slowly, and the sublumbar and popliteal glands escape for a considerable time.

It remains only for me to add that in two cases I have found sputa, which contained the tubercle bacilli in so small a number and of such characters that their presence was doubtful, give rise to a very rapid and extensive tuberculosis. In one of these cases I was able to obtain from the spleen a pure cultivation of typical tubercle bacilli three weeks after inoculation. In other cases I have found the inoculation of sputa, which teemed with bacilli, giving the most typical staining reaction, to be followed by a comparatively mild form of tuberculosis. This seems to indicate that in some cases the bacillus is either more virulent than in other cases, or that it is in certain stages of development which are not revealed by the ordinary methods of staining. In both cases it is evident that Villemin's method gives results of extreme importance. I need not point out the necessity of inoculating more than one guinea-pig in each case, though accidental mortality among guinea-pigs that are properly inoculated and well kept afterwards is extremely small during the first four weeks after inoculation.

Conclusions.

1. The inoculation method is a method of diagnosis capable of giving results free from any ambiguity.
2. The negative results obtained by it are nearly as valuable as the positive results.
3. The positive results give more definite information than the discovery of the bacillus tuberculosis.
4. Results should easily be obtained within two or three weeks.[6]

Dr. Woodhead was much struck by the very definite results obtained by Professor Delépine. He had been engaged on a similar research, and he wished that he had had these experiments before him at an earlier date. This question of inoculation for purposes of diagnosis had, he was afraid, been too much ignored in this country, but the very definite results recently obtained could not but draw attention to it anew. In all doubtful cases there could be no doubt this was a weapon which, in skilful hands, should yield admirable and most valuable results.

DIABETIC COMA: ITS ETIOLOGY AND SUGGESTIONS AS TO TREATMENT.

By Vaughan Harley, M.D., M.R.C.P.,
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The nature of the fatal coma[1] which so frequently terminates the career of diabetic cases has failed up to the present time to receive a satisfactory explanation. As a natural consequence, the methods of treatment are entirely empirical and for the most part unsuccessful. At present I intend merely to describe a condition of coma exactly resembling the diabetic coma of man, induced by the introduction of grape sugar into the circulation of dogs, and endeavour to explain its cause.

This artificial form of coma may, I think, be considered as a truthful representative of an uncomplicated diabetic coma, seeing that it is produced by an excess of sugar alone.

I found, while working on the destruction of grape sugar in the animal body at Leipzig with Professor C. Ludwig, that if the ureters were ligatured so as to prevent any of the sugar or its products being eliminated by the kidneys, certain nervous phenomena were produced, when 8 to 12 grammes of sugar per kilo weight of dog were injected into the jugular vein in the space of about one hour. For the first ten or

[6] All this applies, of course, only to the ordinary forms of tuberculosis and not to certain modified forms, such as lupus, or still less to avian tuberculosis. With these forms of tuberculosis certain precautions have to be taken to obtain definite results. Bacilli which have been submitted to the action of various disinfecting agents may also act very much more slowly. I mention these exceptions, which are evident to those acquainted with the subject, in order not to mislead others by the very positive conclusions which I advance here.

[1] The coma arising in diabetes from complications, such as cerebral hæmorrhage, etc., will not be discussed in this paper.

twelve minutes after the injection the dogs appeared perfectly well, though most of them attempted to vomit within that time; but their stomachs being empty from not having received any food during the previous twenty-four hours, they only brought up a little frothy mucus. After the lapse of these ten or twelve minutes a trembling of the skin was noticed, which, though it passed off on the animals lying down was immediately renewed in an increased form on their again standing up. This trembling of the skin was due to rapid contractions of the skin muscles. In milder cases the tremulous movement of the skin was followed by a mental drowsiness; during this condition the dog would remain in the same position for hours, though it could be roused by loud calling or shaking. After five or six hours these symptoms usually entirely passed off. In most cases the muscular movements were not limited to the skin, but passed on to the joint muscles, and gave rise to spasmodic contractions of the limbs, so that the dog was no longer able to stand.

The respirations were always noticed to be increased in frequency. During this nerve irritation stage, so long as the dog was conscious he would turn his head in the direction of one calling to him. Each spasm seizure usually lasted for some five minutes or so, and was followed by a longer or shorter period of repose.

In the cases in which the dogs were still more affected the muscular movements amounted to actual epileptiform convulsions, which in like manner alternated with periods of repose. During the convulsive seizures there were observed not only clonic followed by tonic spasms but likewise well marked opisthotonos. Frothy mucus would collect at the mouth. The eyelids at first opened and closed rapidly, then would become fixed, with the eyes staring wide open. The pupils became contracted, but still reacted to light. The respirations increased to 50 or 80 per minute, the pulse was unable to be counted. The animals appeared to be perfectly unconscious. This convulsive stage, which after having lasted from eight to ten minutes, was followed by a period of rest, which was again followed in from five to twenty minutes by a fresh fit. If the convulsions were very severe, which was especially the case in small and nervous dogs, the respirations would sometimes suddenly stop and the animal die. It was found that the heart continued to beat for some minutes after the respiratory movement had ceased. As a general rule the alternating convulsive and repose stage lasted from one to three hours, gradually diminishing in severity, each interval being longer, and finally the animal slowly passing into a comatose state. The comatose state, which may arise without any previous convulsive stage, begins as a rule some three or four hours after the sugar is injected, and lasts from two to six hours. When the ureters were let free during the comatose stage, in all but one case it passed off in the course of a few hours. If the ureters were not loosed, the animals as a rule died in the coma. Some few cases, however, recovered after marked coma had shown itself, even when the ureters had not been previously loosed. As it might be thought the nerve symptoms had something to do with the ligature of the ureters, it is well for me to state that from frequent experiments I found that their being ligatured caused no appreciable symptoms for at least fifteen hours. Moreover, that the nerve disturbances are not due to the presence of the sugar in an increased quantity in the blood, while in the form of sugar, is shown by the following table, which gives the quantity of sugar in the blood at various times after its injection.

The Quantity of Sugar present in the Blood at Various Times after the Injection of 10 grammes per kilo. Body Weight of Sugar, its Elimination by the Kidneys being Prevented.

Number of Experiment.	Time after Completion of Sugar Injection.	Sugar in 100 parts of Blood.
XI	Immediately	0.676
X	1 hour	0.438
V	1 hour 45 minutes	0.290
X	3 hours	0.126
XV	4 ,,	0.072
XVI	5 ,,	0.073

It is seen that immediately after the injection of the sugar while the quantity in the blood is the highest, no nerve symptoms show themselves (for at least ten minutes); they then go on increasing in severity while the sugar in the blood is decreasing for the first two to three hours, while during the fourth and fifth hour, when the quantity of sugar in the blood has fallen to normal, the coma sets in. One is, therefore, forced to conclude that the nervous disturbances are due to some substance or substances formed from the sugar after its injection. The following are the results in brief of a series of experiments made with the view of determining what these substances were:—

By quantitative analysis of the lactic acid in the blood I found (1) that its quantity was increased by the injection of sugar, and (2) that it did not tend to fall to the normal quantity as soon as the sugar did. I will give only one case as a specimen for the sake of shortening the paper.

The Quantity of Lactic Acid in the Blood after the Injection o 10 grammes per kilo. Body Weight of Sugar, its Elimination by the Kidneys being Prevented.

Number of Experiment.	Time after Completion of Sugar Injection.	Lactic Acid in 100 parts of Blood.
XI	Before injection	0.097
	Immediately after	0.134
	4 hours after	0.116
	6 ,, ,,	0.110

We here see the lactic acid is greatly increased by the sugar injection, and that it is still markedly increased even so late as the sixth hour, while I found that the sugar by the fourth hour had, as a rule, reached the normal amount. The importance of this in explaining the nervous symptoms I will consider after giving the results of some other experiments. Further, having found both aceton and aceto-acetic acid in the urine, collected after the ureters had been loosed, from five to six hours after the sugar injection, it was decided to examine the blood for these substances. From the normal blood of the dogs before the injection of the sugar no aceton, aceto-acetic acid, nor alcohol could be obtained, while from the blood of the same animals after its injection these three substances were always found.

In a series of experiments which I carried out in Turin on the respiratory gaseous changes produced by the intravenous injection of sugar,[2] I found that sugar caused an increase in the respiratory quotient of dogs during the first to fifth hour, and that after this the respiratory quotient returned to the normal about the seventh hour. The quantity of carbonic

Sugar Injected; its Elimination by the Kidneys being Interrupted. No Nerve Derangements.

Weight in Kilos.	Respiration Period.	Condition of Animal.	Quantity Injected. Gms. of Sugar. Total.	Per Kilo.	NaCl Solution.	Duration of Respiration Period in Minutes.	Total Quantity of CO_2 Eliminated.	Total Quantity of O_2 Absorbed.	Amount per Minute. CO_2 Eliminated.	Amount per Minute. O_2 Absorbed.	Resp. Quotient $\frac{CO_2}{O_2}$
					c.c.						
5.520	a	Before sugar injection	40	7.25	80	30.0	1717.05	2588.87	57.235	86.296	0.66
	b	During first hour after				33.0	2050.84	2762.96	62.141	83.726	0.74
	c	During third hour after				40.5	2127.00	2781.38	52.519	68.675	0.77
	d	During fifth hour after				45.0	2116.20	2724.64	46.928	60.547	0.78
	e	During 7th hour after				36.5	1859.50	2681.41	50.945	73.463	0.69

[2] On Gaseous and Temperature Changes are given in full in the *Journal of Physiology*, 1893.

acid eliminated per minute was increased during the first hour, after which it remained about normal; the oxygen absorbed was at the same time slightly decreased.

There having been produced no nervous phenomena in the above case, it may be taken as a representation of the respiratory changes produced by an increase of sugar in the blood. On the other hand, in cases when the dogs had coma, the gaseous changes were markedly modified.

Sugar Injected; its Elimination by the Kidneys being Interrupted, Profound Coma Supervening.

Weight in Kilos.	Respiration Period.	Condition of Animal.	Quantity Injected. Gms. of Sugar. Total.	Per Kilo.	NaCl Solution.	Duration of Respiration Period in Minutes.	Total Quantity of CO_2 Eliminated.	Total Quantity of O_2 Absorbed.	Amount per Minute. CO_2 Eliminated.	Amount per Minute. O_2 Absorbed.	$\frac{CO_2}{O_2}$ Resp. Quotient
12.500	a	Before sugar injection	122	10.0	c.c. 200	23.5	1535.0	2364.52	65.319	100.53	0.65
	b	During first hour after				24.5	2095.9	2590.65	85.549	105.74	0.81
	c	During third hour after				25.0	2395.3	2595.22	95.810	103.81	0.92
	d	During sixth hour after				53.5	2619.5	2652.58	49.008	49.581	0.99
	e	During tenth hour after				100.0	2905.2	2706.50	29.052	27.065	1.07

In the above table we see that during the stage of nervous irritability which occurred within the first three hours, the carbonic acid eliminated and the oxygen absorbed was increased, the respiratory quotient being raised during the first hour from the normal 0.65 to 0.81, and during the third hour to 0.92, whereas, when profound coma set in during the sixth hour, instead of the respiratory quotient tending to fall, as it did in the cases in which there was no coma, it continued to rise still higher till it reached 0.99. At the same time, the carbonic acid eliminated per minute was decreased to 49.008 and the oxygen absorbed fallen to 49.581. During the tenth hour (the coma continuing) the carbonic acid eliminated fell to 29.052, that is to say, less than half its original, while the amount of oxygen absorbed per minute was only 27.065, that is, a little more than a quarter of its original amount, the respiratory quotient being thus increased to 1.07.

That these marked changes in the external respiration[3] point to great alterations in metabolism is further shown by the temperature changes, for when no nervous symptoms arise, the intravenous injection of sugar causes an increase in the animal heat of about 1.5° C. = 2.7° F. If coma supervenes, however, the temperature falls. In one case it was observed to fall as much as 10.4° C. = 18.7° F. in the space of twelve and a-half hours.

Now Dr. Walter found that by giving hydrochloric acid to rabbits he was able to produce certain nerve changes in many respects resembling those above described. In his rabbits he found that the carbonic acid in the blood fell to even 2.54 volumes p. c., which roughly represents the quantity that can be simply absorbed. Normally in the blood of rabbits there is as much as 25 vol. p. c. of carbonic acid; this is supposed to be combined with the sodium carbonate and bicarbonate of the blood. He thinks that the hydrochloric acid combines with the sodium salts, and thus renders them unable to act as carbonic acid carriers. Consequently the carbonic acid accumulates in the tissues and acts as a narcotic to the nervous system.

This view is further supported by the fact of his finding that the subcutaneous injection of sodium carbonate not only prevents the symptoms occurring in rabbits, but even stops them when they have set in.

In carnivora the hydrochloric acid combines with the ammonia compounds of the prior stage to the formation of urea, and is excreted with the urine. This leads to an increase in the ammonia compounds and a diminution in the urea in the urine. The hydrochloric acid does, however, cause a slight reduction in the quantity of carbonic acid in the blood, for Walter found in one case, that of a dog, only 18.04 vol., p. c.

Hallevorden, Stabelmann, and Minkowski found that in man during diabetic coma the ammonia was increased in the urine.

My experiments lend support to this acid poisoning view, for first, acids were found in the blood, and secondly, the carbonic acid eliminated was decreased. There is, however, another factor that Walter's analysis of the blood gases did not bring out, namely, that there was a diminution in the quantity of the oxygen absorbed. If, therefore, the increase in the carbonic acid in the tissues was the cause of the narcotic symptoms, the carbon must have been oxidised by the so-called reserve oxygen of the tissues.[4]

This raises the questions: Does the diminished alkalinity of the blood reduce the power of the hæmoglobin to carry oxygen? Or, does the presence of alcohol, aceton, etc., and diminished alkalinity, hinder the oxidation processes in the body? My experiments strongly support the latter view, while Walter's experiments also do the same. On the other hand my experiments give neither position nor negative support to the former view, while Walter's seem to contradict it. Another view as to the cause of diabetic coma—that the ammonia was increased in the blood—was advanced because it was found that the urine of the patients contained an excess of ammonia.

In a series of experiments I performed in Leipzig I was unable to find any increase in the quantity of the ammonia present in the blood after the intravenous injection of sugar.

Blood Distilled at 102° C. after the Addition of Magnesia, Ureters having been Ligatured.

Weight of Dog.	Ammonia obtained from 100 Parts of Blood: Immediately after Ureters Ligatured.	Five Hours Later.
42 kilos	0.025	0.024
Sugar Intravenously Injected after Ureters Ligatured.		
29.5 kilos	0.025	0.034
27.5 kilos	0.018	0.017

This view, therefore, can be left out of the question, as it seems to me to be without any experimental support. The experimental coma produced in dogs by the artificial introduction of sugar into the circulation may be summed up as being: 1. A stage of nervous irritation, which may be so severe as to assume the form of an epileptic convulsion, or so mild as to appear in the form of mere trembling of the skin. 2. A comatose stage which may merely amount to a few hours' drowsiness or extend to a deep coma from which the animal cannot be roused, and ending in death.

The cause of the preliminary nerve irritability stage is probably due to the formation of some as yet undetermined substance or substances acting as an irritant to the nerve centres, the comatose stage being in its turn due to the effects of various toxic substances combining to produce it. The alcohol and the aceton derived from the splitting up of the sugar molecule may be partly the cause of the diminished oxidation. The coma seems, however, to be principally due to a diminution in the alkalinity of the blood produced by the acid products derived from the breaking up of the sugar molecule, the acids combining with the sodium carbonate and bicarbonate as well as with the ammonia in the blood, and thus hindering the blood carrying the carbonic acid to the lungs for elimination; while there is at the same time a diminution in the oxygen absorbed, and thus the oxidation in the organism is hindered from being properly carried on by a process of tissue asphyxia.

The artificial coma produced in the foregoing experiments,

[3] The absorption of oxygen and the elimination of carbonic acid by the lungs is termed external respiration, as distinguished from internal respiration, which is applied to the consumption of oxygen and the formation of carbonic acid in the tissues.

[4] Reserve oxygen has not yet been proved to be present in the tissues.

while it is seen to be exactly analogous to that occurring in diabetic patients, does not appear to depend upon an increase in the quantity of the sugar in the organism, but upon the increase that has taken place in its derivatives. In all probability the same products are being continually formed in the healthy body, but only in such small quantities and so gradually that they are either sufficiently rapidly eliminated or there is sufficient time for them to be further transformed, in the process of metabolism, into harmless substances, and consequently are never present in the blood in an amount capable of producing coma.

In the cases of diabetes due to diminished assimilation of the sugar in the organism, such as pancreatic diabetes, coma occurs when the sugar has disappeared from the urine. The presence of the sugar in the urine arose from the organism being unable to assimilate all the sugar normally formed, the disappearance of the sugar from the urine being either due to its being no longer formed in normal quantity or to the organism having recovered the power of breaking its molecule down. From some cause as yet undiscovered the normal power of breaking down the sugar molecule in the ordinary processes of metabolism has been regained, and since the quantity of sugar present both in the tissues and blood had been previously increased, an excess of its products is produced, and hence the coma. This point is of great importance in practice, as it indicates that one ought always to be on the outlook for coma whenever a diabetic patient's urine ceases to contain sugar, if its disappearance cannot be accounted for either by dietetic or other treatment. By analysing the urine and finding aceton, or aceto-acetic acid, as well as making quantitative estimation of the ammonia and lactic acid present in it, one may be able not only to predict the onset of coma, but prevent it. The urine should be further examined for β-oxybutyric acid, for although in my experimental coma I never found it either in the urine or the blood, it has been so frequently found present in patients' urine that its presence is of significance and ought to be looked for.

The preliminary stage of nerve irritation is frequently manifested as a premonitory sign in man, by well-marked delirium, vomiting, or twitchings of the hands; in some cases even convulsions have been referred to.

As regards the treatment of diabetic coma, no remedy having been as yet discovered for the terminal comatose stage of diabetes—though there have been no lack of proposals—I need not take up time by reviewing them, except to say that the most praised have been the citrated alkalies given in drachm doses.

Conclusions as to Treatment.

The rational treatment founded on the results obtained from the above-mentioned experiments is to administer alkalies. If the symptoms are urgent and time is of moment, sodium carbonate might be administered subcutaneously or intravenously, as recommended by Stabelmann, the pulse being carefully watched in case of heart failure. At the same time, since my experiments have shown so great a diminution in the oxygen absorbed, it is advisable to encourage oxidation. The inhalation of pure oxygen may help, as well as trying to improve oxidation by massage. Diuretics, together with large quantities of fluids, will be of value in increasing the rapidity of the elimination of the toxic products derived from the sugar. These are the means I venture to suggest to ward off attacks of diabetic coma, or even to diminish the severity of a coma already set in.

THE PATHOLOGY OF FIBROID DEGENERATION OF THE HEART.

Dr. John Lindsay Steven (Glasgow) read a paper on fibroid degeneration of the heart. In the first place he referred to the importance of affections of the myocardium from the clinical standpoint, and the value of Sir R. Quain's work on the subject of fatty heart was commented upon. It was to be hoped that we would soon have a clinical as well as an anatomical classification of the mural affections of the heart. The importance of the discussion at the International Congress of Berlin in this respect was pointed out, and as a distinct step in this direction Renaut's paper on segmentary myocarditis was discussed. Although it was clear that the affection described by Renaut was different from what was usually understood by fibroid heart, still they had this in common, that both were affections pure and simple of the muscular wall of the heart. The author's previous work on this subject[1] was then briefly epitomised, and it was stated that, as regards morbid anatomy and histology, he had little to add to his previous statements. He then gave a detailed account of twenty-one cases of fibroid degeneration of the heart, and proceeded to ascertain how far, upon the basis of these cases, general statements as to the pathology of the condition could be made. The cases had occurred in the course of 810 *post-mortem* examinations, and a study of the figures showed that in general *post-mortem* examinations the frequency of the condition was 2.6 per cent., in cardiac *post mortems*, 7.63 per cent. As regards age only three of the cases were under 50. The cases proved that there was a distinct etiological relationship between fibroid degeneration and disease of the coronary arteries, 18 out of the 21 cases having distinctly diseased arteries. The relationship of the disease to myomalacia cordis, to hypertrophic fatty metamorphosis, and valvular disease of the heart was then discussed in detail, and, as regards valvular disease, it was shown that it was a rare thing for typical fibroid degeneration to be associated with marked valvular lesions. The relationship of the degeneration to disease of the thoracic aorta, the kidneys, and the brain was next considered, and it was shown that, in a number of cases, the cardiac lesion was associated with a similar affection of the brain. This point was insisted upon as a proof of the true nature of the lesion, and it seemed to demonstrate that it was essentially a degenerative process due to deprivation of blood supply. The paper closed with a very brief reference to the clinical rspects of the case.

Dr. Auld would like to ask Dr. Steven how far he regarded fibroid lesions of the heart as inflammatory. Dr. Auld thought he recollected that Dr. Steven, in his former paper, had distinguished between a fibroid condition due to atrophy or degeneration and that due to inflammatory causes. Dr. Auld believed many of these cases to begin by obliteration of the capillaries and thickening of the small arteries. In observations which he had made on the pia mater he had found these changes, and also an inflammatory activity of the connective tissue corpuscles leading to new formation of tissue. Many of the cases of fibroid heart might arise and proceed in this fashion, but there might be others which were entirely degenerative; as Dr. Steven had pointed out some cases of advanced fibroid change might appear to be degenerative, but might in reality have originated as an inflammatory lesion.

Dr. J. Lindsay Steven, in reply, said that he believed the histological change to be an atrophy or wasting of the true muscle substance, the result of acute or chronic obstruction of the coronary arteries. In this change he believed that inflammatory reaction played no part. He had not seen anything to make him believe that the condition had its origin in a lesion of the nerves. He recognised that there was a variety of fibroid change in the heart which was really the result of inflammation, but these were usually associated with endocarditis or pericarditis, and the inflammation was an extension from this. He believed that such cases were in a different category from that of the cases he had been considering, which were truly degenerations.

ANEURYSM AND ATHEROMA.

Dr. Auld read a paper by Dr. Coats and himself on the Pathology of Aneurysm, with Special Reference to Atheroma as a Cause. This paper was published in the British Medical Journal of August 26th, p. 456.

Dr. Sims Woodhead asked whether Dr. Auld had many cases in which there was merely absence of the muscular coat. He should be inclined to doubt whether any tissue could take the place of the muscular tissue of the middle coat. There appeared to be so much alteration in these cases that he was inclined to doubt whether it was not the removal of the muscular tissue alone that led to the formation of the aneurysm, that is, whether new tissue were formed or not. An

[1] *Lancet*, December, 1887.

alteration in the wall of any kind, acute or chronic, might lead to aneurysm, but the discussion was only concerned with the one form. He should like to ask what was meant by atheroma, as very few pathologists seemed to be able to agree on that point. On the meaning that was attached to the term depended the interpretation that was to be put upon the descriptions given.

Dr. Lindsay Steven had no doubt that in all well-developed aneurysms the only tissue forming the wall of the aneurysm was that of the external coat. On the other hand, he doubted if in many aneurysms there was any absolutely necessary relationship between atheroma and aneurysmal development of the sacculated kind. He could recall many cases of extreme atheroma and calcareous infiltration of the aorta with no aneurysm, and he could also remember many cases of typical sacculated aneurysm without very obvious atheroma.

Professor Boyce said that the question of the majority of the aneurysms discussed by the authors was one essentially of the production of "atheroma," and he therefore asked what were their views as to the production of this condition. Dr. Boyce further drew attention to the process of repair of atheromatous changes, and pointed out that this process would probably be found in those cases of advanced myxœdema with marked atheroma of the vessels, when marked recovery of the vascular system took place after thyroid treatment.

Dr. Auld, in reply, said that as regards the compensatory process alluded to, several facts sustained the idea of such a process. There was the circumstance of the new formed tissue found in the ruptures; if not compensatory, what could it be? Then there was the fact of the frequent new formation of muscular tissue in the intima; and lastly, many cases of almost wholesale destruction of the middle coat of the aorta were found without aneurysm, but in them the aorta was greatly thickened by an excessive growth of new tissue.

Dr. Woodhead asked at what age this had been observed.

Dr. Auld: In elderly persons. Dr. Woodhead had asked what was to be understood by "atheroma." He could only say that atheroma was a non-vascular tissue which induced aneurysm mechanically by the projection of the atheromatous patch against the media, and likewise intrinsically by involving the superficial layers of the media in a degenerative process. In reply to Dr. Mott, Dr. Auld said that the vasa vasorum were generally in a state of sclerosis; these, however, were not to be confounded with the new inflammatory vessels. In reply to Dr. Boyce, Dr. Auld said there was no doubt as to the ruptures; they were not merely the results of atrophy. It was not usual to find fibroblasts and new blood vessels in abundance in merely atrophic tissue. The new formed tissue in the ruptures was usually healthy, well-developed tissue, and not of a hyaline or degenerative character.

PRELIMINARY REPORT ON THE CAUSES OF CHLOROSIS.[1]

By E. Lloyd Jones, M.D.Camb.

I mean by "chlorosis" a disease which occurs only in young women, and which is constantly attended by a diminution in the amount of hæmoglobin in the blood, this diminution in the amount of hæmoglobin being often very excessive. Besides the blood changes, of which the reduction in the amount of hæmoglobin is the most notable, the disease presents certain broad clinical features. Among these we have alterations of the colour, either pallor or green pallor of skin generally, the lips and ears being pale. To these features we must add a marked tendency to œdema and disturbances of the gastro-intestinal tract, sometimes leading to hæmatemesis or gastric ulcer and certain derangements of the vascular system, notably dilatation of the heart. We do not meet with this combination of disorders in boys. Further, chlorosis is often attended with disorders of the menstrual function.

The following is a summary of the conclusions which I have so far arrived at. It has been my endeavour, by the study of a number of cases of chlorosis, to determine what are the most constant blood changes, and to determine, if possible, wherein the fault or faults lie which are at the root of the disorder.

The Methods of Research.

1. During the last seven years I have taken the specific gravity of the blood of about 1,300 healthy persons by a modification of Roy's method; and the results of these experiments have partly appeared in the *Journal of Physiology*.[2]

2. During this year I have also taken the specific gravity of the blood serum in some hundred healthy persons. The method adopted I saw in use by Dr. Haviland, of St. Bartholomew's Hospital, in 1886; it consists in centrifugalising a drop or two of blood sealed up in a capillary pipette. In my own experiments I take up the serum after centrifugalisation in a capillary pipette of the kind employed in taking the specific gravity of the blood as a whole. Its specific gravity is then measured by the method described in my previous paper.

3. Experiments upon animals were undertaken with the object of determining the effect upon the blood of a section of the splanchnic nerves, and the effect of the subsequent injection of saline solution.

4. I have made observations upon chlorotic persons and have examined their blood before and after treatment, in order to ascertain the changes taking place in the specific gravity of the blood, and in the blood serum as health was re-established.

The Changes undergone by the Specific Gravity of the Blood at Puberty, and their Relation to Chlorosis.

Until the age of about 15, the specific gravity of blood is about the same in both sexes; after that, however, the specific gravity in the female falls, while it rises in the male. In the healthy female there is, between the ages of 16 and 22, a marked fall of the lower limit of variation at the time when the mean also becomes lower.[3] This is precisely the age at which girls become anæmic, and the question arises whether I have included among my supposed healthy people a number of girls who were in reality anæmic, or whether there is a natural tendency to some fall in blood specific gravity between these ages.

Typical cases of chlorosis all occur between the ages of 14 and 26. Taking the cases in which the specific gravity was below 1045, these occurred at the following ages: at 14, 2; 15, 2; 16, 9; 17, 4; 18, 12; 19, 7; 20, 7; 21, 7; 22, 3; 24, 1; 25, 0; 26, 1; 27, 0; 28, 0; 29, 2; the mean being 18½ years. The lowest specific gravity observed was 1032 in a girl aged 24, but the blood had a specific gravity below 1037 in 16 out of 87 cases. These specific gravities are among the lowest which I have met with in any disease. There is no other common condition in which the specific gravity of the blood undergoes such profound alteration, and this is almost entirely due to a reduction in the amount of hæmoglobin.

Because chlorosis occurs at the time when the specific gravity of the blood in the healthy female has a natural tendency to fall, I concluded some years ago that chlorosis is simply an exaggeration of a physiological effect. At the present time I am more than ever convinced that chlorosis is an exaggeration of a change which normally takes place in the blood of the female at puberty, a change which, like the chlorotic condition, does not affect the blood of the male.

The Changes in the Specific Gravity of the Serum in Females at Puberty, and their Relation to Chlorosis.

I have taken the specific gravity of the blood serum in nearly 100 healthy persons. There is little necessity for taking so large a number as in the case of the whole blood, for while the variations of the specific gravity of the whole blood extends over nearly 30°, the variations in the serum are comprised within 6°. So far I have not made sufficient observations to construct a curve, but I have taken the mean in each sex before and after the age of 15, and the results are

[1] Towards the expenses of this research a grant was made by the Scientific Grants Committee of the British Medical Association

[2] *Journ. Phys.*, vol. viii, and vol. xii, 1891.

[3] See my paper in the *Journal of Physiology*, vol. ii, 1888, p. 1345.

given below, showing that while the specific gravity of the whole blood in the female becomes less after puberty, the specific gravity of the serum is actually increased.

Before 15.		After 15.	
Males	1027.0	Males	1027.4
Females	1027.1	Females	1028.1

The highest specific gravity I have recorded in a healthy person is 1030, and it occurred in a female; the lowest I have recorded was 1025, and it occurred in a male. The fact of a tendency to an increase of the specific gravity of the serum in the female after puberty, and the fact that the specific gravity in the female is higher than in the male, appear to me to be of the very greatest significance.

The first case of chlorosis in which I had an opportunity of taking the specific gravity of the serum was a well-marked one, the specific gravity of the whole blood being 1035. I was astonished to find that the serum in this first case had a higher specific gravity—1028—than any I had at that time observed in any male.

In eight other cases of very well marked chlorosis I never recorded a specific gravity below 1025. The numbers were:

Sp. gr. of Serum.	Sp. gr. of Blood.
1029	1049
1028	1042
1027.5	1049
1027.5	1048
1027	1043
1027	1035
1026.5	1044
1025.9	1041

the mean of these being 1027.3, which is not lower—possibly higher—than the mean in males of the same age.

We may conclude that the blood plasma in the female at puberty tends to become heavier than in the years preceding puberty. No such change takes place in the male. Chlorosis is liable to occur at the time of this change. The specific gravity of the plasma is not necessarily altered in chlorosis, and the blood in chlorosis is not necessarily hydræmic.

The Evidences of Disturbance of Splanchnic Innervation in Chlorosis.

The great frequency of hæmatemesis, with or without signs of gastric ulceration, in chlorotic girls, and the occurrence of other forms of gastric and intestinal trouble, have seemed to me for some years to point to some very close connection between the two series of events, and I have suggested in former publications that chlorosis was in some way closely related to disturbances of splanchnic innervation, in the direction, I believed, of dilatation of the gastro-intestinal vessels. This I conceived to be brought about in a reflex manner, and this appeared to me to be the more likely, since I had met with some cases in which the usual gastro-intestinal disturbance, together with marked chlorosis, had rapidly followed a shock or chill—generally a shock or chill occurring about a menstrual period. I must reserve the discussion of the relation of chlorosis to menstruation for some other place, and will now content myself with giving an account of experimental evidence which seems to me to throw much light upon the subject.

In an animal which had been anæsthetised I found that the injection of saline solution does not alter the specific gravity of the whole blood for any considerable time. I find that after section of the splanchnic nerves the injection of saline solution gives rise to a much more lasting effect; and more than this, that the injection of a moderate amount of saline solution after section of these nerves may produce copious hæmatemesis some fifteen hours after the commencement of the experiment. After death the stomach and intestines are pink on the exterior, but this congestion is far exceeded by the congestion which affects the submucosa and mucosa, and which is seen when the canal is opened. The mucous membrane is of a deep chocolate hue, and although one would not suspect it, the whole alimentary canal is filled with blood or blood-stained fluid.

This escape of blood—which would not be detected except by accident if not specially looked for—this latent hæmorrhage, suggests to me that many cases of hæmatemesis in girls are due to a similar kind of escape of blood from a congested gastro-intestinal mucosa; and it suggests to me the possibility of latent hæmorrhage taking place in many cases of chlorosis without giving rise to distinctive physical signs.

This view is borne out by the observations and conclusions of v. Hosslin, who found an increase in the amount of iron in the fæces of chlorotic women, and who regards chlorosis as due to occult gastro-intestinal hæmorrhages. I will not go so far as to express any adherence to v. Hosslin's views, but I should like to see his very important observations confirmed by others.[4] I am unable, at present, to explain the relation existing between chlorosis and gastro-intestinal congestion, but I do believe that some very important relation does exist, and I hope to take up the subject at some future time.

The Views of Virchow, Andrew Clark, and Others.

Virchow found that the aorta and the larger arteries and the heart and sexual organs were frequently imperfectly developed in fatal cases of chlorosis, and he inclined to the view that such anomalies bore a causal relation to the disease. Congenital smallness of the aorta and other vascular defects may no doubt predispose to chlorosis; one would expect a girl with a chlorotic tendency to develop the disease much more readily should any such vascular anomaly exist, just as girls with renal disease or with valvular disease of the heart develop it as the result of these lesions. But cardio-vascular anomalies occur also among boys, and yet I cannot find the records of one case of true chlorosis occurring in a boy. In Cambridge I found that out of 1,093 young women who were apparently between the ages of 15 and 26, 41 were very chlorotic, 159 were chlorotic in some degree; that is, 3.7 were very chlorotic, while 18 per cent. were chlorotic. One cannot imagine that vascular anomalies exist in so large a proportion of young women, especially since the vast majority recover their health in subsequent years.

Sir Andrew Clark regarded chlorosis as the result of auto-intoxication from fæculent retention. In my cases I find that although chlorotic girls are often constipated, they are not invariably so, and in most cases that the constipation appears to be only a secondary effect. If constipation were capable of setting up chlorosis, we should expect to find it in boys also; moreover, this view does not explain the frequency with which it is complicated with gastric ulcer. I am more at one with those who have held that chlorosis is due to some disturbance of the sympathetic, but I am not aware that anyone has suggested how such nervous disorder can originate the disease. I hope to be able to speak with more exactness at some future time, and give here a preliminary outline of my own views on the subject.

The Manner in which Chlorosis is Probably Produced.

In the healthy female the amount of hæmoglobin is always reduced after puberty—reduced in order, perhaps, to lessen katabolism, and to lead to a storing up of tissue food, some of which is stored as fat beneath the skin, etc., and some as proteid, existing partly in the blood plasma, which consequently has a higher specific gravity than it had before puberty, and a higher specific gravity than is found in the male.

In the normal female there is, at each menstrual period, a dilatation of the vessels of the pelvic viscera, which does not extend to the gastro-intestinal vessels, and the blood is little altered by this condition of things. In some females, however, the dilatation of the gastro-intestinal vessels results from shock, chill, or any of the well-known exciting causes of chlorosis. This is sometimes evidenced by disturbances of digestion, by gastric pain, vomiting, hæmatemesis or melæna, and it is accompanied, and may in some way be the cause of, the blood changes which I have described as occurring in chlorosis.

The cases of hæmatemesis in which there is no actual ulceration have been sometimes regarded as instances of vicarious menstruation. If an increase of the blood quantity takes place during the intermenstrual periods, one can readily understand why it should escape from any congested surface.

Chlorosis does not occur in males, both by reason of the fact that in males the amount of hæmoglobin in the blood constantly increases after puberty, and also by reason of the

[4] V. Hosslin, *Münchener med. Wochenschr.*, Ab. 8, 1890 (quoted *Annual of Univ. Med. Sc.* for 1891).

fact that there is a more stable nervous system—with less tendency to these local flushings—and also because of the absence of the menstrual stimulus.

I am unable as yet to give an account of the manner in which the hæmoglobin is reduced; it may be by occult hæmorrhage, as v. Hösslin suggests, or it may be in some other method.

THE TREATMENT OF CHLOROSIS IN ITS RELATION TO THE CAUSATION OF THE DISEASE.

Although iron is the most generally useful drug in chlorotic cases, yet there are others which materially assist its action, or can even replace it entirely. It occurred to me that, if my view is correct, iron, when it cures chlorosis, does so by constricting the vessels of the gastro-intestinal tract. I therefore expected that chlorosis might be cured by either nickel, cobalt, copper, or platinum. Of these drugs I have employed nickel with success. It has failed in one case, which was also not amenable to iron. Copper has been found useful by Hare when combined with arsenic. Salts of potassium and magnesium assist the action of iron, and they also cause slight contraction of the arterioles. V. Hosslin has expressed his belief that iron cures chlorosis by its hæmostatic action, and although I will not go so far as to agree with him that chlorosis is due to occult gastro-intestinal hæmorrhage, yet I am at one with him in believing that the drug acts upon the vessels of the stomach and intestines, and I believe that the salts of potassium and magnesium, and the others above named, probably act in the same way.

One can readily understand why the action of iron is assisted by digitalis and some other drugs which are cardiac and vascular tonics.

I hope to deal with this part of the subject more fully in another paper.

CHLOROTIC FAMILIES.

In my paper in the *Journal of Physiology* I pointed out that the specific gravity of the blood varies in different types of healthy persons, and, after examining the blood of some 1,500 persons, I found that I was able to predict what the specific gravity of the blood would be by a glance at a healthy person. Further experience has shown me that I was justified in making the statement, and I repeat it here, because it has apparently been doubted by some. At the present time I am rarely deceived by the appearance of a healthy person.

In my paper I pointed out that a low specific gravity of blood was oftenest found in those with light eyes and fair complexions (although there is an exceptional class of persons of stalwart build), and I pointed out also that there is a type of young woman, with light brown hair, full figure, light eyes, and a clear complexion, with a good colour or a pink-and-white complexion, who normally have an unusually low specific gravity of blood. These individuals were, I stated, the most prone to develop chlorosis.

During the last two years further observations have shown that these persons belong usually to the families most prone to chlorosis. The blood of members of such families often exhibits the following characters: a low specific gravity of the whole blood and a relatively large proportion of plasma to corpuscles. It occurred to me that, if my view be correct, if the object of the fall in the amount of hæmoglobin in the female after puberty is the ultimate saving of tissue and tissue food, then the female members of such a family might be, other things being equal, especially prolific. I am engaged in investigating this subject; meanwhile, I give a few facts which I have so far collected. On inquiring consecutively of thirteen chlorotics the numbers of their brothers and sisters, I received the following answers to the question: 14, 15, 7, 5, 11, 9. 8, 17, 8, 8, 8, 10, and in one case only 1, but the father had died soon after the birth of the second child. These figures appear to me to suggest some very interesting reflections, which must, however, be left for a future paper. I will content myself with pointing out that, if this be the case, it offers one explanation (by no means complete) of the rapid increase of chlorosis in certain countries in recent years—for example, Sweden.

Further, I find the Celtic blood does not so often possess the characters of the blood which is prone to become chlorotic as the Saxon blood does.

THE CAUSATION OF ANÆMIA AND THE BLOOD CHANGES PRODUCED BY URIC ACID.

By ALEXANDER HAIG, M.A. and D.M.Oxon., F.R.C.P.Lond.,
Physician to the Metropolitan Hospital and the Royal Hospital for Children and Women.

IN the BRITISH MEDICAL JOURNAL, vol. ii, 1893, p. 10, I gave a short preliminary account of some researches I had recently made on this subject, and I now propose to show some of the curves I have obtained, and to go into the matter at greater length. In *Uric Acid*,[1] p. 215, I have mentioned the case of a lady who suffered from "anæmic attacks," which appeared to correspond with bilious attacks, which are identical with what I have called uric acid storms. Then I noticed in several cases of paroxysmal hæmoglobinuria that the symptoms preceding and accompanying the attacks were those of uric acidæmia, and I pointed out[2] that the attacks were contemporaneous with the excretion of a great excess of uric acid in the urine. And while I examined the urine of such a case, my colleague, Dr. S. W. Wheaton, kindly examined the blood, and found on several occasions corresponding with the attacks a diminution of red cells, an increase of white cells, and an increase of coagulability.

About this time, also, I had under my care a boy, aged 10 years, suffering from splenic leucocythæmia, and, after arsenic and iron had been thoroughly tried without effect, I gave him salicylate of soda with the object of clearing out the uric acid, of which, as is common in such cases, there was a great excess in his urine, the index, as I believe, of a corresponding excess in the blood. On several occasions he improved very decidedly on the salicylates, while he stood still, or even went back, upon iron.

Lastly, I was led to notice, as the result of my previous experience, that in a large number of cases of chlorosis or anæmia in young women more or less dyspepsia, or even a bilious attack, occurring especially at the menstrual periods, held an important place in the history of their trouble, and I knew well that these gastric disturbances meant a fall in urea formation and excretion, a fall in the acidity of the urine, and a corresponding rise in the alkalinity of the blood, so that this fluid at once became a better solvent of uric acid and its compounds, and at once took them up in solution from all points of deposit in the body—liver, spleen, fibrous tissues, and joints. In a word, the dyspepsia produced uric acidæmia, and everything seemed to make it probable that the uric acidæmia produced the blood destruction and anæmia.[3]

The facts, then, seemed to render it very probable that uric acid was the cause of these blood changes, both in paroxysmal hæmoglobinuria and anæmia. But I have complete power over the excretion of uric acid in the urine, and if anyone will chalk out a curve on the wall which he wishes his urate excretion to follow from day to day, I will undertake to make it follow a very similar curve, provided he follows my instructions as to diet and drugs that affect the solubility of the substance. The excess of uric acid above the relation to urea of 1 to 33 represents, I believe, the amount of uric acid that passes through the blood each day; thus when the uric acid curve is above the urea curve by 2 or 3 grains, 2 or 3 grains passed through the blood that day. It follows that if I have complete power over the curve of excretion, I have also complete power over the amount that can pass through the blood; and if uric acid causes the above-mentioned blood change, I ought to be able to produce, if not an actual attack of paroxysmal hæmoglobinuria, at least such blood changes as occur in anæmia.

Uric acid taken pure by mouth passes straight into the blood (this was to some extent known before), and will in due time pass out in the urine in quantity which is roughly proportional to that swallowed. The only essential condition of this direct absorption and excretion of uric acid is that the blood shall be kept in such state as favours, or at least does not hinder, the solubility of urates, and this can be fulfilled by so ordering the diet as to prevent the alkalinity of the blood being diminished. It is thus possible to increase the uric acid passing through the blood by the simple process of administering it pure (in powder gr. 1 to 2, ter) by mouth, leaving diet and all other factors unchanged. But those who have from diet and other causes but a slightly alkaline blood

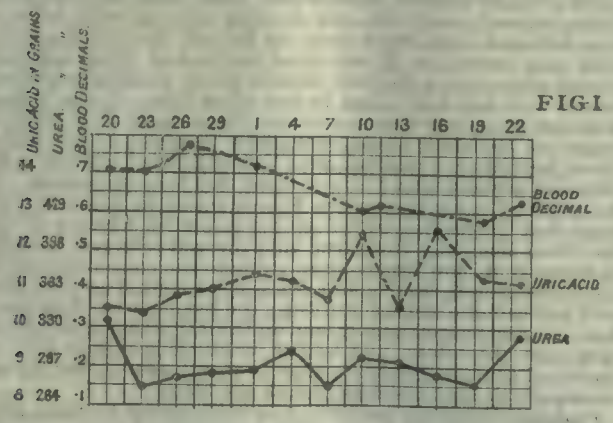
must not expect to increase the uric acid it contains very much by taking it by mouth; for, though it gets into their blood, it will quickly be driven out again into their fibrous tissues and organs, where it will remain till the blood becomes favourable to its solubility. In no one (unless the blood is very alkaline) will there be much excess of uric acid in the blood and urine on the day a dose of uric acid is taken, because uric acid itself diminishes the alkalinity of the blood, and interferes for a time with its own solubility; but on the second or third day after a dose, when the alkalinity of the blood has again risen, uric acid will begin to be present in excess in the blood, and to pass in excess in the urine, and such excess will correspond more or less in extent and duration to the dose taken.

Our problem, then, is this: many disease processes in which there are important blood changes appear to be contemporaneous with the presence of an excess of uric acid in the blood and urine, and there are reasons for supposing that the uric acid may be the cause of the blood changes; does the intentional production of an excess of uric acid in the blood bring about any similar blood changes? On this point I shall allow my curves to speak for themselves with such small explanation as may be necessary. I have used for this investigation the hæmoglobinometer and hæmocytometer of Dr. Gowers, and have followed as closely as possible the directions issued with the instruments.

The blood decimal is the result of the fraction $\frac{\text{per cent. hæmoglobin}}{\text{per cent. red cells}}$, or, if normal $\frac{100}{100}=1.0$, and all smaller quantities are represented by decimals as in the following curves; and I agree with Dr. A. E. Garrod, Dr. Wilcox, and others[4] that this is the safest guide to the condition of the blood, representing as it does the hæmoglobin value of the individual cell, for the absolute quantity of cells and hæmoglobin varies greatly according as the blood is concentrated by diuresis, or is diluted by retention of fluid in the body[5], but these things cause no variations in the value of the blood decimal, which again can easily be represented in a curve for comparison with the curves of the urate excreted in the urine.

Fig 1 represents the results of simultaneous examination of the blood and urine in myself, the blood being examined only every two or three days, and the urine curves being obtained by dividing the total excretions of three days by three so as to shorten the figure. Notice here the general downward direction of the blood decimal curve and the general upward trend of the uric acid curve. The urea curve is given simply to show the height of uric acid above urea (the curves are superimposed at the relation 1—33) as the index of the probable amount of uric acid passing through the blood.

FIG 1.



On day twenty, at the beginning of the figure urea is close to uric acid, so that little or no uric acid passed through the blood, and the blood decimal is fairly high=0.71. On day twenty-three uric acid exceeds urea by 1¾ grs., and this amount probably passed through the blood, and with this the blood fraction falls to 0.70. On day twenty-six more than 2 grs. of uric acid passed through the blood, and yet the blood decimal rises decidedly to 0.78, but the explanation of this is probably that the blood was not examined sufficiently often to correspond with the excretion curves, for the uric acid was low on two days preceding the 26th, while a high rise on the 26th brought up the average in the blood for three days to 2 grs. per day; if the blood had been examined on the 25th it would probably have been found above 0.8, a fall to 0.78 taking place with the high uric acid of the 26th. The blood is again examined on June 1st, the uric acid in the blood averaging meanwhile 2 to 2¼ grs. per day, and with this there is a fall to 0.72 on June 10th; with uric acid rising to 3¼ grs. per day, there is a marked fall of the blood decimal to 0.6. There is a slight rise on the 11th, corresponding to a fall of uric acid, and a fall of the blood decimal to 0.56 on the 19th, in accordance with the passage of 3 to 3½ grs. through the blood on the days from the 16th to the 19th. Lastly, we see a rise of the blood decimal to 0.63 on the 22nd, with a fall of the uric acid passing through the blood to 1½ gr. per day.

This figure shows generally that the blood decimal is higher the nearer the uric acid is to urea, that is, the less there is passing through the blood, and lower the higher the uric acid is above the urea, that is, the more there is passing through the blood. The high rises of uric acid on the 10th, and again on the 16th and 19th, were due to uric acid taken by mouth on purpose to increase the amount passing through the blood. Another figure, which, however, want of space obliges me to omit, shows that in my own person, and followed from day to day, the correspondence between the blood decimal curve and the uric acid curve is little short of absolute, the higher uric acid is above urea, the lower is the blood decimal, and *vice versâ*.

It also shows that, though salicylate of soda produces a large excretion of uric acid, this has but little effect on the blood, though the great fall in uric acid which occurs when the salicylate is left off is accompanied by a corresponding rise in the value of the blood decimal.

It thus appears that uric acid in combination with a salicylate does not affect the blood, just as we already know that it causes no headache or mental depression,[6] but when salicylates have cleared much urate out of the body there is an improvement of the blood decimal, because urates are then for a time almost absent from the blood; and this is probably the way in which salicylates did good in the case mentioned above.

It is open for anyone to repeat these experiments, and it is not at all necessary to estimate the uric acid from day to day, because it can be inferred from the water with quite sufficient accuracy, in accordance with my law of excretions, that the urinary water is from hour to hour and day to day inversely as the uric acid excreted along with it.

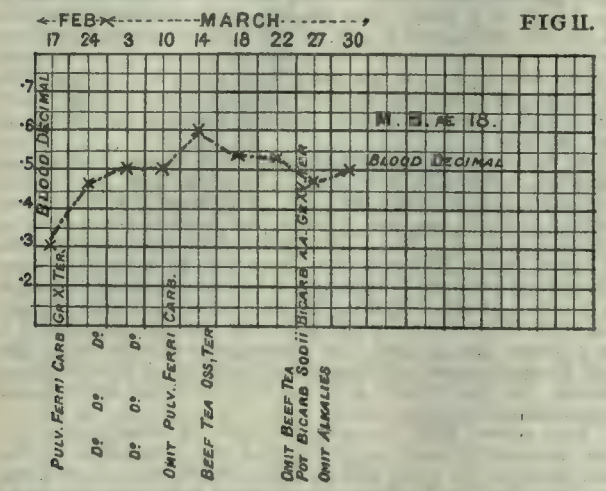
Let anyone who is going to try this collect all his urine for two or three days, and—say that it averages 1,500 c.c. a day—let him take gr.ij of uric acid thrice for one day and gr.j thrice next day, still collecting his water. On the days uric acid is taken the water will rise a little—say to 1,600 to 1,700 c.c.—for uric acid, as I have said, raises the acidity, interferes with its own solubility, and causes more or less diuresis, but a day or two later acidity will fall again if he does nothing to raise it, and with this there will be an excess of uric acid in the blood and urine, and the latter will be proportionately scanty—say 800 to 1,000 c.c.—and if he examined his blood before he took the uric acid and again now he will find that with the rise of uric acid and the scanty urine the value of his blood decimal has fallen very decidedly.

I shall now go on to my other figures, showing some of the results I obtained in cases of chlorosis by causing excess of uric acid to pass through the blood. In these cases the urine was not collected, but no doubt the effects on excretion were the same as in my own case, and the administration of uric acid in one form or another always produced immediate and distinct effects on the blood decimal.

Fig. 2 shows the curve of the blood decimal in the case of M. B., aged 18, suffering from chlorosis. On February 17th, her blood decimal being only 0.3, she was put on pulv. ferri carb. gr.x ter.; and the curve shows the rise of the decimal to 0.5 on March 10th, and its further rise to 0.6 on March 14th, after the iron had been left off. On the 14th ½ pint of beef tea three times a day was added to her diet, and this beef tea was found, on estimation, to contain about 8.6 grs. of uric acid to the pint,

and I may say that it seemed to be very strong and good beef tea. She would thus take about 13 grs. of uric acid a day. On March 18th the blood decimal had fallen to 0.54, and on the 22nd, when the beef tea was left off, to 0.52. I may point out in passing that uric acid given by mouth to those who, like anæmic girls, have rather low nutrition is more likely to remain in solution in the blood, because their blood is probably more alkaline than that of better-nourished individuals. Therefore the effect of giving uric acid is likely to be more marked in poorly-nourished individuals than those who are robust and well fed, and, dose for dose, the effect on the blood curve will be greater in the former than in the latter. Though I stopped the beef tea on the 22nd, I gave the bicarbonates of potash and soda, 15 grs. of each three times a day, with the object of increasing the urate in the blood, and we see, on the 27th, that the blood decimal has further fallen to 0.48. The alkalies were then left off, and on the 30th the blood decimal had risen slightly to 0.5.

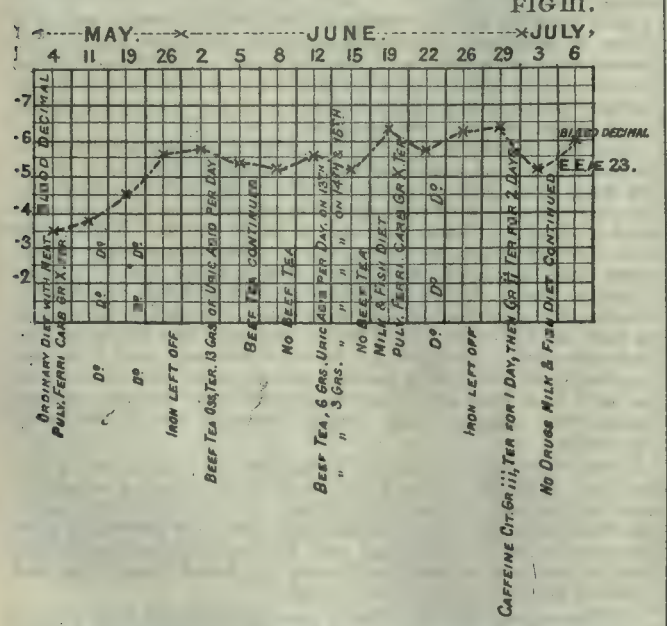
FIG II.



I have no doubt that the whole of this fall was due to the uric acid taken, for the general tendency is for the blood curve to rise slowly for a considerable time after the iron is left off.

Fig. 3 is the blood curve of E. E., aged 23, also suffering from chlorosis. On May 4th, her decimal being at 0.35, she was put on pulv. ferri carb., as in the previous case. On May 26th, the decimal having risen to 0.56, the iron was left off. On June 2nd, when the decimal had risen to 0.57, she was given beef tea = 13 grs. uric acid per day, and this was continued till the 8th, the blood decimal falling on the 5th to 0.54, and on the 8th to 0.53. On the 12th, four days after the last dose of uric acid,

FIG III.



the blood decimal had risen again to 0.55. On this day, the 12th, she was put on the equivalent of 6 grs. uric acid for one day, and 3 grs. each for the two following days, to try the effect of smaller doses, and on the 15th the blood decimal had fallen again to 0.53, so that the effects of a small dose were fairly marked, and I think that a small dose will perhaps get uric acid into the blood more quickly than a large one, for uric acid, as I have said, interferes with its own solubility, and the salts contained in beef tea will in a similar way tend to depress the alkalinity of the blood[7] and cause the uric acid to be stored in the fibrous tissues and viscera, instead of remaining in solution in the blood; and in producing changes in the blood decimal we have not only to get it into the blood but to keep it there so long as the kidneys will allow it to remain unexcreted. On the 19th there is a remarkable rise of the blood decimal to 0.62, making it look as though it would have gone on rising all the way from June 2nd but for the uric acid taken. On the 19th iron was again given in the same dose as before, and it was rather a surprise therefore to find that on the 22nd the blood curve had fallen to 0.57, but I had forgotten the fact that on the 19th the patient was not only put on iron but also on a milk and fish diet, having previously been on meat; and the change of diet no doubt produced a fall of acidity, acting like the alkali given in the previous case; this brought some of the previously stored uric acid through the blood, and the uric acid overcame the iron and produced a fall in place of a rise in the blood decimal, and this is in accordance with the fact that in some cases of anæmia salicylates which clear the blood of uric acid may succeed when iron fails.[8] By the 26th, however, most of the uric acid has passed through the blood and been excreted, the iron then comes into action and the blood decimal rises to 0.61. On the 26th the iron is left off, but the decimal again rises on the 29th to 0.62. On the 29th citrate of caffeine was given, 9 grs. on the first day and 6 grs. on each of two subsequent days. Now caffeine may for all practical purposes be regarded as uric acid, and my experiments on myself show that, like uric acid, it first raises the acidity and clears uric acid out of the blood, causing relaxation of arterioles and diuresis; later, when the acidity falls an excess of uric acid proportional to the caffeine taken passes through the blood and into the urine;[9] and we see from the curve that caffeine brought down the blood decimal just as uric acid does, for on July 3rd we have a marked fall to 0.52, which is followed by a rise to 0.6 on the 6th, the drug having been left off.

I may say at once that these and similar experiences have left no doubt in my mind that just as iron runs up the blood decimal, uric acid brings it down, and that where the one is acting in opposition to the other the uric acid is the more powerful. And this explains the fact noted by Murchison and others that in some cases of anæmia iron will not act till the liver has been got into proper order; and the drug they most often used to get it into order was calomel or other form of mercury; and mercury, as I have shown, clears the blood of uric acid.[10] Now, as soon as the blood is cleared of uric acid, the general metabolism, being freed from the incubus of contracted arterioles, goes ahead, there is a general rise of urea and acidity which keeps the blood more or less clear of uric acid and iron is then able to act and bring about permanent improvement. I have every confidence that I can in this way do anything I like with the blood decimal, and that anyone who will take the trouble to repeat my experiments will get similar results.

In my paper in the *Journal of Physiology* I have suggested that extracts of thyroid and other glands possibly owe no small part of their activity to the stimulant properties of the uric acid and other nitrogenous extractives in which they are rich; and I can prove that in myself the taking of thyroid glands or a thyroid extract carefully prepared for me by Messrs. Savory and Moore produces results which are identical with those produced by so much uric acid, that is to say, there is a first stage of stimulation, with rising acidity, well being, relaxed arterioles, and diuresis (just as with caffeine also) followed later, when they are left off, by falling acidity with *plus* excretion of uric acid, contracted arterioles and scanty urine, and with these latter a fall in the blood decimal just as with uric acid taken in any other form. I was, therefore, much interested to see in the *Practitioner*, July, 1893, a paper by Professor Grainger Stewart, in which he gives the blood factors in a patient who was being fed with 30 to 60 grains of thyroid gland every third day for myxœdema. If we construct a curve from the figures which he gives, it will show that the feeding with thyroids produced a steady fall of the blood decimal. It is true that the red cells rose from 80 to 96 per cent., but this is simply due to the concentration of the blood; for thyroid gland, as I have said, just like uric acid and caffeine, causes diuresis; the hæmoglobin, however, does not rise proportionally, and on the last occasion it did not even rise absolutely, and so the result is a steady fall of the blood decimal, doubtless due, as in my own curves, to an excess of uric acid passing through the blood.

Professor Stewart's patient, it is interesting to note, also suffered very markedly with all the symptoms of an excess of uric acid in the blood, such as weakness and general soreness, with tightness and general oppression in the chest, passing later into severe dyspnœa, with blood-stained expectoration; her asthmatic trouble being complicated by the presence of old disease of the mitral valve. As to the causation of asthma, see *International Clinics*, 1893.

These are the facts and the conclusions I have drawn from them. As to the way in which uric acid may produce these blood changes I have already said a good deal in my chapter on Bright's Disease;[11] to-day I am concerned rather with the facts themselves, and with the explanation they may afford us of the causation of anæmia and paroxysmal hæmoglobinuria, and I shall now shortly mention a few points in this connection.

It is now easy to understand the causation of chlorosis and anæmia, and their relation to dyspepsia and bilious attacks, for these disturbances cause excess of uric acid to pass through the blood; but there are other most interesting relations between the development of girls and the causation of these troubles, which furnish, at least, some explanation of the frequency with which anæmia is met with in young women.

Now writers on this subject say that the greatest development in girls occurs about the thirteenth year, when they may increase as much as 10lbs. to 11lbs. in a year; after this they fall gradually to a 2lbs. increase in the seventeenth and eighteenth years.

Now, the 10lbs. to 11lbs. increase in the thirteenth year means a very active metabolism in the girl's organism, and with this there is high urea per pound, high acidity of the urine, and low alkalinity of the blood, and the result of this last factor is a holding back and storage of uric acid in the body, in the liver, spleen, and probably other fibrous tissues. But the active metabolism is not continued, but gradually falls down to 2lbs. a year, and the result of the diminishing metabolism is falling urea and acidity, rising alkalinity of the blood, with increased solubility and excretion of the uric acid previously retained. But just as these changes are in progress menstruation is established, and this almost invariably upsets digestion, and still further lowers metabolism, producing more or less severe uric acidæmia, the signs of which, slow high tension pulse and headache, or mental depression, are among the most common accompaniments of menstruation, where I have drawn attention to Dr. Barnes's remarks on the frequency of suicide in menstruating women,[12] and also to the simple explanation which menstrual uric acidæmia affords of the headaches and fits which so often occur at the periods. (For further particulars see also a paper by Dr. Hunt[13].) Add to this the fact that depression, so to speak, breeds depression, and that once the metabolism is depressed uric acid tends to keep it down so long as there is a supply of this substance in solution in the blood to contract the arterioles and generally interfere with nutrition; and conversely, as I have said, stimulation breeds stimulation, for if you clear the blood of uric acid for a few hours, metabolism will go ahead, raise the acidity, and keep it clear. In young women, then, we have a storage of urate in their active metabolism at 13, and a passage of this urate through the blood as nutrition falls in later years, and especially with each recurrence of menstruation. It is little wonder, then, that they suffer from anæmia, the wonder is rather that any of them should escape it: but when we have fully recognised its causation it should not be difficult to prevent it.

Paroxysmal hæmoglobinuria represents, I have no doubt, a similar but more acute fluctuation in the excretion of urates, probably often related to dyspepsia and gastric upset in exactly the same way that migraine, epilepsy, and Raynaud's disease are related to it, and it is paroxysmal just as they are paroxysmal, in relation to the fluctuations in urate excretion.

Anæmia associated with enlarged spleen is doubtless related to the large quantities of uric acid met with in the blood and urine of these cases.[14]

In the *Practitioner*, August, 1890, Dr. F. W. Mott wrote an interesting paper on the spleen as a centre of destruction of red blood cells, and it is interesting to note in this connection that Dr. Hunter[14] points out that certain substances (toluylendiamine) which have a destructive action on the blood act far less powerfully after the spleen has been removed; and no doubt if uric acid destroys the blood elements, they are certain to meet it in concentrated solution in the spleen, and the facts just mentioned suggest strongly that the action of toluylendiamine is indirect, but I shall have more to say on this matter at some future time, when the whole subject of the action of uric acid can be gone into.

The effects of fevers in producing anæmia are easy to understand, for they diminish the alkalinity of the blood, and lead to a storage of urate in the body, and this, when the fever ends, finds its way back into the blood, causing post-febrile uric acidæmia with post-febrile bradycardia, high tension pulse, depression of mind, and metabolism, and subnormal temperature, an identical sequence of events with those producing chlorosis. The excess of uric acid met with in the blood and urine after malaria and other fevers with or without enlarged spleen is thus, I believe, the result of the storage of urate that took place during the fever. In vol. lxxv of the *Medico-Chirurgical Transactions*, Dr. A. E. Garrod has an interesting paper on the anæmia of rheumatism and the relation of the blood changes to the excretion of uro-hæmatoporphyrin.

In several of his curves "worth," which corresponds with my blood decimal, remains steady or rises during the fever, and falls afterwards as the temperature becomes subnormal, that is to say, during the fever the urate is all in the joints and there is none in the blood except in combination with salicylates.[16] As the fever passes off there is post-febrile uric acidæmia with a fall of the blood decimal, just as we should expect, for urates combined with alkali are passing through the blood, and in at least one of Dr. Garrod's cases the "worth" fell at the end of the fever in spite of iron being given.[17] He also notices a corresponding increase of white corpuscles just as in the similar conditions I have mentioned above.

I should expect a fall of the blood decimal just before the onset of the fever when, according to my explanation of the causation of acute rheumatism, there is sure to be an excess of uric acid in the blood,[18] but Dr. Garrod's statements are not very definite with regard to this point.

The effect of all fevers on the blood decimal is probably the same as that of acute rheumatism, and I found in a case of pneumonia that, at the time of the *post*-febrile uric acidæmia with subnormal temperature, the blood decimal was 0.55, while a few days later, when the temperature had again got up to normal, it had risen to 0.60.

It is again quite easy to explain the effects of hot weather and of tropical climates in producing anæmia, for heat increases the alkalinity of the blood and the urate it will hold in solution;[19] and this will have most effect in those who eat meat, and so introduce much urate into their body, and least in those who live on vegetables and fruits, and so ingest but little uric acid.

The effects of diet also are well known and easily explained, witness the effects of beef-tea in my case; and Dr. Mackenzie points out that meat diet increases the destruction of red cells;[20] and others have pointed out that farinaceous diet does good, and that pale anæmic children are most common among the "well-fed" upper classes;[21] in my opinion, "not wisely but too well" fed upper classes.

I must not prolong this paper by entering into the many other points which a knowledge of the causation of these diseases by uric acid will eventually explain; but when others have repeated and confirmed my experiments, and when the full bearings of the subject are understood, I doubt not that the prevention and treatment of these diseases will be considered to be among the most simple things in practical medicine, and prevention will be seen to depend on one single point—the avoidance of all unnecessary introduction of urates into the body.

References.

[1] *Uric Acid as a Factor in the Causation of Disease* (J. and A. Churchill, 1892). [2] *Trans. Med. Soc.*, vol. xv. [3] At this point in my research the writings of Horbaczewski and a lecture by Dr. A. E. Wright were published, and I at once said in a letter to the *Lancet* (vol. i, 1892, p. 663) that I believed these investigators were putting the cart before the horse, and mistaking a cause for a result. I said that in the case of paroxysmal hæmoglobinuria it could be proved that the excess of uric acid in the blood and urine at the time of an attack was not the result of the blood changes, because it was the result of a fluctuation (minus excretion or retention) in urate excretion, which began hours before there were any blood changes. I further pointed out that the observations of my colleague, Dr. Wheaton, showed that changes precisely similar to those described by the above-mentioned authors were produced in the blood in paroxysmal hæmoglobinuria without any nuclein having been injected, but when there was, as I myself proved, an excess of uric acid from more or less natural causes in the urine and in the blood. [4] Proceedings of the Royal Medical and Chirurgical Society, February 9th, 1892. [5] *Journal of Physiology*, vol. xiii, and *Lancet*, July, 1892. [6] *Medico Chirurgical Transactions*, vol. lxxi. [7] *Uric Acid*, p. 31. [8] A similar fall, or rather failure to

rise, is seen on March 10th, Fig. II; in this case a purgative pill caused abdominal pain and temporary disturbance of digestion, which again produced a fall of urea and acidity, and a temporary uric acidæmia, which prevented the iron from improving the blood de:mal. [9] See *Lancet*, i, 1890, p. 677. [10] Murchison, Croonian Lectures, *Lancet*, i, 1874, p. 504, and *Uric Acid*, pp. 35 and 216. [11] *Uric Acid*, p. 199. [12] *Uric Acid*, p. 131. [13] *Lancet*, 1880, ii, p. 89. [14] The way in which the excess of uric acid in the blood is brought about I have gone into in my paper on Raynaud's Disease in *St. Bartholomew's Hospital Reports*, vol. xxviii, p. 37; and, as I have said above, the increase of white cells met with in these cases may be entirely secondary (see observations on paroxysmal hæmoglobinuria). [15] *Lancet*, 1892, ii, p. 1,318. [16] See previous remarks on salicylates. [17] See also Dr. Garrod's remarks, previous reference, p. 191. [18] *Practitioner*, February, March, April, 1891, and *Uric Acid*, ch. ix. [19] *Uric Acid*, pp. 14 and 151. [20] BRITISH MEDICAL JOURNAL, i, 1891. [21] BRITISH MEDICAL JOURNAL, 1890, ii, p. 85.

ATROPHY OF THE LEFT VENTRICLE IN CONSEQUENCE OF STENOSIS OF LEFT CORONARY ARTERY.

DRS. G. A. GIBSON and ROBERT MUIR showed naked eye and microscopic specimens obtained from a patient who died of cardiac failure with physical signs indicating mitral incompetence. There was marked stenosis of the left coronary artery caused by an atheromatous change round its origin, the orifice only admitting the entrance of a thin bristle. The left ventricle was much dilated and its wall greatly atrophied, measuring in some places less than a quarter of an inch in thickness. The atrophy was most marked along the line of the arterial branch, running down the anterior wall of the ventricle. The papillary muscles and columnæ carneæ were extremely attenuated, the latter being almost like paper. The right ventricle was greatly hypertrophied, exceeding a quarter of an inch in thickness, and its strong columnæ carneæ contrasted very strikingly with those of the left ventricle. Microscopic examination showed that the muscular fibres of the left ventricle had undergone atrophy and fatty degeneration, with marked interstitial fibrous changes in some parts. The atrophy and degeneration were to be seen most distinctly in the papillary muscles, while the fibrous change was most marked along the distribution of the arterial branch already mentioned, where in places all muscular structure had disappeared. Probably this arterial branch was affected before the main coronary artery was obstructed, whence the local atrophy and fibrosis.

Dr. J. LINDSAY STEVEN said that the case was one of extreme interest. He called attention to the circumstance that over the atrophied area thrombosis had occurred; this was in accordance with his own experience in similar cases. His experience on the whole was that when the artery was obstructed at its origin it was probable that a generalised fatty degeneration would occur. Such a lesion frequently gave rise to aneurysm of the heart, and he thought the pulse in such cases was usually arhythmic.

Professor DELÉPINE said that two years earlier he had published in the *Transactions* of the Pathological Society, under the title of "A Case of Hemianopsia," a case in which part of the muscular walls of the left ventricle was completely atrophied and replaced by fibrous tissue owing to sclerosis and stenosis of certain branches of the coronary arteries. The sclerosis was due to endarteritis. The arteries in other parts of the body were nearly all affected. There were patches of softening in the brain and arterio-sclerotic atrophy in the kidney, etc. In this case thrombosis had taken place in many of the vessels. The pulse was most arhythmic, the number of pulsations recognisable at the wrist being often much fewer than the number of heart beats.

Dr. MOTT thought that fatty and fibroid changes in the heart walls were the invariable accompaniments of stenosis of the coronary arteries.

Dr. BOYCE asked what was the condition of the vessels throughout the body, and whether the fibrosis of the heart was local or general, as the changes seemed to be general in the heart.

Dr. GIBSON stated, in reply, that the pulse in the case recorded had been regular and comparatively full, and at no time were there any anginal symptoms. As to the relative frequency of fibrous or fatty changes as a consequence of interference with the coronary circulation, it was possible that the different results might be found to depend on such circumstances as the amount of muscular exertion taken by patients with deficient coronary circulation.

NOTES ON SOME PATHOLOGICAL APPEARANCES IN THREE FATAL CASES OF GRAVES'S DISEASE.

By Professor GRAINGER STEWART
AND
G. A. GIBSON, M.D.

IN all three cases the change in the thyroid gland was identical. There was a glandular hyperplasia with catarrhal changes in some of the acini, which were more numerous and smaller than usual, and were separated by a delicate connective tissue stroma. The colloid material had almost entirely disappeared, and there was an interstitial change, attended with much cellular proliferation spreading inwards from the capsule. The trabeculæ contained a considerable number of blood vessels, some of large size, but the gland was not very vascular.

In one case there was no change in the nervous tissues. In another there was a hæmorrhage into the fourth ventricle which had caused the development of the so-called colloid bodies. In the third there was a small suppurating cyst on the lower aspect of the pons Varolii. No other changes in the nervous system could be detected.

DISCUSSION ON THE PATHOLOGY OF THE THYROID GLAND.

I.—VICTOR HORSLEY, B.S., F.R.S.

PREPARATION FOR GRAFTING.

MR. VICTOR HORSLEY wished to apologise to the Section, inasmuch as his public engagements had prevented his carrying out the investigations he had projected on the question of transplantation. He wished to be allowed to make an addition to his former suggestion, which was simply that it would appear more reasonable to perform transplantation after a prefatory treatment by feeding or injection, so as to provide that the grafted gland should be imbedded in normal connective tissue, and not diseased.

II.—OTTO LANZ, M.D.Bern.[1]

THE NATURE OF THE MUSCULAR MOVEMENTS IN CACHEXIA THYREOPRIVA IN DOGS.

DR. LANZ said that, at the request of Professor Victor Horsley, he had made some researches on the origin of the muscular twitchings in cachexia thyreopriva in dogs. In a first series of experiments after the development of the twitchings, either the sciatic or the crural nerve was cut. In four dogs the twitchings in the corresponding muscle were abolished; two dogs died of cachexia before the section of the nerve was made; the origin of the twitchings, therefore, was not peripheral in the ordinary meaning of this word. In a second series of experiments, also on six dogs, the spinal cord was cut in the region of the sixth dorsal vertebra. In five of these dogs the thyroid was extirpated either before or after the section of the cord. One dog served as a control. In these cases the twitchings in the legs were either completely abolished or very greatly diminished, while in the arms they persisted, As the control dog also showed small twitchings in the legs of the same character as those seen in the dogs after thyroidectomy, it must be concluded that these twitchings were not of thyroideal nature, but only symptoms of degeneration or irritation descending from the lesion of the cord. This experiment showed the encephalic nature of the twitchings. In a third series of five dogs the motor region was removed in one hemisphere, either before or after thyroidectomy. One dog served as a control. The twitchings were greater on the corresponding paralysed side. A very remarkable phenomenon was that, after complete recovery from the extirpation of the motor region, so that no trace of paralysis remained, the paralysis reappeared the same day that the thyroid gland was removed, and remained in the two dogs until their death from cachexia. This observation was a further proof of the great importance of the thyroid gland. In a fourth series of five dogs the hemisphere

[1] From the Pathological Laboratory, University College, London

was completely removed. One of these dogs died from suppuration. The second died after thyroidectomy before the twitchings appeared; in the third the twitchings were equal on both sides, and in the fourth they were stronger on the paralysed side. The fifth served as a control dog, the thyroid not being extirpated. The influence of the cerebellum had not been examined. The twitchings were registered by Fick's myograph.

III.—John Thomson, M.D.,

Extra Physician, Royal Hospital for Sick Children, Edinburgh.

Dr. John Thomson showed lantern slides of photographs illustrating the appearance before and after thyroid feeding in three cases of sporadic cretinism, aged respectively 5, 18, and 22 years. In all of them the progress had been remarkable. The main points of improvement were as follows:—(1) The growth of the skeleton, in the young child, was very greatly accelerated, and in the older patients, who had not grown for fourteen and seventeen years respectively, it recommenced and proceeded actively for several months. (2) There was a rapid disappearance of the abnormal swelling, characteristic of the disease from all parts of the body in which it was met with. This was most strikingly seen in the face—the skin became soft and rosy like a child's, the features lost their bloated outline and became more natural in their conformation, and the muscles of expression were allowed freer play. In the same way the abnormal snoring ceased, the voice became more natural, and the articulation more precise. (3) The temperature became normal, and the patient ceased to complain of chilliness. (4) During the first two or three months there was, along with the emaciation, considerable muscular debility, but afterwards this passed off, and the muscles became much stronger than before. The appetite also improved, the bowels became regular, and the health was better in every way. (5) The mental progress was very difficult to gauge. There was certainly a distinct advance in mental capacity in all the cases. The parents and friends, however, were apt to over-estimate it, owing to the immense improvement which took place in the power of expressing mental action due to the recovered facial movements, the improved articulation, and the livelier gestures. Another important point was, that as the mental and bodily torpor of the disease passed off, the patients evidently acquired a capacity for enjoying life which was formerly quite unknown to them.

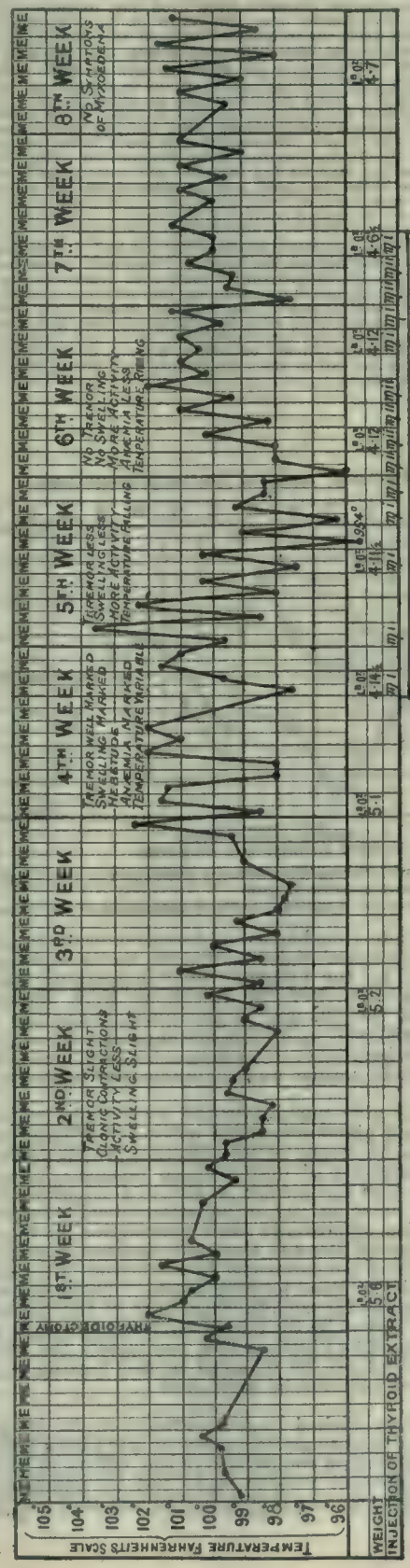
IV.—Dr. George R. Murray, B.A., M.B.Cantab., M.R.C.P.Lond.

Lecturer on Bacteriology and Comparative Pathology in the University of Durham College of Medicine, Pathologist to the Hospital for Sick Children, Newcastle-on-Tyne.

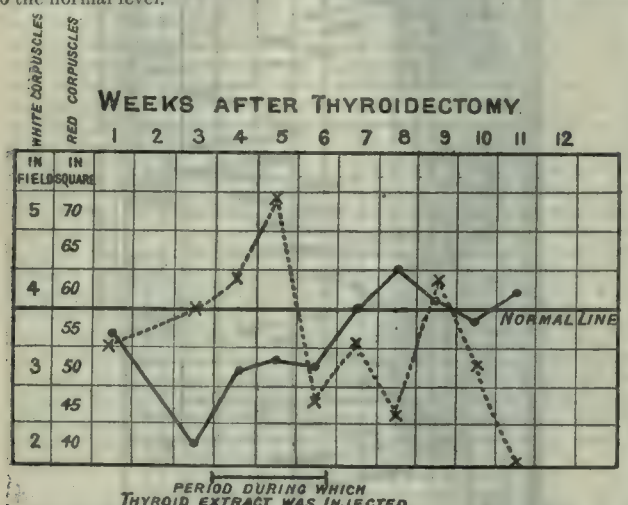
On Thyroid Secretion.

Mr. Victor Horsley has shown that in monkeys the symptoms which result from removal of the thyroid gland resemble closely those which occur in man. For this reason I wish to relate shortly the results of cutting off the supply of thyroid secretion in a bonnet monkey by removal of the gland, and renewing it again after a time by injecting a glycerine extract of a sheep's thyroid gland beneath the skin of the animal.

A male bonnet monkey was put under ether, and a longitudinal incision was made in the middle line of the neck in front, the sterno-hyoid muscles were separated, and the thyroid gland was dissected out and removed. The blood vessels were twisted out of the gland, so that no ligatures were required. The wound was sutured with horsehair, and dressed with carbolic gauze and collodion. There was some traumatic pain after the operation, and the wound healed by first intention. The monkey was kept in a room the temperature of which was from 62° to 66° F. During the first week no symptoms appeared. At the beginning of the second week after the operation there was a fine tremor of the arms and hands, the red corpuscles enumerated by Gowers's hæmocytometer numbered 56 in a square, the normal number being about 60; the white averaged 3 in a field, the normal number being 4. During this week the animal became much less active, the tremors became more marked, and there were occasional clonic contractions of the muscles of the arm and forearm. A slight swelling of the upper and lower eyelids appeared. In the fourth week the monkey was very inactive, and sat still most of the time with the trunk bent forwards and well-marked tremors. There was a distinct tendency to fall over backwards. The swelling of the eyelids and lips was well marked. The red blood corpuscles had fallen to 42 in a square, and the white were 4 in a field. The temperature chart showed considerable diurnal variations, the morning temperature being three times subnormal. On the twenty-sixth day after the operation mj of thyroid extract was injected; this was



repeated on the twenty-eighth, thirty-first, and thirty-third days; after this injections of mj or mij were given each day, except on the thirty-ninth till the forty-fourth day. The result of the injections was that, during the fifth week, the tremors diminished, the swelling and anæmia became less, and he was distinctly more active; the morning temperature, however, continued to fall, being as low as 95.4° on the thirty-second day, the evening temperatures rising to normal or higher. On the thirty-third day, when called by name, he suddenly fell off the perch and lay on the floor in clonic convulsions, followed by increased tremor and fibrillary muscular contractions; after this the arms remained rigid in flexion for some hours. During the sixth week under influence of the injections the tremor and swelling both disappeared. The temperature rose to normal, the anæmia was less, the red corpuscles being 52 in a square and the white 3 in a field, and the general activity was much increased. The injections were discontinued in the middle of the seventh week, but the improvement continued to increase, and by the end of the seventh week the monkey was quite well again, though he weighed rather less than before the operation, as the symptoms had all disappeared. The temperature was normal and the blood had regained its normal number of red corpuscles. It is interesting to note with regard to the temperature chart that though each injection was followed by a rise of temperature of 3° or 4° in the evening, the morning temperature continued to fall at first, and it was only after the sixth injection that the morning temperature began to rise again gradually to normal, and that when it regained that level the diurnal variations became much less than they had been during the fall of the temperature to subnormal or its return to the normal level.



The injections thus had a double action on the temperature—one immediate and of short duration, the other deferred but more lasting, for the higher level of temperature was maintained for a week after the injections were discontinued. The chart of the changes in the blood shows the anæmia which followed the operation, accompanied by a slight increase in the number of white corpuscles, and also the return of each to their normal number under the influence of the injections.

These facts give support to the view that the functions of the thyroid gland are carried out to a very large extent, if not entirely, by means of its secretion, which forms an important constituent of normal blood plasma. I would suggest further that the anæmia is due to the loss of the secretion, which, in some way, either stimulates the formation of red corpuscles or prevents their destruction in health, and that the thyroid gland is thus only indirectly concerned in the formation of red corpuscles by the action of its secretion on the activity of blood-forming organs. These observations are supported by the well-known results of the treatment of myxœdema in man by the administration of thyroid extract. These photographs illustrate how completely the symptoms of this condition can be removed by this treatment, the details of which need not be given here.

Mr. HORSLEY wished to draw attention, for purposes of criticism and discussion, to a point he had raised eight years ago, namely, that on comparison of the effects of thyroidectomy in animals of various ages, and in connection with Dr. Bramwell's remarks it appeared to him that the changes of old age (especially the diurnal ones) are so parallel to those of the cachexia due to loss of the gland that we might reasonably explain the origin of those changes as due to the loss of the thyroid, which in old age usually degenerates.

Dr. ANDRIEZEN said that from the embryological and comparative standpoint, the first evidences of a "thyroid" organ obtained in researches on amphioxus, ascidians, and lower vertebrata, being present as a hypobronchial organ in amphioxus, and as a mass of glandular tissue (endostylar organ) in ascidians. Here it functions as a secreting organ, of which the secretion poured into the pharyngeal cavity would mix with the current of aërating sea (or fresh) water passing through the pharynx, gillbars, and vascular arches. In higher forms (fishes, etc.) it forms a lobe which sinks and is imbedded in the subjacent tissues. Its duct remains, however, opening into the pharynx. What is the origin and mode of evolution of the thyroid function? It seemed to be a secreting organ which, developed at the entrance of the pharynx, secretes a fluid which is utilised for the animal economy. So far facts go. But how utilised? By its passage with the current of water over the vascular arches it would be absorbed and taken up by them. It was suggested by the author that it acts thus on the respiratory organs, enabling them to take up oxygen and carry on the gaseous (respiratory) metabolism more readily. (Mucous secreting pharyngeal cells were also present, but act as protective secretions, preventing the adhesion of sand, etc.) The thyroid is to be looked on thus as associated anatomically with a primitive respiratory system, and physiologically with the respiratory gaseous exchange (oxygenation). Such being the origin of its function, its fluid (which was an internal secretion in higher vertebrata) has a trophic action on the respiratory tissues, and the phenomena following its destruction by disease or experiment are to be interpreted as at the bottom a disturbance of the gaseous metabolism and malassimilation of oxygen by the body tissues, to which are probably correlated the subnormal temperature, weakness, twitchings, excess of fat, and languor and weakness of muscular and brain tissues.

SECTION OF ANATOMY AND PHYSIOLOGY.

THOMAS OLIVER, M.D., F.R.C.P., President, in the Chair.

A NEW METHOD OF STUDYING THE ELASTICITY OF MUSCLE.

Dr. THOMAS GORDON BRODIE said that in order to study the elasticity of muscle, he had attempted to obtain more accurate curves than those usually obtained by employing apparatus especially designed for two purposes: (1) Accurate and uniform addition and subtraction of weight to the muscle; (2) accurate multiplication on the recording surface of the movements of the muscle. The first object had been attained by employing a steel spring, which, by a mechanical method, could be uniformly elongated and relaxed in the weighting of the muscle. For the second difficulty, a special arrangement of levers was designed. The recording surface was moved at a rate directly proportional to the elongation of the spring. The curves obtained in this manner showed the following points: the two halves, the first corresponding to loading and the second to unloading of the muscle, were quite dissimilar. The first half of the curve varied with the rate of the loading. The more rapidly this were effected the straighter the curve became—that is, the muscle elasticity tended to become perfect. The early part of the descending curve was the most concave part, and if the muscle were loaded to nearly breaking point that part of the curve became convex to the lowest abscissa. He had not been able to find that there was any special curve to which these tracings could be referred. The unloading portion of the curve showed at first restitution very nearly proportional to the unloading—that is, it was nearly a straight line, but at the later parts there was a very rapid retraction, and the curve became very concave. There was a further slow retraction for two or three minutes after complete unloading of the muscle.

Dr. Halliburton stated that the results of Dr. Brodie's investigations had shown that the old statement that the curve of extensibility of muscle was a hyperbola could no longer be regarded as strictly accurate. The tracings showed variations in the amount of curvature. The curve of extension was often nearly a straight line. He suggested that the variations were due to the rate of extension; the slower the rate the more would the effects of after-extensibility be seen in the tracing.

THE REGIONAL SUBDIVISION OF THE ABDOMEN.

Mr. William Anderson, F.R.C.S. (Surgeon to and Lecturer on Anatomy at St. Thomas's Hospital, Professor of Anatomy in the Royal Academy of Arts), in introducing a discussion on this subject, observed that the subdivision of the abdomen into nine regions by four arbitrary lines—two tranverse and two longitudinal—drawn upon its anterior surface, had an antiquity of some centuries, and the names in present use were those given by the fathers of anatomy. Unfortunately, the boundary lines had never been laid down with sufficient authority and clearness to establish a rule, and hence reference was made to the epigastric, umbilical, hypogastric, hypochrondriac, lumbar, and iliac or inguinal regions with a looseness of meaning that deprived a well-intended segmentation of the trunk of nearly all its possible utility. Still the fact that these regions were recognised in all our textbooks and were constantly referred to in our teachings was sufficient to demonstrate that they served a purpose beyond that of perplexing the medical student. Their purpose, however, had been very badly served, and now that the time had come when a ready and precise knowledge of the topographical anatomy of the abdominal organs to the surface of the body was a pressing necessity it was desirable to strive, once for all, to secure a mode of regional delimitation that would not only enable us to give a lucid description of the site of any special pathological phenomenon, but to form an exact idea of the normal average position of every important structure in the abdomino-pelvic cavity. When he had brought forward this question a year ago, before the Anatomical Society, there were at least fourteen methods of subdivision in the textbooks, differing more or less from each other in the position of the boundary lines, and consequently as to the extent of the regions limited. The physician or surgeon who referred, for example, to the umbilical region was not sure whether his audience understood an area 6 or 8 inches in height or one of an inch or two; whether its outline was that of a square, a rectangle, or a trapezium; whether the umbilicus was in its centre, at its lower part, or altogether outside it: for there was good textbook authority for any of these views. Like difficulties might be quoted in connection with the remaining segments. Four boundary lines were recognised, or, rather, three, since one was repeated symmetrically. The upper of the two transverse lines had been drawn between the ninth, between the tenth, between the eleventh, and between the twelfth costal cartilages of the two sides; the lower transverse line had been fixed at the level of the highest point of the iliac crest, and also some three inches lower, at the anterior superior iliac spines; the longitudinal line on each side might run upwards from the pubic spine, the ilio-peritoneal eminence, the middle of Poupart's ligament, or the anterior superior iliac spine, and might be drawn parallel to the median line, or, with more or less obliquity, to one of several fixed points above, as the seventh costal cartilage, the bony extremity of the sixth or seventh rib, the extremity of the seventh or eighth rib, the eighth costal cartilage, the ninth rib, the tenth rib, or the sterno-clavicular joint. It was, however, interesting to notice that nearly all the diagrams printed with these conflicting directions look very much alike, and the umbilicus was always placed exactly in the centre of the umbilical region—a pictorial unanimity which was even more remarkable than the manifold textual disagreements. The remedy for these inconsistencies lay in the invention of a system of delimitation which, while retaining the time-honoured regions, converted the lines of segmentation into planes which passed through the trunk and were fixed as to position by conveniently placed and well-defined bony or other landmarks. The principal structures cut through by each plane might then be ascertained by sections of the frozen subject, and a type form constructed to serve as a standard of reference. The desirability of securing such a standard was fully recognised by the Anatomical Society, and at the suggestion of the distinguished President, Sir William Turner, a committee was appointed for the consideration of the subject. The report of this committee had not yet been presented, partly because of the difficulty of obtaining a full attendance of members, who resided at widely distant parts of the country, and partly because it was considered advisable to ascertain the views of as many authorities as possible before coming to a final decision.

Two New Schemes Proposed.

At present, however, two schemes existed, both carrying out the necessary principles; and of these he trusted that the Section would aid in choosing one, and in securing its acceptance throughout the United Kingdom. Both of the new systems were modifications of existing methods. One had already been published in a most important contribution to topographical anatomy by Professor Cunningham; the other was first proposed in a letter to the Anatomical Society by Dr. Wilberforce Smith. The main features of the two might be summed up in a few words. In each there were two transverse and two longitudinal planes. The upper transverse plane presented no novelty, and was the same in both systems. It corresponds to the level of the lowest point of the costal border as seen from the front, the cartilage of the tenth rib, and passes through or a little above or below the disc between the second and third lumbar vertebræ. The lower transverse plane in the older methods was placed either at the highest point of the iliac crest or at the anterior superior iliac spine. The former level was objectionable because it was very close to, or might even coincide with, the level of the lower border of the thorax, and consequently reduced the vertical measurement of the regions of the middle zone into very narrow limits or obliterated them altogether. To remedy this Professor Cunningham proposed to lower the plane to the level of the well-known tubercle at the outer border of the iliac crest (coinciding posteriorly with the level of the fifth lumbar vertebra); while in the alternative system the old level of the anterior superior iliac spine was retained and the plane extended into the pelvis about an inch below the sacral promontory. The longitudinal plane proposed by Professor Cunningham corresponds to that recognised in the most familiar of the existing methods, and extended vertically upwards (or parallel to the mesial plane) from the middle of Poupart's ligament. It was proportionately somewhat more distant from the middle line in the female than in the male. The other system proposed a new plane, that of the linea semilunaris at the outer border of the rectus abdominis, and inclining below to the pubic spine. This was usually parallel and more or less internal to the last in the upper and middle zones, but sloped inwards away from it in the lower zone. Both of these methods were excellent, and each had certain advantages. The first had sprung, like Pallas Athene, complete and armed at all points from the head of its sire, for Professor Cunningham has already provided us with an invaluable series of models and diagrams demonstrating the parts divided by each plane; and a second advantage—a great one—was that the levels of the section planes approximated very closely to those of the scheme best known to English students—that in *Quain's Anatomy*. In fact, as frankly admitted by Professor Thane, the inter-tuberculous plane really expresses the intention, if not the words, of the authority in question; for although it lay below the highest point of the iliac crest, it corresponded to the highest point as seen from the front. The advantages claimed for the second scheme were—first, that the semilunar line was a natural marking, always to be discovered by inspection or palpation, and bore a fairly constant relation to the breadth of the trunk of the individual, and hence did not reduce the upper lateral (hypochondriac) regions to such slender limits as the line from the middle of Poupart's ligaments; secondly, that the plane at the level of the iliac spines crossed the surgical or operative regions of the cæcum and sigmoid flexure, and left an inguinal region, which included the whole length of the inguinal canal and the portions of the

intestine most likely to appear as an inguinal hernia. It was somewhat difficult to elect between the two systems. Mr. Anderson's own preference inclined toward the second as the more useful to surgeons, but he would gladly welcome either if teachers consented to regard it as the only one. This was the real desideratum.

Dr. JOHNSON SYMINGTON made some remarks, in the course of which he made the objection to the second scheme that the plane at the level of the anterior iliac spine left a large part of the iliac fossa above, and reduced the iliac region to very small proportions. He also took exception to the use of the outer border of the rectus as a limiting line.

Dr. WILBERFORCE SMITH said that during many years past he had made routine examination of the abdomen in some 1,000 to 1,500 cases a year. He would appeal to anatomists to afford to clinical workers a uniform method which would serve for rough daily work, and yet be capable of fine adjustment for anatomical use. The clinical objections to the methods of textbooks he found to be the practical impossibility of (1) habitually using so many as nine, or (according to Professor Cunningham) even twelve regions; (2) of making routine search for a landmark in the neighbourhood of the pubes. If the borders of the recti could, as he had suggested, furnish the descending lines, and the umbilicus the horizontal line, furnishing only six regions, these comparatively rough landmarks for clinical purposes could probably be translated by anatomists into lines starting from bony landmarks for more exact use.

Dr. ST. JOHN BROOKS ventured to speak on the subject because he had been associated with Professor Cunningham in this work. He accepted the system proposed by Professor Cunningham. It departed very little from what was laid down in *Quain's Anatomy*, and was simply, as Professor Cunningham had said, "a more accurate way of expressing what other anatomists had meant all along." Anyone who examined the diagram of the region of the abdomen which was given at the end of vol. i of *Quain's Anatomy* would see that it was the intertuberculous line and not the highest point of the crest of the ilium that was indicated. Dr. Symington had stated that the subject selected by Professor Cunningham for his series of sections was not one of normal type. It was a thin subject, in which the stomach and the greater part of the intestines were empty. In order to get the average or normal arrangement, it would be necessary to examine a number of subjects, tall and short, fat and thin, with empty or with full stomachs and intestines. Unfortunately, the freezing and cutting of subjects was a costly process. A strong argument in favour of Professor Cunningham's scheme was that it was extremely difficult to cut frozen sections along curved lines, such as the outer borders of the rectus, and few would care to make the attempt. If, however, a uniform system of dividing the abdomen by straight lines were adopted, no doubt the heads of the various anatomical departments in the United Kingdom would prepare series of actual sections, corresponding with these lines, for the use of their classes, and if the results arrived at were collected and published, sufficient data would be obtained on which to strike an average.

Dr. ARTHUR THOMSON questioned whether the adoption of a type form founded on conclusions drawn from frozen sections was not calculated to give the student a false impression.

Mr. WILLIAM ANDERSON, in reply, said that although he would not constitute himself the advocate of any special system of regional delimitation, he wished to say a few words in reply to the objections which had been raised against the second of the two proposed methods. Dr. Symington opposed the plane at the level of the anterior iliac spine because it left a large portion of the iliac fossa outside the iliac region, and reduced the latter within very narrow limits. There was, however, a well known alternative name for the region in question—that of "inguinal"—and in the second system this was adopted. The inguinal region, then, although small, included all the parts in connection with inguinal hernia. Dr. Symington's objection to the use of the outer border of the rectus was not destructive, because the direction of the border was almost perfectly straight along the upper two-thirds of the muscle, and the curvature in the lower third might in sections of the frozen subject be represented with sufficient accuracy for all practical purposes by an oblique plane running onwards towards the pubic spine. Dr. St. John Brooks opposed the plane of the anterior iliac spines because it entered the true pelvis posteriorly. Mr. Anderson did not regard this as a disadvantage; the artificial separation of the true pelvis from the abdomen in the textbooks was only misleading, and he thought that the great body cavity below the diaphragm should be regarded as one. He fully sympathised with Dr. Wilberforce Smith's desire to simplify the regions. If the question could be attacked *de novo* no doubt the system he proposed might be approved, but unfortunately a regional division and nomenclature that had become part of our literature could not be set aside without producing inconveniences greater than the probable gain. The problem, indeed, resembled that of the substitution of decimal coinage for our present monetary system. He was unable to agree with Dr. Thomson that a type form of the relations of the abdominal viscera, such as that which sections like Professor Cunningham's gave, would mislead the student. The whole teaching of anatomy—of bones, muscles, vessels, and the rest—was through a series of type forms, and the dissecting-room experience of every student would tell him that these were only types, and were subject to endless variation. Type forms were the basis of our anatomical education, and if one that aided the recollection of the average topographical relationship of the chief abdominal structures could be constructed, a forward step in the training of the future medical practitioner would have been taken.

EXPERIMENTAL INVESTIGATIONS INTO THE FUNCTIONS OF THE CEREBELLUM.

BY J. S. RISIEN RUSSELL, M.D., M.R.C.P.,
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(From the Pathological Laboratory of University College, London.)

AFTER alluding to the previous experimental work that had been done in this field, and to the various theories that had been advanced as to the functions of the cerebellum by Luciani and other previous observers, Dr. Russell went on to consider in more detail the results which he had obtained in a considerable number of experiments on dogs and monkeys. Commencing with a short account of the method of operative procedure which he adopted and of the difficulties which had to be contended with, he next sketched the plan on which he had approached the subject, and which consisted in an attempt to determine: (1) Whether the one half of the cerebellum was dependent on the other for the proper performance of its functions; (2) whether impulses from one side of the organ passed to the other side before they were transmitted either to the cerebrum or spinal cord; (3) whether one half of the cerebellum was related mainly to the same side of the spinal cord, to the opposite side, or to both; (4) whether any such relationship was of the nature of a control or a reinforcement of the spinal centres by the cerebellum; (5) the nature of the relationship which existed between the one half of the cerebellum and the cerebral hemisphere of the opposite side; (6) the symptoms which resulted from experimental lesions of the cerebellum, especially with a view to emphasising those which were most to be relied on for localising the position of a cerebellar lesion; (7) whether any—and, if so, which—of the symptoms were dependent on interference with the labyrinth or eighth nerve. The following experimental procedures were adopted in attempting to elucidate these various problems:

1. A median section separating the two halves of the organ from each other.
2. Extirpation of one lateral lobe alone.
3. The removal of half of the organ.
4. Both the last two procedures as preliminaries in different cases, followed by a comparative investigation of the excitability of the two cerebral hemispheres some weeks after.
5. As a control to the last method the comparative excitability of the two cerebral hemispheres was investigated with the cerebellum intact.
6. Extirpation of both lateral lobes of the cerebellum, leaving the middle lobe intact.
7. Excision of the posterior portion of the vermis.
8. Ablation of the whole cerebellum.
9. Control experiments, consisting in:
   (*a*) Extirpation of the labyrinth of one side.
   (*b*) Intracranial unilateral section of the auditory nerve.
   (*c*) Chemical irritation of the auditory nerve of one side.

10. A study of the degenerations which result after various experimental lesions of the cerebellum.

The various results obtained were discussed, and animals presenting characteristic symptoms of certain of the cerebellar lesions were exhibited in corroboration of the statements made. The conclusions reached were that the cerebellum was an organ whose one half did not in any great measure depend on the co-operation of its opposite half for the proper performance of its functions, so slight and transitory were the effects which followed severance of the connections between the two halves. Also that the evidence was all opposed to any theory which supposed that impulses passed from one half of the cerebellum to the other in course of transmission to the cerebrum or spinal cord. One half of the organ was looked on as exercising an influence on the spinal centres of the same side, and of the cortical centres of the opposite side. The influence on the spinal centres was regarded as one of direct control, as when one half of the cerebellum was removed rigidity and exaggeration of tendon reflexes resulted in the limbs on the same side. Whereas the influence on the opposite cortex was considered an energising one, the removal of one half of the cerebellum being followed by diminution in the excitability of the opposite cerebral cortex. Of the symptoms met with, impairment of movement was the most important; three factors were responsible for its production: (1) inco-ordination, (2) rigidity, and (3) paresis. With care these three factors could, by a process of analysis, be separated, and the effects due to one unmistakably distinguished from those due to another. The inco-ordination showed itself by unsteadiness and oscillation, which might be increased by any disturbance or by attempts at voluntary movement; reeling, in which the animal, in attempting to walk, staggered and fell to the opposite side when one lateral lobe or half the cerebellum was removed, and backwards when the posterior part of the vermis was excised; and rotation fits, in which the animal rotated on its long axis, the rotation being to the opposite side in unilateral ablation of the cerebellum. When the whole cerebellum was removed, all four extremities were rigidly extended, and the deep reflexes on both sides were exaggerated. In unilateral ablation of the organ the rigidity and increased deep reflexes become evident on the same side as the cerebellar lesion, and the former is more marked in the anterior than in the posterior extremity of that side. Paresis was general after removal of the whole organ, but more marked in the posterior than in the anterior extremities; and the back muscles especially participated in the weakness. In the absence of one lateral lobe or of one half of the cerebellum the paresis showed itself in both posterior extremities, but to a much greater extent in that of the same side, that of the opposite side being only very slight. The paresis was also evident in the anterior extremity of the same side, to a slight degree more than in the opposite posterior extremity, but much less than in the posterior extremity of the same side. As a result of this paresis the animal often fell over to the side of the cerebellar lesion, and the author laid great stress on the necessity of carefully distinguishing this effect from the characteristic reel in which the animal falls to the opposite side. After excision of the posterior part of the vermis the paresis was evident in the posterior extremities, whereas the altered movements of the anterior extremities appeared almost wholly dependent on inco-ordination and rigidity. The attitudes and gaits characteristic of the different experimental lesions of the cerebellum and certain ocular phenomena met with were discussed. A certain amount of proptosis was noted when any part of the cerebellum was removed, squint depending in its character on the part removed, and nystagmus depending on similar considerations. Ablation of the whole cerebellum was attended by downward and outward rotation of both globes. Removal of one lateral half of the organ resulted in "skew deviation." At first the eye on the same side was directed upwards and to the same side, while that of the opposite side was directed downwards and to the opposite side. As recovery ensued the deviation of the eye on the same side was the first to right itself, and sometimes the opposite eye was alone deviated to any extent. When the whole of the posterior part of the vermis was extirpated both globes were deviated downwards and outwards, and when only one lateral half of this part of the organ was excised, the globe on the same side was deviated slightly downwards and to the same side; while no appreciable deviation could be detected of the opposite globe. No affection of ordinary sensibility was determined, nor was there any evidence of affection of the special senses. There was no optic neuritis. After an experimental lesion of the cerebellum, the animal passes through various stages,[1] which the author considered as most conveniently divisible into three—(1) A stage in which symptoms the result of irritation were most pronounced; (2) a stage in which symptoms due to loss of the part removed were alone present; and (3) a stage in which the animal's condition appeared to be permanent, and in which defects from the loss of the portion of central nervous system removed were in great measure compensated for. The exact duration of the various stages varied in different animals of the same species, and according to the severity of the lesion. Inco-ordination as evidenced by rotation fits and reeling were products solely of the stage of irritation, as were ocular deviations and nystagmus. Paresis existed in the first stage, and persisted in the second; but might be evident only to a very slight extent, if at all, in the third, or stage of compensation. Unsteadiness and oscillation, well marked in the first stage, persisted to a less extent in the second, and might be still quite distinct in the third stage. Rigidity and exaggerated reflexes were at their acme in the first, but were also present in the second and third stages to a much less extent than in the first. In conclusion, certain minor differences in the symptoms which obtained in the monkey as contrasted with the dog were alluded to, and special emphasis was laid on the symptoms which were most likely to aid in the localisation of affections of the cerebellum in man. Allusion was also made to certain additional symptoms met with in man, but not resulting from experimental lesions in animals, to which special attention should be paid in the diagnosis and localisation of cerebellar disease.

THE NATURE OF THE WORK OF THE KIDNEY AS SHOWN BY THE INFLUENCE OF ATROPINE AND MORPHINE ON THE SECRETION OF URINE.

Dr. W. H. Thompson said that he had carried out experiments on this subject on dogs. The urine was collected by placing cannulæ in the ureters at a considerable distance from the kidneys. The drugs were administered by intravenous injection, 1½ to 2 milligrammes of atropine per kilogramme of body weight, and 3 to 4 of morphine being given. The results were that: (1) The urine was found to be diminished. (2) Urea was also diminished both in total amount and in percentage amount contained in the urine. (3) The nitrogen other than that in urea was increased both relatively and absolutely. The effects of the drugs could not be explained by their influence on blood pressure. Atropine caused a slight rise; while in the case of morphine, though it produced a fall, still there was no correlation between the height of the blood pressure and the quantity of urine secreted. The diminution of urea, together with the increase of the extra nitrogen, might fairly be taken the one as the counterpart of the other; and, if so, this with the fact that heat was produced in the kidney during the performance of its function led to the belief that some of the urea was in all probability formed in the kidney out of one or more of the other nitrogen-holding compounds. The experiments were carried out in Professor Karl Ludwig's laboratory at Leipzig.

THE MORPHOLOGY OF THE PERONEAL GROUP OF MUSCLES IN THE MONOTREMATA.

Dr. H. St. John Brooks said that in a previous paper he had endeavoured to show that certain muscles which were situated in the forearm of man and most mammals were originally placed on the dorsum of the hand, forming a deep stratum and constituting an extensor brevis digitorum manus. These muscles had ascended into the forearm in two groups, the more radially-placed members of the series retaining their deep position, and forming the long extensors of the thumb and the extensor indicis; the ulnar bellies of the

[1] C. F. Goltz, Luciani, etc.

muscle, on the other hand, having been crowded out and forced to the surface, and forming the extensor minimi digiti (et annularis). He would refer to the extensor minimi digiti et annularis as the "condylar group." A somewhat similar transition might take place in the lower limb, some of the members of the peroneal group of muscles representing the "condylar group" in the upper limb, and others remaining in their original position on the dorsum of the foot (extensor brevis digitorum); while others ascended as a deep anterior group—extensor longus hallucis (man and most mammals); extensor metatarsi hallucis (great anteater and hatteria); extensor longus indicis (great anteater). According to Ruge, the extensor brevis digitorum pedis was originally a peroneal muscle, as in Ornithorhynchus, and its descent on to the dorsum of the foot might be traced step by step in various marsupials. If attention were confined to mammals only, the evidence appeared to be tolerably conclusive in favour of Ruge's theory. In reptiles, however, the extensor brevis digitorum was placed on the dorsum of the foot, and a similar condition was found in the great anteater, one of the Edentata—a very archaic order of mammals. It appeared probable, therefore, that this group of muscles had varied in a special manner in Monotremata and Marsupials, and that the general order of evolution had been for the muscular structures to ascend from the foot to the leg rather than to take the opposite course.

THE RELATIONS OF INCISORS TO COMPOUND TEETH.

Professor Cleland illustrated, by means of specimens, the gradual passage from the simplest form of tooth, which was founded on a simple papilla, to the most complex forms in which several papillæ, and the cusps founded on them, were collected on a common base. He pointed out how pits were formed by a range of elevations surrounding spaces between. He then proceeded to indicate that the slight depression on the lingual aspect of the crown of a human incisor represented the pit in the incisor of the horse, and exhibited additional incisors from the human subject in which this pit was completed.

INFLUENCE OF FEVER ON HEPATIC GLYCOGEN.

Dr. Noël Paton said that, since it was the disintegration of proteids, and not of fats and carbohydrates, which characterised the metabolism of fever, it was important to investigate the influence of the febrile process on hepatic glycogen. In the following experiments, the two main factors in the production of fever—diminished heat elimination and the influence of toxic products—were investigated. Pairs of young rabbits were kept for prolonged periods on the same diet, and weighed daily. The amount of hepatic glycogen was thus rendered fairly uniform. (*a*) *Diminished Heat Elimination.*—One of the rabbits was placed in a large well-ventilated chamber, heated to 50° or 54° C. The rabbit's temperature rose to 41° or 43° C., and was maintained for an hour or two. It, along with the other rabbit, was then killed, and the glycogen estimated. It was found that the amount of glycogen was markedly diminished. At the same time, the reducing substances of the blood and liver were increased, probably indicating that there was an increased conversion of glycogen and glucose. (*b*) *Influence of Toxic Products.*—Into the vein of one of the pair of rabbits a sterilised culture of yeast was injected. A slight pyrexia was produced. After twelve hours the animal, along with the other, was killed, and the glycogen estimated. In the fevered animals the substance was diminished. The observations of Noël Paton and Balfour on the influence of fever on the constituents of the bile favoured the view that there was diminished production of glycogen in the liver, though this might be accompanied by increased conversion.

INTRAVASCULAR CLOTTING.

Professor W. D. Halliburton, F.R.S., and Mr. T. G. Brodie, M.B., contributed a paper on this subject. Professor Halliburton said that in an investigation of the proteids obtainable from the cellular structures of various organs, particular attention was directed to a substance which possessed the peculiar property of being rendered viscous by admixture with sodium chloride, and which could be precipitated by pouring the viscous mixture into large excess of water. Analysis showed that the proteid in question belonged to the interesting class of the nucleo-albumins, substances which yield a residue of the phosphorus-rich substance called nuclein on gastric digestion. At the same time, analysis of the substances which Wooldridge called "tissue fibrinogens" revealed that they also were nucleo-albumins. It appeared, in fact, that the two materials, namely, that prepared by the sodium chloride method and that prepared by Wooldridge's acetic acid method were identical. Among the points of resemblance, perhaps the most striking was their physiological effect. When injected into the circulation of rabbits they produced almost instantaneous death, and on *post-mortem* examination, though the heart was still found beating, its right cavities and the venous system generally were found full of clotted blood. In some cases the left cavities and the arterial system were found with similar contents. Death occurred from stoppage of respiration, and the fact that severance of the vagi made no difference in the experimental results pointed to the cause of death being in the respiratory centre. Another marked symptom was exophthalmos and dilatation of the pupils. Among other points, it might be mentioned that the substance injected was a perfectly clear, colourless solution. The solvent used was a weak solution of sodium carbonate. This might very conveniently be dried in a vacuum, and the dry powder was then available for use whenever it was wanted. Solutions lost their activity when kept, and a curious change noticed was that after keeping a few weeks they become pink in colour; in months this deepened to red. Spectroscopic examination revealed no absorption bands. The solutions were perfectly sweet and free from bacterial growths, thymol having been used as an antiseptic. Farther, the substances employed were free from lecithin, a material to which Wooldridge attached considerable importance as a factor in fibrin formation. It could not be doubted that a study of coagulation within the vessels would lead to the elucidation of this obscure subject, much more readily than the older methods in which clotting was studied in various forms of extravascular plasma. It was certainly much more important from the clinical standpoint. The use, however, of nucleo-albumin to produce clotting in aneurysms or to stay hæmorrhage could not be recommended because the material was so deadly. It was hardly to be doubted that the active agent in cases of death from extensive thrombosis in the human subject was the same material which had been employed in these experiments. Great credit was due to Sir Joseph Fayrer as being the earliest to point out that intravascular clotting was a common cause of death in India, and probably in this country also. He had recently published a number of cases in the British Medical Journal. [One of his specimens was shown to the meeting.] The clot, which was now in spirit, was drawn from the pulmonary artery at the necropsy; it formed a cast of the artery and its numerous branches. Dr. Halliburton then proceeded to read the following paper for Sir Joseph Fayrer, who was unable to be present at the meeting:—

CARDIAC AND PULMONARY THROMBOSIS.

By Sir J. Fayrer, K.C.S.I., M.D., F.R.S.

Intravascular coagulation of blood as a source of danger or of death has not, I think, received the full consideration to which it is entitled. It has long been recognised as a concomitant of exhaustive diseases and of puerperal conditions, and Richardson, Wharton Jones, and others have called attention to it in this connection. I would again refer to it as a cause of danger, frequently of death, after surgical operations, wounds, injuries, and especially in persons who live or have lived in malarial climates, and the more so if they have become the subjects of splenic cachexia. In such cases the passage of a catheter, the results of a surgical operation, the poisoned state of the blood supervening on suppuration, the general disturbance following parturition—if complicated by any local lesion, over-exertion, or fatigue, especially when there is marked splenic disorder and leukæmia—are frequently sufficient to induce it, and the patient who has apparently been doing well, or it may be is

suffering from some comparatively slight complication, is suddenly attacked with symptoms of obstruction of the pulmonary artery, and is placed in great danger, or perishes in a distressing state of breathlessness, when after death the only cause of the fatal result is the presence of a clot obstructing the pulmonary artery. Many years ago I pointed this out, and expressed my belief that the condition of the blood in which this is liable to occur, though due to other causes, is especially prone to happen in the blood of those who have suffered from malarial infection, and more especially when combined with splenic disease. The recent valuable researches of Drs. Halliburton, Wooldridge, Wright, and others have thrown much light on the nature of the changes the blood undergoes, and in their explanations my view seems to find support, for it is in the leucocythæmic condition in which the amœboid cells are numerous that the dangerous clotting is apt to occur. These researches are not only valuable in that they give a rational explanation of the cause, but that they point to a probability of averting the danger by the timely use of remedies which may diminish the tendency in the blood to clot or may promote the solution of the clot when it has occurred. The formation of clots in the larger trunks, though always dangerous, is not—even when it takes place in the heart or pulmonary artery—invariably fatal, and I have seen many recoveries after long and tedious suffering. It may fairly be anticipated that the light thrown by modern pathology and pharmacology will render such cases more amenable to treatment, and that it may avert suffering and death in many that have hitherto resulted in dangerous illness, and, but too frequently, a fatal termination. The cases, of which very brief notes are herewith submitted, are good examples of the pathological conditions under consideration. For further illustrations, I would refer to previous communications on the subject in "Clinical and Pathological Observations in India," and to the *Lancet* and British Medical Journal. I would add, in conclusion, that I believe this is a more frequent cause of danger and death in this country (England) than is generally supposed.

Case I.—A gentleman, aged 45, who had returned from a tropical and malarious region, came under my observation in 1882. He was cachectic and weak, having had dysentery and fever. He suffered considerably from evidences of malarial poisoning, and frequently from intense neuralgia. He died a few days after his arrival. I found him, on March 5th, suffering great abdominal pain. Pulse quick and feeble, skin clammy, temperature subnormal, breathing hurried and shallow. This rapidly became much worse and continued until death, at 10.30 P.M. on March 6th.

The lungs after death were found pale and emphysematous, but hypostatically congested at the base, otherwise normal. The pericardium contained a considerable amount of serum. The heart was normal, but a firm decolorised coagulum extended from the ventricle into the pulmonary artery and its minute ramifications. The left cavities of the heart were empty, the heart itself and the valves were normal. There was no sign of dysentery, the intestines, kidneys, and spleen were normal. There was a small abscess in the liver. There is no doubt that whatever might have been the result of such a case life was brought to a close suddenly by the formation of this clot.

Case II.—An English sailor, aged 39, applied for relief from retention of urine to the Calcutta Medical College Hospital on June 20th, 1870. Said he had suffered from slight stricture for the last five or six years. A catheter was passed, and the urine drawn off without difficulty. He returned in the afternoon very ill, in great abdominal and thoracic distress; had passed some urine tinged with blood after his return home. On June 21st the pain seemed to localise itself in the right hypochondriac region, and there was excessive tenderness, on pressure, over the liver. Breathing hurried. No urine had been passed since admission. There was dulness, on percussion, over the base of the right lung. Breathing hurried and gasping. The distress increased, and he complained of a choking sensation. At about 10.30 P.M. he passed water, but no improvement resulted, and he died at midnight "in a sudden fit of gasping." The struggle for breath was most distressing to witness.

Post-mortem Examination.—The lungs were hypostatically congested, the right most so; one portion of the middle lobe was solidified. The lower lobe was also hepatised. There were one or two very small patches of tuberculous deposit in the apices of the lungs; with this exception, they were healthy and crepitant. The heart was normal, but its cavities contained firm, adherent, fibrinous clots. That in the left side extended from the auricle into the ventricle and into the aorta for about 3 inches. That in the right was larger, and extended from the auricle through the ventricle into the finer ramifications of the pulmonary artery. The pleuræ were normal; the kidneys were congested; the other viscera and peritoneum were healthy. The bladder was somewhat thickened, and the urethra was slightly strictured in front of the bulb. There was no wound and no false passage.

Professor Czerny, of Heidelberg, has sent a contribution of 20 dollars to the Gross Monument Committee, as a testimony to his "admiration for the man [Samuel Gross *père*], and the surgical work which he has done."

THE GASES OF THE BLOOD DURING ANÆSTHESIA.

The President (Dr. Oliver) and Mr. F. C. Garrett, M.Sc., F.C.S., read a preliminary note on an investigation of the gases of the blood during anæsthesia with chloroform, ether, bichloride of mythlene, and nitrous oxide. The gases of the blood had been analysed in anæsthesia under these drugs. The animals experimented upon were rabbits. In all the experiments narcosis was complete ere the blood was removed; the animal was never allowed to regain consciousness. Arterial blood, unless otherwise stated, removed from a large branch of the abdominal aorta, for example, the external iliac artery, was employed for analysis. The blood was withdrawn through a hollow needle and rubber tubing, previously filled with weak solution of chloride of sodium. The amount of blood removed averaged 26 c.c. The pipette was then hermetically closed, and afterwards plunged into a column of ice, in which it was removed to the chemical laboratory. Clotting never occurred. Subsequently the pipette was attached to a Pflüger's gas pump, modified by Professor Bedson, of the Durham College of Science. When the gases were given off by the blood *in vacuo*, they were analysed in Dittmar's apparatus, using the Hempel pipettes as modified by Bedson. The carbonic acid was determined by absorption with caustic potash, the oxygen by absorption by means of ferrous tartrate, and the vapour of the anæsthetic by combustion with oxygen. After the explosion the excess of oxygen was removed, and the residual nitrogen measured. All the volumes have been reduced to normal temperature and pressure. The first table contains, for comparison, a tabulated statement of the gases of normal arterial blood in volumes, at 0°C. and 760 mm. as met with in the dog.

	Handbook of Physiological Laboratory.	Meyer from Halliburton.	Pflüger.
CO_2	39.5	26 to 34	34.3
O	17.65	12 „ 18	22.0
N	0.1	3 „ 5	1.8

Dog. Arterial blood in Chloroform Anæsthesia (Oliver and Garrett.):—

CO_2	37.21
O	17.09
N	8.03
$CHCl_3$	0.92

Rabbit. Arterial blood. Chloroform Anæsthesia. (Oliver and Garrett.):—

	A.	B.	L.
CO_2	6.46	19.33	24.85
O	20.96	16.86	13.14
N	54.72	38.3	13.7
$CHCl_3$		4.55	2.59

Rabbit. Arterial blood. Ether anæsthesia. (Oliver and Garrett.):—

	D.	E.	F.
CO_2	25.5	34.52	14.73
O	26.47	27.73	23.07
N	25.68	1.34	6.16
Ether	0.79	0.67	0.59

Rabbit. Arterial blood. Bichloride of Methylene. (Oliver and Garrett.):—

	G.	H.	I.	K.
CO_2	38.99	13.12	32.21	17.62
O	5.2	21.26	13.51	14.16
N	8.92	21.67	6.74	12.96
Combustible gas: methylene chloride ...	0.57	1.31	1.20	0.99

Rabbit. Chloroform and Oxygen. (Oliver and Garrett.):—

	M.	N.	O.	P.	U.*
CO_2	45.18	58.43	37.26	26.38	35.96
O	21.02	16.06	22.95	19.03	16.83
N	8.96	11.56	11.65	8.92	6.62
$CHCl_3$	1.18	1.20	0.62	1.5	a trace.

* Baird and Tulloch's Oxygen used.

Rabbit. Ether and Oxygen. (Oliver and Garrett.):—

	R.	T.
CO_2	18.85	34.02
O	15.11	21.25
N and combustible gas	20.58	33.97

Rabbit. Nitrous Oxide. (Oliver and Garrett.):—

	S.
CO_2	15.66
O	3.49
N_2O	22.49
N	11.23

Rabbits take ether with greater safety than chloroform. The respirations became rapid and the temperature rose, but after death the heart would go on beating for a variable length of time. Sometimes the left side of the heart would be, comparatively speaking, empty whilst the right was full, or, as in others, the heart would be found overfilled in all its chambers, and relaxed. The number of volumes of oxygen present in the blood, it would be seen, was not very large; the carbonic acid, with the exception of the dog, was not excessive; but there was a very large quantity of nitrogen. Chloroform destroyed the absorbing powers of hæmoglobin for oxygen. It had been shown by Paul Bert and de Saint Martin that as the animal became more profoundly anæsthetised the oxygen diminished whilst the carbonic acid increased. The removal of large quantities of blood seemed to alter in a very marked manner the composition of the gases of the blood. Making allowance for this influence, the fact remained that, as chloroform narcosis was pushed, the tendency was for the amount of oxygen in the blood to diminish and the carbonic acid to increase. The largest amount of oxygen was found in the blood under ether, and that, with one exception, the amount of nitrogen was smaller than in chloroform. Bichloride of methylene was rather an unmanageable anæsthetic to rabbits. Very early under its administration the breathing would suddenly cease, and could not be restored by artificial respiration. Yet all the while the heart was felt beating, and would continue to do so for more than ten minutes after its removal from the body. When death occurred the heart was always in diastole. All the cavities were filled; the right half looked as if it was painted blue, whilst the left was very red. If death was not sudden it was preceded by shorter and still shorter but feebler respirations; but once this condition was reached, and atmospheric air supplied, death was not averted. When a mixture of chloroform and Brin's oxygen, which contains 7 per cent. of nitrogen, was being administered to a rabbit, the breathing became suspended for a few seconds, especially when there was excess of oxygen, as if the animal was in a state of apnœa. This was shortly succeeded by a condition in which breathing was very active, the respirations varying from 60 to 80 in the minute. Anæsthesia was always less quickly induced than when chloroform alone was inhaled. The blood from the artery of the animal flowed into the pipette under high pressure, and had a bright scarlet colour, but in spite of that it was found on analysis to contain a larger quantity of carbonic acid than when chloroform alone was employed. Towards the end of life the breathing became very short and feeble, and gradually ceased; but on opening the chest the heart in every instance continued to beat vigorously for several minutes, the left side being noticed to be practically empty compared to the right. The pupils after death were semidilated. In the cases where oxygen was allowed to commingle with the vapour of chloroform the supply of oxygen was so free that the animal, whose head was in a tight-fitting mask, could not have suffered in any way from any excess of carbonic acid. In three of the experiments the carbonic acid in the gases escaping from the mask varied from 0.4 to 0.9 per cent.

When ether and oxygen were administered the animals went quietly under the influence of the anæsthetic, the respiration and circulation were well maintained, and the blood escaped from the artery under higher pressure than in any of the other experiments. Long after the respiration had ceased, when the chest was opened, the heart would be seen beating with extreme vigour, the movements being very forcible. The pupils were the size of a large pin's head. In one or two of the rabbits it seemed almost impossible to check the respiration and circulation when the anæsthesia was profound by pushing the ether. If pure chloroform, however, was at this stage applied to the nostrils of the animal, its inhalation was almost immediately followed by rapid dilatation of the pupils, and the respiration would gradually but quickly cease. It was difficult to express an opinion upon the gases of the blood in the ether and oxygen experiments. In the chloroform and oxygen experiments, and also in the rabbit T (ether and oxygen), it would appear as if the excess of carbonic acid in the blood was not of itself the source of danger. The freedom with which an excess of oxygen passed into the lungs would, if it were absorbed, promote oxidation of the tissues, and, therefore, further the production of carbonic acid. For safe anæsthesia it was rather a question of the ease or rapidity with which the blood could part with its oxygen to the tissues, and at the same time good ventilation of the lungs, whereby the carbonic acid would readily escape from the blood. Nitrous oxide destroyed rabbits very quickly. The movements of the heart and respiration would suddenly cease, or the respiration would be suddenly arrested, and on exposing the heart a few flickering impulses would be noticed in the auricles. Removal of a small quantity of blood from the heart would set agoing renewed and fairly vigorous movements of that organ. The pupils were dilated; the lungs were collapsed and empty of air. All the large veins were over-distended with dark blood. The arteries were empty, whilst the heart was overfilled in all its chambers. Anæsthesia by nitrous oxide seemed to be extremely rapidly induced. The analysis of the gases of the blood in nitrous oxide showed a most marked deficiency of oxygen, no excess of carbonic acid, but nitrous oxide and nitrogen present in considerable quantity. So far as nitrous oxide anæsthesia was concerned, the danger probably depended upon the great absence of oxygen, for the carbonic acid was present in small quantity compared with that in the other anæsthetics, but it was present in very large quantity relatively to the amount of oxygen associated with it in the blood.

EMBRYOLOGICAL STUDIES OF TUBAL GESTATION.

DR. J. C. WEBSTER described a few of the changes in the tubal mucosa in cases of tubal pregnancy, especially noticing

the alterations in the endothelium, the formation of the decidua, the changes in the maternal vessels, and the relation of the fœtal epiblast to the decidua.

THE DISTRIBUTION OF NERVES TO THE LOWER LIMB.

Dr. A. M. Paterson read a preliminary account of investigations into the distribution of the nerves of the lumbo-sacral plexus. The results of his researches agreed in the main with similar researches of Sherrington and Lister, but showed considerable divergence from the conclusions of Ferrier, Yeo, and Gowers. They revealed also in some important respects discrepancies with the rules formulated by Herringham for the upper limb.

EXPERIMENTAL NOTE ON THE KNEE-JERK.

By C. S. Sherrington, M.D., F.R.S.,
Professor-Superintendent of the Brown Institution; Lecturer on Physiology St. Thomas's Hospital Medical School.

Dr. Sherrington described experimental observations he had been making with regard to the knee-jerk. The sensory fibres on which the jerk depended arose within muscles, and within exactly those muscles, to which belonged the motor fibres with which the jerk was concerned. The knee-jerk was much influenced by sensory impulses from the antagonistic muscles of the joint, that is, from the flexor muscles of the knee, the hamstrings. Thus section of the nerve to the hamstring muscles—a division of the great sciatic—caused increased briskness of the jerk. On the other hand, electrical excitation of the central end of the nerve to the hamstring muscles interfered with the jerk—restraining it. After this restraint had passed off the jerk was for a short time greatly increased. It was often sufficient merely to compress the hamstring muscles, as they lay flaccid on the hand, between fingers and thumb. A kneading of the muscle as in massage had the same effect. But the most efficient mode of excitation of the afferent fibres from these muscles appeared to be mechanical, that is, the myotatic (Gowers).

These observations appeared to indicate strongly the existence of sensory nerves for skeletal muscles. Some physiologists and anatomists denied altogether the existence of sensory muscular nerves (Todd, Schiff, Kühne). Anatomical evidence of their existence was certainly curiously deficient. It consisted chiefly in Golgi's discovery of a peculiar nervous end organ in certain tendons, and in Sach's observation, that, after section of the motor roots of the frog's leg, he could find two undegenerated nerve fibres in the sartorius muscle. The author determined to attempt a re-examination of the question. His experiments had been performed by the Wallerian method on the hind limb of the monkey and the cat. He had obtained complete degeneration and removal of all *motor* nerve fibres by severing the motor roots to the limb; but the sensory fibres had been allowed to remain intact; three to eight weeks had been allowed for the course of the degeneration. Proceeding in this way, he had examined the nerves of the muscles of the limb, and found in them numbers of nerve fibres which remained perfectly undegenerated, although the motor roots had been severed, and were completely disintegrated. These fibres must be either sympathetic or sensory. The author detailed the reasons for concluding that they were not sympathetic, or that at most a very small fraction of one class of them could be sympathetic. They must therefore be, if not all, yet for by far the greater part sensory. They were the fibres which especially early fell a prey to the diseased process in tabes dorsalis (locomotor ataxy). Anatomically described, these fibres were medullated, presented numerous nodes of Ranvier, and not infrequent dichotomy. They were for the most part of two sizes: a coarse kind about 17 μ diameter, a smaller kind about 2-3 μ in diameter. They formed a varying proportion of the total muscular nerve trunk; in some cases perhaps a third of the trunk, in others much less. As to absolute numbers, the author had counted more than 300 of these fibres in the nerve to the outer head of the gastrocnemius, and quite as many in the nerve to the tibialis posticus muscle. The nerves containing these fibres gave, on excitation with strong tetanising currents, no response. The muscles from which the motor nerve fibres had been removed, and only these sensory left, wasted greatly, but did not appear to give the ordinary reaction of degeneration as did a muscle, the total nerve to which had been severed and allowed to degenerate. In order to be certain that the roots were completely cut through, not only were the motor reactions taken, but the divided roots were microtomed and examined in serial sections. In making this examination, the following observations were incidentally obtained:

1. A few scattered fibres in the anterior spinal roots of the lumbar nerves do not degenerate distally to the section of the root.

2. A certain number of ganglion cells lie in these anterior roots, as Schäfer has recorded. These ganglion cells are of various sizes (40 μ to 16 μ in diameter). Very rarely can more than two be seen in a single cross section of the root.

3. The fibres in the motor root which do not degenerate can be traced back into the posterior root; they leave that root near the distal end of the ganglion. They are *recurrent*, therefore, and in these roots do not run back from the peripheral nerves as Bernard described in the thoracic roots, but slip in from the ganglion, as Schiff seems to have believed. The ganglion cells discovered by Schäfer seem to be connected with these recurrent sensory fibres.

[The communication was illustrated by lantern slides and photomicrographs.]

THE SENSORY MOTOR FUNCTIONS OF THE CENTRAL CONVOLUTIONS OF THE CORTEX CEREBRI.

By F. W. Mott, M.D., F.R.C.P.,
Lecturer on Physiology Charing Cross Hospital Medical School.

Dr. F. W. Mott opened a discussion upon the sensory motor functions of the central convolutions of the cortex cerebri. After briefly referring to the works of Hitzig, Munk, Schiff, Nothnagel, Exner, Luciani and Seppili, Tripier, Moelli, Albertoni, Horsley and Schäfer, Allen Starr, Dana, Bastian, James Waller, and Gowers, he contrasted their views of the partial or wholly sensory function of this region with the purely motor doctrine of Ferrier. Dr. Mott then alluded to the probable path of the sensory impulses, which Bastian had termed "kinæsthetic." He believed that the posterior column conveyed these impulses, and especially the tracts which are implicated in locomotor ataxy. The observations of Flechsig, Von Monakow, Hösel, and Déjerine had shown that the upward continuation of impulses travelling up the posterior columns of the cord was through the posterior column nuclei, the internal arciform fibres, thence after decussation by interolivary tract and fillet of opposite side to posterior part of internal capsule, and eventually terminating in the central convolutions. Thus anatomical and embryological researches had shown that the cortex cerebri, which is termed "motor," is also concerned with the reception of afferent sensory impulses. This is also supported by the experiments of Hitzig, Munk, Luciani and Seppili, Tripier, and Moelli. Dr. Mott was of opinion, from his own experiments, that Munk is right in concluding that sensory defects arise after extensive ablations of the motor area in monkeys. He showed photographs and sections of the brains of the animals which had been exhibited at meetings of the Neurological, Physiological, and Medical Research Societies, and photographs of the animals demonstrating insensibility of the hand and foot to a weak clip. Dr. Mott explained that he did not remove the portion of brain, but merely separated all its connections by introducing a brain knife which could be bent at any angle (such as used by Mr. Horsley). Paralysis and defective sensibility occurred invariably on the opposite side. If the whole leg area were removed, there was paralysis of the opposite leg (permanent as regards the fine movements of the foot), diminished sensibility of the limb to all forms of stimulus for some days after the operation, and permanent blunting of sensibility to the pressure of a weak clip fixed on the sole of the foot. The three animals so operated upon did not remove the clip from the paralysed side, and the clip was not suffered to remain a second on the non-paralysed foot. This was evidence that the animal could not take it off, because it did not know it was there. If the whole "motor" area be separated from its connections, there

is permanent paralysis of the fine movements of the hand and foot (animals kept alive six months), and paresis of the other muscles; but even in such a case there is *return* of coarse associated movements of hip and knee, and head and neck, probably due to lower centres taking on function, and not the opposite hemisphere. Such animals tested showed for some time after the operation defective sensibility to sensory stimuli; only very painful pricking or heat would cause a response; and the parts that remained permanently paralysed, such as the hand and foot, never recovered tactile sensibility sufficient to show any response to a clip fixed thereon, whereas these animals would take one off the skin of the breast and other sensitive parts of the trunk and limbs. The manner in which animals removed the clip from non-paralysed parts was indicative of spreading of the stimulus to adjacent areas of the same hemisphere. If fixed on the hand the animal would generally take it off with the mouth instead of the opposite hand. If fixed on the foot, with the hand of the same side; but should this unilateral action be prevented, the opposite hand would be used. Many other tests were tried, and after allowing for the great difficulty of testing sensibility in animals, Dr. Mott inferred from his experiments that a permanent defect of tactile sensibility, especially in the hands and soles of the feet, undoubtedly occurred after large lesions of the "motor" area (something akin to the paræsthesia of ataxy). He had examined the brain microscopically by Marchi's and by Weigert's methods, and observed that there was considerable degeneration of the fibres which radiate to the grey matter above the cicatrix in brain; that there was degeneration very marked on the internal capsule, and to an appreciable extent in the corpus callosum and the striæ medullares of the optic thalamus. He observed no descending degeneration in the posterior longitudinal bundle or fillet, even where the whole motor area had been involved (head and eye centres as well). He was of opinion that the removal of these centres gave rise to more degenerated fibres passing down the same side of the spinal cord as the lesion, partly in the median fissure (the direct tract) but also in the crossed pyramidal. The observations were not, however, sufficiently numerous to formulate any positive opinion. The examination of the brain of the monkeys did not reveal any injury of the gyrus fornicatus in most cases, and in Dr. Mott's opinion certainly not enough in the other cases to account for the defect of sensibility. Dr. Mott was of opinion that Munk's criticism against the gyrus fornicatus and hippocampal gyrus being special centres "largely, if not exclusively, for the appreciation of sensation, painful and tactile," was in great measure valid. Dr. Mott would explain the undoubted sensory defects that arise from lesion of this portion of the brain by a destruction of the sensory fibres just after emergence from the internal capsule, although he admitted that it is very possible that the gyrus fornicatus may share in this function. According to Broca and Zuckerkandl, the function of the limbic lobe is olfactory. This inference is mainly based upon a study of the comparative size of the limbic lobe in animals possessing the sense of smell and anosmic animals. The most important evidence relating to sensory motor functions, however, and evidence which is gradually accumulating, is derived from those clinical cases necessitating surgical interference. A convincing argument in favour of the sensory motor functions of the Rolandic area was brought forward by Mr. Horsley, who found undoubted sensory defects following removal of large portions of the Rolandic area in man. Allen Starr, from an experience of 30 cases of cerebral operation, consisting of excision of portions of the "motor" zone, thinks that it is clearly determined that the tactile sense centres are situated in the Rolandic area, especially behind the fissure of Rolando. Cases are frequently recorded of no discoverable anæsthesia following removal of portions of the cerebral cortex[1]. Hale White's case, however, does not afford much evidence, because the patient was not tested till sixteen days after the operation, and only a small area was removed. It is astonishing how soon restitution of sensory function occurs if the portion of brain removed is small. A much more convincing case is offered by Professor Albertoni and Dr. Brigatti:[2] A young girl, aged 15, affected with Jacksonian epilepsy; progressive paresis of upper and lower limbs; tumour of Rolandic area diagnosed. Operation and removal of tumour size of hen's egg; cure. No recurrence after thirteen months. All the epileptic seizures ceased; the paralysis, in spite of the large portion of brain substance removed, not only not increased but greatly improved in the lower limb. Tactile, general thermal, painful and muscular sense impressions, which before the operation were intact, were affected in a certain measure after the operation over the whole left half of the body except the face. The authors see in this an undeniable demonstration of the relation between the psychomotor centres and the sensory cortical elements. Most psychologists—Wundt, Bastian, and James—agree in recognising that the central convolutions possess sensory functions, and Dr. Mott considers that anatomy, embryology, experimental physiology, pathology, and many clinical observations support this doctrine, although it cannot be denied that it is surprising how *great* and how permanent the motor paralysis often is as compared with the loss of sensory function. Dr. Mott attempted to account for this by comparing the expansion of the centrifugal and centripetal fibres of the internal capsule to two funnels; the fibres as they lie in the capsule forming the tubes, and expanding above like cones, the bases of each of which are nearly coincident although the tubes are not. There is this important difference, however: the base of the efferent cone is made up of axis cylinder processes just after leaving the cells from which they grow; that is, comparing a nerve fibre to a tree, the base of the efferent cone consists of the trunks, from which all the branches and collaterals spring. The base of the sensory cone in the cortex consists only of the terminal twigs of the afferent nerve trunks. As the afferent fibres to the cortex form an arborisation before terminating in the grey matter, it is conceivable that a small portion of grey matter of the area connected with tactile perceptions will suffice to restore function, but removal of the base of the efferent cone prevents any voluntary motor impulse starting. [The remarks of Dr. Mott were fully illustrated by lantern slides of the brains and animals, and by photomicrographs.]

The President, Dr. OLIVER, made a few remarks upon the value of the paper which Dr. Mott had read, and invited discussion.

Dr. STACEY WILSON read a paper relating to a number of clinical cases which had come under his notice, and which showed anæsthesia of the paralysed parts. These cases were obviously cortical in origin, and in two instances necropsies had verified the facts.

Dr. DUPUY thanked Dr. Mott for his paper, and considered the researches which he had made of great interest. In the main he agreed with the conclusions arrived at. He was not, however, prepared to go so far as Dr. Mott as regards localisation. He then referred to the experiments of Veyssière, and he said that after section of the posterior part of the internal capsule producing complete hemianæsthesia, the loss of sensibility so occasioned soon passed off.

Dr. ANDRIEZEN referred to the differences of structure of the cortex in front and behind the fissure of Rolando. He then proceeded to criticise the views of Broca and Zuckerkandl that the limbic lobe was olfactory. He admitted that the hippocampal gyrus was olfactory.

Dr. BOYCE said that the cats upon which he had performed ablation of one hemisphere showed more sensory than motor defects.

Professor HALLIBURTON said that he had had the opportunity of seeing and testing the animals that Dr. Mott had experimented upon, and he could vouch for all the facts related. He was sorry that some of those distinguished neurologists who held different views were not present. Professor Halliburton pointed out that Dr. Bastian had always maintained against great opposition the "kinæsthetic" function of the so-called motor area. Dr. Halliburton, in conclusion, said that the work of Hösel supported Dr. Mott's work upon the decussation of the sensory impulses.

Dr. MOTT then replied, and pointed out that Dr. Ferrier had endeavoured to show that the hippocampal gyrus was the centre for cutaneous sensibility, but Luciani and Favola were unable to confirm those results, and he quite agreed

[1] Hale White, BRITISH MEDICAL JOURNAL, July 29th, 1893.
[2] *Riv. Sper. di Fren.*, vol. xix, January 1st 1893.

with Dr. Andriezen that it was probably olfactory in function. He then thanked Dr. Dupuy for his remarks, and said that he was quite prepared to accept his statement about the experiment of Veyssière, but he believed that if the animal had been a monkey there would have been persistent blunting of tactile sensibility in the hands and probably in the feet. Dr. Mott thanked Dr. Halliburton for his remarks, and quite agreed with him that Dr. Bastian had always advocated the doctrine of the sensory functions of this region. Time had, however, not permitted him to give more than passing reference to the views of the leading neurologists and physiologists, but due appreciation of them will appear in the full paper which will shortly be published in the *Journal of Physiology*. In conclusion, he desired to express his thanks to the Scientific Grants Committee for the grants, which had partially defrayed the expenses of this research.

ANÆSTHESIA DUE TO CORTICAL LESIONS.

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In this paper I desire to draw attention to the fact that many of the ordinary cases of anæsthesia from cerebral disease seem to be explicable only on the supposition that the Rolandic area of the brain possesses sensory as well as motor functions, and that, therefore, these cases can be taken as evidence in favour of this theory, and against that which localises sensation in the gyrus fornicatus or the hippocampal region. The striking feature in many of these cases is that anæsthesia is associated more prominently with such symptoms as paralysis of the arm or face than with paralysis involving the leg or trunk. If in cases of this kind we can obtain evidence that the lesion is a cortical one rather than one in the posterior part of the internal capsule, we have strong evidence in favour of the Rolandic theory. A localisation of sensation on the mesial aspect of the hemisphere would require the association of anæsthesia with paralysis of the leg and trunk, since their motor centres and motor tracts are nearer the middle line than those of the arm. Similarly, were sensation localised in the hippocampal region the same association would be expected so far as the sensory tract is concerned, and it is not easy to see how the same slight lesion could, upon this supposition, cause both paralysis of the face and arm and anæsthesia. If, however, the Rolandic area have sensory as well as motor functions, the various phenomena connected with the occurrence of anæsthesia are easy of explanation. It is possible to have paralysis without anæsthesia, or anæsthesia with but little paralysis, or there may be various combinations of the two symptoms. This is to be expected according to this theory, for the efferent motor fibres must for anatomical reasons take a different course to that which the afferent sensory fibres would have to take. We know that these latter are limited to the posterior part of the internal capsule, and must, therefore, take a course external and posterior to the motor fibres with which they correspond. Further, the situation of the island of Reil and the lenticular nucleus must make the sensory fibres to the lower part of the Rolandic area take a much higher course than they would otherwise do, and thus bring them somewhat superficial in the parietal region, and render them liable to injury in cortical lesions of this area. I believe that many cases of anæsthesia are due to vascular disturbances in the region of the posterior branches of the Sylvian artery. Associated in very many instances with hemianæsthesia are symptoms which, although they may be due to lesions of other parts of the brain, seem to be referable to interference with the supramarginal and angular gyri. I refer to hemianopsia and rotation of the eyes to the side of the lesion. The association of hemianæsthesia with hemianopsia and paralysis of muscles whose centres are around the lower half of the fissure of Rolando seems to be fairly frequent. In these cases the area affected is that supplied by the posterior parietal branch of the Sylvian. When anæsthesia is associated with paralysis of the face mainly and with aphasia, the area involved would correspond to that supplied by the anterior parietal branch of the Sylvian. Anæsthesia due to cerebral disease may certainly remain complete for many weeks or months, and I therefore think that we must accept with caution any theory of its causation which involves need for the supposition that sensation can be restored by the vicarious action of some other portion of the brain apart from the restoration of the injured portion, if this be of any considerable extent. For this reason I consider that Dr. Saville's paper in *Brain* for 1891 shows conclusively that sensory functions are not possessed by the gyrus fornicatus. The occurrence of merely temporary anæsthesia in the case in question as a result of hæmorrhage into the white substance under this convolution, and almost completely isolating it is, I hold, strong confirmatory evidence that the Rolandic area has sensory functions. A clot in this situation must perforce press upon the adjacent white substance, and according to the Rolandic theory, as above pointed out, this white substance would contain the sensory fibres passing from the posterior end of the internal capsule to all parts of the motor area. Pressure would also be exerted by the clot upon the other hemisphere, and would more or less interfere with the functions of the sensory fibres underlying the convolutions on its mesial surface. Thus a hæmorrhage in this situation would be expected to cause anæsthesia of both sides of the body, just as was the case. Further, as soon as the clot commenced to contract, pressure would be relieved, and the function of the sensory conducting paths would be restored in a few days, just as was the case. A very interesting characteristic of certain cases of anæsthesia due to cerebral, and presumably cortical, lesions is that the sensory disturbance may be so profound that the patient ceases to be conscious of the fact that the paralysed limb or limbs belong to him. Although quite sensible in other ways, such a patient persistently asserts that his real limb is something quite distinct from the one which lies paralysed and anæsthetic by his side. He cannot be convinced that because it is attached to him therefore it must be the limb with which he has been familiar all his life. This remarkable condition may last for many weeks, and it may even persist after a certain amount of motor power has returned in the limb. In two of my cases (namely, Nos. 5 and 6) this extremely interesting and striking state of matters was present, and I have heard of a third case in the General Hospital, but have been unable to ascertain any particulars about the patient. The condition in these cases is in some respects analogous to that which obtains in complete amnesia when the patient can see written words, but gains no knowledge from them, and can hear words spoken, but their special meaning to him is lost. So here the patient can see his paralysed limb, and can feel it with his sound ones, but the visual and tactile impressions do not give him full information; they do not tell him that the arm forms a part of him. He knows it is an arm, just as the amnesic patient can hear sounds, but the special knowledge that it is his own arm he does not gain. The explanation of this condition is extremely difficult, and might be explained in several ways. The most probable seems to be that the sensory area for the limb is isolated so far as its afferent connections are concerned, but not destroyed. Thus not only does he receive no impressions from his paralysed limb (and it seems as if we must also add concerning his paralysed limb), but, in addition, the portion of his sensorium which used to receive impressions from his limb is still active; and he therefore concludes that he is still receiving impressions from the limb. Thus, in the absence of contradictory impressions—such, for instance, as the eyes would give him, could he but understand what he saw—he accepts the spontaneous impressions from his sensory centre, and concludes that his real limb is something quite distinct from the one of which he has no consciousness. So much does he rely upon these false impressions as to the position of, and existence of his limb, that when assured that the paralysed limb is really his, the only conclusion he can arrive at is that he has three arms or three legs, instead of two. This peculiar mental state is associated, as before stated, with apparently perfect sanity and acuteness of perception and observation in all other ways. In a patient (Case VI) in whom this symptom was most pronounced in the leg but less so in the arm, a destruction was found of the parietal convolutions, together with the subjacent white substance, which would bring about complete isolation of the centre for the leg so far as its sensory fibres were concerned. But the value of the case in support of the Rolandic theory

is greatly lessened by the fact that there is such deep destruction of the white substance, that both the occipital and occipito-temporal regions are equally isolated. It is, however, possible, if not probable, that these deeper lesions of the internal capsule were due to a second embolism which occurred two months after the first, and destroyed the whole of the corpus striatum, and caused the death of the patient. The following cases are of interest in this connection. Of these cases, Nos. 4, 5, 6, and 8 were seen by me when resident medical officer at the General Hospital, and I am indebted to Dr. Wade, Sir Walter Foster, and Dr. Richards for permission to make use of them for the purposes of this paper.

CASE I.—F. C., aged 54. Transient anæsthesia and loss of muscular sense, with complete but transient paralysis of the right arm, accompanied by complete aphemia. No other paralysis. This patient has had four attacks of complete mutism during the last seven years. They always come on suddenly with loss of consciousness and sometimes with epileptiform convulsions, lasting a minute or two. In the first attack he had some difficulty in reading for a day or two; in the third there was some numbness and paresis of the right arm. In the last attack in February last year, there was complete anæsthesia and paralysis of the right arm, with loss of muscular sense. The anæsthesia quickly passed off, but numbness and some paralysis of the arm remained for about a fortnight. *Remarks:* In this case the lesion must be in the commissure between the centre for word memories and Broca's convolution, that is, between the first temporo-sphenoidal convolution and the third left frontal. Fibres passing in this direction must either go through the external capsule or over the top of the island of Reil. In the latter case they would have to pass under the ascending parietal convolution at about the level of the arm centre, and a small focus of disease here would amply explain the symptoms. A possible cause might be a small tumour or gumma, which might at times become congested and give rise to irritation, followed for a few days by pressure symptoms. That the lesion is nearer the temporo-sphenoidal than the frontal region is also suggested by the occurrence of a certain amount of word blindness in the first attack, together with the fact that at no time has there been any paralysis of the face or tongue. In the following case the symptoms are referable to a slight vascular disturbance in the region of the lower part of the ascending parietal convolution, the supra-marginal or angular gyrus.

CASE II.—A. W., aged about 47. Partial anæsthesia of the right side of head, body, and limbs, partial right hemianopsia, transient complete aphasia, with paralysis of the right side of the tongue, but no other paralysis. This patient had suffered some years before from syphilitic meningitis of the base of his skull, involving at different times the roots of several nerves. In the attack here referred to the symptoms came on suddenly and simultaneously, but all passed off under treatment in the course of a few days.

CASE III.—C. H., aged 42. Paralysis of left arm complete, and of leg incomplete, with anæsthesia and analgesia of left hand and arm, and of the foot and leg nearly to the knee; trunk not affected. There is no anæsthesia of the face or mouth. The face is not drawn to one side, but there is loss of voluntary power over the muscles of the left side, including the occipito-frontalis and orbicularis palpebrarum. The left eye can be closed with the right one. There is similarly loss of power in the eyebrow, and the eyes cannot be rotated to the left, although conjugate deviation is not present. There is complete left hemianopsia. The following points suggest a cortical origin for this condition, and that it was not due to hæmorrhage in the ordinary situation: (1) Gradual onset: It was ten minutes after he first noticed weakness in his arm before the leg became affected and he fell down. (2) Almost certain absence of unconsciousness. (3) Presence of tonic contraction in the biceps and some of the shoulder muscles at the first onset, which lasted three weeks. (4) Complete loss of the muscular sense and consequent total inability to tell the position of the arm. To this may be added a considerable amount of mental uncertainty when answering questions about his left arm. He was very sharp and intelligent in other matters, but slow and dull when replying about his left arm. The hemianopsia passed off in ten days or so; the paralysis of the face disappeared in two or three weeks, the lower part of the face and the tongue taking longer than the upper part. The sensation began to return in the arm and leg in a week or so, and the return was accompanied by hyperæsthesia and paræsthesia, and some delay in the perception of painful impressions. The paralysis of the leg passed off some weeks before the arm. He could almost walk before he could move his fingers. We have here, undoubtedly I think, a case of cortical lesion involving mainly the centre for the biceps, but spreading backwards over the parietal convolutions, causing hemianopsia and ocular paralysis, and involving also the sensory fibres, which must be under the ascending parietal and adjacent convolutions according to the theory here advocated. I think the symptoms in this case would be very difficult of explanation by any other hypothesis.

In the following case we have *post-mortem* evidence that a lesion in this position does cause anæsthesia:

CASE IV.—W. W., aged 45. Almost complete paralysis of the right arm and paresis of the leg, with paralysis of the tongue, and lower part of the face on the right side and dilatation of the right pupil, together with aphasia and defective sensation on the right side. The paralysis commenced gradually, but rapidly became complete. On admission into the hospital a few hours after the onset, the arm could only be moved very slightly, and the fingers not at all. The motor power in the leg was only "somewhat impaired." Sensibility to slight stimuli was lost on the right side of the body, but anæsthesia was not complete. The speech was hesitating, thick, and deliberate. The patient died, and on *post-mortem* examination a large clot of blood was found along the line of the Sylvian artery. It was thickest over the lower end of the ascending frontal convolution, and seems to have spread from this point as a centre. It had destroyed the external capsule and the white matter of the corona radiata in the neighbourhood, and had spread upwards under the pia mater and into the cortex of the ascending parietal and adjacent parietal convolutions. The pia mater was adherent to the brain substance over the "angular and parietal" convolutions.

CASE V.—G. D., aged 55. Complete anæsthesia of left arm and leg, and complete loss of muscular sense, with loss of consciousness that the arm belonged to him. Arm completely paralysed, leg nearly so. Complete paralysis of left face, including forehead but not the eyelid. Tongue only paralysed for an hour or two, complete left hemianopsia with paralytic deviation of the head and eyes to the right, and slight dilatation of the left pupil. The above symptoms remained unaltered for a week or two, except that they slowly subsided. The leg recovered more rapidly than the arm. Motor power returned in the hand and arm to a slight extent within a week of the onset, but it was nearly a month before he regained the knowledge that it was his real left arm. It was nearly a month before sensibility to touch and pain began to return in his arm, and this was accompanied by pain in the formerly anæsthetic limbs. This case resembles Case III in many of its features except that it is more pronounced. The hesitation and uncertainty shown by Case III when speaking of his paralysed arm was very likely due to uncertainty as to his ownership of the anæsthetic member. He had, moreover, no knowledge apart from vision and tactile sensation of the other arm, of its whereabouts, owing to complete loss of muscular sense. From the similarity of the two cases, I think we can conclude that the lesion here was in the Rolandic and parietal regions of the cortex.

CASE VI.—B. D., aged 12. Complete and lasting anæsthesia of the left arm and leg, with lasting loss of consciousness of the leg and transient of the arm. Dilatation and absence of reflex to light of the left pupil (presence of hemianopsia not noted), complete paralysis of face, tongue, arm, and leg, with deviation of the eyes to the right. The paralysis of the arm and leg and sensory change in the leg remained nearly unaltered till death two months after the onset of the paralysis. In this case a *post-mortem* examination was obtained, and softening and atrophy was found of the whole of the right parietal lobe with the exception of the ascending parietal convolution. The degeneration extended down to the upper layers of the optic thalamus. In addition there was complete destruction of the whole of the corpus striatum, but this was probably due to a later embolism occurring a few hours before death. *Remarks:* We have here a lesion of the parietal region of the brain, with the symptoms which we should expect from such a lesion, but the fact of the great destruction of the basal ganglia prevents great stress from being laid on this, as it is difficult to determine the depth of the original lesion, which was almost certainly embolism of the posterior parietal branch of the Sylvian artery. I have little doubt that the association of symptoms noted in Cases II, III, V (and VI if hemianopsia were present) may rightly be taken as characteristic of vascular disturbance of varying degrees of intensity in the area supplied by the posterior parietal branch of the Sylvian.

The two following cases are interesting as compared with the preceding, and the symptoms seem to point to a cortical lesion.

CASE VII.—E. M., aged 38. Complete anæsthesia of right side of face and body, of right conjunctiva, and of right arm and leg, with paralysis of the right arm, and to a less extent of the right leg, with complete paralysis of the right side of the tongue and face, including weakness of the muscles of the forehead and of the orbicularis palpebrarum. There was some difficulty of speech. These symptoms came on suddenly, but in a few hours sensation returned in the leg and hip, and some motor power returned in the leg, and the other paralyses, including the aphasia, lessened in amount, the anæsthesia however remained absolute in abdomen, arm, and face. Forty-eight hours after the onset, sensation had returned in the right side, with the exception of the conjunctiva, which remained somewhat anæsthetic for a month. She could move the leg more freely, but the arm and face, including the frontal muscles, were still much affected; she could, however, close the right eye. It was three weeks before she could raise her right arm.

CASE VIII.—T. H., aged 58. Complete paralysis and anæsthesia of left arm and leg, lasting only twenty-four hours. After two days there was complete paralysis of the arm, partial of the leg, face, and tongue on the left side. There was still complete anæsthesia of the hand and lower part of the face, and deficient sensation in the left forearm, leg, and foot, in which latter situation anæsthesia was almost complete. There was complete analgesia in the hand and foot. In ten days the sensation had returned except in the hand, where it was still deficient, and where the analgesia was still complete. The leg had so much improved that he was nearly able to stand without assistance.

CHANGES FOLLOWING REMOVAL OF ONE CEREBRAL HEMISPHERE.

By RUBERT BOYCE, M.B.,

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OBSERVATIONS have been made upon 35 cats, which recovered from the operation and which lived from three days to two and a-half months. Parts removed: The hemisphere is divided through the corpus callosum and the crus flush with the tentorium, the knife passing obliquely through the posterior corpora quadrigemina, the grey nuclei are removed as completely as possible. Symptoms: Under most favourable circumstances the animal may walk around its cage in two hours after operation; it shows, however, a perceptible weakness on the right side. In other cases progression on the four limbs takes place in from twelve to twenty-four hours. If there is pressure, however, recovery is much longer. The following are the usual symptoms: The animals are slightly awkward upon the corresponding side of the lesion (left

hemisphere always removed), they ascend stairs with left foot first and jumping heavily. They can climb, mew, and purr. They always turn to the left (one exception in 35 cases), due to the fact that they are completely blind and probably completely deaf upon the right side. The sense of smell is very greatly reduced. The field of vision of the left eye appears diminished. Pupil reflex in right eye almost completely absent. When the left eye is shaded the right eye dilates in spite of a beam of light. Many complex acts are performed, such as washing the face on the right side. Sensation remains very considerably less on the right side. Not much alteration of the knee-jerks; if anything the reflex is more clonic upon the right side but not so powerful as upon the left side. The animals feed themselves with difficulty owing to diminution in the senses of smell and sight and probably of taste. The actual amount of paresis is therefore very slight, there is some awkwardness of gait, and there is very distinct diminution of sensation. Compared with cats with hemisection of the cord, the paralysis and loss of sensation are much less profound. Compared with cats in which one lobe of the cerebellum is removed the inco-ordination in these is more marked, but the amount of paresis in the hemisphere cats is greater for the same date; thus there is not wrist-drop in the cerebellum cats: there is likewise diminution of sensation in the cerebellum cats. It is important to bear in mind these phenomena when studying the effects of absinthe excitation. Paths of Degeneration: These have been investigated in 32 cats. The Marchi method has been exclusively employed. The results are as follows: Distinct signs of degeneration may be observed as early as the fifth day in the crusta and upper portion of the medulla. Earlier than this date the Marchi method gives no reaction, thus showing that the staining is not accidental. Definite tracts degenerate, there is no irregular staining reaction. The degeneration is well marked between the tenth to fourteenth day, but the Marchi method gives a reaction two months and a-half after operation. The total amount of degeneration is very slight, and this corresponds with the very slight and transitory paralysis. In the remaining hemisphere degeneration spreads across the corpus callosum, and tends to turn upwards, but it does not appear to spread far. Degeneration is observed in the commissural fibres in the pineal body. In the crus, pons, medulla, and cord the pyramid of the side of the lesion degenerates and extends to the lumbar region, but it greatly decreases in extent as it descends. There is no trace of degeneration in the opposite pyramid in the crura, pons, or medulla. The degenerate pyramid shows a marked tendency to atrophy, and its connective tissue stains more deeply than that of the sound side. Crossing from the seat of lesion (at the level of the post., corpora quad., and third nerves) degenerate fibres pass over to the opposite side and descend in about the position of the fillet, and are continued down the cord, lying close to and partly intermingled with the fibres of the pyramid after they have decussated. These fibres extend equally far with the pyramidal portion of the fibres which cross, however, turn down close to the raphe, and proceed down the cord as far as the upper dorsal region, lying forwards and close to the middle line in the anterior column (position of so-called direct pyramidal tract). A distinct bundle of degenerate fibres starts from about the level of the third nerve on the side of the lesion, and in the position of the posterior longitudinal bundle, and descend to as far as the upper dorsal region; in the cord they occupy the hinder and inner part of the anterior column. Thus in the anterior column on the opposite side of the lesion the degenerate fibres occupy a more anterior position, whilst on the side of the lesion a more posterior position. This relationship is preserved throughout. On the same side of the lesion, and when apparently the latter penetrates far into the mesencephalon, fibres descend on the same side in the position of the fibres in the fillet, mentioned above, upon the opposite side. These lateral fibres on the side of the lesion may extend far down in the cord, and the appearance of two degenerate pyramidal tracts is closely simulated. A bundle of fibres descends in the position of the descending root of the fifth nerve, and pass out by the sixth and seventh nerves; they are on the side of the lesion. Degenerate fibres have been seen in both third nerves. There is no direct pyramidal tract in the cat.

REVIEWS.

Essays on Rural Hygiene. By George Vivian Poore, M.D., F.R.C.P. London: Longmans, Green, and Co. 1893. (Crown 8vo, pp. 330; six illustrations. 6s. 6d.)

It has been a toss-up this autumn whether the lady one met at a country house had been reading *The Heavenly Twins*, and wished to discuss the relation of the sexes, or whether she had been studying Dr. Poore's *Rural Hygiene*, and wished to know your opinion as to the disposal of slop water, or the relative merits of earthclosets and waterclosets. Dr. Poore's book is well worth reading. It raises many questions of fundamental importance, and it raises them in such a way that the people who usually leave all matters of hygiene to the county council or the gardener, are being stirred into taking a certain more or less vivid interest in schemes for preventing the fouling of their surroundings. One reason is no doubt that Dr. Poore attacks the local authority with much spirit, and with unanswerable logic on some points. Now, the local authority is always unpopular. If it is the characteristic of the Irishman to be "agin' the Government," it is almost equally characteristic of the Englishman to be "agin' the Board." This is due no doubt to a certain remnant of belief in the axiom that "an Englishman's house is his castle," but this axiom, as Mr. Grummer observed on a well-remembered occasion, "is gammon."

That there is a great deal of sound sense in this book will be readily admitted; that there is also a certain amount of tilting at windmills is also true. The present system of water carriage of excreta is hopelessly illogical. That it has turned our rivers and streams into open sewers, fouled our subsoil, and deprived the farmer of much valuable stuff is obvious to anybody who lives in the suburbs of a large town and to a less extent, of course, to dwellers in the country. At an inquiry held the other day in one of the eastern counties the agent of the chief proprietor proposed as an alternative to an expensive scheme for collecting all the excrementitious matter of a scattered district in a tank, "treating it," and turning the effluent into a small stream, that an earthcloset system should be introduced. He was immediately informed by a local magnate (the chairman of the board, if we remember rightly) that a more "impracticable" suggestion had never been made. This is the objection which is always raised, but we confess that we should like to see the system thoroughly tested under efficient supervision in a small district where houses were not too close together. The expenditure must be compared not with a fancy estimate of what a sewage system would cost to install, but with the actual cost in a similar district worked out at the end of, say, ten years. Dr. Poore contends that in a suburban district of small villas with moderate gardens the whole of the excremental and other refuse of the houses could be disposed of in the gardens, each man using his own garden. Speaking generally, we believe this to be true, or that at any rate the margin which would remain to be dealt with by the local authority would be small. Unfortunately, to dispose thus of all refuse without nuisance requires a little intelligent supervision, and little as it is, it is more than the average villa resident cares to give: the great beauty of the water system in his eyes is that it is "no trouble"—until it breaks down, as it does periodically. Then he has in the builder, takes his family to the seaside, and receives the condolences of his friends on having "his drains up." This is as much an ordinary domestic incident as having the measles in the house, and in the view of most people neither accident is to be prevented by any amount of foresight.

The position of big towns is altogether another question, and even Dr. Poore admits that they are past praying for; but in small country towns and growing suburban districts the position is not so hopeless, and we would strongly recommend this book to everybody who lives in a detached or semi-detached house with a fair-sized garden. There is a good deal of theory and science in it, but a great deal more practice and experience, and if the master of the house can be convinced by the appeal to his reason and his pocket, the ladies and children of the household will probably be con-

verted by the photographs of the gooseberries and raspberries and currants and peas which Dr. Poore succeeded in growing by means of a discreet distribution of slop water and "earth soil."

ROYAL COMMISSION ON OPIUM TRADE.

THIRD DAY'S PROCEEDINGS.

Wednesday, September 13th—(Continued).

DR. SWANSON said he served for twenty-one years in the province of Fuh-Kien, China, in connection with the Presbyterian Mission. He had heard the evidence of previous witnesses as to the physical and moral evils of the smoking of opium, and he fully endorsed everything that had been said. He advocated the total suppression of the export of opium from India, and thought that if this was done the Chinese would try and do something also.

MR. D. MATHESON said he went out to a merchant's office in Canton in 1837. There was then a large contraband trade in opium carried on outside the port. From what he saw of the effects of the trade he came to the conclusion not to have anything more to do with it. He had visited the opium dens at Singapore, and found them terrible places.

Dr. GAULD, medical missionary in the south of China, said his experience of opium smoking was general. There was a great craving for opium, and he served out in one year 50,000 opium pills for the cure of that craving. He, however, discontinued the practice, as he found the people used the pills to tide them over difficulties. The craving for the smoke was satisfied by the eating of opium, and the pills and morphine was also taken for the purpose. The use of morphine was largely increasing in China, and one of the leading firms of druggists said that 50,000 ounces were sent out in one year. The literary men of China were greatly addicted to smoking. His experience was that directly a man took opium he took that which would harm him. The opium smoker more easily fell a victim to other diseases.

FOURTH DAY'S PROCEEDINGS.

Thursday, September 14th.

SIR JOHN STRACHEY, who during his thirty-eight years of residence in India filled almost every post it was possible for a member of the Civil Service to take, including a seat of many years on the Council, said he had been brought greatly into communication with the natives. His views were the same as those stated by Mr. Batten, in a paper read before the Society of Arts in April last, and he put in a memorandum on that paper. Were it true that the Indian Government was poisoning its own people and the people of China by permitting the growth of the opium, the traffic should certainly be put a stop to, whatever substitute had to be found for revenue purposes. But that was not true, and his opinion was that opium was not the terrible poison it was stated to be. In India some of the people smoked, but they smoked moderately: like all good gifts, it was sometimes abused, but he believed not so much as alcohol. As a matter of fact, the consumption of the drug in India was so small that there was really no opium question at all. They were told that it was increasing and being fostered by the Government, but that was absolutely false, as the consumption was not so great as under the native rulers 150 years ago. The natives who did take the opium were fine men, and he thought the best answer to the attacks on the trade would be to bring an opium smoking regiment of Sikhs to Hyde Park. They heard a great deal about the opium dens, which were few and far between, but they heard nothing whatever about the fine opium smoking regiments. He believed that opium was one of the most innocent and beneficial of luxuries. There could be no greater delusion than to think that China depended on India for her opium, because one province of China grew more opium than the whole of India. Besides that, it was within the power of the Chinese Government to restrict the import of opium by means of a prohibitive tariff. Meanwhile there was nothing for them to reproach themselves with, and he could only put down the attacks made on the Government of India to gross ignorance. The only question to his mind was whether their restrictive legislation had not been so severe as to encourage the use of other drugs more noxious, and he did not think it any more objectionable to have a monopoly in opium than in tobacco. In Burmah the native population were against the introduction of the drug, although he did not know on what facts they based the view that opium was harmful to the Burmese, whilst it was not considered harmful to the foreign population in the country. He quite admitted that opium smoking might be abused, but he did not think that was often the fact among the Sikhs and Rajputs; the custom of opium eating was universal, and the former formed an immense and important part of the army. They looked upon it as a necessary of life, but it was a fact that they were physically the first races in India. If opium was so universally destructive, how were such facts to be explained?

In reply to the CHAIRMAN, the WITNESS said he believed that there was no wish on the part of the Chinese Government to stop the import of opium into the country, and any attempt to prohibit the growth in India would lead to serious political difficulties.

Sir WM. MOORE said he lived 33½ years in India, and held various offices, having been chief medical officer of Rajputana, and deputy surgeon-general of the Bombay Presidency. He had investigated and experimented on the opium question, and had been to the shops and smoked the drug himself. He had inquired into the effect of the opium habit, and had come to the conclusion that the practice was harmless, and, not only harmless, but in many cases productive of great benefit. It strengthened the system, and rendered a man more able to go through fatigue. It also was a good prophylactic of fever. The evil effects of opium smoking were *nil*, and so were the effects of drinking opium water. But, if opium was taken to excess, it was injurious, the same as alcohol, although it did not produce a desire like alcohol. It did not produce drunkenness, and the attitude of the smoker was always one of repose. In the last stages of the use there was a slight degree of emaciation and diarrhœa. If opium was only obtainable as a medicine it would be a grievous interference with the social customs of the people.

By Sir WM. ROBERTS: The Rajputs who used opium were as healthy as they possibly could be. There was no tendency of eaters to increase the dose. There was no evidence whatever that the moderate use of opium tended to shorten life. Many of the people who went to the opium shops were suffering from ailments for which they got no relief at the hospital. These ailments had no connection with the habit of smoking opium, although many people thought they had. The insurance societies did not impose a higher rate on the opium eater or smoker.

Mr. WILSON: Do you advise us to acquire the habit?—No, I don't say that; it depends upon the situation.

Dr. MOUAT said he was formerly assistant opium examiner for the Government of India for two years, and had to analyse and report upon the commercial value of the drug. In Calcutta he met with a tribe of hill people who ate opium and a Chinese colony of smokers, and he never saw finer, more intelligent, and active men in his life. The habit of eating opium had continued generation after generation amongst the upper province tribes, and they were a fine body of people. He compared the use of opium amongst them to the use of alcohol amongst the English, and there were no ill effects arising. He never saw one person abuse the habit. He had charge of a hundred beds in a hospital at Calcutta, and never saw a man suffering from any ill-effects from opium. He had studied particularly the relation of opium to crime and lunacy, and found that in Lower Bengal there was no crime attributable to opium, and out of 2,202 patients confined in the asylums in ten years eight only were from excess in opium. As far as he witnessed, opium was not a destructant in any way. To sum up the question, he maintained that the opium traffic was neither injurious nor immoral. It was not an incentive to lunacy or crime. It was a prophylactic and a harmless stimulant.

Sir GEORGE BIRDWOOD said he was born in India, and was on the medical staff of the Bombay establishment when in charge of troops on the march. He found the English regiments a source of continual anxiety. On the other hand the native troops took opium and were fresh for another journey. Subsequently he was in charge of a hospital at Bombay and was a J.P., and was probably the best known Englishman in the Presidency. With all his experience he had never met a single man suffering from the use of opium. His theory was that morphine was decomposed before it reached the mouth from the pipe. The Indian opium only contained 2 per cent. of morphine, whilst Persian opium, which was now the favourite, contained only 1 per cent. The charge that the habit conduced to immorality was a grievous one, and had no justification.

By Mr. WILSON: The effect of his knowledge was that opium was absolutely harmless.

By Mr. MOWBRAY: He felt strongly that the opium habit should not be disturbed or spirits would at once pour in.

Mr. LAY said he was in the Chinese Government service for nine years, and was intimate with their highest officials. He had also been attached to Lord Elgin's mission He submitted that the so-called opium war was misnamed so, and described the facts which led up to it.

FIFTH DAY'S PROCEEDINGS.

Friday, September 15th.

At the resumed sitting of the Commission on Friday, Sir THOMAS WADE was the first witness called. He said he had lived for forty years in China, and during the latter portion of his service he was British Minister at Pekin. He found himself in a disagreeable position; for no one who had lived in China and come into contact with Chinese of all kinds could deny that the excessive use of opium was a misfortune. On the other hand, with many persons it compared with the use of alcohol in England. Just as alcoholic liquor cheered the Englishman, opium cheered the Chinese, and people engaged in all pursuits used it for years with impunity. He could not take the side of the Anti-Opium Association, or agree with their statements. Opium was introduced into China by its Asiatic neighbours years before the commencement of the English trade. He had seen people of every degree using the drug with impunity, and he had seen deplorable victims of the habit in every degree, just as he had seen victims from alcohol in England. He had been in opium dens and in gin palaces, and the spectacles were singularly alike. He found statements and arguments on behalf of the Anti-Opium Association neither more or less than exaggerated, and he found they put doubt on the truth of men, like himself, who had had large experience of the country. He contended that the wars with China were not prompted by a desire to force Indian opium upon China.

Lord BRASSEY: The statement of Sir James Fergusson in the House of Commons, that China is at liberty to stop the import of opium, has been somewhat doubted. What is your opinion?—I do not know that anything could be done without preliminary negotiation, but I don't think it is likely they will do anything of the kind.

Mr. STEWART LOCKHART said he was registrar-general or protector of Chinese in Hong Kong, and he had also held offices in the interior. As regarded Chinese popular opinion, it was decidedly against the opium traffic. He had seen many smokers, and also smokers who took it to excess. As regarded the moderate smokers, it did not seem to affect them much physically and not at all mentally. With regard to those who smoked to excess they were affected physically, but, in his experience, not at all mentally. He had never known hatred expressed towards the English in consequence of the opium trade. The opium divans, wrongly called "dens," were in Hong Kong 0.86 per 1,000 to the Chinese population, whilst the public houses were 2.80 per cent. per 1,000 to the European population. The opium sot did not make himself a nuisance to society as the drunken sot did. The statistics with which he was charged did not show any deaths resulting from opium smoking. There were sometimes cases of opium poisoning, which was not an uncommon form of getting rid of life. As far as the Chinese death-rate of Hong Kong was concerned, it was 32.22 in 1888 and 21.36 in 1892, although he did not think opium affected that.

By Mr. PEASE: He knew many cases of persons who had practised the habit for years and had not become more confirmed smokers.

Dr. ROWELL, C.M.G., late chief medical officer, Straits Settlements, said he had been for twenty-five years in Singapore, Straits Settlements The

inhabitants were mostly Chinese and Malays. He found about 40 per cent. of the hospital patients opium smokers. Their presence was not due to opium smoking but to other diseases, and in many cases they took the opium to gain relief. He had been surgeon in charge of the criminal prison, but not a great many of the inmates were smokers. He made a series of experiments on withdrawing opium from prisoners, and whilst in some cases they gained weight in others they remained stationary, and sometimes fell away. If a man's health gave way in consequence of opium being withdrawn, he was admitted to the hospital and opium was allowed. The lepers were large opium smokers, and it was a very good thing.

Sir W. Roberts: Does it appear, from your seeing the habit before your eyes, that the good it does counterbalances any harm it does?—I have seen far more harm done with alcohol.

Then the balance is in favour of opium?—Yes.

Mr. Langman said he had been a missionary for eight years in China. He had heard the missionaries give their evidence in that room, and he endorsed it all. He believed that the animosity to the English was due to their connection with opium.

Sir James Lyall: But, apart from opium, is it not a fact that the missionaries are received with great disfavour, just as if Chinese came over here and tried to pull down our religion and set up a small community under foreign protection? and don't they see that the taunt of opium is a thing you can't answer?—If they came to England they would conform to the laws and be protected.

Sir Lepel Griffin said he had seen very long service in India, in the Punjab and Central India, and he had come into contact with the question before the Commission. To say crime was promoted by opium smoking was utter fiction.

Sir James Lyall: Have the medical men serving under you in Central India made any reports on the effect of opium?—I have called for reports more than once on the subject, but I do not remember that anything of any importance was said. Of course medical men see bad cases, and abuse in anything is bad. Excess was not usual in India. I do not think it has ever been stated by them that it fills lunatic asylums and gaols. The Sikhs are prohibited from smoking tobacco by their founder, and if opium is prohibited, they will go to alcohol, which is a thousand times worse.

By Sir Wm. Roberts: I have never had to discharge a servant for opium smoking. The people who take it most are the Sikhs and Rajputs, and they are the finest races in India. They have been taking it for generation after generation. I know many who take opium, but there is no craving for the increase of the dose, and I know of no deterioration from the habit. I believe if drink was stopped in England the people would take to opium or something else. From my knowledge of human nature I should think the Sikhs would not remain loyal if opium was prohibited. Whatever fables might be repeated about China, the whole volume of evidence regarding India showed that no harm whatever is done.

Mr. H. Lazarus said he was now living at St. Pancras, but was formerly a merchant at Hong Kong, where on an average 200 men were in his employ. His object in volunteering evidence was owing to reading the statements made by missionaries. One of them said that when a man was under the influence of opium he would do his work well, but when he was depressed he was absolutely worthless. All he could say was that not one of his men were ever unfitted in any way, although many were opium smokers. As a matter of fact, the wages of a working Chinaman did not allow of his smoking to excess. Then for the statements to be made that the smokers were ashamed to admit the habit was a terrible perversion of the truth. The reason Europeans did not take up the habit was that the smoking took too long. He himself had taken as many as eight pipes at a time, but he did not continue the habit. The result of his experience was that opium smokers were as good workers as anyone else.

Last Day's Proceedings.

Saturday, September 16th.

Sir Joseph Fayrer, surgeon and physician of thirty years' experience in India, being unable to attend the Commission, sent a paper on the question, in which he stated that ideally one wished that alcohol might not exist, but they could not stop it, and so with opium, which was also liable to be abused, with the most pernicious results to a race. There was no doubt that in the great cities of China and India the abuse of opium was carried on to a large extent, but nothing to the extent that alcohol was. In India the natives in many districts believed it to be a prophylactic to malaria. He did not think the crusade against opium was reasonable, and upon the use of hemp, which was infinitely worse, nothing was said. He could find no medical reason whatever for the prohibition of opium.

Sir Hugh Low, as an official in the Malay Peninsula, wrote to say that there was no abuse of opium amongst the natives there, and there was no reason to interfere with its importation and sale.

Mr. T. W. Duff, merchant of thirty years' standing in China, wrote to say that he believed the cry about opium was not sincere, and that the Chinese were quite capable of taking care of themselves.

Mr. W. Lockhart, M.R.C.S., said he went out to China as a medical missionary in 1838, and during the latter part of his residence he had charge of a hospital in Pekin. He came back in 1864. Many people took the drug in small quantities, and if they did not exceed their dose it was not particularly injurious. As a matter of fact they did generally increase it, and if they fell into evil circumstances and became poor, they took it in large quantities. Then they failed physically, but their mental capabilities were not particularly impaired; their system became deteriorated and debased, and the people who were victims of the habit were not allowed to give evidence in any court of justice. About 10 per cent. of the adult male population were smokers, and of these 3 to 5 per cent. indulged to excess.

Sir William Roberts: Is it your impression that there is any rational effect of an injurious nature produced on the Chinese by the consumption of opium?—In the proportion of those who use it to excess it is very injurious. But I am personally acquainted with many who use it moderately, and it does not interfere with their health or their business.

What comparison do you draw between opium and alcohol?—I think alcohol is an infinitely greater curse. A great many commit suicide by opium poisoning. Opium smoking is easier to cure than drunkenness.

Mr. Wilson: We have had it stated that a large proportion of those who take it do so to relieve the pain of various diseases.—Some do, but the greater proportion take it for dissipation.

Dr. Geo. Dods stated that he had been in private practice at Hong Kong and Canton, but the effect of the habit was not noticeable. He had had cases of poor wretches pointed out to him, but in many cases they took the drug to relieve other pain. He did not believe the use of opium shortened the lives of the people. He left China in 1877. He never heard the English blamed for introducing the habit.

Mr. D. Maclaren, ex-President Edinburgh Chamber of Commerce, gave evidence on the commercial aspect of the question.

The Rev. T. G. Selby, Wesleyan missionary in the Canton Province, China, said he had read the evidence of the other missionaries, and endorsed all that was said. In some cases a small dose of opium proved fatal.

Sir W. Roberts: Then you don't agree with the evidence of the medical men that the opium habit does not affect the mortality?—Well, the men who become incapacitated in a place like Hong Kong go home.

Deputy Surgeon-General Partridge said he served for thirty years, from 1855 to 1885, in the Bombay army, and was in charge of two gaols. Sir George Birdwood said that men becoming ill from various causes took opium as a consequence, and that it thus became a blessing rather than a curse. This was true in the case of some, but many took it for dissipation. He could give cases of men who had come to a state of degradation by the habit. He believed opium smoking to be a vice, and injurious to health and degrading to morals, as all vices were. The manufacture of opium, except for purposes of medicine, was a sin. Heron and Neill, the murderers, were opium eaters. The fallacies about men being bright and intelligent was because they were seen when under the influence of the drug, which stimulated the body. The Sikhs were all right in camp, but they would be no good on the march without opium.

Sir William Roberts: Well, that would apply to the daily meals, wouldn't it?—The Government supply daily food, but I don't know that they do opium.

Witness also said it was not right to say opium was never the cause of death, as it predisposed the body to disease. A man who died from typhoid fever caused through a drain was not classed as dying from defective sanitary arrangements. He had been in malarious districts, but had never heard opium asked for as a prophylactic for fever.

Mr. Cecil P. Turner and the Rev. T. Hutton, missionaries, of China, both endorsed the evidence of the other missionary witnesses.

Mr. Mitchie, who has had forty years' experience in China and Japan as a merchant, and has acted as delegate in the interior of China for the Shanghi Chamber of Commerce, said he had heard the statement made for many years that a man once taking opium was bound to increase the dose, but had not found it true. Amongst the men in whom he had had to place an extraordinary degree of trust some were most inveterate smokers, but his confidence had never been abused. Opium smoking was prohibited in Japan, but they were an inferior race to the Chinese. He had had intimate friends addicted to alcohol and others to opium, but would much rather trust the latter.

This concluded the evidence as far as England is concerned, and the Commission adjourned to meet in Calcutta on November 15th.

MEDICAL SICKNESS, ANNUITY, AND LIFE ASSURANCE SOCIETY.

The monthly meeting of the Executive Committee of the Medical Sickness, Annuity, and Life Assurance Society was held at 429, Strand, on September 14th. The chair was taken by Dr. de Havilland Hall, and there were also present: Mr. J. Brindley James, Dr. M. Greenwood, Mr. F. Swinford Edwards, Dr. J. P. Pickett, Dr. W. Knowsley Sibley, and Mr. E. Bartlett.

The business was shown to be steadily growing, partly through the entry of new members, and partly from the fact that the members of more than five years' standing are already availing themselves of the opportunity of increasing their sick benefit assurances, which the recent alteration of the rules affords them. A special circular will be issued to the members in November next, giving full particulars of this, and drawing their attention to the powers they now have of assuring as much as £6 6s. per week during sickness and also of effecting assurances for sums payable at death and for deferred annuities for larger amounts than hitherto through the agency of the Society with the Rock Life Assurance Company. The Committee carefully examined the existing sick claims, some of which present specially interesting features and bear sad witness to the need of the benefits provided by the Society. The following letter, which is a type of many that have been received, was read:

Dear Sir,—I wish to take this opportunity of expressing the pleasure I have had during the past six years in finding the various officials prompt in business and courteous in their dealings with me. I wish also particularly to express my satisfaction at the result of joining the

Medical Assurance Association in such a way that you may, if deemed desirable, publish any part of this letter.

First I must say that, prior to 1887, when I joined, I had enjoyed good health since early childhood, being a cyclist, cricketer, football player, tennis player, and able to take my part in aquatic pastimes and to walk almost without limit. Soon after joining I had a sharp attack of English cholera, and never properly recovering—as I had no time to take holiday—I became a prey to the cold climate I was then in, having sciatica and lumbago. For none of these did I claim, but as one thing after another of family trouble came on me I knocked up altogether and had a bad attack of subacute rheumatism early in 1889. I claimed for seven weeks, I think. I had influenza at the end of 1889, and repeated attacks of sciatica for which I did not claim. In 1891, however, I was in bed for several weeks with influenza and complications, and claimed six or seven weeks. Since then till June, 1893, I have had indispositions of one sort or another, chiefly dyspepsia and irritable heart, etc., and, when feeling better than I had done for some months, without apparent cause I was suddenly attacked by phlebitis and complete blocking of the internal saphenous vein in its entire course, for which I was in bed six weeks and convalescing a little over three weeks, during which time I was "on the books" of the Association. What I wish to emphasise is that, having joined as a matter of precaution, I have been only too thankful to apply on three occasions in six years, and I should advise every practitioner, young or old, who is not independent of his profession, to join, as no one can tell how soon or how long ill health will come to or remain with him.

With many thanks for prompt payment, etc., I remain, yours truly,

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With a view to assist the members to obtain fresh entrants it was determined that a list should be prepared showing the names of the present members in each town, the names of the towns to be arranged in alphabetical order.

Full particulars of the Society, prospectuses, etc., may be obtained on application to F. Addiscott, Secretary, 33, Chancery Lane, London, W.C.

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

THE meeting of the British Association at Nottingham has been a most successful gathering both scientifically and socially. The arrangements which had been made by the local secretaries were very complete, so that everything worked with the utmost smoothness from the beginning to the end. The weather, so important and, in this country at this time of the year, so uncertain a factor, has been most favourable. The number of large halls, and especially the magnificent buildings and laboratories of the University College, afforded excellent accommodation for the general meetings, lectures, and sectional meetings. Lastly, but not least, the citizens of Nottingham were most generous in their hospitality to the visitors; indeed, looking down the list of members of the Association it seemed that there were but few comparatively of those from a distance who were not receiving hospitality.

The President's address in the Albert Hall, an account of which was published in the BRITISH MEDICAL JOURNAL of September 16th, drew a large and appreciative audience. The addresses of the Presidents of the several Sections, which followed next day, were largely attended, as have been the Sectional sittings throughout the meeting. Notwithstanding the assertion in the *Times* that the addresses of the Presidents of Sections were not up to the average of the Association, the universal opinion among the members of highest standing in science who have attended the meeting is that the very opposite was the case, and also that not only the Sectional Presidents' addresses, but also that the papers and discussions in the several Sections, will hold their own with those of previous meetings. In regard to the address of Dr. Munro, the President of the Section of Anthropology, the writer of the article referred to seems to have missed its point entirely. The number of papers bearing directly upon medicine were, of course, small, but many questions more or less indirectly connected with it, such as bacteriology and vital processes, received considerable attention under perhaps more favourable circumstances than at a purely medical association, because not only were there present to take part in the discussion a number of members of our profession, but biologists, chemists, and others, so that the subjects were treated of on a wider basis, and from various points of view.

In a notice like this it is impossible to do more than indicate the various subjects dealt with at the Association of special interest to our readers. As many of the papers will in all probability be published by some of our societies, a short account will therefore be all that is necessary for the present. An important series of letters between the Association and some of the departments of Her Majesty's Government were presented at the General Committee regarding the anthropometric method of identification. Although no response has been given by the Home Office, it is satisfactory to note that the Secretary of State for India informed the Association that the method has been introduced in India and is being tried there as an experiment. The water supply of Nottingham was dealt with by Professor Hull, in which he showed that few towns in central England were more favourably situated.

Dr. HALDANE, of Oxford, read a very interesting paper in opening a discussion on the Physico-Chemical and Vitalistic Theories of Life, in which the President of the Association, Professor Burdon Saunderson, Professor Cleland, Professor Allen, and others, took part.

Mr. ALFRED R. WALLACE read a paper on Heredity, which attracted a large attendance, but the conclusions to which he arrived from his data were somewhat doubtful.

Another paper on Heredity was read by Mr. W. B. GRANT.

Professor EINTHOREN gave an account of a Method of Recording Heart Sounds.

Professor GOTCH laid before the Physiological Subsection the results of his original investigations on the subject of Nerve Stimulation, which showed that the nerve impulse, started by an induction current, was not the same as that started by the discharge of a condenser. The point that is most extraordinary is that the quality of nerve impulse was absolutely dependent upon the production in the nerve of a particular state.

A report was submitted by the Committee appointed last year to Investigate the Physiological Action of the Inhalation of Oxygen in Asphyxia. The results of their investigations show that oxygen does not seem to have any special advantage over ordinary air, and produces no difference on the respiratory and pulse rate and volume. The points not proved are whether it produces marked effects, toxic or otherwise, when inhaled for a long time; whether it is of service in cases of cyanosis due to diminished respiratory surface, as in pneumonia; and whether it is capable of bringing about the cure of many diseases in which it has received the credit of being a remedial agent.

The Utilisation and Disposal of Town Refuse was the subject of papers by Mr. C. KEEP and Mr. W. WARNER.

An important discussion took place on the Position of Bacteriology, more especially in its relation to Chemical Science, which was opened by Professor PERCY FRANKLAND.

Dr. CROCHLEY CLAPHAM read an interesting communication of the results of an examination of the heads of 4,000 insane persons which he had examined. On an average, the size of the insane head was larger, but the brain weight less, than in sane persons. The part of the skull most deficient in the insane was the posterior part; this, Dr. Garson said, was to be expected from a comparative study of the skull in the lower races of man and anthropomorphous apes, likewise from the evolutionary history of the brain.

Professor HORSLEY'S lecture at the Albert Hall on the Physiology of the Nervous System was largely attended and well received.

The paper of Drs. C. H. CATTLE and J. MILLAR on Certain Gregarinidæ and the Possible Connection of Allied Forms with Tissue Changes in Man was an important contribution to our knowledge on the question of the growth of cancer, which will probably receive more extensive notice in this JOURNAL.

We cannot conclude our remarks on the meeting of the Association without mentioning the excellent provision which had been made for the combination of pleasure with business. Garden parties, visits to works and manufactories, and excursions to places of interest in the neighbourhood were very enjoyable and taken advantage of by members.

The General Committee, on September 20th, resolved to establish an independent Section of Physiology. This step is not without significance at the present time. The Reception room at the Nottingham meeting has been profusely supplied with the publications of antivivisectionists, who were no doubt stirred to activity by the fact that the President on this occasion was one of the leaders of British physiology.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1893.

Subscriptions to the Association for 1893 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, SEPTEMBER 23rd, 1893.

GOVERNMENT OFFICIALS ABOVE THE LAW.

It is a maxim of our common law that the Crown—that is, the Sovereign and those who act in her name—is not bound by any statute unless expressly named in it. Where an Act of Parliament expressly says that its provisions are to apply to the Crown, on the Royal Assent being given to it the Crown becomes bound by them; but unless such words are to be found in the Act it applies only to subjects, and not to the Sovereign. The maxim is an old one, and in theory is right enough, but in practice it sometimes leads to inconvenient results. The Crown has been interpreted as meaning, not the Sovereign only, but Government officials of many kinds, some of them occupying very subordinate positions. It is well known, for instance, that Crown property occupied for the purpose of the government of the country is not rateable, as the Crown is not mentioned in the general statutes which impose rates, and great hardship is consequently imposed on the ratepayers of certain districts by the exemption of large masses of valuable property, which necessarily imposes additional burdens on the adjoining property which is not so exempt. This hardship has been so far recognised that frequently when land has been acquired for Government purposes the Act which empowers the Crown to take it has contained clauses requiring rates to be paid as before, so as to protect the parish which has been selected as the site of the proposed public building or work.

Sanitary legislation is modern, contained in numerous Acts passed long after the above maxim as to the exemption of the Crown, had been thoroughly established and recognised. Yet few, if any, of those Acts contain any words binding the Crown. The consequence is that Government departments and Government officials in their management of Government property are not subject to the control of the local sanitary authorities, and are not bound to observe the provisions of the laws which those authorities administer. The first of these two exemptions commends itself to everyone, but not the second. It would obviously be inconvenient and absurd if every medical officer of health or inspector of nuisances were entitled to interfere in the management of a regiment in barracks or in camp, or of one of Her Majesty's ships. The officers of the regiment or ship must, of course, manage it in accordance with the orders of their own superiors as required by the interests of the public service. But those officers are expected and bound, in the interests both of those under their command and of the public, to observe the same rules as to health as are enforced under the ordinary law. The medical officer of a ship or of a regiment may usually be trusted to see that cases of infectious disease among the men under his charge are properly looked after, and, as far as circumstances permit, properly isolated. In such respects the public safety does not suffer by reason of Government officials being free from the control of those civil authorities who have been called into existence for the purpose of administering the sanitary laws which otherwise would remain inoperative.

But when public officials, because they are not under the control of the local sanitary authority, choose to ignore not only the requirements of the Public Health Acts, but their duties as managers and practically owners of house property, the position becomes very different. The action of the Commissioners of Woods and Forests, as recently disclosed by letters in the newspapers and by questions in the House of Commons, in refusing to remove or remedy an unhealthy and offensive cesspool situated on property under their jurisdiction, seems to show that such bodies ought not to be exempt from control in sanitary matters. Many landlords are averse to spending money in remedying defects in their property, if they can avoid it. Especially is this the case where the landlord is a board or corporation. But such persons or bodies are ordinarily subject to the supervision of a sanitary authority, and can therefore be compelled to do their duty. A board managing public property ought not to be practically irresponsible, as these Commissioners appear to be, especially as they seem to be not above suspicion. If reasons of public policy should require their continued exemption from the interference of the local sanitary authorities, the supervision of the Local Government Board and its trained inspectors might be useful. To provide an adequate remedy, legislation of course is requisite; and immediate legislation, for this or any other useful purpose, of course cannot be expected. The matter should not, however, be lost sight of, and in the interim, possibly the fact of public attention having been directed to them may cause the Commissioners to use their autocratic powers in such a way as to manage their property in conformity with the ideas of the present time.

DEATH CERTIFICATION.

II.

None of the suggestions made in the recent report of the Select Committee for the Improvement of Death Registration and Certification are more important than the one which proposes "that it should be a legal offence to bury or otherwise dispose of a body, except in time of epidemic, without an order from the registrar." At present no order for burial is issued by a registrar, who simply gives a certificate of registration or of notification, which is produced to the officiating minister at the time of the burial, the minister, if such certificate is not produced, being bound under a penalty to inform the registrar within whose district the deceased person died, that he has buried a person whose death has not been registered or notified. To change the certificate of registration into an order for burial would, indeed, be little more than a change of name, while to constitute it a penal offence to bury a body without such order would undoubtedly provide greater security for the registration of all deaths. This change would, however, run the

risk in some cases of grave inconvenience, not to say distress, if burial had absolutely to be refused or delayed through an order for burial being accidentally mislaid. It is presumed, but is not so stated, that this suggestion is not intended to interfere with the power now possessed by all coroners to order the burial of a body before the completion of an inquest and consequently before the registration of the death. It is further recommended that this order for burial should state the proposed "place and mode of disposal," and that the order should subsequently be returned to the registrar who issued it. We see no sufficient reason for requiring the addition of this information to the order, which information the informant might not always be able to furnish at the time the death is registered. It further appears to us that to require the return of the order to the registrar would cause unnecessary trouble to the relations of the deceased as well as to the registrar, and that it would be far better that the order should be retained and preserved by the authorities of the burial ground as evidence that it was duly produced.

All must cordially approve the suggestion that to "retain a dead body unburied or otherwise legally disposed of beyond a period of eight days, except by permission of a magistrate," should constitute an offence, although we should imagine that the necessity for such an enactment would seldom arise.

From the summary of evidence given in the report it would appear that the practice of burial in pits or common graves is open to serious objection, and to its discontinuance we see no possible drawback, except the probability that the cost of burial to the very poor, which is now too heavy, would probably thus be increased.

It has long been a reproach to the English system of registration that it provides no record of stillbirths, this omission affording dangerous facility for the disposal, as stillborn, of the bodies of children whose deaths may have been due to crime or neglect. Much evidence was given to the Committee on this point, and the report states that "there is reason to think that if statistics on the subject could be obtained it would be found that the number of children buried in the United Kingdom annually as stillborn is enormous." Dr. Rentoul called attention to a parliamentary return issued in 1891, from which it appeared that 15,735 stillbirths were interred in 1,335 burial board cemeteries in twelve months, but the total number of burials in these cemeteries during the year is not stated in the report. Dr. Tatham stated in his evidence that 365 stillborn children were buried in a year in two large Manchester cemeteries, the total burials in the year being 7,380; the proportion of these stillbirths was, therefore, equal to 5 per cent. of the total deaths. This proportion is not really excessive, as in those countries in which stillbirths are registered the proportion to live births is said to vary from 4 to 6 per cent., the proportion to deaths being considerably higher.

The report of the Committee recommends: "That stillbirths which have reached the stage of development of seven months should be registered upon the certificate of a registered medical practitioner, and that it should not be permitted to bury or otherwise dispose of the stillbirth until an order for burial has been issued by the registrar." It does not seem clear whether the whole of this recommendation is intended to apply solely to stillbirths of seven months' gestation and upwards, and thus to leave cases under that age unprovided for, which would hardly be satisfactory.

The number of stillbirths in England and Wales is probably not less than 45,000 per annum, but the number of cases exceeding seven months' gestation is considerably less. It seems most desirable that an order for burial should be issued in all cases of interment of stillbirths, without regard to the period of gestation; and the production of a medical certificate of stillbirth in every case, previous to the issue of the order for burial, seems equally desirable. It cannot be ignored, however, that no registered medical practitioner is in attendance at a very considerable proportion of the stillbirths, in which cases it may be presumed that the services of the public medical certifier would be required. A record of stillbirths is urgently called for, but this record would be of little value in itself, or for comparison with the records in other countries, if it were confined to cases of seven or more months of gestation. Another difficulty that would be created by this partial system of registration would be that every certificate of stillbirth would have to contain a statement of the age of the fœtus, or at any rate whether it was over or under seven months. It would appear, that at present nearly half the cases of stillbirth are interred without any other certificate than that of a midwife, or of some other unskilled person. It follows, therefore, that about 20,000 cases of stillbirth would have to be verified by the public medical certifier, in addition to the about 15,000 cases of uncertified causes of death. These additional duties would materially increase the difficulty of imposing this duty of public medical certification upon medical officers of health.

Such are some of the principal recommendations contained in the Committee's report for removing the main defects in the present state of the law. Most of the suggestions, if they become legislative enactments, would undoubtedly constitute desirable reforms, but nearly all would throw much increased work and responsibility upon the medical practitioner, and it remains to be seen whether Parliament can be induced to sanction the considerable increase to the cost of registration which would result from these reforms. Whenever these or similar changes in the registration law are enacted the proposals must be most carefully considered, in order to secure full and just recognition for the many and serious additional responsibilities which it is suggested to be imposed on medical practitioners.

In the meantime we commend the report to the attention of all interested in this important subject, as it not only contains a well-arranged analysis of the main defects of the present system, but also suggests for further consideration many of the difficulties that stand in the way of its reform, the most important of which are of a financial character. Some of these, however, might probably be met by a modification and extension of the coroner's system. The report has undoubtedly prepared the way for sound, useful, and desirable reforms in the present registration system; and the Committee and its Chairman are to be congratulated upon the success of their labours.

THE winter session of the University of Durham College of Medicine, Newcastle-on-Tyne, will be opened on Tuesday, October 3rd, at 2 P.M., when the scholarships and prizes will be distributed by the Hon. Mr. Justice Bruce, D.C.L.

THE PREVENTION OF PHTHISIS.

Arguments followed to their logical conclusion lead us at times into awkward places, and seldom does a practitioner find himself so torn by the conflicting claims of the theoretically right and the practically possible as in deciding on a course of treatment and of home *régime* for a patient suffering from phthisis. Facts, microscopes, and pathologists tell us that tuberculosis is a parasitic disease. Theory, and it may be added a certain amount of practical experience, asserts equally strongly that it is infectious, and that consumption always arises directly or indirectly from some preceding case. Logic then steps in, and urges the isolation of our consumptives, if we would save our healthy ones from catching the disease.

And yet humanity says just the opposite. Few sights appeal with greater force to popular sentiment and kindly sympathy than that of the tender care and unwearied nursing lavished by strong brothers and loving sisters on the fading flower of the family; and yet few can be more horrible to the physician who believes in the infectiousness of phthisis, and in whose mind the picture is interwoven with glimpses of the dark future when one by one these kindly nurses shall droop in turn.

Where, then, is the truth, and what shall the physician say when he has to arrange the mode of life, and the relationship to others in the family, which shall be adopted by the one who is first affected? Have we yet got all the facts? Does the rough assertion that consumption is infectious, or even the finer inference that dust is the vehicle of infection, cover the whole ground? And may there not be other conditions necessary to its propagation of which as yet we know but little?

That this is no mere academic question is made evident enough by the fact that at the present time a movement is on foot which aims at the compulsory notification of phthisis, and the erection of great state hospitals for its reception and isolation. The example of our forefathers in regard to leprosy is being held up as worthy of imitation in our dealings with tuberculosis, and we are told that the true way of preventing phthisis is to isolate the phthisical.

In the *Medical Magazine* for last May Dr. Chaplin advocated—(1) the prohibition of marriage among those with a strong hereditary predisposition to the disease; (2) that when once a patient has been notified as having phthisis he should be prohibited from frequenting theatres, churches, tramcars, railways, and all public places; (3) the establishment of hospitals for the compulsory segregation of persons dying of consumption; and although he admits that in the present state of society such a scheme is at best wild, he holds that when phthisis is clearly seen to be dangerous, it will not appear so far-fetched. At a meeting of the Society of Medical Officers of Health, held some time ago in London, it was moved by Dr. Niven that "tuberculosis should be made a notifiable disease, notifiable under the same Acts, and under similar conditions to such diseases as scarlet fever," and "that isolation hospitals should be provided by sanitary authorities, jointly or separately, at the expense of the rates, for the isolation of cases of tuberculosis likely to cause infection;" and although when the matter came up again for discussion at their meeting at Newcastle a much less stringent resolution was adopted, the proposition was at the same time fully accepted "that phthisis is an infective disease, in the prevention of which active hygienic measures should be taken." These things show what is in the air, and make us ask how far such views are justifiable.

No one accustomed to watch the varying career of consumptive patients during the long and often curiously interrupted course of their disease can fail to see how serious an interference with ordinarily accepted ideas of liberty would be involved in such a complete isolation as would be in any degree effective for its purpose, or how small would be the usefulness of mere voluntary segregation, which would certainly only be accepted in the later stages of the disease.

During the greater part of the progress of his malady a sufferer from chronic phthisis may be neither a helpless invalid, nor dependent on his friends, nor a burden to the rates. He may carry on his daily work, and be as full of hopes and of ambitions, and almost of usefulness, as any of his neighbours. Many a business has been built up and fortune made, many a reputation has been gained and life's work done, during those intervals of semi-health which figure so largely in the diary of a consumptive's life.

We do not say it is impossible to segregate the phthisical, but, in view of present ideas concerning the liberty of the subject, of the long distance we are yet from the complete isolation even of the more definite infectious fevers, of the difficulties we find in overcoming private rights in regard to nuisances and adulterations, and of the tenderness we exhibit in curtailing the liberty even of habitual drunkards, we may well question whether the proposal to shut up the great army of consumptives, by a mere *lettre de cachet*, comes within the range of practical politics; nor is it easy to suppress the thought that nothing short of a danger which could not be escaped or mitigated in any other way would justify a community in inflicting on any of its members so ghastly a punishment as taking them from their homes, their hopes, and their ambitions, and setting them to live out their lives in lonely isolation, separated from their friends and relatives, amid the dull monotony of workhouse or of hospital.

All evidence goes to show that, putting on one side infection by food, which comes under a different branch of sanitary work, the great and constantly acting cause of phthisis is the respiration of phthisically infected dust, and that the source from which the dust becomes infected is the sputum of consumptive patients. Whether we look on the large incidence of phthisis on those who pass their time in dusty workshops, and who dwell in dirty ill-kept homes, as proof of the direct infectiousness of the disease, or whether we accept the view, held by some, of the saprophytic existence of the bacillus tuberculosis—that is, of its power to develop apart from the living body, to live and grow on damp walls in dark dwellings, as distinct from its merely resting there as a spore, and thus to make the disease become endemic in "tuberculous infective areas"—in either case we must look to dust as the means of communicating the infection, and to want of cleanliness as the cause of its continuance. We wish we could feel sure that the medical profession at large recognised, as fully as the facts warrant them in doing, the infectiousness of tuberculous sputum and the danger of letting it dry into dust.

Last week we published an account of the precautions taken at various hospitals and dispensaries, devoted more especially to diseases of the chest, in regard to the risk arising from this cause; and although the measures adopted vary considerably, there is no difference as to the main fact that the dust constitutes the danger. May we not, then, hope that if this recognised mode of infection can but be controlled, at the same time that war is being made against the known predisposing causes—want, dirt, and overcrowding—we may escape the necessity of shutting up our consumptives?

As a charity to a most suffering class, we admit the desirability of hospitals for the reception and the comfort of patients in the later stages of consumption, whose work in the world is done, and who are a source of danger to those with whom they are cooped up in the crowded dwellings of the poor; we would gladly also see the State take a large part in their support and in the relief of those who, after all, are but the victims of its own complex civilisation; but that is a very different thing from shutting up all cases of the disease which may be thought capable of causing infection.

Nor need we feel that at the present time we are standing still, or that nothing is being done to limit the spread of tuberculosis. As a matter of fact a great deal is being done in an indirect, but none the less efficient, way; and already the result has been that, without any attempt at isolation or attention to the sputum, the general phthisis rate of the country has sunk from 2.6 per 1,000 in 1867, to 1.54 in 1889, a diminution greater than can be seen in most diseases. This has taken place as the result of general sanitary measures, better food, drier houses, more light, more air, and it is difficult to say how much greater the improvement might not have been, and may not still be, if in addition to all such measures, a consistent and methodical warfare be waged against infectious dust, for which purpose we must insist on the use of the spittoon, the substitution of pieces of paper or of calico, which can be burned, for that horrible thing the consumptive's handkerchief, the abolition of ornaments and knick-knacks in the sick man's room, and the replacement of the duster by the damp cloth. Great things can be done by attention to small details, and if we can entrap the vehicle of infection, isolation may become as unnecessary as it now appears impracticable.

THE ISOLATION HOSPITALS BILL.

WE have on more than one occasion already referred to the Bill which Lord Thring has carried successfully through the House of Lords, and which has been read a second time in the House of Commons. It has recently been reprinted, after amendment by the Standing Committee, and we are glad to find that with few exceptions the modifications suggested by the Chairman of the Parliamentary Bills Committee[1] have been adopted.

Although the precise title of an Act of Parliament may appear to be a matter of small practical moment, in the present instance, at all events, the change from "Infectious Hospitals Act" to "Isolation Hospitals Act" carries with it more than a mere verbal improvement. The procedure to be followed in forming a hospital district has been simplified and assimilated to that usually adopted by the Local Government Board in such cases by deferring the often vexed question of site until the district has been defined and constituted. Power is to be given to the hospital committee to provide additional accommodation in anticipation of epidemics, a point which in the original Bill was left in some doubt; and lastly, a medical certificate is expressly required as a condition of admission of patients to hospitals.

The amendments which it has now received upon these and other points of detail will materially strengthen Lord Thring's measure, while in no way affecting the admirable principle upon which it is based—namely, that the isolation of infectious cases is to be recognised as a public duty to be carried out at the public cost in all populous districts alike. Apparently Lord Thring has not yet seen his way to embody certain other suggestions made to him on the same occasion by Mr. Ernest Hart, which nevertheless will be recognised by those who are familiar with local authorities and hospital administration as necessary in order to remove some obscurity and possible difficulty. No provision seems to have been inserted whereby a small county borough could be grouped with neighbouring areas, even with the consent of all parties concerned, although such a course may be desirable on grounds of economy and efficiency, and has, indeed, been followed in more than one instance in the past.

An order once made by the county council cannot be altered except "on the application of the hospital committee, and with the assent of any local authority concerned in such alteration." Bearing in mind the tendency to the formation of new urban districts, and to serious alteration of county boundaries as soon as a borough grows beyond the 50,000 limit, and becomes eligible to rank as a county borough, it would simplify readjustment to give to county councils fuller power to modify the orders which they have made; and if competent for the one duty there need be little hesitation in entrusting them with the other. Then, again, there should be some means of intervention in case of default on the part of the hospital committee. The Act seems to leave them at liberty to remain inactive if they so choose, without fear of compulsion from any quarter, although the county council are to have the right of "inspection." One other matter upon which greater clearness is to be desired is the admission of patients from districts outside the proper hospital area. The expenses are thrown upon the local authorities of the district whence the patient is brought, according to the usual rule, but the Bill is silent as to any difference in this respect between foreign authorities that have, and those that have not, hospitals of their own. It would almost seem, therefore, that a sanitary authority possessing an efficient hospital may still be called upon to pay for such persons from their district who may elect to go to a hospital outside the area in preference to that within. The consent or approval of the sanitary authority is not a necessary antecedent to the removal of a patient.

So much by way of criticism of details in which further improvement is possible and not difficult. Taken as a whole, the Isolation Hospitals Bill is a sound and statesmanlike attempt to remove one of the grave blots upon our present system of sanitary rule. It seeks to establish

[1] BRITISH MEDICAL JOURNAL, April 29th, p. 902.

"local self-government" of the only reasonable kind, namely, self-government, with safeguards against misgovernment or inaction in matters essential to the public safety. The Bill is put down for Committee on November 2nd, and if it should become law, some at least of the county councils will be prepared to make prompt and judicious use of their new powers. We may then hope to hear less constantly of sanitary authorities deferring all thought of precautionary measures until an epidemic has actually broken out; or of expenditure wasted upon makeshift and unsatisfactory hospitals.

We understand that it is contemplated to hold at least one more meeting of the Royal Commission on University Education in London, but that it is not likely to take place for several weeks.

On Tuesday afternoon, October 3rd, at St. Thomas's Hospital, after the distribution of prizes, which commences at 3 P.M., a testimonial, which has been subscribed for by old students and past and present colleagues, will be presented to Dr. J. S. Bristowe, F.R.S., by Dr. W. M. Ord, on behalf of the subscribers. The testimonial will consist of a portrait of Dr. Bristowe, painted by Miss Beatrice Bristowe, and of a medal to be awarded annually to a student of St. Thomas's Hospital for proficiency in pathology. The medal has been founded and endowed by Dr. Bristowe out of the testimonial fund.

NORTH CORK INFIRMARY.

On Tuesday last a new wing which has been added to the North Infirmary in Cork was opened to patients. The money was provided by a bequest of the late Lady Combermere, the daughter of Dr. Gibbings, who was one of the medical staff of the hospital nearly eighty years ago. Dr. Gibbings settled in Cheltenham in 1817. The wing provides for thirty-six beds. The amount of the bequest was £28,000.

THE EARLY RECOGNITION OF CHOLERA IN LONDON.

The arrangement made by the London County Council with Dr. Klein for the bacteriological examination of doubtful or suspicious cases of cholera in the metropolis is eminently satisfactory. We understand that the County Council has entered into communication with the various medical officers of health with a view to obtaining early information of suspicious cases and submitting them to complete investigation, and we may fairly hope that, in consequence of these arrangements, not only will Londoners gain the advantage of the earliest possible warning of danger, but that, by keeping careful watch over the very inception of an epidemic, some valuable information may be obtained regarding the relation between Asiatic cholera and the preceding diarrhœa which so often heralds its outbreaks, and on the early treatment of which practical men always lay such stress.

THE SANITARY STATE OF CORK.

Dr. O'Connor, one of the dispensary doctors of Cork, has reported upon the very insanitary state of several laneways in that city, and has recommended that many of the houses should be demolished. Dr. Donovan, the medical superintendent of health, has also reported upon the habit of keeping pigs near dwelling houses and in undrained yards, which, he says, is a fruitful source of diphtheria. The Public Health Committee has decided that no pigs are to be kept in undrained yards, or within fifty feet of a dwelling house.

DUBLIN WATER SUPPLY.

The Dublin Corporation has postponed for the present the use of canal water. At the meeting of the Waterworks Committee, on Monday last, the engineer reported that the appeal to the public to economise the use of water had been satisfactory, since the daily demand had fallen from fifteen to eight million gallons. But the duration of the present arrangement depends upon a continuance of this economy and the coming of a good rainfall.

DEATH IN A BATH.

The unfortunate case at the London Hospital of death while in a bath draws renewed attention to a matter which cannot be too constantly borne in mind by nurses and those who have to do with sick people—namely, the necessity of watchfulness while any patient is having a bath. In this particular case the child was ordered a hip bath, a soaking for twenty minutes to half an hour in 6 inches of water, three times a day. The bath was on a table in sight of those in the ward; across it was a board on which the child's hands rested, and around his shoulders a blanket was secured. The process was hardly looked upon as a bath; it was, as the nurse expressed it, more like an application. The child was seen at 16 minutes before 12 by the sister, who said he was happy and well, but, when the nurse entered the bath room at 5 or 10 minutes past 12, he was found curled up in the water dead. Dr. Smith, after making a *post-mortem* examination, attributed the death to the shock caused by the shifting of a large calculus in the right kidney, probably assisted by the impure condition of the child's blood, and a verdict of death from natural causes was returned. Most people, however, will agree with the "sister," who, when asked "Should a child be left so long, in your opinion?" answered "No, sir."

THE LATE SURGEON-MAJOR PARKE.

The remains of the late Surgeon-Major Thomas Heazle Parke arrived at Dublin from Scotland on Friday, September 15th. They were received by a military escort, and were conveyed to the Broadstone Terminus for conveyance to the family burying place in Roscommon. There was a large attendance of his professional brethren, civil and military, and many thousands of people lined the streets through which the procession passed.

DEATH UNDER ETHER AT THE LEEDS INFIRMARY.

We are indebted to Mr. Walter Thompson, Resident Surgical Officer to the Leeds Infirmary, for the following notes of a case of death during the administration of ether, which recently occurred in that institution. M. K., aged 52, was admitted into the Leeds Infirmary on August 23rd, suffering from malignant disease of the rectum. He was a thin, nervous, and rather weak man. On August 30th inguinal colotomy was performed. Ether was administered in a Clover's inhaler; about ℥ij were given. The man took the anæsthetic very well, and went on favourably after the operation. On September 13th ether was again administered, Mr. Littlewood intending to do proctectomy. The patient took the anæsthetic without the least struggling. He was fixed in the lithotomy position, the perineum was shaved, and the rectum well washed out through the colotomy opening; this occupied half an hour. Just before finishing, the patient stopped breathing for about twenty seconds, but did not become livid. He went on breathing again quietly and easily for three minutes, and then suddenly stopped breathing and became cyanosed. The ether was finally discontinued. The tongue was drawn well forwards, the patient placed flat upon the table, and artificial respiration performed for two minutes, and strong liquor ammoniæ applied to the nostrils. He began to breathe freely again, and continued to do so for a minute and a-half, and the lips regained their normal colour. The femoral pulse was full, regular, and strong the whole of this time. Now the pulse suddenly failed, and re-

spiration stopped about the same time; he became livid. Artificial respiration was again commenced, and continued for twenty-five minutes. Hypodermic injections of brandy were administered, towels wrung out in hot water applied to the precordium and strong liquor ammoniæ to the nostrils, with faradism to the phrenics, without effect. The *post-mortem* examination, made on the following day, showed some congestion at the base of the right and the apex of the left lung; the right lung was adherent at its base. All the cavities of the heart contained blood. There was a little thickening of the base of the mitral valve, but it was quite competent. The capsules of the kidneys peeled easily, the kidney substance felt leathery. The other organs were healthy. During life there had been a slight trace of albumen in the urine, but no sugar. ℥ij ℥ij of ether were given in a Clover's inhaler; the pointer was gradually turned to 2½, when the patient was fully under the anæsthetic it was turned back to 1, after that it was never turned higher. The time from the beginning of administration until the patient finally stopped breathing was thirty-five minutes.

CREAMERIES AND ENTERIC FEVER.

Dr. Welphy of Bandon has done good service in drawing attention to a new mode of diffusion of typhoid infection. Modern dairy farming involves the co-operative use of creameries, where the milk from many farms is separated, the cream being made into butter, and the skim milk usually returned to the farmers. A whole district is thus brought into intimate relationship, and if any farm happens to be affected with enteric fever, and its milk supply implicated, the disease may easily become widespread among the other users of the creamery, this institution acting as a diffusion centre for a large country population much as a public water supply may in a town. In the particular case in point it seems that a few cases of fever occurred on a dairy farm not far from the town, the disease having probably been introduced from Cork, where one of the patients had been staying. The milk was sent to the creamery, from which, after the process of separation, it was sent to various parts of the country, and thus spread the disease. As soon as the cause of the epidemic was detected, the proprietors of the creamery ceased taking milk from the farmers whose houses were affected. Dr. Browne of the Local Government Board has inspected the district, and we understand that he confirms Dr. Welphy's view of the mode of diffusion of the malady, a mode which it will be well to bear in mind and to guard against wherever this system of dairy farming is in operation.

INCREASE OF LUNATICS IN IRELAND.

The report of the Commissioners in Lunacy for Ireland shows a great increase in the number of lunatic patients, and an urgent need for further provision in public institutions. This matter was brought under notice in the House of Commons by Sir T. Lea on September 15th, who suggested the appointment of a small Commission to inquire into the subject. Mr. Morley said "that what was regarded by experts as a strongly operative cause of the increase of this terrible malady was that the population had been depleted of its strongest and most robust members by immigration, with the result that an inferior stock was left, and the present generation was more liable to this terrible disease. He regarded it as a phenomenon well worthy the attention of the Government, and, without definitely promising that a Commission should be appointed, he undertook that the matter should be carefully considered, as it was one with which the Government was bound to deal." Questions of immense importance are raised by the report of the Commissioners, both as to the accommodation necessary and as to the causes of the alleged increase of insanity and idiocy in Ireland. It is highly desirable that a small scientific commission of inquiry should be appointed to elucidate the facts concerning insanity, imbecility, and the minor degrees of "feeblemindedness" which unfit individuals for social life. There appears to be some *primâ facie* evidence of degeneration (or irregularities from want of evolution) among Irish boys, as seen in England in the facts contained in a paper by Dr. Francis Warner, and published in the *Statistical Journal*, June, 1893, where an account is given of 2,289 Irish children (boys 1,694, girls 595) seen in day schools, Poor-law, and certified industrial schools. The numbers are most striking among the boys, where 22 per cent. presented some defect in development; 25 per cent. some sign of nerve defect or disturbance; 5 per cent. were pale, thin, or delicate; and 14 per cent. were reported by the teachers as mentally dull; these figures are much higher than those given for English and Jew boys respectively. It is, however, obvious that to verify such facts the inquiry should be conducted in Ireland. It is much to be hoped that the Government will accept the proposal to inquire into the subject, which should include direct observations of the physical and mental condition of selected groups of the population, and not merely the condition of those already imbecile or insane; this provision is all-important in seeking the causation of lowered mental status. The state of the population should be examined in the congested districts, and compared with that in districts referred to by Mr. Morley as depleted by emigration.

THE LEICESTER DILEMMA.

Leicester is being brought face to face with a fresh difficulty in its management—or mismanagement—of small-pox outbreaks. Its doctrine being that no child should be compelled to run the risks alleged to attach to vaccination, that section of the population which lives in the neighbourhood of the small-pox hospital has now similarly arrived at the conclusion that their children shall not be compelled to run the risk of small-pox infection from the hospital, and so the residents have had a large public meeting, not only to condemn a scheme for enlargement of the present hospital, but to insist on its immediate removal from their locality. Regarding scarlet fever, they dilate on a fact to which we called attention in a recent article. In order to provide for small-pox no scarlet fever cases have been isolated in hospital during the past ten months, with the result that close on 2,000 cases occurred instead of some 800 odd, which had been the average for the same period during previous years. From the speech of a town councillor, it seems that the Sanitary Committee had been all round the country looking for a man who would be willing to take the risk of allowing to be built on his land a hospital which should receive all the small-pox patients of ill-vaccinated Leicester, but so far they had not found the man, unless they were prepared to buy his whole estate. No doubt the residents around the hospital are in rather a tight place; but, so far as small pox is concerned, they can easily get out of it. Let them get thoroughly vaccinated and revaccinated, and they can safely live not only round the hospital but inside it. Of course there would still remain for them, along with the rest of the community, the extra risk of scarlet fever; but the fact is that some price is bound to be paid for the Leicester folly, and in the meantime scarlet fever seems part of the exaction.

THE LIGHT SENSE IN RELATION TO NAVIGATION.

In a paper with the above title, Dr. Freeland Fergus recently brought under the notice of the Philosophical Society of Glasgow a subject which has not received much attention, and which would probably repay further investigation. The importance of testing seamen with regard to their form sense or visual acuity and their colour vision, has long been recognised, but not much attention has been devoted to the light sense. It is, however, a matter of common knowledge that, of persons with normal vision, some see much better than others at night; indeed, in some countries, and notably in India, night blindness is common

in those who have no other apparent defect. It is evident that a defect such as this would be a serious danger in a look-out man on a ship navigating in a narrow channel, or close to a badly-lighted shore. True night blindness should obviously be a disqualification for such duties, but it is a question worth inquiring into what standard of light sense is really necessary. Dr. Fergus's paper would have been more valuable if he had not attempted to minimise the danger of colour blindness. We cannot at all agree with him that this has been exaggerated, and the evidence that many disasters have been caused by it is in our opinion overwhelming. For practical use, some very simple method of testing the light sense would have to be adopted; probably that suggested by the author would be the best, namely, a series of letters graduated from light grey to black on a black ground. This test has now been sufficiently used to prove that persons with normal vision present great differences in their ability to see such letters.

THE HYGIENE OF THE BARBER'S SHOP.

Dr. A. Blaschko has published a paper[1] on the hygiene of the barber's shop, in which he enumerates the diseases which may be contracted in the barber's chair, either directly from the barber or indirectly from his instruments and appliances. His list includes herpes tonsurans, impetigo contagiosa, acne varioliformis, trichorrhexis nodosa, impetiginous eczema, acute eczema, alopecia areata, syphilis, tuberculosis, and last but not least, cholera, the infection of which, he thinks, might be conveyed by a napkin which had been used for wiping the face of a person who was suffering from or recovering from cholera. The implements of the barber's craft which, in Dr. Blaschko's opinion, may carry infection are napkins and towels, the razor itself, the shaving brush—which may itself in its own proper hairs suffer from trichorrhexis nodosa—sponges, powder puffs, combs, and brushes. The list of diseases is long and alarming, but to it may be added, perhaps, typhoid fever, which it has been thought has sometimes been contracted by leaning over a basin with an improperly-trapped waste pipe during the process of shampooing. That there is very real danger of catching skin diseases unless the barber is very cleanly in all his arrangements and appliances is undoubtedly true, and the immediate cause of Dr. Blaschko's paper appears to have been an epidemic in Berlin of a disorder to which Saalfeld applied the term "dermatomycosis tonsurans." The measures of prevention recommended are: (1) Thorough cleansing of the shaving brush and razor in boiling water; (2) a separate brush for each man; (3) a clean freshly-washed towel for each person; (4) clean powder puffs. As a substitute for plunging the razor into boiling water—which would no doubt injure its temper in time—it has been suggested that it should be dipped in absolute alcohol and dried with cotton wool; instead of the ordinary powder puffs a small piece of cotton wool might be used and thrown away each time, a new piece being used for each person. Finally, in humble shops, where the fee would not warrant the barber in supplying a fresh towel for every customer, Dr. Blaschko suggests that the Chinese paper towels might be used.

[1] *Berl. klin. Woch.*, August 28th, 1893.

THE DRESDEN SANITARY CONVENTION.

The correspondence respecting the Sanitary Convention signed at Dresden on April 15th, 1893, has been issued as a Parliamentary paper (price 5d.). It contains the report of the British delegates, addressed to Lord Rosebery on April 18th, on the proceedings of the Conference. It contains also the full text of the protocol, and annexes embodying the results of the Conference, as well as the official approval of the Local Government Board, the Board of Trade, and the Admiralty, to the action of the British Government in authorising the signature of the Convention on behalf of this country. As we have already stated, Annexe I. is the most important part of the Convention, since it deals with general principles applicable to all nations. It requires that notification of the existence of a cholera focus should be made at once to the diplomatic or consular agencies in the capital of the contaminated country, or if there be no such agents by telegraph to the foreign countries. The first notification is to be followed by subsequent communications made not less than once a week, showing the progress of the disease, and stating the preventive measures which have been adopted. It is especially provided that isolated cases need not be notified. A district ceases to be recognised as contaminated when it has been ascertained officially that there has been no death from cholera and no new case for five days, provided disinfection has been practised. Other regulations apply to clothes of passengers, rags, the disinfection of luggage and merchandise, railway hygiene, river traffic, and port precautions. The second annexe refers entirely to regulations to be observed with regard to ships coming from a contaminated port, and sailing up the Danube. The Convention was accepted by all the countries represented at the Conference, with the exceptions of Portugal, Roumania, Servia, and Turkey, whose delegates were only authorised to accept it *ad referendum*, Greece, whose delegates reserved to their Government the right to accede to it at some future time, and Great Britain, whose adhesion was completed on July 15th.

THE LAST RESOURCE OF "PATENT MEDICINES."

We have on several occasions directed attention to the attempt that is being made to neutralise in some degree the effect of the recent construction of the Pharmacy Act in regard to the sale of poisons, by the assumption that medicines containing poison are exempt from the provisions of the Act when they are made the subject of letters patent under the Great Seal. The more palpable absurdity of the claim that the host of secret nostrums erroneously designated "patent medicines" should be held to enjoy a similar exemption was effectually disposed of by the decision of His Honour Judge Bacon, and the subsequent confirmation of that decision by the Court of Appeal. But there is still a further question to be decided in regard to medicines which are actually the subject of letters patent. We have already pointed out that, however reasonable the exemption provided in the Pharmacy Act may have been at the time of the passing of the Act in regard to medicines of that nature, that were then the special object of the Act is itself sufficient to show that the exempting provision in regard to patent medicines could only have been intended for the protection of rights actually in existence at the time the Act was passed. Having regard to the object which the Pharmacy Act was intended to effect—a restriction of the sale of poisons to certain qualified persons under certain specified conditions—the idea that the Act also contained a provision which would entirely do away with the necessity of observing either of those requirements is an utter absurdity. But, as we have previously stated, the attempt is being made to defend that proposition. The proprietor of a preparation containing two scheduled poisons has declared his intention of defying the authorities whose business it is to enforce the provisions of the law, and the ground upon which he bases the claim that his preparation is exempt from those provisions is the possession of a patent obtained after the passing of the Pharmacy Act, and actually after the preparation in question had been for years an article of trade. The Pharmaceutical Society of Ireland has now taken this matter in hand, and instituted a prosecution under the Pharmacy Act, Ireland, against an unqualified vendor of the preparation above referred to. The case came before Mr. Swifte at the Southern Divisional Police Court in Dublin last week, and after the hearing of evidence on both sides the decision was deferred until October 12th. We shall not therefore now attempt to

criticise the arguments brought forward by the defence, or the evidence by which it was supported, more especially as we have repeatedly expressed a decided opinion in reference to the general case, of which this is an instance. For the prosecution chemical evidence was given that the preparation contained morphine and chloroform, medical evidence was given that it would have a poisonous effect upon adults as well as children, and the registrar of the Pharmaceutical Society of Ireland proved the purchase from the defendant, who is not legally qualified to sell poisons. These facts were admitted, and the defence put forward was chiefly based upon the assumption that certain ingredients of the preparation were of such an antagonistic character that they would entirely counteract the effects which the poisons might produce. That assumption was supported by the evidence of Surgeon George Foy and Sir Charles A. Cameron. We cannot refrain from expressing surprise that no action has been taken by the Pharmaceutical Society of Great Britain in regard to the open defiance of its powers under the Act to which we called attention in the BRITISH MEDICAL JOURNAL of March 25th. It is the duty of that Society to enforce the provisions of the Act in the interests of the public, and as regards the qualified persons it represents it is its privilege to be permitted to enforce those provisions. For both reasons it might be expected that the Society should more actively exercise its important functions in regulating the trade in poisons.

ELEMENTARY EDUCATION OF BLIND AND DEAF CHILDREN.

THE Royal Commission on Blind and Deaf Children presented a report which has resulted in a Bill now before Parliament, the main provisions of which are to render it compulsory on every school authority to enable blind and deaf children resident in their district to obtain education suitable to their requirements, and at the same time to render it compulsory upon parents to cause their deaf and dumb children to attend such education. Among those who desire that the educational care of all the afflicted classes among children should be provided for, disappointment will be felt at the exceptions made, as the duty of school authority does not extend to children who are (*a*) idiots or imbeciles, or (*b*) resident in a workhouse or in any institution to which they have been sent by a board of guardians from a workhouse, or (*c*) boarded out by guardians, thus making no provision for the benefit of pauper children. By an amendment of the Lords a deaf child under 7 years of age is exempted. This may be reasonable as regards compulsion upon the parent, but it should be clearly stated that provision for both blind and dumb during infant age, that is, under 7 years, is compulsory upon educational authority for those in whose case parents desire it. Another amendment of the Lords favours the education of those children in day schools, which appears, on many grounds, highly desirable. It is obvious that in working the Act difficulty must arise, especially in cases of deaf and dumb children in differentiating between children deaf from ear disease or injury and cases of cerebral deficiency. Among 51 deaf and dumb children, reported on in the BRITISH MEDICAL JOURNAL of July 27th, 1889, at least 5 were said to present signs of brain disease or deficiency. Two weak points in the Act are apparent: (1) In neglecting to make provision according to the recommendation of the Commission, "that, with regard to 'feeble-minded children,' they should be separated from ordinary scholars in public elementary schools, in order that they may receive special instruction;" (2) in not providing that a competent medical authority should report on each case before it is handed over to special training. If this be neglected some imbeciles are sure to be included in the classes which it is proposed to form. So little information is as yet obtainable as to the condition of children requiring exceptional training that the amendment which proposes that an annual report of proceedings under this Act be laid before Parliament will form a useful addition to the Bill. According to a report on the physical and mental condition of 50,000 children seen in schools, and presented by the British Medical Association to the Local Government Board, 16 per 1,000 of the child population require special education. This would give 10,000 for the London school area. This Act will form a distinct step in advance towards the legislation required for the care of children of the afflicted classes.

OBEDIENCE TO SANITARY LAW.

THE duties and responsibilities of citizenship are greater and press more hardly on individuals than they did in primitive times, when if a man did not actually break his neighbour's windows, he might do almost as he listed. It is to be feared, however, that the average citizen does not take very kindly to this new duty towards his neighbour as defined by statute, and especially by sanitary laws, for the breaking of which every week brings forth a batch of prosecutions; nor are we quite sure that medical men always take the pains they might do to explain to patients suffering from infectious diseases the full extent to which the law limits their freedom. Perhaps it hardly occurs to the doctor that the patient is likely to be so silly as to take an airing in the midst of small-pox or scarlet fever; perhaps, after explaining to a patient for his encouragement that he is only slightly ill, he hesitates to tell him how seriously the sanitary authorities look upon his case; anyhow patients often seem to have but little notion of the greatness of the wrong they do, or of the injury they inflict upon their neighbours, by their folly. It is satisfactory to see that magistrates are waking up to the importance of stimulating the altruistic sense of such persons in the manner most likely to be successful. Thus, on September 18th a girl was fined five shillings and costs for having wilfully exposed herself in the public highway while suffering from small-pox in spite of the warnings of the medical attendant and the inspector. At Bolton a young woman employed in a millinery establishment was fined for continuing her work behind the counter while actually desquamating after scarlet fever. Her defence was interesting: "She thought there would be no infection, and thought the doctor had told her not to go out for fear of catching cold." It should be added that in this case the doctor, who from forgetfulness had failed to notify, was fined 40s. and costs. In another case a gentleman, while staying at a hotel in London with his two children, found that one of them was suffering from scarlet fever. He promptly took them away in a public conveyance and travelled by rail to Gloucester, leaving the London hotelkeeper in ignorance of what had been the matter, and thinking it unnecessary to inform the authorities at Gloucester what his son was suffering from. When charged he expressed regret, and pleaded that he thought his boy was suffering from scarlatina, and that this was not infectious in the early stages; he had paid for disinfecting the room at the hotel, and had done all in his power to rectify the mistake. To this we would say that it is absolutely impossible to rectify such a mistake. He was very properly fined £2 2s. and £5 5s. costs. Would it not be well absolutely to abolish that misleading term "scarlatina" and stick to honest and unmistakable "scarlet fever?"

PRESENTATION.—Dr. Waring has been presented by the members of the police force who have visited the Police Seaside Home at Hove, with a picture of the institution. Dr. Waring is honorary physician to the home.

MEDICAL LEGISLATORS.—The newly-elected French Chamber of Deputies numbers amongst its members 56 medical practitioners, including Dr. Viger, the Minister of Agriculture, who represents Orleans. Of these gentlemen 26 are new to the parliamentary arena. With the exception of Dr. Paul Bourgeois, all the medical deputies are republicans. In the German Reichstag only 6 medical men have seats.

THE PAN-AMERICAN MEDICAL CONGRESS.

[From our Special Correspondent.]

A Great Gathering.—South America well Represented.—Liberality of the Arrangements.—Banquet of Medical Editors.—Opening of the Proceedings.

The first Pan-American Congress has been duly held at Washington, and may be justly pronounced to have been in every sense a solid as well as a brilliant success. It had much in its favour, but many difficulties of time, space, and language to overcome. The thought which inspired it—the bringing together for the first time representatives of all the medical bodies of the American hemisphere—was patriotic and yet cosmopolitan, for in the American conception of the Pan-American sphere there are included not only the whole range of nationalities from the Behring Straits to Magellan, but also the outlying islands; so that British North America, the West Indian Islands and British Guiana, Hayti and Honduras, are counted in. They were all there, and they were treated with a "*royal* hospitality," an adjective of praise and a measure of large dignity and generosity still sympathetically preserved in colloquial use in the Great Republic.

The majority of the members of the Congress were American or Pan-American, but there were a few outside guests, who were welcomed with inexhaustible kindness and treated with unflagging attention and consideration. Spanish and Portuguese were the foreign languages most spoken. Brazil, Mexico, Paraguay, Venezuela, Chili sent their contingents, a party of forty Mexican physicians travelling thousands of miles to grace this festival of fraternity among the medical representatives of the races—old and new—the ancient civilisation, and the young and vigorous settlers who are now dominating the destinies of the vast continent. Already the doctors alone are a host upwards of 150,000, the medical corps of the United States numbering, it is stated, over 100,000. Looking at the distances which stretch far and formidable across this quarter of the globe, and the obstacles of time, space, and tongue; considering, too, that the medical inspiration of the Southern Republics has been derived, and is still largely drawn, from the Latin nations of Europe, and that French and Spanish are the two current languages, it was not a little gratifying to the patient, large-minded, and laborious men who for the last three years have been laying the foundations and preparing the organisation of the Congress, that upwards of 1,200 physicians attended it, and that, more than any international congress held on this continent, it truly deserved its name, and was very largely composed of distinguished delegates from the States and Republics invited—men holding important official positions in their own countries, and whose accomplishments and achievements are little known in our country or even in America, because *carent sacro vate*—that is, because they are not recorded in the medical press of any English-speaking country. Nevertheless, it will be seen later on that the special conditions under which they live, and their familiarity with the literature and methods of the French school, have given valuable results worth garnering at such a Congress. It was a note of the generous spirit in which all the proceedings were conceived and carried out that the subscription of membership to the Congress was £2, paid chiefly by the American members, in addition to large voluntary subscriptions from many sources, but that there was no fee for the delegates and invited guests, to some of whom, also, additional courtesies were extended. Thus the whole of the invited guests were, at the close of the Congress, invited to visit the principal cities and centres of medical education in the East, a special train, fitted in the luxurious manner peculiar to the United States, being placed at their service, with the most hospitable and profuse provision of all that liberality could suggest of entertainment on the way and in the cities visited. The route included Baltimore, Philadelphia, Boston, Saratoga, Niagara, Detroit, Cincinnati, and Chicago; it covered a fortnight of time, and was in every way memorable. A vote of Congress contributed to the cost of this enlightening and munificent entertainment, which is mentioned here as indicating the scale on which the hospitalities of this notable gathering have been conceived and carried out. The British Medical Journal has already indicated the interest which would attach to this Congress, which, while of very different interest from that of Rome, would not be likely to yield to it the palm in new impressions, and in awakening education in the greatness and intellectual development of a hemisphere of which Britons hear much, and in which they are profoundly and sympathetically interested, but of which they know little. In many ways it far surpassed, for English-speaking people, any congress held in the Old World. In recent, accurate, and critical knowledge of the latest proceedings and methods in surgery, midwifery, and medicine it did not fall below it; and even in such subjects as modern bacteriology and scientific hygiene there were men present whose training was wide and whose knowledge was exact. Men such as Osler, Billings, Pepper, Hare, and Jacobi are so well known for their accomplishments that to say they found themselves among many peers and with much to learn indicates the scale of intellectual accomplishments reached in many of the sections. One of the sections—that of Medical Pedagogy, that of the art and appliances of teaching—was at once so novel and of such varied interest that I shall feel called upon to give a special notice of it. Otherwise I shall have to limit myself, in view of your space requirements, to a very brief and eclectic note of the sectional work. It may well be worthy of consideration whether such a section might not at intervals and under suitable direction and inspiration be introduced at some of the British Medical Association meetings.

To give some idea of the value of the material contributed by South American members of the Congress, I may mention some of the leading contributions from Mexico—a country of which we have not been much accustomed to think in this relation:

Carmona: Cerebral Spastic Paralysis in the Adult.
Contreras: Anæsthesia by Chloroform in Mexico.
Gavins: Diagnosis and Treatment of Tuberculous Laryngitis.
Ita: On Uterine Compressions.
Lavista: Acute Gangrene in Relation to Arterio-Sclerosis, Embolism, and Thrombosis.
Liceaga: Hygienic Measures for Purposes of Common Protection to be Uniform in all Countries of the American Continent.
Mendizabal: Typho-malarial Fever in Orizaba.
Marin: Ligature of Brachio-cephalic Veins in Cases of Wound of Vein as Hæmostatic Means.
Martinez del Campo: Cure of Urethral Stricture by Double Catheterisation of Bladder by Perineum and Urethra.
Monjaras: Measures to Prevent Spread of Contagious Diseases in Cities.
Noviega: Notes on Pelvic Conformation in Mexico.

The general proceedings began with a banquet of the American Medical Editors' Association, presided over by Dr. Hughes, of Louisville, with Dr. Love, of St. Louis, acting as Toastmaster. There was a great attendance from all over the continent. The Government was represented by Mr. Morton, a member of the Cabinet, and the press by the Hon. Frank Helton, formerly Postmaster-General, and now editor of the *Washington Post*. The speaking was inspiriting, and above the dead level of the sad and sorry little platitudinous displays of ineptness which we are accustomed to as part of that thing of terror, the British post-prandial toast list. And it lasted till 2 A.M. as an official proceeding, and was voluntarily prolonged by song and sentiment till 3 A.M., than which nothing more need be said.

The public proceedings were opened next day by an official reception by Mr. Cleveland, the President of the United States, an honour which was deeply appreciated by the whole of the members and guests. Other addresses of welcome from the State Governor and other high officials followed, and each day the representatives and delegates of the different countries represented were called to the platform and invited to say a few words expressive of their adhesion to the Congress, and of their comprehension and interpretation of its objects, uses, and organisation. The leading officials, to whom, as I have indicated, the utmost thanks were due for careful preparation and liberal success of achievement, were Dr. Reed, of Cincinnati (the Secretary-General) Dr. Chapman, of Washington, Dr. Morley, and above all, and in concert with Dr. Reed, Dr. Pepper, of Philadelphia, who brought to his task a high reputation as a physician and a gentleman of great organising power, imperturbable good temper, and considerable decision of character—a happy combination, which did much to achieve and ensure the admirable working of the Congress.—September 10th.

THE LONDON WATER SUPPLY.

Although at the moment of going to press the Report of the Royal Commission on the Water Supply of the Metropolis had not been issued, we are able to give the following sketch of its general scope.

The Commission was appointed for the purpose of ascertaining:

Whether, taking into consideration the growth of the population of the metropolis and the districts within the limits of the metropolitan water companies, and also the needs of the localities not supplied by any metropolitan company, but within the watersheds of the Thames and the Lee, the present sources of supply of these companies are adequate in quantity and quality, and, if inadequate, whether such supply as may be required can be obtained within the watersheds referred to, having due regard to the claims of the districts outside the metropolis but within those watersheds, or will have to be obtained outside the watersheds of the Thames and the Lee.

In estimating the population whose needs would require to be supplied, it was obvious that a large area outside London would require consideration. Not only must suburban districts be included in the area to be reported upon by the Commission, but such more remote districts must be considered as might reasonably be expected to be reached by the spreading of London population at no very distant time.

After due consideration, the Commissioners determined to take as their basis that area known as Greater London (that is, including all parishes wholly comprised within a circle of fifteen miles radius from Charing Cross and all other parishes of which any part is included within a circle of twelve miles' radius from the same centre), and to add to it certain parts of "Water London," or the part now supplied by the companies which lie outside Greater London as above defined.

In this area the growth of population varies extremely, in some parts being enormous, while in some there has even been a falling off. The water companies, taking forty years as the period for which it is desirable to look forward, estimate that in 1931 the population wanting a supply of water will be 8,526,054, and that the daily supply required will amount to 253,529,686 gallons daily. This estimate, however, should clearly be taken as founded on a minimum both as regards population and supply per head.

As regards the sources from which this immense mass of water can be obtained, the suggestions made by the water companies for extending their works, and so augmenting the volume of distributable water, may be stated as follows:

1. The abstraction of more water from the Thames without providing storage.
2. The abstraction of more water from the Thames and Lee with provision for storage.
3. The abstraction of water from gravel beds adjoining the Thames.
4. The abstraction of more water from deep wells in the chalk formation.

The total capacity of the supply hoped to be obtained is returned by the representatives of the companies as follows:

From the Thames, with additional storage, 300 million gallons per day; from the Lee, with East London Company's "projected" storage, 52½ millions; from chalk springs and wells, 87 millions. Total, 439½ million gallons per day; say 440 millions.

A great deal of evidence has been put before the Commission as to the quantity of water which can be obtained from these various sources, which we may summarise as follows:

The watershed of the Thames above the intakes is 3,548 square miles, and the average daily flow past the intakes during a long series of years may be called 1,350 million gallons. The average daily discharge of three consecutive dry years we estimate at 1,120 million gallons, and of the driest year at 900 million gallons. These being the facts, we are of opinion that by the construction in the neighbourhood of Staines of reservoirs of adequate capacity into which water shall be pumped and stored in times of excess to be used in times of deficiency at least 300 million gallons a day may be obtained for the supply of London. We believe this can be done without taking in the more turbid of the flood waters and without injuriously diminishing the volume of the river below the point of abstraction. To ensure the best results in both these respects the taking of the water should be subject to strict regulations laid down by Parliament. The water allowed to be taken from the river should, in our opinion, include any water which may be pumped from the gravel beds in the vicinity of the river.

From the River Lee.—The available drainage area of the Lee above the lower intake of the East London Company is stated by Mr. Bryan to be 460 square miles.

From this area we have made out that on the average of three consecutive dry years 81 million gallons a day will flow off by the river, of which, if proper storage reservoirs were constructed, 52½ million gallons might be abstracted.

Thus, according to the report, these several quantities might be obtained: From the River Thames, 300 million gallons per day; from the River Lee, 52½; from wells in the Lee Valley, 40; from wells in the Kent Company's district 27½—total, 420 million gallons, sufficient at 35 gallons per head per day for a population of 12,000,000. In addition to which a very considerable quantity is undoubtedly procurable from the tract of chalk country in the valley of the Medway and the larger area further eastward to the coast.

The fact, however, must not be lost sight of that the obtaining of this amount of water hinges entirely on the making of proper storage reservoirs. The storage at present possessed by the London water companies is of so meagre a description that it may practically be dismissed as non-existent, not even being sufficient in many cases for the proper subsidence of the water before filtration. The suggestion, then, of getting 300 million gallons per day from the Thames and 52½ million from the Lee does not mean simply taking it from the river, but involves the erection of vast reservoirs, so that it can be taken when it is to be had and distributed when it is required—works in comparison with which the present reservoirs are dwarfed into insignificance.

Of the evidence opposed to these schemes, that of Mr. A. R. Binnie, C.E., chief engineer to the London County Council, was the most important. This was to the effect that the supply that could be drawn from the Thames and the Lee was wholly insufficient to meet the future wants of Greater London; and he stated that in his opinion deep storage reservoirs in the Thames Valley were impracticable, and, further, that any large increase in quantity pumped from the chalk formations would only ultimately diminish the amount of surface water in the various contributory streams, and therefore could not be reckoned on for increasing supply. The weight of evidence given before the Commission went, however, to rebut that of Mr. Binnie; and it will be seen that the Commissioners did not accept his views, for they unanimously recommended the adoption of additional storage works in the Thames Valley, and rejected those plans which advocated supplying the metropolis with water from an entirely new watershed.

What will be the condition of the water so obtained as to purity?

The first thing which is impressed upon us by perusal of the evidence is that both the Thames and the Lee are the drains of the districts from which they flow. It is true enough, as the Commission points out, that the pollutions observed are in many cases preventable and illegal, that by the large extension of sewage farms they might be in many cases efficiently dealt with "at all times except those of flood (!)," and that in the Thames basin not only the River Conservancy but the county councils and the sanitary authorities have the power of putting the Rivers Pollution Prevention Act into operation. Yet for all these powers, which have existed for so long, there the pollutions are and there they are likely long to remain.

The hundreds of miles of watercourse which require supervision, the numerous towns and villages situated on their banks, the large floating population, the delays of the law, twelve months' notice being required in some cases before further steps can be taken, when a pollution has been discovered, all make the water of the rivers absolutely unfit for domestic purposes, unless it can be effectually purified before it is distributed.

Nothing is more clear from the evidence as to the diversity of authority by which the banks of the river are controlled than that if any great improvement is to be made in the Thames it must be placed under one single water authority, not, as at present, holding jurisdiction only over the main river and for ten miles up the branches, but extending up to the top of every tributary, and that this authority should have very summary powers.

Even then, however, we should only have got, instead of a river of drains, a river of effluents; and the possibility of using it depends on that of restoring it to purity and manufacturing from it a potable water. A large amount of evidence was offered to the Commission as to the manner in which water purifies itself especially by subsidence, and many interesting facts were detailed by Dr. Frankland regarding the influence of the intermixing of waters from different sources at various points on the river in increasing the activity of this process, the water of the Wey, for example, being shown to produce a precipitate on mixing with that of the Thames, by which a considerable quantity of organic matter was carried down, but the fact was well recog-

nised by the Commission that at the best river water is impure, and that in flood it is absolutely foul, and therefore that the whole question of its use hinges on the possibility of purifying it by filtration.

In regard to this important question the Commission did not feel justified in spending time in making fresh investigations, but took much evidence as to what had been done, the 23rd Annual Report of the State Board of Health of Massachusetts and other records giving valuable information, besides the large amount of expert evidence available in England.

The conclusion arrived at is that by means of subsidence, filtration, and the avoidance of flood water such a standard of purity and excellence can be attained as to render the water suitable for all household purposes. In fact, the mass of expert evidence as to the purity of the water now supplied by some of the companies, under favourable circumstances, led the Commissioners to feel that their attention must chiefly be directed to the increase in the quantity of the water rather than to any improvement in its quality beyond the standard now attained by the best companies. Some very important evidence was, however, given by Dr. Barry, based on an investigation into an epidemic of enteric fever in the Tees Valley, throwing doubt upon the trustworthiness of sand filtration as a means of keeping back pathogenic organisms; but the Commission was not completely satisfied that in this case there were not other causes at work besides the water supply; and after the evidence which was given as to the treatment of the filters, the rapidity with which they became blocked, and the frequency with which the filtering surface was "skimmed" of slime and thus disturbed, it seemed probable that, however true it might be that the fever was waterborne, the transmission of disease germs through such a sample of filtration could not be taken as a condemnation of filtration properly conducted.

Here, of course, is the key to the whole question—*properly conducted.*

The Commissioners say:

Having regard to the experience of London during the last thirty years, and to the evidence given to us on the subject, we do not believe that any danger exists of the spread of disease by the use of this water, provided that there is adequate storage, and that the water is efficiently filtered before delivery to the consumers. It does not come within the terms of our reference to lay down what should be the exact regulations as regards filtration—that is to say, what should be the proportionate area of the filtering beds, the depth of sand, the frequency of renewal, or the rate at which water should be allowed to percolate; nor, as regards the subsidence tanks, how many days' storage should be deemed sufficient so as to obviate the necessity of taking in turbid storm water and to allow due settlement. But we cannot shut our eyes to the fact that the provision for these purposes differs enormously in the different companies, and in some of them is, to our minds, quite inadequate. Regulations on these matters should be drawn up after competent inquiry, and adherence to these regulations should be strictly enforced. This enforcement should be entrusted to a public water examiner, who should have a legal right of entry into all the waterworks, and the duty of reporting periodically as to the due observance of the conditions laid down.

Now all this matter of drawing up and enforcement of regulations for the manufacture of a potable water has to be considered in the light of Professor Koch's recent article on Water Filtration, in which the greatest possible importance is attributed to slow filtration and avoidance of any disturbance of that thin layer of mud or slime which, lying on the sand of the filter bed, forms, according to him, the true filtering medium.

The evidence before the Commission shows how ludicrously short of perfection is that rush through a sandbed which some of the companies call filtration. Nor does the evidence given as to the bacteriological purity of the filtered water, with the condition of which the Commission is so content come up to Koch's standard. The removal of a percentage only, however large, of the micro-organisms still leaves the effluent affected by the character of the intake, whereas Koch requires that the effluent shall not contain more than a fixed number of germs in each cubic centimetre, "and this independently of the amount of bacteria in the natural water, whether these be 100,000 or only a few hundreds in a centimetre." Another thing laid down by Koch as most essential, and regarding attention to which by the companies we see no sign in the evidence, is that of bacteriologically testing the water not merely as it is supplied to the public, but as it flows from each separate filter bed.

The Commission finally says:

From the sources and by the methods we have mentioned, a daily supply of 425 million gallons can, in our opinion, be obtained. This is a sufficient quantity to supply thirty-five gallons a head to a population of twelve million persons, which is nearly a million in excess of what the total population of Greater London will have become in 1931, even if the ratio of increase in the last decennial period to 1891 is fully maintained.

But it must not be forgotten that to do this is not a mere matter of dipping into these rivers and taking so much water, but involves a constant supervision of the whole watershed by an authority with strong and summary powers; the erection of vast storage reservoirs so as to avoid flood water, and allow for subsidence; a very large extension of the present filtering area; and, above all, an efficient and independent examination of the filtered water, which last ought to be conducted by somebody directly responsible to those who have to drink the water, and furnished with such power as to enable it to turn the tap and shut out a polluted supply without argument or circumlocution.

LITERARY INTELLIGENCE.

A second edition of the English translation of Professor Gruber's *Textbook of the Diseases of the Ear*, by Drs. Edward Law and Coleman Jewell, is announced for immediate publication by H. K. Lewis. The editors have added sixty-eight pages of new matter. A considerable first edition was exhausted in less than two years.

Surgeon-Major W. G. King's work, *Elements of Hygiene*, has been chosen by the Madras Government as a textbook and guide for its medical subordinates of the lower grades.

M. A. Lods, a young doctor of laws of Paris, has published a pamphlet[1] in which he urges the claims of a French Protestant clergyman, named Rabaut-Pomier, to be considered the real discoverer of vaccination. Jacques Antoine Rabaut-Pomier, who was born at Nîmes in 1744, exercised his ministry first at Marseilles and afterwards at Montpellier. He seems to have devoted his leisure hours to the study of medicine. The peasants of Languedoc had been struck by the analogy between small-pox and the eruptive disease which affects certain animals, and Rabaut-Pomier by personal inquiry satisfied himself that the persons who looked after the animals either escaped small-pox entirely, or had it in a mild form. He is said to have communicated the facts which he had observed to some French medical men, and to have suggested that they should practise inoculation of the matter which could easily be obtained from the cow's teats. The idea seems, however, to have fallen on a barren soil. In 1784 it appears Rabaut became acquainted with Mr. James Ireland, a citizen of Bristol, who was spending the winter at Montpellier, and through him with an English practitioner, Dr. Pugh. To these gentlemen Rabaut-Pomier spoke freely on the subject of small-pox and its prevention by the inoculation of matter from the cow. Dr. Pugh is said to have been so struck by what he was told that he promised to do what he could to induce his professional brethren at home to try the method. Then came the French Revolution, and wars and rumours of wars, and Rabaut-Pomier heard nothing more of the matter till 1798, when Jenner's famous pamphlet was brought to his notice. It is implied that the latter, having learnt Rabaut-Pomier's ideas through Pugh simply "conveyed" them to his own greater glory—and, it may be added, profit—without thinking it necessary to acknowledge their source. Without discussing the numerous difficulties which the "higher criticism" might reveal in this story, it is sufficient here to point out that a letter from Mr. James Ireland, dated February 12th, 1811, which is quoted by M. Lods as affording "absolute confirmation" of Rabaut-Pomier's priority, is absolutely conclusive the other way. Mr. Ireland writes: "Ce que vous avez constaté à Docteur Pugh (l'an 1784 à Montpellier) a été eprové ici avant l'an 1784 dont vous parlé. Les filles qui ont soigné les vacheries ici pendant qu'elles ont eu leur vérole et que ces filles ont été infecté—avec le temps, on a apperçu que ces filles n'ont jamais eu la petite vérole." Mr. Ireland's French is "after the manere of Stratford-atte-Bowe," but he manages to make it clear that the facts communicated by Rabaut-Pomier to Pugh in 1784 were known in England before that

[1] *Rabaut-Pomier (1744-1820) d'Après des Documents Inédits.* Par M. A. Lods, Dr Wagemann.

date. Mr. Ireland goes on to say that the facts have been confirmed by the "indefatigable research" of Jenner, whose merits the Government had recognised by an award of £500,000! It is only to inventors of means of destroying human life that Governments are so lavish in their rewards. As a matter of fact, Jenner received something like £30,000 in Parliamentary grants.

THE CHOLERA.

SPORADIC OUTBREAKS IN ENGLAND.

London.

Mr. Shirley Murphy, the Medical Officer of Health of the London County Council, with the assistance of Dr. Hamer, Assistant Medical Officer, are continuing to inquire into cases alleged to be cholera. Although several cases have been reported from various parts of the metropolis, the only cases in which the cholera bacillus has been found by Dr. Klein are the three which have been hitherto referred to as the Westminster, Fulham, and Kennington cases.

The weekly return of the Registrar-General for last week shows a marked diminution in deaths ascribed to cholera and choleraic diarrhœa, the number of deaths for the week ending September 16th being 4. On inquiry at the London County Council it was ascertained that the death of the woman Moon, the second House of Commons case, who died on Wednesday at the Westminster Hospital, was due to strangulated hernia.

Hull.

Our correspondent in Hull writes:—The total number of deaths from cholera since August 24th has been 9, that is, two additional since our report of last week. Since September 13th up to September 20th 4 cases have been admitted into the hospital, and 1 death has occurred from cholera outside. This case had been visited by the sanitary officials, but the condition of the patient was too precarious to permit of his removal to hospital. He was a man about 60 years of age (gardener), who had been attacked with simple diarrhœa early on the morning of the 17th. He was able to take exercise during Sunday morning, and returned home about 1.30 P.M. He was not seen by a medical man until 11.30 P.M., when he prescribed for him. He was seen again on the following morning, when the medical man, recognising the development of the disease, immediately communicated with the sanitary officials. He died on September 18th, and his body was removed to one of the special mortuaries erected in each of the burial grounds, and which are appropriated solely for the reception of the bodies of those who have died from cholera. He was interred the following morning, the usual sanitary precautions being adopted.

During the week ending Wednesday, September 20th, the following cases have been notified by medical practitioners, namely: Cholera, 3; choleraic diarrhœa, 28; and diarrhœa, 97. Three cases of cholera have been admitted into hospital during that period, 2 of which have died.

There is now under treatment in the hospital 1 case of cholera, and 2 patients removed from common lodging houses suffering from diarrhœa for observation.

For the information of readers I will detail the precautions which are adopted in Hull of what has been described as "the movement of a sanitary column," and which I have witnessed. The ambulance staff are on duty day and night. Immediately upon the receipt of a notification of cholera, or of sudden illness of a choleraic character, either by the medical man in attendance, the sanitary inspectors, or the police, the medical officer of health is communicated with, and immediately visits the case, or, in his absence, his assistant. Should the case admit of removal the horse ambulance, fully equipped, with trained men in attendance, is requisitioned immediately by telephone.

The assistant inspector of nuisances for the district in which the case occurs is forthwith acquainted, and makes his appearance with a column comprising flushers, limewashers, and disinfecting staff. He superintends the removal of the inmates of the house to the hospital for the purpose of bathing and the disinfection of their clothing, the disinfection of all articles of bedding, clothing, etc., which has been exposed to infection, and the destruction of such articles as may be ordered by the medical officer of health or his assistant.

The contents of the privy are removed to the destructor for cremation, and the interior cleansed, disinfected, and limewashed. The subsidiary drains in the immediate contiguity of the house are thoroughly flushed, and disinfectants are freely distributed in the neighbourhood of the outbreak. The committee sit daily for the reception of reports submitted by the medical officer of health, and to take such action as they may deem necessary for the maintenance of the public health. They have been authorised by the Town Council to take every precaution to guard against the spread of the disease irrespective of cost.

Grimsby.

During the past week 3 deaths from cholera have been reported from Grimsby. The total number of cases in the Grimsby Hospital on September 20th was 9; all are doing well, and it is expected that most of them will be discharged during the present week.

Other Places.

A death is also reported from Hurst, in Lancashire, and another from Ashton-under-Lyne, in both cases of people who had recently returned from Cleethorpes, but from Cleethorpes itself no cases are reported.

Single fatal cases also occurred at Mansfield, Derby, Ilkeston, Mitcham, and several at Leeds. Of these the Derby case alone has been shown to be cholera. The cases which occurred last week at Pringley turn out not to have been cholera.

An investigation has been made into the sudden outbreak at Ashbourne, in which there were 15 attacks and 9 deaths between September 6th and 14th, with the result that the well water with the use of which these attacks were associated has been found to be full of bacilli, which in every respect resemble those of true cholera.

THE CHOLERA ABROAD.

Austria-Hungary.—A return for Hungary from August 30th to September 8th gives 633 cases of cholera and 420 deaths, whilst during the period 9th to 14th we learn of 77 cases and 66 deaths, in addition to 63 cases and 38 deaths in Galicia during this latter period. Four cases and 1 death occurred in Cracow last week, and a serious prevalence is reported from Kolomea. Four cases with 2 deaths have occurred in Vienna.

France.—Matters seem to be getting more serious in France, the Department of Finistère being especially involved. Many cases and deaths have occurred in Brest, and, close at hand, some 50 deaths occurred at Kerinoa in the first half of this month. Cholera is on the increase at Villefranche and in the Olette Canton; it has appeared at Douarnenez and Fauquembergues; at Barrême, in the Basses Alpes, 30 cases and 13 deaths occurred last week end; 30 deaths have in all been recorded at Camaret; whilst the disease has also extended to Pleyben, Jaon, and Triboul; and a number of new cases developed last week at Nantes.

Germany.—Berlin was last week entirely free from cholera. Not so Hamburg, where 25 cases, 9 fatal, occurred from the 16th to the 20th. Cases, some of them fatal, were heard of from Cologne, Solingen, Duisburg, St. Goar, and Kurzsgrack. The most disquieting news, however, is that referring to Hamburg.

Holland.—Last week we learn of 4 cholera deaths at Rotterdam, 2 at Leerdam, 2 at Kralingen, 7 at Henkelom, 3 at Terneuzen, 3 at Wanneperween; and of 3 cases at the Hague on Sunday last. On Saturday only 1 case, fatal, of cholera was recorded in the whole of Holland. Several fresh places have in the week had single non-fatal attacks.

Italy.—In the last half of August and the first of September there were 123 cases and 79 deaths from cholera in Italy. During last week 8 deaths occurred in Naples, 3 in Cassino, 44 in Palermo, and 38 cases and some half-dozen deaths in Leghorn. In Rome there had been 19 cases and 7 deaths up to September 18th.

Spain and Portugal.—There seems no longer any doubt as to the presence of cholera in Bilbao and Baracaldo, the first case at the former place dating from August 19th; 163 cases with 41 deaths have occurred at Bilbao during the past fortnight. We learn also of the disease at Belchita, in Aragon, at Villareal, Saragossa, Deusto, Ortuella, and Luchan, whilst in Lisbon itself 10 deaths from cholera are reported as occurring last week.

Belgium.—Fatal cholera still prevails at Antwerp.

Balkan Peninsula.—In Roumania the cholera still prevails to some extent, especially at Ibrail, and is spreading at Tultcha and Bacan and neighbourhood. We hear of the disease last week as still on the increase at Sulina, and as having broken out at Banjitza, near Belgrade, in Servia, suspicious fatal cases being actually recorded in Belgrade itself. In Turkey 101 cases and 65 deaths had occurred at Scutari up to the 13th; on the latter date 11 cases and 3 deaths took place in Constantinople, and cases were heard of in Pera and Galata.

Russia.—The disease prevailed heavily in Moscow city; whilst the provinces most heavily hit were, according to the latest returns, those of Podolia, Nijni Novgood, Kieff, Mohilev, Orel, and Kursk. For the Empire the official returns, September 9th to 12th, give 8,000 cases and 3,300 deaths from cholera.—Our St. Petersburg Correspondent writes (under date of September 15th): The daily bulletins upon the progress of the

cholera epidemic in St. Petersburg show a gradual but steady increase in the numbers both of cases and deaths. As in last year's epidemic, the Vassiliefski Ostrof (one of the large islands upon which half the capital is built) continues to furnish a larger number of cases than any part of the city. Thus, in the week ending August 21st (old style) out of 27 cases recorded for the whole city 13 were drawn from the island in question. Up to the present there have been altogether 321 cases of cholera and 119 deaths in St. Petersburg; 69 patients have recovered, and there remain under treatment 136 persons suffering from the disease. The first case of cholera occurred in St. Petersburg on August 1st, the second on August 4th. Between the 12th and 19th 40 fresh cases were admitted to hospital, and 15 of these proved fatal. The numbers of admissions and deaths on each subsequent day have been as follows:

	Cases.	Deaths.
August 20th	9	3
,, 21st	6	3
,, 22nd	11	7
,, 23rd	12	4
,, 24th	11	4
,, 25th	12	2
,, 26th	7	2
,, 27th	13	5
,, 28th	21	6
,, 29th	33	11
,, 30th	27	14
,, 31st	39	16
September 1st	46	13
,, 2nd	37	14

On September 19th 63 cases with 32 deaths occurred in St. Petersburg.

The latest returns from the provinces show an increasing number of cases of cholera in the governments of Bessarabia, Vladimir, Volhynia, Veronezh, Grodno, Ekaterinoslav, Kieff, Kostroma, Minsk, Mogilef, Moscow, Podolia, Samara, Simbirsk, Tambof, Tchernigof, and Kharkof. On the other hand, the epidemic shows a more or less marked decline in the governments of Viatka, Kalicz, Nijni Novgorod, Poltava, Taurida, Tomsk, and the Kuban.

Smyrna.—Cases continue to occur at the rate of 8 per diem, with 75 per cent. fatal. Ten deaths occurred in the three days ended September 17th.

Egypt.—A case suspected to be cholera ended fatally last week in Cairo, death ensuing the day after attack.

America.—As a result of remonstrances Lisbon has declared the ports of New York and New Jersey free from cholera, no case of the disease having been heard of since August 14th.

IMPORTED RAGS AND CHOLERA.

Mr. F. Taylor Simson (Northumberland Avenue, W.C.), writes: There is a strong desire in the House of Commons to ascertain the opinion of the profession generally upon this subject. It may be known to most that the previous Government prohibited the importation of rags from cholera-infected districts, and that this prohibition has been removed by the present Government. The reason for the change of views is said to be that no case of cholera has been known to have arisen from rags. If this be the only reason I would venture to say it is unsafe, for the origin of each case of sporadic cholera that has occurred in this country is untraced. An experimental research appears to me to be the only safe ground to act upon. Rags might be infected with choleraic emanations and placed in the centre of bales, which should receive the same treatment that ordinary bales of rags receive. If it were then found possible to obtain from these rags a cultivation of the comma bacilli, the importation of bales from infected areas should again be prohibited. It is undoubtedly a fact that great pressure has been brought to bear upon the Government by those interested in the rag trade, and the Dewsbury Chamber of Commerce has expressed great indignation that the Government should adopt any precautions whatever (*vide* last Friday's *Globe* and *Telegraph*). It is therefore possible, unfortunately, that even health questions may become party ones. The President of the Local Government Board suggested in the House of Commons that medical men having any suggestions to make should write to the Board, and having regard to this wish, I ask all who feel any interest in the subject to send in their views to him.

I would call attention at the same time to the fatal case of anthrax at Worcester, which Mr. Fowler admitted on Tuesday to have been communicated by a bale of horsehair imported from Russia through Antwerp.

Erratum.—In the report of a case of choleraic diarrhœa at Harlesden, which appeared in the British Medical Journal of September 16th (p. 649). The name of Dr. W. S. Battiss, who kindly furnished the report, was misprinted "H. J. Batters." The bacteriological report, which was attributed to Dr. Skinner, was from Dr. E. Klein, F.R.S.

The Russian Medical Department has sent a small commission of physicians to Asia Minor to investigate the use of sumbul root in the treatment of cholera. The sumbul or jambul root is said to enjoy considerable repute in this connection among the natives of Asia Minor and Central Asia.

The new law in Switzerland, by which legislation may be initiated by popular *referendum*, has been used for the first time to render illegal the Jewish method of slaughtering animals for food. As we pointed out in the Journal of December 10th, 1892, p. 1308, the Jewish method, which consists in cutting the animal's throat with a long, broad, sharp knife, the trachea, jugular veins, and carotid arteries being completely severed at one stroke, cannot be considered less humane than the practice of poleaxing, which is that generally followed by other than Jewish butchers.

ASSOCIATION INTELLIGENCE.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

NOTICE OF QUARTERLY MEETING FOR 1893. ELECTION OF MEMBERS.

A meeting of the Council will be held on October 25th, 1893. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before the meeting—namely, October 4th, 1893.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election.

Francis Fowke, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

Cambridge and Huntingdon Branch.—An autumn meeting of this Branch will be held in Cambridge on Friday afternoon, October 6th. It was agreed at the last annual meeting held at Peterborough, under the presidency of Dr. Walker, that the meeting should be, as far as possible, for the demonstration of clinical cases. Members who may have interesting cases to show, short papers to read, or specimens to exhibit, should communicate with the Honorary Secretary at an early date, so that arrangements may be made.—Joseph Griffiths, Honorary Secretary, 17, Fitzwilliam Street, Cambridge.

West Somerset Branch.—The autumnal meeting of this Branch will be held at the Castle Hotel, Taunton, on Friday, October 27th, at 5 P.M., under the presidency of Mr. R. J. Collyns. An address on Myxœdema and the Therapeutic Value of the Thyroid Treatment, illustrated by photographs and specimens, is promised by Dr. Arthur T. Davies, Physician to the Royal Hospital for Diseases of the Chest, upon which a discussion will be invited. The West Somerset Branch will be glad to see members of neighbouring Branches who may like to join the meeting and take part in the discussion. The Honorary Secretary will thank all gentlemen purporting to attend to send him notice before October 20th, and also mention if they will remain to the dinner, in order that he may make the necessary arrangements. Dinner will be served at 7 o'clock; tickets 5s. a head, exclusive of wine. Members wishing to read papers or to bring forward any communication at the meeting are requested to send early notice thereof to W. M. Kelly, M.D., Honorary Secretary, Taunton.

North of England Branch.—The autumnal meeting will be held at the County Hotel, Durham, on Tuesday, October 17th, at 4.30 P.M. Dr. Hern will read a paper on the Treatment of Fractures of the Jaw. The following papers will also be read: Dr. Murphy: Suggestions for the Treatment of Puerperal Fever. Mr. Rutherford Morison: Notes on Five Recent Cases of Intestinal Obstruction due to Abdominal Tuberculosis with *Post-mortem* Reports. The dinner after the meeting will take place at the County Hotel at 6 P.M.; 6s. 6d. each, exclusive of wine. Members wishing to read papers, etc., are requested to write at once to the Honorary Secretary.—G. E. Williamson, F.R.C.S., Honorary Secretary, 8, Eldon Square, Newcastle-upon-Tyne.

South-Eastern Branch: East Surrey District.—The next meeting will be held at the White Hart Hotel, Reigate, on Thursday, October 12th, at 4 P.M., Mr. H. W. Ewen, of Redhill, in the chair. Dinner at 6 P.M.; charge, 7s., exclusive of wine. All members of the South-Eastern Branch are entitled to attend and to introduce professional friends. Agenda: (1) Minutes of Croydon meeting. (2) To decide where the next meeting shall be held, and to nominate a member to take the chair thereat. The following papers, etc., have been promised:—Mr. J. Bland Sutton: Cystic and Solid Tumours of the Kidneys, their Diagnosis and Treatment. Mr. C. J. Symonds: The Local Treatment of Laryngeal Tubercle. Dr. Horrocks: Three Cases of Extrauterine Fœtation. Mr. C. Wray: Weak Eyesight in Children. Members desirous of exhibiting or reading notes of cases are invited to communicate at once with the Honorary Secretary, who would be much obliged if members would kindly inform him by post-card whether they intend, if possible, to be present at the meeting, and if likely to remain to dinner. By so doing they will very materially facilitate arrangements and promote the success of the meeting.—Henry J. Prangley, Honorary Secretary, Tudor House, Anerley.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.—A meeting of members of this District will be held at the Calverley Hotel, Tunbridge Wells, on Friday, September 29th; Dr. Ranking will preside. Meeting at 3.30 P.M. Dinner, 5.30; charge 6s., exclusive of wine. The following communications are promised: Dr. Ranking: On Hæmatoporphyrinuria, with notes of cases and specimens. Mr. Cleland Lammiman will show (1) Fallopian Tube removed (successfully) in consequence of rupture in the sixth week of tubal pregnancy; (2) Patient recovered from Double Ovariotomy. Mr. J. Bulkley Footner: Cases of Inguinal and Popliteal Aneurysm. Notice of other business should be sent to the Secretary, J. W. BATTERHAM, Bank House, Grand Parade, St. Leonard's.

SOUTH MIDLAND BRANCH.—The autumnal meeting of this Branch will be held at Towcester on Thursday, October 5th, 1893. Mr. A. P. Kingcomb invites the members to luncheon at his house at 1.30, and will be glad of a reply not later than October 3rd from those gentlemen who intend to be present. Mr. Scott Moncrieff, C.E., has kindly promised to attend the meeting and demonstrate his method of sewage purification now in operation at Towcester. Members wishing to bring forward communications at the meeting are requested to send the titles of the same as soon as possible to C. J. EVANS, Honorary Secretary, Northampton.

NOVIA SCOTIA BRANCH.

THE annual meeting of this Branch was held on September 7th at Halifax, N.S. The attendance was large, and much business was transacted. The council's report showed that during the past year twelve meetings were held, and many papers read and cases reported. It was the most successful year in the history of the Branch. A hearty vote of thanks was tendered to the retiring president, Dr. Farrell, who has worked hard in the interest of the Branch, it being entirely due to him that the past year had been so memorable.

Officers and Council.—The following officers were elected:—*President:* D. A. Campbell, M.D. *Vice-President:* Thomas Milsom, M.D. *Treasurer:* M. A. B. Smith, M.D. *Secretary* (re-elected): G. Cockton Jones, M.D., M.R.C.S. *Council:* Surgeon-Colonel Archer, A.M.S.; Edward Farrell, M.D.; Thomas Trenaman, M.D.; T. R. Almon, M.D.; E. A. Kirkpatrick, M.D.; Thomas Milsom, M.D.; Surg.-Capt. Barefoot, A.M.S.

SPECIAL CORRESPONDENCE.

PARIS.

The New Law as to Medical Relief.—The Sultan and the Cholera.—Pulling down of the Beaujon Hospital.—Poisonous Salad Oil.

THE new law on gratuitous medical treatment entitles every French citizen who is ill and penniless to be treated medically at the expense of his commune or department. In those cases where proper medical treatment is incompatible with the surroundings, the patient is to be treated in a hospital. Foreigners in the same condition are entitled to the same advantages if their country has a reciprocal treaty with the French Government.

On the report of a case of cholera at Constantinople, the Sultan Abdul-Hamid telegraphed to M. Pasteur to ask him to indicate the measures to be adopted. Dr. Chantemesse, Deputy-Inspector-General of the French Sanitary Service, is authorised by the Minister of the Interior, on the request of M. Pasteur, to go to Constantinople.

The Paris Municipal Council has adopted the proposition made to pull down the Beaujon Hospital; the site will realise 8,000,000 francs (£320,000); the hospital will be rebuilt elsewhere.

At Bessoncourt (Belfort) fifty-five soldiers have been poisoned by oil used for cleaning firearms. After the evening meal in barracks, all the men were more or less ill. An investigation revealed the fact that the oil used for the salad was analysed, and demonstrated to be a mineral oil unmixed with vegetable oil; this, by mistake, had been used for mixing the salad instead of salad oil.

NEW ZEALAND.

The New Zealand Medical Association.—Cantharidinate of Potassium in Phthisis.

MR. J. H. MURRAY-AYNSLEY, Hon. Sec. Canterbury Branch, New Zealand Medical Association, writes:

The chief event lately has been the annual congress of the New Zealand Medical Association, the proceedings at which have been fully reported in the last two numbers of the *New Zealand Medical Journal.* The two most important measures before the meeting were the amalgamation of the colonial medical journals into an Australasian medical journal and the institution of collective investigations; the former was referred to a committee to report on the scheme next year, and the latter was agreed to, the Canterbury Branch, as author of the scheme, being asked to undertake the first investigation. Typhoid fever has been chosen, as this disease is fairly prevalent here, and presents certain differences to the European type. The discussion on home lessons and the Association's denunciation of them has borne fruit; Mr. Baldwin, Headmaster of the Sydenham Government School, having abolished home lessons in his school with great success. There has been some discussion lately concerning nerve injuries following fracture of the elbow; at the Christchurch Hospital all fractures extending into the joint are treated by the cold coil, and passive movement every day, without any bad results. Dr. Pairman, of Lyttleton, exhibited a case of musculo-spiral paralysis following a fracture of the lower end of the humerus. The same gentleman read notes of a case of gastrotomy to remove a darning needle from the stomach; the viscus was closed by continuous catgut suture, and dropped back, and the abdomen closed by interrupted silk sutures. The patient made a good recovery. Dr. Ovenden reported a case in which uterus and ovaries were absent, and the external genitals feminine but ill developed.

I have now tried cantharidinate of potassium injections in six cases of phthisis; two cases left practically cured; the physical signs were *nil;* no sputa (there were very few bacilli in the last sputa obtained in these cases, and they stained faintly); two cases improved; one of these has since returned to the hospital, suffering from rheumatism due to exposure, but the lung mischief is not aggravated. One case in the third stage remains stationary, and one case died from severe pulmonary hæmorrhage during the treatment. One case of marked hæmorrhagic purpura was admitted into the Christchurch Hospital, Canterbury, recently. There were hæmorrhages into the conjunctiva, tongue, lips, and skin all over the body, and from the mouth, nose, bowels, and bladder; although seemingly a hopeless case, he recovered under iron, digitalis, and ergot mixture, three times a day, together with a solution of sodium chloride ʒ ss, aq. ʒ ij, twice a day; there was a history of deprivation of vegetables, and having lived on salt meat for some months; of course, I gave plenty of green vegetables and lemons.

CORRESPONDENCE.

DEATH CERTIFICATION.

SIR,—I am sorry to see by your leaderette on the above subject in the BRITISH MEDICAL JOURNAL of September 16th, that you appear to throw cold water on the proposal of the Royal Commission to appoint medical officers of health as public certifiers. I think, and so must every rural sanitarian, that they are the fit and proper persons to carry out the duties of the same. In towns it may not be so suitable, but in rural districts the medical officer of health, who is continually moving about over his district, is the man for the work. It is useless to think that the present boards of guardians would grant a salary to allow of a man devoting his whole time to the work, and the addition of the duties and pay of a medical certifier are needed in most districts to enable a man to live. I hope the JOURNAL will support it.—I am, etc.,

A MEDICAL OFFICER OF HEALTH.

*** It is true that the Select Committee expressed an opinion in favour of the medical officer of health discharging the duty of public medical certifier, but only recommended "that in each sanitary district a registered medical practitioner should be appointed as public medical certifier." The report pointed out, moreover, that "a medical man should not be permitted to give a certificate in his official capacity in respect of the death of a person whom he may have attended as a patient in his private capacity." This is one of the grounds on which we hold that this appointment should not be held by a medical officer of health if he be engaged in private practice, which in rural districts, at any rate, is rather the rule than the exception.

DR. BURDON SANDERSON ON PHYSIOLOGY AND PSYCHOLOGY.

Sir,—In his address to the British Association Professor Burdon Sanderson briefly referred to the relation between physiology and psychology. Considering that the brain is regarded as the organ of mind, it is no wonder that a professor of physiology should seek to determine their relations; and it is with great expectation that one turns for information to so renowned an authority as Dr. Burdon Sanderson. In this case one is rather disappointed.

Dr. Burdon Sanderson admits that "mind must be regarded as one of the 'specific energies' of the organism, and should on that ground be included in the subject matter of physiology." Quite so. But how does this positive and emphatic statement agree with the hesitating language employed in the next sentence?—"As, however, our science, like other sciences, is limited, not merely by its subject, but also by its method, it actually takes in only so much of psychology as is experimental." Accordingly, he regards experimental psychology as having "no technical application," and in future it will only exercise "a helpful influence on the science of life." But if the brain is the organ of mind, and if every activity of the mind has its correlative in the brain, it is surely incumbent on the physiologist to take note of all these activities, whether obtained by experimental psychology or by "introspection." To fail in this respect is surely as great a mistake as for a physiologist to overlook a function of any other bodily organ. This will be more clearly seen if looked at from a pathological point of view. In mental disease it is often necessary to decide the question of sanity or insanity. In such a case, to say that the brain is diseased does not throw much light on the decision, especially so long as the possessor of that brain refuses to subject his cerebral organ to an anatomical examination. The decision rests on psychological grounds, and involves questions of such momentous importance as the responsibility or irresponsibility of the party concerned. In Dr. Burdon Sanderson's estimation, psychology is regarded as of secondary importance, and he is quite prepared to fling the subject into the hands of the philosophical psychologist.

But Dr. Burdon Sanderson is not the only physiologist who treats disparagingly of psychology. In his address to the British Association on Animal Automatism[1] Professor Huxley regards consciousness as a merely superfluous attendant on molecular changes in the brain. "Is there any evidence," he asks, "that these states of consciousness may, conversely, cause those molecular changes which give rise to muscular motion? I see no such evidence. The frog walks, hops, swims, and goes through his gymnastic performances quite as well without consciousness, and consequently without volition, as with it." The same argument he regards as applicable to man, and consciousness in him as in the brute creation, is as incapable of modifying the working of the bodily mechanism "as the steam whistle which accompanies the work of a locomotive engine is without influence upon its machinery."

Had Professor Huxley been engaged for some time as medical witness in criminal trials he would certainly find that the consciousness which preceded the mechanical action of a limb in inflicting a fatal wound was far from being regarded as a useless appendage. Instead of deeming it superfluous he would find that competent medical jurists would regard it as the crucial element in the case, enabling them either to acquit or to incriminate a party suspected of a very serious crime.

It is certainly curious to find two physiologists of such undoubted pre-eminence treat psychology so superciliously. In striking contrast to many enthusiastic students who would claim for science the whole domain of knowledge, Dr. Burdon Sanderson contemptuously flings psychology into the hands of the philosophical psychologist, while Professor Huxley dispenses with the subject altogether and reduces man to a "conscious automaton."—I am, etc.,

Sept. 18th. Franc Ander.

[1] *Science and Culture*, p. 236.

"MEDICAL MISSIONARIES."

Sir,—The importance of restricting the title of medical missionary to the fully qualified medical man or woman is being increasingly recognised by the missionary societies of Great Britain. The society with which I have been connected (the Church Missionary Society) passed a resolution to that effect only two years ago. Certainly we who are, or who have been, "medical missionaries" will do all in our power to see that this is emphasised.

Whilst, however, this is the case, considering the small though increasing number of "medical missionaries," it is obvious that missionaries who are cut off from all qualified medical help must rely upon any knowledge of medicine which they may themselves possess, and with that little knowledge they cannot refuse to give a helping hand to the natives amongst whom they are, and who have not even the most elementary ideas of simple medicine or surgery. Every traveller as well as every missionary knows that this is the case, and, in the absence of higher skill, we cannot but commend them if they have done the best they could to relieve the misery and suffering by which they have found themselves surrounded.

Not only so; it will be admitted that it is not fair to send missionaries to lonely spheres without giving them some simple medical instruction, and it is for this purpose that a new institution has been started bearing the title of Livingstone College, whose object will be to give an advanced ambulance course to such missionaries. Those of us who are organising this new effort especially count upon the sympathy of members of the medical profession, and, so far, we have met with nothing but encouragement. We shall, however, impress firmly upon those who may take advantage of our course that they are not under any circumstances justified in arrogating to themselves the title of "medical missionary," and we believe that we shall help to exterminate the class of those who, as you say, "to a smattering of theology have by book learning added a smattering of medical terms," and then call themselves "medical missionaries."—I am, etc., Charles F. Harford-Battersby, M.D.Cantab.

Bow, Sept. 19th.

ANÆSTHESIA FOR OPERATIONS ON THE THROAT AND NOSE.

Sir,—The widely differing views which have been expressed upon this subject may, perhaps, justify the relation of some practical experience.

During the last three years, at the Central London Throat and Ear Hospital and in private, I have administered anæsthetics for tonsillotomy and removal of "adenoids" upwards of 1,100 times. In about 90 per cent. of these cases gas was given alone, it being only occasionally supplemented by ether during the first year, and subsequently abandoned in this particular operation. It was usually administered through a modified Clover's gas and ether inhaler, with a double-valved facepiece, the patient assuming a sitting posture in a fixed chair, small children, however, being seated on the nurse's knees. The writer's mouth prop was securely inserted before applying the facepiece, and the whole operation was completed in less than forty seconds. The supplementary administration of a few inspirations of ether by means of the two-way stopcock was not satisfactory at all times. The effect was simply to prolong narcosis by a mild degree of asphyxia, which increased struggling and bleeding, and was often followed by severe vomiting, headache, collapse, and in powerful excitable girls, intoxication.

On one occasion only have I experienced any anxiety—in the case of an ill-nourished little boy, aged about 4 years, who ceased breathing, became cyanosed and almost pulseless, but soon recovered after inversion, artificial breathing, and stimulants.

I cannot recollect a dozen instances which required a second administration of the gas. The recovery was always rapid, the patient being able to go home after the customary rest. Experience and the opinion of my colleagues had amply satisfied me that both faucial tonsils and the most luxuriant crop of adenoids may by an expert be completely removed under the influence of one gas anæsthesia, and the radical nature of the operation I have verified by prolonged observation of the patients.

That there are many eminent surgeons who at present will not admit this I am fully aware. Of the administration of

chloroform in this particular operation my personal acquaintance is limited. I can therefore only contrast it with gas through the experience of others, which may not be unfairly illustrated by a reference to the chloroform mortality returns.

Between May, 1892, and August, 1893, will be found the following five cases of death under chloroform for the removal of tonsils and adenoids: (1) *Lancet*, May 21st, 1892; Victoria Hospital, Chelsea; boy, aged 11 years. (2) Harveian Society, February 2nd, 1893; related by Mr. Ed. Owen; girl, aged 10 years. (3) *Lancet*, April 1st, 1893; Commission Ref. No. 252; male, age and locality not recorded. (4) BRITISH MEDICAL JOURNAL, April 22nd, 1893; Westminster Hospital; child, aged 3 years. (5) BRITISH MEDICAL JOURNAL, August 12th, 1893; London Throat Hospital; boy, aged 11 years. That the anæsthetic or its method of administration was the direct cause of these deaths there can be very little doubt. In one instance (No. 2) the minute bronchi were found filled with blood, probably owing to abolition of laryngeal reflex, a condition which, being so transient under gas, constitutes one of the strongest arguments in favour of that anæsthetic.

The presence of enlarged tonsils and postnasal growths must obviously increase the difficulties attending the administration of any anæsthetic, particularly so in the case of chloroform, which, although affording lengthier narcosis, carries with it risks of its own more than counterbalancing that questionable advantage.

The use of gas even was prompted more by humanitarian reasons than by any object of combating serious bodily pain; for both operations are daily performed upon intelligent patients without any anæsthetic whatever, and I am often assured by them that they suffered no real pain. Can, therefore, the administration of chloroform—an anæsthetic which has in less than two years proved responsible for five deaths—be justified in an operation which is daily performed under the simple and practically harmless nitrous oxide?—I am, etc.,

WYATT WINGRAVE,
Assistant Surgeon (late Anæsthetist and Registrar) to the
Sept. 18th. Central London Throat and Ear Hospital.

DANGERS OF ARTIFICIAL RESPIRATION IN CHLOROFORM ACCIDENTS.

SIR,—Among the numerous fatalities recorded of late, it is stated in one, in which the inhalation was stopped at the end of a minute on account of supposed dangerous symptoms, that this was immediately followed by a quickening of respiration. This is a striking and important phenomenon in cats and dogs. I have seen in a dog the hurry and heaving of respiration become so great that the vesicular murmur was of a churning character, while it ended in apnœa in a few minutes, when the animal scarcely required to breathe at all. When chloroform is left off at an early stage everything is reversed in ten seconds, hence why one writer says it flushes the face, and another that it causes pallor, the former being due to the action and the latter to the reaction of the vapour; numerous other contradictions are to be similarly explained. The vapour reaction is more dangerous than the action, if for no other reason than that the anæsthetic escapes from the lungs more rapidly than it entered them. This reaction I maintain to be by far the most frequent cause of syncope, which, therefore, is preceded by an excess of respiratory activity, ending in apnœa, in which artificial respiration is most positively contraindicated. When chloroform is pushed till an animal dies no doubt artificial respiration is an appropriate remedy. But *post-mortem* appearances, experimental research, and clinical observation combine to show that few human beings die in this way; the most of them die from the vapour reaction when there is no chloroform in the blood; this ends, not in paralysing the heart, but in producing an extremely irregular cardiac action, during which the circulation is in abeyance, and the patient apparently dead. Artificial respiration effectually prevents recovery from this condition; the proper treatment is simply to lower the head, or place the body on an inclined plane head downwards, and abide the result. The late Dr. Thorburn, of Manchester, recorded a case of recovery from inversion after several minutes had been lost, as he expressed it, with artificial respiration.[1] About the same time another successful case was reported from inversion alone, the operator having the courage to discard artificial respiration and galvanism. Dr. Chisholm, of Baltimore, in 10,000 cases, has always found inversion to avert any alarming symptoms in one or two minutes.[2] Everyone must remember the recent case of Surgeon-Lieutenant-Colonel Lawrie, in which, after artificial respira- had been abandoned, and the patient laid aside as dead, the function recommenced spontaneously, and the boy recovered in spite of the resumption of the objectionable measure. It is clear in the description of many cases that syncope occurred without being noticed, fortunately, as I believe, for the patients. Thus James Simpson mentions a case in which a dentist administered half a drachm, and the patient, on recovering, said that he had previously taken ether, but this stuff must be much stronger, for he had been dead altogether this time. I have never had a death from chloroform, but I have had two cases of syncope, of which I said not a word to the operator, and both recovered without artificial respiration.—I am, etc.,

Partick, Glasgow, Sept. 11th. ROBERT KIRK, M.D.

PROPRIETARY MIXTURES.

SIR,—It is quite right and proper, and a convenience to those whom it may concern, that druggists should advertise the various articles in which they deal; but American druggists go far beyond this in their anxious endeavour to be of use to the medical profession (and themselves), and seem to think it behoves them not only to supply medical men with drugs, but with prescriptions also. Hardly a day passes that I do not receive, in open envelopes, pamphlets of gross, and often indelicate, puffery of some combination invented by this or that knight of the pestle and mortar located at St. Louis or some other city of the United States. I am always desirous of being first at the breakfast table for fear any of the young people should get hold of any of this pernicious twaddle. It surprises me that decent English chemists will allow their names to be used for the purpose of pushing this branch of trade, which is objectionable and offensive in all perhaps but the intention.

The particular specimen which has irritated me to the extent of seeking relief in a growl to you is a tract sent to me by the ——— Chemical Co., St. Louis, Mo., U.S.A., informing me of the real or suppositious virtues of a preparation called ———'s bromides. Now this pamphlet is by no means a particularly bad one of its class, but I should be much obliged to the Chemical Co., or their English agents, if in future they would not consider it necessary to forward me any other literature of a similar kind. I am not at all likely to become a customer, for I find that they charge 4s. 6d. for an 8 oz. bottle of their bromides, which bottle contains exactly 2 ozs. of the mixed salts. Now I find, by consulting a drug list of a high class London firm, that the price of a pound of these bromides, if bought in London, would come to about 5s. 6d., whereas the price Messrs. ——— charge for their bromides is at the rate of £1 7s. 8d. per pound; this makes the charge for mixing come to about £1 2s. 6d. per pound, with 2d. for the bottle and water. Moreover, I have my own mixture of bromides, which though not as complex as theirs, has served my purposes admirably for a long series of years.—I am, etc.,

Blackpool, Sept. 12th. WM. HARDMAN.

CASTRATION IN ENLARGEMENT OF THE PROSTATE.

SIR,—As bearing upon the correspondence that has followed Dr. White's remarks on castration in preventing growth of the prostate, permit me to mention the following incident.

Some years ago I was asked by an elderly gentleman, who had enlargement of the prostate with symptoms of increasing urinary obstruction, to castrate him with the object of preventing further growth of the gland. I believe he was a medical man, but, if not, he was well acquainted with Hunter's experiments and other cases in surgery which seemed to support his theory. Though he was very cogent, I declined to adopt his proposal, but said I would give it consideration.

I was much interested about the time this occurred in ■

[1] BRITISH MEDICAL JOURNAL, April 9th, 1881, p. 559.
[2] BRITISH MEDICAL JOURNAL, July 19th, 1879, p. 100.

case of rapid atrophy of the testicle following an operation for varicocele, where the corresponding vas deferens had been accidentally divided, in a young man. The effects observed in this instance were similar, so far as the testicle was concerned, to some instances of accidental rupture of the vas deferens recorded by Hilton[1] and other surgeons.

Shortly after his first interview with me my elderly friend again importuned me to remove his testicles with the view of averting further urinary troubles connected with his hypertrophying prostate, which he felt assured would be the result. As a compromise, and recognising the sympathies between the prostate and the testicles, I told him that though I declined to castrate him, I saw no objection to disconnecting his testes and prostate by the subcutaneous division of the vasa deferentia immediately below the external abdominal ring, where they could be easily and safely reached. This was readily done, first on one side and then on the other, with a tenotome, at a few days' interval, and my patient left me in the course of a short time, alleging that he had already derived benefit from the operation. Six or seven years afterwards, when I was in America, I ascertained that he was alive and well, but, as I had no opportunity of testing the case, I thought nothing further of it until reading Dr. White's interesting lecture.

I mention the case rather as an illustration of how a whim may, under certain circumstances, be indulged in without the idea of putting the instance forward as a basis for adopting a serious mutilation as a remedy for a disease upon the slender evidence hitherto adduced. That division or rupture of a vas deferens is liable to be followed by atrophy of the corresponding testicle I think there is sufficient proof of, but it is not equally clear either that atrophy of the prostate is the next sequence in the course of events, or necessarily results upon ablation of the testes.—I am, etc.,

Lower Berkeley Street, W., Sept. 16th. REGINALD HARRISON.

SIR,—May I add a few remarks to the above subject? 1. Before resorting to this operation, would it not be well to study more fully than has hitherto been done the sexual history present and past of the subjects of enlarged prostate? If, for instance, such as anchorets are as subject to it as other men, and whether in any particular case under consideration the sexual function is quiescent or not? Mode of life seems often to have an effect on this gland, since many of the Arabs and those who pursue equestrianism from childhood often suffer from atrophy and sterility. 2. To obtain fuller information, anatomical and pathological, of the gland in different races of man and in the lower animals, and to seek for causes.

Such considerations as these led me to send you in August, 1892, certain conclusions I had arrived at. Since then I have pursued the subject further, and when your space grows less congested I shall submit my investigations to you. It is strange to find how little is known in veterinary science on these subjects. Might I conclude as follows: (*a*) Although there is a sympathy between testes and prostate, more data are required than those afforded by castrating dogs, and even here it is essential in the first place to take age into consideration, so as to decide whether the ensuing atrophy resulted from the loss of the sexual act itself and excitement, or from more subtle nutritive causes? If from the former a good moral lecture ought to do an old man as much good as a certain other "mild and safe" proceeding! (*b*) Oöphorectomy comparison is fallacious, one reason being that the uterine and ovarian vessels and nerves are more directly connected together than the prostatic and testicular are. Add to this the great periodic congestion in the one case. On the other hand the frequent dissimilarity of structure between uterine and prostatic growths would not seem to point to the worthlessness of castration in the latter, since this dissimilarity is owing to the difference in degree only of the various tissues in both organs. (*c*) Amongst the lower animals the two mentioned by Mr. Moullin possess prostates quite different in every way, but it may be interesting to bear in mind in connection with the overgrowth in these animals their character for satyriasis and prolonged sexual congress. (*e*) Vascular, and not glandular deterioration is really the first step in prostatic trouble, hence is not relief of congestion, but in other ways, the most wise measure to stay or relieve it?—I am, etc.,

Crouch End, N., Sept. 18th. JAMES MACMUNN.

[1] Holmes's *System of Surgery*, vol. ii, p. 739.

IRREGULAR PRACTITIONERS IN LAW AND MEDICINE.

SIR,—The letter of "Justitia" in the BRITISH MEDICAL JOURNAL of September 16th is most interesting and ought to be widely read. We do not find lawyers, even of the shadier sorts, getting up clubs or societies to enable the public to get cheap litigation. We also find them fully alive to the necessity of protecting the public and the legally qualified lawyer from the poacher, and fortunately the law is stringent enough for this purpose.

Nor do we find upon the bench open and avowed sympathisers with irregular or illegal practitioners in the law. Not one, save men like my friend Dr. Hugh Woods and a few others who have made it their business to look into these matters, can be fully aware of the difficulties which beset the path of an individual or society which attempts to deal with irregular medical practitioners.

Recently the London and Counties Medical Protection Society prosecuted a man who had been for years practising without the shadow of a qualification. After the Bench before whom the case was tried had by means of adjournments put the Society to enormous expense, they gravely fined the delinquent one pound, and awarded a nominal sum for costs.

I could enumerate other cases in which prosecutors have been similarly treated. Then there are the conflicting statutes to deal with, full of pitfalls for the unwary.

What is wanted is a consolidation and simplification of the law as to illegal practice and the passing of a short Act simplifying procedure and defining penalties, leaving nothing discretionary, but fixing the sum in which an offender shall be amerced.

A committee of this Society to examine the various Acts of Parliament is now sitting, and the report will, I hope, be ready for production and discussion at the October Council meeting.

Now as to medical protection societies. A considerable number of persons who have not contributed even the small annual sum of ten shillings, which constitutes membership, to our funds take up the time of the overworked honorary secretaries by detailing their grievances to them. And the medical and other papers are continually calling upon the Society to take up cases of irregular practice as disclosed in the reports of police courts and before coroners.

It must be obvious to everyone that societies established to defend their own members ought not and cannot be expected to go extensively into these matters unless both the profession and the public are prepared to subscribe handsomely to their funds. Indeed, it is a matter of serious consideration whether in the public interests there ought not to be a special fund raised for these purposes. I hope the terrible disclosures in a case now before a court of justice will render the public, and I may say the Treasury, alive to the necessity of more being done by the public authorities in these matters. It is obvious that, regarding their duties to their members, no society, however ably and economically conducted, can for long stand this strain upon its resources.

In no country in Europe would such practices and impositions be allowed to be openly carried on as are daily and hourly perpetrated in London and provincial centres of population, and by men, some of whom produce bogus qualications—purchasable for a few pounds—pretending that they give legal status for medical practice in their countries of origin.

It may not be generally known that in our country a man has only to get six persons to certify that they have been treated medically or surgically by him and have been satisfied with this treatment to constitute him a duly qualified practitioner according to to the laws and customs of his country.

Hoping some good may arise out of "Justitia's" letter.—I am, etc.,

GEO. B. MEAD,
Honorary Secretary, London and Counties
Mentmore, Newmarket, Sept. 18th. Medical Protection Society.

INDIAN HEMP AS A CAUSE OF INSANITY.

SIR,—Dr. Thomas Ireland stated at the last meeting of the British Medical Association, in the Section of Psychology, that the excessive use of Indian hemp was a very prolific cause of insanity in eastern countries; and illustrated his remarks with a clinical account of three typical cases, which unfortunately is not reproduced in the report. Now there can be no doubt whatever that many lunatics are found amongst users of the drug, but it by no means follows that the disturbance of their mental equilibrium was owing to the habit. The majority of sufferers from incipient insanity very probably have recourse to narcotics in some form or other as soon as they begin to feel the inward workings of their complaint, but when the latter breaks out openly, it is not fair to lay blame indiscriminately on whatever particular solatium the unhappy beings may have been addicted to. On the contrary, it would be more logical to affirm that, so far from accelerating the development of the disorder, the influence of the narcotic was much more likely to be retardative.

The incidence of cause and effect is very often most difficult to determine, and mankind notoriously is prone to attach far too much importance to what he considers ordinary sequence. In everyday life there is no more widely-acted-on aphorism than *post hoc propter hoc;* nor is there one that could well be more misleading. The world in general is afflicted with a tendency towards jumping to conclusions, and in the case of Indian hemp I am inclined to think that this has been done.

As regards British Guiana I cannot speak, but there is another country I am well acquainted with where Indian hemp, under the name of haschisch, is extensively, in fact almost universally, used, and as regards insanity, the deplorable results depicted by Dr. Ireland are certainly far from being observable. The population of Egypt in round numbers may be taken at eight millions, but for the whole country there is only one lunatic asylum, where there are seldom more than three hundred patients at a time. I have traversed every province more than once without hearing of or meeting lunatics under private control, and the number of idiots was surprisingly small. As far as I am aware there is no country in the world where lunacy is so rare as in Egypt, and yet, as I have already said, the use of Indian hemp is almost universal.

The drug is not produced locally to any extent and repressive measures are said to be strictly enforced against its introduction; but the only effects of the latter are to raise the price of the desired product, and lower the quality. There is not a coffee shop in the land where haschisch cannot be procured if one knows how to set about it. An American physician lately launched a violent diatribe against Indian hemp because in the Cairo Asylum sixty of the patients were said to have gone mad from the abuse of the drug. Even if we grant the premisses, what are sixty out of eight millions?

We strain at the gnat but all the time we continue swallowing the camel with the utmost complacency. Of late years in every village drinking shops have arisen where the vilest compounds are sold by low caste Greeks. The *fellahin* under our auspices are being educated in drunkenness, and unless stringent measures be adopted, and that speedily, it will not be long before more accommodation will have to be provided at the asylum. All the world over narcotics are employed in some form or other. People will not be made virtuous by Act of Parliament, and if the drug be prohibited in one shape means are sure to be found for its introduction in another, when the last state of the unfortunate consumer will be found ten-fold worse than it was originally.

I am thoroughly convinced, from my own observations during a residence of seven years, that the employment of haschisch in Egypt has a beneficial effect on the almost vegetarian population. If, instead of seeking to stop its entry into the country, we were to direct our attention to its refinement and purification, a vast amount of good would ensue, and the patient cultivators would not be driven into the clutches of those pests of modern Egypt, the Greek *baccals.*—I am, etc.,

Sept. 19th. PYRAMID.

A SANATORIUM for poor persons suffering from phthisis is to be built at Basle. It will accommodate 140 patients.

MEDICO-LEGAL AND MEDICO-ETHICAL.

MEDICAL DEFENCE UNION, LIMITED.

A COUNCIL MEETING was held at the rooms of the British Medical Association, 429, Strand, London, W.C., on Wednesday, September 13th, at 4 o'clock P.M.; Mr. Victor Horsley in the chair. Thirteen applications for membership were accepted. The action of Dr. Bateman was approved in having, by correspondence and interviews, obtained redress for a member who was improperly dismissed from an appointment. It was resolved to report to the General Medical Council Dr. J. W. Smythe for covering an unqualified assistant. Dr. Bateman called attention to the fact that the officers of a certain London hospital were covering unqualified assistants. The matter was left in the hands of the Secretary to further inquire. A letter was received from Mr. Mundella relating to the Botanic Company's M.D.'s. In a case in which a member was threatened with a writ in a case of secondary hæmorrhage occurring after confinement, it was resolved: "That the plaintiff be informed that our solicitors were prepared on the member's behalf to accept service of any process which he might care to issue." Arbitration was offered in a case in which two medical men were concerned. The proceedings of a certain bonesetter were considered. A medical man who complained of the treatment of their surgeons by a steamship company was advised to lay the matter before the profession through the medium of the medical journals, and also to refer the matter to the Council of the British Medical Association. The Secretary was directed to lay before the Registrar-General the facts of a case of improper certification. The action of the Secretary was approved in writing a letter warning a man who was systematically slandering a member. An application was received from a member for assistance in a case of threatened affiliation proceedings. It was resolved: "To leave this matter in the hands of a committee, with power to defend the member if in their judgment it was desirable, and subject to his making a declaration or affidavit that he had not had improper relations with the plaintiff." Several matters of minor importance were dealt with.

ASSISTANTS AND FEES.

QUERIST writes: An assistant in London was called the other evening to assist a neighbouring practitioner in a difficult midwifery case. Whom does the fee belong to—employer or assistant?

*** In view of the fact that an assistant is, as a rule, invariably engaged for a specified annual sum, payable and determinable by agreement, and that his whole time is to be devoted to the legitimate requirements of his principal, there can, in our opinion, be no reasondoubt whatever that, in the absence of any specific arrangement to the contrary, all fees received in such capacity belong to the principal.

REPUDIATING MIDWIFERY ENGAGEMENTS.

JUSTICE writes: A woman engages me to attend in her confinement. I afterwards attend a child of the woman. The husband calls in another doctor, unknown to me, and the child dies on the same night. I receive a note from the man stating he will not require my services, and returning the midwifery card which I usually give. I write and state I shall expect my fee whether I attend the case or not. I receive an abusive reply, in which any contract between me and him is denied. Which am I to sue, the man or the woman? and can I sue before the confinement has taken place?

*** The wife in this case appears to be the agent of the husband, and he would therefore be liable for the contract made by her; the action should consequently be against him. It might be brought at once, as there has been a distinct repudiation of liability; but it would be safer to tender the services which were agreed and not to sue till after the confinement.

CORONERS AND MEDICAL PRACTITIONERS.

INQUIRER.—Our correspondent has certainly been badly treated by the coroner, both in regard to the charge of delay and the omissions in treatment. It is only the arrogance of supreme ignorance which enables a man to criticise the treatment of a case when he has not seen the patient and knows nothing of his malady. Practically there is no remedy against the coroner, as in his official capacity he may talk any rubbish he likes irrespective of the results.

PATIENT AND PRACTITIONER.

ENQUIRENS writes: A. and B. are two medical practitioners in the same town. While A. is away from home on a holiday a message is sent to A.'s house for him to attend to a certain lady whom he has never attended before, though he has attended four years ago this lady's married sister, the patient being a maiden lady living in the same house. The patient will not have A.'s *locum tenens* to attend to her, she prefers B., who attends several of her relations, and surely B. would have been sent for in the first place by these relatives, patients of B.'s, had not the patient of A. gone herself to A.'s house. Does it appear from the facts that B. ought to mention the particulars to A. on his return and hand over the case to him, or is B. strictly entitled to consider the case his own?

*** Under the exceptional circumstances related there cannot, in our opinion, be any reasonable doubt that A. has no prescriptive right to the patient in question, whose case does not come under the general rules in the *Code of Medical Ethics* as laid down in chap. ii, sect. 5, rules 6 and 7, and, therefore, we hold it that B. is rightly entitled to regard the patient as his own. At the same time, if A. and B. are upon terms of mutual friendship, it would have been well, although not strictly ethically essential, for the latter, as an act of simple courtesy, to have made a friendly communication to A. on the subject.

ALLEGED DEFAMATION OF CHARACTER.

X.Y.Z.—Before A. can successfully institute legal proceedings against D. for alleged defamation of character, it would be necessary for him to prove that he (*D.*) *de facto* "sent a malicious report" to the Council of the Association referred to, in consequence of which his application to be admitted a member was rejected, and that he has thereby sustained serious professional injury. With reference, moreover, to the grave imputation made against him in years gone by—and which, by an action in the High Courts of Justice, he subsequently proved to be false—we may suggest that, if he is really anxious for the membership, it may be worth his while to forward a personal application to the Council, supported by an affidavit signed by two or more independent persons as to the proved falseness of the accusation alluded to, and also of his present position in the town in which he is practising; or, as an alternative, it may be judicious to submit the whole facts of the case to an able non-litigious solicitor and be guided by his advice.

NAVAL AND MILITARY MEDICAL SERVICES.

THE NAVY.

Staff-Surgeon John Wilson, M.A., M.D., and University Gold Medallist, has been promoted to be Fleet-Surgeon, September 9th. He was appointed Surgeon, April 1st, 1873, and Staff-Surgeon twelve years thereafter. The *Royal Navy List* informs us that he received the approbation of the Admiralty for the creditable manner in which he performed his duties when surgeon at Malta Hospital, 1881. He was surgeon of the *Hecla* at the bombardment of Alexandria, July 11th, 1882; at the subsequent operations there, and in the Suez Canal during the occupation (Egyptian medal, Alex. clasp, Khedive's bronze star.) He was specially commended by the Director-General for creditable work when surgeon at Plymouth Hospital, 1884, and received an expression of his approval for zeal and industry displayed when Staff-Surgeon of the *Cormorant*, 1877; was highly commended by the Admiralty, and received the approval of the Director-General for the judicious measures adopted after the death of Commander Nicolls, on board the *Cormorant*, from yellow fever, on the passage home from the Pacific in 1889.

ARMY MEDICAL STAFF.

Surgeon-Captain F. P. Nichols, M.B., serving in the Madras Command, is confirmed in the medical charge of the Cantonment Hospital, Trimulgherry, from March 22nd, 1892.

The under-mentioned officers, now serving in the Madras Command, will proceed to England during the ensuing trooping season, and will be detailed by the Commander-in-Chief in India for duty with troops embarking in several troopships: Surgeon-Major A. Asbury, Surgeon-Captains H. M. Adamson, M.B., R. E. Kelly, M.D., J. F. Donegan, J. Donaldson, and W. Hallaran, M.B.

Surgeon-Captain M. Kelly, M.D., serving in the Madras Command, has leave to England for six months on medical certificate.

Surgeon-Major J. Armstrong has been posted from the Madras to the Bombay Command, *vice* Surgeon-Major T. M. Corker, who has exchanged.

Surgeon-Captains L. P. Mumby and J. Thomson, who are serving in the Bengal Command, have passed the lower standard examination in Hindustani.

Surgeon-Major P. M. Carleton, on return from England, is posted to the medical charge of the station hospital at Meiktila, Burmah.

Inspector-General John Summers, M.D., died recently at Aberdeen. He entered the service as Assistant-Surgeon, May 29th, 1840; became Surgeon, August 28th, 1849; Surgeon-Major, May 29th, 1860; Deputy Inspector-General, March 9th, 1867; and Honorary Inspector-General on retirement, November 29th, 1871. He served in the Crimea with the 21st Fusiliers, and was present at the battle of Inkerman. He afterwards joined the 91st Highlanders, and was sent on duty to Australia and India. In the latter country, he did excellent service during an outbreak of cholera.

INDIAN MEDICAL SERVICE.

Surgeon-Major H. W. V. Harington, Madras Establishment, Agency Surgeon of Ulwur, returned to duty on July 30th.

Surgeon-Captain H. M. Morris, Bengal Establishment, received charge of Jessore Gaol on August 3rd.

Surgeon-Major J. Maitland, M.D., Madras Establishment, is appointed Surgeon 4th District, Madras, but is to continue to act as Surgeon Madras General Hospital.

Surgeon-Major C. M. Thompson, M.B., Madras Establishment, is appointed to act as Surgeon 4th District, Madras, without prejudice to his own appointment of Secretary to the Surgeon-General with the Government of Madras.

Surgeon-Captain G. C. Hall, Madras Establishment, is appointed civil surgeon of Cocanada, but to continue to act as additional Medical Officer Madras General Hospital.

Surgeon-Captain T. C Moore, Madras Establishment, is appointed to act as Fort Surgeon, Fort St. George, with port and marine duties.

Surgeon-Major A. J. Sturmer, Madras Establishment, is appointed to act as Superintendent of the Lying-in Hospital, Madras.

Surgeon-Major E. W. Young, Bombay Establishment, is appointed to the medical charge of the Roman Catholic Orphanage School, Poona, in addition to his own duties, from July 20th.

Surgeon-Major O. H. Channer, M.B., Bombay Establishment, received charge of the office of Deputy Sanitary Commissioner, Southern Registration District, on August 15th.

Surgeon-Captain W. Molesworth, Madras Establishment, Medical Officer in charge of the detachment of native infantry and station hospital at Port Blair, is appointed to officiate as Senior Medical Officer in the settlement.

Surgeon-Major H. Hamilton, M.D., Bengal Establishment, officiating in medical charge of the 52nd Bengal Cavalry, is appointed to the medical charge of Bundelcund Political Agency from July 18th.

Surgeon Captains R. Bird, C. Duer, W. Henvey, and Surgeon-Lieutenants H. G. Melville, B. G. Seton, P. B. Haig, all of the Bengal Establishment, have passed the examination in Hindustani by the lower standard.

Surgeon-Major W. B. Browning, Madras Establishment, is appointed additional Medical Officer of Ootacamund, without prejudice to his own duties as Surgeon to the Governor.

Surgeon-Major J. Lancaster, M.B., Madras Establishment, District Surgeon North Arcot, is appointed Civil Surgeon of Coonoor, with the charge of Kotagherry.

Surgeon-Major W. A. Lee, Madras Establishment, is appointed to act as District Surgeon of North Arcot.

Surgeon-Captain W. B. Bannerman, M.D., Madras Establishment, is appointed to act as Inspector of Vaccination and Deputy Sanitary Commissioner, Madras.

Surgeon-Lieutenant-Colonel E. Fawcett, Madras Establishment, is confirmed in the medical charge of the Cantonment Hospital at Secunderabad from April 1st, 1891.

The undermentioned officers have been granted leave of absence as specified: Surgeon-Colonel J. Cleghorn, M.D., Bengal Establishment, Inspector-General of Civil Hospitals, Punjab, privilege leave for two months and twenty-eight days; Surgeon-Lieutenant-Colonel C. Little, M.D., Madras Establishment, for three months, on medical certificate; Surgeon-Major J. O. Pinto, Madras Establishment, for one year on private affairs; Surgeon-Major M. L. Bartholomeusz, Bombay Establishment, Civil Surgeon of Ahmedabad, privilege leave from September 1st to October 28th; Surgeon-Captain C. J. Sarkies, M.B., Bombay Establishment, Medical officer 8th Bombay Infantry, for one year on private affairs; Surgeon-Lieutenant-Colonel D. P. Macdonald, M.D., Bengal Medical Establishment, senior medical officer at Port Blair, privilege leave for three months and fifteen days from September 7th; Brigade-Surgeon-Lieutenant-Colonel W. Price, M.D., Madras Establishment, for nine months in India on private affairs.

Surgeon-Lieutenant-Colonel W. A. Gilligan, Bengal Establishment, died at Lahore on August 15th. He was appointed Assistant-Surgeon October 1st, 1872, and was made Surgeon Lieutenant-Colonel October 1st, 1892. Dr. Gilligan came home on leave two years ago, and returned to India, arriving at Lahore on August 13th, on his way to Kohat. On the night of August 15th he took his place in the Peshawur train some little time before the hour of starting and when the ticket collector went his rounds he was found lying on the seat unconscious. He was taken out and driven to the Mayo Hospital, where he died a quarter of an hour after admission. The necropsy showed the immediate cause of death to have been heat apoplexy.

Surgeon-Lieutenant George Hutcheson, M.D., is promoted to be Brigade-Surgeon-Lieutenant-Colonel, June 27th. His commission as Assistant-Surgeon dates from October 1st, 1868, and that of Surgeon-Lieutenant-Colonel twenty years later.

The promotion of Brigade-Surgeon-Lieutenant-Colonel D. F. Bateman, of the Madras Establishment, to be Surgeon-Colonel, and which has been already announced in the British Medical Journal, has received the approval of the Queen.

The date of rank of Surgeon-Colonel R. Bowman, Bombay Establishment, is February 26th, 1893, and not as stated in the *London Gazette* of June 27th last.

THE VOLUNTEERS.

Surgeon-Lieutenant C. H. Barkley, 1st Worcestershire and Warwickshire Artillery, has resigned his commission, which bore date June 12th, 1886.

Mr. Robert Lindsay Clark, M.B., is appointed Surgeon-Lieutenant to the 1st Cumberland Artillery, September 16th.

Surgeon-Lieutenant W. K. Bullmore, M.D., 1st Cornwall (Duke of Cornwall's) Artillery, is promoted to be Surgeon-Captain, September 16th.

PAY IN INDIA.

Bengal Cavalry writes: I observe a misleading statement of a correspondent in the British Medical Journal of April 29th, that "a medical officer does not draw as much pay as other officers of the Staff Corps of his rank." This is far from being the general rule. It is true that a senior medical officer with a regiment generally draws less pay than the combatant officers of his rank, but in the junior grades the medical officer nearly always draws more than the corresponding combatant. As regards the remount question, the medical officer probably gets a better charger, if he makes his own arrangements, than if he drew on a remount depôt.

MILITARY RANK AND TITLES.

A Correspondent writing from India, of course in ignorance of Mr. Campbell-Bannerman's reply to the memorandum, says although the whole department would prefer titles pure and simple, if these may not yet be granted, then 95 per cent. would accept the combination, captain and surgeon, etc.

"*" Our correspondent will speedily learn that the latter is "inadmissible" according to the Secretary of State for War, because not of the "essence" of the new compound titles.

Surgeon-General Retired would answer the question—Why do army surgeons want military rank and titles, and are not satisfied with any departmental rank?—as follows:

1. Because army rank with military titles is the one rank recognised in the army.
2. Formerly combatant officers only had army rank and titles; all others had relative rank.
3. Relative rank is abolished: now all officers and men have army rank, except medical officers, veterinary surgeons, and army chaplains, the latter not exercising command.

4. Medical officers have command over all their own establishments and those attached thereto; those subject to the medical officers have army rank and titles, but they have not themselves.

5. Medical officers alone, of all officers not belonging to the fighting troops, accompany them into action and under fire, sharing in all the dangers of the field and trenches, as proved by the official returns showing the very large proportion killed, wounded, and invalided, as compared with all other branches of the army; also of medical officers who have won the Victoria Cross for conspicuous bravery.

6. They find that without the same substantive rank and titles as other officers they are placed in an inferior position to all officers of the army.

7. Substantive army rank with military titles is already held by the medical officers of many European armies, and of the United States, and is declared to work admirably.

8. They therefore claim to be amalgamated with the Medical Staff Corps—already a military organisation—and hold army rank and titles therein.

The evidence given before the Camperdown Commission by the heads of the army show how worthless army departmental rank is. Since the deputation which waited on Mr. Stanhope some years ago, asking for compound titles and restoration of relative rank, the situation has completely changed. The Commander-in-Chief has declared "relative rank to be no rank at all." Lord Wolseley stated the fact of belonging to the Army Medical Department gave the medical officer no military position. These are the grounds upon which they claim army rank and titles.

GRANT TO VOLUNTEER OFFICERS.

A. T. C.—The officer would appear to have no claim to the grant of £20, for it is not a Government grant but an allowance made by the Finance Committee. This Committee, therefore, has the full right to refuse it in any case.

THE REORGANISATION OF THE COMMISSARIAT.

A CORRESPONDENT writes: When the present Adjutant-General—then Quartermaster-General—undertook to reorganise the Commissariat Department, he is stated to have expressed the opinion that it was impossible to have efficiency in a corps without a defined status and contentment, and so, against considerable opposition, he carried his idea into practice, and the result is the efficient Army Service Corps. Could not this same distinguished officer be induced to apply his wholesome principles to reorganisation of a medical corps? He has the materials at hand.

*** The distinguished officer alluded to has certainly the ability, power, and materials, if we could only move his will.

SANITARY ENGINEERING.

OBSERVER writes: The Royal Engineers as military engineers are equal to those of any army in the world; but their want of training in sanitary engineering is known of all men, and a very serious matter for the army. Why are they not specially trained in this branch?

*** Our correspondent hits a blot which is not only a subject of remark in the army but in civil life. Why have outsiders always to be called in when the sanitary engineering of a camp or barrack has to be overhauled?

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF DURHAM.

EXAMINATION FOR DEGREES IN MEDICINE AND SURGERY.—First Examination for the Degree of Bachelor in Medicine. The following candidates have satisfied the Examiners:

Elementary Anatomy and Physiology, Chemistry with Chemical Physics, and Botany with Medical Botany.—C. H. Clarke, Mason College, Birmingham; J. H. Wood, College of Medicine, Newcastle-upon-Tyne.

Elementary Anatomy and Physiology.—W. J. Baty, College of Medicine, Newcastle-upon-Tyne; G. B. Hodgson, College of Medicine, Newcastle-upon-Tyne.

Chemistry with Chemical Physics, and Botany with Medical Botany.—F. C. Ford, M.R.C.S., L.R.C.P., St. Bartholomew's Hospital; R. W. Gilmour, St. Bartholomew's Hospital; W. Hall, College of Medicine, Newcastle-upon-Tyne; R. W. Markham, College of Medicine, Newcastle-upon-Tyne; E. A. McLean, College of Medicine, Newcastle-upon-Tyne; W. H. Rowthorn, Sheffield School of Medicine; A. M. Rygate, Guy's Hospital; H. D. Senior, M.R.C.S., L.R.C.P., Charing Cross Hospital; E. W. Sumpter, College of Medicine, Newcastle-upon-Tyne; E. H. Sutcliff, St. Thomas's Hospital; A. C. Underwood, M.R.C.S., L.R.C.P., St. Bartholomew's Hospital; J. A. Van Gelderen, College of Medicine, Newcastle-upon-Tyne; R. A. Walter, M.R.C.S., L.R.C.P., St. Bartholomew's Hospital; A. Warner, St. Thomas's Hospital.

Chemistry with Chemical Physics.—E. Fielden, Owens College, Manchester.

New Regulations.

Elementary Anatomy and Biology, Chemistry, and Physics.—Honours—First Class.—J. Coltman, College of Medicine, Newcastle-upon-Tyne. Honours—Second Class.—E. W. Gilroy, College of Medicine, Newcastle-upon-Tyne; J. D. Dodds, College of Medicine, Newcastle-upon-Tyne. Pass List.—G. Arnott, College of Medicine, Newcastle-upon-Tyne; J. L. Frazer-Hurst, College of Medicine, Newcastle-upon-Tyne; W. H. Lister, College of Medicine, Newcastle-upon-Tyne; M. G. McBean, College of Medicine, Newcastle-upon-Tyne; H. T. Newton, College of Medicine, Newcastle-upon-Tyne; H. C. Regnart, Guy's Hospital; T. O. Scott, M.A., College of Medicine, Newcastle-upon-Tyne; W. L. W. Walker, College of Medicine, Newcastle-upon-Tyne.

Chemistry and Physics.—A. W. Aldridge, Mason College, Birmingham.

Elementary Anatomy and Biology.—M. A. Archdall, College of Medicine, Newcastle-upon-Tyne; H. Ferens, College of Medicine, Newcastle-upon-Tyne; R. A. Morland, College of Medicine, Newcastle-upon-Tyne; W. Owthwaite, College of Medicine, Newcastle-upon-Tyne.

OBITUARY.

CHARLES CLAY, L.R.C.S.EDIN., L.R.C.P.LOND.

THE announcement of the death of Charles Clay, the "Father of Ovariotomy," will come as a surprise to the younger members of the profession, for to most of them his name has only been familiar as one of the pioneers of abdominal surgery, who, having made his mark fifty years back, was naturally assumed to have joined the great majority long ago.

Charles Clay was the second son of Mr. Joseph Clay, a corn miller, and was born at Bredbury, in Cheshire, on December 27th, 1801. At an early age he became the pupil of Dr. Kinder Wood, the first lecturer on midwifery at the Marsden Street Medical School, Manchester. Here he attended the lectures of Jordan, the founder of the school, John Dalton, the great chemist, and others.

At the age of 20 he matriculated at Edinburgh, and became a Licentiate of the College of Surgeons there in 1823. In the same year he began general practice in Ashton-under-Lyne, and almost immediately married the eldest daughter of Mr. John Vaudrey, surgeon, of Bredbury. After fifteen years of general practice, Dr. Clay removed to Manchester in 1839, where he practised as a consultant. His first wife having died, he married in this year the daughter of Mr. Boreham, a brewer, of Haverhill, Suffolk.

In 1842 he took the L.R.C.P.London, but, still preferring surgery, remained a consultant in that department, and in September of that year (exactly fifty-one years ago) performed his first ovariotomy, in the presence of Drs. Radford and Black, Messrs. Southam, Vaudrey, and Nursan. The tumour removed weighed 36 lbs., and the operation occupied 10 minutes, and was performed without chloroform. The patient made a complete and speedy recovery, and Clay immediately became famous as an operator, and his services were eagerly sought in all parts of the kingdom. His cases were published in the eleventh and following volumes of the *Medical Times*.

For fifteen years Clay was almost the only operator in ovarian cases, and owing to overwork his health broke down. During his enforced rest, he collected all his cases, 395 in number, and read their history before the Obstetrical Society of London. The paper was warmly received, and amongst those who expressed satisfaction was Mr. (now Sir Thomas Spencer) Wells, who soon after went to Manchester to see Clay operate.

It would be out of place here to refer to the rivalry that afterwards sprang up between those great surgeons. Suffice it to say that as far as priority goes there can be no dispute, Clay's first operation being in 1842, while Wells's was in 1858. We must not omit to mention that Dr. Clay in 1845 extirpated a fibroid uterus by an abdominal incision, thus anticipating Professor Koeberlé by eighteen years.

Dr. Clay was a prolific writer. His first paper was on Ergot of Rye, and was published in the *Medico-Chirurgical Magazine* in 1824. He also wrote on Peritoneal Sections, Cæsarean Section, Ovariotomy, Uses of Ox Gall, Vomiting in Pregnancy. He published *British Record of Obstetric Medicine and Surgery*, *A Handbook of Obstetric Surgery*, *Hints for an Obstetric Cyclopædia*. In 1866 he won the Jacksonian Prize of the College of Surgeons for an essay on Asphyxia.

Outside his profession he was a keen geologist and an authority on coins, publishing *Geological Sketches of Lancashire* and a *History of the Currency of the Isle of Man*.

In late years he has lived quietly in Poulton-le-Fylde, near Blackpool, working regularly in his garden, and taking great pride in his flowers and fruit. During the last few years he has enjoyed excellent health, possessing to a marked degree all his faculties, and quite recently taking journeys to London and Edinburgh.

On Tuesday last, September 19th, the day of his death, he went into Blackpool to look at a new house he thought of

taking, and spoke cheerily of having it on a long lease. He appeared particularly agile, but on his return home he had an attack of syncope, falling from his chair dead.

Dr. John F. Hartland, of Liverpool, who died recently, took the degree of M.D.R.U.I., in 1863, and the L.R.C.S.Edin. in the same year. He was for twenty-three years medical officer of the Whitechurch district of co. Waterford. Some six years ago he removed to Liverpool.

Mr. George Charles Rigden, M.R.C.S.Eng., of Lewes, died recently, aged 79. He had been a resident in Lewes for about half a century. He was one of the honorary consulting surgeons at the Lewes Victoria Hospital and Dispensary. Mr. Rigden was also surgeon to the Lewes Lodge of Oddfellows, the Lewes Provident Society, the Firle Friendly Society, and other institutions of a cognate nature.

Dr. Russell of Neston died at his brother's residence in Edinburgh on September 14th. He was a member of the Neston Local Board from the commencement, and Chairman since April, 1881; Surgeon-Lieutenant-Colonel of the 1st Volunteer Battalion Cheshire Regiment, and medical officer for several local clubs. Dr. Russell had been in practice for over thirty years in the Neston and Parkgate District. He took the L.R.C.S.Edin. diploma in 1854, and the degree of M.D.St. And. in 1857.

We regret to have to record the death of Dr. Ernest Cecil Haward Van Buren, who six months ago became Honorary Secretary of the West Sussex District of the South-Eastern Branch of the British Medical Association. Dr. Van Buren, who was educated at St. George's Hospital, where he held the office of Assistant House-Surgeon, obtained the diplomas of M.R.C.S. in 1881 and of L.R.C.P. in 1886.. Subsequently he took the degrees of M.D. and Ch.D. at the University of Brussels. He was at one time house-surgeon to the Buckinghamshire General Infirmary, but had been settled in West Worthing for about three years. Dr. Van Buren, who was in his thirty-fifth year, had been suffering from typhoid fever for six weeks before his death. The immediate cause of death was thrombosis and heart failure.

We regret to announce the death of Dr. C. R. Prance, which took place at his residence in Princess Square, Plymouth, on September 14th, at the age of 70. Some months since Dr. Prance had a cancerous growth in the tongue successfully removed. His general health did not appear to be at all affected, and he was until quite recently able to attend to his professional engagements. His death was due to congestion of the lungs following a cold. Dr. Prance received his early education in Plymouth, and afterwards at University College, London. He became a Member of the Royal College of Surgeons, England, in 1845, and took his M.D. degree at Edinburgh in the following year. After obtaining professional experience in the leading hospitals of London, Edinburgh, Paris, and Vienna, he settled down in Plymouth as a consulting physician. The deceased gentleman was widely respected for his personal qualities as well as for his professional skill.

Mr. James Molony, F.R.C.S.I., of Tulla, died on September 14th, at the age of 71. He was a son of Mr. P. Molony, J.P., of Cragg, co. Clare, and commenced practice in his native county in the year 1843. He took a leading part in local charities, and was for thirty years Honorary Secretary and Treasurer of the Royal Irish Medical Benevolent Fund Society. For many years he was a member of the Council of the Irish Medical Association, and the President of that body in 1882-83. Twice in his career his zeal in his profession brought him near death; first, when, as one of the devoted band who endeavoured to cope with the terrible Irish famine fever of 1847, he contracted typhus; and again in 1886, when he contracted blood poisoning from accidental inoculation in performing amputation of the thigh. His life was, on this occasion, saved only at the cost of losing his left hand.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Thursday, September 14th.

Rotten Fruit and Vegetables.—Mr. Macdona asked the President of the Local Government Board whether, seeing the great amount of fruit and vegetables imported from Rotterdam and Hamburg, and sold by auction at Covent Garden, St. Katharine's Wharf, and Pudding Lane, a great quantity of which very often arrived in a rotten state, unfit for human consumption, he would send an inspector or inspectors to attend these sales and empowered to prohibit the disposal of unwholesome food amongst thickly populated districts.—Mr. H. Fowler, in reply, said that the duty of seizing and, where necessary, obtaining an order of justices for the destruction of articles of food which were unfit for human consumption devolved upon the local sanitary authorities. He was informed that the authorities of the Strand district and of the City of London were exercising a careful supervision in this matter.

Lunatic Patients in Ireland.—Mr. Knox asked the Chief Secretary to the Lord Lieutenant of Ireland whether his attention had been called to the condition of lunatics in the workhouses of Ireland, and especially at Belfast, as disclosed by the annual report of the inspectors; whether he was aware that one of the greatest obstacles to the removal of these patients to regular asylums was the fact that pauper lunatics in workhouses were supported out of the poor rate which was paid half by the owners, while pauper lunatics in asylums were supported out of the county cess, which was paid wholly by the occupiers, and whether he would consult with hon. members on both sides of the House with a view to putting an end to this state of things.—Mr. J. Morley, in reply, said that the incidence of taxation in respect to maintenance of pauper lunatics in district lunatic asylums and in workhouses was as stated, but he understood that the principal obstacle in the way of the transfer of inmates of unsound mind from workhouses to district asylums laid in the fact that these latter institutions were so overcrowded as to afford no accommodation for such patients. The subject had been fully dealt with in the report of the Departmental Committee on Irish Lunacy Administration which was presented to Parliament in 1891. As regards the case of Belfast, he was informed that the Board of Governors of the district asylum were providing increased accommodation for the patients, and it was expected that this accommodation would be completed in a couple of weeks. The workhouse buildings were also being extended with a similar object. With respect to the concluding paragraph, the hon. and learned gentleman might rest assured that the whole question was receiving his most careful attention, and he hoped to have an early opportunity of conferring with the inspectors of lunatic asylums, and ascertaining what steps could be taken to lessen the overcrowded condition of these institutions.

The Cholera.—Mr. Round asked the President of the Local Government Board whether there was any foundation for the statement made in some newspapers to the effect that the precautions taken by the port sanitary authorities of Harwich against cholera had failed.—Mr. Hanbury asked whether the right hon. gentleman had any information with regard to the alleged outbreak of cholera in Ashbourne, Derbyshire.—Mr. H. Fowler, in reply, said that, in answer to the first question, he was not aware that there was any justification for the statement which had appeared in the public press. He believed the port sanitary authority of Harwich had appointed a sanitary inspector for the special duty of boarding ships within the limits of the port, and that the orders of the Local Government Board were being carried out. He was in communication with the port sanitary authority, and he saw no reason for charging them with any neglect of duty. They were incurring a heavy expense, as all the authorities in the kingdom were, with reference to this unfortunate outbreak. The case of Ashbourne was, he was sorry to say, a serious one. Thirteen persons had been attacked with choleraic diarrhœa, and eight deaths had occurred. That was an extraordinary proportion, but he found, upon investigation, that the whole of the persons who were attacked lived in one courtyard and drank from one pump. The water was, he was afraid, very suspicious. The local authority had stopped the use of it, and were taking all the precautions they could. They had no information of any spread of the disease outside the courtyard. Perhaps the House would allow him to take the opportunity of stating that the general report on September 14th from all parts of the kingdom was satisfactory. There were no cases whatever at Cleethorpes, and at Hull there had been no deaths, and there were only two cases in hospital. A case was reported in the papers on September 14th, and he was sorry to say the report was correct of a person living at Ashton-under-Lyne, who went on a trip to Cleethorpes, and on his return was attacked with cholera or choleraic diarrhœa, to which he had succumbed. He asked Dr. Thorne Thorne to give his opinion on the present state of the epidemic, and he wrote to him as follows: "Having regard to the time of year through which we have passed since fatal attacks of choleraic character first commenced at one point of our eastern coast, the comparatively sporadic character of the disease is a distinctly hopeful feature, and the activity of sanitary authorities was even more hopeful as regards the future." He thought, on the whole, that the House might rest satisfied that affairs were amending—not to put it any stronger at the present time—and that they were not retrograding at all.—Mr. Powell Williams asked whether steps were being taken to have a thorough scientific examination into the character of the outbreak at Ashbourne.—Mr. Fowler said steps would be taken. The Local Government Board would make a thorough inquiry into the matter.—Mr. Brunner asked whether medical men all over the country had been invited to assist the Local Government Board in ascertaining the exact character of the disease where it had appeared throughout the country.—Mr. Fowler said that every district had a medical officer of health, and in no place had any outbreak taken place without their sending down a medical inspector to make an examination specially for themselves. He was quite sure that the medical profession would be willing now, as they always had been, to give the greatest help to the Local Government Board.

Friday, September 15th.

The Cholera Outbreak at Ashbourne.—Mr. Hanbury asked the President of

the Local Government Board whether he could give the House any information as to the extent and character of the outbreak of cholera at Ashbourne, and especially whether the Local Government Board had any knowledge of the general sanitary condition of the town and the very unsatisfactory condition of the water supply.—Mr. H. FOWLER, in reply, said that he despatched a Local Government Board inspector to Ashbourne immediately on learning of this outbreak. He reported to him that this particular yard was of a very dirty and disreputable character. There were thirty-nine residents in that one yard. There had been fifteen attacks and nine deaths. In one house there were six cases and three deaths. When he told the House the circumstances of the yard, he thought they would not be surprised at the outbreak. There was in it a watercloset used by tramps, paupers, and strangers, attached to a public house. The soil pipe of that watercloset leaked into the soil within 2 feet of the well. The well had now been pumped out and filled in with quicklime, and since those measures had been taken no fresh attacks had, up to midday of September 15th, taken place. Dr. Low reported also that there was much enteric fever and diarrhœa in Ashbourne, and that it had a bad sanitary reputation. He could assure his hon. friend and the House that he meant to push the case to the extreme with a view to seeing what the powers of the Local Government Board really were if the rural sanitary authorities declined, as he had no reason to suppose they would, to deal with the matter.

London Bakehouses.—Mr. H. FOWLER, in answer to Mr. CREMER, said the attention of the Local Government Board had not been drawn to the revelations as to the condition of bakehouses in Marylebone, the East End, and other parts of London. It devolved upon the local sanitary authorities to put in force the provisions of the law with regard to the sanitary condition of bakehouses, and he had not received any communications alleging default on the part of the sanitary authorities or other officers in this matter. If there was a failure on the part of any sanitary authority to discharge their duty with regard to bakehouses, complaint could be made to the London County Council, who were empowered to take action with a view to the enforcement of the law.

Precautions against Cholera.—Mr. MACDONA asked the President of the Local Government Board whether he was aware that 101 immigrants from cholera districts in Russia arrived in the Thames on September 13th, on the steamship *Adler*, and 85 from Bremen; that the steamship *Ellida*, with 26 from Libau also arrived in the Thames at the same time; whether he was aware that all these were Russian and Polish Jews, and most of them immigrants of the poorer class coming from cholera-stricken districts, whether the Government had given orders for the bedding and filthy rags coming with these immigrants to be disinfected or destroyed, and whether, while the danger of an outbreak of cholera existed the Government would take such measures as would immediately prevent any further immigration of foreign paupers into this country.—Mr. H. FOWLER, in reply, said that he understood that Russian immigrants had been arriving in the Thames from Bremen, Memel, and Libau, and that the medical officer of the port of London prohibited the landing of 75 of the 85 emigrants from Bremen and of the 26 from Libau pending their furnishing satisfactory evidence as to their addresses. If the bedding and clothing of the immigrants were in a filthy state they could not be delivered overside or landed except on conditions as to disinfection or destruction. From the point of view of public health the measures embodied in the Board's regulations, which the Board believed were most efficiently carried out in the port of London, appeared to be sufficient. He might add that the Local Government Board understood that the German authorities retained under medical observation for seven days all Russian Jews crossing the frontier, two more days' detention generally took place at Berlin, during which time they were cleansed and their clothing disinfected, and, finally, before proceeding to German outports they were again medically inspected.

Monday, September 18th.

Army Sanitary Committee.—Mr. WOODALL, in answer to Mr. A. C. MORTON, said that as a general rule the Army Sanitary Committee was not an inspecting body, but in very exceptional cases they inspected particular barracks. They had not visited Windsor, but when the drainage system at Windsor was revised the subject would be referred to the Committee. The weekly sick returns and the sanitary returns were not referred to the Sanitary Committee. Their duties were confined to reports on sites and buildings. Their reports were not published.—Mr. HANBURY asked when the drainage arrangements at Windsor were going to be revised, because they were in a most dangerous state at present.—Mr. WOODALL replied that on several occasions his right hon. friend had made very specific statements to the House on the subject of Windsor barracks. He had nothing to add to those statements.

Medical Officers for India.—Mr. A. C. MORTON asked the Under-Secretary of State for India whether the Indian Government, in allotting bearer company and field hospital equipment for training the medical service of the Indian Army, would see that Netley was included in the distribution, so that the medical officers for the Indian Army could benefit by instruction there.—Mr. G. RUSSELL, in reply, said: Yes, Sir. The existing system provides for the instruction of the Indian medical officers at Netley in bearer company and stretcher drill.

Medical Inspections in India.—Mr. A. C. MORTON asked the Under-Secretary of State for India whether the Indian Government would arrange to have the principal medical officers' inspections made twice a year in India as in this country.—Mr. G. RUSSELL, in reply, said that the War Office regulations provided for half-yearly medical inspections at home and yearly ones at foreign stations. The Secretary of State saw no reason for proposing any alteration of the system so far as India was concerned.

Tuesday, September 19th.

Vaccination.—Mr. HOPWOOD asked the Parliamentary Secretary to the Local Government Board whether he was aware of the distribution of a pamphlet entitled "Facts concerning Vaccination for the Heads of Families," which bore upon the first page the words "Revised by the Local Government Board, and issued with their sanction;" and whether it was revised and sanctioned as stated, and if not, whether the Board would request the publisher of the "Facts, etc." to drop the statement of the sanction and revision by the Board.—Sir W. FOSTER, in reply, said he found that about nine years ago the pamphlet referred to was forwarded to the Local Government Board by the National Health Society, and that at that time a few corrections and additions were suggested on behalf of the Board. The Board had no information as to the present distribution of the pamphlet.—Mr. HOPWOOD asked the Parliamentary Secretary to the Local Government Board whether any, and if so what, statutory power was given by the Vaccination Acts to boards of guardians, superintendents of lunatic asylums, governors of gaols, the Local Government Board, or any other authority, to compulsorily revaccinate paupers temporarily under their control when such paupers did not apply for revaccination, and whether the cost of revaccinating pauper lunatics who did not apply for revaccination could be lawfully charged against the poor rates of the district where the lunatic asylum in which they were detained might happen to be situated.—Mr. PIERPOINT said that perhaps the Parliamentary Secretary would also inform the House, whether he believed that an opinion against vaccination given by a lunatic was of any value.—Sir W. FOSTER said the Vaccination Acts contained no provision as to compulsory revaccination. If a pauper lunatic was revaccinated by the public vaccinator in whose district he was resident, and such revaccination was performed in accordance with the provisions of the Vaccination Acts and the orders as to the duties of public vaccinators, the public vaccinator would be entitled to a fee for the operation if successful, and such fee would be payable out of the poor rates. He did not think that the supplementary question required any reply.

Cholera and Quarantine.—Colonel HOWARD VINCENT asked the President of the Local Government Board whether, having regard to the great loss and inconvenience entailed on the shipping interest, seamen, ocean passengers, and all connected therewith, by reason of exaggerated pressrumours respecting the prevalence of cholera in Great Britain, and consequent unnecessary quarantine restrictions on British ships in foreign ports, he was in a position to inform the House officially whether there was any foundation for imputing a general epidemic of Asiatic cholera in any part of the United Kingdom, and particularly at the port of Southampton; and whether his medical advisers considered that there was the slightest danger of infection from cholera in England on board a ship with a clean bill of health in that regard fourteen days at sea from Great Britain.—Mr. H. FOWLER, in reply, said that with the exception of three or four ports on the eastern coast, all the ports of Great Britain had been throughout the year absolutely free from cholera, and the Local Government Board did not consider that there was any foundation for imputing a general epidemic of Asiatic cholera in any part of the United Kingdom. They were not aware of any case of cholera at the port of Southampton. The medical advisers of the Board were clearly of opinion that there was no danger of infection from cholera on board a ship which had, since leaving a British port, been at sea for fourteen days and had been free from cholera and choleraic diarrhœa.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

PUBLIC HEALTH IN SCOTLAND.

"SCOTLAND is in the vanguard of the nations in matters affecting the public health." So the President of the Sanitary Association of Scotland is reported to have said at its annual Congress in Ayr the other day. This patriotic sentiment, as appears from the subsequent proceedings of the Congress, requires considerable qualification. It is true that the Central Board of Health, anomalously composed of lawyers, and with a scientific staff which may be reckoned at, perhaps, the one sixth of one medical officer, has done not so badly as from its constitution might have been expected. It is true that as the result of the operation of the Local Government Act the sanitary administration of the rural districts of the country has been considerably improved. It is also the case that Scotland has in an exceptional degree taken advantage of such sanitary legislation as has been vouchsafed to it, for example, as in the adoption of the Infectious Disease Notification Act, but these things hardly justify a claim for a position in the vanguard, which, indeed, is impossible under the existing statutory disabilities. In Scotland, in these days of cholera alarm, no port sanitary authorities await in conscious preparedness the approach of the plague, for there are no statutory powers for the constitution of port sanitary authorities, and the estuary of the Forth, for instance, with its large Continental trade, carried on by craft of every size, is dotted round with small seaports, each too small to be able to make any provision for its own defence, the whole unable to combine for mutual protection. There remain, introduced by the Local Government Act, the laggard host of small burghs, complacently inefficient in sanitary matters, carefully regardful of the rights of "owners of (insanitary) property," whom they delight to honour with seats at the civic board. There is no restraining power to prevent the central authority (Board of Supervision) from laying down the principle that it is conducive to the efficient administration of sanitary districts that there shall be two equal and independent heads of the health department—the medical officer of health and the sanitary inspector—each reporting to the board independently as to the condition of their districts; the sanitary inspectors instructed (incredible as it may appear) to report the occurrence of, and the circumstances attending, all outbreaks of small-pox occurring in their districts. These, and many other anomalies, will have to be removed before Scotland can assume a position in the vanguard of nations in matters concerning the public health.

PROPOSED HOSPITAL EXTENSION AT FORFAR.

WE have examined a plan and description sent us of the proposed hospital extension at Forfar. It would be a blunder to erect a small-pox pavilion on the site shown. It is too near the general infirmary and the laundry, and modern experience goes to show that considerable risk to a community may result from a small-pox hospital situated within a town.

If other infectious diseases, and especially enteric fever, are to be treated on the second flat of the infirmary, the ground flat being reserved for ordinary diseases, then there should be very thorough disconnection of soil pipes and drains. But the fact is the whole proposal seems an unhappy one. Unless the ground round the hospital is very ample, and suitable for proper subdivision, there would be danger of convalescents say from scarlet fever, infecting convalescents from other diseases. Would not the best way be to remove both fever and small-pox to a place outside the town, and leave the patients in the infirmary safe from infection of any kind? We hope the medical officer of health will succeed in dissuading his local authority from the course proposed to them.

THE NOTIFICATION ACT.

A Correspondent writes: "The enigma propounded by 'Inquirens,' in the British Medical Journal of September 9th, so nearly approaches a case of mine that I feel justified in inferring that it is so, and with your permission I will state the whole circumstances and ask your opinion." Our correspondent then raises the question as to the accuracy of the diagnosis in the case referred to. This is an entirely new issue, and one upon which it is impossible for us to decide.

SMALL-POX AND THE FRANCHISE.

An important decision, in view of the possible extension of the cholera invasion, was given by the Revising Barrister, Mr. G. Segar, at Blackburn, last week. Objection was laid against a claimant that while he was ill of small-pox his family had been kept in quarantine by the parish authorities. It was pointed out, however, that up to the time of William IV relief given in times of cholera and small-pox did not disfranchise. The vote was allowed.

THE PREVENTION OF DIPHTHERIA.

H. Beale Collins, D.P.H., (M.O.H. Kingston-upon-Thames) writes: Sporadic cases of diphtheria were notified to me in March and April, but in May the disease commenced to assume an epidemic character, the cases being grouped in connection with certain schools. All cases notified appeared to be virulent, and I made inquiries into the causes of absence of scholars on the chance of finding the unnotified mild cases. I discovered the cases of sore throat shown in the tables.

Group I.—*Elementary School.*

Notifications. Defective Sanitation where Discovered.	Dates.	Unnotified Sore Throats. Defective Sanitation. Absence of Medical Attendance.
No. 9. Defective drain ...	May 6	
	May 14 (died)	Pump water bad.
No. 10. Same house as unnotified case	May 18 (died)	
	June 1	Slight sore throat.
	June 4	No doctor in attendance.
No. 19. Attention was drawn to this case by my visit ...	June 14 (died)	
	June 15	Diphtheritic throat.
No. 21.	June 18	
	June 18	Slight sore throat.
No. 22 } Pump water not fit	June 20	
No. 23 } for drinking pur-	June 20	
No. 24 } poses	June 20	
	June 20	No doctor in attendance.
	June 20	" "
	June 23	" "
	June 23	" "
	June 23	Slight sore throat.

Group II.—*Private School.*

Notifications. Defective Sanitation where Discovered.	Dates.	Unnotified Sore Throats. Defective Sanitation. Absence of Doctor.
No. 11 } Old insanitary house	May 23	
No. 12 } in which cases have	May 23	
No. 13 } previously ocurred	May 29	
	Beginning of June	Some two or three children away with slight sore throat. No register of attendances kept.
No. 18	June 13 (died)	
	June 20	Slight sore throat. No doctor.
No. 28	June 26	
No. 29 }	June 27 (died)	
No. 30 } In one house	June 29 (died)	
No. 31 }	June 30	
No. 32 }	July 1	

Group III.—*Private School.*

First cases were unnotified. Slight sore throats in a house with defective drainage. Ten cases were notified, with one death.

Sporadic Cases.

Notifications. Defective Sanitation where Discovered.	Date.
No. 1	March 17
No. 2. Defective drain	March 20
No. 3 }	April 8
No. 4 } Defective drain	April 8
No. 5 }	April 27
No. 6. Contracted abroad	April 17
No. 7	May 3 (died)
No. 8. Movable dwelling. First ill at Godalming ...	May 5 (died)
No. 14 }	June 6
No. 15 } Defective sanitation	June 7
No. 16 }	June 7
No. 17. At a dairy	June 12
No. 20 } Using milk from above dairy	June 15
No. 25 }	June 21
No. 26	June 18 (died)
No. 27	June 25 (died)

Forty-two cases notified, with nine deaths, and 13 cases of sore throat unnotified, with 1 death. The schools have closed for the summer holidays, and the epidemic is at an end.

The difficulties of dealing with diphtheria outbreaks appear to be, first, the fright of the patients and their friends at the terrible word "diphtheria," with its lengthened quarantine, entailing loss of business and expense; secondly, the difficulty of diagnosis in mild cases; thirdly, the cost of notification and isolation in mild cases. For the first and second difficulties I have recommended my authority to place croup and infectious sore throat on the list of notifiable diseases, allowing a shorter quarantine than for diphtheria. The third difficulty arises because the public has not yet realised that mild cases of infectious disease, if isolated in time, will prevent the occurrence of epidemics, and that infectious diseases, with the doubtful exception of variola, are not airborne but spread by personal contact. The difficulty is to get at the mild initial cases in time, and this is most easily got over by hunting up every absentee scholar and finding out what is the matter with him.

My experience in this epidemic leads me to believe that, with the co-operation of the school authorities, two hours' carriage driving would be sufficient, on an average, to enable the medical officer of health to visit the home of every scholar absent from school. This would entail a cost to the authority of a little over £100 per annum, and as the early cases would be by this means discovered and isolated, the money might be saved by a reduction in the size of the isolation hospital. There would be saving to the poorer classes in the absence of need to stay from work and school, and the rich would benefit by the disappearance of those dangerous foci of disease that now promenade our streets in ignorance of the infection that spreads from them.

TRANSFERENCE OF LUNATICS TO A WORKHOUSE.

M. O. writes: The medical officer to a workhouse has had transferred a number of lunatics from an asylum to the workhouse with a certificate from the superintendent of the asylum certifying their condition. Does it require a certification by another medical man as well as the medical officer of the workhouse, or is it only necessary for the latter to certify?

*** The information given by our correspondent in the above letter is not sufficient to enable us to answer it with the certainty of being accurate, without giving an alternative as a reply. But the case is most probably one in which the visitors of a county or borough asylum have arranged for the reception into the workhouse of chronic lunatics not dangerous. For the committee of visitors of any such asylum may, with the consent of the Local Government Board and the Commissioners in Lunacy, and subject to such regulations as they respectively prescribe, make arrangements with the guardians of any union for the reception into the workhouse of any chronic lunatics, not being dangerous, who are in the asylum and have been selected and certified by the manager of the asylum as proper cases to be removed to the workhouse. Every lunatic received thus into a workhouse shall, while he remains there, continue a patient on the books of the asylum, for the purposes of the Lunacy Act of 1890, so far as it relates to lunatics removed to asylums. In such cases the only further certificate required would appear to be the "special report and certificate," required at certain dates, in certain years, when the original reception order expires by effluxion of time. But there is another possibility, namely, that the letter of our correspondent may refer to cases discharged from the asylum, considered to be not recovered by the superintendent, and proper cases to be kept in the workhouse, and so certified by him; whereupon the lunatic may be received and detained against his will in a workhouse without further order if the medical officer of the workhouse certifies in writing that the accommodation in the workhouse is sufficient for the lunatic's proper care and treatment, separate from the inmates of the workhouse who are not lunatics; or that the lunatic is in such condition that it is not necessary for the convenience of the lunatic, or of the other inmates, that he should be kept separate.

HOW THE SYSTEM OF COMPULSORY NOTIFICATION OF INFECTIOUS DISEASES OPERATES.

The prognostications of the advocates of compulsory notification in the prenotification days have been wonderfully justified by the result. One of the most recent illustrations of this is furnished in a letter addressed to an Edinburgh evening newspaper by a property owner. "Doctors," he writes, "enjoy a fee of 2s. 6d. for every case they report to the local authority, the result being that landlords have become the scapegoats. They are ordered to have their drains tested by smoke, and although everything is correct in the patient's room, if any leakage is found elsewhere, the landlord is ordered to overhaul his drains." The enthusiasts of the early eighties prophesied that the introduction of the notification system would bring about the detection of sanitary defects and lead to their removal, and so it has happened.

THE IMPORTATION OF FILTHY ALIENS.

On September 11th the s.s. *Elida* was boarded at Gravesend by the medical officer to the port sanitary authority, who found twenty-six passengers from Libau, in Russia, a place infected with cholera, who were in a filthy condition. He served the captain with a notice requiring him not to allow any of them to leave his ship. Nevertheless, it was discovered next day that they had all been landed, without the addresses of any of them having been sent to Dr. Collingridge. The captain was fined £25, and we may express the opinion that he got off very lightly for an offence by which he exposed London to the risk of cholera, and set at naught regulations framed specially for cases such as his, the carrying out of which costs the sanitary authority many thousands a year.

MASTERS OF WORKHOUSES AND NURSES.

Nemo writes to ask whether the master of a workhouse has power to give leave of absence for a day to the nurse, without informing the medical officer.

*** We are not aware of any general regulation on this point, and, in the absence of such, are inclined to think that the master has this power; but we consider it would be unwise for him to exercise it without the knowledge of the medical officer.

THE ABERDEEN LOCAL AUTHORITY AND THE REMOVAL OF A CASE OF SMALL-POX.

In the Aberdeen Sheriff Court, on September 18th, Sheriff Brown had under his consideration a petition from the Lord Provost, magistrates, and Town Council of Aberdeen, as local authority of the burgh, praying for a warrant to remove a lady who is suffering from small-pox in the west-end of the city. Objections were offered by the respondent, and medical evidence given as to the unfitness for removal of the patient, the nature of isolation employed, and also as to the probable risk of the infection to the public. The medical man in attendance stated that "in his solemn belief if the patient were sent to the epidemic hospital she would be brought back a corpse;" that the patient (a young lady 24 years of age) was of a highly nervous disposition, so much so that she had not been told the exact nature of her disease; that the case was a mild one—she had only twelve pocks on the whole of her body—and that the risk of carrying infection, from the nature of the isolation in this ten-roomed house, was very remote. The local authority contended that the isolation of the patient was not sufficient, that it was best to have the case removed to the hospital, or at any rate to select other rooms in the house for the use of the patient and her nurse (the nurse being the patient's mother), instead of rooms on the middle floor. The Sheriff, in giving his decision, said: "The question in the case practically depends on the 42nd section of the Public Health Act of 1867, and particularly of the provision which there occurs, and which is expressed in the words 'being without proper lodging or accommodation.' In the interpretation of the Act one of its leading objects is to provide for the safety of the public. But in a particular case the life or health of the patient may come to be the controlling element in its disposal, and my opinion is that it is so here. The consensus of medical opinion heard is that the risk to the public is exceedingly small. The prayer of this petition could not be granted in such a case where one risk so small—so small indeed, that there is some difficulty in finding proper language to describe it—is opposed to a very serious risk, without proof that the removal could not be carried out with safety to the patient, the evidence on this point being from her medical attendant, who alone has seen her professionally, and her father, that if she were removed it could not be done without the risk of killing her." The Sheriff refused the application of the local authority.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns, including London, 6,433 births and 3,919 deaths were registered during the week ending Saturday, September 16th. The annual rate of mortality in these towns, which had declined from 22.8 to 20.1 per 1,000 in the preceding five weeks, further fell to 19.8 during the week under notice. The rates in the several towns ranged from 11.2 in Derby, 12.0 in Plymouth, 12.2 in West Ham, and 13.1 in Birkenhead to 25.8 in Liverpool, 26.0 in Hull, 28.6 in Newcastle-on-Tyne, 29.8 in Sunderland, and 30.1 in Burnley. In the thirty-two provincial towns the mean death-rate was 21.5 per 1,000, and exceeded by 4.0 the rate recorded in London, which was 17.5 per 1,000. The 3,919 deaths registered during the week under notice in the thirty-three towns included 851 which were referred to the principal zymotic diseases, against 1,006 and 916 in the preceding two weeks; of these, 518 resulted from diarrhœa, 89 from whooping-cough, 83 from diphtheria, 79 from "fever" (principally enteric), 43 from scarlet fever, 32 from measles, and 7 from small-pox. These 851 deaths were equal to an annual rate of 4.3 per 1,000; in London the zymotic death-rate was 3.5, while it averaged 4.9 per 1,000 in the thirty-two provincial towns, among which these diseases caused the lowest death-rates in Halifax, Brighton, Cardiff, and Croydon, and the highest rates in Burnley, Bradford, Sunderland, Gateshead, and Hull. Measles caused the highest proportional fatality in Blackburn; whooping-cough in West Ham, and Birkenhead; "fever" in Swansea, Leeds, Preston, Hull, and Sunderland; and diarrhœa in Birkenhead, Leeds, Newcastle-upon-Tyne, Salford, Sunderland, Blackburn, Bradford, Gateshead, Burnley, and Hull. The mortality from scarlet fever showed no marked excess in any of the large towns. The 83 deaths from diphtheria recorded during the week under notice in the thirty-three towns included 65 in London, and 3 in Gateshead. Two fatal cases of small-pox were registered in Birmingham, 2 in Bradford, 1 in London, 1 in Leicester, and 1 in Oldham, but not one in any other of the thirty-three large towns. There were 112 small-pox patients under treatment in the Metropolitan Asylum Hospitals and in the Highgate Small-pox Hospital on Saturday last, against 183, 144, and 121 at the end of the preceding three weeks; 20 new cases were admitted during the week, against 8 and 24 in the preceding two weeks. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital was 2,889 at the end of the week, against 2,894 2,884, and 2,883 on the preceding three Saturdays; 315 new cases were admitted during the week, against 303 and 320 in the preceding two weeks. The 150 deaths referred to diseases of the respiratory organs in London were 22 below the average, and were equal to an annual rate of 1.8 per 1,000.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday, September 16th, 837 births and 528 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality, which had increased from 18.5 to 20.8 per 1,000 in the preceding four weeks, declined again to 18.7 during the week under notice, and was 1.1 per 1,000 below the mean rate during the same period in the large English towns. Among these Scotch towns the lowest death-rates were 16.6 in Greenock and 17.3 in Edinburgh, and the highest 21.8 in Paisley and 22.3 in Perth. The 528 deaths in these towns included 128 which were referred to the principal zymotic diseases, equal to an annual rate of 4.5 per 1,000, which slightly exceeded the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Paisley and Dundee. The 238 deaths in Glasgow included 7 from diphtheria, 8 from "fever," and 26 from diarrhœa. Three fatal cases of fever were recorded in Dundee. The death-rate from diseases of the respiratory organs in these towns was equal to 2.4 per 1,000, against 1.8 in London.

HEALTH OF IRISH TOWNS.

In sixteen of the principal town districts of Ireland the deaths registered during the week ending Saturday, September 9th, were equal to an annual rate of 20.4 per 1,000. The lowest rates were recorded in Sligo and Galway, and the highest rates in Limerick and Wexford. The death-rate from the principal zymotic diseases averaged 5.5 per 1,000. The 147 deaths registered in Dublin were equal to an annual rate of 21.9 per 1,000 (against 21.8 and 29.1 in the preceding two weeks), the rates during the same period being 18.9 in London and 18.5 in Edinburgh. The 147 deaths in Dublin included 36 which were referred to the principal zymotic diseases (equal to an annual rate of 5.4 per 1,000), of which 21 resulted from diarrhœa, 8 from enteric fever, 4 from whooping-cough, 2 from measles, and 1 from diphtheria.

INDIA AND THE COLONIES.

INDIA.

Dr. Vandyke Carter, the Principal of the Grant Medical College, Bombay, has given 10,000 rupees to found a Reay lectureship. Dr. J. A. da Gama, who is graduate of the Bombay University, has been appointed the first lecturer. The subject chosen by him is the Physiology of Vision.

Medical Relief in Bengal.—The Allahabad *Pioneer* in a recent issue supplies some interesting statistics showing the substantial progress which has been made in the Province of Bengal in providing means of relief to the sick poor. In the year 1871 there were 160 charitable dispensaries open throughout the province, which afforded aid to 17,892 indoor and 405,528 outdoor patients. The total cost of these institutions amounted to Rs.3,01,955, of which sum Government contributed Rs.1,34,955—nearly one-half—the remainder being contributed by the charity of Europeans (Rs. 42,441), and natives (Rs. 64,681), and by town funds (Rs.12,573). In 1891, 272 dispensaries were in operation, in which 35,859 indoor and 1,460,195 outdoor patients were treated. Of these, 228,555 were women and 383,390 children. The contributions of municipalities and district and local funds had risen to Rs.2,62,235. The policy of Government in placing upon local bodies the responsibility and burden of providing medical relief for the sick poor has thus proved eminently successful, and this fact gives warrant and hope for the expectation that a similar policy in respect of sanitation and disease prevention will in time produce equally satisfactory results. The Dufferin movement for providing special means of relief for women and the sale of small packets of quinine by post offices are mentioned with approval. The total of vaccine operations during the same period increased from 275,281 in 1871 to 1,641,088 in 1891.

The Medical Profession in France.—The total number of candidates who received the degree of Doctor of Medicine in the seven medical faculties of France during the academic year 1891-92 was 635, being an increase of 41 as compared with the previous year. Of these degrees 371 were conferred by the Paris Faculty, 108 by that of Lyons, 74 by that of Bordeaux, 53 by that of Montpellier, 14 by that of Lille, 10 by that of Nancy, and 5 by that of Toulouse. During the last ten years the degree of Doctor of Medicine has been conferred on 6,090 persons, being an average of 609 a year.

MEDICAL NEWS.

Professor Schwimmer, of Buda-Pesth, the well-known dermatologist, has had the title of "Royal Councillor" conferred upon him.

A Hygienic Institute has been established at Hamburg, and has been placed under the direction of Dr. Dunbar, formerly assistant to Professor Gaffky, of Giessen.

Vaccination Grant.—Mr. William Cox has been awarded the extra Government grant for efficiency in vaccination in the Hill or No. 1 District of the Winchcomb Union.

Bacteriology in India.—The Imperial Bacteriological Laboratory for the Investigation of Animal Diseases in India is, according to the *Indian Medical Record*, to be situated in Mukhteshur, a hill some 7,000 feet high, between Naini Tal and Almora. The Indian Government has decided that the new Pasteur Institute cannot be amalgamated with the Imperial Bacteriological Laboratory.

Presentation to Dr. Corbett, of Cork.—This gentleman has been the recipient of a bronze statuette representing Ambroise Paré, which has been awarded by the French Government through the Cork Corporation. Dr. Corbett, late surgeon of the s.s. *Yucatan*, rendered some services to the sailors of a disabled barque, the *Petit Bourgeois*, in December last. The statuette bears the following inscription: "Le Ministre de la Marine de la Republique Française au Dr. Corbett, Médecin du paquebot Anglais *Yucatan*, services rendus à l'equipage naufragé du trois-mâts Français *Petit Bourgeois*, Decembre, 1892."

Koumiss Poisoning.—Quite recently considerable alarm was occasioned in Jeleznovodsk, one of the most frequented of the Caucasian watering-places, by the occurrence of a large number of cases of severe illness following the drinking of koumiss. Upwards of a hundred persons were seized on the same day with all the symptoms of acute irritant poisoning. It was at first feared that an outbreak of cholera had occurred, but it was soon discovered that each of the persons affected had drunk koumiss obtained from one and the same source—an establishment officially authorised for the sale of the drink. The koumiss sold here was daily examined by the authorities as to its fitness for consumption, and the sample taken on the day in question had not been found to contain anything unusual. The matter was at once taken up by the authorities, and samples of the koumiss which produced such untoward results have been examined by experts. It is now announced that they have been found to contain no foreign matters of a metallic nature, and that therefore the rumour that arsenic had been added is unfounded. The result of the examination for alkaloidal bodies has not yet been made known.

Sanitary Institute Lectures to Sanitary Officers.—A course of lectures and demonstrations for sanitary officers will commence at the Parkes Museum, Margaret Street, Regent Street, London, on September 29th. The lecturers will be Sir Douglas Galton, Mr. H. Law, M.Inst.C.E., Mr. J. Wallace Peggs, Mr. Keith Young, F.R.I.B.A., Mr. W. C. Tyndale, Mr. J. Wright Clarke, Professor H. Robinson, Mr. Charles Mason, Professor A. Wynter Blyth, Mr. Shirley Murphy, Dr. J. F. J. Sykes, Dr. Arthur Newsholme, Professor A. Bostock Hill, and Dr. Louis Parkes. The lectures will be given twice a week, and the course will terminate on November 27th. In addition to the lectures, persons attending the course will have the opportunity of taking part in visits to the sewage and destructor works at Ealing, to the Beddington Sewage Farm, the Wimbledon Sewage Farm, the disinfecting station at St. Pancras, the Friern Barnet Sewage Works, the Express Dairy Company's Farm, the East London Soap Works, and the East London Water Works; they will also be able to pay visits of inspection to the parishes of St. George's and of Chelsea, and to the Isolation Hospital, Museum, Sanitary Depôt, and Sewage Disposal Works at Highgate. The fee for this course, which is the sixteenth given in London, will be one guinea, to surveyors and inspectors holding office half a guinea. Further particulars can be had from Mr. E. White Wallis, Secretary of the Sanitary Institute, at the Museum.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently passed away are Dr. Lailler, a former president of the Paris Dermatological Society, and physician to the St. Louis Hospital, where he took a leading part in founding the splendid museum of skin diseases, and the day school for children suffering from ringworm connected with the hospital; Dr. J. B. Rodriguez Benavides, of Madrid, a member of the Spanish Sanitary Council and of the Royal Academy of Medicine, and formerly dean of the Beneficencia Provincial; Dr. F. Balandin, Director of the Institute for Midwives, St. Petersburg, aged 57; Dr. Christian Dencker, a leading practitioner of St. Petersburg, and formerly physician to the Children's Hospital of the Nikolai-Waisen Institute in that city, aged 83; Dr. Ed. Bary, for many years one of the most prominent practitioners in St. Petersburg, one of the founders of the St. Petersburg Medical Association, and author of numerous contributions to medical literature, including a statistical report on 3,273 cases of croupous pneumonia, delirium tremens, in St. Petersburg, etc., aged 67; Dr. James Blake, of San Francisco, formerly a lecturer in the medical department of the University of St. Louis, afterwards for many years one of the professors in Poland's Medical College (now the medical department of the University of San Francisco), and author of a book entitled *Molecular Weight and Constitution of Chemical Compounds*, aged 78; Dr. Louis Costales, of Havana, formerly Director of the *Gaceta Medica de la Habana*, and the *Diario de la Habana;* Dr. Franz Ulrich, formerly surgeon to the General Hospital, Vienna, afterwards Sanitary Referee to the Austrian Ministry of the Interior, and a Ministerial Councillor, aged 77; Dr. Francisco Vicente Vianna, a scholarly physician of Bahia, Brazil, where he was keeper of the public archives, and a distinguished writer on Brazilian history, aged 45; Dr. Julius Knoch, of Kostroma, formerly a medical officer in the Russian army, and well known by his works on bothriocephalus latus and trichinosis; and Dr. J. F. Arango y Lamar, physician to the Hospital San Lazaro, of Havana, a distinguished member of the Royal Academy of Sciences of Havana, and author of numerous publications on acute farcy, diabetes, and leprosy, the works of M. Zola, etc. Dr. Arango died a victim to glanders, a disease of which he had made a special study.

MEDICAL VACANCIES.

The following vacancies are announced:

BETHLEM HOSPITAL.—Two Resident Clinical Students, doubly qualified. Apartments, rations, and attendance provided. Applications endorsed "Clinical Assistantship," to the Treasurer, at the Bethlem Hospital, by October 2nd.

BELGRAVE HOSPITAL FOR CHILDREN, 79, Gloucester Street, S.W.—House-Surgeon. Board and lodging provided. Applications to the Honorary Secretary by September 30th.

BOROUGH OF LOWESTOFT.—Medical Officer of Health and Medical Attendant at the Sanatorium for the Urban and Port Sanitary District of Lowestoft. Salary for the Urban Sanitary District, £80 per annum; for the Port Sanitary District, £20 per annum; and as Medical attendant at the Sanatorium, £50 per annum. Applications, endorsed "Medical Officer of Health," to R. B. Nicholson, Town Clerk, Lowestoft, by September 25th.

CHELSEA HOSPITAL FOR WOMEN, Fulham Road, S.W.—Clinical Assistant; qualified. Fee, £3 3s. for three months. Applications to A. C. Davis, Secretary.

EAST LONDON HOSPITAL FOR CHILDREN, Glamis Road, Shadwell, E.—House-Physician. No salary. Board and lodging provided. Applications to the Secretary by October 5th.

LEITH HOSPITAL.—House-Physician, House-Surgeon, and Surgeon for the Out-patient Department. Appointments for six months. Salary attached to each office is at the rate of £50 per annum, with board in the hospital. Applications to the Secretary, Mr. George V. Mann, 33, Bernard Street, Leith, by September 30th.

MANCHESTER CLINICAL HOSPITAL FOR WOMEN AND CHILDREN, Park Place, Cheetham Hill Road.—House-Surgeon. Salary, £80 per annum, with apartments and board. And Honorary Assistant-Surgeon. Applications to Mr. Hubert Teague, Secretary, 38, Barton Arcade, Manchester, by September 30th.

METROPOLITAN HOSPITAL, Kingsland Road, N.E.—House-Physician, House-Surgeon, and Assistant House-Surgeon; doubly qualified. Appointments for six months. The House-Physician and House-Surgeons will each receive a salary at the rate of £60 per annum. Applications to Charles H. Byers, Secretary, by September 25th.

NATIONAL HOSPITAL FOR DISEASES OF THE HEART AND PARALYSIS, 32, Soho Square, W.—Two Clinical Assistants; doubly qualified. Applications to the Secretary by September 25th.

NEW HOSPITAL FOR WOMEN, 144, Euston Road, N.W.—Clinical Assistant for In-patient Department. Appointment for six months. Applications to M. M. Bagster, Secretary, by September 29th.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—House-Physician. Appointment for six months. Salary at the rate of £40 per annum, with board and lodging. Applications to the Secretary by September 26th.

ST. MUNGO'S COLLEGE, Glasgow.—Chair of Chemistry. Applications with thirty copies of testimonials, to the Secretary, H. Lamond, by October 2nd.

UNIVERSITY OF ABERDEEN.—Eleven Examiners for degrees in Medicine. The Examiners in Medicine and Surgery will receive a grant of £50 each, and the other nine a grant of £40 each. Applications to Robert Walker, Secretary, the University Court, by September 25th.

VICTORIA HOSPITAL, Burnley.—Resident Medical Officer. Salary, £80 per annum, rising £10 per annum to £100, all found. Applications, endorsed "Medical Officer," to Mr. Joshua Rawlinson, Hon. Sec., 7, Grimshaw Street, Burnley, by September 26th.

WARNEFORD HOSPITAL, Leamington Spa.—House-Surgeon; unmarried; doubly qualified. Salary, £100 per annum, with board, lodging, and washing. Applications to J. Warren, Secretary, by September 30th.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—House-Physician, who will be required to act as Chloroformist, Pathologist, and Medical Registrar. Salary, £100 per annum, with board. Testimonials to the Chairman of the Medical Committee, by September 25th.

YORK COUNTY HOSPITAL.—Assistant House-Surgeon; doubly qualified. Salary, £48 per annum, with board, rooms, washing, and attendance. Applications to C. E. Pinfold, Secretary, by September 29th.

MEDICAL APPOINTMENTS.

ALFORD, Henry James, M.D.Lond., M.R.C.S.Eng., reappointed Medical Officer of Health for Taunton.

AVERILL, C., M.B., B.S., M.R.C.S., L.S.A., appointed Honorary Surgeon to the Macclesfield Infirmary.

BARNES, Edgar George, M.D.Lond., M.R.C.S.Eng., reappointed Medical Officer of Health for the Hartismere Rural Sanitary District.

BARR, William Henry, L.R.C.P., L.R.C.S.Edin., reappointed Medical Officer of Health for Bury.

BRAMWELL, Hugh Ransom, M.B.Edin., M.R.C.S., appointed Honorary Surgeon to the Prudhoe Memorial Convalescent Home, Whitley, Northumberland.

CALWELL, William, M.A.Q.U.I., M.D.R.U.I., appointed Registrar to the Staff of the Royal Hospital, Belfast.

CARDELL, Dr. E. S., appointed Medical Officer for the Tonbridge District of the Tonbridge Union, *vice* A. C. Horner, L.R.C.P.Lond., M.R.C.S.Eng.

CLARKE, W. H., L.R.C.P., L.R.C.S., L.M., appointed Honorary Surgeon to the Macclesfield Infirmary.

COATES, Harcourt, L.R.C.P.Lond., M.R.C.S.Eng., reappointed Honorary Surgeon to the Salisbury General Infirmary.

COX, Roland F., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer of the Kintbury District of the Hungerford Union.

DAVISON, James, M.D.Q.U.I., M.R.C.P.Lond., appointed Honorary Physician to the Royal Victoria Hospital, Bournemouth.

DAYMAN, Barnfield, L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer for the 4th (Nursling) District of the Ramsey Union.

DOYLE, George P., M.B., C.M.Aberd., appointed Medical Officer for the No. 8 District of the Newmarket Union.

FOSBROKE, George Haynes, M.R.C.S.Eng., D.P.H.Camb., reappointed Medical Officer for the Worcestershire Division of the Eversham Union.

FULLER, Courtenay Jas., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer for the East Woolwich District of the Woolwich Union.

GOWING, Benjamin Chaston, M.R.C.S.Eng. L.S.A., reappointed Medical Officer of Health for the Penistone Urban Sanitary District.

HEY, Harold D., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer for the Buckland District of the Faringdon Union.

HOOPER, G. H., M.R.C.S., L.R.C.P., appointed Resident Obstetrical Officer at Charing Cross Hospital.

JEPHCOTT, Robert William, L.R.C.P., L.M., L.R.C.S.Edin., reappointed Medical Officer for the Alcester District of the Alcester Union.

JONES, Charles Griffith, L.R.C.P.Edin., M.R.C.S.Eng., appointed Medical Officer and Public Vaccinator for the No. 1 District of the Cardigan Union.

KELLAND, James, M.B., C.M.Edin., reappointed Honorary Physician to the Salisbury General Infirmary.

KINGSCOTE, Ernest, M.B., C.M., L.R.C.S.Edin., reappointed Honorary Surgeon to the Salisbury General Infirmary.

LAWRENCE, Sidney Cameron, L.R.C.P.Lond., M.R.C.S., appointed Resident Medical Officer at Tilt Cove, Newfoundland.

LEE, Frederick Fawson, M.B.Lond., F.R.C.S.Eng., reappointed Honorary Physician to the Salisbury General Infirmary.

LUCKHAM, Levi Stephenson, M.R.C.S.Eng., L.S.A., reappointed Honorary Surgeon to the Salisbury General Infirmaey.

MALLETT, Frederick Blakesley, M.D., L.R.C.S.Edin., appointed Honorary Consulting Physician to the Bolton Infirmary.

MARSHALL, Charles R., M.B., Ch.B.Vic., appointed House-Physician to the Royal Infirmary, Manchester.

MORSE, Edward, L.R.C.P., L.R.C.S.Edin., reappointed Medical Officer of Health for Great Torrington.

PARK, David Scott, L.R.C.P., F.R.C.S.Edin., reappointed Medical Officer of Health for the Houghton-le-Spring Urban Sanitary District.

PERN, Alfred, L.R.C.P.Lond., F.R.C.S.Eng., D.P.H.Camb., reappointed Medical Officer of Health to the South Stonham Rural Sanitary Authority.

PRITCHARD, Ernest James, M.B., C.M.Glasg., reappointed Medical Officer for the Stoke Golding Higham District of the Hinckley Union.

PULLIN, Thomas Henry Stocker, M.D.St.And., L.R.C.S.Edin., M.R.C.S.Eng., reappointed Medical Officer of Health for the Sidmouth Urban Sanitary District.

RAINIER, Norman R. J., M.R.C.S., L.R.C.P., appointed House-Surgeon at Charing Cross Hospital.

RAMAGE, Adam, L.R.C.P., L.R.C.S.Edin., appointed Medical Officer of Health for Unst.

ROGER, John, L.R.C.P., L.R.C.S., Edin., L.F.P.S.Glasg., appointed Acting Physician to the Larkhall Fever Hospital.

SANDALL, T. Edward, B.A.Cantab, M.R.C.S., L.R.C.P., appointed House-Physician at Charing Cross Hospital.

SCOTSON, F. C., M R.C.S.Eng., L.R.C.P.Lond., appointed House-Surgeon to the Royal Infirmary, Manchester.

SKIPWORTH, Herbert, L.R.C.P.I., M.R.C.S.Eng., reappointed Medical Officer of Health for the Quorndon Urban Sanitary District.

SMITH, John William, M.B., C.M.Edin., F.R.C.S.Eng., reappointed Resident Surgical Officer to the Royal Infirmary, Manchester.

SMITH, Robert Bradshaw, L.R.C.P.Edin., L.R.C.S.I., reappointed Medical Officer for the Wolvey District of the Hinckley Union.

STEELE, Jonathan, reappointed Medical Officer of Health to the Kidsgrove Local Board.

STEELE, Robert Stewart, M.B., C.M.Glasg., appointed Medical Officer for the Church Eaton District of the Cannock Union.

STEIN, Charles, M.D.Edin., appointed Medical Officer for the Workhouse of the Shipston-on-Stour Union, *vice* William Pratt, M.R.C.S.Eng.

TEW, James Scott, M.D.Durh., M.B., B.S., reappointed Medical Officer of Health for the Basford Rural Sanitary District.

TILL, George William, L.R.C.P., L.M.Edin., L.F.P.S.Glasg., appointed Medical Officer for the Third District of the Worcester Union.

WILKS, Herbert L. E., M.R.C.S.Eng., L.R.C.P.Lond., reappointed House-Surgeon to the Salisbury General Infirmary.

WILSON, Frederick, L.R.C.P.Edin., M.R.C.S.Eng., appointed Medical Officer of Health for Ramsey.

WISKEN, Henry, L.F.P.S.Edin., L.F.P.S.Glasg., reappointed Medical Officer of Health for Heywood Borough.

WOODS, George Thomas, L.R.C.P., L.R.C.S.Edin., L.F.P.S.Glasg., appointed Medical Officer for the Ripley District of the Knaresborough Union.

WYLIE, Mr. Andrew, appointed Medical Officer for the Marsden District of the Huddersfield Union.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTH.

HURRY.—On September 12th, at "Abbotsbrook," Reading, the wife of Jamieson B. Hurry, M.A., M.D.Cantab, of a son.

MARRIAGES.

DATE—ADLINGTON.—On the 14th inst., at Holy Trinity Church, Ilkeston, Derbyshire, by the Rev. J. E. H. Binney, Vicar, William Horton Date, M.R.C.S., L.S.A.Lond., of Culmstock, Devon, son of the late William Date, M.R.C.S., L.S.A.Lond., of Crewkerne, Somerset, and grandson of the late J. J. Horton, M.R.C.S., L.S.A.Lond., of Bradford Street and Moseley, Birmingham, to Margaret, second daughter of the late William S. Adlington, J.P., of Kirk Hallam Hall, Derbyshire.

MAC LEOD—HARRISON.—At St. Mary Magdelene, Stoke Bishop, Bristol, on 20th inst., by the Rev. E. Browne, assisted by Rev. A. Egerton Rose and Rev. J. R. W. Mowbray, Harold A. Brodie MacLeod, M.R.C.S., of Shrewsbury, to Katherine, eldest daughter of the late William Harrison, of Liverpool.

ROBSON—BROWNING.—At Holy Trinity, St. Marylebone, London, on the 20th inst., by the Rev. E. B. Hartley, Oswald Dykes Robson, M.A., M.B., C.M., of Somercotes, Alfreton, Derbyshire, to Minnie Sybil, youngest daughter of the late Thomas Gane Browning, A.I.C.E., Chief Surveyor of Marylebone.

DEATHS.

ARMITAGE.—On the 10th September, at Tregunter, Breconshire, Percy Tatham Armitage, Captain 1st Battalion South Wales Borderers, aged 33 years, son of S. H. Tatham Armitage, M.D., 39, Grosvenor Street, Grosvenor Square, W. Friends will please accept this intimation. Indian and Cape papers, please copy.

BASTARD.—On the 15th inst., at Haslar, Josephine Laura, widow of the late Richard Bastard, Stratford, Essex.

FARR.—On the 14th inst., at Slade House, Kennington Road, Frederick William Farr, L.R.C.P., M.R.C.S., eldest son of Dr. George Frederick and Joanna Farr, in his 33rd year. Interred in Eltham Churchyard.

MOLONY.—September 14th, at Clonmore, Tulla, co. Clare, James Molony, F.R.C.S.I., L.R.C.P.I., aged 71.

RUSSELL.—On the 14th inst., at Catherine Villa, Leith, the residence of his brother, David Russell, M.D., Vine House, Neston, aged 63 years.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

Communications for the Current Week's Journal should reach the Office not later than Midday Post on Wednesday. Telegrams can be Received on Thursday Morning.

Communications respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters non-delivery of the Journal, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

In order to avoid delay, it is particularly requested that all letters on the editorial business of the Journal be addressed to the Editor at the Office of the Journal, and not to his private house.

Authors desiring reprints of their articles published in the British Medical Journal are requested to communicate beforehand with the Manager, 429, Strand, W.C.

Correspondents who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

Correspondents not answered are requested to look to the Notices to Correspondents of the following week.

Manuscripts forwarded to the Office of this Journal cannot under any circumstances be returned.

Public Health Department.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* British Medical Journal *are devoted will be found under their respective headings.*

QUERIES.

J. M. R. would be glad to know of the existence of a home for inebriate females of the cottager class in Scotland.

R. P. asks for advice in the treatment of the following case: A lady, aged 27, who has resided in Bermuda for twelve or thirteen years, suffers from swelling of the upper lip, which began five or six years ago, and at first was only marked during menstruation. There is now sufficient permanent hypertrophy to cause considerable disfigurement. He wishes advice as to whether surgical operation for the removal of a V-shaped portion would be advisable.

C. W. writes: I am M.R.C.S.Eng., L.R.C.P.Lond. I am thinking of going to Paris to study for the M.D.Paris. Would it be correct to put "Dr." on my doorplate in England after obtaining the M.D.Paris?

*** We believe that there would be no objection to the use of the prefix "Dr." under the circumstances named, but that it is undesirable to use the letters M.D. after a name without designating the source from which the degree, if unregistrable in this country, as the M.D. Paris is, was obtained.

Medical Practice in Italy and Switzerland.

M.D. would be pleased if he could procure through the medium of the British Medical Journal any information and hints respecting the prospects of making a moderate income by a practice in Italy or Switzerland, where the holder of a British M.D. degree is allowed to practise among British patients.

Deaths from Drowning.

H. R. writes to ask what is considered by competent authorities to be the cause of drowning in good swimmers. It is generally attributed to cramp, but he makes the observation that he has himself frequently suffered from cramp, and has, nevertheless, always been able to keep himself afloat.

*** So far as we have been able to ascertain there is nothing positively known on this point, and the most competent authorities appear to be least disposed to express a decided opinion. Probably the cause of death is not the same in all cases.

Hyoscyamus in Pregnancy.

H. D. asks whether tincture of hyoscyamus in 20-minim doses is an improper drug to give a pregnant woman, and whether it is likely to produce abortion in a woman four to five months' pregnant.

*** We can come across no evidence that hyoscyamus is an improper drug to give under such circumstances. The dose of the tincture is given in English textbooks as ½ to 1 drachm, and Bartholow gives the maximum dose as ½ ounce. With regard to the physiological action of hyoscyamus, small doses act as a cardio-vascular tonic, and produce slight rise of blood pressure, but large doses lower blood pressure, which is in part due to a great dilatation of the abdominal blood vessels. Its action on the nervous system would also afford no hint of danger during pregnancy, as it causes characteristic sedation of the lower spinal centres, by virtue of the hyoscine contained in the tincture.

French Brandy: What it is.

W.S. writes: As many leading practitioners are still in the habit of ordering brandy to their patients, the following extract from the letter of a French physician may prove of interest; at any rate, the subject is worthy of inquiry. If the brandy we order is merely rectified spirits coloured and flavoured, may we not as well order it in medicinal doses unaltered from our own chemists and druggists? For myself I have long ceased to prescribe brandy in favour of whisky, which, perhaps will soon become as difficult to buy good:

"It is very difficult to find natural brandy in France, for since ten years ago they scarcely distil any from wine. As for cognac, it is nearly impossible to procure any, because all the vines are dead in the Charente Inférieure, where they made it. All that they sell to you is made with rectified alcohol, to which is added sufficient of the old true cognac to perfume and flavour it, and which they afterwards colour to make believe it is old brandy. The old-time brandy is used only to doctor the new cognac which they sell now."

Will some of your correspondents give their opinion of the comparative merits of the remaining spirits—whisky, rum, and gin—in purity and adaptability as stimulants in illness; whether there is any *liqueur* which might be usefully adopted as a medical stimulant; whether any of the other vine-growing countries, and especially Australia, distil brandy from pure wine?

*** The facts as to French cognac which our correspondent mentions are notorious, but it is probable that in course of time the enormous difficulties which French vineyard proprietors have had to encounter owing to a succession of pests, which have ruined the vines over immense tracts of country and reduced whole populations to poverty, will be overcome. Everything which scientific investigation and viticultural experience can do is being done. Our correspondent will find much interesting information in an article by M. le Vicomte Antoine de Saporta, on Le Congrès Viticole de Montpelier, in the *Revue des Deux Mondes* of August 1st, 1893. Meanwhile the failure in France has stimulated other wine-producing countries, and we noticed in the British Medical Journal of July 2nd, 1892, page 24, a brandy distilled by a firm of Port Melbourne, Victoria, and sold in this country. We believe that Australian brandy can also be obtained from other importers. Of course in this as in other cases the warning *caveat emptor* applies. We believe it to be the fact that at present most of the Australian brandy in the market is too young, but this is, of course, a drawback which will soon cease.

Indian Medical Service.

Inquirer writes: I shall be glad if you will kindly inform me whether there is any way by which a lad, destined by his parents for the Indian Medical Service, can ascertain his physical fitness before entering upon the long and expensive curriculum. In the absence of any such way, can you state whether a lad, otherwise perfectly sound, but who has scars on his neck of an abscess during infancy, would be rejected?

*** It is impossible to anticipate the decision of the Medical Board Scars on the neck would probably not disqualify if the health and physique were otherwise satisfactory. A moderate degree of myopia and hypermetropia (up to 5 D + or −) would not disqualify.

ANSWERS.

E. L. R.—There is no doubt that the questions connected with the power of pathogenic organisms to live in media outside the body of warm-blooded animals is one of great scientific interest and practical importance; it is one to which attention is given by most bacteriologists, but there is no doubt that much remains to be done. We would advise our correspondent to use his influence to further the movements now on foot to establish a British Institute of Preventive Medicine.

Books for Practitionres.

D. N. M.—The following works would probably meet our correspondent's requirements:—Galabin's *Diseases of Women*, Goodhart's *Diseases of Children*, Taylor's *Practice of Medicine*, Crocker's *Diseases of the Skin*.

Dislocation of the Patella.

Dr. John Ormsby (Dover) writes: The grating which "Splint" feels is caused by lymph deposited on the back of the patella, and on the corresponding surface of the head of the tibia, the result of the previous inflammation. If he will strap the knee with thin white leather, spread with soap plaster, and let it be worn for three months, the patient taking moderate exercise, I can assure him he will completely cure the case.

Conjoint D.P.H. Examination.

W. E. R. asks what textbooks he should read for the D.P.H. examination. If he refers to the British Medical Journal for September 2nd, 1893, he will find that this subject is discussed on page 539, and a list of books which should be read or consulted is there given. The book he mentions will give him a good idea of the outlines of the subject, but he cannot possibly expect to satisfy the examiners if he confines his attention to that or to any other single book.

Condemnation of Unsound Meat.

S. C. B.—We have already referred to the ruling of the clerk at the Southwark Police Court—in which the learned magistrate, Mr. Slade, acquiesced—that, before unwholesome food can be condemned by a magistrate, it must be brought before him at his court. Whether the clerk or the magistrate is to regulate the conduct of the proceedings in a police court is a matter which does not greatly concern the public, as long as the law there administered is fairly correct and accords with common sense. In this instance the result of the clerk's ruling was that five scavengers' carts, filled with offensively putrid herrings, were drawn through the streets of the Borough to the police court, in order that the magistrate might at once condemn them to be destroyed. The practice so required by the clerk may be that in force in Southwark, but fortunately it is not universal. It is inconvenient, dangerous to the public health, contrary to common sense, and not prescribed by law. The Public Health London Act, passed long after the general Public Health Act, 1875, and after numerous decisions illustrating its meaning had been given, differs in its wording from the earlier Act as

regards the seizure and condemnation of unsound food, so as to avoid difficulties which had arisen in practice. The learned London magistrates ought, therefore, to have less trouble than their unlearned brethren in the country. But under the general Act of 1875 there is no necessity for bringing unsound food before a court of summary jurisdiction, or before a magistrate in court. The Act requires that the food, when seized, shall be brought before "a justice," but does not say "in his court;" and its requirements are satisfied if the justice goes to view or smell the article seized. This is common sense, for the more obviously bad the food may be the greater the nuisance and risk to the public of bringing it into the proximity of a crowded court. If criminal proceedings are taken against the owner of the food seized, they must, of course, be conducted in court according to ordinary rules; but the preliminary process of condemnation should be managed as promptly and as quietly as possible.

GAS STOVES.

W. W. HARDWICKE, M.D. (East Moulsey) writes: In reply to Dr. Rentoul, I would recommend him to apply to the gas works, which are only too glad to supply a suitable gas stove. They will probably supply him with one of Fletcher, Russell, and Co.'s stoves, as they are the best. I would not recommend him to have a gas stove at all unless there is a chimney (not otherwise used) available into which he can insert his flue for the products of combustion to escape, and make sure of no down draught. Let him also utilise as much of the chimney piping in the room as possible before passing into the chimney itself, so as to obtain as much heat as possible within, at the same time obtaining a better draught. The flue must not pass straight into the open air (as a rule this does not act). For a small room, such as a waiting-room (about 12 feet square), pattern "S. 2," price 23s., is the best; for a larger room (up to 14 feet square) the "Hong Kong" is the best, price 31s. 6d., provided the shape is suitable for his present grate; this he will easily see by either looking through Fletcher's Catalogue or calling at their show rooms. I would not recommend him anything smaller or cheaper than these. I have both these in use, besides "B R 12" in my drawing-room, and they act admirably, saving a great deal of trouble and dirt. The latter stove, when in use, costs me 1d. per hour.

NOTES, LETTERS, Etc.

ERRATUM.—The name of the Secretary of the School of Medicine, Edinburgh, ought to have been given in the BRITISH MEDICAL JOURNAL of September 2nd as R. N. Ramsay.

RETREATS FOR INEBRIATES.

DR. ALFRED F. STREET (Tower House, Westgate-on-Sea) writes: Will you kindly allow me to state the Retreat at Westgate-on-Sea, the licence of which was not renewed last year, was not the Tower House Retreat, as I find that the press notices of the inspectors' annual report have misled very many persons on this point?

A DOCTORLESS COMMUNITY.

NUNQUAM UNPARATUS writes: I have read with interest the letter of Dr. Greenwood on the above subject and would suggest the following means of remedying the state of matters which he describes. 1. That the services of a nurse from the Victoria Jubilee Institute be secured. There can be no reasonable doubt that a capable nurse who was well up in her work would be a great boon to such a community, and more especially if she had been trained in a maternity as well as in a general hospital. 2. That one of the Presbyterian denominations should take it up as a field for a medical missionary. It might form a good sphere of training for such before being sent to more distant parts of the world. In both cases the appointment to be held for a limited period.

SWEARING WITH UPLIFTED HAND.

Mr. ROBERT J. W. OSWALD, M.R.C.S., L.R.C.P. (Clapham Road, S.W.), writes: At the last inquest at which I was summoned as a medical witness I requested to be sworn with uplifted hand, in accordance with the circular issued from the Home Office. The Coroner (Mr. Braxton Hicks) made not the slightest demur, but merely asked if I wished to be sworn in the Scotch fashion. He then requested me to repeat the oath after him. The jury, however, seemed to regard me rather doubtfully.

TREATMENT OF RETROVERSION OF THE GRAVID UTERUS.

DR. HENRY TAYLOR (Guildford) writes: In Dr. C. E. Purslow's paper on the treatment of retroversion of the gravid uterus, read at the late meeting of the British Medical Association, and reported in the BRITISH MEDICAL JOURNAL, I am surprised to find no mention made of a plan for rectifying such displacement by the introduction of an india-rubber bag into the rectum, which is then to be distended with water, so as to exert pressure on the fundus uteri. Having practised this manœuvre in two severe cases of retroversion with instant and complete success, I venture to recommend it as superior to the methods enumerated in Dr. Purslow's paper, in all cases where the displacement has existed long enough to produce incarceration. No chloroform is needed in the operation. The patient should be placed on her knees and elbows, the bladder having been previously emptied by the catheter. One of Barnes's large bags, well oiled, should be passed into the rectum with two fingers following, so as to carry it up to the projection caused by the uterine fundus, and as soon as the bag is fully distended with water, or even before, the displacement will be removed at once, and it may be with a noise audible to the patient. It fell to my lot to apply this treatment to a woman on two occasions at an interval of several years, after various attempts at reposition of the uterus had been made by her ordinary medical attendant. In slighter cases in which the retroversion was discovered early, I have had no difficulty in replacing the organ by position and pressure with two fingers introduced into the rectum. In no case have I seen occasion to insert a ring pessary to prevent a recurrence of the displacement. I make no claim to originality in the above treatment, as I have no doubt that I borrowed the idea from some source which I have now forgotten.

TREATMENT OF WASP STINGS.

MR. CLEMENT POUND (Odiham, Hants) writes: On August 15th I was called, in a great hurry, to see a woman, two miles and a-half from my house, of whom it was reported that, whilst drinking in a dark cellar of some "sugar beer," she was stung on the tongue by a wasp which was lurking in the top of the barrel and was washed into the glass she was using; that the tongue had swollen enormously and was protruding, and that the neighbours thought she would suffocate before I got there. I was rather nonplussed what to take with me, and could not get ice. However, I took, amongst other things, tannin and glycerine, and got to the place in twenty minutes, and, to my great delight, found no difficulties, as the same messenger who came for me had called the husband, and he had at once filled her mouth as full as he could get it with sliced raw onion, and this was rapidly reducing the swelling, and, before I left the house, which was not more than a quarter of an hour, the tongue was normal in size, and nothing more than a little stiffness was experienced. The woman assured me that the wasp stung her on the dorsum of the tongue. This seems to me a very useful "tip" in these cases, which, if the doctor lives some little distance from his patient, may assume dangerous proportions before he can arrive.

LETTERS, COMMUNICATIONS, ETC., have been received from:

(A) Mr. J. Affleck, Manchester; Mr. L. E. Aitkens, Penmaenmawr; Dr. D. E. Anderson, Paris; C. Averill, M.B., Macclesfield; Alienist. **(B)** Beta; Dr. W. S. Battiss, London; F. L. H. Brown, M.B., Coventry; Mr. T. M. Baker, Yarmouth; Mr. C. F. Beadles, London; J. M. Barbour, M.B., London; Mr. W. H. Booth, London; Mr. R. Brown, Bad Kissingen; Dr. E. G. Barnes, Eye; H. R. Bramwell, M.B., Whitley; Mr. R. A. Barnes, Dublin; E. C. Beale, M.B., London; Mr. J. W. Batterham, St. Leonards. **(C)** Dr. W. H. Corfield, London; C. W.; A. T. Campbell, M.B., Glasgow; Messrs. J. Canton and Co., London; Mr. W. Cox, Winchcomb; Dr. F. Clemow, Cronstadt; Mr. E. G. Clarke, Walton; F. J. W. Cox, M.B., Manchester; Mr. A. Cosgrave, Bolton-le-Moors. **(D)** Mr. W. H. Date, Ilkeston; Mr. A. V. Davies, Manchester; Dr. A. Duke, Cheltenham; Mr. L. Demetriadi, Huddersfield; De Ruda. **(E)** The Hon. M. Erskine, London; Enquirens. **(F)** Messrs. Firth and Co., London; Franc Ander; Mr. E. Farr, London; Mr. J. F. Fry, Shepton Mallet. **(G)** Dr. J. Griffiths, Cambridge; Mr. L. D. Graham, Walmer; Messrs. R. W. Greeff and Co., London; Mr. T. H. Gillam, Bromyard; J. Gloster, M.B., London; Dr. C. Gorman, Dublin. **(H)** A. J. Harrison, M.B., Clifton; W. Hardman, M.B., Blackpool; Dr. A. J. Harries, London; H. P. B.; Mr. S. Hillier, Newport; Dr. W. W. Hardwicke, East Molesey; Mr. R. Harrison, London; H. R. H. **(I)** Inquirer; Dr. C. R. Illingworth, London. **(J)** J. M. R. **(K)** Dr. N. Kerr, London; Dr. W. M. Kelly, Taunton. **(L)** Mr. H. K. Lewis, London; Mr. C. J. Lathbury, Dunstable; Mr. H. Liston, Sunderland. **(M)** M.O. (Lancs.); Mr. J. H. Murray-Aynsley, Christchurch, N.Z.; Mr. N. S. Manning, Ilfracombe; Dr. H. W. G. Mackenzie, London; Dr. E. Mackey, Brighton; Dr. J. McCaw, Belfast; Dr. C. Munro, Paisley; Dr. G. B. Mead, Newmarket; M.D.; W. C. Murray, M.B., Barrhead; R. H. Marshall, M.B., Manchester; Dr. A. Mitchell, London; D. N. Macfarlane, M.B., Tiree; Mr. J. McMunn, London; Messrs. Merryweather and Sons, London; Medical Officer; W. W. Millard, M.B., Edinburgh. **(O)** Mr. R. J. W. Oswald, London; Dr. J. Ormsby, Dover; Mr. E. M. H. O'Connor, Market Deeping; Mr. C. M. O'Brien, Dublin. **(P)** Mr. H. J. Prangley, London; Dr. J. Priestley, Leicester; W. M. Parham, M.B., Brecon; W. R. Parker, M.B., Kendal; Mr. C. Pound, Winchfield; J. Pollock, M.B., Eaglesham; Mr. C. E. Pinfold, York; Dr. F. L. Phillips, Birmingham; Pyramid. **(R)** Mr. T. E. Rice, Cosham; Mr. H. F. Russell, Nesden. **(S)** H. R. Sloan, M.B., Galashiels; Dr. W. Sykes, Gosport; Senex; Dr. F. Stockwell, Bruton; Surg.-Maj. A.M.S.; Mr. A. L. Smith, Bristol; Dr. C. S. Sherrington, London; Surg.-Gen.; Miss Stacey, Birmingham; Septem. **(T)** Dr. J. Tatham, Manchester; Mr. J. Tucker, Chulmleigh; Mr. H. Taylor, Guildford. **(W)** Mr. W. Williams, Dublin; Mr. W. R. Willey, Doncaster; Dr. G. E. Williamson, Newcastle; Dr. A. E. Wright, Netley; Dr. F. Warner, London; Dr. F. J. A. Waring, Brighton: Dr. T. S. Wilson, Birmingham; Mr. W. Wingrave, London; Mr. G. G. D. Willett, Keynsham; Dr. R. C. Wakefield, London. **(X)** X.Y.Z.; etc.

BOOKS, ETC., RECEIVED.

Outlines of Practical Hygiene. By Dr. C. G. Currier. New York: E. B. Treat. 1893.

An Examination of Weismannism. By G. J. Romanes. London: Longmans, Green, and Co. 1893. 6s.

The Essentials of Chemical Physiology. By Dr. W. D. Halliburton. London: Longmans, Green, and Co. 1893. 5s.

A Handbook for Mothers. By Dr. Jane H. Walker. London: Longmans, Green, and Co. 1893. 2s. 6d.

The Microtomist's Vade Mecum. By A. B. Lee. London: J. and A. Churchill. 1893. 14s.

Abnormal Man. By Arthur MacDonald. Washington: Government Printing Office. 1893.

Songs in Spring Time; the Passing of Lilith, and other Poems. By J. C. Grant. London: E. W. Allen. 1893. 2s.

*** In forwarding books the publishers are requested to state the selling prices.

SIXTY-FIRST ANNUAL MEETING

OF THE

BRITISH MEDICAL ASSOCIATION

Held in NEWCASTLE-ON-TYNE August 1st, 2nd, 3rd, and 4th, 1893.

SECTION OF MEDICINE.

W. M. Ord, M.D., F.R.C.P., President, in the Chair.

THE PATHOLOGY AND DISTRIBUTION OF ATROPHIC PARALYSES.

By DAVID FERRIER, M.D., F.R.S.,

Professor of Neuropathology, King's College, London; Physician to King's College Hospital, and to the National Hospital for the Paralysed and Epileptic.

For the purposes of this discussion we may divide paralyses into two groups: first, paralysis without muscular degeneration; secondly, paralysis followed by or dependent on the degeneration of the muscular fibres. It is to the characters and distribution of the second group alone that I wish to direct your attention to-day.

As the subject is a large one, and the time at my disposal short, I must content myself with dwelling on only a few of its aspects, with the special view of eliciting discussion, and without any pretence to thoroughness of treatment.

At the risk of appearing elementary, I will first remind you of the anatomical relations of the muscles to the nerve centres. The path of motor innervation from the cortex cerebri to the muscle is composed of two distinct segments—namely, the pyramidal cell with its dendritic or protoplasmic processes, and its centrifugal or axis cylinder process which courses along the pyramidal tract of the spinal cord; and, secondly, the spinal multipolar cell, with its dendritic or protoplasmic processes, and its axis cylinder or centrifugal process which ends in the muscular fibre. These two segments of the motor path are quite distinct, and have no direct connection with each other. It has been shown by recent histological investigations by Golgi's method that the pyramidal axis cylinder process ends in an arborescence which merely comes in contact with the spinal cell, or interlaces with its dendritic or protoplasmic processes. The relation, therefore, is one of contiguity only, and not of continuity. The axis cylinder of the spinal cell also ends in an arborescence which establishes a relation of contact with the proper muscular tissue. Destruction of the pyramidal cell or section of its centrifugal process will cause paralysis of the muscular fibre by abolishing the transmission of impulses to the spinal cell, and, in addition, the pyramidal process dies throughout its whole length, for the life of this process depends on the cells, of which it is merely a prolongation. The degeneration, however, as a rule, stops at the terminal arborescence, while the spinal cell, with its dendritic and neural processes, retains its integrity. In such case there is paralysis of voluntary motion, but no degeneration of the muscle. The case, however, is otherwise when the spinal segment of the motor path is the seat of lesion. Destruction of the spinal cell necessarily entails the death of its axis cylinder prolongation, and with this that of the muscular fibre to which it is distributed. The life of the muscular fibre appears, therefore, to be dependent on that of the spinal segment. The muscular fibre, however, is phylogenetically a distinct structure from the nerve cell and its axis cylinder process. The muscle is derived from the mesoderm, while the nerve cell, with its process, is an evolution of the ectoderm; and it has been shown conclusively by the recent observations of Leonowa[1] that the normal nutrition and development of the striated muscle in the embryo is entirely independent of the anterior cornua and motor nerves; for in a case of amyelia which he has recorded, in which there was total absence of the anterior cornua and anterior nerve roots, the striated muscles were free from all signs of abnormality. Considered, therefore, from an evolutional point of view, it is probable that the muscular fibres may be subject to anomalies of development and nutrition altogether irrespective of the central nervous system. Theoretically, therefore, we may have muscular degeneration or atrophy either from lesion of the multipolar cells of the anterior cornua, or, from what is practically the same thing, lesion of the motor nerves, or from conditions primarily affecting the muscular fibres themselves. Thus we may have what has been termed myopathic, neuropathic, or myelopathic amyotrophy, according as the primary lesion is in the muscles, the nerves, or anterior cornua, or these different forms more or less combined with each other.

There is, however, a certain portion of the spinal segment which has not always received the attention which its importance deserves; I allude to the dendritic processes and their relations with the terminal arborescence of the pyramidal and other fibres. It is probable, as Schäfer suggests,[2] that the cell body with its nucleus is primarily concerned in the nutrition of the motor nerve and its correlated muscular fibre, while the dendritic processes serve to convey incitations to functional activity. Lesions, therefore, of these processes may cause paralysis having all the features of a spinal paralysis, but without the muscular degeneration which ensues when the cells themselves are destroyed.

From affections of the dendritic processes alone, or terminal arborescence of the pyramidal fibres we may have paralysis more or less limited to distinct muscular groups, but without atrophic degeneration or alteration in the electrical reactions. This undoubtedly occurs in the course of syringomyelia dependent on gliomatous infiltration of the root zones, and central grey matter. And it is not improbable, as has also been suggested by Gowers,[3] that a lesion of this character, even though not demonstrable *post mortem*, is the basis of Landry's, or "acute ascending paralysis," in which, though there may be complete paralysis of the central type, the muscles neither waste nor exhibit any degenerative reactions. This view of the pathology of Landry's paralysis appears to me to harmonise better with the clinical facts than the polyneuritic origin which has been so ably advocated by the late Dr. James Ross.[4]

Myopathic Muscular Atrophy.

Of the atrophic paralyses of myopathic origin there are several distinct clinical types. These have all been classified together by Erb under the term "progressive muscular dystrophy."

The first of these is the well-known pseudo-hypertrophic paralysis, the pathognomonic attitude, gait, and features of which are so familiar to you all as not to need further description. Another is the type termed hereditary muscular atrophy of Leyden and Moebius, in which there is progressive atrophy and enfeeblement, beginning in the lower extremities, especially the calves, and pursuing an ascending course to the thighs and lumbar muscles, and only after many years attacking the shoulders and upper limbs. The third is the type termed by Erb juvenile muscular atrophy, which principally affects the muscles of the shoulder girdle and upper arm, but may extend also to the lower extremities. It is not infrequently associated with true hypertrophy of some muscles and pseudohypertrophy of others. Lastly, we have the Déjerine-Landouzy type, in which the disease begins in the muscles of the face, and gradually extends to those of the shoulder girdle and upper arm, constituting what has been termed the facio-scapulo-humeral type. To the same category some have referred the Charcot-Marie type, or "peroneal type of muscular atrophy" (Tooth), but the position of this type among the amyotrophies is still a matter of dispute, and deserves a separate consideration. Among the various types which have been described as belonging to the primitive myopathies there are so many points of resemblance and so many transitional forms, that it is more than probable, as Erb points out,[5] that they are only different manifestations of one and the same disease. They all agree in their slow progress; in their commencement in childhood or early adolescence, and only rarely in later years; they are all hereditary, or occur in more than one member of the same family. The disease may show itself first in the facial muscles, or in the muscles of the shoulder girdle, or those of the pelvis and lower extremity, and exhibits a tendency to affect essentially

the same group of muscles in all. The facial type is frequently associated with the scapulo-humeral or Erb's type, and it occasionally occurs in connection with pseudo-hypertrophic paralysis or the infantile type of Leyden; and the pseudo-hypertrophic paralysis of the lower extremities may be combined with the juvenile form in the upper; or a form which has begun with the features of pseudo-hypertrophic paralysis, may at a later date assume that of the juvenile form. Cases also occur in which it is impossible to say to which type they belong, as they partake more or less of the characters belonging to all. Further, the different types may all occur in members of the same family. The affected muscles alter in volume; some exhibit diminution, others exhibit increase, due either to true hypertrophy of the muscular fibres, or to a false hypertrophy dependent on increase of the connective tissue and deposition of fat. They are further characterised by diminution of mechanical and electrical excitability, by the absence of the reaction of degeneration and by the absence of fibrillary twitchings. There is a gradual extinction of the tendon reflexes, and a tendency to distortion of the limbs consequent on shortening of the affected muscles. There is no tendency to implication of the bulbar muscles.

It has been generally considered that in myopathic atrophy, the primary change is in the intersitial tissue, and that the atrophy of the muscular fibres is only secondary to the exuberant hypertrophy, or hyperplasia with lipomatosis, of the connective tissue. The investigations of Erb, Roth, and others have, however, furnished strong evidence in favour of the disease being primarily of the muscular fibre: the change in the connective tissue being only secondary. There is first a true hypertrophy of the muscular fibre. It has been questioned by Gowers whether a hypertrophy *intra vitam* can be demonstrated by the harpoon method, inasmuch as the irritation necessarily associated with the process of removal naturally leads to a contraction which has the appearance of hypertrophy. But inasmuch as the hypertrophy is indicated not merely by relative size, but also by nuclear proliferation, fissures, and divisions, such as are seen in portions removed after death, there appears no reason to doubt the reality of its existence. Following the hypertrophy of the muscular fibres, there is a slight increase and nuclear proliferation in the connective tissue. Sooner or later fat cells develop in this, so as to constitute a distinct lipomatosis.

The subsequent changes are a total disappearance of the muscular tissue, and atrophy with great reduction of the original volume of the muscle; or, on the other hand, an exuberant lipomatosis, so that the muscle retains its normal bulk or greatly exceeds it. According to Roth,[6] the changes begin at the ends of the muscles, the tendinous structures advancing as the muscular fibres proper disappear.

As a rule, recent investigation has discovered no morbid appearances in the anterior cornua or motor nerves, either in pseudo-hypertrophic paralysis, juvenile muscular atrophy, or in any of the other forms of myopathy; and the probability is that such changes as have been described by some investigators have been consecutive to the muscular atrophy rather than its cause. That such changes may occur in the nerve centres merely as a consequence of functional inactivity of the muscles has been proved both experimentally and by clinical observation.

And yet the absence of morbid appearances in the anterior horns is not considered by Erb to militate against the hypothesis that the primary origin of the disease is in reality myelopathic—a tropho-neurosis whose outward expression is a muscular dystrophy, while the condition itself on which it depends does not reveal itself in gross anatomical changes. It seems a large assumption that a mere dynamical affection of the anterior cornua should result in such profound anatomical changes in the muscles, without any obvious signs of degeneration in the motor nerves in any part of their course. And among other objections to the myelopathic theory, Roth urges that the morbid changes in the muscle are distributed in such a manner as cannot well be reconciled with any peripheral distribution of the nerves; for in the same bundles may be found all varieties of fibres, atrophied, hypertrophied, or normal, indicating degrees of resistance of the individual fibrils which it is hard to reconcile with nerve influence; for presumably all the fibres innervated from the same cell or cell group would undergo the same change. Further, we should expect that the same muscles would be implicated in functional as in organic lesions of the respective segments of the spinal cord. It is, however, characteristic of myelopathic atrophy, beginning with changes in the upper portion of the cervical enlargement, that the deltoid is particularly affected, and in combination with the flexors of the forearm and supinator longus. Yet in the juvenile myopathic form the deltoid is, according to my own observations, either not affected at all when the other muscles with which it is associated are already far advanced in atrophy, or is at most the seat of a transitory and often illusory hypertrophy. This want of correspondence between the distribution of the atrophy in the myopathic form and that which we know to be dependent on spinal lesion is to my mind a grave objection against the nervous origin of this disease. Neither organically nor dynamically have we good reason for attributing this affection to nerve influence. But we have not yet arrived at any satisfactory explanation of the primary affection of the muscles, or why certain muscles should be attacked in preference to others. The early commencement and familial or hereditary character of these various affections are regarded as pointing either to some primary fault in the ovum (Roth), or in the development of the muscle plates (Gradenigo, Babinski and Onanoff). But the whole subject is still in need of further elucidation.

Neuropathic Muscular Atrophy.

Let us now pass to the consideration of the second group of trophic paralyses, namely—those which depend on lesion of the peripheral nerves. If, as we have assumed, the normal nutrition of the muscle depends on the integrity of the multipolar cells of the anterior cornua, the result *quâ* the muscle is the same whether we destroy the multipolar cells or merely sever the muscle from its connection therewith. It is not my intention on this occasion to discuss the question whether there are special trophic centres as distinct from those concerned with functional manifestations. The fact alone need be stated that after separation from the anterior cornua the muscles not only become functionally inactive, but also undergo degeneration. The muscular fibres diminish in size, lose their transverse striation, become cloudy, granular, or vitreous, while the nuclei of the sarcolemma and interstitial tissue proliferate and increase. Between total and partial interruption of the continuity of the axis cylinders there are all grades of degeneration, from simple atrophy of the muscular substance to its total disappearance. The degenerative changes in the nerves and muscles exhibit themselves in alterations in the response to electrical stimulation, varying from mere quantitative modification up to the well-known total inversion of the normal formula constituting the so-called "reaction of degeneration." It is scarcely necessary to dwell on the characters and distribution of atrophic paralysis dependent on lesion of any particular motor nerve or nerve trunk, whether caused by injury or disease. Those muscles become paralysed and atrophied which derive their motor supply from the nerve trunk in question, and the determination of this is merely a question of applied anatomy; but between total and partial block of a nerve trunk there are certain differences which have an important bearing on the distribution of paralysis due to general or diffuse affection of the peripheral nervous system. Thus, in cases of pressure upon a nerve, not all the functions ministered to by this nerve, and not all the muscles innervated by it, are equally affected. It is well known that the sensory functions of a mixed nerve suffer less than the motor under such conditions; hence motor conduction may be entirely blocked while the transmission of sensory impulses may be comparatively free; and there are also differences in the relative degree of impairment of the somatic and splanchnic fibres of the same nerve. Thus, in cases of lesion of the musculo-spiral nerve above the origin of the nerves of the supinators, it is not unusual for the supinator longus to escape, while the extensor muscles of the wrist and fingers may be entirely powerless, or some suffer more than others.

Similarly also in the paralysis not infrequently occurring during parturition, and due without doubt to pressure on the

lumbo-sacral plexus, the paralysis specially manifests itself in the anterior tibial muscular group, or those supplied by the external popliteal nerve. But perhaps the most instructive illustrations of this principle are the phenomena of disease of the recurrent laryngeal nerve. In cases of pressure on the recurrent laryngeal nerve, as Semon has conclusively demonstrated, the first muscles to become paralysed and undergo degenerative atrophy are the posterior crico-arytenoids, or the abductors of the vocal cords.[7]

Parallel with this, and in all probability of the same signification, is the fact that the nerves of these muscles, first of all those included in the recurrent laryngeal, lose their excitability when the nerve is cooled (Fraenkel and Gad), from long-continued exposure during life (Risien Russell), or after death (Horsley and Semon). The phenomena cannot be explained by any more exposed position of the abductor fibres as compared with the adductors, for, as Russell has shown, the fibres of the adductors lie on the inner, or tracheal, side of the nerve. The only satisfactory explanation seems to be that the abductor fibres succumb soonest to a destructive lesion affecting all the fibres of the recurrent laryngeal in common. These facts appear to me only particular illustrations of a general law which some years ago I endeavoured to establish in connection with the symptoms of lead-poisoning and peripheral neuritis."

Many forms of atrophic paralyses which were formerly classified with those of poliomyelitic or myelopathic origin are now referred, on better evidence, to a primary peripheral or polyneuritis. The numerous investigations of recent years have shown that as the result of certain poisons introduced into the system, of which the most important are lead, arsenic, and alcohol; or as the result of specific organisms or their products, as in diphtheria, beri-beri, and certain forms of malaria; as well as under other conditions and states of the blood, the nature of which is not in all respects clear, there is developed a degeneration, or parenchymatous inflammation, of the peripheral nerves, of a more or less general character, but falling with special incidence on certain nerves, and producing symptoms many of which are common to all forms, as well as others special to each. In this relation I would specially mention the experimental researches of Gombault[8] on the results of long-continued administration of lead salts to guinea-pigs. Though no special paralytic symptoms were developed, yet the nerves of the limbs more especially exhibited a parenchymatous degeneration, which from its appearance and character he termed a segmentary periaxial neuritis. At various points in the nerve fibres there was degeneration of the myelin in different stages of progress or restoration. A careful research of a similar character has been recently made by Dr. Sidney Martin[10] on the effects of the introduction into the system of minute doses of the toxic albumose developed by the specific organism of diphtheria. He found indications of a widespread parenchymatous degeneration of the peripheral nerves, cerebral, spinal, and visceral, while the anterior cornua were free from all discoverable lesion.

One of the chief characteristics of multiple neuritis, however induced, is that the affection of the nerves, whether sensory or motor, is symmetrical. In the limbs the motor symptoms show themselves first as a weakness or paralysis, more particularly of the extensors of the toes and dorsal flexors of the feet, and of the extensors of the fingers and wrist, simultaneously or consecutively. But in severe cases the atrophic paralysis is of a much more extensive character, and may invade almost every muscle in the body. Special peripheral nerve poisons have also special affinities for certain muscles, to some of which I will refer below.

With the motor symptoms are conjoined sensory symptoms, which vary, however, considerably in different forms. These consist mainly in perversion or diminution of cutaneous sensibility, together with pain and tenderness in the muscles and in the course of the nerve trunks. The morbid appearances are more especially marked in the distal extremities of the nerves; while, as a rule, the anterior and posterior roots, as well as the anterior cornua have been for the most part free from lesion. This, however, is not always the case, and morbid changes have been discovered in the nerve cells of the anterior cornua as well as in the brain, from the action of many at least of the poisons which are efficient in developing peripheral or multiple neuritis. It is therefore a question whether the primary origin of the parenchymatous neuritis may not be a functional or dynamical condition of the anterior horns. This is the view favoured by Erb. It seems equally difficult to prove or disprove the existence of such a condition; but there are several facts which would favour this hypothesis. Among others may be mentioned an interesting experiment by Raymond.[11] Raymond found that when a slight or superficial myelitis had been experimentally established in animals, after a lapse of many months, when all traces of myelitis had entirely disappeared, the peripheral nerves related to the segment injured were nevertheless profoundly altered. Assuming that no injury had been inflicted on the roots themselves during the operation, this would speak in favour of a mere dynamical condition of the grey matter as predisposing at least to alterations in the peripheral nerves. But even if we grant that a dynamical disturbance of this kind may predispose to peripheral nerve degeneration, and more especially in the most distal ramifications, that is, in the parts farthest removed from the centres of nutrition, yet it would appear in the highest degree improbable that this alone could account for the active signs of degeneration not infrequently found in the peripheral nerves, without the co-operation of some cause acting directly on the nerves themselves. And when it is considered that the morbid process attacks not only motor but sensory nerves, it seems impossible to explain these facts by purely dynamical disturbance of the anterior cornua. Against the poliomyelitic origin of the extensor paralysis so characteristic of the action of lead, alcohol, etc., is the fact that the extensors are represented in the spinal segments along with other muscular groups, so that a separate picking out of the extensor nuclei by a myelitic process is far from likely. *A priori* considerations, therefore, independently of actual *post-mortem* evidence, would lead us to seek for some other explanation of the distribution of the paralysis in peripheral neuritis.

The view which commends itself most to me is that in this affection, just as in cases of pressure, etc., acting on a nerve trunk, the nerve fibres of the extensors succumb first to the destructive influence, owing to their relatively lower vitality than those of the flexors. That the extensor nerves of the limbs have a lower vitality than the flexors is confirmed by the researches of Onimus, who found that, just as the abductors of the recurrent laryngeal die first, so the extensor nerves lose their vitality before those of the flexors, both in the upper and lower limbs.

That the extensors of the wrist and fingers and the dorsal flexors of the feet are specially apt to suffer from a paralysing process is exemplified every day in hemi- and paraplegia; they are the first to suffer and the last to regain their normal strength. On what the difference between the relative vital strength of the flexors and extensors may depend is only a matter of speculation, but it is not unreasonable to suppose that the degree of representation, and therefore the trophic strength, of the extensors in the anterior cornua is less than that of the flexors, while such extensors as have the most numerous connections with the spinal segments would have a greater vital resistance than those whose connections are fewest. On the theory, therefore, that in cases of lead, alcohol, etc., poisoning there is a general impairment of the nutrition of the spinal centres and also a peripheral neuritis, we may argue that such muscles will be most affected which have the lowest trophic representation and are dynamically the feeblest as determined by actual measurements of their contractile energy. On this hypothesis the extensor communis should be first paralysed, then the extensors of the wrist, and lastly the extensors of the thumb, and the deltoid before the triceps in the upper arm. In the lower extremity the extensors of the toes, then the peroneal muscles, then the tibialis anticus, and the extensor cruris before the hamstrings and other muscles of the thigh. This agrees in all essential respects with the order in which the muscles are affected in lead palsy. In this form of neuritis the escape of the supinator longus is the rule, even when the extensors of the fingers and wrist are entirely paralysed. When the disease is more general the deltoid is specially apt to suffer before any of the other muscles of the upper arm, and often before any of the other muscles in the forearm or hand, as has been observed by Duchenne, Buzzard, and

myself. But though we may thus be able to explain the order of invasion of the muscles of the limbs in multiple neuritis, it is not easy to explain the, as a rule, primary selective action of lead on the upper extremities, and that of alcohol, diphtheria, beri-beri, and malaria on the lower. Though there are facts which would show that lead is specially apt to affect those muscles which are brought most in contact with the poison, I do not think that the "occupation theory" will satisfactorily account for the predominant action of lead on the upper extremities. For the same selective action occurs as the result of ingestion of lead through drinking water and other sources altogether irrespective of occupation. Nor have we arrived yet at any satisfactory explanation of the special affinity of the diphtheritic poison for the nerves of the palate and intrinsic muscles of the eye. The factors for the solution of this problem probably involve questions of vital chemistry with which we are at present unacquainted.

It is well known that the diphtheritic poison affects the ciliary muscle in preference to all the other muscles of the eyeball, though these also may become implicated partially or wholly. The explanation of this fact on the theory of a purely peripheral nerve lesion apart from nuclear change, presents some difficulty, though in some instances which have been examined the motor nuclei have been found absolutely normal. As of important bearing on this question, I would mention the recent researches of Langley and Anderson,[12] on the action of nicotine on the ciliary ganglion, and on the endings of the third nerve. These investigators have found that the various functions of this nerve are not all paralysed or excited with equal ease. Nicotine first paralyses the nerve cells of the ciliary ganglion on the course of the nerve fibres to the sphincter of the iris and probably the ciliary muscle. Next in order it paralyses the dilator fibres of the iris; and, lastly, those of the third, fourth, and sixth nerves to the external muscles, the levator palpebræ being less readily paralysed than the others. In nicotine, therefore, we have an agent which, by purely peripheral influence paralyses in succession the internal and external muscles of the eyeball in the same order as they are affected by the diphtheritic poison. In presence of such facts it is not difficult to conceive that the primary selective action of the diphtheritic poison on the ciliary muscle may be analogous to that of nicotine.

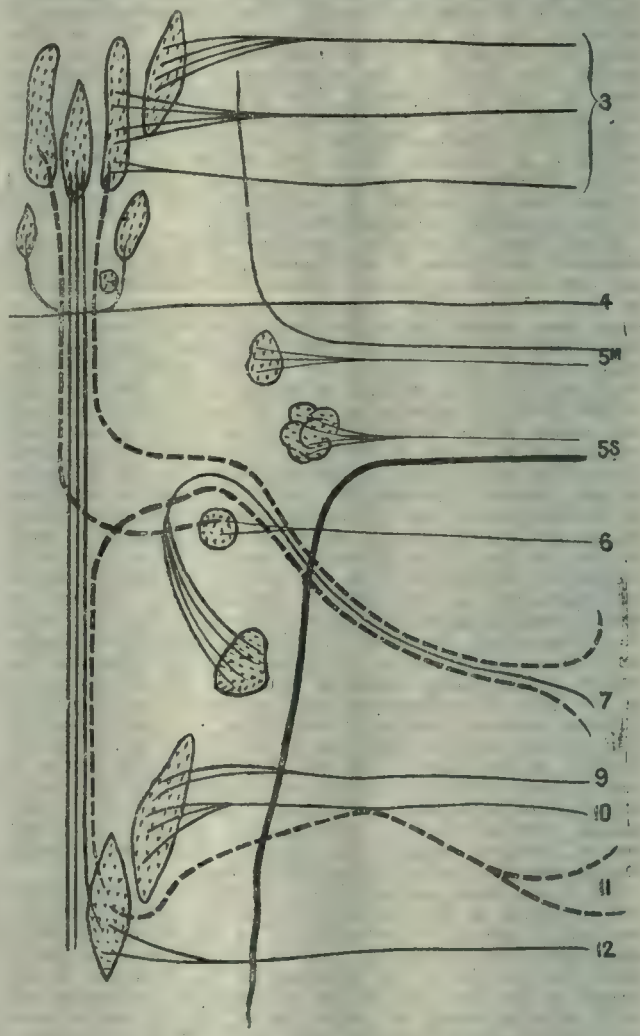
Myelopathic Muscular Atrophy.

Of the atrophic paralyses due to central causes—the myelopathies proper—there are three great groups according as the lesion affects the upper bulbar, lower bulbar, or spinal nuclei (more particularly those of the cervical and lumbar enlargements) constituting the clinical types, ophthalmoplegia, bulbar paralysis, and atrophic spinal paralysis. These cell groups are all liable to be affected singly, or in association with each other, and either primarily, or in combination with other systemic degenerations of cerebro-spinal tracts. The lesions, whether in the upper or lower nuclei, or their spinal homologues, may be acute, subacute, or chronic, or may be the result of invasion by morbid growths, etc., and they have each their own clinical features, which it is unnecessary for me here to recapitulate. The essential cause of the atrophic paralysis in every case is the destruction of the multipolar cells of the respective cell groups. It is characteristic of the acute form that the paralysis is for the most part regressive; that is, the initial palsy is more widespread than the subsequent wasting; while in the chronic form the process is more apt to be progressive, invading in succession the individual cells, so that the muscles perish fibre by fibre, the paralysis being in proportion to the amount of wasting so induced. The same degenerations are observed in the muscles as in peripheral neuritis, and they exhibit sooner or later the polar changes characteristic of the reaction of degeneration, and are the subject of those fibrillary twitchings which are so conspicuous by their absence in the myopathic form of atrophic paralysis. The distribution of the paralysis does not correspond with that of the peripheral nerves, but it is dependent on the functional or topographical association of the affected muscles in the bulbar nuclei or spinal segments.

Ophthalmoplegia.

In ophthalmoplegia dependent on disease of the upper bulbar nuclei the internal muscles of the eye may be alone affected (ophthalmoplegia interna), or the respective conjugate movements of the eyeball may be affected singly or conjointly (ophthalmoplegia externa), or all the muscles of the eyeballs may be paralysed and atrophied, in which case there is destruction of the whole of the nuclei of the third and fourth nerves as well as of the correlated sixth nucleus.

It has been established by the experimental researches of Hensen and Volckers, and by the clinical and anatomical researches of Westphal, Siemerling, Bruce, and others, that the nucleus of the third nerve is an aggregation of distinct centres, each probably having a special relation to certain ocular movements; but the exact functional relations of each cell group have not yet been determined beyond all doubt.



Scheme of the connections of the cranial nerves and their nuclei. The numerals indicate the respective nerves.

It is probable, however, that in the most anterior cell group (the antero-lateral nucleus of Darkschewitsch) are the centres for the internal muscles of the eyeball, the ciliary muscle and iris. Hence a lesion limited to this region may cause paralysis of the ciliary muscle, with or without implication of the iris.

It is probable that the centre for the levator palpebræ superioris is situated in a cell group lying between the distal end of the third and that of the fourth nucleus, and in close relation with the posterior longitudinal bundles (Siemerling). Complete ophthalmoplegia interna et externa signifies a total destruction of the ocular nuclei or of the peripheral nerves. Ophthalmoplegia externa alone, that is, without implication

of the internal muscles, is in favour of a nuclear lesion, but this is not an absolute rule if the case reported by Dammron is correct.[13] This was a case of complete ophthalmoplegia externa dependent on peripheral neuritis, and without affection of the nuclei, in which it is stated that the power of accommodation and the pupillary reaction were retained.

There is, however, another symptom which may be met with in connection with nuclear ophthalmoplegia to which Dr. Hughlings Jackson has recently called attention,[14] and which was well marked in a case under my care to which he has referred, namely, the association of ophthalmoplegia externa with paresis of the oculo-facial muscles, that is, the orbicularis oculi and frontalis. The oro-facial and oculo-facial muscles may be affected in central disease quite separately from each other, a fact which indicates that these respective divisions of the facial muscles are innervated from different centres. And there are several facts which render it probable that, apart from the clinical cases referred to by Dr Jackson, the upper facial region is innervated from the oculo-motor centres. These are, first, Mendel's experiments, which consisted in destroying the orbicular and frontalis muscles on one side in guinea-pigs, with the result that after several months a considerable diminution was found in the ganglion cells of the third nucleus on the side of operation, the proper nucleus of the facial being entirely unaffected.

Secondly, the fact that, in bulbar paralysis, the oro-facial region may be entirely paralysed, while the upper facial muscles are unaffected. Cases have been reported by Oppenheim, Muratoff, Tooth, and Turner[15] in which there has been atrophy of the facial nucleus, and degeneration also of the ascending roots and genu of the facial nerve, while the issuing root has contained a large proportion of normal fibres. The conclusion drawn from this is that the normal fibres have come from some other nucleus, probably from the third, by way of the posterior longitudinal bundles. In a case reported by Oppenheim, in which both upper and lower facial muscles were paralysed, there were no normal fibres in the issuing roots.

Thirdly, the fact, first, I believe, noted by Sir Charles Bell, of the associated action of the orbicularis oculi with the muscles which raise the eyeball. In cases of peripheral facial palsy the attempt to close the eye causes the eyeball to be raised upwards with a direction outwards or inwards as the case may be. This is an indication that the centre which innervates the orbicularis oculi innervates also the muscles which raise the eyeball. These with the clinical facts above mentioned show that in nuclear ophthalmoplegia externa the orbicularis oculi is also apt to be affected. This point has hitherto received little or no attention, and in many of the reported cases no mention is made of the condition of the orbiculares. It cannot therefore be taken for granted that in these the orbicularis oculi was not affected, for the affection may be so slight as to escape mere cursory examination. In illustration of this I may mention another case of ophthalmoplegia externa, recently under my care, in which, though there was no obvious weakness of the orbicularis oculi, yet there was considerable faradic hyperexcitability of the orbicularis and frontalis muscles as compared with the zygomatics and other muscles of the face. These nutritive changes indicate a close relationship between the centres of the eyeballs and the muscles in question. The point here mentioned will, no doubt, receive further investigation in future.

Bulbar Paralysis.

In spite of the great amount of research which has been expended on bulbar paralysis there is still much uncertainty as to the functions of the individual nuclei of the cranial nerves. The atrophic paralysis of the lips, tongue, and palate which constitutes the chief feature of this disease, points either to a community of innervation of these muscles from the same centre or from separate centres, which are functionally closely related to each other.

Of the various nuclei of the medulla oblongata, the hypoglossal is always in a high degree atrophied, and there are many facts which render it probable that the orbicularis oris is innervated from this nucleus directly. Bruce figures[16] a tract of fibres passing from the proximal end of the hypoglossal nucleus to the genu of the facial nerve (*Op. Cit.*, Fig. 6); and Gowers[17] relates a case of poliomyelitis affecting the facial nucleus, in which the orbicularis escaped, though the other facial muscles were paralysed. Tooth and Turner[18] have also furnished facts which render it probable that this nucleus supplies also the motor fibres of the accessorio-vagus, which innervate the soft palate and vocal cords. This accords with the anatomical investigations of Bruce[19], and is supported likewise by cases of hemiatrophy of the tongue associated with paralysis of the corresponding side of the palate[20]. There are, however, other facts which do not quite harmonise with these views, and the subject is one in need of further investigation. It is probable, as suggested by Oppenheim[21], that some of the discrepancies in the morbid anatomy of bulbar paralysis are due to the fact that in some cases the paralysis is dependent on affection of the terminal arborescence of the pyramidal tracts, in which death occurs before the nuclei themselves have undergone degeneration. Under such circumstances the ganglion cells might appear normal, though the muscles innervated by them have been indirectly paralysed.

Spinal Amyotrophy.

The distribution of paralysis in spinal amyotrophy depends on the position and extent of the lesion in the respective segments of the spinal cord. In the different segments of the cervical and lumbar enlargements, groups of muscles are represented, which are either functionally or morphologically associated together in accordance with the mode of development of the limbs. While Remak, Yeo, and myself have advocated the view that each segment, with its corresponding anterior root, represents a functional synenergy, others (Forgue and Lannegrace, Herringham, Sherrington, etc.) contend that the grouping is only anatomical or morphological. The probability is that neither view represents the whole truth, and that neither need be considered exclusive of the other. The physiological naturally presupposes anatomical or morphological grouping; and, from an evolutional point of view, it might be argued that the anatomical has been conditioned by the physiological. The complete result of stimulation of the anterior roots of the respective segments has the appearance, notwithstanding the fact that apparently antagonistic muscles are thrown simultaneously into action, not of confusion, but of a distinct synergic combination, such as we see in the habitual and automatic activities of the animal. A functional co-ordination of this kind in the spinal centres is almost a necessary corollary from the complex reflex actions capable of being elicited in decapitated animals; and it seems difficult, from a purely anatomical standpoint, to give a satisfactory explanation of the composition of the limb plexuses, except on the assumption that the plexiform combination of the roots is for the purpose of distributing the requisite motor fibres in different trunks to the various muscles engaged in each functional combination. Most muscles are supplied by more than one root, and are, therefore, represented in more than one segment. Most have two, many three, or more; and it is further noteworthy, as has been recently shown by Risien Russell,[22] that the motor fibres from the different roots are not distributed to the same, but to different parts of the related muscle. Further, in accordance with the view expressed by Yeo and myself, it has been shown experimentally by Russell, and clinically by Beevor,[23] that a muscle may be paralysed *quâ* one functional combination and not *quâ* others. These facts indicate that the representation of the muscles in the cervical and lumbar enlargements of the spinal cord is not purely morphological, but has a physiological significance. As regards the effect of destruction of the anterior cornua, much will depend on whether the lesion is accurately limited to one segment or diffused through several.

Inasmuch as most muscles are represented in more than one segment, the effect of a lesion accurately restricted to one segment may be so slight as to escape observation. A particular combination may be paralysed, but the muscles will not exhibit any paralysis as regards other movements, or suffer material trophic change. It is only when the centres of the respective muscles are destroyed in all the segments in which they are represented that the muscles will be completely paralysed and atrophied. As this would almost of necessity involve affection of several muscular groups, it would seem *a priori* very improbable that one muscle, and no other, can become the subject of atrophic paralysis from cen-

tral lesion. It is, however, theoretically possible that the nuclei of the different muscles may be echeloned in the spinal segment in such a manner that they may be individually picked out by diseased processes; and it has been stated by Duchenne and others that this actually does occur, such muscles as the deltoid, the tibialis anticus, being occasionally alone affected in spinal lesions. But I much doubt whether more accurate investigation would not succeed in demonstrating also some degree of implication of the other muscles relating to the same segment or segments. Those of us who have investigated the respective muscles represented in each root of the brachial and crural plexuses, have not all arrived at precisely the same conclusions. It may be that there are variations in different animals; but perhaps the chief cause of discrepancy is the extreme difficulty of analysing all the muscles which are thrown into action at the same time. But there is a fairly uniform agreement as to the character of the combined movements and the limits of representation of the limbs in the respective enlargements. The intrinsic muscles of the hand are represented in the first (and probably partly also in the second) dorsal segment, and the next higher; and similarly the intrinsic muscles of the foot are represented in the second sacral and the last lumbar segment. Hence it is that in progressive muscular atrophy which begins most commonly in the lower end of the cervical enlargement the intrinsic muscles of the hand are first attacked, followed, as the disease extends upwards, by the long flexors, and afterwards by the extensors, which have their centres at a higher level. And all the muscles of the forearm may become paralysed and wasted before the supinator longus is attacked.

The progress of the disease is not *per contiguitatem* of the muscles, but of the centres in the cord as we proceed from below upwards. On the other hand, when the disease begins at the upper portion of the cervical enlargement, the scapular muscles, deltoid, and flexors of the forearm, with the supinator longus which is synergic with them, are first attacked; and the muscles of the upper arm may become entirely wasted, while those of the forearm, with the exception of the supinator longus, may remain normal. As the disease progresses, those muscles resist longest which have the most numerous connections with the various segments. This is especially true of the triceps, which is usually the *ultimum moriens* of the arm muscles. So in the lower extremity chronic or acute poliomyelitic processes beginning at the lower extremity of the lumbar enlargement cause atrophic paralysis of the intrinsic muscles of the foot, followed by the plantar flexors of the foot and the flexors and extensors of the toes. It has often been remarked that the tibialis anticus may escape when the extensors of the toes and the peronei are markedly affected. There is still some doubt as to the relations of the tibialis anticus; it seems to be represented both with the extensors and flexors of the leg and foot, and sometimes it has been found atrophied with the quadriceps extensor cruris, and at other times with the plantar flexors of the foot. If the disease commences at the upper portion of the lumbar enlargement, that is, in the region of the second and third lumbar segments, the flexors of the thigh on the pelvis are first affected, and in such cases the sartorius, which is synergic with the ilio-psoas, may alone of all the muscles of the thigh, like the supinator longus of the forearm, be paralysed and atrophied; or, on the other hand, like the supinator longus, may escape when the other muscles supplied by the anterior crural are profoundly affected. Though theoretically there may be as many types of spinal paralysis as there are segments in the cervical and lumbar enlargements, the processes of disease are rarely so restricted; and it is therefore the rule rather than the exception that many muscles belonging to different segments are affected in a more or less irregular manner. Time, however, will not permit me to discuss the question at greater length, and I must therefore content myself with this brief consideration of the general principles by which the grouping of spinal paralysis is conditioned.

PERONEAL TYPE OF MUSCULAR ATROPHY.

Before concluding, I have a few remarks to make in regard to certain types of atrophic paralysis, the position of which among the amyotrophies is still *sub judice*. I allude, in the first place, to the clinical type of muscular atrophy first described by Charcot and Marie in France, and by Tooth in this country, under the name of the "peroneal type of muscular atrophy." This affection seems to combine the characters belonging to all the forms of amyotrophy. It resembles the myopathic atrophies in the fact of its being a disease of childhood, and also hereditary; it resembles the neuropathic form in the occasional presence of pain, cramps, and other sensory disturbances; and it resembles both the neuropathic and myelopathic forms in the presence of fibrillary tremors and in the reaction of degeneration in the affected muscles. It begins in the lower extremities—most commonly, according to Tooth, in the peronei; but the observations of Hoffmann[24] and Sachs[25] render it more probable that its first commencement is in the intrinsic muscles of the foot, whence it spreads either to the anterior tibial group or to the muscles of the calves. The atrophic paralysis speedily results in the double club foot which is such a characteristic feature of the disease. The atrophy ascends to the muscles of the thighs, and at an early period very commonly affects also the intrinsic muscles of the hands and forearm, after the same manner as the Aran-Duchenne type of progressive muscular atrophy. Investigation is still wanting according to modern methods of the actual morbid basis of this affection; but certain observations by Virchow and Friedreich of cases supposed to have belonged to this type are quoted in evidence of changes in the peripheral nerves, of the character of interstitial neuritis, with corresponding changes in the muscular fibres; and in these cases there was also degeneration of the posterior median columns of the spinal cord. In the absence of conclusive evidence as to the exact state of the anterior cornua in this affection, we are obliged for the present to content ourselves mainly with speculation as to its pathology. The demonstration of changes in the peripheral nerves, as well as the actual occurrence of sensory disturbances, lend considerable support to the neuropathic theory advocated by Tooth.

Cases, however, occur, as reported by Herringham,[26] Sachs,[27] and Tooth[28] himself, in which there has been total absence of sensory disturbance, or other indications usually met with in neuritis, but which, in their clinical history and features, have resembled the type under consideration. The mode of commencement in the small muscles of the foot, and the successive invasion of the muscles of the leg, seems to me less in accordance with a peripheral neuritis than with a degeneration of the lower portion of the lumbar enlargement gradually ascending upwards; and this is corroborated by the manner in which it ultimately affects the upper extremities. Even if it should appear on future investigation that there are no gross anatomical changes in the anterior cornua, it is possible, as Hoffmann argues, that the dynamical condition of the anterior cornua may be the primary factor, and the neuritic changes, such as have been found, merely of a secondary character. Hoffmann terms the disease "progressive neurotic muscular atrophy." I am myself inclined to look upon the peroneal type of muscular atrophy as primarily a hereditary myelopathy, occasionally complicated by neuritic changes, probably of a secondary character. According to this view, therefore, it might be described as a myelo-neuropathic amyotrophy.

ARTHRITIC MUSCULAR ATROPHY.

The last form of myopathy which I have to mention is that which occurs in connection with injuries or inflammation of joints, namely, arthritic muscular atrophy. The atrophy which results from such lesions affects more particularly, though not exclusively, the extensor muscles of the joints. Thus the deltoid especially wastes when the shoulder-joint is affected; the triceps, when the elbow; the extensors of the forearm, when the wrist; the glutei, when the hip; and the quadriceps extensor cruris, when the knee is affected. The wasting often occurs with great rapidity, and at the end of a week or ten days may be of a pronounced character. The atrophy affects the whole muscle, and not the part in immediate contact with the joint. It is a simple, not a degenerative atrophy. The muscle reacts less readily to faradic or galvanic stimulation, but there is no reaction of degeneration. Microscopic investigation, though it reveals signs of

neuritis in the articular terminations of the nerves, has failed to demonstrate any morbid change in the nerves of the affected muscles, or more than simple atrophy of the muscular fibres. The explanation that naturally suggests itself in the first instance is that the atrophy in this case is merely emaciation from disuse; but its unusually rapid occurrence, and the fact that of two limbs kept equally quiet the atrophy occurs only in that of which the joint is diseased, sufficiently negative this hypothesis. Various other explanations have been offered, such as reflex vasomotor spasm (Brown-Séquard) myositis propagated to the muscles from the inflamed joints (Strümpell); ascending neuritis (Sabourin); but they are all either negatived by actual examination, or obviously insufficient to account for the facts.

The theory which has found most favour is that first propounded by Paget, and adopted by Vulpian, Charcot, etc.—namely, that the arthritic atrophy is a reflex tropho-neurosis. The irritation of the articular nerves propagated to the anterior cornua excites in them some dynamical alteration, which leads to atrophy of the related muscles; and there are many facts which lend support to this hypothesis, even though no gross anatomical changes are capable of being demonstrated. Raymond and Deroche[29] have shown, and their experiments have been amply confirmed by Hoffa,[30] that when in animals the knee-joint is artificially inflamed, no muscular atrophy occurs if the posterior roots of the related nerves have been previously divided, thus preventing propagation of irritation to the spinal centres. These experiments seem absolutely conclusive of the fact that irritation of sensory nerves may lead to trophic disorders; nor does this occur only from irritation of joints. I have myself recorded[31] a curious case of wasting of the whole of one side of the body, consequent on long continued irritation from the stump of an amputated hand, conditioned by inflammation of the radial nerve; and there are other facts on record of a similar character. The point is whether a dynamical change so induced would be sufficient to account for the extraordinary amount of muscular wasting, and its frequently long duration, apart from local change in the peripheral nerve fibres. Apparently, in the absence of any demonstrable change in the motor nerves, or signs of degeneration in the muscular fibres, we must accept this as an actual fact.

But we have again the question, Why are the extensors of the joints specially affected? It may be, as Duplay and Cazin[32] have suggested, that it is due to the anatomical relation between the nerves which supply the capsules of the joints and those which innervate the affected muscles. Thus the capsule of the shoulder-joint receives its nerves from those which also innervate the deltoid, supra-, and infraspinatus, and teres minor; and the capsule of the knee-joint is supplied by the anterior crural, which also innervates the quadriceps extensor cruris; but this does not fully explain why, of all the muscles supplied by these nerve trunks, the extensors should be specially selected. I am myself inclined to see in this a further corroboration of the principle which I have endeavoured to establish in reference to the extensors generally—namely, that the vitality of the extensor centres and nerves is the first to become exhausted by any condition tending to lower the vitality of the nerve centres and nerves in general.

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Dr. Alex. Robertson (Glasgow) felt that Dr. Ferrier had treated this subject in so full and comprehensive a way that the task of subsequent speakers was a difficult one. He would confine his remarks to the last subject referred to in the paper—atrophic paralysis associated with joint disease. During the last few weeks Dr. Robertson had had a patient under his care in the Glasgow Royal Infirmary which illustrated this condition.

He was admitted on June 18th, 1893, with well marked symptoms of subacute rheumatism: ankles, knees, and shoulders being specially affected, there being a large amount of effusion into one knee-joint. There was profuse perspiration. It was the second attack, the first having occurred seven years since. In the interval between the attacks he acquired syphilis. Under ordinary medicinal treatment the rheumatism apparently subsided in about ten days, so that he was able to walk about the ward. On July 7th he almost incidentally mentioned that his left arm had been getting weak during the last eight or ten days, but he thought it due to the rheumatism, though it struck him as strange that that arm should suffer most, as the pain in the left shoulder had been less severe than in the knee-joints. The wasting was well marked, especially in the muscles of the upper arm. All the shoulder muscles were involved, particularly the deltoid, but the biceps, coraco-brachialis, and triceps appeared to be nearly as much affected. The muscles of the forearm, though less affected, were distinctly atrophied, and also to a slight extent the thenar muscles. It was to be remarked in relation to the special implication of the extensors referred to in the paper, that this was true of the muscles of the forearm but not of the upper arm, as those on its anterior aspect were much weaker than the triceps. The sensory function had only suffered to a very slight extent. On several occasions for a few minutes he stated that he had a feeling of numbness in the palm of the hand, but it passed away in about five minutes, when he rubbed the palm with the fingers of the right hand. There had been no pain or other abnormal sensation, nor was any felt when the muscles and nerves were pressed on with moderate firmness.

The æsthesiometer showed no difference between the two arms. The electrical condition of the muscles was examined with much care. With the view of obtaining absolute accuracy on this point, Dr. Robertson had asked Dr. Macintyre to make an independent investigation of the electrical responses. Agreement was reached on the following points: (1) With the continuous current the only divergence from the normal consisted in the left deltoid and biceps contracting to 2 milliampères, while the right muscles required 3 milliampères to induce a response. (2) There was no other change with this current, nor was there qualitative alteration. The K. C. C. came first. (3) With the faradic current there was no difference between the two arms, as compared with a healthy man, except that the most wasted part of the left deltoid, compared with the right deltoid or the less wasted part, required a somewhat stronger current to induce a contraction.

How were the paralysis and rapid atrophy in this case to be explained? Dr. Robertson did not think they were due to neuritis. The absence of sensory defect, except the very slight disturbance mentioned, the implication of the functions of several nerves, and the electrical condition were opposed to this. Nor were the symptoms to be explained by the supposition of an important lesion in the anterior cornu; the all but total absence of the reaction of degeneration negatived that idea. Its pathology might be, at least partially, explained on the hypothesis of irritation of the nerves of the diseased joint, or the nutritive centre in the cord, inducing some change there which determined the atrophy and paralysis. On the other hand, might it not be produced by the toxic condition of the blood connected with the rheumatism? It was just possible that the syphilis, though it had produced no gross lesion, might have contributed to the result, the poison of the one or the other having completed the morbid condition in the cord which was initiated by the irritation from the joint. Dr. Robertson observed in conclusion that the condition in this case was very different from that so common in rheumatic arthritis, where the wasting, etc., were usually due to peripheral neuritis.

Dr. Handford (Nottingham) alluded to cases of alcoholic neuritis in which muscular wasting was preceded by swelling and very marked induration of the affected muscles, apparently a distinct myositis. The induration continued for weeks or months, was associated with cutaneous anæsthesia and hyperæsthesia of the sensory nerves of the muscles, and was followed by extensive and lasting wasting. Dr. Handford related such a case which had been under his care for several years, and where the alcoholic origin was quite clear. General recovery took place, and the man returned to work, but the affected fibres, of course, were not restored.

Dr. Coley referred to a number of patients under his care as out-patients at the Hospital for Children, Newcastle. These cases were all members of one family, and affected with pseudo-hypertrophic paralysis in a very marked form. The eldest was a boy, now aged about 14; he was a peculiarly well-marked instance of the disease. The next member of the

family was a girl, now aged 13; she was quite healthy. The next was a boy, now aged 12, a very well-marked case. Then came two girls, who each showed the disease very distinctly, though not in such a highly developed form as the two boys. A boy, aged about 4, had not yet shown any symptoms. When first seen, about six years ago, the two elder boys were so much affected that they could only go upstairs with difficulty, helping themselves with their hands on their knees. They soon began to improve, and were now so much better that they both played football, and could jump a considerable height. The girls had also improved under treatment, but had never been so severely affected as the boys. The characteristic enlargement of muscles and lordosis remained in all the cases.

Professor GRAINGER STEWART (Edinburgh) congratulated the Section and Dr. Ferrier on the extraordinary value of his communication. Dr. Grainger Stewart described a case of paralysis and wasting of the deltoid in connection with rheumatism of the shoulder-joint, in which the condition developed in the muscle in a single night. Prognosis was more favourable in the nerve disease group of myopathies than in those of central or of muscle origin. Treatment was often of service in all the forms. The best internal medicine was strychnine, and it was greatly more useful when administered hypodermically.

Dr. BARNES (Carlisle) spoke a few words on prognosis, referring to his experience of cases of nervous origin. In some cases, where the origin was sudden, improvement, if it set in within six weeks, went on favourably, but if no improvement took place within three months, the prognosis was not so favourable. He also referred to the good results of treatment from electricity, massage, and strychnine.

Dr. C. R. DRYSDALE (London) said that Dr. Ferrier's paper was an indication of the immense progress that had been made in knowledge of disease of the nerves since he studied under Brown-Séquard and Duchenne. The whole of the nerve centres seemed now to be thoroughly mapped out, and a process of reasoning which resembled the integral and differential calculus had made everything clear and comprehensible in the question of paralysis; but, unfortunately, therapeutics he thought had not been as yet able to derive the benefit that it was to be hoped it would eventually derive from all this profound study. Doubtless good results would gradually arise from the accurate way in which such diseases were defined.

SECTION OF OPHTHALMOLOGY.

G. E. WILLIAMSON, F.R.C.S., President.

DOUBLE PROPTOSIS.

By BRIGADE-SURGEON-LIEUTENANT-COLONEL E. F. DRAKE-BROCKMAN, F.R.C.S.

DR. DRAKE-BROCKMAN related three cases of double proptosis. All occurred in the East Indies, two being in natives of India, and one in a European officer. The cause of the double exophthalmos was due, in all cases, to pathological conditions in connection with the sphenoid and ethmoid bones.

CASE I.—A male Hindu, aged 35; the proptosis was slow in growth, and was under observation for many months. In this a tumour presented itself at the oral cavity and obstructed the nasal cavities, especially on the left side. It also extended into the pharynx, where it was found as a hard swelling. Subsequently it involved the orbital cavities, the nasal bones, the superior maxillæ, and frontal bone, causing great disfigurement of the face. Both eyes were projected forwards and outwards, and afterwards the corneæ of both eyes were destroyed. Rapid emaciation of the body generally took place, and the patient died from exhaustion. At the *post-mortem* examination a growth was found taking origin in the body of the sphenoid bone, and extending thence in all directions into the various cavities in the vicinity. It was found to be sarcomatous in its nature.

CASE II, in a European officer, aged 41, serving in India, was of shorter duration, and the nature of the morbid growth was doubtful. The patient had resided in India many years, and had suffered from malarial fever. The symptoms exhibited during the course of the disease were of the most varied character, and pointed to implication of several of the cranial nerves. The progress of the disease was accompanied by attacks of fever and mental disturbance. Suppuration occurred and collections of pus showed themselves in various directions, the largest collection appearing beneath the trapezius muscle, and presenting itself in the right subclavian triangle. In this case the patient died from exhaustion after suffering much for a period of six weeks. The *post-mortem* examination showed that the seat of mischief was situated in the body of the sphenoid bone, from which the various structures became involved, the pus finding its way through the various foramina at the base of the skull. The family history pointed to the presence of tuberculous deposit in the cancellous structure of the sphenoid bone.

CASE III was that of a male Hindu, aged 30, who sought relief on account of loss of vision in both eyes. This case was of about two months' duration. The exophthalmos showed itself at an early date in the history of the case. The patient had suffered from constitutional syphilis. The destruction of both eyes proceeded rapidly, and the patient died with manifestations of cerebral trouble. No microscopical examination was made of the products in the orbits which caused the proptosis, and the nature was not made out. The membranes covering the brain were found extensively involved.

Dr. Drake-Brockman observed that tumours of the body of the sphenoid bone had a tendency to progress in the direction of least resistance; thus, in the first case, the growth involved the various cavities in the vicinity, the nostrils, the orbits, the antra, the frontal sinuses, and the free surface of the face.

The Effects of Pressure on the Position of the Eyeball.—In the first case the eyeballs were pushed aside from the median line, producing no effect as far as could be noticed upon the nerves supplying the muscles of the organs. The gradual enlargement of the body of the bone was associated with a corresponding adaptability of the surrounding structures. In the second case the effects of pressure were less marked. Subjective symptoms were present, such as photopsia, diplopia, and partial cycloplegia; and the objective signs were displacement of the organs of vision, paresis of the nerves, and the pointing in certain directions of the products of inflammation. In the third case the objective signs and subjective symptoms caused by pressure were all well marked.

The Difficulties in Diagnosing the Seat of Origin of Tumours connected with the Base of the Skull.—Naso-pharyngeal tumours, which took their origin from the periosteum covering the basilar process of the occipital and the body of the sphenoid bones, gave rise to objective signs resembling those mentioned in these cases. In the Museum of St. George's Hospital an enchondroma may be seen which projects into the cranium, the orbits, the antra, the nasal, zygomatic and pyterygo-maxillary fossæ. Such growths, moreover, produce a flattening by expansion of the nasal bones, and the bridge is entirely lost, the eyeballs become pushed forwards, and are made prominent. They may also cause bulging of one or both cheeks, and form uniform swellings in various directions. The hard palate may be pushed downwards and its concavity removed; the nostrils may be distended and occupied by a soft or firm reddish mass. In all these respects the growth in Case I resembled a naso-pharyngeal tumour. One point, however, was wanting—an important one—namely, hæmorrhage, constantly present in polypoid growths. The resemblance, however, was so close that in an early stage steps were devised to effect removal of the naso-pharyngeal tumour which was supposed to exist. In the second case it was interesting to trace the course taken by the pus. On the left side it found its way downwards through the foramen ovale and the foramen spinosum; then between the planes of connective tissue between the inner surface of the internal pterygoid muscle and the tensor and levator palati muscles; also along the foramen rotundum into the orbital cavity, and at the same time escaping through the spheno-maxillary fissure, was guided along the tendon of the temporal muscle upwards to the temporal fossa of the left side, the muscle of that name on the same side having been found at the necropsy to be pushed outwards by the confined pus. This collection communicated with that in the mouth, for, as has been stated, on incising the swelling in the mouth, that of the corresponding temporal region diminished in size. On the right side the course taken by the pus was very different. Here the pus was also found under the temporal muscle, and communicated with that found beneath the trapezius muscle of that side. The pus having gained the space between the superior constrictor of the pharynx and the internal pterygoid muscles, passed beneath the internal carotid artery, the eighth and ninth nerves, the digastric and sterno-cleido-mastoid muscles, along the muscles at the back of the neck under shelter of the trapezius muscle into the subclavian triangle, at which spot it was evacuated by means of the aspirator. All these muscles were dissected from each other by the fluid as it gravitated downwards.

In its passage downwards it exerted injurious pressure on

the sixth nerve within the skull, on the glosso-pharyngeal division of the eighth pair, for deglutition was interfered with; on the pneumogastric, for there were evidences of pulmonary mischief setting in; on the spinal accessory nerve, for the trapezius and sterno-cleido-mastoid muscles were paralysed so that the head was turned over to the affected side by the unrestrained action of the corresponding muscles of the opposite side; on the ninth nerve, for the tongue on protrusion was diverted towards the right side; and on the great occipital nerve, producing the pain which was referred to that part of the scalp supplied by that nerve as it passes beneath the complexus and trapezius muscles.

In this case the body of the sphenoid bone was in a state of caries such as is met with in scrofulous disease of the small cubical bones of the tarsus.

In the third case the disease appeared to take its origin in the ethmoid bone and from that focus spread to the tissues in immediate proximity to it and into the cavities of the orbits and upwards into the cavity of the cranium. The nature of the disease could not definitely be made out during life, but suspicions were aroused from the history given of its syphilitic nature. The necropsy threw no further light on the subject, and I regret that circumstances prevented a more minute examination of the parts involved in the diseased action.

Treatment.—It is clear from the histories of all the cases that the treatment, at the best, could only be palliative and expectant. In the first and third cases the sufferings of the patients were not great, but in the second case the patient suffered severely. The difference in degree of suffering can be understood when the structures which were successively involved in the progress of the disease in each case are taken into consideration.

Mr. Snell related briefly particulars of a case of a tumour involving both orbits in a child, aged 4. It appeared to follow mumps, and the special point of interest was the fact that in less than four months from the origin the case ended fatally. There were numerous secondary growths. It was a round-celled sarcoma.

The President also made some remarks on the subject and referred to a case under his care at that time.

NEW OPHTHALMIC TABLOIDS AND TABLOID HOLDER.

By John Ward Cousins, M.D.Lond., F.R.C.S.,
Senior Surgeon to the Royal Portsmouth Hospital and Portsmouth and South Hants Eye and Ear Infirmary.

I am anxious to introduce to the profession some ophthalmic remedies which have been prepared at my suggestion with great care and accuracy. They are manufactured in the form of minute tabloids by Messrs. Burroughs, Wellcome, and Co., of London, and I am confident they will prove of value to practitioners in all parts of the world, as they are unchangeable in composition, and reliable in every climate. They are extremely delicate in appearance, very soluble, and, when placed on the conjunctival surface, they are immediately dissolved in the lachrymal secretion, and are diffused over the surface of the eye. Each tabloid holds a definite quantity of alkaloid, and some of them contain two remedies to increase their activity and to modify their effect. The mydriatic tabloids are very rapid in their action, and paralysis of the accommodation and dilatation of the pupil can be established in fifteen minutes, and this is a great advantage for ophthalmoscopic examinations. In a recent case of complete occlusion of the pupil the adhesions were broken down, and vision was re-established in half an hour. In many cases of iritis and cyclitis one tabloid introduced daily will be found sufficient to maintain dilatation of the pupil, and this is a distinct advantage over drop treatment, as the solution must be frequently put in, and the instillation is often distressing to the patient, and irritating to the sensitive organ. In acute inflammation the constant introduction of a remedy is injurious, for it disturbs the absolute rest, which is an important element in the treatment, and, in the case of children, often causes alarm and struggling. When the eye is painful the combined action of atropine and cocaine yields great comfort. In some cases of keratitis attended with congestion, pain, and ulceration of the cornea, the daily use of one or two tabloids of eserine has an excellent effect, by relieving the tension of the globe and stimulating the ulcerated surface. The tabloids containing cocaine can be employed for the removal of foreign bodies and for other ophthalmic operations. One or two are sufficient to produce complete anæsthesia of the ocular surface in three or four minutes.

Tabloid Holder.

This little instrument consists of a celluloid tube and a small elastic ball. The tube terminates in a little cup, which is made just large enough to hold a tabloid.

In using the holder the following directions should be



Fig. 1.—Holder in the case with ophthalmic tabloids.

attended to:—The elastic ball must first of all be compressed, and the end of the tube placed accurately over the tabloid, so that it can be drawn into the open end by relaxing the pressure of the thumb and finger. The eyelid of the patient should now be everted with the forefinger of the left hand, and the tabloid gently dropped into the outer canthus.

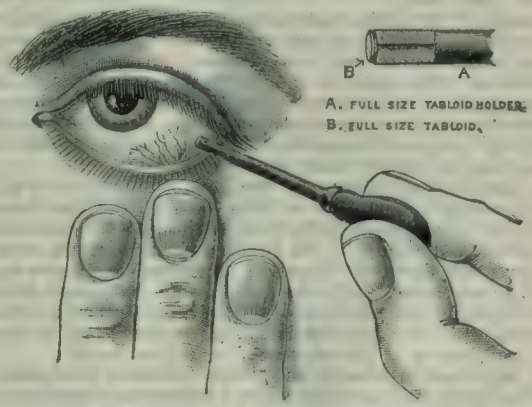


Fig. 2.—Method of putting in the tabloid.

After the insertion the eye must be kept closed for a few minutes. The tabloid is almost immediately dissolved in the tears, and then diffused over the ocular surface.

Tabloids Convertible into Solutions.

The boracic acid and perchloride of mercury tabloids will be found extremely useful for making cleansing and deodorising solutions. A boracic acid lotion can be prepared by just dissolving two tabloids in 2 or 3 ounces of water. Two tabloids containing one-tenth of a grain of alkaloid, when dissolved in 10 minims of fluid, form a solution of about 4 grains to the fluid ounce. The vulcanite tube which is attached to the point of the glass dropper is intended for a protector to the eye during the application of a lotion; at the same time it converts the dropper into an injector for subconjunctival tenotomy and operations on the lachrymal apparatus.

Ophthalmic Lanolins.

The lanolins are very carefully prepared unguents for the treatment of many of the most common disorders of the eye; they are preserved free from all risk of injury in collapsible tubes, and labels are attached to them indicating the exact

composition of the contents. Each tube has attached to it a fine and flexible nozzle, and through this, by gentle pressure, a small portion of the ointment can be projected for direct application to the edges of the lids and surface of the



Fig. 3.—Method of applying the lanolin.

eye. This method presents many obvious advantages over the boxes and brushes now in general use, which demand constant care to keep them from contamination and decomposition. Lanolin, moreover, is especially adapted as an emollient basis for the application of remedies to the eye. These preparations will be found of great convenience in the treatment of diseases of the eyelids. The edges should always be carefully cleansed before the application, and if they are marked with excoriations the lashes must be cut off close to their roots.

In cases of keratitis and ulceration of the cornea the pain and irritation are greatly relieved by the use of the mercurial lanolin with cocaine, and the introduction daily of a tabloid of atropine. The eyelids should be kept closed with a pad and bandage to exclude the light, and ensure complete rest. Chronic cases of this troublesome disorder often derive much benefit by the insertion once or twice a day of a tabloid containing eserine in the place of atropine.

The lanolins are also very useful in all cases of epithelial and interstitial opacities of the cornea. When leucoma is present it is impossible to hope for complete restoration of the corneal structure; yet the hazy rim around may ultimately disappear and the sight materially improve by persevering treatment, and it is a good plan to change the composition of the lanolin from time to time. In cases of nebula the removal of the opacity is certainly hastened by the constant application of the mercurial or iodine lanolin.

My patients continue to use these remedies alternately for months, and I believe they exert a favourable influence over the eye by stimulating the nutrition of the surface and protecting it against recurrent inflammation. The lanolin containing castor oil and cocaine can be employed with great relief in many acute diseases. The lids should be carefully separated and the oil freely applied to prevent agglutination and adhesion of the raw surfaces. In wounds and abrasions of the cornea it can be also used with immediate benefit, and the eye should be kept at rest for a few days with a light bandage.

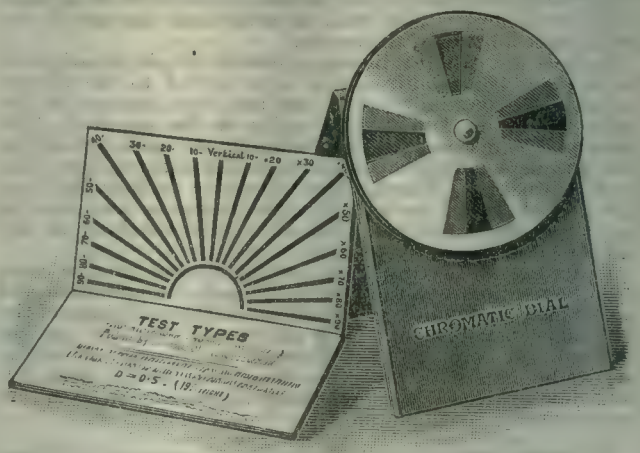
NEW DIAL FOR TESTING COLOUR VISION.

By JOHN WARD COUSINS, M.D.Lond., F.R.C.S.,
Senior Surgeon to the Royal Portsmouth Hospital and Portsmouth and South Hants Eye and Ear Infirmary.

I HAVE used the dial during the past two years with much success. It supplies a ready and reliable method of testing colour perception which is far more easy of application in general practice than the Holmgren test, for which a large bundle of many coloured wools is necessary. I trust its simplicity will commend it to many of my professional friends as an aid in the recognition of some of the functional defects of the nervous apparatus of the eye.

The contrivance consists of two cardboard discs, 6 inches in diameter, and united by a central pin, so that one disc can be made to revolve upon the other. The test colours (red, pink, and green) are fixed around perforations on the outer card, and through these openings the confusion colours on the under card can be brought in succession into comparison with them.

The dial is supplied with types for testing the acuteness of vision, and the directions for testing the colour sense are arranged in several types, which can be conveniently employed as tests for near vision. It must always be used in a good light, and it is desirable in every case to examine the acuity of vision as well as the colour perception. There are very few practitioners who regularly examine the acuteness of the colour sense in brain and nerve affections, and the



practice is generally considered of little value, except in the selection of railway servants, and other persons in whom the distinguishing of coloured signals is a matter of great importance. It is my conviction, however, that the defects of colour vision possess many interesting and important clinical aspects. The notion that variations in this sense are rare, and that they are generally congenital, has long been exploded. The congenital defect is, in my experience, an uncommon disorder, and especially so in women.

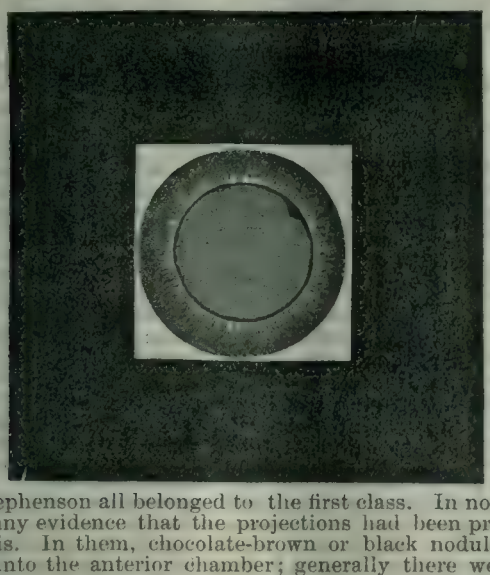
But there are many acquired forms of colour blindness. Sometimes alterations in the structure of the eye are associated with derangement of the colour perception, and among these I have observed atrophic changes in the retina and haziness of the papilla. Occasionally the defect has been discovered with hæmorrhagic changes at the fundus, or a partial atrophy of the disc; in other cases loss of colour sensibility is present in connection with marked symptoms of disease of the brain and optic nerves. On the other hand, disorders of the nervous system are certainly attended with a functional disturbance of the retina without any visible ophthalmoscopic lesions. In toxic forms of amaurosis occasioned by the abuse of stimulants and tobacco, a loss of colour vision can often be detected, and a similar impairment occasionally occurs from debility dependent upon blood disturbance and malnutrition. I have recently seen a well-marked case which followed a severe attack of diphtheria. The patient was an intelligent girl, 16 years of age, and on examination her acuteness of vision and colour sensibility were found to be very defective. She exhibited complete red-green blindness, at the same time her power of recognising yellow and blue appeared to be quite normal. After a few months she entirely regained her visual acuity and colour perception. In conclusion, disturbances of colour vision can be discovered in connection with functional disorders of the nervous system, and I think they are worthy of more attention than they have hitherto received.

Dr. PERCIVAL exhibited a pocket book consisting of a sample of Holmgren's wools, with the test colours arranged on a separate strip.

THE annual dinner of the past and present students of Charing Cross Hospital will be held at the Holborn Restaurant on October 20th, at 6.30 P.M., Surgeon-Captain Leahy, F.R.C.S., in the chair.

CONGENITAL ECTROPION OF THE UVEA.

Mr. Sydney Stephenson said that the pupillary border of the uvea normally appeared as a black line at the edge of the iris. This line varied in width, and in some persons projected distinctly into the anterior chamber. From an examination of the literature of the subject, it might be concluded that ectropion of the uvea took three forms: (1) nipple-like projections from the pupillary margin; (2) pigmented particles lying free in the anterior chamber; (3) cysts formed by the degeneration of such particles. Six cases observed by



Mr. Stephenson all belonged to the first class. In none was there any evidence that the projections had been produced by iritis. In them, chocolate-brown or black nodules projected into the anterior chamber; generally there were one or two such nodules, but in one case there were as many as ten; they ranged from 0.25 millimetre to 3 millimetres. They might occur in one or both eyes, and were most often placed at the upper margin of the pupil.

Mr. Hartridge said that he had recently seen a case in which the projections of the uvea in one eye were so regularly disposed round the edge of the iris, that in looking into the eye with a mirror, the red reflex had the appearance of a circular saw. In this case, there were synechiæ in the other eye.

REFLEX AMBLYOPIA DURING PREGNANCY.

By R. Lawford Knaggs, M.A., M.C.Cantab., F.R.C.S.,
Ophthalmic Surgeon to the Leeds Public Dispensary.

In the following case of reflex amblyopia, occurring during pregnancy, optic nerve atrophy threatened, and it was thought right to induce premature labour, after which recovery followed:

S. N., aged 40, presented herself amongst my out-patients on April 11th, 1892, and asked to be examined for spectacles. The left eye was blind and diverged, and perception of light was quite absent. The ophthalmoscope showed bluish-grey atrophy of the disc, with a faintly-marked lamina cribrosa and a distinct outline, except upon the nasal side, where the edge was not sharply defined. There was slight shallow excavation of the disc, and the arteries were small, being only half the size of the veins, which were of good calibre, with a tendency towards tortuosity. No suspicion was aroused by the disc in the right eye. The lamina cribrosa was well marked, and the vessels were of good size and relatively proportional, and the colour was sufficiently good for it to be regarded as a normal disc.

Vision in the R. E.=$\frac{5}{6}$, and the shadow test showed 3 D. of hypermetropia. (L. E.=+5 D.) She had always suffered more or less from headache, and her lips had a slightly bluish tint, which she said had always been so. Her heart and lungs were examined and found normal. The urine, subsequently examined, was healthy. The knee-jerks were present, and there was no blue line on the gums or anything to suggest plumbism. She was pregnant about four months. She gave the following history:

Eight years and a-half ago, during a pregnancy, she had noticed a dimness towards her left side, but did not discover that the left eye was blind till a month after her confinement, when she got something into the other eye. She had had four children since that time, and had noticed nothing wrong with the sight of the right eye at her confinements or at her menstrual periods.

The family history was devoid of interest. She did not reappear until May 23rd, when she complained that her sight had got rapidly worse. Vision had fallen to $\frac{5}{36}$, and her field of vision (A) was considerably smaller than the normal. There was no change in the ophthalmoscopic appearance.

On June 13th she stated she had been losing sight rapidly since May 23rd. Vision was so reduced that she could not see the biggest letter at 4 metres, and the field was much diminished (B). A week later (June 20th) she was unconscious of further failure, but the field showed progressive contraction. (C). Colour vision was abolished, and only the difference between dark and light shades could be distinguished. The disc was certainly pallid by poor illumination, but it is doubtful whether any change in its appearance could be said to have taken place. No abnormality had at any time been detected in the fundus.

In the meantime I had discussed with Dr. Braithwaite the desirability of inducing premature labour, and the patient, electing to try the chance of possibly saving some remnant of vision, was admitted into the Infirmary under Dr. Braithwaite for that purpose. She subsequently stated that before admission her vision deteriorated so much that she could not see her fingers when she held them up before her face.

Premature labour was induced on June 29th, and the child lived a day and a-half. The result of the labour was to leave her in a very weak state, and there was no very marked improvement for a week or more; but a chart of her field, taken by Mr. Wear, the resident obstetric officer, on July 14th (D), after improvement had begun, is almost of the same size and shape as that of June 20 (C).

From that time she mended steadily. On August 8th she reappeared at the Dispensary. Vision had risen to $\frac{5}{6}$, but quickly failed if she continued to look at the letters. On August 15th the field showed a considerable enlargement. In another week vision=$\frac{5}{6}$ and the field was still larger (E). On September 26th V.=$\frac{5}{6}$ and was steadier; and on October 24th it had risen to $\frac{6}{6}$, and continued improvement was visible in the charts. In December and January the improvement was fully maintained, and several fields taken in these months were identical in shape and size, the right inferior quadrant being almost completely obliterated. The largest was the last that was taken—on January 18th (F). On that day vision=$\frac{6}{6}$ fairly and with +1 D. Sph.=$\frac{6}{6}$, but, after a short time she could only read $\frac{9}{36}$, which remained.

The disc was of a dull grey colour, with a faint bluish tinge at its outer side, but, in other respects, there was no perceptible alteration in the fundus. The appearance of the macular side of the disc was, however, very suggestive of partial atrophy.

On April 26th V.=$\frac{6}{6}$ without a glass, and she stated that at each catamenial period her sight was not so good for a day or two, but that it quickly recovered itself. Colour vision was completely restored.

By the kind assistance of Mr. Simeon Snell, I am able to add to these notes the following reference, which would seem to apply to an identical case.

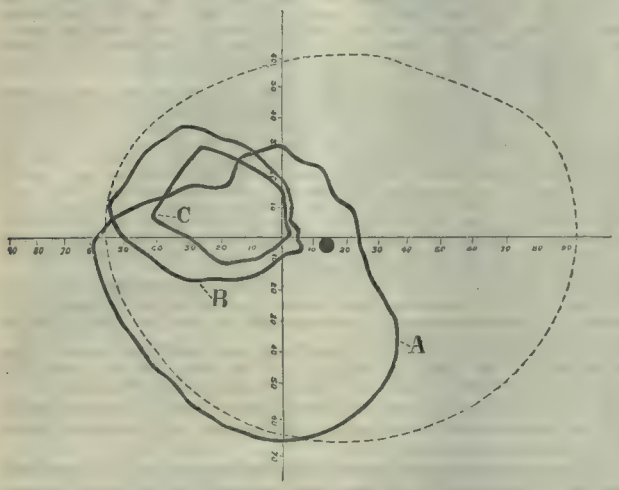
"Valude[1] reports an interesting case occurring in a patient aged 30. Her first pregnancy had occurred nine years before. Following her confinement, at every succeeding menstrual epoch, there had been a marked amblyopia in both eyes, worse in the left eye, which lasted during the menstrual epoch and then rapidly disappeared. This condition remained unchanged up to the beginning of her second pregnancy, when the left eye suddenly became and grew increasingly much worse. The left eye grew steadily worse during the pregnancy, and at the end of the second month the right began to fail. The ophthalmoscope showed a white optic disc in the right eye (? ; the left is probably meant), where there was only perception of light, and a slightly pale optic disc in the left (? right) eye, with a vision of $\frac{1}{10}$. Premature delivery was advised and performed successfully, with restoration of normal vision to the right eye, but no effect on the left."

It is not desirable to obscure the practical value of these cases by a discussion on the forms of amblyopia described as hysterical, neurasthenic, reflex, or as retinal anæsthesia. It is sufficient to suggest that under these names are grouped together a variety of conditions, in reality essentially distinct, but having somewhat similar clinical characteristics. The uncertainty that marks the whole subject is probably to be attributed to this circumstance, and has led me to record the case of S. N. in rather full detail as a contribution to the literature of these affections. The condition present in her case was surely not an hysterical amblyopia, not a mere abeyance of function, a retinal anæsthesia without pathological cause. The recovery of the field with the curious defect of a single quadrant would negative such an idea.

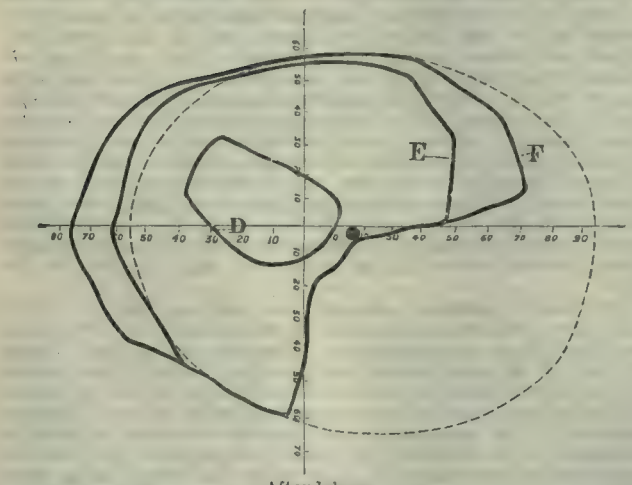
The loss of sight, and the concentric contraction of the field of vision were, as the result proved, dependent in some way upon the pregnancy; and the term "reflex amblyopia" may fairly be held to be suitable. Mr. Priestley Smith has given a very ingenious explanation of the phenomena of reflex amblyopia. He suggests that a peripheral stimulus acting through the sympathetic nerve leads to a vasomotor effect within the eye, and that the defects of sight are produced through the medium of the vessels of the capillary layer of

[1] *Ann. d'Oculistique*, April, 1892.

the choroid. He argues that a constriction of the intra-ocular vessels, which in the retinal arteries would escape ophthalmoscopic detection, would be quite sufficient to interfere seriously with the supply of blood through the highly vascular chorio-capillaries, at the same time that such a variation in the circulation would necessarily be concealed from an observer. The amblyopia he believes to be due to the impaired nutrition of the rods and cones in consequence of restricted blood supply, and the concentric contraction of the field, which is a constant feature in these cases, depends upon the anatomical arrangement of this capillary layer, which is thickest and most abundant at the macula, and gradually thins off towards the periphery.[2]



Before induction of labour.



After labour.

Such a theory would account for the diminished visual acuity, the concentric contraction of the field, and the loss of colour perception, which were present in this case; and with the removal of the peripheral irritation, and the withdrawal of the constricting influence, a better blood supply would lead to improved nutrition of the retina, and under ordinary circumstances to recovery of its impaired functions.

But the deficient quadrant in the fields taken during recovery introduces an unusual phenomenon, and one which it is not easy to understand, except that in all probability it marks a stage towards optic nerve atrophy. After careful inquiry and much search, I have obtained only one case that seems to bear any resemblance to that of S. N., namely, the one recorded by Valude, of which an abstract has already been given.

[2] *Ophthalmic Review*, vol. iii, p. 134.

Now from these two cases there would seem to be a very great danger of this form of amblyopia, when it occurs in the course of a pregnancy, terminating in optic nerve atrophy and absolute blindness, if the pregnancy is allowed to run its natural course. But in cases where the amblyopia appears to owe its origin to forms of peripheral irritation or stimulation other than pregnancy, the prognosis would seem to be uniformly good, apart from such exceptional accidents as thrombosis of the retinal artery.[3]

Is it possible that this difference is a question of nutrition, and that the alteration in the quality of the blood that takes place in pregnancy is to blame?[4]

The chief importance of these cases lies in the practical lesson they teach. Though the tendency of this form of reflex amblyopia in pregnancy is to optic nerve atrophy and complete blindness, yet if proper treatment is adopted in time a cure would seem to be almost certain. The longer the pregnancy is allowed to continue the greater becomes the danger of a well-marked permanent visual deficiency. It is, therefore, of the utmost moment that in pregnant women any increasing defect of vision should be very carefully investigated.

If the results of careful and repeated observations show (1) that acuteness of vision is rapidly diminishing; (2) that there is concentric contraction of the field or fields of vision, and that this contraction is increasing; (3) that colour perception is impaired; and (4) that there is no disease of the fundus to be seen with the ophthalmoscope; the prognosis, so far as sight is concerned, is very serious. The period for expectant treatment has gone by, and abortion or premature labour should be induced without delay. To wait is to run a great risk of permanent blindness; to interfere, if the amblyopia is not too far advanced, is to ensure recovery.

These remarks may be regarded as more dogmatic than the facts at my disposal would seem to justify; but the subject is so important, and has so much interest for the great majority of our profession, that it is desirable that the note that the ophthalmologist strikes should not be one of hesitancy or doubt.

Brigade-Surgeon-Lieutenant-Colonel E. F. DRAKE-BROCKMAN remarked that he was of opinion that the condition of loss of vision in pregnancy was due more to an alteration in a condition of the blood than to the reflex action on the structure of the choroid and the nutrition of the rods and cones. He was led to this opinion from the history of the case recorded by Mr. Knaggs, and from a case of pregnancy in the fourth month which came under his own care, in which embolism of the retinal artery in one eye occurred. The patient had suffered from temporary and partial loss of vision during each successive menstrual period preceding pregnancy. The altered character of the blood had more to do with the amblyopia, in his opinion, than the influence of reflex action.

Mr. SYDNEY STEPHENSON suggested that Mr. Knaggs's case might be explained as one of chronic and insidious disseminated sclerosis, such as those described by Dr. Buzzard. The possible onset of optic atrophy, he thought, negatived the reflex theory of causation.

THE EFFECT OF CORRECTING ERRORS OF REFRACTION IN EPILEPTICS.

DR. JOHN HERN (Ophthalmic Surgeon, Darlington Hospital) said that, although it would be obviously incorrect to state that because an epileptic had an error of refraction it must be the cause of his epilepsy, yet it appeared probable that in some cases at any rate the eye strain necessary in hypermetropes and others to focus a clear image on the retina might be the starting point of the epileptic attack. At a meeting of the Ophthalmological Society early in 1893 Dr. Hern had shown the first case he had met with in which true epileptic seizures ceased on a correction of hypermetropia by glasses. In this case the patient had no "fit" if he used his glasses for reading, but if he neglected this an attack of true epilepsy occurred. Since then Dr. Hern had met with three other cases, as follows:—

[3] *Vide* Case, Priestley Smith, *Ophthal. Review*, vol. iii, p. 2.
[4] Playfair's *Midwifery*, vol. i, p. 140.

Case I.—J. A., machinist, aged 30, has always had good health; he says he cannot remember the time when he could read long without taking a "fit," and never had an attack except after reading; he is married and has three healthy children (two of whom are hypermetropic). He consulted me because he had taken a fit at his work and narrowly escaped falling into his machine; says he has recently had printed directions on his machine and was reading them when he fell. Nothing could be detected but hypermetropia; + 3 D arpt., + 6 D total; ordered + 4.5 D. He has now worn these some months, and has had only two attacks.

Case II.—J. G., aged 14, healthy lad, no morbid tendencies can be detected. Had two attacks in my waiting room and one during ophthalmoscopic examination of his eyes. Distinct aura attack began with left lateral conjugate deviation of the eyes, then spasmodic twitching in the obicularis and levator palpebræ superioris, then in general convulsions and complete unconsciousness. Hypermetropia.

Ordered + 2.0 D, + 5.5 D } Reading
+ 1.5 D, Distance.

Although he had been having an average of ten fits a day, these entirely stopped on wearing the glasses, but he often has one during the night. A short time ago he broke his distance lenses, and during the time these were in London for repairs, the fits returned (eight a day), and disappeared again when the glasses were worn.

Case III.—Male, aged 15, healthy, hypermetropic astigmatism in left eye, hypermetropia only in right eye, corrected by lenses. *Result.*—Seizures lessened about a half in frequency, but unaltered in severity.

In two other cases, although the attacks were undoubtedly epileptic, the correction of the error of refraction had no beneficial effect whatever.

Mr. Hartridge thought that if the epilepsy were due to such a peripheral cause as might be produced by excessive or irregular action of the ciliary muscle, then the more completely this strain was relieved the greater the advantages which might be hoped to result.

Mr. Sydney Stephenson urged the necessity of carefully distinguishing between the fits of idiopathic epilepsy and those resulting from hystero-epilepsy, because the fact would be generally admitted that the inception of any treatment novel to the patient would be likely to modify the fits associated with the latter condition. Again, assuming that peripheral eye irritation could cause idiopathic epilepsy, it would be better to correct the ametropia as fully as possible instead of partially correcting it, as Dr. Hern had done in his cases. Finally, he suggested that further investigation was needed before a definite conclusion could be come to on the connection between errors of refraction and epilepsy.

Brigade-Surgeon-Lieutenant-Colonel E. F. Drake-Brockman mentioned two cases of lunatics who had cataracts, and in whom the cataracts were removed by operation. The effects on the mental conditions of these two patients were of the opposite nature. One, who before the operation was a mischievously mad girl became quite docile after sight was restored. The other, who before the operation was a quiet and inoffensive lunatic, became very violent, and had to be placed under restraint. Dr. Drake-Brockman thought that these cases might throw a side light upon the effect produced on the mental condition of patients by the restoration of sight, or by its correction by suitable lenses.

Dr. Percival had read the glowing accounts of some American ophthalmologists who declared that they were able to cure many cases of epilepsy and insanity by correcting errors of refraction, or by button-hole operations on the ocular muscles. A fair number of epileptic cases had been sent him, but he had no successes to report. No permanent diminution of fits seemed to have followed the most careful refractive correction. He would, therefore, think Dr. Hern's experience of three successful cases out of five most unusual.

Mr. W. J. Cant said that he had seen one case in which the correction of hypermetropic astigmatism + 2 + .75 at 150 both eyes (full correction) apparently cured the epilepsy. The fits were not frequent, on an average once a week, and not severe. Many other cases of epilepsy had been examined and all the ametropic cases corrected, but only in one other case was there any relief to the fits.

SIMPLE GLAUCOMA IN A YOUNG PATIENT.

Dr. W. G. Sym (Edinburgh) first related the case of a woman, aged 31, who suffered from well-marked glaucoma simplex. This seemed to have come on with very unusual rapidity, but yet without any inflammatory or congestive symptoms. She was in poor health herself and ill fed, while suckling an infant, and nursing several other children through measles and chicken-pox. She was "never off her feet night nor day," and at the same time was much distressed because her husband had lost his work and funds were low. The only symptoms were failing vision, especially in a dull light (? enfeeblement of accommodation), rapidly descending to mere ability to count fingers at a distance of 2 feet (left) and 6 inches (right eye); and headache of a moderate degree. She saw no coloured rings or mist before the eyes, and no alteration in the appearance of the eyes was observable by her friends. Nothing of importance was elicited in the personal or family history except the absence of any of the usual assigned causes of glaucoma. Vision on the first occasion of testing was = (R. E.) fingers close to the face, great difficulty in fixation, = (L. E.) fingers at 2 feet; no central fixation, field reduced, especially at nasal side. The pupils were rather dilated, and acted but sluggishly to light; the A. C's. were not shallow; corneæ and media perfectly clear; subconjunctival veins not distended; T = + 1 (R. E.) + ? (L. E.). The patient was ordered to wean the child, to take a ferruginous tonic, and to instil pilocarpin drops (gr. 2, ℥j) twice a day. Ten months later the patient was much better in health; V. = R. E. fingers at 10 feet excentrically; L. E. $\frac{1}{60}$ excentrically, and single letters of J. 8; with macula $\frac{1}{20}$.

To find the point of best vision, Dr. Sym caused the patient to "fix" the flame of a candle distant about 2 feet with the macula, and moving his hand to the side, desired the patient to tell him when it had reached the area of clearest vision; he found that a separation of candle and finger of one foot was required. By means of the corneal image of the flame he could make sure that the eye did not move. Cupping extreme; the refraction of the eye being normal, the bottom of the cup required in the left eye − 5 D, in the right eye − 9 D (showing a depth of approximately 1.6 and 3 millimetres respectively).

By an accident on the part of a chemist, the patient was supplied on one occasion with atropine drops, which she used for a week in place of the pilocarpin. Very curiously, but very fortunately, no permanent evil result followed, though the pupils were dilated to maximum and vision was temporarily made worse.

In the course of some remarks upon glaucoma in young persons, the following were pointed out as special features of interest in this case: (1) The recurrence of glaucoma simplex in a woman under 35 years of age, of normal refraction; (2) the very short duration of symptoms, taken in connection with the rapid deterioration of vision, and the total absence of congestive signs even under the use of atropine; (3) the extreme cupping produced in a short time with very little rise of tension; (4) the evident dependence of the condition on the state of the patient's health, and her improvement under tonics and pilocarpin. Dr. Sym's opinion was that in glaucoma there were two mysteriously connected and at the same time ill-balanced tendencies; one to atrophy of the nerve and cupping of the disc—the neuro-atrophic element; the other to blocking of the internal circulation—the congestive element. If the former predominated, glaucoma simplex was produced; if the latter, glaucoma acutum. In glaucoma simplex, the tension would rise, and a congestive attack would occur, were it not that the weakened and atrophying nerve yielded to the smallest increase of pressure (perhaps to normal pressure). The case related appeared to be an extreme example of this variety of the disease.

THE OPTICAL TREATMENT OF CONICAL CORNEA.[1]

Dr. George Mackay (Edinburgh) said that the difficulty of securing an accurate objective estimation of the ocular refraction in cases of transparent conical cornea was only equalled by its desirability; for unless we made an approximate estimation for these patients based on independent optical measurements, it was probable that in the selection of glasses they would find only a choice of evils. The paper described a modification of the ordinary method of retinoscopic examination which the author had found useful in some cases of keratoconus. In pellucid conical cornea the ophthalmoscope revealed a peculiar alteration of the glow from the fundus. There was a peripheral clear glow, a central dull glow, and an intermediate dark ring of variable breadth and

[1] The paper will appear in the *Ophthalmic Review*.

intensity. At each tilt of the mirror the observer noted a revolving movement of the dark ring round the central glow, and the true retinoscopic observation was thereby obscured. By the use of a diaphragm of suitable aperture—3 mm. generally—the eccentric parts of the pupillary area could be shut off, and the retinoscopic estimation of the refraction through the summit of the cone proceeded with. In a case cited, very marked improvement of vision was secured by this means in a patient for whom a correction could not be found by the ordinary method of retinoscopy, and whose own choice of glasses fell far short of the total error. (A trial frame, with supports for a diaphragm, was exhibited, as well as a pair of stenopeeic spectacles, into which an opaque coating had been baked after grinding of the lenses.)

SECTION OF DISEASES OF CHILDREN.

THOMAS BARLOW, M.D., F.R.C.P., President.

DISCUSSION ON ABDOMINAL TUBERCULOSIS IN CHILDHOOD AND ITS TREATMENT.

I.—FREDERICK TAYLOR, M.D., F.R.C.P.,
Physician to Guy's Hospital.

TUBERCULOSIS OF THE ABDOMEN IN CHILDREN.

THE subject is large, and I shall not attempt to deal with tuberculosis of all the organs and structures, which are to be found within the limits of the abdominal walls and cavity. These, of course, would properly include the alimentary canal—stomach, small intestine and large intestine—the liver, spleen, suprarenal capsules, kidneys, ureter, peritoneum, and various lymphatic glands, while it might be an open question whether the bladder, vesiculæ seminales, and vasa deferentia, uterus, and uterine appendages should not also be considered.

I propose to confine myself to the consideration of those forms and those localities of tuberculous disease which are by far the most frequent in children, and which generally occur at once to the mind when the phrase "tuberculous disease of the abomen," or the popular expression "consumption of the bowels" is made use of. Those forms are (1) disease of the alimentary mucous membrane, commonly known as tuberculous ulceration of the intestine; (2) disease of the serous membrane or peritonitis, commonly known as tuberculous peritonitis; and (3) disease of the mesenteric glands, known at least in its more pronounced forms as tabes mesenterica.

TUBERCULOSIS OF THE STOMACH.

As is well known, the alimentary canal is not in all its parts equally open to the invasion of the tubercle bacillus, and the stomach and œsophagus are quite rarely the seat of this disease, while the intestines in large numbers of cases in both children and adults present extensive ulceration of their mucous membrane. It is practically certain that the mucous membrane is in most cases invaded by the ingestion of tuberculous materials, either in phthisical sputa when they are swallowed, or possibly in the milk from diseased cows. The difference above referred to has been explained by the facts that the ingesta pass too rapidly through the œsophagus to allow of its mucous membrane being successfully attacked, and that the acid contents of the stomach are prejudicial to the life of the bacilli. Nevertheless, in exceptional cases tuberculous disease has been discovered in the stomach.

Barbacci[1] reports a case in which in the pyloric portion of the stomach there were two small round ulcers, about 1 centimetre in diameter, with clean cut edges, and in the base of each was a caseous nodule. Tuberculous ulcers and nodules were also found in the pharynx, epiglottis, larynx, and in the lower part of the ileum, and there were miliary tubercles in the lungs. Tubercle bacilli were found in large numbers. The subject was aged 79, and nothing was known of her clinical history. Barbacci regarded the lesions in the alimentary canal as primary, those of the respiratory organs as secondary.

A few years ago, at the Evelina Hospital, some tuberculous ulcers were found in the stomach of a child who died with general tuberculosis; but I have unfortunately been unable to lay my hands on the notes of the case.

In the BRITISH MEDICAL JOURNAL[2] Dr. Cecil Beadles describes the case of a female, aged 58, in whom the stomach was considerably dilated, and a pyloric tumour, which was felt during life, prove to be due to extensive ulceration, with thickening in places. This, on microscopical examination, was found to be tuberculous. There were suppurating caseous glands along the spine and also in the right axilla. The abdomen only was allowed to be opened.

Litten, in 1876, published[3] the case of a man, aged 70, who died with extensive tuberculous disease of the larynx, bronchi, and lungs, caseation of mesenteric and epigastric glands, and miliary deposit in the peritoneum. On the anterior wall of the stomach, near the smaller curvature, was an oval ulcer measuring 1⅜ in. by 1½ in. (4.2 cm. by 3.3 cm.), with sharp edges and greyish-yellow nodules upon its base, its edges, and upon the serous membrane beneath it. The intestines were entirely free from ulceration, and no symptoms had existed during life that could be attributed to the gastric ulcer.

While thus noting the possibility of a tuberculous lesion occurring in the stomach, and as instanced by the case in the Evelina, of its occurring in a child, it is clear that it is a rare lesion, and I do not think that it is very likely to be accompanied by symptoms in a child, as it is probable that when it does occur it is mostly a part of a general tuberculosis affecting the alimentary canal as well as other parts.

TUBERCULOSIS OF THE INTESTINES.

A consideration of a number of cases of tuberculous ulceration of the intestine shows that the ulceration may be present in every part of the intestinal canal from the duodenum to the rectum, though probably the ileum and the cæcum are more often invaded by tubercle, as they are by enteric fever. But remarkably large ulcerations may take place in the rectum, and only a few weeks ago I saw in the *post-mortem* room of Guy's Hospital a large circular ulcer, having a diameter at least as large as that of a half-crown piece.

In a girl, aged 12, who died at the Evelina Hospital of laryngeal phthisis, and suffered also from disease of the hip-joint, the colon and rectum presented tuberculous ulcers ranging from the size of a sixpence to that of a five-shilling piece.

The pathological associations of tuberculous ulceration of the bowel are numerous, and occur in children with greater uniformity or equality. Thus tuberculous ulceration may be associated with tuberculous peritonitis, with caseation of the mesenteric glands, with general tuberculosis, with a purely local tuberculosis of the lungs, or ordinary phthisis. In this last case it is often secondary to pulmonary lesion, produced no doubt in the way so common in adults, namely, by the patient swallowing the sputa.

Wesener found that an injection of tuberculous sputa into the stomach failed to produce ulceration of the bowel, but the mesenteric glands were infected. Necessarily therefore the gastric secretion spared something. On the other hand, injection of the sputa directly into the bowel caused intense tuberculosis of the gut. Wesener explains the facts by supposing that the gastric juice kills the bacilli, but leaves the spores unharmed. And he further states that the action of the gastric juice is paralysed by alkalies and by milk, of which the curds surround the bacilli and thus convey them safe through to the bowel. That in ordinary cases of phthisis the intestine suffers so much is, he says, due to the catarrhal condition of the stomach interfering with the protective operation of the gastric juice. The view that the normal gastric juice destroys the bacilli but spares the spores is combated by Fischer; and indeed it may be asked if the intestine is unprotected because the gastric juice is rendered inoperative upon the bacilli by mucus, why the stomach itself remains exempt in all but the very rarest of cases. It cannot surely be said that no phthisical patient gets ulceration of the bowel till he takes to a milk diet.

CONVEYANCE OF TUBERCLE BY THE INGESTION OF MILK OR FLESH.

Two instances I find recorded are almost more allied to the preceding group of cases, or at any rate form an intermediate class:—

Demme[4] records that three infants, none of whom had a tuberculous family history, died of a primary tuberculous affection of the bowel, and a fourth child was ill from the time that it took to spoon food, and the child died. The nurse used to test the heat of the spoon food by tasting it and then blowing on it to cool it—no doubt a common practice, but she had an old lupus on the nasal septum and tuberculous disease of the mucous membrane of the antrum of Highmore, with dental fistulæ opening into the mouth.

Herterich[5] states that two children acquired tuberculosis undoubtedly through feeding. The mother had active phthisis and used to masticate their food beforehand for them.

Such cases are clearly very suggestive if not absolutely

conclusive in themselves. But they are rather instances of the direct introduction of tuberculous matter into the stomach, the tuberculous matter coming from another individual and not from the patient's own lungs or bronchial tubes.

The question of the infection of cow's milk with tuberculous virus has been entertained and discussed ever since the close resemblance of so-called "bovine tuberculosis" to human tuberculosis has been recognised. Infants and young children over a great part of the world are largely fed upon cow's milk, either directly from birth or after the termination of nursing by the mother. Primary abdominal tuberculosis, affecting either the mucous membrane, the glands, or the peritoneum, is undoubtedly very common in children.

Animals have been fed with milk directly impregnated with tubercle bacilli with varying results, some being infected, others escaping. Animals have been fed with the milk of tuberculous cows, also with varying results. The milk of tuberculous cows has not always been found to contain bacilli, and, therefore, it is conceivable that it should not always be, if sometimes it is, infectious. It is reasonable to suppose that milk infection is more likely to take place when there is tuberculous disease of the udder of the cow than when the tubercles only affect the internal organs, and the opinion has been expressed that it is only in the former case that the milk is infected. The subject does not receive much enlightenment from the cases of tuberculous women nursing their children. A woman decidedly ill with phthisis mostly has a poor milk supply, yet I daresay there are quite enough phthisical mothers nursing their children to help in this inquiry if there were no other considerations to hamper the question. Actual tuberculous disease of the human breast is probably too rare to afford much information, and no doubt in most recorded cases the hygienic bearings of the case in reference to sucking infants, if such a contingency has existed, will not have been particularly considered. Moreover, in any case where an infant nursed by a tuberculous mother has become itself tuberculous, the possibility of direct infection by the breath, by the atmosphere of the room, and the influence of hereditary disposition would have to be put out of court before the infection by the breast milk could be definitely accepted.

The question of tuberculous flesh or the flesh of tuberculous cows presents some differences so far as we are concerned; for first, the ingestion of flesh as food is not confined to children, as that of milk very largely is; secondly, in a well-regulated community it ought to be very easy to reduce the consumption of such meat to a minimum by proper sanitary laws; and, thirdly, the conveyance of tubercle in this way is much less probable than is its conveyance by milk. If it were at all common we surely ought to see a great deal more of primary abdominal tuberculosis in adults than we do.

In any case, if the milk of tuberculous cows is a source of infection of children by means of the alimentary canal, we must admit the possibility of the tuberculous lesion occurring either in the mucous membrane, the serous membrane, or the mesenteric glands, and we must allow that the conditions which determine one or other of these localisations in the first instance to be as yet almost entirely a matter of speculation. Drs. MacFadyean and Sims Woodhead, at the Congress of Hygiene in London in 1891, thought it was clear that sometimes bacilli left the mucous membrane and passed to the glands, and Dr. Hamilton followed with the suggestion that in the converse case, that is, where the mucous membrane was attacked first, the resistance of the membrane was probably lowered by previous disease; whereas, if the intestine is healthy, the bacilli pass through to the peritoneum. This view is, of course, in accordance with our general views as to the conditions of the invasion of tubercle elsewhere, but it seems to me one that will prove rather difficult to establish conclusively by the evidence of actual cases.

Even while the subject of tuberculous infection by cow's milk and flesh is still *sub judice*, I think we may safely and properly bear in mind the conclusions which the President of the Section (Dr. Barlow) expressed at the same Congress; and I may here transcribe his words as given in the second volume of the *Transactions* of the Congress: "The two practical hints which appear to me to stand out indubitably are that we ought more strongly to emphasise the need of boiling milk, and that we should be more guarded than has hitherto been the case in the prescription of raw meat and of meat juice in cases of infantile atrophy and dyspepsia."

Caseation of Lymphatic and Mesenteric Glands.

Tubercle of the mesenteric glands is the disease for which the clinical name of tabes mesenterica is usually considered to be reserved. Now, caseation of the mesenteric glands, as a pathological fact—that is, as a condition found *post mortem*—is undoubtedly common. Drs. MacFadyean and Woodhead reported to the Congress of Hygiene that they had found it present 100 times in 127 cases of tuberculosis in children—that is, in 79 per cent. In a much smaller number of cases that time has enabled me to collect from the notebooks of my cases at the Evelina Hospital, I find in rather more than one-third no mention is made of the glands, in about one-third they were enlarged, and in the same number they were caseous or breaking down. There were cases of tuberculosis, meningitis, peritonitis, and phthisis taken indiscriminately. The frequency with which the mesenteric glands are involved must be admitted, but, on the other hand, I think it must be allowed that tabes mesenterica—that is, an amount of disease of the mesenteric glands which can be recognised clinically as such—is uncommon as compared with recognisable tuberculous ulceration and recognisable peritonitis. Drs. Woodhead and MacFadyean say that only 20 of their 100 cases were diagnosed as abdominal tuberculosis, and this surely means that the diagnosis of tuberculous glands as the main disease, apart from peritonitis and ulceration, must have been recorded still less frequently. This is no very original observation. Henoch especially points out that the cases of wasting disease, which were formerly universally attributed to "glands in the belly," are generally cases in which the mesenteric glands are affected secondarily to disease of the peritoneum or of the bowel. I should agree with him entirely to this effect, that however frequent may be the occasions in which the mesenteric glands are found caseous or tuberculous after death, it is quite uncommonly that one meets with a case in which we can say from clinical examination that the chief and primary lesion is caseation of these glands, and that the atrophy and ill health from which the little patient suffers are due to that caseation. In that sense, I believe that tabes mesenterica, or wasting from mesenteric gland disease, is uncommon clinically. No doubt in the severer cases of tuberculous peritonitis these glands are often involved, and contribute, with the matting together of the intestines, to the lobulated masses and lumpy resistance which we recognise as the characteristics of so many cases of peritonitis.

I do not think we should feel the loss very much if we dropped altogether the name "tabes mesenterica." It is a clinical name the pathological basis of which is often, as already shown, very difficult to verify during life, and it is constantly associated with other pathological conditions which have much greater importance. The term "caseation of the mesenteric glands," or "mesenteric tuberculosis," would probably be found a sufficiently good substitute.

There is one outcome of caseation of the mesenteric glands which it may be useful to bear in mind, and that is suppuration and formation of an abscess, which may rupture into the peritoneum and cause peritonitis, or even apparently set up peritonitis without rupture. This last was the view entertained of a case reported at a Branch meeting of this Association last year by Mr. F. Marsh[6]:—

> It occurred in the Queen's Hospital, Birmingham. A girl, aged 5, was seized with symptoms of acute intestinal obstruction. An exploratory median incision was made and the coils of intestine were found adherent to one another. In the right iliac fossa the last few feet of the ileum were contracted and empty, matted together and bound down by adhesions, though it is stated that no coil was specially distended. She died ten hours after the operation, and it was then found that, of two or three enlarged mesenteric glands, one had suppurated, and the breaking down of adhesions at the time of the operation had given exit to parts of its contents. The cavity was about equal to 2 drachms; was probably of tuberculous origin, and evidently the cause of the peritonitis.

Dr. Pye-Smith has allowed me to mention a case which occurred under his care at Guy's Hospital, and which was operated on by Mr. Clement Lucas. The symptoms were in general those of acute intestinal obstruction or acute peritonitis, and considerable doubt existed, as it so frequently does, as to the exact nature of the lesion. An exploratory operation was determined upon, and quite at the back part of the abdomen, at the attachment of the mesentery, a suppurating gland was dis-

covered. Unfortunately in the manipulations required the thin wall of the abscess gave way and the pus escaped.

TUBERCULOUS PERITONITIS.

Probably I am right in supposing that a greater interest will be taken in the peritoneal distribution of tubercle than in any that I have yet dealt with, and largely because of late years a method of treating tuberculous peritonitis has been tried, by which it is stated some very satisfactory and striking results have been obtained. It is generally admitted that tuberculous peritonitis may occur in two forms, so far as the clinical results are concerned: (1) In the one the peritoneal surface is covered with miliary tubercles, and a quantity of serum is secreted so as to constitute a real ascites. (2) In the other the tuberculous process results in the matting together and adhesion of the coils of intestine, associated with enlargement of mesenteric glands, and possibly the formation of abscesses, tuberculous ulceration of the bowel and perforation of the ulcers, so that adjacent coils of the intestine communicate with one another. The result of this combined matting, adhesion, and glandular enlargement is the formation of a more or less definite tumour, which can be felt to occupy a certain portion of the abdomen. As is well known also, the omentum may be infiltrated with tuberculous and inflammatory products so as to form a band lying transversely across the abdomen at its upper part, and a similar infiltration may affect the connective tissue about the remains of the urachus and the obliterated hypogastric vessels. The tumours formed by matting are often well defined, in other cases decidedly obscure, in others again well defined one day and indistinct another; this varying condition, as pointed out by Drs. Goodhart and Carpenter,[7] must depend some time on the varying amounts of air in the intestines in or around the matted portions, and naturally this circumstance would be more likely to affect a tumour of small extent than one much larger.

The tumour of tuberculous peritonitis in a large number of cases occupies the lower part of the abdomen, corresponding to the hypogastric, and the two iliac regions, running up on one or other side into the lateral region, or, it may be, extensive enough to fill up the lower half of the abdomen as high as, or even beyond the umbilicus. Undoubtedly in most of these cases ascites is not present. As already stated, this mass may present collections of pus and abscesses in its interior, and this occurs in the most severe, where the matting is considerable. Possibly the abscesses are the results sometimes of the breaking down of caseous glands in the centre of the mass, though there seems no reason why they should not arise from tubercle deposit apart from the mesenteric glands.

But there is a class of case in which large abdominal abscesses form, or in which large collections of pus occur, so as to occupy the greater part or the whole of the surface of the abdomen, and it is a question whether these are always in children of a tuberculous character. While unable on the present occasion to supply evidence bearing in one or other direction, it seems to me, from the analogy of the suppurative process in other serous membranes and in the structures of the body generally, to be extremely unlikely that the formation of pus in this way should be either invariably due to tubercle, or constantly independent of it.

There are one or two other points of interest in regard to the associations of tuberculous peritonitis. One is the occasional implication of the genital organs at the same time. The vesiculæ seminales may be thus involved, or the epididymis and testis. In either case the lesion may be valuable as a strong confirmation of the diagnosis; and, in the first case, this is an additional advantage of that examination of the rectum which is advocated by Drs. Goodhart and Carpenter in the paper alluded to. I had a case of the kind at the Evelina Hospital a few years ago, in which by examining *per rectum* I could feel a very distinct enlargement and thickening of the vesiculæ seminales, somewhat more decided upon one side than the other. In another case to which I shall refer again presently, one testis has been and is the seat of tuberculous deposit.

Another occasional feature in tuberculosis of the abdomen is the occurrence of œdema of the lower extremities, or even of the whole body. In late stages this can be explained by cardiac failure, but one sees it sometimes, at any rate in its partial form, when the abdominal disease seems to be yet in a comparatively early stage. Some interference with the return of venous blood, either by the pressure of tuberculous masses, or by thrombosis, secondary to pressure or tuberculous invasion, may be the cause of this. I remember a case in which there was local œdema of the scrotum, and I think I am right in saying this was the case in which the vesiculæ seminales were diseased.

I need do no more than allude to the fact that tuberculous peritonitis in children is often, is indeed in the majority of cases, independent of phthisis in the ordinary sense of the term. It is true that in many cases tuberculous deposit is found in the lungs after death, but this deposit is mostly one of miliary tubercle, and is no doubt part of a general tuberculosis, with which the case has terminated. But phthisis proper, that is, consolidation and excavation of the lung as distinguished from mere miliary deposit, is comparatively rarely present.

TREATMENT.

Time warns me that I must not attempt to deal with many questions of interest, such as diagnosis, but that I must say a few words about the treatment. We know well that for many years the treatment of tuberculous peritonitis has been anything but heroic, and yet the disease has been by no means universally fatal; indeed, one would say that amongst tuberculous affections that are classed under medical ailments, tuberculous peritonitis is the most favourable, and the most likely to terminate in practical cure or recovery. Incidentally one may remark here that our more comprehensive knowledge of the diseases formerly known as tuberculous, strumous, and scrofulous, by which we are enabled to declare that they are one and all due to tubercle and the tubercle bacillus, should very much increase our belief in the possibility of improvement or even recovery when the tuberculous lesion is seated in the most unfavourable locality. The diseases of joints and enlargements of glands attributed to tubercle often get well, peritoneal tubercle in some way subsides, the incurability of phthisis is only a relative term, and even recovery from tuberculous meningitis is allowed by all to be conceivable, and probably occasionally occurs. In all these cases the tuberculous process is stayed, and if the tissue is destroyed or damaged, at least the patient lives.

The treatment then of tuberculous peritonitis—the medicinal treatment—that I have pursued in accordance with teaching I received long ago, has been the inunction of the abdomen with mercurial ointment, either the unguentum hydrargyri compositum of the *Pharmacopœia*, or a 2½ or 5 per cent. oleate of mercury, and the internal administration of cod-liver oil. The patient is kept at rest, and fed with as good and nourishing food as he will take. Henoch, whom we may take as the great German authority on the diseases of children, does not speak at all hopefully as to the prognosis in tuberculous peritonitis. He uses, it appears, wet compresses for many weeks, salt water baths, and painting of the abdomen with tincture of iodine, and iodoform collodion; internally he employs cod-liver oil and the iodides of iron and potassium. He is so little sanguine that the few cases of chronic peritonitis he has seen recover under this treatment he believes were simple and not tuberculous. No doubt this is a very real difficulty sometimes and it is quite conceivable that some cases are to be so explained; but, on the other hand, (1) the question has to be answered, What is the nature of these cases of chronic peritonitis which are not tuberculous? (2) Recent operations on the abdomen show the frequency of the presence of tubercle, and, apparently, its total subsidence. (3) I can supply here one case in which chronic peritonitis, associated with tuberculous disease of the testis, has practically recovered while the testis remains affected.

A boy, aged 2½ years, was admitted under my care in January, 1891, with the history that his abdomen had become swollen three weeks previously, and about the same time a swelling was noticed in his left scrotum. He had got thinner, and lost appetite; his abdomen was tense and humid, with distended veins; there was resonance in the upper part, as low down as the umbilicus, and slight resonance in the flanks; below the umbilicus it was dull and hard to the touch, but without tenderness, redness, or fluctuation. There was translucent swelling in front of the left testis; the testis being felt distinctly behind, and the cord thickened. A month later the dulness and resistence in the lower half of the abdomen

extended an inch above the umbilicus in the middle line, and the upper limit sloped up to the costal margin in the splenic region. In June an abscess formed in the testis and burst. On September 20th the testis was still discharging thin pus; the abdomen was resonant all over, and no lumps could be felt; the liver appeared to be slightly enlarged; the veins on the surface of the abdomen were still enlarged, and there was a good deal of tympanites; the heart and lung sounds were normal; the temperature had never been very high. During the end of April and first half of May there was moderate pyrexia, and there were occasional short periods of pyrexia at other times. The motions were frequently loose. He was discharged on September 21st, 1891, convalescent. But he has been recently again attending at the hospital under Mr. Targett, on account of the testis. I saw him on July 21st, 1893; the abdomen was practically normal. Only in the the left iliac fossa was there some sense of resistance, along a short length obliquely, which might be a line of old adhesion or thickening. But for this the abdomen is flaccid, supple, soft, resonant, and free from pain and tenderness.

Recently large numbers of cases of tuberculous peritonitis have been treated by the operation of laparotomy. The abdomen has been incised, fluid has been removed from the peritoneal cavity, and that cavity has been drained, or, in some cases, has been simply cured without drainage; and this is the treatment that I feel my surgical colleagues are more competent to discuss than I am. So long ago as 1890,[8] 71 cases of this operation were recorded, of which it was stated that 83 per cent. were successful. Half of them were well one year afterwards. In many dying of other tuberculous affections the peritoneal lesions were found completely cured.

In 130 cases of abdominal section, referred to in 1891,[9] it was stated that the death-rate from the operation was 3 per cent. Of the whole number of cases, 70 per cent. were over 20 years of age, so that the proportion of children must have been small, but this need not much affect the value of the observations; 107 cases were discharged in a more or less satisfactory condition, 23 improved, 84 cured, for the time at least; 30 patients remained apparently cured after two years, that is, 24 per cent. These include Sir Spencer Wells's well-known case, and others having a duration of from six to fifteen years from the time of the operation. Those who died in spite of the operation died of the results of tuberculous peritonitis, of general tuberculosis, or of pulmonary tuberculosis. The cured cases presented all forms of tuberculous peritonitis—solid, fluid, and suppurative. König concludes his remarks with the statement that the whole thing is a riddle—*Wir stehen vor einem Räthsel.*

If these figures really represent cases, all of which were tuberculous, while the survivors were restored to health, that is, if the interval elapsed since the operation is sufficient to justify the view that the patients have recovered and the tubercle is obsolete or cured, then it is a method of treatment which deserves to be widely adopted.

Without discussing the subject at all fully, I may, perhaps, be allowed to give expression to the thoughts one naturally entertains when one hears of those successful results:

1. The operation seems to be more applicable to cases of tuberculous ascites than to cases of matting and adhesion; and the proportion of this latter class of case is in my experience much greater, so that the operation would seem to be applicable to only a limited number of cases.

2. The explanation of the result is surely difficult to see. It has been said the fluid is a cultivating medium for the bacilli, and removal acts by, so to say, starving the bacilli, and thus leading to the subsidence of the tubercles. The cases recorded, in which tubercles were seen at the time of the operation, and after an interval the peritoneum was inspected and no tubercles were found, are of great interest and importance. The late Dr. Hadden mentioned a case in which the interval between the recognition of the tubercles and the discovery that they had gone was only two months. But if it is the removal of the fluid which is essential, why is not paracentesis sufficient? Continued drainage is deprecated by some. Where, then, is the magic of incision? To one writer, feeling the difficulty of the situation, it appears to have suggested itself that light had something to do with it; so he made the incision and exposed his patient's wound to sunlight for ten minutes, with the result that twenty-three days after the fluid had not returned.[10] This record is scarcely convincing. If cure is simply the result of letting off the fluid we might hope for similar results in tuberculous pleurisy; but that is not generally looked upon as very amenable to treatment. On the other hand, it is, of course, possible that some of the pleural effusions we cure by paracentesis are of this nature.

3. If it is granted that tuberculous peritonitis will recover without surgical assistance, it must be allowed that some cases that have been operated upon would have got well by themselves, perhaps many. And in addition to the case already mentioned I can tell of another which came under my care, in which there were all the signs of tuberculous peritonitis, with matting of the bowel, so as to produce a resisting mass which occupied a large area.

This was a little girl, aged 7 years, on her admission into the Evelina Hospital on October 17th, 1891. She was taken ill fourteen days previously, with pain and tenderness of the abdomen, sickness, diarrhœa, pyrexia. There was tenderness in both iliac fossæ, with resistance in these regions. The abdomen was generally rigid, but not extremely so. A hard mass could be felt in the left iliac fossa, which may have been scybala. Under chloroform the following day there was still resistance all up the left side, but no definite mass could be recognised. She continued to have a good deal of pain in the abdomen; the diarrhœa soon ceased; the temperature was variable, often a little above the normal. During November she had some constipation. On December 20th I noted and figured an area of hardness and resistance in the lower part and right side of the abdomen, extending from the right ninth costal cartilage down to Poupart's ligament, and across the hypogastric region to the left iliac fossa, reaching up two-thirds of the distance from pubes to umbilicus, and terminating about the middle point of the left Poupart's ligament. On January 10th, 1892, the report states that nothing can be felt in the abdomen, and two days later she left. I saw her on July 20th, 1893; the abdomen was perfectly normal, and the child in good health.

I can further refer to five other cases under my care, in 1887 and 1888, which were diagnosed as tuberculous peritonitis, and in which the children left the hospital apparently cured. My effort to trace these children have been so far unsuccessful, and they cannot, of course, be looked upon as unequivocal cases of spontaneous cure, or cured by medical means. They are, however, quite enough to show that cases apparently tuberculous do not necessarily go a steadily downward course, and enough to raise the question whether the operative treatment is one that is called for universally in cases of tuberculous peritonitis.[11]

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II.—Howard Marsh, F.R.C.S.,

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The Surgical Treatment of Tuberculous Peritonitis.

In its early stages tuberculous peritonitis lies entirely within the province of the physician, and I shall allude to the disease at this period of its course merely to notice a highly important and significant fact, namely, that in a considerable number of cases, under appropriate medical treatment, complete recovery takes place. This fact, to which prominent attention was drawn in 1881 by Dr. Gee, and which since that time has been confirmed by Dr. Barlow and by other observers, should be carefully borne in mind—first, in order that surgical interference may not be undertaken with undue alacrity, and secondly, on account of the evidence which it affords in regard to the life-history of the tubercle bacillus, a matter to which I shall refer later on.

Instances, however, are not rarely met with in which medical treatment either fails or is invoked too late, and it becomes necessary to inquire how far, and in what cases, operative interference is likely to be of service. Upon this point a good deal of evidence is forthcoming, and it is evidence which, not only in regard to tuberculous peritonitis itself, but also in its bearing on the pathology and the clinical aspect of tuberculosis in general, is well worthy of review.

I will begin with the celebrated instance recorded by Sir Spencer Wells, which occurred so long ago as 1862.

Case I.—The patient was an unmarried lady, aged 22, whose abdomen was nearly as large as at the full term of pregnancy. The distension was at first uniform, and appeared to be due to fluid free in the peritoneal cavity, and probably dependent on tuberculous peritonitis. Later on the abdomen became markedly prominent in front and resonant in the

flanks, and during respiration a cyst appeared to move behind the abdominal walls. The disease was now regarded as ovarian, and laparotomy was performed. No cyst was found, but a large amount of opalescent fluid was evacuated from the abdominal cavity. The peritoneum was studded with myriads of tubercles. Acute peritonitis followed, but the patient recovered perfectly, and is, after the lapse of thirty years, still quite well.

CASE II.—In 1888 Mr. Lawford Knaggs reported the case of a girl, aged 16, whose abdomen, for three weeks, had been enlarging. Examination showed a circumscribed collection of fluid in front of the intestines, in the left lumbar and iliac regions. The temperature was normal, and she had not lost flesh. The diagnosis lay between ovarian or parovarian cyst and tuberculous peritonitis. On tapping, some viscid fluid was drawn off. The diagnosis of ovarian cyst was now definitely made. When the abdomen was opened the intestines, mesentery, and parietal peritoneum were found covered with myriads of pale pink gelatinous-looking tubercles, as big as hemp seeds, thickly and universally distributed, and varying but little in size. The ascitic fluid was removed; the abdominal cavity thoroughly cleansed with many pints of warm water, and the wound was closed. The patient immediately began to put on flesh in a most remarkable manner, so that she was with difficulty recognised for the same girl. About a year later she was well, and her weight had increased by 1½ stone. When last seen (one year and a-half after this) she was still free from any evidence of abdominal disease, but she seemed threatened with pulmonary phthisis.

CASE III.—M. S. aged 10, came under my care in St. Bartholomew's Hospital in July, 1887. She had been ill for four months. She was now much emaciated and too weak to sit up. The abdomen was much enlarged, the diaphragm pushed up, and the lower ribs were expanded. Breathing of late had become difficult; the superficial abdominal veins were distended, and she had œdema of the feet. The abdomen was dull on percussion, and fluctuation over a considerable area, in front, was distinct. I was absent at the time, but one of my colleagues aspirated and drew off five pints of pus, with great relief to respiration. Aspiration was repeated on August 8th, and four pints of pus were removed. On September 5th I did laparotomy and removed 39 ounces of pus from a cavity situated behind the abdominal wall, and bounded by matted coils of intestine. No close examination was made, but the abscess cavity was seen to be lined with what appeared to be tuberculous granulation tissue. The cavity was freely irrigated with iodine water (1 in 500), and a drainage tube was introduced. Under daily irrigation of the cavity the patient rapidly improved. Three weeks later she was sitting up, with normal temperature and good appetite. In November she left the hospital, apparently in perfectly good general health. She is still quite well.

CASE IV.—Bumm records the case of a woman, aged 40, whose abdomen was distended with peritoneal effusion. On performing laparotomy he found the peritoneum thickly studded with nodules of the size of millet seeds. Eight weeks later a portion of the laparotomy wound was occupied by tuberculous ulceration, while a profuse serous discharge came from a long, well defined swelling in the abdominal wall. In the discharge from the ulcers, and in the serum, tubercle bacilli were easily demonstrated. The swelling was subsequently laid open, and was found to be shut off from the general cavity of the peritoneum by adherent coils of intestine and by omentum. The cavity was emptied, dried, and dusted with iodoform, and the wound closed. The tuberculous ulcers were scraped. Recovery was uninterrupted, and a year and a-half later the patient was quite well. A portion of the parietal peritoneum was removed at both the operations. On examination the first piece showed structures characteristic of recent tubercle epithelioid, and giant cells; but no bacilli could be found. The second showed the tubercles invaded throughout by round cells; the tubercles were puckered as it were by scarlike connective tissue, and the giant cells presented all stages of decay.

CASE V.—In a case reported by Mr. Knaggs, a woman, aged 43, was attacked with vomiting and abdominal pain, and rapidly lost flesh. A hard tumour was felt in the left side of the abdomen, reaching from the umbilicus to the pelvis. Three months later, the patient being now greatly emaciated and very prostrate, laparotomy was performed. A growth was found, evidently imbedded in the mesentery, and extending from the level of the left kidney to the pelvis. This was solid and yellowish white. The peritoneum was studded with small tubercles. The case seemed so hopeless that nothing further was attempted. The wound, however, healed by first intention, and there was no interruption to recovery. The result, Mr. Knaggs remarks, was singular and most unexpected; all the symptoms cleared up, and the patient, a year later, was in fair health, and was slowly gaining flesh and strength.

CASE VI.—On May 10th, 1887, A. S., aged 13, was seen at the Huddersfield Infirmary by Dr. Kilner Clarke. Three weeks before she was quite well, but then she began to lose flesh and strength, and her abdomen grew large. The case was regarded as tuberculous peritonitis with rapid effusion. Five days later laparotomy was performed. The peritoneal cavity contained a large amount of fluid, and the peritoneum was studded all over with small hemispherical bodies of a pearly appearance and of the size of boiled tapioca grains. Similar bodies were thick upon the intestines. The peritoneal cavity was irrigated with a 1 per cent. solution of carbolic acid, and the wound was closed. The patient made an uninterrupted and rapid recovery. Two years later she was plump and rosy cheeked and the very picture and embodiment of health.

In a very instructive paper Mr. Keetley relates two cases that I may briefly notice.

CASE VII.—A boy, aged 6, four months before admission into hospital, had measles, followed by what appeared to have been tuberculous peritonitis with effusion, from which he recovered. The day before admission he had been taken ill with abdominal pain and vomiting. These symptoms were followed by obstruction, for which laparotomy was performed. The intestines and mesentery were found covered with tubercles. Mr. Keetley replaced a coil of small intestine which he had drawn into the wound for examination, dusted the intestine and mesentery with iodoform, and introduced a strip of iodoform gauze for drainage. The bowels acted four times on the following day. Recovery was uninterrupted, and two months later the boy was fat and well, the bowels acted regularly, and the abdomen was natural in appearance.

CASE VIII.—In a girl, aged 18, who had an abdominal tumour of uncertain nature, Dr. Venn made an exploratory incision, and found the peritoneum everywhere studded with tubercles. The opening was closed at once. The patient recovered, but a hernia followed. On operating, at the request of Dr. Venn, for the radical cure of the hernia, Mr. Keetley found not a sign of peritoneal tubercle, though only a year had elapsed since the peritoneum was studded with it.

It would be easy to quote a further number of cases in illustration of the results that have followed the surgical treatment of tuberculous peritonitis; but those which have been related will afford the necessary material for a discussion of the subject. Several points present themselves for examination.

The results obtained have been so striking and so unexpectedly favourable that it is necessary to determine at once whether the disease in question is really tuberculosis. The affirmative evidence on this point appears to be conclusive. In case after case competent authorities report that the peritoneum was thickly studded with bodies exactly resembling miliary tubercles; and cheesy masses presenting the ordinary and well-known appearances of caseous tubercle have been met with; some of the patients have had tubercle elsewhere; and some have died, later, of tuberculosis of the lungs. Moreover, there is no disease known to morbid anatomists which produces the appearances observed except tuberculosis, so that it is reasonable to ask, If the disease is not tuberculosis, what is it? But more exact observations have been made. In Case IV, related above, Bumm found a portion of peritoneum which he had excised thickly studded with nodules of the size of millet seeds which showed, under the microscope, the characteristic structures of recent tubercle, although no bacilli were found. The laparotomy wound became the seat of ulceration which had every appearance of being tuberculous, and in the pus which it discharged, and in that also which came from a deep sinus, bacilli were easily demonstrated.

CASE IX.—A child, aged 5, under the care of Dr. Church, in St. Bartholomew's Hospital, died of what was regarded as clearly tuberculous peritonitis, and Mr. Holburt Waring kindly furnished me with the following result of his investigations. On *post-mortem* examination the intestines were found matted together, and fixed by layers of yellowish-white fibrinous material. The surface of the liver was also firmly attached to the parietal peritoneum by similar plastic exudation. The spleen was similarly invested. Microscopic sections prepared from this fibrinous material, glueing the intestines together, showed that it was made up almost entirely of inflammatory cells, which in parts were taking on the form of fibrous tissue. In places a few giant cells were to be seen. On staining the material with carbol fuchsin, bacilli having the characters of the bacillus tuberculosis were found. These were especially to be seen in the giant cells. The exudation covering the liver and the spleen presented similar appearances. Some of the fibrinous material from the surface of the intestines was introduced into the hind leg of a rabbit. A little over three weeks afterwards the animal died. At the point of introduction of the material there was a large caseating mass, which, on examination, was found to contain tubercle bacilli, and in other parts of the animal's body localised spots of tubercle were present. From these observations, microscopical and experimental, it seems clear that the case was one of tuberculosis.

VARIETIES OF TUBERCULOUS PERITONITIS AND THE OPERATIONS SUITABLE FOR EACH.

As to the forms assumed by the disease, three main conditions have been found: (1) In some cases a considerable amount of fluid has been present. In some this has been ascitic and so clear as to resemble the contents of an ovarian cyst; in others turbid serum; in others, again, ill-formed pus, mingled, more or less, with caseous material. (2) Sometimes the fluid, instead of being free in the peritoneal cavity, has been walled in by thick and firm adhesions, so that a clearly defined, encysted, and movable tumour was present, either so soft and elastic as to resemble an ovarian cyst or so hard as to suggest sarcoma. Sometimes two separate swellings have been present, each containing exudation products. (3) In another group no fluid has been present, the inflammation being plastic and leading to matting of the intestines together, and sometimes even producing intestinal obstruction.

The operation has varied with the case. In the first group the fluid has been evacuated, and either the wound has been at once closed or free irrigation has first been employed, or the cavity has been irrigated and then drained. In Groups 2 and 3, as soon as the disease was found to be tuberculous, the wound has, in several cases, been at once closed, so that nothing beyond a simple exploratory incision has been done.

DIFFERENTIAL DIAGNOSIS.

Time will not allow me to deal fully with this part of the

subject. I will only mention that differential diagnosis may sometimes be very difficult. In many instances, tuberculous peritonitis has been mistaken for some other affection. The encysted form has produced so clearly circumscribed and movable a swelling, that in the female it has been mistaken for an ovarian cyst, or ovarian new growth; in the male for a more or less firm sarcoma. In other cases tuberculous peritonitis has led to intestinal obstruction, but has been unsuspected until laparotomy was performed. Such mistakes, however, have involved no serious regret, for they have been an advantage rather than a detriment to the patient, as the operation has, in several instances, been followed by a rapid and unexpected recovery.

Cases Suitable for Operation.

When tuberculous peritonitis is attended with effusion, either into the cavity of the peritoneum or into a circumscribed cavity shut off by adhesions, so that it may be termed encysted, the fluid should be evacuated without delay. Numerous cases show that, when exudation is serous, its removal is likely to be followed by immediate improvement, and the ultimate complete disappearance of all trace of the tuberculous process. When fluid is purulent, the removal of pus may be followed by an uninterrupted recovery.

When tuberculous peritonitis is unattended with effusion, but takes the form of a plastic inflammation matting the intestines together, laparotomy would clearly appear not to be indicated; but, on the other hand, to involve a danger that the intestine may either be wounded when the abdomen is opened, or torn if any attempt is made to separate the coils. Yet several remarkable cases are on record in which, on a mistaken diagnosis, laparotomy has been performed, tuberculous matting found, the wound thereupon closed, and the patient has at once improved and has ultimately recovered (Knaggs's second case).

Notwithstanding this experience, however, unless obstruction is present, laparotomy is uncalled for when tuberculous peritonitis is plastic and dry. Especially will this appear to be the right conclusion when the frequency with which patients recover from this condition under appropriate medical treatment alone, is borne in mind.

Conclusions.

In conclusion, I should like to draw attention to the facts I have mentioned in their bearing on tuberculosis regarded from a general point of view, for these facts are so remarkable that unless they were established on trustworthy authority they would not be easily credited. Well authenticated cases show that, in a large proportion of instances, operative interference, as I have said, is followed by the arrest of the tuberculous process, and the ultimate disappearance of all its products, and that the patients subsequently remain in good health. The cases in which this has occurred have been:—(1) Those in which the disease has gone on to the formation of a considerable collection of pus; (2) in which a collection of serous or ascitic fluid has been formed; (3) in which no fluid has been present, but in which the peritoneum has been crowded with tubercles; (4) in which the intestines have been matted together by plastic inflammation—so firmly, in some instances, that intestinal obstruction has been produced.

Now, even in cases in which either pus or serum has been evacuated, although the removal of fluid would doubtless be advantageous, it would scarcely have been anticipated that this proceeding alone would be the starting point of complete recovery. Such, however, has repeatedly been the case, although the peritoneum has been seen at the time to be thickly studded with miliary tubercles. But other cases carry us much further. Several instances are recorded in which a mere exploratory laparotomy, without the removal of any fluid or other inflammatory products, or any separation of adhesions, has forthwith been followed by steadily advancing, and at length complete, recovery.

These results have been discussed by many observers but they have never, I think, been satisfactorily explained. My belief is that no explanation which shall be in accordance with the views which many at present entertain respecting tuberculosis can be advanced. A clear conception will be reached only when, from further study and observation, our knowledge of the life-history of the tubercle bacillus is more fully worked out. The further this knowledge advances the more clearly will it, I venture to think, be seen that, progressive and destructive as the tuberculous process is, when the tissues which it involves are suitable for its development, and when its environment is favourable, the tubercle bacillus is, nevertheless, an organism of such low vitality, and so dependent on surrounding conditions, that it is frequently placed, by influences with which we are at present imperfectly acquainted, at a fatal disadvantage, and thus is destroyed and eradicated by the vital forces by which it is opposed.

That the tubercle bacillus does frequently as a matter of fact thus perish is well known alike to the clinical observer and the morbid anatomist. The clinical observer sees patients with well-established tuberculous disease of such organs as the lungs, the joints, and the bones perfectly recover. He sees also that a change in surrounding conditions which seems in itself trivial, and which would have no effect in the case of other parasitic diseases—a sea voyage in early phthisis, or the use of complete rest in the case of a joint—has a marked effect in forthwith controlling, and at length in arresting, the disease. The morbid anatomist constantly meets with the proofs that former tuberculous disease has come to an end, and that the tissues have undergone sound repair. This experience shows that although the tubercle bacillus may acquire a footing, and even widely extend itself, its hold is precarious and easily broken; that, in other words, it is so poorly endowed with tenacious vitality as to be overmatched by the endowments of the tissues, with the result that it is often completely destroyed.

III.—T. Clifford Allbutt, M.D., F.R.S.,

Regius Professor of Physic in the University of Cambridge.

Tubercle as a Local Disease.

Professor Clifford Allbutt urged strongly that, excluding those cases in which tubercle, finding its way into the vascular system, became a general disease, tubercle was a local disease. Again, that secondary bubonic and like consequences were usually in very large proportion of a nonspecific character, and there was almost the same prospect of recovery as in the cases of other hyperplastic and necrotic materials. Tubercle, however, seemed to associate itself more readily with pyogenic organisms or changes than some other infections, such, for example, as syphilis. The object of treatment, therefore, must be, whether by surgery or medicine, to keep the tuberculosis as a local disease—as a disease which, by a not too violent use of the term, might be called an encysted disease, whether in the lung, peritoneum, or elsewhere. How local tubercle might be was well shown in the warts of morbid anatomists, in superficial, readily curable, tuberculous ulceration of the skin, and even in lupus proper. Professor Allbutt added some remarks on tubercle of milk, on catarrhs and the like as auxiliary to infection, and, finally, a caution against mistaking the tabes of crude milk feeding for tuberculosis.

IV.—Lawford Knaggs, M.A., M.C., F.R.C.S.,

Surgeon to the Leeds Infirmary.

Tuberculous Ascites.

Mr. Lawford Knaggs pointed out that the result of the surgical treatment of tuberculous peritonitis had led to more confidence being placed in the correctness of diagnosis, and to add to our knowledge of the course of the disease. Further, it was responsible for the very different impression as to the character of the disease which now very generally prevailed. The cases he had been able to watch fully corroborated this; they were seven in all. Two had died from intestinal obstruction; of the five recoveries, two had been subjected to surgical treatment. In one the laparotomy cured at once and for good the only symptom from which the patient had suffered—the ascites. In the other surgical interference was undoubtedly the turning point in the case. He had been very strongly impressed with the influence of a diet that suited in the treatment of tuberculous peritonitis in infants. In discussing the method of cure it was probable that the cause of the decline in health was absorption into the system of the results of bacterial life in the tissues. The fight was

carried on by the vital powers against these absorbed ptomaines: (1) By their destruction within the body by so-called antitoxins; (2) by their elimination from it. Elimination took place by various channels, but those (1) by the kidneys and (2) by the bowels were particularly important. In the ascitic form it seemed probable that elimination by the kidneys was out of gear, and that the ascitic fluid contained ptomaines that might have been removed from the body by that channel, but when in the peritoneum they were available for reabsorption. The absorption of these chemical poisons from the peritoneal fluid, combined with the circulation through the body of products of the bacilli that had never entered the effusion, might in some cases constitute an aggregate too powerful for the vital powers to contend with successfully. If the ascitic fluid could be investigated from the point of view of pathological chemistry valuable information might be gained. It was important that the intestinal mucous tract should not have its capabilities in the way of elimination overlooked. He mentioned cases in which the tendency towards recovery seemed to be plainly assisted by regular and copious alvine evacuations, and drew attention to the frequent association of intestinal obstruction, or of an obstinate and refractory state of the bowels with tuberculous peritonitis. In the former class the ptomaines secreted by the intestinal mucous membrane were rapidly removed from the body; in the latter they were "bottled up," and possibly reabsorbed. Cases in which fæcal fistulæ resulted in the course of tuberculous peritonitis, associated with obstruction, gave point to this suggestion. In one case referred to regular relief by the natural channels followed free discharge from the fistula; steady recovery began, and the fistula eventually closed. In such cases of obstruction enterotomy might prove useful not only as a palliative measure, but as directly assisting to promote cure of the primary disease.

V.—D'Arcy Power, F.R.C.S.,

Senior Surgeon to the Out-patients, Victoria Hospital for Children.

Advantages of Early Evacuation of Ascitic Fluid.

Mr. Power desired to emphasise the value of early withdrawal of the ascitic fluid in cases of tuberculous peritonitis. He narrated a case in which he had recently removed by laparotomy nearly 90 ounces of fluid from the abdominal cavity of a boy, aged 12 years. The fluid became jelly-like owing to coagulation within five minutes of its removal. Mr. Power thought that in this case the boy was relieved from many of the local sequelæ of the disease, for he was freed from much of the material likely to produce bands of adhesion with their attendant evil effects. The patient made a good recovery. It would be interesting to watch him as he grew up.

VI.—T. Pridgin Teale, F.R.C.S., F.R.S.,

Consulting Surgeon to the Leeds Infirmary.

Indications for Laparotomy.

Mr. Teale considered that where in tuberculous peritonitis fluid was persistent, and the patient was failing in health, laparotomy should be performed. He also raised the question whether, in cases in which washing out was adopted, the mere contact of the water with the peritoneal surface did not produce a change in the tuberculous centres or their environment which tended to restoration of health.

VII.—W. J. Tyson, M.D.,

Folkestone.

Dr. Tyson said that one of the results that would accrue from the discussion would be a greater hopefulness in many cases of abdominal tuberculosis. He believed that the most successful cases were those in which serous fluid existed, and ordinary medical treatment—such as rest in bed, good food, pressure, and mercurial inunction—were often sufficient for its cure; but if much tension were present, then a laparotomy should be done. The cases in which pus was present in the abdominal cavity should be treated on the surgical lines of an ordinary abscess.

VIII.—William Thomas, M.B.Lond., F.R.C.S.,

Senior Surgeon to the Children's Hospital, Birmingham.

Value of Mercurial Inunction.

Mr. Thomas, from his own experience of operations for tuberculous peritonitis, could confirm the opinions of previous speakers as to the remarkable recoveries after surgical treatment. The most unfavourable cases were those in which intestinal obstruction had taken place with the formation of one or more fæcal abscesses. He quoted one case which had relapsed after operation, but subsequently perfectly recovered after the inunction of mercurial ointment and rest.

IX.—Thomas Barlow, M.D., F.R.C.P.,

Physician to University College Hospital and to the Hospital for Sick Children, Great Ormond Street.

Conclusions.

The President, in summing up, drew attention to the judicial tone which had characterised the surgical as well as the medical statement of the subject. He mentioned the valuable additions to our knowledge of the natural history of the disease which laparotomy had furnished, especially the fact of the entire disappearance in some cases of tuberculous deposits from the peritoneum so as to leave it absolutely smooth. With regard to the surgical indications for laparotomy, it would appear that simple incision and evacuation without antiseptic application were all that was needed in the ascitic cases.

As to the cases to be chosen for operation, the adhesive cases were generally unsuitable on account of the risk of wounding the bowel. The only exceptions to this rule would appear to be:—

1. Where intestinal obstruction occurred.
2. Where great tension and suffering therefrom ensued.

The fluid cases were evidently the most favourable cases for operation, whether cystic, or purulent, or serous. It would seem desirable in any given case that some individual urgency should be looked for rather than that it should be made a routine proceeding.

THE DISTRIBUTION OF TUBERCLE IN ABDOMINAL TUBERCULOSIS.

By Walter S. Colman, M.D., M.R.C.P.,

Formerly Medical Registrar and Pathologist to the Hospital for Sick Children, Great Ormond Street.

The following account of the distribution of tubercle in cases of abdominal tuberculosis is derived from the *post-mortem* notes of nearly sixty cases of tuberculosis coming under observation during a year's tenure of the post of Pathologist at the Hospital for Sick Children, Great Ormond Street, and I have to thank the physicians to that hospital for kindly allowing me to make use of their cases.

The cases in which abdominal tubercle was found fall into four groups, which differ from each other considerably in their clinical manifestations:

A. Scattered tubercle on the parietal peritoneum, usually unattended by symptoms.

B. Massed tubercle on the visceral peritoneum ("tuberculous peritonitis").

C. Tuberculous ulceration of the intestines.

D. Tuberculosis of the mesenteric glands.

A. Tubercle on the Parietal Peritoneum.

Of this variety there were 9 cases, or 15 per cent. of the whole number of cases of tuberculosis. The tubercles formed flat elevations arranged on the diaphragm and on the anterior abdominal walls. They were grey and translucent, and showed little tendency to caseate. Here, as when tubercles occurred on the parietal pleura, there was no surrounding inflammation excited. In no case were any adhesions caused by their presence. The most striking feature about the cases in this group is that in only two was there any coexisting tubercle in the intestines or mesenteric glands, while in every case, without exception, there was advanced caseation of the thoracic lymphatic glands and tuberculosis of the lungs. It was also noticeable in several cases that the tubercles were more numerous on that side of

the diaphragm on which the pulmonary disease was most advanced.

B. Tubercle of the Visceral Peritoneum.

Of this variety there were 7 cases, or 12 per cent. The youngest was 15 months old, and the average age was much higher than in cases of pulmonary tubercle. In all the cases the pathological condition was similar. There was general adhesion of the coils of intestine, more marked below the umbilicus than above. In the adhesions, even when recently formed, tubercles could be easily distinguished with the naked eye. As the disease advanced, the tubercles were found in groups, in which caseation of old and development of new tubercles went on rapidly, so that nodules of varying size, from that of a small pea to that of a cherry, were formed in the adhesions. The adhesions were often not universal, so that spaces were left which became filled with inflammatory effusion, forming loculated collections of turbid fluid. Along with this peritoneal change there was uniformly caseation of the mesenteric glands, with inflammation and retraction of the mesentery round them.

The mucous membrane of the intestine, however, was but little affected. In three cases there was some ulceration in the neighbourhood of the cæcum, but in the remaining four there was no ulceration found at all. The most striking fact, both from a pathological and a clinical point of view, was the marked absence of any tendency on the part of the tubercle to spread to other parts of the body. Thus in these seven cases only one exhibited tubercle in the thorax, and in one other acute tuberculous meningitis was present as a final phenomenon. In the other five, tuberculous deposit was confined to the abdomen.

Umbilical Fæcal Fistula.

In 2 of the 7 cases this complication was present when the child was admitted to hospital, and in each the mode of perforation was the same.

In the first case, that of an infant 13 months old (under the care of Dr. Sturges), the opening at the umbilicus led directly into a coil of jejunum, which was adherent at that spot. The mucous membrane was quite healthy at this point, and there was no ulceration for some feet from it. It seemed that softening had taken place in a mass of tubercle in the adhesion between the gut and the umbilicus, and that ulceration had occurred into the intestine and outwards through the umbilicus.

The second (under the care of Dr. Barlow) was that of a boy, 4 years of age. Here the opening at the umbilicus led into a large cavity bounded by adhesions, containing liquid fæces and peritonitic fluid. Posteriorly were the matted retracted intestines, and in a loop of these (at the upper part of the ileum) the orifice in the intestine was found. The coil in which it occurred was bound down and tucked in behind others, and the fæces reached the cavity mentioned above by a long sinuous track, so that even with the abdominal walls thrown back and in a good light it took nearly half an hour to discover the aperture. It certainly could not have been discovered through the mesial incision in the abdominal wall. In this case the intestine was free from ulceration. There was a flat cake of tuberculous deposit on the convexity of the coil. This was perforated, and an examination of the specimen, which is preserved in the museum of the hospital, leaves no doubt that the perforation took place from without inwards.

C. Ulceration of Intestine.

Tuberculous ulceration of the intestine, more or less advanced, was present in 31 of the cases—that is, 52 per cent. In 12 of the cases the ulcers were numerous and deep; in 17 ulceration was only commencing, and in 2 cases the ulcers were healing. They were distributed according to age as follows:—

		Under 1.	1-3	3-6.	6-8.	8-12.
Extensive ulceration ...	12	3	3	2	1	3
Commencing ,, ...	17	4	11	1	1	—
Healing ulcers.....	2	—	—	1	—	1

Here, again, the greatest number of instances occurred in infancy, 21 (or 60 per cent.) of the cases under 3 years having intestinal ulceration, a frequency much greater than one would have been led to expect from the symptoms during life. The proportion of cases in which ulceration occurred is greater than in Woodhead's series[1] from Edinburgh children (52 per cent. against 33).

[1] *Lab. Rep. Roy. Coll. Phys. Ed.*, vol. i.

The condition of the other organs in the 12 cases of extensive ulceration is of interest.

Lungs	Advanced tuberculosis	9	(8 had cavities).
	Scattered tubercles	3	
Thoracic glands	Generally caseous	10	
	Scattered tubercles	1	
	No tubercle	1	
Mesenteric glands	Enlarged and caseous	8	
	Scattered tubercle	3	
	No tubercle	1	
Meninges of brain	Tuberculous meningitis	3	
	No tubercle	4	
	Not exd. by request (no symptoms).	5	

The association of extensive ulceration and the formation of cavities in the lung thus shown is of interest as corresponding closely with the conditions found in chronic phthisis in the adult. Generally speaking, this intestinal tuberculosis was mostly correlated with pulmonary tubercle, in striking contrast with the peritoneal form of abdominal tubercle in which, as we have seen, there was usually no intrathoracic tubercular deposit.

Healing of Intestinal Ulcers.

In not a few of the cases there were indications of repair in individual ulcers. In two cases this change was occurring in all of them. The most striking case was that of a girl aged 7 years, who died from laryngeal phthisis. In her intestine sixty typical tuberculous ulcers were found, in which various stages of healing could be traced. The floor of the ulcer became smooth, the ulcer contracted, tuberculous deposit was absorbed, until ultimately only a stellate puckering of the mucous membrane remained to show the site of the former ulceration. Another process, analogous to repair, was also present in most of the cases in which the ulcers were of any size, namely, a subperitoneal deposit, increasing *pari passu* with the ulceration of mucous membrane, and so tending to prevent perforation.

D. Tuberculosis of Mesenteric Glands.

The mesenteric glands were tuberculous in 39 out of the 59 cases (66 per cent.), and were extensively caseous in 28. As in Woodhead's more extensive series of cases the affection was notably more frequent in early life, 23 out of the 39 cases being children under three years of age. In my series the proportion of cases of mesenteric tubercle is smaller than Woodhead's, 79 per cent. (W.) against 66 (C.), while tuberculosis of the thoracic lymphatic glands is more frequent in my cases. Whether this is due to different climatic or other surroundings will require a larger series from each locality to determine. The distribution according to age was as follows in the two series:

		Under 1.	1-3.	3-6.	6-8.	8-12.
Woodhead	91	4	33	29	12	13
Colman	37	5	18	11	1	4

These caseous glands are important not merely because they form a focus from which infection may at any time become general, but also because they may produce serious local consequences by pressure—for example, jaundice. In this series there were three such cases. In one there was general rapidly increasing bronzing of the skin, and after death general enlargement and caseation of the mesenteric glands was found. One of these was pressing on the left suprarenal without involving its structure, and was probably the cause of the cutaneous bronzing. In another the glands formed the chief part of an intussusception, and by their pressure paralysed the gut, which was included with them in the intussusceptum, so that a fatal issue supervened, although the intussusception was reduced early by the surgeon. In a third case the rupture of a softened gland gave rise to purulent peritonitis. In only one case was calcification of these glands found to have occurred.

Conclusions.

In conclusion, the facts which seem to be of greatest practical value are:

1. *The Importance of Gland Tubercle in Young Children.*—In nearly all the cases the most advanced tuberculous change was found in the thoracic or mesenteric lymphatic glands, often leading to their complete caseation before any tubercles could be found in the lungs or intestinal mucous membrane. From the frequency of tuberculosis in the mesenteric glands in the younger children, Dr. Woodhead was led to suspect, and in some cases apparently to prove, that milk was the source of infection. I made an attempt to investigate the matter with reference to my cases, but was baffled, partly because of the distance of the dairies from the retail shops (some being in Oxfordshire and Nottinghamshire), and partly because of the growing evil practice of bringing children up on condensed milk. As a general result of my observations, while not doubting the infection by milk in some cases, I am led to attach more importance to the condition of the thoracic lymphatic glands, as the process was more advanced in them, as a rule, than in the mesenteric glands, and in several they were extensively caseous when the mesenteric glands showed little or no change. In both Woodhead's series and my own caseation of the mesenteric glands was more common in the second and third years than in the first, when, according to the milk theory, it should be most frequent. As to the mode or infection, it has been already noted that the change in the glands usually precedes that of the organs with which they are connected, so that the bacilli probably pass into the lymphatics of the mucous membranes of the air passages and alimentary canal. The most potent predisposing causes of tubercle in infants are rickets and measles, and it seems extremely probable that in the catarrhal affections so common in these conditions a sufficient lowering of the resistance of the tissues takes place to allow of the bacilli effecting an entrance. If this be correct, then the preventive treatment of tubercle in infants largely resolves itself into the preventive treatment of rickets, and the proper care of patients convalescent from measles.

2. The *absence of all signs of inflammation* in many cases of tuberculosis of the serous membrane and of the cerebral meninges. A knowledge of the conditions under which tubercle of the parietal peritoneum in many cases shows no caseation and no surrounding inflammation, while tubercle of the visceral peritoneum increases rapidly, caseates early, and sets up much surrounding inflammation might help us greatly in the treatment of visceral tuberculosis.

3. The *frequency of intestinal ulceration*, even when there was no reason to suspect it during life.

4. The *possibilities of repair in tuberculous ulceration* shown by the case mentioned above, in which sixty considerable ulcers were found in various stages of healing.

5. *Effects of Improper Feeding.*—In examining these cases of tuberculous ulceration after death, one was most struck by the great amount of mucus throughout the intestine, and the large amount of milk curd which was found even in the large intestine. The administration of larger quantities of milk than the stomach can deal with must militate against the healing of the ulcers. Fermentation seems very readily to occur in the undigested curd, leading to distension of the gut by gas, thus putting the ulcers on the stretch, and leading to direct irritation of the ulcerated surface by other products of fermentation. The most satisfactory lines of treatment seem to be: (*a*) Administration of food in a concentrated form. Meat seems to be better borne, for some unexplained reason, both by stomach and intestine, than large quantities of milk, (*b*) Allaying of the irritation of the mucous membrane, for which bismuth seems especially serviceable. (*c*) Checking the fermentation within the intestine by the administration of internal antiseptics, of which β naphthol seems one of the most efficacious. Treatment may be commenced by giving a teaspoonful of castor oil. (*d*) Relieving any flatulent distension of the lower bowel by daily warm water enemata, to which a few drops of creolin may be added.

Mr. NOBLE SMITH thought that Dr. Colman's statistics, coupled with the discussion which had preceded it, had done very much to advance, upon a scientific basis, facts which would encourage both the physician and the surgeon to treat cases of tubercle. All the evidence went to prove that in those cases in which the tubercle bacilli could not be completely removed by surgical operation there was a good prospect of being able to render the soil unfit for the bacilli to subsist upon. These principles should serve as a guide in the treatment of all tuberculous affections. They could be applied not only in tuberculous peritonitis and in joint disease, but also in the treatment of caries of the spine, and even in the treatment of phthisis. So long as tuberculous disease was looked upon as always infecting the body generally, so long were we discouraged in attempting or hoping for a cure; but, viewed as a local affection, it might be possible by surgical operation upon the one hand, and by improving the vitality of the patient upon the other hand, to look forward to absolute cure of the disease.

REVIEWS.

LECTURES AND ESSAYS ON FEVERS AND DIPHTHERIA (1849-79). By Sir WILLIAM JENNER, Bart., G.C.B., M.D.Lond., and F.R.C.P., D.C.L.Oxon., LL.D.Cantab. and Edin., F.R.S., Physician in Ordinary to Her Majesty the Queen and to His Royal Highness the Prince of Wales, Consulting Physician to University College Hospital, etc. London: Rivington, Percival, and Co., 1893. (Demy 8vo. pp. 590, 21s. net.)

THE welcome volume before us contains the contributions to one department of clinical medicine of a physician whose services to the profession of which he is so distinguished an ornament were by no means limited to those of a scientific kind, great as these have been. It is often made a matter of reproach, and not without justice, against the most eminent physicians of this country, as contrasted with those of some others, that when success comes they cease to make fresh contributions to the sum of knowledge by publication of later experiences. We may therefore be grateful to Sir WILLIAM JENNER that, failing the composition of new essays which he would know so well how to write, and which we may hope may yet be a product of his leisure, he has presented to us a collection of the essays and lectures on fevers and on diphtheria and croup, which have remained scattered in various periodical publications where they first appeared. It is to be hoped that the example now set may be followed, and first by Sir William Jenner himself.

In a brief preface, Sir William Jenner expresses his thanks to Dr. Sidney Coupland and to Dr. Thomas Barlow "for the care and attention with which they have superintended the arrangements of the publication of these papers," and the volume in this respect leaves nothing to be desired. The chronological order is followed, and the papers are here reprinted as they appeared originally, with the addition only of a few notes. This is a severe test to apply to any collection of papers on any department of science, and it is extraordinary proof of the care and acumen with which the observations upon which they were founded were made, some of them nearly fifty years ago, that the attentive reader will find little to amend, little to add, and very much to admire and read again.

The first essay in the book, On the Identity or Non-identity of Typhoid and Typhus Fevers, is dated 1849-50. It is founded on a statistical analysis of a series of cases observed during two years at the London Fever Hospital. The cases were 66 in number. Only those which were examined after death were included, for the reason that the question at issue involved a consideration not only of symptoms but also of internal lesions. Every circumstance connected with the patients, each symptom, and each *post-mortem* appearance is treated separately, the observations being in every instance given under the two heads of typhus and typhoid fever. In this way, without any controversial statements by the writer, the reader is brought to the conclusion which is then formulated with irresistible force. The two theories which Dr. Jenner—as he then was—had particularly to meet were: (1) that typhoid fever was merely typhus fever complicated with lesions of a particular organ, and (2) that the differences observed depended on variations in the "epidemic constitution." To the attentive reader of

the statistical facts, however, it must have been already obvious that neither theory would hold. The essay is, in fact, a triumph of the statistical method brought to bear on a clinical problem, and may well be read for that reason alone. Sir William Jenner's defence of the statistical method is so characteristic, so spirited, and so perennially true that we may quote the following passages:—

"The method I have adopted—however prolix it may be, however difficult to conform to, however tedious the details into which it leads—has this advantage, that if the observer be honest and capable of noting what is before him, thinking men may judge of the value of his facts, the force of his reasoning, and the correctness of his conclusion: whereas, general observations, while they are totally incapable of proving anything, are exposed to all the fallacies of definite statements, because the one, like the other, rests ultimately on the accuracy of the facts observed. If the observations on which any reasoning is founded be erroneous, no cloaking of those observations in general terms can render the conclusions correct. It has been objected to definite numerical statements that they mislead the reader by an *appearance* of accuracy in cases in which there has been great inaccuracy in observation. This objection appears to me to lie against the condition of the reader's mind and not against the method. For if the reader fails to examine, first, the trustworthiness of the author and, secondly, the legitimacy of his conclusions, the fault is obviously mentally his own, and in no ways to be ascribed to the method.....The more complicated the problem to be solved, the more careful ought we to be that *every* step in its solution is made correctly. How complex questions, such as arise in medicine, are to be determined mentally—that is, without the aid of figures—by ordinary men I am at a loss to conceive. Yet physicians think to solve by mental reveries problems in comparison with which the most difficult that the most renowned mental calculators ever answered were mere child's play; and not only do they think to solve these problems, but to carry in their minds for years the complicated materials by which they are to be solved."

In the second essay in this volume, a paper on the Identity or Non-Identity of the Specific Causes of Typhoid, Typhus, and Relapsing Fever, read before the Royal Medical and Chirurgical Society on December 11th, 1849, the same method is pursued, but in combating the theory that differences observed were to be attributed to changes in "epidemic constitution" rather more prominence is given to circumstances bearing on the etiology of the cases. The fact that the cases in each focus of the disease were of the same nature, and the further fact that during the epidemic prevalence of one or other disease the other continued to "breed true," to use an expressive phrase which has come more recently into use, are well brought out. The essay is illustrated by reproductions of Dr. W. H. O. Sankey's excellent coloured drawings of the rashes of typhoid and typhus fever. The discussion which took place after the reading of the paper is appended, and its perusal will enable the modern reader to understand the nature and extent of the opposition to the views advanced in this and the previous essay. It also raises the question of priority. The writer of these essays fully and repeatedly admitted his indebtedness to the labours of Gerhard (1837), Shattuck (1838-40), Valleix (1839), Stewart (1840), and to Louis.[1] It seems to us that the merit of Sir William Jenner's work on Fevers was that by the rigid application of the statistical method, which he defended so well in the passage we have quoted above, he provided a demonstration which was convincing not only to the observer himself, or to those who saw the cases with him, but to others who had only the printed page before them. He, in fact, by the application of a method of scientific precision, afforded proof of an opinion which was, as the saying goes, "in the air." In the next essay in this volume he relates the circumstances which led him to take up the study of the problem; here he distinctly says, "I lay little claim to originality. I had no theory to substantiate when I undertook the investigation; I have now no theory to propound. I lost a case which had baffled my knowledge in discovering its nature, and I was only anxious that I might never again commit the same mistake. If during these researches I have been led to adopt views not generally acknowledged as correct in this country, it is only because I am unable to withstand the evidence which Nature offers of the truth of those views, where alone the truth can be elicited, at the bedside and in the deadhouse."

The object of the essay from which the above quotation is made—an essay published as a series of papers in the *Medical Times and Gazette*—was "to illustrate, by cases collected at the bedside, the fevers commonly confounded under the term 'continued fever.' I say commonly," the author adds, "for, although some writers in this country have distinguished typhus fever from typhoid fever; and others have distinguished relapsing fever from typhus fever; and others, again, have separated febricula from typhus fever, yet neither of these distinctions has yet been drawn in any of the systematic works on medicine; and no one, so far as I am aware, has formally stated his belief that these four affections are as many distinct diseases—as distinct from each other, that is to say, as are measles, scarlet fever, and small-pox; the poison of the one being by no combination of circumstances capable of producing, inducing, or exciting the others." Perhaps the part of this essay which is of greatest practical interest at the present time is that which deals with the duration of the disease, and the possibility of mistaking for a relapse what is really arrested recovery, such arrest being due to the patient being allowed to rise from bed or to take a solid diet before the fever has really ended. Such a mistake is, perhaps, less liable to be made at the present day, when the use of the clinical thermometer is universal, than at the date of the essay; but the further observation that the illness may be prolonged after the specific fever is over, owing to simple ulceration having succeeded specific, or to the continuance of some local inflammation arising during the fever, has lost none of its importance.

The Goulstonian Lectures delivered in 1853 deal with a wider range of subjects. They treat of the natural history of small-pox, measles, scarlet fever, erysipelas, typhus fever, and typhoid fever, and contain a historical sketch of the steps by which the general recognition of the specific character of these disorders has been brought about; for it is a curious fact, which ought not to be forgotten, that it is only in quite recent historic times that the distinction between measles and scarlet fever has been perceived, and that less than two centuries ago even small-pox had been confounded with both. The mode in which recognition was brought about, in spite of preconceived theories of epidemic constitution, and so forth, is succinctly stated in the following passage from the third Goulstonian Lecture. "At first, all three were confounded; then one of the three having prevailed for a while in its most perfect form, under the eye of a good observer, an accurate description of that one was obtained; then disputes arose as to the general applicability of the description to the disease in question. It was thought by some to apply to cases to be seen in one epidemic only; but after a while epidemics of each of the other two occurred, and good descriptions of these were given; then it was found that occasionally all occurred at the same place at the same time; that exposure to the emanations of either one only produced the same group of symptoms, and ultimately that neither disease affected twice the same individual; while having suffered from one afforded no immunity to attacks of the other; and so the specific character of small-pox, of scarlet fever, and of measles was established."

The section of the volume which deals with "fevers" concludes with a reprint of an address on the Treatment of Typhoid Fever, delivered before the Midland Medical Society at Birmingham, on November 4th, 1879, but as this is, or ought to be, familiar to every practitioner of medicine who reads the English language, we may content ourselves by reproducing a very characteristic utterance on the subject from an early essay (1850). "If the surgeon who places his patient in favourable circumstances for Nature to effect a cure is termed a scientific surgeon, while he who is ever interfering is denounced, and justly so, as unscientific, why should the physician dream that he is doing nothing, when, by enjoining or enforcing abstinence, mental quiet, bodily repose, fresh air, and cleanliness, he has placed the patient in circum-

[1] The list might easily be extended by quotations from the Goulstonian Lectures, also reprinted in this volume in which authorities are quoted with greater fulness.

stances in which Nature may effect a cure? Or he alone be regarded as scientific who, by the thousand drugs that flesh of the present day is heir to, unloads the liver, empties the bowels, promotes expectoration, excites sweating, induces sleep—who lowers the action of the heart by blood-letting, and produces counter-irritation by the application of cantharides—who, if he does not handle, probe, and dress, certainly washes, greases, and powders his patient, and that, unfortunately, inside as well as outside?"

The second section of the volume consists of reprints of three clinical lectures, two on Diphtheria, published in 1861, and one on Croup and Diseases which Resemble It, published in 1875. All three are well worth reading at the present day. The lectures on diphtheria abound with evidence of the accuracy of the author's clinical observation and the soundness of his deductions, so that they still read as though freshly written. At the most, some facts as to the etiology might be added now, but nothing which is set down would need to be omitted unless it be the admission of an idiopathic, simple, membranous inflammation, as to which Sir William Jenner subsequently saw reason (p. 564) to modify his earlier opinion. In discussing the local treatment of the disease he utters a warning against the too frequent application of powerful solutions which is wanted at the present day hardly less than at the time when it was uttered. Recent researches have confirmed his views as to the value of local treatment, while at the same time affording an explanation of its mode of action, which might, perhaps, modify the opinion expressed as to the systemic or general nature of the disease.

The last lecture in the volume, that on Croup, is not the least interesting; it contains some passages on the association of laryngismus stridulus with a condition to which the term tetany would now be applied, which might very well have been written as a contribution to the discussion which has occupied recently much space in some German periodicals. The advice as to the best mode of administering the bromides in this affection deserves to be widely known. "Bromide," Sir William Jenner writes, "according to my experience, should be given in rather large doses at frequent intervals. Full doses night and morning are, I think, better than small doses frequently repeated during the day." He gives also a vivid description of a particular form of croupy attack observed in older children, secondary to slight catarrhal laryngitis, which, if generally read, would relieve many practitioners from some anxious moments. The lecturer concluded with a short account of the rarer conditions, such as abscess external to the larynx, and inflamed cyst of the arytæno-epiglottic region, which may give rise to errors of diagnosis, and summed up in the pregnant sentence: "Suspect, and there is no difficulty in the diagnosis."

The volume, which will, we hope, receive so warm a welcome from the profession that its author may be encouraged at no distant date to present us with a further collection of essays and lectures, is dedicated to the memory of Professor William Sharpey, of Dr. Edmund Alexander Parkes, and of Sir James Clark, Bart., "three of the most able, honourable, and kind-hearted men the author has ever known in the medical profession."

THE ADDRESS OF CONGRATULATION TO THE QUEEN.

AT the annual meeting at Newcastle it was unanimously resolved to present an address of congratulation to Her Majesty the Queen on the occasion of the marriage of the Duke of York. A photographic reproduction of the actual address is given on the accompanying page. The address was duly forwarded by Professor G. H. Philipson, President of the British Medical Association, through the Home Secretary, and the following reply has been received:

"Whitehall, August 25th, 1893.

"SIR,—With reference to your letter of the 19th inst. reporting that, at the first general meeting of the sixty-first annual meeting held in the city of Newcastle-upon-Tyne, an address of congratulation to Her Majesty the Queen on the marriage of their Royal Highnesses the Duke and Duchess of York, was unanimously voted by the Association for presentation to Her Majesty, and inquiring what course you must follow in order to carry out the wishes of the members of the Association with reference to the address, I am directed by the Secretary of State to acquaint you that, if you will be so good as to forward the address to him, he will be happy to take an early opportunity of laying the same before Her Majesty.—I am, Sir, your obedient Servant,

"(Signed) "GODFREY LUSHINGTON.

"To the President of the British Medical Association."

It may not be without interest to recall that fifty-six years ago, on the occasion of Her Majesty's accession, an address was presented by the Provincial Medical and Surgical Association, the parent of the British Medical Association, to the Queen. The annual meeting was held that year in Cheltenham, and the address was presented by Dr. Boisragon, President; Sir Astley Cooper, Bart.; Dr. Kidd, one of the Vice-Presidents; Dr. (after Sir) James Clark, and Dr. (after Sir) Charles Hastings, Dr. Forbes, and Dr. Malden. The address was in the following terms:

To the Queen's Most Excellent Majesty.

May it please Your Majesty.

We, the members of the Provincial Medical and Surgical Association, cannot suffer the auspicious commencement of Your Majesty's reign to pass over without expressing the sincere and ardent loyalty with which we hail Your Majesty's succession to the throne which Your lamented predecessor so ably and worthily filled.

As individual members of the community, there are none among our fellow subjects who more justly appreciate the blessings of the political constitution under which we live, or who would more zealously defend it against the inroads of either rancorous foes or indiscreet friends. While we are aware that in many respects amendments of even time-hallowed ordinances are needed, in seeking their correction we would carefully and vigilantly protect those bulwarks of our liberties which have so long and so successfully sustained us amid the revolutionary struggles by which so many Continental States have been and still are agitated; in the sincerity of our hearts we approach Your Majesty to tender to you the respectful homage of our dutiful allegiance, and to express our sincere and ardent hope that Your Majesty may long wield the sceptre which an all-ruling Providence has placed in your hands, to your own glory, the prosperity of your dominions, the maintenance of civil and religious liberty, and the welfare and happiness of all classes of Your Majesty's subjects.

Cordially uniting in sincere attachment to Your Majesty's person, and in veneration for the high office which you hold we fervently pray that your days may be long in the land, and that the generous and enlightened purposes so graciously announced in Your Majesty's first public declaration, may be so effectually realised as to shed o'er Your Majesty's reign that true glory which the diffusion of religion and piety, the distribution of equal justice, the advancement of literature and science, and the cultivation of the arts of peace never fail to impart. In the exercise of such functions may Your Majesty ever find the rich reward of an approving conscience, and may the success of your benevolent and enlightened endeavours be such as eventually to embalm the memory of your reign in the hearts of a united, prosperous, happy, and grateful people.

Fifty years later the Association took the opportunity of congratulating Her Majesty upon the occasion of the jubilee of her reign. On that occasion the following address was presented:—

To Her Most Gracious Majesty, VICTORIA, Queen of Great Britain and Ireland, and Empress of India. We, the President, the President of the Council, the Council, Representatives, and Members of the British Medical Association, humbly approach your Royal and Imperial throne with the profoundest feeling of respect and veneration, desiring at the same time to assure Your Majesty of our continued and heartfelt devotion to your Person and Rule.

We would also express our grateful acknowledgments to the Almighty Disposer of events, that He hath seen fit to prolong a life which has been devoted to the well-being and happiness of your subjects, and a reign which has been so fruitful in all matters pertaining to the advancement of the Arts, Sciences, Literature, and Industries, and has been largely instrumental in promoting peace throughout the civilised world.

To our own profession Your Majesty has ever shown an appreciative kindness and goodwill, so conspicuously manifested last year when your Majesty graciously condescended to lay the foundation stone of the Examination Hall for the two Royal Colleges, and when on that occasion you addressed such kindly words to the head of our profession, and through him to the profession generally. It now only remains for us to breathe a fervent prayer that the Almighty may be pleased to preserve your valuable life in health and happiness for many years to come, and that Your Majesty may continue to seek His honour and glory, and study to preserve the people committed to your charge in wealth, peace, and godliness.

To Her Most Gracious Majesty The Queen.

The Humble Address of the President and Members of the British Medical Association.

May it please Your Majesty,

We, Members of the British Medical Association, numbering fourteen thousand seven hundred Members of the Medical Profession, resident in the United Kingdom, Your Majesty's Colonies, and India, representing British Medicine, at the Sixty First Annual Meeting of the Association, assembled in Newcastle-upon-Tyne, most respectfully approach Your Majesty, to offer their congratulations on the Marriage of their Royal Highnesses the Duke and Duchess of York, and to express their hope that the union may be auspicious, and attended with every blessing and happiness. . . . . .

We desire further to give expression of their fidelity and loyalty to the Throne, and their hope that Your Majesty's beneficent reign may be prolonged. . . . . .

George Hare Philipson
President.

John Ward Cousins
President of Council

Henry T. Butlin
Treasurer.

Francis Fowke
General Secretary.



Dated August 1st 1893.

CALENDAR OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

This useful publication has just been issued by the Council of the College. From it we ascertain the following facts, namely:—

It appears that there are 1,122 Fellows on the roll of the College, of whom 866 obtained the distinction by examination, 15 were elected as Members of twenty years' standing, under Section 5 of Chapter 15, Victoria, and 2 are *ad eundem* Fellows (both are Fellows of the Royal College of Surgeons of Ireland). There are 17,043 Members, and 695 Licentiates in Midwifery. The Licentiates in Dental Surgery number 846. Holders of the Diploma of Public Health, granted by the Royal Colleges of Physicians and Surgeons, number 163.

For the First Examination, during the past collegiate year, 777 candidates presented themselves for examination in Elementary Anatomy, of whom 626 passed and 151 failed; 458 candidates presented themselves in Elementary Physiology, of whom 383 passed and 75 failed; 234 candidates presented themselves in Elementary Biology, 169 of whom passed and 65 failed. The examiners are appointed in conjunction with the Royal College of Physicians under the Scheme for an Examining Board in England. The fees paid by candidates for this examination amounted to £3,971 2s., the examiners receiving in fees £584 5s. Of 743 who presented themselves in Chemistry, 454 passed and 289 failed; in Materia Medica, of 728 candidates, 427 passed and 301 failed; in Practical Pharmacy, of 40 candidates, 28 passed and 12 failed. The examiners in Chemistry, Materia Medica, and Practical Pharmacy are elected by the Royal College of Physicians.

The examiners in Anatomy and Physiology for the Second Examination are appointed in conjunction with the Royal College of Physicians; they have conducted the Primary Examination under the old regulations, as well as the Second Examination of the Examining Board; 815 candidates presented themselves for examination in Anatomy, of whom 490 passed and 325 failed; 945 candidates presented themselves in Physiology, 538 of whom passed and 407 failed. The fees paid by candidates for these examinations amounted to £4,096 1s., the examiners receiving £1,561.

The Board of Examiners in Anatomy and Physiology for the diploma of Fellow are elected annually by the Council, and have held during the past year two examinations; 149 candidates presented themselves, of whom only 55 passed whilst 94 failed. The fees paid amounted to £992 5s., of which the Board received £617 10s.

The Court of Examiners, ten in number—five of whom are also on the Council—are elected by the Council from the Fellows of the College only for a period of five years. They conduct the Third or Final Examination in "Surgery" of the Examining Board, as well as the Pass or Final Examination under the old regulations, and the Pass or Final Examination for the Fellowship. During the year the Court has held two examinations for the Fellowship and four for the Membership: at the former there were 74 candidates, 48 of whom passed and 26 were referred. For the Membership 937 candidates presented themselves for examination in Surgery, of whom 578 passed and 359 were referred. The fees paid by the candidates for these examinations amounted to £10,309 2s., and the fees paid to the Court of Examiners and the Examiners in Midwifery amounted to £5,584 16s. The examiners in Medicine, under the scheme, are elected by the Royal College of Physicians. Of 835 candidates who presented themselves for this examination during the year, 534 passed and 301 were referred. The examiners in Midwifery are appointed in conjunction with the Royal College of Physicians, and have examined 844 candidates, 553 of whom passed and 291 were referred.

The Board of Examiners in Dental Surgery has held two meetings for the examination of 92 candidates, 57 of whom received the diploma and 35 were referred. The fees paid by candidates amounted to £598 10s., the Board receiving £386 8s.

The examiners in Public Health, appointed in conjunction with the Royal College of Physicians, have examined 56 candidates in Part I, 46 of whom passed and 10 were referred for six months; for Part II 58 candidates presented themselves, 37 of whom received the diploma and 21 were referred for six months. The fees received for both parts amounted to £282 9s.; the examiners receiving £239 8s.

With regard to the finances of the College, it appears that the income from all sources amounted to £28,848 17s. 10d., the largest receipt being derived from fees paid by candidates for the diplomas of the College, namely, £20,249 9s.; the next largest item being dividends on Erasmus Wilson Bequest, £5,013 2s.; rents from chambers adjoining the College produced £750; investments, £668 17s. 4d.; hire of rooms at Examination Hall (half receipt), £588 17s. 5d.; fees retained for referred candidates, £545; law expenses repaid by Steele and others, £362 14s. 4d.; from trust funds, £252 1s. 8d.; sale of stock, £58; incidental receipts: sale of calendars, etc., £24 12s. 10d.; balance at bankers, 1892, £336 3s. 3d.

The expenses for the year amount to £27,368 9s. 5d. (leaving a balance of £1,480 8s. 5d.), the largest item being for fees to examiners, namely, £8,973 7s.: expenses of examination (Fellowship and dental only), £253 6s. 1d.; half expenses Examination Hall, £4,645 5s. 3d.; half expenses research laboratories, £861 2s. 8d.; extraordinary expenses, that is, drainage works, furniture and fittings, etc., £2,109 18s.; rates, taxes, and insurance absorb the sum of £1,139 19s.; alterations and repairs, £638 19s. 6d.; salaries, wages, and pensions in the three departments—museum, library, and office, £5,068 18s. 4d.; lectures, specimens, catalogues, etc., for museum, £589 19s. 1d.; purchase of books, etc., for library, £692 18s. 7d.; fees to council, £246 15s.; fees returned to candidates, £551 5s.; trust funds, £287 9s. 8d.; under miscellaneous items, that is, fuel, light, printing, and stationery. £1,045 10s. 11d., appears to have been expended.

During the past year, in addition to the ordinary work, consisting of repairs and remounting spirit preparations and skeletons, the museum has been enriched by upwards of 600 specimens, by donation, purchase, or from the College stores. An increasing amount of pathological material has been received in the workroom, and an additional number of medical practitioners have availed themselves of the privilege accorded by the College of sending specimens to be dissected, examined, and reported upon by the Pathological Curator (Mr. J. H. Targett). Good work has also been done by Mr. R. H. Burne, Anatomical Assistant, and by Mr. William Pearson, Prosector to the College, with his accustomed skill.

From the Librarian's report it appears that the supply of new books has been well kept up, several new journals have been added to the library. A large collection of Russian dissertations, together with a printed catalogue of them, has been presented by Dr. Theodore Maxwell. Most of the American journals which were incomplete have been made perfect. Dr. J. S. Billings kindly presented to the College a large number of volumes and parts for that purpose, the rest were obtained by purchase. The collection of portraits has been largely increased by the addition of Mr. T. Madden Stone's collection of medical portraits which he has generously presented to the College. By this gift 502 portraits have been added to those already in the library. In addition to these there are many portraits in Mr. Stone's collection which were already in the College; it is hoped that these duplicates may be exchanged and that by this means the College collection may be still further increased. Including journals and transactions the total number of volumes in the library is about 46,000.

In the Secretary's report will be found an abstract of the work done by the Council, the Committee of Management at the Examination Hall, the Laboratories on the Embankment, the Finance Committee, statements of election, etc. During the year two Members have been removed for misconduct.

Professor Ernst Pflüger, of Bonn, has been named a Knight of the Civil Division of the Prussian Ordre pour le Mérite.

University of Charkoff.—A sum of 400,000 roubles (£40,000) has been assigned for the erection of new clinics in the University of Charkoff. The buildings are to be completed in three years.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1893.

SUBSCRIPTIONS to the Association for 1893 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, SEPTEMBER 30TH, 1893.

ALLEGED INCREASE OF INSANITY.

III.

IT has been pointed out in our preceding articles that, assuming the Census returns to represent approximately the aggregate amount of mental unsoundness existing in England and Wales in 1871, 1881, and 1891, the ratio of existing insanity in those years was equal to 3.04, 3.25, and 3.36 per 1,000 of the enumerated population. It has been further shown, however, that this recorded increase was probably partly due to the greater accuracy of the recent census returns, and partly to the increased proportion of the insane under treatment and care in institutions, resulting in a considerable reduction in the death-rate of those in asylums, and causing accumulation of existing cases. That the apparent increase in the ratio of insanity, based upon the census returns, is in great measure due to accumulation, may be assumed from the fact that the proportion of insanity under 45 years of age has steadily declined during the last twenty years, whereas above that age there has been a steady increase. It may further be pointed out that the census returns undoubtedly still understate the true number of the insane, especially in childhood; and if, as is believed by the Census Commissioners, the numbers are more correctly returned at each succeeding census, this affords an additional ground for doubting the reality of the apparent increase.

It is impossible to doubt that the very generally accepted belief in the increase of insanity is due to the marked and steady increase in the number of "lunatics, idiots, and persons of unsound mind" dealt with in the annual reports of the Lunacy Commissioners, and to the constantly recurring necessity for providing additional asylum accommodation for the insane. It seems desirable, therefore, before concluding this analysis of the census statistics of insanity in 1891, to consider these figures with reference to those published in annual reports of the Lunacy Commissioners.

It was pointed out, in the paper read by Mr. Noel A. Humphreys before the Statistical Society in 1890, that according to the census in 1871 there were 12,264, or 17.7 per cent., more cases of insanity in England and Wales than were known to the Lunacy Commissioners on January 1st in that year; and that this deficiency was equal to 20.5 per cent. among the male insane, and to 14.9 per cent. among the female insane. In 1881, this reserve of cases unknown to the Lunacy Commissioners had fallen to 11,390, or 13.5 per cent. of the aggregate number of cases of insanity returned in the census schedules in that year; the deficiency having fallen to 17.1 per cent. among the male insane, and 10.2 among the female insane. There is no reason to doubt that these cases of insanity, of which the Lunacy Commissioners have no official knowledge, constitute a reserve from which, through a variety of causes tending to bring a larger proportion of cases within the view of the Commissioners, a constant supply of so-called new cases, helps to swell the aggregate total of the insane dealt with in their reports.

An examination of the census returns for 1891, recently published, shows that of the 97,383 persons returned in the schedules as mentally deranged in that year, 59,098 were in public lunatic asylums, 16,375 in workhouses or workhouse infirmaries, 4,595 in private lunatic asylums, and 17,315 were returned as residing with relations or friends outside public and private asylums and workhouses. It thus appears that in 1891, 65 per cent. of the total insane were enumerated in lunatic asylums (public and private), 17 per cent. in workhouses, and 18 per cent. outside those institutions. The proportions of the total insane enumerated at the census in 1881 were respectively 58 per cent. in asylums (public and private), 19 in workhouses, and 23 outside those institutions. Thus, the proportion of the insane under asylum care and treatment increased largely during the ten years 1881-91, while the proportions in workhouses and outside asylums and workhouses both considerably declined.

The Forty-Fifth Report of the Commissioners in Lunacy returned the total number of "lunatics, idiots, and persons of unsound mind" in England and Wales on January 1st, 1891, under their official cognisance as 86,795 persons, which showed a deficiency of 10,588, or 10.9 per cent., compared with the number in the census schedules, and dealt with in the Census Report; this deficiency showed a further decline from that shown at the two preceding censuses, when it was, as we have seen, 17.7 per cent. in 1871, and 13.5 per cent. in 1881. The deficiency in the Lunacy Commissioners' figures was in 1891, as it had been in 1871 and 1881, considerably greater among males than among females, the percentage of defect being 13.7 of the male insane and 8.4 of the female insane. If we compare the figures in the Lunacy and Census Reports more closely, we shall find that the whole of the deficiency occurs among the insane outside the various kinds of institutions in which they are treated. In the Lunacy Report the number of inmates of public asylums (including county and borough asylums, State and criminal asylums, and registered hospitals) on January 1st, 1891, was 59,041, against 59,098 on April 5th in that year according to the census returns; in private asylums (metropolitan and provincial licensed houses) there were 4,511 according to the Lunacy Report, against 4,595 according to the census returns; in workhouses (including the Metropolitan District Asylums for Idiots and Imbeciles) there were 16,990 according to the Lunacy Report, and 16,375 according to the census returns. Thus, in the case of public and private asylums, the numbers derived from these two sources are almost identical, the slight excess in the census returns being probably due to the inmates received between January 1st and April 5th. In workhouses, however, the Lunacy Report shows 615 more insane persons than do the census returns; a similar discrepancy occurred at the previous census in 1881, and was found to be due to the fact that in a certain number of cases indoor paupers who were included in the list of the insane furnished by the clerks to the guardians to the

Lunacy Commissioners were not so described in the census schedules by the masters of the workhouses, who in most cases acted as the enumerators of those institutions. We have not the means for deciding which returns are most correct in this respect, but, accepting the Lunacy Report as the more accurate, the effect of this deficiency in the census returns would be to understate to this extent the total number of the insane as given in the Census Report.

In addition to the 80,542 insane persons reported to the Lunacy Commissioners as located in asylums and workhouses on January 1st, 1891, there were 6,253 described as private single patients, or as outdoor paupers, making up the gross total of 86,795 dealt with by the Commissioners in their report for that year. The census schedules in April, 1891, showed, however, 17,315 insane persons who were not enumerated in public or private asylums or in workhouses, making an excess of 11,062 upon the number of the insane outside such institutions who were under the cognisance of the Lunacy Commissioners on the first day of that year. It may be noted that in 1881 the Lunacy Commissioners had cognisance of but 6,575, or 34.5 per cent., of the 19,079 insane persons enumerated outside asylums and workhouses; while in 1891, of the 17,315 insane persons so enumerated, 6,253, or 36.1 per cent., were within their cognisance. It would be desirable to have more definite information concerning these 11,062 insane persons, who at the time of the census in 1891 were residing with relatives or others, of whom the Lunacy Commissioners had no official cognisance. It may, however, fairly be assumed (1) that they consisted mainly of harmless insane persons belonging to those classes of the population which can afford to support their insane relatives without assistance from the poor rates; and (2) that they constitute, as has been suggested, a reserve of insanity, from which the inmates of workhouses and of public or private asylums are constantly being recruited, thus tending to increase the ratio of insanity published annually in the reports of the Lunacy Commissioners.

It may be pointed out that the 11,062 insane persons returned in the census schedules, but of whom the Lunacy Commissioners had no official cognisance, included 3,389 under the age of 15 years, or 65.5 per cent. of the total insane at these ages; 9,631 were aged between 15 or 45, equal to 20.1 per cent. of the total insane at these ages; 2,853, or 8.7 per cent. of the total insane aged between 45 and 65; and 1,442, or 12.2 per cent. of the insane aged 65 years and upwards. It is impossible to doubt that these probably mild and harmless cases of insanity are understated even in the census returns, or that they will to a considerable extent from time to time be brought within the cognisance of the Lunacy Commissioners, either because the cases cease to be harmless, or because the relatives cease to be able or inclined to bear the cost and responsibility of their care, or from some other of the many causes which constantly tend to increase the proportion of the total cases treated in public or private institutions.

In concluding this notice of the census statistics of insanity recently published, and of their bearing upon the alleged increase of insanity, we can come to no other conclusion than that they afford no convincing evidence of any real increase in the rate of occurring insanity, although they point conclusively to a slight further increase of existing cases due to the accumulation which necessarily follows upon improved care and treatment of the insane, and upon the reduction of the rate of mortality of cases of insanity in asylums.

THE GRIEVANCES OF ARMY MEDICAL OFFICERS.

III.

No part of the controversy has been more embittered than that of the application of military or *quasi*-military titles to medical officers. Yet it ought to have been a matter of pure indifference to the combatant holders of them if there had been any sincerity in the oft-repeated protestation that not only were such titles useless to medical officers, but so common as to be derogatory to the noble profession of medicine. But this very disparaging of military titles, together with the anxiety to prevent medical officers having them, was only proof positive of their supreme significance and value in the army. Nowhere is the legal definition of title—"that which gives just right to possession"—better illustrated than in military titular designation, which is, in fact, the very embodiment and evidence of army status. To parody a well-known line emphatically, in military life the rank is but the title stamp. It is therefore desirable to look very particularly into this matter, which meets with such a point blank "inadmissible" in the reply.

Now, a sort of army rank has never been denied to medical officers, provided it was sufficiently indefinable and inarticulate, but its translation into recognised military titular designation has ever been opposed by a powerful section of the army with peculiar vehemence.

At last, where some sort of title stamp to their rank could no longer be refused without danger, compound consecutive titles were conceded—an important advance undoubtedly on the old style, which had neither sense nor sequence, as, when an officer ranking with or as a lieutenant-colonel was called a surgeon-major. Yet, while the compound titles express gradation in rank clearly enough officially, they have proved too cumbrous and unpronounceable in colloquial and social use. The public fail to grasp them, and, by the usual process of phonetic curtailment, tend to lop off the military portion, thus leaving the possessor much as before, with no definite or easy expression of army status.

Nor have the hybrid titles had fair play, for a section of combatants have very ungenerously, and unwisely, we think for themselves, done their best to cast ridicule on them, by inventing grotesque combinations, or by feigning invincible ignorance. Such puerilities have naturally excited disgust and even resentment among medical officers, who are forced to see that their opponents will allow no proper rest in any compound compromise. Therefore, not merely to stop unworthy fooleries with their titles, but to assert their clear position as soldiers, as well as doctors, sharing in all the duties and dangers of the army, medical officers are compelled to ask for pure military titles, with a departmental affix; such as cannot be gainsaid, and are already freely conceded to the departments of pay, stores, and supply. To have given the officers of these departments pure military titles may have been an administrative mistake, but for that the medical officers had no responsibility, and they can now therefore, with a clear right, claim equality at least.

It should also not be forgotten that the titular claims of

medical officers have arisen only since when these departments were finally reorganised, and relative rank swept away. The other departments were for a time quite as much in a state of flux as the medical; but, unlike it, have now attained a fair position of stability and rest. To the retort of combatants that the desire of medical officers for purely titular rank is only a false sentiment, and to enable them to appear to be what they are not, we say: Why is this argument not applied to the officers of the departments just named? They are certainly more non-combatant than the medical; yet their substantive or honorary titular rank is unchallenged, and they are not branded as mere military masqueraders. As for sentiment, true or false, that cannot safely be disparaged—least of all in an army, of which in the shape of *esprit de corps* it is indeed the very life. We put the following ordinary case, sentimental to a certain extent if you will, to any reasonable unprejudiced mind. An army medical officer may serve his Queen and country for all the best days of a lifetime, in every clime, both in peace and war; he may be wounded in battle; may even earn the purely service distinction of the Victoria Cross for valour in action, and yet, as far as titular army rank, popularly understood, is concerned, retire into civil life with no handle to his name to show he had ever been in the army at all. On the other hand, there are plenty of officers, who had all their lives been practical civilians, handling money, stores, or supplies, with a minimum of risk in peace and none at all in the field, who retire with purely military titles, known and read of all men, and obtaining a popular credit and status thereby, unknown to their neighbour the retired army doctor. Is there not a monstrous incongruity in such parallel cases?

Our apology for entering at length into this portion of the memorandum and reply is simply its importance, and the moral certainty that it will soon again come to the front. For the reply is a mere negative, settling nothing, except the granting of the new titles to retired officers liable to recall to service, the continued refusal of which would have been a very climax of official wrongheadedness. It is stated in the reply, "As it was of the essence of the new titles that the professional qualification should be joined to the military rank, the insertion of the word 'and' is inadmissible." We can see the argument, although we fail to grasp its logic; but it is not the professional "qualification," but a sort of generic appellation that is joined to the military title; how it could be invalidated in its essence by the conjunction "and" we fail to see. It is enough to record that all modifications of the titles now "enjoyed" by medical men are declared "inadmissible;" the *non volumus* of the reply is nowhere more accentuated than in that.

The other points, which are more purely of departmental interest, we must hold over.

Dr. E. Linnell, on leaving Buckingham, was presented with an illuminated address by the Buckingham Oddfellows, as a mark of respect and esteem in which he was held by them.

A quarterly general meeting of the Society for the Study of Inebriety will be held in the rooms of the Medical Society on October 3rd, at 4 p.m. Dr. Norman Kerr will preside, and Dr. F. R. Lees will read a paper "On Some Illogical Assumptions and Statements, Ethical and Physiological, regarding Inebriety."

SHOULD EXPERIMENTS ON ANIMALS BE PROHIBITED BY LAW?

Under the above title, Dr. Armand Ruffer has published an article in the current number of the *Liberty Review*, in which he again discusses, "as dispassionately as possible, the morality and utility of experimentation on (living) animals." He thinks that "the storm of the last Church Congress has blown over," and that the time is therefore come for a calm survey of the results.

There were many physiologists who regarded the prospect of the debate at Folkestone with grave apprehension, and were disposed to think that experimentalists like Mr. Victor Horsley would be ill-advised if they threw down the glove in such an arena. It was feared that there would be no fitting tribunal to judge of the matter, perhaps not even a just moderator to ensure fair play; and that ill words might be spoken on both sides with little or no good result. In such a temper as this some eminent physiologists declined to be present, among them one whose experiments upon dead animals had been held up to execration as vivisection of the worst kind, and who to this day has not thought it worth while to publish any correction of the blunder. But they will have changed their minds; we now see that fierce words are not always mischievous, and that violent disputation does not always darken counsel. We confess that in the earlier years of the antivivisection crusade the physiologists had not carefully avoided all cause of offence in word; we thought some harm had been done at first by too polemical a tone on their part, and we still think so; but our opinions are modified. Their indifferent attitude towards the antivivisection party in later years we see was misinterpreted, not by thoughtful opponents, who were beginning to see in this attitude the calmness of conscious moral strength; but arrogant and ignorant opponents, who became puffed up and insolent.

The fearless challenge to these persons and the exposure of their methods produced a great effect upon the Congress as a whole, and even produced something like a panic among the antivivisectionists themselves. Those of them who are unaccustomed to the restraints of good manners, who are aware of no obligations in respect of truthfulness, and who feel themselves at liberty to indulge their tempers by reckless aspersions upon others, have been dismayed, not by the revelation of their own hollowness—of this, unfortunately, they cannot judge—but by the discovery that they are not always to be treated with contempt, but at due times with chastisement. Of these people we hope nothing and fear nothing; we look entirely to that great body of men who happily preserve an equitable mind; and we note with as much pleasure as surprise that among these a marked reaction has taken place; the current quips at the expense of physiologists have ceased, and an impression is abroad that the case of the physiologists is stronger and that of the abolitionists far weaker than they had supposed.

For such readers—readers open to moral and rational conviction—Dr. Ruffer's paper is well fitted. On the whole it is as dispassionate as it claims to be, but we think such phrases as the "unscrupulousness of professional agitators and so forth," are better henceforth avoided; many thoughtful and scrupulous men are opposed to us in this matter; if there were not the agitators would soon disappear.

Dr. Ruffer sets forth the well known arguments with care and point. He repeats that if therapeutics are to advance, the advance must be (1) by experiment upon man, or (2) by experiment upon animals; and that new methods and agents are not to be tried on man until we gain upon animals some knowledge of their working. "In the end," he says, "the experiment must be made on man, but when this is done let us have all the trumps in our hands." The author deals next, and deals ably, with the very proper objection, that we cannot argue from the lower animals to man. Dr. Ruffer seems to us to answer this objection sufficiently; some of his freshest sentences are those in which he shows, amid the many superficial differences of pathological processes in living creatures of various classes, that "at bottom, life, both in the vegetable and animal kingdoms, is influenced in the same way by the same reagents." This proposition Dr. Ruffer illustrates by effective instances. Dr. Ruffer also enforces the tremendous truth that "a year's delay in any advance of medicine really means the sacrifice of thousands of lives." That experiments upon living animals do aid us largely in interpreting the laws of life and death, Dr. Ruffer of course reasserts, but we believe this point is no longer contested; the anti vivisectors—we mean our thoughtful and considerate opponents—now stand on the plain issue that, granting any success of the method, the means are not justifiable. This, if we mistake not, is the position of the *Spectator*. To us there can be but one reply to such a proposition.

Dr. Ruffer could not overlook the repartees about the butchers and the sportsmen; perhaps his paper would have been incomplete without them, well worn as they are. Yet we must admit these retorts do not touch the heart of the matter, being of the nature of mere *tu quoques*, that is, effective in a polemical and not in a philosophic sense. The meditative man may effectively reply that butchers and sportsmen are survivals of barbarism whom he does not defend, or whom he will leave for the present out of the question; that shooting and hunting are becoming every year more difficult of attainment, and are being largely supplanted by athletic sports; or, again, that vivisection revolts his conscience, while hunting and shooting do not; his conscience being, so far as he is aware, in a healthy state.

It is some answer to this objector to contend that use and wont are largely concerned both in the direction of public opinion and in the formation of the private conscience, and that aversion from vivisection will diminish when the public are as used to it as they are to the infinitely greater liberties of the sportsman. Still, this answer is not sufficient; an aversion is felt by reasonable people, which is stronger than mere unwontedness can account for; and how comes this state of feeling? The explanation is no doubt this: that ordinary men take short views of things, and even imaginative men, like Tennyson, for instance, take short views of things of which they know nothing. This may not lie in lack of imagination, but in that their ideas are, in certain directions, unformed.

A bishop wants a strong voice; animal food produces a strong voice; then, says the bishop's wife, let a sufficient number of proper animals be killed for the bishop at once. A countryman has a wholesome passion for fresh air, exercise, and adventure, and he is a lover of Nature; to hunt a fox satisfies these passions, so the fox is hunted accordingly. "Sensible men" especially take short views of life, and "sensible men" see at once that the end attained is well worth the sacrifice. On the other hand, the physiologist does not by the sacrifice of an animal bring direct aid there and then to a certain person; he may sacrifice the animal and other animals month after month, and year after year, with no immediately obvious service; the physiologist takes a far longer view of his part of life than the ordinary man does or can do. His imagination is fixed upon great future redemptions and immediate benefits, if any, are attained by the way; at the same time physiologists remember the dangers which lie in long views of life, at least as well as ordinary men remember those which lie in shorter views; they know that, as the largest-hearted philanthropists may neglect the fortunes of their own households, so they themselves might be tempted to ignore the sufferings which have to be passed on the way to future results. They think that the pressure of opinion within their own circle would have been sufficient to prevent pain, to check needless sacrifice, and to economise experiments to the utmost; nevertheless, they are loyally submitting to laws which, although unduly vexatious in some respects, are reasonably intended to secure these ends with due consideration of their own needs, their own honour, and, above all, of the public weal; in return they ask for no more than the ordinary courtesies of life.

We are requested to intimate that the "Surgeon-General Maclean," whose speech, as chairman of the "Highland Land League," is reported in the *Scotsman* of September 21st, is not the medical officer of that name, late Professor of Military Medicine in the Army Medical School.

Professor Lionel Beale, F.R.S., will open his forty-first course of lectures at King's College, London, at 4 P.M. on Friday, October 6th, with an introductory discourse on "Progress at King's," and on "Life." Professor Beale requests us to state that he will be happy to see old friends at the lecture.

PRESENTATION TO SIR WILLIAM BROADBENT.

On September 23rd an illuminated address was presented to Sir William Broadbent by the inhabitants of Longwood, of which he is a native, congratulating him upon the baronetcy lately conferred upon him.

MEMORIAL TO SURGEON-MAJOR PARKE.

A committee, which includes the names of Lord Harlech, the Rev. Dr. Clarke, and several other gentlemen of local light and leading, has been formed to collect subscriptions for the erection at Carrick-on-Shannon of a hall, to be called the Parke Memorial Hall, in memory of the late Thomas Heazle Parke. Surgeon-Major Parke was born and spent his early days in the neighbourhood of Carrick-on-Shannon, with which town his family has been long connected. The treasurers of the fund are the Provincial Bank of Ireland, Carrick-on-Shannon, and the Northern Banking Company, Mobile.

"MAKING RAIN."

The Dublin city engineer has been trying the effects of explosives in bringing down rain to increase the water supply in the Vartry reservoirs. A dozen rockets were sent up to a distance of nearly 2,000 feet, and three dozen distress signals were also exploded. Then 10 pounds of tonite were discharged on the ground, with the result that there was a

heavy fall of rain over the watershed. The duration was, however, only an hour and a-half. Since then there have been slight rainfalls, and the indications are that it will not be necessary to have recourse to the canals.

EAST SOMERSET CORONERSHIP.

By the death of Mr. Muller, solicitor, a vacancy has occurred in the above division of the county for the office of coroner. Mr. Muller was elected by the freeholders, and succeeded the late Dr. Wybrants, a coroner of much repute, who held office in the county many years. On the present occasion the appointment will be in the hands of the county council, and we trust that every consideration will be given to the claims of the medical candidates. The county councils of London and Middlesex have in the recent appointments to the office expressed their very decided opinion in favour of medical coroners. We observe that Mr. John Farrant Fry, L.R.C.P., M.R.C.S., of Shepton-Mallet, and Mr. John Albert Bright, M.R.C.S., L.S.A., of Glastonbury, are seeking election. Both candidates have held several public appointments, and are well known in their respective localities. If the Somerset county councillors follow the metropolitan examples, we shall expect to see one of the medical candidates duly elected.

THE COST OF TUBERCULOSIS.

Sanitary matters in regard to cattle have a solid, monetary, and commercial aspect, which they sadly lack in relation to human beings. The worth of a man is undoubtedly difficult to estimate with accuracy and without offence. The value of a cow can, however, be decided to a nicety, and it was stated by Professor Wright the other day at the conference of the Sanitary Association of Scotland that tuberculosis caused an annual loss to the owners of dairy stocks in that country of nearly £440,000. When we get into the way of measuring the importance of human ailments by the same commercial monetary standards as are adopted in regard to cattle, the public will be startled in no small degree by the immensity of our annual losses by consumption.

OPIUM SMOKING BY WOMEN AND CHILDREN IN CHINA.

In the sixth report of the Medical Mission at T'ai-yuen-fu, Shansi, North China, Dr. E. H. Edwards calls attention to a circumstance which, in the present state of the opium question, is not without interest. He says: "During the year, about thirty cases of poisoning by opium have been treated. Not a few of these have been very young children, who have found the opium when crawling about the brick bed, made into pellets, ready for smoking, having been carelessly left lying about." Recently a writer in one of the morning papers asserted that the women in China never smoke opium. Dr. Edwards's experience does not corroborate this. He writes: "Not a few men and women have applied for help to enable them to give up the habit of opium smoking;" and he further states that some of these women have been taken into the house of one of his lady colleagues. It is manifest, therefore, that in China women, and not a few, are to be found who do smoke opium.

WHAT IS MILK?

The ways of the milkman are various, and we have no wish to make ourselves his advocate; at the same time the present condition of affairs in regard to the adulteration of, and abstraction from, that necessary article of diet is so anomalous, not to say absurd, and is so direct an incentive to fraud, that it is earnestly to be wished some termination should be put to it, even if legislation had to be invoked for the purpose. With gross adulteration, the addition of substances foreign to the material, the law can deal well enough; but when it becomes a question, as it mostly does in regard to milk, of the addition of a surplus quantity of a substance which already exists in it in very variable amount—to wit, the water—or the abstraction from it of the cream, the exact proportion of which in normal milk is not, and cannot be, defined by law, the difficulty becomes extreme. This has long been a cause of difference between the public analysts and Somerset House, and recent magisterial decisions obviously open the door to the lowest standard which can be proved by witnesses to have flowed from a cow. This is a most unsatisfactory state of affairs. No one pretends that such milk is good, or that it is fair to charge the public the average price for it, yet it is milk all the same if a similar product can be squeezed out of an apparently healthy cow before a reliable witness. If it is impossible to fix a standard, as the public analysts have long wished to do, below which nothing shall be considered milk, it does not seem unreasonable to ask that at any rate milk shall be classified as, say, first, second, and skim, in accordance with the quantity of solids and fat which it contains, any lack of either of its ingredients throwing it at once into the lower class. Considering the enormous proportions of the milk trade and the degree in which the question touches the life and health of the people, not to mention their pockets, this would seem a not unfitting subject for special legislative action, separate from the general law as to adulteration.

ST. BARTHOLOMEW'S HOSPITAL.

The exhibition of specimens added during the past year to the museum of this hospital will be on view from October 2nd to the 14th. There are three good examples of hypertrophy of single kidneys; in one there is no trace of even the most rudimentary ureter and kidney on the opposite side. Malformations of the alimentary canal are well represented by three specimens. The tract is interrupted at the jejunum in the first, and at the commencement of the ileum in the second. In the third the œsophagus is deficient. The pharynx ends in a blind pouch one inch below the opening of the larynx. The lower end of the œsophagus, opening below into the stomach, ends above in the trachea at the bifurcation, the canals directly communicating. The diseases of arteries series is enriched by a fine specimen of saccular aneurysm of the innominate. Mr. Edgar Willett, the curator, has mounted an instructive preparation illustrating common pulmonary emphysema. The condition, as a rule only seen in a "recent" specimen, has been preserved by filling the distended vesicles with spirit directly after the *post mortem* examination. The walls of the vesicles, hardened by the alcohol, retain their original form, bulging, pale and anæmic, beyond the healthier pulmonary tissues. There are some highly successful casts, by Mr. E. H. Shaw, added to the museum. One set illustrates myxœdema of the hand, before and in the course of successful thyroid juice treatment. There is another good cast illustrating acromegaly, and another showing bilateral webbed fingers in an adult man. The hypertrophied finger nail of a Chinese gentleman, with its bamboo protecting case constitutes an interesting curiosity. The names of the specimens are pasted inside the glasses close to the tops of the bottles, to facilitate reference. A new edition of the catalogue of drawings by Messrs. Godart, Mark, and others, will shortly be issued, as well as a valuable supplement, including the specimens noted in all former annual supplementary catalogues for the last ten years.

THE INCREASE IN DIPHTHERIA IN LONDON.

The continued prevalence of diphtheria in London, and especially the great increase in the number of deaths from that cause recorded by the Registrar-General last week, may fairly give rise to some anxiety. The numbers for the last four weeks have been as follows—56, 65, 65, 88. This last is the highest weekly number on record, the nearest approach to it having been 72 during the week ending July 29th last. The disease seems to be prevalent in almost all parts of the metropolis, South London showing the greatest mortality,

a considerable number of cases having been recorded in Southwark, Lambeth, Battersea, and Wandsworth. Of the 88 deaths from diphtheria registered in London last week, 52 were of children under 5 years of age, and 31 of children and young persons aged between 5 and 20 years, while only 5 were of persons aged upwards of 20 years. The Metropolitan Asylums Board hospitals are stated to contain at present 287 diphtheria patients, and it becomes a matter both of interest and anxiety to know how far the aggregation of such masses of this disease influences the character of the attacks and their resulting mortality, and whether any tendency has shown itself for the malady to spread among the scarlet fever and other cases in the buildings. If the Asylums Board can show that they are able in their hospitals to gather together great numbers of diphtheria cases without aggravating the type of the disease, and without communicating the infection to other patients, they will have demonstrated in a very remarkable way the healthiness and good management of the institutions under their care.

THE WINDSOR CAVALRY BARRACKS.

A week or two ago we felt it our duty to call attention to the grossly insanitary condition of the Cavalry Barracks at Windsor. Mr. Campbell-Bannerman's replies to questions on the subject in the House of Commons have been couched in a tone of official "economy" that is hardly reassuring. The result of further inquiries made by us has more than confirmed all that we have already said as to the deplorable condition of these barracks. The sewers, which are of four different patterns, are for the most part unventilated; and so erratic is the plan on which they have been laid down that the tracking out of their course has been a piece of work as difficult, and in its way almost as adventurous, as the exploration of an African river. Indeed, although the engineers have brought to their unsavoury task a determination worthy of Mr. Stanley, the course of some of the sewers still remains a mystery. Though lost to sight, however, these sewers make their existence unpleasantly evident to another sense. Complaints are made by the non-commissioned officers and their families of stenches, undoubtedly arising from foul sewers, which pervade their quarters. In the officers' mess the sanitary conditions are so bad that it is considered dangerous for anyone to live there, and accordingly we understand that all the officers are to be placed on the lodging list. How bad the state of things is may be gathered from the following facts, which we challenge the authorities to deny. The kitchen of the officers' mess is surrounded by an area about 4 feet in width. The window through which the kitchen receives the greater part of its air is exactly opposite a watercloset in the area; the window is within 5 feet of this closet, which is mainly ventilated directly into the kitchen. The sewer of the watercloset is choked from time to time by the grease from the kitchen sink, making it necessary to open up the sewer at rather frequent intervals, cooking meanwhile proceeding as usual. Mr. Tyndale, the sanitary expert of the War Office, has, we believe, expressed the opinion that any attempt to patch up the present sewers would simply be a waste of money, and that nothing but a thorough opening up and rearrangement of the whole system of sewerage will make the barracks habitable. Mr. Campbell-Bannerman, in the true official manner, points complacently to the fact that no outbreak of epidemic disease has yet occurred in the barracks. If the present state of things is allowed to continue he will not have long to wait for "developments" which may possibly ruffle even his placid optimism. He practically admitted, however, that the sanitary condition of Windsor Barracks was not altogether as it should be, but he said that other barracks were in a still worse state, and, therefore, Windsor must wait its turn. All we can say is that, if this be so, the risks which our soldiers have to face in peace must be greater than those which they encounter in our "little wars." There is a meanness in the implied plea that we cannot afford the £4,000 or £5,000 needed to put the Windsor Cavalry Barracks in order, which would be ridiculous were the circumstances of the case less serious. As it is, the economic argument is to the last degree discreditable to the Minister who can thus weigh the lives of the officers and men of one of our "crack" regiments against the few paltry pounds required to ensure their safety. We hope this matter will not be allowed to drop.

THE PROFESSION OF MOTHERHOOD.

At a time when pressure on professions is severe, and when women are squeezing into them at such a rate that the earning of a livelihood is a matter of no small difficulty to the poor male, it is impossible to disguise our interest in the news that the ladies have discovered a profession which they can have all to themselves. Few amusements are more innocent than that of rediscovering old truths, and Miss Marion Harland, in writing her recent article in the *North American Review*, must not only have experienced the delight of knowing that she had produced and could claim maternal rights over a most charming headline, but may also have felt some satisfaction in the knowledge that the dogma she was about to unfold for the delectation of an astonished world had already in bygone ages received the sanction of most respectable people, for although it may be news to some, it still remains a fact, well emphasised in old world history, that the profession of motherhood has always been the sole profession of the best of women. It is, however, with a chastened sense of satisfaction that we find a notion so antique receiving even such support as a magazine article from the land of progress. To administer, says Miss Harland, the affairs of a household, upon the integrity of which depend the health, comfort, and happiness of those who are to make history when their progenitors are with the forgotten dead, is a profession in itself, and an important one. Motherhood and home making are women's untransferable missions. Men may write her books, or paint her pictures, or conduct her financial and benevolent enterprises so well as to leave her generation nothing to regret in her withdrawal from one or all of these scenes of action. If she shirks the duty of maternity, the whole creation cannot supply a substitute. Those of us who remember the meeting of the British Medical Association at Brighton, not so many years ago, at which the President, Dr. Withers Moore, ventured to suggest to womanhood at large that to become mothers of men was not, after all, a too ignoble mission, and who recall the howl of disgust and scorn with which the hateful proposition was received, may perhaps now gently laugh at the swing of the pendulum while congratulating the race on the happy news that its perpetuation is now to be recognised as the proper sphere of womankind, a little fact which, it may be hinted, the best of them, the sly creatures, have known and acted on all along.

SANITAS SANITATUM OMNIA SANITAS.

It is reassuring to find a public man who is able to regard the present high level of the local rates, not merely with resignation but actually with complacency, and to give very good grounds for his optimism. Dr. Poore has recently threatened us with "the revolt of the ratepayer;" but in an extremely able and lucid speech which he delivered the other day at Wolverhampton, Mr. H. H. Fowler, the President of the Local Government Board showed that the latter day ratepayer has much to be thankful for. Ninety years ago the average local rate was 4s. 5½d. After the termination of the Napoleonic wars the average rate fell to 3s. 10¾d. In 1868 the average rate had fallen to 3s. 4d., but had since risen to 3s. 8d. Considering the large expenditure which has taken place since 1868, especially on sanitary improvements and on primary education, most people will be inclined to agree with Mr. Fowler that this increase is moderate. An examination of the items which

make up the total shows that the main expenditure ninety years ago was on the poor rate, which amounted to 3s. 4½d.; this item had sunk last year to 1s. 1½d. The bulk of the expenditure at the present time is on works which are directly or indirectly remunerative; but to effect these the large local debt has been incurred. According to Mr. Fowler, the local debt of England amounts to £200,000,000. The largest item among those which contribute to make up this gigantic total is £38,000,000 for water. For sewerage £20,000,000 had been borrowed, and £29,000,000 for public improvements, many of them involving, no doubt, important ameliorations in the hygienic conditions of the towns by which the debt was incurred. Mr. Fowler regarded this debt, he said, with equanimity, for he said the country was receiving a good return for the money expended. In an effective passage, he contrasted this with the return the country has received for the National debt expenditure—£120,000,000 to lose our American colonies, and £600,000,000 to carry on the war against France. The local debt, on the other hand, had been incurred to promote the happiness and improvement of the people, to fight the battle against ignorance, vice, disease, and misery, and to elevate the whole community, to raise it in the truest and best sense, and thus to diffuse an amount of happiness greater than ever prevailed at any prior period in the history of the country. The debt might increase, but the condition of the people improved, and their health was preserved. That, he said, was the most important point of all—the health of the community. Money so spent yielded a remunerative return which no calculation of interest on sinking fund could adequately represent. That there have been mistakes in the mode in which some of this money has been expended nobody will deny, but the intention at least has been excellent, and the net result, if not so good as might have been, represents an enormous movement in the right direction. It remains only to use the experience which has been bought with economy.

"REST" IN CHLOROSIS AND HEART DISEASE.

In the *Practitioner* for September there are two important papers on the utility of rest, one by Dr. Frederick Taylor on its use in chlorotic anæmia, the other by Dr. Lauder Brunton on its importance in cases of cardiac failure. Dr. Taylor draws attention to the rapidity with which improvement shows itself in cases taken into hospital, where almost as a matter of routine they are put to bed and kept there, compared with the tedious progress of cases among out-patients, who endeavour all the time to carry on their work, or even among private patients who may have every advantage of food and fresh air, but who by the very exercise they are encouraged to take expend more than they gain, and thus fail to recover. Where income is not equal to expenditure, no doubt the pleasantest way of making them balance is by increasing the income; unfortunately it too often happens that the only possible way is by diminishing the expenditure, and in many cases of chlorotic anæmia, in which the varied forms of iron and aperients have failed to give relief, it will be found that the addition of complete rest in bed for a few weeks will make the difference, initiating an improved nutrition which can then be maintained by ordinary treatment, besides saving the heart from that risk of dilatation to which effort during anæmia always exposes it. In Dr. Brunton's remarks there is a great deal which is worthy of most careful consideration by those who have to arrange the daily life of cardiac cases. The first point is that rest is not required because of cardiac disease, but because of cardiac failure. A typical instance is given of a healthy-looking man, accustomed to hunting and fresh air, in whom a rasping *bruit* was discovered. "What," said the doctor, "would you do if I were to cut you off your hunting?" "I should shut myself up in a billiard room and drink whisky and water, and then I should get ill," was the response. In cutting off a man's exercise one always ought to consider what is the alternative, and to bear in mind how important is muscular work for the maintenance of health. To deprive a man of exercise may, in fact, only initiate a series of degenerative changes which may make the work of the heart far heavier than before; whenever, then, it becomes necessary to order any serious limitation of muscular work a careful dietetic *régime* should be laid down at the same time to prevent the occurrence of such evil consequences, and, so far as they can be obtained, passive substitutes for exercise, such as massage, should be ordered. The second point to which attention is drawn is, that when in cases of cardiac failure it becomes necessary to order rest, care should be taken that it is obtained in such degree as not merely to take off the edge of the patient's discomfort, but to get well over the difficulty, and to restore the proper balance between power and work. When there is dropsy and orthopnœa, with rapid breathing, it is not always recognised that the very utmost rest the patient can obtain is still a state of labour; muscles are at work to maintain the body in its position, muscles are hard at work to keep up the head, and respiration is only performed with trouble and constant effort. These things are essential and must go on, but as regards all else the patient must lie absolutely torpid and allow everything to be done for him if he is to obtain the true benefit of rest; no journeyings to the watercloset, no efforts to pull pillows about, no attempts to feed himself must be allowed; absolute passiveness must be the rule; and Dr. Brunton points out that many patients who, under an imperfect kind of rest, have been steadily failing, may by rest absolute, by feeding with a diuretic substance such as milk, and by careful massage, be brought back to a state of comfort and comparative health from a condition in which death seemed only a few days off.

A PROLONGED FAST.

A case of prolonged fasting has been reported in the Russian medical papers. The facts of the case, as recorded by Dr. Butkevitch, are as follows: A girl, aged 17, was admitted to hospital on January 14th (old style) of the present year. On November 24th, 1892, she found herself overtaken by darkness in the village of Ruzino, in the Moscow Government. Fearing to return home in the dark, and equally fearing to ask for a night's lodging in a peasant's hut, she decided to sleep under some straw, which was lying against a shed. During the night a heavy snowstorm occurred, and in the morning she found herself quite unable to move the load of snow which covered her. On the first day of her imprisonment she ate five pieces of bread which she had with her. After that she ate nothing but snow until found fifty-one days after. She was then discovered lying in a half-bent position under three and a-half feet of snow. Though extremely exhausted, and scarcely able to move a limb through weakness, she was able to reply to questions, and appeared conscious of what was going on around her. The skin was cold, pale, and wrinkled; there was general anasarca; the pallor of the mucous membranes was very striking; there appeared to be no trace of the *panniculus adiposus;* and the muscles were extremely wasted. The voice was very weak and childish. The respiration was 26; the pulse small and weak, 84; the temperature, 38° C. The heart sounds were clear but weak; there were the murmurs of anæmia in the vessels. The breath sounds were harsh, but vesicular in character. The abdomen was rather swollen, and the hypogastrium was tender. The urine was concentrated, but contained no albumen or sugar. On the second day a small motion of the consistence of porridge, of dark colour, and having an offensive odour, was passed. There were pressure sores on the outer surfaces of the leg, thigh, and elbow joint of the left side. For the first two days the mental condition was weak; she soon tired after conversation, falling into a state of semi-unconsciousness. There were also signs of irritability, with frequent grimaces, and shaking of the head. She was fed on milk,

broth, tea, and small quantities of rye porridge, bread, and wine. She rapidly recovered, and at the end of the first week was eating the same diet as the other patients in the hospital. Supposing her statement as to the date of her incarceration to be correct, and that she ate all her bread on the first day, this involuntary disciple of Succi must have been without food from November 25th to January 14th, a period of exactly fifty days. It may be noted that there was a plentiful supply of water from the snow around her; but nothing is said as to a possible source of nourishment in the straw under which the lay. She is stated to have suffered scarcely at all from cold, although during the period named there were on one occasion as much as 35° of frost Réaumur (46.75° below zero Fahrenheit.)

THE SURGERY OF DISEASED APPENDAGES.

M. POZZI may be congratulated on his paper read at the Newcastle meeting. Diseased tubes and ovaries are the source of wide and indefinite pain and discomfort. Though they rarely cause death, they are very intractable to purely therapeutic treatment, and always likely to recur. Prolonged rest may cure them, but they are specially frequent amongst women who cannot afford to rest. Complete extirpation has been largely practised. The vaginal hysterectomy, on M. Segond's principles, is never likely to find favour in this country, where even simple oöphorectomy is often looked upon as a mutilation. Removal of old inflamed tubes and ovaries is not always successful, chiefly because the pedicle is usually made up of diseased tissue, so that fresh morbid changes may occur. Nevertheless, in the hands of even fairly experienced, the cautious and thorough extirpation of the appendages, after due trial of therapeutic measures, has restored a large number of invalids to health and strength. When once the abdomen is opened the disease often proves to be largely external to the tube and ovary; in short, they are encumbered with adhesions. The simple breaking down of inflammatory bands may restore the parts to their functions. This good result has followed both accidental and intentional detachment of adhesions, and accounts for the success of many pure "explorations." Certainly an exploratory operation may prove that nothing more is justifiable. But when the ovary is found distinctly diseased few operators care to leave it behind. We refer to inflammatory disease, and put aside all questions about the tubes. M. Pozzi saves the ovary by excision of the diseased part, the cautery being also used under indications which he specifies. He compares the operation to resection of bones, and claims good results. The series of resections, however, remains as yet very small and very recent. More statistics are needed, and, above all, longer after-histories. The proceeding, though essentially surgical, is in a certain sense therapeutic, and all the fallacies pertinent to therapeutic questions must be considered. The stimulus of incision and cauterisation may set up changes which cure disease possibly beyond the area of the ovary altogether. For the precise pathology and clinical history of the small cystic degeneration of inflamed ovaries is obscure, and the small cysts surrounded by dense tissue may not be the real source of subjective trouble. M. Pozzi's proceeding is certainly justifiable, and we wait with interest for further experience.

"READY, AYE READY."

NOT long ago Mr. Campbell-Bannerman promised that the want of opportunities of practice in the work of bearer companies and field hospitals at manœuvres of which the officers of the Army Medical Department so legitimately complain should be remedied. Notwithstanding this, we are in a position to state that during the recent army manœuvres at Aldershot no field hospital or bearer company was organised, and that no opportunity whatever was given to the medical officers of practising the duties in which they will be expected to prove themselves proficient in war. It is difficult for the non-official mind to understand the motive of a policy so shortsighted and so certain to lead to the most disastrous results in case of war. It must be clearly understood that the responsibility will lie at the door of the War Office, not of the Army Medical Department, though of course the latter will be made the scapegoat. To prove that the neglect to provide the opportunities promised was not due to the fact that "some one had blundered," but is part of a line of action deliberately taken up by those who, for the time being, control the destinies of the British army, attention may be called to another example of official evasion on the same subject. It was recently stated in the House of Commons by one of the Under-Secretaries for War that provision exists for the instruction of officers in the Indian Medical Service at Netley in the duties connected with bearer companies and field hospitals. We have reason to believe, however, that no such instruction has ever been given at Netley to officers of the Indian Medical Service unless in the most perfunctory manner. In consequence of this deficiency in their Netley training the officers of the Indian Medical Service have to be attached to station hospitals on their arrival in India for the purpose of learning their duties in connection with bearer companies and field hospitals. The inexplicable conduct of the authorities in neglecting to provide opportunities for the medical officers of the army to make themselves thoroughly proficient in their duties can only be described as sowing the storm to be inevitably followed by reaping the whirlwind should we be involved in a great war.

WHAT IS A CLEAN FILTER?

AMONG the various recommendations—good, bad, and indifferent—which are being offered to the readers of newspapers as appropriate to cholera times is one culled from *Hygiene*, a sanitary paper, advising that water should be boiled and then passed through a clean filter. What is a clean filter, and how long can it retain its cleanliness? Theoretically, no doubt a filter does clean itself. That is to say, the organic matters extracted from the water become so changed and oxydised that they pass away in the form of carbonates and nitrates. This is what happens in natural filtration through the living crust of the earth, the sod of field, or the organic layer, which soon coats over and fills up the interstices of any sand through which water naturally flows; and, if a domestic filter were used sufficiently slowly and with intermissions frequent enough and long enough to charge it again and again with oxygen, or to keep in activity its nitrifying organisms, which is possibly only the same expression in another form, the same process might take place in it, but, as ordinarily used, he would indeed be a man of faith who would trust himself to drink a cholera-infected water purified only by passing through a domestic filter. Their small size, the thinness of the layer of filtering medium which they provide, and the rapidity with which the water must traverse it to get the quantity through make it a matter of constant surprise that they are as efficacious as, on the average, they seem to be. But whether any given filter is at any given moment in working order is purely a matter of faith, and in the matter of a block filter, when the water which is used is bright to begin with, the ordinary householder has but little means of knowing that it is not grossly out of order. How few people take the trouble to have their filters pulled to pieces and boiled or have the filtering medium renewed at frequent intervals, and yet if the housemaid were caught using a dirty duster to the drawing-room ornaments what a disturbance there would be. Let us filter by all means and make the water bright and clear, but if we wish protection against microbes let the boiling follow rather than precede. Why, indeed, should we drink germ soup at all? If we take the trouble to boil, let us get the germs out first; certainly do not let us put them in again after. The prin-

ciple, both as regards food and drink, should be to let them run the smallest possible chance of contamination after they have have been properly exposed to heat, and filtering is undoubtedly a chance of contamination; it may be right, it may be wrong, no one can tell which. To filter boiled water is like wiping a clean plate with a napkin of unknown antecedents.

MEDICAL TRAINING OF MISSIONARIES.

We recently had occasion to protest against the too common assumption of the title of "medical missionaries" by persons possessing no medical diploma and having had no regular medical training. That a knowledge of the elementary principles of medicine and surgery is valuable, not only to the missionaries themselves, but to those among whom they labour, is undeniable, and the temperate letter from Dr. C. F. Harford-Battersby, which we published last week, sets this matter in a clear light. As long as such missionaries confine themselves to their proper sphere and do not trespass on the domain of legitimate practitioners of medicine we have nothing but praise and encouragement for their desire to increase the usefulness of their ministry. It has hitherto been difficult, if not impossible, for these men to get the kind of training in the healing art which is sufficient for their needs. The clinical instruction at our great hospitals would be thrown away on those without the technical knowledge necessary to make it fruitful. To meet this want it is proposed to found a college in the east of London, to be known as the "Livingstone College." Temporary premises have been secured in the Bow Road, which include a lecture room and a library, supplied with medical books and models. The period of study will extend over ten months, divided into three terms, namely, October to December, January to March, and April to July. The teaching will take the form of lectures and practical demonstrations on Anatomy, Physiology, Materia Medica, Medicine, Surgery, Hygiene, and Nursing. Regular clinical instruction will also be given at certain hospitals and dispensaries. Special instruction will be given in those diseases which are more commonly met with in the tropics, and opportunity will be afforded of seeing patients suffering from some of these diseases. The chief part of the actual working of the College will be undertaken by C. F. Harford-Battersby, M.A., M.D.Cantab., late C.M.S. Missionary on the Niger, who will act as Principal of the College, and W. McAdam Eccles, M.B.Lond., F.R.C.S., Assistant Demonstrator of Anatomy at St. Bartholomew's Hospital. Among others, Dr. Patrick Manson, Dr. J. J. Ridge, and Mr. Albert Carless have promised their co-operation as occasional lecturers. It is clearly set forth in the "preliminary statement" before us that men trained in the manner proposed will not be considered medical missionaries. The College will probably open on October 5th. Already eight students have entered for the first year's course.

MEDICAL ATTENDANCE IN NATIVE STATES.

We publish to-day the orders of the Government of India on the subject of attendance by medical officers on "native chiefs and noblemen and gentlemen of high position in a native State." This curious and, we venture to say, unprecedented order has been incubating for many months. It is well known that it had its origin in the sensation caused by the presentation to Surgeon-Major Freyer of probably the largest fee ever given by a grateful patient for a successful operation. This medical officer made for himself a reputation as an eminently skilful lithotritist, second to none either at home or in the empire of India. His sphere of duty for many years happened to be in a "stone district." Availing himself of the opportunity thus afforded, Surgeon-Major Freyer obtained a mastery in the use of the lithotrite to which few surgeons attain, and was the agent of giving relief from the torture of stone to many hundreds of sufferers. One would suppose that this eminent surgeon would have earned the good will of the Government he served as a member of a profession that has, to say the least, largely contributed to reconcile the people of India to British rule. Losing sight of the important fact that the large fee presented to Surgeon-Major Freyer was given not entirely, as the Government assumed, for a single operation on the person of the native chief, but also in recognition of the immense service rendered to his suffering subjects, the Government of India acted towards their medical officer as if he had extorted money from his wealthy patient, and not merely accepted the handsome recognition willingly offered by a native prince, who set a higher value on his important work than the Government he served so well. We submit this order to the careful consideration of the medical profession. We think there will be a general agreement of opinion that it is not only an absurd example of "grandmotherly" legislation, but a gross insult, not only to the great service to which it is applied, but to the profession to which its members belong. We have always been of opinion that, in spite of many drawbacks and too often invidious treatment at the hands of Government, the medical service of India offered an honourable and useful career to men of our profession. It will be difficult to hold this opinion if the order on which we have commented is allowed by the Secretary of State to deface the regulations governing the work of this important branch of the public service.

EXAMINATION FOR COLOUR VISION IN THE MERCANTILE MARINE.

We have again and again pointed out the insufficiency of the tests used in this examination, but the issue of the Annual Report of the Marine Department of the Board of Trade[1] leads us again to refer to the subject. The authorities have at length recognised the inadequacy of the examination, and we learn that they have "under consideration" the best mode of giving effect to the recommendation of the Committee of the Royal Society, and that they "contemplate" the establishment of an entirely new system of examination. This would be more satisfactory if experience had not shown that a Government department is capable of having a matter "under consideration" for an unlimited time, and possesses an inexhaustible faculty for contemplation. In the present report we note that three candidates rejected at one examination subsequently passed. At the first examination two of these confounded red and green glasses, while the third called a pale green glass pink. Yet one of these men passed within a fortnight, another within a month, and the third at a date not given. It would be interesting to know whether these men were really colour blind or not. But in either case the inefficiency of the examination is demonstrated.

THE CHOLERA.

England.

Both Grimsby and Cleethorpes have remained free from cholera throughout the week; Rotherham also, which had suffered before, has had no further death.

The fatal case which occurred on board the *Jeannie*, on the Tyne, on the 18th inst., has been proved to be cholera.

Two deaths from cholera have occurred in Newcastle-on-Tyne, one on the evening of September 21st, and the other on September 22nd. Both these cases lived together. The first of them had eaten an apple which he had brought from Yarmouth, where curiously enough two cases, since shown to be cholera, had occurred last week.

A second death has taken place in Ashton-under-Lyne, the former case it will be remembered having been a person who had been visiting at Cleethorpes.

Two deaths from choleraic diarrhœa were reported from Chester on September 23rd, but they do not appear to have been true cholera.

[1] *Parliamentary Paper*, C—6716. Eyre and Spottiswoode.

A seaman was removed from the ss. *Ashbrook*, on September 23rd, to the floating hospital of the Port of London Sanitary Authority, suffering from cholera, and died the same afternoon. The steamer was thoroughly disinfected, and no further extension of the disease seems to have taken place.

Some cases occurred in Manchester which gave rise to considerable anxiety, but it seems doubtful how far they were truly choleraic.

Two deaths from supposed cholera are reported from Tevidale, Staffordshire, and several people are suffering from choleraic diarrhœa in the same street. The cases reported last week from Ilkeston have been shown to be cholera. Rowley Regis contributes two cases, and Idle one to the list. Dr. Klein reports that, as a result of bacteriological investigation of one of the cases previously reported at Rowley Regis, he is "unable to distinguish it from true cholera."

It will be noted with interest that while the total number of cases is small they are widely spread, and that the disease has had large opportunities of diffusion, of which it has so far failed to avail itself. Whether this is due to the very peculiar meteorological characteristics of the summer, or whether it indicates an improvement in the sanitary condition of the country, or increasing insusceptibility, is a question which we fear only the experience of next year will decide. In the meantime the fact that infection has been introduced into town after town and has failed to spread beyond the first few cases is matter for much congratulation, and also for much encouragement in the continuance of that sanitary propaganda which we may fairly believe is the cause of England's comparative immunity. Wherever cholera has taken root it has been among sanitary conditions which, even independently of cholera, demand improvement, of which Grimsby, Derby, and Ashbourne are examples.

Our Hull correspondent writes: Since our last report there has been three deaths from cholera in Hull. They have occurred in various parts of the town, of which two were males and one female, their respective ages being 64, 35, and 53 years. Two of the deaths referred to occurred in hospital. The authorities, we hear, have not been able to trace any importation of the disease through shipping, neither has it spread beyond the original centres. During the week ending September 27th the following cases have been notified by medical practitioners, namely: Cholera, 2; choleraic diarrhœa, 9; and diarrhœa, 33.

Our Liverpool correspondent writes: So far the city has remained free from any authentic case of cholera, which is the more notable in view of the vast amount of shipping that arrives daily in the port from all quarters. There has, however, been a case of rapidly fatal diarrhœa, the exact nature of which has not yet been positively determined. A policeman, 29 years of age, was attacked about 4 P.M. on September 17th, with vomiting and diarrhœa, followed by cramps in the stomach and limbs, collapse, and death in about fourteen hours. Dr. Barr, physician to the Northern Hospital, who made a *post-mortem* examination on the body, found the blood thick and tarry, the portal circulation drained, the liver being yellow and bloodless, the intestines full of a rice water, slightly sanious fluid, the epithelium being stripped and the lungs in a state of hypostatic congestion. The principal organs have been submitted to the Local Government Board for further investigation. The case is looked upon as one of choleraic diarrhœa, but special precautions as regards disinfection have been carried out.

THE CHOLERA ABROAD.

Austria-Hungary.—In Galicia the cholera had, up to September 19th, attacked 649 persons, with fatal results in 400 cases; and returns show for the three days, September 18th to 20th, 35 cases and 18 deaths. The record for Hungary during these same three days was 31 cases and 23 deaths. Five cases and 2 deaths occurred last week in Vienna, as also cases (some of them fatal) at Buda-Pesth. Some experiments carried out at the Vienna Institute of Experimental Pathology, and consisting in the swallowing by six persons of numbers of comma bacilli, have had negative results, cholera not being induced in any one case, though various symptoms of illness followed in four instances.

France.—At Brest, from September 1st to 20th, cholera caused 188 deaths—126 in the last half of that period. The disease shows signs of decrease in the town as compared with its surroundings. No fewer than 68 deaths are reported during this month from villages near the town. Both Arras and Fanuqembergne were attacked last week.

Germany.—At Berlin 3 cases of cholera were last week removed to hospital. During the same period 75 cases, with 28 deaths, were heard of in Hamburg, the outbreak being locally referred to accidental pollution of the water supply by leakage from the river Elbe. Preventive measures have been adopted, and the next few days will show how far the rectification of the supposed cause will succeed in stamping out of the disease. Soldiers from Altona have been forbidden to go into Hamburg. In Altona 5 cases (3 fatal) were recorded last week, and occurrences also took place at Kiel, Heerdt in Rhenish Prussia, Itzshoe, Emmerick, and Bowdenwerder.

Spain.—In the province of Biscay, 202 cases and 66 deaths had occurred to the end of last week, and 39 cases and 18 deaths were heard of in Bilbao in the week. In Baracaldo the discovery has been made that many families concealed the fact of cholera having attacked their households. Professor Mendoza has reported the specific contamination of the Cadagua river in Biscay, and strict measures have been adopted by the Home Government in the matter of quarantine and the like against Bilbao and coast adjacent. Last week we hear of cholera also at Sestao, Santurce, San Salvador, Portugalete, Vittoria, and Lesquietio.

Italy.—Naples had 2 or 3 cases daily in the early part of last week, and Rome had 20 cases and 12 deaths in all to the end of the week; Leghorn records 26 cases and 11 deaths in the week; and Palermo an aggregate during the epidemic of 253 cases and 137 deaths up to Saturday last.

Holland.—In Rotterdam up to the end of last week 42 cases had occurred, with 24 deaths, since August 21st. One fatal case of cholera occurred last week in Amsterdam, and 2 deaths at the Hague; other places were invaded, including Kralingen, Alphen-on-Rhine, Zwyndrecht, Aarlanderween, Zwartsluis, Gorkum, Barendrecht, Sgravendeel, Wordrecht, Hagestein, Gameren, Stompwijk, and Ondenbosch; the figures being often single, but the area ever increasing.

Belgium.—Antwerp had up to the end of last week recorded in all 78 cholera attacks, of which 51 had proved fatal. An outbreak of a choleraic nature has occurred among the miners in the Commune of Dampremy, near Charleroi, many deaths resulting; and at the latter place, a case, speedily fatal, occurred on Thursday of last week.

Roumania.—Cholera appears to be steadily declining.

Russia.—At St. Petersburg the returns to hand show from September 14th to 17th, 206 cases, 81 deaths; from 18th to 23rd, some 340 cases, and 150 deaths; whilst unofficial estimates give 200 cases per diem, the disease being a very virulent form of cholera. In Moscow we hear of a daily average of 5 cases and 3 deaths. In the empire, 8,000 cases and over 3,000 deaths came to knowledge in the four days ended September 19th, Kieff province contributing in a week 1,022 cases and 398 deaths, Podolia 2,262 cases and 777 deaths in three weeks, Nijni Novgorod 1,465 cases and 728 deaths in four weeks, and other provinces showing a continuance of heavy attack and mortality.

Egypt.—The alleged fatal cholera case at Cairo, already reported, has been pronounced cholera nostras; but the Quarantine Board have deemed it well to establish a supplementary station at Moses Well, near Suez, in respect of persons coming from El Tor. Only 1 case of cholera has occurred at El Tor among pilgrims during the past two months, all the rest being amongst the military staff and officials of the station.

BREAKDOWN OF QUARANTINE AT EL TOR.

The *Times* Correspondent at Alexandria, telegraphing under date September 24th, says: The Mahommedan pilgrimages being supposed to terminate at the end of this month the Egyptian quarantine establishments at El Tor, Rasmallap, and Nakhel will be discontinued. Forty-four thousand two hundred and thirty-two pilgrims, Egyptian and others, have passed Suez on their way to Mecca, of whom, including those still in quarantine, only 30,388 have returned. These figures, even after a deduction has been made for traders remaining in Arabia, show a mortality of over 25 per cent. from cholera and other diseases, privations, and attacks by brigands during two months. Yet they apply to only a small proportion of the entire army of pilgrims, which is estimated at 200,000, and comprises contingents from Persia, India, and farther east, and those who come by overland caravans. No statistics exist for estimating the mortality amongst these.

No case of cholera has been reported at El Tor since September 14th, and there has been only one amongst the pilgrims themselves since July 21st. All the other cases have been restricted to the officials and soldiers at the quarantine encampment. But in consequence of its unsatisfactory condition and of the public alarm recently excited by a death at Cairo, suspected at first to be from Asiatic cholera, but afterwards proved to be from cholera nostras, the Quarantine Board has established a supplementary station at Moses Wells, near Suez, which is to impose three days' detention and disinfection on all persons coming from El Tor.

Although there is no doubt that the Quarantine Board regulations have hitherto prevented a wide dissemination of cholera by the returned pilgrims yet the experience gained shows the impossibility of working anything like a perfect quarantine system when applied to such large masses. At El Tor and Rasmallap the disinfecting officials, nurses, and soldiers in the neighbourhood became infected, and proper isolation was impossible. The disinfecting apparatus broke down and the encampment designed for protection against the disease became a hotbed of infection.

CHOLERA AND ICE CREAMS.

THE inquest held last week at Derby on the case of cholera which had occurred there, and the nature of which had been certified by Dr. Klein, brought out some details regarding the sanitary surroundings amid which ice creams are made, which only show still further the necessity of some supervision being exercised over those popular but unhealthy delicacies. In the yard to the house were two open privies, which were in a bad state, one of them being full up to the top, "the stench of which was simply horrible." The yard was unpaved, and in it was an ice cream factory, the water from which lodged on the ground in pools. Clearly, in any case of cholera, its possible origin in ice creams will have to be taken into consideration.

VACCINATION GRANT.—Dr. Theodore Brand has been awarded the extra Government grant for efficiency in vaccination for the third time, in the Driffield district of the Driffield Union.

EXAMPLES OF WOUNDS INFLICTED BY THE NEW MAGAZINE RIFLE (LEE-METFORD).

The following series of cases will serve to illustrate the nature of the injuries inflicted by the new Lee-Metford rifle.

I. Clayton Hospital, Wakefield.

Four men who had been wounded during a strike riot at Acton Hall Colliery were admitted to this hospital on Thursday, September 7th. All the cases were under the care of Mr. J. W. Walker. For the following notes we are indebted to the courtesy of Mr. John W. Bone, house-surgeon to the hospital.

The firing occurred about 9.30 p.m., and after temporary dressings had been applied to the wounds, the men were conveyed in horse ambulances to the Clayton Hospital, Wakefield, a distance of about seven miles.

I. J. A. D., aged 25, collier, admitted 1.40 a.m., Friday, September 8th, 1893. On admission it was found that an elastic webbed bandage had been tightly tied round the right thigh at the junction of its middle and upper thirds, and a few inches below this; the limb was also constricted by a calico bandage tied tightly. Two wounds in the neighbourhood of the knee-joint were tied up with calico bandages, which were soaked with blood. About 6 inches below the knee a calico bandage was tied tightly round the calf, so as to constrict it. The patient was completely unconscious when admitted; the face was pale; the lips hung apart and were cyanosed, and both legs, but particularly the injured one—the right—were cold. The pulse was beating about 70 times per minute, but very feebly, and the respirations were very shallow and rather slow. In a few minutes the patient revived and was able to swallow some brandy, and injections of ether were made into the chest wall over the heart. Some venous hæmorrhage was going on from the wounds, but this almost ceased when the constricting bandages were removed. There were two wounds near the right knee-joint, one behind and one in front. The wound at the back of the knee was almost circular in shape, varying in diameter from ½ inch to ⅝ inch; its edges were not lacerated, and there was no appearance of contusion around it. It was situated about ½ inch below the head of the tibia, and about 1 inch to the inner side of the middle line of the back of the leg. The wound in front was irregularly rectangular in shape, with its long diameter lying transversely, measuring 1¼ inch, and its short diameter lying vertically, measuring ¾ inch. The edges were lacerated and everted. This wound was situated just below the lower edge of the patella in the middle of the limb. The finger passed into this wound entered a cavity in the inner tuberosity of the tibia, passing backwards and slightly downwards and inwards to the wound at the back. The cancellous tissue of the inner tuberosity was completely broken up, and the internal articular surface was broken, so that the cavity of the knee-joint was opened, and the smooth articular surface of the inner condyle of the femur could be distinctly felt by the finger in the wound. The very feeble condition of the patient did not permit amputation, so some loose fragments of bone were removed, the wounds disinfected and dressed, and the leg fixed on a back splint. Stimulants were freely administered during the night, but the man never really rallied from the collapse, and died at 9 a.m., seven hours and twenty minutes after admission.

II. J. B., aged 32, collier, admitted 12.30 a.m., September 8th. A temporary dressing and splints had been applied to the left upper arm, and the arm was supported in a sling. On admission the patient was quite conscious, but was very pale and had a small and feeble pulse. The pulse improved very much on the administration of brandy, and the patient was chloroformed so that the wounds in the left upper arm might be thoroughly explored. The wound of entrance was situated over the front of the humerus, at about the middle of the shaft and 1 inch internal to the middle of the belly of the biceps muscle; it was circular, about ⅝ inch in diameter, and its edges showed no laceration. The exit wound was situated over the middle of the back of the upper arm, about 6½ inches above the tip of the olecranon process, being about 1 inch nearer the shoulder than the wound of entrance; its shape was irregularly rectangular, and it was 2 inches in length and 1¼ inch in width; the edges were considerably lacerated and everted. The entrance wound was enlarged, and it was then found that the humerus was fractured transversely, the fractured ends being very irregular in shape, but there was very little comminution and only one loose piece of bone, which was about 1½ inch long and ¼ inch in diameter, was removed. The bullet, having completely penetrated, was not seen; it had not been deflected in its passage through the arm. It was afterwards stated that this patient was at a distance of 40 or 50 yards from the soldiers when he was struck.

III. W. T., aged 22, shoemaker, admitted 12.30 a.m., September 8th. Over the right shoulder triangular bandages were fastened so as to form a temporary dressing, and from the appearance of these there had been very little hæmorrhage. The patient was quite conscious; there were no signs of collapse, and there was very little pain. The man said that he was just in the act of turning round to go away, and was at a distance of about 150 yards from the soldiers when he was struck. The wound of entrance was situated on the right side 3½ inches below the tubercle on the acromion where it joins the spine of the scapula, and 1 inch internal to a vertical line dropped from the same point. This wound was somewhat elliptical in shape, owing to the bullet striking the skin at a very small angle. Its long transverse diameter measured three-quarters of an inch, and its short vertical diameter half an inch; the edges of the wound were not lacerated. The wound of exit was situated over the spines of the fifth and sixth dorsal vertebræ, extending to about half an inch to the left of the middle line. It measured 1⅜ inch transversely and 1 inch vertically, being irregularly oval in shape, and having its edges slightly lacerated and everted. The patient having been chloroformed, the wound of entrance was slit up so that the finger could be easily introduced along the track of the bullet. It passed through the fibres of the infraspinatus muscle to about the middle of the infraspinous fossa, and then through the bone, meeting the forefinger of the other hand passed into the exit wound, and through the fibres of the subscapularis muscle. The infraspinous fossa was fractured in a stellate manner, the lines of fracture radiating from the place where the bone was perforated, and so far as could be made out it was broken into four or five pieces, but none of these were so completely detached from the surrounding structures as to require removal. The bullet had not been deflected in its course through the body, and having passed right through the tissues it was not found.

IV. A. D., aged 22. Railway lampman, admitted 12.30 a.m., September 8th. The right foot was tied up in a triangular handkerchief, which was partially soaked with blood, but there had apparently not been much bleeding. There were no signs of shock, and no complaint of pain. The patient said that he was at a distance of about six hundred yards from the soldiers when he was struck by the bullet. The patient's strong leather boot was penetrated on its inner side by the bullet; this opening was 1 inch long, and lay slightly obliquely in relation to the sole, 1 inch above it at its posterior end and 1½ inch above it at its anterior end. The anterior end of the opening was 4 inches behind the toe of the boot, and the posterior end was 6½ inches in front of the heel. In shape the opening resembled the letter T, with a very short crossbar, ¼ inch long at the anterior end of the opening above described. The leather edges were cut quite cleanly, but were markedly inverted. The wound of entrance was situated on the inner edge of the foot, over the head of the first metatarsal bone, corresponding in position with the opening in the boot, and measuring 1½ inch by ½ inch; its edges were considerably lacerated and slightly inverted. Immediately underneath the fourth metatarso-phalangeal joint there was another wound which measured ⅓ inch long, and had its edges in apposition. It showed no laceration, and through it the divided end one of the flexor tendons to the fourth toe projected. On exploring the wound of entrance the track of the bullet was found to correspond with the line of metatarso-phalangeal articulations and the heads of the first four metatarsal bones were broken. The bullet was felt embedded in the heads of the third and fourth metatarsal bones, and opening into the fourth metarso-phalangeal joint. It was extracted through the opening in the sole beneath this joint above described, which was enlarged for that purpose. In this case the bullet was deflected in its course, for

it entered the boot almost parallel to the inner edge of the foot, and then, having curved under the ball of the great toe, passed across the sole almost at right angles. The bullet consisted of a nickel case enclosing lead, it was of a conico-cylindrical shape, 1¼ inch long, ⅓₂ inch in diameter, and weighing 213 grains. The nickel case was broken at one side of the conical end, the break measuring about ⅓₀ inch in length.

II.—BELGAUM, INDIA.

For the following notes on a case of suicide with the Lee-Metford rifle we are indebted to Surgeon-Captain J. W. Cockerill, A.M.S.:

Private W. F. shot himself with the new rifle in the early morning of July 9th, 1893. He must have placed the muzzle in his mouth, as although the lips were much torn and blackened, the moustache was not singed. The exit wound was at the back of the head, and very small. No brain matter protruded, but the hæmorrhage had been very great owing to the large sinuses having been torn open.

Post-Mortem Examination, Five Hours after Death.—The lower jaw was broken into several pieces. The bullet had made no definite track through the hard palate, but the two superior maxillary bones were torn apart, the rent, a third of an inch wide, extending backwards through the soft palate. The posterior part of the nasal cavity had then been traversed, all the fragile bones around it were broken to pieces, even the nasal bones were fractured, though far from the actual course of the projectile. On removal of the brain it was found that the bullet had entered the cavity of the skull by splitting the basilar process of the occipital bone. The fracture extended backwards into the foramen magnum; anteriorly it passed through the body of the sphenoid, and then bifurcated, one line of fracture passing to the right and the other to the left of the ethmoid bone, through the orbital plates of the frontal bones, finally they both terminated near the coronal suture. Two other fractures started from the cleft in the basilar process, one passing to the right separated the petrous portion of the temporal bone from the basilar process. It then passed along the groove of the lateral sinus, which it opened, and was lost in the right parietal bone. The longer fracture passed to the left through the petrous portion of the left temporal, then backwards to the exit wound, afterwards directly forwards along the sagittal suture, opening the longitudinal sinus, and terminating within an inch of the coronal suture. The bullet passed through the pons Varolii, the fourth ventricle, the left lobe of the cerebellum, and finally through the left lower occipital convolution of the cerebrum, it passed out of the skull through the upper part of the occipital bone just to the left of the centre in the line of fracture above noted. The hole was small and oval-shaped. From the inside the bone was seen to be starred and slightly forced outwards; but owing to the periosteum not having been torn, this could not be observed from the outside.

In the Lee-Metford rifle the muzzle velocity with the powder used is 1,850 feet per second, or about 20 per cent. greater than that of the Martini-Henry. The shattering of the bones of the face, especially the inferior maxillary bone, and the separation of the superior maxillary bones was due, no doubt, to the force of the explosion. In December last year a somewhat similar case occurred, but the weapon used was a Martini-Henry rifle. In that case neither the nasal nor the inferior maxillary bones were broken, nor were the superior maxillary bones torn apart. The greatest difference, however, between the two cases was in the character of the exit wounds, the top of the skull having been blown away altogether, and the brains scattered by the Martini-Henry, while in the present case the exit wound was very small, and none of the brain substance even protruded. In fact, it looked very like what we were accustomed to see in entrance wounds.

III. CANTONMENT GENERAL HOSPITAL, LUCKNOW.

The following is an abstract of the report of a case of gunshot wound by the new magazine rifle, which is published in the *Indian Medical Record* of September 1st. The case was under the care of Surgeon-Captain Alex. Stables, A.M.S.

Chadi, aged 35, Hindu male, cultivator, admitted on July 25th, with a gunshot wound received while working in his field at 7 A.M. the same morning. On examination he was found to have two small punctured wounds on the face, accompanied by profuse bleeding from the nose. These wounds were almost identical in size and appearance, that is, about ¼ inch by 1⅛ inch, showing no contused margin. One wound, the presumed aperture of entrance, was situated on the right temple, about midway between the outer end of the right eyebrow and the ear. The other was on the left side of nose, about the centre of the angle formed by the nose and cheek; it resembled the former, except that a very slight laceration was present on one lip of the wound. There was a trace of serous discharge from these wounds, but no bleeding. A probe could be inserted 1 inch in the wound on the temple, but no bone could be felt; at the other wound the nasal cartilage could be felt. There was some puffiness and slight tenderness under the right eye, which disappeared in twenty-four hours. Beyond this no pain was complained of at any time. Next day there was slight puffiness round the wound of entrance, but this also rapidly disappeared. The wounds were dressed with 1 in 1,000 solution of perchloride of mercury, and ice was kept on the track of the wound for twenty-four hours. The temperature never rose above normal. The healing of the wounds was very rapid. In two days they had healed, and not a trace of the bullet track could be defined.

At the moment the patient was struck he was 1,200 yards behind the target, the firing party being 800 yards in front of it. The wounds of entrance and exit were identical in size, shape, and surroundings, except that a slight laceration was present on one side of the wound of exit. This however was, in Surgeon-Captain Stables's opinion, purely accidental, or depended more on the locality than on the missile.

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Applications for duplicates from medical societies forming libraries may be addressed to the Sub-librarian, 429, Strand.

LITERARY INTELLIGENCE.

The first number of a new Italian journal devoted to Ophthalmology appeared in July. It is published at Palermo, and is edited by Professor Angelucci, of the University of that city.

Messrs. Macmillan will commence next month the publication of Professor Huxley's collected works in monthly volumes. The first six volumes of the series will consist of papers collected under the following titles: "Darwiniana," "Science and Education," "Method and Results," "Science and Hebrew Tradition," "Hume," and "Science and Christian Tradition."

The first number of the *American Medical Temperance Quarterly* has been issued. It is the official organ of the American Medical Temperance Association. On the editorial staff are Drs. N. S. Davis, T. D. Crothers, and others. The opening number has a portrait of Dr. Davis, with a valuable record from his pen of clinical facts and cases illustrating the effects of alcoholic liquors in the treatment of typhoid fever, pneumonia, diphtheria, etc.

In the *Smithsonian Miscellaneous Collections*, vol. xxxvi, just issued by the Smithsonian Institution, Mr. H. C. Bolton has published A Select Bibliography of Chemistry, 1492-1892. This compilation contains the titles of the chief works on chemistry published in Europe and America between the dates above named. No attempt has been made to include papers in journals except in the section of Biography, where references to obituary notices of deceased chemists will be found. The titles are arranged in seven sections, and a subject index is appended.

Under the title of the *Leeds Hospital Magazine*—a lay publication—it is proposed to issue a monthly periodical, commencing October 1st, 1893, under the direction of Messrs. F. R. Spark, J. W. Jackman, and T. M. Greatwick, chairman and honorary secretaries of the Workpeople's Hospital Fund, which it is intended to advance by setting forth in detail the work done and to be done. The prospectus states that it is intended to make the *Magazine* a means of intercommunication between members and friends of the fund; to afford an opportunity for the expression of ideas or suggestions in carrying on the movement; to furnish information on medical and surgical subjects; to give popular papers by members of the medical profession, experienced nurses, or other contributors; to publish in detail lists of contributions collected in workplaces, and received from concerts or other sources; to give complete appropriate stories, to report meetings, concerts, etc. All the best, most intelligent, and thrifty of the working classes connect themselves in one way or another with the hospital movement; and as the *Magazine* will be read by them it is hoped that the advertiser will see his advantage in supporting it. It will also, the promoters hope, be a magazine for medical men, nurses, and others who are directly or indirectly connected with the medical charities.

The October number of *Longman's Magazine* contains the first three of a series of papers by Sir William Dalby entitled "Dr. Chesterfield's Letters to his Son on Medicine as a Career." In Letter I ("The Physician") we are told that "of physicians in London it may be said they are like horses in a race; three are placed, the rest nowhere." As regards the secret of success, Sir William once heard a physician (who, like the guest whom the Ancient Mariner held with his glittering eye, was "one of the three") say that the only thing wanted was earnestness; his own view, however, appears to be that, whether the old poet who said "Maneres makyth men" was right or wrong, there can be no doubt that manner makes the successful physician. The aspirant to surgical distinction is recommended among other things to cultivate the gift of oratory, or at any rate of expressing himself like an articulately speaking man in public. He is also enjoined to practise the art of writing. "I have read," says Sir William Dalby, "a good many charmingly written articles and books on surgical matters, but I have also for my sins waded through some others that have positively made me shudder; for lumbering blundering sentences, for hideous grammatical errors, for long paragraphs whose construction makes one almost giddy, for the jumbling together of a number of Latinised words, and a complete absence of pure English, commend me to the effusions of an illiterate surgeon." We may say that we have the keenest personal sympathy with Sir William Dalby in the sufferings he has here described, but we are sorry to say that among the various sections of the medical fraternity surgeons have no monopoly of bad writing.

The first number of the *Woman at Home*, further described on the title-page as "Annie S. Swan's Magazine," contains an interesting little article by Miss Olga Beatty-Kingston entitled A Child's Experiences in M. Pasteur's Institute. The narrator was bitten by a small black and tan terrier belonging to her schoolmistress. The animal soon afterwards died with symptoms of rabies, and its body was taken to the Brown Institute. "There," we are told, "in spite of many difficulties and objections, he [the family doctor] induced the house surgeon (*sic*) to dissect the dead animal, with the result that its brain and spinal marrow were discovered to be full of rabic germs." We should like to know more of these "rabic germs," which have hitherto shown themselves singularly elusive to scientific investigators. Miss Beatty-Kingston must surely have been misinformed as to there being any difficulties or objections in the way of examining the bodies of suspect dogs at the Brown Institute. Be that as it may, the next step was to call on "the great pathologist and operator," whose identity is thinly disguised as "Sir W. McC.," who forthwith sent the little patient to M. Pasteur. Speaking of the latter, Miss Beatty-Kingston says: "How can I adequately describe that kindest of faces, furrowed with time and care, yet wearing a gentle and sweet expression, which immediately endeared him to the veriest strangers who came in contact with him? His beard was grizzled, his eye had a pleasant twinkle, and when he held out both his hands towards me, and spoke to me in gentle accents concerning my recent mishap, any feeling of nervous embarrassment that I might have experienced was immediately dispelled by his cordial and genial manner." The treatment was courageously gone through, and Miss Beatty-Kingston states that she now feels better and stronger than she ever did before, and concludes with an expression of the deepest gratitude to her preserver. Altogether she may be pronounced a model patient. *O si sic omnes.* The paper is illustrated with copies of signed photographs of M. Pasteur, which he presented to Miss Beatty-Kingston.

ASSOCIATION INTELLIGENCE.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

NOTICE OF QUARTERLY MEETING FOR 1893. ELECTION OF MEMBERS.

A meeting of the Council will be held on October 25th, 1893. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before the meeting—namely, October 4th, 1893.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election. Francis Fowke, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

Cambridge and Huntingdon Branch.—An autumn meeting of this Branch will be held in Cambridge on Friday afternoon, October 6th. It was agreed at the last annual meeting held at Peterborough, under the

presidency of Dr. Walker, that the meeting should be, as far as possible, for the demonstration of clinical cases. Members who may have interesting cases to show, short papers to read, or specimens to exhibit, should communicate with the Honorary Secretary at an early date, so that arrangements may be made.—Joseph Griffiths, Honorary Secretary, 17, Fitzwilliam Street, Cambridge.

West Somerset Branch.—The autumnal meeting of this Branch will be held at the Castle Hotel, Taunton, on Friday, October 27th, at 5 P.M., under the presidency of Mr. R. J. Collyns. An address on Myxœdema and the Therapeutic Value of the Thyroid Treatment, illustrated by photographs and specimens, is promised by Dr. Arthur T. Davies, Physician to the Royal Hospital for Diseases of the Chest, upon which a discussion will be invited. The West Somerset Branch will be glad to see members of neighbouring Branches who may like to join the meeting and take part in the discussion. The Honorary Secretary will thank all gentlemen proposing to attend to send him notice before October 20th, and also mention if they will remain to the dinner, in order that he may make the necessary arrangements. Dinner will be served at 7 o'clock; tickets 5s. a head, exclusive of wine. Members wishing to read papers or to bring forward any communication at the meeting are requested to send early notice thereof to W. M. Kelly, M.D., Honorary Secretary, Taunton.

North of England Branch.—The autumnal meeting will be held at the County Hotel, Durham, on Tuesday, October 17th, at 4.30 P.M. Dr. Hern will read a paper on the Treatment of Fractures of the Jaw. The following papers will also be read: Dr. Murphy: Suggestions for the Treatment of Puerperal Fever. Mr. Rutherford Morison: Notes on Five Recent Cases of Intestinal Obstruction due to Abdominal Tuberculosis with *Post-mortem* Reports. Dr. Hume: (1) Suprapubic Lithotomy in a Case of Enlarged Prostate with subsequent Permanent Drainage; (2) Papilloma of Bladder. The dinner after the meeting will take place at the County Hotel at 6 P.M.; 6s. 6d. each, exclusive of wine. Members wishing to read papers, etc., are requested to write at once to the Honorary Secretary.—G. E. Williamson, F.R.C.S., Honorary Secretary, 8, Eldon Square, Newcastle-upon-Tyne.

South-Eastern Branch: East Surrey District.—The next meeting will be held at the White Hart Hotel, Reigate, on Thursday, October 12th, at 4 P.M., Mr. H. W. Ewen, of Redhill, in the chair. Dinner at 6 P.M.; charge, 7s., exclusive of wine. All members of the South-Eastern Branch are entitled to attend and to introduce professional friends. Agenda: (1) Minutes of Croydon meeting. (2) To decide where the next meeting shall be held, and to nominate a member to take the chair thereat. The following papers, etc., have been promised:—Mr. J. Bland Sutton: Cystic and Solid Tumours of the Kidneys, their Diagnosis and Treatment. Mr. C. J. Symonds: The Local Treatment of Laryngeal Tubercle. Dr. Horrocks: Three Cases of Extrauterine Fœtation. Mr. C. Wray: Weak Eyesight in Children. Members desirous of exhibiting or reading notes of cases are invited to communicate at once with the Honorary Secretary, who would be much obliged if members would kindly inform him by post-card whether they intend, if possible, to be present at the meeting, and if likely to remain to dinner. By so doing they will very materially facilitate arrangements and promote the success of the meeting.—Henry J. Prangley, Honorary Secretary, Tudor House, Anerley.

South Midland Branch.—The autumnal meeting of this Branch will be held at Towcester on Thursday, October 5th, 1893. Mr. A. P. Kingcomb invites the members to luncheon at his house at 1.30, and will be glad of a reply not later than October 3rd from those gentlemen who intend to be present. Mr. Scott Moncrieff, C.E., has kindly promised to attend the meeting and demonstrate his method of sewage purification now in operation at Towcester. The following communications have been promised:—Mr. G. H. Percival; Remarks on Lateral Lithotomy, and Lithotrity, with specimens. Mr. R. A. Milligan; (1) Remarks on Suprapubic Lithotomy; (2) A Series of Cases of Loose Cartilages in Knee-joint, with specimens. Mr. W. G. Nash: Notes on Nephro-Lithotomy, with specimens. Mr. W. H. Bull will exhibit some preparations of pathological interest.—C. J. Evans, Honorary Secretary, Northampton.

South-Eastern Branch: West Kent District.—The next meeting of this District will take place at St. Bartholomew's Hospital, Rochester, on Friday, October 27th, at 4 P.M. Brigade-Surgeon Ray, of Milton-next-Sittingbourne, in the chair. Gentlemen desirous of making any communication at the meeting, are requested to intimate the same to F. Ground, 1, Ashford Road, Maidstone, the Honorary Secretary, not later than October 7th.

SPECIAL CORRESPONDENCE.

BERLIN.

The Hamburg Water Supply.—Cholera and Typhoid Fever in Berlin.—Sick Clubs and the Lady Doctor Question.

It was to have been hoped that through the new waterworks with their filters, Hamburg would at last be supplied with wholesome, uncontaminated water. But already there has been a breakdown somewhere. A hole in one of the tubes has enabled Elbe water to enter, and to mix with the filtered water. This defect was remedied as soon as discovered, but it must have existed for several days before discovery, and its disastrous effect on the quality of the water supply is proved by a public warning issued by the Hamburg "Medizinal Collegium," in which the public is requested to boil all water used for drinking purposes for some time to come, and to have the house cisterns thoroughly cleaned out. And, as though in illustration of Mr. Ernest Hart's pithy dictum that "cholera is turned on with the dirty water and turned off with the clean," this failure in the water supply has been followed by a renewed outbreak of cholera. The first case occurred on the 16th, and up to the 23rd inclusive, 69 cases were registered, with 12 deaths. Many of the cases are fortunately of a very light character—nothing more than violent diarrhœa—but bacteriological examination has proved the presence of vibrios.

In Berlin, too, the water seems responsible not only for the sporadic cases of cholera that have occurred during the last weeks, but also for an outbreak of enteric fever. In nearly every one of the cholera cases it was ascertained that water from the Spree had been drunk. And, as regards the enteric fever, its seat is the district supplied by the Stralauer Wasserwerke. These waterworks draw their water from the Spree, at a point not far from where a sewage farm discharges its filtrates into the river, and it is easy to suspect that in this way bacilli of enteric fever get into the water, and that some remain in spite of the filtering process undergone by the water. At the last meeting of the municipality of Berlin the wish was expressed that, on the completion of the new waterworks on the Müggelsee, the Stralauer waterworks should be closed.

One of the Berlin sick clubs, in coming to an arrangement with the Society of Club Doctors, has made the contract conditional on the admittance of Fräulein Dr. Bluhm as a member of the society. The question has not yet been decided by the society, and indeed it is not an easy one, as by the statutes the membership is open only to Prussian graduates, whereas Miss Bluhm is a graduate of Zürich.

PARIS.

Should Professors Practise?—Professorships in Provincial Medical Schools.—The Paris Water Supply.—The Electro-therapeutic Service at the Salpêtrière.—Table Ice.—Surgical Practice and Insurance against Accidents.—General News.

The question is now debated whether professors at the Medical Faculty ought to practise their profession. The *Journal des Connaissances Médicales* thinks they should not; the State looks to them to form medical men, to give them the instruction necessary to enable them to maintain the public health in the most satisfactory condition. They should inoculate the pupils who crowd round them with a love of study, and instil into them scientific principles. It is the Faculty professors who are to educate medical students to be accomplished able medical men, fitted to foresee illnesses, to diagnose them, and combat them. In order to fulfil this mission, the professor must be a studious, scientific man. Study is, it is contended, impossible in a life occupied in other ways. A medical practising professor has no time on his hands; frequently a day's work is insufficient to visit all his patients. Practising medical men, even the most distinguished and scientific among them, can only keep themselves abreast of the progress directly bearing on medical practice; this knowledge is not sufficient to enable him to form other minds desiring to rank with his own. Bedside teaching is furnished by the clinical professors.

The *professeurs agrégés* of the provincial schools have, in a letter to the Director of Superior Instruction, demanded that, after the nine years of the agrégéship have elapsed, they should become *professeurs adjoints*, and succeed by right to the chairs left vacant by the death of professors, or by their resignation.

M. Humblot, in reply to a question by the Conseil d'Hygiène concerning the sufficiency of the water supply of Paris from the Avres springs, stated that the 110,000 cubic metres sent into Paris by the new waterpipes is more than sufficient, and Seine water will be no longer used. During the recent drought the supply was ample, 28,000 cubic metres of water more than at the corresponding period of the preceding year having been sent into the city. The water of the Breuil springs is to be sent into Paris. M. Humblot has submitted a plan

the realisation of which will cost a million francs, and furnish from 50,000 to 60,000 cubic metres of water.

The Municipal Council has informed the Administration of the Public Assistance that it desires the electro-therapeutic service at the Salpêtrière to be open to the general public in need of its help and without means to pay. If this is done, which is probable, inasmuch as the Municipal Council has a strong will, the service will have to be greatly increased.

M. Riche, in his report on table ice sent into the Council of Public Health, stated that table ice offered for sale should be made from pure water, and its purity should be tested before freezing. Many micro-organisms do not lose their vitality by freezing; that of typhoid was found in ice 100 days after congelation. M. Riche considers that table ice, like all other articles of consumption, should be submitted to inspection.

The Tribunal of First Instance of the Seine has given judgment in an action brought against a life insurance society against accidents by the son and widow of the deceased under the following circumstances. Dr. Brisson in opening an abscess, received a slight scratch on the hand; a week later phlegmonous inflammation of the arm came on, and he died four days subsequently. He had insured his life for £500, but died leaving his family in ignorance of the fact. His son, some time after his death, whilst looking over his father's papers, came upon the policy and applied for the money, which was refused because the cause of death was not among those stipulated and the accident was not notified within the specified time. Moreover, Dr. Brisson had not sufficiently taken into consideration the fact that he had a scratch on his hand before operating. This oversight nullified the contract. The tribunal decided against the Insurance Society, which was ordered to pay the money.

M. Alberte Lén has bequeathed 2,000 francs to the Academy of Sciences on the condition that the revenue is paid to the Institut Pasteur for the continuance of the researches on the microbe of diphtheria.

La Société d'Utilité Publique has decided to establish at Bâle a sanatorium for pulmonary tuberculous patients without means. This establishment will cost £6,000, and is to accommodate 140 patients.

LIVERPOOL.

Arrangements for the Winter Session.—Prevalence of Fever.

THE winter session of the Medical Faculty of University College will open on Monday, October 2nd. Dr. William Carter, Physician to the Royal Southern Hospital, has been lately appointed one of the Lecturers on Clinical Medicine. Hitherto this office has been restricted to the physicians at the Royal Infirmary, the physicians and surgeons of the latter institution being *ex officio* lecturers on Clinical Medicine and Surgery in the Medical Faculty of the College. At the Royal Infirmary the usual summer cleaning has been completed, and the wards are now all ready for the reception of patients and the instruction of students. During the last twelve months a great development has taken place in the teaching arrangements at the infirmary. The appointment of three additional assistant medical officers has given a great impetus to the work of the out-patient department, and during the last few months the newly formed throat and skin departments have undergone considerable development. The ophthalmic department has already been some years in existence. The excellent suite of rooms fitted up for the employment of electricity in various forms will be utilised for systematic instruction in the theory and practice of electro-therapeutics on stated days, and a class will be formed for practice in the methods of physical examination especially intended for students commencing ward work. The assistant medical officers will also hold revision classes for students preparing for their final examinations. The Medical Faculty of the College now draws its students from two large hospitals, the Royal Southern having a fair number of students on its books. The prospectus that has just been issued by this hospital shows that every effort is made for imparting instruction to students. A special feature is the formation of a pathological laboratory fitted up with modern appliances for carrying out microscopical and other pathological researches. A course of elementary bacteriology will be commenced, under the direction of Dr. H. R. Jones.

Scarlatina and typhoid fever are unhappily more than usually prevalent this autumn, but their epidemic character appears to be mild, as the death-rate from them is not above the average.

CORRESPONDENCE.

EWALD'S *MAGENKRANKHEITEN*.

SIR,—I have just seen a copy of the BRITISH MEDICAL JOURNAL of September 16th, containing a letter from Dr. Morris Manges, which contains statements that I feel called upon to rectify.

1. Dr. Manges denies that my translation was begun when he applied for permission to translate. My work was already well advanced when Professor Ewald sent me a letter from Dr. Manges, claiming the fulfilment of some old promise to be allowed to translate the *Klinik der Magenkrankheiten*, and wrote to me at the same time to say that he did not recognise that he was under any such promise, and that he left the matter entirely to me. I referred the question to Mr. Jonathan Hutchinson, who replied that it would be inconsistent with the objects of the New Sydenham Society to stand in the way of any work calculated to spread a knowledge of medical literature, and that on behalf of the Society he made no objection to the proposed American translation. I agreed in these views, and wrote to that effect to Professor Ewald. Hence your readers can judge for themselves of the statement of Dr. Manges, that it was through "his courtesy that the Sydenham translation appeared."

2. No complaint has been made by me of any claim of priority or superiority on the part of Dr. Manges; but I have found it necessary to point out that the manuscript additions intended for the third German edition were written for and supplied to me by Professor Ewald, and afterwards sent to Dr. Manges. They were not "specially written" for Dr. Manges's translation, as the advertised title of his book is calculated to make people believe, and as several reviewers did obviously believe.

3. My preface was written and published long before the appearance of Dr. Manges's translation, so that it is hard to accuse me of discourtesy for not noticing that work.

Finally, the letter of which Dr. Manges complains does not contain any reference to him personally, and imputes no motives. It merely draws attention to the facts which I have now restated at perhaps greater length.—I am, etc.,

Baveno, Italy, Sept. 21st. ROBERT SAUNDBY.

THE MEMORIAL TO THE LATE PROFESSOR JOHN MARSHALL.

SIR,—Will you kindly allow us to make known to the subscribers to the above memorial that the bust, which is to be presented to the Museum of University College, will be handed over to the Council of that institution on the occasion of the introductory lecture by Mr. Bilton Pollard, at the commencement of the session on October 2nd, 1893?—We are, etc.,

THOMAS BARLOW,
VICTOR HORSLEY.

Cavendish Square, W., Sept. 19th.

PSOROSPERMOSIS AND MALIGNANT DISEASE.

SIR,—In the BRITISH MEDICAL JOURNAL of June 17th appeared a letter from Mr. H. G. Plimmer. The closing sentence of this letter bears the interpretation that my papers on the above subject are to be looked for in the coming volume of the *Transactions* of the Pathological Society. After reading the letter referred to I made inquiries, and gathered that at the usual meeting of the Council it had been decided to publish the introduction I had written to my work, but none of the work itself. I learned later from the secretaries that this information was correct. Although subsequent to the meeting of the Council at which this decision was arrived at I had received from the secretaries communications regarding others of my papers, I had not been informed of the intention of the Council with regard to my original work on malignant disease. The report of the Morbid Growths Committee on this work had already been published *in extenso* in

the Journal, and in connection with the introduction to my work Dr. Ruffer's criticism of the work itself will, the junior secretary informs me, appear in the *Transactions*. Some readers of the *Transactions* might infer, as is suggested in Mr. Plimmer's letter, that the whole of my work put before the Pathological Society was comprised in the introduction, which really contains no part of the work itself. In consequence of the false light in which my work would thus be placed I requested the secretaries to omit the "Critical Survey of Recent Work on Cancer," etc., as the introduction is named, from the *Transactions*. They replied that they had not this power; they were willing, they said, to insert a note to the effect that the papers relating to my original work had been withdrawn by me, whereas the fact is that the only paper I wished to withdraw was the "Critical Survey," and that only after I had come to know the decision of the Council not to publish the papers relating to my original work. I find I have no certain legal power to stop the publication of the "Survey" in the *Transactions*, and under the circumstances I have declined to correct or complete this paper, which, if it is published in the *Transactions*, will appear as an incorrect and unauthorised reprint of what has already been published.

The publication of my work began in the *Medical Press and Circular* of August 16th, 1893, and is being continued in a series of articles appearing in consecutive numbers of that journal, the issue of September 13th excepted, under the title "The Protozoa Considered in Relation to Disease, especially Cancer, Sarcoma, and other Morbid Growths."—I am, etc.,

J. Jackson Clarke.

St. Mary's Hospital Medical School, Sept. 22nd.

THE JENNER COLLECTION.

Sir,—Referring to the British Medical Journal of September 9th, in which appears a notice of the Jenner Collection at the Bristol Industrial and Fine Art Exhibition, will you kindly allow me to correct an impression that would no doubt obtain credence from the interpretation which most of your readers would, I think, attach to your observations, the inference from which is that Mr. Mockler is a descendant of Dr. Jenner. This is not so; and the chance possession of these relics certainly does not entitle this gentleman to pose before the medical profession and the public generally as the representative of my ancestors.

In a memoir published by Mr. Mockler in connection with the exhibit, he says in his preface that the collection has been handed down to him as family heirlooms, a statement that does not to me appear quite clear; but having historical claims, would perhaps if detailed be of great interest. He then makes the most fleeting references to Dr. Jenner's two sons, who both died unmarried, which fact he does not record, no mention whatever being made of the doctor's only daughter Catherine, who married Mr. John Yeend Bedford, of Edgbaston, near Birmingham, and had issue one daughter, from the representatives of whom some of these heirlooms have been acquired.

On the decease of Dr. Jenner's surviving son Robert Fitzhardinge Jenner on March 16th, 1854, the *Lancet* of that date stated the lineage of the great doctor had become extinct.

You make reference to a diamond ring, presented by Marie, Dowager Empress of Russia. Well may you ask where that ring is now. May I suggest it is in the possession of the Scobell family? In the original draft of Dr. Jenner's will, which can be seen at the exhibition, he makes earnest request that this, with other articles, shall be kept in the families. I append an extract from Dr. Jenner's acknowledgment of this present:—

"To Her Imperial Majesty the Empress Dowager of Russia.

"Berkeley, October 10th, 1802.

"Madam,—I know not how to express a just sense of the obligation I feel myself under to Your Imperial Majesty for your great condescension in addressing to me a most gracious letter, and for your goodness in presenting me with a most valuable diamond ring: a gem, Madam, that I trust will descend, with your illustrious name annexed, to my posterity through ages, etc."—Baron's *Life of Jenner*.

Apologising for so far trespassing on your space, I am, etc.,

Bristol, Sept. 20th. Henry Jenner.

DEATH CERTIFICATION.

Sir,—The *naïveté* of your correspondent "A Medical Officer of Health" is quite refreshing. He seeks to enlist your sympathies and the aid of the British Medical Journal for his side of the question on the ground that in rural districts the duties and pay of a medical certifier are needed to enable a poor medical officer of health to live, but does not even attempt to show that the training requisite for the proper discharge of the proposed office—any special knowledge of medical jurisprudence, for instance—is more likely to be found in the medical officer of health than in any other qualified medical man. He acknowledges that in towns the appointment might not be so suitable; and I suppose he would also admit that in large combined rural districts, where an adequate salary is paid, it would not even be necessary as a mode of eking out the medical officer of health's salary. Had he read the report of the Select Committee carefully, he would have seen that there was an alternative proposal placed before it, which the Committee at all events thought worthy of notice. This was that the police surgeon of the district should be the medical certifier; and the Committee note in the margin that three witnesses gave evidence in favour of the proposal they have adopted, one (Dr. Ogle) distinctly against it, and two in favour of police surgeons being so appointed. It will be time enough, I should think, to expect an editorial pronouncement on the subject when the evidence is published in full, as it shortly will be, but in the meantime I may be permitted to point out how these two systems would work in a large London parish which happens to constitute the district of one of the most highly esteemed medical officers of health in the metropolis.

Let us suppose that the dead body of a man, woman, or child is found in any part of this extensive parish, and that this is reported, as usually happens, to one of the half-dozen police-stations from which the police force of the locality is worked; if police surgeons were medical certifiers the police would send for the one attached to the station, as they do now, to view the body before it had been disturbed, and if he were satisfied that the death was a natural one he would give a certificate, which either he or the police would transmit to the registrar, and the case would be at an end. If, on the other hand, the medical officer of health were the certifier, the police of the whole six stations would have to apply to him at his office, miles away from most of them, and, if they did not find him there, might go to seek him at the hospital to which he is attached, or at his consulting-room in the West End, in order to require him to attend at the place where the body was lying to make the necessary inquiries, etc. I am aware, of course, that it is recommended he should be permitted to appoint a deputy to make *post-mortem* examinations, etc.; but on the whole I feel convinced that this portion of the Committee's recommendations requires further consideration, and in this opinion I am confirmed by letters which are reaching me daily from all parts of England and Scotland.—I am, etc.,

Dulwich, Sept. 24th. H. Nelson Hardy.

THYROID GLAND FEEDING IN CERTAIN SKIN DISEASES.

Sir,—At the meeting of the British Medical Association at Newcastle, Dr. Byrom Bramwell and Dr. Arthur Davies gave interesting accounts of their treatment of certain skin affections by thyroid gland feeding, and as I have had a very persistent case of psoriasis treated successfully by the same method, I think it may be worth recording. The psoriasis occurred in a young man who was otherwise exceptionally healthy; there was, however, a hereditary strain of gout. When first seen the psoriasis presented the gyrata, guttata, and capillitii varieties, and was abundantly distributed over the extensor aspects of the arms and legs, and over the back shoulders, loins, and gluteal regions, some of the patches being 3 to 4 inches in diameter. Only a few small patches were to be seen on the anterior surface of the trunk. Some of the patches on the extensor aspect of the forearm and thigh had lasted so long that they did not disappear on pressure, pigmentation having, to some extent, become added to the hyperæmia. He was put under treatment, and from time to time received arsenic, cinchona, and coal tar intern-

ally, and chrysophanic acid or mercury externally, combined with dietetic and hygienic rules.

The case improved steadily under the above treatment, but the improvement was slow, and relapses, from carelessness on the part of the patient, were frequent. After being under observation for several months, and whilst slowly improving, I began the thyroid feeding treatment in addition. I gave the dry thyroid gland powder, equivalent to 5 grains by weight of sheep's gland, three times a day for three days, and then gradually increased the quantity till he was taking 35 grains by weight of sheep's gland in the twenty-four hours. Within a week a distinct improvement was noticed, the patches becoming paler and ceasing to scale, and no new spots appeared. Exactly seven weeks after the thyroid powder had been taken all the hyperæmia and pigmentation had disappeared, and every trace of the psoriasis had gone, leaving the skin of a natural colour, smooth and healthy. The psoriasis on the scalp was complicated with some eczema, which also disappeared. It is now nearly two months since the cure took place, and, so far, there has been no relapse.

It is a special point of interest in this case to note how slow the improvement had been in such an extensive case of psoriasis in contrast to the rapid progress made after the thyroid powder had been exhibited. The patient's skin was a remarkably thin one, and its state of nutrition seemed decidedly better after the course of thyroid feeding.—I am, etc., ARTHUR CONNING HARTLEY, M.D., F.R.C.S.

Bedford, Sept. 23rd.

UNQUALIFIED PRACTICE AND OVERCROWDING OF THE MEDICAL PROFESSION.

SIR,—An experience of some years in medical protection induces me to think that the cry that the profession is overcrowded is not quite correct. It is true that among our younger brethren, at the start in life, after obtaining their qualifications many find a difficulty in locating themselves in localities where a paying connection can be formed; and some, in consequence, who have exhausted their means in obtaining their legal qualifications, may suffer and undergo considerable discomfort from impecuniosity, but this is common in the earlier stages of the career of many who seek with pen and pencil, the law, literature, or other professions to gain a livelihood. Indeed, some of the most eminent men of ancient and modern times have, in the earlier parts of their career, been similarly afflicted. Men now of high rank I have heard recount tales of their early days illustrative of this. I do not think young men, if made of the right metal, suffer much ultimately through having to carve out their own fortunes and, in middle life, reap the benefit of the dogged perseverance which has enabled them to carve out for themselves considerable positions.

When in the north recently it was my duty to interview many members of the profession, and more than one well able to judge expressed to me the opinion that if the unqualified practitioner was put a stop to, as he would be on the Continent, there would be plenty of work for all the qualified.

The State ordains that a young man should go through a certain amount of preliminary scientific and classical education, then that he should be trained in hospitals for a somewhat prolonged period—attend lectures, dissect, be instructed in the chemistry of the drugs he uses, etc.; and then, when he has spent some seven or more years of his life and a thousand pounds, or even more, of his money, allows men utterly ignorant of the first principles of professional knowledge to, either with bogus degrees or no degrees at all, compete with him to the serious injury of the public.

Now, on behalf of the public, I maintain this is all wrong, and, on behalf of the profession, that it is an unjust and one-sided bargain. It is preposterous to suppose that a Hindu who doctors and gets six persons in his native village to sign papers to the effect that he has attended them and they have been satisfied with his treatment can, without injury to the public, be allowed to pose in England as a qualified doctor, or that an American, versatile as we know the American citizen to be, who has been first possibly a sawyer; secondly, a store-keeper's clerk; thirdly, run a gambling saloon, then a drinking bar, etc., who can buy for from 5 to 100 dollars, according the elaborateness of its engraving, a diploma of the Bogusville University, step on board a steamer, and, as soon as he lands on these shores, assume the title of Doctor, represent himself as, in his own country, a duly-qualified Doctor of Medicine, and possibly boldly advertising himself as such, with the addendum of "non-registered."

I am not an advocate for grandmotherly legislation, but that the proceedings of these men is an injury to the public, and that a large section of the public have been and are injured by them, is a fact of which there has been abundant proof in the journals of the day. Witness the famous "diagnosis" of the American advertising physician in the case of Dr. Alexander Smith, and many others. With the most eminent specialists easy of access at moderate fees, it was proved there were persons ignorant enough to consult and pay large sums, inordinate and extortionate fees, to ignorant quacks. The law does not allow fortune tellers, gambling-house keepers, betting-house keepers, and others of those classes to prey upon the public; why, then, are the proceedings of these men winked at? And why, when prosecution is attempted, and terrible tortures sometimes disclosed, do Bench and Bar unite in favour of the perpetrators? Why are the General Medical Council, the Colleges of Surgeons and Physicians, and medical bodies, so supine and hard to move, and especially the Treasury, when it has been shown that the law for obtaining money under false pretences is far-reaching enough to deal with those cases?

In the meantime, failing the action of public bodies, I propose, at the October meeting of the Council of the London and Counties Medical Protection Society, to bring forward this resolution: "That the Council be empowered to form a special committee to receive subscriptions for the purpose of dealing with cases of irregular and unqualified practice, such fund to be kept entirely distinct from the ordinary funds of this Society, but administered by such committee under the direction of the Council."

I shall be exceedingly obliged if any of your readers interested in this matter, and willing to help in any way, will communicate with me before the Council meeting.—I am, etc.,

GEORGE B. MEAD,
Honorary Secretary London and Counties Medical Protection Society.

Mentmore, Newmarket, Sept. 23rd.

THE ST. JOHN AMBULANCE ASSOCIATION AND ITS DOCTORS.

SIR,—Permit me to draw the attention of your members to a recent decision of the managing body of the St. John Ambulance Association with reference to their medical lecturers.

By a decision of the Central Committee, the Association now require "four gratuitous complete courses of lectures" to qualify their medical officers to become honorary life members of the Association, instead of two such courses, as was the rule until last month.

The "life membership" of the Association can be obtained by any person who subscribes five pounds or upwards. Lectures are worth one guinea each. Four complete courses imply an expenditure of energy equal to twenty guineas, but this Association apparently values its lecturers' work at a very low rate, say about five shillings per lecture, as each course needs five lectures. This would be called "sweating" in any trade in the world.

The St. John Ambulance Association and the Order itself owe everything to the medical profession. Busy doctors after days of hard work have lectured gratuitously to their classes; have done the most devoted work for the Order, and their reward is this unjust and uncalled-for decision. The St. John people have made a great mistake. They should rescind the order, or medical men will turn to the county councils, and lecture for them at a fair wage rather than for a self-elected society which makes a great name for humanity, but which depends entirely for its work on the gratuitous help of medical men.

I consider that the Order of St. John in England has failed, even apart from this recent decision, in suitably rewarding its medical staff by honorary distinctions or money. It is already pushing its lay officials into positions of great responsibility, and keeping its medical staff quite in the background. To work on such lines is out of date and, indeed, hopelessly retrograde. The English medical profession will

never consent to take a back seat in this Order, and the wise policy would be to throw the Order freely open to the medical profession, who freely work for it with little or no reward. The Order began as a philanthropic and medical body, which gradually assumed a military organisation, and, if it forgets its debt to medical men, it will relapse into a mere survival without life or energy. If, on the contrary, it has the wisdom to widen out its basis, it may do good work by linking medical tradition with modern organisation and science. I simply sound the note of alarm. Those who hear it will know how to act.

What the Order of St. John should do is to form a regular grade or list of "Medical Officers of the Order of St. John of Jerusalem." This would be quite possible; and in that list they should grade their lecturers and medical supporters.—I am, etc.,

Sept. 25th. JUSTICE.

CASTRATION IN ENLARGEMENT OF THE PROSTATE.

SIR,—In reference to this question, I venture to think that the results that have been obtained by Dr. Griffiths and other recent investigators, which are so strongly confirmative of the views held by Hunter, are scarcely appreciated at their full value. That castration in early life prevents the full development of the prostate, and in adult life causes the normally developed gland to atrophy, must be regarded as established facts, not only for animals, but for man. What is wanted now is some definite information as to the effect of the same operation upon the gland when it is becoming abnormally enlarged in old age. In our present state of ignorance upon this subject, the case quoted by Mr. Harrison, imperfect as the record of it is, is a most valuable contribution. A few such would be sufficient; and now that attention has been drawn to the subject in your columns, I have great hope that the deficiency will soon be supplied.—I am, etc.,

Wimpole Street, Sept. 23rd. C. MANSELL MOULLIN.

SIR,—I infer your correspondents on this subject are not aware that Rocum, of Christiania, in a notice in the *Cent. für Chir.*, No. 35, September 2nd, 1893, gives an account of two cases in which he performed bilateral castration for enlargement of the prostrate. The first was in a man, aged 73. In three days there was some diminution of the enlarged gland perceptible, which continued, and the frequency of micturition, which took place hourly before the operation, was reduced to twice during the night, and three or four times in the day. A second case had been similarly treated with similar results. Details of the cases he promised to give later.

This method of treatment is no doubt likely to suggest itself to anyone who has studied the nature and function of the prostate in its relation to the sexual function. It may in some cases prove an effectual remedy. It must, however, be borne in mind that (1) prostatic enlargement occurs at a time of life when testicular structure and sexual inclination are fading, and the structure of the senile enlarged prostate differs much from the normal gland[1]; (2) dependence of prostatic enlargement upon sexual excitement has never been proved; (3) in cases in which prostatic enlargement has been associated with sexual excitement, the latter may not improbably be caused by a reflex originating in the enlarged gland; and (4) the occurrence of sexual excitement, erection, and emission is often continued for a considerable period, from one to several years, after the removal of both testicles.

With regard to the milder operation—division of the vasa deferentia—suggested and practised by Mr. Harrison in one case only, and with apparently good result, I have found that ligation or division of the vas deferens in dogs neither retards the growth of the testes in the young nor usually interferes with the maintenance of the spermatozoa-producing powers in the full grown.

I have seen, however, a case similar to those referred to by Mr. Harrison, and related in Holmes's *System of Surgery*. It was that of a young man in whom a portion of the vas deferens was accidentally removed with a cyst of the cord. After the operation he suffered from repeated swellings of the testis. Six weeks later, when the organ was removed at the request of the patient, the body of the testis was of full size, but its seminal tubules were, without exception, greatly changed, and some completely transformed into rods of fibrous tissue. In this case there was reason to think that the vessels of the spermatic cord were also divided; and it may be that in the other cases which have been related a similar lesion took place. I hope shortly to complete and publish experiments on this subject.

The questions thus raised are of much interest and practical importance; and should the results of Rocum's cases above referred to appear, I will lose no time in communicating them to the BRITISH MEDICAL JOURNAL.—I am, etc.,

JOSEPH GRIFFITHS, M.D., F.R.C.S.Eng.

Cambridge, Sept. 25th.

[1] See papers by me in *Journ. of Anat. and Phys.*, vol. xxiii and xxvii.

BATHERS' CRAMP.

SIR,—I once had the cramp after I had got back into my boat, and, as few people seem to know what it is I shall be glad to describe it.

It was a series of severe tonic spasms affecting all four limbs and the muscles of the trunk at the same time. It caused vomiting, partly from the spasm of the abdominal muscles and partly, I think, from the severe pain. Each spasm lasted a few seconds and movement brought it on afresh so that I could not dry myself but was forced to sit still. It affected skeletal muscles alone and not visceral, for I felt nothing amiss with my heart or abdominal organs. It was, in other words, just the same spasm as one frequently feels in separate muscles but differed by its extent and its severity.

I am a good swimmer, but had I been in the water I should certainly have been drowned, for no sort of movement was in my power, nor would floating, which requires a good deal of muscular action, have been possible. I imagine that it has not been described because it is usually fatal.

I bathed when very hot after a long and fast walk. The occurrence took place at the Giant's Causeway just after the Belfast meeting.—I am, etc.,

Upper Wimpole Street, W., Sept. 25th. W. P. HERRINGHAM.

OPIUM EATING AND MURDER.

SIR,—In your report of the proceedings of the Royal Commission on the Opium Trade, it is stated in the BRITISH MEDICAL JOURNAL, September 23rd, page 691, that Deputy-Surgeon-General Partridge declared, in the course of his testimony contributed on Saturday, September 16th, that "Heron and Neill, the murderers, were opium eaters." May I ask him, through the medium of your columns, who was "Heron, the murderer," to whom he alludes? Because, if he by any chance refers to my unhappy friend, the late Alexander Woodburn Heron, one would like to know the special line of defence he might adopt if the man were still alive? Also, what evidence would be forthcoming in justification of the assertion that he was an opium eater, supposing that that allegation constituted a second count in the indictment?—I am, etc.,

Watford, Sept. 26th. ARTHUR STRADLING.

NAVAL AND MILITARY MEDICAL SERVICES.

THE MEDICAL DEPARTMENT AT THE AUTUMN MANŒUVRES.

OUR contemporary the *Army and Navy Gazette* publishes some very outspoken criticisms from a correspondent, who, it declares, from "his rank, position, and great experience," is not only entitled to give expression to his views, but should command a respectful hearing. Without in any way endorsing all his views, or admitting the justice of some of his remarks, we fear there is not a little in the sad account he gives which is only too true; his account, at all events, in many ways justifies much that has recently been written on the condition of the medical department in these columns. He says: "I fear the medical department is pretty rotten. As a body, the doctors are too anxious to play at soldiers without exactly knowing how or why they should do so. At the same time, I do not think there is a doubt but that their

present condition of unrest is entirely the fault of those in authority.....I think myself that it is the height of all snobbishness and bad taste for combatants to go through the world decrying the men who would have to look after all their wants on the battle field; but they do it, and until a much better example is set them at headquarters will continue to do it.....If we were going to war, I have no hesitation in saying that the 1st Army Corps would march to destruction. Generally speaking, the departmental organisation—I say it, though I was always a combatant myself in my days of activity—is simply abominable; and the terms in which the workers in departmental hives are treated and spoken of by beardless subalterns, unchecked by seniors, is simply a standing disgrace to the army of a civilised State. I can imagine nothing more calculated to create disaster. It is a state of things that should be put a stop to at once if the army is maintained, as presumably it is, for fighting purposes." Again, in another place: "Our whole system is upside down as far as departmental arrangements are concerned. The curse of our army.....is petty jealousy..... it seems to be the aim and object of a lot of beardless boys to turn it into a bear garden. I have been simply horrified when visiting messes to hear the conversation which is a new feature of most anterooms. It is a case of slanging all round, and the presence of a doctor is resented as almost an insult by everybody. How those in authority can tolerate such an unsoldierlike spirit is beyond my comprehension to understand.....I think it would be well for the Adjutant-General to issue an order to commanding officers calling upon them to make examples of young officers who forget that they exist for the benefit of the army, and that the army is not created for the purpose of affording them amusement at the expense of others."

ARMY MEDICAL STAFF EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post office order with the notice. The first post on Thursday mornings is the latest by which these announcements can be received.

A SURGEON-MAJOR, with a full tour of home service, is willing to entertain exchanging to India or the Colonies.—Please address Sabretache, care of Messrs. Holt and Co., 17, Whitehall Place, S.W.

THE NAVY.

STAFF-SURGEON R. W. WILLIAMS has been promoted to be Fleet-Surgeon. His commission as Surgeon is dated October 1st, 1872, and that of Staff-Surgeon twelve years therefrom. He was Surgeon of the *Thalia* during the Egyptian war of 1882, and has the medal and Khedive's star granted for the campaign.

The following appointments have been made at the Admiralty: ERNEST D. MINTER, Surgeon to the *Pembroke*, August 27th; GEORGE A. DREAPER, Surgeon to the *Polyphemus*, September 20th; JAMES H. DAWE, Surgeon to the *Dolphin*, September 30th; EDWARD M. DOBINSON, Surgeon to the *Imogene*, September 30th; ERNEST E. P. TINDALL, Surgeon to the *Martin*, September 30th; CORNELIUS BRADLEY, Surgeon to Plymouth Hospital, September 22nd; WILLIAM HACKETT, M.D., Surgeon to the *Vernon*, September 22nd.

ARMY MEDICAL STAFF.

THE undermentioned officers of the Army Medical Staff, having been nominated to return to England from India, will be detailed for duty with troops on the homeward voyages during the trooping season of 1893-94: Brigade-Surgeon-Lieutenant-Colonels C. White, T. O'Reilly, and T. J. P. Holmes, M.B.; Surgeon-Lieutenant-Colonel W. J. Fawcett, M.B.; Surgeon-Majors L. B. Ward, J. Powell, E. O. Reynolds, J. Stevenson, M.B., and R. Porter, M.B.; Surgeon-Captains M. W. Russell, C. A. Lane, M.B., J. G. Black, M.D., J. Fayrer, M.B., D. M. Saunders, M.D., H. A. Cummins, M.D., G. Bent, G. H. Barefoot, F. R. Newland, M.B., E. S. Marder, C. W. Allport, M.D., J. J. Russell, M.B., J. S. Edye, A. L. F. Bate, W. J. Trotter, T. Du B. Whaite, M.B., and J. C. Morgan.

Surgeon-Major T. M. CORKER, recently exchanged from the Bombay to the Madras Command, will be transferred to the Home Establishment from September 7th.

Surgeon-Captain R. HOLYOAKE, now on sick furlough from the Bombay Establishment, is directed to remain in England from August 26th to the date of his re-embarkation for duty, in extension.

Surgeon-Captain H. D. JAMES, serving in the Madras Command, has passed the examination in Hindustani by the lower standard.

Surgeon-Captain W. HALLARAN, M.B., doing duty at the Station Hospital at Bellary, in the Madras Command, is appointed to the medical charge of the Cantonment Hospital, Bellary, without prejudice to his other duties.

Surgeon-Captain J. W. COCKERILL, doing duty at the Station Hospital, Belgaum, in the Madras Command, is appointed to the medical charge of the Cantonment Hospital, Belgaum, without prejudice to his other duties.

Surgeon-Captains L. WAY and E. O. WIGHT, on return from England, will do duty in the Secunderabad District, Madras Command.

Surgeon-Captain G. M. DOBSON, M.B., doing duty in the Mandalay District, Burmah, will do duty in the Belgaum and Bangalore Districts, Madras Command.

Surgeon-Captain J. F. DONEGAN, doing duty in the Belgaum and Bangalore Districts, is appointed to the medical charge of the Station Hospital at Malapuram, Madras Command.

Surgeon-Captain G. H. YOUNGE, in medical charge of the Station Hospital at Malapuram, is appointed to do duty in the Mandalay District, Madras Command.

The undermentioned officers, whose tour of foreign service will expire during trooping season, 1893-94, will proceed to England by troopships leaving Bombay on or about dates specified: Surgeon-Captains H. M. Adamson, October 12th; R. E. Kelly, January 2nd, 1894; J. F. Donegan, January 2nd, 1894; J. Donaldson, January 20th, 1894; Surgeon-Major A. Asbury, January 20th, 1894; W. Hallaran, M.B., April 5th, 1894.

Surgeon-Major E. H. MYLES, serving in the Bombay Command, is appointed to the medical charge of the Station Hospital at Neemuch, *vice* Surgeon-Major C. A. Webb.

ARMY MEDICAL RESERVE.

SURGEON-CAPTAIN CHARLES E. ABBOTT, 2nd Volunteer Battalion the Essex Regiment, to be Surgeon-Major, September 23rd.

Surgeon-Lieutenant WM. K. BULLMORE, M.D., 1st Cornwall Volunteer Artillery, to be Surgeon-Captain, September 23rd.

Surgeon-Captain R. A. S. DALY to be Surgeon-Major.

INDIAN MEDICAL SERVICE.

SURGEON-CAPTAIN A. W. T. BINET-SPARKS, Bengal Establishment, is appointed to act as Civil Surgeon of Moozufferpore, during the absence of Surgeon-Major F. S. Peck.

Surgeon-Captain C. C. CASSIDY, Bengal Establishment, is appointed to act as Civil Surgeon of Durbhunga during the absence of Surgeon-Major R. R. H. Whitwell.

Surgeon-Captain M. A. KER, Bengal establishment, assumed charge of the civil medical duties of Jhelum District on August 12th.

Surgeon-Captain D. T. LANE, M. D., Bengal Establishment, whose services have been temporarily placed at the disposal of the Punjab Government, is appointed to officiate as Civil Surgeon of Ferozepore from August 11th.

Surgeon-Major A. SILCOCK, Bengal Establishment, Civil Surgeon, is permitted to return to duty within the period of his leave.

Surgeon-Captain H. HERBERT, Bombay Establishment, received charge of Kaira District Gaol on August 21st, and of Yerrowda Central Gaol on August 30th.

Surgeon-Lieutenant-Colonel J. O'BRIEN, Bengal Establishment, Second Surgeon Medical College Hospital, Calcutta, is appointed to act as First Surgeon during the absence of Brigade-Surgeon-Lieutenant-Colonel D. O'C. Raye.

Surgeon-Captain F. O'KINEALY, Bengal Establishment, Officiating Resident Surgeon Medical College Hospital, Calcutta, is appointed to officiate as Second Surgeon of the hospital, in addition to his own duties, during the absence of Surgeon-Lieutenant-Colonel J. O'Brien.

Surgeon-Captain H. M. MORRIS, Bengal Establishment, is appointed temporarily to officiate as Civil Surgeon of Jessore, from August 3rd.

The services of Surgeon-Captain W. J. BUCHANAN, Bengal Establishment, are replaced at the disposal of the Government of India, Home Department, from the date on which he may make over charge of his duties as officiating Civil Surgeon of Midnapore.

Surgeon-Captain G. F. W. BRAIDE, Bengal Establishment, officiating Superintendent of Chenawan Central Gaol, is appointed to officiate temporarily as Superintendent of Lahore Central District and Female Gaols, from August 15th.

Surgeon-Captain C. F. FEARNSIDE, Madras Establishment, is appointed to act as District Surgeon of Ganjam and Superintendent of Berhampore Gaol.

Surgeon-Major D. C. DAVIDSON, Bombay Establishment, is appointed to act as Civil Surgeon of Dharwar during the absence of Surgeon-Major H. McCalman.

Surgeon-Captain J. JACKSON, M.B., Bombay Establishment, is appointed to act as Civil Surgeon of Sattara, in addition to his own duties, *vice* Surgeon-Major D. C. Davidson.

Surgeon-Lieutenant S. H. BURNETT, Bombay Establishment, on general duty in the Sind District, is appointed to act as Civil Surgeon of Jacobabad, in addition to his own duties, from August 1st.

The undermentioned officers have leave of absence as specified: Surgeon-Major W. A. SIMMONDS, 12th Bengal Cavalry, for one year on private affairs; Brigade-Surgeon-Lieutenant-Colonel D. O'C. RAYE, Bengal Establishment, Professor of Surgery and First Surgeon Medical College Hospital, Calcutta, privilege leave for twenty-nine days from September 16th; Surgeon-Captain R. J. MACNAMARA, Bengal Establishment, Superintendent of Mooltan Central Gaol, privilege leave for two months from July 25th; Brigade-Surgeon-Lieutenant-Colonel E. F. DRAKE-BROCKMAN, Madras Establishment, for 165 days, on private affairs, in extension; Surgeon-Major H. MCCALMAN, Bombay Establishment, Civil Surgeon of Dharwar, privilege leave for two months and twenty-nine days from September 21st; Brigade-Surgeon-Lieutenant-Colonel S. O'B. BANKS, Bombay Establishment, privilege leave for two months and ten days from September 1st.

The Queen has approved of the following admissions to the Indian Medical Service:—*Bengal:* C. R. STEVENS, C. C. S. BARRY, L. ROGERS, E. A. R. NEWMAN, G. T. BIRDWOOD, J. GOULD, R. G. TURNER, J. DAVIDSON, J. MULVANY. *Madras:* H. L. SUTHERLAND, E. H. SHARMAN, T. STODART, B. NAUTH, T. H. FOULKES. *Bombay:* P. P. KILKELLY.

THE YEOMANRY AND RIFLE VOLUNTEERS.

SURGEON-MAJOR S. FARRANT, West Somerset Yeomanry, is promoted to be Surgeon-Lieutenant-Colonel, September 23rd.

Surgeon-Lieutenant L. W. ANDREWS, M.B., 2nd Volunteer Battalion the Lincolnshire Regiment (late the 2nd Lincoln), has resigned his commission, which was dated May 30th, 1891.

Surgeon-Lieutenant C. E. R. RENDLE, 4th Volunteer Battalion the

Devonshire Regiment (late the 4th Devonshire), is appointed Lieutenant in the same corps. Lieutenant Rendle joined as Surgeon-Lieutenant June 25th, 1892.

THE WESTERN MILITARY DISTRICT.

Lex writes: It is asserted in the military papers that this district is to be made a lieutenant-general's command; if so, then it should become a surgeon-major-general's instead of a surgeon-colonel's appointment.

*** That, of course, ought to follow, the one change of rank involves the other.

MEDICO-LEGAL AND MEDICO-ETHICAL.

MEDICAL OFFICERS AND BROTHER PRACTITIONERS.

Dr. G. O'Connor (Market Deeping) writes: A. and B. are medical practitioners residing twelve miles apart. Their practices meet at a village midway. A. is called to a patient in this village. He notifies the case as a contagious disease. B. is medical officer of health. On receipt of notification from A., B. goes to see the patient and examines him, after which examination he tells him that he certainly has not got the contagious disease which A. said he had. Was B. justified in examining the case at all? Was he not infringing all rules of etiquette by giving the patient his opinion, which was contrary to that of the attendant?

*** In reply to our correspondent's question, we may note that it is contrary to professional etiquette and general polity for a medical officer of health to interfere, either in regard to the diagnosis or treatment, when notified of the existence of infectious disease in a brother practitioner's patient; to which we may add that it is a "golden rule" which cannot be too deeply engraven on the heart, that a medical man should never in any case which may directly or indirectly come under his notice, censure or disparage, much less condemn, the diagnosis and treatment of another.

FEES TO MEDICAL WITNESSES.

Dr. J. Tucker (Chulmleigh) writes: What fee can I claim for attendance at assize per day as medical witness in a civil case—disputed will suit? The assize town is more than twenty miles from me.

*** The fee allowable to a medical witness in a civil case is a sum not exceeding three guineas per diem, with reasonable expenses. If his evidence is important, a professional witness can usually obtain his own terms for giving evidence, provided he makes his bargain before going into the witness-box. If he waits till afterwards he will have to be content with the taxing officer's allowance.

DR. AND DENTIST.

D. D. S. asks: Am I within my rights in describing myself on my door-plate and billheads as "Dr. ——, Dentist," being registered as such? I never, under any circumstances, describe myself as "Dr." without adding my profession as well.

*** If the degree of D.D.S. is registered in this country, there seems to be no legal reason why the title of "Dr." should not be employed; but there is, we understand, a feeling against its use by dentists in this country.

ADVERTISERS.

L. A. F.—Neither of the practitioners to whose advertisements our correspondents calls attention are on the *Medical Register*. We find on reference to the minutes of the General Medical Council that the Council on May 12th, 1885, directed the Registrar to remove from the *Medical Register* the qualification of Fellow of the Faculty of Physicians and Surgeons of Glasgow formerly held by George Washington Evans, and that thereupon the Council resolved that the Registrar be directed to remove from the *Medical Register* the name of George Washington Evans. So far as we have been able to ascertain the name of the other has never been on the *Register*.

UNPROFESSIONAL TOUTING.

A Leeds Correspondent sends us the following cutting from the *Leeds Daily News* of Friday, September 15th: "Men wanted to find Addresses and obtain Lodges, Clubs, Friendly Societies for Leeds Doctor (Central); high commission.—S9, *Daily News*. S20."

*** Well may our correspondent remark in relation to the above brief but significant advertisement, "Comment is superfluous." To our mind, when read between the lines, it but too surely indicates not only a regrettable deviation from the honourable traditions of medical life, but a lamentable want of moral principle. What, we would simply ask, is the true object, if not a professionally immoral one, of the "Doctor's" offer of a "high commission"?

"FEMALE PILLS."

X.—Inasmuch as we apprehend that our correspondent, however just his inference may be, would be unable to prove that the "flooding after a miscarriage in a young unwedded girl" was the result of taking the "unlabelled strong female pills," made and advertised in an exceptionally questionable form by the chemist in question, it would not, in our opinion, be his duty to report the case to the police, nor are we cognisant of any law that could prevent the chemist from advertising them. At the same time, for any proven injurious or illegitimate effect arising from their administration he would, we take it, be liable to civil or criminal proceedings, as the case may be. It may nevertheless be judicious to keep an eye upon his proceedings, and if practicable, to let him know that his advertisement has inspired a feeling of doubt as to its covert nature and intent. The following is a copy thereof:—

"Ottey's Unlabelled Strong Female Pills. These noted pills always remove all obstructions arising from any cause whatever, where ordinary steel and pennyroyal pills fail. Invaluable to married women. Post free, under cover, for 10, 14, and 33 stamps."

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns, including London, 6,113 births and 3,897 deaths were registered during the week ending Saturday, September 23rd. The annual rate of mortality in these towns, which had declined from 22.8 to 19.8 per 1,000 in the preceding six weeks, further fell to 19.7 during the week under notice. The rates in the several towns ranged from 13.7 in Brighton and in Portsmouth, 13.9 in Derby, 14.4 in Croydon, and 16.5 in Cardiff to 24.0 in Leeds, 25.0 in Liverpool, 26.8 in Sunderland, 26.9 in Blackburn, and 30.3 in Preston. In the thirty-two provincial towns the mean death-rate was 20.2 per 1,000, and exceeded by 1.3 the rate recorded in London, which was 18.9 per 1,000. The 3,897 deaths registered during the week under notice in the thirty-three towns included 774 which were referred to the principal zymotic diseases, against 916 and 851 in the preceding two weeks; of these, 394 resulted from diarrhœa, 116 from diphtheria, 88 from "fever" (principally enteric), 86 from whooping-cough, 63 from scarlet fever, 21 from measles, and 6 from small-pox. These 774 deaths were equal to an annual rate of 3.9 per 1,000; in London the zymotic death-rate was 3.6, while it averaged 4.2 per 1,000 in the thirty-two provincial towns, among which these diseases caused the lowest death-rates in Halifax, Plymouth, Croydon, and Bristol, and the highest rates in Sunderland, Burnley, Preston, Hull, and Gateshead. Measles caused the highest proportional fatality in Burnley; scarlet fever in Derby, Burnley, and Huddersfield; whooping-cough in Swansea, West Ham, and Gateshead; "fever" in Preston, Hull, and Norwich; and diarrhœa in Burnley, Blackburn, Sheffield, Salford, Sunderland, Gateshead, Preston, and Hull. The 116 deaths from diphtheria recorded during the week under notice in the thirty-three towns included 88 in London, 4 in Manchester, 3 in Birmingham, 3 in Portsmouth, and 3 in Leeds. Two fatal cases of small-pox were registered in London, 2 in Bradford, 1 in West Ham, and 1 in Birmingham, but not one in any other of the thirty-three large towns. There were 91 small-pox patients under treatment in the Metropolitan Asylum Hospitals and in the Highgate Small-pox Hospital on Saturday last, against 144, 121, and 112 at the end of the preceding three weeks; 14 new cases were admitted during the week, against 8, 24, and 20 in the preceding three weeks. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital was 2,848 at the end of the week, against 2,884, 2,883, and 2,894 on the preceding three Saturdays; 318 new cases were admitted during the week, against 320 and 315 in the preceding two weeks. The 200 deaths referred to diseases of the respiratory organs in London were 27 above the average, and were equal to an annual rate of 2.4 per 1,000.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday, September 23rd, 851 births and 488 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality, which had been 20.8 and 18.7 per 1,000 in the preceding two weeks, further declined to 17.3 during the week under notice, and was 2.4 per 1,000 below the mean rate during the same period in the large English towns. Among these Scotch towns the lowest rates were 12.0 in Perth and 12.4 in Greenock, and the highest 18.1 in Aberdeen and in Paisley, and 18.3 in Leith. The 488 deaths in these towns included 103 which were referred to the principal zymotic diseases, equal to an annual rate of 3.7 per 1,000, which was slightly below the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Edinburgh and Glasgow. The 232 deaths in Glasgow included 7 from diphtheria, 15 from whooping-cough, and 25 from diarrhœa. Three fatal cases of diphtheria were recorded in Greenock. The death-rate from diseases of the respiratory organs in these towns was equal to 2.6 per 1,000, against 2.4 in London.

HEALTH OF IRISH TOWNS.

In sixteen of the principal town districts of Ireland the deaths registered during the week ending Saturday, September 16th, were equal to an annual rate of 23.2 per 1,000. The lowest rates were recorded in Armagh and Newry, and the highest rates in Kilkenny and Sligo. The death-rate from the principal zymotic diseases averaged 4.9 per 1,000. The 190 deaths registered in Dublin were equal to an annual rate of 28.3 per 1,000 (against 29.1 and 21.9 in the preceding two weeks), the rates during the same period being 17.5 in London and 17.4 in Edinburgh. The 190 deaths in Dublin included 43 which were referred to the principal zymotic diseases (equal to an annual rate of 6.4 per 1,000), of which 26 resulted from diarrhœa, 13 from enteric fever, 1 from simple fever, 2 from whooping-cough, and 1 from measles.

SANITARY STATE OF LIMERICK.

A Special Committee has been appointed by the Town Council to deal with the insanitary state of various parts of the city. Should cholera obtain a footing in Limerick it would be a very serious matter indeed, as many parts of the city are far from being in a healthy condition, and in the interest of the citizens a judicious outlay for sanitary matters is urgently required.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF DURHAM.

EXAMINATION FOR DEGREES IN MEDICINE AND SURGERY.—Second Examination for the degree of Bachelor in Medicine. The following candidates have satisfied the examiners:

First Class Honours.—T. B. Poole, Guy's Hospital.

Second Class Honours.—F. C. James, St. Thomas's Hospital; C. A. Brough, L.R.C.S., L.R.C.P.Edin., Edinburgh School of Medicine; J. R. Adamson, College of Medicine, Newcastle-upon-Tyne; N. W. Eley, Mason College, Birmingham.

Pass List.—R. H. Bellwood, College of Medicine, Newcastle-upon-Tyne; A. B. R. Body, College of Medicine, Newcastle-upon-Tyne; W. H. Brown, Mason College, Birmingham; H. Crichton, College of Medicine, Newcastle-upon-Tyne; L. Davidson, College of Medicine, Newcastle-upon-Tyne; W. M. Davson, College of Medicine, Newcastle-upon-Tyne; R. C. De Lacey, College of Medicine, Newcastle-upon-Tyne; E. Fielden, Owens College, Manchester; L. G. Fraser, College of Medicine, Newcastle-upon-Tyne; R. W. Gilmour, St. Bartholomew's Hospital; G. W. Harbottle, College of Medicine, Newcastle-upon-Tyne; A. H. Hobbs, College of Medicine, Newcastle-upon-Tyne; H. P. Kennard, St. Thomas's Hospital; A. P. Lloyd, College of Medicine, Newcastle-upon-Tyne; J. S. Manford, College of Medicine, Newcastle-upon-Tyne; R. O. Mather, Liverpool School of Medicine; R. A. Mills-Roberts, College of Medicine, Newcastle-upon-Tyne; H. Newsome, College of Medicine, Newcastle-upon-Tyne; W. W. Ridley, College of Medicine, Newcastle-upon-Tyne; W. H. Rowell, College of Medicine, Newcastle-upon-Tyne; F. R. Sutton, Mason College, Birmingham; A. C. Underwood, M.R.C.S., L.R.C.P., St. Bartholomew's Hospital; F. S. Walker, College of Medicine, Newcastle-upon-Tyne.

EXAMINATION FOR THE LICENCE IN SANITARY SCIENCE.—The following candidate has satisfied the examiners:

A. L. Copner, M.R.C.S.Eng., L.R.C.P.Ed.

SOCIETY OF APOTHECARIES OF LONDON.

PASS LIST, September, 1893. The following candidates passed in:

Surgery.—C. F. Bowen, Pennsylvania; H. D. B. Castle, King's College; R. L. Dickinson, London Hospital; W. R. Fisher, London Hospital; G. G. B. Hein, St. Thomas's Hospital; J. Jones, Manchester; E. W. Joscelyne, St. Mary's Hospital; B. S. Mankar, London Hospital; A. W. Seal, University College; C. H. Stewart, St. Thomas's Hospital; F. L. Taylor, Aberdeen; E. M. Wilkes, Edinburgh.

Medicine, Forensic Medicine, and Midwifery.—H. W. Beedham, Cambridge University and London Hospital; H. D. B. Castle, King's College; J. G. Faber, St. Bartholomew's Hospital; J. Thornton, London Hospital; A. R. P. Sanderson, St. Thomas's Hospital; T. Stevens, Charing Cross Hospital; H. Whichello, St. Thomas's Hospital.

Medicine and Forensic Medicine.—R. A. Cowie, Cambridge and St. Thomas's Hospital; J. Davies, St. Mary's Hospital; F. W. Kerbey, London Hospital; A. V. Peatling, Cambridge and St. Thomas's Hospital; W. J. Rogers, St. Bartholomew's Hospital.

Medicine.—F. V. Denne, Westminster Hospital; E. Howgate, Leeds, E. B. Pellatt, Royal Free Hospital.

Forensic Medicine and Midwifery.—C. F. Bowen, Pennsylvania; H. T. Dufton, Cambridge University and St. Bartholomew's Hospital; W. C. Lattey, St. George's Hospital; W. E. Pain, Guy's Hospital; T. H. P. Peers, Charing Cross Hospital.

Forensic Medicine.—S. C. C. Fenwick, St. Mary's Hospital; M. Ferguson, New York.

Midwifery.—S. Gresswell, St. Bartholomew's Hospital.

To Messrs. Beedham, Castle, Denne, Dufton, Gresswell, Howgate, Joscelyne, Pellatt (Miss), Rogers, Stewart, and Thornton was granted the diploma of the Society entitling them to practise Medicine, Surgery, and Midwifery.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Thursday, September 21st.

Sanitation in Colliery Villages.—Mr. PAULTON asked the Secretary to the Local Government Board whether any report upon the sanitary condition of South Hetton and neighbouring colliery villages had been received from the medical officer of health for the district, and, if not, whether the Local Government Board intended to take any action in the matter.—Sir W. FOSTER, in reply, said that the Local Government Board had received a report from the medical officer of health of the Easington Rural Sanitary District as to the sanitary condition of South Hetton, and had also received from the Durham County Council copies of the reports made by the medical officer of health of the county as to a large number of colliery villages, including South Hetton. The county council had been in communication with the sanitary authorities of these districts with reference to the reports of their medical officer, and the Board would be glad to assist the county council in securing improvement in the sanitary condition of those places. There was no doubt that energetic action by the sanitary authorities was required in the case of many of these villages.

Quarantine against Great Britain.—Colonel HOWARD VINCENT asked the Under-Secretary for Foreign Affairs whether, with a view of saving British shipping as far as possible from needless quarantine in foreign ports, Her Majesty's Consuls in the ports where it was imposed would be telegraphically advised of the official declaration of September 19th of the British Minister of Public Health, that with the exception or three or four ports on the Eastern coast all the ports of Great Britain had been throughout the year absolutely free from cholera, and that there had been no general epidemic of cholera in any part of the United Kingdom, and be instructed at the same time to make every effort to obtain pratique for British ships.—Sir E. GREY, in reply, said that application had already been made to the Local Government Board to furnish a short statement on the whole case. The substance would be telegraphed to Her Majesty's representatives abroad directly it was received.

INDIA AND THE COLONIES.

INDIA.

FEES FOR MEDICAL ATTENDANCE ON NATIVE CHIEFS.—In supersession of the notification of this department, No. 813, dated December 18th, 1883, the Governor-General in Council has made the following rules regarding the remuneration of medical officers for attendance on native chiefs and nobles and native gentlemen of high position in a native State: When a native chief or noble or gentleman of high position desires the professional attendance of any medical officer of Government, the latter will be at liberty to attend him, provided that such attendance does not interfere with the due performance of his ordinary duties. The special permission of the local Government will, however, be necessary when such attendance involves the absence of the officer from those duties for any substantial time. The native chief, noble, or gentleman may offer any medical officer of Government attending him such fee as he thinks fit. The offer made will be reported by the medical officer through the political agent or other officer of Government exercising political functions in the State, of which the said chief, noble, or gentleman is a resident for the consideration of the local Government within whose jurisdiction the native State is situated. In reporting the offer, the medical officer will state, so far as he is able to do so consistently with his position as a medical adviser, the nature and extent of the relief afforded, the importance of the case from a professional point of view, and the circumstances under which he attended the patient. The political agent or officer forwarding the report will submit it with such remarks as he considers necessary. The local Government will have authority to sanction the acceptance of any fee so reported unless the amount appears to be out of proportion to the relief afforded, and to the circumstances of the case, in which event the matter will be submitted, with the local Government's opinion, for the consideration and orders of the Government of India. The report prescribed in the preceding paragraph will not be required from a medical officer in the following cases: (1) When the officer names his own charge in accordance with a scale which he has fixed for his patients generally who are not native princes, or chiefs, and when such charge is accepted by the patient; and (2) when the officer and patient reside in the same station, and the fee does not exceed 50 rupees for each visit, or 1,000 rupees in the aggregate for repeated visits during the course of a year. For the purposes of this notification, the term "local Government" will be held to include an agent to the Governor-General and a resident of the first class.

MEDICAL NEWS.

DR. M. NOLAN, late acting resident superintendent Limerick Asylum, has been appointed resident medical superintendent of Downpatrick Lunatic Asylum.

THE Lord Chancellor, on the recommendation of the Lord-Lieutenant, has placed Dr. Clement Dukes, Physician to Rugby School, on the Commission of the Peace for the county of Warwick.

BY the will of Mr. John Dorning, of Swinton, near Manchester, the North of England Children's Sanatorium at Southport receives £1,000, the Manchester Clinical Hospital £1,000, and the Manchester Infirmary the reversion to £3,450.

MEDICAL DEFENCE UNION.—A meeting will be held in the Medical Library of the University College, Bristol, on Wednesday, October 4th, when Professor Victor Horsley, President of the Union, Dr. Leslie Phillips, one of the Honorary Secretaries, and Dr. Garrett Horder will attend as a deputation from the above Union, and will point out its value to members of the medical profession. The chair will be taken by Dr. Markham Skerritt, at 8 P.M. All medical men are invited to be present.

DEATH OF MR. THOMAS HAWKSLEY.—Mr. Thomas Hawksley, F.R.S., who died on September 23rd, was born at Nottingham in 1807. He was one of the most eminent of the sanitary and water engineers of the present century, and some of the undertakings in which he had a hand are worthy of comparison with the great achievements of the Romans. His chief claim to remembrance will be his strong support of the constant system of water supply, which has done more to prevent the dissemination of disease by town water supplies than any other single principle. Mr. Hawksley was one of the oldest members of the Institute of Civil Engineers, and acted as president for two years 1871-73.

VACCINATION GRANT.—Mr. John Buckenham, L.R.C.P.Edin., public vaccinator of the Borough of Cambridge, has been awarded for the fourth time the Government grant for efficient vaccination.

MEDICAL VACANCIES.

The following vacancies are announced:

BETHLEM HOSPITAL.—Two Resident Clinical Students, doubly qualified. Apartments, rations, and attendance provided. Applications endorsed "Clinical Assistantship," to the Treasurer, at the Bethlem Hospital, by October 2nd.

BELGRAVE HOSPITAL FOR CHILDREN, 79, Gloucester Street, S.W.—House-Surgeon. Board and lodging provided. Applications to the Honorary Secretary by September 30th.

EAST LONDON HOSPITAL FOR CHILDREN, Glamis Road, Shadwell, E.—House-Physician. No salary. Board and lodging provided. Applications to the Secretary by October 5th.

FULHAM UNION.—Assistant Medical Superintendent, unmarried, doubly qualified. Salary, £100 per annum, increasing £10 yearly to £130, with board, furnished apartments, attendance, and washing. Applications, on forms to be obtained of the Clerk, to T. Aplin Marsh, Clerk to the Guardians, Union Offices, Fulham Palace Road, Hammersmith, W., by October 14th.

HACKNEY UNION.—Medical Officer for the Sixth District, doubly qualified. Salary, £80, with usual medical fees and fees for visiting pauper lunatics. Applications to J. Owen-Perry, Clerk to the Guardians, Clerk's Office, Hackney Union, Sidney Road, Homerton, N.E., by October 3rd.

LEEDS UNION.—Medical Officer for the No. 4 District. Salary, £120 per annum and fees for surgical and midwifery cases, and vaccination. Applications endorsed "Applications for Medical Officer," to John King, Clerk, Poor-Law Offices, East Parade, Leeds, by October 3rd.

LEITH HOSPITAL.—House-Physician, House-Surgeon, and Surgeon for the Out-patient Department. Appointments for six months. Salary attached to each office is at the rate of £50 per annum, with board in the hospital. Applications to the Secretary, Mr. George V. Mann, 33, Bernard Street, Leith, by September 30th.

LIVERPOOL NORTHERN HOSPITAL.—Resident House-Surgeon's Assistant. Appointment for six months. No salary. Hospital practice and certificate of attendance, and board and lodging given for services. Applications to the Chairman by October 5th.

MANCHESTER CLINICAL HOSPITAL FOR WOMEN AND CHILDREN, Park Place, Cheetham Hill Road.—House-Surgeon. Salary, £80 per annum, with apartments and board. And Honorary Assistant-Surgeon. Applications to Mr. Hubert Teague, Secretary, 38, Barton Arcade, Manchester, by September 30th.

PARISH OF GLENELG.—Medical Officer for the Southern Division. Salary, £120 per annum, with free house. Applications to D. McLure, Inspector of the Poor, Glenelg.

PARISH OF ST. LEONARD, Shoreditch.—Second Assistant Medical Officer for the Infirmary, Hoxton Street, N., doubly qualified. Salary, £40 per annum, with rations, furnished apartments, and washing. Applications to the Medical Officer, 204, Hoxton Street, London, N.

PORTUMNA UNION, No. 2 Dispensary District.—Medical Officer. Salary, £40 per annum, with £5 yearly as Medical Officer of Health, together with registration and vaccination fees. Applications to Mr. L. Taylor, Honorary Secretary. Election on October 7th.

ROTHERHAM HOSPITAL AND DISPENSARY.—Assistant House-Surgeon. Rooms, commons, and washing provided. Appointment for six months. Applications to the House-Surgeon by October 19th.

ST. MUNGO'S COLLEGE, Glasgow.—Chair of Chemistry. Applications with thirty copies of testimonials, to the Secretary, H. Lamond, by October 2nd.

SALISBURY INFIRMARY.—Dispenser. Salary, £105 per annum, out of doors. Applications to the Secretary, by October 13th.

WARNEFORD HOSPITAL, Leamington Spa.—House-Surgeon; unmarried; doubly qualified. Salary, £100 per annum, with board, lodging, and washing. Applications to J. Warren, Secretary, by September 30th.

WESTERN DISPENSARY, Rochester Row, S.W.—Resident Medical Officer, unmarried, doubly qualified. Salary, 100 guineas per annum, with furnished rooms, coals, gas, and attendance. Applications to the Secretary by October 5th.

MEDICAL APPOINTMENTS.

BERRIDGE, Wm. Robert, M.R.C.S., L.R.C.P.Lond., appointed Medical Superintendent of the Infectious Diseases Hospital of the Blaby Rural Sanitary Authority.

BOREHAM, Frank Squire, L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the No. 5 District of the Market Harborough Union.

COWPER, John, M.B., C.M.Edin., appointed Medical Officer of Health to the Shanklin Local Board, *vice* George Hy. Dabbs, M.D.Aberd.

CRAIG, James, M.B., C.M.Edin., M.R.C.S.Eng., reappointed Medical Officer and Public Vaccinator for the Biddulph District of the Congleton Union.

DOUGLAS, Archibald Robertson, L.R.C.P., L.R.C.S.Edin., M.P.C., appointed Assistant Resident Medical Officer at the Royal Albert Asylum, Lancaster.

ECCLES, Herbert Annesley, M.B.Lond., M.R.C.S., appointed Assistant Resident Medical Officer at the London Fever Hospital, Liverpool Road, N.

EVANS, E. R., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer of Health for the Newcastle-in-Emlyn Union, *vice* Hy. Harries Davies, M.R.C.S.Eng., resigned.

GIBBON, J. G., M.B., appointed Medical Officer for the Twelfth District of the Wisbech Union.

GOULD, J. Edwin, M.D., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer of Health for the Borough of Chesterfield, *vice* John Bluett, M.R.C.S.Eng.

HOFFMEISTER, William, M.D.Heidelb., L.R.C.P.Lond., M.R.C.S.Eng., re-appointed Medical Officer of Health to the Cowes Port Sanitary Authority.

HOGG, John A., M.R.C.S.Eng., L.R.C.P., appointed Resident Medical Officer to the Birmingham Workhouse Infirmary.

HUNTER, Charles, L.R.C.P., F.R.C.S.Edin., appointed Medical Officer for No. 2 Dispensary, Carrickmore, *vice* William John Leitch, L.R.C.P., L.R.C.S.Edin.

JACKSON, John William, L.R.C.P.Edin., M.R.C.S.Eng., appointed Medical Officer for the Winchmore Hill District of the Edmonton Union.

KEMPE, Charles Marshall, M.R.C.S., L.S.A., reappointed Medical Officer of Health for the Shoreham Urban Sanitary District and Port.

LEITCH, William John, L.R.C.P., L.R.C.S.Edin., appointed Medical Officer to the Clogher Workhouse.

LYON, A. C., M.D., appointed Medical Officer for the Waterbeach District of the Chesterton Union, *vice* Herbert Shelmerdine, M.B., C.M.Edin., resigned.

MAGORIS, Wm. Owen, L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Shelford District of the Chesterton Union, *vice* John A. Ramsay, L.R.C.P.Edin., M.R.C.S.Eng., resigned.

MOORHEAD, Gustave H., appointed Medical Officer for the No. 15 District of the North Bierley Union.

MURRAY, George R., B.A., M.B.Cantab., M.R.C.P.Lond., appointed Professor of Comparative Pathology in the University of Durham.

NOLAN, Michael James, L.R.C.P., L.R.C.S.I., appointed Resident Medical Superintendent to the Downpatrick Asylum.

PEAKE, Wm. Pemberton, L.R.C.P.Lond., M.R.C.S.Eng., reappointed Medical Officer for the First District of the Leicester Union.

PRICHARD, R., M.D.Glasg., appointed Inspector of Nuisances to the Glamorgan Rural Sanitary Authority.

PRIDHAM, Chas. Fortescue, B.A.Cantab, M.R.C.S.Eng., L.R.C.P.Lond., appointed Medical Officer for the Tenth and Eleventh Districts of the Wycombe Union, *vice* B. S. Browne, L.R.C.S., L.R.C.P.Edin., resigned.

PRIDIE, Hugh Hampden, M.B., C.M.Edin., appointed Medical Officer for the Wandsford District of the Stamford Union.

PRIESTLEY, James, B.A., M.B.,(R.U.I.), D.P.H.(R.C.S.Eng. and P.Lond.), appointed Assistant Medical Officer of Health for Paddington, W.

STEWART, John, M.B., C.M.Glasg., appointed Medical Officer for the Soothill Upper District of the Dewsbury Union, *vice* Thomas Laird, M.B., C.M.Glasg., resigned.

STONHAM, H. A., M.R.C.S., L.R.C.P., appointed Medical Officer to the Ratcliff Workhouse.

THOMAS, Thomas William, M.R.C.S.Eng., L.S.A., appointed Medical Officer for the Caerphilly Urban Sanitary District of the Pontypridd Union.

TWEEDY, Charles, M.R.C.S.Eng., appointed Medical Officer of Health for Northallerton.

WATSON, David, M.B., C.M.Glasg., appointed Medical Officer for the Eleventh District of the Wisbech Union.

WATSON, R. H., M.A., M.B., C.M., appointed Assistant Physician to the Inverness District Asylum.

WEBB, J. B., M.R.C.S.Eng., L.R.C.P.Lond., appointed Surgeon to the Bristol Dispensary.

YUILL, John, M.B., C.M.Glasg., appointed Medical Officer to the Local Lodge of Oddfellows at Kincardine, *vice* John Morris, M.B., C.M.Glasg.

DIARY FOR NEXT WEEK.

MONDAY.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN, Leicester Square, 5.30 P.M.—Dr. Morgan Dockrell: On Tuberculosis of the Skin.

WEDNESDAY.

OBSTETRICAL SOCIETY OF LONDON, 8 P.M.—Specimens will be shown by Dr. Maclean, Dr. Eden, and others. Dr. Boxall: Fever in Childbed. Part II. The Relation of External Meteorological Conditions to the Incidence of Febrile Illness in Childbed.

FRIDAY.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY, West London Hospital, 8 30 P.M. Opening address by the President. Dr. Donald W. C. Hood: Typhoid Fever, with special reference to Points in Diagnosis and Treatment.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 8s 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTH.

DEVIS.—On September 24th, at 160, Wells Road, Bristol, the wife of H. F. Devis, M.R.C.S.Eng., L.R.C.P.Lond., of a son.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Hours of Attendance.*—Daily, 2. *Operation Days.*—Tu. S., 2.

CENTRAL LONDON OPHTHALMIC. *Operation Days.*—Daily, 2.

CHARING CROSS. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M., 1.30; Dental, M. W. F., 9; Throat and Ear, F., 9.30 *Operation Days.*—W. Th. F., 3.

CHELSEA HOSPITAL FOR WOMEN. *Hours of Attendance.*—Daily, 1.30 *Operation Days.*—M. Th., 2.

EAST LONDON HOSPITAL FOR CHILDREN. *Operation Day.*—F., 2.

GREAT NORTHERN CENTRAL. *Hours of Attendance.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Ear, Tu. F., 2.30; Diseases of the Skin, W., 2.30; Diseases of the Throat, Th., 2.30; Dental Cases, W., 2. *Operation Day.*—W., 2.

GUY'S. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 1. *Operation Days.*—(Ophthalmic), M. Th., 1.30; Tu. F., 1.30.

HOSPITAL FOR WOMEN, Soho. *Hours of Attendance.*—Daily, 10. *Operation Days.*—M. Th., 2.

KING'S COLLEGE. *Hours of Attendance.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, daily, 1.30; o.p., Tu. W. F. S., 1.30; Eye, M. Th., 1.30; Ophthalmic Department, W., 2; Ear, Th., 2; Skin, F., 1.30; Throat, F., 1.30; Dental, Tu. Th., 9.30. *Operation Days.*—M. F. S., 2.

LONDON. *Hours of Attendance.*—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, S., 9.30; Skin, Th., 9, Dental, Tu., 9. *Operation Days*—M. Tu. W. Th. S., 2.

LONDON TEMPERANCE HOSPITAL. *Hours of Attendance.*—Medical, M. Tu. F. 2; Surgical, M. Th., 2. *Operation Days.*—M. Th., 4.30.

METROPOLITAN. *Hours of Attendance.*—Medical and Surgical, daily, 9; Obstetric, W., 2. *Operation Day.*—F., 9.

MIDDLESEX. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Th., 1.30; o.p., M. F., 9, W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu., 9; Skin, Tu., 4, Th., 9.30; Dental, M. W. F., 9.30. *Operation Days.*—W., 1.30, S., 2; (Obstetrical), Th., 2.

NATIONAL ORTHOPÆDIC. *Hours of Attendance.*—M. Tu. Th. F., 2. *Operation Day.*—W., 10.

NORTH-WEST LONDON. *Hours of Attendance.*—Medical and Surgical, daily, 2; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operation Day.*—Th., 2.30.

ROYAL FREE. *Hours of Attendance.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Dental, Th., 9. *Operation Days.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Hours of Attendance.*—Daily, 9. *Operation Days.*—Daily, 10.

ROYAL ORTHOPÆDIC. *Hours of Attendance.*—Daily, 1. *Operation Day.*—M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Hours of Attendance.*—Daily, 1. *Operation Days.*—Daily.

ST. BARTHOLOMEW'S. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, W. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. *Operation Days.*—M. Tu. W. S., 1.30; (Ophthalmic), Tu. Th., 2.

ST. GEORGE'S. *Hours of Attendance.*—Medical and Surgical, M. Tu. F. S., 12; Obstetric, Th., 2; o.p., Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopædic, W., 2; Dental, Tu. S., 9. *Operation Days.*—Th., 1; (Ophthalmic), F., 1.15.

ST. MARK'S. *Hours of Attendance.*—Fistula and Diseases of the Rectum, males, S., 3; females, W., 9.45. *Operation Days.*—M., 2., Tu. 2.30.

ST. MARY'S. *Hours of Attendance.*—Medical and Surgical, daily, 1.45; o.p., 1.30; Obstetric, Tu. F., 1.45; Eye, Tu. F. S., 9; Ear, M. Th., 3; Orthopædic, W., 10; Throat, Tu. F., 1.30; Skin, M. Th., 9.30; Electro-therapeutics, Tu. F., 2; Dental, W. S., 9.30; Consultations, M., 2.30. *Operation Days.*—Tu., 1.30; (Orthopædic), W., 11; (Ophthalmic), F., 9.

ST. PETER'S. *Hours of Attendance.*—M., 2 and 5, Tu., 2, W., 5, Th., 2, F. (Women and Children), 2, S., 4. *Operation Days.*—W. and F., 2.

ST. THOMAS'S. *Hours of Attendance.*—Medical and Surgical, daily, exc. W. and S., 2; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Tu. F., 1.30; Children, S., 1.30; Dental, Tu. F., 10 *Operation Days.*—W. S., 1.30; (Ophthalmic), M., 2.30, F., 2; (Gynæcological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Hours of Attendance.*—Daily, 1.30. *Operation Day.*—W., 2.30.

THROAT, Golden Square. *Hours of Attendance.*—Daily, 1.30; Tu. and F., 6.30; *Operation Day.*—Th., 2.

UNIVERSITY COLLEGE. *Hours of Attendance.*—Medical and Surgical daily, 1.30; Obstetrics, M. W. F., 1.30; Eye, M. Th., 2; Ear, M. Th., 9; Skin, W., 1.45, S., 9.15; Throat, M. Th., 9; Dental, W., 9.30; *Operation Days.*—W. Th 1.30; S., 2.

WEST LONDON. *Hours of Attendance.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th. S., 2; Ear, Tu., 10; Orthopædic; W., 2; Diseases of Women, W. S., 2; Electric, Tu., 10, F., 4; Skin, F, 2; Throat and Nose, S., 10. *Operation Days.*—Tu. F., 2.30.

WESTMINSTER. *Hours of Attendance.*—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1; Eye, M. Th., 2.30; Ear, M., ■; Skin, W., 1; Dental, W. S., 9.15. *Operation Days.*—Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

LIGAMENT would be pleased to know how the roughened surfaces of the patella and tibia came together in the case mentioned by "Splint" and Dr. Ormsby, of Dover; as, according to his anatomical knowledge, the knee-cap is quite distinct from the shin bone, being united to the latter by the powerful ligamentum patellæ.

HUMANISED MILK.

J. H. writes: Having heard of the benefits of feeding infants on "humanised milk," I should be glad if some of your readers would inform me, through the BRITISH MEDICAL JOURNAL, how to prepare it.

REMOVAL OF DANDRUFF.

DR. J. DAVISON (Ballinakill) writes: I should feel much obliged if some of your correspondents will give me a prescription to get rid of dandruff in the hair; also one to prevent the hair falling out.

ESTABLISHMENT OF A DISPENSARY CLUB.

PAGAN asks for advice in starting a dispensary club (at the request of the clergyman, on behalf of his poorer parishioners) in a village of 500 inhabitants (chiefly agricultural labourers) distant four miles from his residence. He thinks of visiting the village regularly once a week, and charging six shillings a year for attendance and medicine on the regular day, or when in the village attending other patients, or at his home residence, with an extra "journey" charge of one shilling for visiting them on other days. Is this too little? or too much? What extra should he charge for urgent night journey? And what wage limit should he set?

THE "OYSTER SHELL HAND."

MR. J. LAWRENCE-HAMILTON (Brighton) writes: In some parts of the United States oyster fishermen or dredgers, owing to being wounded by the shell of the oyster and the putrefactive poison derived from the decomposed "fish," get on their hands one or more huge abscesses, usually situated beneath their nail or nails. This affection is described as a huge "felon," or a kind of general paronychia, or whitlow of the hands. The bones and tendons are often exposed, with possible loss of one or more fingers. The usual American treatment is deep and free lancing, and improvement of the general health.

I should be grateful if any of your readers could kindly inform me whether this disease is known in Europe, etc., and favour me with references to any authentic medical literature on this subject.

ANSWERS.

URETHRAL STRICTURE.

SEPTEM.—The subject is well treated of in Sir Henry Thompson's *Clinical Lectures of the Urinary Organs*, sixth edition, pp. 1-43.

MICROSCOPE FOR TECHNICAL EDUCATION CLASSES.

DR. J. ENCKER.—1. A student's microscope, costing about five guineas, will answer the purpose. Such an instrument may be obtained from one of the following makers: Messrs. Baker, High Holborn; Beck, 68, Cornhill; Crouch, 66, Barbican; Swift, 81, Tottenham Court Road; Stanley, London Bridge. 2. One of the firms above named would be able to provide a selection of microscopical specimens. 3. Our correspondent should have his diagrams drawn; we know of no suitable collection of such ready made.

DR. OGLE AND THE STATISTICAL DEPARTMENT.

L. D.—We have good ground for believing that Dr. Ogle will retire from the post of Statistical Superintendent in the Registrar-General's Department on October 31st next, on the completion of the Report on the Census in England and Wales in 1891. We see, moreover, no reason to doubt that his successor will be shortly appointed; neither have we

heard of any other candidates with claims for success equal to those of Dr. Tatham, of Manchester, Dr. Whitelegge, of the West Riding of Yorkshire, and Dr. Newsholme, of Brighton, whose names were mentioned in these columns some months since.

NOTES, LETTERS, Etc.

A Warning.

Dr. Sidney Davies (Plumstead) writes: A man is going about offering to sell corks at less than one-half Maw's price for the same quality. He only has, he says, twelve-gross bags. I compared one of his bags with a three-gross bag of Maw's, and found it only twice the size. He offered to count them before me, but I did not trouble him.

Treatment of Pruritus Ani.

Mr. C. Roberts (Curzon Street, W.) writes: I am sorry "Surgeon" has elicited no replies to his query. Has he tried Wright's liquor carbonis detergens in combination with glycerine, vaseline, or as a soap? I have found it a most useful remedy when combined with a long course of saline aperients, such as sulphate of magnesia, sulphuric acid, and infusion of roses. Boric acid and glycerine is also a useful remedy in temporary cases, as it is in all sorts of itching of the skin.

The Lay Press on the Treatment of Cholera.

An evening contemporary, after giving a long extract lauding the use of camphor in cholera, and detailing many things as to its imagined mode of action, ends by naively repeating the assertion of Dr. Rubini that out of upwards of 500 cases treated with camphor alone he did not lose one. And yet the editor does not seem to see the absurdity of the statement, nor does he put this joyful news in the column for facetiæ.

The Germs in the Shaving Brush.

A Cornish Shaving Brush writes: I live in a naval village of some two thousand inhabitants; a fine old village, which has had three Victoria Cross men in it at a time; and I am the village shaving brush. I am used for lathering the admiral, who has more medals than any other man in the navy. I sometimes have an easy job with a midshipman or a first class boy. I also lather our young country surgeon; he told me the other day that you have been making a fuss about the germs you say we carry from one customer to another. Well, my cousins in the French shops near Grosvenor Square can easily prevent such a calamity by doing as I did long ago, and asking the coiffeur, whose property they are, to dust the customers with boracic acid powder at 7d. per lb., instead of ordinary dusting powder, like any village babies, at 10d.

Latent Pleurisy.

Mr. B. Jones (Leigh, Lancashire) writes: In July a tall Irishman, about 5 feet 11 inches, walked into the Leigh Workhouse, and the following day complained to me of being unwell. On examination I found his left chest absolutely dull, and all the signs of pleuritic effusion. After a couple of days' rest in bed I aspirated him, and withdrew the enormous quantity of 176 ounces of fluid (nine pints except four ounces). I have several times removed five or six pints, but never before such a large quantity as this at one operation. The fluid was clear and free from blood, even at the last; the latter portions underwent spontaneous coagulation in the receiving vessel. There was still a little fluid left, but as the operation began to cause distress it was left in the chest. The man made a good recovery, but there was still dulness over the lower part of the back when he went out to resume work at the end of a fortnight. I wanted him to remain a week longer in hospital, but was unable to persuade him as he felt so well.

The Causation and Prevention of Cholera.

Dr. Johnson Martin (Bolton) writes: Mr. Ernest Hart's statement that you may eat or drink cholera, but you cannot catch it, is a dangerous doctrine. I have caught the disease by means of infected air in a cholera epidemic atmosphere several times, and seen it affect others. There is beyond any doubt cholera in our own country; we may not have it severely this year, but if it follows the course it has taken beforetime, we may have it severely next year. The present epidemic has been of a very bad type and carried off more than one-third of its victims in other countries. It is therefore imperative that we should use every effort to put this favoured country into as healthy a state as possible, and be prepared to use active and sound treatment to prevent the disease from spreading as it did in Hamburg last year.

Sanitary Work for the Unemployed.

Dr. William R. Parker (Kendal) writes: Now that the President of the Local Government Board is recommending local authorities to start public works for the special purpose of relieving the unemployed during the coming winter, allow me to suggest that you should use your influence, pointing out the advisability of some of these public works being of a sanitary kind. There is still scope for a vast amount of work throughout the country in improving the water supply of our towns, so that the sad experience of Worthing may not be indefinitely repeated. Improved systems of scavenging and sewerage are urgently needed in numerous places. Most large towns, and many small boroughs, have slums where physical, mental, and moral health can scarcely exist; and the cost of such nurseries of disease and vice and crime to successive generations must be considerable. The air of most towns must some day be improved by putting a check upon the clouds of smoke that are poured forth, as well as by devoting space to the cultivation of plants. The practical advantage of such sanitary schemes, and their remunerative value, should not be difficult to demonstrate.

Malarial Hæmatozoa in Mauritius.

Dr. D. E. Anderson (Paris) writes: The following letter from Professor Laveran, of Paris, finally settles the disputed question of the existence of the malarial hæmatozoa in Mauritius. When, in the *Lancet* of August 20th, 1890, I announced the discovery I had made (during my visit to that island) of these parasites in the blood of malarial patients in the civil hospitals the accuracy of my statement was attacked by certain would-be critics out there, simply on the ground that they had never seen these bacteria, in spite of many researches for them. The result of my examinations had, on the contrary, left no doubt as to their existence in the blood of those patients I had seen. The question was referred to Professor Laveran, who, after waiting for two years, has at last received a few specimens from Mauritius, whereupon he bases the following verdict:—

"Dr. Anderson, My dear Confrère,—I thank you for the packet you have sent me. Among the preparations of dried blood which it contains many are bad and cannot be utilised for the research of hæmatozoa, but a few have been collected under satisfactory conditions, and I have seen in many of these last preparations the hæmatozoa of paludism (spheroidal pigmented bodies and crescentic ones). There is, therefore, not any doubt that this parasite exists in the island of Mauritius, and that it presents itself there under the same forms as in other paludic countries.—Yours devotedly,

"Paris, August 7th. "A. Laveran."

The Physiology of Pleasure.

John Pollock, M.B. (Eaglesham, Renfrewshire) writes: On reading your note on Dr. Bourdon's theory of the physiological nature of pleasure, it struck me that the constitutional effect of cocaine might be instanced as tending strongly to confirm that view. Some time ago, while suffering from a severe attack of toothache, I tried the local injection of half a grain of cocaine. In about ten minutes, as I expected, the toothache was relieved, but I was surprised to experience in its place a very marked sensation of pleasure lasting for a period of over an hour, this being accompanied by an increase in pulse rate, and some determination of blood to the skin. This, I suppose, is a usual effect of cocaine, but the point I wish to draw attention to is that the sensation I experienced was pleasure, the same in nature, though differing in degree, as I would have experienced from an emotional cause. I verified the above experience as an experiment when in my usual health, and again felt the same sensation of pleasure, which seemed to me to be identical with the pleasure one experiences, say, when anticipating the realisation of some strong desire. The analogy to tickling also struck me at the time I made the experiment.

Hereditary Tendency to Erysipelas.

Surgeon-Lieutenant-Colonel Locke (Harrogate) writes: A somewhat marked and interesting case showing the hereditary character of erysipelas having come under my notice, I think the history may be of some interest.

A private of the 3rd Suffolk Regiment reported himself as suffering from great pain of the right ear. Upon examination I found only a general swelling of that organ, with no constitutional disturbance. He was admitted into hospital, and upon my visit the next morning I found a blush of inflammation extending down the neck, and, seeing him later, it had extended to the ear. Being now suspicious as to its character I had him placed in the infectious ward. The next day the head, face, and neck were swollen, with distinctive signs of erysipelatous inflammation, which afterwards ran the ordinary course of phlegmonous erysipelas, and was followed by suppuration of the scalp, eyelids, and neck. Free incisions were made for its relief, poultices applied, beef-tea, eggs, and port wine, freely given, ammonia with bark every two hours, and a sedative draught at night; the affected skin was coated with tinc. ferri perch. The patient having passed into a critical stage his parents were communicated with. Up to this time I could not obtain any satisfactory history of its origin, but when his mother came to visit him she informed me "it was a family disease," herself on two or three occasions having had it, that her mother, as also her grandmother, were subjects of the disease.

Respecting the termination of the case I cannot report, as my duties with my regiment having ceased, I had to leave it in the hands of the army medical officer of the depôt.

Income Tax Assessments.

Mr. Joseph Affleck, jun. (Income Tax Agency, Manchester) writes: In this year all real property is assessed to the income tax, schedules A and B; and as any assessment now made is in force for five years, that is, till April 5th, 1898, it may be useful to your readers to consider the steps necessary to be taken in case any owner or occupier is dissatisfied with the amount at which he is assessed.

Well, the first step to be taken in the event of the assessment requiring adjustment is to at once, on receipt of notice of assessment, call upon the surveyor of taxes and produce evidence of rental, or annual value and poor rates, when in most cases an appeal to the commissioners will not be requisite. However, if the surveyor does not make a sensible reduction, and the person really feels he is over-assessed, he must appeal to the commissioners at the time and place specified on the notice of assessment.

The commissioners now become a court of appeal, and before them at the appointed time appears the appellant who complains of over-assessment. He is not allowed to appear by barrister or solicitor, or persons practising the law, but he can tell his own tale, and advance his own opinions and reasons for thinking he is over-assessed, or he can be represented by a duly authorised agent. The surveyor of taxes appears for the State, and produces evidence and gives his reasons for supporting the assessment, and on the evidence before them the commissioners give their decision, and they may either decrease or increase the assessment appealed against.

Schedule D, assessments in respect of annual profits or gains. As the time has arrived for the issue of these not too welcome documents, I would remind those taxpayers who consider themselves over-assessed that they have the right to appeal to either the general or special commissioners, on giving notice to the surveyor of taxes within ten days from the date of notice of assessment.

In case of appeal, income has to be proved by production of accounts, which should be for the three preceding years, and copies thereof must be forwarded to the surveyor, who will in due course notify appellant of time and place for hearing appeal. And if, on the hearing,

the commissioners are satisfied as to the correctness of the figures produced, they will straightway adjust the assessment.

Further, if on the preparation of the accounts the appellant finds that he has not realised the profits in 1892 upon which he was charged, before the result of the year's trading was ascertained, it is open to him to claim and obtain repayment of tax overpaid.

Finally, as the signs of the times seem to indicate the probability of a repetition of the years 1867 and 1884, when an addition to the rate of the income tax was made in the autumn session, it behoves the taxpayer to be prepared.

Charcot and Hypnotism.

Dr. E. Mackey (Brighton) writes: *Apropos* of your able leader on "Charcot and Hypnotism," and your most interesting sketch of his life (August 26th), may I send you a few lines? *En route* for the Riviera eighteen months ago, I stayed in Paris specially to see how hypnotism was practised in reference to alcoholism, and, favoured with an introduction by Professor Ch. Richet, attended the clinic of Dr. Bérillon. I saw there and heard from him the history of certain cases that impressed me much, and went next day to the Salpêtrière expecting to have my favourable opinion confirmed. Dr. A. Voisin, indeed, showed me a very curious illustration, but when I passed to Charcot's room I found nothing of the kind going on; half the time passed in the examination of two spinal cases, with comments inaudible except to his clerk, and the other half in the drawing and modelling room in a discussion with the artist as to the proper proportion of the human figure, well illustrating your remarks as to apparent indifference to curative means as such, and as to love and understanding for art. Afterwards I had the privilege of a short conversation, and, telling him briefly what I had seen of hypnotism, asked his present view of it, and what it could do, for instance, in confirmed alcoholism. His answer was in few words: "Nous avons transi tout cela. M. —— est bon garçon, mais maintenant c'est une affaire d'argent. Je ne m'y mêle point." "But," said I, "surely you are the very author and first teacher of this method in Paris. Do you no longer practise it?" And in his answer the great man, in a few words and in the very quiet way you describe, gave me to understand that so much fraud and deception were being practised that he could not connect himself with it, and repeated, "Nous avons transi tout cela." I was much struck by this unexpected verdict from the "fountain head," which lessened my ardour in pursuit of the new knowledge, and I did not visit La Charité. I have thought of this often since, and especially at the time of Mr. Hart's articles on Hypnotism, and am reminded of it by your remark "that he felt less interest in its therapeutic value," and your account of his stately "indifference," and the absence of any trace of the charlatan. Let me add that I do not wish to imply that all work in this direction is "fraud and deception"—quite the reverse. Mr. Hudson's view as to the "subjective mind" in his book on *Psychic Phenomena* is well worth consideration.

"Prosecution of a Chemist:" A Correction.

Dr. Rodolph A. C. Burnes (Dublin) writes: In the British Medical Journal of September 16th there is a paragraph headed "Prosecution of a Chemist." Mr. Francis Leonard is not a chemist, but is a grocer, and has "provision stores, grocery, ironmongery, glass, and delft warehouse." He is a timber, slate, and tile merchant, a post office receiver, and manages a money order office.

Severe Symptoms after a Wasp Sting.

Mr. H. Saunders, M.R.C.S., etc. (Eton), writes: J. D., a gamekeeper, aged 25, on August 26th, 1893, at 1 P.M., was stung by a wasp about the centre of the inferior surface of the right half of his upper lip. The sting occurred while he was drinking some beer. About ten minutes afterwards his face began to swell, his knees, then his legs began to itch, causing him to remove his boots and stockings to see what was the matter. His wrists next itched, and this was followed by irritation of his whole body; described by himself "as if fleas were biting him all over; only worser." Then he hurried home, a distance of two miles, where he arrived holding his eyes open with his fingers in order to see his way, his face being much swollen; he frequently stopped to look inside his shirt and scratch himself. His skin was covered with a bright red mottled rash. He said that he was "starved with cold." He was faint, short of breath, and vomited. When I saw him three hours after the sting he felt better, his upper lip was about thrice its normal size, the face puffy, the tissues around his eyes œdematous, and the blue bag had been used freely over various parts of his body. He sat in a chair, and appeared exhausted. His pulse was 90, and very feeble; his temperature normal. The sting was not found. The rash had faded from his trunk, but was well marked on his arms. His lip was bathed with strong solution of ammonia, which we recognised as hartshorn; quickly the pulse improved, and he felt relieved. Thereupon he washed his mouth frequently with a solution of carbonate of soda, and took 3j doses of spt. ammon. aromat. in water every four hours. The next night he had a slight relapse, but in two days after the sting was quite recovered. *Remarks:* He had recently been stung by a wasp on the ear, and on his leg, the result being only slight local swelling and pain. The sting of a wasp is considered to be more severe when the insect is under the influence of alcohol.

A New Medical Fund.

Dr. W. W. Millard (Edinburgh) writes: In the British Medical Journal of September 2nd, many will have read with sorrow of the case of the late Dr. Fisher, whose widow and children were left quite destitute. Such cases must continually occur amongst those of us whose lives are spent in a working class district, where very much is done for charity; but it seems to me that the time has come for sympathetic co-operation, so that the widows and orphans, instead of having to trust to the charity of others, shall have a direct claim on a fund for their benefit, and thus do away with much unmerited misery. I would propose that such a fund should be started next year in three ways: (1) Bazaars should be held in various centres of the country, and that every individual medical man should endeavour to get work from his well-to-do patients for that purpose; (2) that the rich should be asked for donations for the same purpose; (3) that every medical man in Great Britain, whether married or single, should pay at least one guinea per annum towards the funds, which shall give his widow or orphans a direct claim on the funds.

Of course certain restrictions would need to be made, such as a widow remarrying, or the orphan reaching 21 years of age, and possibly that a widow left with over £150 per annum, unless with several children, should not have a claim allowed. But such regulations could easily be made after a nucleus to such a fund was once obtained. Though our wealthy brethren may not much benefit by this scheme, surely they will willingly stretch out a helping hand for their struggling and less fortunate brothers, and thus do away with what I think is a perpetual scandal to the most noble and self-sacrificing of all professions.

LETTERS, COMMUNICATIONS, Etc., have been received from:

(A) Mr. N. E. Anderson, Acton; Mr. R. Arthur, Amble; Dr. W. I. Andriezen, Wakefield; A. Ashby, M.B., Reading; Mr. W. Anderson, London; Mr. J. P. Ashton, Eccleshill. **(B)** Sir J. Crichton-Browne, London; Mr. T. B. Browne, London; Mr. E. C. Baines, London; Messrs. O. Bruster and Co., London; Dr. A. T. Brand, Driffield; Dr. T. R. Bradshaw, Liverpool; Messrs. W. J. Bush and Co., London; Mr. W. Bratt, Shipston-on-Stour; Mr. J. Buckenham, Cambridge; Dr. E. A. C. Baylor, Dover. **(C)** Dr. M. Cameron, Glasgow; J. J. Clarke, M.B., London; Dr. A. H. W. Clemow, London; W. J. Cleaver, M.B., Sheffield; Cornish Shaving Brush. **(D)** D.P.H.; Mr. J. Davison, Abbeyleix; Dr. T. S. Dowse, London; Disgusted; Mr. S. Davies, London; Mr. H. F. Devis, Bristol; Dr. A. T. Davies, London; Mr. A. R. Douglas, Beverley; Mr. D. L. Davies, Criccieth. **(E)** Messrs. Evans, Lescher, and Webb, London; H. A. Eccles, M.B., London. **(F)** Dr. A. F. Fergus, Glasgow; Fairplay. **(G)** Dr. J. G. Garson, Nottingham; Dr. H. S. Gabbett, Eastbourne; G.H.M.; Dr. J. Griffiths, Cambridge. **(H)** Dr. W. Hunter, Nottingham; Dr. R. G. Hebb, London; Mr. J. A. Hogg, Birmingham; Mr. H. N. Hardy, London; Dr. A. C. Hartley, Bedford; Healing; Mr. W. P. Herringham, Deal; Mr. C. J. Harford-Battersby, London. **(I)** Inquirer. **(J)** Mr. H. Jenner, Clifton; J. E. Jones, M.B., Chorley; Justice; Mr. F. B. Jessett, London; J. H. **(K)** Dr. G. C. Kingsbury, Blackpool. **(L)** Lex; Mr. J. Lawrence, Morpeth; Mr. W. J. S. Ladell, London; Mr. H. K. Lewis, London; Ligament; Mr. J. Lawrence-Hamilton, Brighton. **(M)** Messrs. McKesson and Robbins, New York; Mr. N. S. Manning, Middleton; Mr. J. McOscar, Watlington; Mr. P. A. Murray, Glasgow; Member; G. R. Murray, M.B., Newcastle-on-Tyne; Mr. J. H. S. May, Plymouth; Dr. E. Mackey, Brighton; Mr. F. W. D. McGachen, Rugby; Dr. A. C. Miller, Fort William; Dr. C. M. Moullin, London; M.R.C.S.; Dr. G. B. Mead, Newmarket; M.D.; E. L. Marsh, M.B., Glasgow; M. B. M. Assoc.; Mr. R. Matthews, Bath; D. A. MacGregor, M.B., Huddersfield; J. D. L. Macalister, M.B., Forfar. **(N)** Mr. J. H. Nicholas, London; Notification. **(P)** Mr. J. W. Pearce, Brighton; W. E. Peacock, M.B., Felling; Dr. W. M. Parham, Brecon; Dr. C. Porter, Stockport; Pagan. **(R)** Messrs. Rivington, Percival, and Co., London; Mr. C. Roberts, London; Mr. R. H. F. Routh, Bridgwater; R. B. **(S)** Mr. F. T. Simpson, London; Mr. G. Stead, Walsall; J. Smith, M.B., Mauchline; Dr. R. Saundby, Bavono; Surgeon-General Retired; Dr. H. Snow, London; Dr. F. Stockwell, Bruton; Sydney; Mr. J. S. Swain, London; Student; Mr. A. Sutcliffe, Burnley; Dr. E. M. Skerritt, Clifton; Dr. C. J. Symonds, London; Mr. R. B. Sealy, Stockport; C. W. T. Stephenson, M.B., Aberdeen; Mr. A. Stradling, Watford; Dr. R. W. Savage, London; Mr. B. N. Stanton, Chorley. **(T)** Mr. W. Thompson, Leeds; Mr. C. W. Thorpe, Todmorden; Mr. H. Taylor, Chester. **(W)** Dr. E. Willett, London; *Westminster Budget*, The Editor of the, London; Mr. T. S. Wilson, Birmingham; Mr. R. H. Watson, Inverness; Mr. G. E. Williamson, Newcastle-on-Tyne; J. R. Watson, M.B., Morpeth; G. J. Williams, M.B., Huddersfield; Mr. A. H. Watson, Worcester. **(X)** X. Y. Z.; etc.

BOOKS, Etc., RECEIVED.

Sanitary Work in the Smaller Towns and in Villages. By Charles Slagg. London: Crosby, Lockwood, and Son. 1893. 3s. 6d.

A Manuel of Medical Treatment or Clinical Therapeutics. Vol. I and II. By Dr. I. Burney Yeo. London: Cassell and Co. 1893. 21s.

Zur Ætiologie der Idiotie. Von Hermann Piper. Berlin: H. Kornfeld. 1893.

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Ein dermatologisches System auf pathologisch-anatomischer (Hebra'scher) Basis. Von Dr. S. Jessner. Hamburg: Leopold Voss. 1893. M. 1.80.

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*** **In forwarding books the publishers are requested to state the selling prices.**

SIXTY-FIRST ANNUAL MEETING

OF THE

BRITISH MEDICAL ASSOCIATION

Held in NEWCASTLE-ON-TYNE August 1st, 2nd, 3rd, and 4th, 1893.

SECTION OF MEDICINE.

W. M. Ord, M.D., F.R.C.P., President, in the Chair.

DISCUSSION ON CHRONIC GLYCOSURIA IN MIDDLE AND ADVANCED LIFE.

I.—By Sir Dyce Duckworth, M.D., LL.D.,

Physician and Lecturer on Medicine, St. Bartholomew's Hospital; Honorary Physician to H.R.H. The Prince of Wales.

Introduction.

It is now generally recognised that the presence of glucose in the urine does not necessarily betoken the morbid condition known as saccharine diabetes. The recognition of this fact is due to the frequent and almost systematic examination which is now made of the urine of patients suffering from all forms of disease, and of that secretion in presumably healthy persons offering themselves for life assurance.

It may be safely assumed that none but the smallest quantities of glucose, as a rule, escape detection in the routine examinations made every day, and it is certain that in many cases nothing short of such a systematic investigation would have brought the fact to light, there being no obvious symptoms to warrant a suspicion of it.

It may further be affirmed that there is now a general agreement as to the graver significance of this condition in the young, and the lesser importance of it in the aged. The fact of glycosuria being established, there remains in every example of it a problem for solution, namely, to gauge its particular significance in the individual who is the subject of it. This inquiry must lead us to decide whether the condition is transient or temporary, whether it is accompanied by polyuria or not, or whether it is one of a train of symptoms betokening true saccharine diabetes.

I do not hesitate to say that such a determination is often a very nice one. The main difficulty is to decide in many cases where glycosuria, properly so-called, ends, and true diabetes begins, for where glycosuria is small in amount, fleeting and intermittent, and unaccompanied by marked diabetic symptoms, there should be little doubt as to the nature of the case. Our difficulties are greatest. then, in considering cases of chronic glycosuria, and it is with this class that I propose to deal to-day, and on which I invite your discussion and experience.

We are met at once by the question as to the unity of diabetes as a whole and as a disease. There is, indeed, room for varied opinions on this point. It may be truly said that our clinical knowledge of diabetes to-day is as nearly complete as can be. Opportunities for the study of it are only too frequent, and the best minds in medicine have been engaged in it for many years. Physicians, skilled both as physiologists and chemists, have laboured to unravel its mysteries, and yet our best conceptions, guided by their teachings, are certainly rather clinical than pathological. The exact pathogeny of all forms of saccharine diabetes is not yet fully disclosed to us. The dead-house will not reveal the secret, and the morbid histologist is still baffled as he examines section after section of each tissue by the best aids at his disposal. We better know what diabetes is not than what it is. Without doubt the best knowledge we have has come from the labours of such physicians as have been also trained physiologists, and we thankfully recall the debt we owe to such men as Claude Bernard and Pavy and some others. Without their efforts we should hardly be sure as we are that both the nervous system and the liver are gravely involved in the great majority of cases of diabetes. I therefore venture to believe that the final elucidation of the problems presented to us in glycosuria will come from the physiologist rather than from the clinicist, and that thus the key will come from the laboratory and not from the bedside; but the most likely investigator to solve our difficulties will be one who is at once familiar with disease and an adept in physiological research.

My standpoint to-day in the matter is that of the bedside observer, and I have nothing to import from the laboratory. We have, as physicians, to take note of the presence of glucose in the urine and to gauge its special significance in each case.

I put aside at once all cases which are plainly examples of saccharine diabetes, accompanied by classical symptoms, and which terminate sooner or later fatally. We recognise the acute forms, of especial malignancy in young persons, and the more chronic forms of middle life, still tending to death. We also recognise more or less distinctly the patients described by Lancereaux, as the fat and the lean diabetics, and agree generally that the prognosis is better for the former than for the latter. I am by no means prepared to follow that eminent observer in the belief that the pancreas is especially in fault in the case of the lean diabetic patient. I acknowledge that there is *post-mortem* evidence in favour of this view in respect of a small number of fully observed cases, wherein atrophy, fibrosis, fatty degeneration, abscesses, and calculous disease have been met with. But I also acknowledge my inability to prove the diagnosis during life; and I know that in many subjects of diabetes, with much wasting, the pancreas has been found in a practically normal condition. It is too large a generalisation, therefore, to affirm that in cases with much wasting we have certainly to deal with a diseased pancreas. In such cases we should expect to meet with fatty stools, but such are most rare in diabetes. A careful research on this point was conducted not long ago by my much regretted junior colleague, Dr. Tilden, at St. Bartholomew's Hospital, and a diligent scrutiny of the condition of the pancreas in various diseases was made. The results tended to throw no light on any connection between fibrosis of the pancreas and diabetes. Changes in the direction of fibrosis were found more particularly associated with phthisis and chronic interstitial nephritis. These observations[1] were made to determine the truth of M. Lépine's theory that the blood contains a glycolytic ferment during life, formed chiefly by the pancreas, which ferment is markedly deficient in diabetic blood, and due, presumably, to disease of the pancreas of coarse nature. Saundby, on the other hand, affirms that he has found the pancreas shrunken in all his cases of typical wasting diabetes. In cases of cancer of the pancreas it is not the rule to meet with glycosuria, though such has been noted.

We may fairly believe that, in spite of the facts we have on record, morbid conditions of the pancreas are inadequate to explain the occurrence of glycosuria and saccharine diabetes, also that many trophic changes would be found in this organ in other wasting diseases if they were looked for with care.

In respect of the fat diabetic patients (*diabète gras*), it is held by Lancereaux and others that the pancreas is not in fault, but at least in one instance disease of the pancreas has been met with.

A distinction has been drawn between the acute and chronic forms of diabetes solely in regard to the age of the patients, and the course followed by the disorder. The acute cases occur in the young, and the chronic in those more advanced in life; and, of course, rapid wasting may be looked for amongst the acute symptoms presented by the former. But this is hardly a safe generalisation, since acute cases may occur in persons who cannot be called young. We may yet take the lean and the fat diabetic patients as types into which many cases will fall, and we may fairly expect much wasting to be associated occasionally with pancreatic disease. Acute diabetes may occur probably in middle life as the result of nervous lesions, involving the floor of the fourth ventricle. And yet, again, we may meet with occasional glycosuria, or a persistent low grade of this, as the expression of digestive failure and inadequacy, where no plain signs of pancreatic disease are manifested, and no obvious nervous lesion is betokened. The question then still remains for us: Are all these to be reckoned as varieties of diabetes, and are we to

[1] *St. Barth. Hosp. Reports*, vol. xxvii. p. 171, 1891.

speak of diabetes as being present where there is no polyuria? I will therefore specially ask your attention to this point as one to be profitably debated. My own view is not to regard cases of glycosuria without polyuria, and without persistent wasting, as examples of diabetes. But I know, however, that some such cases may in time develop and manifest both these symptoms. In other words a mild glycosuria, at one time amenable to modified diet, may eventuate in chronic diabetes, which will ultimately destroy the patient.

I have to speak to-day more particularly of cases of this class. They have been termed "dietetic" glycosuria. When such come before us, each case demands special study. Exact diagnosis cannot be made at once. Family history and personal history must be had regard to, and a no less careful estimate of the vital integrity of the patient's textures must be made. In so far as all these are good, the ultimate prognosis is favourable, especially if there be a fine constitution and firm resistance in the tissues.

The subjects of chronic glycosuria in middle life may be of either sex. They are commonly persons of active habits, men and women of affairs, with good brain capacity. They are generally both muscular and inclined to obesity. Their appetites have been, or are, large, and they have generally taken alcoholic drinks in moderation, or in some excess. The onset of symptoms of failing health in these persons is not infrequently attributable to some nervous strain, such as anxiety, grief, heavy trouble, worry, or undue excitement. Overwork is often mentioned, but this commonly means irregular work, accompanied by mental anxiety or apprehension, and is apt to be assuaged by high living and good drinking. "High thinking and plain living" do not commonly lead to glycosuria. The first symptoms to claim attention are generally feelings of exhaustion, fatigue, and undue irritability. There may be no remarkable output of urine, and no undue thirst. Lassitude, mental incapacity, and early production of fatigue are the complaints brought to us. In women there may be some vulvar pruritus. In all such cases we should examine the urine for glucose. That secretion will be found of increased specific gravity, bright and clear, and uric acid crystals may rapidly form from it, and form a deposit of red gravel. Commonly there is no characteristic tongue of diabetes, no so-called "diabetic breath," no loosening of the teeth. The knee-jerks may be present. Some diminution of sexual desire and capacity may have been noticed. There is no extraordinary hunger. The skin is soft, and may readily perspire. The pulse is quiet, and commonly of high tension. The temperature is normal, and may even be subnormal. Sensations of heat may be felt, and even causalgia in the feet. There may be severe pains in various parts, evidently neuralgic, and especially in the back and loins, deep-seated, and so intense at times as to suggest aneurysm, or some new growth pressing on nerves. A sense of weariness in the back is sometimes complained of. One of my patients affirmed that he always knew by this symptom when he was passing sugar.

In a large proportion of these cases gout figures either in the family or in the personal history, and often in both. Such persons have been described as suffering from gouty diabetes. In at least half of my own private cases I have observed this. The ages have varied from 25 to 76, but the majority have come first under my notice in the fifth decade of life, the disease having, in many cases, been established some or many years previously. My experience agrees with that of Sir Alfred Garrod as to the general absence of articular gout, in such cases, any overt gouty symptoms having passed away as the glycosuria became established. This is a clinical fact of high importance. There may, however, be many minor tokens or characteristic indications of the gouty habit, such as fleeting articular or muscular pains, and occasional attacks of eczema. I have not met with any noteworthy tendency to furuncular or carbuncular troubles, certainly not with the frequency one used to be led to expect in such cases, and as was especially urged by Marchal (di Calvi). The tendency to formation, or excretion, of uric acid in the urine is indeed a marked feature in many of these cases. The phalangeal joints are often enlarged, and Heberden's nodes are not uncommon. Some authorities do not hesitate to consider such cases as examples of hepatic diabetes. Glycosuria in association with disorders of truly rheumatic nature is very rarely met with, but has been occasionally noted in cases of chronic rheumatic arthritis.

Let us now consider what factors we have to deal with in most of these cases. We have seen that chronic glycosuria is a disorder attaching to middle life, a period when the bodily textures are generally well-established in respect of nutritional rhythm. The highest working capacity has been reached, and the strain of life is heavily felt. There is more brain and nervous work, and less muscular energy is evolved at this period. The former necessitates somewhat free living, or a general failure promptly ensues; but large consumption of food, in default of well-regulated evolution of energy in all the tissues, leads to metabolic disturbances in the liver and other viscera, which tend to induce conditions favourable to urichæmia and goutiness. These are further determined or directed into evil channels by instability of the great nerve-centres, either by exhaustion or direct irritation, and we have distinct indications of articular or visceral gout. This line of argument affords, as I believe, an explanation, at all events, of the large class of cases of gouty glycosuria, and as the liver is certainly in fault in most, if not in all, cases of glycosuria, we may very fairly adopt the view, conceived and elaborated by you, Sir, that many of these cases, in all probability, represent a veritable gouty attack falling upon the liver. This will apply to those cases in which temporary glycosuria occurs, resulting, as it were, from a hepatic storm, accompanied by hyperæmia—a true fit of visceral gout. This view cannot be drawn out so as to include that larger class of cases where we meet, not with fugitive, but with an abiding glycosuria, even though the liver be largely involved and at fault in such instances. I am far from seeking to prove too much, and to run into a foolish generalisation at this point, for I have other experiences to reckon with.

It is not unlikely that in many cases the morbid process may start, not as in those we have just considered, from the periphery, as it were, that is, from irritations thrown on nerves in the line of the digestive tract and on the great glands of the abdomen, but from the brain centres, and so metabolic disturbances be engendered which shall lead to the passage of glucose directly into the circulating blood. I have already affirmed that morbid anatomy and histology have so far done next to nothing to help us in following out the course of the vicious circle, but I have, nevertheless, a firm conviction that we shall some day be wiser in respect of this knowledge, and that it will be shown that minute molecular changes in tracts of the basic brain centres occur, like blights, as it were, constituting areas of depressed nerve power severely interfering with trophic processes in a wide range of tissues. We can expect nothing so coarse in lesion as an ordinary sclerosing tract, for that would have been disclosed to us long ago. I may, perhaps, ask your pardon for venturing on anything so speculative, but in the darkness of our present noonday we are not shelving our great difficulties by such conduct if we keep an open mind, and rest little content with our present ignorance. And it is permissible to the clinical mind to speculate while the physiologist pursues with experimentation the production and disposal of the glucose he has before him in the laboratory. As clinicists we may be emboldened in our hypotheses by the successes already attained in this direction, for it may be that no laboratory experiments will ever help us with some of the problems presented by the human body in disease. These must, perhaps, be worked out on patients. And lest any foolish, or worse than foolish, persons may try to wrest what I say as favouring the abolition of vivisection, I declare myself the strongest advocate of such methods, and recognise to the full the infinite blessings that come from such pursuits as they are now conducted, all too few indeed, in this country.

I have already alluded to the fact that wasting is not a prominent symptom in glycosuria of persistent variety in middle life. In the case of fat diabetic patients the liver is held to be especially in fault, conditions of hyperæmia, or so-called congestion, being prevalent. But physiological teaching has hitherto indicated that it is in this organ we are to look for most, if not all, of the metabolic perversions which permit the escape of glucose into the blood.

There are not wanting facts to prove that glycosuria is in

some cases in close relation with excess of uric acid in the blood, and an associated, if not dependent, hepatic engorgement. Thus, a line of treatment which will rid the blood of excess of uric acid will simultaneously remove the glycosuria. We have an explanation of the recognised alternation of gout and glycosuria, as Haig has shown, in the varying states of the blood, as to urichæmia, which occur in many goutily disposed persons. And the same condition is invoked by Haig to explain the frequency of high tension in the arterioles in such patients. But the errors of metabolism may not always occur only in the liver. It is believed that they may arise in the muscular system, and so be diffused widely over the body.

The relation of chronic glycosuria to progressive granular disease of the kidneys must be mentioned. Dr. Ord appears to be more familiar with this association than I am. It might naturally be thought that gout played an active part in such cases, and it probably does. In one of my cases there was cessation of glycosuria, and the onset of polyuria, with urine of low specific gravity, but void of albumen. The sugar reappeared, and has remained ever since. There was no evidence of gout in this instance. Very slow wasting goes on, but the patient has the aspect of a florid and healthy Englishman, and though not capable of much physical energy, he yet works very hard and is little particular about his diet.

Cases in which albuminuria and glycosuria alternate more probably belong to the gouty class, and interstitial nephritis is likely to set in in such patients in due time.

It is an unwarrantable generalisation to assume that glycosuria in the cases under our consideration to-day is to be regarded as a result of urichæmia. This condition may explain many of the cases, but it fails to account for many more. We do well for the present to note what we are fairly certain of, and to confess our ignorance for the rest in hope of further knowledge by-and-bye.

It is an old observation that indulgence in alcoholic drinks was productive of diabetes. Willis, in 1674, attributed it to "the guzzling of strong wines, sadness, or long sorrow," and it is still believed by some, as by Dr. George Harley, that "by far the most common cause of hepatic diabetes in temperate climates is the habitual use of stimulants coupled with rich foods."[2] Were this so I cannot but imagine that glycosuria would be greatly more common than it is. I would rather believe that such habits are mainly accessory, and that other etiological factors are to be found in the overwrought condition of the great nervous centres which break down, and in associated trophic failure of wide distribution.

I have already noted the healthy aspect commonly presented by the subjects of chronic glycosuria. Such patients appear to be robust. They are stout and of large frame, are portly and often obese. Their complexion is ruddy. They not seldom look older than their years, and are apt to be prematurely grey haired. Their physical and mental powers are, however, not in relation with their appearance, which is deceptive. They bear fatigue badly; and are irritable and quick in temper. Capacity for business is lessened, and the strain of prolonged effort is soon felt.

In common with the subjects of pronounced saccharine diabetes such persons are very vulnerable, and injuries are specially dangerous for them and slowly recovered from. The risk of gangrene in wounds or hurts of the extremities is considerable, and even modern surgery, with its wondrous results, is very serious for such persons. And yet one sees remarkable recoveries which could hardly be expected in persons from whose textures gangrenous sloughs may be shed, and slow reparative processes eventuate in fairly sound textures. These are without question due to aseptic measures, and a full recognition of the glycosuric condition with appropriate constitutional treatment.

If cases of chronic glycosuria remain unrecognised or untreated, there may be predicted for the majority of them a steady failure of health. In the minor cases, or where the glycosuria is fugitive, it may be affirmed that treatment is hardly necessary, provided the patient is in all ways prudent. In the graver cases which prove rebellious to treatment, and in which progressive failure occurs, a condition of cachexia is apt to supervene, and the tenure of life becomes most uncertain. Probably in such cases we may rightly apply the term chronic diabetes, and yet we may fail to meet with some characteristic symptoms which are apt to betoken the approaching end in typical diabetes. The aceto-acetic reaction may not be present in the urine, and the knee reflexes may remain. Cataract is of extreme rarity in these cases. Vascular degeneration may occur, and it is not met with in the subjects of acute diabetes probably because they succumb before there is time for the occurrence of it. There is tendency to cardiac failure after a long progress of glycosuria, and this is sometimes encouraged by restricted diet and relieved by ordinary food, including saccharine matters. Such cases do not commonly pass into coma, as do subjects of diabetes under 40 years of age, but a semicomatose state may be met with where acute diseases overtake the patient, and prove rapidly fatal.

We may lastly and briefly consider in the following order the management and treatment of these cases—dietetic, medicinal, and hygienic.

And first with respect to diet. I consider it wrong to employ before patients of this class the term diabetes. As a rule, it is found that the dietetic treatment for pronounced diabetics is distinctly harmful. Wasting and discomfort rapidly ensue. If the glycosuria is but transitory, improvement will follow without any severe restrictions. In but few cases does the latter plan prove of lasting value. Moderate restriction is commonly advisable in respect of saccharine and starchy elements. It will generally be found that the patient is conscious of better digestion when the diet is not too strict, or when some relaxation is allowed.

It is always important to secure variety in the food taken. It is not advisable to curtail alcoholic drinks, the best of these being good Bordeaux and dry Moselle wines, diluted with water. These are commonly better than diluted whisky, which is so often prescribed, but the latter is allowable. Occasionally the glycosuria disappears with restricted diet, but more often is only subdued by it. I do not consider it advisable to employ opium in any form in these cases. I think the best results follow the use of alkalies given with ammonia in effervescence, and I combine with them cinchona and nux vomica. This plan may be carried out for ten or fourteen days in each month, the mixture being taken twice a day. I have a high opinion of the value of arsenic, and eleven years ago I published[3] a recommendation of it in these cases in doses of from 5 to 10 minims of Fowler's solution. I am pleased to find that Dr. William Murray, of this city, has a high opinion of arsenic as a drug for employment generally in diabetes. He recommends larger doses than I have ventured to give, and has reported instances illustrating the great value of it. I now employ, as he does, the acid solution with the liquor strychninæ and dilute nitro-hydrochloric acid, and have found this combination to prove a most excellent tonic in cases accompanied by languor and cardiac debility. Dr. Murray recommends restricted diet and codeine in the first instance, and looks to arsenical medication to complete a cure if persisted in. We owe him much gratitude for his encouragement in this procedure, and I am pleased to support his recommendation. There is, as yet, no exact knowledge as to the *ratio medendi* here. We all recognise the value of arsenic as a nutrient tonic, powerfully affecting the great nerve-centres, and promoting in them an increase of stability for evolution of nervous action. Arsenic in full doses may entirely destroy or annul the glycogenic function of the liver, leading, in excess, to fatty degeneration of that organ. In addition to this action, we may regard it as influencing the behaviour of metabolic processes in their intimate and molecular elements in the muscular as well as in the glandular systems. There are almost certainly other properties, germicidal and antiseptic, peculiar to this searching and far-reaching element. And yet we are unable to speak of it as a curative agent in any well-pronounced case of diabetes. It is, however, of supreme value in many of the cases we are considering to-day, and must not be dispensed with.

With respect to the general hygienic procedures which are proper for the subjects of chronic glycosuria, I may state that the best results follow from all efforts to lead regular and equable lives, so that the better the general health, the less is the inroad made by the disorder on the system. The action of the skin is of high importance, and has long been

[2] British Medical Journal, May 27th, 1893, p. 1098.

[3] *St. Barth. Hosp. Reports*, vol. xviii, 1882.

so recognised. The air of the sea and of the sea coast is less beneficial to these patients than that of inland plains and subalpine districts, and the former may be very injurious unless in mild and sheltered parts. The question as to the value of hydrotherapeutics in these cases is a very large one. In suitably selected examples benefit is to be obtained from courses of water drinking at many spas. The properties of the waters, however, whether saline, alkaline, sulphurous, or indifferent, can hardly be said to exert materially specific effects in respect of the measures of relief which may be gained in such cases. Country life and environment is better than urban life. Intense application to business, and worry consequent on it, must be avoided, and an equable life be led. Fatigue and exposure are to be shunned, and the pleasures of society must be curtailed if the disorder is to be kept in check. Prognostic opinion depends upon a consideration of the vital stamina and general nutrition of each patient, and no less upon a review of the family history and proclivities.

The cases associated with gout, as a rule, do best. The course of the disorder is essentially chronic, and we do well to remember, with Trousseau, that chronic diseases require chronic therapeutics. Advanced life may be attained with due care, and the end comes when such a degree of vulnerability is reached that the nervous system and the bodily textures can no longer do battle with the onset of acute diseases such as pneumonia and pleurisy, before which they rapidly succumb. Trifling traumatism may here, as in chronic diabetes, be the signal for a fatal degree of gangrene, and even an attack of honest gouty arthritis may take a malign turn, and eventuate in such gangrenous changes as may prove overpowering. To be aware of these serious possibilities is to be on our guard in all such instances, and with care and perseverance we may sometimes happily extricate these patients from the jaws of death.

There can be but few now before me who have not experience of cases such as I have tried to depict. We are here to gather knowledge and help from them, and I cannot doubt that my imperfect exposition, here and now, will preface a full and adequate debate upon the many points I have set forth, and which will not fail to be instructive and profitable to all of us.

II.—W. T. Gairdner, M.D.,

Professor of Medicine, Glasgow University.

Glycosuria for Thirty Years.

My intention in these remarks is not to discuss the general subject, much less to criticise the paper of Sir Dyce Duckworth, which I find to be a most precise and admirable summary of the state of the question up to date. But when it was communicated to me through the secretaries that a discussion was to take place in this Section on chronic glycosuria in middle life, it seemed to me a clear duty to place on record, in however imperfect a fashion, some of the facts of one case which has to my mind the unique distinction (apart from my very intimate personal relations with the subject of it) of being by far the most protracted case in my experience, and in other ways also interesting in its bearings on the general subject. The gentleman I allude to was in his boyhood and youth a remarkably vigorous, healthy-looking, and rather florid-complexioned person, who pretty early in life began to be rather corpulent in comparison with his brothers, a tendency which he inherited from his mother, who died at or under sixty years of age, while his father, a spare man with some bodily infirmities but no organic disease, lived to the very advanced age of 87. Looking back to my early recollections of his mother, it seems not very improbable—but the fact was never ascertained so far as I know—that she also may have been a glycosuric in middle life, for she died of a nervous affection ending with cerebral symptoms and coma, of which no very exact pathology was ever known to me. It is important, perhaps, to add that no overt form of gout occurs in the family history, but chronic rheumatism without any cardiac complication is not unknown. I must add, while dealing with negative points, that I do not think the disease in this gentleman can be traced to mental worry or anxiety, or indeed to any mental or moral cause at all, as my friend was a man of peculiarly sunny and happy temperament, and had at no time of his life, before or after the origin of his disease, experienced any inordinate mental strain. So far as bodily causes went, the glycosuria was first ascertained to exist in connection with an affection of one knee, which may have been a strain, or may have been rheumatic or gouty, but presented nothing that could be called characteristic. At this time (his age being perhaps a little over 30) he was placed under the care of the late Dr. Neligan, of Dublin, and was also seen occasionally by the late Dr. McDonnell, so that there can be no doubt of the essential facts, and I was led to understand that the diabetic character (that is, increased quantity with high specific gravity of urine) was sufficiently pronounced at times to cause him for some time to be very strictly dieted, and put upon a restricted allowance of liquids; but I do not know that opium or any of its derivatives was ever used. By-and-bye, in the course of years, these restrictions were gradually relaxed in favour of a reasonable and moderate care to avoid sugar, and use farinacea only with great care, but never amounting to complete abstinence. Still, although the diabetic element did not come into prominence later in life, I believe there may have been at times a tendency to excess, and whenever I had an opportunity of examining his urine (which was only occasionally) it never failed to show a large quantity of sugar. When this gentleman was, perhaps, about 40 years of age, it occurred to the Government of the day to suppress the department of which he was the head, by combining it with another, and he was asked to take the charge of the combined offices, with a considerable increase of responsibility, and at a corresponding advance of salary. But, knowing his own infirmities, and after consultation with his friends, he preferred to decline this proposal, and to retire upon a fairly liberal pension, which continued to be paid to him, I think, for fully twenty years. He got into the habit of spending his winters in the south of Europe, to avoid the cold of the winter, which was distasteful, if not injurious, to him; returning to Scotland, as a rule, in summer, when I never failed to see a good deal of him for a month or so. He lost weight, but not progressively, and not more than one would have said was good for him rather than otherwise. He still kept up a good deal of his activity of mind and body, though abandoning the long walks he used to be fond of when a young man. He had marked archæological tastes, and was never wearied in following up the most recent excavations in Rome and its neighbourhood, to which he was a most admirable amateur guide, known to very many of his friends and mine who visited Italy in his later years. Only he felt himself obliged latterly to use a carriage a good deal, as much walking fatigued him. This description applies to the very last winter he spent in Rome as much as to any other; only a few weeks before, in due course, he might have been expected to return to his friends here he was in what was considered to be fairly good health, when an attack of acute gout in the foot of a quite ordinary kind (being his first attack) came on and delayed his departure for a time. This attack ended, not, as usual in a first attack, in recovery, but in partial gangrene of the foot, which only after the very anxious and unremitting care of Dr. Drummond, of Rome, was at last got into a condition to appear to make it possible for him to return home. I shall not go further into details, but in the end the journey was accomplished with no little difficulty as far as London, where he had the advantage of consultation with several eminent medical friends, including Sir Dyce Duckworth; but no operation was considered advisable under the circumstances, and in the end he died of quite gradually supervening diabetic coma in the early autumn of 1889, at 63 years of age, having been glycosuric for certainly over thirty years, as above stated.

III.—Robert Saundby, M.D., F.R.C.P.,

Professor of Medicine, Mason College, Birmingham.

Glycosuria and Diabetes: Arsenic.

The title of the paper does not indicate a well-defined class, but includes, on the one hand, cases of chronic diabetes, and, on the other, cases of simple glycosuria. Undoubtedly glycosuria *per se* does not call for specific treatment by diet and and opium, but such cases should be watched, as in the majority of instances they develop diabetic symptoms later

on. With reference to the value of arsenic, it appears that the milder type of chronic cases yields so frequently to treatment that the use of any drug may be followed by good results. Therefore, while accepting the recommendation of Sir Dyce Duckworth, the point appears to me to be one which cannot easily be proved.

IV.—W. R. Thomas, M.D.,

Bournemouth.

Late Senior Physician to the Sheffield Public Hospital.

Mental Worry and Glycosuria.

I bring before your notice to-day two cases which I had under my care, now many years ago, in which the removal of mental worry was soon followed by cure, and the successful treatment of which has influenced my practice ever since. The first patient, about 50 years of age, had been a very hard worker, and had, by sheer industry and perseverance, raised himself to the highest position as a large manufacturer in Sheffield. Of late he had not felt equal to his work. He called upon me, and I found that he was suffering from glycosuria, and complained of the usual symptoms. I treated him in the ordinary way, by diet, medicine, etc., but he did not seem to improve much. As he had frequently talked about retiring, and as there was not any necessity for him to work, I recommended him to give up business at once, which he did. To my astonishment the sugar in the urine began gradually to disappear. I gave up prescribing remedies and diet, and in about three months the patient got quite well. The next case was that of a gentleman aged 45. He had family troubles, principally caused by the conduct of an unsteady son. He had all the usual symptoms of glycosuria, and there was a large quantity of sugar present in the urine. After due consideration this son was sent to Australia, and there he became a steady member of society. The home which previously had been a miserable one now became a home of happiness, and, as in the other case, the sugar gradually disappeared from my patient's urine. I gave up all treatment, and yet the patient got quite well. These two cases made me think, and ever since both in hospital and private practice in Sheffield and in my practice at Bournemouth, I have always been on the look-out for mental worry as a cause in every case of diabetes or glycosuria, and have been surprised at the frequency with which I have found it present. We have plenty of evidence of connection of the nervous system with the production of diabetes. *Post-mortem* examinations teach us that tumours or other diseases of the brain, especially near to the medulla oblongata produce it. Fractures of the back part of the skull have produced it. Experimental research teaches us that irritation of the floor of the fourth ventricle brings it on, so also does section of sympathetic in its course from head to liver. In the liver we find tumours and other diseases present accompanied by diabetes; but, on the other hand, we find them without any presence of sugar at all. In fact, we have not any evidence that disease of the liver produces diabetes. I find that one is apt to forget, in treating such diseases, that exercise is of prime importance; that when the human body undergoes great exertion the sugar is burnt up by the lungs owing to increased respiration; that even the muscles themselves use up the excessive amount of sugar; and that, with the aid of lungs and muscles, the body can throw off much of this material without calling in the aid of the kidneys. From the above observations you will notice that I have been desirous of bringing three matters before the notice of this Section—(1) The effect of mental worry on glycosuria; (2) the fact that glycosuria in the majority of cases is dependent upon some disease of the nervous system; (3) the great importance of lung work and muscle work in the treatment of this disease.

V.—C. R. Drysdale, M.D.,

Physician to the Metropolitan Hospital.

Over-Refinement in Diagnosis.

Dr. Drysdale thought that there was a tendency in modern times to divide diseases into too many compartments. In a debate in the Section of Medicine two years back on albuminuria it had been the fashion to say that albuminuria could be easily distinguished from Bright's disease. But he thought that neither in diabetes nor in Bright's disease was it possible to be so confirmed in prognosis, since cases of glycosuria constantly led to polyuria and albuminuria to pronounced Bright's disease. With regard to the prognosis of that fatal disease, diabetes, it was indeed rare to hear of a case like that given by Professor Gairdner, in which the patient had passed sugar for thirty years. His own impression was that scarcely any patients reached twenty years of glycosuria, and he had lately heard from several professional brethren that this was also their experience. With respect to treatment it was fortunate for a patient if he was able to purchase meat, for to live on low diet in this disease was a fatal error. In one case he had sent a poor patient out to New Zealand, where he could get meat thrice daily, and he was greatly improved in a short time. Exercise in the open air and doses of Dover's powder he had found of service. As to causation, drinking and high living and worry were all certainly in his experience causes of this disease.

VI.—Elizabeth Garrett Anderson, M.D.,

Physician to the Hospital for Women, Marylebone Road, London.

Duration of Diabetes.

Mrs. Garrett Anderson would have liked to get a more distinct idea of the difference, if it exists, between early diabetes and glycosuria. She had come to think that almost all cases of chronic glycosuria developed in time into cases of diabetes. She would have been glad to hear how Sir Dyce Duckworth explained the great difference in the pace of the disease in different cases, why in children under 10 the disease was almost always acute, while in cases over 50 it is usually more or less chronic. She had only known of one case in a young child that had not ended fatally in a few weeks or months. In this case the disease began after influenza, which may have modified its rate of progress. It had now lasted sixteen months. Dr. Gairdner's case of thirty years' standing was only a little longer than one under her care for nearly twenty years, in which there had always been a considerable quantity of sugar and some albumen. She expected the patient to die long ago, but she was still alive. For remedies she believed more in exercise, especially in the open air, than in strict diet or in drugs. The very strict diet was as a rule ill-borne, and could not be maintained.

VII.—E. Markham Skerritt, M.D., F.R.C.P.,

Physician to the General Hospital, Bristol.

Glycosuria and Diabetes.

Like my friend Dr. Saundby, I am unable to draw a definite line between chronic glycosuria and diabetes—between the presence of sugar in the urine without the usually recognised symptoms and its existence with such symptoms—for that I take it is the clinical distinction between the two conditions. For, first, I believe that a large proportion of cases of diabetes pass through an earlier stage of glycosuria, that is, sugar would be found if the urine were examined, but is not suspected, owing to the absence of symptoms, and it is only when its amount increases and thirst and polyuria are consequently established that the examination of the urine leads to its detection. There is sufficient evidence to prove this passage of glycosuria into diabetes. Again, diabetes does sometimes pass into glycosuria—perhaps on the way to complete recovery. Some years ago I saw from time to time, with a friend, a man who suffered from the ordinary symptoms of diabetes. Albumen at length made its appearance, together with the sugar, and we considered the outlook most unfavourable. However, after a time improvement began, and continued till both albumen and sugar permanently disappeared from the urine. With regard to chronic glycosuria, which is especially under consideration, my experience goes to show that this condition may have been in existence for more than twenty years, even where there is a marked family history of diabetes; that, during this period, it may, under special circumstances, such as pregnancy, alternate with diabetes, that is, from time to time thirst and polyuria may be temporarily developed, to disappear when the special aggravating cause is removed: and that the patient may habitually enjoy apparently robust health, with vigorous intellectual power and the capacity for an unusual amount of physical exertion. With all this, an indication that the

nutritive processes are not quite perfect may be given by the tendency of slight wounds not to heal by first intention. In the treatment of these cases the point to recognise is that we have to do with glycosuria and not with diabetes, that is, that the special symptoms which call for the usual treatment of diabetes—thirst, polyuria, and wasting—are absent, and that therefore the strict measures specially directed towards them are not indicated, and would, indeed, be positively injurious. Hence no severe limitation of the diet is desirable—a most difficult matter in diabetes; it is quite out of place in glycosuria—all that is needed is care to cut down to a certain extent the proportion of starchy and especially of saccharine food. Hence, also, opium and codeia are not needed, and are actually harmful, and patients may be allowed a full reasonable amount of enjoyment of life, both mentally and physically. Such cases, however, must be kept under careful supervision, in order that any tendency to aggravation of the condition may be met at once. The treatment of diabetes proper is not under consideration, but, as the administration of arsenic has been mentioned, I may say that in some cases of diabetes it has proved very useful in my hands.

VIII.—R. SHINGLETON SMITH, M.D.,

Senior Physician to the Royal Infirmary, Bristol.

TREATMENT BY ALKALINE WATERS.

DR. SHINGLETON SMITH spoke of the analogy between glycosuria and albuminuria and their relation to gout and liver conditions, and pointed out the frequency of glycosuria in connection with portal engorgement. He believed that a digestive incapacity for the amylaceous and saccharine food supplied was at the root of the condition, and this very fact possibly tended to ward off definite attacks of gout. In other cases hæmorrhage from piles might relieve the liver engorgement and so prevent or get rid of glycosuria. He alluded to the fact that the thirst pointed out the most useful method of treatment, and that the fluids should not be limited in quantity. The results of Dr. Donkin's skimmed milk treatment and the generally recognised utility of a course of mineral waters gave good evidence in favour of the practice of copious flushing with some one or other of the various mineral waters in common use. Whether the alkalies existing in most of these waters were an essential element in their composition was not proved with regard to the slighter cases of glycosuria, but the association of the latter with gout tends to show their utility. In the later stages it was more needful to counteract the tendency to acetonuria by flushing the alimentary canal with aperients and the tissues generally with alkaline fluids. He considered it to be a duty to get rid of the glycosuria by every means possible, and so prevent the passing symptom from becoming an established habit, leading to the more serious form of diabetes.

IX.—C. STENNETT REDMOND, L.R.C.P.& S.I.,

Gateshead-on-Tyne.

A CASE.

DR. C. S. REDMOND considered the term diabetes a misnomer; it would be less confusing to apply the term glycosuria to cases of saccharine urine, and to use the term polyuria in describing those characterised only by an increased secretion of urine without sugar. He had at present under observation a case presenting some rather interesting points:—

The patient, aged 61, was of full habit, robust appearance, and florid complexion. He was a bilious subject, a free liver, and took stimulants freely. He had led a very active life, and had had a good deal of mental anxiety for years. He was said to have had a slight apoplectic seizure two months before coming under observation, but the glycosuria had not been suspected. The salient symptoms were lassitude, fatigue, mental incapacity, moderate thirst, no greatly increased appetite. Pulse tension was markedly increased. The veins of one leg were very varicose. The quantity of urine in twenty-four hours was 90 ounces; specific gravity 1038; reaction markedly acid; sugar 4 grains in 3j; there was some eczema of penis regarded as gouty. He was placed on a moderately restricted diet, all sugar and starchy food being prohibited, and saccharin being used as a sweetening agent. He was allowed to drink freely of lithia water and milk, and restricted to two glasses of Manzanilla or Burgundy and one of old whisky daily. He was at first given an alkaline mixture with nux vomica and aromatic spirits of ammonia. Subsequently he took morphine, nux vomica, and croton chloral in pill thrice daily. After three weeks' rest at a hydropathic establishment there was a marked improvement in every respect. Subsequently he went a fourteen days' trip to Norway, but on his return the sugar had risen to 4,000 grains, and urine to 113 ounces, owing to the fact that the restricted diet had not been adhered to. Since its resumption he had markedly improved in every respect; the secretion of urine was reduced to 76 ozs., and the sugar, as estimated by Pavy's test, to gr. 1½ to 2 in 3j. He had gained in weight, could take walks with less fatigue, and his mental capacity was distinctly less impaired.

A point of interest in this case was the remarkable difference in the daily secretion of both urine and sugar, some days as high as 4,000 grs. in twenty-four hours, and 113 ozs. of urine, and a few days later under 1,000 grs. of sugar and 60 to 70 ozs. of urine.

X.—A PERSONAL HISTORY.

DR. F. E. said that he came before the meeting in quite a different aspect from the other speakers, as he was in the unfortunate position of a typical patient. He was 33 years of age in March, 1892, when he found that he had great thirst and polyuria. Urine, acid; specific gravity, 1044; 7 pints in twenty-four hours; no albumen; glucose, 8 grs. per ounce. He immediately commenced dieting, and the symptoms disappeared, excepting the presence of from 1 to 3 grs. glucose always present in the urine. The cause of the illness was probably mental strain and overwork, due to attempting the final F.R.C.S. examination at the same time as carrying on a busy practice and doing hospital work. There was probably some gout in the family; one uncle had suffered from it for years, and two brothers of the patient suffered from a peculiar occasional inflammation of the tendo Achillis due to excessive pressure from elastic boots; the patient had also one gouty nodule in a finger-joint. His medical adviser stopped his eating toast, remarking that it was worse than bread, as the starch was made more soluble by the baking. He was placed gradually upon the following:—℞ codeia, gr. 1½; ext. nuc. vom., gr. ½; ext. cascar. sagr., gr. 1; in pil., 1 t. d. s. The glucose had never entirely disappeared. A peculiar painful stiffness of the joints was noticed after a long rest, which entirely disappeared after a little movement. Weight had diminished from 9 st. 5 lbs. to 8 st. 8 lbs., but now remained steady. The patient could take plenty of exercise, and lately walked up and down the Rigi and Pilatus with comfort. There had never been any tendency in this case towards alcoholic excess, the patient having always been almost, if not quite, a total abstainer. The chief trouble at the present time was due to occasional bilious attacks, probably caused by the large amount of meat eaten three times daily.

XI.—HENRY HANDFORD, M.D., F.R.C.P.,

Physician to the General Hospital, Nottingham.

GLYCOSURIA AND DIABETES: DIET.

DR. HANDFORD thought that there were cases of glycosuria which could not fairly be called diabetes. For example, he had met with a case of abundant glycosuria during an attack of typhoid fever, the sugar completely disappearing from the urine during convalescence. Dr. Handford further alluded to cases of well-marked glycosuria with low or moderate specific gravity, namely, 1016 to 1025, some of the cases being temporary and others chronic. He quoted one which had existed for twenty years in a man aged 70, where the specific gravity fell to 1017, although the quantity of sugar was considerable. Although a rigidly-restricted diet generally relieved the most urgent symptoms at first, Dr. Handford's experience had been that it was practically never maintained for more than three or four weeks. Even the best intentioned and most amenable patients almost invariably deceived their physicians. Moderate restrictions in diet were, on all grounds, more judicious.

XII.—W. M. ORD, M.D. (President).

Physician and Lecturer on Medicine, St. Thomas's Hospital.

OUR best thanks are due to Sir Dyce Duckworth for the admirable way in which he has introduced to us a subject of great and growing importance. I am in full agreement with him in believing that, for purposes of prognosis and treatment, it is necessary to make a strongly marked distinction between the glycosuria of early life and of middle age. In early life, for the most part, glycosuria means true diabetes mellitus. It is unnecessary to say that the causes of this disease are very imperfectly known, and that rational treatment such as would be directed to the removal of the cause

cannot for the most part be attained. In the case of the older patients dealt with by Sir Dyce Duckworth, glycosuria must be regarded as a symptom rather than as a disease. Systematic and thorough examination has made us aware that a great many persons pass sugar habitually or intermittently in small quantities without increase in the quantity or even in the specific gravity of the urine. In a very large number of such cases the cause of the glycosuria can be reasonably inferred. I believe that we can recognise as such causes gout, active hyperæmia of the liver (however determined), affections of the pancreas, obesity, excessive nervous excitement and insanity, suppressed lactation, imperfections of digestion, errors in diet, heredity, and consanguinity. To these I should like to add a curious relation which I have observed to exist between glycosuria and angina pectoris. Do not let me induce you to suppose that I should draw a hard line between that glycosuria which constitutes diabetes and that which is purely symptomatic. Children may have transient glycosuria; their elders may have diabetes. The prognostic import of glycosuria must be estimated in the individual case. The amount of sugar passed daily, the amount of urine, the persistence of the condition, the effects of diet, the nutrition of the patient, and all correlations will have to be taken into account, I can only in the barest way indicate my views on this important subject, and venture only a few words as to treatment. The well-established fact that cutting off carbohydrates from the diet leads to a reduction of the quantity of sugar passed in the urine has tended to make us begin our treatment of glycosuria by the institution of such a reduction. From long experience I have come to the conclusion that the full exaction of such restraint is not necessary in symptomatic glycosuria; in fact, I believe it to be often harmful by producing of itself a tendency to emaciation. Indeed, I am of opinion that even in diabetes mellitus the full restrictions are injurious. In treating any case of glycosuria, it seems to me to be necessary to take the broadest primary view of all conditions to insure the closest possible personal investigation of the patient, and to remember that the passing of sugar is in the main a sign and warning. If by dietetic measures we appear to diminish the amount of glycosuria, we are still left to face and attack some cause of deeper import, which is the real disease.

XIII.—Sir Dyce Duckworth's Reply.

Sir Dyce Duckworth said that he was much gratified by the course the debate had taken. He had endeavoured to define in his address the main features that distinguished the cases in question from those of confirmed diabetes mellitus. It might be that some of the cases fairly included in this category should be regarded as examples of mild diabetes. Although glucose in small quantity was now proved to be a normal constituent of healthy urine, and slight variations as to the amount of this might hardly be serious, yet the fact of an appreciable quantity, detectable by ready clinical tests, demanded a watchful regard in all cases. He had stated that the conditions determining chronicity in any instance related to the constitution and proclivity of the particular patient. In the acute forms of diabetes in young people there was probably a sudden and rapidly induced loss of the powers that normally existed to prevent the entrance of glucose into the blood, and some of these cases were possibly due to heredity. He still believed that many of these cases described to-day could not rightly be regarded as examples of mild diabetes; their clinical features forbade this interpretation respecting them. They occurred in both sexes in middle life, but chiefly in men. The absence of thirst, of polyuria, and of wasting was surely very noteworthy. Muscular exercise in the open air he regarded as very beneficial, but care must be taken to guard against fatigue, and the patients should keep well within their powers. Alkaline waters were certainly of value, but too much must not be expected from hydrotherapeutics. It was better to employ these waters regularly each month than to take them for a few weeks only in each year, although much benefit was derived from resort to spas. Arsenic appeared to him of higher value than it had been credited with by some of the speakers. It was especially useful in glycosuric cachexia, and in the cardiac asthenia which was apt to supervene in the later stages, but even in the earlier stages it was often of great value. He had been interested in Dr. Ord's remarks as to associated symptoms dependent on arterial tension in some of these cases, and fully agreed with him as to treating the several phenomena presented in each instance, and viewing them in relation to the whole state of the patient. Thus, aperients, including mercury and alkalies, were often of use in combating some of the prominent symptoms presented by glycosuric patients. In conclusion, he urged the inadvisability of too rigid a dietary, which commonly did harm, and could never be carried out for more than a week or two at a time.

SECTION OF OPHTHALMOLOGY.

G. E. Williamson, F.R.C.S., President.

ATROPHY OF THE OPTIC NERVE AS A SYMPTOM OF CHRONIC DISEASE OF THE CENTRAL NERVOUS SYSTEM.

By THOMAS BUZZARD, M.D., F.R.C.P.,

Physician to the National Hospital for the Paralysed and Epileptic, Queen Square, London.

To the neurologist the presence of optic atrophy (it may be of an extremely slight degree) is very frequently a most valuable aid to his diagnosis. It may easily preserve him from describing and treating as a comparatively unimportant functional disorder a condition of most serious and progressive organic disease. It is of the last importance, therefore, to him that the conclusions which he draws from observations with the ophthalmoscope should be correct, and that he should be alive to the possibility of a fallacious interpretation of what he sees. His experience of ocular changes is after all a limited one, for his observations in this direction represent only one out of a number of modes of examination necessitated by his subject. To the ophthalmologist correctness in associating the observed lesion with pathological changes in the central nervous system may be of equal importance. It may often enable him to state with considerable confidence what is the probable future as regards his patient's sight. Interchange of knowledge and experience in our various spheres is therefore likely to be extremely useful.

Atrophy of the optic nerve is evidently a symptom, not a disease. Like "paralysis," it is the visible result of a structural change which itself depends upon something more properly entitled to be considered the disease from which the patient is suffering.

So far as our discussion is concerned, atrophy of the optic nerve is associated with sclerosis of the central nervous system. In my experience it is most frequently found associated with insular or disseminated sclerosis; next frequently in connection with fasciculated sclerosis of the posterior columns of the spinal cord (in tabes and general paralysis of the insane); least often with fasciculated sclerosis of the lateral columns.

I propose to discuss the optic atrophy in disseminated sclerosis and in tabes.

Disseminated Sclerosis.

In a typical case of disseminated sclerosis the following symptoms or, at least, most of them, will usually be found present, and there should be no difficulty in forming a correct diagnosis: More or less loss of power, especially of the lower extremities, with spasticity, great exaggeration of the tendon reflexes, and ankle clonus. There is often a general tremor when the patient attempts to stand. When the hands (or one of them) are sought to be used there is so much rhythmical tremor that more or less of the contents of a glass of water may be spilt in an endeavour to carry it to the mouth. When the movement is desisted from the arm remains still. The patient may complain of "pins and needles," "deadness" or "numbness" of the limbs, sensations of "coldness;" occasionally also pains in the limbs are described. Sometimes there is anæsthesia or hyperæsthesia,

but affections of common sensibility are not usually marked in any considerable degree. Occasionally there is muscular atrophy, with loss of faradic excitability in one or more limbs. Nystagmoid movements of the eyeballs are of frequent occurrence. More or less loss of power in an external muscle of the globe, causing diplopia, may either be present, or form part of the history. Very often an account is given of loss of sight in one eye which has possibly been recovered from, to be succeeded probably by a similar condition in the same or the other eye, from which recovery may or may not have taken place. On ophthalmoscopic examination there will frequently be found change of atrophic character in one or both discs. There may be incontinence of urine or fæces. Occasionally, but much less frequently than is commonly supposed, the articulation is marked by a peculiarity to which the term "scanning" is applied. The disease may have been ushered in by vertigo, or diplopia, and its march may have been tolerably steady and rapid, or may have been marked by slow progress, with frequent and often long continued intermissions, during which fallacious hopes of recovery will often have been entertained.

So much for what may be termed the "typical" form of disseminated sclerosis. But there is a form which is of extreme importance, especially in reference to the subject under discussion, from the fact that the patient is regarded perhaps for years as an example of "hysteria," and the serious organic disease underlying the hysterical symptoms is very frequently indeed overlooked. In this, which usually, but not invariably, affects the female sex, there is often a history of moral or physical shock, followed by loss of power in one or more limbs, aphonia, convulsive seizures, and alteration of manner of the kind which is termed hysterical.[1]

In this form of disseminated sclerosis the characteristic symptoms are usually but slightly marked, even though many years may have passed since the patient first complained of illness. Long continued intervals of apparent recovery are common. Loss of power in one or other of the lower extremities almost always figures in the history, and sometimes this is the only symptom. After an interval of exemption a recurrence of this has taken place immediately after a severe moral shock, and it is doubtless to this circumstance, coupled with the tendency in these cases to emotional manifestations, that the frequency of errors in diagnosis is due.

A female patient, aged 45, when walking up hill five years ago, found that the toes of both feet dragged. This passed off next day, but she occasionally reeled a little in walking. Three years ago, on the death of her grandmother, she became weak, and walked with difficulty. The power subsequently varied, but two years ago, on the death of her mother, she became much worse. In hospital we found diplopia, slight nystagmus, discs very pale and edges clearly cut, inner edge of disc of a dead-white colour. She had slight tremor of the arm on voluntary movement. In this case the ordinary symptoms of disseminated sclerosis were but feebly expressed. There was no spasticity of limbs, and no ankle clonus. The knee-jerks were well marked. The ophthalmic symptoms, however, gave conclusive evidence.

In another female patient there was a history of a fainting attack, following the discovery of a compromising letter, and a condition of nervous dread, from which she recovered. Two years later she was attacked with vomiting, and cramp in the sciatic districts, refused food, and was said to be dying. She suddenly recovered in twenty-four hours, and was completely well in six months. Two years later she had loss of power in both legs, and diplopia. Recovered in three months. Three years later more vomiting and loss of power, which again subsided, and she remained well till four years afterwards. Then, on the death of her husband, loss of vision and vomiting, and paralysis of right arm slowly developed. We found definite limitation of field of vision, and well-marked atrophy of both discs. Vision with the right eye was $\frac{6}{60}$, with the left $\frac{6}{12}$, Jäger 10 with each. There was no distinct tremor of limbs, but the knee-jerks were exaggerated, and there was ankle clonus. Not long before her admission to Queen Square Hospital she had been declared by a high authority to be free from organic disease.

[1] The subject is discussed in my work *On the Simulation of Hysteria by Organic Disease of the Nervous System*. It is not easy to over-estimate the number of cases of this kind which are mistaken for examples of hysteria.

FREQUENCY OF OPTIC ATROPHY IN DISSEMINATED SCLEROSIS.

Thanks to the kindness of colleagues at Queen Square I am able to give you some figures which are of much interest. Dr. Head, to whose indefatigable industry in tabulating the returns and help in the examination of patients I am under the greatest obligation, finds that out of 68 hospital cases of disseminated sclerosis there was pallor of the discs in 29—that is, in 42.6 per cent. Out of 32 cases of the same disease occurring in my private practice, of which the records are complete enough for tabulation, there were 14 examples of pallor of discs. Adding together the hospital and private examples we obtain 100 cases of disseminated sclerosis, in 43 of which, or 43 per cent., there was pallor of the discs. I use this expression, because in some few instances the change was but slightly expressed, although well pronounced in the large majority, but there can be no doubt, I think, from comparison of the associated symptoms, that in all there was atrophy of the discs.

The remarkable frequency of occurrence of some atrophy of the optic nerve in cases of disseminated sclerosis is a fact which has only comparatively recently been recognised, and is still far from being appreciated. Ten years ago the distinguished opener of the discussion at the Ophthalmological Society on "Eye Symptoms in Disease of the Spinal Cord" remarked, "So rarely is atrophy associated with other lesions, that the question may practically stand, In what proportion of the cases of atrophy are there indications of ataxy?" This fairly represented, I think, at that time, the general impression amongst neurologists. But it was not long after this that doubts as to the correctness of this view began to grow upon some of us, and in a communication to the Neurological Society in January, 1890, I called attention to the extraordinary frequency of changes in the disc in disseminated sclerosis. This was illustrated by the fact that out of ten cases which were reported by me (but not selected on this account) in five there was distinct evidence of atrophy.

It is interesting to compare with these figures the experience of some Continental observers. Marie, in his recently published work,[2] refers to the observations of Uhthoff and Parinaud, which, it will be seen, are in striking accord with the experience which I have just related. I am indebted to his work for the references.

Out of 100 cases of disseminated sclerosis, Uhthoff found only 48 in which the fundus oculi was normal; whilst in these 48 cases there were 5 in which, although the discs presented no atrophic change, there was a history of visual trouble. It is remarked by Uhthoff that "with the exception of cerebral tumours and tuberculous meningitis there is no disease of the nervous system (even including tabes) which is so often accompanied by ophthalmoscopic changes as disseminated sclerosis."

Uhthoff describes the following degrees of alteration of the papilla:—

A. The papilla is atrophied and deprived of colour; the reddish reflection of the normal papilla has entirely disappeared.

B. There is incomplete decoloration of the whole papilla. The internal parts of it still preserve a slight reddish reflection.

C. The external (temporal) regions of the papilla are alone decoloured, whilst the tint of the internal parts is quite normal.

D. There is the appearance of optic neuritis (Parinaud-Uhthoff), hyperæmia, vessels veiled and dilated, prominence of the papilla, etc.

This description coincides generally with my own observations. As regards the last clause (D), to prevent misunderstanding, let me say that I have on several occasions noted dark grey discoloration which I have described[3] as "somewhat resembling the tint of hyperæmic grey matter of cerebrum." The condition has never in my experience been that which is usually called optic neuritis or papillitis.

Although the intense hyperæmia which I have referred to

[2] *Leçons sur les Maladies de la Moëlle*, Paris, 1892.

[3] *Op. cit.*

doubtless represents a stage in the process which leads to atrophy, it is only quite exceptionally present. I am disposed to think, from observation, that the large majority of cases never present this appearance. The explanation of this appears to be that in most cases the neuritis (like the islets of interstitial myelitis constituting the early stage of disseminated sclerosis) is in the form of a patch affecting some portion of the optic nerve or tract more or less distant from, and behind the globe, and that the pallor of the disc most commonly observed is due to connective tissue overgrowth and atrophy of nerve fibres resulting from this. If the lesion affects the nerve as it enters the globe, the appearance which I have described above is visible to the eye, but this, as I have said, is only exceptionally the case.

Alterations of Visual Field and Dyschromatopsy.

The visual impairment varies very much. Parinaud (again I quote from Marie) describes several types:

A. Slow and progressive diminution of visual acuity in the two eyes, reaching perhaps from ½ to ¼; the field of vision is normal, but there is a little dyschromatopsy for red and green, only recognisable by the photometer; this form corresponds with a beginning of decoloration of the external region of the papilla.

B. The development of visual troubles is rapid; it may go on to complete blindness, but this is transitory; an improvement takes place which is often carried far; frequent dyschromatopsy, different alterations of the visual field. The visual troubles are bilateral. They correspond with an atrophic decoloration of the papilla which is very pronounced, and persists in spite of the amelioration of vision.

C. The impairment of sight is unilateral, more accentuated and persistent; the field of vision presents an irregular contraction; there is no dyschromatopsy. This form is associated with well marked white atrophy of the papilla.

Uhthoff describes the four following varieties of form of the visual field:

A. Central scotoma with retention of the periphery of the visual field.

B. Central scotoma with concomitant contraction of the periphery of the visual field.

C. Peripheral contraction of the visual field which is irregular, with relatively intact central vision.

D. Concentric contraction regular, analogous to that of hysteria. (This, he says, is the most rare—1 in 24 cases).

The visual troubles are very often unilateral, or when bilateral they are not symmetrical. In half the cases Uhthoff has noted a sudden onset, in the other half the symptoms have been progressive. The visual troubles sometimes do not come on till the disease has existed for some time; sometimes they constitute the first manifestation. There appears to be occasionally a kind of parallelism between their intensity and that of the other symptoms.

It was originally pointed out by Charcot that amblyopia was a frequent symptom of cerebro-spinal disseminated sclerosis. He also remarked that, contrary to what takes place in posterior sclerosis, it very rarely issued in complete blindness, and this notwithstanding that patches of sclerosis have been found, after death, occupying the whole thickness of the nerve trunk. In such cases, during life, a simple enfeeblement of sight had been noted. He thinks that this shows that the functional continuity of the nerve tubes is not absolutely interrupted, though these, in their course through the sclerosed patches, have been deprived of their medullary sheaths, and reduced to axis cylinders.

I do not think that I have ever seen a case of disseminated sclerosis in which the power of distinguishing light from darkness was lost. Magnan,[4] however, has described a case in which there was papillary atrophy of both eyes, with complete blindness.

Some Characteristics of the Visual Field in Chronic Disease of the Central Nervous System.

Charcot has long taught that dyschromatopsy may be present in disseminated sclerosis, and, like that of tabes, show itself first by a disturbance in red and green, followed by the disappearance of blue and yellow.

Before considering the disturbance of colour vision in the atrophic disc, I must call attention to certain facts in colour vision in the normal eye, which, so far as I can discover by reference to their works, do not appear to have received the recognition they deserve at the hands of ophthalmologists.

It is well known that the periphery of the retina is colour blind—that is to say, there is an area on the retina on which white is perceived, but all colour sensation is absent. Now Hering and his school have repeatedly pointed out that within this area, lying between the outer limit of white perception and the outer limit of colour perception, colours appear as white or black. Thus green, the whitest colour of the spectrum, appears as "light grey" or "white." Red, on the other hand, appears as "dark grey" or "black." Blue appears as "black"; yellow, on the other hand, as "white."

Now, as Parinaud has shown, many cases of disseminated sclerosis and tabes show a concentric diminution of the field of vision. In such cases, as might be expected, Hering's rule is found to hold. The white field is diminished, the red and green fields are also diminished, and between the limits of the white field and those of the red or green field is a zone in which the red appears as black, and the green as white. (The same applies to blue and yellow.)

It is, however, worth mentioning that in those cases of disseminated sclerosis, with so-called hysterical manifestations, Dr. Head has found that, where there is no visible alteration of the disc, similar fields appear. And the appearance of such fields should always put us on our guard against diagnosing "hysteria."

Thus Fig. 1 shows the red and green fields in a case of primary atrophy of syphilitic origin, without concomitant symptoms or signs of nervous disease.

Fig. 2 is from a case of disseminated sclerosis of the "hysterical" type, with optic atrophy.

Fig. 3 is from a case of hysterical aphonia with occasional amblyopia, and ankle clonus, which I believe to be a case of early disseminated sclerosis.

Fig. 4 is from a case of typical hysterical fits, with amblyopia and contraction of the visual field of the psychical type.

Thus the appearance of a contracted field of this type should make us hesitate to diagnose "hysteria," and strongly points to a functional change in the nerve which may ultimately end in atrophy.

Disc Changes in the Hysterical Type of Disseminated Sclerosis.

In every case of "hysterical" type (hospital and private), with one exception, some ophthalmic symptom, and often more than one (optic pallor, diplopia, or nystagmus), was either present or formed part of the history. As regards the disc, whilst there was change of atrophic character in 37.5 per cent. of the typical cases of disseminated sclerosis, a similar change was noted in 46.6 per cent. of the "hysterical" type.

Transitory Blindness in Disseminated Sclerosis.

I am unfortunately unable, from inadequacy of record, to give full statistics on this point. The symptoms, however, must be of considerable frequency, for it was noted in the history of 5 out of 18 cases which I have reported in my late work. Special inquiry on the point would, I have little doubt, have elicited evidence of a very much larger proportion. Of one patient it is noted:—"Four years ago she lost to a great extent the sight of the right eye, but after a time regained it completely for a short period, subsequently, however, losing it again. At the present time she has little or no vision with the right eye, and very imperfect sight with the left. The right optic disc is white and atrophic, the left normal."

In another case there was a history of loss of sight of the left eye, with gradual recovery; and later the right eye lost its sight, but recovered gradually. The right disc was seen to be white, with a glistening metallic look.

Another patient had, two years previously, entirely lost the sight of the left eye. It recovered to a certain extent in about six weeks. One year later the sight failed in the right eye, though not to the same extent. I found no visible change in the discs. A lady three years previously could not see to read and write, but recovered the power, and for two years could read fairly small print. When I saw her she

[4] *Archives de Physiologie*, vol. ii, p. 765.

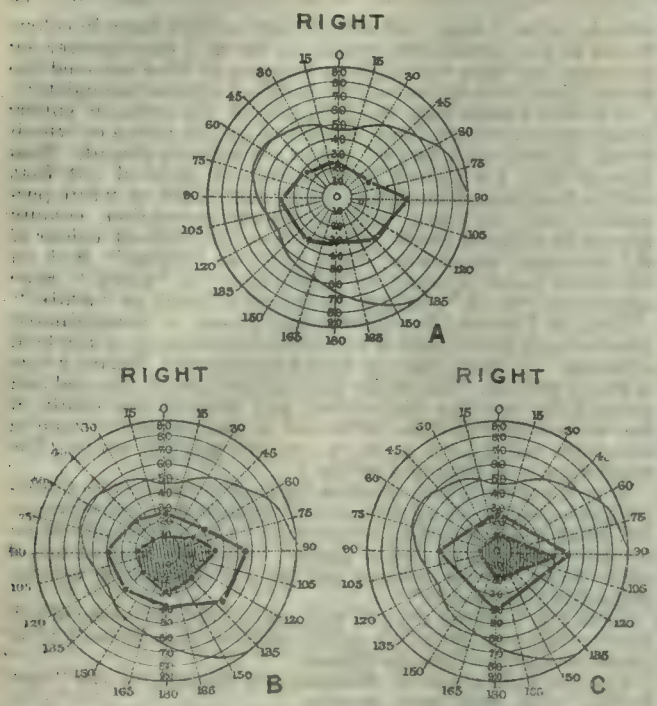


Fig. 1.—From a case of primary optic atrophy, probably syphilitic. A, the white field. B, the shaded patch represents the area over which red is seen as such; the outer line represents the limit within which the red on a white ground appears as black. C, the shaded patch represents the area over which green is seen as such; the outer line represents the limit within which green on a black ground appears as white.

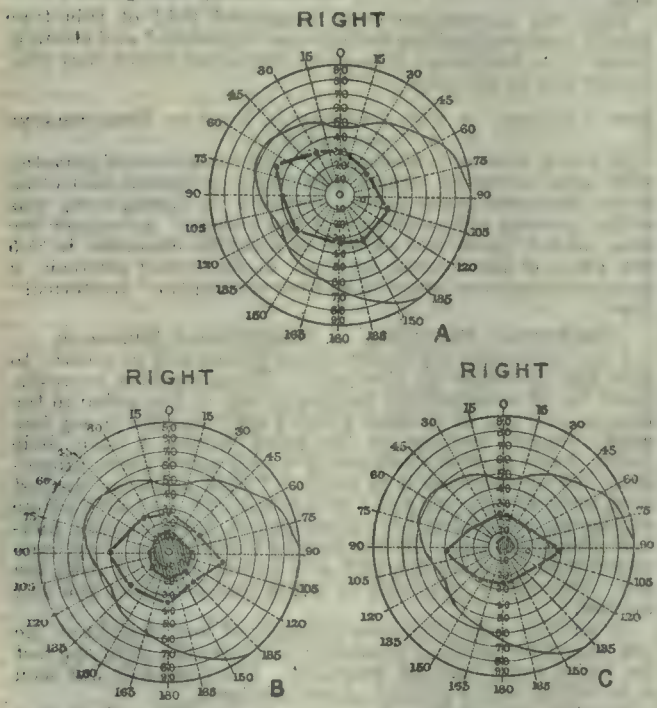


Fig. 2.—From a case of disseminated sclerosis with optic atrophy after hysterical symptoms for many years (mentioned in the text). A, the white field. B, the shaded patch represents the area over which red is seen as such; the outer line represents the limit within which red on a white ground appears as black. C, the shaded patch represents the area over which green is seen as such; the outer line represents the limit within which green on a black ground appears as white.

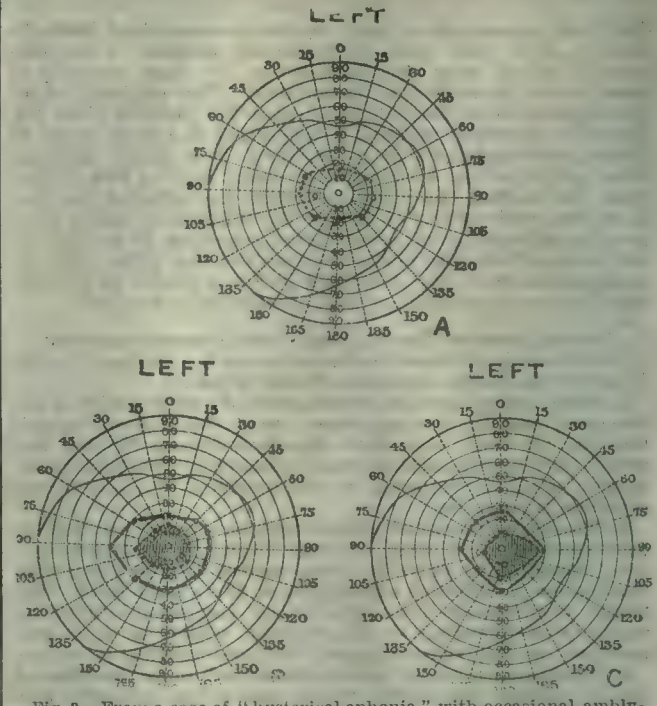


Fig. 3.—From a case of "hysterical aphonia," with occasional amblyopia and ankle clonus, without optic atrophy. A, the white field. B, the shaded patch represents the area over which red is seen as such; the outer line represents the limit within which red on a light ground appeared as black. C, the shaded patch represents the area over which green is seen as such; the outer line represents the limit within which green on a dark ground appears as white.

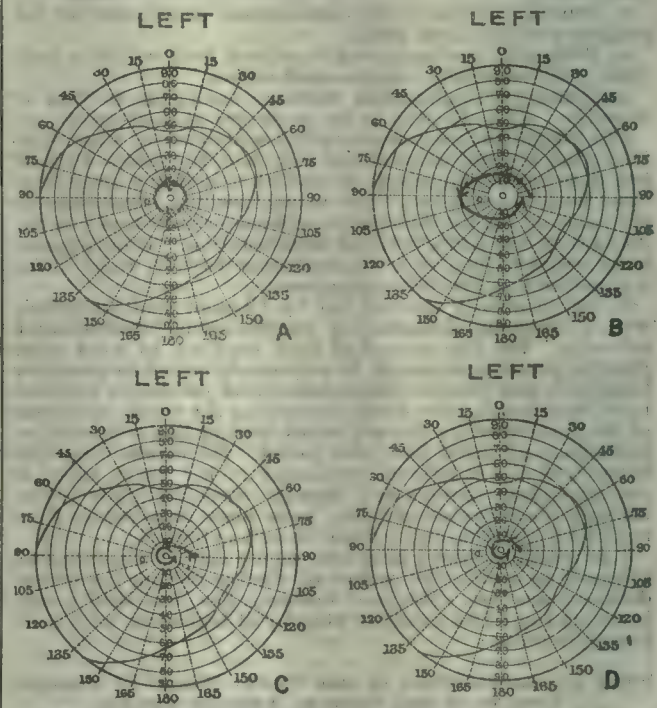


Fig. 4.—From a case of typical hysterical fits. A was the first, B the third, C the fifth, and D the last field taken at one sitting. A is the white field; B is the red field; C is the green field; D is the white field taken again at the end of the sitting. Note the complete absence of the outer zone, in which red on a light ground appears black, green on a dark ground white. Thus, Figs. 3 and 4 are fundamentally different, though in both the discs are apparently normal.

could hardly read No. 4 at all. Both discs were found to be distinctly atrophic. Another lady lost the sight of the left eye almost entirely in the course of a week or two, but after some little time it returned. When seen nothing abnormal was to be detected with the ophthalmoscope. The sight of the right eye was then failing.

I have been induced to dwell with some persistence upon what may be called the "hysterical" type of disseminated sclerosis on account of the great liability to mistake in diagnosing this affection. The visual troubles are very frequently themselves a fertile source of error. A girl is brought to an ophthalmologist because she has more or less suddenly lost the sight of one eye. It is probable that the ophthalmoscope fails to detect the slightest sign of any change in the fundus. The girl, on inquiry, is said to be emotional, and on some previous occasion to have partially lost the power of a limb, which, however, had been absolutely recovered. Or there may be a history of numbness or deadness in a limb. These are all symptoms which, it is notorious, have been looked upon as characteristic of hysteria. I do not know whether such is the case; indeed I have grave doubts upon the point; but I am sure, from observation, often extending over many years, of a large number of cases, that they are symptoms of a stage of disseminated sclerosis. I venture to urge this more particularly because it is quite possible that the patient, when seen by the ophthalmologist, may present as little objective symptoms in her body generally as she does in the eyes. The reflexes may be found, perhaps, somewhat exaggerated, as they usually are in hysteria, and nothing else may be noticeable. The unilateral blindness in these circumstances is very likely indeed to be explained as "hysterical;" the patient is informed that she will certainly recover her sight, and she and her friends go away rejoicing. In a few weeks, or possibly months, the sight gradually returns. After an uncertain interval, a similar condition may recur, either in the same or the other eye. Again, no decoloration of the disc is perceptible, and the diagnosis of "hysteria" appears to be confirmed. Let the case be followed up, and it will be found that gradually very unmistakable symptoms of disseminated sclerosis will appear, and one or both of the optic discs will be found to be atrophic.

Relative Frequency of Optic Nerve Atrophy in Tabes Dorsalis.

Out of 56 cases of tabes in hospital patients 9 only, or 16 per cent., had discs which presented atrophic changes. Out of 100 cases of tabes in my private practice 15 had more or less pronounced atrophy. Adding the hospital and private cases together we obtain 15.3 per cent. of cases of tabes showing optic atrophy. These figures go to confirm previous estimates by various observers, which range from 10 to 20 per cent.

Characters of the Visual Field in Tabetic Atrophy of the Optic Nerve.

If we turn to recorded experience of various observers we find that there is apparently no constant change. Concentric shrinking is observed, or the limitation may sometimes be temporal, in other cases nasal. A gentleman, three months before I found his left disc atrophic, complained of hemianopsia to the left, confined to that eye. Central scotoma would appear to be exceptional. As regards colour, it is found that yellow and blue will continue to be seen in some cases for a certain time after other colours are incapable of being distinguished. In many cases colour vision is rapidly extinguished. I have recorded a case in which the patient's first difficulty was that he could see no colour in a scarlet geranium; red gravel looked grey to him; soon afterwards the grass looked grey, and he could not, at a little distance, distinguish it from gravel. When examined the only colour to be recognised was violet, which he said looked blue. Another patient spoke of blue as a "bright light." In another case the patient described scarlet as "brownish yellow," green as "slaty brown," and a vivid magenta as "pale blue." Blue and yellow were named correctly.

Conclusion.

There is one fact which especially strikes one in contrasting the atrophy in the two forms of disease of the central nervous system to which I have referred. The atrophy and associated visual disorder is usually a far less grave condition in disseminated sclerosis than in tabes. In the latter disease the lesion is nearly always progressive, and rapidly leads to absolute or nearly absolute blindness.

The disc in disseminated sclerosis may acquire a pearly whiteness, but this, I think, only exceptionally involves the nasal as well as the temporal district. This, however, may be an affair of time. I have never found it assuming the look of that which is so often met with in tabes—flat, dense, and uniform, of a cold bluish-grey tone, suggesting the idea of its being painted in opaque oil colour, with a very few retinal vessels lying upon it, and a marked absence of any minute vascularity.

It is an interesting and widely observed fact that when atrophy of the optic nerve is of early occurrence in tabes ataxy either does not occur or is but feebly expressed. Out of the 15 cases of tabetic atrophy amongst private patients, previously referred to, only 4 presented characteristic ataxy, and in certainly 3 of these other symptoms of tabes, notably pains, had preceded the eye changes for several years. So striking is the frequency of immunity from ataxy observed in those who are early blind from tabetic atrophy that some Continental observers speak of the atrophy as though it had an actual beneficial effect upon the course of the disease!

It has been customary for some time past to test the knee-jerks in a patient suffering from atrophy of the optic nerve apparently of spinal character, with the expectation that they will prove to be absent. If the case be one of tabes, they will in all probability fail to be elicited. And if, along with this, there be a history of pains, and the pupil does not respond to light, whilst possibly contracting during an effort at accommodation, a diagnosis of tabes may be confidently given. The far greater probability of the presence of disseminated sclerosis will henceforth require to be remembered and search conducted for confirmatory evidence.

Amblyopia and optic atrophy have long been recognised among the symptoms of disseminated sclerosis, but, as I have already mentioned, their frequency has not been appreciated. Is not this due to the fact that a very large proportion of cases of disseminated sclerosis are diagnosed as cases of hysteria? The visual disorder, consisting as it so commonly does of a concentric limitation of the field, has the effect of appearing to confirm this erroneous diagnosis. I cannot help thinking that the visual troubles so often supposed to mark a case conclusively as one of hysteria are really very often dependent upon an organic cause. There may or may not be atrophy, or this may be so slight as to escape detection where it is not carefully looked for, but the condition is dependent upon an organic change in the course of disseminated sclerosis.

Are not many of the cases of the retro-bulbar neuritis of ophthalmologists really examples of the "hysterical" form of disseminated sclerosis, the type in which, in its early stages, the characteristic symptoms are either entirely absent or but very feebly expressed?

Dr. Berry had been much interested in Dr. Buzzard's paper, and especially in the remarks made with reference to hysterical amblyopia. He was not inclined to accept as proved the connection between so-called hysterical amblyopia and disseminated sclerosis, but thought it very suggestive, and no doubt applicable to cases in which there were at the same time ophthalmoscopic changes in the optic nerves. Concentric limitation of the field of vision was the usual thing in hysteria, yet some cases might be due to retro-bulbar neuritis. In connection with the subject of optic atrophy, the ophthalmologist was mainly interested in the prognosis *quoad cœcitatem*. Did the changes met with necessarily indicate progression to complete blindness, or was there a possibility of the process becoming arrested after producing a certain amount of blindness or of recovery taking place? Two forms of atrophy were particularly interesting in this respect. The first was that which was associated in the beginning with a central scotoma resembling closely that characteristic of toxic amblyopia, and occurring in patients over 40 as a rule. They differed, however, from toxic ambly-

opia in many ways; the defect was not similar, and did not begin simultaneously in both eyes, and symptoms of tabes (absence of knee-jerk, reflex pupillary immobility, etc.) could generally be made out at the same time. The scotoma did not become absolute, but after some time was followed by limitation of the field of vision, and eventually complete blindness from tabetic atrophy, of which condition it was no doubt a variety. Notwithstanding, therefore, the origin as a central scotoma, the coexistence of early tabetic symptoms forced one to give a bad prognosis. Another form of atrophy of the discs, liable at first to be confounded with toxic amblyopia, but which was neither recovered from nor followed by complete blindness was what has been called by Jensen "stationary scotomatous atrophy." These cases occurred in young people before the age of 35. The two eyes were not simultaneously affected. The scotoma came on rapidly and soon became absolute, so that the patients fixed eccentrically. The ophthalmoscopic appearances were those of atrophy, yet the prognosis was good. The cause was no doubt a retrobulbar neuritis. As to toxic amblyopia, he did not consider that any valid evidence had yet been given that such cases were really cases of retrobulbar neuritis. All the cases examined hitherto had been cases of more general poisoning with meningitis, etc., and because they exhibited the symptom amongst others of central scotoma it did not follow that the typical central scotoma, equally distributed over both eyes, which was met with in toxic amblyopia, had the same origin.

Dr. G. MACKAY said that he always regarded the term hysteria as an opprobrium to the profession, and that he felt confident that a large number of cases of this kind would be classed with those due to organic disease of the nervous system as our knowledge of their nature increased. Dr. Buzzard's contention that many cases of so-called hysteria were actually early cases of disseminated sclerosis could only be confirmed or disproved by long continued and repeated observation. He pointed out the homology between affection of the posterior sensory tracts in tabes and affections of the optic nerve in tabes. He emphasised the importance of definite colour tests of standard colour value.

Dr. GORDON asked Dr. Buzzard in what proportion of those cases of disseminated sclerosis, which he had described as simulating hysteria, slight nystagmus, or distinct ankle clonus existed, because such symptoms would lead to suspicion of the presence of organic disease being entertained.

Dr. HENRY HEAD (London) said that in taking perimetric fields it was necessary to pay attention to the point where the colour appeared in its white black equivalent. Thus red appeared as "dark grey" or black, green as "light grey" or white. Whether the change in vision were due to early optic atrophy or to "functional" disturbance in the activity of the optic nerve this zone existed. On the other hand, in the psychical amblyopia such as occurred in hystero-epilepsy this well-marked neutral zone was absent, and white, green, red, and other colours were visible within the same limits. Should the colour not be perceived at all it was said to be "dark," whether it were green (a "white" colour) or red (a "black" colour. Again, the prevalence of the helicoid field in "psychical" amblyopia was a phenomenon which did not appear in "functional" amblyopia to any appreciable extent.

Dr. FERRIER remarked that he was sorry he was not in a position to discuss Dr. Buzzard's paper in all its bearings, as he had unfortunately only heard the last part. But he had gathered something of its import, and he did not like to allow the occasion to pass without signifying his sense of the importance of Dr. Buzzard's paper, more particularly in reference to the frequency of the occurrence of optic atrophy in disseminated sclerosis. He understood Dr. Buzzard had found such a large proportion as 43 per cent. The speaker had not found, perhaps, more than 15 to 20 per cent. in which any noteworthy change was discoverable by the ophthalmoscope, and this in all stages of the disease. But he must admit that his cases had not been examined with that minuteness—ophthalmoscopic and perimetric—which had been expended by Dr. Buzzard on his cases, but only in the ordinary routine of hospital and ordinary practice. He would, therefore, be inclined to accept Dr. Buzzard's estimate as probably the more correct, and he had no doubt other neurologists would in future direct more particular attention to it. As to the occurrence of optic atrophy in tabes, his own observations agreed with those of Dr. Buzzard, both as to its relative frequency and as to the peculiarity that, as a rule, ataxic symptoms proper were very rarely at all marked, or not till late in the progress of the disease, in those cases in which optic atrophy was already pronounced, or had advanced even to complete blindness.

Dr. BUZZARD, in reply, said that the French school laid the greatest stress upon concentric limitation of the visual field and dyschromatopsy as evidence of hysteria, but if his own observations were correct, a very large number of patients supposed to be examples of hysteria, because they had concentric limitation of the visual field, were suffering from functional disorder of the optic nerve due to organic change in the central nervous system. There was probably a form of "hysteria," a psychical form, in which concentric limitation of the visual field occurred; but Dr. Head had observed in a case of this kind that a colour was either seen as such or not at all. There was no zone outside the external limit of the colour field, in which it was either seen as black or white—an observation which, if further experience should confirm it, he thought would be of very great value in diagnosis. There was doubtless a difference in the pathology of tabetic atrophy of the optic nerve and that which occurred in disseminated sclerosis. In the latter it was probably due to interstitial neuritis of some portion of the optic nerve or tract. He did not feel so sure of the cause of it in tabes, though here again there was evidence of some form of neuritis. As regards the statistics of cases of optic nerve atrophy in disseminated sclerosis, it was interesting to note that the proportion of 50 per cent. which was found in the cases brought by him before the Neurological Society in January, 1890, met with accidental confirmation from the observations of Uhthoff, published almost coincidently, in which that observer found only 48 per cent. of healthy discs in 100 cases of disseminated sclerosis. Dr. Buzzard dwelt especially upon the fact that the supposed hysterical patients, even when the disc presented no change, if tested by the perimeter disclosed changes in the visual field indistinguishable from those seen in patients suffering from marked atrophy of the disc. It was impossible to resist the conclusion that the former cases were, equally with the latter, suffering from functional disorder consequent on organic disease. In effect he had watched for years the sequel of many such cases, which, long diagnosed as cases of hysteria, drifted into examples of disseminated sclerosis.

OPENING OF THE MEDICAL SCHOOLS:

INTRODUCTORY ADDRESSES.

SHEFFIELD MEDICAL SCHOOL.

BIOLOGY AND ETHICS.

By Sir JAMES CRICHTON BROWNE, M.D., LL.D., F.R.S., Lord Chancellor's Visitor in Lunacy.

THE HEALING ART AND THE STRUGGLE FOR EXISTENCE. AFTER some introductory remarks on the growth and present prosperity of the Sheffield Medical School, the lecturer invited his audience to consider with him some biological and ethical correlations, and especially the ethical aspects of natural selection. He said the struggle for existence still went on vehemently enough, but it was changed in character, and instead of animal rapine there was industrial competition. The interference with the struggle for existence which civilisation and ethical development involved was familiar to medical men above all others, for their professional career was one sustained endeavour to prevent the extermination of the unfittest, and therefore to check the operation of natural selection. It was theirs to succour the victims who had been smitten in the fight, and who, but for their aid, would perish. It was theirs to preserve weakly lives, which left unprotected would be ruthlessly stamped out. It was theirs to circumvent conquering bacteria, and so prevent mortality, and swell the millions contending for a bare subsistence. It

was theirs, as the chosen ministers of the higher ethics, on the one hand to counteract the life-destroying checks which operated chiefly on the feeble and incompetent; and on the other, to inculcate the prudential considerations which were most influential with the finest types of mankind.

No doubt (he continued) the wider scope which modern science has given to medical practice enables those who pursue it to render services to the strong as well as to the weak, and to compensate in some degree for the general lowering of vitality which the maintenance of sickly lives tends to produce. Sanitary improvements and the removal of many of the causes of disease not only keep the infirm alive, but insure increased vigour to the constitutions of the robust. But still the result of medical work, as a whole, at the present time, must tend towards the intensification and the thwarting of the struggle for existence, and perhaps to some deterioration of the species, for medical work does intermeddle with Nature's rough-and-ready methods in selecting her breeders. Great numbers of weakly infants, who would formerly have perished in their infancy, are now reared to a weakly maturity, and enabled to propagate their weakliness (for the weakly are often highly prolific), while they take part in the life battle on terms sometimes made unduly favourable to them by the commiseration that their weakliness commands. And this fact ought not to be lost sight of when we are congratulating ourselves on our greatly diminished death-rate. An enormous saving of life has been effected, but mainly in life's earlier decades. The death-rate is actually increasing amongst males at all ages above 35, and amongst females at all ages above 45; and it is not difficult to prove that this increased mortality at post-meridian ages is due partly to the enhanced wear and tear of modern existence, and partly to the survival of weakly lives artificially protected and prolonged.

Ethical Rudiments.

The origin of those moral sentiments which, in the case of our race are modifying the course of natural selection, and which have evoked and moulded the profession to which we belong, is as inscrutable as the invention of natural selection itself, but their development has some light thrown on certain of its stages by biological considerations. In the life-history of living organisms we can trace out some rudimentary phases of a new struggle for existence, a struggle between ethical principles and animal propensities, a struggle that has to be fought out in the brain and mind of man, but that is foreshadowed in paltry protoplasmic particles. For very early in organisation may ethical rudiments be detected; indeed, the moment we get beyond the solitary cell—a simple organism which merely feeds and grows and liberates superfluous parts of its substance to start new organisms like itself—mutual obligation, or what might be called a moral relation, is discernible; antagonism is converted into co-operation, and conflict gives place to harmony. And the higher we ascend in the scale of being the more far-reaching and complicated does co-operation become. Individualism is gradually subordinated to collectivism, the struggle for existence becomes mainly the concern of the organism as a whole, and is only in a minor degree that of the units of which it is composed.

Influence of Co-operation.

The lecturer proceeded to point out that the higher we ascend in the scale of gregariousness, the more conspicuous does co-operation become, until amongst the higher races of civilised man, we find that it has in some degree transferred the pressure of the struggle for existence from the individual to the body corporate, and that it tends to do so more and more. In the social not less than in the organic process we see pause given to the life struggle, and the co-operation of diverse parts to a common end.

But it is in sexual relations far more than in the organic or social process that the embryonic forms and cotyledons of the moral sentiments that amongst mankind, when in full leaf and blossom, mask and overshadow, and sometimes choke natural selection, may be most clearly recognised. Nutrition is for the most part egotistic, but reproduction is invariably altruistic in its character. In its lowest form, where two exhausted cells flow together, reproduction corresponds with what has been designated protoplasmic hunger, but wherever true sexual union takes place, we have activities that are other regarding, and whenever genuine maternity is differentiated we have hints of self-sacrifice. Sexual preferences and the selection of mates have obvious reference to the continuance of the species and the welfare of offspring, and imply co-operation; and the fatality that attends the triumph of motherhood represents the immolation of the individual for the collective advantage. Between the mother and her offspring there is no struggle for existence, but alliance, affection, and co-operation.

The Family as the Social Unit.

In the case of human beings, said the lecturer, it has, I believe, been the formation of distinct family groups that has, more than any other reproductive influence, been contributory to moral progress. The family is the social unit, the nursery of goodness, the school of character, the germ plasm of the loftiest virtues, for it is by a diffusion of the feelings that well up within its precincts, to the clan, the nation, and the race, that we become public spirited, patriotic, and philanthropic. Mr. Pearson has argued that the family will ultimately, to a great extent, be merged in the nation. He looks forward to a state of things in which there will be a weakening of the marriage bond, wedlock being, instead of a union for life, a partnership during good behaviour or pleasure, and in which children, growing up better educated than father or mother, will know that they have to thank the State for schooling and protection, and are little indebted to their parents, who have simply taken advantage of their tender years to confiscate the proceeds of their industry. In these halcyon days, there will be a State crèche, a State school, and State medical institution, supplemented by State meals; and the child, when well drilled in the State gymnasium, will pass from the State school into a State workshop, and finally on to a State crematorium. The result of all this will be that, as marriage becomes legalised concubinage, the obligation of family duties will attenuate. The family, with all its sacred traditions and precious training, will decline, and man, like that most blackguard of birds, the cuckoo, will be constantly seeking to foist on others the maintenance of his offspring.

Mr. Pearson's prognostications, however, are, I venture to think, of an unnecessarily gloomy description. They betray ignorance of human nature, for surely the love of children for parents is not founded solely on a sordid calculation of what they owe them, and they involve the error that the volume of feeling must always be the same, and that its expansion in one direction, so as to embrace the sphere of State action, implies its contraction in another direction, so as to exclude family ties and claims. But there is no reason to doubt that reverence for the State may grow without supplanting reverence for the family. Nay, there is reason to hope that parental and filial affection will become stronger and more tenacious as time goes on. The period of dependence of offspring on parents steadily increases as evolution advances. The higher the animal the longer the duration of this period of dependence. It is more protracted in civilised than in savage races, and now than it has been heretofore. And this protraction of intimate intercourse and reciprocal relations between the members of a family certainly means a deepening of the sense of kinship.

The Evolution of Morals.

The lecturer went on to say that between the emotions of man and the emotions of the lower animals, however analogous they may be, there is a great gulf fixed. It must also be borne in mind that as regards the moral feelings of man no unbroken continuity of evolution can be traced out. Subject, however, to innumerable local variations, and to hideous and grotesque distortions, the theory and practice of morality advance, and as they do so diverge more and more from the theory and practice of evolution, but the advance is not steady and uninterrupted, and has been powerfully influenced by forces which have not operated on the lower plane of natural selection. The intellectual progress of mankind, and their segregation in towns, the growth of language, inventions such as printing and the steam engine, by extending and enriching human intercourse, have helped immeasurably towards a reasoned rule of life. But beyond these, more subtle influences have been at work; for ethical evolution

has been advanced from time to time far more by the illumination thrown on its path by great teachers of morality, than by plodding industry or fitful ingenuity. Moses, Gautama, Confucius, Plato, Mahomet, and Luther, have each in different degrees promoted moral progress.

The gifts of men such as these, with a power of looking beyond mere relations of things into their inner meaning, and of discerning the loveliness shining through them, have always been inseparably connected with religious convictions and aspirations, which have ever been the most powerful levers of moral improvement. Man is a religious animal, and the only religious animal, and requires for his moral sustenance and the perfecting of his nature something more than altruistic feeling, cultivated by the travail of intellect and ripened by the sunshine of genius. Whenever his moral education has reached a certain stage, he realises the inadequacy of natural knowledge to explain the mystery of the universe, or satisfy the requirements of his conscience, and then he conceives an invisible Author of existence, who is Legislator and Judge of right and wrong, and his foresight expands into faith in an unseen world to come, in which injustice will be redressed and remorse quenched in forgiveness. Then it is he truly learns that to live for himself is to lose himself, and that to live for others is to gain himself and all the world besides, and that blessedness and righteousness, and not merely happiness, should be his aim.

SENTIENCY IN ITS RELATION TO THE DEVELOPMENT OF MORALITY.

The evolution of morality (continued the lecturer) in all its stages is controlled by inducements and penalties which are called sanctions, and which are physical, social, legal, or religious in their nature, but which all appeal to one endowment of living beings, and that is sentiency. There is no good or evil in the unconscious cosmos, but in the evolution of living beings there arises—where, when, how, we know not, for beginnings and endings are alike hidden from us—sentiency, or the capability of feeling pleasure or pain. There can be no doubt that sentiency advances with civilisation.

And the increase of sentiency in the animal kingdom and in the human race always corresponds with increase of development and differentiation in the higher nerve centres. In the human and in the mammalian brain we have in the occipital and temporo-sphenoidal lobes sensory centres, or psycho-sensorial areas, and it seems more than probable that the development of these is a measure of the sentiency of the animal or race. It seems reasonable to suppose that cerebral evolution, if still in progress, is going on at the present day most actively in these centres, for success in the struggle for existence as now conducted depends more on quickness of perception than on motor energy—more on sensational vivacity than on muscular activity.

RELATIVE INCREASE OF PLEASURE AND PAIN.

But the evolution of sentiency, whether its rate be slow or rapid, involves increase in quantity and rarefication in quality of two orders of impressions—of painful impressions on the one hand, and of pleasurable impressions on the other. And as sentient beings, we must anxiously ask ourselves, Do these increase in the same ratio? To the physiologist, it is evident that in the evolution of sentiency the amplification of its pleasurable possibilities is greater than the amplification of its painful ones. And the higher we ascend in the scale of sentiency, the more does pleasure preponderate over pain. But the more accustomed we become to pleasure, the less tolerant are we of pain, and hence our histrionic writhings nowadays under comparatively trifling twinges.

The nervous system has a wide range of functional activity and sensibility. If its vitality is raised, it is attuned to pleasurable impressions, and responds less readily to those of a painful nature; but, if its vitality is lowered, it is rendered obtuse to delicate pleasurable impressions, but is quickened to the sense of pain. In certain morbid states it is converted, as it were, into a raw surface, to which all impressions are painful. In different persons, or in the same person at different periods, the nervous system inclines more or less decidedly to pleasurable or painful constructions. And in the nervous temperament of races, changes analogous to those adverted to in the nervous temperament of the individual may be sometimes observed. And included within this large movement of sentient upheaval and subsidence in the individual and the race, there are secondary waves of nervous excitement and depression.

PRESENT DAY PESSIMISM AND INSANITY.

It is by an appeal to experience that the preponderance of pleasure over pain, or of pain over pleasure, can at any period be determined, and such an appeal at this moment affords grounds for believing that we in this country are at present—and only temporarily, let us hope—in the trough of the wave, and have amongst us more than the average allowance of suffering. Pessimism or pessimistic tendencies are widely diffused. The old faiths have lost their hold. Life is no longer a probation but an end in itself, and the passion for wealth possesses the poor human soul. Little wonder, then, that melancholy abounds, and that *ennui* is epidemic. The type of insanity has changed, and our asylums contain far fewer raving exuberant maniacs than they used to, but a far larger number of miserable melancholics. And outside our asylums, as general medical practitioners well know, there is an enormous amount of melancholy of a morbid nature which falls short of actual insanity, and is perhaps capable of concealment from friends and acquaintances, but which embitters existence and converts its best fruits into dust and ashes. Phrenalgia, or the neuralgia of the mind, hypochrondriasis in its protean forms, and neurasthenia, with which dejection is so often associated, are widely disseminated, and our finest intellects seem most prone to succumb to them. Suicides mount up in numbers year by year portentously, and have risen in England and Wales from a rate of 65.2 per million living in the five years 1861-65, to a rate of 79.4 per million living in the five years 1886-90—the main increase having been in urban districts, where the mean annual rate is 81.6 per million, against 65.0 per million in rural districts, showing an excess of 16 per cent. in the former. The consumption of anodynes or painkillers of all kinds grows apace, and amongst anodynes we must include not only stimulants, narcotics, and neurotics, but many of the amusements in which we wallow, and the incessant locomotion and globe trotting on which we expend so much time and money.

THE PROSPECT BEFORE US.

And if our present plight is in some respects pitiable, the prospect before us, if we are to trust our evolutionary soothsayers, is still more deplorable. According to Mr. Pearson the lower races of mankind, the negro, the Hindoo, and the Chinese, are destined to occupy the fairest and most fertile regions of the earth, while the Aryan race—our race—having been privileged to help them, by imparting to them organisation and method, in their victorious expansion, is to be cooped up in certain parts of the Temperate Zone, and is there to settle down into stationary muddy monotony.

In this remodelled society religion is to become a sort of ethical etiquette, education is to be prescribed, industry limited, enjoyment directed, until the human intellect becomes mechanical. Life will be prolonged and health improved, but this will simply mean a redundancy of old people and an excess of senile caution and timidity. While human character becomes weak and fibreless, and the race, impoverished in vital power, loses interest in all but its daily needs, the last remnant of belief in progress of any kind will expire. Mr. Pearson's argument, however, will not, said the lecturer, remain unrefuted. As regards his main conclusion, I can see no biological justification for it, for a state of enduring dead levellism is not characteristic of living things. Evolution is progressive, equilibrium unattainable, and it is inconceivable that humanity should stand still on the plane which he has provided for it. Mr. Pearson's assertion that the achievements of speculative research have already reached their boundary will, I think, be at once recognised as fallacious by an audience like that before me. It was quite recently that I heard Professor Oliver Lodge affirm that the present is an epoch of astounding activity in physical science, and that natural philosophers stand in feverish suspense, awaiting generalisations that will throw as much light on the secret of the universe as did the great inference of New-

ton; and in medicine certainly we "nor bate a jot of heart or hope," but believe that we are on the verge of experimental results that will vastly augment our control over disease, be of incalculable benefit to mankind, and sway its future career.

Work the True Remedy for Pessimism.

Our work convinces us that man to a large extent controls his own destiny, and may, if he will, rise out of the prevailing pessimism and climb to heights of sentiency not yet attained. Playing a man's part, we come to see that suffering is an accident and not the substance of life, that evil is a shadow haunting certain portions of a pathway that is everywhere pervaded by a "kindly light." Work has always been recommended as a shelter from the anguish of the spirit. "Cultivons notre jardin" was the advice of Voltaire. "Toil, young men, toil," cries Zola. To you, gentlemen, added the lecturer, toil, abundance of toil, will not be wanting. Relief your work will bring you if you are suffering; but you will have comparatively little suffering to require relief if you undertake your work, not as a personal pick-me-up, but for the public benefit. Toil to make a beneficent use of your attainments, to perfect your own powers, to do credit to your profession, to serve your country, and to ward off from your race any degeneracy with which it may be threatened. A wide and promising field stretches out before you, for to the medical toilers of the future will be given more and more power, not only to restore and prop up bent and cankered stems, but to shield the whole crop from blight, and forward its lusty growth. Plants of prey, for so we may call the fission fungi, will be hunted down as beasts of prey have been; sanitary science will promote the reign of health, and mental and moral hygiene will perhaps reconcile natural and ethical evolution. But while you toil and toil diligently, and with noble aims, rest too, and rest diligently, and with set purpose, for rest no less than toil is necessary to happiness. Too much labour makes a man hard and brittle. Too much leisure leaves him soft and spongy. It is in the just balance of these that the true temper of manhood is to be found.

The Laws of Medical Etiquette.

When I began this address I proposed to myself to sketch, for the benefit of the younger brethren assembled here, an outline of medical ethics or the code which should regulate the conduct of the medical man in the several relationships in which he is professionally placed; but my theme has run away with me, and I now find that the large hand of the clock has gone round the dial while my preamble has crowded out my clauses, so that medical ethics must stand adjourned. Let me just say, however, that the rules, traditions, and laws of etiquette to which the members of the medical profession owe allegiance seem to me to require revision from time to time, to adapt them to the ever-changing conditions of modern life. Fixed and immutable as regards the principles on which they are founded—principles of justice, honour, truth, and good feeling—they are yet, as regards some of their practical applications, susceptible of amendment now and again as circumstances alter. And, indeed, insensibly and without formal legislation by any professional parliament or judgment by any professional tribunal they do alter as the years roll on. The explanatory candour and winning suavity of our *fin de siècle* physician in his dealing with his patients is as different from the rigid reserve and verbal mystification of the physician of a century ago as is skirt dancing from the *minuet de la cour*. And in the matter of advertising or the means used to make known professional qualifications or pretensions, there has been in recent years a distinct change in our notion of what is and is not legitimate. No doubt in certain directions some relaxation of old customs and opinions regulating professional conduct and intercourse is desirable; but, on the whole, it would seem that some stiffening of professional sentiment is what is most needed. The vast majority of the medical profession is, I would maintain, notwithstanding discreditable cases that are sometimes brought to light, well able to withstand the seductions of charlatanry, and—sound in conscience—to pursue the path of rectitude without monitions or fear of penalties. But for the weaker brethren—and there are weaker brethren in all professions—a code of honour supplemental to the general ethical code is an admirable tonic; and, indeed, for the profession as a whole such a code has its value, raises the standard of work, and exalts the sense of duty. The moral qualities displayed by the profession should, I think, be its charter to public esteem, and protect it from the humiliation which the present widespread patronage of quackery really amounts to; for quackery is patronised in high places, and is supported not only by the dull and ignorant, but by the presumably educated and intelligent. It flourishes, no doubt, in our great manufacturing towns like Sheffield; but the very hotbeds of it are our fashionable watering places and health resorts, and I am assured that, while our skilled artisans are least of all given to quackery, our learned clerics are most addicted to it. Well, I think our learned clerics should seriously reflect that in giving countenance to the nostrums of the empiric they exhibit a credulity and superstition that must seriously impair their usefulness in their sacred calling with all thoughtful men.

Medical Practice as an Ethical Discipline.

Above and beyond, however, any special code of honour appertaining to the medical profession, there is the general code of ethics to which that and all professions are amenable, and as regards that general code I would say that medical practice is daily demonstrating to those engaged in it its reasonableness and wisdom. To those who faithfully pursue it, medical practice affords an ethical training and discipline of the best kind; it opens a refuge from pessimism in the opportunities it gives for the relief of sorrow and suffering; it unveils, in the tender ministrations of the sick room, some token of the angel as plainly as competition discloses vestiges of the tiger and the ape, and it fosters that wide sympathy that yields hope for the future of our race. "The man shall die," said David, not because he did this wrong, but "because he had no pity." Surely one of the most moving of texts is this: "He had compassion on the multitude," which, translated into my native language, as it has been by Scott Riddell, becomes even more expressive in the words: "He was wae for the folk." To bread-winning industry, to an honourable ambition, the medical man must add compassion for the multitude if he would make his work fruitful to his patients, to the public, and to himself.

LONDON SCHOOL OF MEDICINE FOR WOMEN.

THE IDEAL IN MEDICINE.

By Miss Helen Webb, M.B.Lond.,
Demonstrator of Anatomy in the School.

After welcoming both old and new students, and comparing the advantages now enjoyed in the school with those of ten or twelve years ago, the lecturer continued: Those here who have taken up the profession of medicine have no doubt done so for very varying reasons and from many diverse points of view. With whatever motive each has started on the road, I beg of all to take a broad view of the work before them. Not only by reading books and by passing examinations will you fit yourselves for the practice of medicine. The kind of knowledge which is a real power is not granted to many on easy terms. It calls for individual effort, and above all for time, in which the processes of intellectual digestion and assimilation may take place. Books, lectures, and teachers point us to the right way where by observation and thought we may work ourselves into sympathy with truth, and make it really our own;

> For the great art
> Of healing is not brief, but hard and long.

Before all students here lies an untried country full of treasure, and upon each herself depends whether she sees in medicine a land of promise, bounded only by an infinite horizon always receding as she travels on, or a walled garden with or without a laboratory attached. It is to be hoped that to most if not all here the map of the land will always be a large one with plenty of blank spaces for future use; that the mountain heights where infinite truth dwells will not be forgotten, nor the rivers flowing in from other regions bringing with them fresh fertility. It may not fall to the lot of many of us to travel far or to cultivate much of the

land, but the work done will be good and useful in proportion as we keep sight of the fact that it is but part of a great whole, and that each step will of necessity be followed by its own consequences. Hence, how desirable that to the study of medicine should be brought a cultivated mind already stored with collateral knowledge, and if possible one which has gained something of what a modern novelist so pithily styles the "culture of circumstances."

It is a wise regulation which lays out for us as wide a field of study as that which is put before you. The number of subjects perhaps bewilders and appals you, but without such variety the outlook of medicine could not be wide enough. Indeed, to act worthily by your profession you must study much that cannot be set down in the regulations. In order to become a medical practitioner worthy of the name you must learn to combine a reverent care for accuracy in detail with a wide view of the relations of things observed. Everything is part of something else, and the fact that it is so gives it a meaning and vitality it could not otherwise possess. The part is truly understood only when brought into relation with the whole. How little meaning has a leaf without a branch, or a branch without the trunk and root of a tree. And, further, what a flood of light is thrown on the life-history of the tree by a knowledge of the soil in which it grows, and this again is linked to the geology of the whole earth. Nowhere do we realise more clearly than in the study and practice of medicine, that there is no such thing as an isolated fact. What you learn in chemistry will have its bearing on physiology, and woe to the student of diseased functions who does not ever keep in view a healthy physiological ideal.

Each system of the human body must be studied separately, but they cannot be said to be known until their mutual relations in the body as a whole are grasped. Not, indeed, until you have realised breath in the lungs, blood circulating through the vessels, and the working of all other vital processes, to say nothing of how character and circumstances affect the individual, can you be said to understand much about the complex material upon which, as medical practitioners, you will claim the right to exercise your skill.

Do not fall into the error of supposing that the study of the symptoms of disease and their immediate cure is alone your business. You will do little good even here if you do not look beyond the near object and see as the highest ideal of the medical profession (never, perhaps, to be realised) a state of things in which its own existence will no longer be called for. Infinitely remote as such a prospect may be, we see progress towards it in the increased importance of the position given to preventive medicine during recent years. In the good old times, when a fever or plague broke out its presence became at once an accepted fact, and professional energy was altogether directed to the cure of cases as they occurred. It is most significant of the times that during the present outbreak of cholera in Europe the literature of the subject has dealt almost altogether with discovery of the sources of infection and their speedy destruction.

MIDDLESEX HOSPITAL MEDICAL SCHOOL.

THE PERSONAL FACTOR IN WORK.

By W. PASTEUR, M.D., F.R.C.P.,
Assistant Physician to the Hospital.

AFTER expressing his regret that one with riper experience had not been selected to discharge so responsible a task, Dr. Pasteur pointed out that the benefit they, the students, would derive from the educational course upon which they had entered would largely depend on the intellectual digestive apparatus they had acquired at school. He particularly deprecated the too common feeling among students, a relic of schooldays, that knowledge was something to be taught rather than learned; something, moreover, which was to be acquired with the minimum of personal exertion on the part of the student. He regretted the tendency to abandon Latin as a subject of preliminary education, since it alone would enable students to appreciate at a glance the real meaning and relations of terms instead of regarding them as mere signs or names to be committed to memory by tedious effort. Alluding to the far too lowly standard of general education required by most of the licensing bodies, he insisted on the fact that unless means were taken to improve the quality of the raw material, it must eventually prove unequal to the increasing educational strain put upon it in consequence of the ever increasing requirements of medical training. He described the standard of preliminary education at present accepted as altogether too low, and unworthy of a profession which called itself liberal, and he congratulated them on the fact that the matter was receiving the earnest attention of the General Medical Council.

Passing on to the subject of medical study proper, he warned them that the five years of study were all too brief for the work that had to be done, and he urged them to lose no time in settling down to work, not only in order not to waste precious time, but also to secure the formation of habits of diligence from the very beginning. He pointed out that their whole career might be influenced for good or for evil by the habits acquired during the first few months.

The lecturer then pointed out that though great assistance in the acquisition of knowledge was afforded by careful methodical teaching, it behoved the student not to be a merely passive agent, and he compared the purely receptive attitude of many present-day students to the method pursued in certain poultry farms, where the assembled bipeds were subjected to a carefully graduated process of spoon or tube feeding, the principal difference being that the organ to be stuffed with extraneous material was the liver instead of the brain. He admitted that tutorial classes were a "necessary evil," the inevitable result of the inordinate requirements of examining bodies; but knowledge received and not assimilated by the student was, he warned them, knowledge without wisdom, and knowledge without understanding was a worthless possession, which would vanish as soon as the examinations were over, leaving them without any solid foundation on which to build up experience in after-life. He urged them, therefore, to think for themselves, to rely upon themselves, to get at the reason of things, and not to be content to take them on trust from their teachers. By so doing the work would become a source of constant interest, and satisfaction instead of a tedious drudgery, more easy of acquisition and less easy to forget.

Touching on the value of lectures, he excused himself from offering an opinion as to their value on the ground that attendance on lectures was compulsory. He admitted that some men derived much more benefit from them than others who had an unusual facility for acquiring knowledge from books. It would be for each of them to decide which plan of receiving knowledge was most congenial to their individual temperament.

He defended lecturers against the charge of being too dry, too theoretical, urging that, as a matter of fact, the tendency of the systematic courses was, if anything, to be too practical, thus covering too much the same ground as the practical and clinical courses that came later on. By making the systematic lectures more philosophical, he suggested that it might be possible to instil into students' minds a broader and more intelligent view of the subjects, and thus to encourage them to ground their knowledge more on general principles and less on details. He regretted that students were not required to produce some evidence of an acquaintance with the history of medicine, which, apart from its intrinsic interest, was possessed of considerable educational value, and would add to that general culture in which as a profession they were said to be lacking. He warned them against undervaluing reading as a means of gaining knowledge, though he admitted that knowledge gained in this way was less easily reducible to practice and more easily forgotten than that gained directly through the senses. He quoted Blackie's words that "books are no doubt useful helps to knowledge, but are not in any case the primary and natural sources of culture. They are not creative powers in any sense, but mere tools. The original and proper sources of knowledge are not books but life experience—personal thinking and feeling and acting. When a man starts with these books he can fill up many gaps and correct much that is inaccurate, but without living experience to work upon books are like rain and sunshine falling on unbroken soil." He urged them to use their books in this sense, remembering that observation and experience, not reading, were the bedrock of all sound knowledge. He pointed out that the

particular knowledge which they required for after-life was to be gained only by a special training of the senses, the combined information of several senses being more likely to prove correct than the unsupported testimony of any single one. Admitting that the present age is one of "grinds," he urged that they aim a serious blow at originality in work and independence of character. "Grinds," if admissible at all, ought to be merely complemental and in no sense substitutes for individual effort. He apologised for insisting at such length on the importance of the personal factor in work, but expressed his intimate conviction of the dangerous influence of the system which seemed to be gradually displacing it. He pointed out that examinations were only a means to an end, that end being the practice of medicine. The standard imposed was only a measure of the minimum of knowledge with which a man might be allowed to practise among his fellow-creatures without becoming a source of danger to the community, and he urged them to seek to acquire something more than this minimum of knowledge. Referring to the present position of the movement to establish a teaching university in London, he said that, if rumour were to be believed, the Gresham scheme was dead, and the University of London would once again be asked to reconstitute itself, so as to give teaching a proper representation on its councils. Whether it would be possible to devise a scheme which should obtain the assent of Convocation on the one hand and satisfy the just aspirations of London students on the other, he confessed himself unable to forecast, but whatever benefits might accrue to the organisation of higher teaching in general, he feared that their own particular dream was farther from realisation than it was a year ago. In conclusion, he welcomed them to the labour that lay before them, and congratulated them upon their choice of a profession. If, he said, it be true that in the exercise of all one's faculties lay the best fulfilment of existence, then of all callings that of medicine was most calculated to attain that end. If it were true that to be helpful to others was the highest aim of human effort, then of all callings that of medicine might claim the chiefest rank, and if it were true that the greatest happiness was to him who toiled the hardest, then of all callings that of medicine was the most gratifying.

ST. MARY'S HOSPITAL.

MEDICAL EDUCATION AND MEDICAL PRACTICE.

By J. Ernest Lane, F.R.C.S.,
Surgeon in Charge of Out-Patients and Lecturer on Anatomy.

Having offered a cordial welcome to those of his audience who were on that day joining the medical profession, Mr. Lane referred to the recent changes which had been introduced into the educational curriculum, and pointed out the advantages which must be derived from an additional year of study; this extra term would have to be devoted to clinical work and to the acquisition of knowledge upon important subjects such as mental diseases and fevers, studies which up to the present time had been somewhat neglected. The extended curriculum could not fail materially to elevate the scientific standard of the medical profession, and to enhance the value of a diploma; it might possibly lessen the number of those embracing medicine as their calling in life; but, by so doing, it would mitigate some of the ills of overcrowding in the ranks, amongst which were named excessive competition and a diminution in the value attached to professional services. Any changes which would remedy those evils, which would ensure more quality and less quantity, would be heartily welcomed by the profession at large. Mr. Lane dwelt upon the value of a sound knowledge of anatomy, the subject in which he was specially concerned in teaching at the medical school, and pointed out to his student audience that, as the human body was the fabric upon which they would have to exercise their craft, so the knowledge of its intimate structure would obviously form the first and one of the most important branches of their study. Anatomy was the very essence of the art of surgery: it was the beacon and guiding star of the surgeon: it warned him of dangers and difficulties unseen, and enabled him to avoid those dangers, and to rise superior to those difficulties; it gave him that knowledge which constituted surgical strength, and endowed him with the manual dexterity requisite to enable him successfully to accomplish any operative procedures. In alluding to their preliminary studies Mr. Lane thought that too much stress was laid upon the benefits to be derived from what was termed a modern education, and suggested that a judicious admixture of the ancient with the modern would be of more benefit than an exclusive knowledge of either the one or the other. He pointed out that anatomical nomenclature, and in fact nearly all the technical terms met with in the study of medicine, were derived either from Latin or Greek, and that it was necessary to acquire at least an elementary knowledge of those languages, in order to obtain an intelligent knowledge of their profession. As bearing upon this subject he quoted the words of a distinguished member of the profession, who had recently given it as his opinion that "if a boy destined for a profession were to be taught nothing but reading, writing, and arithmetic till he was 11, and after that nothing but Greek, Latin, and mathematics till he was 18, at 50 that boy would turn out a more widely cultured, better read man than if in his early years he had been stuffed with geography, history, philosophy, and the twopenny-halfpenny fragments of chemistry, botany, and zoology which constitute school science."

Addressing those who were approaching the end of their student career, Mr. Lane exhorted them to use their most earnest endeavours to uphold the honour and dignity of their profession, and to extend the sphere of its usefulness; he would not attempt to enunciate anything in the shape of a code of medical ethics, but pointed out that they had certain high duties to fulfil not only to themselves, but to their professional brethren and to the general public. Amongst inducements which might in after-life be held out to them to deviate from the paths of professional rectitude, he referred to the institutions known as medical aid associations; these were defined as a system by which a lay committee or any single unqualified individual derived considerable profit by farming out the services of a duly qualified medical practitioner, who, in return for a fixed salary, was required to give his services to any member of the association who might require them. Membership of these associations was obtained by the payment of an annual subscription of three or four shillings, and any person could secure election whether he was in a position to pay proper fees or not, and by this questionable method a number of the well-to-do middle classes contrived to obtain their medical attendance for a mere nothing. Canvassers and touts were in many cases employed to induce people to join these associations, and a large number of them were in a prosperous financial condition. Such a system was demoralising to the medical man who lent himself to it, and was further degrading to the whole profession; the medical officer of these institutions was at the mercy of a committee composed possibly of artisans, who would not forget to remind him that he was their paid servant; he was so overworked that his health would almost inevitably break down; he must soon lose not only all his self-respect, but also all interest in his work, and he would perform his daily task of drudgery in a purely perfunctory manner. Appeals had been made to the General Medical Council and to the Council of the College of Surgeons to use the authority vested in them, but in this matter they seemed to have no jurisdiction. The former body appointed a committee to investigate the subject, but rejected the recommendations of their committee, and decided that no offences had been disclosed with which it would fall within the statutory province of the Council to deal, while the Council of the College of Surgeons decided "that it was degrading to the profession and injurious to the public interest that Fellows or Members of the College should associate themselves with trading institutions for the treatment of disease, and allow their names to be advertised in support of the practice of medicine and surgery." But to tell a man that his conduct was represensible or injurious to the public interest did not amount to much, and would not go far towards deterring him from repeating his offence, and the jurisdiction of the governing bodies should be extended to the "minor morals" of the profession. The lecturer alluded to this subject at some length as an example of one of the

offences against medical ethics which many a young man might unwittingly be led into committing. He concluded by urging upon those who had that day entered the medical school the necessity of regular and methodical study, and warned them against the evil of procrastination and against the spasmodic efforts which were engendered by that habit.

ST. GEORGE'S HOSPITAL.

THE CENTENARY OF HUNTER'S DEATH.

By Timothy Holmes, M.A., F.R.C.S.,
Consulting Surgeon to the Hospital.

The lecturer began an introductory address on this subject by welcoming the new students to Hunter's school, a school always distinguished by its facilities for clinical study—facilities first gained by Hunter's own exertions; and he exhorted them to follow John Hunter's example, who never took any doctrine for granted, but tested everything by his own experience, and the occupation of whose whole life was to accumulate clinical knowledge and prosecute scientific research. After enumerating the changes recently made in the school, and showing how they operated to enlarge these facilities for clinical study, the lecturer turned to his chief topic: the Life and Works of Hunter—a subject on which, after fifty-seven Hunterian Lectures at the College of Surgeons, anything like originality was impossible, but one which could never lose its interest in an audience of surgical students, especially at St. George's, where Hunter worked and where he died. After a rapid survey of the accounts which we possess and of the chief events of his life, he thus summed up its general result:—

"The first thing that strikes the student of Hunter's life is its immense laboriousness—at least in his later years. His day began with sunrise in summer, and long before dawn at other seasons, after about four hours in bed; and then, from 4 or 5 in the morning, he used to dissect till 8 o'clock breakfast. Then he saw his patients or pursued his researches till he had to go his rounds to the hospital or his office of surgeon-general, or his patients in the City; and, after his frugal dinner at 4 o'clock and an hour's sleep, he resumed his labours till midnight brought the day to an end."

This constant labour wore him out, yet it was his chief happiness to be always at work, and all the more so as he saw that his life could not be a long one, and was conscious that his researches were constantly opening into new vistas, and that even his chief treatise—that on the blood, etc.—was still unfinished, and, after more than thirty years of labour, remained unfinished at his death. His life then was, on the whole, one of enjoyment, but chequered by many sorrows, from ill health, from opposition, and from endless distractions to his work. He was early seen to be a man of distinction, and rose rapidly into position and practice; but all his money went into his museum, and on his sudden death his family were unprovided for, till the purchase of the museum by Parliament gave his widow the means of keeping her children from want.

The next subject was the connection of Hunter with St. George's Hospital and School; the quarrels with his colleagues—which culminated in his fatal seizure—regarding the tuition of the students. Hunter was the first to insist upon adequate teaching in the hospital, and may be looked on as its founder as a school of surgery.

The lecturer then offered a summary of Hunter's work as a practical surgeon and as a surgical author. His work in practical surgery was subordinate to his philosophical researches, but was still of a very high order. His operation for aneurysm; his treatise on the *Venereal Disease;* that on *Gunshot Wounds*, which laid the foundation of sound military surgery; the *Lectures on Surgery*, published from the notes of his students, which marked so great an advance on the teaching of his day; his researches on subcutaneous surgery and on phlebitis were passed in rapid review, and finally the great treatise on the *Blood and Inflammation*, which has done more for pathology—that is, for the fundamentals of medicine and surgery—than any other published work. But his chief merit was that he first practised and taught surgery as a branch of the science of life, and by so doing started it on a career of improvement, which it has pursued with ever-increasing speed during the century that has elapsed. Thus, if it be admitted that as a mere surgeon Hunter was not manifestly superior to others, yet as "The Founder of Scientific Surgery"—his title on the monument in Westminster Abbey—he occupies a place above the level of any other man who ever practised any branch of medicine.

Time compelled a still more summary treatment of Hunter's philosophical works, those comprised by him under the name of Animal Economy, though many of these are most delightful, and show Hunter at his best, for his anatomico-physiological disquisitions are nearly perfect, and are free from all the obscurities and faults of method which have not unjustly been charged in his treatises dealing with more metaphorical questions. The charming tracts on whales and on bees, the observations on the recovery of drowned persons, the palæontological tract, and others were commended to the perusal of those who wish to form an adequate idea of Hunter.

Then followed a few words on the great museum, which was the chief work of Hunter's life, and his chief title to fame, "the great labour of his life, the principal record of his deeds and opinions" (Abernethy). If Mr. Pitt had not fortunately been persuaded to advise its purchase by Parliament at a time when Great Britain had just been forced into the revolutionary war (for John Hunter died on the same day as Marie Antoinette), when every penny of public money was wanted for the war, and when the value of the museum was inadequately perceived even by naturalists like Banks, it seems probable that little would now be known of Hunter. As it is, his fame has continued to grow as we recede from the time of his life. Like the great mountains, whose relative height it is difficult to distinguish when they are near, the distance of a century enables us to see how far he overtops all other medical philosophers and workers, that he was one of the very few men whose life forms an era in the history of human knowledge. His excellence consists not so much in his own individual discoveries (though he was one of the most profound and original physiologists and naturalists) as in the conception which underlies all that Hunter wrote, all the aims of his great collection, all the thoughts that were for ever seething in his mind, namely, that surgery, pathology, physiology, natural history, palæontology are but different branches—say, rather, different aspects—of the great science of life—life as directing organisation, life in all things great or small, ancient or contemporary, life in health and in disease. Others have seen this partially, but Hunter was the first to work it out systematically, and he illustrated his theory by the noble means of writing, which was only too early interrupted by his death, and by the still nobler collection, consisting when he left it of over 14,000 specimens, and which has since been expanded on the plan which he formed, and is now the most splendid aid to the study of Nature which exists in the world—the glory of the nation and of the city which possesses it.

The lecturer concluded with an apology for the very inadequate sketch which had been given of this great man, and with an exhortation to the students of Hunter's hospital to follow, as much as their powers permitted, in the footsteps of the greatest of the many great sons of St. George's, to try to imitate his single love of truth, his simple and sublime disregard of worldly rewards, his determination to found all his opinions and all his practice on real and patient observation of Nature.

From reports that have reached us it appears that the usual autumnal prevalence of typhoid threatens to be wide and serious. Serious epidemics have broken out in the Rhondda Valley and at Wigan, and numerous less extensive outbreaks are reported.

Dr. Rotgans, *Privat-docent* in the University of Groningen, has been appointed Professor of Surgery in the University of Amsterdam in the room of Professor Tilanus, who has resigned on the ground of age.

The Cost of Medical Education in Russia.—At the University of Moscow the fees for the medical curriculum of five years amount to about £80. At the Imperial Military Medical Academy of St. Petersburg the expense is even less, the fees being only 60 roubles, or about £6 a year.

UNIVERSITY COLLEGE.

ACCURACY AND THOROUGHNESS.

By Bilton Pollard, M.D., F.R.C.S.,
Assistant-Surgeon University College Hospital.

Mr. Pollard began by offering a hearty welcome to the students who were entering at University College. As an old student of the College himself, he congratulated them on their choice of a medical school. Some had criticised these introductory addresses as being obsolete and useless. For his part he thought they had special value, particularly in a centre like London, in bringing prominently before the students at the commencement of their career that they were members of an institution—members of a corporate body, on which their careers might reflect distinction, just as its glorious past would reflect distinction upon them. The profession of medicine was very exacting, and would not tolerate any serious rival, but he hoped that, so far as their studies allowed, they would not neglect any of the educational influences with which the metropolis abounded; its restless activities, its vast extent, its wealth and its magnificence must surely influence for good the veriest sluggard, and urge him to personal effort and honourable ambition; and London, with its buildings, its museums and its art collections, was an education in itself. In pursuing their special work they could not do better than adhere strictly to the order of study prescribed by the curriculum, for that had been arranged with definite educational objects to lead them on from the more exact and fundamental studies of chemistry, physics, and anatomy, through the less exact, but for their purposes equally fundamental, studies of physiology and pathology to the final study of clinical medicine and surgery. Neglect of their earlier studies would soon bring them face to face with insurmountable difficulties; they would be handicapped in all their subsequent work. But those studies also served to educate their powers of observation. Accuracy and thoroughness in observation were the foundations of success; if they once acquired thoroughness they had the root of the matter in them. In all their studies they must discriminate clearly in their minds between facts such as they could observe for themselves and inferences from facts and mere theories. Theories and inferences from facts were liable to vary with additions to knowledge, but facts were good for all time. They must bring their own intelligence to bear on debatable questions, and not allow their individual judgment to be warped by reverence for authority. Had not the generations immediately preceding their own broken away from the trammels of authority and gone straight to Nature herself for inspiration and guidance, neither the science nor the art of medicine could have made the wonderful progress which they had made in recent years.

It was the privilege of a large medical school, by the contact of mind with mind, of youth with experience, to keep alive the spirit of scientific investigation and inquiry. It would be the aim of their teachers to foster in them enthusiasm for medical study; and he could assure them that the zeal and progress of students constituted the most contagious and stimulating influence which acted upon their teachers. The lecturer then considered some of the modes in which their studies were to be carried out. He defended instruction by systematic lectures. By attendance on them they would feel the stimulus of the lecturer's personality, and perhaps imbibe some of his enthusiasm for his subject. Old facts might strike them in a new light when they were clothed in the lecturer's own words, and perhaps amplified and illustrated by his own special observations and experience. After advice about their own reading, he dwelt upon the importance of practical work, the time occupied by which was often begrudged by students. They might read descriptions of anatomical facts and relations over and over again without accurately retaining them; but if they once got an accurate picture engrafted upon their minds, it was wonderful how vivid and how lasting that picture might be. Even after the lapse of many years, and even after they had repeated dissections many times, there would be parts of the body which, when they tried to recall them, they would picture neither in the last dissection they had seen nor even in a purely imaginary one; they would fancy themselves in their old place at the dissecting table, and they would see their "part" before them. Muscle and artery and nerve would begin, as in a photograph in the course of development, to assume more definite shape and clearness, until at length the relation of one to the other was distinct. In the course of his remarks to those students who were about to commence work in the hospital, the lecturer impressed upon them the duty of making painful manipulations as brief as possible consistently with their objects. With that intention they must first of all determine clearly in their minds what they proposed to investigate, and then carry out their investigations systematically and rapidly. It was positively wrong, as well as unscientific, to fumble about an injured or diseased part with the hope, as it would seem, that something might turn up by doing so. Every manipulation should be directed to the solution of some particular point in diagnosis.

It was sometimes said that the feelings of doctors became blunted by familiarity with suffering. He believed, on the contrary, that this tended rather to intensify the sympathetic side of their natures, whilst, at the same time, their training, by strengthening the control of the will over the emotions, enabled them to arrive at wise decisions amidst surroundings well calculated to disturb their judgment. He advised the students to cultivate a kindly and sympathetic bearing towards poor patients, for they might rest assured that if they possessed the personal qualities which secured them the confidence and affection of poor hospital patients, they possessed also the qualities with which alone, as men of self-respect, they would strive to win the confidence and esteem of patients in higher ranks of life. After discussing their proper attitude towards the various departments of hospital work, he insisted upon the great value of holding the resident appointments. They not only provided the students with the means of self-instruction, but they afforded them the opportunity of gaining that confidence in themselves which was so essential. As holders of hospital appointments, their first and paramount duty was unremitting attention to the patients, and the maintenance of the reputation of the hospital; their second duty was to neglect no opportunity of advancing their own knowledge; but there was a third duty which they should impose upon themselves. For the younger students they could do much; they could train them in thoroughness of work, and, indeed, teach them. By so doing, they would realise the true spirit of collegiate life, and the mental effort of calling up and summarising knowledge in a form exact enough to carry conviction to another mind was an excellent training.

In his concluding remarks to those who were approaching the completion of their studies, whilst heartily wishing them success in life, the lecturer trusted they would carry away with them a high ideal of what true success should be, and a lofty conception of the attitude which members of a scientific profession should assume. They were justified in feeling pride in the powers which their knowledge conferred upon them; but he cautioned them against posing as knowing more than was known, and against adopting the easy resource of covering ignorance by a semblance of knowledge. They must decline to countenance the many popular fallacies which were often so satisfying to those who believed in them that acquiescence would relieve them of immediate trouble. The dignity of a great profession demanded that they should be willing to face difficulties and opposition rather than sanction views which were not only wrong, but fruitful in disastrous consequences. It was felt by some that the members of the medical profession did not get the public recognition to which they were entitled. The art of healing, it was true, had an intrinsic nobility about it, but after all it was not his profession which ennobled a man, it was the man who ennobled his profession.

At the meeting of the Cardiff University College Council on September 29th it was announced that Dr. W. T. Edwards and Dr. Price would each contribute £1,000, under certain conditions, towards the medical school.

An outbreak of typhus fever has existed for some time past in the Ballyclough district of Mallow Union, but the mortality has been very slight.

REPORTS
ON
MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

CORPORATION FEVER HOSPITAL, GREAT GRIMSBY.
SOME CHOLERA CASES.

(Notes by H. J. Manning Watts, M.R.C.S.Eng., L.R.C.P.Lond., Resident Medical Officer.)

Case I.—J. F., aged 39, a dockside labourer, was taken ill on September 2nd, at 6 A.M., and was admitted at 9.30 A.M. On admission his legs were very cold, hands cold and blue up to his elbows, face and lips livid, cramps in abdomen and legs, and profuse diarrhœa. He was wrapped in hot blankets and surrounded with hot-water bottles, whilst brandy and hot coffee and hot milk were administered internally. No pulse could be felt at the wrist, and the temperature was too low to be registered on the clinical thermometer. However, in half an hour the united efforts raised the temperature to 95.8°, and the pulse to 94, though small. The cramps were very severe, especially in the legs, and he was continually calling out to have them rubbed, as it relieved them a little. The diarrhœa continued profuse, and was of a light greenish colour and very watery. Hot poultices seemed to relieve the abdominal cramps. Hot drinks were constantly administered, but he never seemed to revive much. The face became very cold and more livid; when the skin of the trunk or extremities was pinched the folds took a long time to disappear. At 1 A.M., September 3rd, he became convulsed, and died shortly afterwards.

Case II.—C. G., aged 14, female, was brought in about noon September 2nd. She was very cold all over trunk and extremities, face livid, and eyes turned upwards. She was very sick, or else constantly retching. Hot blankets and bottles were applied, and constantly changed as soon as they lost heat; internally hot coffee and hot milk were given, some of which she retained. Having abdominal cramps friction was used, and afterwards linseed and mustard poultices. She revived and got less livid, but about 4 P.M. began to get worse; vomiting continued; brandy was given, but she did not retain it. Her breathing became impeded, and the face began to twitch, especially the eyelids, and she died about 7 P.M.

Case III.—N. B., aged 29, female. Admitted September 7th; was taken ill on 3rd instant with diarrhœa and sickness; took to bed on September 4th with cramps in legs and abdomen, and watery, light-coloured motions. On admission was warm, but had bad cramps, and was vomiting freely; hot blankets applied, and hot drinks were freely administered. On September 8th had passed no water; catheter passed, 1 ounce drawn off; was vomiting freely; motions frequent and copious, like rice water, with small, flaky, and slimy pieces. Cramps occasionally in stomach. Pulse 104, fair volume, regular; temperature 97.6°.

September 9th. Patient's face congested and livid, eyes turned up, feet cold. Her temperature was 95.2°. The hot bottles were refilled, and more hot blankets were piled up, and brandy in hot coffee given, and she regained heat and colour in about an hour and a-half. Vomits freely. Bowels open once, same consistence.

September 10th. Better to-day; temperature 96.8°, pulse 100; bowels not open so much. She is restless and throwing off bedclothes; can keep very little down, and constantly retching.

September 12th. Temperature still low—96.8°; pulse slower, 88; still retching, and vomits a little.

September 14th. Is better; temperature 97.2°; pulse quiet, 88; vomiting has stopped, but bowels very loose and motions watery and light coloured.

September 16th. Yesterday temperature rose to 99.4°, and she developed an urticarial eruption on the arms and legs. To-day her temperature is 101.2°, and the urticaria is all over the trunk, extremities, and face, and looks very angry. Lot. plumbi applied every hour. She has been sick, and her face is much congested. She has developed two small bedsores within twelve hours on nates, about size of a sixpenny piece. Her pulse is fast, small, but regular, 112. Tongue very dirty and furred.

September 19th. The rash is slowly fading, and she is better again. Tongue is now cleaning; pulse 100, regular, fair volume. Bowels open, motions more of a natural character. Bedsores much better.

September 21st. Is now on fish and mashed potatoes, and is rapidly improving. She is now peeling all over from effects of the rash (just like scarlet fever).

September 25th. Improving fast; bedsores healed up; eats and sleeps well.

September 27th. Out of bed now. Is rapidly getting better; still peeling all over.

September 30th. Convalescent. She remembers nothing of what happened to her after her removal from the ambulance till the 16th, since when her memory has been perfectly good.

Case IV.—G. P., aged 34, male. Admitted on September 11th with a five hours' history of diarrhœa and abdominal cramps. On admission had constant cramps in legs and abdomen, vomiting and purging. His extremities were cold, face also; eyes sunken, with livid rings round them. Temperature 97.8°; pulse 108, small. The cramps were relieved by friction and poulticing with mustard and linseed; had hot coffee and milk given him. The next day he had occasional returns of cramp, and was vomiting bile-stained fluid. Bowels very loose, motions light brown in colour; bad hiccough.

September 14th. Facial aspect much improved, rings round eyes disappeared; the vomiting, however, continues slightly, but does not distress him so much. Bowels open five times; troubled with hiccough again.

September 17th. Vomiting stopped, has persistent looseness of bowels, is taking Battley's liq. opii sed., ℥xv, every four hours. Tongue dirty, and covered with a thick white fur, breath foul. No cramps, no hiccough now.

September 20th. Restless, and had a disturbed night, diarrhœa stopped, tongue cleaner, foul breath, has occasional retching. Temperature 98°; pulse 80, quiet, and fair volume. To-night is developing an urticarial rash over the upper and softer regions of arms and legs, and over lower part of back.

September 21st. The rash is now well out on parts mentioned. Health improving.

September 22nd. The rash has begun to fade from legs and arms; he is much better in himself. Temperature 98.4°; pulse slow and regular, 68. Is now taking fish and pudding.

September 25th. Sat up for a quarter of an hour on the 23rd, and to-day has been up for five or six hours; is rapidly gaining strength. He has some slight peeling of skin on both wrists and hands, the result of the rash, which has entirely disappeared. Meat and pudding diet.

September 30th. Discharged cured to-day.

Case V.—J. B. S., aged 46, male, was admitted on September 13th with history of cramps in legs and abdomen, profuse purging and vomiting for the previous seven hours. On admission had foul tongue and offensive breath, slight abdominal cramps, cold extremities, with vomiting and supra-orbital headache, pulse slow and regular 68, fair volume.

On September 15th he was decidedly better, and had a little fish and pudding.

September 16th. Cramps and pain in abdomen, poultices applied, but pain was not greatly relieved. Fish and pudding discontinued, and he was put on diet of arrowroot, milk, and brandy ℥ij.

September 17th. Sleep disturbed by abdominal pain, which made him feel sick; bowels open three times, very loose, and light coloured.

September 18th. Bowels open twelve times, very watery, lemon-yellow in colour, with small white flocculent pieces floating about like pieces of bran. The abdominal pain was very severe. Brandy ℥iv; same diet.

September 20th. Has been getting weaker the last two days. To-day temperature went down to 94½°; hot blankets applied and repeated constantly, mustard poultices applied over spine, motions very watery like rice water; he vomits profusely at times. Has some abdominal pain, but not so great as previously. Getting worse in afternoon a solution of saline fluid, 5 ounces, was injected into right forearm and right mamma, and it seemed to relieve him; temperature

rose to 96°. The vomiting continued, but the purging ceased. He dozed for a few minutes at a time throughout the night. His diet now was champagne, Valentin's meat juice, iced soda water and milk; brandy discontinued. Can feel no pulse except at the carotid arteries.

September 21st. This morning he seemed brighter and better, although vomiting constantly; he passes very little water now, 4 ounces in last twenty-four hours; temperature at 8 A.M. was 97.6°, but dropped in afternoon to 95°, and the patient seeming to lose ground the left median cephalic vein was opened, and 8 to 9 ounces of the saline solution pumped in (I was using an Aveling's syringe). An hour afterwards his face was not so drawn and pinched, and he was better, but was troubled with hiccough, and was very restless. At 9.30 P.M. he had inj. morph. hypod. mij, and he slept for a little while; at 12 P.M. it was repeated, as he was very restless, and tossing about; pulse not to be felt except at carotids. The formula of the saline solution was given to me by Dr. Reece, of the Local Government Board, and is as follows: Sodii chlorid., gr. 50; potass. chlorat., gr. 3; sodæ sulph., gr. 25; sod. carbon., gr. 25; sod. phosph., gr. 2; aq. destill. ad. Oj. Misce; ft. solutio.

September 22nd. Very weak and constantly retching, but brings up very little fluid. Temperature 97.6°. Has passed no water. Takes fluids well, but has great craving for iced drinks; has no saliva; mouth and tongue dry; has kept down most of a bottle of Valentin and one of champagne.

September 23rd. Had a fair night. Is stronger this morning. Vomited a large quantity of fluid this morning. Bowels open several times to-day, of a loose and watery nature, and light brown in colour. Passed about 8 ounces of urine for first time since morning of 21st. Temperature 98°. Pulse 100, soft and regular, and is now to be felt at the radial and temporal arteries.

September 24th. Is much the same to-day. Bowels open seven times, and all passed involuntarily; same characters. Says his throat is sore.

September 25th. Slept fairly well. Temperature 99.2°; pulse soft and regular, 96. Passes water naturally, but in small quantities. Bowels still very loose. Voice is now very rough and thick; hurts him to talk much.

September 26th. Restless and delirious through the night. Face filling out, and not so haggard and worn. Voice is not so thick in utterance, and less pain in throat. Takes milk well and linseed tea; is still on Valentin and champagne. Tongue foul.

September 28th. Still delirious at intervals; fancies he sees people sitting by his bed, etc. Tongue cleaning up. Passes a good quantity of urine—acid, no albumen and no sugar. Bowels still loose, but not so watery.

September 30th. Delirium is passing away as he regains strength. Yesterday he had hallucinations of vision. To-day he seems stronger; throat better, but he has slight pleurisy on his right side and a small hacking cough.

Case VI.—C. B., aged 48, male, admitted September 18th at 11 P.M. He had gone to work at 6 A.M. perfectly well, returned home at 11 A.M. with purging and profuse vomiting accompanied by cramps of legs and abdomen; these continued, and getting very much worse was brought to hospital. On admission his face and arms were very dusky and cold, head quite cold, also trunk and extremities, was vomiting a thin watery fluid; hot blankets and bottles were applied. Temperature in mouth 94°. He was then placed in a blanket wrung out of hot mustard and water, and kept in it for one hour, with hot blankets piled on the top of him, and at the end of that time his temperature was 98.2°. He kept vomiting small quantities of the drinks he was taking. When unpacked his face and arms were a more natural colour, and at 2 A.M. he seemed to be improving and keeping warm, but at 3.30 A.M. his breathing became laboured, and after giving four or five deep inspirations he died.

Case VII.—A. M., aged 36, female, admitted September 6th, with diarrhœa and sickness, with severe cramps in legs and abdomen. On admission feet and legs were cold, trunk and arms warm, eyes turned up, and face dusky. Complained of nausea, and shortly after vomited freely. Abdominal cramps coming on, they were relieved by poulticing. Bowels open twice, motions dark brown and watery. The next day her bowels were freely open, motions lighter in colour and very watery. The vomiting and retching continued very freely, so was given cocaine hydrochlor. gr. ½, which stopped the vomiting for a short period.

September 7th. Vomiting incessant, and she kept nothing down; becoming collapsed, hot water bottles and blankets were constantly changed, and she regained heat, and the sickness stopped.

September 8th. She was a little improved, bowels open thrice and very loose.

September 9th. Vomiting recommenced, but was stopped by drinking hot water; she feels faint, and has supraorbital headache. She now commenced to pick up strength, and on September 11th was taking fish and pudding to eat, having had only hot coffee and milk before. The diarrhœa had stopped, and her motions were of a natural consistency. She was discharged well on September 16th.

Remarks.—At the end of August, 1893, this hospital was reserved by the Grimsby sanitary authority for the sole use of cholera patients. The first case was admitted on September 2nd; since then there have been 27 patients admitted, 6 of whom have died, 18 discharged recovered, and 3 are still (September 30th) under treatment. Of these 27 patients there are 2 belonging to Cleethorpes, a suburb of Grimsby; the rest all come from Grimsby.

The hospital is adapted for 63 beds, and is built in two blocks, with an intervening block for the administrative department. The hospital has had its water supply cut off from the town, and all water that is used is brought daily in a water cart. All communication with the town sewers has also been shut off and stopped up, so that all the slops, bath and laundry waters, have to be carted away daily, having first been treated with a strong solution of biniodide of mercury. The fæces and urine of patients and staff are collected twice daily, and are well mixed with sawdust and burnt in a destructor, which is also used for the destruction of all soiled and foul beds, beddings, and rags that are condemned by the sanitary authority in the town. All blankets and linen that are soiled either by vomit, or fæces, and urine are placed in a carbolic acid solution in a large tank until they can be washed in the laundry. The hospital staff consists of the medical officer, matron, two day and two night nurses, porter, and three servants. The nurses and three servants sleep in a large tent that has been erected for their accommodation, as the administrative block was not large enough for everyone to sleep in.

Attached to the hospital is a small laundry in which all the hospital clothes and linen are washed, and afterwards are placed in the Washington Lyons Disinfector. This apparatus is also used for the disinfection of all clothes and bedding that was sent up by the sanitary authority from various houses in the town.

As regards the patients there was no special treatment adopted. On admission they were at once put to bed wrapped in a hot blanket and kept well covered with blankets, and hot water bottles were placed around whilst drinks of either hot coffee or hot milk were administered internally, it being found that strong coffee taken hot acted better than any alcoholic stimulant did. In some cases brandy was given, but the effect on the pulse was cautiously watched. The temperature of the body was, as a rule, taken in the axilla, as in some cases the patients were too restless to hold it in the mouth. In those cases that died it was noticed that the body felt much hotter after death than before. But I am sorry to say the fact was not verified, as the temperature was not taken by the thermometer. The bodies of those that died were always removed within half an hour of the death, and the bed and bedding were at once washed and disinfected.

During convalescence the two most noticeable things were the lowness of the axillary temperature and the slowness of the pulse rate. The temperature, as a rule, ranged from 96° to 98.4°, it being an exception for any convalescent patient to be above 98°, whilst the rate of the pulse varied from 44 to 70, in one case it reached 80.

In two patients there were what we called bedsores, but in which we could trace the formation to another source than bad nursing. In the first case the boy had herpes all over the lower part of his back, and a patch of this developed into an open sore about the size of a threepenny piece, on the soft part of the left nates. The other case was a woman, who had

a bad attack of urticaria all over the body, which itched considerably and which she persisted in rubbing till she had formed a sore on each nates; these, however, under treatment soon healed up.

There were four patients who each had a crop of boils form, some of which broke and others slowly disappeared. We also had two cases of well marked urticaria; the woman mentioned above had the eruption well marked in large red and very angry-looking wheals and papules all over her body, face, and extremities; this was accompanied by a general disturbance of the whole system with fever, temperature 101°, small fast pulse, foul tongue, with sickness and diarrhœa. The rash lasted three or four days, and after fading her skin began to peel exactly like the peeling of scarlet fever, coming off in large flakes and pieces, and in branny pieces where the skin was soft. The other case was a man who had urticaria well marked all over his back and shoulders and also on his arms and wrists. He peeled slightly afterwards, more especially about the wrists. In two cases just before death convulsions ensued, but in one it was very slight and confined to the face, the other was general and not confined to any part, and at one time the body was in a state of opisthotonos with the face presenting the "risus sardonicus," and his eyes widely opened; he was convulsed for about fifteen to twenty minutes until death ensued.

REVIEWS.

HEATH'S PRACTICAL ANATOMY; A MANUAL OF DISSECTIONS. Eighth Edition. Edited by WM. ANDERSON. London: J. and A. Churchill. 1893. (P. 744, fig. 329, cr. 8vo, price 15s.)

THOSE who are familiar with the previous editions of this popular student's manual will find much has been added in the new edition. The preface tells us that it has been subjected to extensive revision to bring it to the level of current teaching and the present requirements of the examination boards. This somewhat onerous task has been performed by Mr. ANDERSON. Especial attention has been given to topographical anatomy and to the description of the viscera. The old arrangement has been preserved, and numerous new figures have been added from original and other sources.

On the whole, we think that Mr. Anderson has performed a difficult task with success. Hitherto, the distinguishing features of *Heath's Anatomy* have been simple, straightforward, clear explanations of the ordinary points without regard to abstruse questions. It has always been a book which could be recommended to the average man with the confident belief that he would not be overwhelmed with a mass of minute and difficult details. These characteristics seem to have been maintained.

It is, of course, one of the most difficult tasks that anyone can undertake to condense anatomy and render it clear to learners. However, in the book before us this has been judiciously done with regard to such things as the peritoneum, abdominal viscera, and orbit. Here and there we are struck by a certain inequality in the merit of the descriptions. Neither the figures nor the account of the transition of the testis are such as we should expect in this edition, and the diagrams of the inguinal canal and of the varieties of hernia are unsatisfactory. It would have been easy to obtain others which are unobjectionable. The topography of the various organs and regions has been well described, and illustrated with clear figures and diagrams. It is natural, of course, that Mr. Anderson should prefer his own and Mr. Makins's account of cerebral topography, although it is not, in our opinion, the clearest and simplest.

In a book written by surgeons for medical men it is to be expected that the bearings of anatomical facts would occasionally be noted. Where this has been done it adds to the interest and usefulness of the anatomical descriptions. Yet we cannot help thinking that those who read the earlier editions for their examinations may not be familiar with the "considerable surgical importance" of the fold of Kohlrausch, which we hasten to say is in danger of perforation by a carelessly introduced rectal tube, or with the lodgment of sharp foreign bodies in the lacunæ semilunares.

The new figures are everywhere excellent and clear, and ought to be most helpful to the reader. This is what we should expect when we remember that the editor is Professor of Anatomy at the Royal Academy of Arts. The letterpress is very easy to read, and appears to be quite free from mistakes of any kind.

In conclusion, we have no hesitation in cordially recommending this new edition to students, and we feel sure that it will be as much a favourite as its predecessors.

LEHRBUCH DER ELEKTROTHERAPIE. [Textbook of Electrotherapeutics.] By Dr. ARTHUR SPERLING. Leipzig: A. Abel. 1893. (Post 8vo, pp. 420, 89 illustrations; price M. 6.75.)

THIS little book forms an excellent introduction to the subject of medical electricity. It is the sixth edition of Dr. Pierson's manual of electro-therapeutics, revised and partly rewritten by Dr. SPERLING. It gives a clear view of the modes of electrical treatment now in vogue in Germany. The book is designed to meet the wants of general practitioners, and the style is brief and compressed, but the subject is handled in a critical and scientific manner. In each of the leading sections of the book there is a good historical sketch, and for those who wish to go more deeply into the subject there are numerous references.

We cannot agree with the author in his recommendation of the Daniell and the chromic acid cells as the most suitable for medical use. Hitherto the Leclanché cell and its modifications, the so-called "dry cells," continue to hold their own as the most convenient for medical men, because they require so much less attention than do either of the above-mentioned batteries.

The absolute faradimeter of von Ziemssen, which is put forward as a means of solving the problem of the measurement of induction coil currents, does not really do so; nor does it seem as though we should be able to obtain satisfactory measurements of these currents until something more is known of the curve of rise and fall of current in the induction coil.

Dr. Sperling very rightly insists that in the treatment of infantile paralysis the most important point is perseverance; for there is no doubt that electrical treatment, if it be patiently carried on for six months or a year, can do a great deal towards the restoration of muscles which are not totally destroyed by this disease. Both in this and in other forms of paralysis there is still great uncertainty as to the choice between battery currents (galvanism) and coil currents (faradism); but there seems to be a growing tendency in favour of the induction coil for the treatment of paralysis, or at least towards the use of varying or interrupted currents rather than those which are steady and continuous.

The magnitude of the currents recommended by Dr. Sperling is, if anything, rather too small; for example, in sciatica 4 milliampères is recommended as the proper current strength where English practice would use 10 or 12 milliampères. The final chapters of the book, which deal with electrolysis, the galvano-cautery, and the uses of the electric light in medical and surgical practice, are meagre and inadequate, and there is nothing said about the treatment of patients from the electric lighting mains, although this is a matter which is rapidly becoming one of very general interest to the medical profession.

A MANUAL OF PHYSIOLOGY. By GERALD F. YEO, M.D., F.R.S., Emeritus Professor of Physiology in King's College, London. Third Edition. London: J. and A. Churchill. 1893. (Cr. 8vo, pp. 679, 254 illustrations, 14s.)

PROFESSOR YEO'S textbook is so well known and so justly appreciated that any lengthy review is uncalled for. The third edition has appeared at an opportune time—at the commencement of a new winter session—and students beginning their physiological studies will find in it a thoroughly trustworthy manual, lucidly written, and fully abreast of physiological advances. The present edition is printed on better paper and in larger type than its predecessors, and its moderate price brings it within the reach of all.

The author acknowledges his indebtedness for assistance to Mr. T. G. Brodie, M.B., especially in the chemical sections, which are rearranged and rewritten. The chapters

on the liver and nervous centres have also been rewritten. These alterations add considerably to the value of the book. Taken as a whole, we know no book so well suited for the class for whom it is written, namely, junior students of medicine; and we wish the work every success.

On the Chemistry of the Blood, and other Scientific Papers. By the late L. C. Wooldridge, M.D., D.Sc. Arranged by Victor Horsley, F.R.S., and Ernest Starling, M.D. With an introduction by Victor Horsley. London: Kegan Paul, French, Trübner, and Co. 1893. (Demy 8vo, pp. 360. 16s.)

One of the best memorials of a departed and much-regretted scientist is the posthumous publication of his collected works. No one deserves this honour more than Wooldridge. Taken off in the very prime of his work, he left behind him much that he would have liked to have completed, but a perusal of the present volume cannot fail to convince the intelligent reader how far-seeing a physiologist has been lost.

Wooldridge also left behind him many faithful friends, for he had the rare gift of inspiring in others enthusiasm for his work; it would be invidious here to mention a few out of the many who have followed in his steps, and have confirmed or amplified his researches. We are, however, bound to notice two, the two to whom has fallen the labour of love in collecting, arranging, and translating his numerous memoirs; one of these, Victor Horsley, who was Professor-Superintendent of the Brown Institution at the time that Wooldridge worked there, was always an ardent admirer of his, and a vigorous supporter of his views. The other, Ernest Starling, was then his pupil, and is now his successor, at Guy's Hospital. It would have been difficult to have found a better combination to undertake the task.

There is another reason why the publication of this book is especially opportune at this time, when so much research is being prosecuted in the very question of "tissue fibrinogens," with which Wooldridge's name is so closely associated: and that is that to most workers it is a matter of considerable difficulty to find many of Wooldridge's papers. Some, like the reports to the Grocers' Company, are difficult to get at; others, like his Croonian lecture, have been buried in archives; others, again, published in a foreign tongue; and many were of a preliminary nature, and gave no details.

It is well known that Wooldridge was one to whom the writing of a long paper was a burden, and one who, though so clearheaded, was not methodical, and was unable to grasp the fact that other people were unable to follow what was so obvious to himself. What was perfectly clear to his own mind was not always made as clear to others. We cannot doubt that much of the criticism that Wooldridge evoked was due to this very fact. His opponents always realised his honesty of purpose, the trustworthiness of his observations; and always had the greatest respect for the far-seeing nature of his generalisations. They were not always able to follow his arguments, nor to fill in the gaps over which he often jumped to his conclusions. There are many of his conclusions which are not accepted yet, but will have to stand or fall by future investigations. His views on blood coagulation would no doubt be different now from those he held when he was alive; but the great merit of his work was its originality, and no one can deny that he saw beyond his fellows, and that his ideas contained the great germ of truth. Similarly in connection with œdema, we have the germ of the work since prosecuted by Heidenhain and his pupils with such success on the subject of lymph secretion. In another direction he broke the ground in connection with the protective proteids, and opened up a new field of discovery in the prevention and cure of disease. His work was nearly altogether chemico-physiological, but there are indications that he would have been equally epoch-making if he had taken up other lines of research; witness his paper on the nerves of the mammalian heart. It can be no consolation to Wooldridge himself, and but little to his friends, to know that his real merit is recognised after his death. We feel, however, bound to say that we think the statements made directly after he died of the enmity of the scientific world towards him were a good deal exaggerated. It is true that his opinions provoked criticism; that, however, is a healthy process of purification to which all new theories, if they are worth anything at all, must be subjected. It is true that his Croonian lecture was never published, but that has happened to other important communications before; the mere fact, however, that the post of Croonian Lecturer was conferred on so young a man—a post last year occupied by the veteran Virchow—was surely a very marked recognition of his merits. We think that his worth was very fully felt during his life; very probably his friends, and under this heading must be included his opponents, did not actually tell him so. English folk are not given to gush of this kind; but surely the best mark of his power is that so many of those whom he influenced when alive have not allowed his name to die, but have continued to prosecute the work he loved so well, and in the service of which he died.

The Physiologist's Notebook. By Alex Hill, M.A., M.D., Master of Downing College, Cambridge. London: Charles Griffin and Co. 1893. (Demy 8vo, pp. 200, with 36 plates (102 figures), and blank pages for MS. notes; 12s. 6d.)

Dr. Hill is better known as an anatomist than as a physiologist, and his present work has a distinctly anatomical flavour. It is called a notebook, and is written to assist the student in codifying his knowledge. The author states that it will not diminish the need of the larger textbooks, and much less is it intended to take the place of lectures and practical work. He further hopes that he has not fallen into "telegram English"—but he is often perilously near it.

Physiology is admittedly a difficult subject to codify, and we fear that even a successful attempt to do so—and the present volume is such—will rob it of much of its interest. It is on this account that we doubt whether the book will prove as valuable as the author hopes. There is much to commend in the volume—its admirable diagrams, its running bibliography, its clear tables, and its concise statement of the anatomical aspects of the subject. But we have an innate distrust of books of this kind; there is a smack of the cram book, the examination guide about it, however far such intentions may have been from the author's mind.

The real value of a student's notebook is derived from the fact that he has made it himself and can read between the lines, and so fill up the details of an argument. The weakest part of the present volume is the way it treats argumentative questions; a mere tabular statement of *pros* and *cons* leaves a student as much in the dark as before he started, perhaps more so. If, however, this gap is filled by more extensive reading, well and good; but we fear this will, in the majority of instances, not be the case. The average student likes one book in each of his subjects, the smaller the better; if he buys this one, which is certainly not a small one, we are afraid his good intention to buy a bigger will form part of the pavement of the road which is only too familiar to mankind.

In most instances the book is up to date, but there are some cases, for instance, in connection with the influence of calcium on coagulation, the secretion of lymph, the respiratory interchange, where we should have expected to find more reference to recent research.

The Clinical Use of Prisms. By Ernest Maddox, M.D. Second Edition, 1893. Bristol: John Wright and Co. (Cr. 8vo, pp. 180, 4s. 6d.)

We are glad to see a second edition of this useful book. The work seems to have been in great part rewritten—a large quantity of new matter has been added and the number of figures nearly doubled. The writer has a happy faculty of explaining difficult subjects in a clear and concise manner, and throughout the book all difficult mathematical problems have been avoided.

Among many additions to the optical part of the subject we note an excellent section, showing how the phenomena of refraction really depend upon retardation of the light in passing through the refracting medium.

We cannot endorse the author's recommendation that prisms which cause convergence should be designated by the

plus sign, and those which cause divergence by a minus sign, and the analogy with concave and convex lenses which he adduces in its favour will not bear examination. It would, in our opinion, be much better to have new signs altogether to indicate convergence and divergence.

The clinical part of the book is excellent, and we are glad to see that the author insists strongly on the fact that it is not every deviation from the normal conditions of convergence that requires correction, and that the use of prisms, indeed, is rather exceptional.

A superficial knowledge of the action of prisms is apt to lead to their indiscriminate use, and few optical appliances are capable of doing so much permanent mischief, for, by their improper use, a temporary functional derangement of muscular co-ordination may easily be converted into a permanent loss of co-ordinating power and give rise to great discomfort, which may not easily be cured.

We cannot do better than conclude by quoting one of the rules laid down by the writer, "Never give prisms on account of a mere anomaly in the behaviour of the eyes under the various tests, if it causes no fatigue or discomfort."

NOTES ON BOOKS.

Gynækologisches Vade Mecum, für Studirende unde Aerzte [Gynæcological Vade Mecum for Students and Practitioners]. Von Dr. A. DÜHRSSEN, Privat Docent, etc. Dritte vermehrte und verbesserte Auflage. (Berlin: S. Karger. 1893. Crown 8vo, pp. 178, mit 105 Abbildungen. M 4.50.)—This, as its name implies, is a concise summary of its subject. It is clearly and ably written; it does not pretend to novelty or comprehensive discussion. It is doubtless useful to the German student and practitioner, but is too exclusively German in its point of view to meet the requirements of the English reader; for him our English textbooks are better.

A Handbook of Obstetric and Gynæcological Nursing, being the fifth edition of a *Manual for Midwives*. By the late FLEETWOOD CHURCHILL, M.D. Revised and greatly enlarged by THOMAS MORE MADDEN, M.D., F.R.C.S.Ed. (Dublin: Fannin and Co. London: Baillière, Tindall, and Cox. 1893. Foolscap 8vo, pp. 230, with numerous illustrations. 4s.)—The fifth edition of Dr. Fleetwood Churchill's *Manual for Midwives* hardly calls for detailed review. Dr. Madden has added to the original several chapters on gynæcological nursing. We hope he will pardon our saying that we should have preferred to see the book kept to the object for which Dr. Churchill wrote it. Instruction on the after-treatment of ovariotomy cases is not needed by an ordinary midwife or monthly nurse. Dr. Madden's revision, as well as his new matter, is characterised by a pleasing loyalty to Irish friends and Irish methods. This feature of the book may not, however, increase its acceptability to the profession in other parts of the world. The midwife, for instance, is told to secure the cord by ———'s funis clamp, and to scoop up the clots with ———'s bed-scoop. We suspect that, notwithstanding these recommendations, the thread ligature and the ordinary bowl will continue to be used by doctors and midwives alike.

Tooth Extraction: a anual on the Proper Mode of Extracting Teeth. By JOHN GORHAM. Fourth Edition. (London: H. K. Lewis. 1893. Foolscap 8vo, pp. 60. 1s. 6d.)—The first edition of this little manual was published in 1877, and the appearance of a fourth edition shows that such a manual is wanted by general practitioners and medical students, most of whom would be benefited by its perusal. The chapter on tooth extraction is good, but in the next edition the key, an obsolete and barbarous instrument, should be mentioned only to be condemned. Dentists have long since entirely discarded it. On p. 28 by some error it is stated that "the elevator may be applied with advantage in some cases" for the removal of upper wisdom teeth. This is the only tooth in the head where this instrument is contraindicated and should never be used. Probably the paragraph was intended to be inserted on p. 31, where the extraction of lower wisdom teeth is described. Many dentists use elevators for the extraction of lower wisdom teeth. Sufficient stress is not laid upon the superiority of the hawksbill forceps, which are now generally adopted for the extraction of lower molars and premolars. The chapter on anæsthetics might contain fuller information. That on lever forces is interesting and instructive.

Physiology (Part ii). Circulation (chiefly). Catechism Series. (Edinburgh: E. and S. Livingstone. 1893. Crown 8vo, 68 pp. 1s.)—In this little work physiology is reduced to a simple series of questions and answers. It would be difficult to find a more objectionable form of cram book. Such books are demoralising both to their writers and to the students who are unwise enough to rely on them for examination purposes. Happily, however, examinations are becoming so largely practical, that we can only hope that the doom of such little books will shortly be sealed.

Practicum der physiologischen und pathologischen Chemie [Practical Physiological and Pathological Chemistry]. By Dr. E. SALKOWSKI. Berlin: A. Hirschwald. 1893. (Crown 8vo, pp. 314; 11 illustrations.)—Professor v. Salkowski's name is a sufficient guarantee of the excellence of this work. The practical instructions are brief, but admirably to the point, and all the more important methods and of the most recent date are given. The manual differs from others with similar titles by including a brief account of methods of inorganic analysis. The plate of absorption spectra calls for a word of criticism; the typical absorption bands alone are shown, there is no indication that the ends of the spectrum are also absorbed.

REPORTS AND ANALYSES AND DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

PERCHLORIDE DISINFECTANT.

THE St. Bede Chemical Compound Company, Limited, Newcastle-upon-Tyne, has sent a sample of a disinfectant which is intended to be used by the general public for the preparation of the disinfecting solution recommended by the medical officer of the Local Government Board. The disinfectant is in the form of solid blocks, each block being, the manufacturers state, sufficient to make a quart of solution. The essential ingredient is perchloride of mercury; it also contains eucalyptus oil and thymol. The blocks are readily soluble in water, and form a dark blue solution, having an acid reaction. We find that the blue colouring matter can be readily removed from linen by washing in cold water.

We have also received from Messrs. Burroughs, Wellcome, and Co., Snow Hill Buildings, London, E.C., a compressed form of corrosive sublimate, designated L. G. B. Soloids, made according to the formula given by Dr. Thorne Thorne in the general memorandum relating to disinfection issued by the Local Government Board. The soloids dissolve readily in water without crushing, and form a blue solution which does not permanently stain linen.

We consider that the St. Bede disinfectant and the L. G. B. soloids not only possess the advantages of portability, convenience, and efficiency, but that they can with safety be placed in the hands of inexperienced persons for preparing the L. G. B. disinfectant.

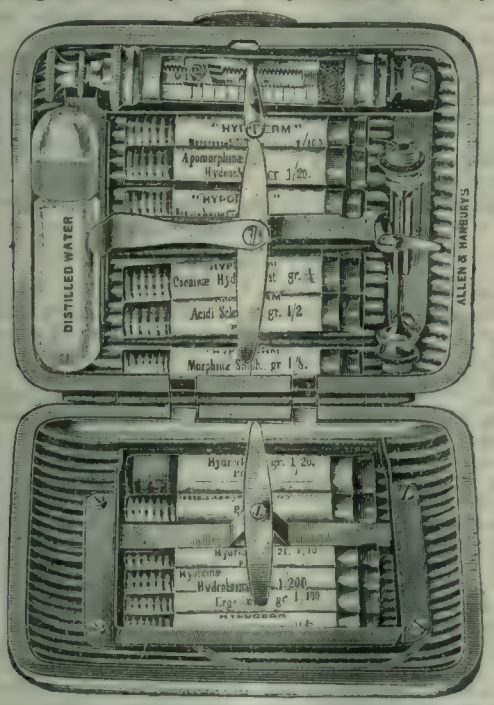
IZAL DISINFECTANT.

WE have examined some samples of this preparation, which is stated to be a new antiseptic and disinfectant of considerable power. It is a white emulsion, stated to be prepared from one of the destructive distillation products of patent coke ovens by admixture of this with a suitable and harmless emulsifying agent. It is claimed that the active antiseptic substance referred to is an oil of high boiling point (over 200° centigrade), which possesses very high antiseptic powers. We find that the samples examined by us contain an oil having about the boiling point mentioned, and that no objection can be taken to the emulsifying agents used. The pre-

paration contains a fairly high amount of active antiseptic agents; and, while we cannot bear out all the claims that are made for it, the results of our experiments show that it may be regarded as a very useful, and probably important, addition to the disinfecting fluids on the market. We are not, however, in a position to endorse the statement that a preparation of this kind is non-poisonous. It is to be obtained from Messrs. Newton, Chambers, and Co., Thorncliffe, near Sheffield.

A NEW ASEPTIC HYPODERMIC CASE.

A new aseptic hypodermic case has been submitted to us by Messrs. Allen and Hanburys for which the following advantages are claimed: (1) The case is made entirely of aluminium, without lining of any kind, so that it can be quickly and efficiently sterilised. (2) The case contains twelve tubes of hypoderms (including ergotinin, cocaine, atropine, morphine, sulphate of strychnine, hydrobromate of hyoscine,



and hydrochlorate of gelsemin); two needles, a small double-stoppered flask for distilled water, and an English-made syringe so constructed that a hypoderm can be dissolved therein, a uniform solution of the drug being thus at once obtainable. As the dose is regulated by the hypoderm, the exact quantity of water does not matter. (3) The case is fitted with silver-plated switches, which prevent the contents falling out when it is opened. The case is neat, and of a convenient size, and is likely to be very useful to practitioners.

DIGESTIVE FERMENTS.

Messrs. Armour and Co., 59 and 60, Tooley Street, London, S.E., have sent samples of extract of beef and nutrient wine of beef peptone; also a number of specimens of their digestive ferments, comprising pepsin in powder and scales, a glycerole, a liquid essence, and tablets, pancreatin in powder, a glycerole, and pancreatin and soda tablets. We have examined the pepsin and pancreatin preparations, and find that they are fully up to the recognised standard of digestive power. The extract of beef has evidently been very carefully prepared, and is undoubtedly an excellent preparation. The nutrient wine of beef peptone is very agreeable, and answers the description given of it.

CHROMATIC DIAL.

We are asked to state that Dr. Ward Cousins's chromatic dial for testing colour vision can be obtained from Messrs. Burroughs, Wellcome, and Co., Snow Hill.

RETURN OF MECCA PILGRIMS AND EGYPTIAN QUARANTINE AT TOR AND NAKHEL.

[from a correspondent.]

Whatever benefits are gained by pilgrimages, the pilgrims to Mecca this year have certainly earned their full share. The quarantine continues to drag on a weary existence at Tor, but fortunately the end seems now within a measurable distance, and by the end of the first week in October the camp, it is to be hoped, will be broken up. By that time nearly 30,000 pilgrims will have performed their quarantine there, of whom about 16,600 will have passed the Canal, the remainder having entered Egypt.

At the present moment the number of pilgrims performing their quarantine is only 2,218. Of these, 1,418 are performing quarantine for the second time. An Egyptian steamer, *Chibin*, arrived at Suez on September 7th with 600 pilgrims who had done a quarantine of fifteen days at Tor, and a supplementary period of three days at Ras Mallap. On arrival at Suez, a Greek passenger on board was found to be suffering from cholera. The vessel was immediately sent back to Tor, where the whole have had to perform the quarantine *da capo*, for this single case in a Greek who had taken passage and was not a pilgrim. The pilgrims were then, and have remained, healthy.

The steamer *Dakahlieh* arrived at Ras Mallap from Tor on September 5th with 685 pilgrims and 315 soldiers. The pilgrims had been under observation at Tor for fifteen days, and been free from cholera. On arrival at Ras Mallap a suspicious case was declared in a soldier, and the whole were sent back to Tor in accordance with the inexorable general regulations of the Quarantine Board, sanctioned by the European Powers, which leave no liberty of action, nor liberty of individual judgment. The sambook *Maimoun*, with Soudan pilgrims, after doing twenty days at Tor without a suspected case, proceed to Kosseir, on the Red Sea Coast, to land the pilgrims. Three deaths occurred during the voyage from Tor to Kosseir, which were declared by the sanitary (*sic*) authorities at Kosseir to have been cholera. The *Maimoun* was immediately ordered back to Tor, and with the others is doing a second period. In none of these vessels has a case been declared since returning to Tor. There has been no case declared amongst the pilgrims in the quarantine camp since July 21st.

Cholera began to show itself outside the camp on August 3rd, when a Bashi-bazouk policeman in the village of Tor was attacked. Since then 26 cases are known to have occurred outside the pilgrims; 14 in the villages of Tor and Jebel, 1 water carrier, 1 porter, 1 provision seller, 1 Greek passenger, 2 soldiers acting as guards at Ras Mallap, 1 soldier arrived on board ship at Ras Mallap from Tor, 2 guardians working in disinfecting chambers, and 1 male nurse in cholera hospital.

There has been no case outside the pilgrims since September 14th. The total number of cases amongst the pilgrims themselves has been 132, with 99 deaths. The sanitary permanent and provisional staff consist of 411 persons, labourers and "helps" being taken from the people in the neighbourhood; about 800 soldiers were sent by the Egyptian Government, and the population of the villages may be estimated at from 300 to 400. The 26 cases, therefore, amongst this number show a severer epidemic outside the pilgrims than the 132 cases amongst the pilgrims themselves. Pilgrims returning to Egypt by land *viâ* the quarantine station of Nakhel still continue to arrive free of cholera. Of the 44,232 pilgrims who had left Suez by land or *viâ* the Suez Canal and by sea for Mecca up to the end of June there will be left a deficit of about 13,000 to be accounted for when the return pilgrimage is finished! Some of these for one reason or another have remained in the Hedjaz, but how many of them have died will never be known.

Of the 10,000 to 15,000 who were collected and stranded and starving at Yambo for want of means of transport to leave, 1,650 are reported to have died there during the months of June, July, and August, namely, 580 during these three months from ordinary diseases, and 475 from cholera during June and July, none in August.

Amongst the deaths from cholera reported from Tor was

that of Madame Kaiser, wife of a Swiss botanist, who was established in the village of Maimoun, near the encampment, to pursue his studies. Clinically this was supposed to be a case of cholera, but after bacteriological examination by Dr. Bitter this was negatived. In former days it would have been regarded under the circumstances as cholera. *Query*, May bacteriology not sometimes lead us astray?

By request of the British delegate at the Quarantine Board, samples of the water supplied to the pilgrims on board ship were submitted to analysis at the Khedivial laboratory in Cairo. Samples were taken from eight steamers; one only of these eight supplied them with condensed water, pronounced "very good." Two supplied Nile water taken in at Suez; one was characterised as "very good," the other "could be used without danger." Four supplied water taken in at Marseilles; two were characterised as "very bad and not to be used," a third was characterised as "very good," and the fourth as fit for use, but not to be considered as "good water." One supplied water taken in at Yambo, which was reported as absolutely unfit for use, and could not be employed without "real danger."

An inspired campaign of vilifying criticism on the Quarantine Board, and the execution of quarantine measures at Tor, is being carried on in the Cairo press. Much of it is characterised by an ignorance of facts and carelessness for truth, a species of criticism which, however well it may serve as an escape valve for jealousy, bigotry, or fanaticism, is productive of no good result, and when read is soon forgotten, as is the little vulgar notoriety which its authors have gained by it.

None would more willingly listen to just, intelligent, and scientific criticism than the delegates of the Quarantine Board themselves, who are fully alive to many of the shortcomings of the system, and the failure this year in fully carrying out the work, especially of disinfection, in the face of such an enormous crowd as was collected at Tor.

For such a large pilgrimage as that just ended the appliances at Tor will have to be on a proportionately large scale, and the expenditure and budget will also have to be increased. This I may refer to in a future communication; in the meantime, I am afraid it must be confessed that the quarantine "as quarantine" has failed. Egypt has as yet been preserved, but the staff, soldiers of the cordon, and villages became infected; cholera was propagated by pilgrims arrived at their destination after doing their quarantine—the usual history and fate of all quarantines on such a vast scale where sick and healthy are massed together in such enormous numbers.

TWO FATAL CASES OF GUNSHOT INJURY FROM THE NEW MAGAZINE RIFLE.

THE following report, for which we are indebted to Surgeon-Captain E. Carrick Freeman, Quetta, Beloochistan, was unavoidably held over last week owing to want of space:

In the first case the man was struck by a bullet fired at a range of about 120 yards. It was a ricochet shot, the bullet first having struck a stone in front. The man was at once conveyed to the Station Hospital. On arrival he appeared to be suffering from severe shock, and from internal hæmorrhage. He was extremely restless and thirsty, vomiting, however, all the water he drank. Pain seemed general rather than acute. There was a large wound $1\frac{3}{4}$ by $\frac{3}{4}$ inch, with lacerated margins, on the outer side of the right arm and a compound comminuted and fissured fracture of the humerus just below the surgical neck. Some of the fragments had been driven into the pectoral muscles across the axilla. Hæmorrhage, which was reported as severe at the moment of injury, was now venous and slight. The bullet could be felt lodged in the back near the ninth dorsal vertebra, pressure on it causing acute pain. The right thoracic muscles were emphysematous, and there was rapidly-increasing dulness over the right chest. Death ensued in about four hours after admission from internal hæmorrhage.

The *post-mortem* examination showed that the bullet had, after fracturing the arm, left the shoulder joint intact and traversed the axilla without injury to the vessels or brachial plexus. It then penetrated the eighth and ninth ribs close to the angles, passed through the middle lobe of the right lung, through the tenth and eleventh ribs on the same side close to the vertebræ, and lodged in the deep muscles of the back. When extracted the bullet had the nickel casing stripped from one side; otherwise it had preserved its shape. The right pleural cavity was full of blood.

In the second case the bullet was fired from about 30 feet, and death was instantaneous. The body exhibited two circular wounds a quarter of an inch in diameter, one just below the angle of the left scapula, the other 2 inches below the point of the right acromion in a line from it to the nipple. The margins of the wounds were quite smooth, with very slight discoloration round. The first-named wound was a shade the larger, and slightly more discolored.

The *post-mortem* examination showed that the bullet had entered the chest between the sixth and seventh ribs, passed through the left lung, and had perforated the descending aorta about the level of first dorsal vertebra, making two distinct apertures in it. It then passed up through the right lung from root to centre, passing out through the fourth rib, in which the aperture was triangular, with jagged margin. The pleural cavities and mediastina were full of blood.

In both cases no fragments of clothing or other foreign material had been carried into the wounds. In the second case it is noteworthy, from a medico-legal point of view, that the wounds of entrance and exit were so exactly alike that it was impossible to determine from the *post-mortem* examination alone whether the bullet had passed through from right to left, or *vice versâ*; the actual course was only determined by a visit to the scene of the fatality, where the bullet lay embedded in the wall of the barrack room.

GUY'S HOSPITAL.

AT the opening meeting of the Pupils' Physical Society at Guy's Hospital, a paper was read by Dr. Clifford Beale, a former student of the hospital, on the subject of the Advantages and Disadvantages of Making Mistakes. Referring to a saying of the late American Minister in London to the effect that "the man who never makes mistakes never makes anything," he showed how necessary it is that students in all subjects, but especially in medicine, should not shrink from making mistakes in their pursuit of knowledge, and how the mistakes of student life form the best safeguards against the far more serious errors of judgment or of treatment which everyone is liable to in the course of practice. Emphasising the necessity for carefully studying and recording such mistakes, he laid stress upon the various methods of acquiring experience, systematised clinical study, note taking, and especially called attention to the practical value of manipulative facility in the use of the more difficult clinical instruments such as the ophthalmoscope, the otoscope, and the laryngoscope. The importance of studying the mistakes made by teachers as well as those of students was also touched upon. One of the many mistakes which students are at all times liable to be led into is the tendency to study their profession in too scientific a spirit, for that spirit is apt to run away with them if not kept in close check. This is perhaps less often the case at Guy's than in some other schools, since Guy's students have happily never been encouraged to use long words in preference to short ones, or to accept every new theory, even though started by a Guy's man. But with every succeeding session, scientific research, whether it be biological, microscopical, or chemical, tends to become more and more intricate and attractive, and the danger thus arises of being led away from the seemingly vague and indefinite teachings of clinical observation to the apparently more accurate and precise demonstrations of the microscope, the cultivation plate, and the chemical laboratory. Experimental research is gradually working out for us the explanation of many things which we know as rough facts, just as our fathers did before us, but the facts remain to be dealt with even though rival schools may offer different explanations. Real progress in medicine and surgery is slow. Theory carries it forward, but practice cannot keep pace with theory, and the rate of progression follows a rough rule of three steps forward and two steps backward. It is a mistake for students to attempt to keep in step with it, and they should be content to acquire a sound grip of such knowledge, whether it be new or old, as obtains acceptance in the leading schools of medicine, leaving controversial matters to be studied when examinations are over.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1893.

Subscriptions to the Association for 1893 became due on January 1st; and notice is hereby given, in accordance with By-law 5, that Branch Secretaries' subscription accounts close on October 31st, and all unpaid subscriptions must be forwarded after that date to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, OCTOBER 7th, 1893.

STUDY AND PROGRESS IN PHARMACY.

Under this title Dr. Lauder Brunton delivered an admirable address on October 2nd at the opening of the winter session of the Pharmaceutical Society's School. Dealing first with the curriculum, he made some observations which are of wide application. He confessed that as a student he had himself railed at the wisdom of his superiors in enforcing definite courses of study, etc., and had lived to think like them, and confess his youthful errors in this respect. Why insist on the attendance of students at a certain number of courses of lectures when they can much more rapidly fit themselves to satisfy their examiners by adopting other courses? Because knowledge to be permanently acquired must be gradually instilled. Knowledge acquired by a system of cramming, for examination purposes, although it may be retained long enough to enable the possessor to pass his examination, is lost even more easily than it was acquired. The force of Dr. Brunton's advice to all students cannot be disputed. Acquire your knowledge slowly and carefully, and it will stick to you. Such advice has often been given before, but it loses nothing in repetition.

The romance of pharmacy has yet to be written, but Dr. Brunton made a little excursion into the mediæval appreciation of the efficacy of drugs. The method, he said, of preparing drugs for use is always rude at first, and becomes more and more refined as knowledge advances. Primitive man was content to get drunk on simple fermented liquors, but as he became civilised he tried to find out the essence or spirit of this liquor and discovered alcohol. The crude materials once employed must often have been very disagreeable both to sight and smell, but it will not have occurred to many of the most earnest students of witchcraft and its literature that the chant or incantation sung by Shakespeare's witches during their gruesome culinary operations may have been a means of measuring the time during which the cauldron should boil in order to get the full virtue of the ingredients. In the same way, Dr. Brunton pointed out that modern research has in a measure justified the gathering of "herbs" at night, as it is highly probable that at this time they are richer in active principles than during the daytime.

The address was not by any means confined to mediævalism. Progress in pharmacy was its theme, and progress in pharmacy as in any other science needs facilities for research and men to undertake such work. The Pharmaceutical Society has done much in this respect by the establishment of its research laboratory, and it is to be hoped that in the future students will not be slow to avail themselves of the advantages thus placed before them. Many useful researches have already been made in this laboratory, and such an institution has proved a valuable ally to the pharmacologist, nor will it cease to be so. It is not a hundred years since the first alkaloid, morphine, was discovered, but since that time patient research has revealed the active principle of nearly all known medicinal plants, and has even found the means of preparing some of them synthetically. Such results are essentially pharmaceutical, and Dr. Brunton encouraged his hearers to try and fit themselves by careful study to add to the knowledge already possessed. Let the student utilise all the opportunities afforded him of increasing knowledge, and always endeavour to make the world both the better and the wiser for his existence in it.

Alkaloids, however, as we all know, are not confined to vegetable life; animals are constantly brewing them. Between these animal products, as also between them and their vegetable congeners, the same laws of antagonism or reinforcement hold good, and thus it happens that in administering a drug we not only have to consider the purity of the preparation and its normal action on the human frame, but must also take note of the animal alkaloids which it will meet with in the body, some of which may tend to emphasise its operation, others perchance to render it inert. An example of this property of alkaloidal bodies—perfectly well known although not always thought of in this connection—is to be seen in the fact that narcotics act best when administered in the evening. It seems so obvious that an opiate must be most efficient when its operation coincides with a natural tendency to sleep that we are apt to forget that this "natural tendency" is probably due to the accumulation within the body of narcotic alkaloids, brewed by tissues during hours of activity, just as the wakefulness of the morning results from stimulating substances formed during hours of rest. The sleep which follows a sedative properly given in the evening is due in part to the animal narcotics already in the body and in part to the morphine by which their action has been reinforced, whereas the failure of the same drug given in the morning arises from antagonism of stimulating substances produced by the tissues during sleep.

This view of the matter opens up a wide field for inquiry and explains much of the doubt and uncertainty which has so long lain over the whole region of drug therapeutics. The effect which follows the administration of a drug cannot be calculated from its own constituents, but is the sum of their activities combined to those, be they *plus* or *minus*, of many animal alkaloids, regarding whose properties, or even presence, we have as yet but little knowledge. A good illustration of this is afforded by certain recent Russian observations, to which Dr. Brunton referred. These tend to show that many of the accidents under chloroform which have taken place so recently are the result not of impurities in the chloroform used, but, if they may be so called, impurities in the patient. It has been found that examination of a patient's urine for alkaloids may often give the indications of danger. If it contains few alkaloidal bodies then the patient will probably take chloroform well; if, on the other hand, it is rich in alkaloidal bodies, then there is great risk in chloroform inhalation. Such investigations as these will probably

be much in request should the views of these Russian investigators be substantiated, and the pharmacist of the future may be called upon to contribute to the solution of the question as to whether chloroform may be safely administered.

CLAIMS OF UNQUALIFIED PERSONS.

IN July last an inquest was held at Macclesfield on the body of a woman, named Mary Hannah Mitchell, who had been treated—for what ailment the newspaper report before us does not state—by a Mrs. Pickering, who terms herself a medical botanist. The coroner and his jury had to consider whether Mrs. Pickering had rendered herself criminally responsible for Mitchell's death, and decided that question in her favour. In the course of his remarks to the jury, the coroner is reported as having quoted from Mr. Justice Stephen a passage showing that if an unauthorised person treat a patient and death ensues, such unauthorised person may be liable to be convicted of manslaughter. A Mr. John Simmons thereupon delivered himself of a lengthy diatribe for the purpose of showing either that the coroner's law was wrong, or that, if it was not, it ought to be so considered. Mr. Simmons styles himself an "eclectic medical practitioner," which he apparently considers as synonymous with "medical botanist;" and he asserts that members of societies (of medical botanists?) "may, roughly speaking, be taken as qualified practitioners of medical botany," and apparently ought therefore to enjoy a legal immunity for any ill consequences that may be caused by them in the course of their practices, as medical botanists.

Even if there were any recognised body which could declare its members or the recipients of its diplomas to be duly qualified to practise medical botany, or any other undefined system of treatment with a high-sounding but meaningless title, such qualification would give no immunity from the consequences of malpraxis or carelessness. Every year sees qualified members of the medical profession appearing in courts of justice as defendants, charged sometimes civilly and sometimes criminally with having injured, or it may be killed, their patients by carelessness or incompetence in their treatment. Such charges, when sifted thoroughly, usually, we are glad to say, turn out to be groundless. But sometimes they have been proved; and even in recent years duly qualified practitioners have been convicted of manslaughter, and sentenced in consequence to imprisonment. The recognition of a medical botanist, or of anyone else, as qualified would, therefore, give him no immunity from criminal charges. It might practically, no doubt, be an advantage to him, because mankind are naturally more prone to suspect ignorance or incompetence on the part of persons who have no recognised qualification for practice, than in cases where the treatment has been by a duly-qualified practitioner. The onus of proof of such negligence as may be criminal seems to be—and is—greater when the defendant has a recognised status to justify his dealing with a case at all, than where he is merely an ordinary member of society, actuated perhaps by the best intentions, but not otherwise entitled to operate or prescribe.

The claim that persons who wish to practise the art of healing in non-recognised ways should in this country be free to do so, that in Mr. Simmons's own words "medicine should be as free as religion,' is specious, but should not be seriously entertained by anyone. The course of legislation here has been in the other direction; and the results of greater strictness in securing proper qualifications in those who are registered as entitled to practise medicine or surgery have admittedly been beneficial. The asserted fact that "in America eclectics and botanics have State recognition" should have no weight here, even if it be accurate. It is well known that the laws and practice in different States in America vary, and that while some American degrees indicate that the attainments of those who possess them are of the highest order, many are absolutely worthless, and not recognised by our General Medical Council or courts, as indicating any qualification in their holders. In this country only certain recognised educational bodies can confer degrees, and no degree entitles its holder to be registered as a medical practitioner unless it has been obtained after passing a proper examination. The law explicitly states that certificates of having passed these examinations are not to be refused to competent men, because they may hold heretical theories. There is nothing, therefore, to prevent anyone who wishes to practise as a "medical botanist" or as an "eclectic practitioner," from first obtaining his qualification in the ordinary way, and then demonstrating the superiority of his mode of treatment, if he can. Medical science has made great strides in modern times, but it is still, and probably always will be, progressive. New ideas are always ready to be received, and new methods, if they seem to be improvements on the old, are readily adopted. Persons whose only qualification consists in their own assertion of it, and who try to conceal their own incompetence and to impose on the public, by the adoption of a title which insinuates that they are qualified to practise, but does not say so in such a manner as to lay them open to penalties under the Medical Acts, deserve no favour. Membership of no self-constituted society can be recognised here as a qualification. The Oriental oculists, who even now are attracting the attention of the Public Prosecutor, may possibly have formed a mutual admiration society and conferred degrees on each other. The British public has an established system of registration which enables it to know those practitioners who are qualified and those who are not. Unqualified persons can and do practise, as it is, far too easily. They run certain risks, but apparently the profits counterbalance them. There is certainly no reason why their competition should be further favoured.

THE EXTRAVAGANCE OF WORK HALF DONE.

IT may appear a serious allegation, nevertheless it is not far from the truth, to say that of the enormous amount of money spent by London in the treatment of infectious disease, all that is now being expended on scarlet fever, that is to say by far the largest portion, is being absolutely thrown away so far as its real object is concerned. The only excuse which London has for taxing itself for the treatment of one particular class of diseases is that by so doing it is possible to isolate the cases and do a benefit to the whole mass of the community. The reason why the public pays for the nursing, lodging, food, and even the amusements, of a crowd of people who, but for a little roughness of the skin, may appear and feel in perfect health, whereas it lets poor wretches, to whom every minute is a misery from ulcerated

legs and other troubles, struggle on unhelped, is that sore legs are matters for the individual while scarlatina desquamation is a public danger. Let it be plainly understood that the community spends the money for its own protection, not as a charity to those who are taken to the hospital. Does the public, then, get the protection for which it pays?

For years the Metropolitan Asylums Board has been crying out to be permitted to build hospitals where they are wanted, and to be allowed to undertake seriously the management of the infectious diseases of the metropolis, and little by little, under pressure of the scandal raised by the insufficiency of its beds, it is getting more accommodation, but it should be clearly understood by the ratepayers that whatever freedom is given to it after the event is comparatively useless. During the past fortnight 753 cases of various fevers were admitted into the Board's hospitals, but 4,148 were notified during the same period. Not quite a quarter were admitted, and if we are to believe that a dozen cases may give rise to an epidemic, where comes in the protection for which London pays? To the individuals no doubt the benefit is great, but how does London profit by the isolation at vast expense of 753 cases when 3,395 are left? There is every reason to believe that if scarlet fever could once be dealt with in a complete way, by isolation in hospital of all who cannot be isolated at home, these epidemics which annually run riot in London would cease. But whoever has to undertake this task must have a free hand, for when once an epidemic so completely outruns hospital accommodation as is now the case in London, the money spent on hospital treatment might almost as well be thrown into the ditch.

The annual oration at the Medical Society of London will be delivered by Dr. W. M. Ord. The Lettsomian Lectures will be given by Mr. Frederick Treves, on Peritonitis.

The Harveian Oration before the Royal College of Physicians of London will be delivered by Dr. P. H. Pye-Smith at 4 P.M. on Wednesday, October 18th.

We are glad to state that Mr. R. L. Swan, of Dublin, who has been suffering from pyæmia, and whose condition was at one time most critical, has sufficiently recovered to be able to seek change of air.

The session of most of the medical societies will begin during the present month. In London the Obstetrical Society began its session on October 4th. The first meeting of the Clinical Society will be held on October 13th, of the Medical Society on October 16th, of the Pathological Society on October 17th, and of the Royal Medical and Chirurgical Society on October 24th.

Dr. Armand Ruffer will give the Hunterian Lecture before the Hunterian Society on Wednesday evening next, at 8.30 P.M., on "Protozoa with special reference to Cancer and Vaccinia." The lecture, to which all members of the medical profession will be welcomed, will be given in the London Institution, Finsbury Circus.

The President, Vice-Presidents, and Council of the Hunterian Society will give a *conversazione* at the London Institution, Finsbury Circus, on Wednesday evening, October 18th, to celebrate the centenary of John Hunter.

We are requested to state that the first meeting of the Guthrie Society this session will take place at Westminster Hospital Medical School on Thursday, October 12th, and will as usual be a smoking concert. Dr. H. B. Donkin will take the chair at 8.30 precisely.

GRESHAM COLLEGE.

Dr. E. Symes Thompson, Gresham Professor of Medicine, will lecture at Gresham College, Basinghall Street, E.C., on Tuesday, October 10th, Wednesday, October 11th, Thursday, October 12th, and Friday, October 13th, at 6 P.M. The subject of the first lecture will be "The Organs of Speech;" of the second, "The Mechanism of Speech;" of the third, "Disorders of the Vocal Organs;" and of the fourth, "Mismanagement of the Voice."

PUBLIC INSTRUCTION IN PRACTICAL SANITATION.

The Technical Instruction Committee of the Essex County Council has arranged a course of lectures for sanitary inspectors and others wishing to undertake duties under the Public Health Acts. The lectures, the syllabus of which has been carefully drawn up in consultation with Dr. Thresh, will be given at Chelmsford, and will not only be free, but a portion of their travelling expenses will be paid to certain selected persons who attend regularly.

THE SANITARY CONDITION OF CORK.

Dr. Browne, Local Government Board Inspector, has investigated the sanitary condition of Cork, and his report has been before the Public Health Committee. The death-rate last year was 25.3 per 1,000, but the rise above the average rate was due to influenza. A serious fact is that there were 162 cases of typhus, with 12 deaths. These were confined to the north parish, where gutyards and slaughterhouses are numerous. The inspector recommends improved accommodation for the working classes, the erection of a public abattoir, better filtering of water, and improved drainage.

DR. J. S. BRISTOWE.

On October 3rd, after Lord Thring had distributed the prizes to the students, and delivered an address at St. Thomas's Hospital, Dr. Ord presented to Dr. Bristowe a large portrait in oils of himself, together with an album containing the names of the subscribers. The portrait, which had a place in this year's Royal Academy Exhibition, was painted by Miss Beatrice Bristowe. Dr. Ord, in making the presentation, dwelt on the many services which Dr. Bristowe had rendered to St. Thomas's Hospital and to medical science generally, and stated that the surplus of the testimonial fund had been, at Dr. Bristowe's desire, devoted to establishing a medal for proficiency in pathology. Dr. Bristowe made a suitable reply, expressing the pleasure which it gave him to receive this mark of affection and esteem from old pupils and colleagues.

WORTHING WATER.

Professor Crookshank asks us to state with reference to a recent correspondence in a contemporary, that while it is true that certain samples of water from Worthing were found by him to be pure, no mention has been made of an earlier report submitted by him to the Mayor and Corporation at the commencement of the outbreak. This report, which is dated May 29th, 1893, states that the bacteriological examination of three samples submitted to him at that time proved unquestionable pollution. Professor Crookshank condemned the water. With regard to two examples, he wrote: "I can only compare the plate cultures which were obtained from samples B and C with cultures of sewage water, or water intentionally mixed with fæcal matter in studying the bacteria of the intestines, and the number of colonies present could only be estimated in millions." He also reported that the third sample contained a very undue

proportion of bacteria (118,000 to the cubic centimetre), so that even this specimen contained more bacteria than unfiltered Thames water in the worst month—December—and nearly as many as unfiltered Lee water in the same month. It should be added that the actual number of bacteria may have been increased during the period of transmission from Worthing to London. Professor Crookshank, in his report presented in June, referred to his earlier examination as having given unquestionable evidence of pollution by filth.

THE SELF-ADMINISTRATION OF NARCOTICS.

The deaths from narcotics which have lately occurred among members of our profession should remind us all of the extreme danger run by those of us who, having continued access to these drugs, once allow the habit of indulgence in them to take root. If there is one case more than another in which a medical man should not physic himself it is in regard to insomnia. However firmly the resolution is taken not to exceed a measured dose, when that dose is once taken the mental grip is loosened, and the power of self-control is gone. Like a whisky-drinking barman who, with the taps before him all day long, finds it impossible to refrain when once the morning "nip" is taken, a medical man with the surgery handy is apt to stagger in and repeat the draught time after time under the combined influence of sleeplessness and chloral, although he may have taken the first dose without the slightest intention of doing harm or running risk. It cannot be too strongly enforced that a man under the influence of a narcotic is unfit to handle drugs, and that the self-administration of substances of this nature, however innocent the first dose may seem, is always full of peril to those who have access to the bottle.

A NATIONAL DANGER.

We referred some time ago to the condition of the water supply of the seaport town of King's Lynn, Norfolk. Urged thereto by the known fact that the water supply of that town was liable to contamination, and convinced by the occurrence of a serious epidemic of typhoid fever that further delay would be excessively imprudent, the Corporation adopted a scheme for supplying pure water. At the end of August a public meeting of the ratepayers rejected the proposal, a poll was demanded, and, after a month's reflection, the ratepayers have, by a majority of 2,525 against 763, rejected the Corporation's scheme. As we have already said, this fatuous policy constitutes a national danger. The ratepayers have apparently been led to vote against the scheme on the ground of its "enormous and unnecessary expense," to quote the words of a handbill which has been extensively circulated. The recent experience of Grimsby, where enormous and unnecessary expense has been inevitably incurred in consequence of the importation of cholera, ought surely to have warned the ratepayers of King's Lynn of the folly of postponing the removal of obvious sanitary defects.

LONDON POST-GRADUATE COURSE.

The twelfth term will commence on Monday, October 9th, and end on Saturday, December 2nd. There will be eight courses of lectures given at the following institutions: Hospital for Consumption, Brompton, Hospital for Sick Children, Great Ormond Street, National Hospital for the Paralysed and Epileptic, Queen Square, Royal London Ophthalmic Hospital, Moorfields, Hospital for Diseases of the Skin, Blackfriars, Bethlem Royal Hospital for Lunatics, London Throat Hospital, and Cleveland Street Sick Asylum. The teaching is essentially practical, and the clinical material supplied by the associated institutions is so largely utilised that the subjects taught are fully demonstrated. The daily work is so arranged that time is left for hospital practice, and any practitioner who is desirous of taking up any subject in the course can study it not only theoretically but practically to the fullest extent. Members have the opportunity of examining the cases, handling the instruments employed, and acquainting themselves with the details of the modern treatment of the diseases they desire to study. The vacation courses, which terminated last week, have been well attended, especially those on bacteriology and pathology. The members have come from all parts of the world and have shown the greatest interest and zeal in their work. The rapid progress of medical science renders it advisable for all who wish to keep in touch with it to refresh their memories and enlarge their knowledge from time to time by the aid of such classes as these. The busy practitioner, involved in the incessant round of the work of a heavy practice, can take a week, a fortnight, a month, or a couple of months, and by attending the lectures on one or more subjects with the hospital practice, can bring himself abreast of the science of the day, and a man from the colonies or the services who has been cut off from his fellows for years can once again become a student with all the advantages of his trained intellect and his habits of work. A prospectus can be obtained from Dr. Fletcher Little, 32, Harley Street, W.

A NEW USE FOR A MORTUARY.

The Sanitary Committee of the City of London has decided to rent a warehouse in Cotton Street for the temporary accommodation of persons while their premises are being disinfected, and as temporary offices for the sanitary inspector. It is high time something of the sort were done if one may judge from a paragraph in the report of their medical officer of health, which runs as follows:—

Temporary Shelter for Poor Persons.

During the last week, eight persons have been accommodated at the City Mortuary, and given temporary shelter and attendance there, under Section 60, subsection 4 [of the Public Health (London) Act, 1891], such being the only place at present available.

THE ROYAL ALBERT ASYLUM, LANCASTER.

Dr. G. E. Shuttleworth has recently resigned the office of medical superintendent of the Royal Albert Asylum for Idiots and Imbeciles of the Northern Counties, at Lancaster, after twenty-three years' service. He was the first medical superintendent of the institution, and had in charge its original organisation. During his term of office it has increased, until it now contains 600 patients. Last week the staff of the asylum made a presentation to Dr. Shuttleworth, and Mr. James Diggens, Secretary, expressed the great regret which the whole of the staff felt at his retirement. Dr. Shuttleworth, in acknowledging the gift, gave a brief retrospect of his connection with the institution. He said that of those who had completed their full term of residence, at least 10 per cent. were in situations, and earning their living wholly or partly, 40 per cent. were doing an appreciable amount of work at home, while no amelioration had taken place in the condition of only about 10 per cent. He strongly insisted upon the need there was for county councils and other authorities to make some permanent provision for imbeciles, especially for the hopeless cases. He then gave some remarkable instances of very great improvement in trained patients who were now able to take their places in the world, and to earn a comfortable livelihood.

"THE VILLAGE DOCTOR."

The prizes obtained by the successful students at St. Thomas's Hospital during last year were distributed in the Governors' Hall, on October 3rd, by Lord Thring, who, after discharging this duty, delivered an address in which, after expressing his belief that a hospital was the noblest monument of human munificence, he dwelt on the fact that it was the pride and glory of the medical profession to send forth into the remote parts of England men who deserved, more than any men with whom he was acquainted, the affection of the poor and the miserable. The village doctor was often mentioned with contempt, but, so far from deserving that

contempt he deserved, almost more than any other man, the gratitude of his fellow-men. The village doctor faced snow and storm to aid the poor peasant in his cottage and the ailing woman in her hut and the sick child in its squalid abode; he was a man who cast a bright light over the dark abodes of misery. He then addressed to the students some words of advice, and gave it as his deliberate opinion that success always attended perseverance. Everything came to him who waited patiently and yet was ready to seize the opportunity.

THE HOUSING OF PUBLIC HEALTH OFFICIALS.

In endeavouring to cope with the increasing demands made upon public health administration in London many curious problems present themselves. The medical officer of health must first persuade his authority that in order adequately to inspect his district he must be equipped with a sufficient number of inspectors; this done the question of office room for the increased staff inevitably arises. In too many districts a penny wise and pound foolish policy is unfortunately adopted by the authorities in regard to this matter. The report presented by the medical officer of health of Islington to the Islington Vestry as to office accommodation in the public health department is quite pathetic. The entire staff, numbering 21 individuals, is housed in two rooms, and the medical officer of health himself has no room that he can call his own. Yet Islington has a population of more than 300,000 persons, and thus in size and importance takes precedence of the majority of large provincial towns. The huge districts of London are lamentably behind the times in the matter of providing buildings for the transaction of the business of local government and compare very unfavourably in this respect with municipalities throughout the country. Perhaps some day this will all be remedied; meanwhile the temperate and modest claims of the medical officer of health of Islington will surely commend themselves to the vestry and some immediate improvement will doubtless result from his report.

THE WOES OF INFANTS.

There are few points on which the doctrine of the liberty of the subject is carried to such extremes as in regard to the treatment of infants. "Shall I not do as I will with mine own;" and what is more a woman's own than the baby she has borne? And so it happens that, under the cloak of mother's love and maternal responsibility, cruelty is done and crime committed which in no other relation of civilised life would be permitted for a moment. Every week we receive reports of inquests on infants who have been "done to death" by the indifference, the carelessness, the ignorance of mothers; and these do but represent the more flagrant cases—a mere percentage, it is to be feared, of the preventable infantile mortality of the country. The sour and fœtid feeding bottle; the carelessly cooked and improper food; the giving out to nurse to reckless people, whose only aim is to gain as much and spend as little as may be over the unfortunate hired-out infant; the dosing of the sickly, and therefore fretful, child with poisonous infants' preservatives; the final overlying during drunken slumber—all these are modes of torturing and killing infants, which are excused as due to ignorance and not to crime. These forms of child murder—done calmly, coldly, and with acquiescence, if not calculation—but rarely meet with punishment, while often earning the solid consolation of the insurance agent; and yet the poor woman who unexpectedly becomes a mother, and, aghast at the horror of her position, with brain blanched by hæmorrhage, and with mind incapable of intent, throws her child, in an access of wild terror, into a ditch or down a privy, she, poor wretch, is held guilty of murder. Surely the parents who bring into the world child after child only to lose them by diarrhœa, marasmus, convulsions, rickets, and other diseases due to ignorance and neglect are guilty in greater degree. It ought to be recognised that woman's work during the child-bearing period of her life is to look after her children, and that the proper way of doing so is to suckle them. To rear children artificially with safety requires more time and care than does mere suckling, but it is for the very sake of saving time and lessening care that nursing is neglected, and, in a large proportion of the cases, this is the root of children's ailments. We suppose it is idle to preach on this text, it has been done so often and with such small avail. Probably the cheapness of female labour is at the bottom of a great deal of the mischief. However slack the trades for men may be, there is almost always work for women if they will take the price, which they mostly do; and thus we see the absurd spectacle of women, in the intervals of bearing and burying a tribe of children, sewing, charing, washing, or going to the factory, besides keeping the house together, working for the purpose a daily sixteen hours, while the lords of creation are doing, perhaps, three days a week, or, perhaps are out on strike for an eight hours' day. And yet women marry! Evidently we are suffering from a want of correlation between the evolution of man and the progress of what we are pleased to call civilisation. New conditions require new men; whereas man still retains within him the instincts of the savage, which are sexual. The man of to-day ought not to marry until he has reached a time of life when he has been able to put by for a home: and those who know how far man yet is from such perfection will recognise how many woes the babies of the future are likely still to bear.

THE EDUCATION DEPARTMENT AND DEFECTIVE SIGHT.

A letter has been addressed by the Education Department to the London School Board drawing attention to the undoubted frequency of defects of sight and diseases of the eyes among children, and expressing a desire for information as to conditions existing in public elementary schools. The Education Department has no official medical adviser, and naturally finds some difficulty in defining the scope of the inquiry they propose to institute. We would draw attention to the very exhaustive Report on School Children prepared by a Committee of the British Medical Association (1892), which shows the great amount of eye defect present among children, and the relative frequency of the principal defects in various classes of schools. Among the cases there recorded the number of squints, organic and hypermetropic, is very large, while convex glasses are only occasionally used, and children with corrected myopia are fairly numerous; there are also many children, mostly boys, with one eye lost by accident or by disease; much semiblindness is due to disease of the cornea, and it is recorded that ophthalmia was prevalent in many day schools. Such facts demonstrate the importance of a full inquiry, and the experience gained sufficiently indicates that the scope of the inquiry should embrace a record of the general healthiness and physical condition of the children. The recent action of the Education Department shows a wise determination to require of managers receiving Government grants that the children shall be collected in buildings of sanitary construction, well ventilated and well lighted, and that the arrangements of the school shall be adapted for the care of the health as well as for the mental culture of the pupils.

A RIVAL TO OPIUM SMOKING.

From a Western point of view there is one great drawback to opium smoking—it takes too much time. Western hurry seems, however, to be gradually permeating even the vices of the East, and now the morphine syringe rivals the opium pipe, if we may believe a report which reaches us from Hong Kong. The practice has been known for some time in Shanghai, and some six months ago it was brought to

Hong Kong, where there are now some twenty houses in which a regular trade in it is openly carried on. Each house has, on an average, fifty clients, who call in the morning and the evening and take their dose. An injection is much cheaper than a smoke, and, primarily, no doubt, that is the reason of its rapid popularity. Curiously enough, the pretence is that it is used as a cure for the vice of opium smoking, to which, however, it would seem to have about the same relation as a whisky bar has to a beer saloon. The immediate happiness of an injection, which can be had without the loss of time, the public exposure, or the loathsome associations of the opium den, is a far more dangerous temptation than the more slowly-acting and more expensive pipe. Truly in this matter John Chinaman is jumping out of the frying pan into the fire.

STATISTICS OF BLINDNESS IN ENGLAND AND WALES.

It is satisfactory to learn from some statistics recently published that the number of blind persons has steadily diminished during the past twenty years. The following are the number of blind persons per million inhabitants in the three last census years—1871, 951; 1881, 879; 1891, 809. The figures, when arranged in accordance with age, show that the diminution of blindness is greatest at the two extremes of life. Not much, however, can be inferred from this unless we have figures to show the age at which blindness came on. To take, for example, cases of blindness from ophthalmia neonatorum, there can be no doubt that the diminution of these, owing both to preventive measures and to better treatment, is enormous, much greater than is shown by these statistics, for among the blind adults a very large proportion lost their sight from this disease. Year by year as these die off the statistics should become more and more favourable. On the other hand, in the case of infants under 5, it is to be feared that the number of blind is greater than those shown in the return. For infants with corneæ which are hopelessly staphylomatous are seldom admitted to be blind by their mothers, who, if there is but perception of light, think that the child will "grow out of it." The improvement among older persons is probably chiefly due to there being a larger proportion of cataract cases cured, partly from improved methods of operation, and partly from greater facilities for travelling, allowing old persons to reach the hospitals. Glaucoma is still, unfortunately, so frequently unrecognised till it is beyond the reach of effectual treatment, that it is doubtful if there is any great diminution in the amount of blindness from this source.

PROFESSOR BURDON SANDERSON'S ADDRESS TO THE BRITISH ASSOCIATION.

In a recent letter to a contemporary the Duke of Argyll discusses, or rather indicates, certain passages in the President's address to the British Association, in which he considers that scientific truth was dealt with by Dr. Sanderson in an ambiguous and disputable manner. There is no doubt that Dr. Sanderson, in dealing with a most dark and complex subject, did express himself, and must necessarily have expressed himself, obscurely, and out of these obscurities the Duke seeks to wrest admissions of a kind to favour that order of ideas which he calls "metaphysical." Without a definition it is not easy to argue about conceptions called metaphysical. In the address the Duke finds "hardly a sentence which moves only in the region of physical fact." Every generalisation may, no doubt, be of the nature of a universal, but the Duke of Argyll moves forward quickly from this use of the "metaphysic" to an implication of first and final causes. We think that if the Duke had preferred the term "philosophical" to the term "metaphysical," he would have kept our heads clearer. As it is, we oscillate between conceptions lying beyond experience and the widening relations of the various departments of knowledge *inter se*, or, in other words, between transcendental conceptions and the formulation of profound likenesses between more and more things superficially unlike. To go far in an analysis of the Duke's words on this basis is impossible in this place; we will content ourselves with saying that with his well-known acuteness of mind he has seized upon that aspect of the Darwinian theory which from its publication has seemed to thoughtful men to present the gravest difficulty, namely, the development of those organs which may in an incomplete stage have been of no use. The case of the electric organs of certain fishes is adduced by the Duke of Argyll in support of such a criticism, such organs being presumably of no use to fishes, in which they exist in an "unfinished" state. We ourselves might also refer to cases in which adaptations which serve to prevent concussions, dislocations, or fractures of parts may seem to have been useless when incomplete. In our own practical experience, however, these instances have dwindled rapidly as each one of them was submitted to rigorous analysis. To illustrate this opinion would occupy a large space, and it is sufficient to say that no assertions of this kind have weight unless an organ of some one animal be selected, its earlier stages of development ascertained and related with its known life-history, and the uselessness of the intermediate stages then demonstrated in such relation. An organ, for instance, which in a completer stage is seen to have a special use may in an earlier stage have served some different purpose, and so forth. We think the Duke is in error in assuming that the followers of Darwin expect to find each organism armed at all points. Such a proposition is incredible. Every animal has its weak side and its strong side; every animal has its own way of securing advantages or a like advantage may be secured in unlike ways. To suppose, therefore, that no animal ought to be "good eating" for other animals is unnecessary, for relative immunity may be gained in other ways, and we do not find "Nature" prodigal of means. If no creatures were good to eat we should not be here to argue about them, and we must look not only to the survival of individuals, but of the world, that is, of the sum of individuals.

DEATH UNDER CHLOROFORM.

We are indebted to Mr. Arthur C. Kemble, L.R.C.P., M.R.C.S., of Poole, for the following particulars of a death under chloroform which recently occurred there:—At about 10.25 A.M. on Tuesday, September 26th, J. J., a machine hand employed at a twine factory in this town, went, accompanied by a fellow workman, to Mr. Kemble's surgery, having caught his left thumb between the revolving cogwheels of a machine in motion. The thumb bones were extensively fractured throughout, and the surrounding tissues so contused and lacerated that amputation at the carpo-metacarpal articulation was necessary. The patient was also suffering somewhat severely from the effects of shock. Mr. Kemble accordingly fetched Mr. Vernède to administer chloroform. The man was then placed on a couch in Mr. Kemble's consulting room, with head slightly raised. Mr. Vernède, having previously examined the patient's heart with the stethoscope, commenced to administer the anæsthetic, using a Hyderabad inhaler. After a few respirations the patient showed some resistance and struggled. Mr. Kemble therefore went to Mr. Vernède's assistance, but the patient soon inhaled quietly, and Mr Kemble left him to bring the necessary instruments for the operation. Mr. Kemble's attention was suddenly directed to the patient by Mr. Vernède calling to him, and he saw at a glance that respiration had ceased. The head was at once lowered and the tongue drawn forward with forceps, no difficulty being experienced in seizing it, and it could not have fallen back against the glottis. Mr. Vernède at once started artificial respiration, which was continued for three-quarters of an hour, and the electric battery was used without any

delay; ether was also injected, but to no purpose, and the case was then abandoned as hopeless. During administration Mr. Vernède had one finger on the temporal artery, and noticed at the time of the sudden collapse that the pulse stopped, the feather of inhaler ceased to act, both pupils dilated widely, and the face turned livid, the four acts occurring simultaneously. The amount of chloroform administered was small—under a drachm altogether—and the duration of inhalation was under three minutes, and the patient was never beyond the first, or excitement, stage. The pure chloroform was supplied by an old-established and reliable firm. The patient was well known as a hard drinker. A *post-mortem* examination was ordered by the coroner to be made by Mr. Scratchley, at which Mr. Kemble was present and took the following notes:—

Externally: Body well developed; *rigor mortis* well marked. There were compound and comminuted fractures of both phalanges and metacarpal bone of left thumb, with extensive laceration and contusion of surrounding tissues. There was no other external injury. Internally: Thorax—Position of organs normal. Left lung: Adherent at back and apex, and engorged with blood; large tuberculous patch of old consolidation at apex, with adhesions between upper and middle lobes, and also consolidation at apex of lower lobe; otherwise crepitant. Right lung: No adhesions; small tuberculous patches of old consolidation towards base. Heart: Aortic valves normal and healthy. Walls of left ventricle soft and easily friable. Left auricle, walls thin, and cavity somewhat dilated. Right auricle valves healthy. Right ventricle valves normal, and cavity dilated. The whole substance of the heart was soft and fatty, the walls thin and friable, and cavities dilated, especially on the right side. Liver somewhat enlarged, but otherwise apparently healthy. Right kidney much enlarged; capsule adherent, and showing signs of commencing contraction. Left kidney also enlarged, but not to same extent; capsule slightly adherent. Spleen normal. Stomach contained a small quantity of partially digested food. Bladder nearly empty. Head: Nothing special under skull cap. Adhesions of pia mater, probably tuberculous, along the longitudinal sinus; veins somewhat engorged over surface of brain. Brain substance itself healthy.

As regards the probable cause of death, Mr. Kemble states that Mr. Scratchley and himself, after taking all the facts into consideration, came to the conclusion that death resulted from syncope, produced partly by the action of the chloroform on a fatty and degenerated heart substance, and partly by the effects of the shock he was suffering from. This conclusion was arrived at for the following reasons:—(*a*) That the small quantity of the anæsthetic administered, and death occurring at so early a stage of administration, rather tend to show that it was not caused by paralysis of respiratory centre or by paralysis of heart. (*b*) That the sudden dilatation of both pupils is, according to the authority of Jacobson, somewhat in favour of syncope. (*c*) That the *post-mortem* appearances of the state of the heart pointed to the same conclusion. (*d*) That the tuberculous mischief in the lungs was not of sufficient extent to cause sudden death. (*e*) If paralysis of the respiratory centre was the immediate cause of death, the heart's action would probably have continued for at least a few beats after respiration had ceased, whereas in this case the cessation of the heart's action and respiration were simultaneous. The fact that the face turned livid is, of course, against the theory of syncope. Why, therefore, if death did occur from this cause, lividity was present is a point on which Mr. Kemble can come to no definite conclusion. Mr. Kemble adds that Mr. Vernède was unavoidably prevented from being present at the *post-mortem* examination, but he read this report, and entirely agrees with the conclusions arrived at by Mr. Scratchley and Mr. Kemble.

CROWNER'S QUEST LAW.

That coroners are not always wise is common knowledge, but that they hesitate to carry out the law if they imagine it involves any personal risk is not so well known. It appears that a man died at the Bury Infirmary from erysipelas following injury to the knees. After considerable cross-examining of the house-surgeon as to whether erysipelas was not infectious as well as contagious, the coroner, in summing up, announced that if he had known what the case had been he would have broken the law rather than have taken the jury to view the body. According to the *Bury Guardian*, he said: "There was one thing a matter of surprise to him (the coroner), and that was that relatives of patients suffering from erysipelas were allowed to see them. To say the least of it, that was running a very considerable risk, and a risk, although he was not a medical man, to which he certainly should not have been prepared to submit the jury that morning. Had it been reported to the police he would not have allowed the jury to view the body. Owing to the suppression of the fact—and he could not call it anything else—they had been there. He did not know whether any harm would come; he hoped not. He would infinitely rather have broken the law, as on previous occasions, in that dreadful disease, rather than have sent them, and gone himself to view the body. He did not think there had been fair play with the police authorities or himself in the matter, and certainly he should do what he could to have the matter thoroughly riddled out." Such timidity on the part of a public official seems very absurd. Does a coroner always expect to be told what a patient died of before he makes his inquest into the cause of death?

NURSES AS SANITARY INSPECTORS.

The steady enlargement of the army of inspectors by whose activity obedience to factory, workshop, and sanitary law is to be enforced makes us anxious as to the field from which the recruits for this most important service are to be drawn. Both under the Factory and the Sanitary Acts women are being appointed as inspectors, and in both cases, but especially in the latter, a nurse's training and experience would be of the greatest value. It is to be feared that a sanitary inspector is generally looked on by the poor as a mere smeller of drains, and, in fact, it is often difficult for him to be anything else. But a clever woman with a knowledge of sickness and a nurse's tact could be something much more than that, and might readily become a teacher of what is good as well as a reporter of what is bad. In nine cases out of ten the husband is out at work when the inspector calls, and it is with the wife the latter has to deal. Inquiries have to be made and investigations entered on which in a man appear as gross impertinence, while in a woman they may take the form of sympathetic confidences; and when one remembers how often the sickness of the children becomes the index of the insanitary condition of the house, one sees at once what a pull a kindly nurse would have in such investigations. The St. Helens Health Committee last week decided to appoint a woman as a sanitary inspector; we hope they will select one who has had a nurse's training.

THE FEVER HOSPITAL AT HOUNSLOW.

The repeated complaints which have been made for some time back regarding the condition of the fever hospital at Hounslow, under the management of the Heston and Isleworth Local Board, culminating as they did in the definite statement by the *Sun* of malpractices which are absolutely shocking, have now led to the intervention of the Local Government Board. The accusations against the management are startling even to those whose hearts are hardened by a perusal of the deluge of complaints poured out upon us week by week regarding the doings of local authorities up and down the country. Briefly they run thus—that, not in solitary instances alone, patients entering for the treatment of scarlet fever have become infected with small-pox, and in some cases with enteric fever; that the small-pox and the fever buildings are within twenty yards of each other, the intervening space being used as the common drying ground for the linen of the whole establishment, all of which is washed by one man in one washhouse; that the drainage of the so-called hospital runs into a stagnant pond

which lies round two sides of the building, and that near to this, and quite within percolation distance, is the shallow well from which the institution draws its water supply; that the scarlet fever hospital consists of two wards, each 20 feet by 14 feet, floor measurement, intended for six beds altogether, and that into this space 14 beds have been placed, and into these beds 22 patients have been crammed; that the overcrowded state of the building has made it impossible to observe the distinction between males and females which decency demands, and that only a short time ago a big girl of 13 was forced, despite her tears and objections, into the male ward, to lie in a bed beside the bed of a youth of 17; that the small-pox accommodation consists of two wards, each 18 feet by 10 feet, and that in these two wards nine cases have been placed, of necessity two in a bed; etc. If only one half of such allegations are true, they are enough to prove how utterly unfit to act as a sanitary authority a local board may be; and that a great deal of it must be true is borne out by the fact that even last Christmas their medical officer drew attention to the condition of affairs, that he did the same again in July, and that in August he is reported to have spoken of it as a "disgrace to the district." Even according to a statement issued by the local board after its meeting on September 28th, and published in the *Middlesex Chronicle* on September 30th, great overcrowding must have occurred from time to time, the hospital having contained 28 patients on May 17th of this year. How far the accommodation in the buildings may have been supplemented by tents does not appear, but we believe that the result of the inspection by Dr. Sweeting, of the Local Government Board, has been to show the existence of serious defects of administration, in addition to the structural deficiencies of the buildings, which are such as would never have received the sanction of the Board nor its financial assistance for their erection. We understand that the central authority has written to the local board on the matter.

MEDICAL INSPECTION V. QUARANTINE.

M. Monod, the Director of the Comité Consultatif d'Hygiène Publique de France, in an address which he gave after distributing the awards to the exhibitors of the International Sanitary Exhibition at Havre on October 3rd, spoke out very strongly with regard to the advisability of substituting medical inspection at ports of departure for quarantine. He dwelt on the efficacy of this plan as applied at Havre last year, stating that during the cholera epidemic in that port 639 persons left Havre, and in no instance was there any reason to suppose that they carried the infection abroad. He contrasted this with the fact that infection was transported in no fewer than 22 cases from Hamburg to England. The speech is a striking proof of the rapid growth of a healthy public opinion upon this question in France, which is further evidenced by the enlightened policy pursued in Havre. The facts of the epidemic were fully and squarely met, and by arranging for the Sanitary Exhibition, which has been open during the present summer, an excellent method was taken of forming a public opinion as to the best way of obviating epidemics in the future. The history of the recent recrudescence of cholera in Hamburg has been explained by our Berlin Correspondent in the letter published last week, and it appears to be proved that it was entirely due to an act of gross carelessness by which foul water was permitted to mix with the water supply, thus rendering the filtration, which is believed to be effectual, useless. In Berlin also our correspondent shows that cholera is being disseminated by the water supply. The contrast between the course of events in the town countries is certainly striking.

We regret to have to announce the death, by drowning in the River Lee, of Dr. Cagney, of Cork. The deceased was in his 45th year.

THE PAN-AMERICAN MEDICAL CONGRESS.

[From Our Special Correspondent.]

Speech of Dr. Pepper.

The most striking feature of the general meetings of the Pan-American Medical Congress was furnished by the address of Dr. Pepper, Provost of the University of Pennsylvania, in which he traced the history of the Pan-American Medical Congress, contrasting and comparing in a very interesting way its history and progress with that of European countries in their arts and sciences. I can only give a condensed version of that exceedingly scholarly and thoughtful address. After discussing the general politics and physical history of this continent, Dr. Pepper went on to say that in no respect might the discovery of America be regarded as the dividing line between the Middle Ages and modern era more truly than in regard to medical science. In spite of the prodigious learning of the most distinguished Arabian and Jewish physicians, such as Avicenna, Albucasis, Avenzoar, and Maimonides, their medical science was far too largely speculative and philosophic. Great universities were established, some of which, as those of Bagdad and of Cordova, possessed regal revenues and magnificent libraries. Numerous hospitals were founded, of which the large and wealthy one established at Cairo in 1283 merited special mention. But the outcome of this long dominion of the Arabs and the Moors, so far as concerned medical science, was merely a marked advance in chemistry and pharmacy, the introduction of many new remedies, and the advocacy of the union of the natural sciences with medicine.

True medical science, which could not progress without precise methods and instruments of precision, was forced to wait until from very different quarters came the development of the natural sciences and the era of exact experimentation which alone rendered them possible. Harvey's immortal discovery of the circulation of the blood was not announced until 1616, and his almost equally important and epoch-making discovery of the origin of the higher animals from the egg was published in 1651; yet it might be safely asserted that the work of this modest and truly scientific Englishman did more to advance medicine than all the labours of all the schools from the days of Hippocrates. Not only were the facts demonstrated of infinite importance, but his method of patient, exact observation and experimentation until the truth was developed by cautious induction marked the introduction of a new era, and stamped Harvey as the father of modern medicine.

Galileo first indicated the use of the thermometer in medicine about 1595. Sagredo, of Venice, improved it in 1613, and Sanctorius in 1625, urged its importance in the study of disease forcibly, but as yet ineffectually. Just as the astronomer, Galileo, gave us the first rude thermometer, Kepler, another illustrious astronomer, gave, in 1604, the first record of an accurate count of the human pulse. But so slowly did the importance of this datum in the study of disease impress the medical profession, that the acute Sydenham, who lived until 1689, nowhere mentions a single pulse count. What progress in exact medicine could be made without chemistry? Yet scarce any development in this branch occurred between the eighth and seventeenth centuries. And it was Boyle, the father of modern chemistry (born 1627, died 1691), who first succeeded in freeing this noble science from the trammels of alchemy. Not until the end of the seventeenth century did the value of quantitative analysis begin to be appreciated. Lastly, it was not until 1590 that the first compound microscope in the hands of Jansen was heard of.

Meanwhile the gross superstitions, combined with a blind dependence on the great authorities of antiquity, and especially on Aristotle and Galen, which had so long dominated medical science, yielded slowly to the growing light of positive knowledge. But the bold, fearless, investigating spirit of the sixteenth century did its work for medicine as it did for other great matters. Vesalius (1514-1564) and his contemporaries created accurate anatomy. Paré (1509-1590) stamped imperishably on surgery the influence of his genius and lofty character. Paracelsus (1493-1541) did a rough but important stroke of work toward the emancipation of the medical mind. The history of European medicine for more than three hundred years was a record of which we might

well be proud, when the enormous obstacles to progress were held in view. Vesalius and Paré, Harvey and Sydenham, connected themselves with Bichat and Laennec, and Hunter and Jenner, and Pasteur and Lister, and Virchow and Koch, and the torch of genius was passed down the line of these immortals, and lighted up the ages with the splendour of their achievements. But it was sad to reflect upon what had been done as contrasted with what might have been. The dense ignorance of rulers and masses on scientific questions; the slow progress of sound, useful education among the people; the huge claims of imperialism and of militarism, the wanton waste of luxury, had retarded research, had left but paltry sums available for the diffusion of knowledge, had hindered the embodiment in legislation and in actuality of much that would help the healing of the nations. It was an odd commentary on the vaunted civilisation of to-day to contrast the sums doled out by the most enlightened Governments of Europe for the promotion of higher education and original research, or for the suppression of preventable diseases, with those lavished on the vast hosts of armed men and the huge fleets of unwieldy armoured ships deemed necessary for the maintenance of peace and order.

If the actual progress of medical science was slow in Europe during the years which followed that *annus mirabilis*, 1492, surely no word of reproach could be uttered against the early settlers in North and South America, because, amidst their heroic efforts to conquer this vast continent, it was long before they found time or energy to devote to the cultivation of that practical and essential subject of medical science. It is true that in 1551 Charles V founded the University of Lima, in Peru, and in 1553 the University of Mexico. Yet it did not appear that medicine was taught at these universities until a little prior to 1700.

In North America, although Harvard College was founded in 1636, the title of university seems to have first been applied to the University of Pennsylvania, which in 1765 established the first school of medicine in the United States. The scattered handfuls of early settlers on our shores had, indeed, problems facing them more urgent than the promotion of science.

Almost immediately after the discovery of America important contributions to pharmacology were announced, chiefly from South America, and from the introduction of guaiacum, in 1508, until now these contributions had become more and more frequent. The entire medical world was agitated during the latter half of the seventeenth century by the struggle over the merits of cinchona bark, introduced into Europe, in 1640, by Juan del Vego, and no more convincing tribute can be adduced as to the value of medical and sanitary science than the prominent place occupied by malarial diseases in the general and medical literature of the seventeenth and eighteenth centuries as contrasted with the feeling of impunity with which they were now regarded. The lecturer expressed the hope that among the results which might be anticipated from that meeting was the adoption of some well-considered plan for systematic conjoint study of American remedies and their pharmaceutical preparations, looking to their scientific classification, to greater uniformity in their preparation, and ultimately to a single *Pharmacopœia* for the entire Continent.

The introduction of nitrous oxide (1844) and of ether (1846) into medical practice, with which the names of Wells and of Morton were so honourably connected; the establishment of the operation of ovariotomy by McDowell, of Kentucky, upon a secure scientific basis—these and hundreds of other achievements of lesser brilliance were too familiar to need mention. Everyone knew now how superfluous it was to say a word in defence of American literature, and certainly they who knew how powerfully the opinions and practice of medical men in Europe and throughout the world were influenced by American writings might view their position with some complacency. Yet a survey of what America was actually contributing to medical literature showed clearly how far they were behind the nations which led in medical thought. In the year 1879 Rupprecht's *Bibliotheca* gave as the total number of new medical books, excluding pamphlets, periodicals, and transactions, 419, divided as follows, namely: France, 187; Germany, 110; England, 43; Italy, 32; United States, 21; all others, 26; and for 1891 the same *Bibliotheca* gave the total number as 1,063, divided as follows, namely: Germany, 360; France, 243; Great Britain, 141; United States, 80; Italy, 78; Austria-Hungary, 70; Spain, 24; other countries (chiefly Switzerland and Denmark), 67.

On the other hand, in the more ephemeral forms of medical literature the figures were very different. He (Dr. Pepper) had had a careful count made of the volumes of medical journals and transactions filed in the library of the Army Medical Museum at Washington, with their respective places of publication, and from this it was clear that of these classes of medical literature there were in 1890 and 1891 published in America (including Canada, the United States, and Latin America) about twice as many volumes as in Germany or France, and fully three times as many as in Great Britain.

Passing to the subject of medical education, Dr. Pepper said that fifteen years ago the medical profession of the United States arraigned severely the management of their over-numerous medical schools.[1] While Canada then exacted a reasonably strict entrance examination and a course of medical study extending over four years, with one session of six months in each year, and while every country in Latin America exacted a collegiate degree or a rigid entrance examination, and a course of medical study extending over six years, it was the general custom with the medical schools of the United States to grant a diploma conveying the full right to practise medicine to applicants who had been admitted without preliminary examination, and had attended without term examinations two courses of lectures covering about five months, and had passed a single and final examination conducted by their own teachers, whose emoluments were derived solely from the fees of such students. This discreditable prostitution of a great educational trust had been gradually brought about by large causes upon which he could not then comment; but it was with justifiable pride that they might point to the admirable and sweeping reforms that had since been instituted. It remained true that the laws of many of the States allowed charters for medical schools to be secured without any guarantee of the standard of education that should be maintained; but the awakened sentiment of the profession and of the community had in a rapidly increasing number of the States insisted that medical graduates before being admitted to practise should pass a State examination conducted by an impartial board of examiners appointed by the governor. The medical schools had, with few exceptions, been foremost in the struggle to secure this wise and beneficent legislation, and their action had been in advance of it.

INDIAN HELMINTHOLOGY.

Surgeon-Major Edwin Dobson has lately[2] made an important contribution to our knowledge of the helminthology of the natives of India. Prompted apparently by Giles's now well-known researches on kala-azar, or the so-called beri-beri of Assam—a disease or congeries of diseases which of late years has been working much havoc among the coolies on the tea plantations and among the villagers of Assam, and which the last-named able investigator thought he saw sufficient reason to attribute in great measure to the anchylostoma duodenale—Surgeon-Major Dobson instituted and carried through a long series of systematic examinations with the view of ascertaining, so far as his opportunities permitted, the actual facts as to the extent with which the general population was affected with this parasite. With this object in view, he examined the dejecta of 1,249 natives, most of them healthy coolies, *en route* from distant and different parts of India to work on the Assam tea plantations. A proportion were natives of Dhubri and the neighbourhood, but the majority came from Bengal, Madras, and other remote districts. Before he commenced this investigation, Surgeon-Major Dobson, although concurring to some extent in Giles's views as to the influence of the anchylostoma in bringing about kala-azar, considered that Giles attached an undue importance to the parasite, and that he had not assigned to malaria and other factors their proper share in the etiology of the disease. As a result of his investigations, he now entirely withdraws his modified support of Giles's views, denying that

[1] Regular schools, 65; homœopathic, 11; eclectic, 4; total, 80, in 1877.
[2] *Indian Medical Gazette*, December, 1892; January, February, March, and August, 1893.

he anchylostoma is in any way the cause of kala-azar, and we gather that he even goes the length of refusing to accord any great influence to the anchylostoma as a disease factor. His method of procedure in conducting his investigations was to administer to each individual to be examined two 30-grain doses of thymol at an interval of an hour and a-half.

On the bowels being relieved, the dejecta were inspected and the parasites they might contain identified, and, in many instances, enumerated. In the journals we have mentioned the result of this prolonged and laborions investigation is given in great detail. Unfortunately for the comfort of the reader, no *précis* or tabular arrangement of the cases is supplied, and it is perhaps on this account that these most valuable researches have not received the notice their importance deserves. Recognising the omission we have, after considerable labour, endeavoured to supply what perhaps could have been supplied better by Dr. Dobson himself. His results we have arranged in the following table, which we trust will be found to be fairly, if not absolutely, in accord with the facts stated in the original.

In the stools of 1,249 natives of India, to whom two 30-grain doses of thymol were administered,

					Per cent.
Anchylostoma duodenale was found in	944	instances...		...	75.58
Ascaris lumbricoides	,, 131	,,	...	...	10.49
Oxyuris vermicularis	,, 192	,,	...	...	15.36
Distoma	,, 13	,,	...	...	1.04
Trichocephalus dispar	,, 55	,,	...	...	4.40
Larvæ of insects	,, 6	,,	...	...	0.48
Tapeworms	,, 18	,,	...	...	1.44
No parasites were found in	,, 204	,,	...	...	16.32

In 701 of the 944 instances in which the anchylostoma was found, it was the only parasite discovered; in 243 instances it occurred in association with one or more species of the other entozoa enumerated. In many cases the anchylostomata were few in number, in other cases they were present in hundreds. It sometimes happened that a coolie having a very few parasites was in bad health, whereas one in whom they were in great abundance was robust and healthy. In a batch of 15 kala-azar cases several had no anchylostomata, most had only one or two, and in none did the number exceed 36, a number quite insufficient to produce pathological results.

It would appear, therefore, that Dr. Dobson has grounds for refusing to accord to the anchylostoma the important etiological *rôle* which Dr. Giles assigns to it. This, with some reserve, might be conceded; but we submit that the anchylostoma is not the innocuous parasite Dr. Dobson's remarks tend to make it out to be; that, on the contrary, as the researches of many able men in Egypt, Europe, and America have established, it is the cause when present in large numbers, and in particular circumstances, of a distinct disease, and that it is a powerful contributor to the mortality in such countries as India. In the healthy and robust native, with a liberal physiological margin to draw on, a few hundreds of minute nematodes in the alimentary canal may be a circumstance of little importance; but when the native has been half starved all his life, and is further reduced by actual famine, by malaria, dyspepsia, enteritis, overwork, and other conditions tending to diminish the amount of aliment absorbed, while at the same time they tend to increase waste and blood destruction—in these conditions a daily steady drain of blood by a swarm of anchylostomata, though it may after all be but a small one, may prove to be the last straw which breaks the camel's back, the final factor which determines the starting of the vicious pathological circle which Cunningham's researches have shown gradually leads the victim of famine to death, even when he is replaced in circumstances of comfort and plenty. We think therefore, though recognising the importance of Dr. Dobson's observations, which in other respects can only lead to good and to the benefit of the natives of India, that he goes too far in minimising the pathological *rôle* of anchylostoma duodenale; and we trust that his views on this point may be received with caution, and may not be allowed to interfere with the prophylactic and therapeutic measures his researches so plainly indicate.

The results obtained, as regards determining the prevalence and distribution of the anchylostoma, by these observations on the effects of thymol administration may be considered thoroughly reliable, and Dr. Dobson's figures probably represent correctly the state of matters in the case of this parasite over a great part of India. But as the efficacy of thymol as "an all-round" anthelmintic has not as yet been sufficiently tested, we question if the figures given close the case as regards the other intestinal parasites, particularly as regards trichocephalus dispar, an entozoon which has hitherto proved particularly refractory to treatment. Although the investigation may not be considered conclusive in this respect, it supplies us nevertheless with much useful information about these entozoa. The extreme frequency of the more common nematodes—ascaris, oxyuris, and trichocephalus—in Eastern countries has long been recognised, and Dr. Dobson's work confirms this general impression; but the great frequency of intestinal distomata in India which this observer brings out is a new and important fact. The number of times distoma crassum and amphistoma hominis—for such for the time being we assume the "large" and "small" flukes referred to to be—have been found hitherto, might be counted on the fingers of one's hands; but it would seem, judging from Dr. Dobson's researches, that these parasites are far from uncommon in India. In the 1,249 individuals examined in the way described, flukes large or small, sometimes both species in association, were found thirteen times, or in 1.04 per cent. of the cases. Besides yielding us this information, Dr. Dobson's experience confirms that of Giles, Walker, and one or two others in establishing the efficacy of thymol as a vermifuge in intestinal distomiasis. We trust Surgeon-Major Dobson will further increase our obligations to him by identifying—or, if they are new to science, by describing—the various distomata and tapeworms he has collected in the course of his laborious and praiseworthy investigations.

OPENING OF THE WINTER SESSION IN LONDON.

ST. BARTHOLOMEW'S HOSPITAL.

THE annual old students' dinner was held, on October 2nd, in the great hall of the hospital, 129 diners being present. Dr. Andrew, consulting physician to the hospital, was in the chair, and proposed the usual loyal toasts. Sir Dyce Duckworth proposed "The Army, Navy, and Reserve Forces," Director-General J. N. Dick, C.B., R.N., replying. The Chairman drank "Prosperity to the Hospital and School," and the treasurer, Sir Trevor Lawrence, replied. "The Visitors" was proposed by Mr. Butlin; Sir Richard Quain, and Mr. Morley, Warden of Wadham College, returned thanks for the toast. Sir James Paget proposed "The Chairman," and Dr. Norman Moore "The Honorary Secretary" (Dr. Hensley). Amongst the visitors, besides those above named, were Professor Stewart, Conservator of the Museum of the Royal College of Surgeons: and Mr. Trimmer, Secretary to the College.

ST. GEORGE'S HOSPITAL.

Upwards of one hundred and fifty past and present St. George's men met at dinner in the Whitehall Rooms of the Hôtel Métropole on Monday evening last, to celebrate the opening of the Medical School, and to commemorate the centenary of John Hunter's death. His Royal Highness the Duke of Cambridge presided, and was supported by the Earl of Cork and Orrery, Mr. Mosse (Treasurer of the Hospital), Mr. Shaw Stewart, Mr. Timothy Holmes, Dr. W. H. Dickinson, Surgeon-General Cornish, and others prominently connected with the hospital and school. The usual loyal and patriotic toasts were drunk. The Chairman, in proposing "The Memory of John Hunter," which was drunk in solemn silence, paid a graceful compliment to the public services of the medical profession in all parts of the world. "The Chairman" was proposed by the Earl of Cork and Orrery, and received with great enthusiasm. The Treasurer responded to the toast of "The Governors," proposed by Mr. Dickinson, and Dr. Isambard Owen, the newly-appointed Dean of the School, to that of "The Medical School," which Mr. Shaw Stewart proposed. Mr.

Holmes's health, as the orator of the day, proposed by Mr. Brudenell Carter, was finally drunk amid great applause.

King's College.

The commencement of the winter session at King's College Hospital was inaugurated by the annual dinner of a very large number of old students and their friends at Limmer's Hotel on Monday, October 2nd. Dr. Edward L. Fenn, of Colchester, occupied the chair, and, in proposing the toast of the evening, "King's College Hospital and its Medical School," he referred to the names of Partridge, Bowman, Robert Bentley Todd, Arthur Farre, and others who were connected with the school at its commencement, and he pointed out the position of the medical school in its association with a first-class teaching institution for general education. Amongst other matters of interest, he mentioned, amidst applause, the honour recently conferred upon Sir William O. Priestley. In the course of other speeches, sympathetic reference was made to the loss of the late Surgeon-Major Parke, and to the delays connected with the Commission upon a teaching university of London. Amongst the speakers were the Rev. Dr. Wace, Professor L. S. Beale, Professor William Rose, Professor Watson Cheyne, Professor Duffin, Professor Tirard, Mr. T. H. Cheatle, Dr. John Walters, Dr. Lyne Stivens, and Professor George Buchanan, of Glasgow. The proceedings, which throughout were enthusiastic and harmonious, were enlivened by several musical contributions by Surgeon H. S. D. Griffiths, R.N.; Mr. Hardy Corfe, Mr. Percy L. Webster, and Mr. Croager.

University College.

The annual dinner of the old and present students of the Medical Faculty of University College was held at the Hôtel Métropole on October 2nd. Mr. Christopher Heath took the chair, and was supported by Mr. Erichsen, Dr. George Harley, Brigade-Surgeon Scriven, Mr. Mackellar, all the members of the hospital staff, and a very representative gathering of old students. Covers were laid for 136. Telegrams regretting their unavoidable absence were received from several old students, including Sir H. Thompson and Dr. Hare. Mr. Christopher Heath, in proposing the toast of "Prosperity to University College and Hospital," referred to the losses sustained in the last year or two by the death of his colleagues John Marshall, Berkeley Hill, Walshe, Marcus Beck, and Graily Hewitt. He mentioned that the bust of Professor Marshall, subscribed for by his friends and old pupils, had that afternoon been presented to University College, and that he, as treasurer of the Beck Memorial Fund, had already received nearly £600. Mr. Heath referred to the recent enlargement of University College, which by providing for other departments, had given room for an enlarged hygienic laboratory and for a bacteriological laboratory, so that now the student would be able to pursue his studies under most favourable conditions. He also alluded to the burning question of the rebuilding of the University College Hospital, and announced that the fund for that purpose now amounted to £30,000, and that the Council had secured all the houses contained in the quadrangle on which the hospital stood, so that it might be hoped that shortly a commencement would be made. Mr. Heath referred to the successes gained by old students, and mentioned incidentally that Guy's was the only London hospital at which one or more former pupils did not hold office. He concluded by moving the toast, which was drunk with acclammation, coupling with it the name of the President of the College, Mr. Erichsen. In his reply Mr. Erichsen said how willingly he had accepted the invitation to the Presidency of the College, for not only had his whole life been associated with the College, but he owed everything to it. He also felt that those who could afford the time to do so ought to devote themselves more to public affairs than had been customary in the medical profession, which suffered under the reproach that it consisted of mere doctors. The Chairman's health was proposed in most warm terms by Mr. Mackellar, seconded by Mr. Collyns, who had been Mr. Heath's first house-surgeon, and drunk with the greatest enthusiasm. The proceedings were enlivened by some excellent songs by Dr. F. T. Roberts and Dr. Campbell Pope, and in all respects the annual gathering was a great success.

Westminster Hospital.

The annual dinner of the Westminster Hospital Medical School took place at the Holborn Restaurant on Monday, October 2nd, Dr. Donkin, physician to the hospital, being in the chair. Almost all the members of the hospital and school staff were present, and they were supported by an unusually large number of old students and governors of the hospital. The chairman alluded in sympathetic terms to the retirement of Dr. Sturges and Mr. Cowell from the chairs of medicine and surgery respectively, after a tenure of twenty years. He congratulated the school on the additions that had been made to the staff, and referred especially to the appointment of Dr. Wills, an old student of the hospital, to the post of assistant-physician. He expressed the warm thanks of the staff for the munificent gift of £500 recently made by Mr. Fish, a governor of the hospital, to provide additional plant for the medical school. The dean, Mr. Spencer, in replying to the toast, stated that the entries were nearly double those of last year, and that the prospects of the school were excellent. During dinner and between the toasts, a selection of music was admirably rendered by a string band.

THE CHOLERA.

Our Hull correspondent writes: Since my last report, there have been no deaths from cholera in Hull. During the week ending October 4th, the following cases have been notified by medical practitioners, namely, cholera *nil*, choleraic diarrhœa 8, and diarrhœa 10. It is understood that the health authorities entertain the opinion that the outbreak is now subsiding, and all danger for the present is averted. The extra precautions adopted are, however, still being rigorously maintained, both by the urban and port authorities.

Rotherham reports 2 cases, Yarmouth 1, and West Malling 1; but no death at any of these places.

A death is reported from an asylum in Staffordshire, where also a suspicious death occurred on September 26th. At River Blythe Port a sailor died who was removed from the ss. *Ashbrooke*, from which it will be remembered a fatal case was removed by the London Port Sanitary Authority. A fatal case occurred at Gloucester on October 3rd.

No more cases have been reported from Manchester, where, in fact, only one case from choleraic diarrhœa has taken place, and that three weeks ago.

At Tividale no more deaths have occurred beyond the two mentioned last week; but 3 non-fatal cases are reported by Dr. Sweeting to be cases of true cholera.

The London case reported last week in the parish of St. George the Martyr has ended fatally, and has been found to be culturally indistinguishable from true cholera.

Some cases were reported in the papers from Low Moor, near Bradford, but they have not been confirmed by the medical department of the Local Government Board.

THE CHOLERA ABROAD.

Austria-Hungary.—Whatever may be the facts as to cholera in Galicia and Hungary, the only particulars to hand respecting the disease in the Austrian Empire last week are that 11 cases and 6 deaths took place at Buda-Pesth.

France.—In Brest 12 deaths from cholera were reported last week, making a total of 250 to the end of September. But the districts round the town, and especially Kerinou and its neighbourhood, have also greatly suffered from the disease, in excess, indeed, of Brest itself.

Spain.—In Bilbao last week we learn of 72 cases of cholera and 34 deaths; and in the rest of the Province of Biscay 156 cases and 70 deaths. Many English workmen and their families have left the infected district, in which, however, special preventive measures have been adopted.

Portugal.—A shipborne case from Hamburg died at Lisbon on Wednesday of last week.

Germany.—In Hamburg 24 cases of cholera occurred last week, 6 being the highest number on any one day; and there were 8 deaths. At Altona there were 7 cases and 2 deaths; one death at Berlin; and single cases at Itzehoe, Bodenwerder, and Heerdt; 2 at Kiel; and at Cuxhaven 2 fatal shipborne cases; one death at Stettin, and one at Kirchborgum in Hanover.

Italy.—Two cases of cholera, one being fatal, occurred in Rome last week; 104 cases and 44 deaths at Leghorn; and 108 cases and 62 deaths at Palermo, where 363 cases and 194 deaths had been notified to September 28th. An outbreak at Patti-Marina, in Messina, last week comprised 30 cases and 14 deaths during four days. A mail steamer, repulsed at Brazilian ports, put in last week at the Sardinian quarantine station at Asinara, with 17 cholera cases on board, including the ship's surgeon; and reported 144 cholera deaths on the voyage.

Holland.—In Rotterdam there had been 41 cases, and 25 deaths from cholera up to September 26th, with further 7 cases and 3 deaths to the

end of the month. One case occurred last week at the Hague; and single deaths took place at Alphen-on-Rhine (3 cases), Ysselmonde, Papendrecht, Aarlanderveen, Barendrecht, Hagestein, Gameren, and Aalsmeer, among other places; besides others having non-fatal cases. Four deaths occurred at Grootelindt, 2 at S. Graveland; and 2 in all Holland on the last day of the week.

Russia.—In St. Petersburg during the week ended September 26th there were 263 cases and 118 deaths, against 372 and 159 respectively in the previous week; making 635 cases and 277 deaths in the 14 days in question. Our St. Petersburg correspondent writes (under date September 28th): Since September 2nd (old style) the daily admissions to hospital of cases of cholera and deaths from the disease in St. Petersburg have been as follow:

		Cases.	Deaths.
From noon on September	2nd to noon on September 3rd	... 51	... 20
,, ,,	3rd ,, ,, 4th	... 50	... 20
,, ,,	4th ,, ,, 5th	... 46	... 18
,, ,,	5th ,, ,, 6th	... 59	... 23
,, ,,	6th ,, ,, 7th	... 63	... 32
,, ,,	7th ,, ,, 8th	... 55	... 23
,, ,,	8th ,, ,, 9th	... 48	... 23
,, ,,	9th ,, ,, 10th	... 61	... 23
,, ,,	10th ,, ,, 11th	... 62	... 27
,, ,,	11th ,, ,, 12th	... 40	... 23
,, ,,	12th ,, ,, 13th	... 40	... 22
,, ,,	13th ,, ,, 14th	... 60	... 23
,, ,,	14th ,, ,, 15th	... 59	... 26
,, ,,	15th ,, ,, 16th	... 47	... 26

286 cases remain under treatment.

The returns from the provinces show that the cholera epidemic is distinctly diminishing in a large number of Governments. A progressive lessening in the numbers of cases and deaths from cholera in the last three or four bulletins is observed in the Governments of Vladimir, Grodno, Kursk, Minsk, Mogilef, Moscow, Orel, Tiflis, Tula, Kharkof, Yaroslavl, Voronezh, Viatka, Kief, Podolia, Samara, the Don Cossack province, and to a less noticeable extent in some other Governments. An increase, on the other hand, is reported from the Governments of St. Petersburg, Simbirsk, Smolensk, Tobolsk, Volhynia, and Ekaterinoslav.

Roumania.—Cholera is steadily declining, the cholera deaths in the last half of September amounting only to 54.

Turkey in Europe.—We hear of only 6 cholera cases and 3 deaths at Scutari last week; 1 death at Pera and at Kassim Pasha; and of cases with 5 deaths at Haidar Pasha. Travellers are allowed to enter the city only at certain specified localities where disinfectants are in readiness. Dr. Chantemesse has visited several hospitals, and states that the epidemic is localised, and has not all the characteristics of Asiatic cholera. Dr. Chantemesse has established a bacteriological laboratory in the medical school.

Santa Cruz, Teneriffe.—The ss. *Remo* arrived last week, having left Genoa for Brazil with 1,433 emigrants. She had been refused entrance to Rio Grande, and sailed again, reporting at Santa Cruz the loss of 63 persons out of 123 attacked by cholera.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association, at No. 429, Strand (corner of Agar Street), London, on Wednesday, the 25th instant, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

October 5th, 1893.

BRANCH MEETINGS TO BE HELD.

DORSET AND WEST HANTS BRANCH.—The next meeting will be held at Ringwood on Tuesday, October 10th, 1893. Dr. H. G. Dyer will be pleased to see the members and their friends at his residence to luncheon at 2 P.M. The business meeting will be held at the White Hart Hotel at 3.30 P.M. Agenda: Election of new members of the Branch—namely, Messrs. S. P. Snook, Weymouth; S. H. Wickham, M.B., Bournemouth; J. M. Yair, M.D., Bournemouth. Election of Officers for 1894. Place of May Meeting. Dr. Lush will move: "That a donation of five guineas be granted to the British Medical Benevolent Fund." Discussion: The Action of Diuretic Remedies. Communications:—Dr. Childs: The Relation of the Medical Profession in Dorsetshire to Ambulance Work and to the Association for Providing Nurses in Town Districts and in Villages of the County. Dr. H. G. Dyer: Some Cases of Interest. Dr. Lawrie: A Case of Abdominal Section; Removal of Uterus, Ovaries, and Two Fibroid Tumours. Dinner at the hotel at 6 P.M.; charge, 6s. each, without wine.—WILLIAM VAWDREY LUSH, M.D., Weymouth; C. H. WATTS PARKINSON, Wimborne, Honorary Secretaries.

OXFORD AND DISTRICT BRANCH.—The next meeting of the Branch will be held at 3.15 P.M. at the Radcliffe Infirmary, Oxford, on Friday, October 27th. Notice of papers, etc., should be sent to the Honorary Secretary, W. LEWIS MORGAN, 37, Broad Street, Oxford, on or before October 16th.

WEST SOMERSET BRANCH.—The autumnal meeting of this Branch will be held at the Castle Hotel, Taunton, on Friday, October 27th, at 5 P.M., under the presidency of Mr. R. J. Collyns. An address on Myxœdema, and the Therapeutic Value of the Thyroid Treatment, illustrated by photographs and specimens, is promised by Dr. Arthur T. Davies, Physician to the Royal Hospital for Diseases of the Chest, upon which a discussion will be invited. The West Somerset Branch will be glad to see members of neighbouring Branches who may like to join the meeting and take part in the discussion. The Honorary Secretary will thank all gentlemen proposing to attend to send him notice before October 20th, and also mention if they will remain to the dinner, in order that he may make the necessary arrangements. Dinner will be served at 7 o'clock; tickets 5s. a head, exclusive of wine. Members wishing to read papers or to bring forward any communication at the meeting are requested to send early notice thereof to W. M. KELLY, M.D., Honorary Secretary, Taunton.

NORTH OF ENGLAND BRANCH.—The autumnal meeting will be held at the County Hotel, Durham, on Tuesday, October 17th, at 4.30 P.M. Dr. Hern will read a paper on the Treatment of Fractures of the Jaw. The following papers will also be read: Dr. Murphy: Suggestions for the Treatment of Puerperal Fever. Mr. Rutherford Morison: Notes on Five Recent Cases of Intestinal Obstruction due to Abdominal Tuberculosis with *Post-mortem* Reports. Dr. Hume: (1) Suprapubic Lithotomy in a Case of Enlarged Prostate with subsequent Permanent Drainage; (2) Papilloma of Bladder. The dinner after the meeting will take place at the County Hotel at 6 P.M.; 6s. 6d. each, exclusive of wine. Members wishing to read papers, etc., are requested to write at once to the Honorary Secretary.—G. E. WILLIAMSON, F.R.C.S., Honorary Secretary, 8, Eldon Square, Newcastle-upon-Tyne.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT.—The next meeting will be held at the White Hart Hotel, Reigate, on Thursday, October 12th, at 4 P.M., Mr. H. W. Ewen, of Redhill, in the chair. Dinner at 6 P.M.; charge, 7s., exclusive of wine. All members of the South-Eastern Branch are entitled to attend and to introduce professional friends. Agenda: (1) Minutes of Croydon meeting. (2) To decide where the next meeting shall be held, and to nominate a member to take the chair thereat. The following papers, etc., have been promised:—Mr. J. Bland Sutton: Cystic and Solid Tumours of the Kidneys, their Diagnosis and Treatment. Mr. C. J. Symonds: The Local Treatment of Laryngeal Tubercle. Dr. Horrocks: Three Cases of Extrauterine Fœtation. Mr. C. Wray: Weak Eyesight in Children. Members desirous of exhibiting or reading notes of cases are invited to communicate at once with the Honorary Secretary, who would be much obliged if members would kindly inform him by post-card whether they intend, if possible, to be present at the meeting, and if likely to remain to dinner. By so doing they will very materially facilitate arrangements and promote the success of the meeting.—HENRY J. PRANGLEY, Honorary Secretary, Tudor House, Anerley.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.—The next meeting of this District will take place at St. Bartholomew's Hospital, Rochester, on Friday, October 27th, at 4 P.M. Brigade-Surgeon Ray, of Milton-next-Sittingbourne, in the chair. Gentlemen desirous of making any communication at the meeting, are requested to intimate the same to F. GROUND, 1, Ashford Road, Maidstone, the Honorary Secretary, not later than October 7th.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.

A MEETING of this District was held at the Beach Rocks Convalescent Home, Sandgate, on September 21st; Mr. W. L. CHUBB in the chair. Twenty-seven members and visitors were present.

Chairman of Canterbury Meeting.—Mr. Sidney Wacher, of Canterbury, was appointed Chairman of the meeting to be held at Canterbury in November.

Communications.—Dr. COLVILLE (Ashford) read a paper on Alcoholic Paralysis, and entered into the details of an example of this disease.—Dr. WASHBOURN (Lecturer on Bacteriology at Guy's Hospital) delivered an address, illustrated with the microscope, on Bacteriology and its Practical Bearings. He described the general characteristics of bacteria, their biological position, morphology, methods of cultivation, and conditions of life. Bacteria were next considered as causes of disease, splenic fever being taken as a typical illustration. The question of immunity was discussed, researches on the immunising properties of blood serum mentioned, and the possible therapeutical value of the so-called "antitoxins" referred to. The most important bacterial diseases were next taken *seriatim*, and the practical value of bacteriological examinations in each case pointed out and illustrated by examples.

A County Bacteriologist.—On the motion of Dr. ROBINSON, seconded by Mr. CLARKE, it was resolved that a resolution suggesting the appointment of a county bacteriologist should be forwarded to the County Council of Kent.

Cases.—The CHAIRMAN showed a case of Alcoholic Paralysis, and Dr. TYSON a case of Myxœdema and one of Suppurating Hydatid Cysts of the Liver.

Tea and coffee were subsequently served, and the members were conducted by the Chairman over the site of the recent landslip.

SPECIAL CORRESPONDENCE.

PARIS.

Foreign Pharmacists in France.—Medical Men and the Sale of Drugs.—Army Surgeons and Private Practice.

Foreign chemists and druggists cannot exercise their profession in France without having the French diploma. It is in the power of the Minister of Instruction to dispense with some of the necessary examinations. Hospital chemists and druggists are allowed to practise during an epidemic; this authorisation holds good for three months. A chemist and druggist can only have one shop, and he must inhabit the locality where he carries on his business. After the death of a chemist and druggist the heirs can carry on the business for a year, provided that another chemist and druggist is placed in charge.

It is forbidden to a medical man to have any understanding with a chemist and druggist concerning the sale of drugs. In those localities where there is not a chemist and druggist the medical man can supply his patients with medicine. In order to be prepared for urgent cases, medical men, even where there are one or two chemists and druggists, can keep certain drugs, which will be mentioned in a list drawn up by the authorities. In every department there will be an inspector for chemists and druggists. This body of pharmaceutical inspectors will be chosen by the *Comité Consultatif d'Hygiène*, and ratified by Government.

Army surgeons and physicians are prohibited from private practice. Medical men with the rank of officer in the colonial Corps de Santé are authorised to practise, inasmuch as there are very few lay medical men in the colonies.

The fact that the disinfecting service is annexed both to the police prefecture and the Seine Department is a subject of much complaint. The result is said to be that applicants are sent backwards and forwards from one to the other to no purpose.

ST. PETERSBURG.

Conference of Livonian Physicians.—Female Medical Practitioners in Russia.

The fifth Conference of Livonian physicians was opened at Iurief (formerly Dorpat) on September 1st (old style), under the presidency of Dr. Stremberg. An address of welcome was read by the prefect of the town, a post at present filled by a member of the medical profession, Dr. von Bok. A discussion upon Leprosy was introduced by Dr. von Manteufel, who stated that there are at present ninety-five cases of leprosy in Livonia, in the two asylums belonging to the society devoted to the repression of this disease. Dr. Reissner, Physician to the Riga Leper Asylum, and Dr. Peterson, of St. Petersburg, both considered leprosy infectious. Dr. Katterfeld stated that two hospitals for lepers would shortly be opened in the Government of Courland. The question of the compulsory isolation of lepers was discussed.

An interesting article has recently appeared in the *Siéverny Viestnik* upon the position of the woman doctor in Russia. The author of the article, Dr. Herzenstein, brings forward evidence to show that her position is improving every year, and that the demand for her services, particularly in the treatment of women and children, is constantly increasing. The number of women doctors in Russia has been reckoned at about 700. The article advances statistics of 409 of these. Many of them occupy responsible positions in the service of the zemstvos, 21.27 per cent.; municipal bodies, 3.18 per cent.; in hospitals and workhouses, 14.42 per cent.; in educational establishments, 4.16 per cent.; in government institutions, 0.73 per cent., and in factories and works of various sorts. Individual incomes from such sources vary from small sums up to 2,000 roubles (about £200) per annum; 8 receive less than 200 roubles, 43 receive from 200 to 500 roubles, 96 from 500 to 1,000 roubles, and 47 from 1,000 to 2,000 roubles, while 1 receives more than the last named sum. Incomes from private practice vary from 100 roubles to (in one case only) as much as 18,000 roubles per annum, the average income of a Russian woman doctor being less than 3,000 roubles. The large majority (280 out of 409) of women practising medicine in Russia are natives of the country; 98 out of 409 are Jewesses, and the remainder is made up of Poles (8), Germans (6), Lithuanians (3), Armenian (1), and women of unknown nationality (13).

MANCHESTER.

Opening of the Session.—Medical Dinner.—Changes in the Staff.—Royal Infirmary.—The Southern Hospital.—New Library Buildings.

The winter session of the Medical Department of Owens College began on Wednesday, October 4th. There was no formal introductory lecture this year, as it is expected, owing to the opening of the new medical school buildings next winter session, that the opening of the session of 1894 will be attended with greater pomp and circumstance than usual. From the annual statement of the Dean it appears that during the session 1892-93 there were 387 students in the Medical Department of the College.

The annual medical dinner of the Owens College and Manchester Royal Infirmary was held in the Queen's Hotel on Monday, October 2nd, when Mr. Thomas Jones was in the chair.

Some very important changes have been effected in the College medical staff since last session. Mr. Thomas Jones has been appointed Professor of Surgery, and Mr. Walter Whitehead Professor of Clinical Surgery. The latter chair is one newly instituted by the Council. Mr. Wm. Thorburn has been appointed Assistant Lecturer in Surgery, while Mr. F. A. Southam is Lecturer in Operative Surgery, and Mr. G. A. Wright Lecturer in Practical Surgery, with Mr. Joseph Collier as Assistant Lecturer. A new lectureship on Diseases of the Ear has also been established, and to this post Dr. Wm. Milligan has been appointed.

With the strengthening of the ties between the Medical School and the Royal Infirmary we look forward to increased prosperity to the cause of medical education in Manchester. In future the Professor of Medicine and the Professor of Surgery in the College will *ex officio* have beds in the Royal Infirmary. This is a step in the right direction, and one which will be welcomed by the public of Manchester, and endorsed by the voice of the profession in and around the city.

The Southern Hospital purposes to change its site to the College Hospital Estate, and a bazaar, which it was proposed to hold to help the funds of this institution, has been postponed until early next year.

Mr. Chancellor Christie has offered to build a library for the College. The sum to be expended will be £16,000, and the offer has been gratefully accepted by the Council.

SHEFFIELD.

Opening of Medical School.—Meeting of the Yorkshire Branch of the Society of Medical Officers of Health.—Health of Sheffield.—Enteric Fever at Greasborough.

The Medical School opened the session with an address by Sir James Crichton Browne. The lecturer is well known in the city, and his popularity was shown, as well as the interest taken by practitioners and prominent lay people of the district in the Medical School, by the large numbers who assembled to hear the address. The hall at Firth College was crowded. An abstract of the address is published at page 784. In the evening the annual dinner of the Medical School was held, with Sir James and many leading citizens as guests. About seventy sat down, and many old students testified their interest in the proceedings by attending.

The annual meeting of the Yorkshire Branch of the Society of Medical Officers of Health was held at Rotherham. Dr. Whitelegge, (President, Medical Officer of Health for the West Riding) took as the subject of his address the Census Returns as far as they had a direct bearing on public health work. The West Riding consists of five county boroughs—Bradford, Halifax, Huddersfield, Leeds, and Sheffield—and it covered an area of 1,775 acres roughly. In 1881 the population was 2,197,985, and in the ten years it had increased to 2,464,415, or an increase of 12 per cent. About 82 per cent. of the residents were of Yorkshire birth, and 18 per cent. were

immigrants. The housing had undergone a slight improvement, but it was in the right direction, the number per house going from 4.8 in the former period to 4.7 in 1891. The birth-rate had fallen greatly, and the marriage-rate had also declined. People married less or rather later. There had been a rapid increase in the numbers employed in the wool, silk, and coal mining industries; cotton remained stationary. The decrease in those engaged in agriculture was 11 per cent. The number of the medical profession has made the large increase of 38 per cent. during the ten years, the numbers going up from 864 in 1881 to 1,191 in 1891. Dr. Alfred Robinson (Medical Officer of Health for Rotherham) read a paper on Typhus Fever, and referred to two cases which recently had been under his observation. They were brought from a common lodging house at Wath, a few miles distant from Rotherham.

The report of the Medical Officer of Health for this city (Dr. Littlejohn) has just been issued for 1892. He mentions as a matter for congratulation that, though small-pox was constantly prevalent in the districts round, the city was kept free from any serious outbreak. He thinks this fortunate result greatly due to the fact that Sheffield had, on the whole, a fairly well protected adult population; that very few unvaccinated persons were met with; that many were revaccinated during the late epidemic, or had suffered from the disease. Early notification was another important assistance, every case being promptly removed to hospital, whilst the bedding was fumigated, and the place disinfected. Another means was the removal and isolation of other members of the family. The disease was prevalent on the borders of Sheffield for the whole year, and the navvies at the extensive railway works were accustomed to come into Sheffield for Saturday and Sunday. He thought that county councils could enforce the provision by contractors of suitable hospital accommodation, so as to have any infectious disease stamped out at the commencement. Reference is also made in the report of Sheffield being what has been called a diarrhœa town, which was alluded to some short time since in these pages. A condition is set forth of unpaved yards in some parts of the city, undrained and soddened with sewage, and liquid oozing from the middens, which requires the attention of the authorities, for, as Dr. Littlejohn points out, if they were removed a great diminution of the disease would be recorded. He is, however, able to report a very gratifying decrease in the deaths attributable to enteric fever. As to smoke abatement he gives a favourable statement. The prosecutions which had been proceeded with exerted a very beneficial effect.

At Greasborough, a village near Rotherham, there has been, for the size of the place, a serious outbreak of enteric fever, 40 cases occurring during September. The water supply has been found to be at fault. The wells are all on the same level and communicate more or less with each other. Their further use is discountenanced and steps are to be taken towards getting an improved water supply.

LEEDS.

Leeds Medical School: Opening of the Winter Session.—The Annual Medical Dinner.

THE opening address of the Winter Session in connection with the Medical Department of the Yorkshire College was delivered in the Chemistry Theatre of the College on Monday afternoon, by Dr. T. Clifford Allbutt, F.R.S., Regius Professor of Physic in the University of Cambridge. There was a large gathering of students, and many of the members of the medical profession in Leeds were present to welcome Dr. Clifford Allbutt back to the city in which he had a long and distinguished career. Accompanying the Dean (Mr. T. Scattergood) on the platform were several members of the professorial staff of the Yorkshire College. Dr. Clifford Allbutt, who met with a most hearty reception, began his address by remarking that they were entering upon the last of twenty-eight years of life and work within the walls of what they would soon begin to call the old School of Medicine. In a few months the students would step over the threshold of the old school for the last time, and would bear away with them the threefold monument of a great example, of a traditional idea, and of a school which had developed into a part of a university which, although founded in our own day, was already a great university. Dr. Allbutt then referred to the large increase of students preparing for the Victoria University degree, and asked what were the reasons for congratulating themselves upon this increase. The chief reasons were two—first, that a university was especially the seat of a liberal education; secondly, that the rapidly increasing gains of Victoria were not due to any paltering with the high standards of her teaching—the high standards of her teaching, he said, not only of her examinations. Examinations there must be, and these must be of a kind to test, as far as possible, a certain part of the student's education, but a part only. In medicine this test was more than usually important, because the public must have some guarantee that its medical men knew the principles of their perilous profession, but it was true, nevertheless, that an examination could not test the better part of a student's education, that invaluable part which was gained by membership of a university as compared with membership of a technical school; for it must be remembered that the education of a technical school differed from a university education in this—that the former was no more than a special adaptation of a man to a special sphere of usefulness, but the latter was a liberal education. A liberal education could be attained, and was daily attained, by virtuous men, without a university, but it was those who had thus attained who would tell them most earnestly how precious was the boon of that Alma Mater whose care they never knew. The discipline of the mind of which Newman spoke—a discipline to be won for its own sake, and which had its own proper object—it was the province not of a technical school but of a university to give, and it was given by a university not especially in virtue of its examinations, which could hardly test it, but by a tradition of ideas which were laid wide and high, by the harmony of its several faculties and various pursuits, by the enlarged experience and extended sympathies of its teachers, by the diversity of interests and conversation among its scholars of all parts. In 1884 that fusion of the Leeds School of Medicine with the Yorkshire College took place which was already, and would in the future be more and more, the source of a larger, richer, and more generous education than a school of any single faculty, however admirably equipped, could give. In a university which deserved the name, therefore, not merely were they versed in the customary exercises of their own profession, but they saw, as in a project beyond that arena, other fields of knowledge, each in its relation to their own and the rest. Dr. Allbutt went on to say that the Victoria, like other universities, was beset by a three old danger. First, the temptation to grasp at immediate popularity by lowering the standard, and so clipping its course of instruction as to encourage a precocious maturity. This it had bravely and successfully resisted. Secondly, the temptation to follow the too purely technical bent of the times. Not that he protested against technical education; he rejoiced in it, if they did not forget what virtues lay in the older methods and in those spheres of ethics and philosophy with which a university education dealt in the past. Finally, by too close an application to one study they might so limit or pervert their survey of life and learning as a whole as to defeat that aim and that purpose for which a university existed. The wisdom of our forefathers told us what the experience of our own time proved, namely, that to whomsoever was given the desire of success, either in the calling of medicine or in any other intellectual calling, his education must be liberal as well as technical in quality. To have a love of learning, not for its immediate uses but for its own sake, was to have the fruits of a liberal education, and the men who had endowed the world with its most precious possessions had been men who had pursued learning for its own sake.

In the evening the annual Leeds Medical Dinner was held at the Queen's Hotel, Mr. T. R. Jessop, F.R.C.S., in the chair. Professor Allbutt was the guest of the evening, and among others were present Messrs. Scattergood, Teale, Atkinson, Mayo Robson, Kilner Clarke, Brown, and Wylie, and Principal Bodington. After the usual loyal toasts, Mr. Jessop proposed "The Health of the Guests," coupled with the name of Dr. Clifford Allbutt. He referred to the altered relationships between consultant and general practitioner

which had been effected during the past thirty years, and ascribed much of the improvement in that respect to Dr. Clifford Allbutt. Dr. Allbutt, in replying, said no compliment could give him greater pleasure than the thought that he had been in any way instrumental in bringing about a greater degree of friendliness between members of the medical profession. Dr. Kilner Clarke proposed the toast of "The Medical School," and Mr. E. Atkinson responded. The dinner was in every way a most successful one.

CORRESPONDENCE.

"DR. CHESTERFIELD'S LETTERS TO HIS SON ON MEDICINE AS A CAREER."

Sir,—In the British Medical Journal for September 30th you do me the honour to criticise an article in *Longman's Magazine* for October entitled "Dr. Chesterfield's Letters to his Son." I trust you will in all fairness permit me to say a few words on this criticism. The writer of your notice apparently fails to see that "Dr. Chesterfield" is a creature of the imagination, and proceeds as if "Lord Chesterfield's Letters to his Son" had never been written. He not only attributes opinions to the Dr. Chesterfield of fiction which he never expressed, but produces these opinions as mine. For example, he represents me as saying that "manner makes the successful physician." It is not only absurdly unjust to say that I ever held such an opinion, but it is even unfair to "Dr. Chesterfield," who says: "Ah, I hear you say as you read this, 'It is manner;' stuff and nonsense! It is as often as not absence of manner," etc. Your reviewer also leaves an entirely false impression as to "Dr. Chesterfield's" opinions of the literary attainments of surgeons (again attributing these views to me), forgetting that "Dr. Chesterfield" speaks of a surgeon as writing "in pure good classical English, such as has not been beaten since the days of Addison." I am quite sure that anyone who reads *Longman's Magazine* will appreciate why I ask you to do me the justice to admit this protest into your columns.—I am, etc.,

London, Sept. 29th. W. B. Dalby.

*** We are sorry if we have unintentionally done Sir William Dalby an injustice. We must, however, ask him to believe that we were fully aware of the fact that Lord Chesterfield had written *Letters to his Son*, which were described by Dr. Johnson as teaching the morals of a rake and the manners of a dancing master. If Sir William Dalby intends his articles to be accepted as purely dramatic utterances, we could wish that he had chosen for the "creature of his imagination" a name with less questionable associations. May we add that the exegesis of his articles now furnished by Sir William Dalby seems to us greatly to diminish their doctrinal value, for while the opinions of a man whose own career in medicine has been distinctly successful could not have failed to be instructive, the views of "Dr. Chesterfield" on the subject can have no particular interest for anyone. Sir William Dalby complains that we have represented him as saying that "Manner makes the successful physician;" if he will refer to the incriminated passage again, however, he will see that the words were not attributed to him, but were obviously intended to convey only the impression produced on our mind by the general tenour of "Dr. Chesterfield's" criticism of medical life. We, of course, accept the assurance of "Dr. Chesterfield's" creator that we were wrong in interpreting his remarks in this sense, but, in fairness to ourselves, we must say that they still appear to us open to such misapprehension. Nor can we see that the point has the importance which Sir William Dalby seems to attach to it. "Dr. Chesterfield" expressly postulates a "complete knowledge of his profession" in the case of every physician as a condition of success so absolutely indispensable that he leaves it out of the question. It is the something "over and above" this, which makes the difference between failure and success, that he discusses for the edification of his correspondent. He says: "A successful physician must possess the *art* of satisfying his patients" (the italics are ours). We, it appears, read into our author that the secret of this "art" was to be found in "manner." It is true that "Dr. Chesterfield" says, "it is as often as not an absence of manner" (we presume that interesting *dramatis persona* means absence of "manners"), but this surely is also a manner, and sometimes a very effective one. We confess that, professional equipment being *ex hypothesi* equal, "manner" seems to us the personal quality that chiefly makes the difference in the running between rival candidates, and, in expressing this view, we should, had we not been so seriously taken to task by Sir William Dalby, have thought we were delivering ourselves of an opinion innocent and obvious to the verge of truism. Sir William Dalby's other complaint we do not quite understand; we quoted "Dr. Chesterfield's" own words, which refer solely to "illiterate surgeons." We are willing to believe that "Dr. Chesterfield" thinks that some surgeons write even better than Addison, but Sir William Dalby will admit that they are exceptionally endowed.

INDIAN HEMP AS A CAUSE OF INSANITY.

Sir,—In a letter which appeared in the British Medical Journal of September 23rd, signed "Pyramid," the writer attempts to throw doubt on the statement that the excessive use of Indian hemp is a potent cause of insanity. He observes that indulgence in this drug in the form of haschisch is almost universal in Egypt, and that there is no country in the world where lunacy is so rare. He has "traversed every province without hearing of or meeting lunatics under private control, and the number of idiots was surprisingly small." This appears to me much too loose a way for a foreigner in an Eastern country to collect statistics of the prevalence of lunacy. And would he seriously have us believe that the 300 patients in the asylum at Cairo give us even an approximate census of the insane persons amongst the eight millions of the population of Egypt? Does it not rather show how little public care has been bestowed on lunatics in that country? If "Pyramid" moved southward, he would probably find that in Abyssinia there is no lunatic asylum at all, and thence be able to conclude that insanity is still rarer there. It is evident, from "Pyramid's" own admissions, that other persons also acquainted with Egypt do not hold his opinion that the use of haschisch is a salutary practice. An American physician, he tells us, launched a violent diatribe against Indian hemp, because 60 out of the 300 patients in the Cairo Asylum were said to have gone mad from the use of the drug. Let me refer "Pyramid" to a paper in the *Zeitschrift für Psychiatrie*, xlii Band, p. 240, in which Professor Mendel, of Berlin, describes his observations on the effects of the excessive use of haschisch in Cairo. He found that amongst the male patients, one third of the admissions (120 out of 367) in the asylum were due to its influence; only 13 were due to the abuse of alcohol. Yet "Pyramid," while he wishes the sale of drink to be put under restrictions, has no sympathy with the efforts of the Egyptian Government to suppress the sale of haschisch.

Professor Mendel states that though its sale is menaced with imprisonment and even its indulgence with a fine, the drug is sold in a number of little shops in Cairo and used on the spot. In these haunts Professor Mendel was able to observe its intoxicating effects. A Commission has lately been formed of experienced officials to inquire into the effects of the use of cannabis upon the people of India. The members of it would doubtless be interested in "Pyramid's" statement that the "employment of haschisch in Egypt has a beneficial effect on the almost vegetarian population." Why a vegetarian population should receive more benefit from this agent than a mixed feeding one is not known to me, but there is a large vegetarian population in India to whom "Pyramid" may become a benefactor. Like most enthusiastic reformers, he will find prejudices to overcome. for no doubt the Commission has been instituted under the idea that the use of the different forms of cannabis is injurious to the health and morals of the people of India.

A man who is addicted to churrus or bhang in that country is said to be the analogue of a drunken sot in our own, and the drug is undoubtedly the cause of much noisy behaviour and rioting in the bazaars. I have already quoted statistics from Government reports showing that it is by far the most common cause of insanity in the asylums of the Bengal Presidency as well as throughout a great part of India. "Pyramid's" suggestion that a mistake is made in diagnosing most

of the cases of insanity said to be due to the abuse of Indian hemp, and that the patients have only taken to its use after they are becoming insane cannot be treated seriously without assuming a very great ignorance of the subject. We can, however, agree so far with him by believing that whenever a man takes to over-indulgence in cannabis there is good reason for questioning his sanity.

"Pyramid" admits that the special laws in Egypt have at least made haschisch dearer in price, and this in a poor country amounts to something in restricting its use. It is probable that the substances which are used in Egypt to adulterate it, of which he complains so much, are less harmful than the pure hemp. As to its pernicious effects in British Guiana and the West Indies there can be no doubt, and "Pyramid" may easily get more testimony than mine.—I am, etc.,

Carlisle, Sept. 26th. THOMAS IRELAND.

DENTISTS AND THE COLLEGE OF SURGEONS.

SIR,—The physician who delivered the introductory address yesterday at the Westminster Hospital, referring to the dental profession, is reported to have raised the question "whether it would not be wise for the College of Surgeons to dissociate itself from this Branch altogether." As a lecturer myself, I am willing to make every charitable allowance for the exigencies of an introductory oration, but such an attack was quite unmerited. I might with equal justice enlarge upon the chief forms of malpractice by which a horde of charlatans prey upon the medical profession, but I should think it unfair, and scarcely in good taste. The dental profession is making every effort to free itself from unprofessional practitioners, and at the present moment a petition is being numerously signed in various parts of the kingdom praying the General Medical Council to declare advertising by dentists to be disgraceful conduct in a professional sense, and to erase the names of advertisers from the *Register*. Were these powers conceded, we should know how to deal with offenders.—I am, etc.,

F. NEWLAND-PEDLEY, F.R.C.S., L.D.S.

London, Oct. 3rd.

THE ST. JOHN AMBULANCE ASSOCIATION AND ITS DOCTORS.

SIR,—I notice a letter under this heading, signed "Justice," in the JOURNAL of September 30th. With much contained in it I fully agree; but to my mind the writer does not go far enough. Why should not medical men be paid for their services in coin of the realm when such services are rendered on behalf of a wealthy association? Surely a profession which in its individual work is so often compelled by the law of humanity to labour gratuitously should be paid, and that well, by the Order of St. John for lectures given on its behalf. Our butcher and our baker, not to speak of the other small items of housekeeping, must be paid in hard cash, so why should the medical profession accept any other form of payment?—I am, etc.,

Weymouth Street, W., Oct. 3rd. G. CHARLES WILKIN.

DEATH CERTIFICATION.

SIR,—I am sorry to take up your time and space, and would not do so were it not that Mr. Nelson Hardy, in his letter in the BRITISH MEDICAL JOURNAL of September 30th, accuses me of soliciting your aid, and that of the JOURNAL, on my behalf. I do nothing of the kind. I simply hoped that you and the JOURNAL would support the Commission's proposal.

Your leaderette failed to give due prominence to the alternative named by Mr. Hardy, and he gladly takes the opportunity to name the police surgeon. Of course, being one, he cannot be considered absolutely disinterested.

I agree with him, however, that the medical officer of health in the case he offers would not do as medical certifier, but that a man should be appointed for the purpose, who would devote all his time to the duties of his office.

In the country districts frequently there are no "police surgeons," and my knowledge of the "powers that be" convinces me that they would never grant a salary sufficient to enable a man to devote all his time, in which case there is no one more suited then a medical officer of health.—I am, etc.,

A MEDICAL OFFICER OF HEALTH.

THE VACCINATION COMMISSION.

SIR,—In a letter to the *Times* of September 26th, Mr. Tebb strikes a note to which all will cordially respond who have given the subject their serious consideration. As he observes, the Royal Commission on Vaccination has now been sitting more than four years without making a sign as yet that their protracted gestation is nearing its term. Even antivaccinationists, for whose behoof the inquiry was instituted, are showing impatience at its interminable length. But there are pressing reasons, not alluded to by Mr. Tebb, why the Commissioners should pronounce their verdict on the questions submitted to them without further delay. In many parts of the kingdom the vaccination laws have been virtually in abeyance since the Commission began its sittings.

Boards of guardians, always unwilling agents in carrying out the provisions of the Acts, have made it a pretext for postponing action that the question of compulsion is *sub judice*, and in the meantime grace must be allowed to the recusants. The Local Government Board, in deference to this view, has suspended all active interference for the present. As the result of this anarchy, a free hand has been given to the antivaccination societies in their crusade against the compulsory clauses of the Acts; and we now see such a falling off in the number of public vaccinations throughout the country as must give cause for serious alarm in the near future. To take one instance among many, the vaccination returns presented to the board of guardians of the union of King's Lynn at a late meeting showed that the number of births registered was 257, of which number 21 children were successfully vaccinated, 29 died unvaccinated, and 207 were not accounted for. As a similar state of things is known to exist in many towns having larger populations than Lynn, we may take it to mean that a large proportion of children will fall victims to the next epidemic of small-pox, such as will bear some comparison with the small-pox mortality of prevaccination times. Besides the loss of life must be reckoned the contingent expenses of the epidemic in the shape of charges for hospital treatment, isolation, disinfection, and it may be for maintenance of families during quarantine, the bulk of which will have to be borne by the more sensible and law-abiding section of the ratepayers.

Looking, then, at the gravity of the situation, and at the calamitous results to be apprehended from a continuance of the present deadlock, may we not reasonably ask to have the closure applied to the deliberations of the Royal Commission, with such an expression of opinion on the whole question as can be formed upon the evidence before them?—I am, etc.,

Guildford, Sept. 28th. HENRY TAYLOR.

"HORROR" AND IMPERFECT CHLOROFORM ANÆSTHESIA.

SIR,—In these days chloroform has been blamed in many cases as being the cause of death during operations. Correspondents of the BRITISH MEDICAL JOURNAL have also written on faulty administration, but few, if any, have put any blame on the operator or on the nervous condition of the patient. No doubt deaths have occurred through the anæsthetic itself; also through faulty administration, by haste, unscientific inhalers, etc. But, working, both as an operator and as an anæsthetist, I have several times had experience of patients who almost died on the table from (in themselves) very trivial causes. It must always be remembered that, in ninety-nine cases out of a hundred among adults the patient dreads the operation. Some dread the result, others the pain, or, to their mind's eye, the appearance of the wound, although they never see it. I myself have suffered from shock in having a tooth taken out, not from pain, but from a strange sense of horror. I also suffered from this shock when I had another tooth taken out under nitrous oxide gas, painlessly, but, through not being under sufficiently, I knew all that was going on and felt the horror as badly as before.

Now chloroform does not intoxicate in the same way as ether, and I have seen shock produced by beginning the operation before the patient was quite under the influence of the anæsthetic—profound shock produced in the simplest way and caused only by the fact that the patient was sufficiently conscious to be aware that the operation had com-

menced; the horror, if I may say so, of the incision acting on the patient's heart, though pain may have been entirely absent.

I have almost seen death from this cause. Now this would not be death under chloroform nor by chloroform, nor is it true shock, but due to carelessness on the part of the operator.

As I read day by day of cases dying on the table "just as the operation was commenced," it comes to my mind that the cause of death is not chloroform, but the lack thereof.

Also when using chloroform I never like to begin sponging and lotionising after the anæsthetic has commenced to be administered and before the patient is quite unconscious. May not the patient in his or her confused state of mind confound the dripping and sponging of the lotion with hæmorrhage, and have the horror of operation produced leading to shock and syncope? This may seem to many to be far-fetched, but I believe fewer deaths would take place under chloroform if the washing was done beforehand, and the surgeon could bide his time till the patient came absolutely under the influence of the anæsthetic.—I am, etc.,

Marcus Eustace, M.D.Dubl., L.R.C.P.I.

Mission Hospital, Quetta, Beloochistan.

THE JENNER RELICS.

Sir,—Perhaps Mr. Henry Jenner may be interested to know that the Scobell family formerly resided at the Abbey, Pershore, Worcestershire. Also that the late Mr. Claridge, who died in advanced age some years ago at Pershore, had formerly been connected with the Small-pox Hospital, London, and Jenner's people there. He gave me some of the relics, and in changing houses I found several Jennerian tinted drawings of vesicles in their several stages. I posted them (1888) to the late Dr. Strange, of Worcester, without note or comment. Very likely he did not know who the sender was.

I had, too, a neat case lined with blue silk and containing two medals, one silver and the other bronze, both with the same inscriptions. On the one side: "Aloysius Sacco. Mediol. Med. et Chir. Prof." On the other side were the words: "Ienner æmulo amici Bononienses A.I. AB. ital. Rep. cons."

I may also say that Miss Bedford lived, and I believe died at a great age at the Abbey, highly respected. She composed the music to a sacred song, "Oh, for the peace which floweth as a river!" words by Mrs. Crewdson, published by Thomas F. Simms, Fairlawn House, Weston-super-Mare.—I am, etc.,

Cheltenham, Oct. 2nd. Samuel W. Smith, M.D.

NAVAL AND MILITARY MEDICAL SERVICES.

THE NAVY.

The following appointments have been made at the Admiralty: Herbert M. Ellis, Fleet-Surgeon, to the *Ramillies*, October 17th; Henry B. Beatty and John E. Webb, Surgeons, to the *Ramillies*, October 17th; William A. Whitelegge, B.A., M.D., Surgeon, to the *Sanspareil*, October 17th; George Ley, Surgeon, to the *Volage*, October 17th; Edward J. Biden, Staff-Surgeon, to the *Ruby*, October 2nd; John P. J. Coolican, Surgeon, to the *Penelope*, October 2nd: Edward T. Meagher, Surgeon, to the *Impregnable*, October 2nd.

INDIAN MEDICAL SERVICE.

Surgeon-Lieutenant-Colonel A. S. Reid, M.B., Bengal Establishment, is appointed to officiate as Medical Storekeeper at the Presidency, from August 7th.

Surgeon-Captain W. J. Buchanan, M.B., Bengal Establishment, is granted leave to proceed out of India for one year, on private affairs.

The leave on private affairs granted to Surgeon-Lieutenant-Colonel H. Boyd, 45th Bengal Infantry, is extended to August 5th inclusive.

Surgeon-Captain T. W. Stewart, Madras Establishment, is transferred from Minboo to Akyab, Burmah, *vice* Surgeon-Captain C. L. Williams, whose services have been replaced at the disposal of the Government of Madras.

Surgeon-Captain F. J. Dewes, Madras Establishment, whose services have been placed temporarily at the disposal of the Chief Commissioner of Burmah, was, on arrival, posted as Civil Surgeon of Mimboo.

The appointment of Surgeon-Captain A. R. P. Russell, Bengal Establishment, transferred from Thayetmyo to Rangoon to officiate as Superintendent of Rangoon Central Gaol, is cancelled.

Surgeon-Captain A. J. Macnab, Bengal Establishment, Medical Officer Queen's Own Corps of Guides, has passed the examination in Pushtu by the higher standard.

Surgeon-Major J. A. Nelis, Bengal Establishment, assumed charge of the civil medical duties of Abbottabad on August 21st.

The tenure of the appointment of Surgeon-Colonel D. F. Bateman, Madras Establishment, in the administrative grade of the service, will reckon from July 1st.

Surgeon-Major H. W. B. Boyd, Bombay Establishment, is appointed to act as Presidency Surgeon 2nd District, and Marine Surgeon, in addition to his own duties during the absence of Brigade-Surgeon-Lieutenant-Colonel S. O'B. Banks.

An examination for not less than twelve appointments to Her Majesty's Indian Medical Service will be held in London in February, 1894. Copies of the regulations for the examination, with information regarding the pay and retiring allowances, etc., of Indian medical officers, may be obtained on application to the Under-Secretary of State for India, India Office, London, S.W.

ARMY MEDICAL STAFF.

Surgeon-Captain C. W. Johnson, who is serving in the Madras Command, is appointed Civil Surgeon of Meiktila, Burmah, in addition to his military duties.

The undermentioned Surgeon-Majors, having completed twenty years' service, are entitled to promotion to the rank of Surgeon-Lieutenant-Colonel:—G. T. Langridge, B. W. Fowler, W. E. Webb, M.D., R. W. Mapleton, M.B., W. L. Gubbins, M.B., R. G. Thomsett, P. J. M'Quaid, M.D., and J. Ring, M.D. Surgeon-Majors T. J. Gallwey, M.D., W. S. Pratt, M.B., W. H. Briggs, and W. B. Allin, M.B., who were promoted to their present rank for distinguished service, will also become eligible for advancement at the same time as the foregoing officers.

Quartermaster Francis Hewson is placed on retired pay. He was made Lieutenant of Orderlies, June 9th, 1877; Quartermaster Medical Department, July 1st, 1881; and Honorary Captain, June 9th, 1887.

Sergeant-Major Edward Lines, of the Medical Staff Corps, is appointed Quartermaster, with the honorary rank of Lieutenant, *vice* Honorary Captain F. Hewson, October 4th.

Deputy Surgeon-General William Nixon Armstrong died at Upper Norwood on September 24th. He became Assistant-Surgeon, January 10th, 1851; Surgeon, January 26th, 1858; Surgeon-Major, January 10th, 1871; retiring with rank of Deputy Surgeon-General, August 21st, 1878. Deputy Surgeon-General Armstrong served with the 54th Regiment in the Indian mutiny; was in medical charge of the expedition to Sylhet in 1857, and also of a field force in Oude, including the attack on the Fort of Loheau in March, 1858 (medal). He also served with the 9th Foot in Corfu, and joined the 16th Foot in 1866 in Canada, and was with them during the Fenian raid in the same year. He was on the Staff at the Curragh for four and a-half years previous to his retirement in 1878.

ARMY MEDICAL RESERVE.

Surgeon-Captain Alfred Chawner, 2nd Volunteer Battalion the Sherwood Foresters (Derbyshire Regiment), to be Surgeon-Major, October 4th.

THE VOLUNTEERS.

Mr. John Arthur Cornett is appointed Surgeon-Lieutenant to the 1st Lancashire Artillery, October 4th.

Surgeon-Lieutenant-Colonel T. C. Beatty, 2nd Durham (Seaham) Artillery, has resigned his commission, with permission to retain his rank and uniform.

Surgeon-Captain J. Menzies, M.D., 1st Roxburgh and Selkirk (the Border) Rifles, is promoted to be Surgeon-Major, October 4th, and resigns his commission from the same date, retaining his rank and uniform.

Surgeon-Lieutenant Mowbray Taylor, 2nd Volunteer Battalion the Duke of Cambridge's Own Middlesex Regiment (late the 8th Middlesex), is appointed Captain in the same corps, October 4th; and Mr. Francis Croucher, M.B., is appointed Surgeon-Lieutenant to the Battalion from the same date.

VOLUNTEER OFFICERS' DECORATION.

The undermentioned officers have had this decoration conferred on them: Surgeon-Major Alfred Baker, 1st Volunteer Battalion the Princess of Wales's Own Yorkshire Regiment; Surgeon-Lieutenant-Colonel G. P. Barton and Surgeon-Major George Pycroft, retired, 1st Devonshire Artillery (Western Division Royal Artillery); Surgeon-Major Charles Arrol, M.D., 1st Kent Artillery (Eastern Division Royal Artillery).

TRANSPORT OF SICK AND INJURED BY TRAMWAY.

The September number of the *Archives de Médecine et de Pharmacie Militaires* contains an interesting account of the recent organisation of the tramway system at Lyons for the conveyance of the sick of the garrison to the great military hospital there. This marks a new departure in the transport of sick and wounded, and doubtless will be further developed. For some time the tramway at Lyons has been employed in the transport of provisions and stores for the military service, but the running of a special car for the sick was only inaugurated on April 4th of this year, since which date it has been in daily use. The lines belonging to the tramway company have been supplemented by additional rails, both at the point of departure where the car is housed and at the hospital, where it can be run into a washhouse for the purpose of disinfection. The car has, like an ordinary tramcar, a platform at each end, to either of which horses can be harnessed. It is divided into two compartments; one of these, lighted by eight casements, with movable glass and blinds, is furnished with two fixed benches to accommodate eight persons sitting, four facing four. The other compartment, lighted by a skylight, which can be opened, and has also movable blinds, is very much like the interior of the French regulation ambulance waggon, and gives accommodation to four patients on stretchers, suspended in two lines. When not required for patients in the recumbent posture eight persons can be accommodated sitting on benches, which are made to turn down against the walls of the vehicle, and thus make room for the stretchers when required. All the benches have removable cushions stuffed with horsehair in impervious canvas with moleskin covers. In the compartment with casements there are also back rests of the same materials, and neither these nor the cushions have buttons, so that they can be easily cleaned and disinfected. In addition to the cushions on the benches there are

two others, hung by straps to the roof of the compartment, which is furnished with fixed benches. These are intended to be placed, if necessary, on the stretchers, as well as the cushions belonging to the movable seats, so that each has a cushion of suitable size. The stretchers, which are of regulation size, can, when not in use, be placed under the seats. The interior of the car is painted a mahogany colour, and the floor having been treated with boiled linseed oil, the whole can be easily washed and disinfected. A small cupboard is provided for cleaning articles, and in winter the cars can be heated by four boilers. The car, which is painted outside a bright green, is distinguished by flying the flag of the Geneva Convention.

THE INDIAN TOUR.

AJAX writes from India: Now that the Medical Staff have such an immense amount of Indian service—very often 12 or 15 years out of 20—why should they not get some of the advantages of the same? An officer of the Indian Medical Service would, out of his 20 years' service, have spent at least 3 years in Europe on full-pay leave, counting towards pension. But all this is denied to the Medical Staff, who do real hard work in India. Either the two services should be placed on an equality as to leave and appointments or else India ought to be entirely for the medical service of that country.

MILITARY RANK AND TITLES.

SURGEON-GENERAL RETIRED would supplement his observations on the necessity of absolute military rank for army surgeons on the following grounds: Departmental status is useless, it must be regimental, therefore the Medical Staff and Medical Staff Corps must be united to form an integral corps in the army, just as the Army Service Corps has been evolved out of the union between the Commissariat Department and the Commissariat Staff Corps. Until this is done the medical officer cannot have real equality with other army officers, and he is in an absolutely inferior position to the officers dealing with pay, transport, supply, and stores. The best men in the profession will not accept the present status of the medical officers, but when the pinch of war comes the public will certainly insist on the best medical aid, upon which not only the efficiency but the very existence of the army will largely depend. It seems absurd that every officer and man in the army should have assured military rank and title except the medical,

MEDICO-LEGAL AND MEDICO-ETHICAL.

THE PUFF DIRECT.

BE the author who he may, it but seldom devolves upon us to expose a more professionally unwise "puff" than that contained in the following obviously inspired paragraph that appeared in the *Isle of Wight Observer* of September 23rd, and which, calling as it does for greater publicity than that afforded by a local paper, we accord a place in the BRITISH MEDICAL JOURNAL, as a monition to would-be pretentiously egotistical practitioners.

"Owing to Dr. Davey's serious illness, we understand Mr. A. Banks, M.R.C.S. & R.C.P.London, is at present acting as *locum tenens*. Mr. Banks is not unknown in Ryde, having previously acted as physician-in-attendance on the late Mr. May, on the recommendation of Sir William McCormack. He was lately the House-Surgeon of St. Thomas's Hospital, having taken the first College prize and Cheselden medal there, as well as the silver medal in Mat. Med. and Phar. Chem. at the Apothecary Hall."

LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY.

DR. HUGH WOODS (Hon. Secretary) writes: At the last County of London Sessions Abraham David Blumberg, described as a medical student of the London Hospital, pleaded guilty to having by false pretences obtained the sum of £2 from Jessie Donenberg with intent to defraud. Mr. Bodkin and Mr. Mallinson, prosecuted for the London and Counties Medical Protection Society, Mr. Ernest Beard defended the prisoner. Mr. Bodkin said that though admitting that the prisoner had a certificate as a doctor in Russia he was still not entitled to represent himself as he did as a registered medical practitioner. He had a plate on his door on which were the words "Dr. Blumberg, M.D." Among his patients was Jessie Donenberg, on whom he had operated for the cure of sterility, with the result that her health was permanently damaged. In consideration, however, of the prisoner pleading guilty and promising never again to practise as a doctor, also bearing in mind that he had already been imprisoned for about a month, the Society did not desire to press the charge against him, but would ask the Court to deal leniently with him. Mr. Beard gave an undertaking that his client would no longer practise as a doctor. His Lordship warned the prisoner that he had been guilty of a very grave breach of the law, but on his undertaking not to offend again he (the Judge) would deal with him under the First Offenders Act and bind him over in the sum of £50 to come up for jndgment if called upon. His Lordship hoped that this prosecution would warn others that they would render themselves liable to imprisonment if they obtained money by representing themselves to be registered medical practitioners.

MEDICAL DEFENCE UNION, LIMITED.

A COUNCIL MEETING of this Union was held at the Rooms of the British Medical Association, London, on September 27th, Mr. Victor Horsley in the chair. Five new members were accepted. It was resolved, upon the motion of Dr. Horder, to call the attention of Mr. Frank Lockwood to the fact that certain obscene advertisements issued by abortion-mongering firms were appearing in the London press. It was resolved to report a medical man to the General Medical Council for covering. Dr. Danford Thomas was appointed arbitrator in a matter involving a dispute between two medical men. The Secretaries were instructed to write to a nurse who was circulating improper criticism concerning the practice of a member. The action of the Secretaries was approved in having given advice under the following circumstances:—(*a*) To a member who was summoned for neglecting to notify an infectious case; (*b*) to the medical men of Grimsby on the subject of a house-to-house visitation necessitated by the cholera; (*c*) to a member who alleged that he was slandered by the local clergyman; (*d*) to two matters involving questions under the Notification Act; and (*e*) to a member who considered himself slandered by a brother medical man. It was resolved to accept service of a writ issued against a clinical assistant at Moorfields Hospital for alleged unskilful performance of iridectomy. The action of the Secretaries was approved in writing a letter of warning to a woman who was slandering a member. Other matters of minor importance were dealt with.

A SIXPENNY DISPENSARY.

As in the labour market so in professional life does a spirit of unrest and of dishonouring and disloyal practice appear to more or less pervade a certain class of practitioners, as evidenced by the communications we continually receive on the subject, to which the following circular offers no exception, but seems to indicate the creation of another so-called dispensary for commercial purposes. We insert it in the hope that it may attract the attention of the licensing authorities of the Royal College of Surgeons and Society of Apothecaries, of which the offending practitioner appears to be a member. Far better would it be for such practitioners, if simply impecunious but capable, to accept assistantships until in a position to purchase a practice or partnership, than thus to degrade themselves and their profession.

HYDE ROAD DISPENSARY,
70, HYDE ROAD, HOXTON.

Resident Medical Officer ... ... Dr. E. J. SMITH.
Late House Surgeon to Charing Cross Hospital.

The Committee have appointed Dr. E. J. Smith (late House Surgeon to Charing Cross Hospital), to be Resident Medical officer to the above Institution, who will in future reside on the premises and personally attend all cases.

Table of Fees.

	s.	d.
Advice and Medicine at Dispensary	0	6
Do. do. by Week	1	0
Do. do. at Home	1	0
Do. do. do. by the Week ...	3	0

Vaccination ... ... Tuesday and Friday Mornings.
Midwifery. Tooth Extraction.

Hours of Consultation.

Mornings	9 to 12	Sundays	Mornings	9 to 11
Afternoons	at 4			
Evenings	6 to 10		Evenings	7 to 9

POST-MORTEM EXAMINATIONS.

DR. J. K. WATSON (Morpeth) writes: Under the above heading I desire to urge the necessity of giving medical men the power of making a *post-mortem* examination when they so desire without having to go through the formalities at present necessary. No one will deny that *post-mortem* examination is a most valuable aid, not only in advancing our pathological knowledge, but also in verifying our clinical observations and thereby strengthening and maturing our powers of diagnosis. It not infrequently happens that in those cases where we are specially anxious to verify our facts or to gain experience by *post-mortem* examination we are refused a necropsy. In most cases we have not sufficient, if any, reason to refuse a death certificate, and we not unnaturally feel that a most important road to pathological knowledge and medical progress has been barred to us, and that without adequate reason. Would it be looking too far ahead to hope that we may soon have authority given us in this direction to act on our own account or in concert with another medical man?

*** There are occasions, no doubt, when most of us would be glad of such power as our correspondent would fain see us possess, but we do not believe that the suggestion would receive any support from the public at present. If ever we should be fortunate enough to have public pathologists appointed, each with a given district, we might possibly then be within a measurable distance of some such regulations as are hinted at above.

FRIENDLY SOCIETIES.

MEMBER B. M. A.—The society referred to is one of many that have been started of late years to offer life assurance at less than its cost price. They are all founded upon the assumption that the term premium for an assurance for one year, at any age, is a measure of the annual premium to be charged for a whole life assurance at that age. Thus in the prospectus of this society appears the statement that the annual cost of risk for £200 at age 30 is, by the Actuaries' H.M. Table, £1 12s. 2d., the fact being that the net 3 per cent. annual premium by this table for assuring £200 at death of an entrant aged 30 is more than double this, namely, £3 15s. 2d. The amount quoted in the prospectus is the premium required to assure £200, payable in the event of a man aged 40 dying during the next twelve months. To assume that this is the proper annual premium is the same thing as assuming that the assured will never grow older.

The rates of premium of the Society in question appear to be based on this assumption. They are quite inadequate to secure the benefits offered. All societies formed on this basis are doomed to more or less speedy failure, and the reason of the end being in some cases postponed for a long time is that large numbers of the members, recognising the unsatisfactory nature of the bargain they have entered into, drop their assurances. Such societies live on what is called "the lapse."

In choosing their title, the founders of the society had doubtless sufficient reasons for selecting one extremely like the name of existing flourishing institutions in this country. It may be as well, however, to bear in mind that this society is not connected with any English society of a similar name.

We recommend our correspondent not to accept the position of physician, nor to accept any similar offer without taking skilled advice.

CHANGE OF ADDRESS.

J. B. W. writes: I should feel much obliged if you could inform me if it is necessary for a medical man who moves into a city from the suburbs to call as a newcomer on the resident medical men, some of whom, when commencing, called on your correspondent? What is the usual form of intimation given to patients of change of address?

*** As to the necessity for a medical man who removes from the suburbs of a city into the city itself, to pay the usual courtesy visit entailed on each newcomer, it would materially depend on the intervening distance; for example, if a practitioner in the metropolitan district of Highgate were to remove, say, to Finsbury Place or Square, it would devolve upon him to make the initiatory visit to practising members of the faculty within a limited radius, in reference to which our correspondent may consult with advantage the intraprofessional rules laid down in the *Code of Medical Ethics*, pp. 85, 86, third edition. In reply to his second query, we may observe that when impracticable to notify personally the change of residence, the most unexceptionable mode is to transmit an autograph note, or a carefully executed *facsimile* thereof on notepaper, to the *bonâ fide* patients of the newly-located practitioner, or to enclose an ordinary address card with "Change of address" inserted at the top, the old address in the lower right corner being defaced by a black line, and the new one engraved in the left-hand corner, or *vice versâ*.

MONTHLY NURSES AND ENGAGEMENTS.

H. R. H. writes: In March last my wife engaged a nurse to attend her in her confinement, and fixed October 4th next as the date on which the nurse should come to her. On September 4th my wife was taken ill, and I wired for the nurse to come as soon as possible. She replied that she could not leave the case she was then attending. About September 9th she was written to by my sister-in-law, and told that as my wife had been confined her services would not be required, and was asked to what extent I was indebted to her. She replied that she considered she was entitled to her full fee for the month for which she had been engaged. Will you kindly tell me what is the usual thing to do under these circumstances? You see the nurse has had a month's notice. Is it usual to pay the full fee, half fee, or what proportion?

*** Legally the amount payable on breach of a contract of employment is the sum fixed by the contract, less such amount as the disappointed party could reasonably have obtained by getting employment elsewhere. If sufficient notice has been given there is no breach, and therefore no damages are payable. What is sufficient notice varies according to the nature of the employment. In some cases, as, for instance, in that of a domestic servant, it is fixed by custom. Where there is no binding custom it must be reasonable. In the case of a monthly nurse, we know of no recognised custom; and the sufficiency of the notice would therefore have to be determined, in case of dispute, by the tribunal before which the case was brought. A month seems hardly sufficient to ensure her getting another engagement, but she ought to be able to obtain employment before the expiration of the second month. Something less than the full fee would therefore seem to be reasonable—say, half.

CORONER'S FEES TO MEDICAL WITNESSES.

L.R.C.P. and S. writes: I received a subpœna to attend a coroner's inquest at a certain hour on a certain day. On arrival I am informed by the coroner that my evidence will not be taken that day and I need not wait. I am not sworn and leave the court. I shall probably be directed to attend at the adjourned inquest. Although not sworn at first appearance can I demand a fee for each attendance?

*** The Coroners Act, 1887, provides that a legally qualified medical practitioner who has attended at a coroner's inquest in obedience to the summons of the coroner shall be entitled to receive as remuneration for attending to give evidence the sum of one guinea. The attendance has been given and the medical practitioner who obeyed the summons is entitled to his fee, whether he was sworn and gave evidence or not. If his attendance should be required again a fresh summons must be issued and a further fee will be due.

COVERING.

Querist writes: If a qualified medical practitioner is called in by an unqualified practitioner who is resident in his neighbourhood whenever he has a serious case, and the qualified practitioner visits and takes charge of the case, does that amount to covering the unqualified practitioner?

*** We think that it does, provided that the practice complained of can be proved to be as systematic as the question indicates.

UNQUALIFIED ASSISTANTS.

M.R.C.S. writes: In a parliamentary borough on the north-east coast of England, with a population of about 70,000, two of the largest and apparently most successful medical firms conduct a considerable portion of their practice by the employment of unqualified assistants, what steps should be taken to remedy this crying abuse?

*** Our correspondent should communicate the facts, with any evidence he is able to bring forward in support, to the President of the General Medical Council, 299, Oxford Street, London, W.

MIDWIFERY FEES.

Member writes: A woman engaged me for her confinement, which was expected in August last. I have since ascertained that she went to her mother's, in another town, for that purpose, and was there delivered. There was only a verbal agreement. Please say if I can recover my fee or any part of it.

*** A verbal agreement is binding, but more difficult to prove than one in writing. The fee should be recoverable, but it depends a good deal on the view taken by the particular county court judge before whom the case comes. Some of them dislike such claims, and disallow them where they can.

FEES FOR NOTIFICATION.

Notification writes: Will you kindly inform me through the British Medical Journal whether a seat at a borough council, which is also the urban sanitary authority, renders it illegal for the holder to receive the fees ordered under the Infectious Diseases Notification Act?

*** The fees prescribed by the Act are not paid by virtue of any "contract with or employment by" the urban authority. A medical practitioner who is also a member of such authority may therefore safely take the fees for giving the requisite notices; but of course he cannot accept any appointment from a body of which he is a member.

THE RIGHT TO KEEP AN OPEN SURGERY.

Student writes: Can a registered medical man, not holding the L.S.A. diploma, keep an open surgery and sell scheduled poisons?

*** A legally qualified medical practitioner, not holding the L.S.A. diploma, may keep an open surgery and sell scheduled poisons provided he was registered before August 11th, 1869, or, having been registered since that date, has passed an examination in pharmacy in order to obtain his diploma.

KEEPING THE PRACTICE TOGETHER.

X. Y. Z. writes: A. has been taken off the *Register* for a time; B. goes down to practically take charge and keep the practice together. Is B. doing wrong under the circumstances; or, in the event of an inquest, could the coroner refuse B. his fee on account of his connection with A.?

*** Assuming B. to be himself duly qualified, as to both questions, we think not.

MEDICAL MEN AND INQUESTS.

Inquirer writes: In case of an inquest (no medical man in attendance before death), who is authorised to summon a doctor to give evidence?

*** The coroner or his officer.

ASSISTANTS' HOLIDAYS.

Medicus.—It is customary to give an assistant a fortnight or three weeks' holiday annually, and of course to pay his salary.

OBITUARY.

Dr. Hjalmar Aug. Abelin, some time professor of Children's Diseases in the Carolina Institute, Stockholm, died on September 13th at the age of 76. He was born at Linköping, in 1817, and entered as a student in the medical faculty of the University of Lund in 1835. In 1849 he was appointed head of the clinic of the General Hospital, and in 1851 he made a scientific tour through England, France, and Germany for the purpose of studying children's diseases and making himself acquainted with the methods of management of children's hospitals. In 1855 he was appointed to the Chair of Children's Diseases in the Carolina Institute, and in 1866 he was elected a member of the Swedish Academy of Science. He contributed largely to the literature of his special department of medicine, both in Swedish and in foreign medical journals.

Professor Paul Dittrich, of Innsbrück, has been appointed Professor of Medical Jurisprudence in the University of Prague, in succession to the late Professor Arnold Paltauf.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

NEW VICE-CHANCELLOR.—The Rev. A. Austen Leigh, Provost of King's, was admitted to the Vice-Chancellorship on September 30th. Dr. Peile, on resigning office, referred to the changes of the past academical year, and deplored the straitened circumstances of the scientific departments. The department of pathology in particular suffered much from want of funds, and, unless help should be forthcoming from external sources, much valuable original work, creditable to the University and of gain to science, must be left undone.

BALFOUR STUDENTSHIP.—The Balfour Studentship in Animal Morphology, with £200 a year for three or more years, will be vacant on October 18th. Candidates are to apply, sending evidence of their attainments, to Mr. J. W. Clark, Scroope House, Cambridge, before that date.

EXERCISES FOR M.D.—J. H. C. Dalton, M.A., B.C., Trinity, and F. P. Haviland, B.A., M.B., B.C., Pembroke, have kept the Act required for the degree of M.D.

UNIVERSITY OF DURHAM.

FACULTY OF MEDICINE.

THE following gentlemen have received the Degree of Doctor in Medicine for Practitioners of Fifteen Years' Standing, namely:

G. Andrew, F.R.C.S.Eng., L.R.C.P.Lond.; M. S. McDonnell, M.R.C.S., L.S.A.; H. P. Potter, F.R.C.S.; and V. Saravanamuttu, L.M. and S.Ceylon.

The following gentlemen have received the Degree of M.D., namely:

T. M. Allison, M.B., B.S.Durh.; A. E. Cope, M.B., B.S.Durh.; R. F. Craggs, M.B., B.S.Durh.; R. B. Duncan, M.B., B.S.Durh.; A. A. Fennings, M.B., B.S.Durh.; F. W. Gunn, M.B., B.S., L.S.Sc.Durh., M.R.C.S., L.R.C.P., L.S.A.; F. Hunton, M.B., B.S.Durh.; S. J. Palmer, M.B.Durh., M.R.C.S.Eng.; S. W. Plummer, M.B., B.S.Durh.; W. A. Rudd, M.B.Durh., M.R.C.S., L.R.C.P.; A. M. Wilson, M.B., B.S.Durh., M.R.C.S., L.R.C.P.; and J. Wood, M.B., B.S.Durh.

The following gentlemen have received the Degree of Master in Surgery (M.S.), namely:

Honours—First Class.—F. W. Ramsay, M.D., B.S.Durh., F.R.C.S.Edin.

Pass List.—S. A. Bontor, M.D., B.S.Durh., M.R.C.S., L.R.C.P.

The following gentlemen have received the Degree of Bachelor in Medicine (M.B.), namely:

Honours—Second Class.—H. T. M. Whitling, St. Bartholomew's Hospital; P. Evans, M.R.C.S., L.R.C.P., University College, London.

Pass List.—J. H. Blight, M.R.C.S., L.R.C.P., Guy's Hospital; R. A. Bolam, College of Medicine, Newcastle-upon-Tyne; B. W. Bond, M.R.C.S., L.R.C.P., L.S.A., St. Thomas's Hospital; F. D. Browne, Yorkshire College, Leeds; E. D. Dingle, B.A., College of Medicine, Newcastle-upon-Tyne; J. W. H. Eyre, M.R.C.S., L.R.C.P., Guy's Hospital; A. G. Hinks, M.R.C.S., L.R.C.P., St. Mary's Hospital; T. G. S. Hodson, M.R.C.S., L.R.C.P., London Hospital; J. M. Hope, College of Medicine, Newcastle-upon-Tyne; G. Jimenez, Guy's Hospital; W. D. Johns, B.A., L.S.A., College of Medicine, Newcastle-upon-Tyne; T. F. Keenan, College of Medicine, Newcastle-upon-Tyne; C. G. B. Kempe, College of Medicine, Newcastle-upon-Tyne; S. McCoull, College of Medicine, Newcastle-upon-Tyne; R. L. Meade-King, M.R.C.S., L.R.C.P., St. Bartholomew's Hospital; A. Y. Richardson, College of Medicine, Newcastle-upon-Tyne; H. B. Rygate, B.A., M.R.C.S., L.R.C.P., Guy's Hospital; F. C. Smith, F.R.C.S., L.R.C.P., L.S.A., University College, London; J. P. Sparks, College of Medicine, Newcastle-upon-Tyne; H. Spicer, St. Bartholomew's Hospital; F. E. Syrett, M.R.C.S., L.R.C.P., St. Bartholomew's Hospital; L. C. T. Thorne, M.R.C.S., L.R.C.P., St. Bartholomew's Hospital; E. P. Wrinch, St. Thomas's Hospital.

The following gentlemen have received the Degree of Bachelor in Surgery (B.S.), namely:—

J. H. Blight, M.R.C.S., L.R.C.P., Guy's Hospital; R. A. Bolam, College of Medicine, Newcastle-upon-Tyne; B. W. Bond, M.R.C.S., L.R.C.P., L.S.A., St. Thomas's Hospital; E. D. Dingle, B.A., College of Medicine, Newcastle-upon-Tyne; P. Evans, M.R.C.S., L.R.C.P., University College, London; J. W. H. Eyre, M.R.C.S., L.R.C.P., Guy's Hospital; J. M. Hope, College of Medicine, Newcastle-upon-Tyne; H. Huskinson, M.B.Durh., St. Thomas's Hospital; G. Jimenez, Guy's Hospital; T. F. Keenan, College of Medicine, Newcastle-upon-Tyne; C. G. B. Kempe, College of Medicine, Newcastle-upon-Tyne; S. McCoull, College of Medicine, Newcastle-upon-Tyne; R. L. Meade-King, M.R.C.S., L.R.C.P., St. Bartholomew's Hospital; E. Race, M.B.Durh., College of Medicine, Newcastle-upon-Tyne; A. Y. Richardson, College of Medicine, Newcastle-upon-Tyne; H. B. Rygate, B.A., M.R.C.S., L.R.C.P., Guy's Hospital; F. C. Smith, F.R.C.S., L.R.C.P., L.S.A., University College, London; J. P. Sparks, College of Medicine, Newcastle-upon-Tyne; F. E. Syrett, M.R.C.S., L.R.C.P., St. Bartholomew's Hospital; A. E. Thompson, M.B.Durh., College of Medicine, Newcastle-upon-Tyne; L. C. T. Thorne, M.R.C.S., L.R.C.P., St. Bartholomew's Hospital; H. T. M. Whitling, St. Bartholomew's Hospital; E. P. Wrinch, St. Thomas's Hospital.

SULPHATE OF MAGNESIA IN DYSENTERY.—In the Annual Report on the Medical Department, Hong Kong, for the year 1892, Dr. Atkinson relates four cases of dysentery treated by small doses of saturated solution of sulphate of magnesia—1 drachm to the ounce—given hourly till the stools become bilious. He speaks very favourably of the practice; it succeeded in two cases in which ipecacuanha had failed. This treatment is very generally employed by French army surgeons of experience, and appears to be yearly gaining in favour with our own countrymen in India.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,232 births and 4,001 deaths were registered during the week ending Saturday, September 30th. The annual rate of mortality in these towns, which had declined from 22.8 to 19.7 per 1,000 in the preceding seven weeks, rose again to 20.2 during the week under notice. The rates in the several towns ranged from 12.3 in Huddersfield, 13.7 in Nottingham, 14.4 in Croydon, and 14.7 in Halifax to 24.6 in Derby, 25.5 in Hull, 25.9 in Liverpool, 26.0 in Preston, and 31.0 in Sunderland. In the thirty-two provincial towns the mean death-rate was 20.3 per 1,000, and slightly exceeded the rate recorded in London, which was 20.1 per 1,000. The 4,001 deaths registered during the week under notice in the thirty-three towns included 759 which were referred to the principal zymotic diseases, against 851 and 774 in the preceding two weeks; of these, 339 resulted from diarrhœa, 124 from diphtheria, 93 from "fever" (principally enteric), 90 from whooping-cough, 76 from scarlet fever, 28 from measles, and 9 from small-pox. These 759 deaths were equal to an annual rate of 3.8 per 1,000; in London the zymotic death-rate was equal to 3.6 per 1,000, while it averaged 4.0 per 1,000 in the thirty-two provincial towns. No fatal case of any of these diseases was recorded in Huddersfield; in the other towns they caused the lowest rates in Halifax, Portsmouth, Plymouth, and Cardiff, and the highest rates in Salford, Bradford, Burnley, Hull, and Sunderland. Measles caused the highest proportional fatality in Norwich; scarlet fever in West Ham, Norwich, and Burnley; whooping-cough in West Ham, Leicester, Derby, Oldham, and Gateshead; "fever" in Leicester, Hull, and Sunderland; and diarrhœa in Bradford, Salford, Hull, Burnley, and Preston. The 124 deaths from diphtheria recorded during the week under notice in the thirty-three towns included 96 in London, 6 in Manchester, 4 in Brighton, and 4 in Croydon. Five fatal cases of small-pox were registered in Bradford, 2 in London, 1 in Birmingham, and 1 in Oldham, but not one in any other of the thirty-three large towns. There were 77 small-pox patients under treatment in the Metropolitan Asylums Hospitals and in the Highgate Small-pox Hospital on Saturday last, against 121, 112 and 91 at the end of the preceding three weeks; 15 new cases were admitted during the week, against 24, 20, and 14 in the preceding three weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital was 2,815 at the end of the week, against 2,883, 2,889, and 2,849 on the preceding three Saturdays; 311 new cases were admitted during the week, against 315 and 318 in the preceding two weeks. The 231 deaths referred to diseases of the respiratory organs in London were 30 above the average, and were equal to an annual rate of 2.8 per 1,000.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday, September 30th, 867 births and 552 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality, which had declined from 20.8 to 17.3 per 1,000 in the preceding three weeks, rose again to 19.6 during the week under notice, but was 0.6 per 1,000 below the mean rate during the same period in the large English towns. Among these Scotch towns the lowest rates were 11.7 in Leith and 17.3 in Aberdeen, and the highest rates 20.7 in Greenock and 21.0 in Edinburgh. The 552 deaths in these towns included 107 which were referred to the principal zymotic diseases, equal to an annual rate of 3.8 per 1,000, which corresponded with the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Dundee and Greenock. The 264 deaths in Glasgow included 16 from diarrhœa, 11 from whooping-cough, 6 from diphtheria, and 6 from scarlet fever. Four fatal cases of diphtheria were recorded in Edinburgh, and 4 of "fever" in Paisley. The death-rate from diseases of the respiratory organs in these towns was equal to 3.1 per 1,000, against 2.8 in London.

HEALTH OF IRISH TOWNS.

IN sixteen of the principal town districts of Ireland the deaths registered during the week ending Saturday, September 23rd, were equal to an annual rate of 23.8 per 1,000. The lowest rates were recorded in Galway and Sligo, and the highest rates in Waterford and Dundalk. The death-rate from the principal zymotic diseases averaged 4.8 per 1,000. The 161 deaths registered in Dublin were equal to an annual rate of 24.0 per 1,000 (against 21.9 and 28.3 in the preceding two weeks), the rates during the same period being 18.9 in London and 17.8 in Edinburgh. The 161 deaths in Dublin included 31 which were referred to the principal zymotic diseases (equal to an annual rate of 4.6 per 1,000), of which 19 resulted from diarrhœa, 8 from enteric fever, 2 from whooping-cough, 1 from scarlet fever, and 1 from diphtheria.

SUNDAY CLOTHES AND SMALL-POX.

SOME time ago we heard of a country vicar who, on the occurrence of a case of small-pox in his village, thinking to stamp out the disease, bought up the bedding and the blankets, and ordered them to be destroyed. As an after-thought he determined to watch the process, and was much disgusted to find that his improvised sanitary executioner had thought the blankets far too good for their fate, and that, although paid for, they had been plucked from the burning. That was years ago, but the same feeling evidently operates even in advanced communities. From correspondence in the Birmingham papers we gather that, while it is there the custom, when small-pox occurs, to remove all clothing from the house and subject it to a process of disinfection, no compensation is given for the deterioration thereby produced, and that as a result, even in the city of Birmingham, a system very analogous to the country blanket stealing is in vogue. It appears that directly it is discovered that a patient is suffering from small-pox all the best clothes are packed

in a box and sent to a neighbour's, to be kept till the storm blows by and the visits of the inspector are overpast, whereby the stamping out of small-pox is not facilitated.

WHITBY RURAL SANITARY DISTRICT.

Dr. Maclean Wilson's report to the Local Government Board on the sanitary condition of the Whitby rural sanitary district affords another illustration of the bad results attained when sanitary areas are subdivided among multiple health officers, and much reason has been found for the institution of Dr. Wilson's inquiry. The district has an average of 85,000 acres, and a population of nearly 10,000 persons; and has three health officers at an aggregate salary of £65, wholly paid by the rural authority. It is at least gratifying to find that the County Council have not refunded any part of the ridiculous sums accorded to the health officers. These officers seem to have but a superficial acquaintance with the sanitary needs of their subdistricts, to make but scanty reports, and to have very small influence upon their authority, who appear to have little personal dealings with their medical advisers. One untrained nuisance inspector, having also other duties, struggles to do his work over the whole area on poor payment, and has a good knowledge of its sanitary requirements, but has no support from his employers. The want of action on the part of the authority has been such that recommendations made to them in 1885 by the late Mr. Spear on behalf of the Local Government Board, and reproduced by Dr. Wilson, "might be repeated almost word for word with reference to the present state of the district." Water supply, sewerage, river pollution, excrement disposal, the state of dwellings, the abatement of nuisances, and the provision of means of isolation of infectious cases are among the matters calling for attention on the part of the authority. Dr. Wilson enters at length into the condition of the villages of the district; and his report furnishes facts which ought to convince the authority of the error of their ways, and urge them to better things in the future. They should commence by appointing a single health officer at a salary commensurate with his duties and the amount of time necessary to be devoted to them; and this, with half payment by the County Council, need involve no great additional outlay by the authority; whilst the nuisance inspector should be so remunerated as to be free to devote his whole time to the work pertaining to his post. But all sanitary zeal will be discouraged so long as the authority maintain their present apathetic attitude. It needs but that the annual visitors who frequent the district should realise the sanitary state of the rural villages to so sensibly reduce their numbers as to impress on the authority the folly of their do-nothing policy. To this end, it seems a pity the report is not purchasable.

THE DIAGNOSIS OF SMALL-POX.

Mr. Geoffrey Stead, L.R.C.P., M.R.C.S. (Walsall) writes: In the British Medical Journal of September 16th, p. 658, under the heading "The Diagnosis of Small-Pox," appear six queries, and the answers you gave to them. There can be no doubt that the town referred to is Walsall, and as I detest anonymous communications, and wish the fullest publicity to be given to the matter in dispute, I shall be obliged by your inserting this letter in your next number.

It is most extraordinary that "several practitioners" belonging to our profession should rush into print and make a vicious attack upon brother practitioners, without in any way communicating with them, or at any rate exercising ordinary care that there was justifiable ground for their charges. The facts of the case are as follows—much comment upon them from me is unnecessary:—

1. No one can give any reply better than you did.

2. Dr. A., I have never said anything about it, nor do I intend to do so.

On June 21st, Dr. B. went to the small-pox hospital to inquire after a patient of his, M., and was invited by the caretaker to go in and see him. On July 1st, Dr. B., having been informed that a patient who a few days before had been under his treatment had been sent to the small-pox hospital, and not thinking it possible that this patient could have small-pox, and he not know it, drove at once to the hospital, and was refused admittance by the same caretaker who had previously invited him into the hospital. Dr. B., surprised at this change of attitude, said that he knew myself, Dr. C., and as I was a member of the Health Committee, he could obtain permission from me, or would fetch me. I, Sir, did not know about Dr. B.'s visit until afterwards.

3. As to this paragraph, it is sufficient to deal with the gross inaccuracy that the landlady fell a victim to small-pox three days after the young man was discharged. The young man was discharged July 3rd, the landlady admitted July 13th.

4. It is quite untrue that I endeavoured to get an entry on the minutes of the Health Committee, that a case (not small-pox) had been in the hospital. But I did draw attention to the fact that such a case had been kept in the hospital after the deputy medical officer of health knew it was not small-pox, and that the medical officer of health had failed to draw the attention of the Committee to this important incident; and I should certainly have failed in my duty had I not done so. How, by-the-way, Mr. Editor, did these "several practitioners" get this information of a private committee meeting? No resolution was proposed on the subject.

5. Needs no comment from me.

6. With your answer I entirely agree.

In conclusion, it should be known that I have persistently advocated the obtaining of efficient disinfecting apparatus at the hospital, and the procuring of certificated nurses to attend the patients. As regards the latter, so far as two nurses can wait on seventy patients (with untrained help) I have succeeded. The former matter is not yet attended to. Further reform in the management of the hospital is still necessary, and as long as I can do anything to secure a more satifactory state of things than at present exists I can afford to put up with criticism such as appeared in your Journal.

*** The "several practitioners" who signed the series of questions number 14 (out of a total of 17, as we gather). The gravamen of the allegation in question (2) has to do primarily and principally with Dr. B., and not with Dr. C., in whom Mr. Stead believes he recognises himself. Mr. Stead's statement does not in any way improve Dr. B.'s position, but rather the reverse, as he states that Dr. B. entered the hospital in the face of a distinct refusal by the caretaker. Surely, under such circumstances, Dr. B. should have gone to the physician in charge, rather than have used Dr. C.'s name as an "open sesame." As to (3), Mr. Stead appears to confuse date of attack with date of admission to hospital. There may have been "gross inaccuracy" on the part of our querists, but Mr. Stead has not yet shown it. (4) Mr. Stead's categorical denial of a specific statement by the querists is entirely to the point, and has a right to the same publicity as the statement itself. Our comments were prefaced by the words "assuming the facts to be as stated." The source of our querist's information as to the committee meeting is, of course, quite unknown to us, but the new matter introduced by Mr. Stead seems to have had sufficient publicity. The *Walsall Advertiser* of August 19th states that at a meeting of the sanitary authority, "Councillor Stead asked if it was allowable for the medical officer of health of that borough to detain a patient for the purpose of disinfection three days after he had concluded it is not small-pox?" and a very undignified wrangle is reported to have followed. This, however, is not the question under adjudication. We have no reason to doubt the meritorious nature of Mr. Stead's efforts to improve the hospital nursing and management, but again they do not bear on the matter before us.

Since the above was written we have been favoured with a newspaper cutting containing a lengthy account of a discussion on the subject in the Walsall Town Council, and also a copy of correspondence between the town clerk and Dr. Lynch.

We have also had handed to us a letter in which the Chairman of the Public Health Committee states that he had made a slight error in informing some of our querists that Mr. Stead had wanted the matter put on the committee's minutes, and that he ought to have said that Mr. Stead wanted it notified in the medical officer's report, which would be published in the monthly report for the town council.

Dr. Lynch writes to the town clerk that unless free liberty is given him to visit his own patients in the small-pox hospital without the authority of the medical officer of health (the hospital physician), he will "prevent any of his patients who may be afflicted with this disease in the future from entering, on any consideration whatever, the hospital....." The town clerk replies that what is complained of is that Dr. Lynch had visited the hospital to examine patients who had ceased to be his before their admission, and who, at the time of his visit, had not asked for his services. As to Dr. Lynch's future course regarding his own patients, he is reminded that he alone cannot determine whether or not they shall be removed to the small-pox hospital, and that he would only be putting them to useless annoyance and trouble if he sought to create difficulties as to removals necessary in the interests of the public health. After carefully reading the whole correspondence, affidavits, etc., we confess that our sympathies are entirely with the town clerk.

VACCINATION AND SMALL-POX IN GLASGOW.

Dr. Ernest L. Marsh (Resident Medical Officer, City of Glasgow Small-pox Hospital) writes: I desire to direct your attention to an error in calculation which has crept into Table II in the British Medical Journal of June 17th, 1893, page 1275, in the printing of the report on Vaccination and Small-pox—Glasgow—furnished you by me through Dr. Russell. In the age-period 30-40 years (vaccinated) the mortality percentage is obviously 6.0 per cent., and not 4.0 per cent.

CONDEMNATION OF UNSOUND MEAT.

Dr. Alfred Ashby (Reading) writes: In connection with the subject of condemnation of unsound meat, mentioned on page 719 of the British Medical Journal, will you allow me to point out that all difficulty in procedure for obtaining the requisite condemnation by a justice can be avoided by the adoption of Part III of the Public Health Acts Amendment Act. 1890, in any extra metropolitan district, since Section 28 (2) of that Act provides that "A justice may condemn any such article, and order it to be destroyed or disposed of, as mentioned in Section 117 of the Public Health Act, 1875, if satisfied, on complaint being made to him that such article is diseased, unsound, unwholesome, or unfit for the food of man, although the same has not been seized, as mentioned in Section 116 of the said Act."

MEDICAL CHARGE OF INFECTIOUS HOSPITAL.

R. B. writes: Our urban sanitary authority have built an infectious hospital, but they have not appointed a medical attendant. They wish the medical men to follow their cases into the hospital and obtain remuneration direct from the patients. Is this a usual custom?

*** The arrangement is not unusual, but has obvious disadvantages the authority cannot expect the hospital to be of much service to the class among whom isolation is most needed, if admission is to involve expense.

MEDICAL NEWS.

Dr. Russell Reynolds, F.R.S., Physician to the Queen's household, has been in attendance at Balmoral during the absence of Dr. James Reid, C.B.

Practitioners of the Healing Art in Hungary.—According to the most recent statistics there are in Hungary 3,759 medical practitioners, 9,492 midwives, and 697 veterinary surgeons.

The annual meeting of the Society of German Naturalists and Medical Practitioners will be held next year at Vienna. Professor von Suess, of Vienna, has been chosen President, and Professor von Ziemssen, of Munich, Vice-President.

We regret to announce the death of Mr. C. W. Heaton, Professor of Chemistry at Charing Cross Hospital Medical School. Mr. Heaton was a distinguished chemist. He re-edited and almost rewrote Stöckhardt's textbook, and was concerned in many important investigations of a technico-chemical character.

The Pharmaceutical Society of Great Britain.—The School of Pharmacy was opened for the session on October 2nd by a distribution of prizes among the successful students, among whom was a young lady who had taken a silver medal, having done work which was stated to be equal to the best. After the prizes had been presented by Mr. Gowan Cross, Vice-President, Dr. Lauder Brunton, F.R.S., delivered the inaugural address.

Society for the Study of Inebriety.—A general meeting was held in the rooms of the Medical Society of London, on October 3rd, Dr. Norman Kerr, President, in the chair. On the motion of the President, who dwelt on the loss to the Society of their centenarian vice-president, Dr. Wielobycki, who had died aged 100 years and 8 months, seconded by Brigade-Surgeon Pringle, a vote of condolence with Mrs. Wielobycki was agreed to. Dr. F. R. Lees read a philosophical and learned paper on Illogical Fallacies and Assumptions as to the Development of Inebriety, pointing out the physical laws which gave rise to inebriety under certain conditions. After a discussion, taken part in by Brigade-Surgeon Pringle, Surgeon-Major Poole, Drs. H. W. Williams, Douglas Anderson, and Joseph Smith, a vote of thanks was awarded to Dr. Lees.

Mr. Richard Coldrey.—On Monday last, October 2nd, Mr. Richard Coldrey, Sub-Librarian to the Royal Medical and Chirurgical Society, died at the Great Northern Hospital. Mr. Coldrey had an attack of typhlitis nearly two years ago, with recurrence six months later, when he underwent an operation, performed by Mr. Pearce Gould. After an interval of fair health he again fell ill, and a second operation being decided upon, he was removed to a private room in the Great Northern Hospital. Mr. Macready operated on September 23rd, with good results as far as relief was concerned, but there was extensive suppuration, and on the morning of October 1st Mr. Coldrey's condition became hopeless. Mr. Coldrey, so familiar to several generations at Berners Street, was over 62 years of age, forty-five years having been spent in the service of the Royal Medical and Chirurgical Society. He was a most amiable and zealous official, who will be much missed.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently passed away are Dr. Robert Wreden, one of the leading aurists of St. Petersburg, and a member of the editorial committee of the *St. Petersburg Military Medical Journal*; Dr. Ritter, the oldest medical practitioner in the Duchy of Würtemberg, aged 89; Dr. Joubert of Bagnoles-sur-Orne, formerly a member of the French Mekong exploring mission; Dr. Leopold Müller, Staff Surgeon-Major in the German army, who, in conjunction with Dr. Th. E. Hoffmann, founded the Medical Academy of Tokio, where he was sent in 1870, at the request of the Japanese Government, to organise medical education on a Western basis; and Dr. Passavant of Frankfort-on-the-Main, who from 1850 to 1885 was Surgeon to the Bürger Hospital in that city, and was favourably known for his contributions to surgical and sanitary literature, aged 78.

St. Thomas's Hospital Medical School.—The entrance scholarships have been awarded as follows: 1st (of the value of £150) to Mr. Robert Wynn Charles Pierce; 2nd (of the value of £60) to Mr. Harry Edward Hewitt.

Charing Cross Hospital Medical School.—The Entrance Scholarship of the value of 120 guineas has been awarded to Mr. Harold A. T. Fairbank, and that of the value of 60 guineas to Mr. Stanley W. R. Colyer.

Guy's Hospital Entrance Scholarships, 1893.—The entrance scholarships have been awarded as follows: Science.—First Scholarship, value £150, Philip Turner, University College, London; Second Scholarship, value £60, George Ernest Richmond, Owens College, Manchester; Certificate, Frederick Edward Walker, Guy's Hospital. Arts.—(1) Medical School: First Scholarship, value £100, Charles Piggott, Bancroft School; Second Scholarship, value £50, Albert Evans Davies, Oswestry Grammar School: Certificates, John Frederick Walker, City of London School; Samuel Dainow, City of London School; Ernest Lewis Lilley, Wyggeston School, Leicester. (2) Dental School: Scholarship, value £30, Graham Scales Simpson, Grammar School, Bishop Stortford.

MEDICAL VACANCIES.

The following vacancies are announced:

CENTRAL LONDON THROAT, NOSE, AND EAR HOSPITAL, Gray's Inn Road, W.C.—Clinical Assistants. Applications to Richard Kershaw, Secretary.

EAST RIDING ASYLUM, Beverley.—Assistant Medical Officer, unmarried. Salary, £100 per annum, with board, lodging, and washing. Age between 23 and 30. Applications to C. W. Hobson, Clerk to the Visiting Committee, by October 17th.

EDMONTON UNION.—Resident Medical Officer for the Chase Farm School, Enfield. Appointment for six months. Salary at the rate of £100 per annum, with board, washing, sitting-room, and bedroom. Applications to Francis Shelton, Clerk, 808, High Road, Lower Tottenham, by October 25th.

FULHAM UNION.—Assistant Medical Superintendent, unmarried, doubly qualified. Salary, £100 per annum, increasing £10 yearly to £130, with board, furnished apartments, attendance, and washing. Applications, on forms to be obtained of the Clerk, to T. Aplin Marsh, Clerk to the Guardians, Union Offices, Fulham Palace Road, Hammersmith, W., by October 14th.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Surgical Registrar and Anæsthetist. Appointment for one year, an honorarium of £40 being voted at the expiration of that term. Applications to the Secretary by October 24th.

HUNTINGDON COUNTY ASYLUM.—House-Surgeon. Salary, £60 per annum, with board, etc. Applications to Mr. A. Dilley, Market Hill, Huntingdon.

NORTH-WEST LONDON HOSPITAL, Kentish Town Road, N.W.—Resident Medical Officer and Assistant Resident Medical Officer. Appointments for six months. Salary of £50 attaches to the senior post. Applications to Alfred Craske, Secretary, by October 20th.

PARISH OF GLENELG.—Medical Officer for the Southern Division. Salary, £120 per annum, with free house. Applications to D. McLure, Inspector of the Poor, Glenelg.

RICHMOND DISTRICT ASYLUM.—Resident Clinical Assistant, doubly qualified. Appointment for one year. Applications to the Resident Medical Superintendent, Richmond Asylum, Grangegoram, by October 17th.

ROTHERHAM HOSPITAL AND DISPENSARY.—Assistant House-Surgeon. Rooms, commons, and washing provided. Appointment for six months. Applications to the House-Surgeon by October 19th.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—Resident Medical Officer. Appointment for six months, when re-election is required. Salary at the rate of £100 per annum, with furnished apartments and board. Applications to the Secretary by October 16th.

SALISBURY INFIRMARY.—Dispenser. Salary, £105 per annum, out of doors. Applications to the Secretary, by October 13th.

SHEFFIELD UNION.—Resident Assistant Medical Officer for the Workhouse at Fir Vale, Pitsmoor. Salary, £100 per annum, with apartments, rations, and other usual allowances. Applications to Joseph Spencer, Clerk to the Guardians, Union Offices, Sheffield, by October 12th.

SOUTH DEVON AND EAST CORNWALL HOSPITAL, Plymouth.—Physician, House-Surgeon, and Assistant House-Surgeon. Salary for the House-Surgeon, £100 per annum, with board and residence; for the Assistant House-Surgeon (whose appointment is for six months), £10, with board and residence. Applications to J. W. Wilson, Honorary Secretary, 6, Princess Square, Plymouth, by October 18th.

STRATTON UNION, Cornwall.—Medical Officer for the South District. Salary, £52 per annum, with certain fees. Applications to William Rowe, Clerk to the Guardians, Stratton, Cornwall, by October 9th.

TAUNTON AND SOMERSET HOSPITAL.—Honorary Physician. Applications to J. H. Biddulph Pinchard, Secretary, 13, Hammet Street, Taunton, by October 23rd.

WESTON-SUPER-MARE HOSPITAL.—Medical Officer, doubly qualified. Salary, £80 per annum, with board, lodging, and washing. Applications to the Honorary Secretary by October 18th.

MEDICAL APPOINTMENTS.

BURNS, Mr. H. F., appointed Medical Officer for the Dent District of the Sedbergh Union.

CLARK, Francis W., M.B., D.P.H.Camb. M.R.C.S., L.R.C.P.Lond., Assistant Medical Officer of Health to the River Tyne Port Sanitary Authority, appointed Medical Officer of Health to the Port and Borough of Lowestoft, and Medical Superintendent of the Sanatorium.

CROSS, Edward John, M.B., C.M.Edin., appointed Medical Officer for the Southwick District of the Fareham Union.

CULLINAN, Henry M., L. and L.M.R.C.S.I. and R.C.P.I., L.M., Rotunda Hospital, Dublin, appointed Second Assistant Medical Officer, Richmond Lunatic Asylum, *vice* J. O'Conor Donelan, L. and L.M.R.C.S.I. and R.C.P.I., promoted.

DAY, Francis Wm. Hy. Langston, L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer of Health for Hitchin, *vice* William Jenner, M.D. St.And., resigned.

DODD, Percy Vernon, B.A.Dub., M.R.C.S., L.R.C.P.Lond., appointed temporary Assistant Medical Officer of Health to the Folkestone Town Council.

DONELAN, John O'Conor, L. and L.M.R.C.S.I. and R.C.P.I., M.P.C., appointed First Assistant Medical Officer in the Richmond District Lunatic Asylum, Dublin, *vice* Dr. M. J. Nolan, promoted to the Superintendency of Downpatrick Asylum.

FLOOD, Dr., appointed Surgeon to the York Amalgamated Friendly Societies' Medical Association, *vice* E. H. O'Leary, L.R.C.P., L.R.C.S.I., resigned.

FRASER, Donald Alex., M.D.Brux., M.R.C.S.Eng., reappointed Medical Officer of Health for Totnes Borough.

FRASER, Dr., appointed Medical Officer of Health for the Carnarvonshire Combined Sanitary District, *vice* Hugh Rees, M.R.C.S.Eng.

HILL, Charles Alex., B.A.Cantab., M.R.C.S.Eng., L.R.C.P.Lond., appointed Assistant House-Physician at St. George's Hospital.

HOOPER, G. H., M.R.C.S., L.R.C.P., appointed Resident Obstetrical Officer at Charing Cross Hospital.

JONES, C. G., L.R.C.P.Edin., M.R.C.S.Eng., appointed Medical Officer of Health to the Cardigan Rural Sanitary Authority.

LEACH, John Comyns, M.D.Durh., M.R.C.S.Eng., D.P.H.Camb, appointed Coroner for the Northern District of Dorset.

MACASKIE, Jas. Griffiths, L.R.C.P., L.R.C.S.Edin., D.P.H., reappointed Medical Officer of Health to the Belford Rural Sanitary Authority.

MCFEELY, Joseph Daniel, L.R.C.P., L.R.C.S.I., appointed *pro tem.* Medical Officer for the Kinlough Dispensary District of the Ballyshannon Union, *vice* John Keany, L.R.C.P., L.R.C.S.I.

MOORE, Adam James, M.R.C.S.Eng., L.S.A., reappointed Medical Officer of Health for the St. Lawrence District of the Reading Union.

NANCE, Henry Chester, F.R.C.S.Eng., L.R.C.P.Lond., appointed Assistant Surgeon to the Jenny Lind Infirmary for Sick Children, Norwich.

NEALE, Dr., appointed Medical Officer to the Barry Port Sanitary Authority.

NEWBY, Thomas, M.D.St.And., M.R.C.S.Eng., L.S.A., reappointed temporarily Medical Officer of Health to the Great Grimsby Town Council.

O'BRIEN, Mr. P. M., appointed Medical Officer for the Twelfth District of the North Bierley Union.

ORFORD, Robert James, L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer for Market Bosworth.

PARKINSON, Chas. Hy. Watts, M.R.C.S.Eng., D.P.H.R.C.S.Edin., appointed Coroner for the Eastern District of Dorset.

PEARCE, Frederick William, M.R.C.S., L.R.C.P., appointed House-Surgeon to the Northern Branch of the Brighton, Hove, and Preston Dispensary.

RAMBAUT, Daniel F., M.B., B.Ch., B.A.O., M.D.Univ.Dubl., appointed Third Assistant Medical Officer and Pathologist, Richmond Lunatic Asylum, Dublin, *vice* H. M. Cullinan, L. and L.M.R.C.S.I. and R.C.P.I., promoted.

SMITH, Telford, B.A., M.D., B.Ch., appointed Medical Superintendent of the Royal Albert Asylum for Idiots and Imbeciles of the Northern Counties, Lancaster, *vice* George E. Shuttleworth, B.A., M.D., M.R.C.S., resigned.

STUCK, Sidney J., M.R.C.S.Eng., L.R.C.P.Lond., L.S.A., appointed House-Surgeon and Secretary to the Royal Isle of Wight Infirmary and County Hospital, Ryde, *vice* R. A. Bayliss, M.R.C.S., L.R.C.P.Lond., resigned.

THOMPSON, Abram, M.D.St.And , M.R.C.S.Eng., reappointed Medical Officer of Health to the Ulverstone Rural Sanitary Authority.

THOMPSON, Robert, M.D., B.S.Durh., M.R.C.S.Eng., L.R.C.P.Lond., appointed Chief Medical Referee for Queensland to the Mutual Life Association of Victoria.

WELSFORD, George Fred., B.A.Camb, M.B., M R.C.S.Eng., appointed Medical Officer for the Washfield District of the Tiverton Union, *vice* Wm. Rudall Haydon, M.D.Glasg., resigned.

WIGHTMAN, Cecil Frank, M R.C.S.Eng., L.R.C.P.Lond., appointed Resident House-Surgeon, Scarborough Hospital, *vice* C. B. Maisey, M.R.C.S. Eng., L.R.C.P.Lond., resigned.

DIARY FOR NEXT WEEK.

MONDAY.

LONDON POST-GRADUATE COURSE, Royal London Ophthalmic Hospital, 1 P.M.—Mr. W. Lang: Lachrymal Affections.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN, Leicester Square, 5.30 P.M.—Dr. Morgan Dockrell: On Seborrhœic Dermatitis and Psoriasis.

TUESDAY.

LONDON POST-GRADUATE COURSE, Bethlem Hospital, 2 P.M.—Dr. Percy Smith: Acute Mania. Hospital for Diseases of the Skin, Blackfriars, 4 P.M.—Mr. Jonathan Hutchinson: Ulcers in the Legs in Young Persons.

WEDNESDAY.

LONDON POST-GRADUATE COURSE, Hospital for Consumption, Brompton, 4 P.M.—Dr. Percy Kidd: Types of Phthisis. Royal London Ophthalmic Hospital, 8 P.M.—Mr. A. Quarry Silcock: Choroidal Affections, with Illustrative Cases.

HUNTERIAN SOCIETY, 8.30 P.M.—Second Hunterian Society Lecture of 1893, by Dr. Armand Ruffer: Recent Researches on Protozoa, with especial reference to Cancer and Vaccinia.

LARYNGOLOGICAL SOCIETY OF LONDON, 20, Hanover Square, 5 P.M.—Discussion on Malignant Disease of the Larynx, with especial reference to the present position of the question of Radical Operation. Pathological specimens will be shown by Mr. H. T. Butlin, Drs. de Havilland Hall, Greville Macdonald. David Newman, Felix Semon, and Scanes Spicer.

THURSDAY.

LONDON POST-GRADUATE COURSE, National Hospital for the Paralysed and Epileptic, Queen Square, 2 P.M.—Dr. Charlton Bastian: Demonstration of Selected Cases. Hospital for Sick Children, Great Ormond Street, 3.30 P.M.—Dr. Sturges: Heart Disease. Central London Sick Asylum, Cleveland Street, 5.30 P.M.—Mr. Jonathan Hutchinson: Cases in the Wards. London Throat Hospital, Great Portland Street, W., 8 P.M. Mr. W. R. H. Stewart: Examination of the Ear.

NORTH LONDON MEDICAL AND CHIRURGICAL SOCIETY, Great Northern Central Hospital, 8.30 P.M.—Mr. Jonathan Hutchinson: Theories of Catarrh and Catarrhal Diseases.

FRIDAY.

LONDON POST-GRADUATE COURSE, Hospital for Consumption, Brompton, 4 P.M.—Dr. Percy Kidd: On Types of Phthisis.

CLINICAL SOCIETY OF LONDON, 8.30 P.M.—President's Address. Mr. Mayo Robson: Dilatation of the Stomach and Severe Pain Dependent on Pyloric Adhesions, Treated by Abdominal Section and Separation of Abnormal Attachments. Mr. W. Edmunds: Two Cases of Excision of Malignant Tumour from Large Intestine. Mr. L. A. Bidwell: A Case of Gastrojejunostomy.

SATURDAY.

LONDON POST-GRADUATE COURSE, Bethlem Hospital, 11 A.M.—Dr. Hyslop: Hysterical Mania and Delirious Mania.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTH.

BICKERTON.—On September 26th, at 88, Rodney Street, Liverpool, the wife of T. H. Bickerton, ophthalmic surgeon, of a son.

MARRIAGES.

ANDREW—PEOVER.—On September 28th, at St. Mary's, Hendon, N.W., by the Rev. F. W. Langton, M.A., Vicar of Wolvercote, cousin of the bride, assisted by the Rev. the Hon. L. Tyrwhitt, M.A., Curate of Hendon, Francis William Andrew, M.R.C.S.Eng., L.R.C.P., only surviving son of William W. Wayte Andrew, M.B., of Arkleigh, Hendon, to Mary, only daughter of the late William Peover, of Knighton Mount, Newport, Shropshire.

BERTRAM—NICHOLL.—At Melbourne, on September 18th, by the Rev. Thomas Nisbet, M.A., Thomas Dun Bertram, M.B., C.M.Glasgow University, Coonamble, N.S.W., Australia, to Allie Smith, daughter of the late Peter Nicholl, C.E., Calcutta.

MESSER—CHEESMAN.—On September 23rd, at the Parish Church, Newburn, Northumberland, by the Rev. C. E. Blackett-Ord, M.A., Andrew W. Messer, M.B., C.M., B.Sc.Edin., of Walbottle, to Lizzie, third daughter of J. T. Cheesman, Esq., of Throckley, Newcastle-on-Tyne.

MORRIS—SELDON.—On October 3rd, at St. Luke's Church, West Norwood, by the Rev. J. W. Dunn, M.A., Vicar of Pirbright, brother-in-law of the bride, and the Rev. Henry Cooper, Vicar, Charles Arthur Morris, M.A.Cantab., F.R.C.S., son of the late F. W. Morris, Madras Civil Service, to Ethel, seventh daughter of the late Samuel Seldon, C.B., H.M. Customs, and of Mrs. Seldon, West Norwood.

SOULBY—KUHNERT.—On September 23rd, at St. Nicholas Church, Hamburg, by the Rev. Th. Bachert, Chaplain to the English Church at Hamburg, and afterwards by the Rev. W. Buck, D.D., Pastor of St. Nicholas Church, Charles Ernest Soulby, M.D., M.R.C.S., of Grimsby, to Margarethe Gertrude, only daughter of Adolph Kuhnert of Hamburg.

DEATH.

COLLINS.—On September 24th, at Broseley, Shropshire, Selina, the wife of George Duppa Collins, M.R.C.S., L.S.A., and youngest daughter of the late George Potts of Broseley.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

THE WEIR-MITCHELL TREATMENT.

W. A. L. writes: Can you, or any of your readers, inform me if there is any institution where a patient in poor circumstances could undergo a short course of the Weir-Mitchell treatment? The friends could afford a small sum weekly.

TENERIFFE.

MR. L. E. AITKENS (Fronwendon, Penmaenmawr, N. Wales) asks for particulars as to residence at Teneriffe. First, the best way to get there; whether it is a really good place for anyone threatened with phthisis; and, finally, what is the best part of the island, and any information as to cost of living, etc.

ANSWERS.

INQUIRER.—(1) There is a University of Vienna which confers the degree of Doctor of Medicine. (2) We are unable to supply the required information as to the person named, and should recommend our correspondent to communicate with the Dean of the Medical Faculty of the University referred to.

DR. H.—Our correspondent is certainly entitled to deduct the cost of upkeep of horse, carriage, and harness, technically "depreciation." The collector has no voice in the matter, nor has the surveyor of taxes. For other deductions a medical man is entitled to make consult *Income Tax, How to Get it Refunded*, to be had from 25, Colville Terrace, London, W.

MEDICUS.—We do not know that either of the works mentioned has been translated, nor are we aware of any book in English especially devoted to the *post-mortem* appearances in cases of sudden death. There is no very recent book on poisons, but Professor Dixon Mann's work on *Forensic Medicine and Toxicology* would probably contain all the information required.

MEDICAL ASSURANCE COMPANIES.

A.B.C.—We do not see that our correspondent can do more than follow the example of the four medical men in his township, and return the circular unsigned or with a statement that the proposed remuneration is too small.

REMOVAL OF DANDRUFF.

MR. G. A. GARRY SIMPSON, M.R.C.S. (East Acton), writes: Lanolin well rubbed into the scalp, or lanolin, vaseline, and almond oil in suitable proportions. This treatment will also tend to prevent the hair falling out, and the following will also be of use: ℞ Chloral hydrat. 5j; glycerine 5jss; sp. vini rect. 3jv; aquam ad 3vj. To be applied to roots of the hair at bedtime. Debility from pregnancy, overlactation, anxiety, worry, and syphilis are well known causes.

THE NEXT WINTER SEASON ON THE RIVIERA.

MENTOR.—Cases of choleraic disease have undoubtedly occurred in certain parts of the Riviera during the past summer, and we know of at least one death amongst English visitors at Monte Carlo from "choleraic diarrhœa" during the period. We should advise intending visitors to these resorts to wait until the winter season is a little advanced before setting out, so that they may have the advantage of the reports of the resident English physicians as to the sanitary state of these towns.

TREATMENT OF PRURITUS ANI.

DR. ARTHUR W. EDIS writes: If "Surgeon" has not yet succeeded in curing his obstinate case of this disorder, let him try painting the margins of the anus carefully with a saturated solution of carbolic acid, and for the next few days keeping the parts smeared with an ointment of cocaine and atropine made with lanoline. Another very efficacious remedy consists of equal parts of chloral and camphor, 5i ad 5i oleic acid. This must be well rubbed in, and even inserted just within the anus. Wright's liquor carbonis detergens, as Mr. C. Roberts remarks, is a very valuable remedy. Marine lint or oakum, a small dossil gently inserted within the sphincter ani and kept thus *in situ* often affords much relief. Apart from local treatment, however, care must be taken to remedy any constitutional cause, such as smoking, use of condiments, high game, abuse of alcohol, etc. Iron with mag. sulph., strychnine, and quassia to regulate the bowels is very useful. An occasional pil. hyd. c. rheo. to act upon the liver, followed by a dose of Carlsbad salts, should also be tried. I have frequently relieved inveterate cases of many months', and even years', duration within a few weeks by careful attention to diet, a few local applications, and the employment of one or other ointment as suggested.

HUMANISED MILK

DR. SOLOMON SMITH (London) writes: The term "humanised" has been applied to a preparation of milk sold by a well-known dairy company, in which, by a process either of addition or subtraction, the proportions of its different ingredients are made to correspond with those in the milk of the human species. An equivalent preparation, however, has long been in use, prepared by the extraction of a part of the casein by means of rennet—a receipt for which is given in Martindale's *Extra Pharmacopœia*. In the *Pharmaceutical Journal* for 1892, page 652, a receipt is given for arriving at the same result by the addition of cream and water without removing the casein. During the past year my brother, a skilful analytical chemist, who has been able to check laboratory results by nursery experiences, has carefully gone into the whole matter, and he sends me the following receipt, which goes somewhat more into details than the one given by Martindale, and, while avoiding the use of actual rennet, which is variable in its action, has the additional advantage of inculcating the boiling of the milk: Place 6½ ozs. of new milk in a vessel (by preference, tall and narrow, of 7 ozs. capacity), and after twelve hours remove the cream. Heat the skimmed milk to between 70° and 80° F., and add, with stirring, 40 minims of Brand's essence of rennet. Allow to stand at rest for five minutes, break up the curd, and gradually raise the temperature to 150° F., meanwhile repeatedly breaking up the curd and working it with a spoon, whereby the broken curd having parted from the whey will agglomerate into one tough spongy mass, and the whey may be poured off. Boil the whey to destroy the ferment and coagulate the albumen (which will not coagulate by boiling in the presence of uncurdled casein), and filter hot through fine flannel previously thoroughly wetted (whey filters through paper with very great difficulty). To the hot whey add 5 grains bicarbonate of soda and 110 grains sugar of milk. Add the whey and the cream, previously removed, to 13½ ozs. of new milk, and bring the whole to the boil. If this milk is to be used for an infant it is desirable to have wide-mouthed bottles holding when neck full exactly one feed each. Fill them with the hot milk, and cover lightly (not tightly) with a loose paper or plug of cotton wool.

Milk so prepared will keep good for forty-eight hours. Immediately before use carefully remove the skin and stir in the cream that will have risen. This method ensures each feed having its due proportion of cream and avoids any disturbance of the bulk at each meal. Should this milk prove too rich (which is most improbable) no water should be added, but rather more than the above proportion should be curdled, say, 8 ozs. to 12 of new milk. If the child throws up curd smelling sour, add 10 grains bicarbonate of soda instead of 5 grains.

N.B.—Scrupulous care must be taken that the spoon used in the curds and whey (before boiling) does not come in contact with the new milk. Essence of rennet is not itself acid, but an acid reaction is developed in the process of curdling (ferment); boiling destroys all further action of the ferment, but does not destroy the acidity produced, hence the addition of the alkali.

DR. A. W. EDIS writes: Playfair's *Midwifery*, 6th edition, pp. 300-302, describes fully the process. The Aylesbury Dairy Company supply daily the humanised milk, and as this is made presumably in large quantities, it is likely to be more uniform in quality than home made. I can speak from experience as to its value.

MR. HARDING H. TOMKINS, M.R.C.S. (Hove), also cites the method of preparing "humanised milk" given in Playfair's *Midwifery*. He adds that the practical points to remember are not to let the milk and rennet get too warm when standing to set, and also after boiling the whey to strain through fine muslin, or the fine curd thrown down will choke the nipple. He now uses liquid rennet (Buxton's, of Triangle, Clifton, or Benger's) as more convenient. The chief drawback is constipation with curds in the motion; this is met by using about equal parts of whey and new milk, adding a few grains of sulphate of soda (2 or 3 gr. to each feed) and a couple of teaspoonfuls of barley water (teacupful to a pint of water, boil for two minutes, throw away the first water, stand in jar in the oven for four or five hours, strain). The Aylesbury Dairy Company, Bayswater, will send six pint bottles ready prepared to any doctor gratis. Sometimes peptonised milk suits better.

W. L. C. (Sandgate) writes: In answer to "J. H.'s" inquiry in the BRITISH MEDICAL JOURNAL of September 30th as to preparation of humanised milk, I have been for some time in the habit of using the following formula where breast feeding is not possible, and I have found the results most satisfactory. A little modification is sometimes necessary: Cream (20 per cent. fat), 1½ oz.; milk (cow's), 1 oz.; water, 5 ozs.; sugar of milk, 3½ drachms. Steam or boil for fifteen or twenty minutes; when cool add lime water ½ oz. This makes 8 ozs. Multiply the above quantities according to amount required for twenty-four hours. Keep in well-corked bottles in a cool place, and warm as required. I always supply a table of the quantity of food required at each feeding, according to age and the intervals of feeding, to obviate the too common faults of too frequent feeding and overfeeding.

NOTES, LETTERS, Etc.

ERRATA.—In the report on the discussion on "Abdominal Tuberculosis in Children," published in the BRITISH MEDICAL JOURNAL of September

30th, Mr. R. Lawford Knaggs was erroneously described as "Surgeon to the Leeds Infirmary."—In the same number of the British Medical Journal (page 768), Dr. M. J. Nolan, whose appointment as Resident Medical Superintendent of Downpatrick District Asylum was announced, was described as "late Acting Medical Superintendent Limerick Asylum." Dr. Nolan has for the last five years been Senior Assistant Medical Officer in the Richmond (Dublin) District Asylum.

The Fisher Fund.

The Committee for the late "Dr. Fisher Fund" are anxious to express their sincerest thanks to the Editor for his courtesy in publishing in the British Medical Journal of September 2nd their appeal on behalf of the lately bereaved mother and sister. By the instrumentality of the press they have been enabled to acknowledge most gratefully the generous donations recorded below. The Committee wish further to state that the fund is not yet closed, and also, that owing to the enormous amount of votes required, and the long list of candidates, whose election must, according to rule, take place prior to that of Mrs. Fisher, they have been compelled to relinquish the original idea of attempting to buy an annuity from the United Kingdom Beneficent Association, finding, after due consideration, that the money would be more advantageously spent by banking the whole amount, and drawing weekly a certain sum till the fund be exhausted. The warmhearted sympathy expressed, both in words and in deeds, from strangers as well as from friends, has deeply touched the hearts of the two to whom it has been so generously extended:

	£	s.	d.
Lady Mountemple	5	0	0
W. D. S....	5	2	0
Mr. F. Flood, Dorking ...	5	0	0
Mr. W. Green...	5	0	0
Dr. H. Sylvester	3	3	0
Mrs. Sander	3	0	0
Mrs. Fish	2	2	0
The Archdeacon of Limerick	2	0	0
"Far Away"	2	0	0
Mr. F. D. Sprague	2	0	0
Mrs. Downes	1	10	0
Dr. Frank	1	1	0
Dr. W. J. Stephens	1	1	0
Dr. Lyne Blight	1	1	0
Mr. Frank Godfrey... ...	1	1	0
Dr. Garrod-Thomas ...	1	1	0
Mrs. Robinson	1	1	0
Mr. R. Burdett-Sellers ...	1	1	0
Mrs. Bright	1	1	0
Mr. William Lucas	1	1	0
Mr. G. Harvey	1	0	0
Mrs. de Landre	1	0	0
Mrs. Chadwick	1	0	0
Dr. F. C. Fisher	1	0	0
Dr. W. A. Fitzgerald ...	1	0	0
Mrs. Blay	1	0	0
Miss Damar	1	0	0
Dr. E. D. Mapother... ...	1	0	0
Lady Wilde	1	0	0
Mr. Oscar Wilde	1	0	0
Mrs. Studdert	1	0	0
Mr. John Edgar	1	0	0
Mrs. F. S. Stoney, Taschiloloy Rectory, co. Longford	1	0	0
Mr. Lambert Bond	1	0	0
Mrs. Butler Lowe	1	0	0
Mr. M. L. Moss	1	0	0
Rev. Canon Haydn	1	0	0
Mrs. O'Grady	1	0	0
Mrs. Palmer	1	0	0
Mr. Y. C. Thomas Day ...	1	0	0
Miss Meyhors	1	0	0
Mrs. Hooper	1	0	0
Mr. John Doherty	1	0	0
Mr. James Phipps	1	0	0
Rev. Precentor Meredyth, M.A.R.D.	1	0	0
Rev. M. F. M. Maunsell, Kildimo	1	0	0
Brigade-Surgeon W. F. Burnett, A.M.S.	0	15	0
Dr. Pegler	0	10	6
Dr. Grant-Morris	0	10	6
Dr. Fussell	0	10	6
Mrs. Fussell	0	10	6
Dr. Radcliffe Crocker ...	0	10	6
Miss Wyatt	0	10	6
St. Matthew xxv, 40... ...	0	10	6
Mr. T. B. Wilkinson ...	0	10	6
Mr. A. W. Grieg	0	10	6
Dr. W. H. Bourke	0	10	6
Mr. W. Cheese	0	10	0
Dr. H. O. Grenfell	0	10	0
Dr. W. H. Booth	0	10	0
Mr. Meridith Townsend ...	0	10	0
Mr. Noel Sprague	0	10	0
Sympathiser, Vichy ...	0	10	0
H. J. C., Londonderry ...	0	10	0
Mr. R. Kell	0	10	0
Mr. John Crawford... ...	0	10	0
Dr. Frank Godfrey	0	10	0
Mr. Alfred Eddowes ...	0	10	0
Dr. Hughes Davies	0	10	0
Mr. John May	0	10	0
Mr. J. H. Jobel	0	10	0
Mr. F. Crefandi, Acle ...	0	10	0
Mrs. Grice-Hutchinson ...	0	10	0
Mr. Sidney Hobbs	0	10	0
Mrs. Clarke	0	10	0
E. F. J.	0	10	0
A Lady, per Miss Whitty ...	0	5	0
Dr. J. Mulvany	0	5	0
Dr. Farrar	0	5	0
Dr. Ewens	0	5	0
Dr. C. H. Johnson	0	5	0
Miss Ellen A. Richmond ...	0	5	0
Dr. Adams	0	5	0
Mrs. MacDonald	0	5	0
Mr. Bokhart	0	5	0
Reading...	0	5	0
Mr. Klinker	0	5	0
J. M. R.	0	5	0
Mrs. Baker	0	5	0
Anonymous	0	5	0
Mrs. Emmett	0	5	0
Dr. Fox	0	5	0
E. A.	0	5	0
Dr. H. A. Latimer	0	5	0
Anonymous, Chelsea ...	0	5	0
Mr. E. A. C. Bator	0	5	0
J. P. N.	0	5	0
R. S.	0	5	0
Mrs. Higgell, Glyn	0	5	0
Dr. H. Coryn	0	5	0
Mr. J. G. N. West	0	5	0
Anonymous, Southampton	0	5	0
Dr. J. W. Mown, Betchworth	0	5	0
Mrs. Garbutt	0	5	0
Dr. G. Fisher	0	5	0
Mrs. Nicholas Dawson ...	0	5	0
Mrs. King	0	5	0
Mrs. Murphy, Cork... ...	0	5	0
Miss Bradnack	0	5	0
B. F. G. Hounslow	0	5	0
H. M. H.	0	4	0
Reader of *Gentlewoman*, Stoke Ferry...	0	3	0
Dr. F.	0	2	6
Mr. F. H. Middleton ...	0	2	6
Mr. J. Hunter	0	2	6
Mrs. Miles	0	2	6
R. H. L.	0	2	6
Mrs. M. H. Ellis	0	2	6
E. G. Q. M.	0	2	0
A Lady	0	2	0
A Lady	0	1	0
Miss Parsons	1	0	0
Mrs. Watkins and Miss Elliott	1	0	0
Mr. G. D. Craig, Bingley ...	1	0	0
Anonymous, per Miss Harvey	1	0	0
R. M. H.	1	0	0

Another Warning.

A Victim writes: There is a useful little invention for saving gas by increasing the brightness of the flame and enabling a small burner with the "utiliser" to give as much light as a larger one without it. It is made by Spong and Co., of High Holborn, and the price at the Army and Navy Stores is 2s. 6d. per dozen. There is a man going about calling on doctors in the evenings selling these gas economisers, which he represents as in part made of platinum, and charging 2s. each for them, including a ½d. burner and screwing them on. Anyone can do this for himself, and I felt considerably "sold" when I found that articles for which I had paid 2s. each were figured in the Stores List at 2s. 6d. a dozen!

Memorial to Surgeon-Major Parke.

Surgeon-Lieutenant-Colonel R. Bradshaw (Carrick-on-Shannon) writes: I enclose herewith copies of notices relating to the Parke Masonic Memorial Hall which we hope to erect in this town to the memory of the late Dr. Parke. If you will kindly insert them in your next issue we will be much obliged. I will be happy to receive and acknowledge any subscriptions that may be sent to me for that purpose. I may add that we are receiving every encouragement, both generally and locally, as all seem most anxious to pay this last tribute to the memory of our very distinguished fellow townsmen.

Memorial to the late Surgeon-Major Parke: under the Immediate Patronage of Lord Harlech, Her Majesty's Lieutenant of the County Leitrim.

We earnestly appeal to all who respect bravery and unflinching fidelity in the discharge of duty to subscribe towards the hall, which is proposed to be built as a memorial of this great man. Carrick-on-Shannon is the nearest town to the birthplace of poor Parke, where all his early days were spent, and it was here also he was initiated a Freemason, and the town with which his respected father had a life-long connection; it is, therefore, conspicuously the place in which to erect a memorial to perpetuate his name, and those who knew him best in the county of his birth are most anxious that the building should be worthy of the distinguished fame of this great Irishman, cut down in the prime of life. We need hardly remind the reader of Parke's sufferings and heroism with Stanley in Central Africa, or of his services in the Egyptian and Soudan campaigns before he joined the Emin Pasha Relief Expedition. We simply ask for such assistance as will enable us without delay to raise the memorial, feeling assured that the public will generously respond. List of subscribers will be published from time to time.

B. St. G. Harrison, Carrick-on-Shannon, } Honorary
Abraham O'Connor " " } Secretaries
Wm. C. Smith, Mohill

Carrick-on-Shannon, Ireland, Sept. 22nd.

Memorial to Surgeon-Major Parke.

At a stated communication of the Provincial Grand Lodge of North Connaught held in Boyle on Tuesday, September 19th, 1893, it was decided that a hall, to be called the Parke Memorial Hall, be erected in Carrick-on-Shannon, Dr. Parke and his father having both been members of Lodge No. 854 held there. A committee has been appointed, with power to add to its number, which comprise the Right Honourable Lord Harlech, Rev. Dr. Clarke, the Officers of the Provincial Grand Lodge of North Connaught, the Past Provincial Grand Officers, and the Worshipful Masters and Secretaries of Lodges in the Province. As the hall is to be known as the Parke Memorial Hall, it is expected that all admirers of this good and great man, whether Masons or otherwise, will subscribe to this laudable object with a view to perpetuate his memory.

The Provincial Bank of Ireland, Carrick-on-Shannon } Treasurers.
The Northern Banking Company, Mohill. }

Benjn. St. Geo. Harrison, Carrick-on-Shannon, } Honorary
Abraham O'Connor " " } Secretaries.
Wm. C. Smith, Mohill.

by any of whom subscriptions will be received and acknowledged.

Sept. 21st.

Wasp Stings.

Dr. John Rowat (Highworth, Wilts) writes: As a contribution to the interesting correspondence on this subject, I may mention a method of treatment which I recently learned through a Scotch layman who had known it since boyhood, and had practised it occasionally. It is simply a repetition of the well-known "watch-key" treatment of comedones. Immediately on receiving the sting the end of a watch key is pressed firmly on the spot, the affected point being, of course, in the centre of the little circular impression made by the key. In this way a minute quantity of liquid is forced out, serum chiefly, and perhaps the virus of the sting. In addition, we may assume that the mechanical injury to capillaries and lymphatics, with the slight inflammation resulting therefrom, have a share in the cure which is said to be the regular outcome of the treatment. I have not had an opportunity of applying the remedy myself, but it seems quite rational and scientific in principle, and possibly is already known to some practitioners, though I am led to doubt this by its not having been mentioned by any of your correspondents. It would not, of course, be applicable to a sting on the tongue.

Castration in Enlargement of the Prostate.

Dr. Arthur J. Harries (Adam Street, W.C.) writes: Dr. Mansell Moullin, in the British Medical Journal of September 16th, appears to advocate castration as a tentative treatment of prostatic enlargement. Inasmuch as the danger to life would be insignificant in comparison with those run in the various prostatectomy procedures, the plan would to that extent be preferable. But the operation, for many reasons so objectionable, would be purely experimental, and possible subsequent atrophy of the prostate would be a slow and tedious business. There is however a method, no longer experimental, which is free from all the disadvantages inseparable from prostatectomy and castration, and which in competent hands is practically painless, an anæsthetic being unnecessary in most cases.

I alluae to the electrolytic process, approved by the late Dr. Steavenson, of St. Bartholomew's, in his work on *Electricity in Surgery*, which in several cases under my own care has been followed by the total removal of obstruction, and the rapid diminution in size of each affected lobe.

The Title of "Dr."

M.D. and M.B. writes: Your reply to "E. G. D." in the "Correspondence" column of September 16th concerning the title of "Dr." is interesting to a great number of practitioners, but in spite of your con-

stant answers in the same strain the majority of practitioners continue to describe themselves on their doorplates, and even cards, as "Dr.," though their only claim to such distinction rests on their holding a licence from one of the Colleges. In some cases an apothecary's diploma is the only qualification possessed by these self-styled "Drs." This is a question that has long continued to bother registered M.D.'s, and I think it is almost time for M.D.'s to make an effort to stop this wholesale usurpation of the "Dr." as being misleading to the public.

In no other profession is the doctor's degree usurped as it is in the medical profession. Whoever heard of Bachelors of Divinity, Law, Science, or Music describing themselves as "Dr."? Yet these men are quite as much entitled to use the "Dr." as a great many medical "Drs." I would suggest the formation of a university graduates' association composed of M.D.'s of British universities only, which could, on information of its own members, take proceedings against anyone styling himself "Dr." without the degree of M.D. I should be pleased to hear of such an association, and I have no doubt that it would raise the status of the medical profession. It would also encourage students to work for university degrees, thereby improving the general education of the profession, and would prevent many men from strutting about in borrowed, or rather stolen, plumes.

Perhaps some M.D. who is a member of the British Medical Association may favour his brother members with other suggestions to remedy this state of affairs, or may be Dr. Phillips of the Medical Defence Union would kindly inform us if the Defence Union would be prepared to act in such a manner.

A PRACTICAL PARSON.

THE Rev. Dr. M'Connell, of Philadelphia, evidently believes that Heaven helps those who first help themselves. Referring to a pastoral recently issued by his Bishop, the reverend gentleman is reported to have delivered himself as follows:—"I have been instructed by my ecclesiastical superior to use a prayer to Almighty God to avert the cholera. But cholera is a dirt disease; it is therefore a preventable disease. To prevent the cholera you have only to remove the dirt. If you leave the dirt you invite the cholera. This city of Philadelphia is full of filth which nobody is trying to remove. To let that filth remain and to pray God to keep away the cholera is to trifle both with the cholera and with Almighty God. While that filth is allowed to remain, I refuse to offer such prayers."

A SINGULAR CAUSATION OF TONSILLITIS.

MR. R. BASS SEALY (Disley, Cheshire) writes: A few days ago Miss W. consulted me under the following circumstances: She had been drinking some soda water out of a tumbler. Almost immediately she experienced pain in her throat (as she herself expressed it, "Just as if a lance had been driven into her throat"), and also felt that there was some solid substance "stuck in her throat." So she began to hawk up, and, after a little trouble, coughed up a live blackbeetle on to the table. She positively asserted to me that she had been bitten by the blackbeetle. In about half an hour her left tonsil was very much enlarged and inflamed, the inflammation extending down below the tonsil, as well as forwards, to the roof of the mouth. Her speech had the characteristic guttural sound associated with tonsillitis; swallowing was excessively painful; externally the neck appeared greatly swollen and the glands enlarged. Hot applications were applied externally and steam inhaled, and a mixture of tinct. ferri per. with glycerine given every three hours. In about thirty hours after the first onset the symptoms began to subside, and in three days she was all right again. Before partaking of the soda water Miss W. was in perfect health, and is not subject to attacks of tonsillitis. She states that the room she was in swarms with blackbeetles, and the one she swallowed must have fallen from the ceiling into the tumbler.

"REFLEX AMBLYOPIA."

DR. WILLIAM HARDMAN (Blackpool) writes: There may be such a condition as "reflex amblyopia," or the term "reflex" may be suppositious—a mere hypothesis. It may only represent one of the many terms, which, whilst appearing to give completeness to our knowledge, really conceal our ignorance. I am not now going to dispute as to whether or not there is such a condition as would be appropriately described by the term, but I will ask: Would it not be possible to find a better designation for the progressive and rapid loss of sight accompanying some pregnancies, and so ably described by Mr. Knaggs in his very interesting communication? Is the amblyopia of pregnancy reflex? I could understand a temporary functional amblyopia might possibly own a reflex origin, but I am incapable of imagining an amblyopia accompanied by such rapid and destructive organic effects as in the particular one under discussion could be due to reflex action set up by a not abnormal stimulus, though I am open to conviction on this as, I hope, upon all other matters. *Primâ facie* the loss of sight would seem much more likely to be due to a neuratrophic process causally related to some serious alteration in the quantity or quality of the blood supply, or to a neuritic affection, the determination of the precise nature of which will have to await microscopic elucidation. One circumstance which appears to me to make against the reflex hypothesis is the progressive increase in the seriousness of the amblyopia *pari passu* with the course of the pregnancy, whereas most of the reflex disturbances of this condition tend to subside after a certain time, long before the termination of the pregnancy, and, whether they subside or not, leave absolutely no permanent injury. It appears to me that we might just as well regard the albuminuria and nephritic complications of pregnancy as reflex, or even osteomalacia. The term reflex amblyopia is, too, objectionable, inasmuch as it does not connote the most salient fact of all, namely, that this form of amblyopia only occurs during pregnancy. With all diffidence, I would suggest that the term "pregnant amblyopia" would, as a provisional term, meet the known facts of the case much better than the term Mr. Knaggs seems inclined to recommend.

LETTERS, COMMUNICATIONS, ETC., have been received from:

(**A**) Autopsy; A. B. C. (**B**) Messrs. Bryce and Rumff, Manchester; Dr. T. R. Bradshaw, Liverpool; Mr. R. A. Bayliss, Ryde; Mr. H. S. Ballance, London; Mr. R. Bradshaw, Carrick-on-Shannon; Messrs. Burroughs, Wellcome and Co., London; Dr. R. Bell, Glasgow. (**C**) Dr. H. Campbell, London; A Correspondent; Mr. W. L. Chubb, Sandgate; Dr. F. Clemow, Cronstadt. (**D**) Dr. C. Dukes, Rugby; Mr. W. Davidson, Holme-on-Spalding-Moor; Mr. W. B. Dalby, Bedford; Mr. R. H. Dawe, Hull. (**E**) Mr. C. J. Evans; Northampton; Enquirer; Dr. A. W. Edis, London. (**F**) Mr. J. Fryer, Dewsbury; Messrs. Fletcher, Fletcher, and Stevenson, London; F. W. C.; Dr. R. H. Fox, London. (**G**) Mr. H. Gilford, Reading; Rev. J. Greatheed, Stanford-le-Hope; General Medical Practitioner. (**H**) Dr. J. Harrison, North Shields; Mr. L. Hill, London; Mr. G. Hickey, Sunderland; Mr. A. O. Howell, Great Malvern; Dr. J. Hurley, Bath; D. J. Hamilton, M.B., Aberdeen; D. Huskie, M.B., Moffat; Dr. L. Henry, Melbourne; Hakim; Dr. E. de W. Hutchinson, Bridlington; Mr. W. E. Hurt, London; Dr. J. Hern, Darlington; Mr. W. Hardman, Blackpool. (**I**) Dr. T. Ireland, Carlisle; Inquirer; Dr. C. R. Illingworth, London. (**J**) Dr. E. Jepson, Durham; J. B. W.; Mr. W. D. James, Sheffield; J. F. L. M.; Mr. J. S. James, Plymouth. (**K**) Mr. R. L. Knaggs, Leeds; Mr. A. C. Kemble, Poole; Dr. A. A. Kanthack, London; Dr. G. C. Kingsbury, Blackpool; Dr. Norman Kerr, London. (**L**) Mr. J. Louncy, Shanghai; Mr. J. Lawrence-Hamilton, Brighton; Mr. E. Linnell, Hastings; Mr. C. J. Lathbury, Dunstable; Mr. H. K. Lewis, London. (**M**) Menton; Medicus; Mr. T. Moore, Nottingham; Dr. G. B. Mead, Newmarket; Mr. S. MacCauley, Newcastle; Member; Mr. A. Maude, Westerham; Mr. N. S. Manning, Birmingham; A Medical Officer of Health; Mr. H. B. Mylvaganam, Beliatta; Mr. W. L. Morgan, Oxford; Dr. E. D. Mapother, London. (**N**) Mr. J. Nyland, London; Dr. T. G. Nasmyth, Cupar. (**P**) H. S. Pope, M.B., London; Mr. J. H. B. Pinchard, Taunton; Mr. F. H. Potts, Broseley; H. Playfair, M.B., London; Mr. J. W. G. Prince, Staines; Mr. J. D. Phillips, Eye; Dr. D. R. Paterson, Cardiff; Dr. D. Powell, London; Dr. F. L. Phillips, Birmingham; Mr. S. Pedley, London. (**R**) Dr. T. F. Raven, Broadstairs; Mr. G. Rendle, London; Dr. M. Ryan, Dublin. (**S**) Mr. W. A. Smith, Portsoy; *Scientific Apparatus* Editor, Leicester; Dr. T. Smith, Lancaster; Dr. S. W. Smith, Cheltenham; Dr. G. E. Shuttleworth, Richmond; S. S. Sprigge, M.B., London; Mr. G. A. G. Simpson, London. (**T**) Mr. H. Taylor, Guildford; Mr. A. Trow, Kidderminster; E. C. Thompson, M.B., Omagh; Mr. H. H. Tomkins, Brighton; Dr. M. Tuchmann, London; Mr. E. B. Treat, New York. (**U**) University College, The Dean, London. (**V**) Victim; Væ Victis. (**W**) Mr. J. H. Whitehead, London; J. Wood, M.B., Walsall; Mr. H. J. M. Watts, Grimsby; Messrs. J. Wright and Co., Bristol; Messrs. Wilson and Coventry, Liverpool; Dr. F. Warner, London; Mr. F. K. Wilson, London; Dr. H. Woods, London; W. A. L.; Mr. C. H. Wells, London; Mr. G. C. Wilkin, London; etc.

BOOKS, ETC., RECEIVED.

Manual of the Diseases Peculiar to Women. By Dr. J. Oliver. London: J. and A. Churchill. 1893. 3s. 6d.

Philip's Anatomical Model. A pictorial representation of the Human Frame and its Organs, with descriptive text by Dr. Schmidt. English Edition by William S. Furneaux. London: George Philip and Son. 1893.

Wright's Improved Physicians', Surgeons', and Consultants' Visiting List for 1894. By Robert Simpson. Bristol: John Wright and Co.

Cattle Tuberculosis and Tuberculous Meat. By Henry Behrend. London: F. Calder-Turner. 1893. 2s. 6d.

Analysis of Milk and Milk Products. By Dr. H. Leffmann and Dr. W. Beam. Philadelphia: P. Blakiston, Son and Co. 1893. 1 dol.

Transactions of the Third Session of the Intercolonial Medical Congress of Australasia held in Sydney, New South Wales, September, 1892. Edited by L. R. Huxtable. Sydney: Charles Potter. 1893.

An Introduction to Human Physiology. By Dr. A. D. Waller. London: Longmans, Green and Co. 1893. 18s.

Anatomy, Descriptive and Surgical. By Henry Gray. Thirteenth Edition. Edited by T. Pickering Pick. London: Longmans, Green and Co. 1893. 36s.

Manual of Practical Anatomy. Vol. I. Published by Dr. D. J. Cunningham. London: Young J. Pentland. 1893.

Jeanie o' Biggersdale and other Yorkshire Stories. By Katherine Simpson. London: T. Fisher Unwin. 1893.

Auscultation and Percussion together with the other Methods of Physical examination of the Chest. By Dr. S. Gee. London: Smith, Elder and Co. 1893.

A Manual of the Dress and Equipment of the Medical Services of the Army, Militia, and Volunteers. By Surgeon-Captains Perry Marsh and S. O. Stuart, A.M.S. Ashvale: F. G. Britten. 2s.

The British Guiana Medical Annual and Hospital Reports. Edited by J. S. Wallbridge and E. D. Rowland. Georgetown: Baldwin and Co. 1893. 5s.

Lectures on the Surgical Disorders of the Urinary Organs. By Reginald Harrison. Fourth edition. London: J. and A. Churchill. 1893. 16s.

*** **In forwarding books the publishers are requested to state the selling prices.**

RECENT RESEARCHES ON PROTOZOA AND DISEASE.

Being the Second Hunterian Lecture delivered before the Hunterian Society.

By M. ARMAND RUFFER, M.A., M.D.,
Physician to the French Hospital.

Mr. President and Gentlemen,—In a few days, on October 16th, 1893, the 100th anniversary of the death of John Hunter will once more bring to our mind the memory of a man to whom all owe an earnest reverence. Although dead his spirit is transferred as a living activity to the Society which bears his name, and which is continuing the work of his life. Hunter was great because his genius applied the experimental method in physiology to the uses of surgery, and he devoted his life to experiment and to observation. We nowadays try to follow his methods, and by means of induction and experiment seek to unravel the many unsolved problems of physiology and pathology. It is of the results of observation that I intend to speak to-night, but whilst bringing before you the facts as they have been observed, I will try to remember what Hunter himself said: "Too much attention cannot be paid to facts, yet too many facts crowd the memory without advantage, any further than they lead us to establish principles." At the same time, I feel deeply the honour you have done me in asking me to give this Hunterian lecture, and, whilst thanking you, let me add that I have tried to follow Hunter's spirit by controlling, in collaboration with Dr. Plimmer, almost every fact of which I shall speak by direct observation.

I have chosen the subject of protozoa in disease as being one of the newest in pathology, but in the short time at my disposal I can touch on a very few points of this vast subject only. In order to save time I have omitted any reference to any workers on this subject, and I will add at once that I intend to give everyone his due when, as will shortly be the case, these notes and other observations are embodied in book form.

A few years only have elapsed since protozoa were first recognised as being the causative agents in a specific endemic disease, that is, malaria. Before that time their presence had been occasionally observed in both man and animals, but the fact attracted little attention until a French military surgeon proved that typical protozoa were to be found in every case of malaria. The same observer traced the life-history of this parasite, and although some of his interpretations have since been found to be incorrect, yet but little has been added to the actual facts which he published in his original papers. His observations and their interpretations raised a perfect storm of opposition; and, strangely enough, the leaders of it were the very scientists who, years afterwards, claimed the priority of his discovery. Since that time, however, the protozoon of malaria, which may be called the hæmatophyllum malariæ (the name plasmodium malariæ being hopelessly inaccurate) has been discovered by competent men in every country where malaria is endemic.

All attempts hitherto at cultivating it have been unsuccessful, nor has it yet been isolated from the soil or water of malarious districts. Our knowledge, therefore, is based only on examinations of blood taken from malarial patients, or of their organs after death.

This organism measures from 1 μ to 10 μ, but its shape is no doubt influenced by its habitat at the time of observation, as it is often flat and wedge-shaped when met with in the red blood corpuscles, and spherical when free. The organisms are as a rule naked; the semilunar forms alone, which are now regarded as conjugation forms, being surrounded by a membrane possessing a double contour, and which is not infrequently tinged with hæmoglobin. Each parasite possesses:

1. A nucleus and nucleolus; which latter, however, cannot be seen in the living protozoon.
2. A body, which is sometimes granular, and contains lightly refracting corpuscles; and which cannot be differentiated into an endosarc and ectosarc.
3. Protoplasmic processes.

The parasite is often vacuolated, and altered blood pigment (melanin particles) is suspended in its interior, this pigment being located chiefly at the periphery of the organism. When young the parasite does not contain any melanin corpuscles, but their presence can always be recognised after the disease has lasted one or two days. They are a product of the digestion and destruction of the red blood corpuscles by the protozoon, and represent in fact the fæces of the malaria parasite. The nucleus and nucleolus of the hæmatophyllum malariæ never contain any pigment, and the nucleolus often disappears just before sporulation takes place.

The parasites are amœboid, change their shape, and the r contents (nucleus, melanin corpuscles) are often in active Brownian movement. The movements of the parasites are not powerful enough to produce locomotion; this is effected by means of the long whip-like processes, which vary in number from one to five, and the lashings and twistings of which among the red blood corpuscles in coverglass preparations are one of the most wonderful sights it is possible to witness with the microscope. The observer who has specially studied their formation is of opinion that they occur in all varieties of malaria, and that they enable the parasitic protozoa to adapt themselves to a saprophytic mode of existence. Some of the parasites may be actually in the red blood corpuscles, or else merely lying on them, or floating freely in the surrounding plasma. The infested blood corpuscle naturally enough does not thrive under such conditions; its hæmoglobin gradually becomes absorbed by the protozoon, and in the end the corpuscle disappears and nothing is left but an empty shell.

The multiplication is effected by simple division into a number of spores, with the formation of a well marked dead *noyau de réliquat*, which is afterwards deposited, under the form of pigment, in the spleen, liver, or some other organ. This process of division is best seen in patients suffering from quartan fever, and its extent varies somewhat in the different kinds of malaria. Another mode of reproduction may be studied in the pernicious forms of malaria, for, according to one author, the semilunar bodies met with in such fevers are formed by the conjugation of two such parasites, the fusion having been actually observed to take place under the microscope. The conjugation is followed by encystment and sporulation.

Later investigations have shown that, although the hæmatophyllum malariæ is met with in every case of the disease, yet several kinds of it exist, and that the clinical manifestations of the malady are dependent on the presence and life-history of a specific parasite. These varieties may be divided as follows:—

1. Malaria parasites with sporulation and without semilunar bodies:
   (*a*) Parasite of quartan fever.
   (*b*) Parasite of tertian fever.
2. Malaria parasites with sporulation and formation of semilunar bodies:
   (*a*) Pigmented parasite of quotidian fever.
   (*b*) Unpigmented parasite of quotidian fever.
   (*c*) Parasite of malignant tertian fever. (Mannaberg.)

We see, therefore, that there are probably as many varieties of protozoa as there are of pathogenic vegetable organisms.

A fact worthy of notice is that in many malarious places the birds inhabiting the district are infested by protozoa, which resemble in many respects those of malaria, and which are, in all probability, simply a variety of the same parasites. It is curious that these may be found in the bone marrow of birds when none can be discovered in the blood.

I have taken the hæmatophyllum malariæ as the type of the protozoa which live in the plasma or red blood corpuscles, or, at any rate, multiply in the blood during some period of their existence; but, as you know, there are other protozoa which infest the tissues of the body, some preferring the muscles, some the connective tissue, others, again, the

nervous system, whilst a large number live in the epithelium cells. It is the latter class that we shall discuss to-day.

For pathological purposes, they may be divided into those which are not accompanied by a proliferation of the epithelium cells, and those which cause or are accompanied by such a proliferation. No doubt this classification is one which any zoologist would refuse to endorse; but let me ask you to accept it merely for the sake of illustrating my meaning.

We will take the klossia helicina, which inhabits the kidney of the snail, as the type of the first class of parasites. Its life-history is rather a complicated one. Shortly stated, the full-grown parasite encysts itself, and breaks up into a number of spores, in the interior of which falciform embryos ultimately develop. These spores burst, the liberated falciform embryos are then either voided with the secretion of the kidneys, or enter into another epithelium cell, grow into a mature animal, and go through the same cycle again. Of the symptoms presented by such snails, we know nothing, for obvious reasons. We have kept infected snails in the laboratory, and none of them died; and the kidney of a diseased snail could be distinguished from that of a healthy one through microscopical examination only. In order to settle the question as to whether the klossia produced any epithelial proliferation, serial sections were cut through the entire kidney. No sign of undue multiplication of cells was ever seen, even in the kidneys which contained the largest number of parasites. We noticed nothing to show that these gregarines produced any marked inflammatory lesion, and, in fact, we were astonished to find a total absence of reaction on the part of the infected tissues. The only lesion which could be detected was that the infected cell elongates, gradually becomes detached, and falls into the lumen of the urinary tube. As the parasite grows, the cell is after a time reduced to a mere shell surrounding it. When the spores burst, the *débris* of the cell are simply excreted with the secretion of the kidney.

Another parasite which is apparently accompanied by little or no proliferation of epithelium is that seen after vaccination. Here I would speak reservedly. For I do not by any means endorse all that has been written as to the presence of parasitic protozoa in vaccinia. On the contrary, I believe that several authors have classed under that name many heterogeneous structures contained in the vaccinia and variola pustules; but that, on the other hand, these parasites have been seen by many, and have been correctly interpreted by one observer at least, and incorrectly by many others.

If one examines the epithelial cells at the point of inoculation of vaccinia forty-eight hours after this operation, one finds that the majority contain in their protoplasm round bodies, easily stainable with both nuclear and protoplasmic dyes. These are surrounded by a sharply limited clear space. They have no recognisable capsule, but lie quite free in the protoplasm, and with high powers of the microscope it is often possible to make out in their centre a spot which may perhaps be considered as their nucleus. These bodies multiply by fission and segmentation into two or multiples of two, and gradually invade the deeper layers of the epithelium, and even the connective tissue beneath. Their size varies, but as a rule it is constant, except just before division. They are many times larger than micrococci, but smaller than the parasites of cancer. On the third day many wander into the connective tissue, and some are taken up by leucocytes even before they leave the epithelium cells. Their ultimate fate, however, is uncertain, as on the fourth day the emigration of leucocytes is so great that, in the absence of well-marked staining reactions, we do not feel competent to distinguish them with certainty among the mass of leucocytes, necrotic *débris*, red blood corpuscles, micrococci, etc., which are found in the interior of a vaccine pustule. The same and other reasons prevent us from making any statements as to their number in vaccine kept outside the body, though such structures may be undoubtedly found in it. As has been seen from the above, these protozoa of vaccinia differ from the structures which we are to describe presently as the parasites of cancer in size, staining reactions, and structure, but they resemble them in the fact that they possess a similar mode of division. As to their pathogenic properties we know absolutely nothing.

The epithelium cells containing these parasites become larger, more spherical, œdematous in fact, and this hypertrophy of the cells causes the surface of the infected spot to become slightly raised. The cells are pressed against each other, and those which are partly invaginated look as if surrounded by a capsule, which in reality is the outline of the cell into which they are forced. They are, in fact, identical with the invaginated cells met with in cancer and erroneously described as parasites. Frequently, also, the nuclei undergo a process also seen in cancer cells, and which, for want of a better name, may be called the direct fragmentation of the nucleus, this direct fragmentation not being accompanied by division of the cell protoplasm.

On the other hand, indirect division, karyokinesis, although often met with near the point of inoculation, did not appear to us to be more prevalent there than near any other inflamed or irritated epithelial surface. In this case, therefore, as in the preceding one, we cannot conclude that the parasite gives rise to any marked proliferation of epithelium. This is practically all that we can say definitely about protozoa as they occur in vaccinia, for, up to the present moment, we have been unable to confirm any of the other statements made on this point, and those who have attempted to investigate this difficult problem will not blame us if we maintain a discreet silence as to the interpretation to be put on the structures met with in pure vaccine lymph. Some of them might fairly be considered as stages in the life-history of a protozoon; but, on the other hand, we have not been able to distinguish them from some of the constituents usually found in or near small subcutaneous abscesses.

Nevertheless, although we have no sure knowledge of the pathogenic properties of these parasites, although their life-history is but imperfectly known, there are several reasons, such as the failure of bacteriologists hitherto to isolate from vaccinia any micro-organism, which might be considered as the cause of the malady, the spread of the disease along certain epithelial surfaces, etc., which would lead us to believe that both vaccinia and variola are probably due not to a vegetable micro-organism, but to a protozoon. They would differ, however, from most affections caused by protozoa by the fact that in them one attack is protective against another, for a time at least, which is not usually the case in disease due to protozoa. I think it only fair to state that it was the remarkable work of Guarnieri (a copy of which was courteously sent me by the author) which caused us to reinvestigate this matter.

We may now turn to a protozoon which produces proliferation of epithelium cells, namely, the coccidium oviforme. This attacks rabbits chiefly, and gives rise to the small adenomata so frequently found in the liver of such animals. Its life-history is so well known that no account of it is necessary, but the disease produced by it is interesting because, clinically and pathologically speaking, it occupies a position intermediate between malaria and cancer. Like malaria, the disease is endemic in certain places, attacking nearly all the rabbits in a warren, or in a stable, and sometimes proving fatal to almost all the young animals. Its course is at first acute; the animals lose flesh, are attacked with diarrhœa, and die. At the *post-mortem* examination, the disease is localised in the alimentary tract and the liver. In the intestine, the foci are situated chiefly in the mucous membrane of the upper part of the intestine, and look to the naked eye like white irregular spots, which occupy at times most of the intestinal wall. In the liver, at this stage, they form small tumours situated in the bile ducts, and distending the same. These are filled with a thick creamy substance consisting of pus, epithelial cells, coccidia, etc., whilst the whole is surrounded by a capsule of fibrous tissue, sending branching prolongations into the interior of the tumour. The epithelium proliferates and lines each one of these prolongations. These are the appearances seen when the animal dies in the acute stage of the disease; but should it recover, the little tumours in the liver become encapsuled, and on section present all the appearance of a parasitic adenoma, each branching prolongation being surrounded by connective tissue, which encapsules it and isolates it from the remainder of the liver substance. In a later stage, the epithelium disappears by a process which will be explained later on, and the little tumour becomes a fibrous nodule. Here

then we have a disease which is caused by a protozoon, which may live in the epithelium cell, but which may also thrive even outside the cell in the body, and which produces an acute febrile disease, followed by a chronic process and accompanied by marked proliferation of epithelium cells.

The next point in my paper is the description of the structures, now considered by several pathologists and zoologists as protozoa, and which occur in all cases of cancer in man; but I am fully aware, and I warn you, that the interpretation which we put on such structures is not accepted by many pathologists.

The protozoa are found in the epithelium cells of carcinoma, and are round bodies, varying from 0.004 μ to 0.04 μ in diameter. They consist of a central part, or nucleus, which, as a rule, stains deeply with appropriate dyes. This is surrounded by a layer of protoplasm, which stains less deeply, and which, after the protozoon has attained a certain size, has a more or less radiated appearance. Surrounding the whole is a capsule. This capsule was at first thought to be secreted by the infected cell, as a kind of protecting membrane; but, on the other hand, it is no uncommon thing to find the capsule folded on itself. The protozoon may also be seen lying free in an alveolus, still surrounded by its capsule, so that the latter must be a part of the protozoon. The protoplasm of the protozoon is either quite homogeneous, or it contains a few granules, or the rays before referred to, which may be seen, in some cases, extending, both from the central part towards the periphery and from the periphery towards the centre. The nucleus is, as a rule, perfectly homogeneous, but, with the highest powers of the microscope, a lighter spot in the centre can sometimes be made out. The microchemical reactions of the nucleus of the protozoon are quite different to those of the nucleus of the cell, the principal point of difference being that the nucleus of the protozoon will not, as a rule, stain with the ordinary nuclear dyes. It is very difficult to get the nucleus of the protozoon stained with hæmatoxylin, or it shows the phenomenon of metachromatism. In sections stained with hæmatoxylin and cochineal the nucleus of the epithelial cell takes the hæmatoxylin, and that of the protozoon the cochineal. There are several other methods of showing these microchemical differences between the cell nucleus and that of the protozoon; the former, of course, staining with nuclear dyes, and the latter only with protoplasmic dyes.

Sometimes the granules I have mentioned will arrange themselves in a very regular radial manner close to the capsule, and the protozoon then resembles very closely the coccidia found in the rabbit's liver.

We have been able to demonstrate the method of reproduction in these protozoa. In the most frequent form the nucleus divides into two equal parts, being at first connected by very delicate threads, which disappear as the capsule divides, a septum being thrown out at each side and meeting at last in the middle, thus making two protozoa. This kind of division occurs most frequently in those protozoa which have attained a medium size. The other is of a more complex and rarer sort. The nuclear masses are arranged at the periphery of the sac, after the manner of the rosaces in malaria, and the capsule dividing septa are formed inwards which extend from the capsule between these masses. These gradually shut off the young parasites which are thus set free.

With regard to the presence of the parasites and karyokinesis, I would remark that, although the cells surrounding the infested one are often in a state of active proliferation, we have never seen a parasite in a dividing cell.

Let us now see whether there are any pathological facts which are common to all the diseases of this group. One of the most important facts concerning malaria and other diseases in which protozoa have been found, vaccinia excepted, is that when once the body has been attacked by them the parasites appear never to leave it again. Malaria may, as you know, recur even when the patient has for a long time not been in a malarious district. One example of this (observed by Dr. Plimmer and myself) will suffice. A gentlemen of the highest intellectual distinction had been repeatedly attacked by malaria in India; he was invalided home, and for seven years was absolutely free from the disease, and never went into a malarious district. He was staying with us in a house, the owner of which, a medical man, has inhabited it for many years, and in which no one has ever suffered from malaria. Going one evening through a dimly lighted passage he fell down a flight of stairs; he was picked up in my presence, and within five minutes had a typical fit of ague, and so well did he know the symptoms that he at once clamoured for quinine. Now where had the protozoon taken refuge during these seven years? We do not know what becomes of it in man during these long intervals of apparent rest, but the study of birds may throw some light on this, for, as has been seen, the parasites previously described in them are found encysted in the bone marrow even when none are to be found in the blood. These birds present no symptoms, as a rule, but sometimes the animal suddenly has distinct signs of illness, such as ruffling of the feathers, convulsions, and other nervous phenomena, the diseases being accompanied by the presence of protozoa in the blood. Moreover, the animal may have such an attack after it has been removed for some considerable time from a malaria district, and without any obvious reason for succumbing to the disease. I think we may argue, without any undue stretch of imagination, that in these birds, which have not been again exposed to infection, the disease is produced by a new crop of parasites which develop from those encysted in the bone marrow, and that a similar condition of things may exist in man.

The parasite of the snail also does not disappear when the animal is removed from the place where it has been infected. Through the kindness of Dr. L. Pfeiffer, of Weimar, we obtained a considerable number of living snails, in the kidneys of which we found a large number of typical klossia; about one in every three was thus infected. The animals were kept in the laboratory under a glass shade and fed with filter paper, but although the snails had thus been removed from their infected native place the parasites did not leave them, for on examining a number of them again, four months afterwards, we found the same proportion of infected animals.

The coccidium oviforme of the rabbit also may remain in the liver for an almost indefinite time without giving any further trouble. It is no uncommon occurrence to find in old rabbits small fibroid tumours, containing typical encapsuled coccidia, but whether these coccidia ever cause a new attack of the acute disease it is difficult to say, though, theoretically speaking, there is no valid reason why this should not occasionally take place. And, lastly, the recurrences of cancer are too well known to call for more than a passing reference.

These and other considerations lead me to believe that one disease, namely rabies, the cause of which has baffled even so great a genius as M. Pasteur, might perhaps be profitably investigated under the assumption that it is produced by a protozoon. Rabies differs from all bacterial diseases in that it possesses an indefinite latent period which, in man, is rarely less than three weeks, and sometimes extends to six years or more. No bacterial disease has a latent period approaching this in length, but on the other hand we have seen that pathogenic protozoa, both in man and animals, often remain latent for a considerable time, the disease breaking out often without any apparent reason. Why should not rabies be due to a similar protozoon? The fact that all attempts at cultivating its causative agent have failed, even when conducted by the best men under the best possible conditions, is strong evidence that the organism that produces rabies belongs to the animal kingdom. Also the fact that the virus of rabies is, to a great extent, localised, or at any rate is found in its most virulent form in one system of the body, and one which is but seldom affected by vegetable organisms, gives further support to the hypothesis that this disease may be caused by an animal parasite.

I now propose showing that the mode in which the organism reacts against the hæmatophyllum malariæ, the coccidium oviforme, and the parasite of cancer, is practically the same in all these diseases.

In a drop of malarial blood one may watch under the microscope how the leucocytes absorb, kill, and digest the hæmatophyllum malariæ; but whether this phagocytic process actually takes place in the circulatory system is a moot

point. Indeed, some maintain that it is limited to the macrophages of the spleen and bone marrow, which have been seen to destroy a large number of parasites after absorbing them, together with the red blood corpuscles. In the majority of cases the parasites are killed, but occasionally they destroy the macrophages.

One of the most competent observers has noticed that in quartan and tertian fevers the phagocytosis begins with the onset and lasts three or four hours longer than the actual attack. Later on the parasites are digested by the leucocytes, and the length of the attack may be estimated by the number of digested protozoa found in the preparations. It is possible, also, that the fever may actually cause the death of the parasites, though the evidence on this point is hardly sufficient to carry conviction.

In birds which are infected, the macrophages of the bone marrow destroy large numbers of the protozoa, and on transfusing blood from birds into frogs or dogs the leucocytes of the second animal have been seen to destroy the parasites contained in the blood of the first. The means of resistance of the organism against the parasite of malaria lies in the phagocytic properties of the mesoblastic cells of the blood and other parts of the body.

Now with the coccidium of the rabbit and the parasite of cancer the process is practically identical, but to prove this I must show that the stroma of the tumour is nothing more than the means employed by the organism to protect itself against the invasion of the parasites. When the biliary ducts become infested with the coccidium oviforme, the first phenomenon observed is an intense congestion of the vessels, accompanied by an emigration of leucocytes.[1] After a time, larger mononucleated amœboid cells appear. The exact origin of these is still a matter of discussion, so much so that one observer has pledged himself in turn to two diametrically opposed opinions. However this may be, these cells, derived either from the wandering or mesoblastic cells, develop into delicate connective tissue, and later on into fibrous tissue, which, penetrating between the proliferating epithelial cells, ultimately forms a complete envelope to the small tumour. We have then a typical parasitic adenoma, the stroma of the tumour protecting the organism against the invading parasite. Before and during the time that this capsule is being formed, one may not infrequently see amœboid cells penetrating between or into the epithelium cells even, and eating up naked and occasionally even encapsuled protozoa.

When the tumour is formed, the process of defence is not arrested. Large mononucleated and multinucleated amœboid cells gradually form a wall around the contents of the little tumour. These cells send out long prolongations, surround the protozoa, and take them into their interior, where they obviously undergo a process of encapsulation, or are ultimately digested. At the same time, however, the fibrous tissue forming the stroma of the tumour becomes denser, and gradually the entire tumour is converted into a small mass of fibrous tissue. The disease might then be considered as cured, locally at least, were it not for the fact that one may still find in such nodules typical coccidia, which, however, are completely surrounded by a giant cell; and it has been shown that the coccidia, when encapsuled, possess considerable powers of resistance to chemical and other reagents.

Another example of an identical process is that which is seen in the coccidial tumours which infest the intestines of sheep. Here also may be observed the formation of a dense capsule of fibroid tissue derived from the granulation tissue surrounding and isolating the proliferating epithelial cells containing the parasitic protozoa, and which sends out offshoots which form the stroma of the tumour. There is this difference, however, that the connective tissue never completely surrounds the tumour, so that the epithelium cells are free to proliferate towards the lumen of the alimentary canal. The result is that the tumour gradually becomes elongated at its base, and finally hangs by a kind of pedicle in the lumen of the tube. These appearances give us cause for belief that many polypi—even non-malignant polypi—which grow in open cavities of man and animals, may perhaps have a similar parasitic origin.

We now come to what is perhaps one of the difficult points, namely, the way in which the human organism resists cancer.[2] Examine the periphery of an actively growing tumour, of the breast for instance, and you may occasionally find that the cancer cell is not separated from the surrounding fat by any layer of lymphocytes or connective tissue whatever. Cut a section of an actively-growing metastasis of the same cancer in the liver, and you may find that the cancer elements are in close contact with the liver cells, but that the latter are flattened and evidently degenerated. It might be disputed whether this flattening and degeneration are produced by pressure, or by a process of digestion due to some poison secreted by the cancer cell or its parasite, but we may waive this point. In the majority of instances, however, there is a distinct collection of lymphocytes, and in abdominal cancers and actively growing metastases, one may often see that these small round cells penetrate into the interior of the epithelial cell and of the parasite, or else surround the latter and destroy it. In many tumours, however, especially in primary tumours of the breast, such a phenomenon is but rare, and I will now show you that in the majority of cases the means of resistance consist in the connective and fibrous tissues forming the stroma of the tumour.

As we proceed towards the central part of the growth these lymphocytes become converted into larger mononucleated cells, and later on into connective and fibrous tissue, which surround and imprison these cancer cells. At the same time, some of these cancer cells degenerate, and this degeneration is due to a true process of digestion on the part of the connective tissue—for example, the stroma of the tumour, and not simply to pressure, as is maintained by most. The stroma, when it hardens into fibrous tissue, is simply scar tissue, and few will deny that the function of the scar which covers a wound is to protect the organism against noxious agents coming from without. Similarly, in cancer the connective tissue serves a useful purpose in protecting the organism against the invasion of cancer.

One might think that these mesoblastic cells had no power of discriminating between cancer cells and parasites, or even between living and dead cancer cells. It is, however, a peculiar fact that in some cancers the epithelium cells degenerate with an amazing rapidity, and that in such tumours large tracts are found which contain nothing but these degenerated cells and no parasites. Now, the mesoblastic cells have no liking for such degenerated patches, so that one may have to look through several fields before a single leucocyte can be seen. Even the fibrous tissue does not, as a rule penetrate into the degenerated tracts, but simply forms a capsule around instead of pushing its processes into the interstices between the dead cells, as it does between the living ones. This condition, therefore, is similar to that found in actinomycosis, in which disease the islets of dead cells and parasites remain untouched by wandering cells, though a dense capsule of connective tissue forms around. You see, therefore, that it is not without reason that some competent observers have described cancer as a granuloma, for in it we really find all the lesions of a parasitic granuloma, *plus* another lesion, namely, the proliferation of epithelium cells. The infiltration of round cells at the periphery corresponds, for instance, to the young tuberculous nodule, and the stroma in the interior to the fibrous part of an old tubercle. I do not propose to enter into the question as to whether this proliferation of epithelium cells may not be in itself a protective process, though many and weighty arguments could be brought forward in its favour, for the developing of such an argument would carry us too far. But I would sum up this part of my lecture by saying that in malaria, the psorospermosis of the rabbit, and in cancer the process which enables the organism to resist is practically the same; for the destruction of the hæmatophyllum malariæ by a leucocyte, or the encapsulation of a cancer cell and its contained parasite by fibrous tissue, are identical processes, differing only in the time which they occupy. The stroma of a malignant tumour

[1] I may remark that our later researches have not altered my opinion, and that I still hold, and am more and more convinced, that scar tissue is, in the major t of cases, if not always, derived from emigrated cells. I confess, however, that up to the present moment the crucial experiment which is to settle this question has not yet been discovered.

[2] I may remark that in sarcoma, it is not uncommon to find large macrophages crammed with cells in a more or less advanced state of intracellular digestion.

may, therefore, be described as the safeguard of the organism.

An attempt has been made to show you the characteristics common to all these diseases, but the lesions which apparently make of cancer a disease *sui generis* must at least be briefly indicated. In cancer the epithelium cells not only proliferate in the neighbourhood of the infecting protozoa, but the cells change their character to some extent, and invade the neighbouring tissue. A cell from a cancer of the breast, for instance, is in shape and size unlike its parent cell normally found in that organ, and, moreover, it may find its way into any part of the body. These are the most striking differences which we have now to examine, but are they of fundamental importance? We think not. And if we once grant that protozoa may cause a proliferation of epithelium cells—an hypothesis which, in view of what we have just stated concerning the coccidium of rabbits and sheep, may not be unfairly admitted—it is possible to account for all the other lesions mentioned.

We have seen that the epithelium cell holding in its interior the peculiar protozoa of vaccinia undergoes certain changes which resemble those found in cancer. The nucleus of the cell becomes more apparent, and often irregular, the protoplasm more œdematous and larger, the whole assuming a more rounded form. True, it does not show a marked tendency to invade the deeper tissues, but may not that be simply due to the fact that the inflammation which accompanies this infection and the acute character of the illness do not give it a chance to do so? In the coccidial tumours of the rabbit, and of the sheep, we have seen that the proliferation takes place in the direction of least resistance, and that its extension is prevented by the formation of fibrous tissue. In cancer an attempt at encapsulation is also made, but is never entirely successful. We have here the same difference in the reaction of the organism as exists between a local disease and a general infection due to bacteria.

This difference between the cancer cells and the normal epithelium cells is only a question of size. It is not a physiological one, nor even a really morphological one. As has long ago been pointed out, the cancer cells coming from the skin, for instance, have in the main the characteristics of epidermic epithelium cells, and in fact, as the founder of cellular pathology has ably put it, "No kind of cell tissue which can occur in our body is in the strict sense of the word atypical."

The objection that the cancer cell invades the surrounding tissue, whereas this never happens in any other form of disease, may, without too much ingenuity, be met by the supposition that the pressure of the proliferating cells or the secretion of the protozoa weakens the resistance of the surrounding tissues. Indeed, there is very distinct evidence of this in the metastases which grow in glandular organs—in the liver, for instance, in which even cells situated some distance from the tumour, where there is no evidence of pressure, undergo fatty degeneration and other changes. The formation of the stroma is easily explained by the irritation produced by the protozoa, and we may not unreasonably suppose that the parasites secrete poisons which, like those secreted by micro-organisms, attract amœboid cells; and that the differences in the amount of reaction may be due to the possibly differing strengths of the poisons, or to the age, sex, and other influences which affect the resistance, if not to the fact that the parasite has to act through a screen, as it were, instead of acting directly. The presence of the stroma in cancer, the emigration of leucocytes into epithelium cells, and the other inflammatory reactions accompanying the presence and growth of a cancer, are, in our opinion, the strongest evidence that it is a growth of parasitic origin.

The fact that the metastatic growths resemble the parent one, and not the tissues in which they become implanted, must be shortly discussed. A metastatic cancer of the rectum, for instance, implanted in the liver produces another cancer resembling the primary tumour. Again, we believe that if it be admitted that the protozoa of cancer produce proliferation of epithelium cells this fact may be readily explained.

In the first place, let us examine the proposition a little more closely, and to show the fallacy contained in it let us take for our text the very words given in the most popular textbook now used by students. After describing the formation of a secondary nodule in the liver, the author sums up his description by saying: "a secondary nodule is at length evolved *whose structure resembles in all points the structure* of the parent nodule."

This statement as it stands is inaccurate, for it says too much. I should, however, have no objection to it if the words "the epithelium cells of which resemble in all points those" were substituted for the words placed in italics. For what does the author mean by the structure of the parent tumour? Does he mean that part of the parent tumour which is one week, or that which is three years old? The point is of importance, for were he to compare the young metastasis with the older parts of the parent tumour, or were he to place side by side a section of the growing edge of the parent tumour and an old metastasis, the epithelium cells would, no doubt, resemble each other in all four specimens; but that would be the only resemblance, for the amount and structure of the stroma of the metastasis depend as in the primary tumour on the age of the metastasis, and on the resistance of the individual towards cancer.

The epithelium cells in the metastases must resemble the parent cells in their structure as in their arrangement and physiological properties, for experiment has shown that even normal tissues, when successfully transplanted, not only reproduce themselves for a time, at least, in the same way, but possess the same arrangement and physiological properties as before. It would therefore be astonishing, indeed, did the cancer cells not reproduce themselves in the metastases in exactly the same manner as in the parent tumours. And remember that the cancer cells which form the metastasis contain the parasitic protozoa, which may again give rise to proliferation of cells. We can then easily account for the stroma, and also for all the other anatomical appearances of cancer, provided we can prove that protozoa of cancer will produce epithelial proliferation. Have we any evidence to show that the protozoa present in cancer cause multiplication of cells? I have shown you that in certain diseases the protozoa cause epithelium cells to proliferate, but that in many other they do not. We have, therefore, no right to say that those of cancer must necessarily do so, for the simple reason that no one has ever experimentally produced proliferation of the epithelium cells by the experimental inoculation of a pure culture of cancer protozoa; but, on the other hand, there is nothing to prove that these protozoa may not have that action, and there is strong probability that they do. We have, in fact, arrived at a standstill, and at a point where one might just as easily argue that the parasitic protozoa of cancer infest the epithelium cells because these proliferate, as that the cells proliferate because of the presence of protozoa. We think that, as far as the physiological action of these protozoa are concerned, we have learnt as much as can be learnt from anatomical observations, and that the time has now arrived for experimentation on animals.

In conclusion, let me hope that I have not appeared to you to have spoken in somewhat too confident and dogmatic a tone. I am aware also that many of the facts which I have brought forward to-night are controverted or differently explained by pathologists of reputation and sterling merit. The knowledge that what I have said has been said before a skilled audience, and will, when published, be sharply criticised, has emboldened me to speak freely, for the fair criticism of others is a good and wholesome discipline, for which every man ought to be thankful, and I should be the last to complain of hard hitting. My object has been to show that the hypothesis that cancer is of parasitic origin is worthy of all consideration, and that the differences between cancer and other diseases undoubtedly caused by protozoa are not so great as they at first sight appear to be. Let our ambition now be as Hunter's was: "The experimental analysis of life in health and disease."

Dr. Louis Jules Fauvelle has bequeathed to the Paris Anthropological Society a sum, the interest of which, amounting to 2,000 francs (£80), is to be offered as a prize for the best monograph dealing with the structure of the nervous system or with nervous influence.

SIXTY-FIRST ANNUAL MEETING

OF THE

BRITISH MEDICAL ASSOCIATION

Held in NEWCASTLE-ON-TYNE August 1st, 2nd, 3rd, and 4th, 1893.

SECTION OF PATHOLOGY.

Professor C. S. ROY, M.D., F.R.S., President.

SOME EFFECTS OF CHRONIC IRRITATION UPON LIVING TISSUES, BEING FIRST STEPS IN A RATIONAL STUDY OF CANCER.

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WE may say of epithelium as Aristotle tells us that the men of old were accustomed to say of Africa Αεί τι καινὸν φέρει ἡ Λιβύη ("Africa always produces something new"). The more closely epithelium is studied the more complex it appears to be. The discussions upon the organisms found in cancer which have formed so marked a feature in the pathological work of the last year have demonstrated to us our ignorance of the appearances met with in carcinomatous tissues examined under high powers of the microscope after the use of special methods of preparation. If we are ignorant of the appearances seen in carcinomatous cells, we are still more ignorant of the changes occurring in normal epithelium as a result of simple but chronic irritation. The great advance recently made in histology consists in the application of biological methods to morbid anatomy. In biology the tissues are of necessity preserved whilst they are physiologically living, for they are often so delicate that death is synonymous with disintegration. The reagents employed, therefore, are those which simultaneously kill, fix, and harden. In morbid anatomy, on the other hand, it has too long been customary to take tissues from the deadhouse, and to subject them to reagents by which they are slowly and imperfectly hardened, thereby allowing changes to take place in the more delicate structures, which renders impossible any minute microscopical examination. This alteration in *technique* is revolutionising our knowledge of the structure and life-history of cells in the different parts of the body. It has presented us with a number of facts which as yet we are hardly capable of using, so imperfect is our present knowledge.

I propose in this paper to deal with a few of the facts obtained by a series of experimental researches into the cause of cancer carried out at the Conjoint Laboratories in London.

At the beginning of my investigation I found that it would be necessary to distinguish appearances due to simple irritation from those produced by the specific action of cancer, for it seemed that many of the histological appearances in carcinoma are the consequence of simple irritation. My plan of investigation required that animals should be kept for long periods of time with some of their tissues in a mild but efficient state of irritation. I have, therefore, been able to study the effect of chronic irritation upon such extravascular tissues as epithelium and cartilage. The results are interesting, and the generosity of the BRITISH MEDICAL JOURNAL enables me to represent some of the more striking appearances by figures reproduced directly from photographic negatives, prepared by Mr. Doudney, the very able assistant in the laboratories of the Conjoint Colleges. The sections in each case were photographed under an enlargement of 400 diameters.

It is well to remember that the appearances here depicted were, with the single exception of the last preparation, the result of simple irritation of normal tissues, and have nothing to do with carcinoma. The interest of the preparations lies in the resemblance they bear to the appearances seen in cancerous growths, a resemblance which has led some observers into the realms of mysticism and others into the depths of error.

1. *The Vacuolation of Cells* is the most constant phenomenon met with in tissues which have been kept in a state of chronic irritation. It is, as everyone knows, a prominent

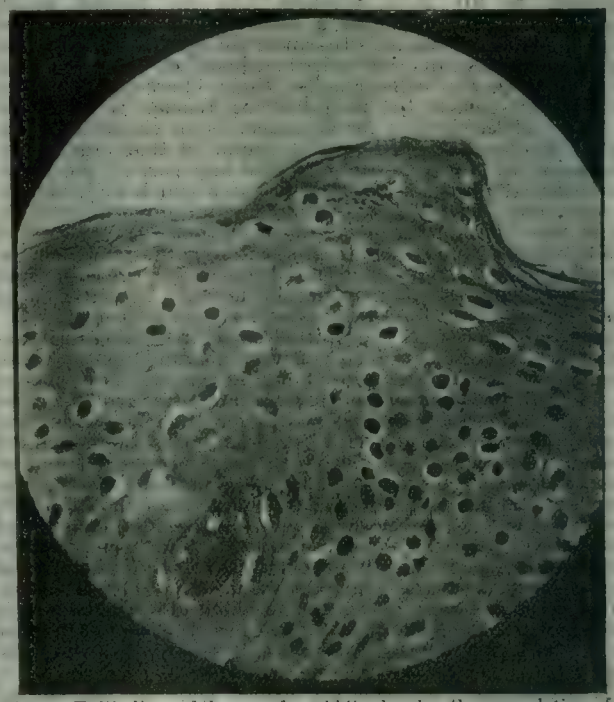


Fig. 1.—Epithelium of the ear of a rabbit, showing the vacuolation of cells due to chronic irritation × 400.

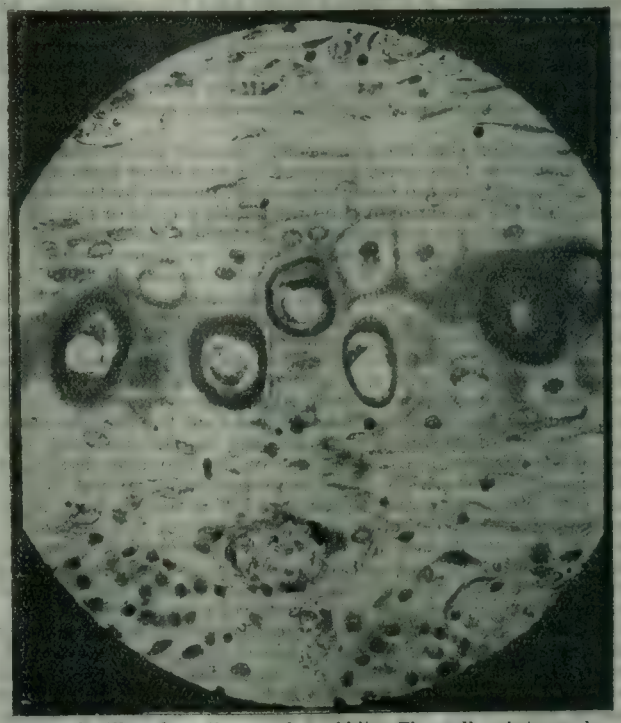


Fig. 2.—Cartilage from the ear of a rabbit. The cell substance has undergone degeneration. Some of the nuclei have slipped aside, others have become pressed out of shape × 400.

appearance in some sections of rodent ulcer and in Paget's disease of the nipple, as well as in many papillomatous conditions. The photograph reproduced in Fig. 1 represents a section through the skin of a rabbit's ear, which had been irri-

tated by the application of iodine liniment from October 29th to November 21st, 1892. The stratum corneum remains unaltered. The cells of the stratum granulosum are nearly all vacuolated, that is to say there is a transparent zone round the nucleus of each cell. This zone appears to be due to the conversion of the cell substance into eleidin, or some allied body which shrinks. The nucleus in some cases remains loosely attached within the cell, and readily drops out unless special precautions are taken to maintain it in position. The nucleus appears in other cases to become entangled in the shrinking and degenerate cell substance, and thus becomes distorted.

Another form of vacuolation is well seen in these cartilage cells—Figs. 2 and 3—from the ear of a rabbit, kept

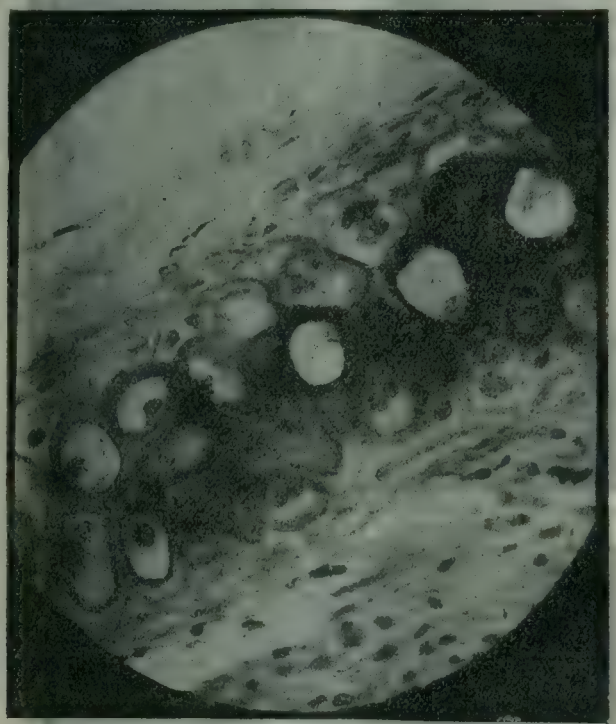


Fig. 3.—Cartilage cells from the ear of a rabbit showing degeneration. Many of the nuclei have slipped aside. The spaces are very sharply defined × 400.

irritated from November 7th, 1892, to February 28th, 1893. The majority of the cartilage capsules contain two nuclei, though the cell substance shows no trace of subdivision. The degeneration of the cell often commences between the two nuclei, which are thus pushed aside and squeezed until they become triangular or are even flattened. The outline of the degenerate portion is sharply defined, and is usually circular. In the larger number of cells the space is quite empty—no doubt because in the course of preparation the tissue had been soaked in ether—but it occasionally contains a little granular *débris*. In some cases the circumscribed intracellular space appears to be produced by the nuclei slipping aside, for the nuclei may often be seen lying on one side of the space, and in a different plane to the rest of the cell. This form of degeneration, so far as I have been able to observe, is never intranuclear.

2. *Œdematous Cells.*—Another result of irritation is that epithelial and other cells often become œdematous and present obvious signs of degeneration, as is seen in Fig 4. The appearances are quite distinct from the vacuolation just described, though they are no doubt akin to it. The spaces in these dropsical cells appear to be due to a fluid produced within the cell in droplets, which subsequently coalesce to form larger drops, whilst the cell itself becomes enlarged and swollen. The process is, therefore, analogous to that by which fat is normally formed in connective tissue cells, or to the manner in which cells degenerate in colloid change. The degenerate cell is plump and contains a central nucleus surrounded by a remarkable and sharply defined zone. The cell and its nucleus stain deeply, the transparent zone does not stain. This process of œdematous cell formation has been carefully studied by Boyce, who showed some excellent examples of the process as it occurs in carcinomata at a recent meeting of the Pathological Society in London.

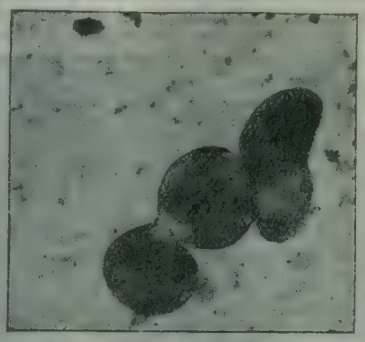


Fig. 4.—Œdematous cells contained in the purulent vaginal discharge of a rabbit × 400. In the large cell the vacuole is at the lower part and the nucleus can be dimly seen above it.

The œdematous cell can be easily produced experimentally in a rabbit. It happens from time to time that the discharge from the vagina of a rabbit which is being kept irritated becomes purulent instead of remaining serous. Two days after the appearance of the pus the epithelial cells which it contains are large and regular in outline, the cell substance stains pink with Biondi's reagent and the nucleus green. There is no trace at this time of droplets either in the cell substance or in the nuclei. The vacuoles usually appear on the third or fourth day and become more and more sharply defined on the succeeding days, and it is then easy to see one or two in each cell either in the nucleus or in the cell substance. Some of the cells occasionally contain bodies which seem to be partially digested pus corpuscles. The vacuoles eventually coalesce to form a well-defined zone surrounding the nucleus, and the nuclei themselves undergo granular degeneration. These changes are of common occurrence in rabbits, but I have failed to observe them in rats or guinea-pigs.



Fig. 5.—Cell nest from the vaginal epithelium of a guinea-pig, irritated from January to April, 1893 × 400.

3. *Modified Cell Growth.*—The commonest, and, at the same time, the best known type of modified cell formation resulting from irritation is the cell nest. Cell nests appear to be one of the few changes in the vaginal epithelium of guinea-pigs which are produced by chronic irritation. Cell nests

have been so fully described and so often discussed that no further notice need be taken of them than to show photographs of these, which were artificially produced (Fig. 5). Another point which has struck me in examining preparations of irritated epithelium is the strange diversity in the size of the constituent cells. In normal epithelium the cells are tolerably uniform in size; in irritated vaginal epithelium the cells are often strikingly dissimilar in size, as is seen in Fig. 6. These cells are so remarkable that I have very con-

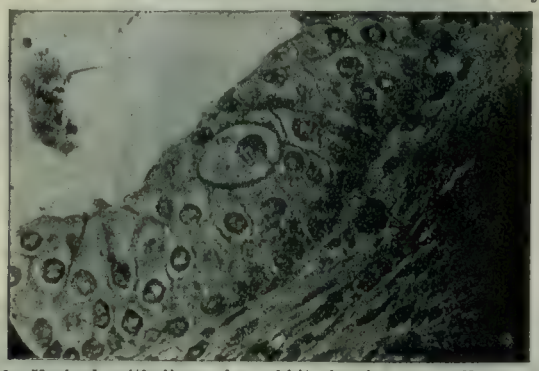


Fig. 6.—Vaginal epithelium of a rabbit showing one cell very much larger than the rest × 400.

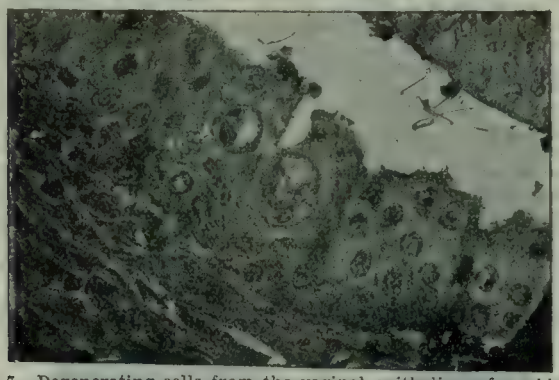


Fig. 7.—Degenerating cells from the vaginal epithelium of a rabbit. The large cell to the left, marked A, is very similar to that drawn by Wickham (Plate II, Fig. 5), and described by him as a psoroperm × 400.

siderable doubt whether they are not in reality parasitic amœbæ, as it is known that some forms inhabit the vagina of the rabbit.[1]

4. *Circumscribed Collections of Leucocytes.*—Irritated epithelium which has been in contact with pus often presents the appearances shown in Figs. 8 and 9. These are minute circumscribed collections of leucocytes. In some cases they are very minute (Fig. 8), and only consist of two or three corpuscles; in other cases they are larger and resemble large oval cells (Fig. 9), which in growing have flattened their neighbours on every side. These masses are usually well defined, and appear to be enclosed by a definite capsule. The cells are often collected at one point in the capsule, and it is remarkable how little injury these minute collections of white corpuscles do to the surrounding cells, though it is obvious from the amount of chromatin present that a certain number of epithelial cells must have undergone complete disintegration. The collections of corpuscles have given rise to a variety of interpretations, some observers describing them as cells undergoing endogenous gemmation, others as parasites. There is no doubt, however, as to their true nature; they are minute masses of leucocytes and nothing more, and the constituent cells are identical with the cells which are so widely scattered in the inflamed submucous tissue.

It happens in a small proportion of cases that some of the epithelial cells completely disappear after irritation and leave nothing but a space behind. The spaces formed in

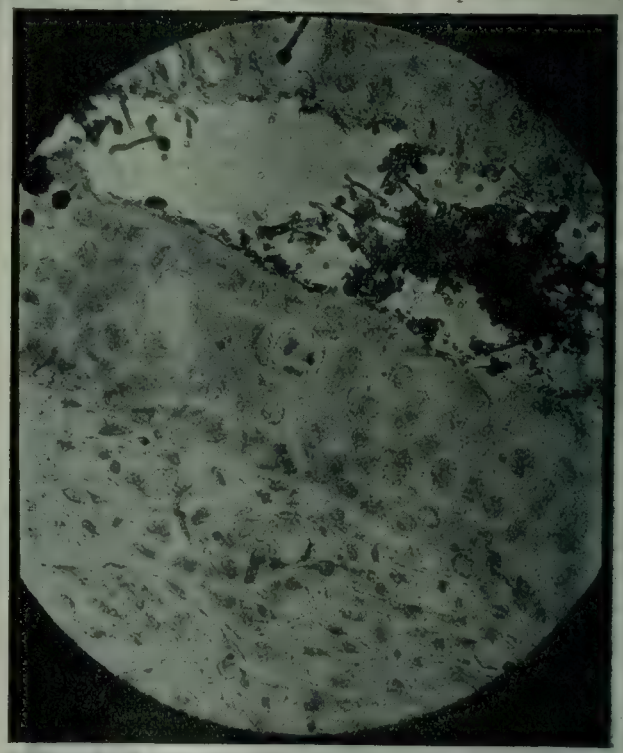


Fig. 8.—A small collection of leucocytes in the vaginal epithelium of a rabbit × 400. Cf. Wickham, *l. c.*, Pl. II, Fig. 8.

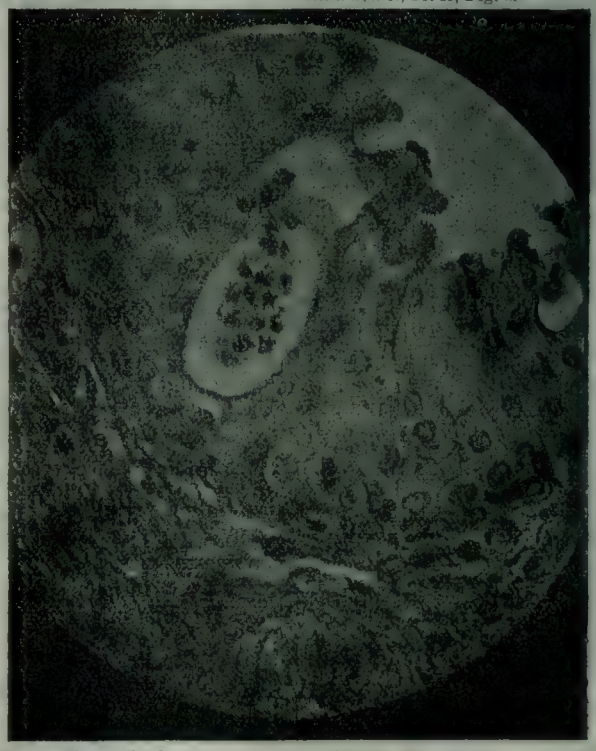


Fig. 9.—The vaginal epithelium of a rabbit showing a larger collection of white corpuscles lying amongst the cells in a well-defined capsule × 400.

this manner are not due to the cells dropping out, but appear

[1] Fig. 7 shows two other forms of degenerating epithelial cells. The cell on the left, marked A, is of special interest, as it is almost identical in appearance with that described as a psorosperm by Wickham, and drawn by him in Plate II, Fig. 5, of his thesis on *Psorospermosis*.

to be the result of advanced degenerative changes affecting the entire cell, or in some cases, perhaps, to still further changes occurring in connection with the minute masses of leucocytes just described. These spaces are shown in Figs. 10 and 11. Similar appearances are frequently seen in cases of Paget's disease of the nipple.



Fig. 10.—Vaginal epithelium of a rabbit showing spaces resulting from cell degeneration. The lumen of the vagina contains crystals of the corrosive sublimate used to harden the tissue intermixed with the *débris* of epithelial cells × 400.

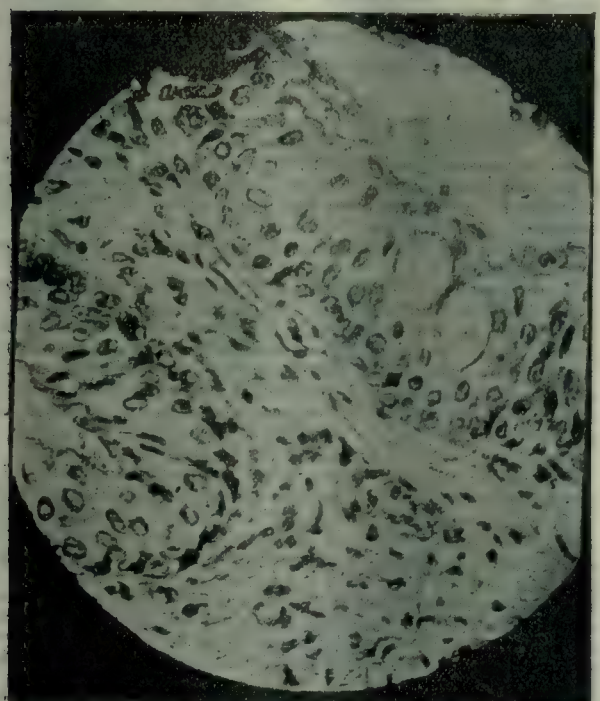


Fig. 11.—Spaces, resulting from cell degeneration, in the vaginal epithelium of a rabbit × 400.

5. Noteworthy changes sometimes occur in the lymphatic glands in connection with irritated epithelial surfaces. Fig. 12 represents a section from the enlarged lumbar glands of a white rat, whose vagina had been kept irritated from November 26th, 1892, until March 23rd, 1893, when it was killed. The section presents many of the appearances of an endothelioma. I am sure, however, that the changes are merely the result of the chronic irritation of the neighbouring mucous surface.

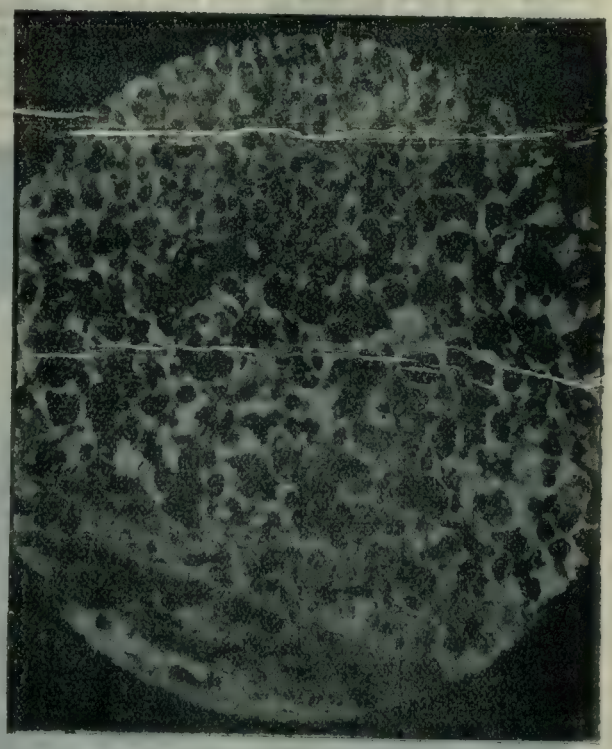


Fig. 12.—Lumbar lymphatic gland of rat whose vagina had been irritated four months. The section presents many of the appearances of an endothelioma × 400.

Effects of Inoculating Cancerous Tissues upon Irritated Mucous Surfaces.—I wish now to draw attention to certain results obtained by the introduction of cancerous tissues into the irritated vaginæ of rabbits. A piece of a secondary epitheliomatous nodule, obtained from the *post-mortem* room on a very cold day was introduced on February 16th into the vagina of a rabbit which had been kept sore by the daily application of iodine. The animal was killed during the night of February 18th-19th, by another rabbit who lived with it in the same cage. The generative organs were preserved in Foà's solution, and a subsequent examination revealed the appearances seen in Fig. 13, where it is obvious that the epithelial cells contain those well defined, and circular bodies, described by Ruffer and others, about which there has lately been so much discussion. In the particular piece of epithelium which is here photographed two of the bodies are intracellular (one large and well defined at A, the other C, much smaller) whilst another (B) lies between the cells exactly in the same way as occurs in carcinoma.

I repeated this experiment to make sure that the result was not an accident. On June 23rd a piece of absolutely fresh scirrhus was introduced into the irritated vagina of a rabbit, a wire suture being passed through the vulva to prevent the escape of the tissue. The animal was killed late in the day on June 26th, and its generative tract was also preserved in Foà's solution. Similar bodies were found in some of the epithelial cells.

I do not wish to dogmatise on the results of two experiments, for I may state frankly that I do not yet know how to interpret the appearances which these sections present, nor can I estimate the value to be attached to "cancer bodies" in general. I may say, however, that, so far as I have been able to observe, these bodies are entirely different from any epithelial appearances met with as a result of simple irritation, and that personally I have only seen them in cases where cancerous tissues have been brought into contact with mucous mem-

branes kept in a state of chronic irritation. This is suggestive of some relation between cancer and the bodies; and the fact that they are localised to one or two places in the mucous membrane of each animal, and are not scattered broadcast, is to my mind still more suggestive. It is interesting to notice, on the other hand, that, although the cells containing the bodies are healthy, their nuclei and the nuclei of the cells in their immediate neighbourhood are undergoing very active changes. Supposing, however, that these bodies were merely detached nuclei, it would be hard to explain how

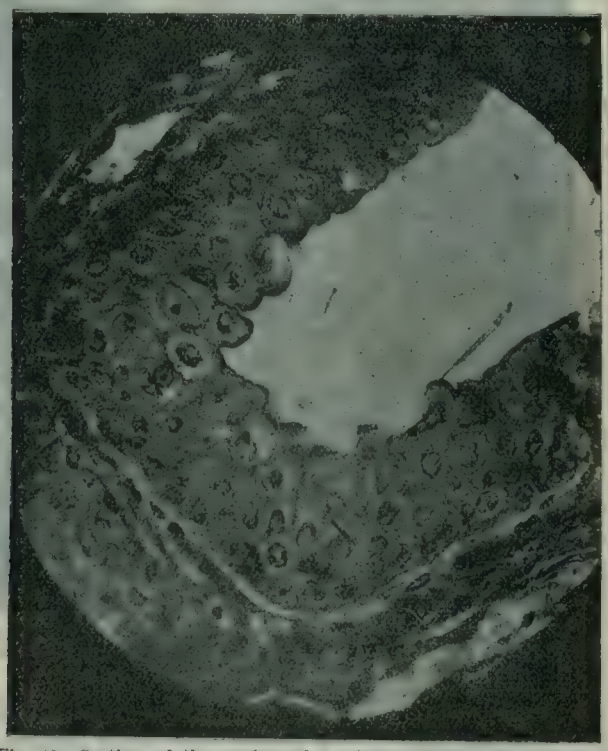


Fig. 13.—Section of the vagina of a rabbit, showing two "cancer bodies" distinctly, and one dimly. The body marked A is intracellular, whilst that marked B is situated above the junction of two cells, and C is very minute, and lies on a slightly different level from A. × 400.

they came to lie free amongst the cells, and why they are not much more numerous. However, as one of the bodies is safely ensconced in an epithelial cell, I propose to leave it there without further remark, until abler hands than mine have placed others in a similar position. I would merely add for the benefit of those who desire to repeat the experiment, that I have always been careful to select the oldest animal it was possible to obtain, and to have the mucous membrane thoroughly irritated before making any attempt to inoculate diseased tissues upon it.

I have thought it right to bring forward these few observations at the present time when there is some danger of allowing a fascinating theory, which is an excellent working hypothesis, to ride roughshod over us. Unless we know what appearances are due to simple irritation, it is impossible to get very far in a histological examination of cancerous tissues from a parasitic standpoint without falling into very serious error. Much steady, continuous, and careful observation of the changes occurring in epithelial cells is still required before we can arrive at any definite conclusion about the appearances seen in cancer. I hope to have brought into prominence a few of the pitfalls into which we are liable to fall in our search for the cancer organism, if organism there be. I feel very strongly that in all cancer investigations these points connected with cell degeneration should be borne in mind, and I have therefore chosen to entitle my paper "First Steps in a Rational Study of Cancer."

Finally, it is a pleasure as well as a duty to express to the Laboratories Committee of the Conjoint Colleges in England my very best thanks for the permission they have accorded me to work under their director, Dr. Sims Woodhead.

A FEW FACTS CONCERNING PSOROSPERMOSIS OR GREGARINOSIS.

By SHERIDAN DELÉPINE, M.B., B.Sc.,
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AND
P. R. COOPER, M.B., B.Sc.,
Manchester.

Preliminary Remarks.

The peculiar character of the lesions produced by psorospermosis (otherwise called gregarinosis) in rabbits has undoubtedly been one of the most important reasons why so many observers, from Hake down to our day, have associated psorosperms or allied organisms with tumours, and more especially with epithelial tumours.

One of us found, in 1889, that psorospermosis was extremely prevalent in rabbits, and that the hepatic lesions corresponded exactly in structure with certain epithelial tumours. But the extraordinary frequency of psorospermic lesions in the liver of rabbits then examined (50 cases), and the apparent absence of cachectic symptoms in many rabbits much affected, seemed to militate against the lesions being truly cancerous. Since these first observations he has been led, by further investigation, to the belief that the occurrence of psorosperms in the livers of rabbits, observed in Geneva, must have been somewhat exceptional in frequency.

With a view to obtaining more valuable statistics we have latterly examined numbers of rabbits coming from various localities, and it is the result of these investigations which we now desire to bring forward. We wish, however, to-day, to confine our remarks to three points, namely:

1. The distribution and significance of psorosperms in rabbits.
2. The result of the cultivation of psorosperms taken from different parts of the rabbit's body.
3. The effects of various staining methods upon psorospermic lesions.

I. Distribution and Significance of Psorosperms in Rabbits.

We have examined altogether 80 rabbits. At first only the liver and droppings were examined, but in the last 35 rabbits a systematic examination has been made of the liver, contents of gall bladder, stomach, intestine (including the various parts of the intestine seriatim in twenty-four cases), and droppings.

Knowing that Dr. Pembrey has lately observed a number of rabbits affected with psorospermosis in Oxford, we asked him to furnish us with statistics of his observations, which he has most kindly done. He has also sent for our observation some of the material he had himself collected, thus enabling us to add considerably to our data. We have drawn up, in tabular form, a list of observations upon a total of 99 rabbits.

Analysis of Table.

Out of 99 rabbits, varying in weight from 180 to 1,500 grammes, psorospermic lesions were looked for in the liver in 87 cases, and were not found in 20 cases. The gall bladder was specially examined in 32 cases, psorosperms being found in 14. The contents of the alimentary canal were specially investigated in 43 cases, psorosperms being found in all. Psorosperms have also been found in all other cases examined, but these are not included in the table because special records of them have not been kept. With only one exception, out of 41 cases in which they were specially searched for, psorosperms were invariably met with in the droppings. Out of the whole 99 rabbits, 14 only were found distinctly ill; these were generally suffering from diarrhœa.

Out of 21 cases in which psorospermic lesions were abundant in the liver, 16 were apparently quite healthy, 1 looked ill-fed, 2 were distinctly ill, and 2 moribund. One of these, however, had been starving for seventy-two hours.

On the other hand, of 17 rabbits which showed marked

signs of illness, in 4 only were psorospermic lesions abundant in the liver; in 8 there were a few lesions present, and in the rest none.

Again, out of 16 cases in which psorosperms or coccidia were markedly abundant in the alimentary canal, 4 were healthy, 8 apparently well but looked poorly nourished, 4 were distinctly ill (two having diarrhœa, 1 dying after short starvation, and one being practically moribund).

Further, out of 17 cases in which psorosperms were found abundantly in one or other part of the alimentary canal, in 11 cases the liver was unaffected, in 3 there were a few lesions, and in 3 lesions were abundant. It was also noticed that in those cases in which hepatic lesions were numerous, psorosperms were extremely abundant in the intestine; and in all the cases examined in which the liver was very much affected, the gall bladder also contained psorosperms. But psorosperms were also found in the gall bladder where the liver was entirely unaffected.

Lastly, psorospermosis appears to be more prevalent on the Continent than in England, although Dr. Pembrey's observations show that occasionally hutches may be very seriously attacked in England.



Developmental forms observed in hepatic lesions kept for forty-eight hours at the ordinary temperature: 1. Falciform bodies; 2, amœboid forms; 3, rounded forms with coarse granules or rods; 4, rounded form with fine granules and nucleus-like body; 5, naked forms dividing; 6, typical encysted form; 7, encysted form beginning to divide; 8, encysted form with four oval bodies resulting from division, and not having yet assumed the typical appearance of psorosperms; 9, old encysted form degenerated; 10, capsule empty; *a*, liver cell (small); *b*, columnar cell from bile duct; *c*, leucocyte; *d*, red blood corpuscles.

II. Results of Cultivation of Oviform Psorosperms (Coccidia).

We have cultivated psorosperms from the liver, bile, stomach, intestine, and droppings of the rabbit in the following media: water, bile, nutrient gelatine, cyst fluid, and glycerine serum.

Our results may be briefly put as follows: Psorosperms appear to develop best and to give rise to the developmental forms best known in the case of the fæces cultivated in water. If a portion of rabbits' dropping containing some of these organisms is mixed with a little water and kept in a moist chamber, the coccidia are found to divide rapidly. In twenty-four hours, even at the ordinary temperature, a fair proportion of these bodies exhibit a division of their granular contents into two, three, four or more parts. If kept in an incubator, at the temperature of the body, division occurs even more quickly, and in a larger number of psorosperms. It must be remembered, however, that the cultivation of the fæces—that is, of its contained psorosperms—in water is a very different thing from a "pure cultivation" of psorosperms, say from a liver lesion, in water. In the one case we have in effect a medium consisting of fæcal juice, a truly luxurious nidus for development; in the other we have simply an indifferent medium—water. When bile is used in place of water, division is delayed.

Cultivations of psorosperms taken direct from the rabbits' liver require a longer time to divide. The division of psorosperms is by no means always so regular and geometrical as is usually described. True, the large majority divide into four, but it is not uncommon to have at certain stages divisions into three or five or more, according as the division goes on regularly or not, and the resulting segments may be round, oval, or pear-shaped, regular or irregular, and equal or unequal. They exhibit amœboid movements. What ultimately becomes of the divided psorosperms we are, as yet, unable to say with certainty. Some appear to remain an indefinite time without undergoing further change, others seem to divide still further, giving rise to a number of either round spore-like, or curved rod-like bodies—"the falciform bodies." In several instances we have observed appearances as if one of the small amœboid bodies were making its way through the capsule, not, however, at what is usually described as the "micropyle."

We have also observed free amœboid bodies, of typical pear shape and granular appearance, and likewise free falciform bodies, often in groups, in the neighbourhood of ruptured and empty capsules. From this it will be evident that we have observed a mode of division which is very similar to the one described in the eimeria falciformis.

In many cases, also, we have observed division of large amœboid forms, not encysted, yet of the same size or larger than the encysted form.

III. Effects of Various Stains upon the Tissues and Contents of Psorospermic Lesions.

In addition to the methods already described by one of us in 1889, namely, rubin or fuchsin and methylene blue, osmic acid, iodine, etc., all of which differentiate very clearly the parasite, in certain stages of development, from the surrounding tissues, we have used Biondi's stain with almost equally satisfactory results. The chief interest of some of these methods lies in the fact that we have obtained results which tally closely with those obtained with the same methods in the case of the "cell inclusions" of cancer. This agreement in staining reactions is undoubtedly an argument in favour of the general resemblance between the "cell inclusions" of cancer and the sporozoa. We may state incidentally, however, that our repeated efforts to artificially develop the "cancer bodies" by the methods which so readily succeed in the case of the rabbits' psorosperm have not as yet been attended with definite results.

We purposely avoid at present any further allusion to the relation between psorospermosis and cancer. We wish, however, expressly to state that we use psorosperms as terms of comparison, because they are the only protozoa which, so far, can safely be said to be connected in some way or other with a typical tumour growth.

General Conclusions.

From the preceding facts we think it may fairly be concluded:

1. That oviform psorosperms (coccidium oviforme) are invariably present in the alimentary canal of the rabbit; that they are frequently present in the bile passages and gall bladder, and that they produce lesions in the liver in only a

TABLE OF OBSERVATIONS ON THE DISTRIBUTION OF PSOROSPERMS IN RABBITS.

Made at Various Times of the Year and in Various Places—Geneva, London, Manchester, Oxford.

No. of Observation.		Place.	Date.	Weight or Size of Rabbit.	Weight of Liver per cent. of Body Weight.	Psoro-spermic Lesions in Liver.	Psoro-sperms in Bile in Gall Bladder.	Psoro-sperms in Stomach.	Psoro-sperms in Duode-num.	Psoro-sperms in Cæcum.	Psoro-sperms in Droppings during Life.	Condition of Rabbit.
				Grammes.								
II	1	Geneva	Aug., 1889	710	3.38	Extremely abundant.						Ill, but starving.
XI	2	"	"	886	4.32	Very abundant						Healthy.
VII	3	"	"	774	2.81	"						"
XXXV	4	"	"	1,434	2.89	Abundant.						"
XXXVII	5	"	"	1,560	3.20	Pretty abundant.						"
XXXIV	6	"	"	1,675	3.04	"						"
XXXIII	7	"	"	1,468	3.20	"						"
XXXVI	8	"	"	1,415	3.13	"						"
XXVII	9	"	"	1,068	3.38	"						"
IX	10	"	"	740	2.89	"						Ill.
IV	11	"	"	900	4.37	"						Healthy.
VIII	12	"	"	688	3.00	"						"
XXXII	13	"	"	948	3.70	"						"
XXIV	14	"	"	1,215	3.80	A few						"
XXV	15	"	"	780	3.15	"						Tendency to diarrhœa.
XXVI A	16	"	"	876	4.60	"						Healthy.
XXIII	17	"	"	870	2.33	"						Tendency to diarrhœa.
XVII	18	"	"	755	2.50	"						Healthy.
XXII	19	"	"	1,076	3.45	"						Tendency to diarrhœa.
XX	20	"	"	917	4.00	"						Healthy
I	21	"	"	830	4.30	"						"
XXVI B	22	"	"	1,480	2.73	Very few						"
XXVIII	23	"	"	936	4.57	"						"
XXIX	24	"	"	1,070	3.08	"						"
XXX	25	"	"	868	2.66	"						"Wet snout," otherwise healthy.
XIX	26	"	"	1,032	2.22	"						Healthy.
XV	27	"	"	750	2.35	"						Very ill, diarrhœa.
XVI	28	"	"	1,167	2.33	"						Healthy.
III	29	"	"	728	3.70	"						"
V	30	"	"	810	2.72	"						Ill.
X	31	"	"	1,063	2.35	None						Healthy.
XVIII	32	"	"	870	2.32	None						"
2,141	33	London	June, 1889	400 to 500	—	Abundant						"
2,142	34	"	"	"	—	Pretty abundant.						"
2,137	35	"	"	"	—	A few						"
2,139	36	"	"	"	—	"						"
2,138	37	"	"	"	—	"						"
2,140	38	"	"	"	—	"						"
2,787 A	39	"	April, 1891	"	—	Very abundant.	Present	Present	Present	Present	Present	Looking ill
2,787 B	40	"	"	"	—	A few	?	"	"	"	"	"
2,787 C	41	"	"	"	—	None	?	"	"	"	"	"
2,787 D	42	"	"	"	—	"	?	"	"	"	"	"
2,928	43	"	Dec., 1891	450	—	"	?	"	"	"	"	Healthy.
2,929	44	"	"	456	—	?	?	"	"	"	"	"
2,930	45	"	"	400	—	?	?	"	"	"	"	"
2,932	46	"	"	450	—	?	?	"	"	"	"	"
2,934	47	"	"	450	—	?	?	"	"	"	"	"
2,931	48	"	"	428	—	Pretty abundant.	Abundant	"	"	"	"	"
2,933	49	"	"	570	—	Very abundant.	Present	"	"	"	"	"
—	50	"	July, 1893	276	—	None	None	None	Pretty abundant.	Extremely abundant.	Extremely abundant.	
—	51	"	"	427	—	"	"	A few	A few	Fairly abundant.	Small number.	
—	52	"	"	450	—	"	"	A few	More than in stomach	Very abundant.	Very abundant.	
—	53	"	"	325	—	"	"	Pretty abundant.	Pretty abundant.	"	"	Thin, but no marked symptoms of disease.
—	54	"	"	535	—	"	"	"	A few	Pretty abundant.	A few	
—	55	"	"	711	—	Abundant	Very abundant.	Abundant	Very abundant.	Extremely abundant.	Extremely abundant.	
—	56	"	"	505	—	A few	Abundant	A few	A few	Pretty abundant.	Pretty abundant.	
—	57	"	"	470	—	None	None	Extremely abundant.	Extremely abundant.	Extremely abundant.	Extremely abundant.	
Expt. 4	58	Manchester	May, 1892	over 1,000	—	?	Present	Present	Present	Present	Present	Healthy
" 1	59	"	June, 1892	"	—	?	?	"	"	"	"	"
" 2	60	"	"	"	—	?	Present	"	"	"	"	"
" 3	61	"	"	"	—	?	"	"	"	"	"	"
" 5	62	"	Sept., 1892	"	—	A few	"	"	"	"	"	"
" 6	63	"	"	"	—	Abundant	"	"	"	"	"	"
" 7	64	"	"	"	—	? Old calcified lesion.	None	"	"	"	"	"
" 8	65	"	"	"	—	?	?	"	"	"	"	"
—	66	"	May, 1893	600 to 700	—	None	A few	Very abundant.	Abundant	Very abundant.	Abundant	Died of diarrhœa

Observed in a number of cases, but not individually recorded.

Observed in all the cases examined, but no records kept.

Observed very frequently, but no records kept.

TABLE OF OBSERVATIONS ON THE DISTRIBUTION OF PSOROSPERMS IN RABBITS.

Made at Various Times of the Year and in Various Places: Geneva, London, Manchester, Oxford.—Continued.

No. of Observations.		Place.	Date.	Weight or Size of Rabbit.	Weight of Liver per cent. of Body Weight	Psorospermic Lesions in Liver.	Psorosperms in Bile in Gall Bladder.	Psorosperms in Stomach.	Psorosperms in Duodenum.	Psorosperms in Cæcum.	Psorosperms in Droppings during Life.	Condition of Rabbit.
—	67	Manchester	May, 1893	Grammes. over 1,500	—	? Old calcified lesion.	None	A few	None	A few	?	Healthy
—	68	,,	,,	,,	—	,,	,,	,,	,,	,,	?	,,
—	69	,,	June, 1893	450	—	A few	None	,,	Very few	Very abundant.	Abundant	,,
—	70	,,	,,	over 1,000	—	None	,,	None	None	A few	A few	,,
—	71	,,	,,	400	—	,,	,,	,,	,,	,,	,,	,,
—	72	,,	,,	over 1,000	—	,,	,,	A few	None	Pretty abundant.	Pretty abundant.	Died of diarrhœa.
—	73	,,	,,	180	—	,,	,,	Abundant	Very abundant.	Extremely abundant.	None	Died of starvation.
—	74	,,	July, 1893	600	—	,,	,,	,,	Abundant	,,	Abundant	Healthy
—	75	,,	,,	1,470	—	A few	A few	Very few	A few	Very few	A few	,,
—	76	,,	,,	1,000	—	None	None	A few	None	Pretty abundant.	,,	,,
—	77	Oxford	,,	710	—	,,	,,	,,	Abundant	Very abundant.	Very abundant.	,,
—	78	,,	,,	615	—	,,	,,	,,	Pretty abundant.	Pretty abundant.	Pretty abundant.	,,
	79	,,	,,	460	—	Abundant	Abundant	Abundant	Abundant	Extremely abundant.	Extremely abundant.	Moribund
	80	,,	,,	930	—	Pretty abundant.	Very abundant.	Pretty abundant.	,,	Abundant	Very abundant.	Healthy

Observations made in Oxford by Dr. M. S. Pembrey.

Litter I.—1	81	Oxford	Jan., 1893	7 weeks old	—	Present	—	—	—	—	—	Thin, but no symptoms of disease.
,, 2	82	,,	,,	,,	—	,,	—	—	—	—	—	
,, 3	83	,,	,,	,,	—	,,	—	—	—	—	—	
,, 4	84	,,	,,	,,	—	,,	—	—	—	—	—	
,, 5	85	,,	,,	,,	—	,,	—	—	—	—	—	
,, 6	86	,,	,,	,,	—	,,	—	—	—	—	—	
,, 7	87	,,	,,	,,	—	,,	—	—	—	—	—	
,, 8	88	,,	,,	,,	—	?	—	—	—	—	—	
Lit. II.—1	89	,,	April, 1893	,,	—	Present	—	—	—	—	—	
,, 2	90	,,	,,	,,	—	,,	—	—	—	—	—	
,, 3	91	,,	,,	,,	—	,,	—	—	—	—	—	
,, 4	92	,,	,,	,,	—	,,	—	—	—	—	—	
,, 5	93	,,	,,	,,	—	,,	—	—	—	—	—	,,
,, 6	94	,,	,,	,,	—	,,	—	—	—	—	—	
,, 7	95	,,	,,	,,	—	,,	—	—	—	—	—	
,, 8	96	,,	,,	,,	—	?	—	—	—	—	—	
,, 9	97	,,	,,	,,	—	,,	—	—	—	—	—	
Lit. III. ...	98	,,	May, 1893	Full grown	—	Present	—	—	—	—	—	Healthy
Lit. IV. ...	99	,,	July, 1893	7 weeks old	—	,,	—	—	—	—	—	Had "wet snout"

certain number of cases, varying from about 20 to 90 per cent. or more.

2. That the prevalence of coccidia and their lesions in the liver seems to be greater in young rabbits from 600 to 1,200 grammes weight, less in younger rabbits, and least in older and well-developed rabbits. This seems to show that a large number of rabbits recover from the invasion of the parasite, a fact which is supported by the discovery of fibrous nodules, often calcified, containing *débris* of psorospermic capsules in livers otherwise apparently healthy.

3. That the presence of even a large quantity of coccidia in the alimentary canal is apparently not incompatible with the perfect health of the rabbit.

4. That it is easy to obtain very clear developmental changes in psorosperms allowed to remain for twenty-four or forty-eight hours in tissues after the death of an affected animal.

ADDENDUM.

Experiments have often been made on the feeding of rabbits with psorospermic material. In these cases the utmost precautions taken against fallacy have been to see that the animal came from a "healthy stock." Now, the invariable presence of coccidia in the alimentary canal, as proved by our investigations, makes us greatly distrust these experiments. It is, indeed, more than probable that when, as some record, new psorosperms were produced by feeding healthy rabbits with food containing live psorosperms, these "new psorosperms" were in reality the parasites previously existing in the alimentary canal of that rabbit.

The same objection can be made to statements which imply that psorospermosis is a very fatal disease in rabbits. Psorosperms being always present, they are sure to be found in all rabbits that die. One of the rabbits observed by one of us died after an accidental fast of seventy-four hours; its liver was full of psorosperms; other rabbits had their liver equally full of psorosperms; they were not starved, they did not die. Other rabbits still had few or no psorosperms in their liver, and they died under the influences of causes apparently slighter than a prolonged fast. These facts show how carefully one must weigh all factors before coming to any conclusions in a matter of this kind. Psorosperms undoubtedly may bring about fatal lesions, as one of us has pointed out several years ago, but their presence is not necessarily a sign of disease.

OBSERVATIONS ON THE CELL ENCLOSURES MET WITH IN CARCINOMA.

By C. H. CATTLE, M.D., M.R.C.P.,
Nottingham.

THIS paper was illustrated by lantern slides, photographs, drawings, and microscopic specimens. Attention was drawn to certain appearances known as cell invagination, in which a flattened cell is pressed against the outer wall of another cell, so that the latter appears to be partially or wholly enclosed in the former. In lymphatic glands, many of the cancer cells contained more than one nucleus, and sometimes a cell wall could be seen in process of formation around one or more of these nuclei. In these secondary growths in lymph glands, multiplication of cells by the endogenous method seemed to be very common; direct division of cells, as opposed to karyokinesis, was also thought to be common,

both in primary and secondary growths. A number of slides were shown illustrating the differences between the bodies classed as parasites and other tissue elements met with in carcinoma. The nuclei of the parasites did not stain like the nuclei of epithelial cells, hence the speaker found it difficult to believe they were both of the same nature. The belief in the parasites of cancer would be strengthened if any evidence could be found that the supposed parasite passed through a reproductive stage. Appearances were shown which might turn out to be of this nature. The nucleus of the parasite, generally one of the larger forms, appeared to undergo a regular process of segmentation, and became very like a group of closely-packed micrococci. At a later stage, rounded refractile particles appeared to escape by diapedesis from the containing cyst, and to enter neighbouring cells. Sometimes the parasite could be found in the cells of the acini bordering on a scirrhous tumour of the mamma, and such cells seemed to be in process of becoming cancerous. It seemed probable from this that cancer extended in the breast not only by the dissemination of cells already cancerous, but also by the successive implication of new acini. Some time was devoted to considering the differences between the parasitic enclosures and degenerated tissues, and in detailing the steps the speaker had taken to avoid errors which might arise when tissues had undergone fatty and other forms of degeneration. In conclusion, it was thought that the bodies which had been described as parasites presented essential differences from epithelial cells; that these two elements, while mutually linked together, had each their proper methods of growth and reproduction; and that in gland acini, where the cancer process appeared to be in its earliest stage, there the "parasite" was also to be found.

[For the photographs and lantern slides used in illustrating this paper the writer was indebted to Dr. J. Millar, of Nottingham.]

VENTROFIXATION OF THE UTERUS, OR HYSTEROPEXY.

Read in the Section of Obstetrics at the Annual Meeting of the British Medical Association, held in Newcastle-on-Tyne, August, 1893.

BY A. D. LEITH NAPIER, M.D., M.R.C.P., F.R.S.E.,
AND
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INTRAPERITONEAL ventrofixation is divisible into two great varieties: (A) indirect and (B) direct.

(A) Indirect fixation aims at fixing the uterus by means of its ligaments or through the pedicle of an ovarian cyst, etc., in course of another operation.

(B) Direct fixation requires suturing of the uterus itself. This may be a complement to another operation—for example. oöphorectomy or ovariotomy (see Cases 3, 7, and 19)—or may be done as a distinct and in many cases highly conservative operation.

Direct corporeal uterine fixation is practised after one of two great methods: (I) lateral, (II) median.

(I) Lateral fixation is the method originally described by Olshausen and, two years later, by Sänger. The sutures are passed through each side of the uterus at its lateral borders. There is some danger of wounding the epigastric artery and tube; also, as a sort of button-hole aperture is necessarily left between the uterus and the abdominal wall, there is some risk of subsequent intestinal strangulation.

(II) Direct median uterine fixation is unquestionably the simplest and most secure method.

AUTHORS' METHOD.

The operation we advocate and practise consists of the following steps:

(1) Opening the abdomen in the ordinary way. Sometimes a very short incision will suffice—from 2 to 2½ inches will usually be required by those not wholly accustomed to the operation. The larger the uterus, and more especially the greater the number of firm adhesions, the greater the necessity for a longer incision.

(2) Introducing two fingers within the abdomen, passing them down behind the fundus; if the fundus is adherent, gentle separation of adhesions. Bringing up the freed uterus by two fingers, or partly by the fingers assisted by a small round sponge held on an aseptic handle. If the uterus is of good size and non-adherent or but slightly so, it is an easy matter to lift it up on the points of the middle and index fingers We formerly used an intrauterine sound to assist in raising the uterus, but do not now think this necessary, except perhaps when the pelvis is very deep, and then it might be useful.

3. Supporting the fundus uteri from behind by the two finger points and small sponge on holder. Passing a suture through the uterine wall at the fundus, going tolerably deep into its muscle but avoiding its whole thickness. The assistant now takes charge of this temporarily controlling suture, and by pulling on it drags the freed and normally replaced uterus upwards, thus maintaining it during the subsequent steps of the operation in the position in which it is to be fixed. Two other sutures at least are passed through the uterus, these are differently introduced from the first. The uterus, as described, is pulled upwards and retained in this position by traction on the fundal suture. A Hagedorn's needle is again used on holder as for the first suture. It is made to pierce the edge of the rectus sheath, fascia, and peritoneum on the left side, only a slight hold is taken of the muscle and a firm hold of the other structures, the needle is then passed into the uterine wall as low down on the corpus uteri (that is, as near the intraperitoneal cervix as possible); an in-and-out suture is employed. On reaching the right side of the uterus the peritoneum, fascia and edge of the rectus are again pierced, now on the right side of the abdominal incision, and the two ends of the thread secured for the time by catch forceps. A second uterine suture, midway between the upper and lower sutures, is then passed in exactly the same way. If the uterus is bulky and heavy four or even five uterine sutures may be passed. Three are usually sufficient. The divided parietal peritoneum below the level of the lowest uterine thread is sutured with the ordinary deep abdominal suture of silkworm gut. The upper uterine thread is now threaded on a Hagedorn's needle held on a holder, or handled needle, and passed through the deeper abdominal layers from within outwards, embracing serous, fibrous, and the edges of the muscular layers, as already described with regard to the other uterine threads, it is tied, the knot being external to the rectus edges; and the sutures buried there. The other uterine threads are now tied. The abdominal sutures immediately in front of the uterus pass through skin and superficial fascia, and, preferably, take a slight hold of the upper surface of the muscle layer. The peritoneum is carefully sponged.

4. The abdominal sutures are tied. They should be closely placed, and the skin edges should be exactly approximated, so that healing by first intention may be obtained. Superficial skin edge sutures and strapping should be used. Dressings consist of dry aseptic gauze, which is left undisturbed for from five to seven days. Sterilised silk, silkworm gut, or chromicised catgut may be used for the uterine sutures. We will again revert to this.

CONDITIONS JUSTIFYING INTRA-ABDOMINAL VENTROFIXATION.

No general rule for operation such as applies in ovarian cystoma can possibly be made in respect to the classes of cases in which this operation is justifiable, for each case in some degree differs from every other, and neither the nature nor the extent of the displacement can be computed as the only basis on which to found an opinion. Take, for example, some extreme cases of procidentia uteri in which the patients have continued doing hard work for several years, and have come to regard their condition with comparative indifference until some other illness has brought them under observation. On the other hand, a slight prolapse or a retroflexion of but secondary physical degree may be accompanied by such symptoms of acute pain on walking, such evidences of well-marked reflex nervous phenomena, such recurrent periuterine and uterine inflammations, bladder and rectal irritations, neuralgias, hysterias, aphonias, hystero-epilepsies, etc., that unless we can relieve the physical condition by less heroic measures, ventrofixation may be clearly indicated.

Take as an instance the first case recorded in the annexed table as illustrating the sort of case in which ventrofixation is not only a curative but a conservatively curative operation. A woman, aged 30, the wife of a man in humble circumstances, and mother of six children, who for about two years was a chronic invalid, who was not only wholly unable to perform her household duties, but suffered constantly, so that she was a continual expense to her husband for medical attendance. In this instance, after exhausting the resources of minor gynæcology, her medical attendant felt that oöphorectomy ought to be performed. She had an acutely retroflexed uterus, which pressed on inflamed prolapsed ovaries, and which unquestionably originated or aggravated the many complicating reflex conditions. Instead of removing what after all were practically healthy ovaries, ventrofixation was performed: the result being that not only did the symptoms of inability to walk and all the more distressing accompaniments of pelvic trouble disappear, but the patient became pregnant, was delivered at term, and is now perfectly well. A reference to the table will show other almost equally gratifying results.

We would then state, as a working axiom, that when uterine retroflexion or procidentia occasions such symptoms as unfit a woman for her life work, whatever it may be, and when a patient use of pessary treatment, as well as attention to the inflammatory or congestive affections of the uterus

and its appendages, and in suitable cases minor operative measures, for example, perineorrhaphy, etc, have proved non-curative, ventrofixation of the uterus is a justifiable operation. If this is admitted, it will be equally plain that if uterine prolapse or retroflexion exists in conjunction with an ovarian cyst or other abdominal tumour requiring section, it is advisable to complete the cure either by fixing the pedicle in the wound as in Cases 16, 17, and 20, or by directly suturing the uterus after ovariotomy, as in Case 19.

We do not wish to convey the impression that ventrofixation is to be employed unless the uterus itself is displaced. An enlarged cervix may require amputation. After such a procedure the uterus may decrease in size, so that the former procidentia no longer causes trouble. In a recent case—not included in the table—it had been decided to fix the corpus uteri, but, before doing so, a biconical cervical amputation was performed; the uterus became so much less bulky that the ventrofixation has been indefinitely postponed. Nor is uterine fixation to be employed as a radical cure for cystocele or rectocele. It is true that very few cases of procidentia are free from these complications, but, as may be seen by reference to the table, colporrhaphy has been also performed on several of the patients.

In Case 13, in which cystocele was a marked feature and the uterus prolapsed, ventrofixation effectually relieved the uterine displacement, the cystocele still remains, but is well kept up now by a ring pessary. Before the operation no instrument was found sufficient. In this case it is not unlikely that a Stoltz's operation may be performed if after a time the cystocele should prove troublesome. In many cases a complementary operation on the cervix, the vagina, or the perineum will be required.

The youth of the patients may be esteemed a justification for attempting a radical cure. The large majority of the women whose cases we record were of such an age, and they were all of such a position in life that to restore their capability for hard work was of great importance. In each case all former treatment had failed to effect a cure.

Ages of Patients in Table.

Under 30	3	17 under 40 years of age.
40	14	
„ 50	1	
Over 50	2	

The physical condition of the uterus and the nature of the displacement must be duly considered. Chronic endometritis is very frequently present; in such circumstances, preliminary treatment by curetting, etc., is always advisable. In Case 10, for example, the uterus was retroflexed and prolapsed and adherent in Douglas's pouch; the sound entered 4½ inches. On January 19th, the cervix was dilated, the uterus explored, curetted, and swabbed with iodine liniment. The patient improved considerably, the former metrorrhagia ceased, and menorrhagia lessened, but the uterus still remained in its former position, and considerable constant pain was felt from pressure on the enlarged right ovary. A pessary was worn during February and part of March, but did not relieve her. The patient, a teacher, was wholly unfitted for her work, which required her to stand for several hours a day. Ventrofixation was effected on March 27th, and when seen last month, Mrs. B. had resumed her employment and was wholly free from pain or discomfort.

The position of the uterus has also been deemed to be of importance. Up till now, operators have held that cases of retroflexion have derived more lasting benefit than cases of prolapse.

Of our 20 recorded cases, there were retrodisplacements in 11, prolapses in 9. Success in plastic surgery is not to be determined by a short duration of relief from the pre-existing abnormal conditions. We feel that it would be unwise to attempt to estimate the results in, at any rate, the last 10 cases, as the operations have been too recent to be fairly discussed. We will then consider only the first 10 cases. Of these there were 5 cases of retrodisplacement and 5 cases of prolapse. The first case has been already referred to; the operation was done in February, 1892, seventeen months ago; the last of these four months ago.

Our statistics are not unduly favoured by selecting these, for the only case of failure up to the present is included. Of 5 cases of retrodisplacement, all were cured; of 5 cases of prolapse, 4 were cured, 1 failed. All these cases made favourable recoveries. Case 1 became pregnant, was delivered at term, and the uterus remains fixed. Case 3 became pregnant after four years of "relative" sterility (having had three children before), but miscarried at the third month without evident cause. The uterus remains fixed in good position, and the patient is very comfortable. Cases 2, 4, 5, 7, 8, 9, and 10, operated on from one year and four months ago to four months ago, all remain with relief from all previous subjective and objective uterine symptoms; the uterus in each remains closely adherent.

Case 6, on being examined in June, 1893, was found to have a return of the procidentia. She had left hospital after a complementary operation on the cervix, involving removal of a cervical fibromyoma in the end of October, 1892. In this case it is probable that the dragging on the cervix incident to the removal of the tumour may have broken down the artificially formed uterine adhesions dating from August of the same year. Further experience shows that in such cases it is desirable to perform any necessary cervical operation before performing ventrofixation. This case may therefore be regarded as to some extent due to a non-observance of this rule, and should not be reckoned as a failure after uncomplicated ventrofixation for prolapse.

The efficacy of such an operation must depend on several factors and conditions beyond the mere condition and position of the uterus. We can only incidentally mention a few. Many cases of procidentia are aggravated or largely due to chronic bronchial catarrh with severe coughing. It is not surprising, therefore, to find that in 3 of the 20 cases—8, 9, and 13—there was considerable bronchial catarrh during convalescence. No doubt this may have been partly due to the anæsthetic—ether. Despite the chest troubles, all these patients did well. In No. 8 the strain of the cough was so severe that it caused some gaping of the superficial wound after removal of the stitches. In this case the sutures were left for six days, and strapping supported the abdomen.

Sutures.—All the sutures used in closing the abdomen were silkworm gut. For the uterine fixation silkworm gut, silk, and chromicised catgut were employed in the following proportions:—

Silkworm gut was used in	8 cases,	in all 39 sutures.	
Silk „ „	6 „	3 „	20 „
Chromicised catgut „	2 „	8 „	8 „
Combination of silkworm gut and silk in	2 „		
„ „ and chromic. e.g.	2 „		
	20 cases,	in all 67 sutures	

In considering the efficacy of the different materials used for suturing the uterus, we must first admit that while silkworm gut has been far less frequently followed by the formation of a sinus, in the one case of failure (which, however, as has been explained, may be in part attributed to other causes) silkworm gut alone was used. In the earlier cases the proportion of sinuses was larger. This may have been partly due to imperfect preparation of the silk then generally used. We note 6 cases of sinuses, all temporary—4 after silk, 2 after silkworm gut and catgut.

Method of Fixation.—This has already been touched on, but it may be of interest to summarise the mode adopted in the 20 cases:—

Direct primary uterine fixation in Cases 1, 2, 4, 5, 6, 8, 10, 11, 12, 13, 14, 15, 18=13.

Direct secondary uterine fixation, after primary ovariotomy, Case 19 =1.

Direct primary uterine fixation, with removal of diseased appendages, Cases 3, 7, 9=3.

Indirect uterine fixation by means of the pedicle after oöphorectomy, Cases 16, 17, 20=3.

Position of Uterine Sutures.—In the cases in which the union with the abdominal walls appears firmest the body of the uterus is found lying just under the peritoneum and parallel with the abdominal wall. When the patient lies in the dorsal decubitus, the cervix points backwards and upwards, the uterine body being in a normal or slightly pronounced anteverted position. It would seem, therefore, that the sutures should be inserted as low down on the anterior surface of the uterus as possible, so as to get the greater portion of it adherent to the abdominal wall. Reverting to the question of choice of suture material, it will be evident that up to the present we are inclined to regard silkworm gut as, on the whole, most suitable. But if chromicised catgut

TABLE OF CASES.

No. and Date.	Operator.	Name of Patient and Age and Pregnancies.	Previous History.	Condition of Uterus and Appendages.	Special Points of Operation.	Complications, if any, after Operation.	After-History.
1. Feb. 25, 1892.	Dr. Leith Napier.	A. M., 30, P. 6.	Invalid over two years—mostly in bed. Very neurotic.	Acutely marked retroflexion. Ovaries prolapsed and tender.	Uterus pushed up, per vag. by sound. Three buried sterilised silk sutures. Superficial sutures of silkworm gut.	None.	1893. Became much stronger and able to do housework; no return of displacement. Fell pregnant, confined naturally at term, on May 1. Examined June 15. Uterus in excellent position, adherent in front, normal involution. Left ovary felt rather enlarged.
2. Mar. 28, 1892.	Dr. Edis.	A. B., 32, P. 4.	Chronic invalid for five years since confinement, gradually getting worse—under observation over two years.	Procidentia, with cystocele and rectocele. Slight enlargement of one ovary.	Uterus fixed by three buried silk stitches.	Small *sinus* discharged a little pus about three weeks after operation. Patient came in subsequently to have Stoltz's operation for cystocele.	June 24. Has been much better since operation. Per hypo. Cicatrix small, 1½ inch, firm, evidence of small *sinus*, abdominal wall lax. Per vag. Uterus in good position, cervix small, *left ovarian cyst size of tangerine orange*. Ring pessary.
3. July 3, 1892.	Dr. Schacht	M. M., 31, P. 3.	Last four years unable to work owing to pain in lower abdomen and back.	Retroflexion. Prolapsed and very tender ovaries left ovary enlarged.	Left ovary cystic removed with tube. Uterus fixed with three silk sutures buried.	None. Hodge's pessary inserted before leaving.	June 24. Very comfortable. *Miscarriage* in Feb., at three months, after being sterile four years. Per hypo. Abdomen flat and firm, scar 1½ inch, sound. Per vag. Uterus in good position.
4. July 21, 1892.	Dr. Leith Napier.	S. C., 39, P. 11.	One and a-half year at New Hospital for Women, in-patient for seven weeks—wore pessaries, which aggravated symptoms. Now much abdominal pain.	Uterus acutely retroflected. Fundus sensitive.	Abdominal wound 2 ins. Sutures in uterus, three silk—buried.	The wound had quite healed by eleventh day. (The *sinus* mentioned in next col. did not show itself till eight months after.)	June 24. "Never so well in health," had been unable to work for three years. Per hypo. Cicatrix 2 ins., small *sinus* at lower angle formed three months ago—dry. Per vag. No vaginal prolapse. Uterus firmly fixed to abdominal wall, cervix large.
5. Aug. 4, 1892.	Dr. Leith Napier.	E. G., 34, P. 0.	Two years ago had sudden attack of bearing down pain, especially in left side, never missed a period. For some months unable to walk—leucorrhœa profuse. Out-patient London Hospital. No relief from instruments.	Uterus retroverted and prolapsed enlargement and thickening of uterus and ligaments. Ovarian prolapse.	Extensive adhesions of uterus and appendages. Three sterilised silk sutures in uterus buried.	*Sinus* formed at upper and lower angle of wound after fourteenth day, slit up, under ether. Tube inserted. Three months after *silk stitch* found in wound.	June 24. Now in comfort, about to resume work, feels better than she has done for for many years. Per hypo. Cicatrix firm, 2 ins. Per vag. Uterus feels normal in position, cervix natural, no prolapse of vagina or ovary.
6. Aug. 18, 1892.	Dr. Fenton	C. S., 56, P. 1.	Full time child 26 years ago. Since then there has been falling of womb. Many instruments worn. Prolapse becoming more severe. Sacralgia, profuse leucorrhœa.	Procidentia, with cystocele and rectocele, and fibromyoma of cervix.	Four silkworm gut sutures secured uterus to abdominal parietes.	Amputation of cervical fibromyoma on October 7. Ring inserted before leaving hospital.	June 24. Per hypo. Cicatrix sound. Per vag. Complete *procidentia*, and there is evidently no union between uterus and abdominal walls.
7. Oct. 17, 1892.	Dr. Travers	C. C., 38, P. 10.	Since last confinement has suffered from falling of womb, worn numerous pessaries, none could be retained.	Retroflexion, with cystocele and rectocele. Small left ovarian cyst; right ovary not felt.	Cyst size of tangerine orange, removed. Uterus fixed by three silk sutures.	After two weeks had attack of vomiting and some abdominal pain, cause indefinite, lasting two days. Patient very neurotic.	June 24. Letter from doctor says position of uterus is very good.
8. Jan. 16, 1893.	Dr. Schacht	E. W., 34, P. 1.	For some time great difficulty in doing work on account of condition, which no instrument relieved.	Procidentia. Cystocele. Short perineum.	Uterus pushed up, per vag., and fixed by three silkworm gut sutures.	Bronchitis followed operation, cough caused pain in wound and superficial portion of wound to give way. Stitches taken out too soon; healed up gradually.	June 24. Patient has left former address. When last seen, condition of uterus very satisfactory.
9. Feb. 13, 1893.	Dr. Travers	S. C., 51, P. 1.	Under treatment many years, suffered from falling of womb 14 years. Complains of feeling of constant pressure in vagina.	Procidentia, with cystocele and rectocele. Enlarged left ovary.	Left tube and ovary (small cyst) removed. Uterus fixed by three stitches, upper one silk, lower two silkworm gut. Vagina packed with gauze.	Cough troublesome. Few drops of pus found at lower angle of wound about seventh day, healed in the course of a few days, thirty-third day upper part of wound became irritable and pus formed. Ring inserted before leaving.	*Sinus* which formed at upper angle continued to develop till June 13, when silk suture used showed itself, and came away on June 24. Patient readmitted May 18, V. E. uterus in excellent position, cystocele and rectocele treated by Stoltz's ant. colporrhaphy and perineorrhaphy respectively. June 24. All parts in very good position and condition.

TABLE OF CASES.—*Continued.*

No. and Date.	Operator.	Name of Patient and Age and Pregnancies.	Previous History.	Condition of Uterus and Appendages.	Special Points of Operation.	Complications, if any, after Operation.	After-History.
10. Mar. 27, 1893.	Dr. Leith Napier.	S. B., 35, P. 4.	Prolapse since birth of third child, severe pain for three years in l. i. reg., fourth child born 2½ years ago. Greatly increased loss at periods, severe pain, inability to stand or walk any distance. January 19, uterus curetted after dilatation.	Endometritis. Retroflexion with adhesions. Tubes adherent, left perimetritis.	Uterine adhesions broken down. Uterine stitches, two silkworm gut, one No. 3 catgut.	Sixteenth day pus formed in upper portion of wound, wound closed again by twenty-fourth day.	June 24. Much better, can do work well. Per hypo. Abdominal walls lax, cicatrix 1½, *superficial sinus* ¾ in. deep. Per. vag. Uterus in excellent position, firmly adherent.
11. April 6, 1893.	Dr. Travers	A. H., 29, P. 4.	Miscarriage 18 months ago at 2½ months, uterus then displaced, an in-patient for some time, suffered much pelvic pain. Instruments not tolerated.	Retroflexion. Both ovaries prolapsed and tender.	Uterine stitches, one silk and two silkworm gut.	Patient died on fifth day. General peritonitis. Abscess formed in abdominal wall. Uterus apparently well fixed up to wall.	Death.
12. April 15, 1893.	Dr. Fenton	R. G., 37, P. 3.	Ill seven years with prolapse, first noticed when pregnant with third child; for a year has done no active work in consequence of pain. Pessaries ineffective and badly tolerated.	Procidentia, with cystocele, and rectocele.	Uterine stitches, five silkworm gut.	None.	June 24. Able to work now. Per hypo. Cicatrix sound, 2 ins. Per vag. Uterus well fixed behind scar.
13. May. 8, 1893.	Dr. Leith Napier.	E. M., 35, P. 4.	Ill 11 years, since first confinement. Perineorrhaphy by Dr. Gervis ten years ago: been an out-patient at St. Thomas's and Westminster Hospitals off and on ever since. Instruments are very badly tolerated.	Procidentia, with cystocele, and rectocele.	Some uterine adhesions, tissue very soft and friable, so that sutures twice cut through. Uterus fixed with three No. 2 ch. cat (knotted and buried).	Had attack of bronchitis during convalescence. Ring pessary inserted before leaving hospital.	June 13. Uterus well fixed up, some degree of cystocele July 8, Uterus well fixed, some cystocele remains, which is kept up by support. Entire relief of symptoms.
June 1, 1893.	Dr. Fenton	S. A., 42, P. 2.	Last 2½ years falling of womb, much dragging, and pelvic pain, wholly unrelieved by prolonged treatment.	Procidentia, with cystocele.	Some omental adhesions. Uterine stitches, four silkworm gut, buried. Ring inserted.	None.	June 28. Uterus in very good position, firmly adherent.
15. June 5, 1893.	Dr. Leith Napier.	E. H., 39, P. 4.	Ill for five years, frequent recurrent attacks of perimetritis, dysmenorrhœa, often laid up, unable to work. An out-patient for over three years at Chelsea Hospital. Urinary retention and dysuria.	Uterus retroverted and most firmly adherent to left side of pelvis. Tubes and ovaries very firmly bound down with uterus.	Uterine stitches, three chromicised catgut. Hæmorrhage. Abdomen reopened within 2½ hours.	Free hæmorrhage at first from adhesions subsequently from vessel. Reopening of abdominal wound, large vessel discovered which was secured. Transfusion intravenous of ¾ pint of saline solution. Death on second day.	Death.
16. June 19, 1893.	Dr. Travers	E. W., 36, P. 10.	Cat. reg. till four months ago, irregular since, flooding in May, which continued for ten days, since then slight loss, more or less continuous. Unrelieved retroflexion several years.	Acute retroflexion, uterus enlarged. Left tube and ovary enlarged.	Left ovary enlarged and cystic removed, tube only slightly thickened. Pedicle stitched to parietal wound with one catgut, two silkworm gut sutures.	Discharge of pus scanty for some days and then sinus closed. No evidence of buried sutures.	Too recent for reliable observation.
17. July 3, 1893.	Dr. Travers	L. L., 24, P. 0.	Been under observation as in- and out-patient for three years. Pains first began after fall, rest and local treatment ineffectual.	Acute retroflexion. Left ovary enlarged and tender.	Left ovary cystic, removed. Pedicle fixed to parietal peritoneum with three silkworm gut sutures.	None.	Too recent for reliable observation.
18. July 10, 1893	Dr. Fenton	M. C., 29, P. 3.	Falling of womb since last confinement, three years ago, getting worse. Pessaries not tolerated.	Acute retroflexion.	Uterus fixed with five silkworm gut sutures.	None.	Too recent for reliable observation.
19. July 10, 1893.	Dr. Fenton	A. C., 36, P. 5.	Noticed abdominal enlargement two years ago, with occasional pains and falling of womb, which has latterly come outside.	Prolapse. Right ovarian cyst.	Right ovarian cyst removed. Uterus fixed with three silkworm gut sutures, 4th through pedicle. Hodge's pessary inserted.	None.	Too recent for reliable observation.
20. July 17, 1893.	Dr. Fenton	F. J., 36, P. 1.	Suffered from falling womb 11 years, last two years been under treatment. Various pessaries tried without satisfactory results.	Prolapse. Ovaries prolapsed and adherent.	Right cystic ovary removed, and pedicle attached to parietal peritoneum with three silkworm gut sutures, left ovary and tube adherent, freed.	None.	Too recent for reliable observation.

or even silk could be depended on as absolutely aseptic and carefully chosen, we think the extra length and varying thickness of the two latter might outweigh the recognised merits of silkworm gut. Operators may find that the uterus is so soft and friable that silkworm gut will cut through the tissues when the least strain is put on it.

Case 13 is an apt illustration. During the operation we found that, on suspending the uterus on the fundal suture for the purpose of bringing it well into view, the silkworm gut cut right out as easily as if one had used a sharp knife. A second silkworm gut introduced lower down cut its way out with the mere weight of catch forceps on either end of the thread. In this instance, the upper uterine laceration was sutured vertically with No. 2 chromicised catgut, which was then knotted, and each end of the thread eventually passed through the uterine tissue half buried. The lower tear was treated in the same way, the threads being knotted in the centre, then the ends passed in and out till the edge of the uterus was reached on either side, when the other tissues were included as described above. A third chromic catgut suture was used for the lowest thread. This case did excellently, and except for some return of bronchial catarrh from which the patient had chronically suffered, she never had a troublesome symptom. The uterus was maintained in firm position when she was examined on July 18th.

Adhesions.—Uterine and periuterine adhesions have still to be considered. Whatever difference of opinion may exist as to opening the abdomen to fix a mobile reducible retroverted uterus, as has been advised by Sänger and Leopold, when the use of pessaries has proved ineffectual and the symptoms continue, there can be no question that when a retrodisplaced uterus is firmly fixed so that it cannot be replaced, after the patient has been anæsthetised, and either the older methods of reposition, or Schultze's method of dilating the uterus and by introducing the finger within it aided by external manipulation trying to separate adhesions, there remains only a choice of two plans: (1) to desist from any further attempts to replace the uterus and do the best one can by palliative measures, or (2) if the severity of the allied symptoms and the intensity of the morbid processes warrant it, to open the abdomen, free the adhesions, and fix the uterus. We feel sure that many cases which in the past would have been regarded as justifying oöphorectomy will in the future be conservatively operated on by those who recognise the force of our argument. The number of cases in which adhesions are very severe has been in the foregoing series 25 per cent., that is to say, there were very dense difficultly separated adhesions in 5. 4 of these recovered, 1 died from hæmorrhage and shock; in 15 there were no adhesions or these were easily separated, of these 14 recovered, 1 died. This might indicate the greater risk from the existence of adhesions: that this is so is undoubted, but it is in those cases that the necessity for laparotomy is most urgent. Besides, the case with bad adhesions which died was so exceptionally difficult that it rather indicates that in certain instances it may be found better to abstain from subjecting the patient to undue risk by a complete operation, than proves the non-justification of opening the abdomen, so that the exact conditions may be ascertained and if possible remedied.

The mortality—10 per cent., 2 deaths in 20 cases—far exceeds the previously recorded mortality in such operations. Baudouin[1] states that of 235 operations there were only 2 deaths—namely, 1 in the hands of Sims, the other being a patient of Kelly's. Pozzi[2] mentions 2 cases of death in Lee's hands, 1 immediate, the other late, resulting from gastro-hysteropexy; these do not seem to have been published. He also states that Polaillon has reported 1 case of death; the operation had been performed for prolapse. Pozzi, however, writes, "the cases of death resulting from the operation have been very rare; it is not more serious than an uncomplicated laparotomy, which really constitutes a benign operation. There is no doubt, however, that it may at times be complicated by some fairly extensive rents in the abdomen when one has to free any firm uterine adhesions, especially adhesions connected with the rectum."

Case 11 died on the fifth day after operation from peritonitis, probably caused by sepsis. The *post-mortem* examination did not afford any sufficient evidence to prove that the peritonitis had been due to the spread of inflammation from the uterine site of operation. The uterine adhesions were free from inflammation, and were fixed. Such unfortunate experiences happen at happily rare intervals in the hands of every abdominal surgeon. It is an admitted fact that a simple exploration of the abdomen is not wholly free from risk, and the risk must be admitted in fairness as a reason for weighing the necessity for any laparotomy.

Case 15 died on the second day following operation. The difficulties attending the separation of the adhesions to the left of the uterus were very great. They had been partly counted on before the operation was undertaken, and regarded as of serious importance; but the existence of the patient for several years had been so miserable, that it was considered that the risks were worth running. The hæmorrhage was very free from the adhesions, but the operator feels it right to state that the blood lost during the operation did not seem to be anything more than what was probably due to the necessary laceration of adhesions. The second operation for the purpose of ascertaining the source of the post-operation bleeding unquestionably handicapped the patient's chances of recovery. The vessel then found patent had, it is believed, been torn when separating the adhesions, and only bled after the rise of the blood pressure on restored consciousness had overcome its partially occluded orifice. Whether there might not have been some septic material conveyed inside the peritoneum at the time of the reopening is a moot point; this is at least possible.

We do not desire in any way to minimise the risks of opening the abdomen, nor of separating difficult adhesions, but we feel sure that a study of the full clinical records of these two cases, particularly Case 15, would convince any unprejudiced person that the circumstances attending them were far from likely to be often met with.

The after-treatment is conducted on the same lines as after any laparotomy. Immediately after operation the vagina was packed with gauze in one or two cases; this however does not seem to be necessary. In several a Hodge's or a rubber ring pessary has been introduced immediately after the operation: this was believed to be a safeguard against the strain on the uterine stitches from coughing or vomiting. In a considerable proportion the pessary was inserted as a temporary support before the patient's first getting up, and worn for a month or two. In some patients it has been found desirable to replace the pessary by a smaller one, after the lapse of a month. The relaxed vagina becomes tighter after the weight and distension caused by a prolapsed uterus has been remedied, and will not tolerate the pessary introduced at the time of operation. In no case have we thought it needful to raise the foot of the bed with the object of lessening intestinal pressure.

In conclusion we crave one word, namely, all of these cases have been directly under the care of one or other of us, either as operator or as assistant to one of our colleagues at Chelsea Hospital for Women. We therefore venture to claim that this and the subsequent personal observation we have given to each individual case entitles us to speak with greater accuracy regarding the clinical details than if we had only compiled a number of cases from the published records of other operators and incorporated with these our own experiences. We have endeavoured to state facts, leaving the deductions from these facts, for the most part, to the intelligent appreciation of our co-workers in gynæcology.

We believe that, in suitably selected cases, there is not only a place but a wide field for the employment of uterine ventrofixation, and we shall esteem it our duty and privilege to record the future histories of the patients we have operated on after time has amply tested the value of our work.

Mr. John W. Taylor, F.R.C.S. (Birmingham) said that the subject was important. The operation was of great value in suitable cases. It covered somewhat similar ground to that occupied by the operation of shortening the round ligaments, in that both operations, if successfully carried out, elevated the uterus and kept the fundus forwards. There could be no doubt that the successful accomplishment of this was not only of benefit to the prolapsed and retroverted uterus and to its ligaments, but tended to relieve, and sometimes to cure, the intractable pain and troubles of prolapsed and tender ovaries. This was only the case when no grave lesion was present. In enlargement of the ovary due to a commencing cystoma, as apparently in the second of Dr. Napier's cases, no improvement could be expected. In a similar case Mr. Taylor had had to remove the ovary by subquent operation. He had performed ventrofixation of the uterus five times—twice by the "lateral" and three times by the direct method, and he agreed with Dr. Napier that the latter was preferable. The volsella was useful to hold the fundus of the uterus while the sutures were being passed.

[1] *Hystéropéxie*, Paris, 1890, p. 248.
[2] *Traité de Gynécologie*, Paris, 1890, p. 503.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

DOUBLE AMAUROSIS FOLLOWING CONCUSSION: RECOVERY.

A short time ago I was consulted by a boy who had, about two hours previously, while engaged at his work in a coalpit, got a severe blow on the back of his head from a lump of coal. After receiving the blow the boy was insensible for about ten minutes; on regaining consciousness, he noticed that the "sight of his left eye was very bad"—previous to the accident his sight was perfect. In about half an hour he was totally blind in the left eye. Up to this his right eye was unaffected; but when I saw him he could not distinguish objects, either near or far.

On examining him, I found a bump on his head where he had been struck, but there was no fracture or even abrasion. His eyes seemed perfectly normal, and the pupils responded to light. He could distinguish light from darkness with his right eye but was unable to do so with his left. Temperature, pulse, and respiration were normal.

I ordered a purgative, and got him put to bed in a darkened room. He was seen again that evening, and was then totally blind in the right as well as the left eye. He was then put on small doses of iodide of potash. Next day his condition was unchanged, but on the following day—that is, two days after the accident—he could perceive light with his left eye; next day he could distinguish objects with his left and perceive light with his right. On the fourth day vision was perfect in the left and only slightly impaired in the right, and on the sixth day his sight and general condition were as good as before the accident. He was kept under observation for some time after, but no ill effects presented themselves.

This case is, I think, unique in the fact that, though both eyes were affected, vision was perfectly restored; the manner of onset and disappearance of the symptoms were also rather interesting.

Disley, Cheshire. R. Bass Sealy, L.R.C.S.I., etc.

TRAUMATIC RUPTURE OF THE HEART CONSEQUENT ON FRACTURE OF THE STERNUM.

Traumatic rupture of the heart as the result of fractured sternum without any accompanying fracture of the ribs or costal cartilages is so rare, that the following case, which came under my notice at the casualty department of this hospital, seems to be worth recording:

On June 21st, 1893, Mrs. B., while seeing her daughter on board of a Glasgow bound steamer, accidentally lost her balance, and fell from the quay side into the water, a height of about eight feet, coming in contact with the propeller of the steamer, which was then in motion. She, having been rescued from her perilous position, was conveyed to this hospital, when, on examination, I found life to be extinct. Her face was blanched, and the bloodless condition of the tissues in general strongly suggested death from internal hæmorrhage. There was a patch of ecchymosis over the left pectoral region, with fracture of the sternum, at a point midway between where the fourth and fifth cartilages articulate with it. The fracture was transverse, crepitus and free movement of the fragments being manifest on manipulation. After careful examination I could find no fracture of the ribs or costal cartilages. *Post-mortem* examination at the instance of the coroner revealed a fracture of the gladiolus with laceration of the pericardium and rupture of the heart, right and left ventricles, the pericardial sac being filled with blood clot.

C. M. O'Brien, L.R.C.S.I., L.R.C.P.I., L.A.H., L.M.Rotunda.
Senior House-Surgeon, Jervis Street Hospital, Dublin.

A CASE OF CARDIAC FAILURE SUCCESSFULLY TREATED BY INHALATIONS OF OXYGEN.

Mrs. M., the wife of a retired Indian civilian, had been a patient of mine for upwards of a dozen years, suffering from chronic ill-health and cardiac debility, the result of her prolonged residence in India. During my attendance upon her, her husband being naturally as anxious as I was that she should have the best possible advice, we had the advantage at various times of the opinions of Sir Richard Quain, of Dr. Douglas Powell, of Dr. Edmonston Charles, whose prolonged attendance upon her in India was gratefully remembered by the patient, and of Mr. Wm. Gandy, of Upper Norwood, and all these competent observers were of opinion, in which I entirely agreed, that there was no organic heart disease.

She had had, of course, all the usual heart tonics and stimulants tried, digitalis with and without iron, strophanthus, ether and ammonia, champagne and brandy, etc., and, if the naked truth must be told, she was not much the better for them, though she had certainly been kept alive through years of patient endurance. At the end of last March I was sent for in consequence of her having had an attack of syncope on slight exertion, and found for the first time marked intermission of the pulse, with great feebleness of impulse, breathlessness on slight exertion, even upon moving across the room, and utter prostration.

I had been reading some of the cases of oxygen inhalation which had appeared in the British Medical Journal, and it struck me that this was a suitable case to try the remedy in, particularly as I remembered that the patient had told me she never felt so well anywhere as in Switzerland or the South of France, where, presumably, the ozone is more abundant than in or near London. Accordingly, I had a cylinder of compressed oxygen procured from Brin and Co., and, aided by Dr. Charles Monro, a near relative of the patient, administered it by means of the india-rubber bag and mouthpiece, supplied by the same firm. The result surpassed my most sanguine expectations. During the first administration the intermissions, which had been five or six in the minute, entirely disappeared, the pulse gained in strength and volume, and the patient declared herself far more comfortable.

The inhalations were continued daily, sometimes two and sometimes three times a day, until the end of June, with the result that the pulse was permanently improved, that the breathlessness on exertion ceased, and that a colour came into the patient's cheeks, which I had never seen there before. All her friends remarked this. At the end of June she went, with my sanction, under Dr. Monro's care, to Edinburgh, taking a cylinder of oxygen with her; and I had a telegram from her husband the next day to say she had safely accomplished the long journey. I have since heard from him that she is still inhaling the oxygen, which, I think, she would not willingly be without.

Dulwich, S.E. H. Nelson Hardy, F.R.C.S.Edin.

TWO ATTACKS OF SCARLATINA IN THREE MONTHS.

E. F., aged 17, was first seen July 21st, 1893, when she presented well-marked signs of severe scarlatina, the rash being particularly well developed, the sore throat intense, and the temperature 103.5.° This was the third day of the illness. There were two other cases of scarlatina in younger children in the same room.

I found that she had had a previous attack of scarlet fever, though not of quite so serious a nature, so recently as April of this same year, for which she became an inmate of the Fever Hospital at Stockwell. It was followed by free desquamation; indeed, she had only been discharged three weeks when this second attack occurred. At this time, when questions of immunity and contagion are exciting so much interest, I think it well that a case of so early and severe a recurrence of scarlatina in the same subject should be placed on record. Her mother suffered from puerperal fever at the time of the girl's first attack, and though I did not then see the girl herself, I heard of the case from the medical man in attendance, and was instrumental in removing the mother to the union infirmary, where she recovered. Another child in the same house also had scarlet fever then.

Wm. J. Townsend Barker, L.R.C.P.Lond., M.R.C.S.Eng., L.S.A.Lond.,
Medical Officer of the Streatham Distric of the Clapham and Wandsworth Union.

REPORTS
ON
MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

THE DISTRICT HOSPITAL, WEST BROMWICH.

A FATAL CASE OF PYRIDINE POISONING.

(By G. EDGAR HELME, M.B.)

ON August 29th, at 10.30 P.M., T. N., aged 29, a strong muscular man, employed as a stillman at some tar works, was admitted into this hospital. He stated in thick guttural speech that he had swallowed "half a cupful" of pyridine bases at 3 P.M. on the same day, and during the intervening seven hours had been at home and vomited five times, the vomited matter having the smell of pyridine.

On admission he was pale, with slightly cyanosed lips and a dry white tongue, and was perspiring freely. The temperature was 103.4°, the pulse 128, weak and intermittent, respirations 40. The breathing was noisy, due to coarse mucous *râles*.

He complained of tightness in breathing, a choking sensation, pain down the centre of the chest, and pain over the stomach. Demulcents were ordered and given in ℥j doses, owing to the patient being unable to swallow more; mustard and linseed poultices were applied to the throat and front of the chest, and an enema of ℥iij of brandy given and retained, after which the pulse and breathing improved, and in an hour he could swallow ℥ss of milk with ℥j of brandy. During this time the expectoration was white and frothy and had the odour of pyridine, as also had his breath.

On August 30th, at 12.30 A.M., the temperature was 104°, but gradually subsided to 99° at 9 A.M. During the night the bowels acted six times, the fæces being partially formed and of a light yellow colour, with no odour of pyridine. ℥x of medium straw-coloured urine were passed, with a specific gravity of 1020, no abnormal constituents being detected. At 8 A.M. the expectoration began to be purulent, the odour of pyridine having disappeared. On examination the lungs showed signs of acute congestion and bronchitis, but the patient felt much more comfortable. About 4 P.M. he began to be delirious, the temperature having risen to 104°. He continued wildly delirious, with a temperature varying from 104° to 105.8° all night until 8 A.M. on August 31st, when he became quieter, and died at 10.15 A.M., forty-three hours after the accident. During the twenty-four hours ℥ix of urine were passed, and the bowels acted six times, having similar characters to those of the previous day.

At the *post-mortem* examination, made twenty-nine hours after death, the epiglottis was found congested on its under surface. The larynx and trachea were lined by a friable yellow membrane, the large bronchi contained purulent matter, and were lined by a similar membrane. The lungs were congested and œdematous. Nothing was observed about the mouth, tongue, or fauces, but the œsophagus and cardiac end of the stomach were greatly congested, the pyloric end and the commencement of the duodenum being slightly congested. The only changes found throughout the intestines were a few small petechiæ in the small intestine. The liver was of normal size, and showed a few small fatty patches on its upper surface. No changes were detected in the heart, kidneys, or spleen, and no odour of pyridine was observed throughout the examination.

At the inquest, it transpired that the man had filled a cask too full of commercial pyridine, which is a colourless volatile fluid, with characteristic odour and taste, used to render alcohol undrinkable. In order to reduce the amount, he obtained a bent piece of iron tube about 3 feet in length and 1 inch bore, one end of which he inserted into the cask, and to the other end, in order to start the syphon action, he applied his mouth, and unfortunately drew in the fluid.

MEDICAL MAGISTRATE.—Dr. E. L. Adeney has been appointed Commissioner of the Peace for the Borough of Tunbridge Wells.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

G. E. HERMAN, M.B.Lond., F.R.C.P., President, in the Chair.

Wednesday, October 4th, 1893.

SPECIMENS.

DR. EDEN: Spina Bifida. MR. MUIR: Placenta from Case of Accidental Hæmorrhage.

THE RELATION OF EXTERNAL METEOROLOGICAL CONDITIONS TO THE INCIDENCE OF FEBRILE ILLNESS IN CHILDBED.

Dr. ROBERT BOXALL read this paper. He discussed the subject under two heads—mortality and morbidity. He based the inquiry on statistical evidence, the statistics of mortality being derived from the Registrar-General's returns for London and from Professor Lusk's table for New York, while those of morbidity were derived from the records of the Lying-in Hospital. The statistics were given in tabular form, and were graphically represented by a series of charts. He offered the following conclusions: (1) The death-rate from puerperal fever is greater during the winter than during the summer months, and this holds good both for London and New York. (2) Septic illness in childbed is more prevalent in winter, and in this respect agrees with mortality; but (3) septic illness, though more prevalent, is attended with less fever, and is therefore of less severity in winter than in summer. (4) On the other hand, cases of febrile illness other than septicæmia and pelvic inflammation in lying-in women are more prevalent during summer than winter, and (5) as regards severity evince no difference according to the season of the year. (6) Owing to the improvement which has been effected in the service of the hospital, the septic cases have since that time been so few, and usually of such slight intensity, that they have proved insufficient to neutralise the summer prevalence of non-septic cases, even when the severity of the illness is taken into account. Consequently in the hospital, though there is far less febrile illness now than formerly, the amount of febrile illness of all kinds is, generally speaking, greater during the summer than the winter, whereas formerly, septic illnesss being frequent and often severe in type, the amount of febrile illness was more evenly distributed throughout the year. (7) It is pointed out that in the hospital patients are, by means of open windows and ventilators, more freely exposed to external meteorological condition than is usual in obstetric practice generally; therefore it may be inferred that if external meteorological conditions have any direct influence upon the health of women after delivery, in these lying-in patients, above all others, the effect would be apparent, but by instituting a comparison for a series of years between the general fever-rate and septic rate of the hospital on the one hand, and the total mortality of childbirth and the mortality of puerperal fever in London on the other, it is at once apparent that in the hospital septic illness has been markedly diminished, and now displays very little variation according to season, whereas in London generally, during the same series of years, septic illness has shown but little tendency to decline, and continues to evince well-marked variations in accordance with the season of the year. It is concluded, therefore, that external meteorological conditions are capable of exerting little, if any, direct influence on the incidence of febrile illness in childbed.

Dr. CHAMPNEYS expressed his high admiration of Dr. Boxall's latest contribution to the study of puerperal fever. Dr. Boxall had collected facts with great labour and intelligence, and had analysed them with the result that some conclusions came out which were not easy of immediate explanation. Among these was the greater prevalence of puerperal fever during the winter months, of which deficient ventilation and general hygiene might or might not be a full explanation. He had no doubt that in the future, when the problems were better understood, Dr. Boxall's papers would be quoted as one of the most valuable contributions to this great subject, and that the credit of such work would form a very valuable part of the reputation of the Obstetrical Society.

Dr. AMAND ROUTH pointed out that lying-in hospitals

had been able practically to eliminate the unfavourable influence of the colder seasons, which pointed to the influence being indirect only, faulty ventilation and disinclination to wash the examining hand often enough being the main influences at work.

Dr. H. Spencer would like to point out (what no doubt had occurred to the author) that while he had respectable authority for naming the four quarters of the calendar year—spring, summer, autumn, and winter—yet it was not in January, February, and March that we in this country had "spring" weather; that was the coldest and wintriest quarter of the year, as was well known. He (Dr. Spencer) thought a closer approximation to the seasonable variations would be obtained by beginning to count the seasons at April, or still more accurately at March.

Dr. Cleveland believed that a chill might predispose the system to imbibe the puerperal poison when it was, so to say, afloat, in the same way that diarrhœa, if neglected, predisposed the system to take the cholera bacillus when it was lurking in the neighbourhood.

After some remarks from Dr. Charles Chepmell, the President, and Dr. Hayes, Dr. Boxall, in reply, pointed out that the statistics upon which his observations had been based were admittedly imperfect in certain respects, but he had exercised every care to have them as accurate as possible. The evidence afforded in the paper showed that the weather was capable of exerting little, if any, direct influence on febrile illness in childbed; the seasonable variations which had been observed in septic illnesses were doubtless in great measure the indirect outcome of meteorological changes. Less efficient ventilation during cold and inclement weather was probably an important indirect factor. Less efficient hand-washing, as mentioned by Dr. A. Routh, was probably another; and the pinch of poverty, which affected an increased number during the winter, and by depressing the general health rendered the patient less resistant than usual to baneful influences, must probably be included among the more important agents in producing the variations indirectly.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.

John Appleyard, M.B., F.R.C.S., President, in the Chair.

Tuesday, October 3rd, 1893.

President's Address.

The President delivered an address on some hygienic points applicable to Bradford. He referred to sanitation in ancient civilisations, and although hygienic ideas then were crude, yet in many respects we were behind them. In Bradford, with a population of 240,000 living in about 45,000 houses, the majority of the houses were of the back-to-back type, without through ventilation, and each one having garbage and filth stored in an open ashpit of about two square yards area—90,000 square yards of filth under our noses, necessitating in warm weather closure of both doors and windows. Daily removal of such refuse was required. The drainage system had no provision, save street grids for ventilation, no shafts, and in summer the street gullies nearly always dry. The back-to-back houses could be done away with for the future. Plans were shown for providing through houses at about the same rate. The President concluded with remarks on unnecessary noise, and on the streets being paved with grey granite sets, causing unnecessary suffering to horseflesh and damage to vehicles.

Myxœdema.

Dr. H. Bronner showed a married woman, aged 46, who had been ailing for six years. She complained of coldness and "swollen" feelings. She was short, broad, and stout; face pale and expressionless, eyes seeming wider apart than usual, hair thin and dry, eyelids swollen, speech slow and deliberate. skin dry, hands broad and spade-like, temperature subnormal. Treated with thyroid tabloids, two thrice daily. She was at the end of a month markedly better. The temperature had risen, and the weight had fallen from 172 lbs. to 151 lbs.

Exhibits.

A number of Histological and Bacteriological Specimens were exhibited.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

Donald Hood, M.D., President, in the Chair.

Friday, October 6th, 1893.

Typhoid Fever.

The President read a paper in which he discussed his personal experiences in the diagnosis and treatment of typhoid fever. He particularly dwelt upon the difficulty in the diagnosis of the milder forms of fever, and brought forward numerous cases as evidence of the insidious anomalous onset with which the attacks frequently commenced. He described two classes of cases—the one running throughout a milder course, wanting in definite symptoms, but nevertheless attended with all the dangers attending the specific bowel lesion; the other, in which the primary seizure of incipient character was followed by a relapse or secondary attack, with developed symptoms. From his own experience, derived from 116 cases extending over a period of about ten years, with a mortality of under 10 per cent., he felt strongly that in by far the largest proportion the extreme antipyretic treatment of the day was contraindicated and based on a mistaken view of the febrile process. In support of this view he referred to the high range of temperature occurring in relapsing fever, stating that in this disease, with fever amounting in many instances to 107° F., the mortality was barely 1 per cent. This appeared to him to prove beyond cavil that the symptom pyrexia need not of necessity be one of grave omen. Rather, he should regard pyrexia *plus* the disease which gave it birth, and while in a patient suffering from acute rheumatism a high temperature might be in appalling danger by reason of the extreme pyrexia, another suffering from influenza, ague, or relapsing fever might be in a position free from anxiety, and the subject of a passing phenomenon of little moment. He spoke warmly of the value to be attached to alcohol administered with due vigilance and control, and as strongly urged the contraindication of all aperient remedies during the entire attack.

Vote of Thanks.

Mr. Swinford Edwards, as ex-President, proposed a vote of thanks to the lecturer, which was seconded by Dr Campbell Pope, and acknowledged by the President.

REVIEWS.

Diseases and Injuries of the Ear. By Sir Wm. B. Dalby, F.R.C.S., M.B. Fourth edition. London: J. and A. Churchill. 1893. (Crown 8vo, pp. 276; 8 plates, 38 illustrations. 10s. 6d.)

From the preface of this work we gather that the author has abandoned the conversational form in which these lectures were originally delivered, and that the book is now issued as a manual of aural surgery; also, that the portions dealing with foreign bodies in the ear, bony growths in the meatus, and adenoid vegetations have been almost entirely rewritten. Completeness in recording the views of others is sacrificed to conciseness. This lends individuality to the book, for the reader feels that his attention is not being distracted by opinions of which the author does not approve. The form of tonsil guillotine preferred by the author is Ewen's modification of the French guillotine. He cautions against "pressing the tonsil from without into the ring before the guillotine is closed." If this is done, he is "sure there is risk of cutting too deeply, and causing hæmorrhage." With the guillotine which has prongs to transfix and pull the tonsil towards the median line, this proceeding may not be advisable, but it is constantly done with the ordinary spade guillotine and without harm. On page 126, half a drachm, as recommended, seems a large quantity of liquid for an intratympanic injection with an imperforate membrana tympani. The use of the tuning fork, we notice, is only considered in Chapter x, after the various forms of middle ear and mastoid disease have been described. In a manual of ear diseases we should have expected to find it ranged earlier in the work, amongst the other tests of hearing.

A new feature of this edition is eight chromolithographs of

the membrana tympani. These are good on the whole although the colouring in some instances leaves something to be desired, and the absence of a distinct light spot in the representation of the normal membrane is noticeable.

After these few criticisms on details, we have much pleasure in recommending the fourth edition of this well-known work as a concise, practical guide to aural surgery, both for students and general practitioners.

THE ESSENTIALS OF CHEMICAL PHYSIOLOGY FOR THE USE OF STUDENTS. By W. D. HALLIBURTON, M.D., F.R.S., Professor of Physiology in King's College, London. London: Longmans, Green, and Co. 1893. (Crown 8vo, pp. 176, with 74 illustrations. 5s.)

PRACTICAL physiology as a part of the medical curiculum is quite a recent development. It is not so long ago that the teaching of practical physiology was limited to a class demonstration of a blood corpuscle or other tissue; now the medical student has himself to prepare and study the tissues, and to have some elementary and practical knowledge of chemical physiology. Till very recently the chemistry of the body was neglected as a part of medical study; its importance is now being recognised, and with its elements every medical student ought to become acquainted if he is to take an intelligent interest in his practice or in the advancement of his profession. Professor HALLIBURTON'S small book is therefore very welcome. It is meant entirely for students, and will prove a very great boon to them. The plan of the book is the same as that of Professor Schäfer's *Essentials of Histology*, and the practical lessons are based on the *Syllabus of Lectures* published by Professor J. Burdon Sanderson in 1879. The work is essentially a practical one, and is divided into lessons or exercises, which will be of inestimable value not only to the student who is attending a practical physiology course, but to the practitioner who may wish to become more fully acquainted with the methods of chemical examination as applied to medicine. The book is divided into two parts, the first part containing an elementary course of chemical physiology, and the second an advanced course. In the practical lessons at the beginning of each chapter full directions are given enabling the student to carry out the chemical manipulations, and this is followed by a short description of the chemical character of the substances examined in their relation to the tissues of the body. In the appendix a description is given of the special instruments used in medical chemistry.

It is unnecessary to say more of the matter contained in the book, as nothing controversial has been introduced. Throughout the wording is very clear, and his long experience in the teaching of practical physiology and his special and well-recognised authority in the domain of physiological chemistry has enabled Professor Halliburton to produce a work which will be found to be of great value to all members of the profession, and to be indispensable to the student of medicine.

AN INTRODUCTION TO HUMAN PHYSIOLOGY. By AUGUSTUS D. WALLER, M.D., F.R.S. Second Edition. London: Longmans, Green and Co. 1893. (Demy 8vo, pp. 632. 305 Illustrations. 18s.)

THE favourable opinion which we expressed when the first edition of this textbook appeared two years ago has been amply justified by the necessity of preparing a second edition after the lapse of so short a time. It is unnecessary to repeat in full our commendation of the book. The alterations which have been made in the present edition are not very extensive; a few corrections are made, and some judicious selections inserted from recent researches in order to bring the volume "up to date."

Dr. WALLER is not enamoured of "latest discoveries" simply because they are the latest. He has adopted only such recent investigations as he has either worked at himself or seen worked at by others, and evidences of the same conscientious thoroughness are seen throughout. The diction is clear and concise, the illustrations are excellent, and it would be difficult to find a better textbook, or one more suited for all classes of students.

INTRODUCTION TO THE CATALOGUE OF THE COLLECTION OF CALCULI OF THE BLADDER. By Sir HENRY THOMPSON. London: J. and A. Churchill. 1893. (Demy 8vo, pp. 39.)

THE title of this pamphlet is easily explained. During the past year Sir HENRY THOMPSON presented the whole of his magnificent collection of urinary calculi to the Hunterian Museum of the Royal College of Surgeons. These specimens have been carefully catalogued, and a brief account of every case, without exception, of stone in the bladder operated on by the author between 1857 and 1893 will be found tabulated in this volume. The author has supplied an introduction to this *Catalogue*, embodying statistical as well as much other information, "obtained from the experience gained in practice." It may be added that the calculi, neatly mounted, are preserved in a handsome mahogany case in one of the new museums at the College, and are well worth inspection. Each preparation bears a number by which it may be identified in the *Catalogue*, and in the event of two or more operations having been performed on the same patient, the calculous material removed on each occasion is distinguished by the addition of letters of the alphabet. In the entire series there are seven cases which have been operated on four times. As regards the *Catalogue* itself, the clinical records include the age of patient, the date and nature of operation, the kind of calculus, and the result, together with some interesting details of the operation, and of the subsequent history of the patient whenever that was forthcoming.

During the last forty years, so many important changes in the mode of treatment of vesical calculus have been made, that a continuous record of operative surgery, extending over a long period of time like that under consideration, is of interest from a historical point of view. Thus we read that in 1854, when the author performed his first lithotrity, the sittings for a stone of moderate size were short and numerous, and generally without anæsthesia. Strangely enough, the first case was that of a girl, aged 9 years, with a uric acid calculus, which was successfully removed by lithotrity. In 1865 the evacuating apparatus, introduced a few months previously by Mr. Clover, was employed, and the number of sittings thereby materially diminished. At the same time, the value of an anæsthetic became obvious, and its use was more frequently resorted to. This was followed by the single sitting operation, devised by Bigelow in 1878, which was at once adopted for all cases requiring lithotrity.

One feature in the collection is the large proportion of small calculi which it contains. In explanation of this fact, it must be remembered that as soon as the superiority of the crushing operation for small stones became evident, the importance of the recognition of the disease in its early stages dominated the author's practice, and led to the valuable observation that stone was more common among men aged 60 and upwards than at any other period of life, but that it had been overlooked owing to the early symptoms in elderly subjects being extremely slight as compared with those in children. In illustration of this statement the collection contains no fewer than 200 examples of small calculi—chiefly uric acid, but none phosphatic—which had been removed from men between 55 and 75 years of age.

The cases of lithotomy recorded in this *Catalogue* are much less numerous. For the earlier ones the lateral, the median, and the various other perineal incisions were from time to time employed. In July, 1884, Sir Henry Thompson performed suprapubic lithotomy after the method of Petersen, of Kiel, for the first time in this country. He had previously twice opened the bladder above the pubes upon a staff, in 1864 to remove an impacted hairpin from a female bladder, and in 1877 to remove a calculus in a case of ankylosis of the hip-joints. The comparative mortality of the cutting and crushing operations is fully set forth in this introduction, and the cases previous and subsequent to 1878 are separately treated. Among the first 500 male adult cases (1857 to 1878) there were 61 deaths, nearly equally divided between lithotomy and lithotrity; while in 477 male adult cases since 1878 there have been only 34 deaths, which are again equally divided between the cutting and crushing operations.

The abstract concludes with a reference to the individual cases which possess more than ordinary interest, such as examples of encysted calculi, and of stones having a piece of

bone as a nucleus. Both the collection and the *Catalogue* will repay a careful study with the help of this introduction.

A Manual of Ambulance Transport. By Surgeon-General Sir T. Longmore, C.B. Second Edition. Edited by Surgeon-Captain William A. Morris, Army Medical Staff. London: Printed for Her Majesty's Stationery Office by Harrison and Sons. 1893. (Super royal 8vo, pp. 453; 196 illustrations. Price 6s.)

We gladly welcome a new edition of Sir Thomas Longmore's classical work on ambulance transport, and we congratulate Surgeon-Captain Morris on the manner in which he has performed his task as editor. Twenty-four years have elapsed since the publication of the first edition, and during that period a great deal of attention has, both in this country and on the Continent, been directed to the subjects treated therein. No pains have been spared in this edition to furnish a complete account of the many improvements which have recently been made in ambulance transport material, and the numerous illustrations, although many of them have been reproduced by some process which has proved far from successful, help the reader to form a very correct idea of the construction of most of the British and Continental methods described.

Although it is stated that the book is more particularly intended for military readers, yet we are glad to find that it contains a description of the various civil ambulance methods, and the good work done at home and abroad in making arrangements for the transport in large towns of persons suddenly disabled by injury or sickness and for the transport of patients suffering from infectious maladies, is fully recognised.

The chapter on the Convention of Geneva by Mr. Furley is a most interesting one, and treats of a subject regarding which we have often noticed the most erroneous ideas exist. The writer insists on the fact that as the Red Cross has no significance except as denoting the *personnel* and *matériel*, both official and unofficial, of military hospital and ambulance service, it is an indefensible usurpation to employ it in civil hospitals or for civil purposes, and he fears that if steps be not taken to protect the badge from wrongful use, some of the States who are signatories of the Convention will withdraw from the treaty.

We heartily concur in the sentiment that the time of peace should be utilised in spreading correct information as to the true meaning of the international treaty, and we cannot too strongly deprecate the practice which at present so frequently obtains of using its badge on the covers and advertisements of all sorts of patent foods and nostrums, while in one large town we have seen it used as a decoration on the sleeves of those policemen who have passed an ambulance class.

At a time when the proposal to weld the Army Medical Service into a corps, insisted on by the officers best qualified to give an opinion, and supported by the British Medical Association, appears to stagger the authorities, we are struck by the remark at page 42, that "the organisation of both the Militia Medical Staff Corps and the Volunteer Medical Staff Corps is in advance of that of the Medical Staff Corps of the army, in so far that in the militia and volunteers the officers are a component part of the corps, whereas in the regular service the officers belong to the Medical Staff, and the corps consists of only the non-commissioned ranks." Surely a system which the authorities have created, we would almost say unconsciously, in the militia and volunteer forces might easily be extended to the regular forces.

NOTES ON BOOKS.

Diseases of the Urinary Apparatus. By J. W. S. Gouley, M.D., Surgeon to Bellevue Hospital. (New York and London: H. Kimpton. Cr. 8vo, pp. 342. 7s. 6d.)—This book is made up of twelve lectures on "phlegmasic affections" of the urinary apparatus, reprinted from the *New York Medical Journal* of 1891, and an addendum on retention of urine from prostatic obstruction in elderly men. The subjects dealt with comprise the inflammatory affections of the kidney, bladder, prostate, and urethra, including gonorrhœa and its complications, among which latter inflammation of the seminal vesicles (here called "gonecystitis") is treated at considerable length. As regards gonorrhœa, Dr. Gouley is of opinion that (p. 207) "nothing so far discovered has sufficed to explain the nature of the contagium of that variety of urethritis miscalled gonorrhœa." Moreover, with regard to chronic urethritis, Dr. Gouley makes the somewhat bold general statement which he places first among (p. 295) "the ideas to be impressed upon the minds of patients suffering from chronic urethral discharges" that these affections are not contagious. The lectures contain much that is valuable, and it is evident throughout that the author is speaking from large practical experience in the treatment of affections of the urinary organs. But the book is anything but easy to read owing to Dr. Gouley's weakness for strange and big-sounding words when ordinary words in common use would have answered the purpose equally well. There are surely enough foreign terms that seem to be unavoidable in medicine without adding unnecessarily to their number. We fail, for example, to see any advantage in calling a stone a "urolith," an obstruction an "echmasis," an enlarged prostate a "prostatauxe," or circumcision "posthectomy," while such words as "aconuresis," "sychnuresis," "algeinuresis," "ascheturesis" merely serve to irritate the reader, though, perhaps, not quite so much as they probably irritated the unfortunate printer.

When may Syphilitics Marry? By Dr. Schuster, Aix-la-Chapelle. Edited and translated by Dr. C. Renner. (London: F. J. Rebman. 1893. Crown 8vo, pp. 35. 1s. 6d.)—On the important question which forms the title of this pamphlet there is, as Dr. Schuster justly remarks, "still a discrepancy in the opinions of various authors." A variety of these opinions are freely quoted in the opening pages and are followed by a useful summary of the chief points connected with the transmission of syphilis. As regards the author's own views, he states (page 26) that if a man with recent syphilis asks about marriage, he tells him "that he must not think of doing so before two years." Again (page 28), "I have been for years in the habit of sanctioning marriage if, after careful examination, no symptom of the disease can be discovered, and two efficient mercurial courses of twenty-five to forty-eight days' duration have been taken." As no details of what, in Dr. Schuster's opinion, constitutes "an efficient mercurial course" are given, it is difficult to estimate his advice at its proper value.

Anleitung zur aseptischen Wundbehandlung [Guide to the Antiseptic Treatment of Wounds]. Von C. Schimmelbusch. 1893. (Second edition. Cr. 8vo, pp. 210. Fig. 36. M. 4.)—The first edition of this book appeared in 1892, and the praise which we then accorded to it is justified by the speed with which a new edition has been demanded. In such a short time hardly any alterations have been required, and there is no change in either the number of pages or in the number of figures. Those who possess the first edition will not be under any necessity to buy the present one. After some experience of its use, and after careful perusal of it and other works upon the same subject, we have no hesitation in saying that this is the best and most practical which we know. Each branch of the subject is dealt with briefly and clearly—infection, disinfection, asepsis, and literature, being each taken in turn.

What to do in Cases of Poisoning. By William Murrell, M.D., F.R.C.P. Seventh Edition. (London: H. K. Lewis. 1893. Royal 32mo, pp. 276. 3s. 6d.)—This well-known useful and handy little book has now reached its seventh edition. It does not of course pretend to be a work on toxicology, but it does claim, and with justice, to tell all that the practitioner need know at the time about poisons when he is called to a case of emergency, and it is of such a size that it can readily be carried in the pocket or bag. Much new matter is to be found in the present edition, which is thoroughly up to date. There is a new and very important section on chronic poisoning. We have no doubt that this edition will be as popular as its predecessors.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

FLUID PREPARATION OF CHIRETTA.

Chiretta has long been employed by the natives of India in the same class of cases in which gentian has been used in Europe. It is stated that as a stomachic it is especially serviceable in the dyspepsia of gouty subjects, obviating flatulency, and diminishing the tendency to acidity. The drug began to attract some attention in England about the year 1829, and in 1839 was introduced into the *Edinburgh Pharmacopœia*. In intense bitterness chiretta exceeds gentian and other European plants of the same natural order. An elaborate investigation of chiretta made under the direction of Professor Ludwig, of Jena,[1] has shown that among the bitter principles of the drug ophelic acid, an amorphous viscid yellow substance of an acidulous persistently bitter taste and faint gentian-like odour, occurs in the largest proportion. A second bitter principle, chiratin, may be removed by tannic acid with which it forms an insoluble compound.

Mr. Kemp, the Campden Hill Pharmacy, 10, Bedford Terrace, Kensington, W., has sent a specimen of a fluid preparation of chiretta (chirata liquida), which is stated to be a solution in glycerine and water of the two bitter principles—ophelic acid and chiratin. Chirata liquida is a light-coloured transparent liquid, miscible with water, and possessing an intense but not unpleasant bitter taste. It appears to be in every respect a trustworthy preparation of the drug.

PAPAIN.

We have received from Mr. B. Kühn, 36, St. Mary-at-Hill, London, E.C., a specimen of papain (Dr. Finkler and Co.). This substance is a white amorphous powder, with a slight agreeable odour, and it dissolves almost entirely in distilled water. Samples of papain in compressed tablets, pills, and lozenges have also been sent.

The vegetable enzyme papain has an advantage over pepsin in the fact that it is capable of acting in acid, alkaline, or neutral media, and that its activity is unaffected by most salts and antiseptics. Papain possesses a solvent action upon albumen in neutral solution, and a more marked activity when alkali or acid is present. Its value as a digestive agent can be determined by methods similar to those employed in testing pepsin, and although the principles of standardisation are somewhat difficult to introduce into the domain of fermentation, owing to the strict requirements of experimental conditions, still pepsins are prepared corresponding to certain digestive standards.

Our examination of papain (Dr. Finkler and Co.) shows that it is a preparation which attains the standard claimed, and that it can be relied upon as representing the digestive activity of the papaw juice.

ESSET'S FLUID.

This fluid is intended for disinfecting and purifying purposes, and is somewhat similar in type to some others on the market which are very extensively used. It is a dark-brown liquid of a strong degree of alkalinity, and mixes easily with water to form a white emulsion. It contains a fairly high amount of active antiseptic agents, and we find that it possesses a high antiseptic power. While we cannot bear out the statement of the proprietors that it is the "strongest known" disinfectant, we entertain a very favourable opinion of the preparation, and we are able to recommend it. We cannot, however, support the claim that such a preparation is non-poisonous.

NON-INTOXICATING HOP ALE.

We have examined some samples of the "non-intoxicating hop ale" made by Messrs. J. and T. Usher, of Bristol. We find the ale to be a very well prepared beverage of the class to which it belongs. It was free from objectionable preservatives and from any other substances which could be considered as adulterants. It contained a very slight amount of alcohol—so small as quite to justify the term "non-intoxicating." The presence of a very small percentage is, no doubt, unavoidable in preparations of this kind. The ale had been made from hops, was well charged with carbonic acid, and was of pleasant taste and flavour. It may be noted that the total extractives were found to be low. We are able to recommend the ale to those who desire a beverage of the kind.

[1] *Archiv der Pharmacie*, 189 (1869) 229.

ROCHES SANTEUIL TABLE WATER.

We have received for examination several bottles of this table water, which is described as "Eau minérale naturelle des sources des Roches Santeuil," and is stated to come from the "source St. Jean" at Santeuil (Seine et Oise). The results of an analysis stated to have been made at the Ecole des Mines, Paris, are printed on the labels, and the results of our analysis are in practical agreement with these, with the exception that we are not able to confirm the presence of lithium, which in the analysis above referred to is said to be present, as chloride, in minute quantity. The samples sent us yield negative results as regards this metal. This, however, is a matter of small importance. The total amount of dissolved constituents is not high, the main one being bicarbonate of calcium. The water is organically pure, effervescing, but not excessively so, and is a very pleasant one to take. We are therefore able to recommend it as a table water.

A NEW FORM OF UTERINE "DREDGER."

The necessity for some form of instrument by which the uterus may be safely and efficiently cleared of any growth that may exist in it, must have often presented itself to those who are constantly in the habit of performing operations on the uterus. In the treatment of advanced cases of uterine carcinoma, in which palliative measures alone are justified, the want of such an instrument has especially presented itself to me. Messrs. Maw, Son, and Thompson, at my suggestion, have manufactured the instrument depicted in the woodcut. It will be seen that it is constructed somewhat on the principle of Otis's urethral dilator. The cutting or dredging blades are made of strong watch-spring, which are fixed at the top of a central shaft. These blades, when the instrument is closed, lie evenly along the shaft (Fig. 1), and can be introduced into a very small opening, then by a screw at the lower end of the shaft the blades are made to gradually dilate. The instrument being continually revolved clears away any *débris* that comes in its way. The extent to which the blades can be dilated is about 1½ inch. (Fig. 2). After use the instrument can readily be taken to pieces for cleansing. I may say I have now given this instrument a thorough trial in a large number of cases, and can express myself as being greatly pleased with the results of its work.

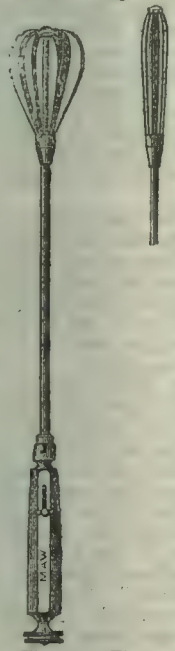


Fig. 2. Fig. 1.

Fredk. Bowreman Jessett, F.R.C.S.
1, Buckingham Palace Mansions, S.W.

A NEW TOURNIQUET FASTENER.

We have received from Messrs. Arnold and Co., West Smithfield, E.C., a contrivance which is probably the simplest tourniquet fastener yet invented, being merely a hook into which the rubber cord is placed while on the stretch, and consequently narrow. When the end is let loose and allowed to return to its usual diameter it of course jams the cord. The hook already attached to ordinary examples of Esmarch's tourniquet can be used exactly in the same way. This is, therefore, rather a new method of fastening than a new fastener.

PAN-AMERICAN MEDICAL CONGRESS.

[From our Special Correspondent.]

The Scientific Work of the Congress.—Forms of Malaria.—Acromegaly in a Giantess.—A New Bacillus of Malignant Œdema.—Bright's Disease without Albuminuria.—"La Buba."—The Cause of Yellow Fever.—A New Disease of the West Indies.

It is impossible within the limits of a few necessarily brief letters to give an adequate idea of the scientific work done at the Congress. I can only give a hasty sketch of the gist of some of the principal papers.

A paper on the "Forms of Malaria and their Characteristic Features" was read by Dr. Francisco A. Risquez, Professor of Medicine in the University of Caracas, and physician to the Military Hospital in the Federal District, Venezuela. He said the malarial diseases in Venezuela might be classified as follows: 1. Intermittent forms, generally quotidian, occasionally tertian. 2. Continued forms, including the varieties: (*a*) bilious; (*b*) ictero-hæmaturic. 3. Pernicious forms, including the varieties: (*a*) pernicious proper; (*b*) complicated. 4. Larval forms, including the varieties: (*a*) periodic; (*b*) continued. The forms of the first group were easily recognised by the features of the paroxysm and by the periodic element. When the access was prolonged, the diagnosis might be difficult. The forms of the second group were distinguished by the gastro-hepatic symptoms and the indications of the urine. They might be confounded with others, especially the yellow fever, and the distinction became often a matter of life and death. The forms of the third group were recognised by the pre-existence of malarial paroxysms. It might become almost impossible, however, to distinguish between cholera, pneumonia or tetanus and cases of choleriform, dysenteric, tetanic, etc., pernicious fevers. The forms of the fourth group presented still greater difficulties, especially in the continued varieties. They might assume all the appearances of typhoid fever, of cholera, of dysentery, of paralysis, of hæmorrhage. The malarial cachexia might simulate tuberculosis, hepatic abscess, etc. An early diagnosis was indispensable in these cases, because they required the fearless administration of quinine; and this drug might be contraindicated in the non-paludal diseases. There was but one unquestionable method of diagnosis—the microscopic examination of the blood. All malarial manifestations were accompanied by melanæmia; melanæmia presented itself exclusively in malaria; the sign was, therefore, pathognomonic. A drop of malarial blood, under the microscope, showed the masses of black pigment in the plasma. The manipulation required no special *technique*; it was simpler than the examination of the urine. The only things required were a few slides and covers, and a drop of blood obtained from the finger, previously washed. The strong mineral acids might be used as reagents. A search after pigment should be made in all suspected cases. The number and size of the pigment masses were proportional to the degree of malarial poisoning. If they were found at all, quinine should be given. He had found pigment in all forms of malaria. He had found it also in other diseases, but only as an evidence of malarial complication. Melanæmia was always an indication for the administration of quinine.

A paper on "A Case of Acromegaly in a Giantess" was read by Dr. Woods Hutchinson, of Des Moines, Iowa. "Adma, the French giantess," died while on exhibition at a "dime museum," in Des Moines, February 27th, 1893, aged 21, unmarried. The body was secured for Iowa State University, and on measurement was found to be 6 feet 8½ inches in height. The hands, feet, and face presented the characteristic shape and enlargement suggestive of acromegaly, and on necropsy the pituitary body was found to be greatly enlarged. The sella turcica would admit a small pigeon's egg. She was reported to have died of "decline" or "consumption," with great and increasing bodily weakness and failure of mental powers, but the lungs were found unimpaired. She was said to have been almost imbecile before death. The sexual system was very imperfectly developed; uterus and vagina very small, mammary glands absent. Organs otherwise normal, except smallness in proportion to bodily bulk. It was suggested that there was some analogy or connection between acromegaly and unusual stature. The mental and bodily weakness of "giants" was referred to.

A paper on "A New Anaërobic Bacillus of Malignant Œdema" was read by F. G. Novy, Sc.D., M.D., of Ann Arbor, Michigan. He said that in several guinea-pigs which died after injection of an impure milk nuclein solution a marked œdematous condition was observed resembling, and even more pronounced, than that of malignant œdema. In the subcutaneous tissue peritoneal exudate, heart blood, spleen, liver, etc., were found enormous numbers of a long slender bacillus. This organism was found to be obligative anaërobic in character and pure cultures possessed marked infectious and extremely toxic properties, producing death in from twelve to thirty-six or forty-eight hours, with the characteristic œdematous condition. White rats, white mice, rabbits, guinea-pigs, and pigeons were all extremely sensitive. The organs and tissues of animals that had died after inoculation with pure cultures contained very few germs and often none could be found, showing that the normal body was not a very good soil for the growth of the germ. By injecting certain chemical substances and cultures of common non-pathogenic bacteria at the same time with the virulent germ this natural resistance of the body was altered, and as a result the germ developed in enormous numbers throughout the body. This new, highly-pathogenic, anaërobic bacillus was motile, and the flagella could be readily demonstrated by Loeffler's method. In some of the cover-glass preparations made from animals colourless spirals could be observed. In cultures on certain media and under certain conditions were found similar spirals which in reality were giant whips. These could be readily seen in hanging drops even with a dry objective. These abnormal flagella were exactly the same as those described by Loeffler in connection with symptomatic anthrax, and their formation was probably due to involution changes. The germ was readily stained by simple dyes and also by Gram's method. Spore formation had not been observed, but the germ itself was extremely resistant. It could be grown *in vacuo*, in hydrogen, carbonic acid, nitrogen, and even in illuminating gas.

A paper on "A Form of Chronic Bright's Disease, other than Typical Fibroid Kidney, without Albuminuria," was read by D. D. Stewart, M.D., Philadelphia, Clinical Lecturer on Medicine, Jefferson Medical College. The importance of recognising that the mere absence of albumen from the urine did not exclude renal degeneration was dwelt upon, and the fact deplored that with the non-discovery of albumen in a renal suspect a further inquiry as to abnormalities of the urine, microscopically and chemically, was too frequently abandoned. It was further pointed out that even the best textbooks on general medicine failed either to notice or to lay stress upon the fact that Bright's disease might occur and run its course without albumen ever being discovered in the urine. Yet the occurrence of such cases was known to Wilks, of Guy's Hospital, in 1852; and Mahomed, in 1879 and 1880, described a number of them. These, however, were all cases of red granular (fibroid) kidney, occurring in middle life or old age, and usually associated with such typical symptoms of this affection as marked cardio-vascular changes, and at some time or other in the course of the disease polyuria. The symptoms were those now known as common to arterio-capillary fibroid kidney, often rather cardiac than renal. None, so far as the speaker knew, had described such cases as certain of those whose history he related. In all, albumen was totally absent from the urine, and a tendency to diminution rather than any increase in the normal amount of urine had always existed. Nitrogenous excretion was lessened, and casts (in all hyaline, in several granular, and in one also waxy) and kidney epithelia had been discovered in the urine. In several (young adults) cardio-vascular changes were absolutely undetectable, though arterial tension was high, and the apical second sound accentuated. In others (in middle life) cardio-vascular changes were slightly present, but the apex beat was not displaced. In nearly all some uræmic symptoms had occurred, and had drawn attention to the kidney ailment. In several, eye changes were present. In conclusion the cases reported presented symptoms other than those of typical granular kidney, and the ease with which the number reported was collected, after the first of them observed was recognised, indicated that they were probably of common occurrence, though generally overlooked.

A paper on "The Clinical Study of the Disease Known as 'La Buba'" was read by Drs. Luis Razetti and N. Guardia, jun., of the University of Caracas. They described la buba as a contagious, inoculable disease, endemic in some tropical regions, and characterised by a vesiculo-pustular eruption, followed by fungoid ulcerations. There was no fever unless there were a secondary infection; no prodromata. The eruption began as a vesicle which, after a period more or less long, became an ulcer, called the mother buba. This mother buba was not permanent. It might disappear before the secondary phenomena presented themselves, or might persist during the whole course of the disease or even longer. The mother buba presented itself only in portions of the surfaces of the body not covered by dress. The secondary manifestations consisted of a general eruption of ulcerating pustules. These became fungoid, and covered with a yellowish crust. These pustules were the seat of pain and itching. The mother buba alone presented an indurated base, and was followed by a scar; whilst the other ulcers left only spots that subsequently disappeared. The duration was from nine to twenty-four months. A solution of continuity of the skin was indispensable for the contagion. This might be produced by the bite of insects. The buba was then an infectious disease, and must have for its cause a micro-organism not yet isolated. The disease was not a syphilitic manifestation. There was no hereditary tendency. The buba could not be confounded with any other disease. The only treatment thus far employed consisted of mercury, iodide of potassium, and antisepsis of the skin. Prophylaxis was of the greatest importance.

A paper on "The Cause of Yellow Fever," was read by Dr. J. B. de Lacerda, of Rio de Janeiro, Brazil. He presented to the Congress the conclusions of a book shortly to be published with the title of *Le Microbe Pathogène de la Fièvre Jaune*. After a study of the black vomit, the urine, the blood, the tissues of the kidneys, the liver, the stomach, and the intestines, he was convinced that the pathogenic microbes of yellow fever were not bacteria, but rather a polymorphous fungus. This fungus, cultivated upon a nutritive medium rich in nitrogenous matter and the hydrocarbons, if supplied with air sufficiently and kept at a temperature of 33° to 35° C., grew an abundant mycelium, and round or elliptic gonidia of a golden colour. Cultivated in a saccharine medium the fungus assumed the torula form, showing the same colour. In this shape it acted as a ferment upon the sugar. It was under this form that he had found the fungus in the mucous membrane of the stomach, in the vomited matters, in the urine, in the kidneys and the liver. In the latter organ the fungus often took the form of hyaline cells with a double contour. It was very rarely found in the blood. The mycelial form could be grown, upon the proper media, from the torula. After many fruitless attempts, he had succeeded in producing some of the symptoms of yellow fever, and the lesions of the liver and kidney, in guinea-pigs. These results had been obtained by injecting into the stomach, previously made acid by tartaric or lactic acid, the spores of the fungus. Two or three days later the temperature would rise 2°, and death would follow in five or six days. One of the animals presented suppression of urine, and the bladder was found empty after death. Microscopical research proved the presence in the kidneys, liver, and stomach of these animals, of the torula fungus, with hyaline cells of double contour. He was convinced that the infection in yellow fever took place in the stomach. The poison or toxine was elaborated there, and it attacked and corroded the mucous membrane, the walls of the capillaries, and the blood. The anuria was due to obstruction of the venal tubules by masses of fungi mixed with solid albumen, and epithelial *débris*. He proposed as a basis of treatment the flushing and disinfection of the stomach. A few cases with encouraging results were reported. He had found that the oil of eucalyptus could be used with advantage as a disinfectant in the stomach, and that the perchloride of iron acted as a germicide upon the torula form of the fungus.

A paper on "A New Disease of the West Indies" was read by Dr. Cuthbert Bowen, of Barbados, West Indies. He said that, during his four years' stay in Barbados, he had noticed a peculiar inflammatory condition of the buccal mucous membrane and alimentary canal occurring coincidently with a sharply-defined pigmentation (symmetrically) on the dorsal aspects of the hands and feet. The alimentary disturbances strongly resembled Indian sprue (psilosis), but sprue had not this pigmentation. Details of cases were given, showing the futility of treatment. The results of *post-mortem* examination, as far as microscopical appearances went, showed the lesion to be in the large intestine. Rectal and intestinal medication was indicated and used with good result temporarily. Syphilis and leprosy often accompanied the condition, but were shown conclusively not to be the etiological factors. The dermatological manifestations were fully described, the points of affinity and disagreement with pellagra, etc., being pointed out.

The *St. Petersburger medicinische Wochenschrift* states that Miss Sophie Bakunin, a daughter of the late well-known revolutionary politician of that name, has lately taken the degree of Doctor of Medicine and Surgery in the University of Naples. Miss Bakunin is now 22 years of age.

Universal Exhibition at Madrid.—A Universal Exhibition is to be held at Madrid from April 1st to October 31st, 1894, "under the High Protection of Her Majesty the Queen Regent of Spain, and under the Ægis and Patronage of an International Committee composed of notorious persons from all countries," to quote the words of a circular which we have received. In the Section of "Liberal Arts" we find medicine and surgery side by side with stationery and photography. The Section of "Health, Games, Sports" includes "hygiene of the body, baths, massage, hydropathy"; in the Section of Civil Engineering, etc., "Public Hygieine and Hygieine for Dwellings" are represented, and the Section of "Aliments" consists entirely of "Solice Produces" and "Liquids Produces."

American Jottings.—Boston is to have a new medical school, the trustees of Tufts College having decided to establish one in connection with that institution. It is to be opened in October, and male and female students are to be admitted on an equal footing. Dr. Albert Nott is the Dean, and Dr. Charles P. Thayer the Secretary of the new school.—The Johns Hopkins University at Baltimore has also thrown open its gates to women wishing to be instructed in the art of healing. They are to be admitted on the same footing as men, and on the same conditions, that is to say, they must have a collegiate degree, or produce evidence of an equivalent education. The medical curriculum in the Johns Hopkins School has been extended to four years.—Dr. Henry W. Williams, for many years Professor of Ophthalmology in the Medical Department of Harvard University, has given 25,000 dollars (£5,000) to the medical faculty toward the endowment of a full professorship of ophthalmology. The department of physiology and pathology in the same school has received a gift of 10,000 dollars (£2,000) from Miss E. Ellis.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently died are Dr. Charles W. Parsons, Professor of Physiology in Brown University (U.S.A.), aged 70; Dr. E. Kolisch, of Vienna, a well-known specialist in the diseases of children; Dr. William B. Towles, Professor of Anatomy in the University of Virginia, aged 53; Dr. Cesare Olivieri, for many years Surgeon to the Ospedale degli Incurabili and the Ospedale dei Pellegrini at Naples; Dr. Henry B. Millard, sometime Professor in the New York Medical College and Hospital for Women, and a member of the New York State Board of Medical Examiners, aged 61; Dr. William T. White, Editor of the *Medical Register* for New York, New Jersey, and Connecticut, and formerly Surgeon to the Presbyterian Hospital, and Vice-President of the New York Academy of Medicine, aged 64; Dr. Lyman Bartlett How, for twenty-five years Professor of Anatomy in Dartmouth Medical College, aged 55; Dr. Yoshito Inoko, Professor in the University of Tokio, who had been working for the last twelve months in the laboratory of Professor Kossel in Berlin; and Dr. Richelot, one of the founders and for many years Editor of the *Union Médicale*, and for many years inspecting physician of Mont-Dore, aged 87. Dr. Richelot was a man of very high character and an able and cultered physician. He translated the works of John Hunter into French. His son, M. Gustave Richelot, is a prominent surgeon in Paris.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1893.

Subscriptions to the Association for 1893 became due on January 1st; and notice is hereby given, in accordance with By-law 5, that Branch Secretaries' subscription accounts close on October 31st, and all unpaid subscriptions must be forwarded after that date to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, OCTOBER 14th, 1893.

THE TEACHING OF OTOLOGY.

I.

Mr. Bendelack Hewetson's address to the Section of Otology at the annual meeting at Newcastle on the study of otology (which was published in the British Medical Journal of August 5th) raises questions which are of considerable importance in reference to the education of the medical practitioner. The propositions he advanced were briefly as follows:—(1) That students may pass the highest professional examinations without being questioned on diseases of the ear; (2) that the provision for teaching this subject is very deficient in many of our schools; (3) that in the whole of the United Kingdom there are only seven places where systematic courses of lectures are given upon it, and only one of these where a professorship of otology has been founded; and (4) that as a result of the extremely limited appreciation of the subject by both students, teachers, and examiners, the profession is pervaded by a dark and lamentable ignorance on the whole matter of diseases of the ear. This is a severe indictment, but we cannot say that it is altogether unfounded. There are plenty of schools of good repute in which diseases of the ear are merely dealt with as part of the general course on surgery, and as to the examining bodies, there are hardly any which deal with them in any other way. The results are obvious. However well it may sound in introductory lectures to say that knowledge of every kind is good, and that in the search for it the student gets his full reward, there is unhappily facing everyone on entering into life the prime necessity of earning a living, and the student finds before him, keeping strict guard over the fleshpots, a whole posse of examiners, whose dictum is final and unquestionable. It is not, then, to be wondered at that medical students, appalled, as they well may be, at the vastness of the field of knowledge offered for their acquisition, weigh and measure its different branches by the simple rule of "what pays best," and select out of the pile such things as they imagine will best appease the ire of those mighty janitors who hold the key to their profession. Otology is evidently not yet looked upon as an acceptable offering. Except, indeed, as a means of providing cases for trephining, diseases of the ear contain but little to tempt the goodwill of those who sit in upper chambers on the Thames Embankment, and, therefore, as regards them, the average student excels in ignorance.

It seems quite clear that one of the most effective steps for the removal of this reproach would be the institution of specific examinations on such special subjects. Both teachers and students take their cue from the examiners, and the responsibility ultimately falls on the qualifying corporations. It seems hopeless, however, to expect help from that quarter. So long as even in regard to ophthalmology—which for upwards of thirty years has been a recognised speciality, taught by separate teachers, in separate wards, with separate staffs—the Colleges do not see the desirability of calling in special assessors to assist in the examination, we can hardly expect that any proposal to ask an otologist to examine in diseases of the ear would be for a moment entertained. And yet it does not seem an extravagant proposition to say that before a man obtains a licence to practise he should give proof by certificate that he has been taught concerning these diseases, and by examination that he knows something about them. At present there seems no security as to either the one or the other.

Mr. Hewetson said: "During the preparation of this address a young medical man, having recently obtained the highest psssible degrees in medicine and surgery in England, applied to me, asking my advice as to how he should proceed to treat cases of otitis in children, associated with scarlet fever, measles, and the like. I expressed my surprise that, having taken such high degrees, these subjects should not have been within the range of his reading and studies. I asked him if, in all the examinations he had passed so successfully, he had ever had a question set in otology. His reply was that 'he had never been asked a single question in otology.' It was with these memories ringing in my ears that I undertook to touch in this address rather upon the weakness than upon the strength exhibited from an otological point of view in the training of medical men, in the middle period chiefly, of this nineteenth century. The effects of the absence of this training are as yet painfully evident, and freely and candidly and generously admitted by some of the most worthy general practitioners with whom it is my daily privilege to confer. When I was attending the meeting of the International Otological Congress at Basle some years ago, it occurred in one of the debates how seldom aurists ever saw a case of otitis media in its association with an attack of scarlet fever, and in thinking this over I tried to recall how many I had myself seen since that date—1880, I believe. At the same time, I find—and it will be in the experience of all—that we are treating the disastrous results of scarlatinal otitis every day; their name is legion; and yet I could call to mind only one case in which I had ever seen in consultation a case of otitis media due to scarlet fever during the progress of the fever."

Perhaps some cynically-minded individual will see in all this naught but the bitter cry of still another specialism for official recognition. Where, it may be asked, is all this to end? Skin, bladder, eyes, ears, throats, and noses are snippings taken by the specialists from general surgery, just as special physicians pick out from the human frame its nerves or its digestive organs, the poor general practitioner being left to patch up the remainder as best he may. Few things are more grotesque than the modern attempt to divide the treatment of the different regions of the body among as many separate specialists; and we may say at once that if the object of establishing a chair of otology

were the education of a race of otologists we would have nothing to say in its favour.

It may probably be taken broadly as true that the success of specialism among the few is the result of want of special knowledge among the many. And this is no reproach if the knowledge so lacking be a something truly special—something so rarely wanted in ordinary practice as not to be worth keeping in touch with. There will probably always be a fair field for specialists. The rarity of some diseases, the difficulty of some forms of treatment, the manual dexterity, the "knack," required for certain operations, the impossibility of a man engaged in general work keeping up to the latest move in every department leave plenty of honourable scope for special workers; but that is a very different thing from saying that whole departments of knowledge and of practice are to be handed over to specialists.

We often hear much scorn thrown at the "narrow" knowledge of the man who only treats one organ, but what are we to say of the general practitioner who looks upon "the specialities" as outside his work? Why, there are twenty of them, and his knowledge is like that of the boy who learns geography on a tattered map. Well might the people wonder where the Nile came from when Central Africa appeared marked upon the map as "Desert;" and well may the practitioner who looks upon astigmatism as a thing pertaining to the specialist puzzle over the headaches of his patients.

The whole frame is the proper field for the general practitioner, who should call in the specialist when out of his knowledge he sees that something special can be done, not when out of his ignorance he finds that he has stuck fast. If for no other reason than that without it it is impossible to understand disease a great amount of knowledge which is now special to the specialist should be made general among general practitioners, and at the least each man should start on his career with knowledge in every department well up to the date of his qualification. For this purpose the best teaching available is absolutely essential.

THE WOUNDS INFLICTED BY THE LEE-METFORD RIFLE.

WE have lately been enabled to publish reports of a series of cases of injury produced by the new magazine rifle bullet, which, while they are of general interest to the profession, are of special interest to army surgeons. Although a large number of experiments have been made and fully reported on, in this country and on the Continent, regarding the wounds caused by rifles firing bullets of small calibre, that is, of 0.350 of an inch or thereabouts, the number of instances in which men have been injured by the projectile of the Lee-Metford rifle has hitherto been very small. The experiments in this country were carried out by firing the new rifle against the carcasses of recently-killed horses, and, besides these, the only data we have had to go on have been the results of some four or five wounds accidentally produced. Two of the latter were very fully described by Surgeon-Captain Perry Marsh in the *Journal of the United Service Institution* for April, 1892. In one of these cases the man was hit at a distance of 2,500 yards, and in the other at 100 yards. In both cases the bullets traversed soft parts only, and the wounds healed quickly without suppuration or other complication. Of these two cases the result in the first quite coincides with all we have learned from the small experience at our disposal of wound by small bore bullets through soft parts at long ranges. The second case is exceptional. At short ranges these projectiles, even when soft tissues only are implicated, usually produce wounds of great extent on the exit side of the track; sometimes the so-called "explosive effects" are seen even without injury to bone. The experiments made in France by MM. Delorme and Chevasse, of the Val-de-Grace, showed that the wounds caused by the bullets of the Lebel and Gras rifles, at short ranges, were of extreme severity; the muscles were pulped, the bones greatly comminuted and fissured, portions of them being driven in all directions through the soft parts; and when long bones were hit great loss of substance occurred at the seat of fracture. In one instance a distance of nearly four inches existed between broken ends in a case of fracture of the femur. When the shafts of the long bones were struck the fissuring frequently extended into the joints above and below. At long ranges fissuring of the shafts of long bones was still the rule, but the fragments were not separated from their periosteum, and consolidation of the pieces and recovery were more probable.

Professor Bruns, of Würtemberg, on the other hand, considers that the wounds produced by small bore bullets are of less importance than those of larger calibre. At the same time he is of opinion that the weapon suits its purpose excellently, because it just achieves the object aimed at in inflicting wounds in war—to place the largest number of the enemy *hors de combat*—without killing them outright. He concludes a report on the subject, published this year, by saying: "The new rifle of small calibre is not only the best, but it is also the most humane, in that it lessens as far as possible the horrors of war."

The weapon experimented with by Professor Bruns much resembles the Lee-Metford rifle; its calibre and initial velocity, the points on which its penetrative and destructive power depend, are about the same, and we fail to see how the word "humane" can be properly applied to a rifle which inflicts such wounds as that in the first case described by Mr. Bone, of the Clayton Hospital, and published in the BRITISH MEDICAL JOURNAL of September 30th. The wound of entrance was small, $\frac{1}{2}$ inch in diameter, and its edges not lacerated nor contused; the bullet passed through the head of the tibia, making an exit wound close below the patella. This wound was from $\frac{3}{4}$ inch to $1\frac{1}{4}$ inch in diameter; the edges were everted and lacerated. The cancellous structure of the head of the bone was completely broken up and the knee-joint opened. The man's condition was so feeble, from shock, that but little could be done for him, and he died seven hours after the receipt of the injury. The distance at which it was inflicted was not ascertained, but it was probably not at very close quarters; on the other hand the range cannot have been a long one, because such damage as occurred to the cancellous end of the bone is not usually produced at great distances.

In the second case, that of the collier J. B., a very much more severe injury might have been expected, considering that the distance at which it was produced was only 50 yards. "Explosive effects" are usually produced at such short ranges, and, if the distance was correctly stated, it must have been

that the humerus was merely grazed by the bullet. A mere graze by such a bullet is quite capable of producing the severe fracture seen in this case, and may be the explanation of the absence of the terrible condition of injury usually met with under the conditions of range present in this case.

In the third case, that of W. T., the bullet struck the skin at a small angle, making, as is common under such circumstances, an elliptical wound of entrance; it then passed through the scapula where the bone is thinnest, beneath the spine, and made its exit over the spines of the fifth and sixth dorsal vertebræ. Although the bone traversed in this case was thin, and could offer but little resistance to the bullet, yet the comminution of the scapula was very extensive, and fissures radiated from the perforation.

The injury produced in the fourth case was a severe one, considering that it occurred at 600 yards, and that the bullet pierced a strong leather boot before entering the foot. The entrance wound was 1¼ inch by ¼ inch, and much lacerated, its increased size and the laceration being probably accounted for by the fact that the skin was well supported by the bones beneath, and that thick leather had to be pierced before the bullet entered the tissues. The heads of the four metatarsal bones were broken, and the bullet was embedded in the outer one; but, nevertheless, an opening was found in the skin on the outer side of the foot, where the bullet should have passed out, and through it one of the flexor tendons of the fourth toe projected. What was the cause of this second wound? The bullet lodged, and weighed after removal within 4 grains of its original weight; the cupro-nickel envelope "was broken," but it is not stated that any of it was wanting.

The injuries found on *post-mortem* examination in the case of suicidal wound of the skull, described by Surgeon-Captain Cockerell, are similar to those seen in nearly all wounds of this region, whether the muzzle of the rifle be placed in the mouth, as in suicidal cases, or when the weapon is fired from a distance. The skull, and its semi-fluid contents, acts like a closed vessel filled with liquid, and is burst and fissured in every direction. At the same time, the small size of the wound of exit is noteworthy. Surgeon-Captain Stables's case is typical of the injuries by the Lee-Metford and other small bores at such long ranges as 2,000 yards, where compact bones are not traversed; the wounds of entrance and exit were of the same size, and recovery was rapid. Of the two fatal cases which we published last week, one was almost instantaneously fatal from wound of the aorta, and the other is a good example of the bone injuries caused by the Lee-Metford rifle at short ranges. The fracture of the humerus was comminuted and fissured, and fragments of bone were driven across the axilla into the pectoral muscles.

The results of experience, and of experiment on dead bodies (of men, not of animals only), regarding the effects of small-bore bullets driven at high rates of velocity are just now of the greatest value, in order to enable surgeons to judge of the kinds of lesions which may be expected in future wars, and should be published when occasion offers.

We understand that the evidence given before the Royal Commission on the Metropolitan Water Supply is now in the press, and will be published shortly.

CREMATION AT THE CHURCH CONGRESS.

It is a somewhat curious illustration of the advance of the modern cremation movement, that between three and four columns of last Saturday's *Times* were filled by a report of a discussion at the Church Congress on the disposal of the dead, in which cremation was chiefly concerned. Dr. Bostock Hill, Professor of Public Health in Mason College, Birmingham, the Rev. Brooke Lambert, and Sir Douglas Galton all advocated cremation very forcibly, while Mr. Seymour Haden and Dr. Poore opposed cremation and advocated earth-to-earth burial. The Rev. F. Lawrence, the indefatigable Secretary of the Church of England Burial Reform Society and Sanitary Association, in a sermon on behalf of these societies, preached during the Congress on the text "A sower went forth to sow" (Matthew xiii) said that such as the sowing was such would the harvest be. From the seeds sown of diphtheria, consumption, and other diseases communicable by germs, the harvest of deaths in 1890 in England and Wales alone was nearly 70,000. Such seeds should be destroyed, and in their place the seeds sown of health, strength, and long life. But these could grow only in an environment of cleanliness, fresh air, pure water, dry soil, and wholesome dwellings.

We are glad to welcome such teaching as this from the pulpit, and also to find that at a meeting during the Congress of the Church of England Sanitary Association it was resolved to send the following memorial to the President of the Local Government Board:

"Your memorialists represent a Society which has for one of its objects to aid in securing for all the greatest possible immunity from infectious diseases; your memorialists ask you to take such steps as shall render imperative by law destruction before burial of the infectious germs remaining in the body when death has arisen from cholera or from any other disease communicable by germs."

The Cremation Society of England has never endeavoured to make cremation compulsory. It has very wisely been content with the attempt to influence public opinion by making known the evils which must follow burial in the earth of the entire dead body, even when death has not been caused by infectious disease. Of course the argument is strengthened when a body full of infected germs is buried, and the advocates of cremation use this as the chief objection to the earth-to-earth system. But it would, we think, be very unwise in the present state of the public mind to attempt to enforce cremation, even during the spread of an epidemic of infectious diseases. Let the public once become convinced that their health and lives are endangered by the burial, near the living, of poisonous dead bodies, and the demand for protection would come from them. This would be far better than compulsory legislation.

It has been said and repeated of late that our Cremation Society has not done much good, and that the movement has progressed very slowly. In our opinion this reproach is absolutely unfounded. It is not yet ten years since the first human body was cremated at Woking, yet since the first in 1885 till the end of last June, more than four hundred have been reduced to ashes there. A crematorium has been finished at Manchester, where more than twenty bodies have already been cremated. At Glasgow and Liverpool works are in progress. Even if nothing more had been done, we think that

The Society has a just claim upon the gratitude of all who are interested in the promotion of public health. At first the Society encountered and overcame the opposition of Government; it proved that cremation was not illegal; and it answered a variety of objections, sentimental and so-called religious; and, most important of all, the medico-legal charge that it might conceal poison or murder, and so act as an incentive to crime. Anyone who will refer to the report which we give in another column of the Birmingham meeting, may judge without any help from us how much the cremation movement has been advanced of late. What the Government may do upon the report just issued of the Select Committee of the House of Commons upon Death Certification remains to be seen; but we trust that in the hands of Sir Walter Foster and Sir Charles Cameron the scandalous negligence so common in the United Kingdom will lead to more careful inquiry in every case of death, and more accurate certificates, before either earth burial or cremation be permitted. The discussion at Birmingham must be regarded as a distinct encouragement by all advocates of cremation.

SIR JOSEPH LISTER will give an address, entitled, "Essentials in Antiseptic Treatment," to the King's College Medical Society on Friday, October 27th, at 7.30 P.M. Tickets may be obtained from Mr. W. Turner or Mr. R. H. P. Crawfurd, at the Hospital.

ON Saturday next the Vice-Chancellor will formally open the new buildings of the department of Human Anatomy of the Oxford University. There will be a lunch at Exeter College before the ceremony.

THE name of Mr. E. C. Garland, L.R.C.P.Edin., M.R.C.S., of Yeovil, should be added to the list of candidates for the post of coroner for the North-Eastern Division of the County of Somerset.

SIR EDWARD FRY will distribute the prizes gained in the Faculty of Medicine of the University College, Bristol, on Friday, October 20th. In the evening the annual dinner will be held at the Imperial Hotel, Clifton. The chair will be taken by Dr. W. G. Grace. The honorary secretary of the dinner committee is Mr. J. Paul Bush, Vyvyan House, Clifton, Bristol.

A MEETING was held in the Shelbourne Hotel, Dublin, on Monday, to promote a memorial to the late Surgeon-Major Parke. Mr. Hamilton, President of the College of Surgeons, presided, and a committee was appointed to carry out the object of the meeting.

DUBLIN WATER SUPPLY.

THE practical absence of rain has forced the Dublin Corporation to announce that from Monday next the canal water will be turned on for the use of the population. The main reservoir has fallen nearly 30 feet below ordinary level, and, so far as the Vartry supply is concerned, there is a water famine. The quality of the water to be supplied is good, but the pressure will be quite insufficient to carry it to the upper storeys of most houses. There is a danger, therefore, of defective flushings of the house drains, and of an outbreak of disease later on.

HOLIDAYS FOR IRISH DISPENSARY DOCTORS.

THE proposal to give an annual holiday to the dispensary doctors in Cork, the substitute to be paid by the guardians, receives some opposition from one of the newspapers in that city. The grounds of objection are that the doctors do not give their whole time to the service of the poor, that they are allowed to engage in private practice, and that, so long as they are accorded this privilege, their claim upon what may be regarded as but one section of their clients must be considered a weak one. This statement is plausible, but it is to be remembered that the recompense given to the doctors is ridiculously small, having regard to the amount of work to be performed, and that other public servants do receive holidays even where they have divided duties. The dispensary doctor must place his duty to the poor before all claims from private patients, and in many cases these officers have hardly any private practice at all. It is upon these especially that the hardship of having to pay a substitute or do without a holiday falls most heavily. No public officers do more work or run more risks of death in the interests of the public than these gentlemen, and it is painful to find any newspaper suggesting a policy which, at its highest, is ungrateful and paltry.

THE CHAIR OF MIDWIFERY AT BELFAST.

DR. JOHN W. BYERS, M.A., has been appointed by the Viceroy Professor of Midwifery and Diseases of Women and Children in Queen's College, Belfast, in the room of the late Professor Dill. Dr. Byers, who received his medical education at Queen's College, Belfast, graduated M.D. in the Queen's University in 1878, and after a residence for some time in London, where he became a Member of the Royal College of Surgeons, he was appointed Physician to the Hospital for Sick Children, Belfast, in 1879. In 1882 he was in charge of the newly formed special department for diseases of women of the Royal Hospital, Belfast, and has since had continuous experience in teaching. His name has become widely known by numerous excellent contributions on obstetrics and gynæcology, and he has been for many years the active Honorary Secretary of the North of Ireland Branch of the British Medical Association. Our Belfast Correspondent writes: According to general expectation, Dr. John W. Byers has been appointed to the Chair of Midwifery in the Queen's College, Belfast. The appointment is one which will command the entire approval of the medical profession in Belfast and the north of Ireland, and will redound to the advantage of the Queen's College. Dr. Byers's well-known abilities as a teacher and writer, his eminence as a practitioner, and his long devotion to obstetrics and gynæcology have marked him out as pre-eminently fitted to fill the vacant chair.

THE ARMY MEDICAL SCHOOL AT NETLEY.

WE publish in another column a letter from Surgeon-Major Hayes, stating, with reference to the opinion expressed in a paragraph published in the BRITISH MEDICAL JOURNAL of September 30th, page 754, to the effect that the instruction given to officers of the Indian Medical Service at Netley in duties connected with bearer companies and field hospitals was perfunctory, "is not quite correct." We have received other letters from officers connected with the army medical school at Netley, also finding fault with our criticism. It appears to be admitted that there is practically no instruction in field hospital work. This is due to the fact that no facilities have been granted to the school for giving such instruction. The point at issue, therefore, narrows itself to the efficiency of the instruction in duties connected with bearer companies. We understand that while at Netley the officers are put through bearer company drill, and also stretcher drill, and are shown the method of loading wounded into wagons. Further experience is gained in practical work by army medical officers at Aldershot, but the officers of the Indian Medical Service have not this advantage. One of our correspondents traverses the statement that officers of this service on their arrival in India have to be attached to station hospitals for the purpose of learning duties in connection with bearer companies and field hospitals. We believe, however, that it is a fact that

officers on their arrival in India are thus attached to station hospitals, except in cases where there is at the moment a great dearth of officers. There may be no recognised official rule, but the practice is, we believe, as we have stated.

AN AUSTRALIAN SUBSTITUTE FOR A POOR LAW.

We have received the annual report of the Immigrants Aid Society's Homes at Melbourne, from which it appears that the average number of inmates had been 744, the number of individuals admitted being 1,457. Casual relief in the form of supper, bed, and breakfast was given to 1,467 people, 13,495 meals were given to destitute men, and outdoor relief was afforded to 33 families. The total income of this curious Society amounted to under £8,500, of which £7,300 was a Government grant. More than half the inmates were old people, and 473 of them were suffering from chronic ailments, the rest being of the mixed type seen in our workhouse infirmaries, providing a rich and large material for study and investigation, as is pointed out in the report by Dr. Louis Henry, the visiting medical officer. Evidently the Society does useful work and performs a duty which in one way or another has to be undertaken by some one in every community, namely, the care of the aged, the sick, and the destitute who are refused by other charities.

DIPHTHERIA IN LARGE ENGLISH TOWNS.

London appears to be the only large English town in which diphtheria shows fatal prevalence at the present time. Of the 88 deaths from this disease registered last week in thirty-three of the largest English towns, no fewer than 74 were recorded in London: and of the remaining 14 deaths, 1 occurred in each of twelve towns, and 2 in Hull. While the rate of mortality from diphtheria in London during the past three weeks exceeded 1.0 per 1,000, the rate in the thirty-two large provincial towns has been less than 0.2 per 1,000; the diphtheria death-rate in London has therefore been more than five times as high as in the large provincial towns. It is satisfactory to note that the 74 diphtheria deaths in London last week showed a marked decline from the number in the preceding week, which was the highest on record.

CENTENARY OF THE DEATH OF JOHN HUNTER.

On October 16th, 1793, John Hunter died, aged 64. The fall of the centenary of that event within the coming week naturally brings all the circumstances connected with it into prominence once more. One of the best accounts of the tragic event is given in Drewry Ottley's life of the great surgeon which is attached to Palmer's edition of Hunter's works. For a few years preceding 1793 unhappy disagreements had existed between Hunter and his colleagues at St. George's Hospital. The former displayed a blunt and overbearing manner towards other members of the staff, who considered that he attended to physiology more than surgery, and looked upon him as an innovator and an enthusiast. Early in 1792 Charles Hawkins resigned the post of surgeon to the hospital, and Keate and Home competed for the vacancy. The latter was supported by Hunter, the former by all the other medical officers except Dr. Baillie. Several Royal Dukes voted for Keate, who was chosen by a majority of 134 against 102. Early in 1793 Hunter decided no longer to share equally with his colleagues the admission fees of the pupils, since the majority of the students entered under his name. The matter was submitted to the decision of the governors at a Special Court held in March. Before that date Hunter forwarded to each subscriber a letter setting forth his view of the question, and charging his colleagues with neglect of their duties. The reply of Hunter's opponents was a lengthy document. The decision of the Court was given against Hunter. A committee subsequently drew up a code of rules for regulating the admission and instruction of pupils. Amongst the regulations was one which determined that no person should be admitted as a student of the hospital without bringing certificates that he had been educated to the profession. This regulation, it was believed, was designed to exclude Hunter's countrymen, who sometimes came to London recommended to him, and entered as his pupils at the hospital without having had any previous medical instruction. In the autumn two young men came to town, ignorant of the new regulation, and applied to Hunter to be admitted under him at the hospital. He undertook to press for their admission at the next board-day, October 16th, though he was apprehensive that if any unpleasant dispute should occur it would prove fatal to him. "Arrived at the hospital, he found the Board already assembled, and, entering the room, presented the memorial of the young men. . . . . In the course of his remarks he made some observation which one of his colleagues thought it necessary instantly and flatly to contradict. Hunter immediately ceased speaking, retired from the table, and, struggling to suppress the tumult of his passion, hurried into the adjoining room, which he had scarcely reached when, with a deep groan, he fell lifeless into the arms of Dr. Robertson, one of the physicians of the hospital, who chanced to be present. Dr. Baillie had immediately followed him from the boardroom, and Mr. Home, who was in the house, was also summoned to his assistance. Various attempts were made for upwards of an hour to restore animation, under the hope that the attack might prove to be a fainting fit such as he had before experienced; but in vain; life had fled, and, all their efforts proving useless, his body was placed in a sedan chair and conveyed to Leicester Square, followed by his now vacant carriage." The body was examined after death. The carotid arteries and their branches within the skull were in parts thickened and ossified. The heart was small and wasted. Two opaque white spots were seen on the left auricle and ventricle. The branches of the coronary arteries ramifying through the heart were converted into long tubes, with difficulty divisible by the knife. The mitral valves were much calcified. The aortic valves were thickened and the inner surface of the aorta was studded with opaque and elevated spots. Hunter's body was at first interred in a private manner in the Church of St. Martin-in-the-Fields, whence it was removed to its present fit resting place, Westminster Abbey. During the hundred years elapsed since Hunter's death the world's deep indebtedness for much of the present advanced position of surgery to Hunter's incomparable industry and genius for experimental research has been more and more widely acknowledged.

THE APOTHECARIES' ACT IN THE COLONIES.

A novel legal point, which may have an important influence on the practice of medicine in the Colonies, was raised by a case heard in the District Court of Melbourne, on August 23rd, before the stipendary magistrate and a bench of honorary magistrates. A herbalist was charged with practising as an apothecary, contrary to the spirit of the Apothecaries' Act. According to to the report in *The Melbourne Age*, Dr. Mullen, who conducted the case at the instance of the Victoria Branch of the British Medical Association, stated that certain sections of the Apothecaries' Act which came into operation in 1815 were embodied in the Victorian Medical Act, but there were several clauses which were omitted from the latter statute. The sections omitted were never absolutely repealed by the Victorian Legislature, and the Victorian Branch desired to establish that the discarded parts, although the substance of an Imperial Act, still governed the sale of medicines in Victoria as well as in the other colonies. When England granted the Charter of Self-Government to the Australian Colonies, it was understood that the Imperial Acts would apply to the Colonies, and accordingly the Apothecaries' Act was in force in Sydney in 1827. Mr. Dawson, who appeared for the defendant, contended that the Act was a dead letter as far as Victoria was concerned, as its title showed that its provisions were specially and exclusively applicable to apothe-

caries practising in England and Wales. He contended further that the Imperial Act was over-ridden by the Victorian Medical Act, in which there were a number of clauses dealing with pharmacy and pharmaceutical chemists. The bench however decided to hear the case. Formal evidence was tendered, and the bench held the case proved. Dr. Mullen pointed out that the lowest penalty was £20, but added, that as the only object of bringing the action was to make known that the Act was in force in the colony, he would not ask for costs. A fine of £20 was imposed. Mr. Dawson stated that the case affected about 30,000 persons, grocers, "herbalists," and "Chinese doctors," in the different Colonies, and added that it was probable that he would be instructed to appeal. Dr. Mullen undertook to refrain from instituting similar prosecutions for a period of three months.

FATAL CASE OF POISONING BY PYRIDINE.

CASES of poisoning by this substance are sufficiently rare to be worthy of a few words of comment when they occur. The case recorded in another column is particularly remarkable on account of the large quantity (about half a cupful) taken. All smokers will probably recollect the inconveniences accompanying or following the smoking of their first pipe—the pallor, nausea, vomiting, and cold sweating so generally characteristic of the first introduction of pyridine in small traces to their unaccustomed bodies. Poisoning by a large dose of the crude drug is, however, quite another matter. According to Cantani, in his admirable work on therapeutics, pyridine is a strongly alkaline, irritant poison, as well as a drug possessing a profoundly deleterious effect on the medulla, and especially on the respiratory and cardiac centres situated therein. It diminishes reflex irritability, producing slowing of respiration and fall of blood pressure, with nausea, diarrhœa, and profuse sweating. The drug rapidly appears in the breath and the urine. The use of such a powerful poison to render alcohol undrinkable appears to be unnecessary, and it would be well that some less dangerous substance should be used in future. Medicinally pyridine has been used with much success by Germain Sée, Neff, and others in the treatment of asthma and of angina pectoris. The method advocated by the former observer is to place about a drachm on a plate in a small room and allow it to become slowly vaporised, the patient sitting in a corner of the room for twenty minutes at a time, and inhaling the air charged with vapour. It gave relief in a great number of cases, and effected a permanent cure in cases of purely nervous origin. In all cases it enabled the patient to enjoy undisturbed slumber at night. Cerna states that pyridine has also been used internally in doses of 2 to 3 minims, and as an injection with 300 parts of water in gonorrhœa. In dyspnœa, from a variety of causes, it is said to be of great service when inhaled. It probably deserves more attention than it has at present received in such cases.

DEATHS UNDER CHLOROFORM.

Two cases in which death occurred while the patient was under the influence of chloroform, in order to permit of an operation about the mouth and nose, have come to our notice recently. For the particulars of one we are indebted to Dr. Selby W. Plummer, House-Surgeon to the County Hospital, Durham. The patient was a healthy miner, aged 63, who on September 29th was placed under chloroform for the removal of a recurrent growth springing from the middle turbinated bone of the right nostril. It did not encroach on the posterior nares. As on three previous occasions, he took the anæsthetic well, and, with little initial struggling, the operation was completed quickly, the pulse remained regular, and breathing full and easy. The anæsthetic was removed, the conjunctiva had become sensitive, the pupils reacted, and the patient moved when roused, when, just as he was about to be taken to the ward, respiration became suddenly shallow, and then ceased, and the pupils dilated. After the head had been lowered, artificial respiration resorted to, a hypodermic of ether given, and the battery applied to the chest, which was also flicked with a cold towel, respiration began again, the patient coughed, attempted to vomit, and seemed out of danger. The breathing, however, again ceased, and the heart, which had continued beating, now began to fail; acupuncture was tried, and tracheotomy performed, but the prolonged efforts to revive the patient failed.

On *post-mortem* examination, old pleurisy was found on both sides of chest, the lungs deeply pigmented, being healthy and the bronchi patent. The pericardium was covered with fat, and contained about a drachm of clear serum. The heart, slightly enlarged, and coronary vessels engorged, showed very slight traces of fatty degeneration, the wall of the right ventricle being thin and somewhat pale. The muscular tissue was firm and otherwise healthy. All the valves were healthy and quite competent. About three-quarters of an inch above the aortic valves, a small calcareous nodule was present on the left side of the aorta. The stomach contained a little fluid material. All the other organs of the body were quite healthy. No obstruction in pharynx or trachea. Indeed, the *post-mortem* examination showed an unusually healthy condition.

The chloroform, which was obtained from a well-known firm, and tested before and after the accident, appeared to be quite pure. Chloroform from the same bottle had been used in other cases. In the present instance, the anæsthetic was administered on a piece of lint, and rather less than one ounce was used. Dr. Plummer attributed the death to syncope.—Particulars of the second case we take from the report of an inquest in the *South Australian Register*. The patient was a boy, aged 10. The anæsthetic was administered in order to permit the removal of enlarged tonsils. The right tonsil was removed successfully, but, as the patient had come partly round, it was found necessary to administer more chloroform. While the operation on the other tonsil was in progress, it was noticed that the child was not breathing satisfactorily. Respiration was restored by the methods used, but the child again relapsed, and the breathing became intermittent. Every means of restoration was used, but without success, though the patient lived for fifteen minutes after the first disturbance of respiration was noticed.

AN ANTIVACCINATION MARTYR.

THE greatly increased habit of question asking in the House of Commons wastes much time, but may occasionally be useful in demonstrating by the triviality of the questions the triviality of the questioner. Shortly before the adjournment, Mr. Hopwood, Q.C., on whose attack on the medical profession we recently commented, interrogated the Home Secretary regarding the woes of a Mr. F. W. Smith, of Leeds. From Mr. Herbert Gladstone's statement (made for Mr. Asquith) in reply, it seems that Mr. Smith had neglected the vaccination of his child, had evaded payment of the fine, and had as a result, rendered himself liable to fourteen days' imprisonment. But the officer in charge of the warrant could not get hold of Smith during the day, and so called on him in the course of the night. Mr. Hopwood's query, which he solemnly submitted to the Queen's Government in presence of the British House of Commons, was whether the policeman made a night visit, "knocked loudly, and broke in the outer door," and whether such action was sanctioned by the authorities. The reply was that the policeman had certainly knocked, that Smith had answered from a window that he would surrender when ready, but that after waiting for some time the constable broke in the door, and found that the veracious Smith had escaped by a side exit. The martyr, however, has not been satisfied with the Home Secretary's narrative of his martyrdom, and so has written a revised version for the public press. From this it seems that before closing the window he courteously bade the officers good night, having previously indicated a preference to surrender himself at the town hall after having made a few preparations. On further consideration, however, divining their intentions, he relates that he made good his escape,

and adds "in justification of my conduct in this case I will remark that it is the right of every freeborn Englishman to follow the dictates of his own conscience." It is a universally accepted axiom that "conscience doth make cowards of us all," and perhaps no better illustration of its truth could be given than is contained in this simple tale of how the conscience of the redoubtable Smith "dictated" to him to run out at the side door while the limbs of the law were waiting in the passage in foolish reliance on his promise that he would surrender "when ready." Little did these myrmidons suspect the strength of conviction and the stern determination to be obedient to conscience which animated the bosom of this back-door Hampden. It is of such stuff that martyrs—we mean antivaccination martyrs—are made.

RIVER POLLUTION AND WATER SUPPLIES.

The Thames, the Tees, and Dee are not the only rivers which furnish water supplies after receiving the drainage of populous districts. Attention has lately been directed to the Trent and to the Yorkshire Ouse by the county councils of Derbyshire and the West Riding of Yorkshire. Derby, it seems, delivers its sewage into the Derwent still, as in all time past, thereby fouling a stream from which Newark takes its supply, and from which other populous places might obtain water if it were not polluted; and the new county authority, having at last lost patience, are about to institute legal proceedings against the corporation. A threat of the same final remedy as regards Ripon has brought an unconditional surrender on the part of the little Yorkshire city, a result which will be welcomed by the citizens of York, especially as action is also being taken against other polluters of the Ouse. Whatever may be thought of the recent report of the London Water Commission, it is sufficiently obvious to everybody that the time has now come when gross pollution of rivers can no longer be tolerated, and least of all the pollution of rivers utilised lower down as sources of water supply. Nor will it do to accept vague assurances of "careful consideration," which may extend to the Greek Kalends without practical outcome, or experiments which may be continued into dim futurity, and have already been tried publicly elsewhere. A large town which in 1893 does not know how to purify its sewage with due regard to economy and efficiency has made only indifferent use of the seventeen years which have gone by since the passing of the Rivers Act, and has little claim for further indulgence or delay on the part of those to whom its illegal inaction means constant and not remote danger.

THE PATHOLOGICAL DEPARTMENT OF UNIVERSITY COLLEGE, LONDON.

We have received a volume containing the first report of the Department of Pathology of University College, London, together with a collection of papers and abstracts published from the Laboratory, from the commencement of 1892 to May, 1893. The report shows that the laboratory arrangements are very complete. In 1891 a considerable portion of the Birkbeck Laboratory of Chemistry was remodelled to meet the requirements of the Department of Pathology; in this way a class room used for lectures and demonstrations, a research room, bacteriological room, and a photographic room, containing a micro-photographic and lime-light apparatus were obtained. A chemical room, lent by Professor Ramsay, has been fitted up to meet the requirements of Dr. Vaughan Harley, who has been appointed teacher of chemical pathology. The volume before us, which it is hoped will be the first of a series, contains ample evidence of the opportunities for practical pathological work, which the authorities of University College have provided under the energetic and inspiring influence of the present Professor of Pathology, Mr. Victor Horsley, F.R.S. The volume is edited by Mr. Horsley and Dr. Rubert Boyce, Assistant Professor.

SANITATION AND TUBERCULOSIS.

In the *Medical Magazine* for this month, Dr. Kanthack returns to the question of how far the proof that a disease is due to a contagion should make us regard it as contagious. Granting, for example, that the *contagium vivum* of consumption is the bacillus tuberculosis, but also accepting the fact that this contagion is so widespread among all civilised communities that everyone is at one time or another exposed to it, he points to the fact that all men do not suffer as proof that some other influence must be at work to render the disease contagious only to those persons who are affected by it. That being so, he argues that it is likely in practice to be far easier to remove the conditions causing this predisposition than to eradicate the bacillus, so long as fitting conditions for its development are left. The problem, then, is no longer a matter of isolation and antiseptics, but of improved surroundings and better conditions of life. In this relation the knowledge we possess regarding the behaviour of certain animals to anthrax infection is of considerable interest. Pigeons, usually resistant to anthrax, are rendered susceptible by starvation; dogs, hens, pigeons, and frogs under conditions of enforced thirst; a predisposition to it is established in some animals by continued overexertion and fatigue, by loss of blood, and by unsuitable diet. Guinea-pigs and white mice, which are resistant to avian tuberculosis, can be easily infected on being kept for a time in a warm chamber at 33° to 35° C. What changes are produced by these disturbances of their normal mode of life we do not know; we only know that while before we interfered the animal was insusceptible, afterwards it was easily infected. The war against tuberculosis, then, becomes a matter of sanitation rather than of disinfection and isolation, against the surroundings of the people rather than against a microbe which can only grow when a predisposition is set up.

THE ODYSSEY OF A SCARLET FEVER PATIENT.

A sad example of the hardships which may arise owing to the fact that the Metropolitan Asylums Board Hospitals are so full that cases of scarlet fever cannot be admitted is given in a report presented to the Marylebone Vestry last week by the medical officer of health. A young woman took her child to University College Hospital, where it was found to be suffering from scarlet fever, and the Asylums Board Ambulance was telegraphed for. This was about noon. At 5 P.M. the ambulance arrived, and removed the mother and child back to the lodginghouse in which they resided. Here they were refused admission, and the ambulance driver at the woman's request drove them to her mother's. Here, again, admission was refused, as there were young children in the house, and the mother and sick child were left upon the doorstep. The woman then went with her child to the Middlesex Hospital, and by the authorities there were referred to the relieving officer, who sent them back to the Middlesex Hospital, at the same time communicating with the Marylebone Court House. After consultation between the medical officer and the secretary, a communication was addressed to Mr. Wynter Blyth, the medical officer of health for Marylebone, upon whose order the child was finally admitted into the Marylebone temporary hospital about 11 P.M. It is impossible to say that any person is to blame for the complicated series of obstacles to the admission of this unfortunate child to a hospital, but it is impossible not to feel that the whole story is a scandal, and a grave reflection upon our existing arrangements for dealing with infectious disease in the metropolis.

Psychological Medicine in Germany.—A Clinic of Mental Diseases has recently been established in the University of Tübingen, of which Professor Siemerling, of Berlin, has been appointed head. The only German Universities now without psychiatric clinics are Rostock, Giessen, and Kiel.

THE CASE OF DR. CORNELIUS HERZ.

We are in a position to give the following authentic statement as to the case of Dr. Cornelius Herz :

Dr. Cornelius Herz was in London under treatment for diabetes and associated ailments in December last, when he was cited to give evidence in Paris. His doctors, Brunton, Ferrier, and McHardy, then certified to the French authorities that, in his then state of health, he should not risk the winter journey to Paris. He was available here for examination by any commission sent to take his testimony, but no such simple course was adopted to secure that evidence for which France was professedly clamouring. On the night of January 19th he was arrested by the English police at Bournemouth, where he was wintering under medical advice, and under the immediate care of Dr. William Frazer, as had been officially notified to both the English and French authorities, with a view to minimising the avoidable danger to the life of the patient, against whom the French press were inveighing. The Bow Street warrants against the patient were obtained in connection with a demand for his extradition to France in respect to certain alleged misdemeanours, and were so promptly issued that too probably the extradition demand and its accompanying papers were submitted to no such efficient preliminary scrutiny as might have convinced the English authorities, as it had Sir George Lewis, that the patient should not be arrested. The police of course found the patient, as he had been medically certified, too ill to be removed, and arranged for his safe custody with a minimum of inconvenience to himself, though necessarily the time (11 P.M.) and the purpose of the police visit, and their continued sojourn in the house, were disturbing and detrimental to such an invalid. The patient has continued under the immediate care of Dr. Frazer, with whom Sir Andrew Clark, Drs. Brunton, Ferrier, and Mr. McHardy have been in consultation, and by whom certificates have from time to time been furnished to the authorities, detailing his dangerous condition. Dr. Russell Reynolds has twice visited the patient at the request of the Home Secretary, who has therefore been kept fully informed concerning the medical condition of the prisoner, who has left his bedroom but once this year, and whom Dr. Russell Reynolds did not consider could be safely removed even from his sick chamber to a larger room on the same floor. Nevertheless, the French press have never ceased to ridicule the reality of the illness, have published the most fanciful accounts of the patient's outdoor doings, and generally the most indecent misrepresentations and charges against the patient and his physicians. Instead of this clamour being ignored by the authorities here, as it had been by the patient and those about him, the English Foreign Office asked that French physicians should be sent to satisfy themselves of the state of the prisoner. Accordingly, Drs. Charcot and Brouardel arrived unannounced at 11 P.M., armed with an English Home Office authority to survey Dr. Cornelius Herz, without the presence of his own physician or of any medical representative from the English Government. They at once recognised his extremely critical condition, apologised, retired, and arranged to pay a more opportune visit on the following day, when they were met by Drs. Frazer, Brunton, Ferrier, and McHardy, and conducted their thorough examination of the case with a minimum of fatigue to the patient. The French physicians' report went even further than corroborating the English medical certificates, and was widely published, but hardly noticeably checked the continuance of false charges in the French press previously mentioned. Indeed, one of the late Dr. Charcot's last public acts was definitely to refute the *Figaro's* allegation that Drs. Brouardel and Charcot had been hoaxed at Bournemouth by a substituted patient provided by the English physicians in place of Dr. Herz, and winked at by the English authorities. For some months Dr. Cornelius Herz's prostration was so desperate that his death was anticipated daily; his vomiting was incessant, and the hæmatemesis alarming. Under these terrible conditions the maintenance of his life was a task difficult enough, and he had little capacity to heed his his legal position. In August he improved and nursed the hope that he would soon get to London and vindicate his impugned character, for there were known to be technical difficulties about the investigation of the extradition case elsewhere. However, the improvement has only allowed him to consult with his lawyers and has not warranted his leaving his room, much less venturing to travel. Indeed, on September 26th, 1893, in addressing the authorities, Dr. Lauder Brunton wrote as follows : "I saw Dr. Cornelius Herz on Monday, September 11th, 1893, along with Dr. Frazer and Professor McHardy. His circulation was considerably stronger than when I saw him before. On auscultation over the aortic area a systolic murmur was audible, louder than before, and there was in addition a short, soft, diastolic murmur audible at the aortic cartilage and about half way down the sternum, which had not been previously heard. There was also a distinct systolic murmur at the apex of the heart in place of the murmurish sound previously noticed. The spleen was still very tender, but it did not project beyond the ribs. On laying the hand over it he felt a curious sensation of cold running through the whole body, although the hand itself was by no means cold. I enclose analysis of a specimen of his urine, made by Messrs. Allen and Hanburys, from which it appears that there is still a considerable amount of sugar, although much less than in the specimen analysed for Dr. Frazer not very long ago. It is possible that the increased action of the heart has simply brought out and made audible murmurs that were not heard before, although the organic cause for them may have been present. At the same time, the excessive pain which Dr. Hertz has been having in the cardiac region, together with the appearance of a diastolic murmur at the aortic cartilage, renders it very probable that he is suffering from progressive cardiac disease. Within the last nine months he has aged as much as he ordinarily would have done in ten or fifteen years, to put it at a low estimate, and I much fear that unless the strain which is at present weighing upon him is diminished, and his worry and anxiety lessened, the cardiac disease will progress and lead to utter and irremediable ruin of his health, or even to death itself, before very many months are over."

Report by Allen and Hanburys, on Dr. Herz's Urine.

Specific Gravity 1030, Acidulous.

	Per Cent.	Grs. per Fluid Oz.
Total solids	6.34	30.78
Urea	2.15	9.67
Uric acid	0.05	0.22
Acidity	0.09	0.40
Sugar	2.32	10.44

Albumen or pus, none.

September 15th, 1893.

On September 20th, Professor McHardy, supported by Dr. Brunton's certificate, addressed a memorial to the Home Secretary, setting forth the exceptional hardships of the case, and urging that they should be met by exceptional measures. This was answered by an expression of the Home Secretary's regret that he had no power to have the charges investigated at once, either in the prisoner's presence at Bournemouth, or without his presence elsewhere. This disappointment has had a most detrimental effect on the patient, who hitherto had been encouraged by a belief that as soon as he could instruct counsel there would be no obstacle to a complete vindication of his character, and a demonstration of the wrongfulness of his arrest, in the full light of an English court of justice. He now feels despondent, and fears that his life may end before his character is cleared.

All alike who have been brought in contact with Dr. Cornelius Herz during his illness have become impressed by his strength of mind and character, and regret that he should not have the opportunity to answer his ac-

cusers while he lives, and still has the mind to instruct lawyers; but he is physically unfit to travel to London, and would not survive a remand to gaol. Dr. Brunton, as recently as the 26th ultimo, expressed the following views, which are fully endorsed by Drs. Frazer and McHardy, who have seen the patient since. "He has been suffering a good deal from pain in his heart, and the view I take of it is that he has a good deal of atheroma in his aorta; that this is advancing, as shown by the development of the diastolic murmur, and that it is probably involving the coronary arteries. In consequence of this he is getting angina pectoris, which may at any moment become severe and carry him off. His circulation is now so far restored that I do not think he is likely to die of collapse, and that he might run the risk of being brought up to London. I think there is an undoubted risk in this movement, but he seems to be getting steadily worse, and unless he can get free from his anxieties I do not think there is any chance of recovery, and I do not think he can last for more than a year. It would therefore be worth his while to run the risk of death on the way up, but what I fear is that if he is remanded to prison the excitement will bring on a fit of angina pectoris which will kill him. I should therefore fear that such a remand would simply amount to a sentence of death. The most recent news is that the tendency to despair has so further interfered with Dr. Herz's very insufficient sleep, that unless relief can be brought to him by a speedy settlement of his case, he will too probably lose his reason if not his life.

DISPOSAL OF THE DEAD.

A discussion on disposal of the dead took place at the Church Congress on October 6th.

The subject was introduced by Dr. A. Bostock Hill, Professor of Hygiene and Public Health at the Mason College, Birmingham. No one, he observed, would say that if it were definitely proved that the burial of our dead were harmful to the living it was not desirable that some new process of disposing of the dead should be found; and if after a consideration of all methods hitherto proposed we found that, with the exception of cremation, none supplied the want under all conditions, and if at the same time it could be shown that cremation was possible, was legal, and was not attended by any serious objections, then there would be few to raise their voices in opposition against it. The evils which might arise from burial had already been so far recognised that for fifty years intramural burial had been prohibited. The late Bishop of Manchester had further recognised that cemeteries were becoming not only a difficulty and expense and inconvenience but an actual danger. It had been suggested that bodies should be buried sparsely in land, and that this land should be utilised in a few years for agricultural purposes. This plan would tend to shock unduly the public sentiment. It had been suggested that ships should take out bodies from our ports for burial in the sea, but under certain conditions of weather the vessels would not be able to perform their functions. Lastly, it had been proposed to destroy the bodies by fire. By cremation in the course of a few hours a complete destruction of the body was achieved, which by ordinary burial would in the majority of instances take ten to twenty years, if not more, to accomplish. Dr. Hill next considered the argument against cremation which rested on the assertion that evidence might thus be destroyed which might at some future time have been utilised for the discovery of crime. This was rather an argument against our present scandalous system, or rather want of system, in the registration of causes of death. Both at home and abroad it was the established rule that no body should be cremated unless the most clear and satisfactory evidence could be adduced that nothing in the nature of foul play had occurred. Special certificates were required not only by the medical attendant of the person to be cremated, but by a special medical man, who had to give an independent certificate. Many of the most common poisons could not be found after burial. As a matter of fact, the mean number of exhumations in England and Wales was only five a year, and of these an average of less than one a year was on account of suspected poisoning. As a sanitary measure he advocated cremation, especially in deaths from infectious disease.

Mr. F. Seymour Haden spoke strongly in favour of earth-to-earth burial. While the earth disposed silently, completely, and, so far as our perceptions went, insensibly, of any number of dead, cremation, by the roar of its furnace and an enormous consumption of respirable air, could not even dispose in its entirety of a single dead body, and, worse still, could not do even this without the destruction of all evidence as to how that body came by its death. Do what he might, say what he might, try as he might, the cremationist could not escape from this dilemma—first, he would make a *post-mortem* examination of every body he burned; then he would "take out and preserve the stomach, liver, and kidneys of all suspicious cases;" then he would so alter the death certificate as to make his proceedings safe. But how would he manage to know a suspicious case when it presented itself; and, if so gifted, by what right would he resort, without the intervention of the coroner, to acts which, besides being a gross outrage on the dead, would, or might be, an unwarrantable imputation on the living? Bacteriology appeared to be, on the whole, favourable and not adverse to burial. There would be nothing to prevent interment in the open places common to most towns if the dead were only properly buried, since not a body so buried would remain long in the ground.

The Rev. Brooke Lambert referred to the great difficulty of finding near large towns ground suitable for interment. Cremation could only be repugnant on religious grounds to those who held a doctrine as to the resurrection of the body, which the Scriptures did not sanction. As to cremation being an expensive form of disposal, the cost of fuel for the cremation of a body was 7s., including attendance, and the cost of maintaining the apparatus was £5 10s., and the whole expense, exclusive of carriage to the cemetery, was £7 10s. A body could be taken from London and cremated for a charge, including all fees, of 10 guineas. Crematories, however, could be established in the large towns without danger, and the actual cost in such circumstances would be 32s., a cost which would be greatly reduced if cremation were the regular practice.

Sir Douglas Galton said that while it was true that in suitable soil all but the larger bones would disappear in twelve years, in unsuitable soil the conversion of the body into its component gases took a much longer period. He enumerated some of the dangers, especially to wells, associated with the present system of burial, and strongly advocated cremation as a substitute.

Dr. G. V. Poore advocated superficial burial and exhumation of the bones at the end of ten years. He contended that this system was cheaper than cremation.

Other speakers followed, among whom were the Rev. W. Crouch, who contended that from the sentimental point of view the advantages were on the side of cremation; and the Rev. F. Lawrence, who expressed the opinion that the rubrics of the Church contemplated the treatment of the body in such a way as was most desirable from a sanitary point of view.

The next dinner of the Irish Medical Schools and Graduates' Association will be held at the Café Monico, Piccadilly Circus, on Wednesday, October 25th, at 7 P.M.

Proposed French Congress of Hygiene.—A proposal is on foot to establish a French Congress of Hygiene somewhat on the same lines as the French Association for the Advancement of Science. Only French-speaking hygienists are to be eligible for membership, and every effort is to be used to exclude "the globe-trotters (*sic*) whom the facilities granted by the railway companies never fail to attract."

The National Board of Health of the Argentine Republic has recently drawn up new regulations with respect to ships coming from infected ports. They are, we are informed, in harmony with modern views, and it is to be hoped that the local officials will have the courage to adhere to them in an emergency. Dr. James T. R. Davison, at one time resident physician to the Royal Infirmary, Edinburgh, has recently been appointed a Member of the Board of Health.

THE CHOLERA.

IN Grimsby, after the lapse of 13 days, cholera broke out afresh on Friday last, when a fatal case was recorded, with 4 additional cases and another death in the succeeding three days. These occurrences have followed on a prevalence of "infective diarrhœa" in the shipping quarters of the town, reported by Dr. Reece as having existed there for some days.

At Hull no death from cholera or choleraic diarrhœa had occurred since September 26th to the 9th instant, whilst only 10 attacks had been recorded in the same period, and no patients remained under treatment.

At Cleethorpes no case of a choleraic nature has been heard of since mid-September.

At Rotherham no cases remained under treatment on the 9th, only 1 choleraic death having taken place out of 5 attacks in the preceding seven days, namely, on Sunday last.

Cultural experiments by Dr. Klein have demonstrated the presence of the comma bacillus in one of the cases at Low Moor, North Bierley, where 7 attacks, 5 being fatal, occurred in some 10 days antecedent to the 4th instant. Like experiments in the fatal case at Gloucester early last week have yielded negative results. A death took place on the 9th at Ormskirk, suspicious of cholera, after an illness of three days' duration; and one at Rawmarsh, near Rotherham, after a brief illness. A fatal case at South Shields on the 3rd instant has been pronounced by Dr. Murray, of Newcastle-on-Tyne, to be true cholera; as has also a non-fatal attack in the latter city on Sunday of last week.

SANITATION OF HAMBURG.

Dr. F. J. Waldo, M.O H. for St. George-the-Martyr, Southwark, has recently presented to the vestry a report of certain inquiries he has made lately into the sanitary condition of Hamburg during a visit to that city, which tend to explain why cholera tends in some cases to linger about a town after the source of the water supply is made safe. He states that the new sand filtration waterworks are excellently constructed. They consist of four settling reservoirs and eighteen filter basins. Each basin contains a layer of cleansed Elbe sand 3 metres deep, overlying washed gravel and pebbles. The surface removed from the filter every few days has a fishy odour, but the filtered water is without smell or taste, and quite clear. The old service pipes are, however retained for the supply of dwelling houses, and these are coated with Elbe mud deposited before the new filters were erected, and Dr. Waldo found that water drawn in various parts of the city was inferior in clearness to that given at the filtration station. The new water intake is distant eight miles from the spot where the sewage of Hamburg and Altona enters the Elbe. Between these two points the Alster lakes empty themselves into the river, as do also the numerous harbours and canals of Hamburg, which have recently been increased in number. At the time of his visit, seven house barges were placed within a few yards and exactly opposite the new intake, but it was stated that they were forbidden to discharge their sewage into the river, and were under strict police surveillance. From observations which he made, he believes that a large proportion of the drinking cisterns in dwelling houses in Hamburg are still placed in dark unventilated waterclosets, and that the same system frequently supplies the flush to the watercloset as well as the drinking water. This highly objectionable arrangement he found not only in tenement houses, but in flats used by the richer classes, in restaurants, and in hotels. The new regulations recently issued by the sanitary authority of Hamburg contain many excellent features, and the periodical cleansing by them is being strictly carried out.

CHOLERA NOSTRAS IN IRELAND.

Dr. Digby P. Ffrench, of Ballygar, Galway, furnishes us with the following notes of a case of English cholera in co. Galway. We need hardly say that the details given are typical of a complaint which occurs sporadically in this country every autumn, and that the interest of such cases just now arises from the question whether they are instances of a disease quite distinct from cholera, or whether, as some people are now thinking, cholera may be much more widely diffused and permanently located than some of us imagine, the outbreaks being due to a sudden development of virulence now and again, under the influence of rapid water diffusion, or other causes at present little understood, which notion, we may say in passing, affords no explanation whatever of the periodical "march" of cholera, which is the great characteristic of the true disease.

On October 6th I was called to see a case some 8 miles from here, with the following history. The patient, a man of about 53 years, had returned from Lincolnshire some twenty-five days previously, where he had spent the summer as a farm labourer, and had been in general good health up to the present attack, which occurred on the morning of October 5th. On the evening of October 4th he, with other members of his family, attended a "spree" in a house in his village, where he partook of boiled mutton, tea, bread and butter, also whisky and porter freely. After returning home he was attacked very early in the morning with frequently repeated diarrhœa; the motions were at first natural, but after three or four times were "all water." Soon afterwards, vomiting with cramps in his legs set in, the vomiting consisting of the liquids he had drunk; the diarrhœa completely ceased at about 10 A.M. I saw him at 5 P.M. on October 6th; the body and extremities were cold and dry, the face drawn and pinched, with the eyes sunken and red; the abdomen retracted, no pain or tenderness on pressure; bladder empty, although he had not passed any water for some hours previously; pulse regular, small, weak, and thready, 100; temperature in axilla, 97°; tongue moist, with a very slight coating; lips dusky. While I was with him he vomited about 4 ounces of clear frothy water, with some flocculi of milk, of which he previously had partaken. I am informed that the vomiting ceased at midnight, and that next day he was much improved. I diagnosed the case English rather than true cholera from the fact of such a long time having elapsed since it was possible for him to have been exposed to any contagion, and also from the fact that there was no cholera where he had been in England, the diarrhœa only continuing for a few hours, while the other symptoms got worse, and the probability of the attack being excited by over-indulgence in eating and drinking, with the probability of partaking of some substance of an irritant or poisonous nature.

CHOLERA ABROAD.

Austria-Hungary.—Several deaths were announced as having occurred at Cracow last week, and 5 cases were recorded at Stanislau. No information has been forthcoming beyond these facts.

France.—At Brest there were 17 deaths from cholera on three days of last week, with other 6 last Sunday; 3 of the latter being of persons who were seized at Lambezellec, a town three miles away. There was a death at Treberen lazaretto on the 2nd instant, and on the same day 2 cases, one fatal, at Camaret.

Germany.—In the latter half of September the cases of cholera at Hamburg totalled to 110, with 43 fatalities; and last week other 10 deaths were recorded, 3 cases and 2 of the deaths being on shipboard. During last week 6 cases occurred at Stettin, 2 being proved bacteriologically, whilst there were also 2 cases, 1 fatal, at Niederkraenig, some deaths at Alt Drewitz, and 1 at Altona.

Holland.—In Rotterdam there were no cases last week later than Sunday, October 1st, to which date 46 cholera cases and 27 deaths had occurred In the whole country there were only 12 cases and 13 deaths returned last week.

Italy.—From Palermo comes news of 147 cases on four days of last week, with a total for the week of 116 deaths from cholera; whilst at Patti-Marina there was only a single case; and in villages near Palermo half a dozen attacks, two fatal, on Monday, October 2nd. At Leghorn 11 cases and 9 deaths were returned; and at the Lunatic Asylum, Nocera, 78 cases, 38 fatal, from September 20th to October 4th.

Russia.—In St. Petersburg, during the week ended at noon on October 4th, there were officially declared to have been 316 cases and 154 deaths from cholera, yielding a daily average of 45 cases and 22 deaths, which it is feared by no means represents the true facts of the case. The disease is mainly attacking the poorer classes, especially those engaged on the fortification works and on the river. It has a tendency now to an endemic character and seems to be losing its power of terrorising the populace. In the 40 invaded provinces of the empire Podolia heads the list with its 150 cases and 70 deaths daily, and Volhynia comes close at hand with its 100 cases and 35 deaths per diem. In the last weekly return we also find Kieff with 380 cases and 122 deaths, Ekaterinoslav with 484 cases and 196 deaths, and Kursk, Mohilev, Samara, Kherson, and Tchernigov with cases running to three figures and a total for the five provinces of 260 deaths. Our St. Petersburg correspondent writes (under date October 6th): The cholera epidemic is slowly but distinctly diminishing in the capital, while at the same time it is increasing in the district around St. Petersburg comprised in the Government of that name. The following are the returns of cases and deaths in the St. Petersburg hospitals during the past week:

					Cases.	Deaths.
From noon on September	16th	to noon on September	17th	...	60	26
,, ,,	17th	,, ,,	18th	...	57	31
,, ,,	18th	,, ,,	19th	...	35	23
,, ,,	19th	,, ,,	20th	...	37	19
,, ,,	20th	,, ,,	21st	...	43	14
,, ,,	21st	,, ,,	22nd	...	37	15
,, ,,	22nd	,, ,,	23rd	...	26	9

On October 5th there remained under treatment 257 cases of cholera.

Spain.—In Bilbao there were 42 cases and 10 deaths on October 3rd, and in the whole province of Biscay 210 cholera cases and 74 deaths last week.

Sweden.—A young lady attacked by cholera died at Umea on September 30th, and on October 6th her nurse was seized with the same malady. The source of infection has not been traced.

Malta.—A death occurred last week on board the steamer *Ravenshoe*, from Marseilles, the vessel being strictly quarantined but permitted to coal.

Persia.—Several deaths from cholera are reported last week at Subzawar, the epidemic still persists between Bushire and Shiraz, and cases are said to have occurred in Teheran itself.

PUBLIC ASYLUMS DIETARY.

A very suggestive report on the dietary of public asylums has recently been issued by a Committee of the Medico-Psychological Association. It deals with the food supply of the ordinary chronic class of rate-supported patients, the Committee having expressly excluded reference to the dietary of private patients and of acute and sick cases. Dr. J. A. Campbell, as chairman and instigator of the Committee, deserves credit for the work undertaken, but it must be regretted that only 32 asylums are represented in the report. No doubt these institutions may be taken as representative of the best management throughout the country, and the returns made indicate that this important subject has been well and duly considered in the interests of both patients and ratepayers.

It must be admitted that information of this nature is difficult to work out in exact figures, and that any rigid system of dietary is impossible of general application. While the conclusions of the Committee are of general interest, it would have been more explicit and useful to individual superintendents if an appendix had contained details of the diet for all classes of patients actually in use in asylums of different parts of the kingdom.

Although the habits of north and south are so various that what is suitable and agreeable to a Scottish palate may be repudiated in England, and that English food might be unsatisfying to the Irish stomach, which is accustomed to bulky food of relatively lower nutritious value, still variety and improvement will be more readily attained by judicious study of comparative dietetics. There can be no doubt that a more skilful preparation of food, an increase in the consumption of vegetables, a more extended use of soups and dishes—less costly of production than the "plain roast and boiled" to which we have too long been fettered—must, in the near future, obtain greater care in management, whether domestic or institutional.

In the present instance it is satisfactory to note that the aim of physicians in charge of our asylums is "not to reduce the cost of maintenance of rate-supported lunatics to the lowest figure compatible with the preservation of existence," but to advance the question of dietary to scientific accuracy, and in accordance with the best interests and comforts of their patients. That they will in this have the support of every humane and intelligent ratepayer goes without saying.

SMALL-POX IN ENGLAND.

We are now approaching a season of the year when we may reasonably look for some greater extension of small-pox than has been witnessed during recent months. Indeed, centres of infection even now seem to be arising, especially in the midland districts and in Yorkshire. It may be well, therefore, to see what has been the behaviour of the disease during the two months last past. In London, during the five weeks of August, there were 130 cases of small-pox, with 13 deaths, whilst during the next succeeding four weeks. 80 additional cases occurred with 5 deaths; giving a weekly average of 24 cases and 2 deaths in the metropolis. Around London the disease has been witnessed in several localities. During August, 7 cases were heard of in East Ham, and some 40 in West Ham, with 30 during September, and 14 deaths in the two months. In the north, in the widespreading union of Edmonton, 30 cases have been heard of during the two months, Tottenham contributing a large quota.

In the West of England, the disease caused some anxiety at Penzance in August, and even led to the withdrawal of visitors; but the town has now for some time been free. Bristol and its suburbs have suffered somewhat, since upwards of a score of attacks have been chronicled. In the midland counties, Birmingham and Walsall have taken the lead. In the former town, the several weeks of the past two months have seen continuously fresh cases amounting to a total number of a score in August, and thrice that number in September, with 6 deaths in all. Walsall is being very heavily hit indeed, the few scattered cases in August having given place to a blaze of small-pox in September, during which considerably over 100 attacks came to light, some 50 occurring last week alone. Leicester has maintained a weekly average of 3 cases, and has recorded 2 deaths; Derby has had a few cases; Newbold has incurred some heavy expenses in view of small-pox, there having been 27 cases in July, and quite recently some serious extension of the malady; whilst the districts of Handsworth, Brierley Hill, Burton, and the rural areas of Stone, Stourbridge, and Tamworth have had experience of the disease. Several cases have been reported in the borough of Dudley.

In Lancashire, Salford has had less than 2 cases, and Manchester less than 1 case per week, with 4 and 1 deaths respectively. Oldham and its neighbours with some 3 cases a week has had 2 deaths registered from small-pox; and Blackburn and Ashton-under-Lyne have each had a few cases. In Yorkshire, the disease has obtained a firm footing in Bradford, where nearly 100 cases, with 12 deaths, took place in August; with a still larger total and 11 deaths in September, and half a hundred attacks last week alone, with 5 fatalities. Wakefield, with upwards of a score of attacks, Keighley, Huddersfield, Halifax, Hull, Middlesbrough, Dewsbury, and Sheffield are also towns which have had experience of small-pox during the period dealt with. In the north, the Tyneside districts, with their 30 cases, have been the chief centres invaded.

It is thus seen that England is by no means in a position of freedom from small-pox, and cannot afford to look with equanimity on the coming winter. The present indications of seasonal prevalence are not at all reassuring.

In London last week 15 cases of small-pox were admitted to hospital, and 79 remained under treatment last Saturday, against 112 three weeks previously, One death was registered from the disease. In West Ham 2 deaths were recorded, and half-a-dozen fresh attacks. In the Midlands there were nearly a score of cases, with 36 remaining in hospital, at Birmingham, and 1 death; whilst at Walsall further serious extension has taken place, some 40 attacks being heard of in the week. Cases have also recently occurred at Derby, Sedgley, and Wolverhampton. In the West, there have been cases in parts of Wiltshire, and a few also in and near Bristol. Lancashire seems practically free, but in Yorkshire, Bradford last week had no fewer than 10 deaths from small-pox, with double that number of fresh occurrences; and single attacks cropped up in other towns.

OPENING OF THE MEDICAL SCHOOLS.

New Students.

The entries at the medical schools are not yet complete, and it is impossible at present to form even an approximate estimate of the total number of new students. There is reported to be a large entry at Cambridge and at Manchester, but it seems probable that the number of new students at most of the schools in London will not exceed, even if it attains, the figures of last year. There is reported to be an unusually large entry at Guy's Hospital, the number of full students at St. Mary's is reported to be 79. at the London Hospital 68, at Middlesex 24, and at Charing Cross (including dental students) 56.

St. Mary's Hospital.

The annual dinner of the past and present students of St. Mary's Hospital was held at the Hôtel Métropole on Wednesday, October 4th. Mr. Herbert W. Page, surgeon to the hospital, occupied the chair, and was supported by Sir Wm. Broadbent, Professor Buchanan, Deputy-Surgeon-General Jeffcoat, Dr. Danford Thomas, Dr. Cundell, J.P., and by upwards of 120 of the past and present students. The chairman's speech in proposing the toast of the evening, "St. Mary's," was one of great force and ability, and elicited frequent applause from a sympathetic audience. In responding to the toast of "The Dean," Mr. G. P. Field announced that the entry of students at the medical school was over 130, and was consequently the largest in their school record. Amongst the speakers was Surgeon-Major Hayes, D.S.O., who in responding for the army, emphasised the fact that the medical staff formed a not unimportant part of a "*fighting* machine;" Staff-Surgeon T. J. Preston, R.N., Colonel Stanley Bird, Brigade-Surgeon-Lieutenant-Colonel Myers, Sir Wm. Broadbent, Dr. Lees, and Dr. Handfield Jones.

Edinburgh.

The University and extra-academical classes in medicine opened for the winter session on October 10th. In some cases special introductory lectures were given, but most of the lecturers and professors, after a few preliminary remarks,

proceeded to the serious work of their respective departments. Professor Grainger Stewart, in opening the class of medicine, spoke *inter alia* on hypnotism, referred to M. Charcot's relation to that subject, described it as an "artificial neurosis," and gave counsels as to the care and infrequency with which it ought to be employed. Professor Rutherford discoursed on physiological discovery. The courses of practical anatomy and practical work in the public health laboratory began on October 2nd. On the same day the preliminary examinations for degrees in medicine began. In connection with the opening of the medical classes we may again direct attention to the University Hall as a social residence for students. There are now several buildings within a short distance of the University; the accommodation includes common rooms, private studies, and bedrooms; the rents range from 7s. to 16s. per week, while the cost of board averages 12s. 6d. each per week. Application for admission should be made to the Honorary Secretary at University Hall. We understand that the register of approved lodgings, which was formerly kept at the office of the Students' Representative Council, no longer exists. The reason alleged is that it did not pay. It is surely much to be regretted that freshmen should be unable to get any help in this way, and we certainly think the Students' Council is not alive to one very important part of its duty if it fails to keep such a list. We have heard of several students and several parents and guardians inquiring after some register of the kind, and naturally expressing their astonishment that in a great educational centre like Edinburgh no one has energy enough to provide what would be invaluable help in this way. We commend the subject to the consideration of the Students' Representative Council.

UNIVERSITY COLLEGE, DUNDEE.

The winter session was opened on October 10th by an introductory address given by Dr. A. M. Paterson, Professor of Anatomy. He discussed certain phases in the history of the College, particularly the growth of the Medical School. He also dealt with the questions of the union of the College with St. Andrews University, the admission of women, and the arrangements for the five years' curriculum. The address was listened to by a large audience.

MEATH HOSPITAL, DUBLIN.

The winter session of this hospital was opened by an address from Dr. James Craig, who referred to the loss which the hospital had sustained by the resignation of Dr. Foote and the death of Dr. Rawdon Macnamara. He criticised the regulations of the Royal Colleges in Ireland with regard to examinations in anatomy and physiology. It was intended that three winter sessions should be devoted to the study of anatomy, but it had been arranged that the examination in the entire subject should be held at the close of the second year. The amount of knowledge gained in the third year would thus remain untested by examination. A still greater mistake was the decision to require only a one year's course in physiology; no lecturer could cover in the time at his disposal more than half of his subject in one year. He then spoke with regret of the absence of facilities for post-graduate instruction in Dublin. A vote of thanks to Dr. Craig was moved by the President of the Royal College of Physicians in Ireland (Dr. Walter Smith) and seconded by the Vice-President of the Royal College of Surgeons in Ireland (Mr. Thornley Stoker). In the evening the annual dinner of the governors and medical board took place at the Shelborne Hotel.

THE Entrance Scholarships at St. Bartholomew's Hospital have been awarded as follows: The Scholarship of £75 in Biology and Physiology has been awarded to E. C. Morland, of Owens College, Manchester; the Scholarship of £75 in Chemistry and Physics has been gained by R. H. Bremridge, B.Sc.Lond., B.A., Magdalen College, Oxon.; the Junior Open Science Scholarship of £150 has been given to H. A. Colwell (Preliminary Scientific University of London); and the Preliminary Scientific Exhibition of £50 has been awarded to J. E. Robinson. The Jeaffreson Exhibition (value £20), has been gained by G. V. Bull, B.A., Caius College, Cambridge.

LONDON HOSPITAL.—The following entrance scholarships at the London Hospital Medical College have been awarded: Science First Scholarship, value £175, Mr. C. W. Chaplin; Science Second Scholarships, value £50 each, Mr. H. G. Frankling and Mr. Alfred Orme.

LONDON SCHOOL OF MEDICINE FOR WOMEN.—The Mackay Prizes of £25 and £15 respectively have been awarded to Miss Stoney and Miss Vaughan. These prizes are awarded on the combined results of the class examination for the first two years' study at the school. They are given from a fund provided by Mrs. Wright.

WESTMINSTER HOSPITAL MEDICAL SCHOOL.—The Entrance Scholarships have been awarded to Mr. H. T. Baron (£60), and Mr. T. F. Bond (40).

LITERARY INTELLIGENCE.

ON the occasion of the Sixty-fifth Versammlung der Gesellschaft Deutscher Naturforscher und Aerzte, at Nürnberg, an interesting *Festschrift* has been prepared by Drs. Beckh and Goldschmidt and Herr E. Hecht. This *Festschrift* contains an account of the medical institutions in the town, and also papers on the death-rate, climatology, etc. Reproductions of some portraits of old Nürnberg medical worthies are also given.

Professor Lenhossek s valuable book on the Minute Structure of the Nervous System in the Light of Recent Investigation, which we recently reviewed, has been translated into French, and has appeared in the *Journal des Connaissances Médicales*. It has been reprinted as a separate pamphlet by A. Lanier et ses Fils, Paris, under the title *Les Nouvelles Méthodes d'Examen Histologique du Système Nerveux et leurs Résultats*. The translation has been made by Dr. E. Chrétien.

The *Transactions of the Third Intercolonial Medical Congress* have just been published after much unavoidable delay. They are issued in a handsome and well-executed volume. Dr. Sydney Jones, in his preface, expresses a hope that is sure to be realised, namely, "that the work will be accepted by the members as a satisfactory record of the proceedings of the late session," proceedings which were of interest and value in recording the progress of medical science, and indicating new paths of research, and not least in fostering that *esprit de corps* which so largely contributed to the success of the Congress of 1892.

Mr. Percy Dunn in the *New Review* summarises the evidence as to the increase of cancer in this country. He concludes that "there cannot be two opinions on the subject of the real increase of cancer, as shown by its special death-rate for various years." His article ought to serve a useful purpose in stimulating public interest in the question, and in informing public opinion as to the efforts which are being made by pathologists to solve a problem which appeals with uncommon force to men of middle age, whose opinion has most to be looked to by Home Secretaries.

It was stated some time ago in the BRITISH MEDICAL JOURNAL that all the medical libraries of the United States did not contain more than 100,000 volumes. We now learn, on the authority of one of the Commissioners of the American Bureau of Education, that the Library of the Surgeon-General's Office alone contains 200,000 books and pamphlets. The Toner Medical Library, now belonging to the Congressional Library, contains 44,000 volumes, and the Medical Library Association of Boston several years ago possessed 15,000. The contents of the exclusively medical libraries, including from 2,000 to 7,500 volumes each, are estimated as adding at least 25,000 volumes to this list. Some years ago the combined libraries of the medical schools were reported to contain 110,000 books. It thus appears that there are nearly 400,000 volumes in the public medical libraries of the United States which are known to the Bureau of Education.

In the *Contemporary Review* for October, Professor Weismann continues his reply to Mr. Herbert Spencer. He accuses Mr. Spencer of not having read his essays before criticising them, and even hints that were anyone else but Herbert Spencer to have criticised in the manner he has criticised, he would be unworthy of answer. The main point in the argument is a discussion of the significance of conjugation in protozoa, which Weismann maintains does not involve rejuvenescence—"the cells that have conjugated are not dead, but still live, and can go on propagating." On

this head, Weismann defends his doctrine of the immortality of protozoa (the only distinctive doctrine which now remains in his system), with much more success than he meets Mr. Herbert Spencer's other objection, namely, that when two infusoria coalesce in conjugation they lose their individuality, and a new individual arises as a result. The reply to this appears rather metaphysical—conjugation or amphimixis occurs in the metazoa, but is not their natural death. Over and above this, the metazoa have a natural death, and by this they are distinguished from the protozoa: Q.E.D. Professor Weismann also deals with the difficulty created for his theory of the absolute stability or unchangeability of germ plasm by the occurrence of telegony, that is, the reappearance in the offspring of a second sire of the characters of the first. He meets it practically by questioning its existence. Mr. Romanes follows Professor Weismann with A Note on Panmixia, in which he explains briefly and effectively his views as to the cessation of selection. Both these essays are well worth reading.

A plausible case was made out some time ago (by Professor Anagnostakis, of Athens, if we remember aright) for Homer as the first exponent of the antiseptic treatment of wounds; the germ of the medicinal treatment of drunkenness is to be found in Pliny; and microbes have been "in the air"—metaphorically as well as literally—for centuries. If there was one thing, however, that we had fondly imagined latter-day workers might claim as all their own without the shadow of a doubt as to the goodness of their title, it was the localisation of function in the brain. Now M. Farabeuf, the distinguished Professor of Anatomy in Paris, has unearthed a work by Joseph Baader, who, it appears, was a Professor at Freiburg-im-Bresgau from 1746 to 1750, in which the possibility of localising the sensory and motor functions of the brain is clearly indicated. The work, which is entitled *Observationes Medicæ Incisionibus Cadaverum Anatomicis Illustratæ*, was published separately in 1762, and was afterwards reprinted in E. Sandifort's *Thesaurus Dissertationum* (vol. iii) in 1778. Baader came to the conclusion, which we give in his own words, "Posse ex multis observationibus sedulo collectis atque inter se collatis in magnum practicorum emolumentum tandem sciri ac prædici quænam pars cerebri huic vel illi membro sensum motumque tribuat, et quænam pars cerebri cognito affecto membro, aut quodnam membrum cognita plaga cerebri morbosa, affici debeat." The feasibility of translating the knowledge so gained into surgical action would have been an obvious corollary had Baader's pregnant idea fallen on a kindly soil.

Enteric Fever at Grimsby and Hull.—Grimsby is not yet out of its troubles. Although this week has seen a slight recrudescence of cholera, that disease has for the present, with the lowered temperature, ceased to be of immediate importance. It is otherwise, however, in regard to enteric fever. This was present before the cholera, ran along side by side with it, and has now increased to such an extent that it is requiring special provision to be made. According to a report presented to the Sanitary Committee this week, 124 cases were notified during September, and 30 already during this month; in consequence of which it has been resolved to appoint four additional nurses, making twelve in all, and, if necessary, to provide hospital accommodation. Over 4,000 brick cesspools were condemned as insanitary, and were recommended to be abolished, it being stated that the majority of typhoid cases occurred where this class of cesspool existed. In Hull, also, there is a serious prevalence of typhoid fever. In the meantime, it is a matter of no small interest, as emphasising all that we know about the filth relations of cholera, to find that in both the towns in which it has prevailed enteric fever has been continuously present, 108 cases having been reported in Hull during the past fortnight; and it is much to be wished that the precise conditions leading to this prevalence should be ascertained as speedily as possible, for that will almost certainly give the clue to their susceptibility to cholera. The continued presence of enteric fever in both these towns is of bad augury for the future, and makes one fear that the subsidence of the cholera has been as much due to climatic accident as to sanitary perfection. Certainly no outbreak ever deserved a more careful etiological investigation than this.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A meeting of the Council will be held in the Council Room of the Association, at No. 429, Strand (corner of Agar Street), London, on Wednesday, the 25th instant, at 2 o'clock in the afternoon.

Francis Fowke, *General Secretary.*

October 5th, 1893.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

South-Eastern Branch: West Kent District.—The next meeting of this District will be held at St. Bartholomew's Hospital, Chatham, on Friday, October 27th, at 4 P.M., Brigade-Surgeon Ray in the chair. The dinner will take place at the Bull Hotel, Rochester, at 6.30 P.M.; charge 6s. 6d., exclusive of wine. Gentlemen who intend to dine are particularly requested to signify their intention to the Chairman, Brigade-Surgeon Ray, of Milton-next-Sittingbourne, not later than Wednesday, October 25th. All members of the South-Eastern Branch are entitled to attend this meeting and to introduce professional friends. Communications:—Mr Gustavus Hartridge: On Perforating Wounds of the Eye. Dr. J. A. Coutts: On some points in the Diagnosis and Treatment of Croupous Pneumonia in Young Children. Mr. Raymond Johnson: Some Minor Surgical Ailments of Children. Dr. Alfred Packman: The Treatment of Talipes Equino-varus, with exhibition of plaster casts.—E. Ground, Honorary Secretary, 1, Ashford Road, Maidstone.

North of Ireland Branch.—The autumn meeting will be held in the Museum, College Square North, Belfast, on Thursday, October 26th, at 4 P.M. Gentlemen who wish to read papers, show patients, or to bring any other business before the meeting will kindly communicate as early as convenient with John W. Byers, M.D., Honorary Secretary, Lower Crescent, Belfast.

Metropolitan Counties Branch: East London and South Essex District.—The first meeting of the session will be held, by kind invitation of Dr. Adams, at Brooke House, Upper Clapton, on Thursday, October 19th, at 8.15 P.M. The chair will be taken by Mr. Henry Power, President of the Branch. Agenda:—The adoption of revised by-laws. Mr. Victor Horsley, F.R.S., will read a paper entitled Recent Investigations on Gunshot Wounds, with limelight illustrations. Visitors will be cordially welcomed.—H. E. Powell, Honorary Secretary, Glenarm House, Upper Clapton.

Oxford and District Branch.—The next meeting of the Branch will be held at 3.15 P.M. at the Radcliffe Infirmary, Oxford, on Friday, October 27th. Notice of papers, etc., should be sent to the Honorary Secretary, W. Lewis Morgan, 37, Broad Street, Oxford, on or before October 16th.

West Somerset Branch.—The autumnal meeting of this Branch will be held at the Castle Hotel, Taunton, on Friday, October 27th, at 5 P.M., under the presidency of Mr. R. J. Collyns. An address on Myxœdema and the Therapeutic Value of the Thyroid Treatment, illustrated by photographs and specimens, is promised by Dr. Arthur T. Davies, Physician to the Royal Hospital for Diseases of the Chest, upon which a discussion will be invited. The West Somerset Branch will be glad to see members of neighbouring Branches who may like to join the meeting and take part in the discussion. The Honorary Secretary will thank all gentlemen proposing to attend to send him notice before October 20th, and also mention if they will remain to the dinner, in order that he may make the necessary arrangements. Dinner will be served at 7 o'clock: tickets 5s. a head, exclusive of wine. Members wishing to read papers or to bring forward any communication at the meeting are requested to send early notice thereof to W. M. Kelly, M.D., Honorary Secretary, Taunton.

North of England Branch.—The autumnal meeting will be held at the County Hotel, Durham, on Tuesday, October 17th, at 4.30 P.M. Dr. Hern will read a paper on the Treatment of Fractures of the Jaw. The following papers will also be read: Dr. Murphy: Suggestions for the Treatment of Puerperal Fever. Mr. Rutherford Morison: Notes on Five Recent Cases of Intestinal Obstruction due to Abdominal Tuberculosis with *Post-mortem* Reports. Dr. Hume: (1) Suprapubic Lithotomy in a Case of Enlarged Prostate with subsequent Permanent Drainage, (2) Papilloma of Bladder. The dinner after the meeting will take place at the County Hotel at 6 P.M.; 6s. 6d. each, exclusive of wine. Members wishing to

read papers, etc., are requested to write at once to the Honorary Secretary.—G. E. WILLIAMSON, F.R.C.S., Honorary Secretary, 8, Eldon Square, Newcastle-upon-Tyne.

CAMBRIDGE AND HUNTINGDON BRANCH.

THE autumn meeting of this Branch was held at Cambridge on October 6th. About thirty members were present. After a luncheon at the University Arms Hotel the general meeting was held in the Medical Schools, Downing Street; Dr. WALKER, President, in the chair.

New Members.—Mr. Stabb., L.R.C.P. and M.R.C.S., and Mr. Syme, M.B., C.M.Edin., were unanimously elected members of the Branch.

Communications.—Dr. BRADBURY read notes of a case of Hydatid (Primary) of the Lung in a young man, aged about 30, in which the membrane was at times coughed up, this being preceded or followed by hæmoptysis. There were no physical signs sufficient to localise the seat of the cyst. The rarity of primary hydatid cysts in the lung was commented upon, and other cases of a similar nature were referred to by Professor CLIFFORD ALLBUTT, Drs. LATHAM and CARVER.—Dr. BRADBURY also read notes of a case of a very large Recurrent Spindle-celled Sarcoma of the shoulder in a middle-aged lady. The growth had existed for many years, and it had been removed or destroyed repeatedly. Ultimately she died from exhaustion, there being no secondary growths in the lung.—Mr. WHERRY demonstrated a series of Ophthalmic Cases, amongst them one of Infective Ulcer of the Cornea, so commonly met with in this neighbourhood, from splinters of wood getting into the eye when they trim the hedges (cutting the quick).—Dr. GRIFFITHS showed a case of Acromegaly of seven years' standing in a woman aged 31. The typical features of this malady were first pointed out and compared with those of Paget's disease (osteitis deformans), and also with the more recently-described malady *ostéo-arthropathie hypertrophiante pneumique.*—Sir GEORGE HUMPHY gave an account of the most important Calculi in the Pathological Museum of the University, showing one which he removed many years ago by the high operation.—The PRESIDENT showed some remarkably large Calculi, which he had from time to time removed.—Mr. HIGGINS exhibited a simple apparatus, which consists of a pad held by a figure-of-8 elastic bandage for retaining the once-dislocated semilunar cartilage of the knee in position. He had met with considerable success in its use.

Through the kindness of the Master of Downing and Mrs. Hill, the members were invited to tea at Downing Lodge.

SYDNEY (NEW SOUTH WALES) BRANCH.

THE 109th general meeting of the Branch was held at the Royal Society's Room on August 4th, Dr. WORRALL, President, in the chair. There were also present Drs. Clubbe, William Chisholm, Fiaschi, James Dick, West, Angel Money, Crago, Newmarch, Wilkinson, Cohen, Maher, Megginson, Thomas, A. Parker, F. H. Quaife, Grace Robinson, Bennett, Langhorne, Lyon, Jenkins, Lennhoff, Clay, Thring.

Minutes.—The minutes of the previous meeting were read and confirmed.

New Member.—The following new member was announced by the PRESIDENT:—Dr. A. Murray Will, 147, Elizabeth street, City.

Communications.—Dr. NEWMARCH read notes on a case of Cerebral Abscess. The PRESIDENT (Dr. Worrall), Drs. CHISHOLM, ANGEL MONEY, LENNHOFF, THOMAS, JENKINS, MAHER, FIASCHI, and CRAGO discussed the paper. Dr. NEWMARSH replied.—Dr. WORRALL exhibited a Uterus and Double Ovarian Cyst, and read notes on the case. Dr. THRING made remarks on a somewhat similar case.

SOUTH MIDLAND BRANCH.

THE autumnal meeting of this Branch was held at Towcester on October 5th, under the presidency of Mr. COGAN. Twenty-seven members and visitors were present, and were hospitably entertained at luncheon by Messrs. R. W. Watkins and A. Partridge Kingcombe prior to the meeting.

Sewage Purification.—After luncheon the company adjourned to a neighbouring field, where Mr. John ENNSON, of Northampton, courteously explained and demonstrated the system of sewage purification now in operation at Towcester, originated by Mr. W. D. Scott Moncrieff, C.E. The latter gentleman later on attended the meeting, and described the *rationale* of his process. A cordial vote of thanks was passed to Mr. Moncrieff and Mr. Ennson.

New Members.—The following gentlemen were proposed and elected Members of the Association or Branch: William Harding, M.D., Berry Wood, Northampton; W. H. Chamberlain, Northampton; William Lawton, Bugbrooke; Harold Hodgson, Blisworth; Frederick A. Field, The Infirmary, Bedford; Reginald C. Worsley, Iver, Bucks; F. W. D. McGachen, M.D., Rugby.

Votes of Thanks.—Owing to want of time, and many members being obliged to leave, the purely medical part of the business, including several papers of surgical interest, was deferred to a future occasion; and the meeting was brought to a close with hearty votes of thanks to Messrs. Watkins and Kingcombe for their hospitality, and to Mr. Cogan for his conduct in the chair.

HALIFAX (NOVA SCOTIA) BRANCH.

THE regular fortnightly meeting of this Branch was held on September 28th, in the Library of the Halifax Medical College. Dr. D. A. CAMPBELL, President, in the Chair.

Communications.—Surgeon-Captain BAREFOOT, M.S., showed two cases from the Army Station Hospital—one of Obscure Cerebral Disease in a private in the King's Liverpool Regiment, and the other of Wound of the Cornea-sclerotic Margin, by explosion of a soda-water bottle, followed by recovery.—Dr. G. M. CAMPBELL reported a case of Pseudo-Membranous Laryngitis, resulting in recovery.

SPECIAL CORRESPONDENCE.

PARIS.

Dr. Cornelius Herz.—Sanitation in Paris Hospitals.—Octogenarians in the Academy of Medicine.

THE insinuation made by some French papers that a false Cornelius Herz was presented to Dr. Charcot and Dr. Brouardel at Tankerville Hotel has created a good deal of sensation here. Dr. Brouardel has written to the *Figaro* a letter pointing out the impossibility of such a thing. He states that Sir Andrew Clark and Dr. Ferrier met them in consultation after he and Dr. Charcot had examined the patient, and likewise furnished them with careful notes of the case up to the day of their visit. The co-operation of these leaders of the medical profession in England is a sufficient guarantee, he argues, that the real Cornelius Herz was examined by them on that day. Moreover, the patient himself furnished another proof. Turning to Dr. Charcot, he said, "You do not recognise me, Dr. Charcot." The latter replied that he had never seen him before. "You are mistaken, sir," returned the patient. "I was an *interne* under you in 1867, when you replaced Dr. Marrotte at the Pitié Hospital. I can see you now sketching a blood clot from the femoral vein, which was the shape of a serpent's head." Dr. Charcot remembered these details when Cornelius Herz reminded him of them. Madame Herz wished Dr. Charcot to see her daughter, who suffered from neuralgia; but he excused himself, fearing he might be offered a fee, and wishing to avoid all mention of money. Dr. Brouardel had asked Dr. Potain to accompany him, but he refused, because he had treated Cornelius Herz before he left this country. Dr. Bouchard refused, because a few months previously there had been a misunderstanding between him and the patient. The insinuation is resented by the respectable French press, and is so absurd that a serious refutation by Dr. Brouardel was hardly necessary.

All the Paris hospitals will be provided with special stoves for burning bandages, dressings, and sweeping of wards. Experiments have been made in this direction at the Lariboisière Hospital, and have proved satisfactory. Formerly the old dressings were put into the dustbin, and sold by the hospital servants at a good price to the rag collectors, who washed them, and, it is said, resold them to cigarette paper makers. At the Bichat Hospital there is an apparatus for sterilising the sputa of tuberculous patients by means of

boiling water rendered alkaline. This method is apparently easy and inexpensive, and will probably be adopted in all the hospitals of Paris. These institutions will soon be in a state of perfect sanitation; all the waterclosets are being improved, and the sewage carried off to rivers, thus abolishing cesspools and other abominations.

Someone has said that the present is the age of octogenarian leaders in various provinces of human activity. Medicine, in France at least, appears to be no exception. At a recent meeting of the Paris Medical Academy, the President and Vice-President were both absent. Baron Larrey was therefore asked to take the chair, but excused himself on the score of his 86 years. Professor Sappey, who is only 82, was then appealed to, and consented to preside.

SYDNEY.

Public Charities and the Financial Crisis.—Sydney Hospitals.—Small-Pox in New South Wales.

The monetary crisis that has recently occurred in this country has brought about the financial embarrassment of many of our metropolitan and county hospitals. The hospitals here are supported by voluntary subscriptions, and by a Government grant amounting to £1 for every £1 subscribed by the general public up to a certain limit. The determination of the Government to retrench and the general shrinkage of incomes have made it appear as if our hospital charities would for a time be seriously crippled in their work. Special efforts are being put forward to raise funds, and already hospital Saturdays and Sundays are being initiated. Following the example of the Women's Hospital in Melbourne, the Prince Alfred raised the sum of about £4,000 from a scheme entitled "A Week of Self-Denial." The public were urged to deprive themselves of some of their daily luxuries, and to give the equivalent in money to the hospital fund.

The colony generally, and Sydney in particular, is well equipped with really first-class hospitals. The Sydney Hospital, which for the last eight years has been housed in a temporary structure, is being rebuilt on its old site. It was commenced nine years ago, but owing to some difference of opinion arising regarding the suitability of the position, the work was stopped, and recommenced a year ago. The original design, if carried out, would have cost £200,000, but the plans have been modified, and the sum of £50,000 was last year voted by Parliament for the completion of the work. It is estimated, however, that the amount already spent on the original portion, together with the sum voted for its completion, will amount to £150,000. The front portion, comprising the administration block and two long wings, is built of stone, while the remaining part is of brick and concrete. It is furnished and fitted with all the latest sanitary improvements, and is architecturally a handsome structure. It is to be opened for the reception of patients at the end of this year. The principal hospital in Sydney is the Prince Alfred, which is situated in the University grounds. It is comparatively a new building, and is built on the pavilion plan. A new wing has just been added to it intended specially for a nurses' home. When fully completed it will accommodate 500 patients. It is in close proximity to the Medical School with which it is affiliated. It is one of the finest buildings in the southern hemisphere, and it owes its origin and completeness to the untiring energy and zeal of Sir Alfred Roberts, an honoured member of the medical profession. Another of our large metropolitan hospitals is St. Vincent's. Though under the management of the Catholic Church it is cosmopolitan in its work. It is a well-equipped elegant structure with about 200 beds. An addition has just been made to the Hospital for Sick Children. The new portion has been specially fitted up for the reception and treatment of diphtheria cases. Much unreasonable agitation is being carried on by some of the residents of the district about the existence of a diphtheria hospital amongst them. Every sanitary precaution, however, has been taken by the authorities to isolate the building and afford all possible protection to the adjacent population. The recent statistics of tracheotomies performed for diphtheria at the Children's Hospital show the gratifying result of 42.5 per cent. of recoveries out of 120 cases operated on.

The Walker Memorial Hospital, built on the Parramatta River, has just been opened for the reception of convalescent patients. It has been built with a sum of £100,000 left by the late Thomas Walker, of Concord, Sydney. It is endowed with a sum of money from the same generous donor. It is specially intended for the reception of convalescent patients, and will greatly relieve the congested state of the metropolitan hospitals, as the patients will be able to be removed as soon as they have got over the acute stage of their illness. Another convalescent hospital has been built at Camden, about forty miles from Sydney. The Grasmere Estate and farm on which it is built was given by Mr. W. H. Paling, of Sydney, together with the sum of £10,000. It was erected as a memorial of the first centenary of Australian settlement, and is named the Carrington Hospital, after our late Governor. It is situated in a fine salubrious part of the country, and is admirably adapted for the purpose for which it has been specially built. The Coast Hospital, situated at Little Bay, eight miles from Sydney, is entirely supported by the Government. It was originally built as an emergency hospital for the reception of infectious cases, but has been lately used as a general hospital for the treatment of the more chronic cases. The Lazaret is also built at this place. It comprises a series of well-built cottages, where the lepers are comfortably housed. This colony has been of late years remarkably free from the prevalence of small-pox. Fortunately we have had a strong board of health, the president of which is also medical adviser to the Government. But for the extreme vigilance and care of this body in carrying out a vigorous system of quarantine, it is terrible to think what might have been the fate of the people of this country. A veritable sword of Damocles nevertheless hangs overhead, for our shortsighted legislators have refused to pass a compulsory vaccination law, and only a small proportion of the population is vaccinated.

The increased speed of our more modern incoming steamers increases the chances of small-pox appearing in our midst, because these vessels nearly all stop at Ceylon, where variola always prevails more or less, and a swift Orient or P. and O. liner can make the passage from Colombo to the first Australian port in less than nine days, and *pratique* may be granted and the passengers dispersed over the country before the disease has fully manifested itself. The quarantine station, situated at the entrance to Sydney Harbour, is really one of the sights of the country. The members of the medical congress recently held here were specially invited by the Government to visit it. The general opinion expressed was that it would be difficult to find a more suitable or picturesque spot for such a purpose anywhere. There are comfortable cottage buildings that could, if due need arose, accommodate 1,000 people. The disinfecting machinery and appliances are all of the most modern kind, and a suitably built ship, the *Faraway*, moored in one of the protected bays adjoining the station, does duty as the quarantine hospital. The country is largely indebted for this admirable piece of work to the Hon. Dr. Mackellar, a former president of the Board of Health. In addition to the metropolitan hospitals already mentioned, there are cottage hospitals in the more thickly populated suburbs, and nearly every country town in New South Wales is furnished besides with efficient and well-constructed hospital buildings in which the people take an active interest.

LIVERPOOL.

Opening Meeting of the Medical Institution: President's Address on Excessive Mental Excitement and some of its Consequences: A Tour in Iceland.

The opening meeting of the session of the Medical Institution was held on October 5th, when the President, Dr. T. R. Glynn, delivered an inaugural address, taking as his subject "Excessive Mental Excitement and Some of its Consequences." He proposed particularly to consider the weakness or irritability of the nervous system which seems to be a characteristic of civilised man in the present age, or, in other words, nervous exhaustion, which might be defined as fatigue by excess of function. After referring to Charles Féré's observations, which show that psychical impressions and processes

exert a wide influence upon the body at large, and that over-activity of the brain is accompanied by contraction of the arteries throughout the body, lowering of tonicity and general vital depression, he pointed out that when the nervous diathesis had been acquired, the repetition of the causes that induced it was likely to lead to the development of some more serious nervous disorder. When the diathesis was inherited the predisposition necessarily existed. The nervous individual was likely to suffer from headaches and neuralgias; a little extra fatigue would perhaps render him sleepless or dyspeptic, and he readily fell a victim to neurasthenia. If he caught a fever he would probably be delirious, and traumatisms, intoxications, general disorders, and mental shocks would tend to lead to the development of serious nervous accidents. If nervousness was a characteristic of the mental state of civilised man in our times the subject was one of national importance as well as of professional interest. It was a vexed question how far the pressure of education had acted injuriously on the young. It might be granted that acute troubles rarely resulted from over-pressure, but that a weak and irritable condition of brain was too often produced, betraying itself in an alteration of the child's disposition and character, predisposing to the development of neuroses, and being a source of misery to the subject of it years afterwards. Enforced sedentariness, poor food, and close rooms often co-operated in reducing the nervous energy. He had, however, no hesitation in stating that the discipline of a well-regulated school might prove of the greatest advantage to the nervous subject. He had known headache and other neurotic troubles, which proved most obstinate whilst a child was under home influence, disappear under school training. The ordinary ladies' school he considered was as pernicious as it was possible for any training institution to be, being hurtful alike to mind and body. It was the older struggling and harassed student who was especially likely to suffer—the pupil teacher, governess, schoolmaster, or mistress who taught by day and studied by night, and who was haunted by fear of failure and loss of employment. The child often escaped the ill-effects of injudicious training by reason of circumstances inherent to its youth. The difficulty of retaining the attention of children for any length of time was well known to teachers, their labour was not associated with protracted anxiety, and as soon as it was over they were prompted to take violent exercise. Some of the conditions of modern life were especially injurious to the nervous system. Among these were the lessening of social distinctions, and the opening of new possibilities of advancement and new roads to fortune; the struggle for existence was keener, and the less gifted and the weaker fell. Noise, glare, turmoil, and unsightliness abounded, and kept the senses in constant tension. The abuse of tea, coffee, tobacco, and alcohol tended to increase the evil, as did also the hurry and excitement in which many persons spent their holidays. Contemporaneous music reflected the mental tendencies of the day. The need for violent and fresh impressions, new-fangled harmonies, erudite ear-splitting noises of all kinds of instruments, had replaced the stately measures, the "linked sweetness long drawn out" of the grand old masters. The same kind of unhealthy excitement might be traced in many of the popular pursuits of the day—the novel, the drama, the dance. An exhausted brain was easily excited but easily fatigued, hence the need of artificial excitants. The influence of town life was highly prejudicial, and the inhabitants of cities tended to die out. Not alone functional, but also organic, disease of the nervous system was more common in towns; for instance, while tuberculous disease of the lungs was 23 per cent. more common in London than in the rest of the country, tuberculous meningitis was 64 per cent. more common. General paralysis had lately become a very common disease, especially among brain workers, the liberal professions furnishing 38 per cent. of the cases in the Bicêtre. Statistics were quoted to show that a very large increase had taken place in the proportion of lunatics to the population in Europe and America during the last forty years, and in France the proportion of suicides had increased more than threefold since 1827. Anæmia was another condition probably associated with the nervous irritability characterising our age. It was possible that while the present generation suffered from anæmia their forefathers suffered from plethora, and that bleeding was a remedy capable of wider application in their day than it was in ours. We could not imagine that acute observers like John Hunter and Marshall Hall would have practised bleeding had they not found that it was usually a beneficial proceeding. "The perfectly healthy man," the President said, "should hardly be conscious of physical or mental fatigue, a day of congenial work should close with voluptuous contentment; but the man who is deficient in nervous energy readily becomes painfully tired, he has attacks of temporary neurasthenia with its depressive pains and dyspepsia. At the end of a day's toil he can no longer collect energy, or concentrate attention for further occupation, he goes to bed but probably cannot sleep, his mind is now hopelessly active, or perhaps he sleeps but wakens in the early morning in a state bordering on melancholia, miserably depressed and filled with dark forebodings. When these accidents are frequently repeated genuine neurasthenia is developed and all the miseries I have described become aggravated and fasten on the victim with almost hopeless obstinacy. This is a serious catastrophe, for the disease not only renders life a burden but may terminate in graver mental disorders—melancholia or mania or lead to suicide." The subject of nervous exhaustion was not likely to see a medical adviser until he was becoming neurasthenic and had commenced to take a melancholy interest in his organism—to study his digestion, to talk of his liver, and to watch his bowels. His doctor's first care should be to consider not "What shall I prescribe?" but "How is this man's life to be modified for his good?" The patient might be inclined to sleeplessness but he must not be dosed with bromides and chloral, dyspeptic but he did not require papain and pepsine, weakly but he did not need quinine and alcohol. "The patient's idea of exercise will probably be limited to the aimless constitutional walk or the mild aperient pill. I do not know which form of relaxation is the most inane. The saddle, the gun, the fishing rod, the cycle, the golf club are the remedies he needs. He may not require less work but more work, mental and physical, in a different direction."

The address was one of the most interesting that have been heard in the Institution for many years, and was evidently the outcome of wide reading and prolonged observation. A vote of thanks was moved and seconded by Dr. Nevins and Dr. Carter, two past presidents, in terms of high commendation that were fully endorsed by the large assembly of members present.

After this, the meeting assumed a more social character; Dr. Karl A. Grossmann, giving an account of some of his experiences on a tour across Iceland, illustrated by a profusion of photographs which he had taken, thrown on the screen by the aid of the limelight. Dr. Grossmann also exhibited his collection of Icelandic curiosities illustrating the art, customs, and geology of the country. A cordial vote of thanks was moved by Mr. Mitchell Banks, and seconded by Dr. Caton.

MANCHESTER.

Entries at Owens College.—Edinburgh University Manchester Club Dinner.

IT is rather too soon yet to state definitely the number of new students attending the Owens College Medical Department this session. So far at least the number of entrants is about equal to that of last year. Year by year there is a steady increase in the number of men taking out classes for University degrees, notably for the degrees of Victoria University.

The annual dinner of the Manchester Edinburgh University Club was held at the Queen's Hotel, on the evening of October 5th, when Mr. James Hardie presided, and the guest of the evening was Dr. Conan Doyle. Dr. Doyle, in responding to the toast of "The University of Edinburgh," said that when he sat down in the company of medical men he felt something like a deserter who had gone back and was dining with the old regimental mess. Or perhaps, in view of his experiences as a practitioner, he might claim the position of a soldier who had served with the colours and was now in the reserve. He had been a ship's surgeon, an assistant in a country practice, and an assistant in the slums of a large town. Then for eight years he had conducted a limited,

strictly limited, middle-class practice, and finally evolved so far as to put up a plate as a specialist in a West End street, where he had a very nice little consulting room, an excellent box of testing glasses, and other apparatus. The only thing, indeed, that he lacked to make the thing complete was a patient. He could conscientiously say that he did not give up medical practice till he had every proof that medical practice had given up him. For some reason or other Edinburgh University had been peculiarly prolific in literature. He questioned if any other educational body in the United Kingdom could compare with it in that respect. Two first-class men of letters of the present day had come from Edinburgh University within the last twenty years—Mr. R. L. Stevenson and Mr. J. M. Barrie. And going further back in the century they came upon the names of Walter Scott and Thomas Carlyle. He did not know why this connection should exist between Edinburgh University and literature. It was not due, as far as he recollected, to anything they were taught there. He was inclined sometimes to think that they derived more profit from the keen east wind that used to take them by the throat as they came across the Bridges than from what they heard within the University walls. In any case there the fact was, and the old University deserved every credit for her long record in literature.

CORRESPONDENCE.

PROVISION FOR SICKNESS AND OLD AGE.

Sir,—My attention has been directed to a letter from Dr. Millard, of Edinburgh, in your issue of September 30th, proposing to start a new medical fund, and suggesting, amongst other methods of raising money, that every medical man in Great Britain, whether married or single, should pay at least one guinea per annum, which shall give his widow or orphans a direct claim on the fund.

In a leading article in the British Medical Journal of May 14th, 1892, you wrote: "The issue of the balloting papers for the election of pensioners and foundation scholars for the Royal Medical Benevolent College forces once more upon our attention the large amount of poverty and distress existing amongst the widows and orphans of medical men. Could not a great deal of this suffering be avoided?" Life assurance is now so cheap, and such facilities are offered for paying the premiums, that few could not afford some saving in this direction. The Medical Sickness, Annuity, and Life Assurance Society enables provision to be made against temporary sickness, against accident, and permanent disablement. It provides a pension after 65, and the means of limited insurance. The Society for Widows and Orphans of Medical Men reckons only some 300 or 400 members out of the enormous number of metropolitan practitioners. Of the thousands practising medicine in Surrey only forty-eight can be found to belong to the Surrey Medical Benevolent Society, with its assured position and almost unrivalled advantages; and kindred societies exist in Kent, Sussex, Gloucestershire, Yorkshire, the Midlands, and many other localities, all entreating medical men to participate in their benefits, and they do not.

The Medical Benevolent Fund receives but some £2,500 annually in subscriptions, apart from their annuity fund, and only a few days since the Committee sat to consider eighteen new applications with but £68 at their bankers'. One more example. The Royal Medical Benevolent College has an income of about £3,000 from subscriptions, and has to find between £5,000 and £6,000 annually for their pensioners and foundationers. I venture to think we do not require "new funds," but better support to old societies who are faithfully and laboriously doing their work; and would gladly do much more were it not for the apathy of those who might subscribe. I do not hesitate to assert that an enormous percentage of those who do not give would not feel the loss of a guinea, or even two, in the year, and even if their widows or orphans did not require aid, might know that they had done something to provide for the wants of others.

This question has been one in which I was taught more than forty years since to take an interest, and of which I may claim to have some knowledge.—I venture to subscribe myself your faithful servant,

C. Holman, M.D.,
Treasurer and Vice-President Royal Medical Benevolent College;
Vice-President British Medical Benevolent Fund;
President Surrey Medical Benevolent Society.
Gloucester Place, Portman Square, W., Oct. 9th.

THE ARMY MEDICAL SCHOOL AT NETLEY.

Sir,—In the British Medical Journal of September 30th, under the heading "Ready, aye Ready!" you state that no instruction is given at Netley otherwise than perfunctorily in the duties connected with bearer companies and field hospitals. This is not quite correct. Every surgeon on probation of the Indian Medical Service is taught (*a*) company drill, (*b*) stretcher drill, (*c*) methods of lifting and carrying the wounded. (*d*) loading ambulance waggons (when these are available). The instruction in field hospital duties it must be admitted is necessarily deficient, as we have not the tents, equipment, and transport for this purpose, but we do the best we can with such extemporised substitutes for these as may be available at the time. At the end of each session the class is examined by an instructor from Aldershot, and certificates are given or withheld according as the young officers qualify or fail to do so.—I am, etc.,

Aylmer Hayes, Surgeon-Major,
Royal Victoria Hospital, Netley, Oct. 8th. Secretary to P. M. C.

THE ROYAL FREE HOSPITAL.

Sir,—As President of the Royal Free Hospital, Gray's Inn Road, I ask the favour of your allowing me to call public attention to its special need at the present time for £12,000 to enable the Committee to carry through the important work of completing the hospital buildings. From the ruinous condition of the old front building, which was formerly a barrack for the Light Horse Volunteers, it became absolutely necessary to rebuild this portion of the hospital. The remaining portions were rebuilt some years ago, and are in excellent condition.

To carry out this work, which will provide much needed isolation wards, casualty rooms, and dispensary, and to provide a new steam laundry, an expenditure of £20,000 has been incurred, towards which sum the Committee have raised £8,000, leaving a sum of £12,000 still urgently required.

The old front building has already been removed, and the work of reconstruction is now in active progress. Money is in consequence immediately required for the contractors. I therefore very earnestly solicit the help of those who have the means towards supplying the amount now needed, or to increase the current revenue by new annual subscriptions.

The Royal Free Hospital was the first general hospital in London to open its doors freely to the sick and suffering poor without letters of recommendation from Governors. For 67 years it has adhered to this excellent system, and during that period over two millions of poor people have received within its walls the best medical and surgical advice and treatment.

During the past year 26,000 persons received its benefits either as in- or out-patients. The cost of maintenance was £10,551, whilst the ordinary income from all sources amounted to £5,118 only. The large deficit had to be met by utilising several considerable legacies which had fortunately been received during that year. In the previous year, 1891, there was, however, an absolute deficiency of £3,251, which had to be met by the sale of investments.

Contributions to either the building or general funds will be thankfully received by any member of the Committee, by the Honorary Treasurer, Mr. Edward Masterman, 27, Clement's Lane, E.C., by the bankers, Messrs. Brown, Janson and Co., 32, Abchurch Lane, E.C., or by Mr. Conrad W. Thies, the Secretary, at the Hospital.—I am, etc.,

British Embassy, Paris, Oct. 10th. Dufferin and Ava.

EYESIGHT OF SCHOOL CHILDREN.

Sir,—In view of the fact that the Education Department have sent an important communication respecting children's eyesight to the London School Board, which has been referred by that body to its School Management Committee for con-

sideration and report, perhaps it would be somewhat interesting to your readers to know what results have lately been obtained by examination of the sight of the children attending the schools ol the Edmonton School Board.

In pursuance of the policy recommended by Mr. Sydney Stephenson, who reported to my Board on the subject last year, the sight of the scholars was tested in June last by means of a modified Snellen distance type. It was found that 464 children out of a total number of 4,384 were unable to comply with the conditions of the test—see Table.

		No. of Children attending the School.	No. of Children whose Sight appeared Defective.
Brettenham Road	Boys' School ...	704 ...	96
,, ,,	Girls' ,, ...	562 ...	56
,, ,,	Infants' ,, ...	702 ...	5
Croyland Road	Boys' ,, ...	695 ...	73
,, ,,	Girls' ,, ...	480 ...	129
,, ,,	Infants' ,, ...	550 ...	27
Garfield Road	Boys' ,, ...	250 ...	38
,, ,,	Girls' ,, ...	209 ...	30
,, ,,	Infants' ,, ...	232 ...	10
	Totals	4,384	464

The parents or guardians of those children with defective sight were at once apprised of the fact by circular, and recommended to seek skilled advice. After the midsummer holidays, I noticed with pleasure many of these children had been supplied with glasses.—I am, etc.,

JOHN MOULE,
Clerk to the Board.

Upper Edmonton, Oct. 5th.

QUACKS AND UNQUALIFIED PRACTICE.

SIR,—In not only the highest but also in the lowest walks of the medical profession the struggle for existence has within the past few years increased, and is increasing. That this is not due to any disinclination of the inhabitants of this country to resort to medicaments or the advice of members of our profession or those who pretend to be doctors, or to an increased healthiness of the country owing to improved sanitation, I am convinced. There never was a time when so much money was spent in the purchase of so-called patent medicines. The papers teem with advertisements of "cures" for every species of ill which can affect humanity. Notwithstanding the so-called advance of knowledge among the masses, a terrible amount of ignorance in matters medical and surgical prevails.

I have now lying before me a weekly paper of very wide circulation which is filled with several columns offering to married or single women, at sums varying from 2s. 6d. to 11s., medicines to remove "obstructions" with certainty and safety. I recently, in the course of my duty as a honorary secretary to the Medical Protection Society, forwarded copies of some of these precious advertisements to the "proper authorities."

I receive also numbers of letters complaining of men who are boldly practising medicine, surgery, midwifery, and bone-setting without the shadow of a qualification. I believe this evil to be so prevalent that nearly all the "overcrowding" is due to this.

Now, this is not only a professional but a public injury. As the State interferes to prevent a butcher selling bad meat and the milk dealer watered milk, it ought to prevent the public being defrauded by the sale of bad drugs and bad advice from incompetent persons.

In this neighbourhood a quack driving a carriage and pair not so long since went into a village the whole doctors' bills of which did not exceed £50 a year, and one summer evening, after haranguing from his carriage in very bad English the assembled rustics, sold them, for over £40 received on the spot in hard cash, a lot of worthless rubbish labelled with high-sounding names, wrapped in papers on which were printed testimonials extolling their virtues from members of the peerage downwards. A negro, accompanied by two females, played a similar game, the negro especially claiming for his remedies their certainty in removing obstructions. His lucrative practice was finally ended by his being wanted by the police for an indecent assault, etc., on a young woman whose fears led her to consult the scoundrel.

The remedy for this state of affairs is, in my opinion, to create a fund specially to be devoted to the prosecution of irregular and unqualified persons. To cope effectively with the evil is far beyond the means of any protection society, which has to first defend its own members from the attacks to which our experience shows they are liable.—I am, etc.,

GEORGE B. MEAD,
Hon. Secretary London and Counties Medical Protection Society.

Mentmore, Newmarket, Oct. 10th.

THE ST. JOHN AMBULANCE ASSOCIATION AND ITS DOCTORS.

SIR,—In reference to the above subject, whilst admitting the force of your correspondent's plea that lecturers who labour in behalf of the Order of St. John should be paid as well as honoured by the Ambulance Association, I am inclined to think that it is their own fault if they are not. I remember when first asked to deliver lectures for this ancient Order the usual fees were proffered, but since that time so many medical men have volunteered to give gratuitous instruction that payment has become the exception. If those who undertake the duties of lecturers would form themselves into an association of teachers some common ground of action might be decided upon in respect to the question of fees, as well as to other matters connected with the course of instruction.—I am, etc.,

FRANCIS PARSONS, M.D.,
Honorary Life Member and formerly Lecturer for the Ambulance Association of St. John of Jerusalem.

West Worthing, Oct. 7th.

DANGERS IN ARTIFICIAL RESPIRATION IN CHLOROFORM ACCIDENTS.

SIR,—Dr. Kirk's letter in the BRITISH MEDICAL JOURNAL of September 23rd seems to suggest, though it does not actually state, the probable reason why, in fainting during chloroform administration, artificial respiration is wrong treatment: namely, that the lungs and heart being organs which habitually work together, abeyance of function in the one should not be treated by causing excessive function in the other. The effect of artificial respiration is to cause a flow of blood from lungs to left ventricle, and from the liver to the right side of the heart; which is, therefore, all the less able to carry on the circulation when hampered by an increased blood supply in addition to its own impotence from chloroform intoxication.—I am, etc.,

W. ERNEST THOMSON, M.D.

Glasgow, Sept. 26th.

PRESCRIBING CHEMISTS.

SIR,—There has been a good deal in the medical papers lately about the commercial injury done the regular diplomaed practitioners by unqualified assistants and quacks. But, Sir, no attention has been called to a form of unqualified practice which is a great deal commoner, on a much larger scale, and a much more constant quantity, than is the practice of the two classes usually singled out for anathema. I refer to the prescribing done by chemists over the counter—yes, and sometimes not done over or behind the counter, but in the form of a regular round of visits. I believe that the chemists of any average town treat ten times the number of cases dealt with by unqualified practitioners, and in many towns do larger practices than many medical men. In many chemists' shops you cannot stand ten minutes without two or three people having low-voiced conversations with the proprietor, followed by directions from him to the assistant. The poor people even often speak of chemists as Dr. So-and-so. These shops are really dispensaries, and the sooner we recognise the fact and take steps to protect ourselves the better. If you stop one unqualified practitioner, stop all.—I am, etc.,

HONOUR WITHOUT PROFIT.

INDIAN HEMP AS A CAUSE OF INSANITY.

SIR,—Dr. Thomas Ireland is very angry because I endeavoured to show that in Egypt, at least, the foul fiend Cannabis is not so black as he is painted. He throws doubt on my deliberate statement regarding the prevalence of lunacy in that country; and, because I have the misfortune to disagree with him, adopts a tone throughout his letter which is the reverse of courteous. Strange and incredible as it may appear to my uncompromising critic, I really would have him believe that the 300 patients in the Cairo asylum do in fact

give "an approximate census of the insane persons amongst eight millions of the population of Egypt." I unhesitatingly affirm that lunacy is extremely rare in Egypt. There may be a few mad people—especially females—under the care of their friends among the wealthier classes, but with respect to the great mass of the people this is certainly not the case. A raving lunatic is a difficult person to keep in concealment, especially when we consider the kind of house occupied by the average Egyptian; and did many such exist I should undoubtedly have heard of them. Dr. Ireland finds fault with my method of collecting statistics, but I fail to see what better plan I could have adopted than to "traverse every province" during seven years, making inquiries on the spot. If Dr. Ireland can indicate a better system I shall be much obliged to him.

The American physician I alluded to paid a short visit to Egypt, and so did Professor Mendel. These gentlemen no doubt mean well, but neither of them is acquainted with the language, and I can quite understand the kind of information they received during their brief sojourn. The Egyptian official, like most Orientals, is a very polite individual, and withal extremely quick at detecting bias. He desires above all things to make himself agreeable, and hence his anxiety that his replies should jump with the preconceived ideas of the stranger.

Dr. Ireland is amused because I say the employment of *haschisch* in Egypt has a beneficial effect on the almost vegetarian population. A man who has to work hard, like a *fellah*, on vegetable food, must make use of some stimulant[1] to enable him to assimilate it. Alexis Saint Martin used to digest his dinner much better when he had a hearty laugh at the theatre; and the feeling of comfort induced by a few whiffs from a charged cigarette may very possibly exercise a somewhat similar effect in the case of the Egyptian cultivator. Judging by his teeth, man's food should be mixed; but, if the animal ingredient be withheld, something in lieu thereof must be added, or he will fail at his work.

When insanity shows itself in a consumer of Indian hemp, we have no right to infer, *propter hoc*, that the drug was the exciting cause of the malady. So-called lunatics from abuse of *haschisch* are rarely susceptible of cure. Were the disease really owing to the drug, we might reasonably expect that abstinence would have a restorative influence.

I will not attempt to cross swords with Dr. Ireland with reference to India or other portions of the world. Churrus or bhang may be the cause of much noisy behaviour and rioting in the bazaars, but this is not the case as regards *haschisch* in Egypt. The rare *haschasch*—or victim to an inordinate use of the drug—is a timid frightened creature—terrified at his own shadow. The "irresistible impulse to kill" is never a consequence of the use of *haschisch* in Egypt, and this fact is unquestionably highly corroborative of Gismore Ellis's statement regarding running amok in the Malayan peninsula.

Dr. Ireland is quite mistaken if he thinks that I complained of *haschisch* being adulterated. When I spoke of purification and refinement I alluded to the noxious ingredients contained in the crude substance itself. Surely modern science could find a means of removing these without interfering with the beneficent qualities of the drug.

For ages the *fellah* has been accustomed to use *haschisch* with, as I maintain, beneficial results; but, at all events, without any prominent evil ones. The drug is now prohibited, and, in consequence of the repressive measures, he is being driven into the clutches of the *baccals*, who retail the vilest alcoholic compounds. It is vain to hope that he will do without a stimulant or narcotic of some kind. His food must be vastly improved before any such desirable consummation can be expected. The devil of Dr. Ireland has been partially expelled, but his place is being rapidly taken by a fiend a hundredfold more potent for evil.

Having said my say, I now beg leave to retire from the controversy.—I am, etc.,

Oct. 7th. PYRAMID.

[1] The word stimulant is used for want of a better term, though it does not exactly express my meaning.

A Society for the repression of pellagra, that scourge of Northern Italy, has been founded in the province of Brescia.

THE FEES OF THE GENERAL MEDICAL COUNCIL.

Sir,—I think the charge made by the General Medical Council for duplicates of registration certificates is excessively high—five shillings. Medical practitioners who apply for hospital appointments, etc., have to furnish "proof of registration," and the only legal one is the certificate for the current year, the diploma not being enough in the eye of the law. The consequence is that if one has several applications to make one certificate is not sufficient, and at the best it is only "legal" for one year. Another excessive fee is for registering a new qualification, five shillings also being charged on each such occasion.

Considering that the sum of £5 is demanded on first being put on the *Register*, it seems unjustifiable to exact further payments, or, at any rate, so much as five shillings. It would surely be enough to charge a shilling for extracts from the *Register* and nothing for inserting additional qualifications, as the extra work and expense are nominal.—I am, etc.,

Oct. 10th. L. S. D.

UNDER- OR OVER-DOSE OF CHLOROFORM.

Sir,—When a death occurs under the administration, with the consumption of 50 minims, of chloroform, an opinion prevails that the death was due to an under-dose, and that the case would have done better had more chloroform been administered before the operation. It is a well known fact that 18 minims of chloroform absorbed by the blood will induce complete anæsthesia in an adult. We know that some are very susceptible to the action of this anæsthetic, and that a case is reported in which only 5 minims of chloroform were inhaled by a woman, aged 24, and induced complete anæsthesia. Quite recently I administered chloroform by means of Junker's inhaler to two girls, 12 and 14 years respectively, for the extraction of teeth, four in one and three in the other, with the consumption of less than one drachm of chloroform. In this method there is but little of the chloroform wasted, but if 50 minims of chloroform are given in three minutes from a drop bottle through the medium of a piece of lint, the possibility is that more than 18 minims may have been inhaled, and sufficient to warrant the belief that the result was due to an over-dose.

The lesson to be drawn from such sad and unexpected occurrences is to give the chloroform much over-diluted to commence with, and gradually and cautiously to increase the strength of the dose to the strongest which can be breathed without discomfort, when there should be no risk of administering an over-dose.—I am, etc.,

Robert Bell,
Senior Physician to the Glasgow Hospital for Women.

Glasgow, Oct. 3rd.

MEDICO-LEGAL AND MEDICO-ETHICAL.

MEDICAL DEFENCE UNION LIMITED.

A well-attended meeting of the medical men residing in Bristol, Bath, and the surrounding district, was held in the Library of the University College, Bristol, on October 4th, to promote the formation of a local committee of the Union. Dr. Markham Skerritt occupied the chair, and after a few introductory remarks called upon Professor Horsley and Dr. Leslie Phillips to explain the objects of the Society, and its method of working. Mr. Garrett Horder, of Cardiff, also spoke of the good work which had been accomplished in South Wales. After some discussion the following resolution was proposed by Dr. Aust-Lawrence, seconded by Dr. Broom, and carried unanimously: "That in the opinion of this meeting a professional organisation for defensive purposes is essential; that the Medical Defence Union meets this want; and that a local committee of the Union should be formed." After a large number of gentlemen had promised to become members, the meeting terminated with a cordial vote of thanks to the Chairman, not only for presiding, but for the trouble he had taken in convening the meeting.

THE PUFF DIRECT.

Under this heading we referred last week to a paragraph which appeared in the *Isle of Wight Observer* of September 23rd. We are assured by Mr. A. R. Davey that Mr. Banks had no hand at all in the appearance of the paragraph, and that it was founded by a local reporter upon a chance observation made by him (Mr. A. R. Davey) during an accidental interview. Dr. Davey, who was at the time seriously ill, had no knowledge of the interview or of the paragraph. Under these circumstances it is clear that neither Dr. Davey nor Mr. Banks is in any way deserving of censure.

A SICK ASSISTANT.

Omega.—Assuming that our correspondent's statement is an impartial and accurate version of the facts, we should be disposed to characterise A's alleged action in the matter as liberal and fair rather than mean, and, under the peculiar circumstances referred to, exceptionally considerate, especially in view of the fact that B, soon after he entered upon his duties, was twice temporarily laid up; and, moreover, within three months of his engagement was accorded a fortnight's holiday, subsequent to which he was more or less incapacitated for work in consequence of an abscess, and a little later on became, by mutual agreement, an inmate of the local Fever Hospital, owing to an attack of scarlatina. We are of opinion, after a careful and dispassionate review of the attendant circumstances, that he (B) has no fairly just claim to further remuneration.

SUBSTITUTE ATTENDANCE ON MIDWIFERY CASE.

E. writes: A., who employs an assistant, is absent for the day, and a confinement for which he is engaged commences. The husband, who is away from home, has left word that in case A. is away the assistant is not to be called. A messenger comes to ask B. to go, informing him of the husband's injunction. What should B. do?

*** If our correspondent be *de facto* a local practitioner in the town alluded to, though his name as such does not appear in the *Medical Directory* for the current year but as a resident in a distant city, the following is the rule by which he should be governed (the *Code of Medical Ethics*, chap. ii, sect. 5, rule 12): "When a practitioner is called in, or otherwise requested, to attend at an accouchement for another and completes the delivery, or is detained for a considerable time, he is entitled by custom (except in the case of illness, etc., provided for by Rule 3) to one-half the fee; but on the completion of the delivery, or on the arrival of the pre-engaged accoucheur, he should resign the further management of the case. In a case, however, which gives rise to unusual fatigue, anxiety, and responsibility, 'tis right that the accoucheur in attendance should receive the entire fee. Note.—In either event, when the officiating accoucheur is a stranger, or a non-acquaintance of the family doctor, the full fee should be tendered to him."

MONTHLY NURSES AND ENGAGEMENTS.

Secretary, Midwives' Institute writes: My advice is constantly asked on the above subject, and unless there are any unusual circumstances connected with the case my committee direct me to advise the monthly nurse to ask for half fees. If a nurse goes to law she gets the whole fee if she can show that the engagement has been made in writing; but we consider it undesirable to do that if it can possibly be avoided. Employers are generally quite willing to pay the half fee, and the nurse should remember how great an expense it is for them to pay another nurse as well. Monthly nurses are engaged at least six months beforehand as a rule, so the month's notice mentioned by your correspondent "H.R.H." would not enable her to get work.

E.C.B.—The display of such cards as our correspondent mentions is undoubtedly in very bad taste, more especially the words "Surgery for Diseases of the Skin," and "Surgery for Diseases of Women and Children." "E. C. B." is quite in error in supposing that the practitioner referred to is a "special correspondent" of the British Medical Journal. He is a voluminous letter writer, and certain of his communications have been published in the Journal from time to time in the ordinary course.

NAVAL AND MILITARY MEDICAL SERVICES.

ARMY MEDICAL STAFF EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post office order with the notice. The first post on Thursday mornings is the latest by which these announcements can be received.

Surgeon-Captain, who will have completed three years in Bombay Presidency in January next, wishes an exchange with a Surgeon-Captain who returned home last trooping season. The officer who exchanges will have to leave England in January next. £180 offered.—Apply to "Surgeon-Captain A.M.S.," 73, Waterloo Road, Dublin.

THE NAVY.

The following appointments have been made at the Admiralty: Thomas L. Horner, Fleet-Surgeon to Keyham Barracks, October 16th; Alexander McGregor to be Surgeon and Agent at Helmsdale, October 9th; William G. Jack, Staff-Surgeon, to the *Magdala*, October 10th; John Ottley, Staff-Surgeon, to the *Hyacinth*, October 10th; Percy E. Maitland, Surgeon to the *Philomel*, October 10th; J. L. Bagnall-Oakeley, Surgeon to Keyham Yard, October 10th; Edgar R. Dimsey, Surgeon, to the *Bellona*, October 10th.

ARMY MEDICAL STAFF.

In reference to a paragraph in the British Medical Journal of September 30th, we are asked to say that Surgeon-Major Corker did not exchange from Bombay to Madras, but directly home, and that he is now in medical charge of the station hospital at Beggar's Bush Barracks, Dublin.

INDIAN MEDICAL SERVICE.

Surgeon-Colonel J. G. Pilcher, Bengal Establishment, is appointed to officiate as Inspector-General of Civil Hospitals, North-West Provinces and Oude.

The services of Surgeon-Major G. S. A. Ranking, M.D., Bengal Establishment, are placed at the disposal of the Military Department.

Surgeon-Lieutenant G. Bidie, Madras Establishment, is appointed to the officiating medical charge of the 2nd Infantry Hyderabad Contingent, from July 17th.

Surgeon-Captain C. H. L. Palk, Madras Establishment, officiating medical officer 2nd Infantry, is appointed medical officer 4th Infantry Hyderabad Contingent, from July 17th.

Surgeon-Lieutenant-Colonel E. Bovill, Bengal Establishment, has resigned his commission as Honorary Surgeon of the Central Bengal Light Horse.

Surgeon-Captain P. W. O'Gorman, Bengal Establishment, officiating Civil Surgeon of Jessore, is appointed to act as Civil Surgeon of Midnapore during the absence of Surgeon-Major A. Tomes.

Surgeon-Captain A. W. T. Buist Sparks, Bengal Establishment, officiating Civil Surgeon of Moozufferpore, is appointed to act as a Resident Medical Officer of the Medical College Hospital, Calcutta, during the absence of Surgeon-Captain C. R. M. Green.

The undermentioned probationers for the Indian Medical Service, having completed a course of instruction at the Army Medical School, have been appointed Surgeon-Lieutenants on the Madras Establishment, dated July 29th: H. L. Sutherland, E. H. Sharman, T. Stodart, T. H. Foulkes.

The undermentioned officers, all of the Bengal Establishment, have been granted leave of absence as specified: Surgeon-Lieutenant-Colonel J. Reid, M.B., Medical Storekeeper, Calcutta, for three months on medical certificate; Surgeon-Captain D. G. Crawford, Civil Surgeon of Monghyr, for six months, in extension; Surgeon-Captain A. W. D. Leahy, till March 10th, 1894, in extension: Surgeon-Captain C. R. M. Green, officiating Resident Surgeon, Eden Hospital, Calcutta, for three months.

THE VOLUNTEERS.

Surgeon-Lieutenant W. E. Crozier, 1st Volunteer Battalion the King's Liverpool Regiment (late the 1st Lancashire), is promoted to be Surgeon-Captain, October 7th.

Surgeon-Lieutenant Mowbray Taylor, 2nd Volunteer Battalion Queen's Own Royal West Kent Regiment (late the 3rd Kent) is appointed Captain in the same corps, October 4th; and Mr. Francis Croucher is appointed Surgeon-Lieutenant to the battalion from the same date. (In the British Medical Journal for October 7th these appointments are erroneously stated as made in the 2nd Volunteer Battalion Duke of Cambridge's Own Middlesex Regiment.)

VOLUNTEER AMBULANCE SCHOOL OF INSTRUCTION.

The winter work of the School commenced on October 5th at the headquarters of the Queen's Westminster Rifle Volunteers, James Street, Buckingham Gate, S.W. Two classes are now under training, one going through the ordinary "first aid" course, the other being composed of certificated members who have an advanced course of drill and instruction in the roller bandage, etc. There are now no vacancies in either class. Among those taking part in the instruction are Surgeon-Major Culver James, M.D., Honourable Artillery Company; Surgeon-Captains H. F. Stokes and Edgar Hughes, London Rifle Brigade; P. P. Whitcombe, M.B., Queen's Westminster Rifle Volunteers; R. R. Sleman, "Artists'" Rifle Volunteers; and Surgeon-Lieutenant C. E. L. Hudson, M.B., Middlesex Yeomanry Cavalry. A slight change has become necessary in the *personnel* of the non-commissioned officers, Staff-Sergeant R. J. Harnell being appointed Quartermaster-Sergeant, the duties of which post he has so far carried out well. We are asked to state that the competition for the present class will take place on Thursday, December 7th, and the annual dinner of the School on the following Saturday at Cannon Street Hotel.

NEW COLOURS FOR THE INDIAN MEDICAL SERVICE.

Surgeon-Captain J. Chaytor White, M.D., Indian Medical Service, sends us a pattern of these colours, with the following information: The new colours for the Indian Medical Service have been finally selected by a committee at Simla and received the approval of the Surgeon-General with the Government of India. The Army and Navy Co-operative Society are now registering orders for the same, and hope soon to issue to all administrative medical officers in India and to the Netley School cords bearing patterns of the tie and hat ribbons, sash, and blazer cloth. The ribbon, which has been registered, is old gold centre with thin black stripe in middle, dark blue border, and Star of India blue edge outside.

*** The sample sent us is very effective, and we hope will meet with general approval and use.

Service for Pension.

Hakim.—Service in the Royal Navy does not count towards pension in the British Medical Service, except in the case of officers who entered the Army before March 1st, 1873, *vide* par. 349 1 Pay Warrant. We are unable to supply any information on the point regarding the Indian Medical Service.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

Examination in Sanitary Science.—The following candidates have satisfied the Examiners in both parts of the examination, and are entitled to receive the University Diploma in Public Health:

W. J. T. Barker, L.R.C.P., M.R.C.S., A. H. Boucher, M.D., C.M.Edin., A. Bowhay, L.R.C.P., M.R.C.S., E. R. W. C. Carroll, L.R.C.P., M.R.C.S., E. J. Cross, L.R.C.P., M.R.C.S., C. W. Cunningham, M.R.C.S., H. L. Dixon, M.B., B.C.Camb., W. Dowson, M.D., B.C.Camb., S. A. Ewing, S. Fleming, M.B., C.M.Edin., R. J. Fox, M.D., C.M.Edin., F. C. Goodwin, L.R.C.P., M.R.C.S., W. T. Hannah, M.B., C.M.Edin., F. G.

Haworth, M.B., C.M.Edin., A. Johnston, M.D., C.M.Glasg., W. W. Jones, M.B., C.M.Edin., J. E. McDougall, M.R.C.S., L.R.C.P.E., W. G. Macpherson, M.B., C.M.Edin., J. Richmond, M.B.Oxon, M.R.C.S., A. H. Robinson, M.D.Durh., M.R.C.S., N. C. Sclater, M.R.C.S., L.R.C.P.I., H. Scurfield, M.D., M.C.Edin., H. Williams, M.D.Lond., M.R.C.S., L.R.C.P., G. M. Winter, M.R.C.S., L.R.C.P.

PSYCHOPHYSICS.—Dr. W. H. R. Rivers, of St. John's College, is announced by Professor Foster as giving this term, at the Physiological Laboratory, a course of lectures on the special senses, chiefly with reference to the phenomena of vision. The course will be accompanied by practical work in psychophysics.

SOCIETY OF APOTHECARIES OF LONDON.

PRIMARY EXAMINATION: PART II, October, 1893.—The following candidates passed in:

Anatomy and Physiology.—T. Christie, Liverpool; F. C. Collinson, Leeds; C. H. Dearden, Leeds; H. G. Ellery, Middlesex Hospital; A. P. B. Ellis, St. George's Hospital; P. S. Kesteven, St. Bartholomew's Hospital; C. H. Maskew, Birmingham; M. Sharp, Royal Free Hospital; G. S. Thompson, St. George's Hospital; H. de P. B. Veale, Leeds; J. B. Wall, St. Mary's Hospital; H. A. L. Willis, St. Mary's Hospital.

Anatomy.—H. K. Palmer, St. Bartholomew's Hospital; W. O. Piper, Westminster Hospital; E. A. Quirke, Birmingham; R. Rudland, Middlesex Hospital.

Physiology.—E. M. Aikin, Royal Free Hospital; A. M. Browne, Royal Free Hospital; M. S. S. Coghill, Royal Free Hospital; J. W. A. Cooper, King's College; R. E. Demartini, King's College; M. P. Gabe, Middlesex Hospital; F. C. Gould, Birmingham; G. P. Y. Hulbert, Birmingham; W. R. Kemp, St. Mary's Hospital; H. C. Moore, Leeds; M. Orange, Royal Free Hospital; E. M. Wells, Royal Free Hospital.

Chemistry, Materia Medica, Botany, and Pharmacy.—F. M. Cooper, Royal Free Hospital; R. Jones, Edinburgh; T. W. Joy, Guy's Hospital.

Chemistry.—A. Ross, Guy's Hospital.

Materia Medica, Botany, and Pharmacy.—R. B. Allen, St. Mary's Hospital; P. S. Kesteven, St. Bartholomew's Hospital; F. A. Storr, Leeds; A. M. Williams, Royal Free Hospital; E. Wooton, Charing Cross Hospital.

Materia Medica and Botany.—E. H. Forjett, Edinburgh; E. M. Guthrie, Royal Free Hospital.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,258 births and 3,656 deaths were registered during the week ending Saturday, October 7th. The annual rate of mortality in these towns, which had been 19.7 and 20.2 per 1,000 in the preceding two weeks, declined again to 18.5 during the week under notice. The rates in the several towns ranged from 8.1 in Croydon, 11.3 in Halifax, 12.8 in Portsmouth, 13.4 in Bristol, and 13.5 in Norwich to 21.5 in Salford, 22.2 in Hull, 23.2 in Liverpool, 23.6 in Sunderland, and 32.2 in Wolverhampton. In the thirty-two provincial towns the mean death-rate was 18.8 per 1,000, and exceeded by 0.9 the rate recorded in London, which was 17.9 per 1,000. The 3,656 deaths registered during the week under notice in the thirty-three towns included 543 which were referred to the principal zymotic diseases, against 774 and 760 in the preceding two weeks; of these, 193 resulted from diarrhœa, 88 from diphtheria, 81 from "fever" (principally enteric), 68 from whooping-cough, 68 from scarlet fever, 30 from measles, and 15 from small-pox. These 543 deaths were equal to an annual rate of 2.7 per 1,000; in London the zymotic death-rate was 2.7, and corresponded with the mean rate in the thirty-two provincial towns. No fatal case of any of these diseases was recorded in Plymouth; in the other towns they caused the lowest death-rates in Bristol, Croydon, Preston, and Halifax, and the highest rates in Norwich, Bradford, Gateshead, Bolton, and Sunderland. Measles caused the highest proportional fatality in Norwich; scarlet fever in Leicester; whooping-cough in Bolton; "fever" in Swansea, Norwich, Nottingham, Birkenhead, Hull, and Sunderland; and diarrhœa in Swansea, Salford, Sunderland, and Gateshead. The 88 deaths from diphtheria recorded during the week under notice in the thirty-three towns included 74 in London and 2 in Hull. Ten fatal cases of small-pox were registered in Bradford, 2 in West Ham, 1 in London, 1 in Wolverhampton, and 1 in Birmingham, but not one in any other of the thirty-three towns. There were 79 small-pox patients in the Metropolitan Asylums Hospitals and in the Highgate Small-pox Hospital on Saturday last, against 112, 91, and 77 at the end of the preceding three weeks; 15 new cases were admitted during the week, against 20, 14, and 15 in the preceding three weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital was 2,801 at the end of the week, against 2,889, 2,849, and 2,815 on the preceding three Saturdays; 305 new cases were admitted during the week, against 318 and 311 in the preceding two weeks. The 230 deaths referred to diseases of the respiratory organs in London corresponded with the average, and were equal to an annual rate of 2.8 per 1,000.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday, October 7th, 940 births and 549 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality, which had been 17.3 and 19.6 per 1,000 in the preceding two weeks, was 19.5 during the week under notice, and was 1.0 per 1,000 above the mean rate during the same period in the large English towns. Among these Scotch towns the lowest rates were 14.7 in Leith and 15.4 in Perth, and the highest rates 22.5 in Dundee and 22.6 in Paisley. The 549 deaths in these towns included 82 which were referred to the principal zymotic diseases, equal to an annual rate of 2.9 per 1,000, which was slightly above the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Dundee and Paisley. The 255 deaths in Glasgow included 11 from whooping-cough, 7 from "fever," and 4 from diphtheria. Four fatal cases of "fever" were recorded in Paisley, and 2 of diphtheria in Edinburgh. The death-rate from diseases of the respiratory organs in these towns was equal to 3.7 per 1,000, against 2.8 in London.

HEALTH OF IRISH TOWNS.

IN sixteen of the principal town districts of Ireland the deaths registered during the week ending Saturday, September 30th, were equal to an annual rate of 22.7 per 1,000. The lowest rates were recorded in Kilkenny and Lurgan, and the highest rates in Lisburn and Galway. The death-rate from the principal zymotic diseases averaged 3.9 per 1,000. The 156 deaths registered in Dublin were equal to an annual rate of 23 3 per 1,000 (against 28.3 and 24.0 in the preceding two weeks), the rates during the same period being 20.1 in London and 21.1 in Edinburgh. The 156 deaths in Dublin included 24 which were referred to the principal zymotic diseases (equal to an annual rate of 3.6 per 1,000), of which 16 resulted from diarrhœa, 6 from enteric fever, 1 from measles, and 1 from whooping-cough.

NOTIFICATION BY RELATIVES.

IT has always been urged as an objection to the adoption of the Infectious Diseases Notification Act that its clauses regarding the householder would be sure to be allowed to lapse, while those referring to medical men would always remain in full force, and that in this way people who wished to avoid notification would be tempted to forego proper medical treatment. It is a matter of interest, then, whenever one hears of a householder being punished for non-notification, as has happened several times lately.

A curious point arose at Halstead on October 3rd, when a labourer was fined for neglecting to report the existence of fever in his house. The medical officer of health, hearing about the case from neighbours and from the schoolmistress, visited the house and found a child in the second stage of scarlet fever. He had been suffering eight or ten days. Members of the family had been moving about and going to school. The girl in charge of the house at the time of the visit said that they thought the child might be suffering from scarlet fever, but they did not know. No medical man had been in attendance. The bench considered it a bad case, and imposed a fine; but then rose the difficulty. Not only would a distress warrant be ruinous to the family, but obviously it would not be right to sell up the furniture and so scatter the disease, nor did it appear prudent to send the man to gaol straight from an infected house. The bench ultimately made an order of committal for fourteen days without hard labour, and suspended it for a month.

SANITARY REFORM AT WHITBY.

THE sanitary condition of popular watering places is a matter of more than local interest, and this remark particularly applies to a town like Whitby, which is a port and sends large quantities of fish to market. Whitby, while its trade and local industries have diminished, is a watering place of increasing popularity owing to its natural healthy situation and the beauty of the country in its neighbourhood, and the season for visitors has this year been successful beyond precedent. The town is well situated on two hills separated by the valley of the Esk and the harbour, the water supply is good and abundant, street sewers have been constructed, but these at present discharge into the harbour, giving rise to accumulations of filth there and many foul emanations which it has been sought to lessen by dredging. The evil has long been recognised and at length the local board have decided to collect the sewage from the West Cliff and running this in a pipe under the Esk, collect the whole in a tank under the East Cliff, and discharge it below low water mark. The estimated cost of the necessary works is £15,000, which it is proposed to meet by a loan on the security of the coal duties. It is hoped that the work may be carried out before the next season.

SMALL-POX IN WEST HAM.

MANY hard things have been said about the Metropolitan Asylums Board, the keynote of which generally is that people cannot get into their hospitals—a complaint which, after all, is somewhat complimentary. Suburban residents have a different tale to tell. When they are down with fever and have to go to hospitals managed by local boards their troubles are apt to continue after they get in, and, if we are to believe reports, they are not slight. As if the Hounslow affair were not enough, another lamentation now arises from West Ham. Deficient nursing, especially at night; want of medicines; dirty tricks in washing crockery; defective supervision over patients, so that those suffering from small-pox are able to break bounds and wander unrestrained—these are the tales. Clearly a local board is not always an ideal body to which to trust the fortunes of a hospital.

LICENCE OF APOTHECARIES' HALL.

H. P. B. wishes to be informed whether the Licence of the Apothecaries' Hall (Dublin) is recognised by the Local Government Board as a medical qualification.

*** We believe so.

SITES FOR HOSPITALS FOR INFECTIOUS DISEASES.

D.P.H. asks "if the Local Government Board are now recommending that hospitals for infectious diseases should be erected close to hospitals for small-pox, or in the same enclosure."

*** No. Such conditions may be met with in hospitals which have recently been erected under the sanction of the Local Government Board, but it will be found that in such cases the responsibility for the reception of small-pox patients rests solely with the local authority.

TRANSFERENCE OF PAUPER LUNATICS.

SUBSCRIBER, who is a district medical officer, writes to ask whether a relieving officer acts legally if he removes pauper lunatics from the district in which they are resident to the workhouse, in order to have them certified as lunatics by another medical practitioner, and transferred to an asylum the following day; and, further, whether under such circumstances he, as district medical officer, can claim his fee.

*** If the accommodation in the workhouse is sufficient for the reception of the patients in question, we do not see that their removal to the workhouse for a day is illegal; but, if this is the general practice in any union, it is certainly not in accordance with the spirit of the Lunacy Act, which makes no provision for ordinary district lunatics being removed to the workhouse before being sent to an asylum, but does provide the necessary course for their transference to an asylum without any previous admission to workhouse. No district medical officer can, under any circumstances, claim a fee when a patient is sent to an asylum, unless he himself gives the certificate required by the Lunacy Act.

THE MEDICAL CHARGE OF INFECTIOUS HOSPITALS.

H. L.—It is no part of the work of a medical officer of health to treat cases of infectious disease in hospital. Such attendance should be paid for separately by the sanitary authority, and the account can be recovered in the usual way if payment is refused. Of course the amount charged may be disputed by a public body just as by a private patient. A local board is within its right in employing another medical man as hospital physician, though it is usually most convenient that the medical officer of health should act. But the appointment of another hospital attendant should not prevent the medical officer of health from exercising a general supervision of the establishment outside the medical treatment of the cases. In such circumstances the medical officer of health would require to exercise due discretion not to trespass on the duties of the attending physician. It is obviously absurd for a local board to refuse to its medical officer of health full facilities for ascertaining at all times how many patients are in hospital, and how many can be received.

THE NOTIFICATION ACT.

MEMBER.—(1) The ambiguous wording of this section has given rise to much difficulty. The person who drafted it can have had little regard for the intricacies of medical practice. It is generally accepted that a consultant, or any number of consultants, are legally bound to notify, although their obligation, like that of the householder, is not usually pressed by the authorities in cases where a medical notification has been already made. In the instances in question a further shade of doubt comes in, for "Member" is, perhaps, scarcely "attending on or called in to visit" the patients whom he sees. Leaving aside technicalities, he would incur serious responsibility by failing to notify cases which have not already been notified, but as regards others it seems unnecessary to report under the circumstances. (2) Twelve days' quarantine is advised by the Association of Medical Officers of Schools.

PRIVATE PRACTITIONERS AND ISOLATION HOSPITALS.

M.D.—The case certainly seems to be one of great hardship, involving unreasonable expense to persons who can ill afford it, but the apportionment of responsibility for this is not a simple matter. The charge per visit is not excessive considering the distance. Without hearing the views of the medical attendant we are not in a position to say that any of the visits were unnecessary, although they were more numerous than is usually required in a simple case, such as this is said to have been. The attendance of one or other outside practitioner was surely inevitable, as the local authority had made no arrangement for medical care of patients at the public cost, and the medical officer of health would naturally hesitate to advise that the case should be taken out of the hands of the practitioner who was first called in and who notified it. He would have laid himself open to charges of unfairness if he recommended any such change, even although the statement that a certain doctor was visiting the hospital daily were correct. We cannot, therefore, reply in the affirmative to either of M.D.'s categorical questions.

MEDICAL ATTENDANCE ON URGENT CASES.

A DISTRICT MEDICAL OFFICER writes to ask whether the Local Government Board would have taken any action if the following case had been referred to them by the Guardians: Two boys were supposed to have broken their legs by falling from a tree; application for attendance was made to the district medical officer, but unaccompanied by an order, and no allusion was made to it, nor to any union or parochial official. Attendance was not given, and the friends were advised to send the patients to a hospital some miles off. The rector of the parish lodged a formal complaint against the district medical officer for non-attendance, and the Board of Guardians, after a long discussion, decided by a majority of nine to eight not to refer the case to the Local Government Board.

*** It is impossible to say what the Local Government Board would have done had this case been referred to them by the Guardians, but we have always contended that it forms no part of the duty of a district medical officer to attend any patient, as a pauper, however urgent the case may be, unless he holds a medical relief ticket, or has obtained a medical order. A provision exists to meet all urgent cases, this being that the overseers and churchwardens, who are *ex-officio* overseers, and the assistant overseer, are empowered to grant medical orders in all urgent cases. Notwithstanding this, cases frequently occur in which it is unwise for a district medical officer to refuse attendance.

SPECIAL SURGICAL FEES IN POOR-LAW PRACTICE.

A DISTRICT MEDICAL OFFICER writes to say that he was sent for to see a patient who had broken his leg by jumping out of a window when suffering from delirium tremens, and who had been refused admission to the cottage hospital on account of this complication. He states that he took charge of the case, wrote out an order for the workhouse, and followed the case there to make sure of admission. Since then he has applied to the relieving officer for a medical order to enable him to claim the fee—£3—allowed for the fracture. This order the relieving officer refuses to grant. What is he to do?

The same district medical officer states a second case, namely, that he received a medical order from a relieving officer to attend a patient with epilepsy, who subsequently, but on the same day, fractured his arm, and that the relieving officer, when applied to, refused an order for the fracture on the ground that the father of the patient ought to pay for the attendance. Was the refusal of the relieving officer to grant the order for the fracture right or wrong?

*** Our correspondent does not say whether the patient was in the position of a pauper or not, but he appears to have fallen into the error of writing an order for his admission to the workhouse. This he had certainly no power whatever to do, though this order of his appears to have procured the patient's admission there. The relieving officer, doubtless, has his reasons for not giving a medical order, but, even if he had given one, the holding of such order would not entitle our correspondent to the fee for fracture, as this fee is allowed, not for superintending the removal of patients with fracture to the workhouse, but for the treatment of such cases by the district medical officer out of the workhouse. It will not be held that a case of fracture is treated by him if it is at once sent to the workhouse for treatment there. In our opinion no second medical order was required. We believe the fee allowed for the fracture can be recovered, as the medical order, though granted for what was stated to be epilepsy, entitled the patient to any medical or surgical attendance he might require.

CHOLERA PRECAUTIONS.

DR. X.—The fees mentioned by our correspondent are certainly low. At the same time the comparison with ordinary fees has not to be made with those obtained in good class practice, but with those accepted for Poor-law work by Poor-law medical officers, under whose care two out of three of the cases would otherwise fall. Perhaps one may say that in an emergency like an outbreak of cholera something is due by every citizen to the town in which he lives; and that if a municipality offers a fee which is above the minimum, it may be well for those whose fees are usually higher to waive a point rather than give ground for the ill-natured to say that what was the public loss was the doctor's gain.

NOTIFICATIONS OF ERYSIPELAS AND PUERPERAL FEVER.

M.O.H. would be glad to learn what steps, if any, should be taken against a qualified medical practitioner who is notorious for the number of cases of erysipelas and puerperal fever he notifies as occurring in his practice.

HOSPITAL AND DISPENSARY MANAGEMENT.

THE MIDDLESEX HOSPITAL.

MIDDLESEX HOSPITAL has recently been reopened after having been closed for three months for alterations. New polished teak floors have now been laid in fifteen wards. Before this was done the old boards were removed, the space below thoroughly cleaned out, and the floor timbers washed with perchloride of mercury, 1 in 1,000. All the wards of the hospital are now floored with teak, as are also the ward sculleries. New bath rooms have been fitted up for patients in the basement. Portable baths on wheels are provided for each ward floor, with sinks for emptying in the ward sculleries. Grates on the principle recommended by Mr. Pridgin Teale have been placed in all the wards. On one side of each grate is a recess containing a gas burner for boiling kettles. The products of combustion are carried off into the smoke flue. This stove lights itself automatically when a vessel is pressed upon it. The weight presses down the top, and the gas is lighted by a small pilot light. The whole of the interior of the hospital has also been repainted and redecorated. The drainage has been overhauled, and, as far as possible, all drains under the hospital removed. Plans have been prepared for a new operation theatre, with anæsthetic room, surgeon's room, and recovery room adjoining, and for a small operation room. These works will be undertaken early next year.

INFLAMMABLE HOSPITALS.

THE fire at Bradford on October 2nd, by which the iron buildings erected a short time ago for the reception of small-pox patients were destroyed, draws attention again to the extreme inflammability of these temporary structures. It cannot be too strongly impressed on those who are responsible for hospitals of this type that the possibility of disaster by fire is a constant and unavoidable peril. The greatest praise is due to the resident staff for their efforts and their success in removing all the fifty-six patients who were in the buildings at the time, but we cannot help feeling that sanitary authorities are doing scant justice to their patients in exposing them to so great a danger, and that the Local Government Board is right in refusing to sanction or to assist by loan of money the erection of buildings of so temporary and inflammable a character.

MEDICAL NEWS.

The Emperor of Russia has conferred the Order of St. Stanislaus (First Class) on Prince Tarchan-Mourawow, Professor of Physiology in the St. Petersburg Military Medical Academy.

On September 20th Professor C. Winkler read himself in as the first incumbent of the newly-founded Chair of Psychiatry in the University of Utrecht. This is the first professorship of the subject established in Holland.

A Bill has been introduced into the Canadian Legislature providing that the medical practitioner shall be placed in the same category as the lawyer in regard to confidential communications between him and his patients.

Professor I. Gad, Chief of the Experimental Department of the Berlin Physiological Institute, under Professor Du Bois-Reymond, has been granted one year's leave of absence for the purpose of organising the teaching of physiology in the University of Cleveland, Ohio.

A new cottage hospital for Port Talbot, Glamorgan, erected at Miss Talbot's sole expense, was recently opened for the reception of patients residing within the parish of Margam. The hospital is situated within half a mile of Port Talbot Station, and has two wards.

Cork Hospital Saturday.—On Saturday, September 30th, the annual collections in aid of the Cork hospitals were held, and proved satisfactory. The amount realised by the ladies who were stationed in various parts of the city came to £360. Subscribers of ten shillings were provided by the committee with an exemption badge, so as to prevent any further appeal from the collectors.

The Harveian Society.—The work of the Harveian Society for the session 1893-4 commences on October 19th, when Dr. J. Milne Bramwell will read a paper on Hypnotism, and will show illustrative cases. On November 2nd Sir William Broadbent will read a paper on Dilatation of the Stomach. The annual dinner will be held on November 23rd. The Harveian Lectures will be delivered during December, by Professor W. H. Corfield, on Disease and Defective House Sanitation.

At the annual meeting of the Fifeshire Medical Association, Dr. Nasmyth, Medical Officer of Health for the County, who was in the chair, presented to Dr. Douglas, of Cupar, Honorary Secretary, in the name of the Society, a piece of plate and an etching. In making the presentation, Dr. Nasmyth said that without Dr. Douglas as a guiding spirit the Association would never have attained its present flourishing condition, when it numbered among its members 80 per cent. of the medical profession in Fife. Dr. Douglas made a suitable reply.

A Hospital for Blackpool.—The need of a hospital in Blackpool has often been sorely felt, for hitherto in the case of serious accident patients have had to be sent eighteen miles by train to the nearest infirmary at Preston. A great effort has recently been made to supply the long felt want, and a grand bazaar, which has just been closed, has brought in the splendid amount of £5,000. Plans have been prepared for an infirmary of 50 beds, and it is proposed to at once erect a portion of this, sufficient to meet all present demands, including an operating room and pathological department. Under the Public Health Act, the Corporation has already built an infectious diseases hospital, but they have no power to apply their funds to the support of a general hospital, so that the new institution will be vested in trustees, and have to be maintained by voluntary subscriptions. It seems time that corporations were invested with the right to apply a portion of the public rates to the supplying of hospitals, when they are able to open free libraries and public baths.

Enteric Fever at Stockport.—Dr. Charles Porter has presented a supplementary report, dated September 26th, to the Local Government Board upon the prevalence of enteric fever at Stockport, which shows that the weekly notifications, beginning with the week ending August 12th, have been 5, 12, 12, 8, 21, 11, and finally, in the week ending September 23rd, 13, making a total of 82 cases. In the previous report of September 8th, attention was drawn to the special incidence of the disease upon three localities situated in the vicinity of the highest points of certain main sewers with very steep gradients. This special incidence is still maintained, and attention is directed in the present report to the strong evidence which is afforded of the infectious disseminating influence of certain midden privies. An extraordinary attack has been made upon the medical officer by two members of the council, who appear to think that he has no right to direct attention to the insanitary condition of certain parts of the town. Dr. Porter, however, seems to have the complete confidence of the sanitary committee and of a large majority on the council, and is not likely to suffer in any way from so ill-advised and self-condemnatory an opposition as that which has been directed against him.

MEDICAL VACANCIES.

The following vacancies are announced:

BOROUGH OF MEATH.—Medical Officer of Health. Salary, £30 per annum. Applications to Edwin C. Curtis, Town Clerk, by October 14th.

BRIXTON, STREATHAM, AND HERNE HILL DISPENSARY, Water Lane, Brixton. — Resident House-Surgeon; unmarried; doubly qualified. Salary, £150 per annum, with furnished apartments, attendance, coal, and gas. Applications to the Secretary by October 27th.

EAST RIDING ASYLUM, Beverley.—Assistant Medical Officer, unmarried. Salary, £100 per annum, with board, lodging, and washing. Age between 23 and 30. Applications to C. W. Hobson, Clerk to the Visiting Committee, by October 17th.

EDMONTON UNION.—Resident Medical Officer for the Chase Farm School, Enfield. Appointment for six months. Salary at the rate of £100 per annum, with board, washing, sitting-room, and bedroom. Applications to Francis Shelton, Clerk, 808, High Road, Lower Tottenham, by October 25th.

FULHAM UNION.—Assistant Medical Superintendent, unmarried, doubly qualified. Salary, £100 per annum, increasing £10 yearly to £130, with board, furnished apartments, attendance, and washing. Applications, on forms to be obtained of the Clerk, to T. Aplin Marsh, Clerk to the Guardians, Union Offices, Fulham Palace Road, Hammersmith, W., by October 14th.

GENERAL HOSPITAL, Birmingham.—Two Assistant House-Surgeons. Residence, board, and washing provided. Applications to the House Governor by October 28th.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway Road, N.—Surgeon to the Out-patients; must be F.R.C.S.Eng. Applications to William T. Grant, Secretary, by October 23rd.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—House-Physicians. Applications to the Secretary by October 26th. Also Assistant Resident Medical Officer. Salary, £50 per annum, with board and residence. Applications to the Secretary by October 25th.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Surgical Registrar and Anæsthetist. Appointment for one year, an honorarium of £40 being voted at the expiration of that term. Applications to the Secretary by October 24th.

HUDDERSFIELD INFIRMARY.—Senior House-Surgeon. Salary, £80 per annum, with board, lodging, and washing. Applications to Mr. Joseph Bate, Secretary, by October 23rd.

NORTH-WEST LONDON HOSPITAL, Kentish Town Road, N.W.—Resident Medical Officer and Assistant Resident Medical Officer. Appointments for six months. Salary of £50 attaches to the senior post. Applications to Alfred Craske, Secretary, by October 20th.

PARISH OF ST. MARY, Islington.—Medical Officer for the Third District. Salary, £100 per annum, with extra fees. Applications to Edwin Davey, Clerk, Guardians' Office, St. John's Road, Upper Holloway, N., by October 24th.

RICHMOND DISTRICT ASYLUM.—Resident Clinical Assistant, doubly qualified. Appointment for one year. Applications to the Resident Medical Superintendent, Richmond Asylum, Grangegoram, by October 17th.

ROTHERHAM HOSPITAL AND DISPENSARY.—Assistant House-Surgeon. Rooms, commons, and washing provided. Appointment for six months. Applications to the House-Surgeon by October 19th.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—Resident Medical Officer. Appointment for six months, when re-election is required. Salary at the rate of £100 per annum, with furnished apartments and board. Applications to the Secretary by October 16th.

SOUTH DEVON AND EAST CORNWALL HOSPITAL, Plymouth.—Physician, House-Surgeon, and Assistant House-Surgeon. Salary for the House-Surgeon, £100 per annum, with board and residence; for the Assistant House-Surgeon (whose appointment is for six months), £10, with board and residence. Applications to J. W. Wilson, Honorary Secretary, 6, Princess Square, Plymouth, by October 18th.

TAUNTON AND SOMERSET HOSPITAL.—Honorary Physician. Applications to J. H. Biddulph Pinchard, Secretary, 13, Hammet Street, Taunton, by October 23rd.

WEST LONDON HOSPITAL, Hammersmith Road, W.—Physician; must be Fellow or Member of the Royal College of Physicians of London. Applications to R. J. Gilbert, Secretary Superintendent, by October 25th.

WESTON-SUPER-MARE HOSPITAL.—Medical Officer, doubly qualified. Salary, £30 per annum, with board, lodging, and washing. Applications to the Honorary Secretary by October 18th.

MEDICAL APPOINTMENTS.

ERRATUM.—We regret that by inadvertence Dr. Richard Prichard, Medical Officer of Health of the Cardiff Union Rural Sanitary Authority, was, in the BRITISH MEDICAL JOURNAL of September 30th, described as having been appointed Inspector of Nuisances to the Glamorgan Rural Sanitary Authority. The mistake is obvious; but as it might possibly cause some misapprehension we take the earliest opportunity of correcting it.

ALLAN, Francis J., M.D.Edin., appointed Extra-professorial Examiner in Medical Jurisprudence and Public Health for Degrees in Medicine at the University of Aberdeen.

BETENSON, William B., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer for the Fourth District of the Loddon and Clavering Union.

BOSTOCK, John, M R.C.S.Eng., L.S.A., reappointed Medical Officer for the Wymeswold District of the Loughborough Union.

BROWN, Robert Emmerson, L.R.C.P , L.R.C.S.Edin., appointed Medical Officer at the Willington Station of the North-Eastern Railway Company.

BYERS, John William, M.A., M.D., appointed Professor of Midwifery and Diseases of Women and Children in Queen's College, Belfast, *vice* Robert F. Dill, M.D.Glasg., deceased.

COUPLAND, Sidney, M.D.Lond., appointed Extra-professorial Examiner in Medicine for Degrees in Medicine at the University of Aberdeen.

EDMOND, George M., M.D.Aberd., appointed Extra-professorial Examiner in Midwifery for Degrees in Medicine at the University of Aberdeen.

FERRIS, J. S., M.B., L.R.C.P.Lond., M.R.C.S.Eng., reappointed Medical Officer and Public Vaccinator for the Denham Sanitary District of the Eton Union.

GIBSON, R. J. Harvey, M.A.Aberd., appointed Extra-professorial Examiner in Botany for Degrees in Medicine at the University of Aberdeen.

GUBB, Alfred S., M.D., appointed Medical Officer to the National Telephone Company (Metropolitan Division).

HUNTER, John, F.I.C., F.C.S.Edin., appointed Extra-professorial Examiner in Chemistry for Degrees in Medicine at the University of Aberdeen.

IVES, William Robert Yeates, L.R.C.P.Lond., L.S.A., appointed Surgeon to the Police Force of the Portswood District.

JOHNSTON, John, M.D., C.M.Edin., L.S.A.Lond., appointed Honorary Surgeon to the Bolton Infirmary and Dispensary.

M'DONNELL, William Campbell, L.R.C.P.Lond., M R.C.S.Eng., appointed Medical Officer for the Sixth District of the Hackney Union.

MALLETT, Frederick Rowland, M.B., C.M.Edin., L.R.C.P., L.R.C.S.Edin., appointed Honorary Surgeon to the Bolton Infirmary and Dispensary.

MOTHERSOLE, Robert Devereux, M.D., M.S.Lond., F.R.C.S.Eng., L.R.C.P. Lond., appointed Honorary Surgeon to the Bolton Infirmary and Dispensary.

O'MEARA, William Patrick, L.R.C.P., L.R.C.S.Edin., appointed Surgeon to the Police Force of Southampton.

PILKINGTON, Henry Oldfield, M.R.C.S.Eng., reappointed Medical Officer of Health for the Preston Urban Sanitary District and for the Port Sanitary Authority.

SMITH, James Lorraine, M.A., M.D.Edin., appointed Extra professorial Examiner in Pathology for Degrees in Medicine at the University of Aberdeen.

STEWART, George N., M.D.Edin., appointed Extra-professorial Examiner in Physiology for Degrees in Medicine at the University of Aberdeen.

THOMSON, J. A., M.A.Edin., appointed Extra-professorial Examiner in Zoology for Degrees in Medicine at the University of Aberdeen.

THOMPSON, Edward Turner, L.R.C.P., L.R.C.S.I., reappointed Medical Officer and Public Vaccinator for the Dunstable District of the Luton Union.

WARD, Montgomery Albert, M.D.Dub., F.R.C.S.I., appointed Medical Officer of Health for Rathmines, co. Dublin.

WARNER, Francis, M.D.Lond., appointed Extra-professorial Examiner in Materia Medica for Degrees in Medicine at the University of Aberdeen.

WELLINGTON, R. Henslowe, M.R.C.S., L.R.C.P.Lond., reappointed Medical Officer of Health for the Sutton Urban Sanitary District and to the Port of Wisbech, and Medical Officer to the Port Hospital.

DIARY FOR NEXT WEEK.

MONDAY.

LONDON POST-GRADUATE COURSE, Royal London Ophthalmic Hospital, 1 P.M.—Mr. A. Stanford Morton: Affections of the Eyelids.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN, Leicester Square, 5.30 P.M.—Dr. Morgan Dockrell: On Diseases of the Hands and Nails.

MEDICAL SOCIETY OF LONDON, 8.30 P.M.—Opening Address by the President, Dr. J. S. Bristowe, F.R.S., on Extreme Infrequency of Pulse, and its Association with Epileptiform Attacks. Mr. Arthur Maude: Some less known Factors in Graves's Disease. Mr. J. Berry will show some specimens of Ex ophthalmic Goitre.

TUESDAY.

LONDON POST-GRADUATE COURSE, Bethlem Hospital, 2 P.M.—Dr. Corner: Hypochondriasis. Hospital for Diseases of the Skin, Blackfriars, 4 P.M.—Mr. Jonathan Hutchinson: The Lupus Family.

PATHOLOGICAL SOCIETY OF LONDON, 8.30 P.M.—President's Address. Mr. Clutton: Congenital Deformity of Lips (living specimen). Mr. Hudson: Double Ureter, one terminating in the Urethra. Mr. Edgar Willett: Malformations of the Intestinal Tract (three specimens). Mr. Berry: (*a*) Bullet Wound of Heart, (*b*) Wound of Common Carotid. Mr. Jackson Clarke: A New Phase of Coccidium Oviforme. Dr. Charlewood Turner: Intussusception.

WEDNESDAY.

LONDON POST-GRADUATE COURSE, Hospital for Consumption, Brompton, 4 P.M.—Dr. C. Y. Biss: Aneurysm of the Aorta. Royal London Ophthalmic Hospital, 8 P.M.—Mr. A. Quarry Silcock: Myopia, with Illustrative Cases.

ROYAL COLLEGE OF PHYSICIANS, 4 P.M.—Dr. P. H. Pye-Smith: The Harveian Oration.

ROYAL MICROSCOPICAL SOCIETY, 20, Hanover Square, 8 P.M.

THURSDAY.

LONDON POST-GRADUATE COURSE, National Hospital for the Paralysed and Epileptic, Queen Square, 2 P.M.—Dr. Gowers, F.R.S.: The Degenerative Diseases of the Nervous System. Hospital for Sick Children, Great Ormond Street, 3.30 P.M.—Mr. John H. Morgan: Congenital Deformities of Head and Face. Central London Sick Asylum, Cleveland Street, 5.30 P.M.—Dr. Bristowe: Cases in the Wards. London Throat Hospital, Great Portland Street, W., 8 P.M.—Dr. Edward Law: Examination of the Throat and Nose.

HARVEIAN SOCIETY, 8.30 P.M.—Dr. J. Milne Bramwell: On Hypnotism, with illustrative cases.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM, 8.30 P.M. Specimens and Card Specimens at 8 P.M.—Address by the President. Card Specimens:—Dr. Beaumont: Neoplasm of the Iris. Mr. Rolston: Traumatic Dislocation of both Lenses. Mr. Treacher Collins: Specimen showing the Eyelashes carried into the Vitreous Chamber by a Wound with a Knife. Dr. Balmanno Squire: A Case of Lupus Vulgaris Involving the Eyeballs. Dr. S. Stephenson: A Modified Desmarres' Retractor. Mr. Ernest Clarke: A Case of Slight Enlargement of the Right Thyroid with Graefe's sign on Right Side only. Papers:—Mr. H. Work Dodd: One Hundred Cases of Epilepsy, their Refraction and their Treatment by Glasses. Mr. Simeon Snell: (1) Quickly growing Sarcoma of both Orbits in a Child with Secondary Growths, (2) Case Presenting Unusual Appearances after Extraction of Cataract (many years ago), simulating a Cyst, really due to Distended Lens Capsule. Dr. Howe: Autochromatic Plates in Photography of the Interior of the Eye. Dr. Brailey: Notes on a Case of Failure of Central Vision in each Eye (with ophthalmoscopic drawing). Mr. Bokenham: Short Note on Benzoyl-pseudotropeine.

FRIDAY.

LONDON POST-GRADUATE COURSE, Hospital for Consumption, Brompton, 4 P.M.—Dr. C. Y. Biss: Aneurysm of the Aorta.

SATURDAY.

LONDON POST-GRADUATE COURSE, Bethlem Hospital, 11 A.M.—Dr. Percy Smith: Melancholia.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTHS.

GUNNING.—On October 9th, at The Mall, Montrose, N.B., Mrs. Montague Shirley Wyatt Gunning (*née* Myles), of a son.

KENYON.—On October 4th, at Hooton Pagnell, near Doncaster, the wife of G. Herbert Kenyon, Esq., M.D., of a son.

NICHOL.—On October 11th, at 11, Ethelbert Terrace, Margate, the wife of Frank Edward Nichol, M.A., M.B., of a son.

RENDALL.—On September 30th, at Aix-les-Bains, the wife of Stanley Rendall, M.D., of a son.

RODEN.—On October 4th, at Friar Street, Droitwich, the wife of Percy A. Roden, M.B., of a son.

MARRIAGE.

WILLIAMS—MORRIS.—On October 4th, at the Wesleyan Chapel, Barmouth, by the Rev. J. Lloyd-Jones, Llanrwst, assisted by the Revs. Evan Evans and Z. Mather, Dr. Williams, M.A., M.B., D.P.H.Oxon, Cardiff, to Maggie, only daughter of W. J. Morris, Esq., Glanglasfor, Barmouth.

DEATH.

ASHDOWN.—On October 10th, at the Elms, Coningsby, Lincolnshire, Herbert H. Ashdown, M.D., F.R.S.E.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

SELOC would like to be recommended to some form of medicated soap, etc., for scaliness of the face. There is, especially after shaving, a rough scaly condition of the skin, evidently a form of chronic scaly eczema, more marked in the winter, and seldom bad enough to require the use of ointments. The patient has used Unna's overfatted soap, and dusting powder containing salicylic acid.

M.O.H. asks what are the best works to consult preparatory to giving a course of lectures on Ambulance or First Aid, and also on Nursing, and where necessary diagrams can be obtained.

*** On Ambulance or First Aid our correspondent might consult Cantlie's *Accidental Injuries* (Clowes, Charing Cross, 1s. 6d.); Roberts, *Lectures on Ambulance*. On Nursing: Cosgrave's *Handbook on Nursing* (St. John Ambulance Association, St. John's Gate, Clerkenwell); Roberts, *Lectures on Nursing* Diagrams can be obtained from the St. John Ambulance Association or from Allman and Son, 67, New Oxford Street.

JUVENILE ODDFELLOWS.

G. P. asks what should be the usual annual payment per head of a juvenile branch of the Foresters' Society to be made to their medical officer? Adult members pay at the rate of 5s. per head annually.

REMOVAL OF COAL DUST SCAR.

D. J. J. writes: Will some brother practitioner kindly advise a good method of removing a coal dust scar of 1½ inch in length running right across the point of the nose, in a young coal miner aged 25?

FOREIGN RESIDENCE.

ALPHA writes: Could any of your readers kindly assist me in selecting a town on the Continent as a place of residence while a young family are being educated. I want one with some facilities for amusement, including good English society and a club. Would Brussels, Bonn, or Heidelberg, for instance, answer to this description?

EXAMINATION FOR LIFE ASSURANCE.

MEMBER B. M. A. asks to be recommended a good book on medical examination for life insurance.

*** Our correspondent might consult *The Medical Handbook of Life Assurance*, by Dr. Pollock and Mr. Chisholm, Cassell and Co., price 7s. 6d.; or *The Medical Adviser in Life Assurance*, by Sir E. Sieveking; J. and A. Churchill.

LEECHES AND SYPHILIS.

EYE PIECE writes: 1. Are there any authenticated cases where leeches have transmitted the virus or "bacillus" of syphilis? 2. Is there any literature on this subject? 3. Is it possible to demonstrate microscopically the "specific bacillus" in blood clot, obtained by means of a leech from the induration area of a Hunterian chancre? 4. Do leech bites ever take on a chancroid action? 5. Can we distinguish between the infecting and non-infecting sores by these methods? It is found in practice that on the application of alcohol to the distended leech, the annelid first vomits a small quantity of the blood ingested, and then dies in a few minutes. I find that sores show a tendency to heal quicker after this method of treatment. Buboes also do well. Further, none of the bites show a chancroid action or any tendency to inflame. The subsequent bleeding is easily averted. I think by this method we ought to get at the actual "bacillus" of syphilis.

ANSWERS.

HEALING should obtain Moll's book on *Hypnotism*, published by Walter Scott, Warwick Lane, E.C.

M. B.M.A.—We have repeatedly deprecated the practice of publishing signed testimonials.

A MEMBER.—Our correspondent's case is undoubtedly a very hard one; his best hope of redress is to send a formal application to the Vice-Chancellor stating the circumstances, and asking the Senate to make a special exemption. The application might perhaps have more weight if backed up by the candidate's old teachers.

L. writes: In reply to "Member," patients of either sex suffering from syphilis or other venereal diseases are admitted into the general wards of the Lock Hospital in connection with the Liverpool Royal Infirmary on payment of 7s. per week, and into the private wards for a weekly payment of one guinea.

A MEMBER.—The would-be masseur should, in the first place, devote three months to obtaining a good knowledge of surface anatomy. The course of elementary anatomy given to art students at the Slade School, University College, London, would be suitable for this purpose. After this preliminary he should place himself under the care of Professor von Mosengeil, of Bonn. It is only fair to say that the market in this country is overstocked, and that the occupation is no longer a paying one.

MEDICAL DICTIONARY.

ROTCH.—Hoblyn's *Dictionary of Terms used in Medicine and the Collateral Sciences*, edited by Dr. John A. P. Price (Whittaker and Co.) would probably answer our correspondent's purpose.

TENERIFFE.

DR. H. LOWLESS CADE writes: 1. The best route is by the British and African Steamship Company's boats, which sail from Liverpool. Circular tickets are issued available for twelve months, allowing the passenger to break the journey for any length of time at Madeira and Grand Canary. Price of ticket, £15 15s. return. 2. The climate is magnificent, and very dry. Santa Cruz, in my opinion, is the best headquarters, as it is more lively than Orotava. I stayed at a Spanish hotel (Ramo's) at the rate of 4s. 6d. or 5s. per diem, and fared excellently, wine being included in this tariff.

LIFE AND MEDICAL ASSURANCE.

J. F. L. M.—We are informed that every policyholder in the London and Manchester Insurance Society, who wishes to join the medical department, is required to pay ½d. per week in addition to his other premium; of this extra payment, 1d. per week, or 1s. per quarter is paid to the medical officer on whose list he is placed. There can be very little doubt that many members take out policies in this society in order to avail themselves of its medical department.

DEATHS FROM DROWNING.

MR. HARDING H. TOMKINS, M.R.C.S. (Hove), writes in answer to "H.R.": Possibly a case I know of may explain some deaths. A good swimmer got just a drop of water into the glottis; such spasm resulted not only locally but generally that had he not been close to shore he said he must have drowned. He could make no sound of course and the sense of impending death caused an almost irresistible impulse to let everything go in order to clear the windpipe.

NOTES, LETTERS, Etc.

COAGULATION TUBES.

PROFESSOR A. E. WRIGHT, of Netley, writes to say that the difficulty which he formerly experienced in getting suitable tubes for use in ascertaining the degree of coagulability of the blood in the living subject has now been overcome. Mr. Alfred Dean, jun., 73, Hatton Garden, E.C., makes tubes of the size proposed by Professor Wright as the standard size.

A NEW MEDICAL FUND.

A MEMBER OF THE BIRMINGHAM MEDICAL BENEVOLENT SOCIETY writes: I hope the fund suggested by Dr. Millard, of Edinburgh, in the BRITISH MEDICAL JOURNAL of September 30th, p. 772, will not be attempted, believing it would be a failure. Is it not the duty of each member of our profession, if he or she can possibly afford it, to join one of the provident societies already in successful operation, so that widows and orphans shall have "a direct claim on a fund for their benefit?"

OPHTHALMIC SIGNS.

DR. J. G. BLACKMAN (Portsmouth) writes: In your review of *The Clinical Use of Prisms*, by Dr. Maddox, which appears in the BRITISH MEDICAL JOURNAL of October 7th, the opinion is stated that "it would be much better to have new signs altogether to indicate convergence and divergence" of prisms. May I suggest that the signs > and < be used for this purpose, the former to designate convergence and the latter divergence?

RIBERI PRIZE.

THE Turin Academy of Medicine has been entrusted with the award of the ninth Riberi prize of 20,000 francs (£800). The prize will be awarded to the author of a work, printed or manuscript, in Italian, French, or Latin, or of a discovery made between 1892 and 1896. The subject of the work or discovery must be in the domain of anatomy, physiology, or pharmacology. Works dealing with the history of medicine since the Renaissance will also be received. Printed works must have been published since 1891. The last day for the presentation of works by competitors is December 31st, 1896.

WASP STINGS.

DR. DALTON TACEY (Doncaster) writes: On September 6th a baker came to me with his tongue protruding from his mouth, swollen, and in great pain. While eating bread and butter at breakfast he was stung by a wasp. I prescribed aromatic spirit of ammonia ʒiv, aqua ad ʒij, one tablespoonful to be taken every hour and some of the mixture to be constantly held in the mouth. In the evening pain and swelling had passed away and he has had no inconvenience since.

October the Sixteenth.

D. writes: Three illustrious persons died on October 16th, two in the same year, the third 207 years earlier. For the last was no less than Sir Philip Sydney, one of the most gallant of soldiers and noblest of men recorded in history. He fell at Zutphen on October 16th, 1586. All Englishmen know how, when expiring, he refused a cup of water, desiring that a thirsty wounded soldier, in a less hopeless condition, should drink it up. It was also on October 16th in 1812 that the first shot of the battle of Leipzig was fired. The second death, that of John Hunter, took place on October 16th, 1793. On that very same day a third death occurred, different from the others, which are associated with the better side of human nature. Queen Marie Antoinette was guillotined in Paris. The scaffold was placed on the site of the corner of the Place de la Concorde, which touches the Tuileries Gardens. Her husband had suffered on a scaffold erected on the Champs Elysées side of the Place on the previous January. The details of that ugly transaction, the trial and execution of the Queen, are only too well known. According to a contemporary document examined by M. St. Amand, the Queen trod on the foot of the executioner Samson, as she stepped on the scaffold. Immediately, as though by reflex action, she struck the customary polite attitude of a courteous 18th century lady, saying, with a smile, *Monsieur, je vous demande pardon.* Those were her last words. Characteristically, the Austrian-French Queen died immediately after doing a deed of courtesy.

The Title of "Dr."

Another M.D., also M.R.C.P., L.R.C.S.Ed. writes: I quite endorse the views expressed by "M.D. and M.B.," and think that it is quite time that some such organisation as he mentions was promoted. Why cannot the two existing graduates associations, the Durham and the St. Andrews, combine, and thus form a nucleus for a "British Universities Graduates Association?" The diplomates of the Dublin College of Physicians are the worst offenders in the matter of the assumption of the title, and with bold effrontery put "Dr." upon their door plates. We can have no sympathy with those who try to deceive the public by the usurpation of titles to which they have no legal or moral right. I admit that the public frequently but erroneously dub the medical adviser "Dr."; "send for the Dr." is a common expression, but the surgery is often called the "doctor's shop," and if we are to pander to the ignorance of the public in the one case, why not in the other by placing this very objectionable term over the entrance to our reception rooms?

The British public is very fond of vulgarly addressing military men below the rank of captain as "captain," especially after retirement, but what would educated people think of the retired lieutenant in a line regiment who put on his cards "Captain" So-and-so. My simile may be objected to on the score of there being no difference in rank between a M.D. and a diplomate *per se*, but I protest that there is a difference. A doctor of medicine ranks in order of precedence (I am quoting from a peerage in front of me) along with doctors of divinity, laws, and music, before bachelors of the same, M.A.'s, B.A.'s, clergymen (not being doctors), Queen's counsel, barristers, subalterns in the army and navy, and gentlemen by profession, amongst the last of whom come medical practitioners (not being doctors). I suggest that on all public and ceremonial occasions M.D.'s should wear their hoods, gowns, and caps.

Mr. Fredk. W. Collingwood, L.R.C.P., etc. (Devonport) writes: "M.D. and M.B." seems surprised that men holding a licence, and, one might add, the M.B. diploma, should term themselves "Doctor." No doubt M.D.'s only have a legal claim to this title. The reason why there will not be, I think, a combined action on the part of the M.D.'s in the future is due to the fact that the standards required for these degrees are so utterly different; that members of one university would hardly combine with those of another—simply, may I say, to persecute men who, though not legally, are as morally right in using the title as many of the members of this proposed society.

The Treatment of Ringworm: A Suggestion.

Dr. Henry Alston (Trinidad, W.I.) writes: At the meeting of the Association at Newcastle, during the discussion on ringworm of the scalp, it was stated that the treatment of that disease was still most unsatisfactory, and that it was not new "parasiticides" which were required, but some reliable means of bringing them into contact with the deeply-seated fungus. It has occurred to me that if an instrument similar to a cupping glass, but so constructed as to be provided with a detachable pump to produce exhaustion of air and a "feeder" to inject a solution into the cupping glass when required, were to be placed over a patch of ringworm (after shaving and applying ether), the air then partially exhausted, and a certain quantity of the parasiticide allowed to enter, the hairs would be loosened and separated by the exudation, and absorption of the parasiticide would be promoted. The cupping glass (after detaching the pump) would have to be kept on for some hours daily to let the solution soak into the œdematous tissue. Unfortunately I cannot try this method, as cases of ringworm of the scalp are very uncommon here.

LETTERS, COMMUNICATIONS, Etc., have been received from:

(A) Dr. H. Alston, Trinidad; Alpha; *The Amateur Photographer*, the Editor of; Dr. M. Acworth, London; Another M.D., also M.R.C.P., L.R.C.S.Ed.; Dr. R. S. Anderson, Spennymoor. **(B)** Dr. J. W. Byers, Belfast; S. Barwise, M.B., Derby; Messrs. G. Beeching and Son, London; Mr. L. Browne, London; Messrs. W. W. Bush and Co., London; G. A. Berry, M.B., Edinburgh; Lady Baker, Blandford; Dr. J. G. Blackman, Portsmouth; Dr. R. Batten, London. **(C)** Charing Cross Hospital Medical School, the Dean of, London; Dr. C. H. Cattle, Nottingham; Dr. W. T. Cocking, Sheffield; Messrs. J. and A. Churchill, London; Mr. F. W. Collingwood, Devonport; Mr. H. L. Cade, Buxton; Mr. J. L. Callaghan, Colyton; Dr. H. C.; Cantab; Compagnie Française, London; Mr. A. B. Clarke, Highampton; Mr. G. B. Collett, Worthing; P. Campbell, M.B., Dundee. **(D)** Doubtful; Domen Belts Company, London; Depreciated Rupee; The Marquis of Dufferin and Ava, Paris; Mr. A. R. Davey, Ringwood; Dr. J. T. R. Davison, Buenos Ayres; Mr. S. B. De Butts, London; Democratic Doctor. **(E)** Mr. W. R. Etches, Macclesfield; Messrs. Evans, Lescher, and Webb, London; Eyepiece. **(F)** Dr. W. Fairbanks, Wells; Mr. J. H. Ferdinands, Calcutta; Messrs. Fannin and Co., Dublin; Mr. D. P. Ffrench, Roscommon; Mr. J. C. Ferguson, Malvern. **(G)** Mr. G. . Groves, Bridgwater; Dr. H. R. Greene, Knaphill; Mr. E. C. Garland, Yeovil; A. Godfrey, M.B., London; Dr. J. Griffiths, Cambridge. **(H)** Honour without Profit; Messrs. Hertz and Collingwoods, London; The Howard Association, Secretary of, London; Mr. H. Higgins, Cambridge; Mr. H. Horton, Aston; Miss J. M. Hulbert, Oxford; Dr. C. Holman, London; Dr. J. B. Haycraft, Cardiff; Dr. T. G. Horder, Cardiff. **(J)** Mr. M. Jameson, Chesterfield; J. M. J. K.; Dr. J. Johnston, Bolton; Dr. E. Jepson, Durham. **(K)** Dr. J. Kerr, Bradford; Dr. G. H. Kenyon, Doncaster. **(L)** Mr. R. Lake, London; Mr. E. A. Lubbock, London; Mr. J. Lawrence-Hamilton, Brighton; Mr. J. E. Lane, London; L.S.D. **(M)** Medical Society of London, Honorary Secretary of, London; A Member of the Birmingham Medical Benevolent Society; M.O.H.: Dr. H. Mackenzie, Edinburgh; Dr. W. Murrell, London; Dr. G. B. Mead, Newmarket; Dr. F. Milford, Sydney; Mr. F. H. Moore, Littleport; Medicus; Member; Medical; Mr. A. G. S. Mahomed, Bournemouth; Mr. H. E. Maberly, London; M.A., M.B.Oxon; Dr. B. J. Massiah, Manchester. **(N)** Mrs. M. Nichol, London. **(O)** Omega; Mr. W. Owen, Bangor; Observer. **(P)** Dr. C. B. Plowright, King's Lynn; Mr. H. E. Powell, London; Mr. E. Parker, Cardiff; Dr. R. D. Powell, London; S. W. Plummer, M.B., Durham; D'Arcy Power, M.B., London; Dr. F. H. Parsons, Worthing; Dr. T. D. Patmore, London; Dr. S. R. Philipps, Virginia Water; W. M. Parham, M.B., Bath; Dr. C. Porter, Stockport; Mr. G. C. P. Pauli, Bristol; Dr. A. M. Paterson, Dundee. **(R)** Mr. C. W. Robinson, Sheffield; Mr. J. Round, Aston; Mr. A. F. Regal, Benton; Dr. W. Rigden, London; Dr. A. Rosenau, Bad-Kissingen; Dr. A. Ruffer, London; Rectus; Messrs. H. J. Rowntree and Co., York. **(S)** W. G. Spencer, M.B., London; Seloc; Sanitas Company, Limited, London; Mr. W. E. Shore, London; Mr. A. Shaw, St. Austell; Dr. J. E. Squire, London; Mr. G. A. G. Simpson, London; Mr. J. S. Sewill, London; Mr. R. R. Sleman, London; Mr. J. W. Simpson, London; Surgeon-Major I.M.S.; Professor W. F. Stevenson, Netley; Mr. J. H. Schooling, London; Surgeon-Captain A.M.S. **(T)** Dr. N. Tirard, London; Mr. D. Tacey, Doncaster; Mr. W. Turner, London; Mr. H. Turner, London. **(V)** Mr. E. T. Vint, Belfast; Mr. G. P. Val, Woking. **(W)** Mr. A. G. Wells, London; Mr. A. T. Wise, Belvedere; Mr. J. S. Wood, London; Mr. S. Woods, London; J. Walker, M.B., Aberdeen; Mr. A. H. Watson, Worcester; Dr. H. Woods, London; Mr. J. C. Wood, Sunderland; Dr. F. J. Waldo, London; Dr. R. T. Williamson, Manchester; Sir T. Spencer Wells, London; Mr. R. H. Wellington, Sutton Bridge; Mr. H. J. M. Watts, Grimsby; Dr. F. Warner, London; etc.

BOOKS, Etc., RECEIVED.

A Guide to the Examination of the Urine. By Dr. Wickham Legg. Seventh Edition. Edited and revised by Dr. H. Lewis Jones. London: H. K. Lewis. 1893. 3s. 6d.

Smiles and Tears. By Arthur Hood. London: Record Press, Limited. 1893.

Textbook of Physiology. Part I. Sixth Edition. By Dr. M. Foster. London: Macmillan and Co. 1893. 10s. 6d.

Lectures on the Comparative Pathology of Inflammation delivered at the Pasteur Institute in 1891. By Elias Metchnikoff. Translated from the French by F. A. Starling and E. H. Starling. London: Kegan Paul, Trench, Trübner and Co. 1893. 12s.

Clinical Gynæcology; being a Handbook of Diseases peculiar to Women. By Dr. T. M. Madden. London: Baillière, Tindall and Cox. 1893. 12s. 6d.

Brain Surgery. By Dr. M. A. Starr. London: Baillière, Tindall and Cox. 1893. 10s. 6d.

Surgical Treatment of Deformities. By William Adams. London: Baillière, Tindall and Cox. 1893. 2s. 6d.

Syphilis, its Treatment by Intramuscular Injections of Soluble Mercurial Salts. By Edward Cotterell. London: John Bale and Sons. 1893. 2s.

Mémoires et Bulletins de la Société de Médecine et de Chirurgie de Bordeaux. 3e et 4e Fasc. Paris: G. Masson. 1893.

Methods of Practical Hygiene. Vol. I and II. By Professor K. B. Lehmann. Translated by W. Crookes, F.R.S. London: Kegan Paul, Trench, Trübner, and Co., Limited. 1893. 3 1s. 6d.

Selected Papers in Gynæcology and Obstetrics. By Dr. D. B. Hart. Edinburgh: W. and A. K. Johnston. 1893.

The Narrative of a Busy Life: an Autobiography. By Dr. A. H. Hassall London: Longmans, Green and Co. 1893. 5s.

***** In forwarding books the publishers are requested to state the selling prices.**

THE HARVEIAN ORATION
ON
PATHOLOGY AS THE BASIS OF RATIONAL MEDICINE.

Delivered before the Royal College of Physicians.

By PHILIP HENRY PYE-SMITH, M.D., F.R.C.P., F.R.S.,
Physician to Guy's Hospital.

[After referring to the conditions under which the annual oration was founded, Dr. Pye-Smith proceeded to deal in the first place with the claim of Harvey to have been the true discoverer of the circulation of the blood, pointing out that, although conjectures had been made upon the subject which nearly approached the truth, to Harvey belonged the honour of having appreciated the importance of the subject and of having proved it by argument founded on experiment and observation. "He," Dr. Pye-Smith said, "only discovers who proves." The orator next turned to a brief consideration of Harvey's treatise upon Generation, and then proceeded as follows:—]

There is, however, a third phase of Harvey's intellectual work, of which, unfortunately, the records have perished, and which has not, perhaps, been duly appreciated. I do not speak of his practice. A file of his "bills," however interesting to the antiquarian, would probably be of as little therapeutical value as those of his contemporaries. Diagnosis, in the modern sense of the word, was scarcely thought of at that time, and treatment was either empirical or mischievous. What I believe Harvey contributed, or would, but for adverse fate, have contributed to medicine as distinct from physiology, was a systematic study of morbid anatomy. In the following passage he speaks of the great benefit that would ensue from the regular observation of the structural changes produced by disease:—

> In the same way that the dissection of healthy bodies is of the greatest importance for true scientific physiology, so the inspection of diseased bodies after death is no less necessary for scientific pathology.
>
> For physiology is the study of natural conditions, and must first be studied by physicians, inasmuch as what is normal is healthy, and the rule for its own rightness, as well as for every abnormal deviation therefrom. But when deviations from health, or any abnormal conditions are defined by the light of healthy structures, then pathology, the science of disease, becomes intelligible. Then also from a knowledge of pathology the practice and art of healing, and numberless new methods of treatment, will naturally spring.
>
> No one would easily believe how greatly the viscera are altered by disease, particularly in chronic cases, and how extraordinary the anatomical effects of prolonged sickness often are. Indeed, I am confident that the opening and thorough inspection of one dead body, which has been wasted by slow disease or by infection, is of more real service to the art of healing than the dissection of ten corpses of healthy criminals.[1]

Now this was a new notion. It was not uncommon for the body to be opened after death, especially in the case of great personages, either for the purpose of embalming or for discovering (as it was supposed) the fact of poison or other foul play; and occasionally a physician would obtain permission for a like inspection when something unusual in the symptoms had excited a laudable curiosity to ascertain their cause; but the records of such inspections in the seventeenth century by Bartolinus, or Tulpius, or Bonetus, or, in our own country, by Mayerne, or Bate, or Morton, are fragmentary, their object being limited to the individual case. There was no attempt to search out the secrets of Nature in disease by a systematic observation of the state of the organs after death, nor was there for more than a century after Harvey's death. Morgagni in Italy; the French anatomists of the early part of this century, Corvisart and Laennec, Broussais and Cruveilhier; in Germany Meckel and Rokitansky; and in England Baillie, Abercrombie, Carswell, and Bright—these were the founders of scientific pathology on a sure anatomical basis almost within living memory.

Not only had Harvey the prescience to recommend the study of morbid anatomy for itself, but he had himself recorded a large number of dissections, or, as we should now call them, inspections, of diseased bodies. Unfortunately, most of these *post-mortem* reports, with his observations on the generations of insects, and other manuscripts were destroyed, or irrevocably dispersed, when his house in London was searched while he was with the King at Oxford. If the records of these inspections had been published, may we not assume that Harvey's great authority would have set the fashion, and that the systematic study of morbid anatomy would have begun a century and a-half earlier than it did? And think what this would have meant. With the exception of a few shrewd observations, a few admirable descriptions, and here and there a brilliant discovery, such as the origin and prevention of lead colic and of scurvy and the introduction of vaccination, it may be said that medicine made no important progress between the time of Harvey and that of Laennec. The very notion of diagnosis in our modern sense of the word depends upon morbid anatomy. The older physician seldom attempted to determine the seat of an ailment.[2] Disease was looked upon not as a condition depending upon disordered physiological functions, but as something external, attacking a previously healthy person, disturbing, and, if not expelled by art, finally destroying him; while any structural changes which were found after death were regarded rather as the effects than the causes of the symptoms during life.

Now, the ambition of every intelligent student—and in medicine we are life-long students—is to fix upon the most objective, certain, and important of the symptoms of a patient, to follow out this clue, to determine the organ affected and the nature of the affection, so that in his mind's eye the tissues become transparent, and he sees the narrow orifice for the blood stream and the labouring muscle behind it; or the constricted loop of intestine with violent peristalsis above and paralysis below, the blood current stopped, and congestion passing hour by hour into gangrene; or the spinal cord, with grey induration of a definite region, and the motor, sensory, and trophic changes which physiologically ensue.

Sometimes this minute search to fix upon the locality and exact nature of a lesion has been ridiculed; and we are asked what benefit to the patient such knowledge when attained can bring? We answer, that in medicine, as in every other practical art, progress depends upon knowledge, and knowledge must be pursued for its own sake, without continually looking about for its practical application.

Harvey's great discovery was a strictly physiological discovery, and had little influence upon the healing art until the invention of auscultation. So also Du Bois Reymond's investigation of the electrical properties of muscle and nerve was purely scientific, but we use the results thus obtained every day in the diagnosis of disease, in its successful treatment, and in the scarcely less important demonstration of the falsehoods by which the name of electricity is misused for purposes of gain.

It is true that Bernard's discoveries of the diabetic puncture and of the digestive function of the pancreas have not yet received their practical application. He was right when he said: *Nous venons les mains vides, mais la bouche pleine d'espérances légitimes*, but he should have spoken for himself alone.

The experiments on blood pressure begun by Hales, and carried to a successful issue in our own time by Ludwig, have led to knowledge which we use every day by the bedside, and which only needs the discovery of a better method of measuring blood pressure during life, to become one of our foremost and most practical aids in treatment.

Again, we can most of us remember using very imperfect physiological knowledge to fix, more or less successfully, the locality of an organic lesion in the brain. I also remember such attempts being described as a mere scientific game, which could only be won after the player was beaten, since when the accuracy of diagnosis was established, its object was already lost; but who would say this now, when purely physiological research and purely diagnostic success have led to one of the most brilliant achievements of practical medicine, the operative treatment of organic diseases of the brain?

Morbid anatomy not only teaches us what lesions we have to discover, but also their true pathological relation. We learn that every disease does not affect every part of the

[1] P. 92 of the Quarto College Edition.

[2] I have been told by a contemporary of an eminent physician in this city that the accuracy of his diagnosis—it was before the introduction of the stethoscope—was remarkable, for he rarely failed to fix the seat of a disease in that one of the three great cavities of the body in which it was found after death.

body. If we make a horizontal list of all the organs and tissues, and a vertical one of all the known morbid changes, according to Rokitansky's laborious and thorough-going method, we find the table almost useless, since the blanks are more numerous than the entries. If the liver, for example, were the possible seat of every tumour described in our College nomenclature of disease, it would be hopeless to attempt the diagnosis of a hepatic growth; if the small intestine were subject to every morbid change which can affect a mucous membrane, we should be lost amid such a crowd of possibilities. But morbid anatomy teaches us that each organ has its peculiar liabilities to disease, so that when we have determined the seat of a malady we have gone far towards establishing its nature. Moreover, such concomitant variations as hypertrophied left ventricle and granular kidneys, basal meningitis and caseous lymph glands, visceral abscess and ulceration of the cardiac valves teach us much more than anatomy or diagnosis. They throw a clear light upon the nature and the origin of diseases, and hence upon their prevention and cure.[3]

True, there are functional disorders and others which are toxic or parasitic; but it is the object of the study of morbid anatomy to limit, and, as nearly as may be, to abolish the former group by tracing disordered functions to structural changes or to poisonous or parasitic influences. We may measure the progress of medical science during the present century by the fact that fever, dropsy, paralysis, and apoplexy are for us no longer diseases, but only symptoms, which leave us unsatisfied till we have traced them to their origin.

It has often been questioned whether study of morbid anatomy has not withdrawn attention from morbid physiology; and, again, whether the time employed upon pathological researches would not have been better spent in directly therapeutical inquiry. To both these questions I take leave to answer, No. Anatomy must precede physiology, whether in the normal or the diseased state. The humoral physiology of the ancients did infinite mischief (mischief not yet exhausted), because it lacked the sound basis of anatomy; and experimental pathology—necessary and important as it is, and valuable as even its first endeavours have proved—was impossible without previous knowledge of the anatomy and histology of disease. As to therapeutics, while professing full faith in the ultimate value of such laborious chemical and physiological researches of the laboratory as those which were the subject of the recent Croonian Lectures, I hold that for the successful cure of a patient it is far better that his physician should have a thorough and extensive knowledge of morbid anatomy than that he should be acquainted with all the baths and waters, the hotels and lodging-houses throughout the world, or familiar with the barbarous names and pretended virtues of all the advertised nostrums that deface the fair English fields from London to Oxford. The public suppose that it is their business to know what is the matter, and the doctor's to find the remedy; if so, our art would be confined to learning the name of the patient's disorder by letter, postcard, or telegram, and looking up in an index of remedies the twenty or thirty drugs which are "good" for that particular complaint. We know that the real difficulty is to ascertain the nature and origin of our patient's disorder; when that is done the treatment in most cases is obvious, and in many effectual; when it is not done our treatment is vacillating, and either futile or mischievous. We have already ample means at our disposal for influencing almost every organ of the body. A new tool is occasionally offered us which deserves proving, but what we want far more is knowledge how to use the tools that we have. Treatment without diagnosis, besides its inefficiency, brings us for the time unpleasantly near to the charlatan who, whatever title he may assume, is always therapeutical and never pathological. Rational, bold, and effectual treatment, whether preventive or curative, must always depend upon accurate diagnosis and sound pathology, and the power of diagnosis depends upon that systematic inspection of the bodies of diseased persons which was recommended and practised by Harvey.

Suffer me, then, to obey the instructions of the founder of this lecture, by exhorting my hearers, and especially those Fellows who are junior to myself, to emulate, according to the varied talents entrusted to each, the example of Harvey in these three particulars:

(1) In investigation by experiment, whether in pathology or physiology. We have now difficulties unknown to Harvey in carrying out this duty, for duty it certainly is, incumbent upon all who have the opportunity and the necessary training. The countless experiments on living animals which were carried out during the 17th century in all civilised countries—in Italy, Holland, Denmark, France, Germany, and England—bore a rich fruit of physiological knowledge. If the anatomy of the human body was thoroughly ascertained by the great men of the 16th century, by Vesalius, Sylvius, and their successors, it is no less true that to the 17th century is due the discovery of the elements of physiology. The action of the heart and the circulation of the blood, the absorption of chyle by the lacteals and thoracic duct, the mechanism of respiration and some knowledge of its chemical effects, the function of secretion by glands, the minute structure of the eye and ear, and of the reproductive apparatus, and a knowledge—imperfect, but true as far as it went—of the functions of the brain and nerves, these were the achievements of the 17th century due to Harvey, Glisson, Willis, and Mayow, among our own countrymen, and to Pecquet, Malpighi, Leuwenhoeck, De Graaf, Swammerdam, Aselli, Redi, and Bartolinus. In all this brilliant advance of knowledge, experiment upon the lower animals was the method used, and the method is as indispensable now.

Anyone conversant with a single branch of natural science is aware that experiment, as well as observation, is necessary. Who would expect discoveries in physics, or in chemistry, without laboratories and experiments? Do not botanists investigate the functions of plants by dissection, by microscopic and chemical investigation, and by experiment? Have we not this very year celebrated the important results of fifty years' experimental researches into the life and growth of plants by Lawes and Gilbert? And is it not obvious that the same necessary, well-tried, and indispensable method of inquiry must be continued in the case of animals? Happily the same experimental science has discovered the means of abolishing the tribute of suffering which the brute creation paid in the hands of Harvey and Hales, of Haller, Magendie, and Sir Charles Bell. By means of chloroform and other anæsthetics, and by means of the antiseptic methods which we owe to Sir Joseph Lister, the subjects of experiment are spared the pain and shock of an operation, and the pain which used to follow an operation. In fact, almost the only experiments upon the lower animals which involve distress are those which are most immediately and directly useful to ourselves and to them; inoculations, namely, with a view to reproduce diseases, and the direct therapeutical testing of drugs. Cruelty is utterly repugnant to our calling; and it seems absurd that men, who will with just confidence entrust themselves and the lives of those nearest to them to our protection and care, should yet so far distrust us as to shackle attempts to improve our knowledge and our power by cumbersome and ridiculous restrictions. Let us hope that on the one hand increasing humanity and gentler manners will extend compassion for the lowest of God's creatures from the educated classes of England and America until it permeates all ranks and all nations; and that, on the other, full liberty will be given to the prosecution of researches, laborious and thankless in themselves, but of the utmost value for the relief and prevention of disease in man and brute alike. May I also express a hope that those who administer our laws will take heart of grace, and in this, as in other matters, try whether Englishmen do not prefer the conscientious maintenance of a statesman's own judgment before a time-serving submission to ignorant clamour.

(2) In the second place, I would exhort my brethren, and especially the Members of this College, to cultivate learning. Harvey went to study in Italy, then the nursery of science as well as of art, and he was familiar with the writings of Plato and Aristotle and Virgil, as well as with those of his immediate predecessors, Fabricius and Columbus. So in that golden time which comes to most of us, between taking the academical degree and becoming immersed in the daily duties

[3] See Dr. Wilks's article in *Guy's Hospital Reports* for 1865 (3rd series, vol. xi, p. 1.)

of hospital life, I strongly advise a visit to one of the German universities or to Paris, to acquire the key to the two languages in which the best modern books are written, and to widen the mind by seeing the aspect of science and affairs from a Continental standpoint. It is lamentable that there is so little professional intercourse between the students of one of our London schools and the teachers of another. The laudable energy which has made each of them complete and well-equipped colleges has had this drawback, that at the present day the attention of a diligent student is more confined to the teaching and practice of his own school than it was sixty or seventy years ago.[4] The narrowness and prejudice bred by this isolation may be corrected by a visit to the famous sister universities of Edinburgh or Dublin; for their complete removal no prescription is so efficient as a prolonged stay in Continental laboratories and hospitals. But even such a broad and liberal education, even familiarity with the daily advances of medical science recorded in periodicals and archives and yearbooks, or transmitted by telegraph to the wondering readers of the daily newspapers, is not all that is needful to make a learned physician. We know well the difference between reading of an experiment, or even seeing it performed, and doing it with our own hands. We know the difference between studying a pathological atlas, or even a cabinet of histological slides, and seeing and handling morbid tissues and making sections for ourselves. So also is there all the difference between learning the present conclusions as they stand recorded in the last edition of a textbook or compendium and tracing the steps by which our present knowledge has been reached.

With regard, for instance, to the physiology of the circulation, it is not only curious but instructive to follow its gradual growth from Galen and Vesalius, Columbus, Cæsalpinus and Servetus, to Harvey and Lower and Malpighi, to Hales and Vierordt, to Ludwig, to Chauveau and Marey, to Gaskell and Roy. The only true scientific method is the historical one. If we only know the results of a science without the steps by which they have been reached, we have indeed its practical use, but lose half its educational value. We are almost in the position of an engineer who knows the conclusions of trigonometry by rote, but is ignorant of the demonstration. I would therefore urge upon junior Fellows, while still enjoying the prospect rather than the fruition of professional success, to spare some of the time which is unoccupied by work in wards and laboratories for the perusal of such antiquated works as have been published as much as twenty years ago, and particularly for gaining acquaintance at first hand with Virchow's *Cellular Pathology*, and the lectures of Watson, Trousseau, and Stokes; or, if their time and inclination does not allow of more extended research, at least to read such succinct masterpieces as Laennec's *Mediate Auscultation*, Heberden's *Commentaries*, Sydenham's *Treatise on Gout*, and Harvey on the *Movement of the Heart and of the Blood*.

(3) I would, moreover, exhort Fellows of the College to see that, while all the new methods of experimental pathology and of pharmacology are carried out by duly trained physiologists, we do not neglect the fundamental method taught and practised by Harvey of inspecting the bodies of those who have died of disease. It was this union of morbid anatomy with clinical observation which made the discoveries of Laennec and of Bright really fruitful. Without these necropsies, clinical medicine is but an empirical art, diagnosis a sham, and treatment little better than quackery. Exclusive attention to therapeutics is apt to bring a man dangerously near to homœopathy and other pretended systems of treatment, but sound pathology and diagnosis controlled by *post-mortem* inspection give positive knowledge and that union of modest self-confidence and prudent enterprise which become the physician.

[4] Let us hope that the University of London, when reconstituted by the labours of the Royal Commission, which is now preparing its Report to the Crown, may provide by the regulations of its medical faculty for more community of teaching and learning among students of medicine in this city.

Medical Magistrate.—Mr. George Stoker, of London and Dunloe Castle, Killarney, has been appointed to the Commission of the Peace for the County of Kerry.

on

METHODS OF ANATOMICAL STUDY.

An Address delivered to the Medical Society of University College, London.

By ALEX. MACALISTER, D.Sc., M.D., LL.D., F.R.S.,
Professor of Anatomy in the University of Cambridge.

The Grievous Burden of the Student.

The student of medicine at the present day has a grievous burden laid upon him. He is expected in the short space of five years to master the principles and details of the five preliminary sciences—physics, chemistry, biology, anatomy, and physiology—to become proficient in the four more purely professional subjects—pathology, bacteriology, pharmacology, and therapeutics—to invade the domain of the lawyer in the study of medical jurisprudence, and to make himself expert in the applications of all these to the practical branches of medical and surgical science. These are not only the three specified in the Medical Act—surgery, medicine, and obstetrics—but also the finer subdivisions, such as ophthalmology, rhinology, laryngology, otology, etc., the mere recital of whose names reminds us of the description of the state of Egyptian medicine given by Herodotus.

We have a rough measure of the amount of work which this course entails in the bulk of the textbook literature which covers the ground. About 10,000 pages—for the most part crammed with facts—have to be studied with an attention which amounts to a virtual committing to memory of their contents. In addition to this private reading the student must spend time and strength in practical work in the special laboratory of each department and in the hospital wards, so that he may educate his eye and his hand to a high degree of scientific precision.

There is also this farther complication in the educational outlook that the amount of knowledge in all these branches is rapidly growing. The literature of new work in human anatomy published in the year 1892 amounted to a little more than 2,000 octavo pages, and research in the other subjects is quite as prolific in its results. This advancement of learning has led to a necessary division of labour in our medical schools—a differentiation of teachers consequent on the specialisation of subjects, so that the student is instructed in anatomy by an anatomist, in biology by a biologist, in chemistry by a chemist, and so on through the alphabet of the sciences.

Theoretically, the plan of this arrangement is a counsel of perfection, and the result—the ideal physician—is the marvellous man of erudition and skill with whom we are familiar in novels, who combines the omniscience of an Admirable Crichton with the astuteness of a Sherlock Holmes. But, unfortunately, in the practical working of our system there is one drawback—human receptivity is a limited quantity, for many a conscientious student has discovered from sad experience that the brain is as impatient of overfeeding as the stomach. Here we are brought face to face with a real and growing difficulty, and eventually we must come to a deadlock, unless some satisfactory measure of reform in our method of education be devised.

The fundamental consideration which should be the guide of all medical teachers, and especially of all those authorities whose business it is to plan curricula and to arrange for qualifying examinations, is the clear perception of the central aim of all medical study, which is the relief and prevention of disease and of suffering among men. Our profession, as a profession, exists solely to this end, to which all the branches of knowledge in the curriculum are ancillary. He is the most successful healer who aids Nature most effectually to fulfil these purposes, and to this touchstone should all our knowledge be brought—How far does it help us in doing this work?

It is at this point that our present system is liable to fail. The sciences which form parts of the medical curriculum may be viewed from two distinct standpoints, the academic

or that of pure knowledge, and the practical or that of their relation to the art of healing. Scientific truth viewed in the former aspect is interesting for its own sake; viewed in the latter it is interesting only for the sake of its utility. The specialist sees his own science chiefly from the former point of view. To him the proper discharge of his duty means the teaching of his science as it is known to him, and it cannot appear otherwise than a degradation to be compelled to teach it by schedule or in any such imperfect form as must of necessity rob it of its completeness and of much of its interest. This view commands our heartiest respect, especially in the cases of anatomy and physiology, for if there be any subjects in the course with which the practitioner requires to be especially conversant, they are these twin sciences. But even here we are confronted with that psychological deadlock, the impossibility of mastering all the details included in these subjects.

It comes, then, to this, that under the pressure of concurring and conflicting interests, the preliminary sciences cannot be taught in their entirety; and as it is plain that the most judicious care must needs be exercised in the selection of the portions of each which should be obligatory on the student, we are forced to give some answer to the very practical question, How much of each must the student know, and how is he to learn it?

We are concerned now with the answer to these questions only so far as they apply to anatomy. It is unnecessary to spend time in insisting upon the importance of its place in the course, as constituting the very foundation of medical science. The words of our earliest English anatomical writer, Vicary, are as true to-day as they were when written: "The Chirurgeon must knowe the Anatomie, for al authors write against those surgions that worke in man's body not knowing the Anatomie; for they be likened to a blind man that cutteth in a vine tree, for he taketh away more or less than he ought to doo. And here note well the saying of Galen, the prince of philosophers, in his Estories, that it is as possible for a surgion not knowing the Anatomie to work in man's body without error, as it is for a blind man to carve an image and make it perfyt."

The extent of anatomical knowledge considered requisite for practical purposes in the days of Vicary was different from what it is in our own time. According to him, all that it sufficed the young practitioner to know about the anatomy of the gluteal region is that "the hippes have great brawny flesh on them, and from thence dissend downwards brawnes, cords, and ligaments, moving and bynding together the thies with the Hanches themselves." In the days of George I the description of this region had grown longer, but in our best English textbook of that period it is comprehended in sixty-eight short lines; whereas at present we find in *Gray* that the account of this region occupies rather more than eight times that space. How heartily will our students now say "Amen" to the sentiment of Cheselden: "I could wish the Dividing and Distinguishing of Parts was usually carried no farther than is necessary to answer these valuable ends"—that is, of utility.

Until a little more than a quarter of a century ago anatomy occupied a unique position in the curriculum of the medical student. In all other departments he had no alternative but blindly to accept the dictum of teacher or textbook. Here alone he was trained to use his eyes and his hands; here alone he was educated to translate the impressions made by the objects of his study on his senses into words, enabling him to check the descriptions in his books or those taught in the lecture room by comparing the realities under his hands with the verbal accounts of them given by his teachers. In the dissecting room every student was an investigator. In this way practical anatomy was a discipline of incalculable value, for not only was the knowledge acquired an end in itself, but the method whereby it was gained was the most valuable part of the entire medical training. Physics, which was no part of the curriculum in my student days, is now the subject of a laboratory course; so is chemistry, so is biology, so is histology, so is physiology. Each of these is not only taught in the lecture room, but the laboratory course of each is a practical drill. In this respect anatomy has lost its singularity, as it is no longer the sole subject learned by the method of practical experiment.

Not that it is yet quite superseded in this respect by its sister subjects. I believe that a training in careful dissection is still the best discipline whereby the student can acquire neatness of manipulation and thoroughness in experimental work; and, *per contra*, the vile habit of scamping work acquired by lazy and careless dissectors is certain to be carried by them into the other departments of their study.

Viewed as a discipline and training in method, anatomy is still of pre-eminent importance to the student so far as his study is practical, but no farther. So long as it trains him to see things with his own eyes and not with those of his teachers, so long as he is made to use his own hands and not to stand idly by while the demonstrator does the work, so long as he carries on his work in a critical spirit, not willing to accept the words of his textbook until he verifies them by comparison with the facts—under these conditions there is no part of the modern curriculum from which the student benefits intellectually and morally so much as from his practical training in anatomy.

Having said this by way of preface, let us now endeavour to answer the two great questions which the exigencies of the time have set before us. It is quite plain from what has been said of the growth of knowledge in anatomy, that it is only the privilege of the few to keep up with that progress, and that consequently some definite principles should be formulated to guide the anatomical studies of the many. We shall find it most convenient to reverse the order of the problems and to take in the first place that of method.

How Should a Student Learn his Anatomy?

Whatever amount of anatomy it may be needful for the student to know, it is of fundamental importance that his knowledge should be accurate. I have elsewhere said that the only knowledge of anatomy which is of use to the practitioner is that which will enable him, without hesitation, to put his finger over or a needle into any structure of the body. The skin should interpose no obstacle to the precision of this localisation, or to his power of mentally picturing how the parts lie with regard to each other. It is not given to every man easily to visualise things and places. The inquiries set on foot by Mr. Galton show that human capacity is very varied in this respect, but I have little doubt that the power can be cultivated by close attention. One of the greatest anatomical teachers of his time, my revered predecessor in Dublin, James Macartney, used to impress upon his class, at St. Bartholomew's, the importance of this kind of knowledge, which he illustrated by cutting down upon and tying the femoral artery while standing blindfold, and more than once he varied the procedure by keeping his back turned towards the subject while operating.

In order that we may attain to this standard of usefulness, the method of our study ought to be fourfold.

1. The part whose anatomy we desire to learn must be dissected.
2. The structure exposed must be named.
3. The region as prepared by dissection must be compared with sections of the same part prepared by the method of freezing.
4. The arrangements of the parts have to be interpreted, and finally learned by reading and revision.

I have already said enough as to the first stage, and will only add that it should be the aim of the student dissecting to examine every part which is mentioned in his book, and to verify every relation which is there set down. This brings us to the second step in our method, which is that everything exposed has to be named.

The Uses of Names.

There are different opinions entertained by teachers as to the best kind of guide to be provided for the student in his dissection. One plan is to use a concise book of directions in the dissecting room, and not to read the account of the part fully until afterwards; but even though the directory be a good one, like the admirable manuals of Cleland and Bardeleben, the student who adopts this plan is sure to miss many important points at every stage of his work. For the trained observer, who notes down at each step everything

which he sees, this method is good, and will eventually make him a good anatomist, but it takes time. For the ordinary student, who knows not for what to look, or what points to notice concerning the structures which he has exposed, I am convinced that the plan is a bad one, and only entails a harmful dependence on the demonstrator. For him the book to be used in the dissecting room should be a full description containing every particular which is verifiable by the eye, so that these may be observed on the spot, where alone they can be profitably learned.

It is owing largely to this system of trusting to learn about things at home that the student so often falls into the fatal mistake of confounding the learning of names with the learning of the things named. It is deplorable how much the committing to memory of names and of formulæ is supposed to be the chief thing required in learning anatomy. The student at the outset of his career must realise that he cannot become an anatomist by learning off crambooks by heart. Names are necessary to enable us to speak and read concerning the things of anatomy; they aid us in recalling to memory parts and their relations; they should enable us to retain clear ideas as to the nature of things; but unless each name conjures up before the imagination the definite thing named they are useless.

I venture here to add a few words as to the system of names which it is best to use. There are certain qualities which names should have, and of these anatomists have unfortunately been too often unmindful.

1. Each name should be as far as possible a single word. We can distinguish the thumb from the great toe by calling former "pollex manûs," and the latter "pollex pedis," but when we have a classical name for the latter it is preferable to restrict "pollex" to the thumb and to use "hallux" for the great toe. It is, of course, not always possible to name joints by single words, but when we can it is certainly desirable to do so.

2. Each name should, as far as possible, refer to a single part. To call a bone in the wrist, and also one which has only a partial serial relation to it in the ankle, by the common name "scaphoid," is apt to engender confusion; here we have an appropriate synonymy, and can save ourselves from mistake by naming the tarsal bone "navicular."

3. Each name should be as accurate as possible, that is, should not be liable to convey an erroneous meaning. There is a nerve in the neck which is named in many textbooks "descendens noni;" but the trunk from which it detaches itself is now invariably called the twelfth, and not the ninth, cranial nerve. This has led certain describers to rename it after the synonym of that nerve, "descendens hypoglossi." But further research has shown that the filaments composing it do not come from the hypoglossal but from a spinal source, and that they are only close companions of the fibres of the twelfth nerve for a portion of their course. Here we have a clear case for the reconsideration of the misleading genitive, and for the giving of a new name which will convey a true idea of its real relationship.

4. It is desirable that structures which bear definite names in cognate sciences of wider range, such as biology, embryology, and physiology, should have the same names in human anatomy. The student of biology or embryology finds that there is an arterial stem arising from the ventricle which he names the ventral aorta, and that there is another originally paired stem lying along the vertebral column, the dorsal aorta. These are joined by a series of cross branches, the aortic arches. We see in the more generalised vertebrates several pairs of these, and in the human embryo we can clearly trace at least three such arches. But in our human anatomy nomenclature it has been the almost invariable custom to group together the ventral aorta, the arch, and a part of the dorsal aorta under the one name "arch of the aorta," which then has to be split up into parts for purposes of description. Here the adult human names mislead the student in his embryological studies, and the morphological terms confuse us and give us false ideas of homology when we meet with a different system of naming in human anatomy.

There is another region in which there is a want of accordance between the names used by the anatomist and the facts made known to us by the physiologist. If there is anything definitely known in relation to the localisation of function in the brain, it is that the convolutions which border the central fissure both before and behind are similar to each other in their functional relations, and differ from those which lie in front of or behind them. These are the areas which when injured give rise to affections of the muscular system. Yet, according to the current system of naming, one part of these motor areas is included in the frontal lobe, together with the true frontal convolutions which have nothing to do with motor phenomena, and the other half is relegated to the parietal lobe, whose hinder part is equally unconnected with motion. Here there is obviously something wrong, a something which the development of the parts makes more clear, as it shows us that the central fissure, which appears single and definite in the adult, is really made by the fusion of several originally unconnected pits on the brain surface. This discrepancy between anatomy and physiology would be avoided were we to group the central convolutions into a lobe by themselves, and sever them from a fictitious alliance with parts whose functional relations are so dissimilar.

We must recognise a certain arbitrary element in nomenclature, and this leads to confusion when in different countries, and even in different books in our own country, the usage of words is dissimilar. It is here that the importance of such a convention as that recently inaugurated in Germany becomes apparent. Attention has been called lately to the vagueness of the boundaries of the region of the abdomen, and it has been shown that the accounts of these given in the different textbooks are hopelessly at variance. If such boundaries are to have any clinical value it is plainly of importance that they should be definite, accurate, and universally appreciated in terms of equal comprehension, and I, for one, am ready to agree to the decision of any convention which shall, with due care, recommend any one set of definite boundaries.

The average medical student has a ravenous appetite for names. While examining recently in a northern university, one of the questions I set related to the chorda tympani nerve, and I observed in the papers of two score of students that whatever part of the anatomy of that nerve they did not know, they were all aware that it escaped through the canal of Huguier. It mattered little that only a small percentage knew what that canal really is. I need hardly remind you that there is in general no such canal as an independent passage. The three elements of the temporal bone come into close contact above and behind the mandibular condyle, and ultimately fuse except at three points, at which they are separated by the passage of a few small structures between the elements. Externally there is nothing to interfere with their union, and they become consolidated internally behind the attachment of the edge of the meniscus, the cartilaginous process of the malleus and its ligaments, and the small vessels that, passing in the lee of these, keep open the fissure, and at its innermost corner the chorda tympani escapes. The iter for this nerve, as seen from the tympanum, is usually continuous with the rest of the fissure, but viewed from the basilar surface it may be separated from it by a short superficial area of union. It is this occasionally separate superficial channel whose existence is kept fresh in the students' memory by the euphonious name of the late veteran Professor of Anatomy to the School of Fine Arts in Paris, upon whom we, with praiseworthy British cosmopolitanism, are endeavouring to confer immortality by the association, although his claims seem to be ignored by most of his own countrymen. This cosmopolitanism, I may remark by the way, is one which our more "insular" neighbours across the Channel are very far from reciprocating. I have spent more time upon this canal than it deserves, as it illustrates the point at issue—how much more easy it is to learn a name than to know the thing named.

The Limitations of the Utility of Dissection.

The third stage of study is the comparison of the part dissected with the same region as shown in frozen sections. One school of teachers tells us that dissection is the only way to learn anatomy, but there are some things dissection cannot do. It cannot show you the relations of undisturbed parts, which is of the very essence of surgical anatomy. As the name implies, *dissection* is the art of taking parts asunder; it is essentially analytic. When carried out properly, dissection

s the art of removing the connective tissue from around parts so that they can be severally seen. The most skilful anatomist, when he opens the body cavities, must displace the viscera in relation to the landmarks, and cannot avoid doing this to such an extent that, like the fallen Humpty-Dumpty, all the members of the Anatomical Society of Great Britain and Ireland cannot put them back again as they were before. Here the careful comparison of our dissections with the sections of undisturbed parts comes to our aid. These sections are not mere superfluities—ornamental adjuncts to a dissecting room; they are necessary parts of the teaching apparatus in any properly equipped school. If sections are not available, properly constructed models of them are the next best thing to help us. In a recently published pamphlet an eminent anatomist has ridiculed the use of these by saying that the parts as seen in the models do not correspond to the parts as seen in the dissecting room. And he is right; for we see the parts in the anatomy room not as they were, but as our disturbance has made them. Take, for example, the flattened liver, as you see it on a table, and compare it with the liver of the frozen body, or with Steger's model of it. The former presents a form which the organ could not possibly assume in its normal position when pressed upon, facetted, and moulded by the surrounding viscera and muscles. Take also the pancreas; you know it, as shown in sections or in the model, to be quite a different thing from the long tongue-shaped gland formally figured in so many textbooks. But the liver and pancreas of the model are the organs as they exist in the condition with which the physician has to deal, and it is in these forms that these organs must be known if we are to use to advantage our anatomical knowledge for clinical purposes. Dissection is the only way of learning structure and details; sectional study is the only way of learning relations.

The Value of a Study of Morphology.

The fourth and last stage, that of interpretation, revision, and reading, opens up an important general question, and with it we may with propriety consider the answer to our second problem, How much anatomy ought we to expect the average student to know? This is the last point which our time will now permit us to discuss. It practically resolves itself into the inquiry, How far should the ordinary student be instructed in the morphology of the parts with which he is engaged?

Some anatomists regard morphology as a hindrance to the proper study of anatomy for medical students, and they blame the morphological method of teaching as one tending to diminish the attention paid by students to dissection. There is no doubt that the study of the human body from the morphological standpoint affects our perspective in viewing the component parts of that body. To the morphologist, many facts which are of little practical importance are of the deepest interest. The vestigial cord in the fold of the pericardium is in a sense on the same platform as the superior vena cava, the ductus arteriosus as the arch of the aorta, and the vena azygos as the vena cava. But this is no real objection to morphological interpretation. The anatomist does not regard the larger parts with lessened interest because he takes note of their poor relations; and the morphological method in teaching, while it is as practical as the old merely descriptive teaching used to be, has in addition the advantage of investing the whole subject with an interest which raises anatomy from the level of an engrossing handicraft, an art without a science, and makes it a science as well as an art, an exercise of the understanding as well as a training of the senses. To the mechanical anatomist, the courses of the right and left inferior laryngeal nerves are things to be remembered, not to be understood; to the morphologist they are illustrations of the process whereby this region has come to be what it is. He cannot fail to remember the facts because he knows the process, and, when he sees the altered course of the right nerve which accompanies the commonest of the anomalies of the right subclavian, it is to him no surprise, but a condition which he has foreseen and can understand. To his unscientific fellow it is an unexpected freak, an isolated fact with which to burden his memory.

But if morphology invests some small things with a larger interest, it helps us to put other and more troublesome things in their proper place of unimportance. Thus, to the morphologist the muscles of the back naturally group themselves into easily remembered series, whose component individuals are of as little moment to him as they are to the practical surgeon; and the number of facets on the carpal bones are of as little importance to him as they are to the practitioner.

Taking it on its lowest ground morphology furnishes to the student of anatomy the most valuable form of *memoria technica* which he can have, infinitely better than any system of mnemonics can possibly be. It has been said that it gives the student more to remember, but it makes his work easier to be remembered. In place of a mass of detached facts it gives him a system, and instead of the common divergences from the usual arrangements being so many extra burdens on the memory, they are so many component elements in a unified knowledge.

There is scarcely any portion of our descriptive anatomy which is not simplified by viewing it from the morphological standpoint. We have an illustration of this in the case of the lateral processes of the vertebræ. The student learns that each vertebra has a transverse process, but he finds that the structure so named is essentially different in each region of the spine. In the neck it is evidently compound, and clinical observation has shown that even during life the separation of the anterior element as a cervical rib may give rise to puzzling appearances. In the loins, again, he finds that this transverse process has moved until it is in front of the articular processes, and in this position takes quite an altered relation to the outcoming spinal nerves from that which it presents in the thorax; but he has learned them all as transverse processes, and in the unity of the name there lies confusion, leading to inaccuracy, unless he checks it by learning a number of collateral facts which have no apparent nexus. But the man who has acquired a preliminary knowledge of morphology discovers that under the one name he is dealing with, at least, two sets of parts essentially different in their fundamental relations. If he be wise he will learn to apply to each of these its distinctive name, and these will in themselves convey clear ideas of the real state of things.

While fighting the battle for anatomy as a subject fit to form a part of our Natural Sciences Tripos Examination in my university, the opprobrium was often cast upon it that by its arbitrary nomenclature it divorced itself from science as such; and in former times there was a certain element of truth in this allegation. That day has passed, and however the *laudatores temporis acti* may deprecate it, morphology has now taken hold permanently on human anatomy, and has given it a new aspect.

It may be said that in taking this view I am turning my back on the fundamental postulate of medical training with which I started, but it is not so. Experience is showing us that the soundest practical anatomy for professional purposes can be more easily and more thoroughly learned by its being made intelligible and reasonable, so that even on the utilitarian principle we can defend morphological training.

If there be any truth in the assertion that the attention given to dissection is less than it was formerly, we cannot blame our more scientific methods as the cause. It is due to the increased demands on the students' time by those other necessary subjects, like physiology, which were formerly so much neglected; and, after all, he is not necessarily the best anatomist who spends hours in exhibiting a gluteus maximus guiltless of divided fibres or of adherent connective tissue shreds, but he who knows where the muscle is, what it does, why it is so placed and so shaped. He who not only has traced the source and point of entry of its nervous and vascular supplies, but who can give an intelligent reason for these supplies and their position, is the genuine anatomist.

The Conundrums of Examiners.

If we must diminish the burden on the students' memory, let us lighten it of the unnecessary and useless details into which our descriptions of muscular origins are apt to run. And if in this connection the examiners in anatomy for professional qualifications were to make it a fundamental principle, in framing their questions, that nothing should be asked which had not some practical bearing, it would banish from the curriculum the necessity of committing to memory the answers to those needless conundrums which are useless

alike in the surgical, medical, and scientific aspects of the subject. This would lighten the labours of the student in the best possible way, and make the anatomical portion of his course a pleasant, intelligent, useful, and efficient training, the memories of which would not begin to fade when he finally turns his back on his medical school to engage in the serious responsibilities of his independent professional life.

THE MEDICAL PROFESSION, THE PUBLIC, AND MEDICAL ETIQUETTE.

An Address delivered before the First Pan-American Medical Congress at Washington, September, 1893.

By ERNEST HART, D.C.L.

Sir Astley Cooper, one of the greatest surgeons and most accomplished gentlemen of the last generation, was in the habit of addressing every candidate for Membership of the Royal College of Surgeons of England, of which he was President, somewhat in the following words: "Gentlemen, you are about to enter on a noble and difficult profession; your success in it depends on three things: First, on a good and thorough knowledge of your profession; secondly, on an industrious discharge of its duties; and thirdly, on the preservation of your moral character. Without the first—knowledge—no one can wish you to succeed; without the second—industry—you cannot succeed; and without the third, even if you do succeed, success can bring you no happiness." Those words might form a very adequate summary text for the guidance of the conduct of all medical men. And it might conceivably be asked whether there is any necessity for a more detailed and elaborate code. Indeed, it practically has been asked, and there are large questions involved in the decision. On the other hand, it has from time to time lately in our country been found necessary to reinforce and strengthen our code by additional declarations, and I think to some extent in yours; the need for a stringent upholding and development of the code has also become a question of the day. I think it is clear that if ever there were such necessity, at no time could it be stronger than at the present moment. For under the stress of the modern social development, under pressure of the modern temptation for advertising and the severity of competition, in view of the arts of those who make advertisement a business and a profit, in presence of the temptations held out to draw medical men from the ancient paths of modesty and self-effacement, there is now stronger reason than ever to fortify ourselves against those growing and innumerable seductions by a code so exact, so far-reaching, that the physician need never be in doubt as to what is his duty in any complication, or in the face of any doubtful case in which he may be inclined to give himself the benefit of the doubt.

But, first of all, I want to elaborate the view that our rules of medical etiquette stand upon a strong logical basis, and that their strict enforcement is for the benefit of the public, at least as much as, if not even more than, for the benefit of the profession. Medical etiquette has been sneered at by shallow cynicism as mere trades unionism. It is, on the contrary, a self-denying code which is made in the interests of pure morality, and for the benefit of the public far more than for the interests of the profession. This allegation of trades unionism is the converse of that of inutility, which those who are prone to call themselves of the younger school allege; but not even the youngest of us, as you know, are infallible, and in this matter it is the youngest who are most likely to go wrong. They proclaim themselves liberals. Is it, however, in some cases the liberalism of Gallio? Let us look at this matter from the largest and most liberal standpoint. Let us begin by comparing our code with the standards of the legal profession.

My distinguished friend, Sir Edward Clarke, lately the Solicitor-General of England, in writing to me on the subject recently, said the essence of the matter might be summed up in a very few words: "Every lawyer ought to be a gentleman and ought to do only what is right and honest; if he does not other men ought to have nothing to do with him." Notice that, "if he does not other men should have nothing to do with him." That position of the bar should be strengthened by this, that the etiquette of the bar is absolutely in the hands of the bar, circuits, and attorney-general, and that of the solicitors in the hands of the Incorporated Law Society, so that any solicitor who is guilty of an offence, whether as a lawyer or as a gentleman, can be, and from time to time is, not only temporarily suspended but deprived of the right to practise at all. In a case tried last July in England, a solicitor in a certain town had been the proprietor of a house used for an immoral purpose, of which he received the rent. That was considered a stain upon his character as a gentleman, and for that he was suspended from the roll and excluded from practice. So that we have at least the example of the legal profession, who have a code even stricter than ours, in insisting upon a high standard of honourable conduct in the profession.

Legal etiquette prescribes certain technical acts which a lawyer must not do. An eminent American lawyer, whom I had the pleasure of meeting, mentioned to me, for example, that he may not conduct a "speculative suit"—that is, he may not conduct a suit in which his pay is to depend on the success of the suit—a palpable restriction on his liberty. Liberty is a blessed word, but compulsion is, under certain circumstances, often a more blessed word. The reason for this rule is that if a lawyer undertakes such a suit he becomes personally and financially interested in the result, and may be tempted not to give the court all the aid which is his duty, or may in the end lose the relations of harmony and respect which are indispensable between the court and the lawyers, who are officers of the court and are bound to help Justice duly to balance its scales.

In the same way "champerty" is a legal offence. So, too, no respectable lawyer will give separate advice upon a case which is already in the hands of a colleague. As between advocate and advocate, harmony, courtesy, and the forms of friendship must prevail; and at any time they must in the interest of the client be able to come together and to seize the earliest opportunity of avoiding litigation by compromise or mutual settlement, where it is possible and right. The etiquette of the bar is very strict, and is closely observed.

Legal etiquette is, like medical etiquette, a code of honour and of duty by which the public benefit; and those who depart from it or deride it—"legal shysters" I think they are called in the United States—are not, any more than medical quacks, those of whom their country or their profession have most reason to be proud.

I will pass at once to the consideration of our code of medical etiquette. I will ask you to consider whether you are of the opinion that it is safe or wise to cast aside the precedents of past experience and to substitute individual judgment for settled rules. If man were a purely abstract and perfectly moral intelligence, no doubt few words would suffice to legislate for his daily needs. Enough to say, "Do unto others as ye would they should do unto you."

But medical men are not pure creatures of perfect and abstract morality any more than other men. They have, indeed, certain advantages from the outset. From the very beginning of their professional life it is impressed upon them by their teachers that their profession is a mission and not a trade; a mission involving frequent self-sacrifice and a steadfast regard for interests other than their own. In this they are greatly helped by the force of precedent, by the example of those around them and of the leaders whom they most respect. But even these are inadequate. Without the aid of the written as of the unwritten law, even the best of men are apt to decide wrongly in their own favour on a doubtful question of ethics, and often in matters and cases where there are settled instructions in the code which would guide them rightly.

Let me read to you a few of the rules of our College of Physicians, which command with us a universal adhesion and respect. I do so only as an example of the conclusions to which many years of observation of the impingement of the forces of modern life on professional duty have led some of our wisest heads. I will refer only to a few as follows:

No candidate shall be admitted to examination who refuses to make known, when so required by the president and censors, the nature and composition of any remedy he uses.

That the practice of medical authors frequently advertising their own

works in the non-medical journals, and especially with the addition of laudatory extracts from reviews, is not only derogatory to the authors themselves, but is also injurious to the higher interests of the profession.

No Fellow, Member, or Licentiate of the College shall officiously, or under colour of a benevolent purpose, offer medical aid to, or prescribe for, any patient whom he knows to be under the care of another doctor.

A further rule prescribes that no physician shall himself assume any special designation of therapeutic method, such as homœopath, electropath, hydropath, or countenance those who do so.

A physician shall have no interest in a secret medicine, and he shall always, when called upon by the College, disclose every part of the composition of his medicines.

If it shall at any time hereafter appear, or be made known to the president or censors, that any Fellow or Member of the College has obtained admission into the College, or that any Licentiate of the College has obtained the licence of the College by fraud, false statement, or imposition, or that any Fellow, Member, or Licentiate has been guilty of any great crime or public immorality, or has acted in any respect in a dishonourable or unprofessional manner, or has violated any statute, by-law, or regulation of the College, relating to Fellows, Members, or Licentiates as the case may be, the president and censors may call the Fellow, Member, or Licentiate so offending before them, and, having investigated the case, may admonish or reprimand him, or inflict a fine; or, if they deem the case of sufficient importance, may report the case to the College, and thereupon a majority of two-thirds may declare such Fellow or Member or Licentiate to be no longer a Fellow, Member, or Licentiate, as the case may be, and his name shall be expunged.

Let us consider now those restrictions which operate to forbid a medical practitioner to consult with "homœopaths," and of which the wisdom has been by some disputed. We do not believe, and we cannot appreciate, the medical capacity or fitness to undertake the treatment of disease of those who hold that drugs which, given internally, will produce certain symptoms of disease are the appropriate remedies for those maladies. For instance, medicines which produce skin reddening for erysipelas; leucorrhine for leucorrhœa; syphiline for syphilis. We do not agree that all chronic maladies arise from syphilis, sycosis, or itch, and that medicines act with an intensity proportionate to the infinite diminution of the dose, or that there is any utility in prescribing, in accordance with these principles, say, a decillionth of a grain, when we all know that a dose so small, if taken by every being on the globe once a minute, would not finish the grain in thousands of years. Nor, again, do we believe that the activity of medicine increases in the ratio of the number of shakes given to the vessel containing it. We hold that we have nothing in common with those who assume to base their practice and theory on this kind of therapeutics. Being well assured that these methods and this theory are absolutely delusive, the negation of reason and the acme of folly, it would be useless, deceptive, and contrary to good faith and the public interest that we should pretend to consult with those who profess them and who take a designation derived from them, and to cover with the respectability of medical science what they are pleased to term their system of treatment. Faith curing it may be, but in that too we can take no part under false pretences.

But then it said, What if the physician or surgeon of good standing is only called in by the homœopath to assist in diagnosticating the nature, the stage, the complications, or name of the disease? Ought he not to give this help for the patient's sake? The answer is, the physician is a healer, not reader of riddles nor a conner of conundrums. He is there not to give a name to symptoms or pathological conditions, but to heal the patient; and if he knows that his solution of the riddle is not to be followed by a method of treatment which he considers capable of attaining that result, he would be infamously wrong, and he is always wrong when he gives the cover of his accepted position, of his recognised ability, and his professional sanction, to what becomes under such circumstances a dangerous farce or a deliberate fraud. The riddle is read, but the patient is none the better.

But it is said, May a regular medical practitioner not be called in to perform a difficult surgical operation? If a surgical operation meant only cutting, sawing, and sewing, it would be a plausible excuse for the surgeon accepting the responsibility of acting as sawbones to a quack. But there is no surgical operation which does not, in its preliminary stages, and may not in its various phases and sequels, require concomitant medical consideration and treatment, or in which septic, constitutional, or accidental complications may not arise. The surgeon cannot honourably, in the interest of his client, divest himself of the responsibility for the wise and faithful treatment of these as an essential part of his operative interference.

I have used the word "quack." It is a word often used now in too restricted a sense. This is Dr. Johnson's definition of a quack: "A boasted pretender to arts which he does not understand: a vain, boasting pretender to physic, one who proclaims his own medical abilities in public places; an artful, tricking practitioner in physic." This strikes at the root of the matter now as then. Observe, here is no distinction between those who have degrees and those who have not. The great lexicographer makes no distinction; neither do I.

The essential note of the quack is love of advertisement. The public "places" of Dr. Johnson's time were the coffee-houses; they are now the newspapers. Now, what are the ways in which the diplomaed quacks adopt the methods and become the imitator, the rival, the accomplice of the undiplomaed? You may know them by their works. They are the gentlemen who put themselves forward to be interviewed, and are the sham Jupiters and willing Mercuries of the newspaper world. They confide to the ubiquitous reporter what is their opinion of the last new bacillus, the last new antitoxine, or invite reporters to their amphitheatre and hospital ward. All this is only an outcome of the venal desire for advertisement. They are the gentlemen who, if they have the good fortune to attend a prize fighter or a ballet girl, or the ruler of a State, are not slow to disclose the secrets of the sick room, and all for the public good.

Now, in the venerated oath of Hippocrates, which is the foundation of our code of to-day, the disciple swears to impart the knowledge of his art to others according to the law of medicine and to share with his colleagues by precept and every other mode of instruction all that he knows. He further binds himself that he will have no medical secret, that he will practise his art and pass his life with purity and holiness, that he will abstain from every voluntary act of mischief and corruption, and that whatever in connection with his professional practice he sees or hears in the life of men which ought not to be spoken of abroad he will not divulge. "While I continue to keep this oath unviolated may it be granted to me to enjoy life and the practice of the art respected by all men and in all times. But should I violate this oath may the reverse be my lot."

This is the spirit of the modern British code, and I know well it is yours also.

We have dwelt as long as time will allow on the considerations of public utility and professional duty which oppose consultations with homœopaths and their congeners, nor can I stay long to discuss the prohibition of open advertisement. The advertisement in the lay press of medical books intended for the profession; the submitting of technical books to review; the public criticism of the treatment of any disease or person; the thousand and one acts, in fact, by which the advertising surgeon or physician seeks to gain the ear and favour of the public by means of notoriety or self-proclamation in place of hard honest work, real professional worth, and the judgment of those whose knowledge makes them alone competent to judge. Self-advertisement is the note of the quack. It is as dangerous to the public as hateful to the profession, for it misleads the masses by substituting easily purchased notoriety for merit, and covering by loud talk and bombast and plausible pretences the emptiness of the shallow pretender. It covers also with a pseudo-respectability the venal corruption by which whole columns and pages of reading matter of the newspaper are very frequently devoted to quack nostrums and "treatments"—save the mark!—often of the most fantastic, false, and dangerous character. It destroys the landmarks of honour and reticence when in successive numbers of the daily and weekly papers are found the lucubrations of these pests of society, and alongside of them the interviews, the explanations, and the descriptive narratives put forth for the public good by reputable physicians, *àpropos de bottes*, which are but hardly-veiled self-advertisement.

It is, however, only fair that the physician should have notice of the offence or its penalties, and that this salve which he puts to his conscience should be rubbed off. Hence the value of "a code." We have seen that the

medical man is prohibited from deriving any profit directly or indirectly from any medicine which he uses or recommends, and from tampering, however remotely, with secret medicines. If this were merely an arbitrary rule, if it were not at least as much for the benefit of the public as well as for the practitioner, there might be ground for calling it in question. But it is a rule of the highest public import.

That a healer, whose judgment in prescribing should be clear and unbiassed, should possess and profit by a secret remedy is as obvious a source of public peril as it is a heinous offence against professional morality. Every physician has a traditional and immemorial right to expect from, and he is bound to give to, his fellow practitioners every possible aid and assistance in the treatment of disease and in the healing of the sick. He has received such knowledge from his predecessors; he daily and continually receives it from his colleagues and contemporaries, to whose knowledge and experience, and from the results of whose investigations, openly stated and submitted to critical discussion, he owes the great bulk of his knowledge and of his ability to practise at all.

A new method of treatment, a new drug, or a new dogma in medicine is like a new doctrine or a dogma in theology. The one is as much a means of physical salvation as the other is of spiritual salvation. The man who keeps either of them to himself as a profitable secret for his own mean gain is a traitor to his profession, he is also a traitor to humanity, and he is false to his mission. It is fitting that the code should provide for such cases, and that the penal clause should not remain a dead letter.

But it is sometimes suggested that the usefulness of the "secret" drug may be so great as to overpower and outweigh morality, and call for its prescription. I put it to you all, Is there any foundation for such an assumption in the whole history of medicine? In the whole history of the past can we recall any example of a secret medicine which had aught but the most insignificant value, or could not easily be replaced? We may take even the most famous, such as the notorious remedy of Mrs. Stephen, for dissolving stone in the bladder, for the divulging of which eminent men petitioned Parliament for a grant of £5,000. It was granted, and what do we read of the remedy when divulged? That it consisted of calcined eggshells or of lime obtained by a filthy and obscene process. Naturally, and like all secret remedies when divulged, it ceased to cure. Hartley—the famous Dr. Hartley—one of the most strenuous supporters of the grant, died of stone in the bladder after taking 200 lbs. of the remedy. In our day there is no such thing as a secret remedy in the true or in any other than the trade meaning of the word. We doctors know the composition of all of them. They are secret only to the gullible public, to whom they are to be sold. Pain annihilators, blood purifiers, vegetable and animal extracts, botanical nostrums, invigorators, electric belts, amulets and chains, African electrical pills and phials, "green, blue, and yellow electricity"—there is nothing secret about them. When examined in our private or public laboratories they are all found to be commonplace in composition, or if they have anything not well worn in use, it is merely the name of some indifferent or trivial matter—Indian grass or African leaf added, most often and chiefly, for the sake of novelty. These secrets are trade devices, with which we are not concerned. Let us visit those physicians who dabble in them with the severity of the code. I do not think that is asking more than is due to the honour of the professional body and the welfare of the public.

In respect then of secret medicines, at least, the world has up to this date lost nothing by the stern and scornful disapproval with which the medical profession regards these tricky nostrums, and by the punishment with which they visit, and always ought to visit, those who sell the honour of their calling and the free communication of medical knowledge which is the birthright of mankind for some mess of commercial pottage.

Finally, I will say a word or two of what is known as the etiquette of consultation. The patient, it is said, and is said cogently, has the right to determine whom he shall consult and to change his medical adviser if he desires so to do. No one will dispute that. But, like other rights, it is limited by the legitimate claims of others; and a medical practitioner may justly object if he shall be, without explanation or courtesy, superseded in attending on a case. In such event, moreover, the superseding practitioner is morally and ethically bound to take due care that the same courtesy and respect which he individually would expect to receive be paid to his discarded colleague, not only by himself, but by those who have professionally consulted him.

Every day cases of this kind occur; few days pass without bringing to me some complicated question arising out of them. The pages of our British Medical Journal are full of such questions. Very often all I have to do is to say, See *Code*, page so-and-so, section so-and-so, and that decides both the practice and the principle. Probably, if that is the case with us, it might occur here also, and not less frequently. Of one case I became cognisant here only the other day. An eminent doctor in a capital city of the United States of America was called in, came and saw a patient severely ill, said he would return; when the family physician returned in the evening he was told, "But you are not any longer in charge; Dr. So-and-so has charge of the case." He said: "But I don't understand, I was here this morning." "Well, it was the particular wish of —— that the consulting physician whom you called in shall take charge, and you are not wanted." *Exit* family doctor.

Once more our College of Physicians explicitly directs that the physician called into consultation by a brother practitioner shall not express directly to the patient his individual views and the conclusions at which he arrives, but that whatever he has to say shall be said after consultation with the practitioner, and through his mouth; that he shall behave with the utmost courtesy and forbearance to such practitioner, to whom shall be left all explanations and statements of the conclusion resulting from the consultation. Were it otherwise, were consultants authorised to supersede or to snub the family doctor, the public client would be the first to suffer, for anything which creates ill-will or unnecessary friction between consultant and family practitioner tends to limit the range and frequency of consultations; therefore is it forbidden to the consultant called in subsequently to assume the sole charge of that patient, however he may be entreated to do so, or under whatever inducement. Were it otherwise, the attending or family physician could not call in a consultant without the fear being before his eyes of losing the charge of his patient. There would arise at once the temptation to limit and restrict consultations, and this would be an impediment in the way of ascertaining the best means of cure by consultation. The strict observance of such rules and of the whole code as to consultations may sometimes be something of a personal trial to the patient, something of a personal loss to the consultant; but it is a rule which is of infinite importance to the public welfare.

The maintenance of a high standard of professional honour, the acceptance, adoption, and enforcement of a detailed code of professional etiquette, the agreement by all and the observance by every individual of the whole range of limitations and restriction, which are set up by that code and by the logical deductions from it—these things are, I contend, demonstrably as valuable to public welfare as to any professional interests concerned or supposed to be concerned.

I infer from the applause with which you have honoured me that the opinions and conclusions which I have ventured to bring before you have agreed with your sentiments and are accepted by you sympathetically, and that you consider them opportune and useful.

The evidence taken before the Select Committee on Death Certification has now been printed. It can be obtained from Messrs. Eyre and Spottiswoode, or other Government printers, price 3s. 6d.

The session of the Guthrie Society of Westminster Hospital was opened on October 12th by a smoking concert, at which Dr. Donkin took the chair. At the next meeting on November 9th Mr. Thomas Bond will relate his experiences as a railway surgeon, and Mr. E. Sherlock will read a paper on the Theory of Recapitulation.

SIXTY-FIRST ANNUAL MEETING
OF THE
BRITISH MEDICAL ASSOCIATION

Held in NEWCASTLE-ON-TYNE August 1st, 2nd, 3rd, and 4th, 1893.

A MECHANICAL TREATMENT OF PHTHISIS.

Read in the Section of Medicine at the Annual Meeting of the British Medical Association at Newcastle, August, 1893.

By NOBLE SMITH, F.R.C.S.Edin.,
Surgeon to the All Saints' Children's Hospital, and Surgeon to the Out-Patients, City Orthopædic Hospital.

I am about to describe, as an entirely new remedy for tuberculous disease of the lungs, a method of mechanically expanding the thorax, and of permanently enlarging the aërial capacity of the lungs. The *modus operandi* of this treatment is based upon facts long established and accepted by physicians, and although I am for the first time publishing this method, I have been for many years watching the effects upon a variety of patients suffering from various troubles of the respiratory apparatus. I will, in the first place, assume that the following statements are accepted facts: (1) That the deposit of tubercle is more prone to occur at the apices of the lungs than at other parts. (2) That in a large majority of cases of phthisis, disease commences in these situations. (3) That the reason of tuberculous deposit occurring first in the apices is the less liability of those parts of the lungs to be fully aërated. (4) That this lessened liability to aëration depends upon (*a*) the mechanism of respiration; (*b*) upon the general want of physical stamina of the patients, leading to a lessened effort at respiration, and a lessened ability to hold the body erect. (5) That all measures which tend to increase the vital capacity of the lungs—such as outdoor occupations and exercises which develop the thorax—also tend to lessen the progress of tuberculous disease, and even materially to help to cure that disease when it is dealt with in the early stages. (6) That whatever other remedies may be desirable, the increased aëration of the lungs with pure air is of immense value in the treatment of consumption. Physicians have aimed at killing the tubercle bacilli, and they have failed. It remains for them, however, to render the soil unfit for the cultivation of those bacilli, or, in other words, to so increase the patient's vitality that tubercle bacilli cannot thrive upon him. To increase the vitality to the greatest extent we have to employ various remedies—climatic, dietetic, medicinal and hygienic—and we all know how much depends upon the careful application of these measures.

It is difficult to imagine that any very notable improvement in the above remedies, unless it be under the head of "medicinal," can be effected. As regards the greater expansion and more thorough aëration of the lung cavity, however, very little has yet been done, and I think that the plan of treatment I am about to describe is incomparably superior to all other methods that have ever been advocated for the attainment of the same object. In fact, it is the only method by which a sustained condition of greater expansion can be effected while the patient is at the same time getting about and carrying out all the other details of treatment which come under the heads already quoted. Dr. Silvester, who, as the author of *The Physiological Method of Inducing Artificial Respiration*, has a world-wide reputation, recognised the great importance of this object of treatment. He wrote a pamphlet entitled *The Physiological Method of Treating Consumption*, in which he urged most strenuously the value of increasing the vital capacity. He referred to the inability of phthisical patients to use sufficient exertion to fully expand their lungs. He described how he had inquired as to the weight of the upper extremities, and that according to experiments carried out for him by the late Mr. John Wood, the average weight of the arms in males was 7 lbs. 7 ozs., and in females 5 lbs. 10 ozs., and that when the individual was deficient in strength the influence of these weights caused a depression of the upper ribs, and materially impeded the aëration of the apices of the lungs. He experimented with the spirometer, and found in a certain numbers of individuals that with the arms hanging down the number of cubic inches of inspiration being from 150 to 180, this volume was directly increased to 190 when the arms were supported upwards. Even when the patient retains an upright posture the arms tend to slide forwards and depress the thorax, and it will be found that the scapulæ are then drawn forwards from the central line of the spinal column.

There is frequently also a great inclination to stoop, and the stooping position greatly increases the depressing effects upon the thorax. It is upon patients where there has been a stoop that my experiments have been chiefly made, and I have already described the pernicious effects of persistent stoop upon the respiration. Phthisical patients have a great tendency to stoop. The stooping attitude prevents the proper action of the ribs, and so lessens thoracic respiration, and impedes the breathing to a very serious extent. The abdominal muscles are also relaxed, and the power of acting upon the abdominal viscera in the processes of expulsion are interfered with. The chest is invariably flattened, and the action of all the viscera interfered with. The researches of the late Dr. Hutchinson upon the movements of the thorax show conclusively how important a matter is the maintenance of a natural vital capacity. This is, of course, a large subject, and one which I will not trouble you by dilating upon.

Dr. Silvester, in devising a plan of treatment to deal with this difficulty in cases of consumption, advocated a chair with arms sufficiently high for resting a patient's upper extremities, and with a framework above with pulleys for the patient to exercise the arms held above the head. He also suggested a plan by which the patient could stand erect and use two slender poles about 6 feet long, one in each hand, placed perpendicularly, one on each side of him, the lower parts of the poles resting on the ground a little in advance of the heels, and by raising his hands, clasping the pole as high up as he could conveniently reach, so as to allow the weight of the upper extremities to be borne by the poles instead of by the patient. Then, expanding the chest, he was to draw a deep inspiration for about 2 seconds. He remarked that tuberculous deposits in the air cells were practically outside the body, and that by the free entry of air to the parts affected the tuberculous matter might be eliminated, and the site undergo a sort of repair, the cavities gradually contracting, and ultimately becoming obliterated. I am now, however, treading upon ground which is far better known to my hearers than myself, and regarding which I cannot pretend to speak with their authority, but I think they will admit that whatever may be the exact process of benefits derived from complete aëration, there can be no doubt that such benefits are very great. The results obtained by Dr. Silvester were of a very encouraging kind. As far as this treatment went, it seems to have been beneficial, but although Dr. Silvester's plan effected more thorough aëration than had generally been effected in the treatment of phthisical patients, such treatment continued necessarily only for very short periods at a time. If a patient will rest in a chair with the lumbar part of the back supported, and the shoulders thrown back, and the elbows resting upon very high arms, the chest may undoubtedly be placed in a good position, but for how long a time is this likely to be maintained? Whenever the patient moves from that one position, or stands up, or does anything else but sit in that one constrained attitude, the chest falls down to its own position, and not only is the effect removed for the time, but there is very little probability of a greater development of the thoracic capacity. Then, again, as regards exercise, undoubtedly Dr. Silvester's method is a good one, and tends very much to develop the chest; but let us consider the amount of time which a patient can devote to this exercise. Even if the health be good, and the patient comparatively robust, he cannot be always sitting in a chair exercising, or walking about with poles to support him, let alone the peculiarity and irksomeness of the occupation, and therefore one cannot expect to get more than very limited results.

There is another point which has to be considered—the physical strength of the patient—which in cases of phthisis

or threatened phthisis, is very considerably depressed, so much so that they are generally unfitted to go through sufficient physical exertion to correct the depressed condition of the chest, and they are very often harmed by any attempt to use such exertion. Gentle exercises—which in their case will be found beneficial—will be very much exceeded by attempts to forcibly increase the chest capacity.

My plan of treatment which I now wish to bring to your notice consists in drawing the shoulders backwards by soft shoulder straps to a pad placed centrally between the scapulæ, and permanently held so. There are many so-called braces largely advertised in the present day for effecting this purpose, and if my plan consisted in nothing more, it would be open to the grave objections which I raise against these patent braces. They pull the shoulders back, and give a false appearance of improvement, but they do nothing to relieve the chest from the weight of the arms themselves. Consequently, you will find upon a close examination that the chest is little, if at all, increased in capacity, while there is so much constraint due to the enforced position of the shoulders, that the spine is almost sure to curve in one or other direction.* The braces, moreover, tend to pull the shoulders downwards, and so increase the weight which has to be sustained by the trunk. My plan consists in keeping the central pad to the level of the shoulders, and so producing a somewhat upward support, by carrying a light steel rod down the back to the level of the seat, there to be maintained by a pelvic belt. With this alone we find that there is a tendency in sitting for the spine to project backwards, and in standing for the abdomen to sink forwards, causing a condition of lordosis. To obviate these postures a pad is placed in the centre of the back to prevent the backward projection in sitting, and a belt is placed in front of the abdomen to limit its projection while the patient is standing. My practical experience of the results of this treatment is of the most satisfactory kind. Although I have not dealt with patients simply for the treatment of phthisis, the cases which have come before me clearly indicate the benefits which such patients would derive from the method.

On May 11th, 1886, a young lady, aged 16, was sent to me by Dr. Charles Myers, of Louth. She had been very delicate from the age of 4, after measles and dysentery. The weakness increased during the summer of 1885, exaggerated again during the first months of 1886. She had drooped her head forwards during the last three years, the spine curved backward, the chest was flattened, so that it formed a vertical line with the abdomen. Her appearance was that of a phthisical person; she was ashy pale with a hectic blush, and as several members of her family had died of tubercle it was naturally feared that this patient was similarly affected. She had suffered from almost constant cold and cough during the last two and a-half years. Upon percussion I found some dulness over the apex of her left lung. There was pain in the region of the eighth, ninth, and tenth dorsal vertebræ, and the seventh projected slightly. I treated this patient in the manner described above, allowing her to get about as much as she liked. By gradual adjustment at intervals I brought her into an upright position, care being taken never to cause discomfort to the patient. Great relief to all the symptoms was experienced almost from the commencement of treatment. In a week the dulness at the left apex was gone, showing that the air now entered the lung fully. The improvement in the whole health was very rapid; the cough ceased, pain in the back went away, the appetite improved, and on July 27th—less than six weeks from the commencement of treatment—I was able to note, "No pain, looks better, stouter, and brighter," in fact, the change in her appearance and health was very remarkable. She has continued to improve, has become stout and robust, with good colour. I have seen her within the last few months.

Another case was that of Miss M. F., aged 9, sent to me by Mr. T. E. Parsons, of Wimbledon, September, 1885. She had been subject to a spasmodic cough for several years, and could not sit up straight. She had been seen by many eminent physicians, but the exact cause of the cough was obscure. The chest, however, was much contracted, and phthisis was feared. From the day on which the apparatus was applied, this child began to get better, and in a few weeks the cough left her. I saw this patient about two months ago (June, 1893); she had grown to be a fine girl, perfectly robust; her health is perfect, and she is an excellent figure.

I could add dozens of similar cases, but I have selected these two because they are some of the earlier cases of which I have full records, and because I have recently seen these patients, and can report on their present condition.

In advocating this new plan of treatment, or perhaps I ought to say item in the treatment of phthisis, I wish it to be most thoroughly understood that I am not advocating it in the place of other measures. We all know the value of a combination of every remedy to counteract the ravages of tuberculous disease, and to do the best for any patient undoubtedly involves a large amount of trouble and attention. A high and dry situation, a comparatively mild atmosphere, pure air, carefully selected foods, probably also massage, and various medicinal remedies, are all necessary, but I would add that until we have mechanically increased the vital capacity of the lungs, and have taken measures to keep the patients in an upright position, with their arms supported without great muscular effort on their part, we have not given those patients the best chance of improving their health or of recovering from one of the most prevalent diseases with which this country is afflicted. The question may still occur to some of my hearers—Why not develop the chest by exercises? I have already answered that question, but I may reiterate that a great many of the patients are far too feeble to be able to carry out prolonged or systematic exercises. If they are strong enough, by all means let them be drilled and taught to take prolonged inspirations, but the effects thus produced will be infinitesimal in comparison with the result of mechanical development. The effect of the latter is immediate, is continuous, and is without the effort of the patient. The former process is slow, is interrupted, and is only produced at considerable and generally harmful expenditure of muscular exertion.

The apparatus which is necessary to carry out this treatment is comparatively light, is felt as a great support and help by the patient; it does not interfere in the slightest with development, it allows perfect freedom of use to the muscles, and upon the whole is fully appreciated by the patient on account of the personal comfort derived from using it, and the immediate and rapid benefits to the general health.

CASES OF TUBERCULOUS DISEASE OF THE UTERINE APPENDAGES AND PERITONEUM.[1]

By ALBAN DORAN, F.R.C.S.,
Surgeon to the Samaritan Free Hospital, London.

Primary tuberculous disease of the peritoneum is a disorder more or less hypothetical, in the eyes of the pathologist. This implies that the primary disease, of necessity tuberculous, lies somewhere else, a matter of great importance to the physician and surgeon.

We all know the insidious character of tuberculous peritonitis; diagnosis is often difficult. In this communication I shall assume that the disease is correctly diagnosed, or at least strongly suspected, as arising in the genital tract, and I limit my observations to female patients.

How far the treatment should be expectant and how far operative I cannot precisely determine. That is why I have chosen the subject of tuberculous disease of the female internal organs. I seek other opinions.

Purely expectant treatment is not always satisfactory. Tubercle of the appendages may, in its later stages, involve the worst complications so familiar in tabes mesenterica, with the additional torments of fistulous tracks in the groins and vaginal fornices. The presence of tubercle in the ovaries and tubes certainly endangers organs and parts where tubercle may kill or cripple. Again, experience shows that operative measures do good, even though it is not certain how that good is done.

On the other hand, we must be slow in urging operations lest we become operators rather than surgeons. In many parts of the Continent most unjustifiable measures are taken in cases of chronic affections of the appendages, tubercle not excluded. The uterus, tubes, and ovaries are taken out or the uterus alone extirpated through the vagina, the operator proudly boasting that he is thus enabled to empty cavities full of pus. Plainly this is operating, not surgery. I read of a typical case of the kind in a foreign medical paper recently. A surgeon operated on a woman who had a large swelling on each side of her uterus—clearly disease of the appendages, but whether tuberculous, gonorrhœal, or the result of puerperal mischief remains uncertain. The question seems to have been overlooked as though unimportant. He removed the uterus and the right tube and ovary, but the left appendages were so firmly adherent to the pelvic wall and other parts that they were left behind. A few days after

[1] Read at the East Anglian Branch (British Medical Association) Jubilee Meeting.

the operation urine began to dribble from the vagina. Some months later the patient entered another hospital, with severe incontinence of urine, a large swelling in the right loin, and another in the left iliac fossa. The temperature rose to over 105° F. The bladder was found to be uninjured; the urine issued from a fistula in the right ureter. The right kidney was removed, advanced pyonephrosis being discovered. The patient recovered, and was quite well a year later. Observe that the swelling in the left iliac fossa, which was half the reason, so to speak, for the first operation, was left to itself, and the operator has omitted all description of its present condition.

Experience shows that tuberculous disease is not rare in the ovaries and tubes of young subjects where there is a hereditary tendency to tubercle. The disease may certainly occur in virgins. Professor Bumm, of Würzburg, a distinguished bacteriologist, has shown that the gonoccoccus damages the tubal epithelium, and thus a barrier of defence is taken away from deeper tissues. The appearance of tuberculous disease of the testis, after gonorrhœal or traumatic orchitis in sickly youths, is explained in the same manner. The theory is at least plausible. It does not explain how tuberculous disease of the tubes occurs in virgins. Catarrh of the entire genital tract is not rare, and it is possible that it may also favour tuberculous disease by damaging superficial structures.

Tubercle of the appendages may be limited for some time to those parts without setting up ascites, whilst in other cases ascites is an early symptom.

The first, or localised, form bears a strong resemblance to ordinary inflammatory disease of the tubes and ovaries. When advanced, it is certainly a case for operative measures. Last winter I had under my care two young women with tuberculous histories, from whom I removed the appendages. The tube and ovary on each side ran into each other, or rather communicated by large cavities full of cheesy pus. The patients, who had both been invalids for several years, were restored to health. The removal of organs in this condition suppresses a focus of general peritoneal infection. Of course, I do not set up such cases as an excuse for removing recently inflamed appendages in sickly girls. A close scrutiny into the family history, and rest in bed for a sufficiently long period to allow any case of ordinary inflammation to improve, are first required.

Tubercle of the appendages with ascites is a most interesting disease, and probably not rare. It is hard to distinguish from the passive hydroperitoneum also observed in sickly women, possibly set up by catarrh of the tubes, the discharge escaping from the ostia. The encysted dropsy, due to tubercle, is especially puzzling. As a rule, I find that tuberculous peritonitis involves this variety of ascites, as coils of intestine become adherent and limit the effusion. A cyst develops above the hypogastrium. The uterus is free yet the cyst presses down upon it; hence, very naturally, the disease may be diagnosed as an ovarian cyst. A tuberculous subject may suffer from the common cystoma of the ovary like any other woman. In short, there is no absolute clinical distinction between an ovarian cyst and an encysted dropsy in a tuberculous subject. Rules for distinction may be laid down, but in practice the finger, hand, and sound may fail to decide the truth.

As a result, the abdomen has often been opened in cases of encysted dropsy, ovarian cyst having been diagnosed. In most of these cases, the abdominal wound being closed, the patients have recovered more or less completely. Dr. Parker Syms, of New York, has collected a large number of cases where exploratory operations of this kind have resulted in cure, even when pulmonary phthisis was present. These results were observed, it must be said, in cases of tuberculous peritonitis due to other causes than tubal and ovarian disease. Poppert recently operated for intestinal obstruction in a girl and found widespread peritonitis with abundant tuberculous deposit: all this disappeared, and the patient recovered perfectly. He collected five similar cases where tuberculous peritonitis was not discovered until the abdomen was opened for intestinal obstruction.

Two remarkable cases have occurred in my own experience. The first is related in full in the *Transactions of the Obstetrical Society of London*. A girl, aged 16, had a fluctuating swelling in the hypogastrium. Her habits had been irregular. She had a brother who died of tuberculosis. The uterus lay high in the pelvis; it was movable, but every movement of the fluctuating swelling was communicated to the sound. I made an exploratory incision and found a thick spongy, yellow substance under the peritoneum. I suspected that the substance might be sarcomatous, as ovarian sarcoma is frequent in young girls, and is usually associated with amenorrhœa, as in her case. I closed the wound and did not expect her to survive, but to my surprise I found her in excellent health a few months later. The fluctuation had disappeared and the abdomen was flat. Afterwards the girl became subject to pulmonary phthisis. She died a little more than three years after the exploratory incision. The Fallopian tubes were swollen, forming oval fluctuating cysts; both ovaries were much enlarged and converted into cysts filled with dirty yellow pultaceous material. In all probability the disease began as tuberculous salpingitis, which set up tuberculous peritonitis. The abdominal incision relieved the peritonitis; the thick yellow deposit under the peritoneum no longer existed when the *post-mortem* examination was made, and the encysted collection of fluid had entirely disappeared. This case demonstrates, in part at least, the disappearance of tuberculous deposit after incision.

In another particularly bad case the patient was a tall and apparently strong girl, aged 21; but one sister died of phthisis and one brother had hæmoptysis, dying ultimately of tuberculous disease of the intestines. The patient herself had perityphlitis when an infant, a pin escaping out of an abscess which discharged through the right groin. In 1889 she overworked herself preparing for a Civil Service examination, and her health failed permanently. Early in the summer of 1891 a fluctuating tumour developed in the hypogastrium, reaching to the umbilicus; it was continuous with a pelvic swelling which pushed the uterus to the left. The left knee became painful. The abdominal swelling fluctuated in size. Under the care of Mr. Hatfield, of Forest Hill, her general health improved.

On October 15th, 1891, I opened the abdominal cavity. I discovered extensive tuberculous disease of the peritoneum and intestines, which were matted together. The pelvic viscera were deeply involved. On puncturing a membrane, which really consisted of tuberculous deposit, much cheesy matter escaped. I reached the bottom of Douglas's pouch, and passed a drainage tube into it, much to my present regret, but there was considerable oozing of blood. The tube was removed in twenty-two hours. Unfortunately, the track of the tube opened up a week after the operation, and much cheesy pus escaped. It was fœtid, and I feared that a fæcal fistula had formed. Fortunately this was not the case, and solid fæces and flatus passed freely from the rectum soon afterwards without any change in the discharge. I had, nevertheless, great trouble with the fistula, but directly I employed an emulsion of iodoform in glycerine as a daily injection, the discharge diminished and the patient's general health improved. The knee, however, remained painful and slightly swollen, and I encased it in a poroplastic splint. The wound at length closed, and the patient went into the country. From time to time there is slight discharge from the wound, but there has been no sign of ascites or advance of the abdominal disease, though the knee is the seat of chronic synovitis.

This was a particularly bad case, and very instructive. My great regret is that I passed a drainage tube into the wound. A tuberculous peritoneum does not tolerate the irritation of that appliance, which is so well borne and so necessary after the removal of strongly adherent tumours. I know of two cases, one under the care of an English and another under a French surgeon, where fæcal fistula developed shortly after the tube was removed. In the first case the patient died of exhaustion; in the second she recovered, and the peritoneal tuberculous disease disappeared. In another case of peritonitis where I assisted, I feel no doubt that the disease was tuberculous; the wound was drained, and six or seven months later the drainage track opened, and fæces discharged; the patient soon died. In the French case, which recovered, the intestine gave way at a point where a small mass of tubercle lay on its serous coat. This probably explains the other cases; the tube irritating a point already diseased. Observe that in

the two cases above noted where I removed tuberculous uterine appendages, the disease being localised to those structures, I had no further trouble whatever. Again, in the young girl who died of phthisis, where I simply cut into a dense layer of tuberculous deposit and did not drain, the abdominal disease disappeared, and the patient remained in fair health for two years, dying, three years after the operation, of pulmonary phthisis.

The right treatment, when it is evident that the disease is tuberculous and involves the peritoneum beyond the investment of the uterus and tubes, is to close the wound at once. If cheesy fluid be present it must be allowed to escape, and iodoform emulsion[2] should be poured in, for the tuberculous discharge, when air is admitted, is very apt to get septic, and the emulsion has a distinctly beneficial effect. Patients with the disease in question are little liable to iodoform poisoning. Mr. Barker, of University College Hospital, finds the emulsion excellent in fœtid perityphlitis. Trendelenburg has used it with great success in strumous disease of joints.

Experience, as König and Parker Sims have shown, has established the fact that tuberculous peritonitis is often cured by simple incision through the parietes. This kind of treatment must be held as empirical, none of the theories devised for its explanation are satisfactory. Lauenstein suggested that the cure is due to the mere withdrawal of the fluid, since the tubercle bacillus does not flourish except in the presence of much moisture. Yet in many of the more successful cases no attempt was made to empty out the effused fluid completely—a very difficult task when actually undertaken. In one of my own cases related to-day I did not even reach the fluid; nevertheless it disappeared, as well as the solid deposit into which I passed my knife.

I have laid down what I believe should be done and what avoided, and in conclusion I must note that the earlier the peritoneum is opened the better the chance of relief, and the less the risk of extension of tuberculous changes to the lungs and the joints. In general practice early diagnosis is relatively easy when the family history is at hand. No doubt cod-liver oil may arrest the disease, but if it does not yield to remedies incision of the peritoneum becomes desirable.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

FRACTURE OF BOTH BONES OF THE FOREARM BY INDIRECT VIOLENCE.

F. B., a lad aged 15, was running backwards on the sands, when he tripped and fell on his back, hurting the left elbow. Immediately an acute pain was felt in the lower third of the forearm, and a swelling was discovered, which made any movement of the left hand impossible. He was brought to me and I discovered an oblique fracture of both radius and ulna, about 3 inches from the wrist. The lower fragments were overriding the upper. Reduction was effected, and the limb put up in the usual way. Malgaigne mentions a case where fracture of both bones occurred from muscular contraction in a man who was digging. Could this accident have had a similar causation? It is certainly exceptional for fracture of both bones of the forearm to occur by impact of the elbow against soft sand.

A. C. Dutt, M.B.Cantab.,
Late Senior House-Surgeon to the Scarborough Hospital.
Whitby.

A SUBSTITUTE FOR CHRYSOPHANIC OINTMENT.

A difficulty met with in the treatment of extensive psoriasis by ointments is the extreme discomfort and disgust to the patient from the large (superfluous) amount of ointment that soaks into the clothes. This is a practical hindrance, since many subjects refuse or shirk thorough treatment. It is especially the case in using ointments containing chrysarobin, because of its dirty character. I have met the difficulty with considerable success in the following way, which ensures a thorough application of the drug with the minimum amount of oil needful to secure suppleness of the skin. Solution of chrysarobin in chloroform (1 in 7) is poured into a suitable vessel; a desirable amount of oleum deelinæ is added to it, the whole stirred up with a hog's bristle shaving brush, with which the psoriatic area is to be well scrubbed. The amount of ol. deelinæ will vary with the requirements of the case, but I have used it with the chloroform solution in equal amounts and in greater dilution. I think it worthy the attention of men engaged in dermatology.

W. Dale James, M.R.C.S.,
Medical Officer for Skin Diseases, Children's Hospital, Sheffield.

SPLEEN FEEDING IN LYMPHADENOMA.

In view of the important therapeutic results obtained by thyroid feeding in myxœdema, and the remarkable researches of Brown-Séquard, it would seem to be of importance to put on record any observations made in this promising field of advance.

I have lately had under my care a case of lymphadenoma, in which a palliative advantage was gained by giving as food a spleen, grilled lightly, every day, over which fresh marrow was melted in lieu of butter. The feeding was not commenced till the last month of life in an advanced case, but the general feelings of the patient, a boy, aged 12, were much improved, his chief difficulty only being to find a comfortable position owing to the size of the spleen, and the lateral displacement of the head from the mass of glands in the neck. The spleens were generally those of sheep, and were procured as fresh as possible. I would not like to suggest that life was in any way prolonged, but I think that the general condition was ameliorated, and death made easier.

James E. Blomfield, M.B.Oxon.
Sevenoaks.

SEQUEL TO A CASE OF INTRALARYNGEAL REMOVAL OF A CYSTIC TUMOUR OF THE LARYNX IN A WOMAN 80 YEARS OF AGE.

In the British Medical Journal of December 3rd, 1892, I recorded this case. The patient was a woman, 80 years of age, in whom the breathing had become greatly embarrassed owing to the presence of a fibrocystic tumour of the larynx. On August 13th, 1892, this was completely removed by the intralaryngeal method. Included in the record of the case was a report by Dr. Robert Stirling, dated October 17th, 1892, as follows: "Voice excellent and breathing perfectly free. The larynx looks remarkably well; no trace of the tumour to be seen; congestion gone, and muscular movements perfect."

On August 24th, 1893—over a year after the operation—a second report was received from Dr. Stirling, to the effect that the patient was perfectly well, with an apparently quite normal larynx. It may therefore, I think, be concluded that the patient has been permanently freed from her trouble.

This case, which in some respects is a unique one, is illustrative of the value of intralaryngeal surgery in averting tracheotomy and in effecting the permanent removal of certain varieties of laryngeal tumours.

G. Hunter Mackenzie, M.D.,
Surgeon for Diseases of the Throat and Nose to the Eye, Ear, and Throat Infirmary of Edinburgh.

DISLOCATION FORWARDS OF SCAPHOID AND TRAPEZIUM.

The following case was admitted into the South Devon and East Cornwall Hospital, Plymouth, on September 16th, 1892, under Mr. Swain, with a curious and rare dislocation of two carpal bones.

G. C., aged 38, a labourer, fell some 30 feet from a viaduct; when admitted he was very collapsed, having fractured his right femur and severely damaged both wrists. On the flexor surface of the right wrist there was a hard lump felt at the lower extremity of the radius, on the extensor surface there

[2] Iodoform (fine crystals) 10 parts; rectified spirit quant. suff. to make damp; distilled water 20 parts; glycerine 70 parts. Rub the iodoform and spirit together in a sterilised mortar, add the water, using the pestle well, and then by degrees pour in the glycerine. If mixed badly, it will clot.

was a marked depression on the outer side of the carpus. The prominence on the extensor surface corresponded in size and shape to the scaphoid and trapezium. Attempts at reduction of dislocation proved futile, but at the end of some weeks the patient had a very useful hand and suffered no inconvenience except a little stiffness at the wrist joint.

R. Stanley Thomas,
House Surgeon South Devon and East Cornwall Hospital, Plymouth.

REPORTS
ON
MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

SADR DISPENSARY, MIRZAPORE.

A CASE OF ECTOPIA VESICÆ TREATED BY TRENDELENBURG'S OPERATION.

(Under the care of Surgeon-Captain H. E. Drake-Brockman, L.R.C.P.Lond., M.R.C.S.Eng., Civil Surgeon, Mirzapore.)

A child, aged about 4 years, was brought by its father to the Sadr Dispensary for treatment a few months ago, suffering from extroversion of the bladder with epispadias. He had been to several places to seek relief, but for some reason or other nothing appears to have been done. On examination of the child the usual appearances were noticed, except that the protruding vesical wall, in this case, was a mere ulcer, thickly encrusted with phosphatic deposit, which bled freely at the slightest touch; and to complicate matters there was an inguinal hernia on the left side. The condition of the child was so truly pitiable that it became almost incumbent upon one to try to do something to alleviate its state. The unhealthy ulcerated condition of the vesical mucous membrane having been healed, after a month's treatment, and the part being in a thoroughly clean and healthy state, I performed Wood's operation with flaps, and succeeded in covering in the exposed surface, with the exception of the left side where the hernia existed, the constant coming down of which caused a great deal of tension and ultimately rupture of the stitches, notwithstanding that every precaution had been taken to prevent this occurring. I made another attempt at a subsequent date to again unite this portion, but failed, and came to the conclusion that it would never unite by this method. Accordingly I decided as a last resource to perform Trendelenburg's operation of division of the sacro-iliac synchondrosis on either side behind, especially as in this case the distance apart of the pubic bones was quite 1½ inch, there being no symphysis pubis, of course. After division of the cartilages had been effected, I found that I could approximate the pubic bones by pressure on the crista ilii to about ¼ inch of each other, that is to say, I had been enabled to reduce the interpubic gap by a full 1¼ inch. Careful measurements between iliac crests, round pelvis, etc., were taken before and after the operation, by comparison of which a marked difference was observed. During the course of a month or so, the posterior wounds had granulated up, and I was enabled to fairly easily cover in the exposed portion of bladder, which had so materially sunk down into the pelvis as the direct result of division of the sacro-iliac synchrondroses. I might also add that the distance between the pubic bones had been so reduced by the time that all the wounds had healed, that the tip of my little finger could not with force be even insinuated between the bones at the point where the symphysis usually exists in the normal subject.

There are a few points of interest about this case, I think, from which useful deductions may be drawn, and one of the more important ones, to my mind, is that in cases of this kind, in which the distance between the pubic bones is great—say 1 inch and over—it is a far more scientific as well as satisfactory proceeding to commence by performing Trendelenburg's operation. This is all the more imperative in cases in which an inguinal hernia coexists, as the constant strain thrown on the flaps and their sutures—as happened in my case so markedly—by the distension of the hernia, especially in a child who usually cries a great deal, and from other natural causes productive of straining, as the act of defæcation, etc., is very great. My only regret is that I did not at once perform this operation in preference to the flap method, as it would probably have saved my little patient weeks of confinement to bed.

I could not persuade the father to allow me to make an attempt to remedy the epispadias, as he seemed quite content with what had been already done. The treatment on the whole occupied a little over three months. I had an opportunity of again seeing the patient about six months afterwards, and found that the good effects of the operation were permanent; the only thing peculiar about it was that there was slight contraction of the scar on the left side in proximity to the spot where the hernia was, and also that the hernia had shrunk, as to be about one-third the size when first seen, probably due to some inflammatory changes and thickening having taken place in the neighbourhood of the inguinal canal, resultant on its proximity to the part whence the left flap was taken in the original operation. I might add that, notwithstanding the theoretical objection raised by some—namely, that this operation causes a weakening of the pelvis—this certainly did not occur in the slightest degree in my patient.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

F. W. Pavy, M.D., F.R.S., President, in the Chair.

Tuesday, October 17th, 1893.

President's Inaugural Address.

In his introductory address the President laid stress upon the importance of pathological chemistry in future pathological inquiries. The altered metabolic power of the cell was the subject for inquiry. He instanced diabetes mellitus as an illustration. The ingested carbohydrate under normal circumstances is lost sight of; in diabetes it passes off by the urine in proportion to the amount ingested. The sugar at once, or after the formation of glycogen, is used up in the systemic capillaries; if none is ingested it is formed by the liver. The present physiological views were inadequate to explain diabetes. By quantitative analysis the President had shown that the liver contains no more sugar than is met with in other parts of the system: the blood coming from the liver is not more charged with sugar than that going to it; otherwise the amount of sugar that is normal in the urine would vary, which it does not. Diabetes is due to free carbohydrate not being prevented from reaching the general circulation. The President's recent researches tended to show that proteid matter has carbohydrate matter locked up in it; it is a glucoside; in the construction of proteid carbohydrate takes part. This, amongst other ways, is proved by the fact that yeast will grow in a solution of cane sugar, nitrate of ammonia, and the ash of yeast; here the production of proteid in the form of protoplasm can only occur from the intussusception of carbohydrate. Cellulose and fat, other constituents of the yeast cell, probably arose from the carbohydrate entering the proteid, and subsequently becoming reconverted in to the carbohydrates cellulose, and fat. If this is true of vegetable cells, it is probably so of animal. After the ingestion of starch the lacteals are found to contain fatty chyle. The cells of the intestinal villi and liver convert the carbohydrate to proteid, and through proteid to fat. If this process is interfered with carbohydrate will reach the general circulation, and so appear in the urine. If pure albumen be artificially digested outside the body, sugar is formed; and the same is true in natural peptic digestion. The amount of carbohydrate afforded by an animal diet is greater than that by a vegetable. The sugar excreted in some cases of diabetes depends solely upon the amount of carbohydrate ingested. In others the sugar is derived from the tissues; the proteid of these, possibly under the influence of some ferment, yields sugar. In mammary secretion, too, proteid is split up into casein, sugar, and fat. It is the normal protoplasmic chemistry or power that prevents the production of diabetes; impairment of this permits of the

passage of sugar into the general circulation. In myxœdema possibly some normal ferment which carries the proteid matter to its proper destination of fat is wanting; the chemistry stops short, and mucin results instead of fat. In conclusion, the President pointed out the fruitful nature of chemical pathological investigation.

Malformation of the Lower Lip.

Mr. H. H. Clutton exhibited a woman in whom there was a congenital longitudinal scar in the chin to the left of the mid line, and a diminution in size of the body of the lower jaw in the same situation; the alveolar border and lip were naturally developed. There was in addition a notch in the upper lip on either side of the middle line. He regarded the scar as indicating a deviation in the proper development and fusion of the lateral halves of the parts concerned.

Double Ureter.

Mr. Leopold Hudson exhibited a specimen of double ureter, of which one opened into the urethra (female) immediately beyond the vesical sphincter; the other into the bladder; the former was dilated, as was also the pertaining division of the renal pelvis, and contained pus; whilst the other was normal. He did not think the malformation had anything whatever to do with the persistence of a Wolffian duct, as the abnormal ureter came from the lower and not the upper part of the kidney.

Mr. Bland Sutton remarked that some of the cases of so-called double ureter in the male were instances of a persistent Müllerian duct.

Malformations of the Intestinal Tract.

Mr. Edgar Willett showed (1) interruption of the small intestine about the termination of the duodenum; (2) an interruption farther onwards; (3) deficiency of the œsophagus, of which the lower segment opened into the lower part of the trachea: this malformation was associated with imperforate rectum. In the last case, though the child had lived only two days, the ureters were dilated from the pressure of the distended rectum.

Mr. Bland Sutton had described five cases of interruption of the intestine. In all, the interruption took place above the entrance of the bile papilla, and he gathered that this was so in Mr. Willett's first case; in the second, he thought the interruption probably had corresponded with the attachment of Meckel's diverticulum.

Mr. S. G. Shattock observed that, though in the third of Mr. Willett's cases the atresia of the œsophagus was associated with that of the rectum, the two malformations did not correspond morphologically; that of the œsophagus was of secondary, not primary, occurrence, and was probably connected with the growth of the diverticulum for the lower part of the trachea and lungs, in the same way that Mr. Sutton had suggested that interruption of the duodenum was probably connected with the development of the liver.

Card Specimen.

Dr. A. F. Voelcker: Aneurysm of the Aorta Rupturing into the Right Ventricle.

CLINICAL SOCIETY OF LONDON.

John Whitaker Hulke, F.R.C.S., F.R.S., President, in the Chair.

Friday, October 13th, 1893.

President's Inaugural Address.

The President, on taking the chair for the first time, delivered an address in which he referred to the advance of the Society from the original 129 members in 1867 to the 524 now enrolled, and on the progress in the quality and thoroughness of the communications made to it in recent years. He drew a grim picture of the absence of asepsis that reigned in London and Paris about 1850. He spoke admiringly of the advance achieved by surgery since asepsis had been recognised as a matter of paramount importance, but contended that the *technique* of several surgical procedures was not yet perfect. In several diseases involving a narrowing of the digestive canal he thought that operation was often too long delayed, until, in fact, the greatly lessened strength of the patient much diminished the prospect of relief from an operation. As to excision of the vermiform appendix for abscess about the cæcum, he thought it best in many instances not to attempt a methodical excision of the appendix, which was the ideal operation, but to open freely, empty, and drain the abscess, as the disturbance of agglutinated parts inseparable from prolonged search for the appendix might open a path for a wide septic infection of the peritoneal sac provoking a fatal peritonitis. He also spoke of the recent advance in medicine, which he thought was more in the direction of exact diagnosis than in the way of the treatment of disease. Pharmacological research prosecuted by earnest workers had done something towards supplying this great want of medical therapeutics, but what it had yet accomplished was little in comparison with that which remained to be done. He spoke with eulogy of the other good work done by the Society, namely, the reports of its investigating committees; but the work accomplished was but a fraction of that remaining to be achieved in the "divine art of healing."

Sir Dyce Duckworth proposed, and Mr. J. Langton seconded, a cordial vote of thanks to the President for his address, which was carried.

Pyloric Adhesions treated by Abdominal Section and Separation.

Mr. Mayo Robson related the histories of two cases sent to him for operative treatment on account of extreme emaciation dependent on dilatation of the stomach and severe pain in the epigastrium and right hypochondrium. Medical treatment had been previously tried without relief. In both the same treatment—separation of adhesions of the stomach and pylorus—was carried out successfully; the original cause of the adhesions being in the one case gall stones and in the other ulceration of the stomach. The cases were brought forward because, although it was known that simple adhesions might produce serious symptoms, it was not generally recognised that dilatation of the stomach might be cured by their separation. After relating the cases in detail, Mr. Robson remarked that many instances of severe abdominal pain often spoken of as neuroses were due to adhesions—for example, the vermiform appendix distorted and tied in an abnormal position, the ovaries or Fallopian tubes or both displaced and fixed, and, last but not least, omental adhesions of great variety, producing visceral distortion, all of which were curable or relievable by a carefully planned and skilfully performed laparotomy, and that without any mutilation of viscera. He further remarked that, although it was difficult to lay down any hard and fast rules, yet personally he should feel it wise in cases of obscure abdominal pain producing invalidism or debility, after medical treatment had been fully tried and failed, to open the abdomen in order to clear up the diagnosis, and then to adopt that line of treatment which seemed to be indicated. Mr. Robson thought that the cases were of interest, not only from a diagnostic and an etiological point of view, but also from that of treatment; for if some of those cases of dilated stomach depending on pyloric distortion could be cured by simply separating adhesions, it would be manifestly a safer and more satisfactory method than that of dilating the pylorus or performing pyloroplasty or gastro-enterostomy, in all of which the stomach had to be opened. The author was afraid it would appear as if he had included two distinct subjects in one paper—namely, dilatation of the stomach and obscure abdominal pain dependent on the adhesion; but he thought that a more careful study of the paper would show that he wished to lay special stress on adhesions producing visceral disability and their capability of cure by operation; if he had succeeded in showing that adhesions were not as harmless as some observers would lead one to suppose, his purpose had been served.

The President suggested that it might be fatal to try to separate adhesions of the stomach resulting from ulceration, as perforation might occur. If the adhesions were broad the separated surfaces would be likely to contract adhesions again.

Dr. F. T. Roberts thought the paper a practical one. For years he had impressed upon students the importance of adhesions, which were at the bottom of much suffering. Adhesions in the neighbourhood of the stomach were capable of producing dilatation of that organ. There were cases of suffering in which the surgeon opened the abdomen without

finding anything very particular, and yet thereby improved the patient greatly. In a case thought to be one of gall stones the abdomen was opened and the internal parts simply moved; the patient afterwards had absolute relief. If, therefore, in such cases other treatment failed and the suffering was great, the abdomen should be opened.

Dr. HALE WHITE said that eight years ago he made a *post-mortem* examination of a patient with dilated stomach, but without a history of jaundice. The gall bladder was adherent to the pylorus, producing a chronic inflammatory thickening and narrowing, at the bottom of which was a gall stone that had ulcerated its way towards the stomach. That case, if treated after Mr. Robson's method, would probably have been a triumphant success. As to adhesions in other parts, he remembered a case of typhlitis in a woman who recovered. After a time the monthly period became intensely painful, which was thought to be due to adhesion of the appendix to the ovary. Both organs were removed by the surgeon, and the patient recovered.

Dr. J. G. GLOVER inquired if there was any pyrexia in Mr. Robson's cases.

Mr. PEARCE GOULD inquired how Mr. Robson had arrived at the conclusion that the pyloric aperture was of the proper size, and how he prevented the adhesions from re-forming. It was certain that in some cases simple laparotomy without the breaking down of any adhesions had quite cured the patient. Slight adhesions in joints often produced great pain and physical disability; and great benefit was obtained by breaking them down. In some cases, on the other hand, as in movable kidney, the creation of adhesions might be indicated.

Mr. ROBSON, in reply, said that peritonitis had occurred in both the cases related. To tell whether the pylorus was or was not the seat of narrowing, he grasped it, and could feel the two internal surfaces glide easily over each other when contraction was absent. Adhesions had not re-formed in his cases owing, as he thought, to the considerable separation of the parts produced by the operation. In Dr. Hale White's case, for example, the vermiform appendix and ovary might probably have been separated, and being separated their usual normal distance from each other, they would not probably have grown together again. After separating the pylorus from the liver he left them some distance apart, carefully stopping all bleeding, and wiping them free from blood after the application of antiseptics. The risk of fresh adhesions was thus reduced to a minimum. In some of his gall stone cases he had thought the separation of adhesions had had more to do with the cure of the patient than the removal of the gall stones themselves. He consequently always tried to remove such adhesions. With adhesions of the pylorus to the under surface of the gall bladder, the pain was not felt at the point of the shoulder as in liver trouble, but was felt along the line of gastric nerves. In one patient he opened the abdomen, and supposed she had malignant disease because of a solid mass found around the pylorus. He therefore simply closed the wound, and in three months she was quite well, and had since remained so. In 5 of his cases of kidney trouble he had found no stone, and yet 4 were quite cured by the operation; perhaps, as Mr. Gould had suggested, by fixation of the loose kidney taking place.

EXCISION OF MALIGNANT TUMOUR FROM LARGE INTESTINE.

Mr. W. EDMUNDS described these cases. Case I: The patient, a male, aged 50, was admitted suffering from a lump in the right hypogastric region. There was a history of hæmorrhage in considerable quantity from the bowel, but of no obstruction. Laparotomy was performed, a tumour involving the cæcum was found and brought out, and the portion of bowel involved excised, and the two ends of bowel brought externally. The patient recovered, and was now, four years after the operation, in good health. No attempt to re-establish the continuity of the bowel had been made. Case II: Patient, male, aged 54, suffering from incomplete obstruction. By a median incision a malignant growth on the sigmoid flexure was found and brought out externally, a glass tube being passed beneath it. On the fourth day the portion of bowel involved in the tumour was excised, and the divided ends of bowel were sutured together. The bowels acted normally, but a fæcal fistula formed, through which in time the greater portion of the fæces escaped. An anastomosis was formed by Halsted's method between the two portions of bowel. This operation was a lateral anastomosis, but it differed from Senn's operation in no plates being used, and in the sutures not being carried through the whole thickness of the bowels, but only through the peritoneal and muscular coats and into the submucous coat, which was very dense, and could be recognised by the resistance it offered to the needle. Subsequently the opening thus made was laid open to the surface and the opening closed, the continuity of the intestine was thus re-established, the bowels acting normally. Now, fifteen months after the first operation, the patient was well, there only remaining a minute fistula leading to the bowel. It was remarked that in similar cases whenever possible it was desirable to excise the growth, and not be content with a palliative operation. The reason why the growth was not at once excised and the bowel resutured in the second case was fear of peritonitis from leakage, a danger which it was hoped would be avoided by having the line of sutures shut off from the peritoneum.

The PRESIDENT thought this operation would probably soon become the recognised method of treatment. He asked what was the condition of the fæces escaping from the wound. In right colotomy the liquid character of the fæces was apt to give rise to excoriations.

Mr. PEARCE GOULD also asked if inconvenience had resulted from the liquid fæces. Such patients usually endured great misery from that cause. One of his patients thus operated upon had an evacuation once a day directly after breakfast, and was without any excoriation of the skin. Cases of the kind described by Mr. Edmunds had been published by Mr. Treves and Mr. Bryant; and he hoped this method would become the established line of practice.

Mr. MAYO ROBSON said that with cases of malignant disease of the bowel it was the practice in the Leeds Infirmary when there were acute symptoms, with distension, to make an artifical anus. But where there was no special distension nor obstruction, the ends of the bowel were sutured together in one of the usual ways. In such cases he thought it better to remove the tumour, and return the sutured bowel at once, as it meant one operation instead of two, or may be three. He agreed with the author that patients might go on well without a large intestine. A patient of his had a tumour of the ascending colon. At the operation the ileum was brought up and opened. As the discharge of liquid fæces upon the skin was a great trial, Mr. Robson at a second operation opened the abdomen, and sutured the ileum to the sigmoid flexure. The patient had since been quite well, although his large intestine was in complete abeyance.

Mr. EDMUNDS, in reply, said that both divided ends of the gut were brought outside. The fæces escaping from the ileum were entirely liquid. He thought the function of the large intestine was to convert liquid motions into solid. There was much excoriation of the skin by the discharge at first, but this had since become quite well, having recovered spontaneously. In all cases of excision of malignant growth, without distension, it was probably better treatment to suture and return the bowel at once.

MEDICAL SOCIETY OF LONDON.

F. DE HAVILLAND HALL, M.D., F.R.C.P., Vice-President, in the Chair.

Monday, October 16th, 1893.

SOME LESS WELL-KNOWN FACTORS IN GRAVES'S DISEASE.

MR. ARTHUR MAUDE read a paper in which he insisted on the constancy of some degree of thyroid enlargement, though possibly but slight and transitory. In opposition to the generally received idea that Graves's disease was uncommon in goitrous subjects, he mentioned that, during the last six years, he had collected notes of 55 cases of enlarged thyroid gland in a population estimated at 3,000. Of these, 12 were more or less well-marked cases of Graves's disease. There had been a steady increase in the number of deaths returned under the head of affections of the thyroid between 1881 and 1891, and as the increase bore mainly on the death of females, he inferred that in all probability the cases were largely

cases of Graves's disease. Moreover, the admissions to St. Bartholomew's Hospital of cases of this disease had largely increased since 1870, which also pointed to an increase in its incidence. He gave clinical sketches of 7 cases of Graves's disease occurring in goitrous subjects. One of the patients was the child of a myxœdematous mother, and he maintained that the connection between the two diseases was now well established. He also referred to cases of Graves's disease in which thyroidectomy, partial or complete, had been performed, for the purpose of pointing out the improvement that had since taken place. Among the psychoses observed in Graves's disease, he mentioned, in addition to the usual irritability of temper, (1) an oversensitive notion of duty only removed in degree from religious melancholia with delusion of sin; (2) incoherence of idea (Russell Reynolds's "chorea of ideas") with in one case ambulatory epilepsy, vertigo, tinnitus, and throbbing in the head, were also met with and were all probably due to disturbed blood supply. Tremor, perhaps the most frequent symptom of the disease, was most marked in the flexors of the arms, the interossei escaping. The important points were (1) that the tremor was almost universal in Graves's disease; (2) that it exactly resembled the tremor produced in animals after removal of the thyroid; (3) that its character was much more uniform than that of hysterical tremor for which it might be mistaken. Eclamptic convulsions might also occur, having a direct relation to and perhaps determined by, the disturbed cardiac action. Clonic spasms of the face and chorea were frequent concomitants. Among other bulbar conditions he mentioned slight difficulty in swallowing, resembling that met with in myxœdema, with interference with speech like that seen in disseminated sclerosis. Facial paralysis was common, and most patients exhibited some enfeeblement of this nerve. He insisted on his previously expressed view that the ocular symptoms were due to paresis of the temporal division of the temporo-facial nerve. Besides general muscular weakness, there was often more or less paraplegia of two types: (1) One form in which the paraplegia was only an accentuation of the chronic muscular feebleness under the stress of diarrhœa, cardiac failure, or other causes; and (2) the form in which the paraplegia was sudden in onset and akin to the so-called hysterical or functional paralysis. This never produced contractures. Astasia-abasia was also met with, but possessed no special significance. There were also many symptoms pointing to the existence of peripheral neuritis, and the author concluded by pointing out that all the symptoms of the condition known as Graves's disease were consistent with the hypothesis of a general nerve poisoning falling principally on the medulla. He admitted that nothing was at present known as to the nature or production of the poison, but he urged that the constant presence of goître, the connection with myxœdema, and the results of operations on the thyroid gland, justified the suspicion that the thyroid gland was the origin of the mischief.

The President referred to cases in which the symptoms of Graves's disease had subsided on treatment directed to intranasal conditions. He pointed out that if Graves's disease was an affection which in some cases at any rate was amenable to intranasal treatment it could hardly be dependent upon lesions of the sympathetic.

Dr. Pasteur said that in Switzerland, where goître was common, exophthalmic goître was a comparatively rare affection.

Dr. Bowles referred to two cases, one under his own observation, in which Graves's disease had been followed later on by symptoms of myxœdema.

Dr. Burney Yeo urged that too much attention was paid to the striking local phenomena and sight lost of the indication of a general nervous affection.

Dr. Savage held that there was no common connection between Graves's disease and ordinary goitre. He had not met with a single instance of Graves's disease in 1,000 cases of goître collected by him in Cumberland. He declined to admit, moreover, that the disease was in any sense due to peripheral neuritis, which was met with under so many different circumstances.

Dr. Heron referred to the peculiarities of temper from which the subjects of Graves's disease suffered, and raised the medico-legal question of the responsibility of such persons for crimes committed while under the influence of such exacerbations of temper.

Dr. George Murray, of Newcastle, pointed out that there was strong evidence in favour of the thyroid being a secreting gland, and in that case as the gland was constantly enlarged in Graves's disease he suggested that the peculiar manifestations might be due to hypersecretion on the part of the gland, though he would not venture to assign this explanation for all the symptoms of this disease. He insisted on the oppositeness of myxœdema and Graves's disease. If this were so then one would expect, as was really the case, that remedies calculated to diminish the size and the functional activity of the gland would prove of benefit in Graves's disease. He pointed out that in myxœdematous patients, if too large doses of thyroid extract were given, the pulse was accelerated, the skin became moist, and tremor of the hands occurred with muscular wasting, just as in Graves's disease.

Dr. Berry showed microscopical preparations to admit of a comparison of the appearances of the gland in Graves's disease and in ordinary goître. In the one there was a total absence of colloid, the vesicles being filled with small round cells, while in the other colloid was abundant. Macroscopically the hypertrophy was seen to be much more homogeneous in the early stages of parenchymatous enlargement of the thyroid than in the ordinary form.

Dr. Ord referred to cases in which symptoms of myxœdema had followed on Graves's disease. He assumed that the process was one of greater vascularity of the gland in the first instance, followed in some cases by destruction or atrophy of the essential glandular secreting substance. In some of his own cases of Graves's disease treated by measures destined to reduce the size of the gland, the reduction had been exceedingly rapid, the patient subsequently developing symptoms of myxœdema.

Dr. Guthrie declined to admit that the theory of the sympathetic being involved was dead and buried, as stated by the author. He had often noticed a pulsating abdominal aorta and various abdominal phenomena in patients presenting other symptoms of Graves's disease.

Dr. Hector Mackenzie was not yet persuaded that Graves's disease was due to thyroidal changes. In his own experience these cases tended to spontaneous amelioration, and he maintained that it was only by closely observing these patients over long periods of time that it was possible to get a precise and accurate notion of the natural tendency of the disease. If the disease were really due to hypersecretion on the part of the thyroid gland, he was surprised that bad results had not ensued when thyroid extract was administered to such patients, yet nothing of the kind had occurred in his own hands.

Mr. Maude, in reply, pointed out that his own view was that the nervous symptoms were secondary to intestinal intoxication. It would not be safe in the present state of their knowledge to draw any rigid conclusions from microscopical appearances, especially as they knew little or nothing as to how the secretion was effected or how it acted.

REVIEWS.

Diseases of the Lungs and Pleuræ, including Consumption. By R. Douglas Powell, M.D. Fourth Edition. London: H. K. Lewis. 1893. (Demy 8vo, pp. 600, 18s.)

Seven years have elapsed since the third edition of Dr. Douglas Powell's book was given to the profession and during that period the pages of medical journals in all languages have been teeming with articles on the subject of which his work treats. Especially in the department of therapeutics have the writers been most active, but in the multitude of counsellors it is to be feared that more confusion than wisdom has prevailed. It is with a feeling of relief that the reviewer turns to the carefully thought out pages of one whose wide experience and scrupulously fair and honest judgment may be taken as a trustworthy guide through the maze of conflicting statements and hasty generalisations which have obscured rather than enlightened the

path of those who wish to study aright the course and treatment of phthisis and other pulmonary diseases.

The new edition appears in familiar dress as far as externals are concerned, but will be found to have undergone considerable alteration within, being printed in bolder type and embellished with many new and useful illustrations; apart from these distinctions, it will be noted that the principal changes are in the form of additions, rather than of alterations or excisions, of the text. This fact alone bears testimony to the value of the work as a thoroughly trustworthy guide to the subjects of which it treats. In spite of the flood of literature to which we have referred and the added experience of seven busy years of hospital and private practice, it is significant to note that Dr. Powell finds but little to alter in his previous work.

Some differences of arrangement may be observed, all of which tend to make the work more handy as a textbook for reference. In some few instances new chapters appear, dealing with aspects of consumption or with newly-recognised pathological conditions, such as actinomycosis of the lungs, which modern pathological and clinical research have placed upon a definite basis. Among the earlier chapters a concise account of the various facts that may be ascertained by examination of sputa, and the best methods of ascertaining them, adds considerably to the practical value of the treatise. A clear and definite account of all that is at present known with regard to actinomycosis forms the subject of another section, and contains a report of a case observed by the author from its beginning to its ending, which may well take rank among the classic descriptions of early cases that find a place in the history of all the great medical observations of our time.

The chapters dealing with pleuritic effusions of various kinds are marked as heretofore by sound and sensible advice as to diagnosis and treatment, and cases will rarely be met with in which some assistance will not be given by careful study of these sections. Of pneumonia there is but little new to add, but it is in this part of the work, if in any, that some disappointment may be felt, as so little reference is made to the forms of pneumonia which a few years ago were associated with influenza and were attended with such uniformly fatal results. The little that is positively known with regard to syphilis of the lungs is set forth with admirable clearness, and will doubtless pave the way to more extended observations upon this condition. Turning to the chapters on treatment of phthisis in its various forms, the same concise and definite directions are to be found as in previous editions, amplified only where the personal knowledge and experience of the author is able to confirm the suggestions of others. It might perhaps be objected that, with characteristic modesty, Dr. Powell prefers to convey so much of his information in the form of quotations from the writings of others, but in all cases where his experience does not coincide with theirs he does not hesitate to say so, and hence it must be inferred that in the quotations which are not commented upon his opinions agree with those whose words he uses. The surgical treatment of phthisical cavities—a subject which has been much debated of late years—is discussed in all its bearings, and its utility noted in such cases only as can, with all reasonable certainty, be diagnosed as limited. The advisability of proceeding deliberately in operation is insisted upon, the pleura being exposed as far as possible, and the limits of the cavity ascertained before it is actually penetrated. A very useful section, and one to which the author calls special attention in his preface, is that in which the various designations of the forms of phthisis are compared and explained, much possible confusion being thus cleared away. Accepting the view which was started by Laennec at the beginning of the present century, and which has come out once more unscathed from the contradiction and occasional ridicule of sixty years at the end of it, he shows how tuberculous disease may take upon itself the varied forms which have led so many to doubt its identity. Against the too exclusively microbic view of its causation he utters a timely word of warning, and points out the fallacy which must attend any attempt to gauge the progress of the disease by means of the presence or absence of bacilli in the sputa. Of the part which other micro-organisms play in the production of suppuration and its attendant symptoms he says little, but it must be confessed that but little is really known. Dr. Powell's book is, above all things, definite and practical, and whether it be consulted for information as to the nature of diseases of the chest, or as a guide to their treatment, it will in no wise be found wanting.

THE CHOLERA EPIDEMIC OF 1892 IN THE RUSSIAN EMPIRE. By FRANK CLEMOW, M.D. St. Petersburg and London: Longmans, Green, and Co. 1893. (Royal 8vo, pp. i-xii, 1-123. With three maps and five diagrams. 5s.)

DR. CLEMOW, who is already favourably known for a careful study of epidemic influenza published in 1890, has in the present volume brought together much valuable information relating to the epidemic of cholera which last year devastated large portions of the Russian empire. His residence in St. Petersburg and his acquaintance with the Russian language have given him exceptional facilities for making himself acquainted with the history of the outbreak in that country, and the result has been the production of a book which cannot fail to be of the greatest use to all students of epidemiology. The distribution of the epidemic throughout European Russia is discussed, and a chapter is devoted to the question of how far this may have been influenced by the famine of 1891. Dr. Clemow is in agreement with the general sense of the St. Petersburg Cholera Conference in thinking that no sufficient evidence exists that the famine acted as a predisposing cause. "In some instances," he adds, "the disease has appeared to select the stronger members of a community in preference to the weaker." It will be remembered that a somewhat similar observation is made by Thucydides in his account of the Plague at Athens.

Passing next to the evidence afforded by the present epidemic of the actual mode of spread, Dr. Clemow gives a number of most instructive cases, all of which tend to confirm the views now held by the best authorities in this country and elsewhere; namely, that the ordinary means of infection are water or fomites polluted by the discharges of cholera patients. English sanitarians will note with interest the complete breakdown of quarantine at Astrakhan, and will observe with satisfaction that the "principle and practice of quarantine were condemned unanimously and in no halting terms" by the St. Petersburg Conference. The author pays a high tribute to the energy and promptitude of the Russian Government in taking measures to avert or alleviate the plague, and is evidently of opinion that the action of the government officials was effectual in checking the disease in the northern and western districts. That the south-eastern provinces suffered so much as they did is largely attributable to the panics which affected the semi-civilised inhabitants of those regions, and caused in many cases a complete paralysis of all remedial and preventive agencies. Notes on the methods of treatment and of disinfection found most effectual in St. Petersburg, and an account of the important conference held in that city last December, conclude the work.

Many subjects of great theoretical interest, and also of practical importance, are incidentally touched upon, of which space will not allow us to give an account; we may however mention the confirmation afforded on pages 18 and 20 of the views on the influence of elevation so strongly held by the late Dr. Farr; the light thrown by the author upon the domestic economy of various semi-civilised races of both Asiatic and European Russia in its relation to the spread of the epidemic; the demonstration that the rate of spread exactly corresponds with that of means of communication, and has in consequence been enormously increased by railways; and the fairly successful result of the great experiment tried by the Government in allowing the fair of Nijni Novgorod to proceed as usual under due precautions.

The book is written in a compressed but lucid style, and is well provided with maps, diagrams, and statistical tables. It would have been well if all the figures given in the text had been expressed as rates as well as actual numbers; this however has been uniformly done in the tables.

THE second meeting of the Pan-American Medical Congress will take place in Mexico, under the presidency of Professor Rafael La Vista, of the University of that city. It has not yet been decided whether the Congress will meet in 1896 or 1898.

Dissections Illustrated: a Graphic Handbook for Students of Human Anatomy. By C. Gordon Brodie, F.R.C.S. With plates drawn and lithographed by Percy Highley. Part II. The Lower Limb. London and New York: Whittaker and Co. (20 coloured plates and 6 diagrams. Pp. 74. Foolscap folio. 10s.)

This is the second of the four parts which this work when finished will comprise. In reviewing the first we were able to speak in terms of commendation of the correctness and clearness of these drawings. This part is quite equal to its forerunner, and deals with the usual dissections of the lower limb in a satisfactory manner. The important region of Scarpa's triangle is depicted in four figures, each of which is devoted to a stage of its dissection. In these the larger and more important veins and nerves are shown, and we note that those which are smaller and more difficult to dissect are clearly and correctly delineated. Difficult regions, such as the inner side of the knee, the popliteal space, gluteal, inner ankle, and sole of the foot, are similarly dissected and represented.

It is obvious that Mr. Brodie's dissections have been very carefully made, and that Mr. Highley has faithfully rendered them in his drawings. These are clear and bold, with strong contrasts between the different tissues and structures. We have never any difficulty in telling what is in question, the conventional colouring of the arteries, veins, and nerves with red, blue, and yellow having been observed. The method of reference to the names of the various objects shown in the drawings is also easy to follow. The letterpress is, of course, quite a subordinate feature, but what is given is short and to the point. We note that, as we suggested before, the diagrams in the letterpress have been made larger, but they still look rather rough, and hardly worthy of the excellent drawings. It will be seen from the above that this work can be confidently recommended to those who wish at a glance to refresh their anatomical knowledge. Further, it ought to be of service to students, not as a substitute for their own dissections, but as an assistance, and as a standard of excellence at which they ought to aim in their work in the dissecting room.

Edinburgh Hospital Reports. Vol. I. Edited by G. A. Gibson, M.D., D.Sc.; C. W. Cathcart, M.A., M.B.; John Thomson, M.D.; and D. Berry Hart, M.D. Illustrated with Coloured Plates. Edinburgh and London: Young J. Pentland. 1893. (8vo, pp. 620 and 56.)

The hospitals included in these reports are the Royal Infirmary, the Royal Hospital for Sick Children, and the Royal Maternity and Simpson's Memorial Hospitals. The Edinburgh School may certainly be congratulated on producing a work not only of very considerable interest, but of real practical value, and by authors of well-known reputation. Many of the original articles contain the results of much solid work.

The volume begins with a historical sketch of the above-named hospitals by Professors Grainger Stewart and Simpson, and Drs. Balfour and Joseph Bell. In Dr. Bell's article the great and most welcome advances in modern surgery are chronicled, but the author's fluent style would appear to betray him at times into some exaggeration and over-colouring, as, for instance, when he speaks of the poet-warrior-surgeon singing the epic of the wars of the tubes and appendages. It is difficult to believe that the inclusion of the sentence at the bottom of p. 33 is not due to a momentary lapse of judgment. Again, in the endeavour to form a correct opinion on certain methods of treatment more or less recently advocated, accurate and complete tables of operations, with such results as are to be found at the end of these and other hospital reports, are of much greater service than eulogistic generalisations.

Haffkine's protective inoculation against cholera by Sims Woodhead, actinomycosis by Grainger Stewart and Muir, acromegaly by Byrom Bramwell, mouth dryness by Fraser, and Graves's disease (including its morbid anatomy), form the subject matter of interesting communications. Cardiac pathology is well illustrated, and includes Professor Gairdner's very remarkable case of obstruction of the right auriculo-ventricular orifice by a tumour in the auricle. Neurology receives much attention, cerebro-spinal meningitis by Dr. R. W. Philip, cerebral tumour, acute chorea, progressive muscular atrophy with the morbid anatomy by Drs. Thomson and A. Bruce, being among the subjects treated.

The case of trephining for basal hæmorrhage by Dr. Smart is remarkable, though somewhat puzzling. The patient, practically moribund, improved steadily after the operation, the breathing being almost instantly relieved. Fourteen days later she seems to have again lapsed into a semi-comatose condition, from which she again recovered. The paralysis and hemianopsia persisted. Short abstracts are given of Dr. Dennis's nine cases of non-traumatic surface hæmorrhage published in the *New York Medical Journal* in 1892; in six of these cases the rare condition of internal pachymeningitis gave origin to the hæmorrhage. Professor Chiene, Dr. Joseph Bell, Drs. Cathcart and Caird and others contribute papers on surgical subjects. The three cases of "Kopftetanus" are interesting examples of that exceptional disease; they were all fatal. Among contributors to ophthalmology are Mr. Berry and Dr. Mackay. Dr. McBride contributes a very suggestive paper on the importance of connecting the objective with the subjective in diseases of the throat, nose, and ear. Dr. Berry Hart's new method of perineal suture is described and illustrated by cases. Dr. Halliday Croom discusses sessile cysts, and records some cases; and the volume closes with a case of intrauterine rheumatism, and another of congenital ascites with retention of urine. The material in this first volume of Reports is so abundant that it is almost impossible in a short review even to allude to everything contained in it. It must suffice to say that there is hardly an article in the book that does not merit careful reading. The tables at the end are very interesting and instructive.

Traité des Maladies de l'Estomac. [A Treatise on Diseases of the Stomach.] Par L. Bouvaret. Paris: J. B. Baillière et Fils. 1893. (1 vol. in 8, royal 8vo, 730 pages. Fr. 14.)

A new work by M. Bouvaret is sure of attention at the hands of the medical profession, and this work before us is a valuable addition to the literature we already possess on this subject. The use of the book will be greatly facilitated by the excellent arrangement of the subject matter. It is divided first into eight principal parts; these are subdivided into chapters, and the chapters are broken up by headings of special types and italics.

The elaboration of symptoms and minute attention to detail so characteristic of M. Bouvaret are well exemplified in the first four chapters of this volume. Part IV treats of acute and chronic gastritis, and is full of information conveyed in a delightful manner. The chapters on rare neoplasms and cancer of the stomach, as well as those which deal with gastric neuroses, are proofs of the personal experience, painstaking investigations, and careful research which the author has brought to bear on every part of his undertaking.

The last part of the book contains an interesting summary of the known facts (which have come to light since the new methods of examination have become common, that is, during the last ten years) concerning the part the stomach plays, and the troubles to which it is subject during the progress of certain maladies such as fever and anæmia.

In conclusion, we cordially recommend this treatise to the notice of our readers.

Dochmia or Beri-beri. By W. Leonard Braddon, B.S., M.B.Lond., F.R.C.S., L.S.A. Singapore. 1893. (Royal 8vo, pp. 68.)

This paper consists of two parts: first, a review of Giles's now well-known report on kála-azár in Assam; secondly, comments on the connection of anchylostoma duodenale with beri-beri in the Malay Peninsula. Dr. Braddon's style is exceedingly complicated and obscure; indeed, although we have read many of his sentences over and over again, we have failed sometimes to make out the meaning he intends to convey, or to arrive at anything like certainty as to his opinions on many important points. He appears in

places to agree with Dr. Giles's view that kála-azár is a form of anchylostomiasis—at page 6, for example; at page 36 he seems to draw back from this position; whilst two pages further on he says that Dr. Giles has let "light of noonday" in on a pestilence which hitherto had walked in darkness. On what seem to us very insufficient grounds, he substitutes the term "dochmia" for the now universally adopted word "anchylostomiasis," which he spells ancylostomiasis on etymological grounds: in other respects he indulges in what appears to us to be unnecessary eccentricity in the nomenclature he employs. We gather that he does not accept the commonly received view that the anchylostoma produces anæmia by direct abstraction of blood, or by giving rise to dyspepsia, or by a combination of these. He likewise, contrary to the now generally accepted opinion, seems to regard anæmia as a very usual concomitant of beri-beri; he ignores, apparently, the exact hæmometric observations on this point of Magalhaes, Wallace Taylor, Eykman, and others. He advances the hypothesis, founded principally on certain observations of his own on the relative immunity from beri-beri of the Tamil coolies in the Straits Settlements, that the Indian races, though liable to the anæmic phases of beri-beri, are immune from the paralytic, whilst the Chinese coolie is liable to both forms. Without denying Dr. Braddon's statement that the Tamil in the Straits is little, if at all, subject to beri-beri, we would suggest that this immunity is not the result of racial idiosyncrasy, but rather of some peculiarity in his habits, his food, or other more or less accidental circumstance. We know very well that East Indians are affected by beri-beri when exposed to the cause of it just as readily as are Chinese, Javanese, or Japanese. Witness the ship epidemics recorded by Carter and others. Dr. Braddon's paper contains many interesting observations; for example, that on the occurrence of suppurative myositis in beri-beri, about which we should have liked to have heard a little more. The medical profession in the Straits Settlements have been very active of late years in the study of this most important disease; of the many contributions we have had from them on the subject, Dr. Braddon's is not the least important. He is evidently an accurate observer and a close reasoner—qualities which more than atone for the obscurity of style to which we have already alluded.

HISTORY OF THE LIFE OF D. HAYES AGNEW, M.D., LL.D. By J. HOWE ADAMS, M.D. Philadelphia and London: The F. A. Davis Company. 1892. (Royal 8vo, pp. 368, 14 illustrations, 14s.)

BY the death of Dr. Hayes Agnew, in March, 1892, the medical profession in America lost one of its ablest exponents and brightest ornaments. In the volume before us Dr. ADAMS has traced the history of this great surgeon from infancy, through childhood, school and college days, and during a long successful and honourable professional career.

The biographer has done his work thoroughly and has given us an interesting record, not only of the professional but also of the private life of Dr. Agnew; a record which cannot fail to arouse the admiration and respect of all readers.

Dr. Agnew's career was in several respects a notable one, and the position he attained in the medical profession in America, a position gained by untiring diligence and devotion to his work, was almost unique.

In Dr. Adams's account of this well-spent life many details are given which are of interest, chiefly to those who had a personal acquaintance with Dr. Agnew, but the book is well worth perusal by every member of the profession of which Dr. Agnew was so worthy a representative.

The illustrations are, with few exceptions, portraits of Dr. Agnew.

LOUÈCHE LES BAINS; ses Eaux Thermales, son Climat d'Altitude. By Dr. E. DE LA HARPE. Second Edition. Paris: Baillière et Fils. 1893. (Cr. 8vo, pp. 48.)

THIS pamphlet gives a full description of the characters and therapeutic uses of the hot springs of Leukerbad, by which name this bath is best known to English tourists, many of whom, in crossing the remarkable Gemmi Pass, have visited this curious bath situated at its foot, and seen the patients bathing in common in its hot springs. The chief peculiarity of this bath is the prolonged periods during which the patients remain in the water—four, five, or six hours, or even longer. There are as many as twenty hot springs which are utilised for the baths, having a temperature of about 125° F. The chief mineral constituent of the water is calcium sulphate: it also contains a little magnesium and sodium sulphate and some silica. A critical eruption or "poussée," as it is termed, follows the prolonged immersion in this hot water. When this has reached its height, the duration of the bath is slowly diminished, and when the eruption has disappeared the baths are discontinued.

This mode of bathing is considered to exercise a powerful modifying influence on the skin in the form of maceration, congestion, and energetic counter-irritation of the surface, at the expense of the internal organs; and to produce also a considerable sedative effect on the nervous system. It is applied chiefly to the cure of chronic skin affections, as chronic eczema, psoriasis, prurigo, acne, etc.; it is useful also in chronic forms of rheumatism and gout, and in chronic inflammatory and catarrhal affections of the female generative organs. Dr. DE LA HARPE also calls attention to the usefulness of this station as a high altitude resort, its elevation being 4,600 feet above the sea.

THE AMPHIOXUS AND ITS DEVELOPMENT. By Dr. B. HATSCHEK, Professor of Zoology in the University of Prague. Translated and edited by JAMES TUCKEY, M.A., Lecturer in the University of Durham. London: Swan Sonnenschein and Co. 1893. (Cr. 8vo, pp. 181, 6s.)

THE present volume forms the first of a series of introductory science textbooks, now in course of publication by Swan Sonnenschein and Co. The researches of Kowalevsky into the development of amphioxus, published in the year 1867, aroused the keenest interest among zoologists, not only on account of the intrinsic merits of the work, but also on account of the wide field of theoretical speculation opened up by it. The researches were among the first and most important of those which marked the beginning of the new epoch in comparative embryology. The importance of the development of amphioxus being accurately known led Dr. HATSCHEK to work over the subject again, and put to the severest test matters so important for many theoretical questions. In the main, the results at which he arrived confirmed Kowalevsky's discoveries; yet they largely increase our knowledge of this subject not only owing to the completeness of his investigations, but also to the correction of several erroneous details and the bringing to light of not a few important facts. These were the reasons which induced Dr. Hatschek to publish his investigations in full; his memoirs have, hitherto, been inaccessible to that portion of the scientific world which does not read German, and we welcome the appearance of the present translation as removing this difficulty. Dr. Hatschek's classical work, illustrated as it is with most excellent plates, is too well known to scientists to warrant any summary of his results being given here; we therefore confine ourselves to congratulating the editor on the way in which he has achieved the translation.

Dr. Hatschek's figures have been accurately reproduced, and, although small, are perfectly clear. The idea of prefacing a series of elementary textbooks with such a volume is certainly a happy one, and we would call the attention of students to the description given of the methods of investigation used by the author. They are simple in the extreme, and we wonder how many investigators could be found, at the present day, who would attempt to work out even a minor point simply with the aid of a few watch glasses, the simplest stains, and no microtome, Dr. Hatschek's series of sections having been entirely cut by hand.

We wish that the general portion, forming the conclusion of the original work, could be translated, for it is here only that any theoretical discussion is to be found.

SOUTH CHARITABLE INFIRMARY, CORK.—A fancy dress and *poudré* ball was given last week in aid of this institution, and a considerable sum realised for a deserving charity.

NOTES ON BOOKS.

Le Placenta dans la Grossesse Extrautérine et sa Croissance après la Mort du Fœtus. [The Placenta in Extrauterine Pregnancy, and its Growth after the Death of the Fœtus]. Par Alfred S. Gubb, M.R.C.S., L.R.C.P., M.D.Paris. (Paris: Imprimerie de la *Semaine Médicale*, 1893.)—This pamphlet contains a useful summary of current views on the subject of the fate of the placenta in ectopic gestation. The author favours the removal of the placenta in operations for extrauterine pregnancy before term, and is equally in favour of the removal of the placenta when more than nine months have elapsed since conception. When the attachments of the placenta are not extensive, and when hæmorrhage can be controlled, there can be no doubt, Dr. Gubb believes, that the immature placenta should be taken away; for if it be left behind, it may grow and give serious trouble to the patient. The author illustrates his work with excellent woodcuts, chiefly from Dr. Berry Hart and Mr. Bland Sutton's well-known writings. Some good representations of chorionic villi are, we believe, original. It is of paramount importance that all who work at extrauterine pregnancy should be thoroughly acquainted with the appearance of these structures, which are often the sole evidence that the abnormal gestation ever existed.

Brown's South Africa; a Practical Guide for the Use of Tourists, Sportsmen, Invalids, and Settlers. (London: Sampson Low, Marston, and Co.; Cape Town and Johannesburg: J. C. Juta Co. 1893. Cr. 8vo, pp. 260, 2s. 6d.)—In this little volume a large amount of interesting and valuable information about South Africa has been admirably arranged in guidebook form. The work cannot fail to be of the greatest service to travellers, visitors, and even to residents in this interesting and rapidly-progressing country. The statement in the title page that it is a practical guide to South Africa we heartily endorse so far as the districts treated of are concerned; we think, however, that the statement that it is a "complete guide" is somewhat misleading, for we have looked in it in vain for information, such as we might expect to find in a guidebook professing to treat of South Africa, about the Chartered Company's territories, the countries to the north of the Transvaal, the German and Portuguese possessions, and several other important districts. Some information about these would, we are sure, be very acceptable to the considerable number of travellers and sportsmen who now visit these regions. The information with regard to climate, health resorts, the conditions of life, and other matters more especially affecting invalids is of great practical value; and the physician proposing to send an invalid to South Africa would do well, not only to recommend this little work to his patient, but to study it himself. The maps, more especially that illustrating the climatology of the country, and the sectional diagrams are of much value from a medical point of view.

Materia Medica and Therapeutics, with Especial Reference to the Clinical Application of Drugs. By John V. Shoemaker, A.M., M.D. Second edition. In two volumes. (Philadelphia and London: The F. A. Davis Company, 1893. Demy 8vo, pp. 1,046. Vol. i, 14s.; vol. ii, 19s.)—No very essential changes have been made in the present edition of this work, although it has been revised and altered in some matters of detail. The first volume is occupied with a consideration of remedial agents other than drugs, while the second is devoted wholly to drugs. In the first edition the therapeutical portion was conspicuously superior to the rest, and this characteristic remains. The author does not seem thoroughly conversant with the botany, chemistry, and physiological actions of drugs, and hence a large number of inaccuracies have been allowed to remain. Notwithstanding these, it forms a safe and readable guide to therapeutics.

Materia Medica. Part IV. (Edinburgh: E. and S. Livingstone. 1893. Pp. 63, crown 8vo, 1s.)—This anonymous book, which is bound up with 36 pages of advertisements, consists of questions and answers about a few drugs, the chief being those commonly grouped together as "carbon compounds." Even at a shilling it is dear, for the student would be far better employed in learning to answer questions from work done with a good textbook than he would be in cramming from this. Much that is in it is quite unnecessary for him.

Die Harnsäurediathese [The Uric Acid Diathesis]. By Dr. F. Levison. (Berlin: A. Hirschwald. 1893. Demy 8vo, pp. 130.)—This pamphlet is a very admirable summary of this interesting question. The various views of different workers and their methods and results are very admirably given, and the book will repay perusal. The work of Sir Alfred Garrod and that of Sir W. Roberts are fully recognised, and great prominence is given to von Jaksch's researches, and to Horbaczewski's theory of the origin of uric acid from nuclein. The references given will enable the reader to consult the original memoirs.

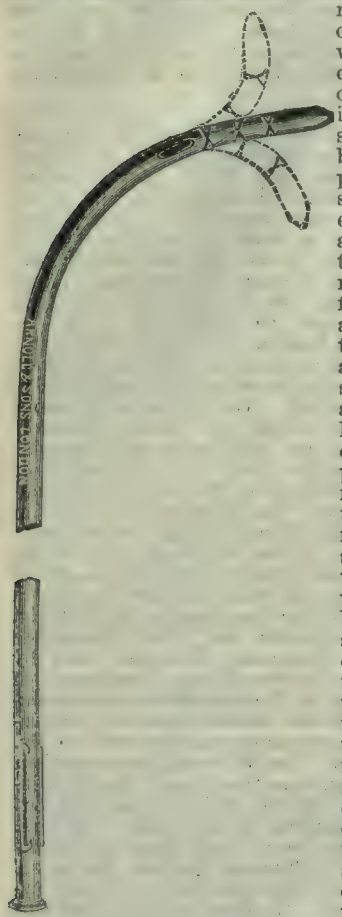
Transactions of the Ninth Annual Meeting of the American Climatological Association, held at Richfield Springs, New York. (Philadelphia: Lippincott and Co. 1893. Royal octavo, pp. 99.)—As we have had occasion to remark before, in reviewing the *Transactions* of this Association, climatology takes a very secondary place in their deliberations. This volume contains sixteen papers; three only are directly concerned with studies of climate, namely, Dr. Keating's paper on "Hyperpyrexia in Altitudes," Dr. Knight's on "Altitude in Affections of the Heart," and Dr. Ford's on "The Element of Climate *per se*, in the Climatic Treatment of Disease." The remaining papers are most of them on subjects of practical medicine, which might form the subject of discussion at our own Clinical or Medical Society. One of the most useful and suggestive is that by Dr. Loomis on "Heart Failure." Many of these communications deal with subjects of special therapeutic interest; for example, there is an appreciative paper on "Guaiacol in the Treatment of Pulmonary Tuberculosis," by Dr. Jacobi; another on "The Results of Tuberculin and its Modifications at the Adirondack Cottage Sanitarium," by Dr. Trudean, in which the author expresses his belief, founded on careful experimental observations, that some of the modifications of tuberculin are still destined to play a useful, though limited, part, in the therapeutics of phthisis. There is also a paper by Dr. Quimby on "The Pneumatic Cabinet in the Treatment of Pulmonary Phthisis," and by Dr. Fletcher Ingals on "The Shirley-Gibbes Treatment of Tuberculosis," which speaks with discriminative commendation of this method. A well-timed protest against too frequent and too hasty operative measures is contained in Dr. Beverley Robinson's paper on "The Value of Conservatism in the Treatment of some Common Nasal and Throat Diseases, especially in Children." There are also papers by Dr. Carl Reudi on "Slow Respiration in Phthisis," by Drs. Curtin and Watson, on "The Action of the Influenzal Poisons on the Heart, and a Study of Influenzal Angina Pectoris," and by Dr. Platt on "A Case of Extreme Prostration following an Attack of Influenza," etc. If there is little that can be said to be original or novel in these papers, yet it must be admitted they most of them deal with subjects of general interest which naturally attract the attention of busy practitioners.

Six Months' Medical Evidence in the Coroner's Court of Montreal. By Wyatt Johnston, M.D., and George Villeneuve, M.D.—The contents of this paper, read at a meeting of the Montreal Medico-Chirurgical Society, give an insight into the working of a decided improvement in the matter of coroners' inquests, for which the present coroner deserves great praise. When he was appointed it was arranged that, as far as possible, his duties should be purely judicial, and that the medical questions should be investigated by a physician specially appointed for the purpose. Already the new system promises to work well; the number of inquests in the period under review has doubled, whilst the number of necropsies has increased fourfold, and the necropsies have all been performed by one or other of the writers of this paper. There is still room for much improvement, but it is evident that this new system is a step in advance, and we may congratulate the coroner and his medical adviser on the very good results that have been obtained in so short a time.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

LOBSTER-TAIL CATHETER.

THE conversion of the extremity of a metallic catheter into a lobster-tail gives the powers and advantages both of a rigid and a flexible instrument. The stylet fits closely into the mouth, and passes to the end of the conical point, so that when it is *in situ* the catheter can be used like a silver one of the common pattern. But if on reaching the seat of obstruction it be found impossible to make the stiff extremity pursue its onward course, the stylet can be withdrawn, thus endowing the instrument with a flexible point. The short three-jointed lobster-tail then represents to some extent a finger which can grope here and there for the orifice of a tight stricture or the track of a tortuous urethra. The instrument also possesses the advantage, when its stylet has been taken out, of a gum elastic, in being able to be pushed onwards with a little more force than could be ventured on when using a rigid metallic catheter. The lobster-tail also adds very much to the safety of an instrument which has to be left in the bladder; for as soon as the stylet is removed the point of the catheter folds up, and is no longer likely to injure the vesical coats. And yet it is free from a gum-elastic tendency to soften, and so need removal earlier than may be desirable. On this account the folding point will often prove valuable in catheters of large size. A fine lobster-tail would require to be carefully manipulated, but if made by a first-class mechanician would bear a greater strain than a small gum elastic, or, perhaps, than a rigid silver instrument of equal size.



Basseterre, St. Kitts. W. J. BRANCH, M.D.

PATENT BINDER TRUSS.

THIS instrument consists of a circular steel spring of moderate power, carrying at the front extremity the pad to keep up the rupture. The specimen, which has been submitted to us by Herbert Redgate, of Nottingham, is a double inguinal truss. There is nothing very peculiar about the spring, which is similar to patterns in ordinary use. The fixation of the pad, however, is new, and has features which may ultimately prove of value. The pad is hinged to the spring about 3½ inches from its front end. There is a deep groove upon the pad for the reception of the front part of the spring. A screw in the front end of the spring can be protruded at pleasure so as to press upon the pad, increase its distance from the end of the spring, and alter its inclination so that its surface is presented to the axis of the inguinal canal. This arrangement has advantages, and is decidedly ingenious. The same end is, however, attained in the ordinary truss by altering the spring. The pad of Redgate's truss seems to be made of some very hard substance—wood apparently—and would under some circumstances cause absorption of tissues, and thus be harmful.

NEW TONSIL KNIFE.

THIS knife has been made under my direction by Messrs. Young, Edinburgh. Its advantages are: 1. The knife can be used with the right hand with equal facility in operation



on either tonsil, as the blade is set on an angle, and has a double cutting edge. 2. The view of the tonsil is not obscured by the operator's hand. 3. The knife being probe-pointed it cannot injure the tonsil.

Ladhope, Galashiels, N.B. JAMES BRUNTON, M.B.

A NEW SELF-RETAINING CATHETER.

I BEG to draw attention to a new self-retaining catheter which I have found very useful in a number of cases.

The instrument consists of two catheters, one of which is introduced within the other. They are both made of soft silk web, with well-woven eyes.

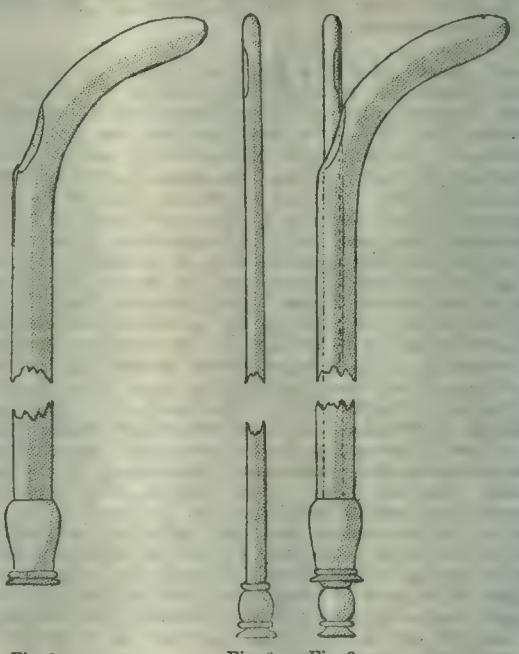


Fig. 1. Fig. 2. Fig. 3.

The first (Fig. 1) resembles in shape a coudé catheter, and corresponds throughout in size to a No. 19 French gauge. Its shaft, which is 10½ in. long, is very flexible; its beak, which is 1 in. in length, is a little stiffer and quite impermeable, thus rendering the accumulation of septic matter impossible. The eye is at the convexity of the elbow.

The second catheter (Fig. 2) is introduced into the bladder through the first. It is 11½ in. long, and corresponds to No. 10, French gauge. It is very flexible, except for the last ⅜ in. (which projects into the bladder). Its eye is only ¼ in. distant from the point; like the first, this instrument is also impermeable beyond the eye.

Before introduction, the surgeon must notice that the inner catheter does not protrude too far beyond the eye, and not extend farther than the end of the beak of the outer catheter (Fig. 3).

This catheter does not require to be secured by tapes, etc., to any part of the patient's body, for it is perfectly self-retaining; but the buttons of the two catheters may be fixed together with a little strapping. I need scarcely mention that in removing the instrument the inner catheter must first be withdrawn.

I may add that I have found this instrument very convenient for introducing suppositories or ointment into any part of the urethra or into the bladder.

The catheters are made of various lengths by Messrs. Krohne and Sesemann, of 8, Duke Street, Manchester Square. The length above stated will be found to answer in most cases.

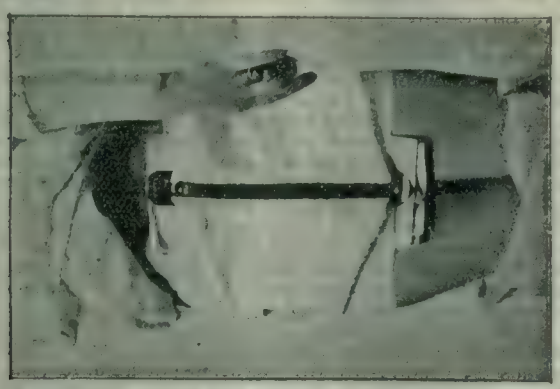
Moorgate Street, E.C. M. Tuchmann, M.D.

AUTOMATIC GRIP AND SPLINT.

We have received a specimen of Hunter's automatic grip



and splint. It is an ingenious mode of fastening the ordinary abdominal binder. It is simple, and can be kept clean. The



binder can be pulled as tight as the operator chooses, and be held firmly by the grip and prevented from wrinkling. It can be obtained from Mrs. B. Hunter, Brandon Villas, Charlotte Street, Bristol.

AN IMPROVISED TEST-TUBE HOLDER.

Mr. John McOscar, L.R.C.P.Lond., M.R.C.S.Eng., L.S.A.Lond. (Watlington, Oxon.), writes: I send you a practical idea recently instituted by me as a test-tube holder. Taking an empty cartridge case I cut two windows in it, to the top of the brass head, and then stand the test-tube in it. The tube is of firm build, and forms a safe stand. Thinking it may be useful to country practitioners, I take the liberty of sending it to you for publication.

THE PAN-AMERICAN MEDICAL CONGRESS.

[From Our Special Correspondent.]

The Section of Obstetrics.—President's Address.—The Mechanism of Labour.—Induction of Labour in Eclampsia.—Puerperal Septicæmia.—Symphysiotomy.—Surgical Treatment of Chronic Procidentia Uteri.—Vaginal Hysterectomy.

The work of the Section of Obstetrics was divided during the four days of its sessions into:

Papers and discussions on the first day—Pregnancy.
" " " second day—Eutocia.
" " " third day—Dystocia.
" " " fourth day—Puerperium.

The arrangement was such that the papers on each day were exhausted before any discussion was had. The result of this method was that all the authors present were certain to be heard in their allotted period (which had been fixed several weeks beforehand, and notice given to the essayist). The discussions followed, opened by gentlemen of reputation, followed by remarks by others, and an invitation to any of the authors to defend their thesis. The result of this was that no author was deprived of his place to make known his views on his theme.

The opening address of the President of the Section (Professor Giles S. Mitchell, A.M., M.D., etc., of Cincinnati, Ohio) reviewed the advances in the past two decades in the art of midwifery, embracing accurate pelvimetry, the axis forceps, substitutes for the rough Cæsarean section by symphysiotomy, and the prophylaxis of puerperal infection through strict antiseptic and aseptic environment, not forgetting the debt we owed Pasteur, Lister, and a host of others for successful application of those modern principles of surgery which now rendered otherwise fatal operations so very much less in the ratio of mortality.

A paper on "The Mechanism of Labour" was read by Jacob Chase Rutherford, M.D., Providence, R.I. He said the theory of the mechanism of labour, as advanced by all ancient and many modern obstetrical writers, was entirely without foundation. The ground taken that the parturient canal was curved could not be maintained for a moment when the anatomy of the parts, the changes which took place during pregnancy, and the phenomena of labour were considered. The mechanism of labour, briefly, was as follows: In head presentations, occipito-anterior, the head descended in the axis of the uterus in a straight line until it reached the trough of the levator ani muscle, when rotation began; continuing to descend in the same line, it reached the bottom of the trough, which was the floor of the pelvis. By this time rotation was completed, and now began the hardest part of the labour, for the head having reached the floor of the pelvis, could not go any further, but must change its direction and pursue a course at right angles with the one it had been following. This change in direction was brought about by extension of the head into the vaginal canal. As the head extended the body descended, and by the time the head was fully extended it had passed the vaginal orifice, and the shoulders were at the utero-vaginal angle. They passed the angle by a lateral bending of the body, and were followed by the hips and legs. In occipito-posterior cases labour was prolonged by the impossibility of further flexing an already fully-flexed head, and the perineum had to be enormously distended before the head could be delivered. In face cases mento-posterior delivery was impossible because the head could not be further extended, and the stiff, straight fœtal body could not be bent around the angle. A knowledge of the mechanism of head cases embraced a knowledge of the mechanism of other presentations. The deductions to be drawn from the above theory were: First, the parturient canal was angular, not curved; secondly, when the presenting part had reached the bottom of the trough in the pelvic floor rotation was complete; thirdly, flexion and extension took place at the utero-vaginal angle; fourthly, in the high forceps delivery, traction should be made in the line of the uterine axis, and in the low forceps delivery in the line of the vaginal axis.

A paper on the "Induction of Labour and *Accouchement Forcé* in the Prophylaxis of Eclampsia" was read by Charles Jewett, A.M., M.D., Brooklyn, N.Y. He said whatever room

there might be for difference of opinion with reference to the etiology of childbed eclampsia and the nephritis of pregnancy, it was impossible to lose sight of the fact that the ultimate cause of the trouble was the presence of the child *in utero*. So long as the cause remained our resources, either for the treatment or prevention of puerperal convulsions, were at most an uncertain reliance, and too often proved wholly futile. A pregnancy nephritis once established, the kidneys never regained their normal condition while the pregnancy continued. Dietetic, diaphoretic, and cathartic measures were of great value as temporary expedients, but they did not cure. The extra tax upon the crippled kidneys increased rapidly in the later weeks of gestation, and the danger grew with the growth of the child. The woman was never free from the possibility of a sudden explosion of uræmic symptoms. On the occurrence of convulsions the gravity of the condition was enormously increased, and with each succeeding attack it became less and less amenable to treatment. After labour, on the other hand, the nephritic symptoms subsided and prompt recovery was the rule. Convulsions in most cases ceased with the birth; the attacks seldom began in the *post-partum* period, and in any event they yielded more easily to ordinary remedial measures in the puerperal than in the pregnant or parturient woman. The chief desideratum, therefore, in the prophylaxis of puerperal eclampsia was the evacuation of the uterus. The writer believed that under modern methods a more aggressive policy was justifiable in the prevention of eclampsia than was generally pursued. It was difficult to formulate definite rules, but in general after the full period of viability little reliance should be placed on other than obstetric measures. In the presence of any but the milder forms of nephritis immediate and rapid termination of the pregnancy offered the best prospect for both mother and child. The indication was especially urgent in the last month of gestation, when the child had little to gain and the mother frequently much to lose by delay. Under the methods formerly employed the induction of labour was a difficult and tedious undertaking. With the intrauterine injection of glycerine recently introduced by Pelzer, uterine contractions might be set up at will and the birth terminated with rapidity and safety. Labour began immediately as a rule, and was actively established within two hours. The intrauterine injection of glycerine acted not only to inaugurate the pains, but in greater or less degree to maintain them. Its effect in many cases seemed to persist to the close of the third stage, if well retained. To act at best advantage the glycerine must be carried high up toward the fundus, must be widely diffused between the membranes and the uterine wall by gradual injection, and its too rapid escape prevented by keeping the patient in the latero-prone position. In many cases no further interference was called for. In imminent danger of convulsions, if the labour was not promptly terminated, it should be completed by manual dilatation of the cervix under chloroform, and resort to forceps or version. Under a rigid asepsis, and with avoidance of lacerations, *accouchement forcé* was a safe and conservative procedure. Manual dilatation should not be undertaken before the supravaginal portion of the cervix was obliterated. In simple cases it was a harmless interference which might save hours of labour and continued danger. In difficult cases with a rigid cervix the operation was even more urgently indicated, and was safe, provided sufficient care were used. From ten minutes to two hours would usually suffice to complete the dilatation and terminate the birth. The total length of labour would seldom exceed twelve hours; in emergency it might be reduced to five or six. Illustrative cases were cited.

A paper entitled "Contributions to the Study of Puerperal Septicæmia," was read by ANTONIO JOSÉ AMADEO, M.D., Maunabo, Porto Rico. It contained a summary of the twenty years of obstetrical experience of the author in the town of Maunabo, island of Porto Rico. Until lately a physician was there very seldom called to attend a case of confinement, and puerperal infection was much more frequent in the towns, on account of their bad hygienic conditions, than in the country. He held the opinion that women of a lymphatic temperament were more liable; chronic metritis and leucorrhœa were also contributing factors; anæmia, and all the manifestations of lymphatic cachexia were unfavourable signs for the prognosis. In regard to diagnosis, paludal fevers sometimes made their appearance immediately after parturition, but sulphate of quinine settled the doubt. Sleeplessness, nervous disquiet, and ill-smelling discharges were alarming symptoms. His plan of treatment consisted in local antisepsis to reduce the hyperthermia, to open and disinfect abscesses, sustain the vital forces, and combat peritonitis should it make its appearance. He comp ained of the custom that prevailed in Porto Rico, of receiving the visit of many friends in the lying-in room.

A paper on "Symphysiotomy" was read by HENRY J. GARRIGUES, A.M., M.D., Professor of Obstetrics at the New York Postgraduate Medical School and Hospital; Consulting Obstetric Surgeon to the New York Maternity Hospital; Gynæcologist to St. Mark's Hospital, etc. Symphysiotomy was first performed by Jean René Sigault. After having fallen into discredit everywhere else, it was kept alive in Italy, and was dying out there when Morisani revived it in 1866, but without finding imitators elsewhere, until in 1891 his pupil, Spinelli, demonstrated it to Pinard. Thus brought back to Paris, it had spread over the world with such rapidity that it had become impossible to keep accurate account of the statistics. When the symphysis and subjective ligaments were cut, the limbs bent, and the iliac bones pulled apart, a separation of 7 cm. (two and three-quarter inches) between the ends of the pubic bones was easily obtained without injury to the ilio-sacral joints. The head entered into this gap, and all diameters of the pelvis were considerably increased. The distance between the centre of the promontory and the end of the pubic bones, at the safe distance of 7 cm. (two and three-quarter inches), gained 14 mm. (over one half inch), the other diameters from 17 to 35 mm. (three-quarters to one and one-half inch). Symphysiotomy was indicated in a flat pelvis with a true conjugate ranging between 67 and 88 mm. (two and five-eighths to three and one-half inches), but it was difficult below 7 cm. (two and three-quarter inches). In a generally contracted pelvis the upper limit might be extended to 10 cm. (four inches), and we should cautiously approach the lower limit. Other indications, with which it had been performed, were pelvic tumour, mento-posterior face presentations if the chin could not be rotated forward, occipito-posterior vertex presentation with impacted head; and it had been proposed in cases of absolute coarctation of the pelvis (that is, below 5 cm.—two inches) with dead child, in order to facilitate craniotomy and embryotomy. The sacro-iliac articulations must be movable. There were two chief methods, the subcutaneous (Morisani's) and the open (Pinard's). The child might be left to be expelled by uterine contractions, or removed with forceps, or turned and extracted. Considerable lesions of the soft parts had occurred even in the hands of first-class operators. In many cases the hemorrhage had been profuse and sometimes difficult to check. Most children were born more or less asphyctic, and in some there had been fracture of the skull. Symphysiotomy deserved a large place in the practice of skilful operators, but should not be attempted by the average accoucheur. In lying-in hospitals and private practice of specialists it should take the place of craniotomy on the living child and induction of premature labour, in which the infantile mortality was over 43 per cent. Cæsarean section should be limited to cases that lay beyond the domain of symphysiotomy. Symphysiotomy had several times been successfully performed twice on the same woman.

A paper "On the Value of Certain Methods of Surgical Treatment for Chronic Procidentia Uteri," was read by AUGUSTUS P. CLARKE, A.M., M.D., Cambridge, Mass. He said the operation for shortening the round ligaments would often prove of service. These ligaments undoubtedly acted as moderators to any excessive muscular action which might interfere with the normal equipoise of the uterine tissue. In chronic prolapse the ligaments would be found to have lost their power for contractility. In those cases in which they might respond to the presence of stimulus they would in great measure prove powerless in preventing the occurrence of prolapse, for their function was rather to preserve the uterus from a backward displacement than to overcome the factors that entered into the causation of its descent. Much success had been obtained in those cases in which high posterior colporrhaphy and high perineorrhaphy had been under-

taken. Though much relief followed in some cases, and most favourable results in others, there was nevertheless a class of cases which rarely improved under such measures of procedure. In that class of cases in which only one ovary had been removed, and the menopause had not been reached, the uterus might still carry on its normal functional activity. In those cases in which both ovaries and tubes had become seriously affected, and in which there had been an intractable prolapse, resort to hysterectomy appeared to afford the best chances for permanent success. The favourable results achieved by resort to vaginal hysterectomy, as carried out by many distinguished operators for relief of malignant disease, were considered at some length. The chief danger to be encountered in the operation for any cause was that arising from hæmorrhage. By the strict observance, however, of antiseptic precautions, and by the careful suturing of the tissues before excising them, the danger would be reduced to a minimum. The author reported, as occurring in his practice, cases of intractable prolapse, in each of which, after other operative measures had been undertaken without success, he was finally compelled to resort to vaginal hysterectomy. His experience in these and in other cases led him to say that the operation was not a difficult one; that it did not expose the patient to so many dangers as were incident for the most part to other methods of procedure, especially to those of abdominal section. A resort to hysterectomy effected a permanent cure.

A paper on "Vaginal Hysterectomy" was read by E. E. Montgomery, M.D., Philadelphia, Pa. He said this was now an accepted operation. Under improved methods the greatly reduced mortality, with the increased immunity against relapse, rendered it the effective operation in malignant disease where confined to the uterus. In uterine fibroids of small size, whether involving the cavity of the uterus or its walls, it was preferable to dilatation and enucleation for their removal. It might be done in some cases of prolapsus of the uterus, particularly when accompanied by extensive ulceration of the cervix. Its performance for pelvic inflammations demanding removal of the ovaries and tubes, might be questioned. The use of the clamps greatly expedited the operation and saved the patient from the effects of shock resulting from a prolonged operation and long-continued anæsthesia. In twenty-one cases in which the writer had performed vaginal hysterectomy, sixteen were done for undoubted malignant disease, in one of which there was epithelioma of the cervix and a number of fibroids in the body of the uterus; three for fibroids, and two in which the diagnosis was doubtful. In twenty-one cases there was one death from tetanus on the fourteenth day.

THE TOOTING FEVER HOSPITAL.

[From a Correspondent.]

At the present time, when so many sanitary authorities are face to face with the problem of providing hospital accommodation for infectious diseases, a few details regarding the latest example of a so-called temporary structure will be of interest. By the courtesy of Mr. Aldwinckle, the architect, I have been shown over the new hospital now springing up so quickly on the ground recently acquired by the Metropolitan Asylums Board at Tooting. Dr. F. F. Caiger, the medical superintendent, who is associating himself with the architect in planning the medical arrangements, was also kind enough to point out many matters of interest.

The site of thirty-two acres is divided by Grove Road into two unequal portions, on one of which, containing about ten acres, the temporary hospital is now being erected, while the larger portion is reserved for the permanent structure which will shortly be proceeded with.

In the present buildings accommodation will be provided for 390 patients in the ordinary pavilions, besides the sixteen beds in two isolation blocks. Room will also be found for 80 nurses, 90 female and 15 male servants, as well as for the officers; and when we consider the stores, the kitchens, the washhouses and laundries, the heating, the engines, the disinfecting arrangements, the supply of gas and water and steam, and the complete system of drainage, with manholes, ventilating traps, and flushing tanks for the whole of this ten acres of land and buildings, we begin to appreciate the greatness of the task, which now gives every promise of being punctually performed. This very complete hospital will be set up, furnished, and ready for use in less than nine weeks from the time of taking possession of the land. Though spoken of as a temporary structure, it has every aspect of considerable permanence; and I can see no reason, if the foundations hold, why it should not be kept in good condition for twenty or thirty years.

The mode of construction is practically the same for all the building. A plateau two or three feet above the level of the land is raised by dry rubbish (broken bricks, clinkers, etc.), surrounded by brick walls, the shape of the building which is to be, and over this raised area a layer of 6 inches of cement concrete is laid. This is the dry foundation on which the building is erected. The walls consist of a timber framing, on the outer side of which is a layer of felt covered by corrugated galvanised iron, and on the inner side vertical V-jointed boarding, there being 4 inches of air space between the felt and the boards. On the concrete floor wooden fillets are placed, on which are fixed first a layer of felt and then the floor boards, the shallow space between them, and the concrete being ventilated by air bricks in the walls. The ceilings are flat in the middle, but the sides slope down towards the walls, the wards thus being 13 feet high in the centre and 11 feet at the sides. Each pavilion consists of a large ward, 26 by 144 feet, for 24 patients, a small ward with one bed only, a nurse's duty room containing a small range and a well-ventilated meat safe for provisions, a bath-room, a linen store, two waterclosets for patients one of which is low and small for children, a separate outside water-closet for the nurse, three lavatory basins also made to suit both children and adults, a sink for emptying bedpans, and a special sink for scalding all such utensils by complete submergence in hot water; 12 feet of linear wall space is allowed to each bed, which works out to 156 feet of floor area, and 2,000 cubic feet of air space to each patient.

The upper portion of all the windows is on the hopper principle, the lower is the ordinary sash, there is thus ample provision for perflation when required; but even with all the windows closed there is good ventilation in connection with the heating arrangements. In each large ward there are four open ventilating grates, placed in pairs back to back, each connected with the open air by a 9-inch drain pipe; under every bed is a direct opening to the outer air, which, however, can be closed by a hit-and-miss shutter; and between every alternate bed is a ventilating orifice through the wall, opening into the ward through a box (a sort of wide, short, Tobin's tube), in which is placed a steam radiator to warm the inflowing air. The air is extracted below by the four chimneys, and above by four 15-inch tubular ventilators, placed along the middle of the roof above the gaslights. The single-bedded ward and the nurse's duty room have no steam, only open fires, but all the other offices and passages are supplied with radiators in proportion to their size.

The hospital is intended for the treatment of only one disease, scarlet fever, but as it is impossible to avoid errors in diagnosis, which indeed will probably occur in still greater numbers when it becomes practicable to remove all the cases from the infected districts as quickly as they occur, it has been necessary to provide a series of isolation wards, in which doubtful cases may wait for maturity, and in which cases of double infection may be kept separate from the rest. These isolation wards are admirably arranged; there is no access from one to the other, except by going out-of-doors; and each little ward is provided with its own watercloset, separated from it by a cross-ventilated passage.

All the charge nurses have separate bedrooms (13ft. by 7ft. 6in.), but the assistant nurses sleep in cubicles (12ft. by 7ft.), which, however, are practically bedrooms, except that the walls do not reach the ceiling. The head servants have bedrooms, the rest cubicles. There is a capital recreation room for the nurses when off duty; the arrangements of the kitchen and mess-rooms are good; the offices, stores, dispensary, and officers' quarters are in the centre of the establishment. The entrance for patients and their friends is kept entirely distinct from that for tradesmen, who, in fact, never come near an infected part of the building.

I will not say anything about expense, which, undoubtedly, will be considerable. The great cost of the building is

partly, nay largely, due to the speed (I avoid saying hurry, all seems so orderly) with which it has been erected, but in estimating expense it must not be forgotten that a properly planned infectious hospital must always cost a great deal more than one for ordinary patients, not only is the cubic space per patient vastly greater than what, with proper ventilation, is at all necessary for ordinary cases, but the provision for nurses and servants must also be greatly in excess. It will be noted that in this hospital, as in others for the same purpose, the nurses and servants are to the patients just about in the proportion of one to two.

It is expected that the buildings will be ready for the inspection of the managers of the Asylums Board on October 21st.

HUMAN ANATOMY AT OXFORD.

ON Saturday, October 14th, the new department of human anatomy in the University of Oxford was opened by the Vice-Chancellor with a certain amount of state and ceremony. A large gathering of professors and teachers from Cambridge, London, Victoria, Edinburgh, and Dublin had assembled, besides representatives of the various colleges and other seats of learning. Opposite the Vice-Chancellor sat the President of the Royal College of Surgeons of England, and upon the benches of the theatre could be seen many well-known members of the medical profession.

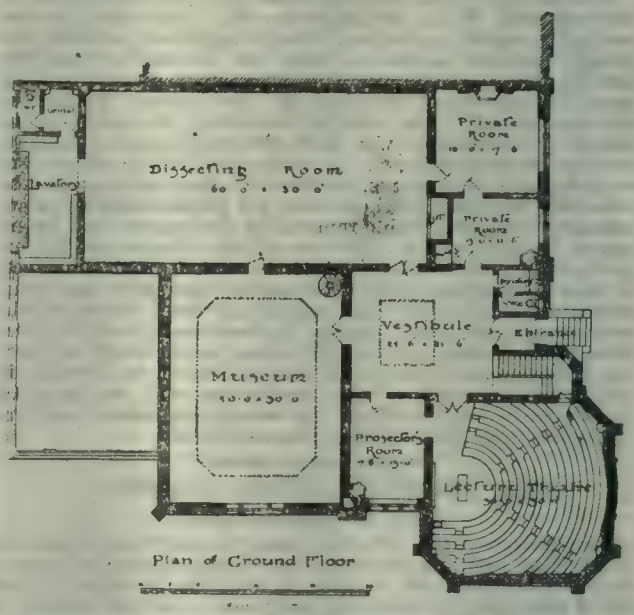
Mr. ARTHUR THOMSON, the Lecturer on Human Anatomy, to whose energy the development of the study of the subject in Oxford and the existence of these new buildings are in great part due, opened the proceedings by a sketch of the late growth of this department in Oxford. After referring to the work of Professor Rolleston, Sir Henry Acland, Professor Sanderson, and others, he described the condition of affairs when he was appointed lecturer. Coming, as he did, from one of the largest and best equipped schools in the world, the contrast was somewhat startling, to find himself appointed lecturer on human anatomy with no place to lecture in, and possibly no one to lecture to. It was only the universal kindness he received on all hands that encouraged him; and in this connection he would mention the name of one whose loss they now mourned—the Master of Balliol—at that time Vice-Chancellor, who often helped him in a way for which he would be ever grateful. There was then no provision made by the University for the teacher of human anatomy, and it was owing to the generosity of a few private individuals that what had somewhat sarcastically been termed the anatomical shed was built. The building was not luxurious, but it was well adapted for the purpose for which it was intended, consisting of a dissecting room 29 ft. by 21 ft., a lecture room 15 ft. by 10½ ft., and a room which had to serve a variety of purposes. Here work was commenced in earnest, but matters speedily reached a climax when in 1886 a course of university lectures had to be delivered to a class of twelve in a lecture room measuring 15 ft. by 10 ft. A representation to the effect that increased accommodation was absolutely necessary met with a hearty response from the curators of the University Chest, who on June 12th, 1886, were authorised to expend a sum not exceeding £500 on the erection of a dissecting room 40 ft. by 30 ft., built of corrugated iron, with storerooms, etc., and the rearrangement of the existing building, converting the old dissecting room into a lecture theatre which provided accommodation for about thirty-five students. Meanwhile grants to the amount of £525 provided the necessary apparatus and teaching appliances. Here for the past six years the department had been growing and developing, and a gradual and steady increase in the number of students had enabled it to become self-supporting. Toward the end of 1890 it was again necessary to draw the attention of the University authorities to the fact that further enlargement was necessary to provide not only for the immediate requirements of the students, but also to make provision for possible increase in the future. At that time the students working in the department numbered thirty, a marked increase on the class to which he first had the honour to lecture—a class which numbered only three individuals—but subsequent events had justified the appeal for during the past year the number of students enrolled in one term numbered fifty.

On June 2nd, 1891, Convocation was asked to grant a sum of £7,000 for the erection of a laboratory of human anatomy. By what a large majority that vote was carried was a matter of recent history which augured well for the future of medicine in Oxford.

On the Vice-Chancellor declaring the buildings open, addresses were given by Sir William Turner, of Edinburgh, Sir Henry Acland, and Professor Macalister, and the proceedings closed with remarks by Dr. Andrew and Professor Burdon Sanderson, who moved a vote of thanks to the Vice-Chancellor for presiding.

It should be added that the invited guests were hospitably entertained at luncheon in the hall of Exeter College, and that after the proceedings the physiological laboratory was devoted to the discussion of tea and cake, while much private hospitality in the form of dinner occupied the evening.

The buildings devoted to the department of human anatomy form a handsome addition to the University museum. They lie on the east side of the main block, abutting on the parks. In the basement there is a large room, 60 feet by 29 feet, containing tanks, etc., an injecting room, store rooms, and carpenter's shop, and a room specially and separately ventilated in which the remains from the dissecting room are kept till burial. Provision is made in the basement to allow the vehicle bringing the subjects to drive completely into the building before unloading.



The principal rooms on the ground floor are the dissecting room, the museum, two private rooms for the lecturer, a prosector's room, and a lecture theatre. Upstairs there is a miscroscope room 18 feet by 30 feet, and two assistants' rooms, the rest of the space being occupied by the upper parts of the museum, dissecting room, and lecture theatre.

The dissecting room is 60 feet long by 30 wide. The floor is of polished oak, the lower part of the wall above the dado is of slate, for demonstration purposes. The six dissecting tables are provided with white marble tops, they have no gutter running round the edge, a fertile cause of dirty sleeves, but the whole of the marble is very slightly dished towards the centre where there is a hole for drainage. There are also six ordinary wooden tables. Two slate tanks are provided for the parts. At one end of the room is a recess containing a coat stand, eight very good lavatory basins with hot and cold water, all discharging into a porcelain trough below with one large trap at the end, urinals, and it must be confessed a somewhat dark watercloset. The roof is in ridges, glazed on the side facing the north, tiled towards the south, and along each ridge outside runs a leaden pipe perforated at intervals with holes, a "sprinkler" in fact, through which water from an



North Elevation

automatic flush tank is made to discharge upon the roof at intervals so as to keep the room cool in summer. A considerable area of the roof of the central part of the building, which is quite screened from observation, is leaded and made to serve as a bleaching ground for bones. There is a lift from the basement to the dissecting room.

The museum, which communicates with the dissecting room by a doorway, is 30 ft. by 40 ft., with a gallery all round, and although already well equipped for work, has plenty of wall space for extension, as also has the upper portion of the vestibule. Old museums are apt to become stuffed with the accumulation of ages, but here we find just the essentials for study admirably displayed—bones, marked and plain, models and drawings of dissections, sections of the body at different levels, fœtal and other wet preparations, including some good brains. The "pickles" show very well, being mounted in flat-sided rectangular jars, an immense improvement over the cylindrical ones still so common in most museums. The theatre, 30 ft. square, has 152 seats, and is lighted by a large window on the north side, opposite the lecturer and his battery of boards. There are seven tiers of seats, each provided with writing ledges; all the various steps from tier to tier are made use of as ventilating warm air inlets, the foul air being extracted above by tubes leading to a ventilating shaft. Behind the lecturer is an arrangement for a continuous roll of diagrams, on each side of which is a series of sliding blackboards, and above a white surface acting as a screen for the lantern opposite. By his side also is a washstand, with water laid on.

There can be no doubt that the buildings now opened will thoroughly serve their purpose as a place for the study of human anatomy. Mr. H. Wilkinson Moore is the architect, but we believe that Mr. Arthur Thomson, the lecturer on the subject, has co-operated with him throughout in planning the arrangements.

INFANT MORTALITY AT CAIRO AND DAMIETTA.

[Communicated by the Director-General of the Medical Department of the Navy.]

By GILBERT KIRKER,

Staff-Surgeon R.N., H.M.S. *Amphion*, Salonica.

In an editorial in the British Medical Journal of September 9th the infant mortality at Cairo and Damietta, two Lower Egyptian towns, is contrasted, and its excess in the former attributed to a more impure water supply. As it is of great importance to arrive at the true cause of any disease, I hope you will kindly give me space for a few remarks on the subject you have introduced.

Although, at the present time, anyone who ventures to oppose the ascription to the use of contaminated water of certain diseases must feel himself in the position of an *advocatus diaboli*, yet, in the spirit of fair play embodied in the saying "Give the devil his due," I wish to bring forward some facts in defence of the much incriminated Nile water. The increased infant mortality, both in Egypt and England during the hot season, is due mainly to disorders of the digestive tract, these being in the one place generally called gastro-enteritis, and in the other summer diarrhœa. Now Dr. Ballard has found that summer diarrhœa is most intimately related to ground temperature, that when the temperature of the soil at a depth of 4 feet reaches 56° diarrhœa prevails; but ground temperature depends on meteorological conditions, especially atmospheric temperature and wind—the higher the former and the less the latter the more quickly is the ground heated.

Let us now see if this theory may account for the different infant mortalities in Cairo and Damietta. These two towns, though both in Lower Egypt, have very different climates. Damietta stands at the broad base of the Delta on the seashore, while Cairo is at its apex, where the desert squeezes

the fertile land into a narrow track. The climate of Damietta has therefore mainly a marine character, while that of Cairo is continental.

It is the period of ten weeks ending from June 1st to August 3rd that you have taken for comparison. During the latter half of that time I was at Alexandria, and Damietta may be fairly assumed to have had the same climate, where I took regular meteorological observations on board, and I have also the reports of observations taken at Cairo by Lieutenant-Colonel Bateman, and published in the *Egyptian Gazette*.

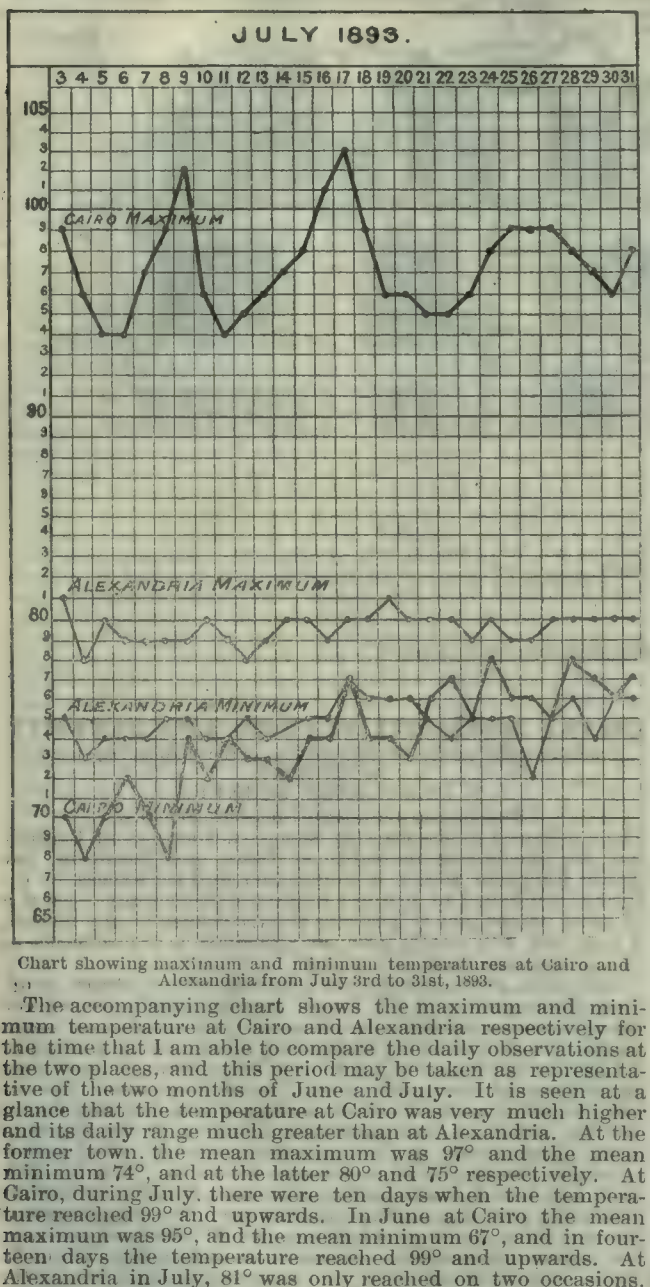


Chart showing maximum and minimum temperatures at Cairo and Alexandria from July 3rd to 31st, 1893.

The accompanying chart shows the maximum and minimum temperature at Cairo and Alexandria respectively for the time that I am able to compare the daily observations at the two places, and this period may be taken as representative of the two months of June and July. It is seen at a glance that the temperature at Cairo was very much higher and its daily range much greater than at Alexandria. At the former town, the mean maximum was 97° and the mean minimum 74°, and at the latter 80° and 75° respectively. At Cairo, during July, there were ten days when the temperature reached 99° and upwards. In June at Cairo the mean maximum was 95°, and the mean minimum 67°, and in fourteen days the temperature reached 99° and upwards. At Alexandria in July, 81° was only reached on two occasions. I have no information with regard to the wind at Cairo, but at Alexandria during July there was an incessant sea breeze, strong during the day and falling off somewhat at night.

From the foregoing, I think it is evident that the influence of climate should not be ignored in comparing the infant mortalities of Cairo and Damietta; for, if diarrhœa in Egypt holds the same relation to ground temperature that it does in England, it should be much greater in the former than in the latter. Again, at Cairo not only was the temperature high, but it had also a great daily variation, which is a condition very provocative of diarrhœa. Rosetta, which now uses Nile water in a more impure condition than Cairo, but has the same climate as Damietta, had, during the time under consideration, about the same infant mortality as the latter.

It should be remembered in this connection that Damietta with its water tanks, in 1883, at the time of low Nile, was the cradle of the Egyptian cholera epidemic. It has also the distinction of having been, longer ago, the favourite starting point of the plague, and this disease, like cholera, generally appeared at the time of low Nile. It is also curious that, still longer ago, it was at the same time of the year that the marvellous things were done "in the field of Zoan," close to where Damietta now stands.

After what I have said, one unacquainted with the climatology of Egypt might reasonably ask, why is it that, in June and July, Damietta is so much healthier than Cairo, while it has also the unenviable history to which I have referred? The answer is very simple. Often in April, May, and sometimes the early part of June, the climate of the Egyptian seaboard is very bad. That is a transitional period between the winter and summer climates. The winter winds have ceased, and though the summer sea breeze has not set in, the air is hot and moist. It was in such hot, moist stagnant weather that the cholera appeared in 1883; it was probably the same sort of weather which encouraged the plague, and, in the Hebrew description of the plagues of Egypt, there is strong evidence that such weather preceded the final calamity when the firstborn of the Egyptians were slain. The exodus took place at this time of the year, and the stagnant condition of the atmosphere engenders fogs and thunderstorms, which are on the whole rare in Egypt. This temporary condition of climate affects first, and most severely, the coast districts: further south, nearer the desert, the air is drier.

THE BERLIN INSTITUTE FOR INFECTIOUS DISEASES.—A report recently issued shows that the cost of the Institute for Infectious Diseases at Berlin so far has amounted to 744.505 marks 48 pfennige (about £37.225). Of this sum, 122,823 marks 25 pfennige (about £6.141) has been expended on the Research Department, 593.522 marks 48 pfennige (about £29.676) on the Hospital Department, and 28,159 marks 75 pfennige (about £1,408) for the management. The Research Department has been in working order since July 1st, 1891, the Hospital Department since August 17th of the same year. The staff of the establishment includes a director, a superintendent, four paid and three unpaid assistants, two laboratory assistants, and three assistant-surgeons told off from the Charité. Of 24 places provided for workers in the Research Department, 22 have been constantly filled either by members of the staff of the Institute or by independent investigators. The number of patients treated in the Hospital Department between August 27th, 1891, and February 28th, 1893, was 1,480 (745 males and 735 females).

MANCHESTER PATHOLOGICAL SOCIETY.—The annual meeting of the above Society was held at Owens College on Wednesday, October 11th, Dr. Judson Bury, the retiring President, in the chair. The following were elected as the officers for the ensuing session:—*President*: F. A. Southam, M.B. *Vice-Presidents*: W. Coates and H. R. Hutton, M.B. *Treasurer*: R. B. Wild, M.D. *Secretary*: T. Harris, M.D. *Committee*: T. N. Kelynack, M.D.; S. Moritz, M.D.; C. E. Richmond; E. Roberts; F. M. Godde Smith; W. Thorburn, B.S.; A. T. Wilkinson, M.D.; J. B. Wolstenholme, F.R.C.V.S. *Auditors*: A. T. Helme, M.D., and W. P. Stocks. After receiving and considering the reports of the Treasurer and Committee, the remainder of the evening was devoted to an examination of a large number of preparations exhibited as card specimens by Mr. Collier, Professor Sheridan Delépine, Dr. Harris, Dr. Kelynack, Mr. E. Roberts, Mr. Southam, and Dr. Symmers.

STILLBIRTHS IN VARIOUS COUNTRIES.—Statistics collected by M. Em. Levasseur show the proportion of stillbirths in various European countries to be as follows: France, 44 per 1.000 births; Belgium, 44; Germany, 39; Denmark, 36; Italy, 24; Austria, 24; and Hungary, 15.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1893.

Subscriptions to the Association for 1893 became due on January 1st; and notice is hereby given, in accordance with By-law 5, that Branch Secretaries' subscription accounts close on October 31st, and all unpaid subscriptions must be forwarded after that date to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, OCTOBER 21st, 1893.

THE TEACHING OF OTOLOGY.

II.

Mr. Bendelack Hewetson, in the address to which we referred last week, laid stress on the necessity for systematic teaching outside clinical work, which latter he thinks loses much of its force if not properly combined with lectures. This is a point which is open to difference of opinion, and we certainly do not feel inclined to endorse the idea that a knowledge of disease can best be taught by systematic lectures. But perhaps after all the question is one of definition, and Mr. Hewetson would probably accept a modern clinical lecture in which the disease, the treatment, and the pathology are illustrated by living cases and specimens, by lantern and blackboard, as forming part of his suggested systematic course.

He applied to thirty schools and universities in the United Kingdom, and found that among them all only seven had a systematic course of lectures on the subject, of which only one had a professorship of otology, and that of the remaining twenty-three only fourteen made provision for clinical teaching. This is in striking contrast with the answers from Continental schools. Of thirteen German universities which replied, twelve had professorships, and at the remaining one a celebrated otologist held a private clinic, lectures at which were acknowledged by the authorities. Of five Austrian universities from which answers were received, every one had a professor of otology. At Buda-Pesth there is a professor of otology, who is also the special surgeon for ear cases at the general hospital, where he has twenty beds for in-patients, an operating room, and a museum. There are about 300 in-patients and 1,500 out-patients a year. Two hours of lectures are given a week.

At Würzburg every afternoon from four to six a discourse is given by the professor of otology, including practice in the treatment of aural diseases for the students. Cases requiring major operation are dealt with by the professor in a private clinic.

At Marburg otology is taught along with rhinology and laryngology by a special professor, appointed by the State, and permanently employed, one hour of theoretical discourse being given weekly, and several hours of practical work in diagnosis and treatment.

At the University of Graz there is a professor who gives two lectures a week (one hour and a-half each), making use for this purpose of a large out-patient material which is at his disposal.

At Prague the Professor of Otology has his clinic in the general hospital, where he has two wards of twenty beds each, a special isolated ward with three beds, a reception room for patients, an operating room, a lecture hall, a room for examinations of cases, and a study. His assistant has a study and a living room. The in-patients number about 300, and the out-patients about 3,000 a year. The clinic is supported by the State, and bears the name of "Oto-Rhinological Clinic of the German University at Prague." Lectures on otology, occupying altogether five hours, are given every week, together with practical studies on patients. The professor gets a salary of 1,200 fl. a-year, and the assistant 600 fl. with board and lodging.

In Erlangen a special Professor of Otology lectures in the winter on aural diseases, and in the summer on diseases of the nose and throat. There is also an aural clinic, as a special section of the general surgical clinic.

There can be, we think, but little doubt that the subject of otology stands in a higher position, and occupies a larger portion of a student's time and thought in Germany and Austria than it does here, and it is a matter deserving the most careful consideration by those in authority, whether this is a condition of affairs which ought to be allowed to continue. Not that we wish to raise up institutions for the education of specialists, whose title to respect should always spring from greater experience rather than from special education, but that we would like to see the ordinary student so well trained that the specialist should only be required in exceptional and special cases.

The region of the body claimed by the otologist as his particular field is far too extensive to be capable of isolation from the rest of the organism. Otology no longer centres in the ear; it has long thrown aside the strict meaning of words, and now takes the naso-pharynx as its rallying point, from which it extends its wide dominion to nose and ear, to chest and voice, and even brain, claiming to have a say, not only in the development of beauty both of face and figure, but in deciding whether the intellect shall be bright or dull. The spasmodic cough of infancy, the unexpanded chest, the stooping figure, the slow mental development of the half deaf child, the pinched nostrils and protruding teeth, the tendency to sore throat and to take fevers badly, the deafness and otorrhœa which so often follow, the pyæmia or meningitis which close the scene—all these have their starting point in that naso-pharynx, which falls, according to their creed, to the care of the otologist, but knowledge concerning which must, if good is to be done, become widespread among the general practitioners of the future. No one can doubt that, as a mere matter of saving life, otology occupies a more important place than ophthalmology. As a means of removing disabilities and restoring useful activity perhaps the verdict might be the other way, but it must not be forgotten that while the skill of the ophthalmic surgeon is largely displayed in alleviating the troubles of age, the lives which the aurist would save are mostly young ones.

If otology is to be of the full service to mankind of which it is capable, the knowledge which it teaches must become part of the practitioner's daily life. The cases which he will meet with will often stand, as regards hearing and even life, on the same footing as glaucoma in regard to sight; it will not be a matter of sending for a specialist, but of himself

having special knowledge to apply the proper treatment at the proper time. There is plenty of knowledge, there are specialists willing to teach, and students ready enough to learn anything which the examiners say is essential, and we may fairly opine that if the examining bodies could see their way to enforce the teaching of this great subject the result would be not an extension of that specialism, the extent of which so many of us deplore, but an enlargement of the power and usefulness of the general practitioner.

FEEBLE-MINDED, EPILEPTIC, AND EXCEPTIONAL CHILDREN.

A SYSTEMATIC and scientific investigation of the physical and mental deficiencies among the child population was commenced by a Committee of the British Medical Association in 1888, and after they had reported it was continued by the Charity Organisation Society with the assistance of the Association, and has resulted in the issue of a report, which presents a new departure in the collection of vital statistics, and well illustrates the value of the scientific method applied to a new field of investigation. At the request of the Committee, Dr. Francis Warner undertook an extensive investigation among 50,000 children seen for the purpose in 106 schools, and took notes in scheduled forms not only of "defective children," but of "every child presenting a defect in body or visible sign of brain disorder;" notes were accumulated of 9,186 cases, which as analysed form the basis of a report[1] before us. The volume commences with definitions of the defects in development observed, and the "abnormal nerve signs" indicating the brain state of the child, which Dr. Warner described many years ago as suitable for the scientific investigation of mental status. A general analysis was published in the BRITISH MEDICAL JOURNAL in August, 1892.

The number of children presenting groups of defects and individual deviations from the normal is given in a series of tables arranged as Poor-law Schools, Certified Industrial Schools, Homes, and Day Schools, the latter being grouped for districts. It is evident that the physical and mental status is much lower in the State schools than among day scholars. Great labour and much scientific acumen have been spent in determining the relative value of each physical point and nerve sign by showing their individual co-relation with delicacy of body and mental dulness. Thus, among 2,576 cases of "cranial abnormality" 53 per cent. presented nerve signs, 33 per cent. were thin or delicate, 43 per cent. were dull; among 898 cases with defect of the external ear 43 per cent. presented nerve signs, 15 per cent. were thin, 36 per cent. dull.

Observations described in the schedules were arranged in tabular form for statistical investigation, so that by analysis and grouping scientific evidence has been arranged bearing on many social and educational problems. The boys present more defects than girls, but the girls when defective in body suffer most in nerve, nutrition, and mental dulness; such cases do better in day schools than in resident institutions. Conditions among the children of the nationalities as seen varied—the Jews presenting fewer defects, the Irish the most. Analysis of the cranial cases showed a large proportion of girls as small-headed and mostly thin, in some districts amounting to 6 per cent., the distinctly local distribution suggesting local causation. Taking the 50,000 children, 16 per 1,000 appeared to be "exceptional children," feeble-minded, epileptic, crippled, or of low constitution and dull. As the outcome of investigation the School Boards of London, Birmingham, and Leicester have made special provision for such children. Probably 10,000 in London need such care. The defective cases appear much more frequent in Poor-law schools, and it is understood that the attention of the Local Government Board is being directed to the subject.

The number of eye cases was large, 1,473, including 807 cases of organic or hypermetropic strabismus. Among the 50,000 children 3,679 were reported by the teachers as mentally dull, and of these some visible condition of defect was found in 40 per cent., while of 3,071 children with defect of body and nerve sign, 43 per cent. were reported as dull. This fact indicates that the points recorded in the investigation are worthy of note as indications of probable defect in mental status. Of the children seen 3 per cent. were pale, thin, or delicate, but of these 72 per cent. also presented bodily defects—a fact strongly suggestive of the need of investigation as to the causation of such defects which lead to weakness of body and brain disorder.

Many other points of interest might be abstracted from the report before us, in which we have a basis of scientific investigation much needed as a guide to the physical and mental status existing among the school population. Enormous sums are spent annually on children, while the whole system of education has been built up on ideas of what children ought to be, without accurate knowledge of existing conditions, and the means of classifying them according to individual needs. Educationalists will do well to study carefully the statements, which are given without comment in the report, and consider how existing evils may best be remedied and State medicine may well be directed to the improvement of conditions of development among children.

We congratulate the Charity Organisation Society on having boldly undertaken an important piece of constructive work, and Dr. Francis Warner on having brought his long-continued investigation to a practical issue. The report might have been better put together and edited, but it is not easy in primary tabulation of a large group of new facts to form a perfect arrangement at the outset, and the volume had to grow by stages. The investigation is being continued by a Committee of the International Congress of Hygiene and Demography, who propose to inspect 100,000 more children and issue their report.

DIABETES MELLITUS IN BENGAL.

DR. BOLYE CHUNDER SEN contributes to the July number of the *Indian Medical Gazette* a very interesting paper on the great and increasing prevalence of diabetes mellitus among educated Bengalis. He shows that the malady is very much more common among Hindus than Mahomedans—in the proportion of about 50 to 1; that up-country Hindus are comparatively exempt from the disease; that the middle classes, who earn their livelihood by brain work, suffer in much higher proportion to numbers than the labouring classes, and that males are affected to a decidedly greater extent than females. He adduces some statistics, supplied

[1] *The Feeble-Minded, Epileptic, Deformed, and Crippled*, with statistical tables. Charity Organisation Society. 1892.

by the Health Officer of Calcutta, in support of these statements. The figures fully confirm his propositions, all the more in that they err by defect, inasmuch as many deaths really due to diabetes are registered under the diseases, phthisis, carbuncle, pneumonia, gangrene, etc., by which, though of diabetic origin, death was immediately caused. He compares the Calcutta figures with statistics referring to the mortality caused by diabetes in Paris, England and Wales, and the United States of America, and shows that the Calcutta death-rates from this cause are higher than those of France, Britain, and America, while in each case there is a decided increase in the mortality due to diabetes in recent years. He claims that his tables conclusively prove "that the disease is on the increase throughout the civilised world, and in Bengal to an extent unknown elsewhere." There can be no question that Dr. Sen's remarkable conclusion is lamentably true, and it is amply confirmed by experience in Calcutta practice. The number of cases met with among educated Bengalis is very considerable, and a great many valuable professional and official lives are yearly cut short by the wasting and exhaustion caused by diabetes or the complications which so frequently occur in its course, and are so apt to terminate fatally. Diabetic families are by no means uncommon, for the malady tends to become hereditary, one member after another succumbing to the multiform phases of the disorder.

Dr. Sen attributes the large and increasing prevalence of diabetes among educated Bengalis to nervous and dietetic influences. Among the former he considers infant marriage, as tending to nervous exhaustion and racial deterioration, to be a capital factor. He also points to the high educational pressure of the day and the growing struggle for existence among brain workers as tending materially to nervous waste and debility. Sexual excess is also mentioned as another cause of impairment of vital power. The diet of the classes which are subject to these compromising influences is shown to consist mainly of rice and vegetables, and is sadly lacking in milk, meat, fish, dal, and atta, which supply elements necessary for the maintenance of health under strain, while no care is taken, by means of outdoor sports and games and regular exercise, to build up and sustain the physical strength. The excessive use of alcohol is also said to be a common and growing habit.

Dr. Sen distinguishes two main forms of diabetes—namely, the acute type affecting young subjects and the chronic affection of the middle-aged and old. The former is practically beyond the control of treatment, prophylactic or curative, but life may be prolonged in the latter class by careful attention to diet, moderation of work, and other causes of nervous depression and waste, warm clothing, and attention to general and personal hygiene. Opium, or perhaps better, its alkaloid codeia, is the best medicine.

The more important question of prevention is discussed in a liberal and suggestive manner. Dr. Sen knows his country and caste men and their ways intimately, and is in a position to write with corresponding authority. He places most stress on the avoidance of infant marriage, and on relaxation of excessive educational strain. He counsels open-air exercise and the encouragement of gymnastics and games. On the subject of diet, the liberal use of milk for the young is strongly insisted on, and for the adult the larger admixture of nitrogenous articles, such as fish, meat, eggs, dall, and atta in the dietary is considered imperative. The "pernicious habit of drinking which has come into fashion" is very properly condemned in unsparing terms.

Dr. Sen has rendered a most important public service in bringing this subject to the front, and we hope that the serious facts to which he draws attention, and the weighty lessons which he inculcates, will give rise to thought and effort among his fellow countrymen and townsmen, to the end of adopting such domestic and social reforms as may tend to stay that course of constitutional deterioration of which the increase of diabetes is a certain sign.

We regret extremely to hear as we go to press that Sir Andrew Clark was taken seriously ill during his morning's work on Thursday.

The Bradshawe Lecture before the Royal College of Surgeons will be delivered by Sir Wm. MacCormac on December 7th, 1893.

At the meeting of the Royal Medical and Chirurgical Society on Tuesday, October 24th, the Marshall Hall Memorial Prize and Diploma will be formally presented to Dr. W. R. Gowers.

The report to be presented to the annual meeting of the Fellows and Members of the Royal College of Surgeons by the Council on November 2nd will be obtainable by any Member on application after the 19th instant.

To celebrate the centenary of John Hunter's death, an address was given before the Positivist Society, at Newton Hall, Fetter Lane, on Sunday evening last, by Dr. Thomas FitzPatrick.

The first meeting of the Epidemiological Society of London, 11, Chandos Street, Cavendish Square, will be held on Wednesday, November 15th, at 8 P.M., when the President, Dr. J. F. Payne, will deliver an inaugural address on the History of Epidemiology in England.

At St. Vincent's Hospital, Dublin, on Tuesday, October 17th, Dr. Cox, one of the physicians, delivered an interesting address, in which he dealt with the work done by Irish medical men on the Continent several hundred years ago. In the evening the staff and students dined together in the Shelbourne Hotel.

The Home Secretary has ordered a special inquiry into the conditions connected with the manufacture of white lead, and a special committee has recently met at Wolverhampton to take evidence. The committee consisted of Mr. E. Goold, Her Majesty's Superintending Inspector of Factories (chairman); Mr. H. J. Tennant, Private Secretary to the Home Secretary; Dr. A. Dupré, F.R.S.; Dr. Thomas Oliver, of Newcastle-on-Tyne; and Mr. H. J. Cameron, Her Majesty's Inspector of Factories.

THE OPIUM COMMISSION.

Sir William Roberts leaves this week for India to join the other members of the Royal Commission on Opium. Lord Brassey, the Chairman, has already reached Port Said in his yacht. It is expected that the members of the Commission will be able to return in March.

EXTENSION OF THE NEW MILITARY TITLES.

We are glad to state that the compound titles have been extended to those retired medical officers of the Army Medical Staff who are liable to recall to service. This was done by notice in the *Gazette* of October 17th.

PAYMENT OF DISPENSARY OFFICERS' SUBSTITUTES.

The Cork guardians recently adopted a resolution to give each medical officer of the union a fortnight's holiday, and pay his substitute out of the rates. The ratepayers, however, did not approve. An agitation was commenced, and in consequence of the pressure brought to bear on the guardians, the resolution was rescinded by 24 to 15 votes. The yearly cost of the resolution would have been about £180.

QUEEN'S COLLEGE, CORK.

The total number of students enrolled on the College books during the session 1892-3 amounted to 243, and of these 200 belonged to the Faculty of Medicine. The new entries for the session came to 52 in medicine. The chemical laboratory is still deficient in many respects, and also in the departments of natural philosophy and natural history.

THE FIRST FRENCH OVARIOTOMIST.

Ovariotomy was, it appears, performed for the first time in France by Dr. Voycikowski on April 28th, 1844. The patient was a Madame Reptumar, of Montfort, who died only a few years ago. Voycikowski, who was of Polish extraction, was born in 1810, took his doctor's degree at Montpellier in 1840, and practised his profession at Quingey in the department of Doubs till 1861, when he migrated to Paris. He died at Dijon in very poor circumstances in 1882. Dr. E. Rolland, of Toulouse, has taken the initiative in starting a subscription to raise funds for the removal of Voycikowski's remains to the new cemetery at Dijon, and for the education of his children.

THE UNIVERSITY QUESTION IN LONDON.

Speaking on the occasion of the distribution of diplomas and prizes at the College of Preceptors on October 14th, the Rev. J. E. Welldon, head master of Harrow, stated that he feared that the report of the Royal Commission upon the Teaching University for London, which might shortly be expected, would not be unanimous. He added that the opportunity of establishing a teaching university for London was the greatest educational opportunity which had arisen in our times. Seeing that this is so, we would fain hope that Mr. Welldon will prove a false prophet when he foretells that the report will not be unanimous. We are the more encouraged to hope this since we have reason to believe that the report is not in as forward a state as might be inferred from his observations.

THE LEICESTER SMALL-POX HOSPITAL.

Leicester's difficulties increase rather than diminish. The Sanitary Committee has recommended a site for a new small-pox hospital, and on the project getting wind the opposition with which it has been received both by owners and occupiers is distinguished alike by its vigour and its unanimity. One petition presented against it was 12 feet long. The fact seems to be that while the people living around Leicester may have no objection to the town's efforts to combat small-pox by isolation *minus* compulsory vaccination, they are all alike determined that the scene of the interesting experiment shall not be in their particular neighbourhood. In desperation a counter-proposal is now made, which simply amounts to this—that the hospital shall be planted down in the middle of the Leicester sewage farm. The sole recommendation here is that the ground already belongs to the corporation. The spirit in which the matter is being discussed may be judged from the fact that when it was proposed to hear the report of the medical officer of health in criticism of this site, "the mayor did not think the question ought to be prejudiced by special reports." The notion that the report of their official health adviser should not be listened to regarding an important local health question lest it should "prejudice" the discussion, has at least the merit of originality. We are glad to say that the mayor's objection was overruled. Ultimately, by a considerable majority, it was agreed to ask the Sanitary Committee to report on the practicability of the sewage-farm-small-pox-hospital proposal. In a matter so entirely local we do not suppose that the central Government Department would feel justified in refusing a loan, and that is its only controlling function. But if the hospital ever does get erected in this ideal site, it will be interesting to watch how the doctrine of the liberty of the subject, understood to be so rampant in Leicester, will be practised by parents who may have a strong sentimental objection to their small-pox-stricken children being treated on the same farm with the town sewage.

THE DUNVILLE CHAIR OF PHYSIOLOGY, QUEEN'S COLLEGE, BELFAST.

Through the munificence of Mr. R. G. Dunville, D.L., the Dunville Chair of Physiology was lately founded in the Queen's College, Belfast, and the first appointment thereto has just been announced. The new Professor is Dr. W. H. Thompson, already well known in this country and on the Continent as a practical physiologist of high promise. Dr. Thompson received his early training in Queen's College, Galway, and both there and in the Royal University of Ireland was a most brilliant student. He devoted himself to scientific work, and was for three years Demonstrator of Anatomy in Trinity College, Dublin. Subsequently he confined his attention to physiology, and studied for several years under Professor Ludwig at Leipzig, and under Professor Schäfer at University College, London. He has made several important contributions to physiological science, and holds grants for original research from the Royal Society and the British Medical Association. He has a high reputation as a teacher and lecturer, and will without doubt fill the newly-founded chair with ability and success.

THE CHAIR OF ANATOMY IN QUEEN'S COLLEGE, BELFAST.

Dr. Johnson Symington, of Edinburgh, has been appointed to the vacant Chair of Anatomy in the Queen's College, Belfast. The new professor comes to the Belfast Medical School with a brilliant record as a teacher and investigator, and the appointment is one that will be heartily approved in Belfast and throughout Ireland. Dr. Symington had a distinguished career at the University of Edinburgh, and was awarded a gold medal at the M.D. examination for a thesis on the Anatomy of the Child. He has devoted himself to anatomy and kindred subjects, and as lecturer at the Minto House School his fame as a teacher has been the means of attracting many students to Edinburgh. He has filled many important positions in the scientific and professional world. He is president of the Scottish Microscopical Society, ex-president of the Royal Medical Society of Edinburgh, and Examiner in Anatomy in the University of Edinburgh and the Royal College of Surgeons of Edinburgh. He has made many important contributions to anatomical science, perhaps the best known being his work on *The Topographical Anatomy of the Child.* His appointment will strengthen the important and prosperous medical school of Belfast.

THE HISTORY OF A CHOLERA FOCUS.

The quarterly report of the Public Health Committee of the Derbyshire County Council shows that the pressure exerted by that body, under the guidance of Dr. Barwise, is already bearing fruit in several parts of the county, although in the absence of definite powers of control over defaulting authorities the progress is slow and halting. A significant example of this is furnished by the history of the recent cholera outbreak at Ashbourne. The attention of the local authority had been directed to the unsatisfactory condition of some of the yards in the town, and to the pollution of wells, not only in the reports of the medical officer of health, but also

by the county council as long ago as July, 1892, without effect. The "sanitary authority" took full advantage of their powers of inaction, and in September, 1893, more than a year later, an outbreak of Asiatic cholera occurred in one of the yards in question, and led to the death of eight persons out of thirteen who were attacked. The ground surrounding the well from which the sufferers obtained their supply of water was found to be saturated with filth from the closet of an adjoining inn, and the water proved on examination, to be swarming with the bacilli of Asiatic cholera. Now, of course, the guardians of the public health are bestirring themselves, and have decided to provide a proper supply at last, but, under the circumstances, it is not surprising to trace a shade of misgiving in the expression of the county committee's "hope that that the scheme will be pressed forward without delay, as otherwise there will be great danger next summer of a fresh outbreak." It would be interesting to know what the Ashbourne Sanitary Authority think of the proposal to give to county councils the right to interfere in cases of glaring default. To most people this tragic incident will suggest the propriety of making the shadowy sanitary powers of the county authority a reality as soon as possible.

THE OUTBREAK OF DIARRHŒA AT GREENWICH.

In regard to the cases of simulating cholera which have occurred in such numbers at the Greenwich Workhouse during the past fortnight, we understand that the most careful and complete bacteriological tests have failed to prove their identity with true cholera. Whilst microscopically there is much resemblance between some of the organisms found and the ordinary comma bacilli, yet cultivations have in all cases failed to respond to the cholera tests. Hence Dr. Klein assumes that the materials sent to him have not been derived from cases of Asiatic cholera. Although comma bacilli were found in considerable numbers, they were largely diluted by shoals of other organisms, and where they were capable of complete observation they showed more tendency to take S-shaped forms than is usual. Cultivations also in no case gave the usual chemical reaction, which is all the more important in view of the fact that in all the cases from various parts of the country which so far have been pronounced by Dr. Klein to be indistinguishable from true cholera, the "cholera red" reaction has been produced with the greatest certainty. It has been thought best, however, to deal with the cases as if they were instances of the graver disorder. The most careful precautions have therefore been taken as regards disinfection of bedding and utensils, and destruction of evacuations. The use of the water from the wells on the establishment has been discontinued, and that from the public supply has been made use of in its place. The tank into which the well water used to be pumped and the whole system of pipes by which it was distributed have been cleaned, and all micro-organisms which might by any chance be adherent to their sides have been destroyed by flushing with hydrochloric acid. The places in the district visited by the inmates before the gravity of the attack declared itself have been dealt with by the local sanitary authority under direction of the medical officers of health and the medical department of the County Council.

WORKHOUSES AS ISOLATION HOSPITALS.

The Rotherham Corporation have a grievance which deserves the attention of the Local Government Board and all others whom it may concern, including Lord Thring. The workhouse which serves the needs of a populous union is situated in the town in a position admirable enough for all proper purposes of a workhouse but by no means suitable for an isolation hospital, a misuse to which too many workhouses are still liable when sanitary authorities fail to provide means of isolation elsewhere. The rural sanitary authority and some of the local boards in the union are defaulting in this respect, and their cases of infectious sickness if not left at home can only be "isolated" by removal to the workhouse, a proceeding which, however convenient to the outlying districts, is far from satisfactory to the burgesses of Rotherham. Hence the grievance. Some time ago cases of small-pox were sent to the workhouse in pursuance of this halting policy, but as complaint was made to the Local Government Board, who have in other unions forbidden such a course under similar conditions, it is probable that so far as small-pox is concerned the offence will not be repeated. Subsequently, however, two cases of typhus were brought to the workhouse from a distant part of the union, and notwithstanding the protests raised by the Corporation and their medical officer of health, Dr. Robinson, quite recently another case of the same kind was received. The removal seems to have been effected on the authority of the relieving officer in each case, and in the last one it would appear from the account given in the *Rotherham Advertiser*, that there is room for doubt whether death was not accelerated thereby. Still great allowance has to be made for the difficulty of finding any reasonably safe resource owing to the shiftless inaction of the local authority. The Rotherham Corporation have just cause for complaint, the more so since they have made some provision for their own infectious cases and have endeavoured in vain to persuade the rural sanitary authority to join them in an extended scheme. If the Isolation Hospitals Act comes into being the attention of the county authority may profitably be directed to Rotherham. A little gentle compulsion seems to be sorely needed there and would evidently be beneficial to all parties.

BUILDERS AND BY-LAWS.

If we are to measure the deliquencies of builders by their desire to escape the trammels of corporation by-laws great indeed must be their distance from perfection. It appears that the corporation of Hull have submitted new by-laws for the approval of the Local Government Board. The old by-laws, however, contained a clause exempting builders from the effects of any possible dilatoriness on the part of the corporation by stipulating that any plans sent in must be either accepted or rejected within twenty-eight days, fail ing which the owners could commence operations. The result has been that for the sake of escaping the action of by-laws framed, it may be presumed, in the interest of the public, the builders have rushed in with 7,000 plans for new buildings, which they hope to get through under the old regulations. This gives one a little inkling of the style of house the jerry-builder, left to himself, tends to put up, and of the necessity for constant municipal regulation and supervision in the erection of all dwelling-houses.

YORK MEDICAL SOCIETY.

At the first meeting of the York Medical Society for the present year, Mr. W. Hood took the chair, and thanked the members for the honour they had done him in electing him President. An inaugural address was delivered by Mr. Victor Horsley, in which he dealt mainly with the history of trephining in its earliest and rudest forms. He sketched the history of the use of trephining among the people of the Stone age, and, mentioned that the art of trephining by drilling had been brought to a great perfection by the Esquimaux, by whom it was still exercised. The Peruvians in recent times also had performed the operation in the same way. It had also been performed in this way by a German surgeon in the thirteenth century. He thought that the operation was probably performed primarily for wounds of the head followed by pain, and mentioned that at the present time the operation was undertaken for comparatively trivial cases of headache or a slight knock on the head by the Kabyles in North Africa, and by certain Pacific Islanders. It was a natural thing to make use of the

operation in cases of traumatic epilepsy, and from that to other forms of epilepsy the transition was simple. The portion of the bone removed by the operation of trephining was often used as an amulet. The address was illustrated by photographs displayed by limelight. Subsequently a large party dined together in the De Grey Rooms.

DEATH UNDER CHLOROFORM.

A DEATH while under the influence of chloroform occurred recently in the Belfast Royal Hospital. We are indebted to Mr. E. T. Vint, M.B., B.Ch., for the following particulars. The patient was a labourer, aged 50, who sustained a dorsal dislocation of the hip on September 27th, and was brought to the hospital, a distance of some nine miles, in an open cart on September 28th. Three attempts had been made to reduce the dislocation, the third being on the morning of September 28th, when a little chloroform had been given. The patient on arrival at the hospital was very exhausted, and suffering apparently intense pain. After the administration of stimulants and three hours' rest in the ward, he was brought into the operating theatre, and chloroform (Duncan and Flockhart's) administered on a sponge. The heart and lungs had been examined previously, and nothing abnormal detected. The anæsthetic was well taken, and in less than five minutes, during which 3 drachms of chloroform had been used, complete anæsthesia was induced, the conjunctival reflex being abolished. Attempts at reduction had been made for nearly five minutes, the patient remaining thoroughly under the influence of the anæsthetic, when the pulse at the wrist stopped suddenly, and the breathing almost immediately afterwards. The patient's head was at once lowered and well extended, the tongue pulled forward, and artificial respiration commenced. Hypodermic injections of ether and strychnine were given, amyl nitrite was applied to the nostrils, and electricity to the precordial region; these and other efforts to stimulate the circulation and restore the patient were kept up for upwards of an hour, but without success. On *post-mortem* examination the heart was found to be enlarged, and on the right side were three patches of lymph due to pericarditis of old standing. The walls of the right heart were markedly thinned, the myocardium generally being pale, friable, and presenting the signs of fatty infiltration.

ADHESIONS.

THE paper read at the last meeting of the Clinical Society, by Mr. Mayo Robson, on Dilatation of the Stomach and Severe Pain dependent on Pyloric Adhesions, treated by abdominal section and separation of abnormal attachments, followed as it was by a vigorous speech from Dr. Frederick Roberts, has opened up the possibility of relieving, by operation, many cases of vague abdominal pain dependent on adhesions between viscera. If it can be shown, as the cases given seemed to show, that abnormal bands and attachments between viscera can give rise not merely to pain but to organic disease, dilatations, hypertrophies, and distortions, and that the separation of these adhesions can restore the organ again to a state of health, we have indeed a long vista of surgical possibilities before us. Of the efficiency of adhesions to produce such changes there can be but little doubt, and it seems extremely probable that a large number of abdominal pains, sometimes of the dragging nature we are accustomed to associate with such lesions, but quite as often paroxysmal and occurring at long intervals, may be due to interference with normal visceral peristalsis. Many cases, indeed, at present looked on as neuroses may be of this nature, and Mr. Mayo Robson and Dr. Roberts are probably correct in saying that the importance of mere adhesions as a pain-causing and disease-producing condition has been much under-estimated. When, however, we come to treatment, and to the possibility of restoring function by operation, the teaching of the successful cases must be taken with the limitations imposed by the reader himself—that operations are to be done only when the disease is sufficiently serious to produce permanent invalidism or incapacity. The relief which has sometimes followed a laparotomy, nothwithstanding that at the operation no removable condition has been discovered, may in some instances have been due to an unthought-of and unnoticed separation of adhesions. At the same time, it may be noted that the very interesting series of cases related by Mr. Mayo Robson in his reply, in which the relief afforded appeared absolutely inexplicable, leaves it open to the doubter to place the cases which formed the groundwork of his paper in the same category. The questions raised, however, are so interesting that we can have no doubt that they will shortly be put to a wider proof, for of cases there is not likely to be any lack.

UNVEILING OF THE BUST OF DR. KILGOUR AT ABERDEEN.

THE marble bust of the late Dr. Kilgour, whose figure and fame still abide with any who knew Aberdeen thirty years ago, was unveiled in Marischal College by the Marquis of Huntly. The bust, which is declared by an old pupil to be not only a true likeness, but true to the life, was presented to the University by Mr. Kilgour, son of the deceased. Sir William Geddes, in accepting the bust on behalf of the Senatus, said that Dr. Kilgour rose to a position of enviable eminence by the sheer force of his own character, operating through the grand dynamic of a good education—intensive rather than extensive—of hard Spartan character rather than the soft Athenian delicacy, the whole result being the strong, robust, shrewd, gnarled, and learned physician whom the bust so well embodied. Dr. Kilgour was a cultured literary man, with marked poetical tastes; an ardent politician, who had large and advanced views on State affairs, in days when it was not safe to be a Chartist. He advocated a liberal university administration with earnestness, energy, and strong consistency, and yet with loyalty to his Alma Mater. Dr. Angus Fraser, an old pupil, stated that amongst the profession in the North of Scotland no one had attained anything like the same position amongst his professional brethren that Dr. Kilgour had. Beyond Aberdeen he was respected as a great physician; and, quoting the late Dr. Matthews Duncan, Dr. Fraser proceeded to say that, by the death of Dr. Kilgour, the medical profession had sustained the greatest loss that had fallen on it since the death of Dr. Abercrombie; his high mental qualities made him more of a sage than a *savant*.

THE HUNTERIAN CENTENARY.

IN celebration of the Hunterian Centenary a *conversazione* was given on October 18th, at the London Institution, by the President (Dr. F. Gordon Brown), Vice-Presidents and Council of the Hunterian Society. An interesting collection of objects, more or less connected with John Hunter, had been brought together. Among these was an oil portrait of Hunter himself, lent by Mr. Hunter Baillie, who also lent portraits of Hunter's father, brother, and wife, of his daughter Lady Campbell, and his nephew, Dr. Matthew Baillie. Through the kindness of Sir James Paget, the Rev. R. Owen, and others, a large number of engraved portraits of the Hunter family and of John Hunter's teachers and pupils had been borrowed, and formed an interesting collection. The Royal College of Surgeons had lent Hunter's mahogany escritoire, and his chair, which had been converted into a stand for specimens by shelves fixed to the back. A number of natural history specimens was also exhibited. Messrs. Allen and Hanburys showed M. Andrioli's apparatus for producing ozone, in which a silent electrical discharge is produced from numerous points, and a portion of the oxygen of the air transformed into ozone. Instruments and drugs were shown by Messrs. Burroughs and Wellcome, B. Kühn, Down Brothers, T. Hawksley, Curry and Paxton, and Maw, Son, and Thompson. An elaborate programme of music had been prepared, and was carried out with much

success by Herr A. Galbrein, Miss B. Sutherland, Mr. Wheatley, and the Moray Minstrels. The orchestra, which included many members of the St. Bartholomew's Hospital Choral Society, was conducted by Dr. Dundas Grant. Recitations were given by Miss Harrison and Miss Barrett, and the City of London Police Band played in the library.

INJURIOUS TRADES.

The Sanitary Institute have arranged a course of free lectures on the Sanitation of Industries and Occupations, to be delivered in the Parkes Museum, Margaret Street, during November and December. The council has been led to take this step owing to the increase in the number of assistant factory inspectors recently made and the greater increase which is understood to be contemplated in the immediate future. The new inspectors will be drawn from the working classes, and will be familiar with practical, social, and working conditions, but may be expected to be less conversant with scientific matters and health requirements. Further, the sanitary inspectors of local authorities have recently had cast upon them a large increase of work of the nature of factory inspection; in many districts it will probably be found necessary to appoint special sanitary inspectors to discharge this duty. The lectures are designed to meet the wants of such persons, and will also, it is thought, be valuable to employers and managers. The course is as follows: On Occupation and Mortality, by Dr. Arthur Newsholme (November 2nd); on Mineral Non-metallic Dusts, the Manufacture of Pottery, and Textile Manufactures, by Dr. J. T. Arlidge (November 16th and 30th); on Trades Producing Metallic Dust, by Dr. Sinclair White, of Sheffield (November 23rd); on Lead and Arsenic, by Professor T. Oliver, of Newcastle (December 8th); and on the Manufacture of Alkalies and Acids, by Professor Watson Smith (December 14th). The lectures will be given at 8 P.M.

THE TEACHING OF BACTERIOLOGY IN ENGLAND.

At the close of Professor Crookshank's recent post-graduate course of lectures on bacteriology in King's College, Dr. Browning (Medical Officer of Health for Weymouth), expressed, in the name of the graduates attending the class, their thanks to Professor Crookshank and to Dr. Hewlett. In seconding the vote of thanks, Dr. St. Clair Thomson referred to the recent utterance of Dr. Burdon Sanderson, in his address to the British Association to the effect that it was necessary for Englishmen who required practical instruction in bacteriology to proceed to foreign laboratories. Dr. Thomson, speaking from some experience of foreign laboratories, was able to assert that the course at King's College was more practical, more thorough, and more comprehensive. The laboratory was well equipped, and the teaching of so practical a character that those who attended the course felt that they had so thoroughly mastered the methods of research that they were in a position to carry on investigations on their own account, and were in a position to estimate the value of published communications on the subject. Professor Crookshank, in replying, after expressing his gratification at the manner in which the thanks of the class had been expressed, said that since the opening of the laboratory six years ago more than 600 medical men, medical officers of health, surgeons in the army and navy, practitioners resident abroad, and others, had passed through a practical course, and many had subsequently carried out valuable original researches. This was a conclusive proof of the value of such an institution.

MEDICAL MARTYRS.

The roll of medical martyrs is ever lengthening. This week it is our painful duty to add to the list the names of two highly promising young practitioners who have fallen victims to diphtheria contracted in the discharge of their professional duties. Dr. Herbert Ashdown had already made a considerable reputation for himself as an original investigator. His career as a student was exceptionally brilliant, and his work as a teacher in the University of Edinburgh was of high excellence, and gave promise of splendid fruit in the maturity of his powers. Circumstances to which it would be out of place to refer here prevented his fulfilling his manifest destiny as a scientific investigator, and now "the blind fury with th' abhorrèd shears" has cut the thread of a life which could not have failed to be useful to mankind. Mr. Lucas, who died under peculiarly sad circumstances last week, was also a young man of the highest promise, who, both at the Epsom College and at the Middlesex Hospital had left an excellent record for ability and industry. It was only the other day that we had to chronicle the premature death of Mr. Arthur Ellis Durham from the same cause, and many other members of our profession die in the same way of whose fate the public never hears. The loss is ours; to them has been given the privilege of meeting the death which waits for us all under the most enviable conditions. As Goethe says, "Happy he who dies 'mid battle's splendour;" and it may be said, doubly happy are those who on fall so glorious a battlefield as that of medicine against disease.

THE JEWISH SHECHITA.

A charge of cruelty has recently been brought against a priest and a layman of the Jewish persuasion at the Aberdeen Police-court, for having slaughtered a bullock according to the Jewish method, and judgment has since been given in favour of the accused. In connection with the question a letter appeared in the *Times* of October 17th, in which the writer, "M.D., F.R.S.," condemned the Jewish mode of slaughter. This subject engaged our attention in December last, when, after a careful review of the whole question, we concluded that a blow on the head, properly executed, is the most immediate and painless form of death practicable in animals; but at the same time we were bound to admit that the duration of consciousness after the infliction of the wound must be so short as to render the term "torture" quite inapplicable to the Jewish method. In the letter already referred to it is said that "an animal which dies in five minutes from loss of blood will retain consciousness for three." If this is meant to imply that three minutes is the length of time that consciousness persists in animals slaughtered by the Jewish method, we are compelled to take exception to the statement. The sudden cutting off of the supply of blood to the brain, in conjunction with the very rapid drain of blood from that organ, are processes which cannot fail to produce loss of consciousness in considerably less than three minutes, in fact, within a third of that time. Two of the other statements made in that letter are refuted by the argument that has just been adduced, while a third, to the effect that "the pain of a cut is not momentary, but continues in severe degree for at least three minutes," is not applicable to a cut produced by a *sharp* instrument, such as is used by the Jews, as, in our opinion, the pain of such a wound is momentary.

DISSECTING AS A GENTLE ART.

After much remissness during many years, Oxford has turned to the study of human anatomy with the enthusiasm of a convert. Sir William Turner pointed out, on the occasion of the opening of the new department, that such study ought by no means to remain a mere detail of medical education, but was fully worthy of being undertaken as part of a general scientific training; and at Oxford certainly, where the study of the products, and of the inner workings, of man's mind have absorbed so much attention, a little study of the man himself and of the physical machine from which all these things spring ought not to seem out of place. We

may fairly hope that, as pursued at Oxford, anatomical work will be deprived of much of the repulsiveness which, by a sort of tradition, has by so many been associated with it; for when we think of the polished oak floors, the marble tables, the room warmed by hot pipes in winter and cooled by water flowing down the roof in summer, and when we remember that the student can look out from the windows over parks and fields, and take a turn when fancy leads him among the trees and flowers, dissecting becomes one of the gentle arts, a smattering of which may even be of interest to those to whom *literæ humaniores* have so long yielded a sufficiency of knowledge.

DR. JAMESON OF MASHONALAND.

Dr. Leander Starr Jameson, the administrator of Mashonaland and director of the expedition which is now being made against the Matabele, was a distinguished student of University College, London. He took the degrees of M.B. and B.S., with honours, in the University of London in 1875, and the degree of M.D. in 1877. After holding the offices of house physician and house surgeon in University College Hospital, he was appointed resident medical officer in that hospital, and it was while incumbent of this office that he accepted an offer to engage in practice at Kimberley. He continued to practise in that town for many years, and it is only recently that his association with Mr. Cecil Rhodes has led him to exchange medicine for diplomacy.

CHOLERA AND CHOLERA NOSTRAS.

We understand that the arrangements for the investigation which the Local Government Board is about to make into the connection or relation between cholera nostras and true Asiatic cholera are in an advanced state. The problems involved are most important, and include many questions as to the very essence of the disease. We understand that the inquiry will not be entrusted exclusively to the officers of the Board, and that it will include the clinical, epidemiological, and bacteriological aspects of the maladies concerned. During the whole course of the epidemic, the work of the medical department of the Local Government Board has been done with the most scrupulous care and thoroughness; there has never before been such careful supervision, such complete inquiry into every case, and such prompt and energetic action taken to remedy any breach of the first line of defence. The inquiry which we are now able to announce as about to take place will be an important contribution to the study of a wider problem which is earnestly calling for solution. An authoritative decision upon the question of the relation of cholera Asiatica to cholera nostras would be one of the most important services which science could render at the present moment to commerce.

PLUCKING AT EXAMINATIONS.

At the last quarterly meeting of the Royal College of Surgeons, a letter was read from the General Medical Council enclosing a pamphlet containing tables of the numbers of candidates and rejections per cent. at the examinations of the several licensing bodies, and requesting the College to report upon what they believe to be the cause of the very large percentage of rejections shown on the tables. Taking all the professional examinations held in 1892 by bodies named in schedule A of the Medical Act, 1,491 candidates, or 41 per cent., failed in the first examination; 1,762, or 45 per cent., in the second; and 1,348, or 35 per cent., in the final, a vast aggregate of discouragement and disappointment. It was stated at the meeting of the General Medical Council this year that if these failures were distributed equally all round, each medical student might expect to be plucked three times in the course of his education. This is a serious matter, most embarrassing to those who have to sail as near the wind as possible in regard to the cost of the curriculum, introducing as it does endless unforseeable contingencies. But a still more serious aspect of the case is the great variation of the proportion of passes to failures at the various examining centres. No doubt many causes contribute to the curious results shown by the tables referred to. At some places rejections are frequent in consequence of pure stiffness of examination; at others from a preponderance of "wastrels" who flock to them on the mere chance of passing; while at others, again, a traditional reputation for stiffness is a factor of considerable influence. In the three professional examinations for the English Conjoint Board qualification 34 per cent. of the candidates failed, while for the F.R.C.S. 50 per cent. were rejected, from which we might deduce that the F.R.C.S. was much the harder examination. Unfortunately, the L.S.A. has just the same proportion—50 per cent. of failures. The Cambridge M.B. has 38 per cent., Durham 29, Victoria only 28 of failures, while the London M.D. has but 2 failures out of 62 candidates. Are these, then, easy examinations compared with that for the M.D. of the Royal University of Ireland, which plucked three candidates for one that it passed, and what, on the other hand, are we to say about the University of Dublin, which, for its M.D., passed 30 candidates without a failure?

HOSPITAL SURROUNDINGS FIFTY YEARS AGO.

The presidential address of Mr. Hulke, on October 13th, to the members of the Clinical Society, gave a dire description of the inattention to cleanliness that ruled in things surgical in London and Paris at the middle of this century, together with a graphic account of the enormous advance of antiseptic surgery during subsequent decades. The paramount importance of strict asepsis for the attainment of the best results from surgical operations, and truth which only slowly compelled acknowledgment, but which now and for many past years has been universally accepted as incontrovertible, was, he pointed out, about 1850 hardly recognised; indeed, was completely ignored by most surgeons in their daily work. One distinguished surgeon of those days after opening an abscess, proceeded with soiled hands unwashed to the examination of another patient—a circumstance not considered then of any moment, though it fortunately was not usual in London. In Paris, however, the want of personal cleanliness on the part of surgeons and *internes* was at that time still more marked. Hospital construction, too, exhibited defects which now appear scarcely credible. Thus, King's College Hospital, in Carey Street, had previously been the workhouse of the parish of St. Clement Danes. It abutted on an over-full burial ground. Under he male accident ward, and separated from this only by a plank floor and a pervious roof, were charnel vaults filled from flagstones to roof with the bones and broken coffins that had been removed from the graveyard to afford space for fresh interments. In the old hospital the same theatre was used for operations and also for necropsies. It was separated from two large wards only by the breadth of a staircase, into which its door and those of the two wards directly opened. Sir William Fergusson being then at the zenith of his reputation, the number of important operations performed at the hospital was exceptionally great; and its operating theatre attracted surgeons from all parts. Moreover, the necropsies, being conducted by such notable men as Dr. Todd and Dr. G. Budd, brought together their crowds of students and practitioners. One might consider those terrible words read by Dante over the entrance to the lower regions—"All hope abandon ye who enter here"—as appropriate to this London hospital; but, happily, whilst the mortality after operations was excessive, recoveries were not few.

Notice to Correspondents and Authors of Communications.

In view of the great and constantly-increasing pressure on our space, we would urgently request correspondents and authors of communications to assist us in endeavouring to place their views before our readers by condensing their communications to the utmost extent.

UNIVERSITY COLLEGE OF SOUTH WALES AND MONMOUTHSHIRE.

Opening of the Medical School.—Address by Professor Haycraft.—Meeting of the Court of Governors.

The introductory address for the first session of the medical school of the University College of South Wales and Monmouthshire was delivered by Dr. J. Berry Haycraft, F.R.S.E., Professor of Physiology. In the course of his address, Professor Haycraft said:—

The subjects of a student's curriculum arrange themselves in three groups. The first, including anatomy, biology, chemistry, and natural philosophy, lead the student to the second, physiology and pharmacology; and then to the third, which includes pathology, therapeutics, bacteriology, medicine, surgery, and midwifery.

In my opinion the medical student is overworked and badly worked; his examinations are in many cases foolishly detailed, entailing useless labour on his part; and any change that I should advocate would bring him less rather than more routine work. The student's curriculum calls urgently for change, especially in the introduction of bacteriology. This is a deficiency that has to be filled up, but there are redundances to be taken away which more than outweigh that which it is desirable to add.

It is very easy to see how it is that subjects of study are taught too frequently in great detail, to the necessary exclusion of others; for every teacher not unnaturally overestimates the importance of what he himself has taken the trouble to master.

About the first teacher to occupy the field was the anatomist, and he developed his subject with so much assiduity, and required his students to master it so thoroughly, that there was little energy left for anything else. When physiology became separated from anatomy, the physiologist did the same, and walked away with a whole province of anatomy—histology—and made much profit thereby. Physiology has now become more than the rival of anatomy in the needless tax it makes upon the student's time. And this is more to be regretted as he is imperfectly grounded in chemistry and natural philosophy, he is often unable with intelligence to follow the subject. It appears, therefore, that much room might be gained by the judicious pruning of anatomy and physiology, whereby other subjects could come to their proper perfection.

A very self-evident double test of the value of anything taught is, first, its practical utility, and secondly, its intellectual value. If the knowledge of a special detail is of no known practical use in the exercise of the profession, and if its acquisition is of no intellectual value, why teach it? This seems reasonable enough—self-evident, indeed—yet were this test applied, the lecture rooms would be shut up half the week, and textbooks in octavo would shrink to duodecimo.

A scientific man is limited to the task of discovering new facts, and of arranging the old ones. When he has grouped some of these together, he calls the common qualities which link them a generalisation, or unwisely he may term it a law—the law of gravitation or the law of natural selection—using a term which has already another meaning when used in a juridical sense.

Turning once more to the teaching of medical students, we come across isolated facts, some of which—such as the weight of the poisonous dose of strychnine, the normal temperature of the blood in degrees Fahrenheit—are of practical value, and apt to concern him in his future life. These we may teach him to the best of our ability. Other facts there are that are true enough in themselves, but which concern him little. These, as facts, are valueless by themselves; do not, then, burden him with them, unless you can place them with others in a common group; and this grouping, or scientific generalisation, is an exercise of the trained imagination worthy of his best endeavour.

Having explained what kind of test I would employ as to the value of matter taught, let us apply this test to the curriculum of study at present laid down by the authorities for purposes of medical education. In chemistry, natural philosophy, and biology—all of them immense subjects—the area of study is so great that it is impossible even for experts to cover the ground of their own subject, and much less can a student in the short time allotted to him be expected to do more than the placing of a first foot in each. Under these circumstances it may not unreasonably be expected that the teacher should consider well what details to select for presentation to his student, as the latter cannot possibly go over the whole ground of study. It would be well, then, that those parts should be selected on which he can tread with the greatest profit. In point of fact this is done in France, where classes in chemistry, physics, and biology are especially arranged for medical students, whose wants of course differ from those of the young manufacturing chemist, the electrical engineer, or the pure biologist. It would be thus possible to get rid of a great deal, and to teach the remainder with much more care and accuracy.

In this connection may I especially call attention to what seems to me a great abuse in the teaching of biology? At the present time a student is given a series of types, rabbit, frog, crayfish, etc., and is expected to know their anatomy; is examined upon them and taught to compare their structures in considerable detail. Now this is an admirable plan if it is not carried too far, for it gives a student a groundwork of solid fact to go upon, and some accurate and detailed knowledge of a few types, and such an acquaintance with method as will enable him subsequently to pursue the subject. But the teacher must surely not forget that all this detailed examination and comparison is but the soil from which the fruit tree grows.

The knowledge of the facts upon which so much labour is spent by the biologist is for the most part valueless in itself except in so far as from these facts the generalisations of the biologist are made, and a glimpse of the history of the tree of life is obtained. My objection to the present system of teaching biology is that the student is given the dull facts without the generalisations that should accompany them. Of what possible use could it be to you or to me to know the structure of the ovary of an earthworm, or the circulation of a lobster? Life is too short, and too full of keen interests for us to waste our time over such detail, useless unless it subserves some broader purpose. And so it is under the present system that students of medicine receive a biological training and yet are ignorant of the wonderful advances made on the speculative side of that science, advances especially associated with the names of Darwin, Wallace, Spencer, Huxley, and Weismann, and which have made every thoughtful man, whether he be chemist, biologist, historian, theologian, or social reformer, turn once again to his subject and reconsider it under the side light of evolution.

Human anatomy is greatly overtaught at the present; the details are overwhelming and, to a large extent, absolutely useless, from whatever point of view it is taken. The minute geography of the bones and muscles, the details of posture crammed up for examination are forgotten as useless by the practising physician or surgeon. They pass out of his life as facts having no practical importance nor scientific interest. He might just as well have crammed up the exact position of every gas lamp and drain pipe in the metropolis. This mass of detail is not only useless, but harmful in a great degree, for those parts of the science of anatomy that are of prime importance to both the surgeon and physician and of the highest interest from a scientific point of view are by it hopelessly obscured.

We physiologists are even more to be feared than our friends the anatomists. In teaching histology we commit all the errors of the anatomist, giving details which only the hidden light of comparative histology can help us to understand. In teaching chemical physiology we present to the student "masses" that we have extracted from the body by means of reagents; we give these names, but we understand next to nothing about them. In experimental physiology we commit, perhaps, the greatest errors of all. I am bound to say that nine medical students out of ten would give the answer "one-tenth of a second" to the question "What is the duration of a muscular contraction?" when a moment's thought would tell him that he has puckered his own brows for many a long minute together over some hard proposition or table of figures. The elaborate experiments of his teacher upon the muscles of a frog with the stimulus electri-

cal have drawn his mind away from the real question of interest, which is the muscle human and the stimulus nervous. He has been led away from physiology to results quite valueless, except in so far as they help him to understand living processes and actions, and this, as a rule, they do not.

When I suggest the introduction of more teaching in such departments as pathology, bacteriology, and pharmacology, I do not advocate that a greater mass of knowledge should be forced upon the student, but that he should be taught rather less than more, that he should be saved the enormous mass of useless detail that he is at present forced to acquire.

Another danger of the present system is that under it a student never acquires intellectual independence. He is educated under a system laid out for him, he is told what to learn, and what to leave out. Now this has probably been the case during his schooldays as well, so that the unfortunate individual from the age of 10 to that of 22 or 23 is engaged in the process of accumulating the intellectual food placed before him in the class or lecture room by his teacher, and disgorging the same during examination hours.

At the age of 22 or 23 he is called upon to cater for himself without an intellectual provider, he has to wander unguided among books and periodicals, and is left to shift for himself as best he may. Can we wonder that, after so long a surfeit, his appetite is gone, or that any cravings left are too feeble to impel towards self-education and independent action powers that have perhaps never been developed in him? It is greatly to be feared that our schools and universities, instead of turning out men of trained intellect, eager to exercise their powers to the best advantage, on the contrary produce too frequently students weary of their books, and incapable of work without the stimulus of a fresh examination, intellectual hacks in fact who can only travel along the beaten roads, but who would break their knees across country.

We should never forget that people in every century have tended to commit the error of imagining that they live in the finish of things. They appreciate the advances made in their own lives, and look down upon the simplicities and errors of their ancestors; they rarely consider that they in their turn will be viewed in just the same light by their own children. The new inventions of one age are discarded for other and better ones by the age which succeeds. What is truth to one generation grows and is changed beyond all recognition in the next; there is no sign of finality, and the more we know the wider spreads before us the horizon of the unknown.

We cannot therefore look for a perfect system of medical education; all that we may rationally aim at is to get the best that we can devise, and while doing our duty under a system which we recognise as imperfect, to endeavour by every legitimate means in our power to bring about within it such reforms as the truth of our own age seems to demand.

My advice to you to-night is to get the big ideas and principles, and then fill in the details. You will have to comply with the requirements of the examiners, and that must be done most loyally, but do not lose yourselves in details which you can never carry with you in your future life. As you leave each subject in the curriculum bring away with you as a permanent record of your work the more important generalisations that you have learnt, and also such details as may be of practical use to you.

At the half-yearly meeting of the Court of Governors of the University College of Monmouthshire and South Wales, Dr. A. Sheen, of Cardiff, was elected a member of Council. The report of the Council for the year ending June last referred at length to the establishment of the school of medicine. It was stated that the anatomical department would consist of a lecture room to seat 100 students, a dissecting room, a museum and bone room, and preparation and retiring rooms. The museum already contained specimens properly prepared. The new physiological department would contain a lecture room for 120 students, a practical class room for 30 students, a research and preparation laboratory, a professor's private room, and museum and photographic room. Principal Jones stated that the subscriptions received for the medical school amounted to between £5,000 and £6,000, and they were being applied to defray the cost of the new building. It was stated that the total cost of recent alterations, which included improvements in the Mechanical Engineering School, would be between £6,000 and £8,000, but it appeared from the financial statement that the position of the College was remarkably satisfactory.

PHYSIOLOGICAL ACTION OF OXYGEN IN ASPHYXIA, MORE ESPECIALLY IN COAL MINES.

A Committee of the British Association, consisting of Professor McKendrick, F.R.S., Dr. J. T. Bottomley, F.R.S., and Dr. Ernest Thompson, M.A., appointed at the meeting in Edinburgh last year for the purpose of ascertaining primarily whether oxygen gas is of any service as a restorative in carbonic acid poisoning, such as occurs in the form of chokedamp asphyxia in mines, has recently communicated the results of its investigations to the present time. In addition to the subject just mentioned, the Committee considered it advisable to inquire somewhat into the action of oxygen on persons in health, and on those suffering from disease giving rise to retention of carbonic acid in the blood, but does not attach very much importance to its observations of the latter class.

The general conclusions at which the Committee arrived are based upon a considerable number of experiments on animals and some observations on human beings, and are as follows:

1. In the case of rabbits asphyxiated slowly or rapidly, oxygen is of no greater service than air, whether the recovery be brought about in an atmosphere contaminated by carbonic acid or completely free of carbonic acid, and whether artificial respiration be resorted to in addition or not.

2. Pure oxygen, when inhaled by a healthy man for five minutes, produces no appreciable effect on the respiratory rate and volume nor on the pulse rate or volume.

3. Oxygen, whether pure or somewhat diluted, produced no effect on one particular patient, who suffered from cardiac dyspnœa of moderately severe type, in the direction of ameliorating the dyspnœa, and, compared with air inhaled under the same conditions, produced no appreciable effect, either on the respiratory rate and volume or on the pulse rate and volume.

4. An animal may be placed in a chamber, the general cavity of which contains about 50 per cent. of carbonic acid, and retained there for a long time without supervention of muscular collapse, provided a gentle stream of a respirable air gas or oxygen, indifferently, be allowed to play upon the nostrils and agitate the surrounding atmosphere.

The points which are not proved are: (1) Whether oxygen produces marked effects, toxic or otherwise, when inhaled for a long time; (2) whether oxygen is of service in cases of cyanosis due to diminished respiratory surface, for example, in pneumonia; and (3) whether oxygen is capable of bringing about a cure of many diseases in which it has received the credit of being a remedial agent.

Since this investigation was primarily undertaken in the interests of the mining community the Committee is strongly inclined to urge that advantage be taken of the fact—now ascertained—that oxygen is of no greater service than pure air in cases of asphyxia, and that the experiment be made of keeping a few cylinders of air, with nose and mouth pieces, ready for use in those parts of the workings where men might be most easily imprisoned. The expense of the compressed air would be much less than that of oxygen, and the effect would be equally good. It seems quite reasonable to suppose that when a suffocated person has been dragged through a long passage—itself more or less contaminated as regards its atmosphere—the chances of ultimate recovery will be greater if the effects of this poisonous atmosphere be neutralised at the commencement and during the progress of the work of rescue than if no such attempt be made until fresh air be reached in the ordinary way.

An outbreak of yellow fever has occurred in the port of Brunswick, Georgia, U.S.A. Severe quarantine regulations have been imposed by neighbouring ports, but the latest news is to the effect that the epidemic is subsiding as suddenly as it commenced.

THE CHOLERA.

Since our last issue, information has come to hand respecting cholera cases in districts located in six different counties in England.

The chief choleraic prevalence has been at Greenwich, and has been almost entirely confined to adult inmates of the workhouse. Commencing on Friday, October 6th, the outbreak had numbered 160 patients by the same day in last week, 3 cases having proved fatal. By Monday last, on which day 13 fresh attacks were recorded, 210 cases had become known, and in all 8 had been fatal; whilst on Tuesday 8 additional mild cases occurred; no death having taken place since Sunday. Information concerning this somewhat alarming outbreak was elicited by the death on Wednesday, October 11th, of a woman in Lambeth, whilst on a visit from the workhouse, she having left that institution on Tuesday morning, and having been attacked by vomiting on her way to her niece's house in Royal Street, Lambeth. Death in her case supervened at 6.45 on Wednesday evening, in the absence of medical advice; *post-mortem* examination revealing the fact that the fatal issue was due to exhaustion following on vomiting and diarrhœa. Mr. Braxton Hicks, the coroner, learning that similar cases of illness, some fatal, had taken place in the workhouse, communicated with the authorities, and hereafter the matter was investigated by the medical departments of the Local Government Board and the London County Council. The theory at first advanced that the outbreak might be due to food poisoning has been set aside, and suspicion has attached to the well water which furnishes the supply to the workhouse. Use of this water has been discontinued, and tests have been applied with a view of ascertaining whether pollution of the well can have taken place, owing to any defects of drains, by the excreta of some unsuspected initial attack. Meanwhile, though microscopic and bacteriological examination by Dr. Klein of portions of the intestines of fatal cases has yielded results strongly suspicious of cholera, thus far no definite conclusion as to the exact nature of the prevalent malady has been arrived at. The official announcement of the Local Government Board on Wednesday evening, however, stated that whilst in certain important respects the materials that had been under investigation suggested that cholera was in question, it had transpired that in every case examined one or more of the ordinary proofs as to this had been wanting, and that Dr. Klein had concluded that the outbreak was not one of true cholera.

Grimsby was free from fatal cholera during the week ended last Monday; and a somewhat stormy meeting was held on October 13th, with the object of getting the Epidemic Cholera Regulations rescinded, the question of expense coming strongly to the front. In the event, however, it was wisely decided to continue to enforce the regulations rather than subject the Town Council to compulsory enforcement, as had recently been the case at Cleethorpes. In the latter district no choleraic attack has been recorded for a month. Hull had only one such fatal attack to record in the week ended on Monday last, and Rotherham was entirely free from fatal occurrences.

On October 6th a further case of cholera occurred in Liverpool, and proved fatal on the 9th, Dr. Barron attesting to its true character. On the latter day an attack occurred at Newcastle-on-Tyne, pronounced by Dr. Murray to be of Asiatic type; and on the succeeding day a case in a boy at Balby, near Doncaster, was regarded by Dr. Klein as indistinguishable from true cholera. A fatal case occurred in the same house in the person of the boy's sister two days before. On Friday of last week a death from cholera took place at Keighley, where several suspicious attacks have been noted, followed by a death after eight hours' illness, at Ingrow, close at hand, in Bingley. A death of a suspicious nature took place at Warrington on Monday last, deceased having been removed to hospital from a lodging house the same morning.

CHOLERA ABROAD.

Austria-Hungary.—Cholera was stated last week to be again on the increase in Hungary, where on Thursday and Friday 58 cases and 44 deaths were recorded, including 3 cases—1 fatal—at Buda-Pesth.

France.—We learn that on two days of last week 6 and 5 deaths respectively occurred from cholera at Brest, and a few cases have been notified at Lambezelloc.

Germany.—At Hamburg 4 cases of cholera, 1 fatal, occurred on October 9th and 10th, no additional cases being recorded in the succeeding four days. One case occurred in the week at Niederkraenig, and 2 shipborne cases at Kiel; 1 at Neuenfolde, and 4—1 fatal—at Grabow-on-Oder. The special official supervision of vessels on the Upper and Middle Rhine, hitherto carried out as a precaution against the spread of cholera, has been declared to be unnecessary any longer. On the other hand Stettin, in the first two weeks of this month, has had 33 cases of cholera, 11 proving fatal, with other 12 cases and 8 deaths on Monday and Tuesday last. The holding of the annual fair has been prohibited, and public dances and amusements stopped.

Holland.—Only 4 cases of cholera, 3 being fatal, were reported from Holland last week.

Italy.—In Palermo last week there were 107 cholera attacks reported, with 64 deaths; in Leghorn 60 cases, 11 fatal; and in Patti-Marina, Messina province, 6 cases and 7 deaths.

Russia.—In St. Petersburg in the week ended at noon of October 12th there were 195 cases of cholera officially reported, with 99 deaths, a daily average of 28 cases and 14 deaths. From the 4th to the 10th there were 12 cases, 9 fatal, in Moscow; and during the first week of October 7 cases, 3 fatal, in Warsaw; 11 cases, 5 fatal, in Dorpat; 381 cases, 190 fatal, in Lomsha province; and a much smaller array of figures in the provinces of Bessarabia, Minsk, Plozk, and Smolensk, totalling to 82 cases and 42 deaths.

Spain.—In the week ended with Monday last there were 147 cholera cases and 67 deaths in the Province of Biscay, where the disease seems to be abating.

Turkey.—Dr. Karlynski, formerly in the service of the Bosnian Government, and having much knowledge of the Mecca pilgrim traffic, has now been appointed one of the physicians to the Sultan, and has been entrusted with the task of working out a plan of sanitation at Constantinople.

Mecca.—The Sultan has ordered the construction of a vast lodging-house at Mecca to accommodate 6,000 persons.

Malta.—Three cases of cholera, 1 fatal, occurred last week on board the ss. *Henley* from Sebastopol. She has been permitted to coal under strict quarantine.

SMALL-POX IN ENGLAND.

In London last week the cases of small-pox were again less than a score, whilst 2 deaths were registered from the disease. Two or 3 occurrences took place in the West Ham Union. In the Midlands Walsall again had near upon 50 attacks, and Birmingham not far short of 20, with 2 deaths; Darlaston having 3 cases, and Brierley Hill having 4 attacks. In the Manor of Aston a few cases were recorded; a single case at Leicester; whilst at Worcester a case was isolated on arrival at a common lodging house of the patient from Hay, in the county of Brecon. Several cases were heard of near Bristol. A death was registered from small-pox in Liverpool, and also in Oldham. In Bradford, in addition to some 40 cases and 3 deaths last week, 40 fresh attacks are reported as having been notified in the first three days of the present week, and are credited as a result of infection spread on the occasion of the fire at the temporary small-pox hospital a fortnight before.

LITERARY INTELLIGENCE.

The number of medical journals and transactions, the contents of which are regularly classified in the *Index Medicus*, is 1,119. In this number periodicals of a semi-scientific, popular, or purely commercial character are not included.

A new medical journal, entitled *Przeglad chirurgiczny*, has recently appeared in Warsaw under the editorship of Dr. W. H. Krajewski. The journal takes for its province "surgery, otology, laryngology, ophthalmology, midwifery and gynæcology, and syphilography and dermatology." The original articles are in Polish, but a summary of them in French is appended, and an epitome of current Polish medical literature is given in the same language.

A series of natural science manuals is in course of preparation for the Cambridge University Press. The series will consist of a biological and a physical section. Mr. Arthur E. Shipley, M.A., Fellow and Tutor of Christ's College, Cambridge, will be the general editor of the biological section. The first volume—a Manual of Invertebrate Palæontology, by Mr. H. Woods, Demonstrator of Palæontology at Cambridge—is ready, and the second—a textbook on the Practical Physiology of Plants, by Mr. Francis Darwin and Mr. E. Hamilton Acton—is in the press. Textbooks on Physical Anthropology, by Professor Alexander Macalister; on the Vertebrate Skeleton, by Mr. S. H. Reynolds, of Trinity College; on Fossil Plants, by Mr. A. C. Seward, Lecturer in Botany in the University; and an Introduction to the Study of Botany, by Mr. Francis Darwin, are in preparation.

The *Bibliographische Monatsbericht über neu erschienene Schul- und Universitätschriften*, issued by Gustav Fock, of Leipzig, shows that from September, 1892, to August, 1893, the number of inaugural dissertations presented for the doctor's degree and for qualification as *Privat-docent* in Germany was 3,688. Of that number medicine claims 1,379, chemistry making a bad second with 401, and classical philology and archæology coming third with 327. Law (including political philosophy) is represented by 220, and divinity brings up the rear with 43. As a curiosity of classification it may be added that meteorology is included among the "exact sciences."

The *Sheffield Medical Journal*, the success of which has more than fulfilled the promise of its first beginning, has recently expanded into the *Quarterly Medical Journal for Yorkshire and the Adjoining Counties*. The literary contents are varied, but always excellent, the best proof of the editorial ability of Mr. Simeon Snell and his very competent assistants, Drs. D. Burgess, W. T. Cocking, W. Dale James, and Arthur J. Hall; and the printing and general get up of the *Journal* are highly creditable to the publishers. We wish the *Quarterly Medical Journal* every success.

The Transactions of the twelfth German Medical Congress, which was held in Wiesbaden last April, have been issued by the publishing house of J. F. Bergmann, of Wiesbaden (price 11 marks). The volume, which is edited by Professor E. Leyden, of Berlin, and Dr. Emil Pfeiffer, of Wiesbaden, opens with a brief summary report of the proceedings. This is followed by the address of the President, Professor Immermann, of Basel, and this again by the full text of the papers read, together with the discussions thereon. Perhaps the most important discussion in the volume is that on cholera, which was opened by Professor Rumpf, of Hamburg, and Professor Gaffky, of Giessen. The volume also contains the discussion on Traumatic Neuroses, opened by Professors Strümpell and Wernicke. There are a few illustrations, but their number might with advantage have been increased.

The *North American Review* would hardly be complete without an article from the pen of Dr. Cyrus Edson. In the current number he discourses on American Life and Physical Deterioration, with special reference to the fair sex, which would appear to be in a bad way in the United States. Dr. Edson assures us that "there is at the present moment. . . a condition existing among the women which is cause for the gravest alarm." He adds that "the problem before the medical men of this country to-day is the health of the educated women, of those women who represent the third or fourth generation born on the soil." After an allusion to the sufferings of the martyrs, we are told that "there exists to-day in the United States an aggregate of suffering alongside of which all the tortures of the martyrs were as nothing." The cause of all this suffering is that "an increasingly large proportion of the women of the American race are unable to perform their functions as mothers, and these women include the mentally best we have among us." The root of the evil, if we are to believe Dr. Edson, is the over education of the mind at the expense of the body. Napoleon, when asked by Madame de Staël whom he looked upon as the greatest woman, answered, "She that had the most children;" and he was in the habit of saying to ladies, *Faites moi des soldats*. Dr. Edson agrees with Napoleon to this extent, that he holds it to be the primary duty of the majority of women to bear children. He is indignant because a very large proportion of American women now refuse to bear children. A married lady once said to him, "Women are growing very scientific in these days"; or, as Dr. Billings, Director of the Division of Vital Statistics of the last Census expresses it, "There is a steadily increasing number of married people who not only prefer to have few children, but who know how to obtain their wish." Dr. Edson, however, thinks the chief cause of the decreasing birth-rate in the United States is the fact that "an enormous and constantly-increasing number of women are so exhausted physically before marriage, that the birth of one, or at most two, children leaves them physical wrecks." The remedy suggested is to cultivate health, even at a little sacrifice of intellectual development.

ENTRIES AT THE MEDICAL SCHOOLS AND COLLEGES.

By the courtesy of the officers of the universities and medical schools and colleges in England we are enabled to publish the subjoined table, showing the number of undergraduates and students who have commenced the study of medicine at the several schools.

	A.	B.	C.	D.	E.
St. Bartholomew's Hospital	95	33	0	28	128
Charing Cross Hospital	20	12	25	1	57
St. George's Hospital	21	3	0	0	24
Guy's Hospital	116	58	32	32	206
King's College	33	74	0	12	107
London Hospital	72	76	1	9	149
St. Mary's Hospital	79	77	0	8	156
Middlesex Hospital	30	22	11	6	63
St. Thomas's Hospital	71	15	0	8	86
University College	*	*	*	*	*
Westminster Hospital	18	6	0	0	24
London School of Medicine for Women	25	16	0	0	41
Cambridge University	132	0	0	0	132
Oxford University	*	*	*	*	*
University of Durham College of Medicine	43	*	*	*	*
Bristol Medical School	16	0	0	20	16
Owens College, Manchester	73	39	7	59	119
University College, Liverpool	29	0	4	11	33
Yorkshire College, Leeds	41	0	0	0	41
Mason College, Birmingham	36	38	7	13	81
Firth College, Sheffield	*	*	*	*	*
University College of South Wales, Cardiff	*	*	*	*	*
London School of Dental Surgery	0	0	45	0	45

A. Number of students who have entered for the full curriculum.

B. Number of students who have joined for special courses.

C. Number of dental students.

D. Number of students who have joined classes for preliminary scientific instruction.

E. Total excluding students who have joined classes for preliminary scientific instruction.

* No return.

Although it has not, unfortunately, been found possible to obtain complete returns a glance at the above table renders evident one fact, namely, that while the medical schools in London are as a whole barely holding their own, the colleges in the provinces continue to attract an increasing number of students. Cambridge, which year by year has been climbing up, has this year reached a higher rung than ever before, and Owens College, Manchester, likewise shows a notable increase. This increase may properly be attributed partly to the greater facilities afforded for obtaining degrees, but in no small degree, we apprehend, to the admirable arrangements for practical instruction in laboratories and otherwise which are now afforded.

At the University of Durham College of Medicine, Newcastle-on-Tyne, we are informed that the total number of medical students is 174. Of these 43 are first year's students, 31 second year's, 41 third year's, and 59 are of four or more years' standing.

The complete revival of the great school of Guy's Hospital will be a matter of general congratulation, and may be fairly attributed to the energy and spirit which has been thrown into the organisation of the school, and the excellent provision made for laboratory instruction.

WE learn that Dr. Cornelius Herz remains in a very critical condition, and is suffering from severe cardiac symptoms.

AT the instance of Dr. Orme Dudfield, Medical Officer of Health, the Vestry of St. Mary Abbot's, Kensington, have appointed Miss Lucy Deane and Miss Rose Squire to act as sanitary inspectors of factories and workshops. The salary of the appointment is £60. Both ladies have been trained by the National Health Society.

KING'S COLLEGE, LONDON.—The following Entrance Scholarships and Exhibitions have been awarded: Warneford Scholarships: C. A. Sprawson, £75: L. D. Saunders, £75; G. L. Atkinson, £50. Sambrooke Exhibitions: E. M. Saunders, £60; T. H. Gardner, £40. Clothworkers' Exhibitions: H. R. Brown, £60; W. J. Fuller, £40.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association, at No. 429, Strand (corner of Agar Street), London, on Wednesday, the 25th instant, at 2 o'clock in the afternoon.

The following Committees will also meet:—

Tuesday, October 24th, 1893.—3.0 P.M. Medical Charities Committee. 3.30 P.M. Trust Funds Committee. 4.0 P.M.—Premises and Library Committee. 5.0 P.M. Arrangement Committee.—*Wednesday, October 25th, 1893.*—11.0 A.M. Journal and Finance Committee.

FRANCIS FOWKE, *General Secretary.*

October 19th, 1893.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The next meeting will be held at Newport on November 2nd. Members desirous of reading papers, etc., are requested to send titles forthwith to Dr. Sheen, Cardiff. A. SHEEN, D. A. DAVIES, Honorary Secretaries.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.—The annual general meeting of this Branch will be held in the Royal Infirmary, Aberdeen, on Saturday, October 21st, at 1 P.M., Dr. Paterson, Invernie, President, in the chair. Business: Minutes, nominations, etc. Ballot for admission of Dr. Ireland, Cradock, South Africa, and Dr. Gordon Fowler, Kintore. Council's report and Treasurer's Balance Sheet. Election of president-elect. Election of two honorary secretaries. Election of honorary treasurer. Election of members of council (see Rule VIII). Selection of place of June meeting. A discussion opened by Dr. J. P. Watt, medical officer of health for Aberdeenshire on Isolation of Tuberculous Cases. At 11.30 members may visit the Royal Infirmary, where demonstrations, etc., will be given. The annual dinner will be held in the Imperial Hotel at 3 P.M. Price, including attendance but exclusive of wines, 5s. per head.—J. MACKENZIE BOOTH, C. THISTLETON URQUHART, Honorary Secretaries.

STAFFORDSHIRE BRANCH.—The twentieth annual general meeting of this Branch will be held at the Guild Hall, Lichfield, on Thursday, October 25th, at 3 P.M. An address will be delivered by the President, Mr. Morgan.—GEORGE REID, Honorary Secretary, Stafford.

LANCASHIRE AND CHESHIRE BRANCH.—An intermediate meeting of this Branch will be held at Nantwich on Thursday, December 7th. Gentlemen who wish to read papers, show patients, or bring any other business before the meeting, will kindly communicate as early as possible with the Honorary Secretary, JAMES BARR, M.D., 72, Rodney Street, Liverpool.

METROPOLITAN COUNTIES BRANCH.—A special meeting will be held at the rooms of the Medical Society, Chandos Street, Cavendish Square, on Tuesday, November 14th, at 4 P.M. Business: To adopt the revised code of laws approved by the annual general meeting on June 20th, 1893.—ANDREW CLARK, ISAMBARD OWEN, Honorary Secretaries.

BATH AND BRISTOL BRANCH.—The first ordinary meeting of the session will be held in the Medical Library of University College, Bristol, on Wednesday, October 25th, at 7.30 P.M., Dr. R. Shingleton Smith, President. The following communications are expected:—P. Watson Williams, M.D.: The Treatment of Diabetes with Pancreatic Extract. A. W. Prichard: (1) Curious case of Otitis Purulenta Media; (2) Treatment of Hallux Flexus. J. Michell Clarke, M.D.: Some Considerations on Syphilis of the Central Nervous System. W. Dowson, M.D.: Calculus passed *per Anum.*—E. MARKHAM SKERRITT, W. M. BEAUMONT, Honorary Secretaries, Clifton.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.—The next meeting of this District will be held at St. Bartholomew's Hospital, Chatham, on Friday, October 27th, at 4 P.M., Brigade-Surgeon Ray in the chair. The dinner will take place at the Bull Hotel, Rochester, at 6.30 P.M.; charge 6s. 6d., exclusive of wine. Gentlemen who intend to dine are particularly requested to signify their intention to the Chairman, Brigade-Surgeon Ray, of Milton-next-Sittingbourne, not later than Wednesday, October 25th. All members of the South-Eastern Branch are entitled to attend this meeting and to introduce professional friends. Communications:—Mr Gustavus Hartridge: On Perforating Wounds of the Eye. Dr. J. A. Coutts: On some points in the Diagnosis and Treatment of Croupous Pneumonia in Young Children. Mr. Raymond Johnson: Some Minor Surgical Ailments of Children. Dr. Alfred Packman: The Treatment of Talipes Equino-varus, with exhibition of plaster casts.—E. GROUND, Honorary Secretary, 1, Ashford Road, Maidstone.

NORTH OF IRELAND BRANCH.—The autumn meeting will be held in the Museum, College Square North, Belfast, on Thursday, October 26th, at 4 P.M. Gentlemen who wish to read papers, show patients, or to bring any other business before the meeting will kindly communicate as early as convenient with JOHN W. BYERS, M.D., Honorary Secretary, Lower Crescent, Belfast.

OXFORD AND DISTRICT BRANCH.—The next meeting of the Branch will be held at 3.15 P.M. at the Radcliffe Infirmary, Oxford, on Friday, October 27th.—W. LEWIS MORGAN, Honorary Secretary, 37, Broad Street, Oxford.

WEST SOMERSET BRANCH.—The autumnal meeting of this Branch will be held at the Castle Hotel, Taunton, on Friday, October 27th, at 5 P.M., under the presidency of Mr. R. J. Collyns. An address on Myxœdema and the Therapeutic Value of the Thyroid Treatment, illustrated by photographs and specimens, is promised by Dr. Arthur T. Davies, Physician to the Royal Hospital for Diseases of the Chest, upon which a discussion will be invited. The West Somerset Branch will be glad to see members of neighbouring Branches who may like to join the meeting and take part in the discussion. Dinner will be served at 7 o'clock; tickets 5s. a head, exclusive of wine. Members wishing to read papers or to bring forward any communication at the meeting are requested to send early notice thereof to W. M. KELLY, M.D., Honorary Secretary, Taunton.

DORSET AND WEST HANTS BRANCH.

THE autumn meeting of this Branch was held at Ringwood on October 10th; Dr. FREDERICK C. G. GRIFFIN, President, in the chair. Thirty-three members and visitors were present.

Election of Officers.—The following were elected office-bearers for the ensuing year:—*President:* Mr. Walter Wyke Smith, of Wimborne. *Vice-Presidents:* Dr. James Macpherson Lawrie, of Weymouth, and Mr. Charles James Marsh, of Yeovil. *Honorary Secretaries and Treasurers:* Dr. William Vawdrey Lush, of Weymouth, and Mr. Charles H. W. Parkinson, of Wimborne.

New Members.—Mr. Samuel Penny Snook, of Weymouth, and Drs. Gilbert Henry Wickham and John Macrae Yair, of Bournemouth, were elected members of the Branch.

Delegates to the International Medical Congress.—Messrs. Crespi and Parkinson, of Wimborne; Dr. Leach, of Sturminster Newton; and Dr. MacDonald, of the Dorset County Asylum, were nominated delegates of the Branch to the International Medical Congress to be held at Rome in April, 1894.

Next Meeting.—It was resolved that the May meeting should be held at Wimborne.

British Medical Benevolent Fund.—A donation of 5 guineas was granted to the British Medical Benevolent Fund.

Discussion.—A discussion on the Action of Diuretic Medicines was opened by Mr. MAHOMED, and taken part in by Dr. DYER, Mr. CURME, Mr. LYS, Mr. GARDNER, Dr. SNOW, Dr. LUSH, Mr. HAWKINS, and the PRESIDENT.

Communications.—Dr. CHILDS: The Relation of the Medical Profession in Dorsetshire to Ambulance Work and to the Association for Providing Nurses in Town Districts and in Villages of the County.—Dr. DYER: Patients were shown—(1) Cancer of the Tonsil, (2) Locomotor Ataxy, and (3) Supposed Acromegaly.

Dinner.—The members and their friends dined together at the White Hart Hotel.

NORTH OF ENGLAND BRANCH.

THE autumnal meeting was held at the County Hotel, Durham, on Tuesday, October 17th, at 4 30 P.M., when Dr. HERN read his paper On the Treatment of Fractures of the Jaw; Dr. MURPHY brought forward Suggestions for the Treatment of Puerperal Fever; Dr. HUME spoke on (1) Suprapubic Lithotomy in a case of Enlarged Prostate, with subsequent Permanent Drainage; (2) Papilloma of Bladder; Dr. GOWANS

read a Short Note on a New Operation for the Radical Cure of Hernia.

The dinner after the meeting took place at the County Hotel at 6 P.M., the President of the Branch, Dr. Blandford, in the chair.

SPECIAL CORRESPONDENCE.

PARIS.

Outbreak of Diarrhœa at Barrême.—Wet Nurses and Syphilis.—Purification of Water by Alum.—A Pasteur Album.

The *Journal des Connaissances Médicales* publishes some interesting details on the outbreak of diarrhœa in the Lower Alps during the the military manœuvres. The peasants are always opposed to the appearance of the troops among their mountains, as they believe that they leave the germs of diseases. They are especially in dread of that of typhoid fever. The recent incident at Barrême confirms their belief. Some of the soldiers were ill on their arrival and were not isolated. M. Laurens, the Mayor, had directed that the pipes carrying water to the village fountain should be cleaned. In order to effect this the ground had to be dug up, the hole thus made was not boarded over when the workmen left the work. When the soldiers arrived they took the arrangement to be a delicate attention on the part of the municipality in default of latrines. The wholesale contamination of water thus brought about caused a violent outbreak. Barrême is a village of 800 inhabitants and the mortality was very great, 22 deaths having occurred between 6 P.M. on a Saturday night and the following morning.

One of the objects of the Assistance Publique is to protect wet nurses from contracting syphilis from their sucklings. Every year it puts 1,800 children out to nurse. At the Hôpital des Enfants Assistés such minute precautions are taken in order to protect wet nurses from infection that the possibility of such an occurrence would appear to be very remote. In spite of all, however, undoubted cases of such infection were of not infrequent occurrence. The Assistance Publique, therefore, in 1889, proposed to the Conseil Général de la Seine the following measure, which was adopted. The medical men attached to the Hôpital des Enfants Assistés were instructed to visit once a week children put out at nurse until they are 4 months old. This arrangement has been followed by excellent results.

M. Constantin Paul has shown to the Academy of Medicine an apparatus for purifying water, based on the action of alum, which precipitates matter held in suspension in water. The water, mixed with alum, is put in movement in a receptacle containing a spiral coil. All the microbes and impurities are deposited at the base of the reservoir, the tube from which passes the upper layers of water only, and these are pure. During the first four days the water is pure, but afterwards the microbes are present.

The ceremony that took place on December 27th, in honour of M. Pasteur's birthday, is commemorated by a "Pasteur" album, which the Municipal Council will shortly present to M. Pasteur.

BIRMINGHAM.

Opening of Winter Session at Mason College.—Small-pox.

The winter session at Mason College was opened on October 10th with a public distribution of prizes by Dr. R. C. Jebb, Regius Professor of Greek at Cambridge University. The meeting was held in the large lecture theatre of the new medical buildings at Mason College. The President of the College (Mr. Oliver Pemberton, F.R.C.S.) occupied the chair, and there were present the other trustees of the College—the Mayor, Dr. Gibbs Blake, Alderman Clayton, Alderman Johnson, Mr. George Dixon, the Principal of the College (Dr. Heath), Dr. Bertram Windle, Dean of the Medical Faculty, and the various members of the teaching staff. The President, in his opening address, referred to the amalgamation of Queen's and Mason Colleges, so happily effected a year ago. At the present time the faculties of arts, science, and medicine were complete in all their requirements. After distributing the various prizes, Dr. Jebb delivered an inaugural address.

Small-pox, though almost at an end in Birmingham itself, still lingers in the Midlands. At the last meeting of the Walsall Town Council, the medical officer stated that during the previous four weeks 98 cases had been reported to him. Seventy-three of these cases had been vaccinated, 23 were unvaccinated, and the remaining 2 were doubtful. Of the 23 unvaccinated cases 10 had died, while only 1 of the 73 vaccinated cases had proved fatal.

MANCHESTER.

Entries at Owens College.—New Buildings.—Victoria University. Change of Statute.

The entries for the present session are now complete, and it will be seen that the new entries considerably exceed those of last year. A very large proportion of the entries are candidates preparing for university degrees.

The extension of the medical school buildings is now making rapid progress. The building is roofed in, and considerable progress has been made with the woodwork and plastering of the various class rooms and laboratories.

On Saturday last, the graduates in medicine who had completed their final examination at Victoria University were presented to the Vice-Chancellor by Professor Leech, and had the degrees of M.B. and Ch.B. conferred on them. The list of graduates will be found elsewhere in the British Medical Journal.

After January, 1894, that is the second examination for degrees in medicine in Victoria University held in March, candidates may take the subjects of this examination in two groups—A, anatomy and physiology; and B, materia medica. Candidates may pass in either or both groups.

T. Arthur Helme, M.D., F.R.S.E., and W. P. Stocks, F.R.C.S., have been appointed honorary assistant surgeons to the Clinical Hospital for Women and Children.

CORRESPONDENCE.

PRESCRIBING CHEMISTS.

Sir,—The letter of your correspondent "Honour without Profit" opens up a question which the profession generally should take up and deal with without delay. Occasional letters to the medical press are of little use unless they are followed by united action. We are all aware that the medical profession is more defenceless than either of the other learned professions, and it is full time to institute a reform. Our principal aim should be to gain more representation on the General Medical Council; until we have succeeded in accomplishing that object I fear there is not much chance of our succeeding in impressing that august body with the necessity of adopting measures which shall protect us and our interests from the assaults of chemists, quacks, and other unqualified persons. The Council should obtain powers to prosecute all those who usurp the functions of the medical fraternity. Under the Solicitors Act of 1888 powers are given to a Committee of the Incorporated Law Society to deal with all matters affecting the personal conduct of solicitors, and that Committee has the power, I believe, of making representations to the High Court of Justice in those cases where a member of the Society has contravened the law. If the judges decide that the case has been proved the member is not only struck off the Rolls, but is entirely prevented from following his profession. In our case there is nothing to prevent a medical man from practising when the Medical Council has struck his name off the *Register*. In these cases, when men attempt to usurp the functions of solicitors, the criminal law is without delay put into force by the Incorporated Law Society.

I would propose that the Council of the British Medical Association should be asked to make this question of increased representation an urgent one, and recommend the Branches to get petitions signed in favour of it. At the same time the Council might very well be asked to make strong representations to the Pharmaceutical Society with respect to prescribing chemists.

I can personally fully corroborate what your correspondent has stated—namely, that chemists are by the poorer classes invariably styled "doctors." Their audacity was proved only this week at an inquest, where it was stated that a chemist had visited and prescribed for a young woman, and had actually recommended the friends not to send for a medical man. The Medical Defence Union were represented at the inquest, and the coroner severely censured the chemist, and informed him that he was liable to be prosecuted for illegally acting as an apothecary. Many medical men will ask why these prescribing chemists are not prosecuted by the Medical Defence Union. The answer to that is that the Union was not established for such a purpose, and that, until such a time as it is more extensively supported by the great body of medical men in the country, it is not likely that they will be able to undertake such a task; neither can we well expect the Apothecaries' Company to enter upon such work. We must unite together, and make such a demand that the General Medical Council will not be able to deny that our claims are just and must be attended to.—I am, etc.,

Cardiff, Oct. 16th. T. Garrett Horder.

Sir,—With reference to the letter of your correspondent "Honour without Profit" in the British Medical Journal of October 14th, justly enough condemning the practice of prescribing over the counter by chemists and druggists, who, without any medical education, are suffered to walk over the heads of regular practitioners by the attraction of offering their advice gratis, may I take leave to suggest that the profession have a simple and easy remedy in their own hands, which is to employ none of this class? It would be a good and useful work on the part of the Medical Defence Association to draw up a scheme to safeguard medical men from the illicit trading of these unscrupulous persons by the special appointment of a higher class of chemists, bound over never to prescribe or invade the province of qualified medical practitioners. The catalogue of evil consequences which follow on the prevalence of this widespread abuse are so obvious, and so detrimental to the profession, and so obvious to common sense, as not to require any detail. Indeed, it quite surpasses my intellect to comprehend why, even from a moral point of view, no attempt has been made to put a stop to the mischief to the satisfaction and general consent of us all.—I am, etc.,

October 18th. F.R.C.S.

Sir,—I hope all the readers of the British Medical Journal who saw the letter from "Honour without Profit" in your issue of October 14th will take into serious consideration the abuse of which he complains—that is, prescribing by chemists. Every medical man must be aware of the extent of the mischief, universally carried out as it is. It is almost impossible to habitually frequent a chemist's shop without observing it.

I admit the difficulty there is in drawing the line between people asking for remedies and being prescribed for, as it would be impossible and undesirable that the public should be deterred from purchasing simple remedies for trivial ailments; but some measures should be taken to restrain the universal routine prescribing that goes on. It is quite time that the General Medical Council and Medical Defence Union had their attention drawn to this matter, and took steps to remedy an abuse which is harmful alike to the public and the profession.—I am, etc.,

October 17th. M.D.

ABUSE OF MEDICAL CHARITIES.

Sir,—The following case may give food for much thought to those hospital surgeons who, as long as hospital abuse only affects the general practitioner, are unable to discover it:

A young gentleman, in a good class and excellent preparatory school, the fees of which amount to over £80 a year, suffers much from his throat. I advise his mother to take him to see Mr. Blank, surgeon to a well-known throat hospital. Discovering, however, that she can see this gentleman at the hospital for the small sum of 2s. 6d., when she would have to pay the usual fees at his residence, she pleads a small income and a large family, and takes her boy to the out-patient department.

In this case it is the consultant who loses his fee. Now, why should this lady imagine that she has any right to obtain gratuitous highly skilled medical advice and treatment, when she is in a position to keep her son at a good class school, and why should we, as a profession, allow such gross abuse to go on unchecked?

Lord Dufferin, appealing for funds for the Royal Free Hospital to the medical profession, recommends this institution on the ground that it was the first hospital to open its doors freely to the sick and suffering without letters of recommendation, and presumably without making any inquiry into the means of the patients. We are, it seems, not only to sanction "this excellent system," the excellence of which will be, no doubt, highly appreciated by the struggling general practitioner, but we are also now expected to contribute towards keeping the system up.

The philanthropy of the medical profession is an exhaustless bank, on which huge drafts may be drawn for every purpose.—I am, etc.,

October 16th. General Practitioner.

THE HOSPITAL OF ST. CROSS, RUGBY.

Sir,—An article which appeared in the British Medical Journal a few weeks ago was copied into a local paper and has very much disturbed the friends of this hospital. They feel sure you would not knowingly wish to do injury to the hospital, which has been of inestimable value to the poor of the town and surrounding districts, and from the tone of the article they are satisfied that you have written from information supplied to you which, if you will allow me, I will show is incorrect and misleading. In the first place, I am charged with being an exceedingly bigoted person, and that I have acted in this affair from extreme sectarian views. Those who know me will bear testimony that the charge is utterly unfounded. With all the emphasis I can command I deny it absolutely, and I say that the action I have taken is solely in the interest of the hospital by putting a stop to and preventing in future the proselytising that it was proved had been going forward. And to show that it is approved by the people of Rugby, memorials signed by 1,171 persons were sent in to the Board of Management against the resolution they had passed being rescinded. You allude to religious persecution. There has been nothing of the kind. This cry was raised, and well it has answered the purpose. The reason why Roman Catholics only were named in the resolution with which they have found fault was that no other sect or denomination had interfered in the slightest degree, or they would have been included. In proof that I am not a bigoted person, I may mention that in the deed of gift to the town I made no allusion to religion further than to request that prayers might be offered in the hospital daily, trusting of course to the honour of all who might be connected with the hospital.

I am much surprised to see it said that the evidence of interference by the Roman Catholics brought before the Board was declared by them to be worthless. On the contrary, the charge against them was supported by the clearest evidence, which has never been contradicted and cannot be contradicted; and, looking to results, at the time the attention of the Board was called to what had been going forward, both the day nurses—there are but two day nurses and one night nurse—had become Roman Catholics. They were the first Roman Catholic nurses that had been in the hospital during the nine years it had been open, and I am credibly informed that they exhibited no Roman Catholic proclivities when they entered. The reason why it is not found desirable to have Roman Catholic nurses in this small hospital is that their religion prevents them conforming to the rules and observances, and this has caused much friction, and has completely disturbed the harmony which had previously reigned throughout. It has been asked, Would the priests allow any nurse who was not of their religion to be employed in any of their hospitals, and why should they attempt to intrude nurses of their persuasion in an Anglican hospital? The people of Rugby have expressed very plainly their determination not to have them.

The attack from which the hospital has suffered is no new

thing. Some few years ago several boys of Rugby School were tampered with by the Roman Catholics seated here, and seduced from their allegiance, to the excessive annoyance of the school authorities and the grief of their parents and friends; and it is against this course of proceeding that the hospital has to protect itself.

In conclusion, I am surprised to see it said that in my letter "I call upon the members of the Board who differ from me to resign." What I said was "I hope that after what has occurred, and for the sake of peace hereafter, those who have taken an active part in the cabal against the hospital will see the propriety of resigning;" and this was quite understood to refer only to two persons who had made themselves prominent. If you knew all the "ins" and "outs" of this affair I am sure you would agree with me that the hospital has been very badly treated and that it has much to complain of. There is in no sense a religious quarrel; it is nothing but an expression of the firm determination of the Rugby people not to have their hospital disturbed by proselytising. All they ask is to be let alone.—I am, etc.,

Rugby, Oct. 16th. R. H. Wood.

INSANITY IN EGYPT.

Sir,—I certainly think "Pyramid's" experience must be exceptional. In my account of "Phthisis and other Common Diseases of Egypt" I have remarked: "Mania is one of the most frequent diseases of the nervous system in Egypt. Religious mania is the most usual form among natives. Smoking of haschish (or cannabis Indica), excessive venery and unnatural practices, are doubtless the exciting causes in many cases. The hot and dry climate of Egypt seems to especially predispose to mental aberration, for this affection is of very frequent occurrence among Europeans also. In the latter alcohol is the usual exciting cause. In 1885 5 per 1,000 of the English army of occupation suffered from mental affections." I believe haschish is not blamed without good cause.—I am, etc., Sidney Davies,

Plumstead, Oct. 17th. Late P.M.O. Egyptian Police.

MALARIA ON SHIPBOARD.

Sir,—A few days after the Anchor Line steamship *Scindia*, which sailed from Bombay for Marseilles on August 5th, left her moorings in the Victoria Docks, Bombay, there occurred on board the vessel several acute cases of quotidian ague, or a disease closely resembling it, which attacked alike the Europeans and natives forming the crew, as well as two out of seven passengers.

Some of the Europeans who suffered had never before had fever of any kind, so that this outbreak of sickness on board the *Scindia* could hardly have been the result of exposure to the sun or of chill, causes which, it is well known, are in themselves often sufficient to induce, in constitutions previously tainted with the ineradicable poison of malaria, an attack of intermittent fever.

To what the outbreak owed its origin was a source of considerable speculation. It was thought it might be due to some insanitary state of the Bombay docks, or to the climatic conditions which prevailed in Bombay during the time the vessel was detained there, but this view was not altogether satisfactory in that it failed to furnish an explanation for all the cases, since one of the passengers who suffered was in Bombay for not longer than a few hours prior to the sailing of the steamer, and joined the vessel only half an hour before she cast off her moorings.

On the arrival of the ship at Port Said news was received that similar outbreaks of disease had occurred on board three other vessels which left Bombay within a few days of the departure of the steamship *Scindia*, and which had already passed through the Canal. The vessels in question were the steamships *Peninsula*, of the P. and O. Company, the *Eden Hall*, and the *Knight Templar*. Of these, the *Peninsula's* crew and passengers suffered severely, three deaths having occurred—two of the deceased being military officers of senior grades—on board that steamship since she set out on her homeward voyage from Bombay.

The captain of the *Scindia*, under the advice of the ship's surgeon, took the precaution of discharging at Port Said the drinking water he had brought from Bombay, replacing it with Nile water.

I think the occurrence of these outbreaks of disease on board four vessels, all of which left Bombay within a few days of one another, is of sufficient importance to merit inquiry; and it is in the hope of inviting attention to the matter that I have ventured to ask you to publish this letter.

—I am, etc., Oswald Baker,

London, Aug. 30th. Surgeon-Lieutenant-Colonel.

NAVAL AND MILITARY MEDICAL SERVICES.

THE NAVY.

Fleet-Surgeon William Digby Longfield is placed on the retired list with the rank of Deputy-Inspector-General of Hospitals and Fleets, October 16th. He was appointed Surgeon, October 8th, 1861; Staff-Surgeon, May 1st, 1875; and Fleet-Surgeon, July 3rd, 1879. From the Royal Navy List we learn that he was Assistant-Surgeon of H.M. ships *Octavia* and *Spiteful* during the Abyssinian War, 1868 (medal), Staff-Surgeon of H.M.S. *Tenedos*, and landed in medical charge of the naval brigade of that ship for service in Zululand; was senior, and for the greater part of the time the only, medical officer at the Lower Tugela, February and March, 1879; Senior Naval Medical Officer with the Ekowe Relief Column, and present at the battle of Gingihlovo, April 2nd, 1879, dangerously wounded by a bullet in the right shoulder and body; specially thanked by Lord Chelmsford, the General Commanding-in-Chief, for his exertions when in charge of the Field Hospital at the Tugela; twice mentioned in despatches; promoted (medal and clasp); Sir G. Blane's Gold Medal, 1879.

The following appointments have been made at the Admiralty: C. W. Sharples, Staff-Surgeon, to the *Brisk*, October 11th; Samuel W. Johnson, Surgeon, to the *Impregnable*, October 13th; Percy V. Jackson, Surgeon, to the *Excellent*, October 13th; Eric E. Kershaw, Surgeon, to the *Howe*, October 31st; F. W. Collingwood, Surgeon, to the *Ramillies*, October 17th.

ARMY MEDICAL STAFF.

Surgeon-Lieutenant-Colonel R. M. Bradford retires on retired pay, October 18th. He entered the service as Assistant-Surgeon, October 1st, 1868; became Surgeon, March 1st, 1873; Surgeon-Major, October 1st, 1880; and Surgeon-Lieutenant-Colonel, from October 1st, 1888. He served in the Afghan war in 1880 in Southern Afghanistan, and took part in the march to Candahar with the force under Major-General Phayre (medal).

Brigade-Surgeon-Lieutenant-Colonel W. D. Wilson, officiating as Principal Medical Officer, Poona District, on being relieved by Surgeon-Colonel C. A. Atkins, will proceed to Kurrachee and assume medical charge of the station hospital.

Surgeon-Major J. Armstrong, on arrival from England, has been appointed to the medical charge of the station hospital at Hyderabad, Bombay Command, *vice* Surgeon-Major Corker, transferred to the Home Establishment.

Surgeon-Majors T. J. Gallwey, M.D., W. S. Pratt. M.B., W. H. Briggs, W. B. Allin, M.B., G. T. Langridge, B. W. Fowler, W. E. Webb, M.D., R. W. Mapleton, M.B., W. L. Gubbins, M.B., R. G. Thomsett, P. J. M'Quaid, M.D., and James Ring, M.D., are gazetted Surgeon-Lieutenant-Colonels, September 30th. Surgeon-Lieutenant-Colonels Gallwey and Pratt were appointed Surgeons March 31st, 1874, and Surgeon-Majors June 15th, 1885; Surgeon-Lieutenant-Colonel Briggs Surgeon September 30th, 1875, and Surgeon-Major June 15th, 1885; Surgeon-Lieutenant-Colonel Allin Surgeon February 4th, 1877, and Surgeon-Major June 15th, 1885. The other gentlemen mentioned were appointed Surgeons September 30th, 1875, and Surgeon-Majors twelve years therefrom. Their war services are as follows: Surgeon-Lieutenant-Colonel Gallwey—Afghan War in 1879, being present at the attack and capture of Ali Musjid (medal with clasp); Egyptian War of 1882, and present at the battle of Tel-el-Kebir (medal with clasp and Khedive's star); Nile Expedition in 1884-85, had charge of the Debbeh Field Hospital, and took part in the operations of the Desert Column on its return to Korti (mentioned in despatches, promoted Surgeon-Major, clasp). Surgeon-Lieutenant-Colonel Pratt—Assistant-Surgeon with the Armée du Rhin under Marshal Bazaine in the Franco-German War of 1870-71, and present at the actions of Gravelotte and St. Privat; driven into Metz with the French Army, and remained during the siege and until the surrender of the fortress from starvation. Nile Expedition in 1884-85 on the Staff of Lord Wolseley (mentioned in despatches, promoted Surgeon-Major, medal with clasp, and Khedive's star). Surgeon-Lieutenant-Colonel Briggs—Jowaki Afreedee Expedition in 1877-78 (medal with clasp); Afghan War of 1878-80 (medal); Nile Expedition in 1884-85, and took part in the operations of the Desert Column, including the action at Abu Klea and the reconnaissance to Metammeh (mentioned in despatches, promoted Surgeon-Major, medal with two clasps, and Khedive's star). Surgeon-Lieutenant-Colonel Allin—Afghan War of 1878-80 (medal)) Nile Expedition in 1884-85, and had charge of the Field Hospital at Gakdul Wells (mentioned in despatches, promoted Surgeon-Major, medal with clasp, and Khedive's star). Surgeon-Lieutenant-Colonel Langridge—Afghan War of 1878-80 with the Koorum and Cabul Field Forces, including the affair at Karatiga and the engagement at Charasiab on October 6th, 1879, the capture of Cabul and subsequent cavalry pursuit, the two expeditions to Maidan, the engagement at Tukht-i-Shah, and the defence of Sherpore (medal with two clasps); Boer War of 1881 in medical charge of the 92nd Highlanders. Surgeon-Lieutenant-Colonel Webb—Egyptian War of 1882, and present at the battle of Tel-el-Kebir (medal with clasp, and Khedive's star; with the Nile Expedition in 1884-85 (clasp). Surgeon-Lieutenant-Colonel Mapleton—with the Natal Field Force in the Boer War of 1881; Soudan Campaign in 1885 (medal with clasp, and Khedive's star). Surgeon-Lieutenant-Colonel Gubbins—Afghan War of 1878-80, and

took part with the Bazar Valley Expedition under Lieutenant-General Maude in medical charge of the 5th Fusiliers, and subsequently of the Head Quarters Staff; in 1879-80 with the Kyber Line Force under Lieutenant-General Bright in medical charge of the Head Quarters Staff; was also Divisional Sanitary Officer and Secretary to the Principal Medical Officer; and was present with the expeditions against the Mohmunds and into the Hissarik Valley (medal); expedition to Burmah in 1886 (medal with clasp). Surgeon-Lieutenant-Colonel Thomsett—Afghan War in 1878-79, and had medical charge of the Divisional Field Hospital at Thull; accompanied the expedition into the Khost country, and present in the engagement at Mattoon (medal); Egyptian War of 1882 with No. 4 Field Hospital (medal, and Khedive's Star). Surgeon-Lieutenant-Colonel M'Quaid—Afghan War in 1878-79, and present in the engagement at Charasiab on October 6th, 1879, and in the operations round Cabul in December, 1879, including the investment of Sherpore (medal with two clasps); Egyptian War of 1882, and present at the action at Kassasin on September 9th, and at the battle of Tel-el-Kebir (medal with clasp, and Khedive's star); Surgeon-Lieutenant-Colonel Ring—Zulu War in 1879 (medal); Boer War of 1881, and present in the engagement at Lang's Nek and the Ingogo River (mentioned in despatches).

The designations of the substantive departmental rank of the officers "on the Retired List liable to be recalled to service" are to be as follows: Brigade-Surgeons, ranking as Lieutenant-Colonels, to be Brigade-Surgeon-Lieutenant-Colonels; Surgeons-Major, ranking as Lieutenant-Colonels, to be Surgeon-Lieutenant-Colonels; Surgeons-Major, ranking as Majors, to be Surgeon-Majors; Surgeons, ranking as Captains, to be Surgeon-Captains.

CHANGES OF STATION.

The following changes of station among the officers of the Medical Staff of the Army have been officially notified as having taken place during the past month.

		From	To
Brig.-Surg.-Lieut.-Col.	J. H. Moore	Malta	India.
Surg.-Lt.-Col.	R. D. Bennett	Devonport	,,
Surg.-Major	J. Armstrong	Newry	Bombay.
,,	J. G. MacNeece	Bengal	York.
,,	J. J. Falvey		Landguard Fort.
,,	T. M. Corker, M.D.	Bombay	Dublin.
,,	J. D. Day, M.B.	,,	Dover.
,,	J. O. G. Sandiford, M.D.	Glenbeigh	Clonmel.
,,	M. O'C. Drury	Aldershot	Bombay.
,,	R. E. R. Morse	Strensall Camp	Bengal.
,,	G. E. Weston	Portsmouth	Gosport.
Surg.-Capt.	E. O. Wight	Madras	Colchester.
,,	G. T. H. Thomas	Netley	Portsmouth.
,,	J. H. Daly	Dublin	Malta.
,,	B. L. Mills, M.D.	Piershill	India.
,,	J. B. W. Buchanan, M.B.	Belfast	Dundalk.
,,	H. H. Brown, M.B.	Lanark Muir	Edinburgh.
,,	R. J. D. Hall	Landguard Fort	Madras.
,,	G. Hilliard, M.B.	Dover	Shorncliffe.
,,	H. E. H. Smith	Gosport	Portsmouth.
,,	G. B. Stanistreet, M.B.	Dover	India.
Surg.-Lieut.	R. H. E. Holt	Gosport	,,
,,	C. C. Fleming, M.B.	Devonport	,,
,,	J. Hennessy, M.B.	Gravesend	,,
,,	C. B. Martin, M.B.	Newcastle-on-T	,,
,,	G. J. Buchanan, M.B.	Strensall Camp	,,
,,	C. B. Lawson, M.B.	Dover	,,
,,	W. J. Taylor, M.B.	Brighton	Dover.
,,	J. H. Farmer	Curragh	Dublin.

INDIAN MEDICAL SERVICE.

The services of Surgeon-Captain W. J. Buchanan, M.B., Bengal Establishment, are placed at the disposal of the Military Department.

Surgeon-Captain J. W. Wolfe, Bengal Establishment, Civil Surgeon of Meiktila, is transferred to Rangoon, and is appointed to officiate as Superintendent of Rangoon Central Gaol, *vice* Surgeon-Captain J. H. Sellick, transferred.

Surgeon-Major H. P. Jervis, Medical Officer, 7th Bombay Infantry, is appointed to officiate as Civil Surgeon of Raipore, in addition to his own duties.

Surgeon-Lieutenant J. L. Macrae, Madras Establishment, is directed to report himself to the Principal Medical Officer, Mandalay District, for orders.

Surgeon-Captain J. L. T. Jones, M.B., Bombay Establishment, is appointed Acting Civil Surgeon of Kaira during the absence of Surgeon-Captain H. Herbert.

The leave granted to Surgeon-Captain J. Murray, Bengal Establishment, Professor of Lahore Medical College, on medical certificate, has been extended by three months.

Surgeon-Captain E. H. Wright, Madras Establishment, is granted privilege leave for three months, from October 31st.

The leave on urgent private affairs, for six months, granted to Surgeon-Lieutenant-Colonel W. E. Johnson, M.D., Madras Establishment, has been converted into nine months' furlough on medical certificate.

Deputy Surgeon-General William Walker, M.D., LL.D., late of the Bengal Establishment, Honorary Physician to the Queen, died on October 10th at West Dulwich, aged 60. Dr. Walker, who was for nearly forty years in the Indian Medical Service, was a Fellow of the Edinburgh Royal College of Surgeons. Entering the service as Assistant-Surgeon in 1855, he was appointed an honorary magistrate at Allahabad, and was afterwards Inspector-General of Prisons and Dispensaries in the North-West Provinces and also of Oude; was appointed Brigade-Surgeon in 1879, and in 1882 Deputy Surgeon-General and Inspector-General of Civil Hospitals, with the local rank of Surgeon-General, for the North-Western Provinces and Oude. He was officiating Surgeon-General with the Government of India from May, 1887, and officiated in the same appointment as Sanitary Commissioner with the Government of India in April, 1888, retiring in October, 1889. Dr. Walker served in the Indian Mutiny Campaign in 1857, and was present in the engagement with the Neemuch and Indore mutineers, and at the capture of Futtehpore Sikri (medal).

ARMY MEDICAL RESERVE.

Surgeon-Major J. Menzies, M.D., having resigned his Volunteer appointment, ceases to be an officer of the Army Medical Reserve of Officers, October 18th.

THE VOLUNTEERS.

Mr. Charles Brown, M.D., is appointed Surgeon-Lieutenant to the 4th (Perthshire) Volunteer Battalion the Royal Highlanders (late the 1st Perthshire), October 14th.

UNPREPAREDNESS FOR WAR.

Our contemporary, the *Manchester Courier*, publishes the following comments on the late manœuvres: "Are medical officers of any value at all in an army? This question is suggested by the undeniable fact, which I am glad to hear has been embodied in a formal report to the War Office, that during the recent field manœuvres at Aldershot no field hospital or bearer company was organised, and that no opportunity whatever was given to the medical officers to practise the duties in which they will be expected to be efficient in time of war.....It must be apparent that the continuance of such a policy as this can only end in disaster."

*** Disaster! Not a bit; have we not heaven-inspired commanders who can dispense with medical aid in the field, and relegate the medical chief of an army back to the line of communications?

THE SCOTTISH DISTRICT.

Observer writes: This district has recently been raised to a lieutenant-general's command, but the surgeon-colonel remains, the interests of the combatant ranks seem alone considered at the expense of all others, and no stone left unturned to increase the value of the prizes for that class.

*** It was rumoured that the western as well as the Scottish district was to be raised to a lieutenant-general's command, which by all rules hitherto in force would also raise the rank of the principal medical officer from surgeon-colonel to surgeon-major-general. We shall be curious to see whether this is done, or if not done, the War Minister's excuse for the departure.

FINANCIAL EXTENSION OF ROYAL WARRANTS TO INDIA.

A Correspondent sends us a copy of an Indian Circular, dated August 1st, 1893, wherein "armament pay" is granted to the Royal Artillery under a recent home warrant. He asks: Why cannot the like be done in the case of medical officers?

*** Why, indeed! The "reply," of course, furnishes the answer. On the issue of the Artillery Warrant it was not "expressly announced," as in the case of the Medical Warrant of 1879, that it would not be "applicable to officers while in India or on the Indian Establishment." That makes all the difference in official eyes; no one in the War Office had the temerity to insert a non-applicable "stipulation" in the Artillery Warrant, and therefore it must be applied in "force" in India, bankruptcy or no bankruptcy of the treasury of that country.

THE WAR SECRETARY'S REPLY.

Væ Victis writes: The uncompromising nature of the reply suggests that it is probable the military advisers consider the claims of army medical officers may be safely ignored so long as the Army Medical Reserve can be reckoned on. The existence of this body seems to form a convenient excuse for indifference towards full efficiency in the regular medical service. It is for the profession to decide how long one part shall be played off against the other.

Depreciated Rupee writes: The reply is bitterly disappointing to us in India, in whom good hopes were raised by the favourable reception of the deputation. I would venture to point out a few inaccuracies, to use a mild term, in the reply. It is stated "from a hygienic point of view medical officers are not prejudiced by the extension of (foreign) service so much deprecated," but in defending the rules of exchanging "the strain upon health of an Indian tour," is duly mentioned. I wonder how the Secretary reconciles these opposing statements? Again, it is stated that if the Warrant of 1879 was to have "force in" India it would have the effect of considerably reducing the emoluments of all the other ranks of the department. This is a positive mis-statement, as reference to the financial regulations will show, wherein it is explicitly laid down that the pay of British officers (of course including medical) is made up of English pay *plus* Indian allowances, according to rank. As the existing pay of the Medical Staff is calculated on that of the Warrant of 1858, the effect of applying the Warrant of 1879 in "force" would be to increase, not diminish, emolument. In my own case, for instance, as a surgeon-major under 20 years' service, I am entitled by the Warrant of 1879 to English pay at 20s. per diem, instead of 15s. under the Warrant of 1858. The 5s. a day additional, therefore, would give me, even under the monstrous fiction of the rupee being worth an English half-crown, two rupees a day more.

Cantab. writes: The reply is very disappointing and clearly shows the War Minister has been got at by the military authorities, who oppose every reform in our department. It avers that the medical side of the army is efficient; we say it is in a state of absolute chaos so far as preparedness for war is concerned. Keep the public informed of the real state of things and let them be the judges of these contradictory assertions. While hoping for better things we meanwhile thank you for your indefatigable efforts on our behalf.

*** The disappointing nature of the reply will doubtless evoke many protests and regrets. We would not like to affirm with our first

correspondent that the indifference of the authorities towards the efficiency and contentment of the regular service is based on unworthy calculations of playing off the reserve against it; it is enough that such lamentable and dangerous indifference does exist. The inaccuracies of the reply are certain to meet with full exposure.

THE TITLES QUESTION.

SURGEON-MAJOR I.M.S. writes: Some medical officers seem to think that, because they can be and sometimes are addressed by the military portion of their titles, the question is therefore solved. This is a fallacy. Although frequently addressed as "Major," I can feel no pride in an otherwise honourable distinction because I cannot lay claim to the title. If, as has been averred, the use of the military portion of the compound title only marks a sense of personal esteem towards the officer so addressed, then the officers of the Army Veterinary Department must be held in universal esteem, for they are now invariably addressed, even by ladies, by the military portion of their titles only. The truth is, the doctors, compared with combatants, start in military life under an unfair handicap. The latter have real rank and everything to back it up, but the former only bogus titles and no backing. We owe you a deep debt of gratitude for your gallant fight in our behalf, and must continue to strive for real rank and title in a Medical Corps.

OUR contemporary, the *Civil and Military Gazette of India*, in an able article on "Common Sense Military Titles," says in reference to the medical: "What the authorities have to prevent in the arrangement of titles is any chance of friction and jealousy between officers whose work should be in harmonious union for the promotion of military efficiency in peace and for securing victory in war. This cannot be done if junior officers of one class are permitted, in addressing senior officers of another class, to use a title which suggests to either party that the class to which the junior belongs is superior to that of the senior. This is the gist of the whole matter, and the sooner the authorities recognise that such titles as 'Brigade-Surgeon-Lieutenant-Colonel' are unmilitary, and that the use of the title 'Doctor' either by or to a military surgeon is subversive of discipline the better." Again: "Every officer whose professional work is military—that is, connected with an army—must have military rank."

*** This is common sense, and may be realised when class jealousies and distinctions are no longer fostered in the army.

MEDICO-LEGAL AND MEDICO-ETHICAL.

MEDICAL DEFENCE UNION.

THE usual fortnightly meeting of the Council was held on Wednesday, October 11th, at the British Medical Association Rooms, Mr. Victor Horsley, F.R.S., President, in the chair. Eleven applications for membership were received, and the candidates duly elected. A large number of applications for the assistance of the Union were dealt with, and solicitors were instructed in several cases. The report of the Finance Committee was brought up and adopted. The full attendance of members of Council, some coming from long distances, such as Cardiff, Norwich, and Birmingham, shows the interest taken in the work, and the long "agenda paper" proves the necessity for the meetings being held as they are now, every fortnight. The value of the work done by this Society should be highly estimated by the profession. Owing to the amount of business at this meeting, a resolution affecting the question of imposing an entrance fee upon new members after January 1st, 1894, was postponed for discussion for two weeks.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

AN examination will be held on November 21st for Natural Science scholarships at Balliol and Trinity Colleges and at Christ Church. Four scholarships of £30 per annum and three exhibitions (value from £35 to £40 per annum) will be awarded. Papers will be set in (1) Physics, (2) Chemistry, and (3) Biology, but candidates will not be expected to offer more than two of these. Candidates must communicate with the Master of Balliol by letter before November 14th.

UNIVERSITY OF CAMBRIDGE.

DEGREES.—At the Congregation on Thursday, October 12th, the following degrees were conferred:

M.D.—J. H. C. Dalton, M.A., Trinity; W. L. Dickinson, M.A., Caius.

M.B. and B.C.—D. W. Samways, M.A.Camb, D.Sc.Lond., St. John's.

ERRATUM.—In the list of successful candidates who passed the D.P.H. examination at Cambridge, published on page 870, the name of Mr. C. W. Cunningham should have been Mr. C. W. Cunnington.

UNIVERSITY OF EDINBURGH.

THE following gentlemen have passed the final examination for the degrees of M.B. and C.M.:—

F. O. Bell, W. Carr, W. B. Clarke, E. A. Dent, R. A. Dove, P. G. Edgar, C. R. Edmondson, W. Forsyth, W. H. O. Gaunt, H. F. Green, J. K. D. Ingrom, O. H. Isard, D. S. Johnston, C. W. A. Jones, E. Jones, J. G. Leslie, A. H. Lowe, D. Macdonald, A. G. M'Intyre, H. D. N. Mackenzie, J. Michael, T. P. Monteath, B.A.; J. L. I. Moore, R. D. O'Neale, J. L. Owen, F. S. Park, J. H. Phyn, A. F. M. Powell, M. M. Rattray, E. A. M. Roberts, H. A. Robertson, A. H. Robinson, A. A. Ross, G. C. Sandford, A. C. Smith, R. Stephens, R. Tandan, W. A. Taylor, T. J. Thomson, J. A. Thorne, A. C. Turner, R. B. Wallace, G. Warnes, and H. Weighton.

UNIVERSITY OF ABERDEEN.

AT a meeting of the University Court, the Marquis of Huntly presiding, the following gentlemen were appointed assistants to the professors for the winter session:—Chemistry: Thomas Spencer Murray, D.Sc. Anatomy: James Gillespie, M.B. Materia Medica: John Gordon, M.D. Medical Jurisprudence: David Rennet, M.D. Examiners for graduation in the Faculty of Medicine were appointed as follows:—Botany: R. J. Harvey Gibson, M.A., Liverpool. Zoology: J. A. Thomson, M.A., Edinburgh. Chemistry: John Hunter, F.I.C., F.C.S., Edinburgh. Physiology: Geo. N. Stewart, M.D., Cambridge. Materia Medica: Francis Warner, M.D., London. Medical Jurisprudence: Fras. J. Allan, M.D., London. Pathology: Jas. Lorrain Smith, M.A, M.D., Cambridge. Medicine: Sidney Coupland, M.D., London. Surgery: John C. Ogilvie Will, M.D., Aberdeen. Midwifery: Geo. M. Edmond, M.D., Aberdeen. Anatomy: Bertram C. A. Windle, M.D., D.Sc., Birmingham.

THE VICTORIA UNIVERSITY.

AT the Owens College, on October 14th, the following candidates were presented:

Doctor of Medicine.—J. Simcock, Owens College.

Masters of Science.—W. E. Hoyle (by incorporation); J. Beard, Owens College; F. W. Gamble, Owens College.

Bachelors of Medicine and Surgery.—J. Stephenson (honours), Owens College; J. G. Clegg, Owens College; E. L. Compston, Owens College; H. T. Nixon and J. P. Nixon, University College, honours equal; R. Alcock, Owens College; J. H. Ashworth, Owens College; H. A. Bold, Owens College; H. C. Cadman, Owens College; D. H. Cheetham, Owens College; C. A. Davies, Owens College; E. A. Goulden, Owens College; W. D. Hayward, University College; H. C. Heathcote, Owens College; S. H. House, University College; E. S. Miller, University College; R. W. Nesfield, Owens College; J. J. O'Hagan, University College; H. A. Robinson, University College; W. W. Stoney, Yorkshire College.

ROYAL UNIVERSITY OF IRELAND.

THE Examiners have recommended that the following candidates be adjudged to have passed the undermentioned examinations:

M.D. EXAMINATION.—M. J. P. Dempsey, B.A., Catholic University Medical School; Eleanor L. Fleury, Richmond Asylum, Dublin; A. Fullerton, Queen's College, Belfast and West Kent Hospital; R. E. Harcourt; M. C. Staunton, Catholic University Medical School and Mater Misericordiæ Hospital; J. J. Tobin.

MEDICAL DEGREES EXAMINATION.—*Upper Pass Division:* W. D. Donnan, Queen's College, Belfast; P. K. Joyce, B.A., Queen's College, Galway, and Catholic University School of Medicine; T. S. Kirk, B.A., Queen's College, Belfast.

Pass.—M. H. Aicken, Queen's College, Belfast; T. W. Atkinson, B.A., Queen's College, Belfast; Eliza G. Bell, Queen's College, Belfast; C. L. Birmingham, Catholic University Medical School; T. J. Connolly, B.A., Queen's College, Galway; J. A. Corbitt, Queen's College, Belfast; J. H. de Blaquière, Catholic University Medical School; J. J. Fitzgerald, Catholic University Medical School; W. J. Forbes, Queen's College, Belfast; P. G. Griffith, Queen's College, Belfast; G. W. Griffiths, M.A., School of Physic, Trinity College, and Royal College of Surgeons, Dublin; H. M. Jones, King's College Hospital, London; J. McGrath, Queen's College, Belfast; R. J. McKeown, Queen's College, Belfast; W. McMath, Queen's College, Cork; J. Mathewson, Queen's College, Belfast; J. E. O'Connor, School of Physic, Trinity College, Dublin; H. L. Ormerod, Royal Infirmary, Bristol; J. Patrick, Queen's College, Belfast; M. J. Ryan, Queen's College, Belfast; W. T. A. Scanlan, Queen's College, Cork; J. H. Thompson, Queen's College, Belfast.

THIRD EXAMINATION IN MEDICINE.—*Upper Pass Division:* J. A. Clarke, Queen's College, Cork; J. A. Craig, Queen's College, Belfast; J. P. Frangley, Catholic University School of Medicine; T. Houston, B.A., Queen's College, Belfast.

The above may present themselves for the Further Examination for Honours.

Pass Division.—J. Booth, Queen's College, Cork; J. D. Boyd, Queen's College, Belfast; D. E. Cautillon, Queen's College, Cork; R. W. Clements, Queen's College, Galway; P. Flanagan, Catholic University School of Medicine; J. Huston, B.A., Queen's College, Belfast; G. M. Irvine, B.A., Queen's College, Belfast; T. J. W. A. Johnston, Queen's College, Belfast; C. McCarthy, Queen's College, Cork; D. McCarthy, Queen's College, Cork; J. W. McHenry, Queen's College, Belfast; R. A. McLaughlin, Catholic University School of Medicine; S. H. R. Montgomery, Queen's College, Belfast; A. E. Moore, Queen's College, Cork; M. Moran, Queen's College, Galway; E. J. O'Farrell, Catholic University School of Medicine and Queen's College, Cork; H. L. Ormerod, Royal Infirmary, Bristol; Lilian A. Powell, Queen's College, Belfast; W. J. Prendergast, Queen's College, Cork; J. Reidy, Queen's College, Cork; D. Somerville, B.A., Middlesex Hospital Medical School, and School of Physic, Trinity College, Dublin; R. Watson, Queen's College, Belfast.

SECOND EXAMINATION IN MEDICINE.—*Upper Pass Division:* R. P. Farnan, Catholic University Medical School; D. W. Hewitt, Queen's College, Galway; A. A. F. McArdle, Queen's College, Cork; F. J. L. P. McKenna, Queen's College, Cork; J. J. A. G. McMurtry, Queen's College, Belfast; H. J. McNabb, B.A., Catholic University Medical School; W. W. Moore, B.A., Queen's College, Belfast; G. C. Welply, Queen's College, Cork.

All the above may present themselves for the Further Examination for Honours.

Pass Division.—J. P. Barry, Queen's College, Cork; H. F. Browne, Queen's College, Belfast; M. Burke, Queen's College, Cork; S. D. Clements, B.A., Queen's College, Galway; S. Conner, Queen's Col-

lege, Cork; H. Currell, Queen's College, Belfast; J. H. Davis, Queen's College, Belfast; R. E. Devitt, Catholic University Medical School; D. Fleck, Queen's College, Belfast; E. S. Garman, Queen's College, Belfast; E. J. Kelleher, Queen's College, Cork; J. Kennedy, Queen's College, Belfast; J. St. L. Kirwan, Queen's College, Galway; G. Liddle, M.B., Queen's College, Belfast; J. McArdle, Catholic University Medical School; J. McCarthy, Queen's College, Cork; E. McDonald, Catholic University Medical School; P. W. McHugh, Catholic University Medical School; A. S. Moore, Queen's College, Belfast; J. O'Neill, Catholic University Medical School; W. A. Osborne, Queen's College, Belfast; J. Park, Queen's College, Belfast; H. Paterson, Queen's College, Cork; B. H. Shaw, Queen's College, Cork; F. E. Shawe, Queen's College, Belfast; R. J. Smith, Queen's College, Cork; R. C. Stuart, Queen's College, Belfast; J. F. Whelan, Catholic University Medical School; Clara L. Williams, B.A., Royal College of Surgeons and Royal College of Science, Dublin.

First Examination in Medicine.—W. Boyd, Queen's College, Belfast; J. Brangan, University College, Dublin; E. J. Butler, Queen's College, Cork; G. E. Charles, Queen's College, Cork; H. L. Craig, Queen's College, Belfast; T. Donovan, Queen's College, Cork; J. M. Dunne, University College, Dublin; P. J. England, Queen's College, Cork; D. Finnegan, Queen's College, Belfast; A. Grahame, Queen's College, Belfast; B. Hanlon, Queen's College, Cork; H. Hanna, Queen's College, Belfast; G. C. R. Harbinson, Queen's College, Cork; J. J. Hill, Queen's College, Cork; S. Hill, Queen's College, Belfast; W. E. J. Jones, Queen's College, Belfast; T. McCarthy, Queen's College, Cork; E. McDonnell, Queen's College, Cork; D. Mahony, University College, Dublin; P. J. Moran, Queen's College, Belfast; W. Nicholson, Queen's College, Galway; P. M. O'Meara, Queen's College, Cork; R. S. Park, Queen's College, Belfast; G. Ross, Queen's College, Cork; F. O. C. Sinclair, B.A., School of Medicine, Surgeons' Hall, Edinburgh; J. Sloan, Queen's College, Galway; R. W. G. Stewart, Queen's College, Belfast; W. J. Sweeny, School of Physic, Trinity College, Dublin, and Royal College of Science.

The following candidates may present themselves for the Further Examination for Honours in the subjects set opposite their names:

G. E. Charles, Botany, Zoology, and Physics; J. M. Dunne, Physics; H. Hanna, Botany, Zoology, and Chemistry; G. C. R. Harbinson, Botany; D. Mahony, Zoology and Physics; G. Ross, Physics; F. O. C. Sinclair, B.A., Botany, Zoology, and Physics.

ABERDEEN MARISCHAL COLLEGE EXTENSION.

At a meeting of the Aberdeen University Court tenders amounting to £17,099 were accepted for the north wing of Marischal College; and the work of the removal of the unsightly buildings that have so long obscured the beauty of Marischal College is now in full operation.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

The Committee of Management.—The Council have resolved, subject to the approval of the Royal College of Physicians, that the Stoke-upon-Trent School of Science and Art be recognised as a place of instruction in Chemistry, Physics, and Practical Chemistry, and that the Science School in connection with the Wolverhampton Free Library be recognised as a place of instruction in Chemistry, Physics, Practical Chemistry, and Biology. The Council have appointed a Committee to consider the desirability of convening regular meetings of the Fellows apart from the Members, and to make arrangements, should such meetings be resolved upon, for conducting them in a suitable manner.

The following gentlemen, having previously passed the necessary examinations, and having now attained the legal age of 25 years, were at the quarterly meeting of the Council on Thursday, October 12th, admitted Fellows of the College:

M. L. Jones, L.R.C.P.Lond., St. Bartholomew's Hospital, diploma of Member dated February 13th, 1890; T. R. Taylor, M.B., B.S.Lond., L.R.C.P.Lond., Guy's Hospital, diploma of Member dated November 12th, 1891.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.

The following gentlemen passed the Second Examination of the Board in the subjects indicated at a meeting of the Examiners on Monday, October 9th:

Passed in Anatomy and Physiology.—J. Spencer, F. C. Collinson, O. Smithson, and R. S. Collier, students of Yorkshire College, Leeds; C. A. K. Renshaw, of Owens College, Manchester, Cambridge University and Mr. Cooke's School of Anatomy and Physiology; F. S. Rowland, R. J. Evans, and H. Winstanley, of University College, Liverpool; W. Newell, of Trinity College, and General Hospital, Toronto, Canada; F. Ashe and C. Moore, of Owens College, Manchester; H. Baylis, of Mason College, Birmingham; and R. J. Rogers, of University College, Bristol.

Passed in Anatomy only.—W. H. Clough and C. H. Dearden, of Yorkshire College, Leeds; F. H. Wilkinson, G. A. Parker, E. H. Birchall, and W. M. Jackson, of University College, Liverpool; D. C. M. Shaw and F. L. Sessions, of Owens College, Manchester; A. E. de Vall, of Mason College, Birmingham; T. Priestley, of Firth College, Sheffield; J. D. W. Beavis, of University College, Bristol; and H. Clarke, of St. Bartholomew's Hospital.

Passed in Physiology only.—W. E. Maw, of Yorkshire College, Leeds; H. G. S. Anderson, S. Sugden, and J. Barton, of Owens College, Manchester; G. E. Bowring, of Cambridge University and Owens College, Manchester; E. A. Clarke, of University College, Bristol; J. B. Hughes, of University College, Liverpool; T. Sansome, of Mason College, Birmingham; and H. P. Dalley, of the College of Medicine, Newcastle-on-Tyne.

Six candidates were referred in both subjects, 5 in Anatomy only, and 8 in Physiology only.

Tuesday, October 10th:

Passed in Anatomy and Physiology.—J. H. R. Bond, of St. Mary's Hospital; L. Weir, of Middlesex Hospital, and Mr. Cooke's School of Anatomy and Physiology: E. S. Jones and H. A. Hutt, of St. Bartholomew's Hospital; and J. M. Acland, of University College, London.

Passed in Anatomy only.—J. W. Eales, of Firth College, Sheffield; J. D. Eastman, of Owens College, Manchester; F. L. Angior, of University College, Liverpool; G. M. Foster and H. R. Emms, of University College, London; C. H. G. Prance and H. J. Richards, of St. Bartholomew's Hospital; W. B. Carter, of St. George's Hospital and Mr. Cooke's School of Anatomy and Physiology; J. C. R. Robinson, of St. Thomas's Hospital and Mr. Cooke's School of Anatomy and Physiology; E. Millais, of St. Thomas's Hospital; G. St. C. Van Rooyen, of Ceylon Medical School; W. L. Hughes, of Guy's Hospital; and H. E. Goulden, of Middlesex Hospital.

Passed in Physiology only.—F. W. Joynes and S. W. May, of Owens College, Manchester; A. E. Hancock, of Mason College, Birmingham; O. C. Sibley, of Middlesex Hospital and Mr. Cooke's School of Anatomy and Physiology; E. C. D. Bascombe and C. J. Baker, of Middlesex Hospital; P. Philips, of Charing Cross Hospital; J. S. Mellish and E. B. Eames, of St. George's Hospital; and R. G. Knox, of King's College.

Twelve candidates were referred in both subjects, 6 in Anatomy, and 9 in Physiology only.

Wednesday, October 11th:

Passed in Anatomy and Physiology.—G. E. Duncan, C. W. Booker, A. W. Ormond, and W. E. Hills, of Guy's Hospital; H. E. M. Baylis, G. E. Leclćyis, A. E. Ireland, and J. Boyan, of St. Bartholomew's Hospital; S. E. Dunkin and A. Farr, of Charing Cross Hospital; E. Le Geyte, of London Hospital; L. B. Betts, of Westminster Hospital; D. C. G. Sinclair, R. O. Sibley, and S. H. Facey, of St. Mary's Hospital; J. E. Langley, of Middlesex Hospital; H. A. McCullough and J. H. Austin, of Trinity College, Toronto, Canada.

Passed in Anatomy only.—E. J. Parry and L. J Bartlett, of St. George's Hospital; H. S. Desprez and C. J. Francis, of Guy's Hospital.

Passed in Physiology only.—L. Lloyd, of University College and Mr. Cooke's School of Anatomy and Physiology; N. P. King, of Charing Cross Hospital; L. W. Light, of St. Thomas's Hospital; E. H. Cooper, of London Hospital; and J. J. Blagden, of St. Bartholomew's Hospital.

Seven candidates were referred in both subjects, 5 in Anatomy only, and 4 in Physiology only.

Thursday, October 12th:

Passed in Anatomy and Physiology.—R. S. Minnes and D. V. Sullivan, of Queen's University, Kingston, Canada; C. A. C. Askew, of Guy's Hospital; E. Brodribb, of St. Mary's Hospital and Mr. Cooke's School of Anatomy and Physiology; H. A. L. Willis, of St. Mary's Hospital; J. S. Anderson, of St. Bartholomew's Hospital; L. F. Forbes-Winslow, of Charing Cross Hospital; and G. W. Lewis, of University College, London.

Passed in Anatomy only.—E. M. B. Payne, L. J. Lock, and D. W. F. Latham, of London Hospital; H. W. Dudgeon, L. T. A. Rowland, R. Hedden, and T. J. A. Tulke-Hart, of Guy's Hospital; W. L. T. Goodridge, of Guy's Hospital and University College; E. J. Deck, F. A. H. Clarke, and E. H. Betts, of St. Bartholomew's Hospital; W. H. Pearse, of Middlesex Hospital; H. J. Stevens, of Charing Cross Hospital; W. J. Thomas, of Middlesex Hospital and Mr. Cooke's School of Anatomy and Physiology; and S. V. H. Underhill, of St. George's Hospital.

Passed in Physiology only.—E. A. Prebble and E. N. Scott, of Guy's Hospital; J. W. Fordham, of London Hospital; E. A. Weber and P. W. James, of St. Bartholomew's Hospital; J. A. Alston and C. G. Moffitt, of University College, London; P. R. Wallis, of University College and Mr. Cooke's School of Anatomy and Physiology; E. D. Warren, of Firth College, Sheffield, and University College, London; E. L. Ward and H. M. Case, of Middlesex Hospital; N. H. Austin and E. W. Herrington, of St. Mary's Hospital; and W. O. Beddard, of St. Thomas's Hospital.

Five candidates were referred in both subjects, 4 in Anatomy only, and 10 in Physiology.

OBITUARY.

The death is announced, in his 82nd year, of Dr. W. S. Irvine, of Craigatin, Pitlochry, Perthshire. He was born in 1812, in the Manse of Little Dunkeld, of which parish his father was minister. The deceased took the L.F.P.S.Glasg. diploma in 1832, the M.D.Glasg. in 1833, and became F.R.C.S.Edin. in 1859. Dr. Irvine commenced practice at Clunie, near Pitlochry, in 1833, and in 1849 he removed to Craigatin, where he had an extensive practice until age and failing health obliged him, within the last few years, to relinquish the active practice of his profession.

Deaths in the Profession Abroad.—Amongst the members of the medical profession in foreign countries who have recently passed away are Dr. Emil Preller, of Ilmenau, a well-known hydrotherapeutist and author of numerous publications on hydrotheraphy, massage, etc.; Dr. E. A. Maxwell, consulting physician to Randall's Island Hospital, and pathologist to the City Hospital, New York; and Dr. Oscar Meyer, of St. Petersburg, a well-known specialist in diseases of children, and formerly director of the Prince Von Oldenburg Children's Hospital, aged 56.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE TRUE DEATH-RATES OF LONDON DISTRICTS DURING THE THIRD QUARTER OF 1893.

IN the accompanying table will be found summarised the vital and mortal statistics of the forty-one sanitary districts of the metropolis, based upon the Registrar-General's returns for the third or summer quarter of this year. The mortality figures in the table relate to the deaths of persons actually belonging to the respective sanitary districts, and are the result of a complete system of distribution of the deaths occurring in the institutions of London among the various sanitary districts in which the patients had previously resided.

The 32,837 births registered in London during the three months ending September last were equal to an annual rate of 30.6 per 1,000 of the population, estimated at 4,305,551 persons in the middle of this year. In the corresponding periods of the preceding three years the birth-rates were 30.7, 30.6, and 31.0 per 1,000 respectively. The birth-rates last quarter in the various sanitary districts showed, as usual, wide variations, owing principally to the differences in the age and sex distribution of the population. In Kensington, St. George Hanover Square, Westminster, Hampstead, St. Martin-in-the-Fields, Holborn, and London City, the birth-rates were considerably below the average; while in Fulham, St. Luke, St. George-in-the-East, Whitechapel, Mile End Old Town, St. George Southwark, and Rotherhithe, the birth-rates showed a marked excess.

The 21,648 deaths of persons belonging to London registered during the quarter under notice were equal to an annual rate of 20.2 per 1,000, against 18.9, 17.1, and 16.8 in the corresponding periods of the preceding three years. The rate last quarter exceeded that recorded in the third quarter of any of the preceding eight years, 1885-92, during which the rate averaged 18.0 per 1,000. The lowest death-rates in the various sanitary districts were 9.7 in Hampstead, 13.6 in St. George Hanover Square, 14.5 in Plumstead, 14.8 in Lewisham, 16.6 in Kensington and in Wandsworth, and 16.8 in Paddington; in the other districts the rates ranged upwards to 26.3 in Whitechapel, 26.5 in Clerkenwell, 27.2 in St. George Southwark, 27.5 in Strand, 28.1 in St. Olave Southwark, 30.0 in Limehouse, 31.7 in St. George-in-the-East, and 34.3 in St. Luke. During the quarter under notice, 4,821 deaths were referred to the principal zymotic diseases in London; of these, 2,181 resulted from diarrhœa, 848 from diphtheria, 619 from whooping-cough, 458 from measles, 456 from scarlet fever, 212 from different forms of "fever" (including 205 from enteric fever and 7 from simple and ill-defined forms of fever), and 47 from small-pox. These 4,821 deaths were equal to an annual rate of 4.5 per 1,000, against an average rate of 3.2 in the corresponding periods of the preceding five years. The lowest zymotic death-rates during last quarter in the various sanitary districts were 1.4 in Hampstead, 2.0 in St. George Hanover Square and in St. Martin-in-the-Fields, 2.4 in Lewisham and in St. James Westminster, and 3.1 in St. Olave Southwark; in the other districts the zymotic death-rates ranged upwards to 6.2 in Bethnal Green and in Poplar, 6.3 in Limehouse, 6.6 in St. George-in-the-East, 7.5 in Clerkenwell, 7.6 in Shoreditch, 7.9 in St. George Southwark, and 10.4 in St. Luke.

Forty-seven deaths from small-pox of persons belonging to London were registered during the three months ending September last, of which 7 belonged to Battersea, 6 to Bethnal Green, 4 to Mile End Old Town, and 3 each to Hackney, Newington, and Lambeth sanitary districts; 377 small-pox patients were admitted into the Metropolitan Asylums Hospitals during last quarter, and 71 remained under treatment at the end of September. Measles showed the highest proportional fatality in Clerkenwell, St. Luke, Shoreditch, St. George Southwark, Bermondsey, and Camberwell; scarlet fever in Westminster, St. Pancras, Strand, St. Luke, Whitechapel, Poplar, St. George Southwark, and Plumstead; diphtheria in Clerkenwell, St. Luke, Shoreditch, Bethnal Green, Whitechapel, Limehouse, Poplar, St. Saviour Southwark, St. George Southwark, Battersea, Wandsworth, and Greenwich; and diarrhœa in Fulham, St. Luke, Shoreditch, Bethnal Green, St. George-in-the-East, and Mile End Old Town sanitary districts. The mortality from "fever" showed no marked excess last quarter in any of the sanitary districts.

Infant mortality in London last quarter, measured by the proportion of deaths under one year of age to registered births, was equal to 207 per

Analysis of the Vital and Mortal Statistics of the Sanitary Districts of the Metropolis, after Complete Distribution of Deaths occurring in Public Institutions, during the Third Quarter of 1893.

SANITARY AREAS.	Estimated Population middle of 1893.	Births.	Deaths.	Annual Rate per 1,000 Living. Births.	Deaths.	Principal Zymotic Diseases.	Deaths from Principal Zymotic Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-Cough.	Typhus.	Enteric Fever.	Simple and Undefined Fever.	Diarrhœa.	Deaths of Children under 1 year of age to 1,000 births.
LONDON	4,305,551	32,837	21,648	30.6	20.2	4.5	4,821	47	458	456	848	619	—	205	7	2,181	207
West Districts.																	
Paddington	120,277	750	503	25.0	16.8	3.6	109	1	16	8	14	19	—	6	—	45	216
Kensington	167,038	904	692	21.7	16.6	3.3	138	1	2	17	26	25	—	2	—	65	225
Hammersmith	103,674	722	438	27.9	16.9	3.8	97	—	—	13	24	12	—	4	—	44	205
Fulham	103,075	976	487	38.0	19.0	4.6	119	—	5	5	15	16	—	3	—	75	201
Chelsea	98,114	735	479	30.0	19.6	4.1	101	—	13	15	11	14	—	5	—	43	200
St. George Hanover Square	75,825	334	258	17.7	13.6	2.0	37	—	—	5	8	1	—	2	1	20	165
Westminster	54,761	325	275	23.8	20.1	3.2	43	—	—	9	3	7	—	1	—	23	218
St. James Westminster	23,873	144	107	24.2	18.0	2.5	15	1	1	—	6	2	—	2	—	3	160
North Districts.																	
Marylebone	139,546	1,083	739	31.1	21.2	3.6	125	2	9	22	17	19	—	5	—	51	178
Hampstead	73,949	391	179	21.2	9.7	1.4	25	—	1	2	4	2	—	1	—	15	107
St. Pancras	234,025	1,693	1,209	29.0	20.7	4.4	255	2	24	41	53	27	—	8	—	100	207
Islington	328,608	2,394	1,561	29.2	19.1	4.3	352	2	33	25	53	63	—	12	—	164	212
Hackney	240,177	1,690	1,118	28.2	18.7	4.2	253	3	8	24	44	46	—	16	—	112	205
Central Districts.																	
St. Giles	38,511	248	231	25.8	24.1	3.4	33	—	1	2	5	4	—	3	—	18	202
St. Martin-in-the-Fields	13,911	58	62	16.7	17.9	2.0	7	—	1	1	2	1	—	1	—	1	224
Strand	23,508	162	161	27.6	27.5	4.4	26	—	—	7	5	5	—	—	—	9	259
Holborn	32,646	185	199	22.7	24.5	5.4	44	—	4	5	6	3	—	4	—	22	297
Clerkenwell	65,163	548	430	33.7	26.5	7.5	122	—	41	9	18	8	—	5	—	41	255
St. Luke	41,406	448	354	43.4	34.3	10.4	107	—	29	11	16	11	—	8	—	32	225
London City	35,383	177	189	20.1	21.4	2.4	21	—	5	3	5	1	—	—	1	6	136
East Districts.																	
Shoreditch	123,425	1,062	771	34.5	25.1	7.6	234	1	50	10	40	16	—	9	1	107	233
Bethnal Green	129,625	1,171	799	36.2	24.7	6.2	199	6	9	20	39	13	—	8	—	104	213
Whitechapel	75,163	697	493	37.2	26.3	4.4	83	—	6	13	22	5	—	1	—	36	238
St. George-in-the-East	45,182	463	357	41.1	31.7	6.6	74	—	4	6	8	10	—	1	—	45	274
Limehouse	57,386	484	429	33.8	30.0	6.3	90	2	5	4	21	11	—	7	—	40	281
Mile End Old Town	108,006	1,025	596	38.1	22.1	5.2	140	4	11	11	15	10	—	11	—	78	213
Poplar	168,876	1,416	1,007	33.6	23.9	6.2	259	1	9	31	57	17	—	25	—	119	244
South Districts.																	
St. Saviour Southwark	26,823	197	148	29.5	22.1	4.3	29	—	2	4	7	2	—	1	—	13	147
St. George Southwark	59,952	556	406	37.2	27.2	7.9	118	2	14	21	16	21	—	5	—	39	232
Newington	117,430	1,058	689	36.1	20.2	5.6	163	3	13	13	29	23	—	2	—	80	230
St. Olave Southwark	12,816	92	90	28.7	28.1	3.1	10	—	—	—	1	1	—	—	—	8	239
Bermondsey	84,244	755	437	35.9	20.8	4.7	99	1	22	7	14	10	—	3	—	42	180
Rotherhithe	39,764	365	216	36.8	21.8	4.7	47	1	2	6	11	10	—	2	—	15	178
Lambeth	280,567	2,316	1,363	33.1	19.5	3.9	275	3	16	12	44	54	—	9	3	134	190
Battersea	160,633	1,303	709	32.5	17.7	4.5	182	7	19	12	45	19	—	4	—	76	206
Wandsworth	169,379	1,186	702	28.1	16.6	4.5	190	—	14	7	47	43	—	4	1	74	182
Camberwell	246,837	1,829	1,115	29.7	18.1	4.0	244	1	43	18	28	32	—	8	—	114	194
Greenwich	173,349	1,398	838	32.3	19.4	4.5	194	1	13	13	45	21	—	10	—	91	189
Lewisham	76,593	476	282	24.9	14.8	2.4	46	—	4	4	12	1	—	4	—	21	172
Woolwich	41,794	319	189	30.6	18.1	3.6	38	2	3	1	—	7	—	1	—	24	229
Plumstead	94,192	702	341	29.9	14.5	3.3	78	—	6	19	2	7	—	2	—	32	184

1,000, and exceeded the rate recorded in the corresponding period of any of the preceding five years. Among the various sanitary districts the rates of infant mortality were lowest in St. George Hanover Square, St. James Westminster, Hampstead, London City, St. Saviour Southwark, Rotherhithe, and Lewisham; while they showed the largest excess in Strand, Holborn, Clerkenwell, Shoreditch, St. George-in-the-East, Limehouse, and Poplar.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns, including London, 6,224 births and 3,599 deaths were registered during the week ending Saturday, October 14th. The annual rate of mortality in these towns, which had been 20.2 and 18.5 per 1,000 in the preceding two weeks, further declined to 18.2 during the week under notice. The rates in the several towns ranged from 9.1 in Huddersfield, 10.2 in Derby, 11.4 in Plymouth, 12.9 in Croydon, and 13.6 in Halifax to 21.6 in Wolverhampton, 21.7 in Manchester, 22.7 in Liverpool, 24.6 in Salford, and 25.5 in Preston. In the thirty-two provincial towns the mean death-rate was 18.4 per 1,000, and exceeded by 0.5 the rate recorded in London, which was 17.9 per 1,000. The 3,599 deaths registered during the week under notice in the thirty-three towns included 544 which were referred to the principal zymotic diseases, against 760 and 543 in the preceding two weeks; of these, 164 resulted from diarrhœa, 111 from diphtheria, 98 from "fever" (principally enteric), 73 from scarlet fever, 54 from whooping-cough, 35 from measles, and 9 from small-pox. These 544 deaths were equal to an annual rate of 2.7 per 1,000; in London the zymotic death-rate was 2.8 per 1,000, and slightly exceeded the mean rate in the thirty-two provincial towns. No fatal case of any of these diseases was recorded in Huddersfield; in the other towns they caused the lowest death-rates in Halifax, Bolton, Croydon, and Oldham, and the highest rates in Gateshead, Wolverhampton, Burnley, Preston, and Sunderland. Measles caused the highest proportional fatality in Burnley; scarlet fever in Wolverhampton, Leicester, and Burnley; "fever" in Wolverhampton, Sheffield, Preston, Leeds, Hull, and Sunderland; and diarrhœa in Manchester, Preston, Gateshead, and Newcastle-upon-Tyne. The mortality from whooping-cough showed no excess last week in any of the large towns. The 111 deaths from diphtheria recorded during the week under notice in the thirty-three towns included 86 in London, 4 in Manchester, 4 in Leeds, and 3 in West Ham. Three fatal cases of small-pox were registered in Bradford, 2 in London, 2 in Birmingham, 1 in Liverpool, and 1 in Oldham, but not one in any other of the thirty-three large towns. There were 84 small-pox patients in the Metropolitan Asylums Hospitals and in the Highgate Small-pox Hospital on Saturday last, against 91, 77, and 79 at the end of the preceding three weeks; 17 new cases were admitted during the week, against 15 in each of the preceding two weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital was 2,785 at the end of the week, against 2,849, 2,815, and 2,801 on the preceding three Saturdays; 316 new cases were admitted during the week, against 311 and 305 in the preceding two weeks. The 235 deaths referred to diseases of the respiratory organs in London were 32 below the average, and were equal to an annual rate of 2.8 per 1,000.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday, October 14th, 850 births and 518 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality, which had been 19.6 and 19.5 per 1,000 in the preceding two weeks, further declined to 18.4 during the week under notice, but was slightly above the mean rate during the same period in the large English towns. Among these Scotch towns the lowest rates were 12.0 in Perth and 12.5 in Leith, and the highest rates 19.3 in Glasgow and 20.1 in Aberdeen. The 518 deaths in these towns included 64 which were referred to the principal zymotic diseases, equal to an annual rate of 2.3 per 1,000, which was 0.4 below the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Glasgow and Paisley. The 252 deaths in Glasgow included 8 from diphtheria, 8 from scarlet fever, and 5 from "fever." The death-rate from diseases of the respiratory organs in these towns was equal to 3.4 per 1,000, against 2.8 in London.

HEALTH OF IRISH TOWNS.

In sixteen of the principal town districts of Ireland the deaths registered during the week ending Saturday, October 7th, were equal to an annual rate of 20.6 per 1,000. The lowest rates were recorded in Newry and Drogheda, and the highest rates in Kilkenny and Wexford. The death-rate from the principal zymotic diseases averaged 3.7 per 1,000. The 156 deaths registered in Dublin were equal to an annual rate of 23.3 per 1,000 (against 24.0 and 23.3 in the preceding two weeks), the rates during the same period being 17.9 in London and 17.6 in Edinburgh. The 156 deaths in Dublin included 28 which were referred to the principal zymotic diseases, equal to an annual rate of 4.2 per 1,000; of these 28 deaths, 14 resulted from diarrhœa, 7 from enteric fever, 6 from whooping-cough, and 1 from measles.

INFECTIOUS DISEASE IN CHURCHES AND CHAPELS.

The Cardiff Burial Board appears to have had evidence brought before it to show that infectious disease has been transmitted in churches and chapels in cases where the cause of death has not been correctly assigned. The nature of this evidence does not appear, but the town clerk has made inquiries as to "whether or not it was a necessity that notification of infectious disease in case of death should be given to the registrar." Inasmuch as it is the duty of a medical man who is called in to attend a person suffering from infectious disease to notify the fact to the medical officer of health, it would appear that difficulty of the kind referred to would arise only in those instances in which the patient was not seen during life by a medical attendant. It is, of course, possible that a certain number of deaths not certified by a professional man may be due to infectious disease, and this possibility is an additional argument in favour of the recommendation of the Select Committee on Death Certification to the effect that in each sanitary district a registered medical practitioner should be appointed as public medical certifier of auses of death not otherwise certified.

DEARTH OF SANITARY INSPECTORS.

In a report recently presented to the vestry of St. George-the-Martyr, Southwark, the medical officer of health of the district points out that notwithstanding the fact that progress has been made in recent years in sanitary science, and new compulsory laws have been enacted, instead of a corresponding increase in the inspectorial staff, an actual decrease in their number has taken place. At the present date the vestry have two inspectors as against three twenty-seven years ago. The report states that at present the staff have little, if any, time to devote to such important matters as smoke consumption, the illegal occupation of underground rooms, inspection of workshops and of tenement houses, and alludes to the need of a regular and systematic inspection of so-called "model" dwellings. In consequence of the representations made, the vestry at their last meeting resolved to increase the staff by the appointment of two additional inspectors.

NOTIFICATION FEES.

Member writes: There is a medical quack practising in this town, the local board of which has adopted the Infectious Diseases Notification Act. I find that cases to which this Act applies, and which of course he cannot notify, are notified by the medical officer of health to himself, and that he charges the local board 2s. 6d. for each notification, as if they occurred in his practice. Of course I have no means of knowing how he becomes aware of the existence of these cases, but presume he gets the information from the quack himself.

*** The Act says, "every medical practitioner attending on or called in to visit the patient shall forthwith, on becoming aware that the patient is suffering from an infectious disease, etc., send to the medical officer of health of the district a certificate;" hence the medical officer of health would appear to be fulfilling his legal obligations in notifying. The question would of course arise whether, supposing "Member's" presumption to be correct, the medical officer of health was not acting as a "cover" to an unqualified person, but such question could clearly not be raised, unless "Member" has something more than mere presumption to act upon.

MEDICAL RELIEF TO THE POOR.

W. F. writes to ask how he can acquire a knowledge of Poor-law regulations, especially in reference to medical relief and the rights of the poor thereto.

*** Glen's *General Orders of the Poor-law Board*, published by Knight and Co. (25s. cash price), will probably give all the information required. It is possible that our correspondent could borrow a copy of this excellent work from the clerk to the guardians of the union in which he is a ratepayer.

INDIA AND THE COLONIES.

INDIA.

Cultivation of Cinchona.—Brigade-Surgeon-Lieutenant-Colonel George King, the Botanist of Seebpore, reports that 4,331,651 cinchona plants were grown in British Sikkim, the crop in 1892 having been 304,390 lbs. From this were made 5,242 lbs. of sulphate of quinine, as well as 3,481 lbs. of cinchona febrifuge. The cost of the cinchona plantation is said to be 67,888 rupees, while the revenue for the year was 1,17,000 rupees, being a profit of over 49,000 rupees.

Proposed Vivisection Act for India.—The *Indian Medical Gazette* understands that it is proposed to introduce legislation into India imposing restrictions on the infliction of pain upon animals for scientific purposes. The Bill is to proceed on the lines of the English Act for the same purpose. One of the first results of this Bill, should it become law, will be to put a stop to animal vaccination, as there are few experiments performed on animals for scientific purposes which cause as much discomfort to the animal as vaccination does to the calf. Such a result would place Government in a serious dilemma. In a country of such vast extent as India the provision of calf lymph is essential to meet the demand, to say nothing of the other question of prejudice against arm to arm vaccination and the paramount duty of guarding against all possibility of transmission of disease by vaccination.

The Indian Hemp Drugs Commission.—According to the *Indian Medical Gazette*, the Indian Hemp Drugs Commission have now pretty definitely decided on their plan of operations. They desire to obtain, in the first instance, as full information as they can in respect to the Excise systems of the different provinces in regard to hemp drugs, and also in respect to the nature of the objections raised against these systems. They have, therefore, determined to pay a brief preliminary visit to certain provinces to collect information. The Commission, besides obtaining information in writing, will be able to discuss the system of each province with the local Revenue and Excise officers and with other persons interested therein. They have drawn up a series of questions dealing fully with the cultivation, preparation, consumption, effects, and taxation of hempen drugs. The Commission are circulating these questions to local governments to be put into the hands of selected witnesses. The tour for the purpose of recording evidence formally will begin with Bengal in the beginning of November. The provinces will be taken pretty much in the following order: North-Western Provinces, Central Province, Bombay, Madras, Punjab.

Inoculation for Cholera.—Dr. Rice, Surgeon-General with the

Government of India, has suggested that local governments be asked to arrange to depute deputy sanitary commissioners to learn M. Haffkine's process for the preparation and inoculation of his cholera virus, and that a few selected civil surgeons be also deputed to assist. The object in view is to enable such medical officers to carry on the inoculation after M. Haffkine's departure. It has been practically established that the method is free from danger, but the Government of India thinks its efficacy as a prophylactic against cholera cannot be proved without enlarging the field of experiment.

NEW SOUTH WALES.

VACCINATION.—The report on vaccination for the year 1892, compiled by Mr. Sager, Secretary of the Health Department, shows that 4,036 vaccinations were performed during the year, of which 4,001 were successful. Of the total number 1,326 were performed in Sydney and its suburbs, and 2,675 in country districts. Vaccination was performed in only twenty-four country districts, in eighty-one districts in which there are Government vaccinators no vaccinations have been reported, and it is presumed that none have been performed. Of the successful cases the patients in 373 were under 1 year; in 1,161, between 1 and 5 years; in 1,664, between 5 and 10 years; and in 803 upwards of 10 years of age. The unsuccessful cases were 35, or 0.86 per cent. of the total number. The number of births registered in the Colony during 1892 was 40,646, and the vaccinations gave a percentage of 9.84 on this number.

HOSPITAL AND DISPENSARY MANAGEMENT.

LONDON COUNTY ASYLUM, CANE HILL.

CONSIDERABLE additions to the patients' accommodation have been made at this asylum, which now contains 2,030 patients. The additional buildings have been erected at a cost of upwards of £85,000.

The total number of patients under treatment during the year was 2,468, and the increase in the number resident, consequent upon the opening of the new building, was from 1,112 on January 1st, 1892, to 1,953 on December 31st, 1892. No fewer than 682 patients were admitted from other asylums, where they had been boarded out under contract; they were brought considerable distances, and Dr. Moody considers that it reflects the highest credit upon those who had care of them that not the slightest mishap occurred. The new wards are 13 in number, and contain 876 beds; they are now fully occupied, and in smooth working order.

There were 377 patients discharged, the recovery-rate being 37.62 per cent. One point in connection with the discharges is that 18 males and 7 females were discharged as not having exhibited any symptoms of insanity. This, we take it, is a unique experience, and Dr. Moody accounts for it as follows: "This unusually large number was due to the fact that I was unable to certify that some of those transferred from other asylums were insane. This casts no reflection upon the medical officers of those institutions, as some of the cases were of a relapsing character, and as it happened were in their best condition when brought here, and the majority of these I have no doubt are inmates of other asylums now."

The death-rate was 5.7 of the total number under treatment. Three women were pregnant when admitted, and were delivered in the asylum; they all recovered.

LONDON COUNTY ASYLUM, BANSTEAD.

DURING the year this asylum was visited by an outbreak of epidemic influenza, which attacked about 320 persons. Two of the assistant medical officers and the dispenser had severe attacks, and the head attendants and servants of various classes were at one time or another incapacitated, throwing a severe strain upon the working of the institution. Many of the cases admitted had "influenza" given as the cause of the attack, and the form of insanity was chiefly of the melancholic type.

There were 540 patients admitted during the year, mostly of a very hopeless character, so much so that Dr. Claye Shaw does not calculate he can muster more than 33 curable cases in the whole of the asylum, numbering upwards of 2,000 patients.

The number discharged was 296, of whom 241 were sent away recovered, giving a percentage of 46.97 per cent., calculated on the number admitted. Dr. Claye Shaw mentions the coincidence of the high recovery-rate and the abolition of beer as an article of diet; he says it is certain the patients take their food better without it, and he forcibly remarks that the great lesson taught by the withdrawal of this very mild intoxicant has been to teach the people who have gone away that they have been able to do without it.

The death-rate was 9.4 per cent. of the total number under treatment.

New infirmary buildings are in progress, and their completion is urgently needed to relieve the overcrowding which exists.

FORFAR HOSPITAL.

A CORRESPONDENT, who carefully restates the facts of the case, invites us to modify certain criticisms to which we felt bound to give expression in the BRITISH MEDICAL JOURNAL of September 23rd, with respect to the proposed extension of the Forfar Infirmary. We have carefully reconsidered the matter, and have no difficulty in declaring that the proposed extension would, in these days of light, be a blunder little short of a crime. On a site of about two acres of ground it is proposed to make extensions for the purpose of perpetuating an arrangement by which forty beds are distributed between ordinary infirmary cases and cases of infectious disease, including small-pox. The duty of the infirmary directors and of their medical advisers is clear. They should throw the responsibility of providing isolation accommodation upon the parties legally responsible—the local authority. To expend money in an extension of the present system would be the equivalent of throwing it away, for neither the central authority nor public opinion will long continue to tolerate it. If the infirmary directors proceed as proposed, they will incur a heavy responsibility, acting in entire defiance of medical opinion; either the infirmary directors or the local authority should sell out, and move on.

RICHMOND DISTRICT LUNATIC ASYLUM, DUBLIN.

THERE are considerably more inmates in this asylum than the estimated accommodation, and to remedy this the governors have determined to erect an annexe or succursal asylum at some distance in the country, to be fed by patients from the Richmond, which will be kept for acute cases and for those whose dangerous propensities, either to themselves or others, would require special supervision. As pointed out by the Inspector of Asylums, so long as the population of the asylum continues so very much above the accommodation provided the difficulties and dangers in the management of so large an asylum must be very greatly increased, and the opportunities of working for the best interest of the insane poor must be proportionately diminished. This fact cannot be overlooked, that even supposing that no delay occurs in the selection of the site and the erection of the new building, it cannot be completed for some years to come, and during that time the inmates of the Richmond Asylum must continue to increase.

THE LONDON FEVER HOSPITAL.

THE appeal for funds on the part of the London Fever Hospital in Liverpool Road ought to be well responded to by the middle classes in London. The effect of the Notification Act is to place a shopkeeper, or any person occupying a house which his family fairly fills, in a position of great difficulty whenever infectious disease breaks out, a position from which it is not easy to escape except by the removal of the patient. No doubt the Asylums Board hospitals are now open to all, as far as they will go, but it must be remembered that it has been found quite impossible at these places to complicate matters by anything like social classification, and that 75 per cent. of the cases taken in are drawn from a stratum of society, intimate association with which must be a considerable trial to those accustomed to nicer habits of life. While the fever is at its height, and the patients are in bed and strictly under the orders of the nurses, all is well, but the weary convalescence is another matter; hence the great advantage of an institution like that in the Liverpool Road, where the pauper or destitute class are not admitted, provision being made for them elsewhere, and where by payment of a fixed fee a patient can be received for the whole term of the illness. It is an institution the maintenance of which is of the greatest importance to all who are accustomed to the niceties of refined life, and who yet are not blessed with large houses and abundant wealth.

THE LONDON COUNTY COUNCIL AND CANDIDATES FOR APPOINTMENTS.

ALIENIST writes: Perhaps by inserting the following communication you may perform an act of kindness towards future candidates for posts under the London County Council: One month ago I applied for the Junior Medical Officership at the Claybury Asylum, and sent in my testimonials, etc., as specified in the advertisement. Since then I have had no reply, though the appointment was made about three weeks ago. It is usual in any institution in England to reply to the applications of hall porters and nurses, but the London County Council do not consider ordinary politeness necessary for a medical officer.

THE Belgian Chemical Society is organising an International Chemical Congress, to be held at Brussels in August, 1894. The chemistry of foodstuffs is to form the subject of special discussion.

FEMALE MEDICAL STUDENTS IN SWITZERLAND.—In the past summer semester the total number of female students in the five universities of Switzerland was 275. Of these, 121 were students of medicine, who were distributed among the various schools as follows:—Bern, 47; Zürich, 40; Geneva, 26; Lausanne, 5; and Basel, 3.

BEQUESTS.—The late Mr. Simeon Warburg, of Bassett Road, Kensington, who died in August last, has bequeathed £500 to the Jews' Hospital at Norwood; £400 each to the London Hospital, the Royal Free Hospital, the London Fever Hospital, the Metropolitan Hospital (Kingsland Road), the Royal London Ophthalmic Hospital (Moorfields), and the Orthopædic Hospital (Hatton Garden); £200 to the Great Ormond Street Hospital for Sick Children; and £200 to the Central London Throat and Ear Hospital.

GLANDERS IN CUBA.—Glanders is becoming so prevalent among the human population of Cuba, that a commission has been appointed to devise measures for the repression of the disease. According to the *Cronica Medico-Quirurgica de la Habana*, glanders was imported into Cuba from the United States during the insurrection of 1868, and ever since it has been largely prevalent among horses throughout the island. The first case in the human subject occurred in 1870, and since then from twenty to forty persons have died of the disease every year. One of the most recent victims was Dr. José Francisco Arango, a brilliant physician and teacher, distinguished for his literary not less than for his scientific attainments. By a melancholy coincidence, the first case of glanders in the human subject which occurred in Cuba was reported by him.

MEDICAL NEWS.

The King of Sweden has conferred on Professor Schauta, of Vienna, the Cross of a Knight of the Swedish Order of the North Star.

The *Vratch* states that the Russian Government will probably propose that the Twelfth International Medical Congress shall be held in St. Petersburg.

The winter semester in the University of Amsterdam began on October 7th. The number of new students who matriculated was 151, of whom 66 entered the medical faculty.

Vaccination Grant.—Mr. Q. R. Darling, public vaccinator of the Eardisley District of the Kington Union, has been awarded this grant for the second time.

Medical Magistrate.—Dr. T. W. Thursfield, of Leamington, was at the Michaelmas Quarter Session held at Warwick on October 17th sworn as a Justice of the Peace for the county of Warwick.

On the afternoon of October 16th the Lord Mayor distributed at the Mansion House a number of medallions and certificates of proficiency in ambulance work amongst members of the City of London Police Force.

The Cardiff Corporation propose to insert in a private Bill to be promoted in Parliament next session a clause giving power to the Corporation to cremate the bodies of persons who die of cholera.

St. Mary's Hospital Medical School, Paddington.—The scholarships for the winter session 1893-94 have been awarded as follows: University Scholarships of £52 10s. to Wm. Fletcher, B.A.Cantab., and H. H. Knapp, B.A.Oxon.; Epsom Scholarship of £135 to S. M. Smith; Natural Science Scholarships of £52 10s. each to F. S. Dawe, R. C. Leaning, and A. E. Horn.

St. George's Hospital Medical School.—The following Entrance Scholarships have been awarded: An Entrance Scholarship in Arts, of £145, for sons of medical men, to Mr. H. S. Barwell; University Entrance Scholarships, of £85, in Anatomy and Physiology to Mr. F. J. Watson, of Trinity College, Cambridge, and to Mr. Arthur C. Latham, of Balliol College, Oxford. An Entrance Scholarship in Arts, of £50, to Mr. R. E. Drake-Brockman.

London Hospital Medical College.—The complete list of entrance scholarships at the London Hospital Medical College are as follows: First Entrance Science, value £75, Mr. C. W. Chaplin; Second Entrance Science, value £50, divided equally between Mr. H. G. Frankling and Mr. Alfred Orme; First Buxton Scholarship (Arts), value £30, Mr. F. M. Morris; Second Buxton Scholarship, value £20, Mr. J. F. Walker.

Medical Students in Germany.—The total number of matriculated students in the universities of the German Empire in the summer semester of 1893 was 28,053, of whom 8,838 were students of medicine. The number in the corresponding part of the foregoing academic year was 8,414, showing an increase of 424 or 4.8 per cent. The number of foreign medical students was 474.

University of Innsbruck.—The total number of students in the University of Innsbruck last summer semester was 854, of whom 286, or rather more than one-third, belonged to the medical faculty. The programme for the current winter semester includes 50 courses of lectures and practical instruction to be given by 16 professors and 4 *docenten*. Some of these courses are given in German, others in Italian.

The Projected Leeds Borough Hospital.—The scheme for providing Leeds with a new hospital for infectious diseases was advanced a stage at the last meeting of the Sanitary Committee when the Committee recommended the erection of extensive premises on the Manston Hall Estate. In the course of the proceedings it was stated that so many cases of typhoid fever exist that it is impossible to deal with all at the Beckett Street institution, and, to relieve the pressure, it was decided to send persons suffering from scarlet fever to Manston.

We regret to learn that Professor von Helmholtz, who returned from America a day or two ago on board the *Saale*, met with an accident on the voyage, which appears to have had serious consequences. The distinguished physiologist sustained injuries to his head from falling down a companion ladder. On the arrival of the ship at Bremen he had to be conveyed to the hospital of that town.

The Royal Albert Asylum.—The fifth quinquennial festival in connection with the Royal Albert Asylum for Idiots and Imbeciles was celebrated at Lancaster on October 13th. It appears that the average number of boys and girls resident in the institution during the year has been 596. The report referred with regret to the resignation of Dr. Shuttleworth after twenty-three years' service, and announced that Dr. Telford Smith had been appointed Medical Superintendent.

Liverpool Medical Institution.—The annual dinner of this institution was held at the Adelphi Hotel, Liverpool, on October 12th, Dr. Glynn, President, in the chair. One hundred and eleven members and their friends were present. In proposing a vote of thanks to the chairman, Mr. J. Newton, one of the oldest members, gave an interesting description of general practice as it was when he started at Liverpool fifty years ago. Other speakers were Professor Oliver Lodge, Mr. Boulnois, city engineer, and the Rev. W. Adams.

Scurvy among the St. Petersburg Troops.—In the past spring and summer scurvy has been extremely prevalent amongst the troops of the St. Petersburg garrison. The report of a Special Commission, formed to inquire into the causes of this prevalence, has just been issued. The increase of scurvy is ascribed to (1) unfavourable climatic and local conditions of the capital; (2) the bad harvest, influenza, and cholera of last year; (3) indifferent quality and insufficiency of green vegetables; (4) the long continuance and severity of the past winter. The report, which is in the form of a *prikaz* or army order, lays down a series of strict regulations as to food, hygiene, and other matters, in order to prevent the further spread of the disease.

University of Vienna.—The official prospectus of the University of Vienna which has just been issued shows that during the summer semester of 1893 the total number of students in the medical faculty was 2,610. The foreign contingent was chiefly made up of Russians and Americans. The programme for the current winter semester includes 243 courses of lectures, demonstrations, and practical instruction by 23 ordinary and 33 extraordinary professors and 80 *docenten* and assistants: of these courses 49 are on internal medicine, 41 on surgery, 34 on gynæcology and diseases of children, 22 on eye diseases, and 17 on dermatology.

Wanted, a Bleeder.—Not long ago an advertisement appeared in a Portuguese newspaper, the *Diario do Governo*, inviting applications for the cumulative post of bleeder, barber, and director of diets (*sangrador, barbeiro, e director das dietas*) in the Misericordia Hospital of Monforte, in Portugal. Apparently this interesting pluralist is to be paid in kind, for the stipend offered is 100 decalitres of corn a year. For the sake of such of the patients as resemble Bottom in being "marvellous hairy about the face," it is to be hoped that the blood-drawing barber may, like Harpagon's Maître Jacques, be able to keep his various functions distinct, and officiate in only one character at a time.

Intravascular Clotting.—At the last meeting of the Forfarshire Medical Association, held in Dundee, the chair was taken by Dr. Rorie. Dr. Mackie Whyte showed a case of psoriasis treated by thyroidin without benefit, and the spleen, weighing 74 ounces, from a case of splenic leucocythæmia. The patient, a man aged 50, had been ill about five months, and died three days after admission to the infirmary with symptoms pointing to pulmonary coagulation. After death whitish clots were found in all the cavities of the heart, in the pulmonary arteries, and in the large veins of the thorax and abdomen; and Dr. Rorie referred to Sir Joseph Fayrer's paper published recently in the British Medical Journal, and expressed the opinion that intravascular clotting was not uncommon amongst asylum patients.

Medical Legislators in Germany.—The newly-elected German Reichstag includes six medical practitioners among its members. These are Dr. Langerhans (Berlin), Dr. Bostetter (Brumath, Alsace), Dr. Haas (Metz), Dr. Höffel (Buchweiler, Alsace), Dr. Kruse (Norderney), and Dr. Rzepnikowski (Löban, West Prussia).

Society for the Relief of Widows and Orphans of Medical Men.—The quarterly Court of Directors of this Society was held on October 11th, Sir James Paget, President, in the chair. It was reported that three widows had died and one orphan had become ineligible; one of the widows had received £997 from the Society. Applications for the renewal of grants were received from fifty-four widows, nine orphans, and four orphans on the Copeland Fund, and it was decided to distribute among them £1,206 in January next. It was resolved that the following presents should be given at Christmas: £5 to each widow, £2 to each orphan, and £5 to each of the four orphans on the Copeland Fund. It was resolved that at Lady Day the offices of the Society should be removed to the house of the Medical Society of London, 11, Chandos Street, Cavendish Square, W.

American Jottings.—Cremation continues to make good progress in the United States. There are now thirty-two cremation societies all giving signs of active life, and fifteen crematories. During the last five years there have been over 2,000 incinerations.—The Supreme Court of North Dakota has ruled that mental suffering is as properly considered in estimating damages as physical pain. The impairment of mental powers, naturally a proper element when proved, is to be considered by the jury only when claimed in the suit and evidence. Presumably the plaintiff will be called upon to show that he has sustained actual damage; if the "mental suffering" of fidgety old ladies who think they have got into the wrong train, or of nervous passengers who think every adult fellow passenger an escaped lunatic and every child a convalescent from some notifiable disease, is to be admitted as a ground of action, railway directors are not likely to languish for want of excitement.—The American Neurological Association recently adopted the following resolution: "It is the unanimous sense of the American Neurological Association that the proper care of the epileptic class, so long delayed, be urged upon the public, upon State authorities, and especially upon all interested in the care of the sick and defective poor, whereby they may be relieved from asylums and almshouses, and may receive the required care in such separate establishments as their deplorable situation demands."—The New York *Medical Record* gives the following figures as to hospital accommodation in some of the principal cities of the United States: New York, 11,000 beds; Philadelphia, 6,391; Chicago, 4,684; Cincinnati, 3,000; St. Louis, 2,086; Brooklyn, 2,000; Buffalo, 1,025; Denver, 961; St. Joseph, 849; Detroit, 672; Milwaukee, 667; Omaha, 617; St. Paul, 522; Kansas City, 516; Albany, 447; and Minneapolis, 325.—Dr. H. W. Stellwagon has recently called attention to the increasing prevalence of itch in the United States. The affection, which constituted only 0.9 per cent. of all cases of skin disease in 1890, had risen to 5.39 per cent. in the following year. At the present time, Philadelphia shows the highest percentage of cases of scabies, a fact which it is amiably suggested by an American contemporary may account for the growing restlessness of the population of the city of Brotherly Love. Next to Philadelphia come Boston, with 7.38, and New York, with 6.36 per cent., the three leading cities occupying this bad eminence, as if to show that neither birth, nor brains, nor even the "almighty dollar," gives immunity against the attacks of the "conqueror worm" of scabies. In Baltimore the percentage of itch among skin affections is 4.61, in Chicago 3.53, and St. Louis 2.88. Dr. Stellwagon thinks the disease is imported. The American laws as to the admission of immigrants do not err on the side of laxity, but possibly there is no special provision for the exclusion of that particular "filthy and unwholesome alien," the acarus scabiei.

MEDICAL VACANCIES.

The following vacancies are announced:

BELGRAVE HOSPITAL FOR CHILDREN, 77 and 79, Gloucester Street S.W.—Physician for Outpatients. Applications to Honorary Secretary by November 8th.

BRIXTON, STREATHAM, AND HERNE HILL DISPENSARY, Water Lane, Brixton.—Resident House-Surgeon; unmarried; doubly qualified. Salary, £150 per annum, with furnished apartments, attendance, coal, and gas. Applications to the Secretary by October 27th.

CHARING CROSS HOSPITAL.—Surgeon Dentist, must be M.R.C.S.Eng. Applications to Arthur E. Reade, Secretary, by October 31st.

CHORLEY GENERAL DISPENSARY AND COTTAGE HOSPITAL.—House-Surgeon and Apothecary; doubly qualified. Salary, £80 per annum, and board. Applications to Bernard Stanton, Honorary Secretary, 14, High Street, Chorley, by October 26th.

CITY OF SHEFFIELD.—Resident Medical Officer for the City Hospital for Infectious Diseases; doubly qualified. Salary, £200 per annum, with board, lodging, and attendance. Applications endorsed "Medical Superintendent," to J. W. Pye-Smith, Town Clerk, Town Clerk's Office, Sheffield, by October 28th.

DUNDEE ROYAL LUNATIC ASYLUM.—Resident Clinical Assistant. Applications to Dr. Rorie, West Green House, Dundee.

EDMONTON UNION.—Resident Medical Officer for the Chase Farm School, Enfield. Appointment for six months. Salary at the rate of £100 per annum, with board, washing, sitting-room, and bedroom. Applications to Francis Shelton, Clerk, 808, High Road, Lower Tottenham, by October 25th.

GENERAL HOSPITAL, Birmingham.—Two Assistant House-Surgeons. Residence, board, and washing provided. Applications to the House Governor by October 28th.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway Road, N.—Surgeon to the Out-patients; must be F.R.C.S.Eng. Applications to William T. Grant, Secretary, by October 23rd.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—House-Physicians. Applications to the Secretary by October 26th. Also Assistant Resident Medical Officer. Salary, £50 per annum, with board and residence. Applications to the Secretary by October 25th.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Surgical Registrar and Anæsthetist. Appointment for one year, an honorarium of £40 being voted at the expiration of that term. Applications to the Secretary by October 24th.

HUDDERSFIELD INFIRMARY.—Senior House-Surgeon. Salary, £80 per annum, with board, lodging, and washing. Applications to Mr. Joseph Bate, Secretary, by October 23rd.

PARISH OF ST. MARY, Islington.—Medical Officer for the Third District. Salary, £100 per annum, with extra fees. Applications to Edwin Devey, Clerk, Guardians' Office, St. John's Road, Upper Holloway, N., by October 24th.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone Road, N.W.—Resident Medical Officer. Appointments for four months. Salary at the rate of £60 per annum, with board and residence. Applications to G. Owen Ryan, Secretary, by October 26th.

ST. THOMAS'S HOSPITAL.—Physician, who must be F. or M.R.C.P.Lond., and Surgeon, who must be F.R.C.S.Eng. Applications to Mr. E. M. Hardy, Treasurer's Clerk, by October 21st.

TAUNTON AND SOMERSET HOSPITAL.—Honorary Physician. Applications to J. H. Biddulph Pinchard, Secretary, 13, Hammet Street, Taunton, by October 23rd.

TORBAY HOSPITAL AND PROVIDENT DISPENSARY, Torquay.—Junior House-Surgeon and Dispenser; doubly qualified, unmarried. Board, lodging, and attendance provided. Salary, £80 per annum. Applications to the Honorary Secretary, Captain Phillpotts, R.N., by November 13th.

WEST LONDON HOSPITAL, Hammersmith Road, W.—Physician; must be Fellow or Member of the Royal College of Physicians of London. Applications to R. J. Gilbert, Secretary Superintendent, by October 25th.

MEDICAL APPOINTMENTS.

Atlee, J., M.B., B.C.Cantab., appointed Ophthalmic House-Surgeon to St. Bartholomew's Hospital.

Banks, William, M.B.Lond., M.R.C.S.Eng., reappointed Honorary Surgeon to the Falmouth Public Dispensary.

Berry, D., appointed *pro tem.* Medical Officer of Health to the Burnham Local Board, *vice* Arthur Wm. Chalmers, M.A., M.B.Camb., resigned.

Birdwood, R. A., M.D., M R.C.S.Eng., appointed Medical Superintendent to the Metropolitan Asylums District.

Boyle, Robert, L.R.C.P., L.R.C.S.Edin., L.F.P.S.Glasg., appointed Medical Inspector to the Universal White Lead Works, Millwall, London.

Bridges, Mr. E. C., appointed Senior House-Physician to St. Bartholomew's Hospital.

Brooksbank, H. L., M.B.Cantab., appointed Junior House-Physician to St. Bartholomew's Hospital.

Buck, Mr. A., appointed Senior House-Surgeon to St. Bartholomew's Hospital.

Bullmore, Frederick Charles, M.R.C.S.Eng., L.S.A., reappointed Honorary Surgeon to the Falmouth Public Dispensary.

Bullmore, William King, M.D.St.And., M.R.C.S.Eng., reappointed Acting Surgeon to the Falmouth Public Dispensary.

Buttar, C., M.B.Cantab., appointed Senior House-Surgeon to St. Bartholomew's Hospital.

Croll, Andrew, M.B., C.M., appointed Resident Medical Officer to the Dundee Parochial Hospital.

Cross, Edward J., M.R.C.S.Eng., L.R.C.P.Lond., D.P.H.Camb., appointed Medical Officer for the Southwick District of the Fareham Union.

Cushny, Arthur R., M.D.Aberd., appointed Professor of Materia Medica and Therapeutics in the University of Michigan, U.S.A., *vice* Dr. John A. Abel, resigned.

Davies, David Samuel, M.D., L.R.C.P.Lond., M.R.C.S.Eng., reappointed Medical Officer of Health to the Bristol Port Sanitary Authority.

De Segundo, C. S., M.B.Lond., appointed Junior House-Physician to St. Bartholomew's Hospital.

Evans, Harold M., M.B.Lond., M.R.C.S., L.R.C.P., appointed Assistant Registrar at the Central London Throat, Nose, and Ear Hospital, Gray's Inn Road.

Furnivall, Mr. P., appointed Junior House-Surgeon to St. Bartholomew's Hospital.

Harris, Arthur Ben, M.D.St.And., L.R.C.P.Edin., M.R.C.S.Eng., reappointed Honorary Surgeon to the Falmouth Public Dispensary.

Heaven, John Cookesley, L.R.C.P.Lond., M.R.C.S.Eng., reappointed Assistant Medical Officer of Health to the Bristol Port Sanitary Authority.

Helme, T. Arthur, M.D., F.R.S.E., appointed Honorary Assistant Surgeon to the Clinical Hospital for Women and Children, Manchester.

Hepburn, H. L., M.B.Lond., appointed Senior House-Surgeon to St. Bartholomew's Hospital.

Hobart, N. H., M.B.Cantab., appointed Junior Resident Anæsthetist to St. Bartholomew's Hospital.

Hodgson, Charles, M.R.C.S., L.R.C.P.Lond., appointed Assistant House-Surgeon to the County Hospital, York.

Horne, Mr. W. J., appointed Junior House-Physician to St. Bartholomew's Hospital.

Horton-Smith, P., M.B.Cantab., appointed Junior House-Physician to St. Bartholomew's Hospital.

Jones, L., F.R.C.S., appointed Junior House-Surgeon to St. Bartholomew's Hospital.

Jones, W. B., M.B.Lond., appointed Senior House-Surgeon to St. Bartholomew's Hospital.

Maidlow, W. H., F.R.C.S., appointed Junior House-Surgeon to St. Bartholomew's Hospital.

Miller, Mr. J., appointed Senior House-Physician to St. Bartholomew's Hospital.

Millett, Geo. Bown, L.R.C.P.Edin., M.R.C.S.Eng., reappointed Medical Officer of Health to the Penzance Town Council.

Moore, Edward Head, L.R.C.S.Edin., L.S.A., reappointed Honorary Surgeon to the Falmouth Public Dispensary.

Morse, Edward, L.R.C.P., L.R.C.S.Edin., reappointed Medical Officer of Health for Great Torrington.

Owen, James Francis Holland, L.R.C.P.Edin., M.R.C.S.Eng., reappointed Honorary Surgeon to the Falmouth Public Dispensary.

Paterson, H. J., M.B.Cantab., appointed Senior House Surgeon to St. Bartholomew's Hospital.

Phillips, Arthur Robert, L.D.S.R.C.S.Eng., reappointed Honorary Dental Surgeon to the Falmouth Public Dispensary.

Pomfret, Hy. Waites, M.D.Vict., L.R.C.P.Lond., F.R.C.S.Eng., reappointed Medical Officer of Health to the Hollingworth Local Board.

Pooley, Richard Charles Mason, L.R.C.P., L.R.C.S.I., reappointed Honorary Surgeon to the Falmouth Public Dispensary.

Shuter, G. P., M.B.Cantab., appointed Senior Resident Anæsthetist to St. Bartholomew's Hospital.

Smith, John, M.A., M.D.Edin., M.R.C.S.Eng., appointed Medical Officer to the Post Office, Kirkcaldy, N.B., *vice* J. Mackintosh Campbell, M.B., C.M., deceased.

Smith, Mr. R., appointed Junior House-Surgeon to St. Bartholomew's Hospital.

Stack, E. H. E., M.B., B.C.Cantab., appointed Midwifery Assistant to St. Bartholomew's Hospital.

Stein, Charles, M.D.Edin., appointed Medical Officer of the Workhouse of the Shipston-on-Stour Union.

Stubbs, H. D., M.B.Cantab., appointed Extern Midwifery Assistant to St. Bartholomew's Hospital.

Symington, Johnson, M.D., F.R.C.S.Edin., appointed Professor of Anatomy in the Queen's College, Belfast, *vice* P. Redfern, M.D., F.R.C.S.Eng.

Thorne, Thorne B., M.B., B.S.Durh., appointed Senior House-Physician to St. Bartholomew's Hospital.

Thompson, Wm. H., M.D.R.U.I., M.Ch., F.R.C.S.Eng., appointed Professor of Physiology in the Queen's College, Belfast, *vice* P. Redfern, M.D., F.R.C.S.Eng.

Troutbeck, H., M.B., B.C.Cantab., appointed Senior House-Physician to St. Bartholomew's Hospital.

Wetwan, William Albert, M.R.C.S.Eng., L.S.A., reappointed Medical Officer of Health for the Bridlington Urban Sanitary District.

Wiggens, Mr. Charles, appointed Medical Officer of Health for the Bexhill Urban Sanitary District, *vice* E. Ryan-Tenison, M.R.C.S.Eng., resigned.

Will, John C. Ogilvie, M.D.Aberd., appointed Extra-professorial Examiner in Surgery for Degrees in Medicine at the University of Aberdeen.

Wilson, Mr. N. O., appointed Junior House-Surgeon to St. Bartholomew's Hospital.

Wilson, Thomas, L.R.C.P.Edin., M.R.C.S.Eng., reappointed Medical Officer of Health for Wallsend.

Windle, Bertram C. A., M.D., D.Sc.Dub., appointed Extra-professorial Examiner in Anatomy for Degrees in Medicine at the University of Aberdeen.

Wood, John Cundell, L.R.C.S.& P., D.P.H.Edin., reappointed Medical Officer of Health and Public Analyst for the County Borough of Sunderland.

DIARY FOR NEXT WEEK.

MONDAY.

London Post-Graduate Course, Royal London Ophthalmic Hospital, 1 P.M.—Mr. W. Lang: Conjunctival Affections.

St. John's Hospital for Diseases of the Skin, Leicester Square, 5.30 P.M.—Dr. Morgan Dockrell: On Syphiloderma.

TUESDAY.

London Post-Graduate Course, Bethlem Hospital, 2 P.M.—Dr. Hyslop: Stupor; Catalepsy; Katatonia; Dementia. Hospital for Diseases of the Skin, Blackfriars, 4 P.M.—Mr. Jonathan Hutchinson: Syphilitic Lupus.

Royal Medical and Chirurgical Society, 8.30 P.M.—Mr. Anthony A. Bowlby: Diseases of Many Joints, probably of Syphilitic Origin. Mr. C. R. B. Keetley: Operations without Anæsthesia. Presentation of Marshall Hall Memorial Prize to Dr. W. R. Gowers.

WEDNESDAY.

London Post-Graduate Course, Hospital for Consumption, Brompton, 4 P.M.—Dr. J. Mitchell Bruce: Cases in the Wards. Royal London Ophthalmic Hospital, 8 P.M.—Mr. A. Stanford Morton: Retinal Affections.

Hunterian Society, 8.30 P.M.—Dr. Arthur Davies: The Thyroid Gland and its Therapeutic Uses in Myxœdema and certain Skin Conditions; illustrated by cases, specimens, and preparations. Drs. Radcliffe Crocker, Fletcher Beach, Pasteur, Beadles, and others will discuss the subject.

THURSDAY.

London Post-Graduate Course, National Hospital for the Paralysed and Epileptic, Queen Square, 2 P.M.—Dr. Buzzard: A Clinical Demonstration. Hospital for Sick Children, Great Ormond Street, 3.30 P.M.—Dr. Barlow: Abdominal Tuberculosis. Central London Sick Asylum, Cleveland Street, 5.30 P.M.—Mr. Thomas Bryant: Cases in the Wards. London Throat Hospital, Great Portland Street, W., 8 P.M.—Mr. George Stoker: Chronic Glandular Diseases of the Naso-pharynx.

FRIDAY.

London Post-Graduate Course, Hospital for Consumption, Brompton, 4 P.M.—Dr. J. Mitchell Bruce: Cases in the Wards.

Clinical Society of London, 8.0 P.M.—Living Specimens: Dr. Frederick Taylor; A case of Cancrum Oris after Typhoid Fever. Mr. Charters Symonds: Successful Operation for Ectopia. Mr. Balmanno Squire: Morphœa of Fifth Nerve. Mr. Pearce Gould: (1) A case of Excision of the Palmar Synovial Membranes; (2) a case of Hypertrophy without Dilatation. Dr. Hale White: (1) Two cases of Dark Urine in Pernicious Anæmia; (2) Congenital Syphilitic Disease of the Liver. Papers, 9 P.M.:—Mr. Bidwell: A case of Gastro-jejunostomy. Dr. Frederick Taylor: A case of Disease of the Corpora Quadrigemina. Mr. Mansell Moullin: Traumatic Arachnoid Hæmorrhage with Symptoms on the Same Side as the Lesion.

King's College Medical Society, King's College, Strand, 7.30 P.M.—Sir Joseph Lister, Bart.: Inaugural Address on Essentials in Antiseptic Treatment.

SATURDAY.

London Post-Graduate Course, Bethlem Hospital, 11 A.M.—Dr. Corner: Delusional Insanity; Mania of Persecution.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTHS.

Beck.—October 11th, at Fitzroy House, Botanic Avenue, Belfast, the wife of Dr. Fred. E. Beck, of a son.

Carless.—On October 13th, at 10, Welbeck Street, W., the wife of Albert Carless, M.S., F.R.C.S., of a son.

Carpenter.—September 13th, 1893, at Corosal, British Honduras, the wife of P. T. Carpenter, M.R.C.S., etc., of a daughter.

Darling.—On October 9th, at Bridge House, Eardisley, Herefordshire, the wife of Quintin R. Darling, L.R.C.S.I., L.M., and L.R.C.P.I, of a daughter.

Halley.—October 17th, at Park House, Fulham, S.W., the wife of William Halley, L.R.C.P.Lond., M.R.C.S.Eng., of a son.

Milligan.—On October 16th, at 337, Oxford Road, Manchester, the wife of W. Milligan, M.D., of a son.

Power.—October 5th, at Fort Pitt, Chatham, the wife of Surgeon-Major E. R. Power, Army Medical Staff, of a son.

Thomson.—On October 12th, at Coates Crescent, Edinburgh, the wife of John Thomson, M.D., F.R.C.P.E., of a son.

MARRIAGE.

Allen—Henshaw.—October 11th, at St. Saviour's Church, Falkner Square, Liverpool, by the Rev. H. J. Allen, B.A.Lond., brother of the bridegroom, William Edlund Lawrence, M.B. and C.M., son of the late Rev. John Allen, vicar of Hawkshead, Ambleside, to Annie Beatrice, younger daughter of the late Joshua Henshaw, of Liverpool.

DEATH.

Baron.—On October 11th, at Ulceby, North Lincolnshire, Eleanor, the wife of Thomas Baron, M.R.C.S., L.S.A., aged 45 years.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

EMIGRANT writes: Which colony offers the best prospects for medical practice—Tasmania or New Zealand?

MEDICUS wishes to know: 1. Of an asylum in the neighbourhood of London where a lunatic with contraction of the legs would be taken at about £20 or £25 a year. 2. Whether any firm of instrument makers hire out surgical instruments. This would be a great convenience to general practitioners, who are often deterred from doing operations by the cost of the instruments required, many of which might never be wanted again.

NOCTURNAL INCONTINENCE.

W. L. C. writes: Will some brother practitioner kindly advise what further remedy can be tried for a boy of 10, with noctural incontinence? The following drugs have been used without success—belladonna, alkalies, rhus aromat., lycopodium, etc. Has been circumcised.

EPILEPTIC IDIOTS.

A. C. asks whether there is any institution into which cases of epileptic idiocy can be admitted. The family of the patients are not entitled to help from the guardians, but are not in a position to pay anything.

*** The only institution available is the county lunatic asylum.

TREATMENT OF TINNITUS.

M.B. asks for hints for cure or alleviation of tinnitus aurium. Phosphorus, arsenic, iron, and strychnine have been tried without success; also antipyrin and exalgine. The noises have continued for a year, and followed influenza. Electricity and catheterisation of Eustachian tubes have also been used.

DOCTORS AND CHEMISTS.

DOUBTFUL asks: Is it etiquette for a medical man to allow a brass plate with his name on it to be put on the door of a local chemist, when the medical man lives and practises half a mile away?

*** Although there is no written rule which directly bears on the point in question, yet such an act would contravene the true spirit of ethics as laid down in the *Code*.

ANSWERS.

H. S.—Turin is not a place of winter resort either for health or pleasure.

S. W. R.—Our correspondent might consult the abstract of the report of the Committee on the Registration of Midwives, which was published in the JOURNAL of August 19th, p. 435.

U.S.A.—The regulations vary in the different States and territories. Particulars will be found in the Educational Number of the BRITISH MEDICAL JOURNAL published on September 2nd, 1893, pages 546, 547.

A MEMBER.—The titles of two books on medical examination for life assurance were mentioned in reply to a correspondent on p. 875 of the BRITISH MEDICAL JOURNAL of October 14th.

E. H. D.—In reply to the inquiry of a correspondent, Moll's work on *Hypnotism* was recommended in the BRITISH MEDICAL JOURNAL of October 14th, p. 875.

SURGEON.—Some information as to instruction in massage, and as to the prospects of a masseur, were given in the JOURNAL of October 14th, p. 875, second column.

DR. H. C.—The Coroners' Act is explicit in saying that a medical practitioner is entitled to his fee for "attending to give evidence." If coroners make a practice of refusing to allow a fee for each attendance, medical witnesses should refuse to give their evidence till their fees are paid.

RECTUS.—There is no general custom in London, nor, we believe, generally in England. It is uncommon for surgeons to take the degree of Doctor of Medicine; if they proceed to a higher degree than Bachelor of Medicine, the Mastership in Surgery is generally selected. In Scotland, however, very many surgeons have proceeded to the degree of Doctor of Medicine.

NONIT OIL.

A. B. C.—This oil contains a small amount of the alkaloid delphinine, and has probably been prepared by infusing the seeds of delphinium staphysagria in hot oil.

CHRONIC SCALY ECZEMA.

MR. EDWARD GRAY, M.B., C.M. (Regent's Park, N.W.), writes: "Seloc" should try Monson's cocoa butter soap. The writer was recommended by a friend to use it for shaving, and since then "has used no other." After shaving the skin is delightfully soft and smooth and free from scaliness and smarting.

DR. F. ST. GEORGE MIVART (Wimbledon) writes: If "Seloc" will try "Monilla liquid soap" he will find the greatest benefit from it. I have found it absolutely cure chapped hands, even in bad cases. In addition, I should advise that an ointment of oleate of zinc and lanolin or ung. cetacei be applied lightly to the face at night only.

NOTES, LETTERS, Etc.

A PLUS-QUAM-CENTENARIAN.

A MAN, named Pedro Erello, is said to have died on July 12th, at Tarimoro, in Mexico, at the patriarchal age of 133, leaving 400 living descendants.

ANTISEPTIC HAIRDRESSING.

THE Government of the Republic of Columbia has, in view of the possibility of contagious diseases such as ringworm, favus, and syphilis being transmitted by combs, brushes, etc., passed an enactment making it compulsory for all barbers and hairdressers to keep the instruments of their art clean, and to disinfect them every time they have been used. A notice to this effect is to be posted up in all tonsorial establishments.

HYPNOTISM IN RUSSIA.

THE practice of hypnotism, which has hitherto been forbidden in Russia, has recently been legalised, subject to the restrictions indicated by the Minister of the Interior as follows: "Physicians must strictly observe the provisions of Art. 115 of the Medical Code; they must inform the administrative authorities of their intervention in each case, mentioning the name of the physician present at the sitting. All advertisement of treatment is forbidden."

THE POSTPONEMENT OF VACCINATION.

E.A.L. writes: Three years ago I vaccinated a little boy, three months old, with fresh calf lymph. The vaccination was followed by an eruption over the whole body very like pemphigus in character. Some four months ago I vaccinated a sister of this little boy. I used in this case also fresh calf lymph. In this instance the vaccination was followed by blood poisoning, a series of pyæmic abscesses following, and for some time the child's recovery seemed quite doubtful. However, after three months' illness she did get well. Now should the mother of these two children have another child and consult me as to its vaccination what am I to do? Knowing this history should I vaccinate it? If I do not vaccinate it am I to keep postponing the vaccination every two months? In a case such as I give should a doctor not be able to postpone a vaccination for a much longer period than two months, or, stating satisfactory reasons, put off the operation entirely?

DRAINAGE OF THE ANTRUM.

MR. J. SEFTON SEWILL (Wimpole Street, W.) writes: Under the heading of "An Improved Method of Draining the Antrum of Highmore," in the EPITOME attached to the BRITISH MEDICAL JOURNAL of October 7th, it appears that a writer in the *New York Medical Journal* has described a new way of draining this cavity. Allow me to state that this new way is quite an old way, and that many dentists have been in the habit of using a precisely similar appliance for some years past. This method will be found mentioned in Heath's *Injuries and Diseases of the Jaws* (1884 edition), which gives this new and improved method the age of, at any rate, nine years. How much earlier it was practised I am unable absolutely to say. Certainly in the practice of the gentlemen with whom I have the honour to be associated a precisely similar plate and tube has been a routine method for the last seven or eight years; and I believe I should be within the mark if I stated ten or twelve years as the period which has elapsed since the first plates were made on Mr. Major's new principle.

CEREBRAL EVOLUTION AND THE EDUCATION OF WOMEN.

MISS CHARLOTTE SMITH (Assoc. Brit. Inst. Public Health) writes: May I point out that in Sir J. Crichton Browne's recent address at Sheffield there occurs a striking though unintentional refutation of the very arguments on which he based his objection to the higher education of women in his oration on "Sex in Education" in 1892. For he then asserted that because the occipital and sensory areas of the feminine brain were more developed than the motor—the masculine brain being exactly the reverse—therefore women must be endowed with lower mental capacity. But last week he showed that from comparisons between skulls of the lower and higher races, as well as successive ages—brachycephalic as compared with dolichocephalic, etc.—it has been found that just as the civilisation of mankind progresses so in proportion do the occipital and sensory lobes increase in size; in fact, he adds, there is little difference between the motor areas of the anthropoid apes and similar parts of the human brain, the difference lying in the size of their psycho-sensorial regions. And thus he argues that if cerebral evolution goes on at all, it must go on in these, and as the measure of the civilisation of the race is its sentiency, so the measure of its sentiency is the size of its occipital and sensory lobes. In all humility may I beg that the same sauce be served for goose as for gander.

The Title of "Dr."

J. L. C. writes: I think the remarks made by "M.D. and M.B." on this subject are deserving of a retort. In the first place I should like to ask him who it is that gives the physician and surgeon the title of "Doctor?" The patients and the public are the criminals. When a person is ill he does not say "Go and fetch the M.R.C.S.E.," but says "Fetch a doctor"; and when the medical man arrives he is called "Doctor." If your correspondent will take the trouble to look at *Nuttall's Dictionary* he will find that such language is quite correct. Nuttall says "Doctor" means "a learned man," "a physician," "a fish with sharp-edged spines near the tail," etc. It has been the custom from time immemorial to call physicians "Doctors," and I hope it will continue, in spite of the hasty remarks of "M.D. and M.B."; and I also hope the Medical Defence Union (of which I am a member) will continue to apply their funds to a better object than that which is proposed by "M.D. and M.B.," unless at the same time Dr. Leslie Phillips prosecutes M.D.'s and M.B.'s who call themselves physicians without having a diploma from a College of Physicians. If a medical man puts M.D. after his name when he is not entitled to it he ought to be punished; but when a medical man puts "Dr." before his name on his card or doorplate, it is only to show that he practises medicine. A great many men holding an M.D. degree will not allow themselves to be called "Doctor," simply because they do not practise medicine, but surgery. Perhaps "M.D. and M.B." would prosecute them for calling themselves "Mr.'s." "M.D. and M.B.'s" remarks about raising the status of the profession and improving general education are quite uncalled for. I have known M.D.'s of British universities no better educated than board school boys, and altogether deficient in gentlemanly manners.

A Registered M.D. (registered as such in the first *Register* issued) writes: In reply to "M.D. and M.B.," in the Journal of October 7th as to the title of "Dr." which is now being used by a large number of practitioners, not only on their doorplates, but also on their cards, without being legally entitled to adopt the title, the time certainly has arrived that such illegality should be discountenanced, particularly after the opinion expressed a short time since at the High Court that no one unless a registered M.D. can style himself "Dr.;" also with twopenny dispensaries and usurpation of a title to which the majority of medicals are not entitled, thus assuming a false position in the estimation of the public. Why do not the different colleges—who do not grant degrees, merely qualifying diplomas—exercise their authority in the matter and not allow their Members and Licentiates to palm themselves upon the general public as Doctors? Even the Licentiates of the College of Physicians, London, are styling themselves "Doctors," contrary to the by-laws issued by that College. The College of Physicians, Edinburgh, seems to have been the first aggressor in permitting their Licentiates to use the title—especially in the year of grace when their diploma was to be had by the payment of £10. They can call themselves "Physicians" but not "Doctors"—thereby meaning, which cannot be accepted in any other light, that they are M.D.'s. In any profession a man calling himself "Dr." must be a Doctor of something, whether of divinity, laws, medicine, or music. It is high time the question should be finally settled, and I trust before long the Medical Defence Union will be prepared, under its present able President, to take legal proceedings in the matter. It does seem now more respectable to call oneself plain "Mr.," especially in these days, when the status of the profession seems to be somewhat ignored by many medicals who are carrying on their work in a degrading fashion, such as cheap physic and advice, as also taking unto themselves titles which are false and deceptive to the public. As now constituted there are: Doctors, that is, Doctors of Medicine, M.D.'s; Physicians of a College of Physicians and Surgeons; ditto Surgeons. At present L.S.A.'s are without title, some of whom are now styling themselves "Doctors."

Common-Sense writes: The subject of the title "Dr." appears to have had great interest for a certain number of gentlemen for some years past, but I have failed to observe the names of any important M.D.'s among the number of those condemning its use among general practitioners, and I take it that the obscurity of those who thus object to its use is the very essence of their militating against its being used by any but M.D.'s. An M.D. holding important posts and in good practice would scorn to interfere with his more humble neighbour, because he found it simpler, more convenient, and less conspicuous to have a small doorplate with "Dr. So-and-so" on it, and how can this touch the interests of those M.D.'s who complain of it? They can put "John So-and-so, M.D.," and what more can they want, and what can possibly show more their great superiority over their more humble brother?

Again, it is but an act of selfishness on their part, for if they use their magic letters they cannot use the title "Dr." with any decent taste, and if they use this title they must drop the letters. It seems to me the whole matter is contained in a nutshell, and is a question of success or non-success. If a man has the qualities and manner for a successful doctor, a successful doctor he will be, even though he may not be the doctor with the big D.; and, on the other side, however many letters of the M.D. class a man may hold, he will fill but an indifferent position if he has not these special qualities, and it seems, in my humble opinion, that it is this latter class who have mistaken their vocation, who clamour so loud at what they are pleased to consider their special domain being trespassed upon. An improper assumption of titles is greatly to be deprecated, but it is no more an assumption, in my opinion, to use "Dr." on a doorplate by every qualified doctor, than it is for every minister of religion to call himself "Rev."

F. W. C. writes: There is little doubt that, were the general public educated in this matter, as regards the intrinsic worth of the variety of medical titles and the various standards required by the different universities and colleges, there would be no hardship for many practitioners to be called "Mr." But as the public is so uneducated on this subject, and so imbued with the idea that a physician or surgeon must necessarily be a doctor, it is a great hardship to well-qualified men, who have passed, it may be, a higher standard of examination than men holding an M.D. degree, to be considered their inferiors from a professional point of view. The General Medical Council require that all examining bodies (corporations as well as universities) shall keep up a certain standard of proficiency. But they in no way insist that the universities shall retain a higher one in their examinations. And I would further point out that the reports of this body are not always universally favourable to the would-be superior examining boards, the universities.

I would respectfully suggest that all M.D.'s should always notify after their names where their doctorate is obtained, as it is only fair, I think, to Licentiates to do so until the time comes when the Government of this country shall institute a State examination.

M.D. and Physician writes: Would it be considered peculiar or incorrect for the L. or M.R.C.P. to place on his doorplate "Physician" after the name, omitting "Surgeon" if not practising as such? If correct, that would settle the dispute about the title of "Dr." (one used by some M.R.C.P.'s as a right, others by courtesy), provided that the M.D.'s do not usurp the right to the title of Physician, a far more respectable and highly thought of address than the other, which is too often mixed up with the retail of lollipops, tooth brushes, quack medicines, and consultations, medicines included, at the charge of 6d., or clubs at 2s. 6d. a head. Physicians are not permitted to do so. Such conduct is more damaging than the misuse of titles.

Dr. A. Sheen (Cardiff) writes: If I had the power I would solve this question in the following manner: Every registered medical practitioner should have the right to style himself a "Doctor," just as every lawer is styled a "Solicitor." This would not imply that he was an M.D. He should put on his card or his plate—

Mr. ——.
Doctor.

The public calls us "Doctors," but in print we are spoken of as "medical men," "medical gentlemen," or "medical practitioners"—absurd titles; as is also the one which we frequently see on a doorplate, namely, "Physician and Surgeon." Cannot some leaders in the profession, or members of the General Medical Council, take this matter up in the way I have suggested, and once for all do away with an absurd anomaly?

B.A., M.B., B.Ch. writes: The writers of the letters which have appeared on the subject of the title of "Dr." seem to ignore the fact that even amongst M.D.'s differences exist as regards status. In some cases, though a man may write M.D., he has never passed any Arts examination except a preliminary one; others have taken the B.A. degree and perhaps the M.A. by choice; while others come from universities which have refused to become for anyone merely medical colleges, insisting that no degrees in special subjects shall be given till the B.A. examination shall have been passed. Surely if the M.D.'s—B.A. are to be allowed to look down on Licentiates, the M.D.'s+B.A. may look in slightly similar direction on the M.D.'s—B.A.

H. R. writes: I have often noticed that M.D.'s describe themselves on their doorplates as "Dr. ——, Physician and Surgeon." Strictly speaking, they are Doctors of Medicine and Surgery, and have no more right to describe themselves as physicians than a Licentiate has to describe himself as M.D. They will answer, "An M.D. is a physician." I say he is not, unless a physician, or Licentiate in Medicine is a doctor. Your correspondent wants to gain the advantage of his M.D., and at the same time claim the diploma of physician without earning it. If a degree in Medicine were only granted to B.A.'s, as in Dublin, then the graduates might be justified in feeling pride in their knowledge of general literature, but the B.A. is not generally compulsory. "M.D., M.B." suggests that the Medical Defence Union should take the matter up, and proceed against physicians who call themselves "Dr." May I conclude by asking how long that Society would last if it followed this suggestion?

*** We have received a large number of other letters upon this subject, for which we are unable to find space.

Vaccination in China.

Dr. W. W. Shrubshall (English Methodist Medical Mission, T'ang Shan, *vid* Tientsin, China) writes: I have just read in the British Medical Journal of June 10th a note respecting the gradual dissipation of antipathy to vaccination in this country. It is only fair to the Chinese intelligence to state that in some districts opposition to the practice is probably far less than in certain notorious localities in England. In Lao Ling, Shantung Province, about 150 miles south of Tientsin, I found that free vaccination brought such large numbers of applicants that it would have interfered with the carrying on of our ordinary medical mission work. An intelligent assistant whom I instructed and supplied with lymph (from Japan) had his house besieged from morning till night with the would-be-vaccinated, many coming great distances. The terrible results of small-pox evident in those who escape a fatal attack, though not fully recognised by the ordinary Chinaman as having their origin in the fell disease, are sufficiently known to enable him to hail any prophylactic with satisfaction and to avail himself of its benefit with a willingness at least equal to that with which he so trustfully absorbs foreign drugs.

The St. John Ambulance Association and its Doctors.

A Country Surgeon writes: I have read with much interest the recent communications in the British Medical Journal with respect to the St. John Ambulance Association. I live in a small town of 5,000 inhabitants, where a movement is being made for a course of lectures, and I have been asked to do the work. The two principal movers in the matter are a fresh clergyman, who thinks he would thereby get a greater hold on some of the young people in the town, and a lady who has recently come to live in the town who says she takes a great interest in ambulance work, and who is specially desirous that female classes should be formed. This I have agreed to so far that if classes are formed at all, I would give no instruction to a female class unless a district nurse be provided for the town, which, in my opinion, is more urgently required than a little ambulance knowledge amongst the ladies. If, as one of your correspondents says, the St. John Associa-

tion is so wealthy. I think it might well spend money in partly paying for some travelling lecturers, leaving the people who want the lectures for their own private purposes and the members who join the classes to contribute their share also.

INCAPACITY CERTIFICATES.

AMUSED writes:—The following method of filling in an incapacity certificate which came under my notice seems to me to be worth bringing before your readers:

Name—X. Y. Z. Nature of injury—Crushed thumb. Total disablement to continue for—Until surgical treatment and the course of nature enables the wound to *heel* up.

CORROSIVE SUBLIMATE IN PUERPERAL SEPTICÆMIA.

DR. C. R. ILLINGWORTH (West Kensington) writes: It is a matter worthy of note that at the time Dr. Barnes, Dr. Cullingworth, and others at the Newcastle meeting, as reported in the BRITISH MEDICAL JOURNAL of September 16th, were extolling corrosive sublimate as used by Tarnier, that gentleman had already announced his resolve never to use the drug again, for the very valid and important reason that it had caused eighteen deaths—two from vaginal, and sixteen from intrauterine injections.[1] But the drug has been condemned for all practice by many authorities ever since 1888. Why, therefore, there should still be any advocacy for the use of so lethiferous a remedy I cannot understand. I am glad to note that Messrs. Burroughs and Wellcome, at the suggestion of Dr. Leith Napier, have made "soloids" of "iodic hydrarg," which, when dissolved in water, make solutions of biniodide of a strength suitable for use in obstetric and surgical practice. These solutions I have both dispensed for chronic endometritis and salpingitis by injection, and used in obstetric practice scores of times during the last six years, and I have never seen the slightest harm result.

BIMECONATE OF MORPHINE.

M.B.Durh. writes: The letter of "F.C.S., F.L.S." in the BRITISH MEDICAL JOURNAL of September 2nd, describing the difference in the way in which the acetate and bimeconate of morphine affected him is interesting, and draws attention to a subject upon which our knowledge is yet far from precise. That there is a difference in the action of the various preparations of the drug is probable. It is scarcely likely, however, that the action of the bimeconate is generally that which it seems to have been in your correspondent's case. It must be remembered that in the tincture, the most commonly used preparation of opium, the morphine exists in combination with meconic acid. It has generally been explained that the less sedative effect of opium as compared with morphine is due to the fact that several of the alkaloids present in the former drug have an excitant or convulsant action. The question now arises whether part, at all events, of the difference is not to be ascribed to the meconic acid in opium. In this connection an experience of my own may be interesting.

I have from time to time been obliged to resort to hypodermic injections of morphine to relieve a painful neuralgic affection to which I am subject. A short time ago the pain came on late one night, and I found that I was inadvertently without the tabloids of sulphate of morphine which I usually employ. I injected instead about 5 minims of the tincture of opium, from which the alcohol had been expelled by moderate heat. The effect was very different to that which would have followed the injection of an equivalent amount of sulphate of morphine (less the $\frac{1}{4}$ gr.). The latter drug relieves the pain, and produces a feeling of comfort in from five to ten minutes. From hypodermic injection of opium I got only partial relief at the end of half an hour, and I felt also by that time sensations of pricking and tingling in the limbs and lip. My mental condition was one of disagreeable unrest. Afterwards I sank into a troubled sleep, broken by vivid and distressing nightmares.

Lest it should be supposed that the heat employed to drive off the spirit decomposed the morphine in any way, I may say that I have frequently boiled the solution of the sulphate of morphine immediately before using it in order to make it aseptic without ever noticing any difference in its action in consequence.

LETTERS, COMMUNICATIONS, ETC., have been received from:

(A) Messrs. J. Allen and Sons, London; Mr. G. Ashdown, Conigsby; Mr. J. Anderson, Manchester; Mr. W. E. Audland, Wellingborough; Amused; Mr. W. C. Amery, Birmingham; "Antiquack;" Dr. P. S. Abraham, London; Alpha; Messrs. Arthur and Co., London; Messrs. Arnold and Son, London. **(B)** Mr. S. Boake, Liverpool; Mr. G. P. Bush, Clifton; Mr. A. Banks, Ryde; Dr. J. M. Booth, Aberdeen; Messrs. Burroughs, Wellcome and Co., London; Mr. W. Bradshaw, London; Dr. E. Blake, London; Dr. A. T. Brett, Watford; Mr. M. R. J. Behrendt, Doncaster; "B.A., M.B., B.Ch.;" Mr. R. Brazier, Oxford; Mr. C. Bell, New York; Brin's Oxygen Company, London; Mr. D. S. Burges, Bristol; Dr. C. Y. Biss, London; Miss P. Barrett, London; Mr. T. Baron, Ulceby; Mr. S. Bibason, Pontypool. **(C)** A County Surgeon; Mr. E. F. Collins, Cardiff; Mr. E. J. Cross, Fareham; Dr. R. Caton, Liverpool; Dr. A. R. Cushny, Michigan; Mr. E. C. Cripps, Cirencester; Dr. W. H. Corfield, London; H. A. Caley, M.B., London; Dr. A. Colles, Wellington; Dr. C. J. Cullingworth, London; Mr. F. W. Collingwood, Devonport; J. Jackson Clarke, M.B., London; "Common Sense;" Mr. C. W. Cumnington, London; "C. H. D.;" Dr. W. M. Campbell, Liverpool; F. W. Clark, M.B., Lowestoft; A. Carless, M.B., London; Mr. W. C. Campbell, Carlisle; W. J. Cleaver, M.B., Sheffield; Mr. C. P. Childe, Southsea; Dr. F. G. Clemow, St. Petersburg; Dr. G. Cordwent, Milverton. **(D)** Dr. A. Duke, Cheltenham; J. H. Dickson, M.B., Whitehaven; Dr. T. Dutton, London; Mr. A. R. Douglas, Lancaster; Dr. S. Davies, Plumstead; Mr. Q. R. Darling, Eardisley; Mr. G. J. Dudley, Steurbridge. **(E)** Emigrant. **(F)** Dr. W. Frazer, Bournemouth; Mr. R. F. Frazer, London; Mr. E. H. Fenwick, London; Dr. E. Fraser, London; Dr. R. H. Fox, London; F.R.C.S.; Mr. J. F. Foveaux, London; Messrs. T. Farmer and Co., London. **(G)** G. P.; Mr. S. Gahan, Margate; Dr. G. de G. Griffith, London; "G. T. H.;" "General Practitioner;" Dr. J. G. Garson, London; G. G. P. **(H)** Mr. J. Hutchinson, London; Messrs. Hertz and Collingwood, London; Mr. W. E. Hacon, Christchurch, N.Z.; Mr. E. M. Hardy, London; Dr. T. A. Helme, Manchester; Dr. E. O. Hopwood, London; "H. R.;" Mr. T. G. Horder, Cardiff; Mr. J. Hodgson, York; Dr. C. Holman, London; Mr. J. A. Hughes, Cadoxton. **(I)** Iota; Inquirer. **(J)** Mr. B. F. F. Jackson, London; Dr. H. L. Jones, London; Juvenal; J. E. Jones, M.B., Chorley. **(K)** T. N. Kelynack, M.B., Manchester; Mr. J. Kent, London. **(L)** Mr. W. H. P. Lewis, Oxford; Sir Joseph Lister, London; L.K.Q.C.P.; Dr. E. Lawford, Leighton Buzzard; Mr. D. T. P. Lloyd, Fort Dufferin; Mr. J. Lawrence-Hamilton, Brighton; Dr. J. A. Lindsay, Belfast; Messrs. Lever Bros. Limited, London. **(M)** Mr. J. H. Murray-Aynsley, Christchurch, N.Z.; Mr. T. S. McClaughry, Maryborough; Mr. R. G. McDonald, Dunedin; Dr. J. W. Moore, Dublin; A. L. Marshall, M.B., London; Dr. J. D. Moir, London; Mr. G. H. May, London; M.D. and Physician; Messrs. Meyer and Meltzer, London; Dr. F. St. G. Mivart, London; A Member; Mr. R. W. Murray, Liverpool; M.R.C.P.I., F.R.C.S.; M.D.; M.D., M.B., B.S., M.R.C.S.Eng., L.R.C.P. Lond.; M.B. and C.M.; Mr. A. G. Mossop, Newhaven; Mr. F. S. Milward, Ashford; Mr. T. F. McDonnell, Ascot; J. E. Moorhouse, M.B., Cardenden; Mr. M. J. McQuaid, Ballyjamesduff. **(N)** New Decimal Association, Secretary of, London. **(O)** Mr. R. J. W. Oswald, London. **(P)** Dr. S. R. Philipps, Virginia Water; Dr. J. Phillips, Sunderland; D'Arcy Power, M.B., London; Dr. P. H. Pye-Smith, London; Mr. J. W. G. Prince, Staines; Mr. J. Pietersen, Dudley. **(R)** Mr. F. B. Rockstro, London; Mr. S. W. Rhodes, Bradford; Dr. J. Rorie, Dundee; Dr. Rayner, London; "R.;" Mr. J. S. H. Roberts, Swansea. **(S)** W. S. Syme, M.B., Gamlingay; Mr. B. Stanton, Chorley; Dr. W. J. Sinclair, Manchester; Dr. E. M. Shirtliff, Ryde; Dr. A. Sheen, Cardiff; Dr. T. W. Shore, London; J. Smith, M.B., Radcliffe-on-Trent; Miss C. Smith, Southsea; Dr. R. C. Shettle, Reading; "Surgeon-Major A.M.S.;" "Surgeon-Major;" Dr. A. Sheen, Cardiff; Dr. G. Stoker, London; Spes; Dr. M. Skerritt, Bristol; Mr. H. Skipworth, Loughborough; Dr. J. Smith, Kirkcaldy. **(T)** J. H. Targett, M.B., London; Dr. S. Thomson, London; Mr. W. Turner, London; Dr. J. C. Thresh, Chelmsford. **(W)** Mr. W. Whysall, Grantham; Dr. J. W. Watson, Limavady; Mr. C. E. Wilmot, London; Dr. A. G. Welsford, Dover; A. C. Watt, M.B., Whitby, Dr. C. J. Wharry, London; Dr. F. J. Waldo, London; Mr. R. H. Wood, Rugby. **(X)** X. Y. Z.; etc.

BOOKS, ETC., RECEIVED.

Measurement of Light and Colour Sensations. By J. W. Lovibond. London: George Gill and Sons. 1893. 7s. 6d.

Healthy Hospitals. Observations on some Points connected with Hospital Construction. By Sir Douglas Galton. London: Henry Frowde. 1893. 10s. 6d.

Handbook of Public Health and Demography. By Dr. E. F. Willoughby. London: Macmillan and Co. 1893. 4s. 6d.

Elementary Palæontology for Geological Students. By Henry Woods. Cambridge: University Press. 1893.

Beri-Beri: its Etiology, Symptoms, Treatment, and Pathology. By Dr. A. J. M. Bentley. London: Young J. Pentland. 1893. 10s.

Gout as a Peripheral Neurosis. By W. F. Wade. London: Simpkin, Marshall, Hamilton, Kent, and Co. 1893. 2s. 6d.

Everybody's Letter Writer, being a complete Guide to Letter Writing. By "Penholder." London: Saxon and Co. 1893. 6d.

Die Blennorrhöe der Sexualorgane und ihre Complicationen. Von Dr. E. Finger. Leipzig: Franz Deuticke. 1893.

The Blot upon the Brain. Studies in History and Psychology. Second Edition. By Dr. W. W. Ireland. Edinburgh: Bell and Bradfute. 1893.

Post-Scarlatinal Diphtheria: a Statistical and Etiological Study. By R. D. R. Sweeting. London: C. J. Clark. 1893.

The Students' Handbook of Gynæcology. Edinburgh: E. and S. Livingstone. 1893.

Transactions of the Glasgow Pathological and Clinical Society. Vol. IV. Edited by J. H. Carslaw, M.B. Glasgow: Alex. Macdougall. 1893.

"The" Practical Guide to Algiers. Fourth Edition. By George W Harris. London: George Philip and Son. 1894. 3s. 6d.

The Diseases of Dogs and Cats and their Treatment. By A Veterinary Surgeon. London: "The British and Colonial Druggist" Office.

How to Avoid Doctor's Bills. By Dr. S. Davies. Woolwich: F. J. Cattermole. 4d.

Ueber Irrthum und Irrsein. Von Dr. F. Jolly. Berlin: August Hirschwald. 1893. 80pf.

Die Modernen Fiebertheorien. Von Dr. A. Rabe. Berlin: August Hirschwald. 1894. 2m.

*** **In forwarding books the publishers are requested to state the selling prices.**

[1] *Medical Press and Circular*, August 30th, 1893.

SIXTY-FIRST ANNUAL MEETING
OF THE
BRITISH MEDICAL ASSOCIATION.

Held in NEWCASTLE-ON-TYNE, August 1st, 2nd, 3rd, and 4th.

SECTION OF DERMATOLOGY.

W. Allan Jamieson, M.D., F.R.C.P.Edin., President.

THE TREATMENT OF PSORIASIS BY THE INTERNAL ADMINISTRATION OF THYROID EXTRACT.

By BYROM BRAMWELL, M.D., F.R.C.P.Edin.,
Assistant Physician to the Edinburgh Royal Infirmary.

The Influence of Thyroid Feeding on the Nutrition of the Skin.

I was led to treat cases of psoriasis by thyroid feeding not merely as a matter of chance, but in consequence of observing the very definite effects which the remedy produces on the nutrition of the skin in cases of myxœdema and sporadic cretinism. In the first case of myxœdema which I treated by thyroid feeding, profuse desquamation of the skin, especially on the palms and soles, resulted from the administration of the remedy. I have observed the same desquamation, though it has been much less extensive in degree—a fact which is probably accounted for by the smaller dose which was given in the later cases—in all the cases of myxœdema and sporadic cretinism in which I have had the opportunity of carefully following the effects of treatment either in hospital or consulting practice. I have treated 4 cases of myxœdema and 2 cases of sporadic cretinism in hospital, and 7 cases of myxœdema and 1 case of sporadic cretinism in private (consulting) practice.

The desquamation in the first case was so marked that the idea at once occurred to me—if thyroid tissue can produce such an extraordinary effect upon the nutrition of the skin in myxœdema, why should it not produce a similar effect in cases of skin disease? In short, why should it not prove to be a useful therapeutic agent in numerous skin affections?

Cases of Psoriasis Treated by Thyroid Feeding.

The first case of psoriasis in which I employed the remedy—and it was a very marked case—showed that my expectation was fully justified. The details of the case are as follows:—

Case I.—H. McK., aged 18, was admitted into the Edinburgh Royal Infirmary under my care on January 31st, 1893, on the recommendation of Dr. Norman Walker. The patient had, I think I am right in stating, been previously under the care of our President, Dr. Allan Jamieson, as an outdoor patient; but as the disease did not improve under remedies, including baths, administered at her own home, it was thought advisable that she should come into hospital in order that treatment might be more thoroughly and effectually carried out. The disease was of nine months' duration; it had first manifested itself in May, 1892. At the time of her admission to hospital the eruption was almost universal. (In Figs. 3 and 4 will be seen the condition of the patient both before and after the treatment.) It thickly covered the back and front of the trunk, the scalp, the extensor aspects of the upper and both aspects of the lower extremities; the flexor aspects of the arms and forearms; the face and neck were only slightly affected; there was no eruption on the palms and soles. In many places the eruption presented an angry red appearance, the crusts being of a dark purple colour; the skin behind the ears was moist and cracked. The patient was slightly anæmic, but otherwise in good health. Previous to the development of the disease she had always enjoyed good health. By occupation she was a rubber worker, but there is no reason, so far as I see, to suppose that her occupation had anything to do with the production of the condition; she stated that so far as she knew none of her fellow workers had ever suffered from the disease. On her admission to hospital a mixture containing acetate of potash, nitrate of potash, and nux vomica was prescribed.

On February 4th I determined to try the effect of thyroid feeding. The potash and nux vomica mixture was therefore discontinued, and a quarter of a raw thyroid gland, finely minced and concealed in rice paper, was prescribed daily.

On February 10th—six days after the thyroid feeding was commenced—a distinct change for the better was noted. The redness and itching, which, previous to the thyroid feeding, were considerable, were much less marked.

On February 14th—ten days after the administration of the remedy—the eruption over the back was separating and being shed in the form of large scales, some of them an inch at least in diameter, leaving a pale, smooth, and apparently healthy-looking skin underneath.

On February 16th the patient was shown at a meeting of the Edinburgh Medico-Chirurgical Society; the improvement was then most marked, many of the scabs having already separated and the angry, inflamed appearance of the eruption having completely disappeared.

On February 17th the hair was cut short, in order to facilitate the detachment of the crusts which thickly covered the whole scalp.

On March 1st the eruption had in great part disappeared. The patches which still remained were pale, and covered with thin superficial scales. The moist patches behind the ears were healing.

On April 1st an arrest in the improvement appeared to have occurred; it was therefore decided to discontinue the thyroid feeding, and to try the effect of arsenic. This change was disastrous. The eruption immediately began to reappear, and the skin behind the ears became more inflamed and moist.

On April 11th the arsenic was therefore discontinued, and thyroid feeding again commenced, 15 minims of Brady and Martin's extract being prescribed daily.

On April 14th it was noted that no fresh patches of eruption had appeared, and those which were present were obviously improving.

On May 3rd the eruption had completely disappeared from the scalp, limbs, and trunk; the scalp was smooth and natural in appearance; the only remains of the eruption which had formerly existed on the limbs and trunk was a slight pigmentation; a small moist crack was still present behind each ear. The patient had gained a stone in weight. The thyroid extract had not produced any of the constitutional disturbances which it frequently produces in myxœdematous cases.

On June 6th the patient was discharged; she was then, and in fact for several weeks previously had been, absolutely well, the scalp and skin being absolutely normal and healthy.

During the earlier periods of the treatment the patient was confined to bed. During the whole of her stay in hospital she had the ordinary diet of the hospital. Absolutely no medicines except the potash and nux vomica mixture, which was prescribed before the thyroid feeding was commenced, were administered, and no application whatever was made locally.

I saw the patient on July 28th; a small patch of eruption the size of a split pea was present on the left elbow. The development of this patch seems to suggest that the eruption is about to reappear. I propose during the next month to leave the case to Nature. I have little doubt that if the disease should recur thyroid feeding will again prove curative, and that the disease can in this case be permanently kept in check by the continued administration of thyroid extract.

Case II.—Mrs. McG., aged 38, was admitted to the Edinburgh Royal Infirmary, under my care, on May 8th, 1893, on the recommendation of Dr. Norman Walker, suffering from very severe psoriasis. The disease had commenced seven months previously, and for three months previous to admission had been very severe. The head, arms, and legs, including the buttocks, were covered with crusts and scales (see Figs. 1 and 5). The eruption was present in considerable abundance on the back of the hands, and to a less extent on the palms and soles, but there was no suspicion or appearance of syphilis. On the arms and forearms the skin had in places a red, irritable, cracked appearance. On the legs and knees the scales were thicker, and more adherent, than on the arms. On the upper extremities the appearance of this eruption suggested exfoliative dermatitis rather than ordinary (chronic) psoriasis. For three days the patient was kept in bed, no remedies being administered; the temperature and pulse were carefully noted, the object being to form an estimate of her exact condition before the thyroid treatment was commenced.

On May 10th 5 drops of Brady and Martin's thyroid extract were prescribed.

The following day, May 11th, she stated that her arms felt less stiff and painful.

On May 12th she was satisfied that the stiffness was much less marked; and the inflammation and swelling of the arms and forearms were distinctly less marked.

On May 13th, only three days after the commencement of the treatment, a large scale was separating over the left wrist, leaving a slightly moist surface of a faint red colour underneath. She stated that nothing like this had previously occurred since the disease commenced. The scales which had previously been shed were thin and papery. Several large patches of thick scales seemed to be in process of separation on other parts of the arms and on the legs. The patient complained that her appetite was failing, but she said that she was much more comfortable, and that the eruption was not nearly so painful.

On May 15th the appetite had returned, and the patient stated that she felt very well. Several large scales had separated from the arms; the surface of the skin from which these had been detached was of a dull, reddish-brown colour, and in places slightly moist. The arms were much less painful and irritable.

On May 23rd a large scale separated from the right knee. On the back and palms of the hands the patches of eruption seemed to be more marked and numerous than they had previously been. On the surface of the forearms, from which the thick scales had been detached, thin new scales were forming. The masses of eruption over the scalp also seemed to be thicker. On this date the dose of thyroid was doubled, ten drops of Brady and Martin's extract being prescribed.

On May 24th profuse shedding of large scales was still going on. About this date the patient's hair was cut short, in order to facilitate the shedding of the thick scales which thickly covered the scalp.

After this date the improvement was rapid and continuous.

On July 14th the patient was discharged from hospital absolutely well, her skin being as soft and tender and delicate-looking as that of a young child.

It will be noted that in this case an immediate effect was produced by the administration of the remedy. Within twenty-four hours, and after a single dose (five drops of Brady and Martin's extract), the patient stated that her arms felt less stiff and painful than they had previously done. After two doses the inflammation and œdema were obviously less. In this, as

in the preceding cases, the patient was kept in bed during the first month of the treatment; no special diet was prescribed, no medicine was given internally, and no external application was applied locally. The whole effect was the result of the administration of the thyroid extract. (See p. 938.)

CASE III.—Mrs. S., aged 57, was admitted into the Edinburgh Royal Infirmary under my care on June 21st, 1893, suffering from a remarkably symmetrical and serpiginous eruption of psoriasis, distributed over the front and sides and back of the abdomen, and adjacent parts of the chest and thighs. Both palms were entirely covered with a dry scaly eruption; the adjacent (flexor) aspects of the forearms were affected; a symmetrically placed patch of eruption was present in each axilla; the elbows and knees were free. The disease had lasted for six years and a-half. The eruption had a dark red colour, and was covered with fine glistening scales. The edges of the eruption in particular were raised and thickened; its serpiginous character, its raised thickened edges, and the narrow tracts of healthy skin between the bands of eruption, were highly suggestive of a parasitic origin.

On June 23rd the thyroid treatment was commenced, 5 drops being administered daily. This patient was not confined to bed. She is a robust active woman, and on more than one occasion I took advantage of her activity, and sent her with a message to my house in town, a considerable distance in hot weather.

The result of the treatment in this case, as in the previous cases, is, up to the present time, eminently satisfactory. The eruption has now (six weeks after the commencement of the treatment) almost entirely disappeared from the hands and forearms, and is rapidly disappearing on the abdomen and adjacent parts of the limbs and trunk. Within three weeks from the commencement of the treatment the patient stated that the eruption was better than it had ever been before during the whole six years and a-half that it had existed. In this, as in the preceding cases, scales are being detached, but they are (as was to be expected from the character of the disease) of small size. In this, as in the preceding cases, no medicine has been administered internally, and no local application employed. (See p. 938.)

I have treated several other slight cases of psoriasis by the internal administration of thyroid extract. In one of them, which is associated with frequently recurring attacks of epilepsy, the remedy did not produce any beneficial effect; in fact, during its administration the eruption, instead of disappearing, extended and increased. It should, however, be stated that this patient has, during the whole course of the thyroid treatment, been taking full doses of bromide of potassium. Whether this is the cause of the failure or not I cannot say. In another slight case the eruption, which has disappeared from time to time under the thyroid treatment, has more than once reappeared.



Fig. 1.—Case II, before treatment (Dr. Byrom Bramwell's case).

These are the only cases which I have treated in which the remedy has failed to produce marked improvement. My friend, Dr. Stocker, of Dundee, however, tells me that in a case of very severe and diffuse psoriasis under his care in the Dundee Infirmary, the administration of thyroid extract seemed to produce little or no good. But, allowing for these failures, I think you will all agree that the results which were obtained in the first three cases are very remarkable, and warrant a further trial of the remedy, not only in psoriasis, but in other affections of the skin, and especially in exfoliative dermatitis.

The remarkable effects which have been obtained in myxœdema show that the secretion of the thyroid gland exerts a profound effect upon the nutrition of the skin. I am disposed to hope that in other skin diseases beneficial effects may perhaps be produced by the administration of the remedy. As yet I have had no opportunity, however, of putting this theory into practice. I have certainly administered thyroid extract in one case of lupus and in one case of acute eczema, with the effect in the former of apparently producing distinct improvement, and in the latter of allaying the marked cutaneous irritation which was present. In the case of acute eczema the remedy was discontinued at the end of a week, for the disease appeared to be subsiding under rest in bed and the avoidance of external irritation.

Under these circumstances it seemed inadvisable to continue the remedy lest an erroneous deduction might be drawn. In that case in which the disease was spontaneously disappearing there was an obvious source of fallacy; I was anxious to avoid the possibility of ascribing the improvement which was spontaneously taking place to the thyroid treatment. Possibly I was overcautious, and I certainly think that in cases of eczema the remedy deserves a trial, and will probably be of benefit. But this source of failure does not apply to the cases of psoriasis which I have detailed. In two of the three cases the eruption was of considerable, and in the third of long, duration; it had manifested no tendency to heal; in fact, it had resisted ordinary plans of treatment; and it immediately began to disappear under the administration of thyroid extract, no other remedies, local or internal, being employed. In two of the three cases a complete, though possibly only temporary, cure has been effected; in the third case the same result is rapidly being attained.

DISCUSSION ON THE ETIOLOGY AND TREATMENT OF PSORIASIS.

DR. RADCLIFFE CROCKER, in opening the discussion on this subject, said that his views were founded on the study and analysis of between 800 and 900 cases of psoriasis seen in the last ten years. An examination of the statistics showed that psoriasis formed about 7 per cent. of hospital cases, and about 8 per cent. of cases in private practice. Among private patients the numbers of either sex were about equal, but females were twice as numerous as males among hospital patients. This preponderance was attributable to two causes: the greater leisure which women had to attend hospital, and the debilitating influence of pregnancy and lactation. As to the age at which the disease began he found that 7·2 per cent. began before the age of 30, and only 5.5 per cent. after the age of 50; 22.5 per cent. began between the ages of 30 and 50. Cases had been recorded as early as three months, and as late as 85. Hebra's dictum that psoriasis was "a disease of the healthy" could not be accepted. In patients under 30, when the skin condition was at its worst, the patient would be found to be in reduced health, and in older patients grave conditions were often present. Taking 30 private patients he found gout in 7, dyspepsia and constipation in 5, nervous disorders in 4, alcoholism in 3, renal disease in 2, and heart disease in 2; one patient, aged 81, presented a typical psoriasis, and in 6 there was no known disease. The disease was hereditary in a considerable portion of the cases, but

seldom attacked several members of the same generation, though he had seen 5 out of 7 children attacked. The various causes suggested were then discussed; it was shown that the nervous origin only accounted for a small percentage; the fact that he had seen a child of 9, by choice a rigid vegetarian, suffering from the disease, negatived the theory that it was produced by a meat diet; gout, rheumatism, and rheumatoid arthritis might aggravate the condition; as to the theory of infection he was unable to support it from his own experience or microscopical study. The facts which favoured the micro-parasitic theory were: that (1) the disease attacked young, often practically healthy, subjects; (2) that the inflammatory activity was generally slight; the lesions extended peripherically to form circular and gyrate patches; satellites were common; (3) that all useful drugs were vegetable parasiticides; (4) the occasional apparent inoculability. The facts opposed to a parasitic theory were: (1) the disease was symmetrical, not only by continuity, but on distant parts (for example, elbows and knees), and it remained long limited to certain parts; (2) it was liable to recur in predisposed subjects whenever they came under depressing or debilitating influences; (3) rapid improvement followed the withdrawal of such influences; (4) the apparent inoculability was confined to very few instances, considering the great frequency of the disease. Nielssen's suggestion that cases of presumed heredity were really instances of contagion could not hold good; if it were so, instances of communication from husband to wife, or *vice versâ*, would be common, rather than from parent to child, and it would be more frequent than it is to find several members of one family affected; (5) the frequent seasonal recurrence was inconceivable in a parasitic affection; (6) considerable number of cases began after middle life, and were accompanied by distinct departures from health. Dr. Crocker entirely rejected Wilson's theory that psoriasis was an attenuated form of syphilis, and thought there was little evidence in support of the view that it was due to a blood dyscrasia, or the "arthritic" dyscrasia of French authors. The facts which he had enumerated as opposed to the parasitic theory pointed to a vasomotor neurosis, and on the whole he thought there was nothing unreasonable in supposing that the disease was the outcome of two factors, the primary lesion being vasomotor, while parasitic infection was a secondary but necessary condition. Arsenic, which was harmful while the disease was acute, probably acted on the peripheral nerve endings. Iodide in enormous doses was beneficial probably owing to its diuretic action. Antimony, which was often given to robust persons or hyperæmic cases, required careful watching. Where the kidneys were sound turpentine was useful, and was not so likely to produce hæmaturia as was supposed; it probably acted on the psoriasis by contracting the vessels and reducing hyperæmia. He gave at first 10 minims in emulsion with gum acacia thrice a day; at the same time he ordered large quantities of barley-water to be taken to keep up the flow of urine. As to local measures, the most important were—(*a*) thorough removal of scales; (*b*) thorough application of the selected remedy to each spot, the choice of the microbicide drug being governed by the amount of hyperæmia present; (*c*) if acute hyperæmia were present, it should be treated as any other dermatitis, and special remedies resorted to when it had subsided.

Dr. Mapother recalled that three years ago he had read a paper in the Dermatological Section in support of the theory that psoriasis was parasitic. That the microbe spread by the circulation would appear from the frequent symmetry, the occasional rapid and extensive diffusion of the eruption, and the dilatation of the capillaries which did not characterise the local parasitic diseases, such as the tineæ. It was, however, most probable that the parasite might lurk in such common and inveterate sites as the hard scaly skin of the knees and elbows where the blood and its leucocytes did not freely circulate. The parasiticidal power of mercury was acknowledged, and a good many cases of its usefulness by inunction or internally in psoriasis, pushed slowly to mercurialism, and continued after apparent cure, had been observed by himself and others since his previous paper. The lesser proportion of relapses than under other modes of treatment was also most encouraging.



Fig. 2.—Case II, after treatment. (Dr. Byrom Bramwell's case.)

Dr. Abraham referred to 355 cases of psoriasis occurring among 3,700 hospital patients during the last two years, a proportion—9.5 per cent.—much higher than that usually given for psoriasis for this country. As regards sex, 133 were male and 222 female, an experience very different from that of others. It appeared that the males largely preponderated abroad. In this country a patch of psoriasis might be disregarded by the ordinary man of the hospital class, while a woman might consider it of sufficient importance for treatment, but we cannot suppose that English women are more vain of their skins than Continental women. One point of interest shown by these notes was that psoriasis must really be regarded as a disease of early life; no fewer than 90 among 238 cases (in which the age of onset could be arrived at), or 37 per cent., having commenced in childhood, or under 13 years of age. Several of the patients were 5 years old or younger, one only 2 years old. As regards heredity, only 59 admitted that any relations had been affected. If we admit a possible parasitic (as yet unproved) origin for the disease, it must be only the tendency to contract the disease, or the nature of the soil in which the germs will grow that is perhaps hereditary. In reference to contagion, he alluded to one case in which a patient attributed her disease to having bathed in the same bath after a brother who "had brought the disease from school." Thirty-five of the cases showed evidence of bad health or defective nutrition, and five were markedly neurotic. In reference to treatment, he was sceptical as to the value of



Fig. 3.—Case I, before treatment.



Fig. 4.—Case I, after treatment.

arsenic; he relied chiefly on tar vigorously applied in ointment, lotions, and baths. He called attention to the sections exhibited in the Museum, showing a myxomatous appearance of the enlarged papillæ, and changes in the corneous stratum of the epidermis.

Dr. Leslie Phillips said that with regard to the seasonal recurrence of the disease in connection with the parasitic theory of causation the seasonal recurrence of mushrooms must be remembered. "Once a mushroom field always a mushroom field." He mentioned a case in which psoriasis appeared this year at the periphery of a sepia patch, the area of last year's plaque, which in its evolution followed the outline of the pigmented patch, but did not extend into its area. This seemed to indicate that the influence of antiparasitic treatment lasted in some cases for some time.

Mr. Peeke Richards had been much struck with the number of cases of psoriasis which occurred in the female patients under his care whilst medical superintendent of the Hanwell Lunatic Asylum. The skin disease appeared much more frequently in cases of perverted nervous action, such as delusional insanity, etc., than in lessened nervous force, such as dementia, etc. This circumstance tended somewhat to point to the neurotic origin of the complaint.

Dr. Alfred Eddowes remarked that the more he saw of skin diseases, the fewer relatively were those which he diagnosed as psoriasis, and the more numerous became the cases of seborrhœic eczema. The difficulty of diagnosis was often very great. It appeared to him that, like ringworm and favus, seborrhœic eczema and psoriasis were at the ends of a chain of diseases possessing intermediate links. Assuming such to be the case, the conclusions as to percentage of cases and results of treatment of psoriasis would necessarily be to some extent fallacious.

Dr. John Roberts made reference to the effects of pregnancy and prolonged lactation. Pregnancy caused disappearance of the eruption in many cases. No treatment was of much value so long as suckling was permitted to go on. He mentioned several cases in which the attack came on during the first month of pregnancy, and continued in spite of all treatment. In half a dozen cases abortion occurred, and the psoriasis spontaneously disappeared in about two weeks. He spoke of the value of vapour baths in chronic cases, followed by oleum deelinæ. He had observed good results from antimony combined with good doses of carbonate of ammonia.

Dr. Pringle expressed himself in favour of the trophoneurotic theory of psoriasis, and failed to see any cogent argument or positive evidence hitherto advanced in favour of the view of its parasitic origin. He was unaware of the existence of any microbe which could be introduced into the blood, and which cropped out at symmetrical places, producing eruption there. As indirect arguments in favour of the trophoneurotic view, he considered (1) its symmetry; (2) its heredity; (3) its tendency to appear in *loco minoris resistentiæ*, for example, points subjected to pressure, scars, seborrhœic localities; (4) its association, much more frequent than was generally admitted, with rheumatoid arthritis; (5) its amenability to arsenic; and (6) to large doses of iodide of potassium, which acted sometimes with marvellous success in cases of true neurotic asthma.

Dr. Norman Walker was disposed to adopt the parasitic view. He thought the circular spread of the disease was in favour of that view. The iodide treatment was often not properly understood. A large dose in this country meant 15 to 30 grains; the dose of iodide recommended in psoriasis was 100 to 200 grains thrice a day; this would cost more than a poor patient could afford.

Dr. G. G. Stopford Taylor said that psoriasis was certainly inherited in many cases, though it frequently occurred without any assignable cause. The parasitic theory was very enticing, but had not been proved. Arsenic was a valuable remedy in chronic psoriasis, but aggravated acute cases. He had seen a recrudescence of the disease in a chronic case while the patient was taking liq. arsenicalis ♏xij. three times a day. Acetate of potash (grs. xl.) was as good, or better, than huge doses of iodide of potassum in acute psoriasis, and was free from the objections raised against the latter drug. For local treatment in acute cases nothing was so good as the ung. glyc. plumb. subacet. In subacute cases applications of zinc and oil of tar, followed by ung. picis liq. ℥j, vas. ℥vij. completed a cure. In chronic cases chrysophanic acid ointment was certainly the best remedy, but care should be taken in its use, lest the eruption be aggravated by too strong an application of the drug, and the case converted into one of dermatitis exfoliativa.



Fig 5.—Case II, during treatment, showing detachment of large scale from the wrist. (Dr. Byrom Bramwell's case.)

Mr. Balmanno Squire dissented from the view that psoriasis occurred chiefly in the weakly; on the contrary, it occurred, with but few exceptions, in the exceptionally strong and robust. He did not coincide with the view that parasiticides were requisite to its successful treatment. All the "parasiticides" named by Dr. Crocker were also strong irritants, and he (Mr. Squire) attributed their beneficial action to their irritant qualities. As to the various causative morbid conditions named, he (Mr. Squire) regarded them as being (when present) coincidences. He also dissented from the view that parasitic eruptions were on the whole destitute of bilateral symmetry. He held that they were quite as symmetrical as non-parasitic eruptions. He dissented from the view that in the female suckling was a cause of psoriasis. The reason it might seem to be so was that during pregnancy psoriasis was apt to disappear *in toto*, but to reappear in full force after the puerperal state was terminated.

Dr. Crocker replied briefly.

RODENT ULCER.

Dr. Norman Walker said that all must admit the inade-

quacy of the textbook descriptions of this disease. The best—generally overlooked—was to be found in Payne's *Pathology*. Rodent ulcer was not necessarily an ulcer; indeed, there was always a pre-ulcerative stage. The appearances under the microscope were those of a carcinoma, and of the type described as glandular carcinoma. He could find absolutely nothing in support of its growth from the rete; on the contrary, he found much evidence of its origin from the sweat glands and ducts, and possibly—rarely—from the sebaceous glands. The carcinomatous appearance of the growth strongly favoured this view, and he could see no possible reason for any difficulty in distinguishing a rodent ulcer from the ordinary squamous epithelioma. He questioned whether metastases did not occur more often than was supposed, and, in regard to treatment, pronounced unhesitatingly for the early and free use of the knife, the field for which had been much enlarged by the improvements in skin grafting. He thought Lassar assumed a heavy responsibility in giving his recent advice to treat such cases by arsenic internally.

Dr. BROOKE doubted whether the growth did not at times spring from the rete directly as well as from the sweat glands, columns extending downward from the rete being very apt to take on the appearance of sweat ducts. He also supported the thorough use of zinc chloride paste as a substitute for excision or erasion in cases in which the disease was not accessible for plastic operation.

Dr. PRINGLE asked if Dr. Walker could lay down any definite points to aid in the clinical diagnosis of rodent ulcer from epithelioma.

Dr. LANZ (Bern) had seen a rodent ulcer in a young man, aged 20, after a burn of the skin and transplantation, the site of the ulcer being the transplanted skin. He quite agreed with Dr. Walker that the knife and not caustics or internal remedies was indicated.

Mr. D'ARCY POWER asked Dr. Walker if he could explain why rodent ulcer so frequently occurred in parts where the sweat glands were neither large nor likely to undergo marked changes, for he understood Dr. Walker to say that rodent ulcer was a cancer of the sweat glands. Mr. Power inquired what minute intracellular changes took place in rodent ulcer.

Dr. NORMAN WALKER replied.

ADDITIONAL NOTES ON THE TREATMENT OF PSORIASIS BY THE INTERNAL ADMINISTRATION OF THYROID EXTRACT.

By BYROM BRAMWELL, M.D.

Additional Note on Case II.—The patient reported herself at the infirmary on September 14th, 1893 (two months after her discharge from hospital). She was then absolutely well, the skin being beautifully clear, soft, and normal in every part of the body.

Additional Note on Case III.—On my return from my holiday on September 1st, 1893, I found that the improvement (which on July 23rd was very striking) had not continued as I had anticipated and hoped. The dose of thyroid extract was therefore increased to twenty drops per diem (Brady and Martin's extract). Notwithstanding the increased dose, the eruption has in places relapsed and got worse. The patches of eruption on the fingers look more angry, and several of the patches on the body, which had almost disappeared on July 23rd, have again begun to develop. On the whole, the eruption is much less extensive both on the hands and body than on the patient's admission to hospital, many of the original patches of eruption having completely disappeared. But the remedy does not now appear to be exerting the beneficial effect upon the disease which was very apparent during the first few weeks of treatment. The patient has unfortunately been obliged to go home to nurse her husband; but I trust that at a future and not distant date she may be readmitted, in order that the effect of the remedy in this case (which was markedly different in type from the Cases I and II) may be thoroughly tested.

THE Duke of Westminster has intimated his intention of contributing £500 to the Chester Infirmary, the money paid by visitors to Eaton Hall.

DISCUSSION ON LUPUS.

IN the unavoidable absence of Mr. Jonathan Hutchinson the discussion was opened with some remarks by Dr. NORMAN WALKER.

THE SURGICAL TREATMENT OF LUPUS.

By LEONARD A. BIDWELL, F.R.C.S.,
Senior Assistant Surgeon to the West London Hospital.

OF the older methods of treating lupus surgically, it is unnecessary for me to speak except to say that I have found them all more or less unsatisfactory, but I wish to bring under notice the treatment of the disease by free excision of the whole thickness of the lupoid tissue combined with skin grafting. This method was first brought before the profession in March last, when cases treated in this way were shown at the Medical Society of London by Messrs. Bruce Clarke, Watson Cheyne, and myself.

Since (as was pointed out by Mr. Bruce Clarke) the lupoid tissue extends to the deepest layers of the true skin, and in some cases the subcutaneous fat even is altered and adherent to the diseased patch, it follows that no operation short of free excision down to the subcutaneous tissue will give any prospect of permanent cure. It is impossible to believe that scraping, caustics, or the actual cautery, can thoroughly remove the diseased tissue. The length of time required for healing by granulation, and the subsequent cicatricial contraction after simple excision of lupus, made that method of treatment impracticable except for small patches of the disease, where the edges could be brought together with sutures. Now by completely covering the raw surface with Thiersch's grafts, the resulting wound usually heals within a fortnight without producing much cicatricial contraction, and so enables one to excise freely patches of lupus of any size. In one of my cases, as much as thirty square inches of subcutaneous tissue had to be covered with grafts, and Mr. Cheyne, in one of his cases, removed a patch of lupus involving the whole of one cheek, one side of the nose, and one lower eyelid, covering the surface afterwards with Thiersch's grafts. Neither of these cases could have been treated by excision uncombined with skin grafting.

Great attention to antiseptics is necessary to ensure the success of such extensive skin grafting. The lupoid patch itself should be disinfected as thoroughly as possible, and a pad of gauze soaked in 1 in 20 carbolic acid should be applied twelve hours before the operation. The part from which the grafts are to be taken (preferably the front of the thigh) should on the preceding day be scrubbed with soap, then with ether, shaved, and "packed" with an antiseptic dressing.

The operation is performed as follows: An incision is made down to the subcutaneous tissues all round the lupus about a quarter to half an inch from its margin. The whole thickness of the skin involved with lupus is then dissected off; the bleeding points are clamped with pressure forceps and sponge pressure applied to the raw surface. The grafts are then cut; for this purpose I employ a special razor with an extra wide blade, so that the long ribbon-like graft may curl up on the razor when cut. The front of the thigh is moistened with a 1 in 4,000 solution of mercuric chloride, and, while the skin is held tight by an assistant, long ribbon-like strips of epidermis are shaved off. The grafts usually measure from one to four inches in length and about one inch in breadth, and include the epidermis, rete mucosum, and the tips of the papillæ. The sponge is then removed from the raw surface, over which and the surrounding skin some 1 in 4,000 mercuric chloride solution is poured. The grafts are slid off the razor on to the surface of the wound or on the surrounding skin, and, after their edges have been carefully uncurled, are pushed into position with a probe; they should overlap the margin of the wound and each other. A piece of gauze protective tissue soaked in 1 in 40 carbolic acid is then applied; some cyanide gauze and absorbent wool complete the dressing, which does not require changing for a week, when in most cases the grafts will be found to have "taken" and the wound practically healed. A similar dressing is applied to the surface from which the grafts have been taken,

and the wound, which is merely an abraded surface, heals within ten days without any cicatricial contraction.

I have operated on four cases of lupus in this way at the West London Hospital:

Case I.—A girl, aged 19, had suffered for six years from a patch of lupus situated on the inner side of the left thigh, just above the knee. On admission, it measured four inches by three, and its surface was ulcerated. On October 20th, 1892, the patch was freely excised and the surface covered with Thiersch's grafts. She was discharged with the wound quite healed on November 10th. When last seen, in May, 1893, there was no recurrence; the scar measured 3 by 2 inches, and the new skin was quite supple.

Case II.—A woman, aged 37, who had had a patch of lupus on the right shoulder as long as she could remember. It had increased in size during the last sixteen years, in spite of treatment by scraping and Unna's salicylic acid and creasote plasters. When admitted, the lupus extended into the axilla, and measured 6½ by 4¾ inches. The surface was red and scaly and the edge ulcerated. On December 20th, 1892, the whole patch was dissected off, the incision being carried a quarter of an inch outside the margin. The subcutaneous fat, which was found to be condensed and intimately adherent to the lupoid skin, was removed and the resulting raw surface completely covered with grafts. Unfortunately the patient was unruly after the anæsthetic, and had to be held in bed, which caused some of the grafts to become displaced; however, nearly three-quarters of them "took," and after a second grafting on January 7th the wound completely healed. In March, 1893, the cicatrix measured 5 by 4 inches, and was quite sound. During the last month a slight recurrence has taken place at the lower margin.

Case III.—A girl, aged 18, had suffered from a patch of lupus on the left cheek for fourteen years. It had been scraped six times, the last time two years ago. The patch measured 1½ by 2⅔ inches. It was freely excised on April 21st, 1893, and grafted by Thiersch's method. The patient remained in hospital only four days, and the wound was completely healed within ten days. The scar is now scarcely noticeable.

Case IV.—A girl, aged 24, was admitted with a patch of lupus on the left cheek, which had existed thirteen years; it measured 3 inches by 2, and was ulcerated. Caustic had been applied at intervals during the last eight years. On April 24th, 1893, the patch was freely excised and grafted by Thiersch's method. The wound was healed perfectly in eight days.

The result of three of these cases is perfectly satisfactory, and the slight recurrence in Case II is to be explained by the fact that I did not carry my incision far enough away from the margin, leaving some doubtful skin. I was naturally anxious not to remove more skin than was absolutely necessary, as nearly 30 square inches of raw surface remained to be covered with grafts. In the first two cases I used Lister's protective tissue directly over the wound, but it was not satisfactory owing to the accumulation of discharges on the surface of the graft, which undoubtedly tended to delay union. For the last two cases I employed the gauze protective tissue made by Mr. MacMillan of Glasgow, which has answered admirably.

After a few months the new skin, developed from the grafts, becomes supple and movable over the deeper tissues. In some cases I have grafted directly over tendons without interfering with their movements. As regards the contraction of the grafted tissues, it has not been such as to interfere with any of the movements of the arm in Case II, and in some other cases in which I have employed extensive skin grafting after excision of moles, patches of pigmentation of skin, etc., the contraction has not been marked or unsightly.

Tuberculous Eczema.

Dr. Alfred Eddowes (London) said Unna first called attention to tuberculous eczema in 1884.[1] Since that date he had several times written on the subject in this country, and his views might be found in his address "On the Employment of Tuberculin in the Treatment of Lupus" read in Hamburg in 1891.[2] The disease which he described was, however, a very acute and serious affection, and one seldom recognised, probably for the reason which Unna gave, namely, that the eye, nose, or ear affections accompanying the skin trouble so overshadowed the latter that these cases sought the advice of other specialists before the dermatologist. But less acute and quite chronic forms of eczema due as much to the tubercle bacillus as lupus itself existed. It was found alone as a distinct lesion or on the same patients who exhibited typical lupus vulgaris, was mixed up with lupus patches, and appeared to pass into lupus. In fact, the term tuberculosis epidermidis might be suggested for it, and tuberculosis cutis for lupus vulgaris. As the time at disposal was short, he would only describe briefly one case which was still attending Dr. Dawson Williams's clinic at the Shadwell Children's Hospital, where the author had had the opportunity of treating it. The patient, a little girl, had first come under treatment suffering from photophobia of the right eye. She had conjunctivitis, with phlyctenulæ in that eye. Around the eye and covering nearly the whole of the right cheek was what Dr. Eddowes considered to be quite a characteristic tuberculous eczema. On her right wrist (back and radial aspect) was a patch about the size of a crown piece of verrucose lupus, with perfectly typical Hutchinson's apple-jelly centres of degeneration. On her right elbow tip was a patch, quite circular, the size of half-a-crown, of dry, red, exfoliating, or rather coarsely desquamating eczema, much like that on the face. All these lesions were said to have existed 4½ years. The eczema on the cheek was red, dry, somewhat harsh and firm to the touch, coarsely desquamating, and remarkable for the absence of itching, its fixed character, and chronicity. Its aspect suggested a tuberculous affection, but the lupus of the wrist was quite unmistakable, and it was a most significant fact that the little patient steadied her right upper eyelid and shaded her eye with the very portion of the wrist corresponding to the central part of the lupus patch. The eye quite recovered under treatment, and the eczema had completely disappeared, leaving no clear traces of disease, but, on the contrary, a beautifully clear complexion. There remained only a slight trace of ptosis, which was probably due to a want of muscular tone, and to a degree of inelasticity of the skin left by the eczema. The wrist was still under treatment. It had greatly improved under sulphur and zinc alternately with salicylic acid and tar. During the application of sulphur and zinc ointment (℥ss of sulphur to ℥j of zinc ointment) a curious reaction was observed. Not only did the patch and its satellites swell up somewhat after the manner of the tuberculin reaction, but points unobserved before took on the same activity. This subsided without the discontinuance of the application which caused it, and then presented the typical red, somewhat roughly desquamating, non-itching surface, for which he would suggest the term "chronic tuberculous eczema." It was important that the affection should be recognised; it was by no means rare.

The Excision of Lupus.

Dr. Colcott Fox said the excision of lupus was a very desirable operation for limited areas of disease in special situations, more particularly when it was desirable to obtain a linear scar. He could not acknowledge, however, that for extensive patches of lupus, for example of the greater part of the cheek, the treatment by excision was the best. To obtain certainty of cure, the skin must be removed to a considerable depth, and this meant a corresponding amount of scarring. No doubt the grafting minimised the amount and character of scarring to a remarkable extent, but he contended that under any circumstances more scarring was produced than by other well-known methods. If the excisions were not carried out deeply, then recurrence took place. There was a satisfactory field for this treatment where a plastic operation was necessary for the restoration of the nose. With regard to the term tuberculous eczema, Dr. Fox could not allow the name to be in any way applicable to the case detailed by Dr. Eddowes, and the drawing shown in the museum by Mr. Hutchinson as lupus eczema appeared to be the ordinary exfoliating lupus. He had never been able to satisfy himself that there was any such affection as the eczema directly induced by the tubercle bacilli and described by Unna.

Dr. Brooke thought that the application of the term tuberculous eczema to the cases recorded by Dr. Eddowes was a mistake. The term had been applied previously by Dr. Unna to a form of eczema which occurred about the auditory meatus, eyelids, nostrils, and lips; and although it was chiefly found in strumous children, it had not been as yet proved definitely by experiment that the tubercle bacillus was capable of producing an eczematous process. Dr. Eddowes's cases did not fall into this category, nor even into the category of eczema, as the term was usually understood, but seemed to be ordinary lupus accompanied with satellites. In his opinion excision was a heroic method absolutely unjustifiable except as a means of plastic recovering of a loss of tissue. Surgeons were too prone to resort to the purely surgical methods of treating lupus, which were

[1] *Deutsch. med. Zeit.*, 1884; Nos. 43-47.

[2] Translated and published in Nos. 32 and 33, vol. 3, of the *British Journal of Dermatology.*

very seldom successful in removing the whole of the disease, and distinctly inferior to the results obtained by less trenchant operative procedures combined with the careful use of selective caustics, continued over a long period. The field for operative interference might be very much diminished by promoting the absorption of the lupus tissue by the persistent inunction of ointment. He used an ointment containing oleate of mercury, ichthyol, and salicylic acid incorporated in a coloured zinc, starch, and vaseline paste, which in many cases reduced the amount of disease to mere nodules, which might then be removed individually.

Dr. Norman Walker had experience of several cases. He thought there had not yet been time to decide on the value of excision. The incision must be very wide of the disease, for the examination of removed patches showed the early nodules far beyond the area where they were visible. He intended to make some experiments in inoculation of pieces of tissue from the margin. Without meaning to be humorous, he was strongly of opinion that lupus should be treated by the dermatologist who was not wedded either to surgical or to medical treatment. Like Dr. Colcott Fox, he thought that the terms tuberculous eczema, eczema lupus, acne lupus, and lupus psoriasis were to be avoided, and agreed with him that the drawings shown by Dr. Eddowes were those of chronic lupus.

Dr. G. Stopford Taylor had not found excision give such satisfactory results as the cautery. Although it was quite true that a patch could be fairly excised, yet there was no guarantee that the whole of the growth had been removed, because of the difference in the depths of the lupoid foci. In those cases he had excised recurrences took place as after other methods of treatment. Besides, excision and grafting did not prevent the disease spreading. He claimed for the cautery that it prevented the disease recurring by bracing up and strengthening the tissues. He thought, however, that excision was the treatment in such cases as lupus of a finger or a toe. His method of procedure was as follows: (1) To wash the patch with a solution of caustic potash, the strength of which depended upon the thickness of the horny layer to be dissolved; (2) to scrape the patch carefully; (3) with the thermo-cautery knife to divide the skin thoroughly by making an incision completely round the patch at a distance of half an inch from the margin, taking care to avoid any large superficial vessels and nerves; (4) with the cautery button to stroke gently to the patch time after time until a hard brown leathery eschar was produced. The eschar would slough off in from twenty-four hours to four or five days. Carbolised oil was used as a dressing until this happened, then water dressings until the wound began to granulate. To prevent any overgrowth of granulation tissue it was sprayed every two or three days with a solution of nitrate of silver or sulphate of copper, ʒj ad ℥j, and a dry dressing of iodine starch or talc powder, with iodoform, applied. Any recurrent nodules were picked out with a thermo-cautery needle, or a stout match dipped in acid nitrate of mercury. This could be effected practically without pain under the chloride of ethyl spray, due care being observed in the use of the cautery needle while using the spray. In answer to Dr. Brooke, Dr. Taylor said he used potash solutions because he believed that potash had a solvent action upon lupoid tissue and facilitated its removal by the scoop. It certainly defined the lupoid nodules by removing the horny layer, which was but loosely attached to the nodules beneath.

Dr. Pringle agreed in condemning the term tuberculous eczema, and in considering Dr. Eddowes's cases as examples of an ordinary type of lupus, and not of the disease thus described by Unna. He confirmed the value of Dr. Brooke's ointment both in dry and florid lupus; the only objection to it was that the improvement under it was frequently so great that patients preferred to remain as they were rather than submit to any operative procedure.

Treatment of Lupus by Scraping.

Dr. Colcott Fox always advocated scraping because it was so simple a method; anyone could use it, no one could do too much with it, and it was a ready means of removing the main mass of the disease. Disappointment resulted from n exaggerated estimate of its capabilities. Scraping could not easily remove the strands of infected cells stretching away along the vascular tracts. Dr. Fox always insisted that to send a patient away after scraping as relieved or cured was a mistake. Scraping was only a preliminary treatment. In 90 per cent. of considerable cases lupus nodules grew up in the scar left. After scraping he brushed the surface over with chloride of zinc paste, adjusting the strength in accordance with the character of the disease and its situation. He then kept the case under observation for months, and even a year or two. If the recurrent nodules were very numerous, a second, or even a third, scraping operation was sometimes necessary, but as a rule the nodules, for the recognition of which a trained eye was necessary, could be bored out and destroyed by a match dipped in chloride of zinc paste, or by various mechanical means, or by a fine cautery. Gradually the disease was mastered, and in this way admirable results were obtained. Whatever method was adopted the quality of the result depended largely on the experience of the operator, and the time and trouble he devoted to it.

The Value of Excision.

Dr. Abraham had seen some of Mr. Bidwell's cases, and could testify to the excellent results of his operation. The scar, though somewhat depressed, was quite smooth and soft, and superior to that generally seen after scraping, the disfigurement, in fact, being comparatively slight. In commencing cases of lupus he had had several very satisfactory results, especially where the growth was superficial, by the application of liquid carbolic acid, but the method was perhaps rather tedious.

Tuberculous Eczema.

Dr. Eddowes, in reply, said he would willingly adopt a better name than tuberculous eczema if anyone would suggest one. He merely used it in a clinical sense. If the disease to which he referred was to be called lupus, as some present seemed to think, he could then claim to have cured several large patches of lupus in a few days by the simple application of ointments. It was very important to draw attention to this affection, if, as he believed, it was an early stage of lupus. The drawing he had shown chiefly to demonstrate a method of infection. A similar method of infection he believed he had seen between the eczema under discussion and undoubted lupus. He thought it was as justifiable to call these cases eczema as it was to apply the term impetiginous eczema to an affection of the skin.

THE ERYTHEMA INDURATUM OF THE SCROFULOUS (of Bazin).

Dr. Colcott Fox called attention to a curious malady described long ago by Bazin, but never attracting much attention in this country until the last few years. It occurred mostly in young girls from 12 to 20 years of age, but had been observed in women of mature age, and even in boys. Such females were said to be of lymphatic or scrofulous habit, and they were certainly not of a robust type. The eruption consisted of nodules, pea sized or nut sized, commencing in the hypoderm, gradually involving the more superficial layers to form firm, projecting, violaceous, circumscribed, rounded or oval nodosities. They were usually discrete, and at first better felt than seen. Later some were often confluent, and formed patches of infiltration. Such nodules were very indolent, and often remained for years, partially subsiding and re-forming from time to time. Occasionally they broke down, and exuded a little sero-pus, or sloughed out, forming a punched-out ulcer, or, in the confluent patches, a policyclical ulcer. The situation of these lesions was mostly the legs, especially below the calf behind, but occasionally they were dotted about all round, and even occurred above the knee. Dr. Fox had observed small nodules also on the backs of the fingers, and there was a possibility that some other obscure nodular lesions really belonged to this category. There was generally a poor circulation, and the legs were often œdematous. The standing posture had a marked influence in their production, or certainly their intensification. These lesions were distinguished from erythema nodosum by the course and duration of the latter lesions, their shape, colour, tenderness, etc.

They presented the closest analogies with scrofulo-tuberculous and syphilitic gummata, especially the latter, and the diagnosis had to be made after watching the course of the lesions, after carefully investigating the personal and family history, by the age of the patient, the number and distribution of the nodules, etc. Surgeons always regarded the affection as syphilitic, and pointed to the site of the lesions and the poor nutrition of the tissues in explanation of their intractable nature; nevertheless, it was pretty clear they were not syphilitic. Rest in the horizontal position, and careful bandaging after the application of resolvent remedies of suitable strength, was the best treatment, and internal remedies given under such conditions earned a false reputation, and led to incorrect deductions.

Mr. David Walsh remarked on the similarity of the lesions to those of syphilis.

Dr. J. J. Pringle had seen half a dozen similar cases, and could confirm Dr. Fox's observations. He enumerated the points of differentiation from syphilis, and from erythema nodosum. He considered the lesions practically identical with scrophulo-tuberculous gummata.

Dr. Brooke and Dr. Norman Walker made remarks upon the communication, and Dr. Colcott Fox replied.

Dr. Rutherford exhibited an interesting case—a boy with extensive disseminated tuberculosis of the skin.

The proceedings of the Section terminated with a hearty vote of thanks to the President, proposed by Dr. Brooke.

AN ADDRESS
ON
THE THERAPEUTIC CONTRIBUTIONS OF OPHTHALMOLOGY TO GENERAL MEDICINE.

Delivered before the Ophthalmological Society of the United Kingdom at its First Meeting in the Session, 1893-94.

By D. ARGYLL ROBERTSON, M.D., F.R.C.S.Ed., F.R.S.E.,

Surgeon-Oculist in Ordinary to the Queen in Scotland; and Ophthalmic Surgeon to the Royal Infirmary, Edinburgh.

My first and most pleasing duty on taking the chair is to tender you my most sincere thanks for the great honour you have conferred on me in electing me your President—an honour which I feel to be quite beyond my deserts, and which I have accepted with the greatest diffidence. I appreciate fully the kindly compliment that by my election is paid to those members of the Society who do not reside in London, and whom I may be said to represent.

I think it is very fitting that a President should occasionally be chosen from the ranks of the non-resident members as a testimony to the representative character of the Society, embracing as it does all interested in ophthalmology throughout the United Kingdom. That I should have the honour of being the first member so promoted I regard as a tribute to the merits of the northern metropolis, which in medical matters has long enjoyed so great a fame, and which is to be the place of meeting of the International Ophthalmic Congress next year.

In accepting the office and responsibilities of President I do so trusting that you will in your kindness overlook the imperfections that I fear may characterise the discharge of the duties devolving upon me in the chair. My anxieties connected with the position are not lessened by the consideration that the chair has in the past been occupied by a series of men esteemed and renowned as leaders in British ophthalmology, men for whose work I entertain the most profound respect. To hold a presidentship which has been graced by Bowman, Jonathan Hutchinson, Hulke, Hughlings Jackson, and Power fills me with apprehension. But, gentlemen, as I have undertaken the task, I will do the best I can, relying upon your courtesy and consideration.

The late Sir William Bowman.

You will allow me to embrace the opportunity presented by this enumeration to refer to the magnitude of the loss which the Society has sustained in the death of her first President. In the death of Sir William Bowman the whole world of medicine has lost one of its brightest ornaments. His name must be imperishably associated with histological research, with the scientific study of modern physiology, with the practical outcome of a wide perception and firm grasp of the principles of medicine and surgery, as well as with our own speciality which he so greatly adorned. By his counsel our Society profited much at its inauguration, and he always took a deep interest in its welfare. His generosity placed the Society in a position much more satisfactory than most societies of the kind enjoy, for he not only contributed towards museum and other wants, but liberally supplied a permanent endowment.

I may assume that you are all familiar with his many important contributions to the science and art of ophthalmology, and it would be out of place for me to enumerate them here. Most, I might say almost all, whom I now address, can boast a personal knowledge of Bowman, can recall his courteous demeanour, his keen glance, his winning smile, his shrewd practical insight, particularly in obscure cases, his dexterous operative skill.

I often recall to memory the clinics at Moorfields of olden time, when on the Tuesdays and Fridays strangers from all parts of the world interested in ophthalmic surgery flocked to attend the practice of Bowman and Critchett, names always united in this connection, and to witness the perfection of neatness and skill with which the operations were performed. Bowman and Critchett are gone, but their work and the force of their example survive, and have borne excellent fruit in the band of scientific workers and practical surgeons that have succeeded them.

This Society has very fittingly indicated the high esteem in which its first President was held by electing him an honorary member, and by instituting the Bowman Lectureship, the highest honours this Society could confer.

I rejoice to be able to congratulate the Society on its continued prosperity. The number of ordinary members has steadily increased from 141, who were enrolled during the first year of its existence, to 305, the number on our present list. The widespread interest taken in our speciality is indicated by the circumstance that our Society includes not merely practising oculists, but also neurologists, physiologists, consulting physicians and surgeons, and many medical men engaged in general practice. It is one of the great advantages of this Society that any subject that comes up for discussion may thus be viewed in such a variety of ways, according to the lines of thought and practice of members interested in such varied departments of medicine and surgery.

Fain would I, gentlemen, having said all I intend so far as matters personal to myself and the Society are concerned, resume my seat and invite you to proceed to the practical business of this evening, but unfortunately custom—despotic custom—demands, or at any rate expects, that your newly-elected President should, in his introductory remarks, touch upon some subject of more general interest. After considerable doubt and hesitation I have come to the conclusion that a few remarks on the services that ophthalmology has rendered to general medicine and surgery in respect of treatment of disease might be appropriate to this occasion.

Errors of Refraction and Nervous Disorders.

The contributions which our speciality has made to general medicine in regard to diagnosis and prognosis are universally recognised, and have been made the subject of many addresses, and even of important works, but I venture to think that our speciality has contributed not a little towards the progress of medicine in respect of the treatment of disease, and I propose to refer shortly to a few of the practical benefits thus rendered to general medicine.

I have at the outset to acknowledge that as regards the treatment of disease—the end and object of all our labours—the benefits conferred by ophthalmology are few and small compared with those which refer more particularly to diagnosis. But inasmuch as a correct diagnosis is an essen-

tial preliminary to successful treatment, even in this indirect way our speciality may claim to have accomplished something. But it is more particularly the direct therapeutic services rendered by ophthalmology that I desire to consider.

And first of all we may claim that ophthalmology has suggested lines of treatment which have proved of the greatest service in remedying conditions otherwise difficult of alleviation or cure.

We have instances of this in the cure of headaches of neuralgic type, found intractable even under prolonged general medical treatment, sometimes attended by such severe gastric disturbance and grave general symptoms of *malaise* as to lead to the suspicion of the possible existence of serious cerebral lesion, and yet in which the adaptation of suitable spectacles to correct an error of refraction, or the performance of an operation on the muscles to overcome some latent tendency to misdirection of the eyes, will serve to dispel all the serious symptoms and bring peace and comfort to the patient.

Cases of this kind, of a more or less severe type, have long been familiarly known to oculists, but it is only comparatively lately that the profession, as a whole, has recognised the extent to which such conditions prevail, and the benefit that may result from such simple measures.

That even epilepsy may in some instances be produced by ocular strain has been and is maintained by some, and, without going so far as to adopt this view, I think I am amply warranted in saying that in some cases of epilepsy the fits may at any rate be aggravated if not induced by uncorrected refractive error.

The Surgery of the Tendons.

As my next example I shall select the treatment of certain muscular disabilities by the shortening of tendons. The ophthalmic surgeon has for long been accustomed to improve the movements of the eyeball in some conditions by the operation known as "advancement" of the tendons, while the general surgeon, although long accustomed to deal with muscular deformities by cutting tendons through, is only now learning from us to deal with the elongated and weakened muscles after our methods.

My friend and colleague, Professor Chiene, tells me that he is accustomed to point this out to his class, and that he has employed an operation for shortening the tendons in practice with some measure of success. And I observe from the current number of the British Medical Journal, that some American surgeons are following the British example and working in this line.

Cocaine.

As my next example I shall select a therapeutic agent mainly introduced by ophthalmic surgeons. I refer to the employment of cocaine as a local anæsthetic. It is true that cocaine was first used as a local anæsthetic in laryngeal surgery, but a more general knowledge of the efficacy of the drug in producing local anæsthesia during operations, its applicability by hypodermic injection to operations on the surface of the body, and its value in allaying pain in many irritable conditions, dates from its general employment in ophthalmic practice. I do not think I exaggerate the benefits derived from the use of cocaine when I claim that by its employment in place of a general anæsthetic in many thousand cases several lives have probably been saved, as experience has shown that a large proportion of the deaths from chloroform have occurred where the surgical operations to be performed were minor ones.

Ophthalmology as a Therapeutic Testing Ground.

Apart from services such as these, I should like to observe that ophthalmology has afforded a testing ground for not a few remedies of repute. This is quite what might be expected when we consider that in consequence of its peculiarity of structure the eye affords an opportunity of watching the effect of treatment on deeper-seated tissues, such as is presented by no other part of the body.

Mercury.

Thus in regard to the effect of mercurial treatment in syphilitic affections it may be justly claimed that the eye has been the ground on which the value of the remedy has been tested. Anyone who has seen an inflammatory thickening of the iris of syphilitic origin, which had resisted treatment for weeks, steadily disappear as the mercury was cautiously pushed, must necessarily have faith in the employment of the drug in similar inflammations of other parts. He who has watched a syphilitic choroiditis yield under the same conditions has his faith further strengthened, and I fancy that we might search in vain among ophthalmologists for sceptics on this subject. When ophthalmic demonstrations are so readily accessible to members of the profession, it fills me and some of my friends with indignation to find practitioners of repute calmly pooh-poohing the employment of mercury in syphilis. Admittedly damage was done by the remedy when it was employed with reckless unwisdom, but to withhold it in our present state of knowledge may, in my judgment, be justly condemned as malpraxis.

Local Depletion.

Another example is afforded by the demonstration of the beneficial effects of local depletion. These are nowhere more marked than in the acute deeper-seated inflammatory affections of the eye. There are few, if any, ophthalmic surgeons who cannot recall instances of great and immediate relief experienced by the patient suffering from acute iritis, cyclitis, or glaucoma, from the application of a few leeches to the temple. Not merely does the patient obtain mitigation of pain, but the inflammatory injection of the eye is reduced, and often local applications, which previously failed to produce much benefit, after the bleeding prove rapidly efficacious.

I desire to record my opinion very strongly in favour of local depletion in such cases, as I fear there is a tendency, even at the present day, to underrate the advantages that may be obtained by this remedy. This view is strengthened by a statement made to me by Messrs. Duncan and Flockhart, the chief druggists in Edinburgh, with regard to the demand for leeches at the present time. They inform me that forty years ago they paid for ten times the number of leeches in the course of the year that they do now. When it is considered that the business of this firm has greatly increased in the course of these years, and also that a large number of druggists who formerly imported leeches do not do so now, but get any supply they need from one or two firms who do, it is at once evident that the employment of leeches has fallen greatly into disuse. There is no question that depletion, both local and general, was abused in olden days, but there may be, and in my opinion is, an unwarranted neglect of that most powerful and valuable remedy at the present time. I readily recall an instance of the great benefit of leeching in the case of an eminent professional friend to whom I was called in consultation, who had been affected with acute rheumatic cyclitis for a fortnight, and whose sufferings, especially at night, had been extreme, only partially relieved by opiates, in whom the usual local applications had been employed without avail, and where, on the application of a few leeches to the temple, the most welcome relief was obtained. As the blood was withdrawn by the leeches pain subsided, and delicious soothing sleep ensued. As he himself expressed it, he would ever after include leeches among his best friends.

Counter-irritation.

Another example of a somewhat discredited method of treatment is that of counter-irritation. Blisters, like leeches, can scarcely be ranked among agreeable remedies, but my experience as an oculist has convinced me of their value also. I appeal to your experience as to the effect of counter-irritation in subacute corneal inflammations and ulcerations. Have you not found its action as striking in them as the surgeon is accustomed to find it in the somewhat analogous condition of inflammation and ulceration of articular cartilages? But I think something further may be learnt from studying the effects of different methods of producing counter-irritation in corneal affections. As the result of clinical experience and observation I am inclined to believe that the efficiency of counter-irritation very much depends upon the relation of the part blistered to the inflamed organ. In other words, to produce a thorough effect the region of irritation must bear some close and definite nervous relation-

ship to the part inflamed. We are not yet able from anatomical considerations to fix on these regions, and it is only clinical experience or experimental investigation that will serve as a guide. Thus I am convinced that irritation produced in the eyelids has a much more subtle influence in altering the vascular condition of an inflamed eye than an irritant application to the temporal or postaural regions. I have often had cases that had been subjected to the application of fly blisters to the temple or behind the ear, or even had a seton introduced over the zygoma, with comparatively little benefit, but where blistering of the eyelid was followed by rapid and marked improvement.

If you will bear with me I would like to describe a method of counter-irritation that has been employed in Edinburgh for, at any rate, above thirty years, and which is to my mind by far the most efficient. It consists in moistening the skin of the upper lid, and then rubbing a stick of lunar caustic three or four times across the moistened surface. Within a few minutes a burning pain is experienced in the lid, the skin becomes reddened and the lid œdematous, while the epidermis at the part to which the caustic was applied presents an ashy grey tint. The severe pain lasts from half an hour to an hour, but the surface of the lid remains tender to the touch for two or three days. The œdema speedily subsides. A black crust, consisting of the deadened epidermis tinted by the silver, forms on the surface, but is cast off in the course of six or eight days, and leaves no permanent mark behind. I am willing to admit that some of the beneficial effect may be attributable to the rest of the eye and freedom from friction produced by the œdema of the lid, and also in part to the circumstance that the tender surface of the lid prevents the patient constantly rubbing the eye, but I am inclined to view the intimate nervous relationship between the lid and the globe as the main explanation of the great advantage that results from this form of counter-irritation. Let general physicians and surgeons who stand in doubt as to the utility of blisters observe for a few weeks their value in eye cases, and I think they will soon have their doubts resolved.

Antiseptics.

As regards the determination of the value of various antiseptic substances, the eye affords a field for inquiry unequalled by any other part of the body. A healing process that will suffice for all purposes in a wound of the skin may in the cornea leave so dense a cicatrix as materially to diminish or entirely frustrate the beneficial result of an operation. To obtain a perfect result the tissues during the healing process must remain aseptic. Hence the extensive investigations that have already been made by ophthalmic surgeons—investigations that have materially advanced the knowledge of the profession as to the relative value of different antiseptics.

In connection with this matter I may be allowed to refer to my experience of the antiseptic properties of nitrate of silver—a substance which unfortunately, on account of its irritant properties, its liability to decomposition, and its tendency to stain, may never be extensively employed as a simple antiseptic. Its antiseptic virtue, however, I can fully substantiate from the following experience.

Many years ago I was surgeon to the Edinburgh Eye Dispensary, in which institution at that time the surgeon occupied a seat in front of a desk on which were stationed various bottles containing solutions for application to the eyes. Among others there were three bottles with solutions of nitrate of silver of different strengths, that of 10 grains to the ounce being the one most commonly used. Each of these bottles was furnished with a camel's hair brush, which was allowed to remain in the solution. Most cases of conjunctival inflammation that were at all severe had a little of the caustic solution applied to the conjunctiva, and in all cases the same brush was used. Now in these days cases of purulent ophthalmia, particularly in the infant, were not very rare, and I have often, in applying the nitrate of silver, brushed off some of the purulent secretion, replaced the brush, with the septic matter attached to it, in the bottle, and in the course of a few minutes used the same brush and solution to a simple conjunctival case. Yet in no instance did inoculation occur. I confess I was taken aback the first time I saw my late colleague, Mr. Walker, act in this way, but he assured me he had done it for years without any bad result, and my observation afterwards confirmed his.

This experience led me to put considerable faith in the employment of nitrate of silver solution in the early stage of septic inflammation following an operation, from which application I have in many instances obtained considerable benefit. This, however, like almost all of our most efficient antiseptics, only acts on the surface, and does not readily sink into the tissues, and, as it were, follow after the septic germs to destroy them. No doubt pyoktanin solution (for the introduction of which agent into practice we are indebted to an oculist) does penetrate the tissues, but it appears to be a feeble antiseptic, and thus fails to effect the wonderful works ascribed to it when first brought forward. I am, however, inclined to attribute considerable beneficial effects to its employment in some cases of sympathetic ophthalmia, and think this drug worthy of being further tested, perhaps in considerably stronger solutions than are usually recommended.

Rest; Atropine; Massage.

As regards the therapeutic effects of rest, little is needed in the way of demonstration. Its value is recognised in all departments of medicine. In the eye we have abundant instances of it, one of the most striking, perhaps, being the restoration of the visual function under dark goggles or shades in those cases where the function of the retina has been exhausted by over-stimulation by exposure to bright glare and the condition of functional nyctalopia has been produced.

The benefit arising from the use of atropine in cases of iritis or cyclitis may, too, at any rate in part, be viewed as illustrative of the beneficial influence of rest effected by paralysing the inflamed muscles.

I might refer to the demonstration of the curative effects of massage by the promotion of absorption in chronic scleritis and some corneal opacities, to the evidence of the value of iodides in tertiary syphilis, as seen in specific inflammatory affections of retina and choroid, or of salicin in rheumatic inflammations of sclerotic or iris; but I think I have advanced enough evidence to prove that ophthalmology has already rendered considerable service to general medical and surgical therapeutics, and that the eye is a most favourable field for the investigation of many therapeutic problems. What has been in the past will be in the future, and I trust the day may never come when specialities shall not remain in closest touch with each other, and all with general medicine and surgery.

PREGNANCY AFTER GASTRO-JEJUNOSTOMY.

By B. J. MASSIAH, M.D.,
Manchester.

In April, 1892, a lady asked me to see her gardener's wife, E. D., aged 38, who was very ill with indigestion. I found her emaciated by three years of pain and vomiting, apparently due to pyloric obstruction. She had a dilated stomach and a tumour above the navel, the size of a fist, that felt like scirrhus. She had had two children and three miscarriages; menstruation had become scanty, and ceased two months previously; otherwise she had been healthy. I sent her to the Manchester Infirmary, to Mr. Wright, who did gastro-jejunostomy. He found that the tumour was pyloric, with secondary nodules in its neighbourhood. After five weeks she was sent to the Barnes Convalescent Hospital for a fortnight and then went home. A month later I saw her there, and noted that she was as thin as ever, with a prominent belly and a tumour in the umbilical region beneath the scar of the operation.

In October she went to a seaside convalescent home, where she was seen by the doctor but not examined. A month later she came home, and sent word that her legs were swelling, so I thought that she was near her end; but about a week later she sent to say she had been confined with a boy. I was astounded and went to see her. I asked her when she found that she was pregnant; she replied, "Not till baby was born." Only one neighbour had remarked, "she thought that Mrs. D. was carrying a little one," and Mrs. D. replied, "I wish it was so and not a tumour inside that is getting bigger." She had felt no movements, only

tightness and fulness which she supposed was wind. Since the operation she had been without pain, but had had constipation, flatulence, and heartburn; for this she took almost daily after breakfast a teaspoonful of bicarbonate of soda in a tumbler of hot water, and vomited. She had felt better and had done her usual housework.

She was cleaning the hearth that November afternoon, when she felt a pain in the stomach that caused her to lie on the sofa. After a few more pains there came a gush of fluid, and she thought that a "wind and water tumour inside her had burst"; but, as the pains continued, she sent for a midwife that lived near, who said that the pains seemed like labour pains, and who stayed with her half an hour, when a small, fully developed child was born, much to her surprise, and greatly to the astonishment of the father, who, on coming from work, found that he had another child to support.

Since delivery she has had no pain and has rarely vomited, occasionally after taking broth. She suckled the child for a fortnight only, and after the second month she began to gain flesh, strength, and colour. Now, eleven months after the birth and twenty months after the operation, she is plump, rosy, and strong, free from gastric symptoms but careful in diet. The tumour has shrunk to the size of an egg, and feels dense and hard, lying immediately beneath the scar, just above the navel, movable to any side, and deeply attached. She seems practically well and so does the baby, whom she speaks of as "a rough one." The neighbours call it "the cancer baby."

Mr. Wright remarks that it is evident that the opening between the stomach and bowel remains patent, and answers all purposes.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

WHEN MAY SYPHILITICS MARRY?

No more important question could be asked than this, raised by a review in the BRITISH MEDICAL JOURNAL of October 14th; and, in reply, I will give a note of some cases.

CASE I.—A vigorous man, of fine frame and healthy parentage, had, at the age of 23, chancre, followed by constitutional syphilis, which evinced all the subsequent characteristics of the disease. A bubo suppurated in the right groin; during a few months he became somewhat thinner and debilitated, but did not discontinue his active business duties. After three months of treatment he had apparently recovered, and the syphilitic eruption passed away. Twenty-one months after this he married a young woman, aged 20, of remarkably good health. She aborted at the expiration of two months. The same happened in a second impregnation. The third impregnation was aborted at the fifth month; there were one or two other abortions at which I did not attend. At length she gave birth to a female child at full period. It was born alive, but died almost immediately after. Next in due course a male child was born again at full period; it was well formed, and not otherwise remarkable than that the skin was unusually fair and pale. It suckled, and apparently did well during a fortnight; then an eruption, unmistakably syphilitic, appeared, first on the forehead, then on the face and limbs, and the nostrils and fauces were also severely affected; those eruptions were preceded by oppressed breathing, and the child died at the end of the eleventh week. I was not allowed to make a *post-mortem* examination. This deadly syphilitic taint, let it be observed, was made thus painfully evident eight years after the father had chancre, and more than six years after his assumed cure. A child still living was born subsequently, but the teeth plainly indicate that the taint has not died out.

CASE II.—In 1874 a man, aged 40, married a healthy widow, aged 33. In the following year I attended her in a full-period childbirth. The infant, a female, was remarkable only for its fine size and plump figure: it was stillborn. About fifteen months after this I attended her at a similar birth of a large stillborn female infant. The mother had not suffered illness of any kind, but, though the father did not tell me, it yet was what is termed an open secret that he had had syphilis, and, judging by the character of the stillborn children, I should say not less than three years before.

Very many men retiring from the army, and marrying, have their two or three first children syphilitic. Does constitutional syphilis ever die entirely out? I doubt it; it appears to me to modify in some degree the type of every subsequent disease. I never saw typical rheumatic fever in a man who had suffered constitutional syphilis; and, as to the question when a syphilised man may marry, my answer is that he should never have children; for can we suppose a poison so deadly during, say, five or six years, can then cease to taint, though it cease to commit direct slaughter?

I have known a man impregnate his wife when he was suffering chancre, but before the constitutional eruption; he communicated syphilis to his wife, but impregnated her before the constitutional taint had passed into the system of either. The infant was puny, but in no degree syphilitic.

Milverton. GEO. CORDWENT, M.D.

RASH CAUSED BY TAKING ANTIPYRIN.

THE following notes of peculiar effects produced by antipyrin are of interest. Miss R., aged 50, has fairly good health. She has been subject at times to attacks of urticaria, and has suffered from neuralgia and migraine, for the relief of which she has on four occasions, and only four, taken antipyrin. On the first occasion of taking the drug (a single dose of 10 grains for migraine) she noticed about four hours afterwards great smarting and burning over the extensor surfaces of the hands and forearms; this was followed in a few hours by a rash in the same situations, and confined to those parts. The rash consisted of dusky red patches of erythema about the size of a shilling; these in a day or two coalesced, till the backs of both hands and forearms were covered with an extensive dusky-red patchy rash, raised, and very tender and painful. The feeling to the patient was as if the parts had been scalded. The rash lasted about three weeks, gradually fading, and leaving a brownish discoloration.

On the second occasion the patient took antipyrin with sal volatile three times a day. On the third day an exactly similar rash appeared, and in the same situations, and ran an identical course.

On the third and fourth occasions a single dose of antipyrin (10 grains) was taken. In about half an hour the pricking and burning were felt, followed in a few hours by the rash, which appeared on these occasions on the side of the forehead and face, as well as on the hands and arms. A blister also formed upon the back of the hand about the size of a shilling. As in the previous instances, the rash remained about three weeks. Except for the local discomfort and pain the patient did not feel ill.

I have noted above that the patient had suffered at times from urticaria. These attacks, though probably allied to that affection, were certainly not examples of urticaria. There was an entire absence of wheals, there was no rapid evanescence or reappearance on different parts, and on one occasion the erythema ran on to vesication. Her attacks of urticaria have been typical and entirely different from the rash described above. I am aware that after antipyrin a measly rash has been observed; the peculiarities in this case are that so small a dose should be followed by such marked and lasting effects; the selection of site in each case is also worthy of note.

CHARLES P. CHILDE, B.A., L.R.C.P.Lond., F.R.C.S.

Southsea.

CASE OF FRACTURE OF BOTH BONES OF FOREARM BY INDIRECT VIOLENCE.

I READ in the BRITISH MEDICAL JOURNAL of October 21st an interesting case of fracture of both bones of the forearm caused by indirect violence, by Dr. A. C. Dutt, of Whitby. This brings to mind a precisely similar case which occurred in my practice on July 9th, 1893. M. G., a boy, aged 13, was standing on the edge of a boat on the sands, and, overbalancing himself, fell backwards a short distance on to the sands. He felt an acute pain in the left forearm, and when I

examined him I found an oblique fracture of both bones of forearm, about four inches above the wrist. I cannot account for the fracture otherwise than that it was caused by muscular action in some way, as the sand was soft and free from stones where he fell.

David L. Davies, M.R.C.S.Eng., L.R.C.P.Lond.

Preswylfa, Criccieth, N.W.

PARAMETRITIS: ABSCESS TRACKING TO NATES.

In the Epitome of the British Medical Journal for October 14th is report of a case of Launay's extracted from the *Gazette des Hôpitaux* in which a parametritic phlegmon followed the gluteal artery through the sciatic notch, and formed a large abscess under the gluteus maximus. I suspect that this order of events cannot be a very rare one, as I have, in the last few months, seen a case (in consultation with Mr. Billing of this town) almost exactly answering the description Launay gives of his case. There were very severe radiating pains in our case, which one would expect from a study of the anatomical relationship of the sciatic nerve and its branches to the advancing phlegmon, but how such a case could undergo "long treatment for neuralgia" in presence of the persistent pyrexia there was in our case, and which there must be in any case of the kind, passes my comprehension.

After many weeks of pain and pyrexia following a confinement, gradual swelling and hardening of the right buttock indicated approximately what was taking place, and, finally, the whole buttock became a solid mass; the skin was also œdematous and red, but there was not, after persevering poulticing, any sign of pointing, nor could any fluctuation be made out. The patient being much exhausted with five or six weeks of pain and pyrexia (with all that these mean), we determined to take the initiative. It hardly seemed to us necessary to "make the incision for ligature of the gluteal artery," so Mr. Billing having placed the patient under chloroform, I passed a grooved exploring needle into the swelling, as well as I could judge, about an inch below and rather outside the position of the sciatic notch; the needle went in about 2 inches, and then a little thick pus with blood appeared, so, using the needle as a director, I passed a straight bistoury in, and made a sufficient incision. About 4 inches of thick drainage tube passed easily in in the direction of the sciatic notch, and a considerable quantity of pus was evacuated, containing, as in my experience pus from an acute phlegmon always does, some micrococci, but not in nearly such abundance as I have often seen.

The after-progress of the case was uneventful. There was no implication of the perineum in our case, but this would seem to be merely a question of duration, as obviously pus, after it had distended the gluteal region, would tend to make its way along the pudic vessels and obturator internus, and under the great sciatic ligament to the perineum; and perhaps a case left entirely to Nature would, if the patient survived, terminate by spontaneous opening in the perineum.

Blackpool. William Hardman.

REPORTS
ON
MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

SOUTH CHARITABLE INFIRMARY AND COUNTY HOSPITAL, CORK.

DISLOCATION OF BOTH SHOULDERS.

(By Patrick T. O'Sullivan, M.B., F.C.S., Honorary Surgeon and Pathologist.)

C. R., aged 31, deckhand on one of the river steamers on the Lee, a man of powerful build, fell overboard from the bow as the steamer was going ahead dead slow, the engines merely revolving for oiling and cleaning purposes; when going under the paddle he was struck by it; he came to the surface near the stern of the vessel, and was saved.

On admission he was in great pain, a man on either side holding up his arms. Both his shoulders were dislocated. On the left side the dislocation was sub-coracoid. The right humerus was dislocated under the centre of the clavicle, rupturing the muscle in its path. Reduction of the left arm was easily accomplished. He had to be anæsthetised to get the right back in its place.

Now, nearly seven weeks since the accident, he is able to do light labour, but he is unable for the present to resume his post of casting the shore lines, fearing dislocation of the arms again.

STATION HOSPITAL, QUETTA, BALUCHISTAN.

A CASE OF HYDROPHOBIA.

(By E. Carrick Freeman, Surgeon-Captain A.M.S.)

Private S. G. A., of the Middlesex Regiment, reported sick on the morning of August 26th, and was detained at the station hospital. He then complained of headache and general weakness, and had a temperature of 100.6°. He remained in this condition until evening, when he was reported as very nervous and excited. He had slight difficulty in swallowing, with some spasm of the glottis; temperature 100°. Later he became very noisy, and was placed under observation in a separate ward. Next morning he had a violent spasm when attempting to drink, and exhibited all the symptoms of hydrophobia. He remained quite sensible throughout; the flow of saliva was extremely copious, and any noise, anyone entering the room, any alteration in the light, or a fly buzzing near him excited violent spasm. There was no paralysis of any kind. The symptoms did not abate, and a sudden attack of dyspnœa caused death at 10 P.M. the same evening.

Nutrient enemata were administered without difficulty. Large doses of morphine and morphine with atropine given subcutaneously seemed to produce no effect whatever. Hypodermic injection of pilocarpin was also disappointing.

Post-mortem examination eleven hours after death showed all the organs deeply congested. There was congestion of the brain and medulla oblongata, and especially of the membranes of the spinal cord. Unfortunately there was no opportunity for microscopical examination. There was an old and perfectly normal scar on the left hand, said to be the result of a dogbite inflicted three years and a-half before. There was no recent scar or wound on the body.

This case seems of interest as having come under observation at an early stage, and also from the rapidity of its course. The only history which could be obtained was of a dogbite at Kamptee, which would give an incubation period of three years and a-half, and this was supported by the absence of any sign of more recent bite upon the body. On the other hand, several cases of rabies in dogs have occurred recently in Quetta, and it is possible that he may have been inoculated by one while intoxicated, and the circumstance remained unnoticed. Three soldiers who have been bitten by a mad dog have recently been sent from Quetta to Paris for treatment at the Pasteur Institute, so the men have been talking on the subject. Is it possible that this man became perturbed in his mind—he had been telling his comrades about his having been bitten—and that the mental anxiety awoke the poison to activity that had so long been lying dormant in his system? This may seem rather a far-fetched hypothesis, but it seems to agree best with the actual facts of the case.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Henry Power, F.R.C.S., Vice-President, in the Chair.

Tuesday, October 24th, 1893.

The session this year commenced with the passing of a vote of sympathy with the family of Sir Andrew Clark, the President of the Society, who is at the present time seriously ill. The vote was moved by Mr. George Pollock, seconded by Dr. Russell Reynolds, and supported by Dr. Hare. Reference was made by the speakers to the value of his life, not only to his family but also to the profession, and a fervent hope was expressed that he might soon be restored to health.

MARSHALL HALL PRIZE.

The CHAIRMAN then presented the Marshall Hall Memorial Prize to Dr. W. R. Gowers, for the best original work done in this country during the last five years. Referring to the work done by Dr. Gowers and that of the other holders of the prize—Dr. Hughlings Jackson, Dr. Ferrier, and Dr. Gaskell—Mr. Power remarked that it was only by such labours that the profession could hope to gain an accurate knowledge of the nervous system.

Dr. GOWERS, in reply, said that the reception of the Marshall Hall Memorial Prize was a source of extreme gratification to him. He thanked most sincerely the Council and Fellows of the Society for their selection. It was an acknowledgment of work done; a voice out of the region of silence, which, for the most part surrounded that part of a physician's work which consisted in an attempt to give help to other members of the profession. Of the results of this only a faint echo now and then reached the worker. He should not complain, for it was a characteristic of the profession in all its ranks that work was done irrespective of reward. As a testimony that some help had been given worthy of recognition the prize was to him not only a source of gratification but a source of help. It was a reward for past efforts, an incentive to present labour, and an encouragement to such future work as might be possible in the years that might be still to come.

DISEASE OF MANY JOINTS, PROBABLY OF SYPHILITIC ORIGIN.

Mr. BOWLBY read this paper. The patient was a lad aged 20 at the time of his death. His history was that he had enjoyed good health until the age of 13, when he suffered from a transient attack of synovitis of the left knee. A year later swellings began to form on his shins, and several months later one of these swellings discharged, and some bone came away at the same time. The patient was admitted into St. Bartholomew's Hospital at the age of 16, with an open sore on one leg and enlargement of the tibiæ. He was under treatment by Mr. Morrant Baker for a few months, and left the hospital with his wound healed. A year later he returned with his leg again ulcerated, and soon afterwards began to suffer from effusion in the knee- and elbow-joints. From this time he continued to suffer with swelling and stiffness of the affected joints until the time of his death, but before he died he had gummatous swellings on the forehead, arm, and jaw, which broke down and discharged. He also suffered from chronic osteitis of the humerus. His death resulted from amyloid disease of the viscera. The *post-mortem* examination showed gummatous masses on the calvaria, old cicatrices in the pharynx, and amyloid disease of the kidneys, liver, and spleen, with very great enlargement of the two latter viscera. Both elbow-joints, the right shoulder-joint, and both knee-joints were diseased, as were also the tibiæ and the humeri. The lesions in the different joints were all of the same nature. The synovial membrane was thickened, and its fringes were enlarged and pedunculated. The synovial fluid was thick, and increased in quantity. The cartilages were in parts thickened and deformed by the development of ecchondroses, and in other parts they were extensively destroyed. They presented an appearance as if portions of cartilage had been gouged away so as to leave irregular tracts with crescentic margins. In some parts the whole thickness of the cartilage had been so destroyed, in other parts only a portion of it. The articular surface was thus changed from a smooth and regular one to one with irregular marginal thickenings, and gouged-out pits or grooves of various sizes towards the more central parts. The bones were carious, and beneath the articular cartilage there had been a rarefying osteitis with the deposit of caseous material in places. The ligaments were not materially affected. There was no attempt at ankylosis. It was pointed out that, whilst there was a good deal of evidence in favour of the disease being syphilitic, the lesions of the cartilage in particular were not of the nature commonly met with in this disease. The author expressed the opinion that the cartilage lesions were only in part primary, and were due in great part to disease of the subjacent bone, and considered that they resembled, in all probability, the cartilage lesions described by Virchow and illustrated by specimens in his museum. He further suggested that in the chronic arthritis met with in children with congenital syphilis it was very probable that the lesion was of the same type. In conclusion, allusion was made to cases of a similar nature described by other authors.

Mr. JONATHAN HUTCHINSON, JUN., said he was glad the subject had been brought before the Society, as syphilitic joint diseases had not been sufficiently observed. He thought that the author had tried to separate the joint diseases too sharply into the four or five varieties which had been described. It could not truly be said that because a joint did not improve under syphilitic treatment, that therefore it was not syphilitic. He ventured to doubt if the specimens shown were unique, for Virchow had described in great detail in a medical journal not frequently consulted this "gouged out" condition of cartilage, and his specimens of the malady were probably the best in Europe. His collection included two or three specimens like those shown. He did not know that there was much difference between the joint affections of congenital and of acquired syphilis, but the symmetrical synovitis of the knees occurring about puberty was perhaps peculiar to the congenital form. In the case shown the microscopical examination excluded tubercle altogether. The Guy's Hospital Museum specimen referred to by the author, which he (the speaker) had mentioned in his lectures, showed similar erosive changes; the evidence of chondritis with fibrillation of cartilage showed it to be specific according to Virchow's description, and besides it was identified by the presence of a subsynovial gumma. He said that fortunately these lesions of symmetrical synovitis occurring shortly after interstitial keratitis almost always cleared up entirely under treatment.

Mr. SHEILD said that all surgeons occasionally met with bad cases of congenital syphilis somewhat of this type. Absence of corneal changes alone was not sufficient to exclude syphilis, and the importance of examining the fundus was insisted on. He had recently seen a child, aged 7, the head of whose tibia was extensively ulcerated, and ultimately the leg had to be removed. Many swellings of the cranial bones afterwards appeared, which ulcerated, leaving the dura mater bare. He had attributed the condition to tubercle, but the line of demarcation between tubercle and syphilis was not easy to define, either clinically or pathologically. He suggested that the two constitutional processes might be mixed, and mentioned the severity with which lupus attacked cases of congenital syphilis.

Mr. BOWLBY, in reply, was glad to hear that the speakers supported his diagnosis of syphilis. He considered Mr. Hutchinson's contribution to the discussion peculiarly valuable, as he had had the advantage of seeing Professor Virchow's specimens. It was at Mr. Morrant Baker's suggestion, owing to the difficulty of coming to a conclusion as to whether the condition was syphilitic or tuberculous, that he had brought the case before the Society. Pathologically the appearances were not such as to suggest tubercle, and clinically there had been no evidence of such extensive lesions as were found *post mortem*.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

D. ARGYLL ROBERTSON, M.D., F.R.C.S.Edin., F.R.S.E., President, in the Chair.

Friday, October 20th, 1893.

INTRODUCTORY ADDRESS.

THE PRESIDENT delivered an introductory address, which is published at p. 941.

ONE HUNDRED CONSECUTIVE CASES OF EPILEPSY; THEIR REFRACTION AND TREATMENT BY GLASSES.

This paper was read by Mr. H. WORK DODD. In these cases the observations included examination of the pupils and fundus oculi; the determination of the vision and refraction before and after mydriasis; and the result of treatment by glasses. The diagnosis of epilepsy was independently confirmed by the physician in attendance at the West End Hospital for Nervous Diseases, where the patients were seen: the results were compared with a classification of percentages from fifty cases of apparently normal eyes which had been worked out in the same manner. The comparison

showed that of simple hypermetropia there were 28 per cent. less in the epileptic than in the apparently normal class; of astigmatism there were 26 per cent. more in the epileptic division than in the normal one, the amount being made up mainly of compound hypermetropic astigmatism. Of the 100 consecutive cases of epilepties, 75 were ordered to wear glasses; of these there were 23 who either did not wear them or failed to report themselves later, and could not be found. Of the remaining 52 cases there were: (*a*) 13 who had had no fits since using glasses, during periods varying from one year to four months; (*b*) 3 cases who had remained *in statu quo*; (*c*) 36 cases whose condition had improved since wearing the glasses; in the majority of these the improvement was marked. In all the cases the physician had continued his ordinary treatment. It seemed to result that, given a certain condition of instability of the nervous system: (*a*) errors of refraction might excite epilepsy; (*b*) the correction of errors of refraction would, in combination with other treatment, in many cases cure or relieve epilepsy; (*c*) in some cases, when the refraction error had been corrected, the epilepsy would continue, generally in a modified form, in consequence of other irritation, even though the error of refraction might have been the exciting cause of the epilepsy.

Dr. Beevor thought that treatment by bromide or other drugs should be entirely discontinued for some months, and the cases watched carefully before they were accepted as cured.

Rapidly Growing Sarcoma in a Child Involving both Orbits with Secondary Growths.

Mr. Simeon Snell reported this case. The patient, a boy, aged 4, was well up to November, 1892, when he had an attack of mumps. His trouble appeared to follow this immediately, but later inquiry had elicited the fact that he sustained a slight blow over the left eyebrow in the previous July from a pump handle. Swelling of the lids resulted, but entirely disappeared again after a fortnight. This was thought nothing of, and was forgotten until repeated inquiries as to injury were made. By January the left eyeball was noticed to be prominent, the right in February. The left, which was always the worse, increased more than the right. He was admitted to the infirmary on March 8th. He was then very emaciated and anæmic. The left globe protruded forwards, but also downwards and slightly outwards; a swelling in the orbit above the eyeball and a feeling of growth in the orbit were detected. On the right side the conditions were much less marked. There were ecchymoses in both upper lids, and there had been epistaxis. The fundus oculi on both sides was normal, and vision apparently unaffected. There was a large swelling of the left temporal region reaching from the orbit to the ear, with large veins coursing over it. Rapidly the orbital growth developed, on the left side especially; the eyeball became more protruded and the cornea sloughed, the preauricular and cervical glands became enlarged, the growth in the left temple got larger, and one developed in right temple, as did one over coronal suture of the left side. He died on March 19th. At the necropsy, on reflection of the scalp, four swellings were noticed, one on either side near the coronal suture, and the other two near the parietal eminence on each side; they were dark purple in colour, and the two last were about the size of five-shilling pieces. They were under the periosteum involving the bone; in addition, the temporal fossa on each side had a tumour. Both orbits were filled, bulging the roofs upwards and backwards; the growth involved the upper and inner parts, and was continuous across the interorbital space; the dura mater was thickened, the inside of the skullcap bulgings corresponding to the external ones. There was a large number of affected glands in the abdomen. The microscopic characters were those of a rapidly growing sarcoma. The relation of trauma and mumps as a cause in this case was discussed, and it was mentioned that the lachrymal gland was unaffected.

Case Presenting Unusual Appearances after Cataract Extraction; Simulating Cyst, but Really Due to a Distended Capsule.

Mr. Snell also related particulars of this case. The patient, a woman, in 1879 had been operated on for cataract in the left eye. The note then entered was "S. F., aged 39; shallow lower flap; lens removed with vectis; little vitreous escaped; July 1, V + $4\frac{1}{2}$ = $\frac{6}{6}$, and reads J 1 easily with + $2\frac{1}{4}$." About six or seven years ago the patient noticed a small white body in front of the pupil; this gradually increased in size. When seen this year it was found to occupy an extent equal to more than half the length of the cornea; it was pear-shaped, the thicker end being up and inwards. It often disappeared behind the iris, but was generally in the anterior chamber. It had a very slender attachment to the iris at the back below. In July it was removed through a small peripheral corneal section below and outwards; V with correction = $\frac{6}{6}$. Mr. Treacher Collins kindly examined the specimen and found that it was not a true cyst but composed of the lens capsule with some degenerate lens substance in the interior.

Autochromatic Plates in Photography of the Interior of the Eye.

This paper was read by Dr. Howe. The great advance made by the discovery of isochromatic plates in photography of the fundus oculi was pointed out by the author. Specimens of the latest photographs of the fundus oculi were shown.

Demonstration of Ophthalmotrope.

Dr. Landolt (Paris) demonstrated his ophthalmotrope, an instrument whose object was the demonstration of the direction and the position which the eye takes under the influence of each of its muscles, and the position of the false image in the case of paralysis of a given muscle.

Card Specimens.

The following card specimens were shown:—Dr. Beaumont: Neoplasm of the Iris.—Mr. Rolston: Traumatic Dislocation of both Lenses.—Mr. Treacher Collins: Specimen showing the Eyelashes carried into the Vitreous Chamber by a Woman with a Knife.—Mr. Balmanno Squire: A Case of Lupus Vulgaris Involving the Eyeballs.—Dr. S. Stephenson: A Modified Desmarres's Retractor.—Dr. Ernest Clarke: A Case of Slight Enlargement of the Right Thyroid with Graefe's Sign on Right Side only.

NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.

J. Adamson, M.D., President, in the Chair.

Thursday, October 12th, 1893.

Annual Meeting.

Cases.

Mr. G. W. Ridley showed: (1) A boy on whom he had performed Laparotomy a year ago for a right Iliac Swelling, accompanied by diarrhœa and marked febrile disturbance. The swelling was found to be tuberculous in nature, but the patient made a good recovery, and was now in excellent health. (2) A boy in whom four months ago he had excised the Ankle-joint for tuberculous disease. The wound healed without suppuration, and the movements of the joint were now almost normal. (3) A child on whom he had excised the Hip-joint with a good result.—Mr. Rutherford Morison showed a series of cases of Syphilis illustrating points of interest.—Mr. Page showed: (1) a young man the left half of whose Lower Jaw he had removed for a large sarcomatous tumour, and later on the second half of the jaw on recurrence of the growth. (2) A boy on whom he operated on the fifth day of acute obstruction, removing an enlarged and perforated Appendix. A concretion had escaped through the perforation. (3) Another boy, with a similar history, in which the Appendix was also removed. (4) A man on whom Halstead's operation for radical cure of Hernia had been performed.—Dr. Drummond showed: (1) A man with Tumour of the Pons, in whom the following symptoms had successively developed: Facial paralysis, hemiplegia of one side, then of the other, conjugate deviation of eyes to right, headache, vomiting, difficulty in swallowing and speaking; optic neuritis not present. (2) A case of Mitral Stenosis, which favoured the opinion that part at least of the so-called presystolic murmur was ventricular systolic.—Dr. Limont showed: (1) A man, aged 55, who had suffered from Psoriasis for fifty years. When first seen all the limbs, trunk, face, and scalp were affected. He was put upon 15 grains of thyroid powder,

no external application being used. Within a week there was distinct improvement, and at the end of seven weeks the erupt on had disappeared from the head, face, body, and arms. Slight traces only were to be seen on the lower third of the legs and on the neck, and he was more nearly free from the disease than he had been for fifty years. (2) A woman, aged 24, who had suffered from Psoriasis for sixteen years. It was of a markedly gyrate form, the epithelium forming laminæ rather than scales, and the rings having a great tendency to crack transversely. This case had been treated for a month with the thyroid extract, without any appreciable benefit. (3) A man with thickspread Psoriasis, whom it was intended to treat in the same way.

SPECIMENS, ETC.

Dr. ROBERTSON showed (1) New Electric Forehead Lamp; (2) New Chair for the use of Laryngologists.—Mr. PAGE showed a Renal Calculus removed from the right kidney. The patient was stout and muscular, and the operation correspondingly difficult, but very rapid recovery had taken place.—Dr. DRUMMOND showed the Liver of a Girl who died of Phosphorus Poisoning produced by chewing about two boxes of matches. Death took place on the fifth day. The liver was markedly fatty, as were the kidneys, muscles, and heart.—Dr. LIMONT showed the Kidneys with Ureters and Bladder of a Man who died of Obstructive Suppression; both ureters were blocked by calculi.—Dr. ROBERTSON read a paper on the Use of Pure Sterilised Vaseline Oil in Chronic Otitis and Otorrhœa.

ELECTION OF OFFICERS.

The following officers were elected for the session 1893-94: *President:* J. Adamson, M.D. *Vice-Presidents:* D. Drummond, M.D.; W. Gowans, M.D.; J. Murphy, M.D.; T. Oliver, M.D. *Honorary Secretaries:* J. Limont, M.B.; Rutherford Morison, F.R.C.S. *Committee:* R. Anderson, M.D.; W. G. Black, F.R.C.S.Edin.; J. L. Crisp; J. Drummond, M.D.; S. Fielden, M.D.; G. R. Murray, M.B.; J. W. Smith, M.D.; T. Squance, M.D.; G. E. Williamson, F.R.C.S.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

WALTER HUNTER, M.D., President, in the Chair.

Wednesday, October 18th, 1893.

INAUGURAL ADDRESS.

DR. LAUDER BRUNTON delivered the inaugural address of the session on "Certain Forms of Diarrhœa." Particular notice was taken of "morning diarrhœa," which might depend on small ulcers situated in the rectum or sigmoid flexure, which should be treated by astringent and sedative ointments. Another cause of frequent early evacuations was the habit of taking a full meal, including much liquid, before going to bed; the fluid mass was apt to lie unabsorbed the whole night, but when a person began to move about in the morning energetic peristaltic action set in, and this, aided by fermentative changes in the undigested food, brought on diarrhœa. Allusion was made to the action of purgatives and their relative effects on the large and small intestine. The symptoms of "sprue" or "hill diarrhœa" were discussed, and the curative effects of an exclusively milk diet insisted on. Abdominal massage was recommended for atonic conditions of the muscular coat of the stomach and bowels. Small doses of arsenic were valuable in the diarrhœa which was apt to come on after meals, and quinine was recommended for the periodical diarrhœa which was prevalent in malarial districts. Chronic diarrhœa was apt to be associated with malignant disease in the colon or rectum. In these cases, in addition to giving bismuth and other astringents, it was important to eliminate all insoluble residues from the food.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

J. KILNER CLARKE, M.A., F.R.C.S., President, in the Chair.

Friday, October 13th, 1893.

PRESIDENT'S ADDRESS.

THE PRESIDENT delivered an address, in which he referred to the close resemblance which often existed between carcinoma, adenoma, and syphilitic disease of the liver, and urged an exploratory laparotomy in all cases of liver tumour which resisted antisyphilitic treatment. He recommended the operation of gastro-enterostomy in preference to pylorectomy in cases of pyloric growth, where the condition of the retro-peritoneal glands could not be satisfactorily made out by palpation, and discussed the relative merits of the different mechanical contrivances for facilitating the union of intestine to intestine, comparing them with the direct union by sutures only. He gave the preference to Mayo Robson's decalcified bone bobbins. In the treatment of uterine cancer too advanced for hysterectomy, ligature of the broad ligaments was advocated. Two cases were described which had been operated on in this way. In one of these, operated on in February, 1891, though the tumour had slowly increased in size, the patient's general condition was apparently little, if any, worse than at the time of operation, and she was still able to do her usual work. The speaker discussed in detail the preparation of patients for operation, the treatment of vomiting, distension, and peritonitis, and the management generally of cases after operation, giving it as his opinion that more cases were lost for want of suitable after-treatment than from lack of skill on the part of the operator.

APHASIA.

Dr. MANTLE (of Halifax) read a paper on a case of motor and sensory aphasia, with hemianopsia, anosmia, and right hemiplegia. The patient was an artist, aged 41, who had had a slight attack of motor aphasia after an epileptiform seizure nine years previously, which soon passed off. A year ago he awoke one morning with motor aphasia, and numbness and loss of power of the right arm and leg. In a few days there was complete paralysis of motion and sensation. The patient was then able to express his thoughts by writing and he could read and understand what he read. In the eleventh week signs of disturbance in the sensory processes of speech were evident. He became deaf to words but not to sounds. He was completely blind for fourteen days, but the pupil reflex remained. There was no neuritis. As sight was returning he was found to have right hemianopsia, and anosmia on the right side was also noticed. He then lost all power of writing. The motor aphasia as well as word deafness and blindness completely disappeared by April, but mind blindness continued. The treatment was by mercury and iodide as there was a suspicion of a specific history. In August, 1893, right hemianopsia returned, and there was loss of power in the tongue. Motor aphasia again appeared in September, and was followed in a week by a similar condition of sensory aphasia to that experienced before, but with no agraphia. Improvement was now slowly taking place. Dr. Mantle considered the condition to be due to arterial thrombosis, and chiefly of the branches of the left middle meningeal artery.

The paper was discussed by Drs. BARRS, JACOB, CHURTON, GRIFFITH, and TREVELYAN.

ACUTE INTESTINAL OBSTRUCTION.

Dr. SWANN (of Batley) reported a case of acute intestinal obstruction cured by abdominal taxis on the lines laid down by Mr. Jonathan Hutchinson in his *Archives*. The patient, a female aged 30, had symptoms of acute intestinal obstruction lasting five days, the symptoms becoming very acute on the fifth. The usual palliative measures, enemata, etc., had been tried, and the course lay between abdominal taxis and laparotomy. After the matter had been explained to the patient's friends, they elected to have the taxis tried first, with the result that the patient had her bowels freely moved three times the same evening, and was now in her usual health.

The PRESIDENT had tried this method in the case of a boy suffering from obstruction. No relief was obtained after the first taxis. This was repeated in twenty-four hours, followed by relief.

The method was adversely criticised by Drs. BARRS, EDDISON, and LEECH; Dr. SWANN replied.

Cases and specimens were shown by Dr. TREVELYAN, Dr. HELLIER, Dr. BARRS, Mr. WARD, Mr. LITTLEWOOD, Mr. W. H. BROWN, and Dr. CHURTON.

REVIEWS.

Atlas of Clinical Medicine. By Byrom Bramwell, M.D. Vol. II, Part 2. Edinburgh: H. A. Constable. 1893. (Demy folio, pp. 128; thirteen plates. 31s. 6d.)

This part of Dr. Byrom Bramwell's *Atlas* quite sustains the reputation of the previous parts. It contains nine plates, of which no fewer than eight are devoted to syphilis, four being from original observations and four borrowed from other authorities. Plate 42, which is coloured, gives the effect of a macular eruption very well; and plate 47 is from an excellent photograph of external gummata. The whole series gives a fairly complete representation of all the more prominent phases of the disease—primary, secondary, and tertiary. The remaining plate is from an admirable photograph of a case of exophthalmic goître, the description of which is to follow.

The text includes first the continuation of an article on "Alterations in the Fields of Vision," relating some remarkable and instructive cases, with diagrams. There is also a long and comprehensive article on syphilis, which gives as fully as can be done in the space a good account of the whole disease, and includes a judicious discussion of the question of treatment. An equally long article on cholera closes the part, and has appended to it a reprint of M. Haffkine's lecture on "Anticholeraic Inoculation." These systematic articles are very good and valuable, but, perhaps, in a work intended for the profession rather than for students, Dr. Bramwell's original observations on rare or little known diseases are still more important.

In so beautifully printed a book it may seem ungracious to point out misprints, but the author is certainly not happy in his treatment of proper names. Mr. Hutchinson, often quoted, always appears as "Hutchison," and Mr. Bloxam as "Bloxom;" while Sir George Johnson becomes "Johnstone." These are trifles, and on the whole we strongly recommend those of our readers who do not know the splendid work, and are able to purchase it, to become subscribers.

A Comprehensive Scheme for Street Improvements in London. By Arthur Cawston, A.R.I.B.A. London: Edward Stanford. 1893. (Demy quarto, 136 pages, including two appendices, with 25 plates and 4 maps. £1 10s.)

This handsome volume, abundantly illustrated with views of improvements lately carried out in Continental cities, and sketches and plans of improvements the author suggests for the metropolis, has been compiled with the object of demonstrating the necessity of the formation of a general plan for improving London, of showing what the nature of that plan must be, and of devising ways and means for carrying it into execution.

The first chapter deals with reasons for improvement. Health statistics are lightly touched upon, and here some little difficulty is experienced by the author, who manages, however, with some ingenuity to explain away the fact that the metropolis has a low death-rate. Traffic and the labouring classes doubtless require attention, but surely undue prominence is given under the heading "General Benefits," to the satisfaction which the inhabitants of an improved city would enjoy in reaping a large harvest from tourists and temporary residents from abroad.

Mr. Cawston then proceeds to lower the pride of the Londoner by referring to the superiority of other cities, and passes on to the iniquity of Parliamentary interference and exorbitant compensation claims. We are then shown the advantages over existing methods of a general scheme of automatic improvement. "To be of any practical value, the scheme must contain all the main improvements which are likely to be required during the next few generations. Some of the improvements may not be fully carried out for fifty years or more, but directly a plan has been finally adopted, and has the force of law, it will almost at once automatically begin to work by the result of fires and other unexpected opportunities for clearing away any buildings which stand in the way."

The author asks, "Can one imagine the enthusiasm and pride that would be roused—some few years ahead—as the last block of houses in each new thoroughfare gradually came down, and for the first time an uninterrupted view of the new street with its palatial architecture was obtained?" This gradual acquirement of property is stated to be of economic importance, for where so much was to be acquired, there would be so much choice, that small portions could be purchased "here and there whenever the owners wanted to sell or were willing to sell at a reasonable price." Does this last argument, we would ask, apply to the last block of houses which are to come down gradually before the uninterrupted view of the new street is obtained?

We cannot deal here with the author's six general principles and his application of them; some of the suggestions made should prove valuable. Many sorts and conditions of men suffer in Mr. Cawston's hands, but the lawyers bear the brunt of his wrath; he is content with classing Bethlem and St. Luke's Lunatic Asylums with "gasworks and water filtering beds, and other obstructions," but for the Inns of Court and for Queen's Counsel he has even more scathing words of contempt.

Into the question of "The cost and how to meet it," we cannot enter in detail. The author admits that there are well-known practical difficulties, but the municipalisation of the land will solve them, and in the meantime graduated death duties on freehold land and on buildings, and a graduated improvement rate on occupiers, are to be resorted to. Only the more wealthy occupiers will contribute, for, as Mr. Cawston naively remarks, "there appears to be a general consensus of opinion that the poorer occupier should bear no further burden."

We have given an outline of the letterpress, but the plates and maps must be seen to be appreciated. The latter in particular form a valuable part of the work.

Appendicitis and Perityphlitis. By Ch. Talamon, Physician to the Tenon Hospital. Translated from the French by Richard J. A. Berry, M.B., C.M., late President of the Royal Medical Society, Edinburgh. Edinburgh and London: Young J. Pentland. 1893. (Crown 8vo, pp. 239, 6s.)

Dr. Berry has done good service in bringing this excellent treatise under the notice of British practitioners, and deserves much praise for the clearness and accuracy of his translation. M. Talamon's monograph may be regarded as the best extant study of an affection that has recently acquired much importance, from the attention paid by modern practitioners to its clinical features, and from the successful application to its more severe forms of modern surgical treatment. The value of the book is enhanced by the fact that the author, in dealing with his subject, has associated with the lucidity of teaching and description so characteristic of French writers a liberal and appreciative recognition of work done in other countries.

In discussing the primary seat of the lesion formerly described under the titles of typhlitis and perityphlitis, M. Talamon holds with American writers that this seat is neither in the cæcum nor in the neighbouring connective tissue, but only in the appendix vermiformis. The name "typhlitis," implying inflammation of the cæcum, should, therefore, he says, be replaced by that of appendicitis. This appendicitis, in his opinion, is due in a small number of instances to direct traumatism from a hard or pointed foreign body, but in most cases to the impaction of fæcal concretions. Whether scybala, when found in the appendix, are to be regarded as extraneous or foreign bodies, is, we think, open to doubt, and we question whether the author's conclusions as to the causation of acute inflammatory and even gangrenous affections of this process by the simple pressure of such cæcal masses will be generally accepted. The fact that females and subjects of middle and advanced age are much less frequently affected than males and young subjects, seems to indicate that some other and less obscure cause may in future be found of the marked pathological changes usually observed in appendicitis.

The chapter on the symptoms of appendicitis presents a

very elaborate and analytical review of the clinical features of the disease, and of the distinctive characters of its diverse forms. The author's teaching on these points is evidently the result of wide experience and much study, and we heartily commend this portion of his work both as a valuable source for reference and as a model of clinical description.

Though writing from a medical standpoint, M. Talamon fully recognises the value, and in fact the need, of surgical treatment in cases of severe appendicitis. Whilst opposed to the views of American surgeons as to early and immediate operation in every case, he holds that surgical intervention is indicated as soon as the diagnosis of perforated appendicitis has been made. The balance is justly maintained between the physician's tendency to temporise and the anxiety of the surgeon to prompt use of the knife. In his remarks on the treatment both of primary and of relapsing appendicitis, many favourable references are made to the progress that has been made in this department of surgery by the researches and clinical work of Mr. Treves.

SELECTED PAPERS IN GYNÆCOLOGY AND OBSTETRICS. By D. BERRY HART, M.D., F.R.C.P.E., etc., late President, Edinburgh Obstetrical Society. Edinburgh and London: W. and A. K. Johnston. 1893. (Demy 8vo, pp. 239. 10s. 6d.)

THIS work is a reprint of papers published in various medical journals, chiefly in the *Edinburgh Medical Journal*, arranged in the natural sequence of anatomy and physiology, pathology and practice. Those acquainted with obstetrical and gynæcological literature will not need to be told what Dr. HART's work is like. For those who may not have read his papers as they appeared, we may say that each and all display a firm grasp of the matter in hand, original thought and observation about it; a power of viewing it from a fresh and independent standpoint, full knowledge and accuracy of statement, and, above all, an enthusiastic passion for getting at the truth. These qualities stamp Dr. Hart's writings as among the most valuable that have appeared in his own speciality, and in their thoroughness and high tone they bear comparison with anything that is done in medicine. We hope Dr. Hart's activity as a teacher and writer may long continue.

NOTES ON BOOKS.

Operation Blanks. Prepared by W. W. KEEN, M.D., Professor of the Principles of Surgery in the Jefferson Medical College, Philadelphia. With list of instruments required in various operations.' (Philadelphia: W. B. Saunders.)—Each of these blank forms consists of two parts, one to be filled up for the instruction of the nurse and the other to be sent to a dispenser of drugs, in a case of operation. The instructions here a rranged in a convenient form show much thoroughness and a close attention to details on the part of Dr. Keen, and the fact that the *Operation Blanks* have reached a second edition is an indication that they have been found useful by other surgeons. With regard both to the instructions and to the accompanying list of instruments required in various operations the objection presents itself to us that it must be very difficult to render such information complete and inclusive in a printed form. Most surgeons would, we imagine, find it more satisfactory and convenient to leave all respective details of preparation to a tried and experienced assistant and to a well-trained nurse.

Die Modernen Fiebertheorien [Modern Theories of Fever]. Von Dr. Med. ALEXANDER RABE. Gekrönte Preisschrift. (Berlin: Hirschwald. 1894 (*sic*). Roy. 8vo., pp. 70; 2 marks.)—In this pamphlet Dr. Rabe discusses the various theories which have been put forward with regard to the nature of fever, going back somewhat further than might have been expected from the title he has selected. He appears to state the views of the various authorities he quotes with impartiality, and the copious list of references which he has appended will be found extremely useful by other students of this important subject.

Annual of the Universal Medical Sciences: a Yearly Report of the Progress of the General Sanitary Sciences throughout the World. Edited by CHARLES E. SAJOUS, M.D. In 5 volumes. (London: F. J. Rebman. 1893. Royal 8vo, pp. 2,500, price 87s.)—The present is the sixth issue of this *Annual*, and the editor, Dr. C. E. Sajous, who is assisted by 70 associate editors and over 200 correspondents, has made an additional effort to render the work thoroughly international. To this end he has enlisted the services of Sir B. W. Richardson, Dr. Dujardin-Beaumetz, Professor Lépine, Professor Obersteiner, Dr. Bourneville, Dr. Norman Kerr, Professor Budin, Dr. Lutaud, Dr. Dudley Buxton, Dr. Apostoli, and Professor Poirier, who contribute articles on departments with which their names are identified. The work is, so far as we know, the only yearbook published in the English language which professes to deal in anything like a complete manner with medical literature, and as a work of reference it will be found of inestimable value. It is thoroughly well arranged and compiled, and the general index, which extends to 81 pages of treble columns, renders it easy to consult. Where necessary illustrations, some of them of a most admirable character, have been introduced, and the work reflects the greatest credit on the industry and power of organisation of the editor in chief.

Auscultation and Percussion, together with the Other Methods of Physical Examination of the Chest. By SAMUEL GEE, M.D., F.R.C.P. Fourth edition. (London: Smith, Elder and Co. 1893. Cr. 8vo, pp. 343, price 6s.)—Dr. Gee's book has become a classic, and no words of praise are required from us to recommend it to those who have already made acquaintance with it. It is a book which ought to be in the hands of every English-speaking student; it is clearly written in good English, and the terminology employed is accurate and consistent.

Sanitary Work in the Smaller Towns and in Villages. By CHARLES SLAGG. (London: Crosby, Lockwood, and Son. 1893. Third edition, enlarged. Crown 8vo, pp. 270. 3s. 6d.)—The new edition of this work is practically a reprint of the previous one; it contains, however, references to legislative enactments which have come into force since the second edition was published. It is rather a series of essays than a systematic treatise on sanitary work, and deals for the most part with the engineering aspect of sanitary problems, the references to points of medical interest being scanty and meagre. Part I deals with some of the more common forms of nuisance and their remedies, and contains some useful and practical hints, though the section in which dampness of houses is discussed is somewhat inadequate. Part II deals with drainage, and this is the best portion of the book. In Part III water supply is discussed, and several points of interest are touched upon, but the treatment of the quality of the water supply is very insufficient. The book is eminently practical, and deals in some detail with several questions to which but little attention is devoted in the majority of textbooks.

The Treatment of Constitutional Syphilis. By OSWALD ZIEMSSEN, M.D., of Wiesbaden. (London: H. K. Lewis. 1893. Cr. 8vo, pp. 70. 3s. 6d.).—In this small work Dr. Oswald Ziemssen discusses the various ways of treating syphilis, and declares himself strongly in favour of treatment by mercurial inunction, which, in his opinion, is "the only treatment which allows of the dose of mercury being increased up to the maximum without endangering the patient's life." Dr. Ziemssen has satisfied himself that by this method no mercury "enters the body through the skin in a gaseous state;" and that "the quantity of mercury which is pressed into the skin by inunction is of little importance." In view of this last statement, one is tempted to ask—why then is it necessary that trained rubbers should be employed, and why should each rubbing last exactly fifteen minutes? Dr. Ziemssen expresses the opinion that syphilis ought not to be treated by specialists, and he believes Wiesbaden to be more suitable than Aix-la-Chapelle for the treatment of that disease. The little work is clearly and pleasantly written, and may be read with profit by all, whether specialists or not, who are interested in the subject of which it treats.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

BOOT DRYING AND WARMING LAST.

We have received specimens of an ingenious boot-drying and warming last manufactured by Mr. Ralph Lees, Gorsty Hill Hall, near Crewe. The lasts, which are of the form of a boot, are made of white china, and can be filled with hot water. They are remarkable specimens of the potter's art, and will no doubt be found extremely convenient for the purpose for which they have been designed, more particularly for drying thin shoes. It is claimed, and probably correctly, that this method of drying does not damage the leather.

A SAFETY SHROUD.

We have been shown by Mr. John Gordon, Premier Works, Forest Gate, London, a patent shroud of his contrivance, which is designed for use in enveloping the body of a person who has died of infectious disease. The invention consists of a sack-shaped shroud, which can be drawn over the corpse and hermetically sealed at the foot with collodion. The substance of which the shroud is made is linen material, rendered air and waterproof by being impregnated with a solution prepared from collodion. For the face there is let into the shroud an oval disc of suitable size of transparent material, through which the features can be easily seen and recognised. For the purpose of temporarily isolating the dead during the interval between death and burial, while at the same time permitting inspection of the features either by a coroner's jury or by friends and relatives, this invention appears to be well adapted. It is thought that it will be found particularly useful in hot climates, and certainly presents many obvious advantages.

IMPROVED PLASTER-OF-PARIS BANDAGE.

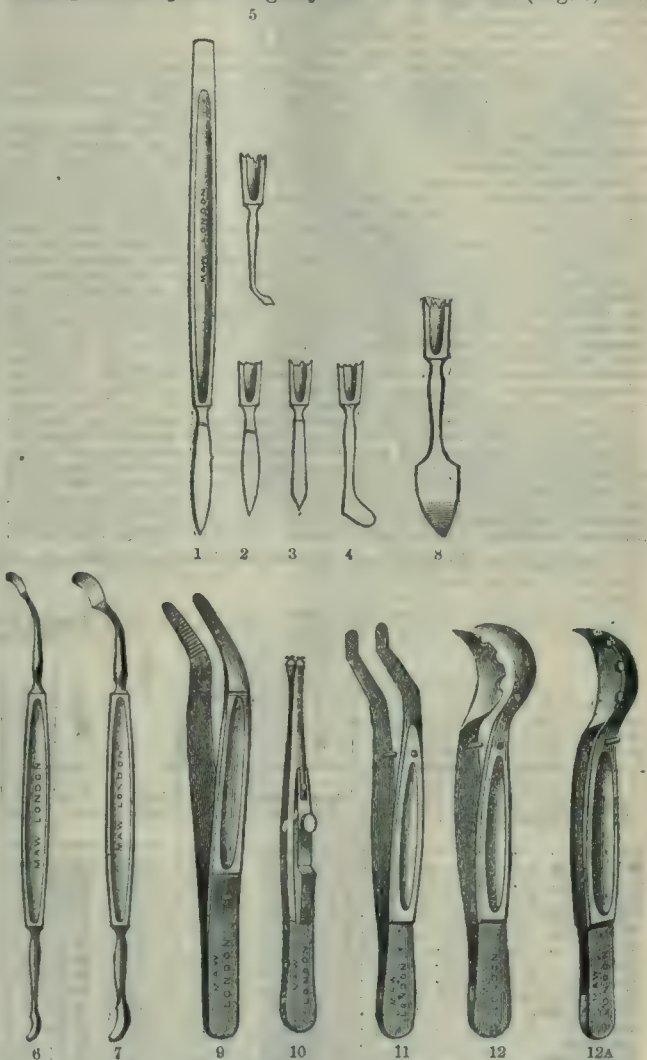
Repeated trial of samples supplied by Messrs. A. de St. Dalmas and Co., of Leicester, has convinced us that the improved and perfected plaster-of paris bandages recently prepared by this firm will be found really valuable aids in surgical work, and tend to remove most of the objections to the use of plaster-of-paris.. Every practical surgeon must from time to time have experienced some inconvenience in the use of this agent for making splints. The plaster may be too damp, the bandage may be of unsuitable material or too carelessly rolled, and the application has often to be made in a hurry, and with soiling of clothes and linen. The improved bandages are not affected by atmospheric moisture, are easily portable, not liable to shedding, and can be applied without difficulty and with perfect neatness. It is stated that they may be kept in stock for any length of time without fear of their becoming useless.

ANTISEPTIC HANDKERCHIEFS.

Messrs. Arthur and Co., of 74, Newman Street, have forwarded to us samples of paper handkerchiefs, which the articles on consumption hospitals in recent numbers of the British Medical Journal have induced them to place on the market. They are made of Japanese paper, thin, and of a soft absorbent texture, but very tough withal, and they are impregnated with a volatile antiseptic. They are sold at 3s. per hundred. There can be no doubt of the advantage and also of the nicety of using handkerchiefs which can be burned when done with in all cases in which tuberculous expectoration has to be wiped from the mouth. The antiseptic probably is of small moment. Cheapness and smallness, so as to ensure quick destruction, are the points to aim at.

NEW DERMATOLOGICAL INSTRUMENTS.

At the Dermatological Section of the British Medical Association meeting at Newcastle-on-Tyne, Dr. Phineas Abraham exhibited a set of instruments for use in minor dermatological surgery which had been constructed for him by Messrs. Maw, Son, and Thompson. They are made entirely of the best steel, nickel plated, and, as far as possible, without joints or solderings, so that they can easily be maintained in an aseptic condition. Some of them are quite novel in construction and design. The polished wooden case contains the following instruments:—Two scalpels of different sized blades (Figs. 1 and 2); two scarifers, one of M. Vidal's pattern (Figs. 3 and 4); a milium or acne needle, with lancet point bent down (Fig. 5); two lupus scrapers or curettes of M. Vidal's pattern, but bent in the neck for convenience when holding as a pen and for reaching underlying cavities (Figs. 6 and 7); a pair of scissors curved on the flat; a broad pointed spatula slightly curved on the flat (Fig. 8) and



sharp enough at the edges for scraping the epidermis for microscopical diagnosis in cases of tinea, and also useful for lifting crusts, etc.; a bent dressing forceps (Fig. 9); a grapnel forceps (Fig. 10); an epilating forceps, bent down and then up at the point for convenience in extracting single hairs (Fig. 11); a comedo extractor, made in the form of a forceps with curved spoon-shaped blades, which on the inner edges are so notched, that when brought together the instrument can be used as a watchkey, and pressed down upon the comedo without pain. The curvature allows of its application even in the angle between the nose and cheek, and the points are sharp enough to puncture, and if necessary divaricate, the orifice of the comedo. The instrument can also be used to lay hold of the base of a furuncle or other protuberance, and press out the contents. In Fig. 12 the extractor is shown open and in Fig. 12A closed. The figures are all half size.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

ENGLISH URBAN MORTALITY IN THE THIRD QUARTER OF 1893.

THE vital and mortal statistics of the thirty-three large English towns dealt with by the Registrar-General in his weekly returns are summarised in the accompanying table. During the three months ending September last, 81,148 births were registered in these thirty-three towns, equal to an annual rate of 31.5 per 1,000 of their aggregate population, estimated at upwards of ten and a quarter millions of persons in the middle of this year. In the corresponding period of 1892 the birth-rate in these towns averaged 32.1 per 1,000. In London the birth-rate last quarter was equal to 30.6 per 1,000, while it averaged 32.2 in the thirty-two provincial towns, among which it ranged from 23.1 in Huddersfield, 24.6 in Brighton, 26.0 in Halifax, and 27.0 in Portsmouth to 35.4 in Wolverhampton, 35.6 in Preston, 35.9 in Liverpool, and 36.4 in Cardiff.

During the quarter under notice 56,211 deaths were registered in the thirty-three large English towns, which corresponded to an annual rate of 21.8 per 1,000, against 17.9 in the third quarter of 1892. In London the rate of mortality was equal to 20.5 per 1,000, while it averaged 22.8 in the thirty-two provincial towns, among which the death-rates ranged from 16.1 in Bristol, 16.2 in Huddersfield and in Halifax, 16.7 in Croydon, and 17.8 in Plymouth to 26.5 in Hull, 27.3 in Sunderland, 28.0 in Blackburn, 28.4 in Liverpool, and 33.2 in Preston. The 56,211 deaths registered in the thirty-three towns last quarter included 13,951 which were referred to the principal zymotic diseases, equal to an annual rate of 5.4 per 1,000; in London the zymotic death-rate was equal to 4.5, while it averaged 6.1 in the thirty-two provincial towns, among which it ranged from 1.9 in Bristol, 2.2 in Huddersfield and in Halifax, 2.6 in Plymouth, and 3.5 in Swansea to 8.1 in Sunderland, 8.3 in Burnley, 9.6 in Hull, 10.5 in Blackburn, and 11.6 in Preston. The 13,951 deaths referred to the principal zymotic diseases included 8,958 which resulted from diarrhœa, 1,157 from whooping-cough, 1,121 from diphtheria, 951 from measles, 828 from "fever" (principally enteric), 795 from scarlet fever, and 141 from small-pox. The 8,958 fatal cases of diarrhœa registered during the quarter under notice in the thirty-three towns considerably exceeded those recorded in the corresponding period of last year, and were equal to an annual rate of 3.48 per 1,000; in London the rate of mortality from the disease did not exceed 2.03 per 1,000, while it averaged as much as 4.52 in the thirty-two provincial towns, among which diarrhœa showed the highest proportional fatality in Sheffield, Sunderland, Wolverhampton, Burnley, Blackburn, Hull, and Preston. The 1,157 deaths referred to whooping-cough were equal to an annual rate of 0.45 per 1,000; in London the rate of mortality from this disease was equal to 0.58 per 1,000, while it averaged only 0.36 in the large provincial towns, among which whooping-cough was proportionally most fatal in Bradford, West Ham, Swansea, and Gateshead. The fatal cases of diphtheria, which had increased from 912 to 959 in the preceding three quarters, further rose to 1,121 during the quarter under notice; in London the rate of mortality from this disease was as high as 0.80 per 1,000, while it averaged only 0.17 in the thirty-two provincial towns, among which diphtheria showed the highest proportional fatality in Manchester, Brighton, Cardiff, West Ham, and Croydon. The deaths from measles, which had been 1,243 and 1,592 in the first two quarters of the year, declined to 951 during the three months under notice; in London the rate of mortality from measles was equal to 0.43 per 1,000, while it averaged 0.33 in the thirty-two provincial towns, among which this disease was proportionately most fatal in Newcastle-upon-Tyne, Liverpool, Sheffield, Preston, and Blackburn. The deaths referred to different forms of "fever" (including typhus, enteric, and simple and ill-defined forms of fever), which had declined from 516 to 363 in the preceding three quarters, rose again to 828 last quarter; in London the "fever" death-rate did not exceed 0.20 per 1,000, while it averaged 0.40 in the thirty-two provincial towns, amongst which it was highest in Portsmouth, Salford, Liverpool, Hull, Preston, and Sunderland. The fatal cases of scarlet fever, which had declined from 838 to 659 in the preceding three quarters, rose again to 795 during the three months under notice; in London the death-rate from this disease was equal to 0.43 per 1,000, while it averaged only 0.22 in the thirty-two provincial towns, among which scarlet fever showed the highest proportional fatality in Bradford, Leicester, and Burnley. The deaths referred to small-pox in the thirty-three towns, which had increased from 22 to 263 in the preceding four quarters, declined to 141 last quarter, of which 49 occurred in London, 31 in Bradford, 27 in West Ham, 9 in Birmingham, and 8 in Oldham.

The rate of infant mortality in the thirty-three towns, measured by the proportion of deaths under one year of age to registered births, was equal to 250 per 1,000, which considerably exceeded the average, owing to the excessive fatality of summer diarrhœa. In London the rate of infant mortality was 208 per 1,000, while it averaged as much as 279 in the thirty-two provincial towns, among which it ranged from 154 in Bristol, 171 in Huddersfield, 189 in Plymouth, and 198 in Derby to 314 in Salford, 333 in Burnley, 375 in Blackburn, 378 in Hull, and 476 in Preston.

The causes of 353, or 1.5 per cent., of the 56,211 deaths in the thirty-three towns during the third quarter of this year were not certified, either by registered medical practitioners or by coroners. The proportion of uncertified deaths in London did not exceed 0.7 per cent., while in the thirty-two provincial towns it averaged 2.0 per cent. The causes of all the deaths in Croydon during the quarter were duly certified; in the other towns the lowest proportions of uncertified deaths were registered in Sunderland, Portsmouth, Plymouth, and Cardiff, and the highest in West Ham, Liverpool, Halifax, Leicester, and Birmingham.

Analysis of the Vital and Mortal Statistics of Thirty-three of the Largest English Towns during the Third Quarter of 1893.

Towns.	Estimated Population middle of 1893.	Births.	Deaths.	Annual Rate per 1,000 Living. Births.	Deaths.	Principal Zymotic Diseases.	Deaths from Principal Zymotic Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-Cough.	Fever.	Diarrhœa.	Deaths of Children under one year of age to 1,000 Births.	Rate per cent. of Uncertified Deaths
33 Towns	10,327,846	81,148	56,211	31.5	21.8	5.4	13,951	141	951	795	1,121	1,157	828	8,958	250	1.5
32 Provincial Towns	6,021,435	48,311	34,204	32.2	22.8	6.1	9,101	92	492	337	261	538	609	6,772	279	2.0
London	4,306,411	32,837	22,007	30.6	20.5	4.5	4,850	49	459	458	860	619	219	2,188	208	0.7
West Ham	227,405	1,951	1,178	34.4	20.8	6.3	356	27	1	25	28	37	24	214	248	3.2
Croydon	108,997	736	455	27.1	16.7	3.6	98	—	3	—	21	9	4	61	212	0.0
Brighton	117,833	724	534	24.6	18.2	3.7	108	—	1	2	10	18	7	70	246	2.1
Portsmouth	167,277	1,127	785	27.0	18.8	5.3	219	—	13	5	6	5	25	165	272	0.5
Plymouth	86,781	634	386	29.3	17.8	2.6	56	—	5	2	3	2	3	41	189	0.5
Bristol	225,028	1,677	902	29.9	16.1	1.9	106	—	3	8	11	12	5	67	154	1.3
Cardiff	142,435	1,294	677	36.4	19.1	4.1	147	—	12	4	17	3	5	106	235	0.6
Swansea	93,816	811	479	34.7	20.5	3.5	82	—	6	3	2	17	4	50	221	1.0
Wolverhampton	84,298	743	552	35.4	26.3	7.5	157	—	5	6	2	1	11	132	312	0.9
Birmingham	487,891	3,914	2,695	32.2	22.2	5.9	714	9	8	20	15	49	36	577	283	4.2
Norwich	104,184	759	510	29.2	19.6	5.0	131	—	6	7	2	15	15	86	282	1.0
Leicester	184,547	1,516	1,016	32.9	22.1	7.8	359	2	8	27	4	22	24	272	309	4.4
Nottingham	220,551	1,725	1,042	31.4	18.9	5.2	284	—	1	18	3	3	19	240	236	1.4
Derby	97,341	739	435	30.5	17.9	3.8	93	—	1	6	2	10	6	68	198	0.7
Birkenhead	103,817	835	516	32.3	19.9	4.1	107	—	—	3	1	14	10	79	278	1.7
Liverpool	510,514	4,572	3,621	35.9	28.4	6.7	857	—	73	43	17	67	92	565	279	3.2
Bolton	117,278	980	706	31.8	24.1	6.8	198	1	5	10	4	7	12	159	304	1.4
Manchester	515,598	4,268	3,222	33.2	25.1	6.4	820	3	50	24	40	41	28	634	283	1.1
Salford	203,431	1,723	1,267	34.0	25.0	7.9	399	4	16	15	9	18	34	303	314	2.1
Oldham	136,469	985	689	29.0	20.3	4.1	140	8	6	1	5	13	4	103	226	1.2
Burnley	93,462	796	568	34.2	24.4	8.3	194	—	10	16	8	4	12	149	333	0.9
Blackburn	124,005	935	866	30.2	28.0	10.5	326	2	95	1	—	8	8	212	375	1.8
Preston	110,225	977	912	35.6	33.2	11.6	319	—	23	2	3	7	27	257	476	2.7
Huddersfield	97,549	561	395	23.1	16.2	2.2	53	—	4	6	—	2	4	37	171	3.0
Halifax	91,918	595	372	26.0	16.2	2.2	51	—	1	1	2	8	4	35	207	3.5
Bradford	221,611	1,366	1,227	28.2	22.2	6.5	358	31	7	29	5	34	14	238	277	1.2
Leeds	382,093	3,071	2,286	32.2	24.0	6.5	621	4	26	7	17	36	49	482	310	1.4
Sheffield	333,922	2,872	2,082	34.5	25.0	7.9	656	—	67	28	8	29	28	496	297	2.8
Hull	208,709	1,753	1,379	33.7	26.5	9.6	499	—	2	6	2	11	39	439	378	2.1
Sunderland	131,515	1,129	914	33.7	27.3	8.1	270	1	3	5	5	7	46	203	313	0.3
Gateshead	90,938	764	471	33.7	20.8	6.3	142	—	5	2	5	23	3	104	277	2.3
Newcastle-on-Tyne	196,997	1,629	1,065	33.2	21.7	3.7	181	—	26	5	9	6	7	128	233	0.8

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns, including London, 6,198 births and 3,652 deaths were registered during the week ending Saturday, October 21st. The annual rate of mortality in these towns, which had declined from 20.2 to 18.2 per 1,000 in the preceding three weeks, rose again to 18.4 during the week under notice. The rates in the several towns ranged from 11.8 in Derby, 12.8 in Croydon, 13.1 in Birkenhead, 13.2 in Cardiff, and 13.3 in Brighton to 24.7 in Liverpool, 25.4 in Wolverhampton, 25.6 in Sunderland, 26.1 in Salford, and 26.9 in Blackburn. In the thirty-two provincial towns the mean death-rate was 18.2 per 1,000, and was 0.6 below the rate recorded in London, which was 18.8 per 1,000. The 3,652 deaths registered during the week under notice in the thirty-three towns included 508 which were referred to the principal zymotic diseases, against 543 and 544 in the preceding two weeks; of these, 135 resulted from diarrhœa, 103 from diphtheria, 82 from "fever" (principally enteric), 79 from scarlet fever, 65 from whooping-cough, 37 from measles, and 7 from small-pox. These 508 deaths were equal to an annual rate of 2.6 per 1,000; in London the zymotic death-rate was 2.9 per 1,000, and exceeded by 0.6 the mean rate in the thirty-two provincial towns, among which the lowest zymotic death-rates were recorded in Derby, Plymouth, Swansea, and Halifax, and the highest rates in Sunderland, Wolverhampton, Hull, Gateshead, and Blackburn. Measles caused the highest proportional fatality in Norwich; scarlet fever in Wolverhampton, Nottingham, Liverpool, and Burnley; whooping-cough in West Ham and Oldham; "fever" in Wolverhampton, Salford, Huddersfield, Leeds, Hull, and Gateshead; and diarrhœa in Blackburn, Gateshead, and Sunderland. The 103 deaths from diphtheria recorded during the week under notice in the thirty-three towns included 84 in London, 2 in Brighton, 2 in Leeds, and 2 in Manchester. Four cases of small-pox were registered in Bradford, 1 in West Ham, 1 in Birmingham, and 1 in Leeds, but not one in London or in any other of the thirty-three large towns. There were 76 small-pox patients in the Metropolitan Asylums Hospitals and in the Higligate Small-pox Hospital on Saturday last, October 21st, against 77, 79, and 84 at the end of the preceding three weeks; 12 new cases were admitted during the week, against 15 and 17 in the preceding two weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospitals was 2,758 at the end of the week, against 2,815, 2,801, and 2785 on the preceding three Saturdays; 304 new cases were admitted during the week, against 305 and 316 in the preceding two weeks. The 277 deaths referred to diseases of the respiratory organs in London were 49 below the average, and were equal to an annual rate of 3.4 per 1,000.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday, October 21st, 932 births and 525 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality, which had declined from 19.6 to 18.4 per 1,000 in the preceding three weeks, rose again to 18.6 during the week under notice, and slightly exceeded the mean rate during the same period in thirty-three of the largest English towns. Among these Scotch towns the lowest rates were 16.6 in Paisley and in Greenock, and the highest 20.5 in Dundee and 22.0 in Leith. The 525 deaths in these towns included 64 which were referred to the principal zymotic diseases, equal to an annual rate of 2.3 per 1,000, which was 0.3 below the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Paisley and Greenock. The 238 deaths in Glasgow included 8 from scarlet fever, 7 from whooping-cough, and 2 from diphtheria. The death-rate from diseases of the respiratory organs in these towns was equal to 3.8 per 1,000, against 3.4 in London.

HEALTH OF IRISH TOWNS.

In sixteen of the principal town districts of Ireland the deaths registered during the week ending Saturday, October 14th, were equal to an annual rate of 23.6 per 1,000. The lowest rates were recorded in Wexford and Londonderry, and the highest in Drogheda and Waterford. The death-rate from the principal zymotic diseases averaged 3.7 per 1,000. The 164 deaths registered in Dublin were equal to an annual rate of 24.5 per 1,000 (against 23.3 in each of the preceding two weeks), the rate during the same period being 17.9 in London and 18.5 in Edinburgh. The 164 deaths in Dublin included 21 which were referred to the principal zymotic diseases (equal to an annual rate of 3.1 per 1,000; of these 21 deaths, 9 resulted from enteric fever, 7 from diarrhœa, 3 from whooping-cough, 1 from measles, and 1 from typhus.

THE SANITARY CONDITION OF WHITBY.

A perusal of a recent report on the sanitary condition of Whitby by Dr. Maclean Wilson leads to wonder how the place ever came to lay claim to be a "popular seaside town" much less a "health resort." The port was one having a brisk trade in the days of wooden ships, and large ship-building yards; it had, too, a good jet business, and alum and smelting works, but the town has now come to depend in large degree on its annual influx of visitors.

Of its sewerage system little need be said, since it seems good though not yet complete, but, as we stated quite recently, its completion is in early contemplation. The housing of the people, however, in the old part of the town is wretched. On a steeply sloping stretch of ground of some 140 yards in width, on each side of the river Esk, there are houses huddled together in numerous narrow yards, some 100 yards long and only 3 feet wide, many ruinous, often necessarily half buried in the ground, dark, damp, ill-ventilated, and quite unfit for habitation. As a matter of fact, many are untenanted owing to lack of trade, and the best only are occupied, the worst being left to go to ruin. In the other and newer parts of Whitby the dwellings are of better type. The arrangements as to house drainage in the old town leave much to be desired, often leading to nuisance; and the privy accommodation frequently badly placed and constructed, ill-kept and offensive, though much is being done in this matter. Excrement removal and scavenging seem generally to be well looked after. In the other portions of the town all these matters seem to be in better state, though drain disconnection appears to be largely defective. The water supply generally is excellent, though intermittent; some wells, doubtless as open to pollution as others which have been closed, still remain in use. Proper slaughterhouses are needed, and cowsheds call for much attention, the cattle being themselves, Dr. Wilson states, often in a filthy condition owing to lack of bedding. A proper hospital is needed. The health officer and nuisance inspector give, apparently, but scant time to their duties, the former receiving only £35 yearly in a health resort with 13,000 people resident, besides a large annual influx of visitors, whilst the inspector, who holds multiple offices, receives only £65 annually in respect of all.

But the most pressing necessity of Whitby seems to be the enforcement of the provisions of the Housing of the Working Classes Act in the old town, and the authority seem indisposed to attempt this; and next we should regard the need for securing, by ampler remuneration, devotion of more time to the duties of health officer, relieving the inspector also of some of his other work. Intermittency of water supply is also a matter which should, if possible, be avoided.

COUNTY MAGISTRATES AND DILAPIDATED DWELLINGS.

A case which was recently brought before the Witham justices illustrates the difficulty which rural sanitary authorities experience in carrying out the provisions of the Housing of the Working Classes Act. The Maldon Rural Sanitary Authority applied for closing orders in the case of three cottages. Mr. Stewart, the surveyor to the authority, and Dr. J. C. Thresh, County Medical Officer, gave evidence to the effect that the cottages were totally unfit for human habitation and past repair. One of the magistrates then proceeded to expound his views, and stated that there were many cases of overcrowding which might be dealt with, and that in his opinion overcrowding was ten times worse than a draught through a house. It was eventually ruled that two of the cottages should be closed, but in the case of the third the expert evidence was put on one side, and it was decided to let the matter stand over for two months to allow alterations to be carried out. The case appears to have been a clear one, and Mr. Stewart stated that if the justices would not make the order the Housing of the Working Classes Act would become a dead letter. The justices were, however, too intent upon discussing general questions to condescend to act upon the evidence in the case before them.

THE DUTY OF NOTIFICATION.

Local option in regard to the notification of infectious diseases leads to certain embarrassments in daily practice which it is as well that medical men should beware of. At a meeting of the Rowley Regis Local Board a question recently came up in reference to several cases of typhoid fever which had been attended by a doctor from Dudley, and which had existed for five weeks before any intimation was sent to the Board's medical officer. The doctor is reported to have said that he was entirely ignorant of the fact that the Infectious Diseases (Notification) Act had been adopted by the parish, his practice being mostly in Dudley, where the Act was not in force. It was stated that another medical man from the same town had also failed to send in proper notification. It should, however, be thoroughly understood by all medical men that wherever they live, if they attend cases in a district where the Notification Act has been adopted, they come under its operation just as if they were resident in the place.

INSANITARY AREA IN ST. PANCRAS.

A notorious insanitary area in St. Pancras, in the vicinity of Drummond Street, is to be done away with by the London County Council under Part I of the Housing of the Working Classes Act. There will be 1,266 persons displaced, of whom only 650 can be rehoused. It is not possible to house the remaining 600 in the vicinity, and no definite scheme has yet been formulated to deal with them. The net cost of the scheme is expected to be £85,000. Overcrowding of the area by houses, leading to want of proper air and light, is the chief cause of the insanitary condition.

DIPHTHERIA AT USK.

A report recently made to the Local Government Board by Dr. Horne on the sanitary condition of Usk, in Monmouthshire, and on diphtheria there, throws little, if indeed any, additional light on the cause of spread of that mysterious malady. In the absence of compulsory notification, Dr. Horne heard of recent cases of the disease as best he could, and learned of 35 attacks, with 6 deaths, during the current year. In earlier years, whilst absent in epidemic form, diphtheria had not been wholly a stranger to the locality; and, moreover, in 1892 it had prevailed in an adjacent parish. Dr. Horne regards it as probable that infection was thus imported into Usk, where the only community of condition of the majority of initial sufferers was school attendance; and it is "school influence" to which he attributes the spread of the disease. In a few other cases causes were not far to seek. In all, 17 houses were implicated, 13 of the 35 cases occurring in three houses.

The sanitary state of Usk is far from perfect. There are numerous shallow wells, merely dry-steined, and open to all sorts of surface contamination. We read of a well, for example, in a cobbled yard 12 feet square, this yard containing a defective gulley, a stable, a hand-flushed, ofttimes blocked-up closet, and a drain close to the well. Houses are mostly old, many dilapidated, some dangerous, imperfectly ventilated and lighted, with drains frequently passing underneath them. Many hand-flushed closets were foul and offensive; waterecloset drain connections faulty; numerous pit privies of bad type, often dilapidated and of large size; occupiers of houses being responsible for removal of their contents, as also of house refuse, which is consequently often stored in nuisance-causing piles near dwellings. The health officer is paid £10, and the nuisance inspector £17 per annum. The district had a population of 1,417, and an area of 404 acres in 1891.

MORTUARIES IN LONDON.

The surveyor of the Rotherhithe Vestry is preparing a plan for the erection of a mortuary and *post-mortem* chamber for the parish to be placed in the churchyard, the cost not to exceed £800.

PAN-AMERICAN MEDICAL CONGRESS.

[FROM OUR SPECIAL CORRESPONDENT.]

Section of Nervous and Mental Diseases.—Section of Therapeutics.—Physiology of Alcohol.—Antipyretic Action of Calomel.—Advantages of Amorphous Phosphorus over the Official Form.

THE Section on Nervous and Mental Diseases was well attended, the papers were numerous, from distinguished sources, and the discussions were interesting. The hours were all filled. The Section was opened with a formal address by the executive PRESIDENT (Dr. C. H. Hughes, of St. Louis), which dealt largely with American neurological and psychiatrical advance, reviewing the progress made during the century, and epitomising the work of the past decade. The Address of Welcome (in Spanish) was delivered by Dr. Wm. A. HAMMOND, of Washington.

Dr. MANUEL CARMONA Y VALLE, of the City of Mexico, presented a valuable clinical contribution to the study of the cerebral spastic paralysis of adults; and Dr. R. MACOUZET, Physician of the Divino Salvador Hospital for the Insane of Mexico, made a communication on "The Causes, Symptoms, and Treatment of Partial Epilepsy."

The "Study of the Etiological Influence of Hereditary Syphilis on Sclerose en Plaques in Children," by Dr. LOUIS MONCORVO, of Rio de Janeiro, Corresponding Member of the Academy of Medicine of Paris, was read by title, the author not being able to be present. It presents new phases of this interesting subject, and will appear in full, as will likewise the preceding papers, in the *Transactions* and in the *Alienist and Neurologist* of St. Louis.

Dr. FERD. C. VALENTINE, of New York, late Surgeon of the Peruvian Army, read a paper on "Hypnotism: Does it Menace the Public Weal?" taking the ground that hypnotism should not be considered an excuse for crime.

An interesting study of "Criminal Anthropology and Social Reforms," and the proposals of Lombroso (in Italy), Mr. Havelock (in England), Kern and Lutz (in Germany), was presented by Dr. ABUNDEO ACEVES, of Guadalajara, State of Jalisco, Mexico.

Dr. SALVADOR GARIMDIEGO, of Guadalajara, Mexico, read a valuable contribution on "Inebriety: Its Causes, its Effects, and the Means Necessary to Curtailing it."

Other papers were read by Dr. WM. FULLER, of Grand Rapids, Michigan; Dr. J. B. MATTISON, of Brooklyn; Dr. CHAS. K. MILLS; Dr. T. D. CROTHERS, Hartford, Conn.; Dr. CHARLES L. DANA, of New York, etc.

In the Section of Therapeutics, a paper on "The Physiological Actions of Alcohol" was read by DAVID CERNA, M.D., Ph.D., Galveston, Texas. The following were his conclusions:—1. Alcohol in small amounts excites, and in large doses depresses, the peripheral and sensory nerves. 2. Excessive quantities cause degeneration of the axis cylinder of nerve fibres. 3. Reflex action is at first increased, and afterwards diminished, under the action of alcohol. 4. In small amounts the drug stimulates the cerebral functions, afterwards depressing, and finally abolishing them. 5. Alcohol causes lack of co-ordination by depressing both the brain and the spinal cord. 6. In toxic doses alcohol produces hyperæmia of both brain and spinal cord, especially of the lumbar enlargement of the latter. 7. Small doses of alcohol produce increased rapidity of the cardiac beat; large amounts a depression of the same. In either case the effect is brought about mainly through a direct cardiac action. 8. The drug in small quantities causes a rise of the arterial pressure by a direct action upon the heart; in large amounts it depresses the pressure similarly through a cardiac influence. 9. In large doses alcohol enhances coagulation of the blood; in toxic quantities it destroys the ozouising power of this fluid, causing a separation of the hæmoglobin from the corpuscles. 10. Alcohol has little or no effect on the respiratory function. In large amounts it produces a depression of both depth and rate of the respiration through a direct action on the centres in the medulla oblongata. 11. The drug kills by failure of the respiration. 12. On the elimination of carbon dioxide alcohol exercises a varying action, sometimes increasing, sometimes decreasing such elimination. 13. The action of alcohol on the amount of oxygen absorbed also varies, and may be said to be practically unknown. 14. The drug lessens the excretion of tissue waste, both in health and disease. 15. In small amounts alcohol increases the bodily temperature; in large doses it diminishes the same. The fall of bodily temperature is due mainly to an excess of heat dissipation caused by the drug. 16. Alcohol has a decided antipyretic action. 17. In moderate amounts alcohol aids the digestive processes. 18. Alcohol exercises a varying action on the amount of urine secreted; but it probably increases the activity of the kidneys. 19. Alcohol is mainly burnt up in the system. When ingested in excessive quantities it is eliminated by the breath, the kidneys, and the intestines. 20. Alcohol is a conservator of tissue, a generator of vital force, and may, therefore, be considered as a food.

A paper on "The Antipyretic Action of Calomel," was read by Drs. R. J. NUNN and A. B. SIMMONS, Savannah, Ga. From the use of calomel in these twenty-five cases of typhoid and continued fever cases they had drawn the following conclusions: 1. Calomel is a sure and safe antipyretic, reducing the temperature from two to three degrees in a few hours. 2. Small doses will prove of no avail. 3. The ingestion of large doses was followed by no untoward event, no ptyalism, no hyper-catharsis. This is contrary to the usual opinion. 4. Diarrhœa, hæmorrhage, albuminuria, tympanites, have not been contraindications to the use of the remedy. 5. The reduction of temperature occurs without cathartic action on the bowels. 6. The calomel acts best in combination with soda, bismuth, and pepsin. 7. That in some instances the remedy appeared to cut short an attack, and in others, while having no influence on its duration, it modified all symptoms, and by keeping temperature in check, aided materially in the management of the case.

A paper on "The Advantages of Amorphous Phosphorus over the Official Form" was read by E. Q. THORNTON, M.D., Demonstrator of Therapeutics, Jefferson Medical College, Philadelphia, Pa. He said phosphorus, while undoubtedly possessing powers potent for good, had the great disadvantage of not being entirely safe, as disorders of digestion, nephritis, and fatty degeneration were not infrequently attributed to its administration. The form of phosphorus exclusively employed in medicine was the vitreous variety, from which both of the official preparations were made. Both of these preparations were open to the objections named above, and on account of the readiness of phosphorus to undergo change when exposed to the air, the pills were necessarily made by a complicated process which rendered their extemporaneous manufacture difficult. As to phosphorated oil, the other official preparation, its taste was extremely nauseous, as might be inferred from its combination (phosphorus, ether, and oil). It was on account of these disadvantages of the vitreous phosphorus that he was led to suggest the employment of the amorphous or red variety. The amorphous phosphorus was made by heating the vitreous variety to 250° C. in the absence of air, and possessed the following advantages over the official variety: It did not readily undergo change at ordinary temperature, was almost entirely without taste or odour, therefore it could readily be made into pills at a moment's notice; it was free from irritant or caustic effect, consequently it was far less liable to give rise to irritation or inflammation of the gastro-intestinal and genito-urinary tract; but its greatest advantage was in the fact that it was non-toxic, and therefore far safer. That it had the same physiological effect as ordinary phosphorus seemed to be proved beyond doubt by Kelly, who, while experimenting upon himself to determine if it was toxic, experienced the full physiological effects of vitreous phosphorus. His own experiments upon animals were in accord with those who asserted that the substance in large quantities was non-toxic. His investigations as to the effect of long-continued doses were as yet incomplete. These records would seem to indicate that amorphous phosphorus, while having the same physiological action of the vitreous variety, was to be preferred, as it was easier to administer, less irritating, and safer.

THE Bangor Provident Dispensary was opened recently. The object of the institution is to enable its members to make provision in time of health, by their own small periodical payments, for medical attendance and medicines. It is intended to take the place of the out-patient department of the Hospital, which has meanwhile been closed.

SOME CHOLERA CASES AT GRIMSBY.

Notes by C. BYRON TURNER, M.R.C.S.Eng., L.R.C.P.Lond.

Case I.—H. H., aged 43, a mast and block maker working on the fish dock, was taken ill with pains in the stomach and diarrhœa about 4 A.M. on August 19th. He went to work as usual at 6 A.M., but had to give up at 8 o'clock, when he came to me. When I saw him he had a haggard appearance, with sunken eyes, quick pulse, and subnormal temperature. I prescribed an ordinary astringent mixture and told him to go home to bed. I saw him again at 9.30 P.M.; he had altered much in appearance, in fact I should hardly have known him again; feet and hands cold and blue, skin much wrinkled and perspiring freely; the pulse was about 160, and very small. Patient said he felt much better, had no pain, and the cramps were not so bad. The temperature was now 92° F., the belly retracted. No more rice-water stools were passed. I ordered brandy, hot bottles, and mustard plasters and friction. He died about 4.30 A.M. on August 20th. Duration of illness twenty-four hours. This man was an excessive drinker and had been out of work for three months.

Case II.—R. C., aged 42, a bargeman on the fish dock. He first complained of pain and diarrhœa about 11.30 A.M. on August 23rd; this continued all day, and gradually got worse. I saw him at 8.30 P.M. The first thing that struck me was the great alteration in the man's appearance; his eyes were sunken, nose pinched, and very dusky. The extremities were blue and cold, skin much wrinkled, and had the appearance of having been soaked in water for a long time. He was vomiting and being purged incessantly; typical rice-water material. The cramps were very severe indeed, causing him to scream out repeatedly, "The cramps! the cramps! they are coming again!" and twice he sprang out of bed and fell in a heap on the floor. The pulse was very small and difficult to count; the belly was much retracted, the voice whispering and husky. He complained of noises in the head, and asked if I could not hear them. He died at 11.30 A.M. on August 24th. Duration, twenty-four hours. Notified as English cholera.

Case III.—M. J. P., aged 36 years, came to see me at 3 P.M. on August 29th, complaining of diarrhœa and vomiting; she described the motions as like rice water. She had not much pain, but slight cramp beginning in the fingers. Temperature 97°; pulse 140, very small. Sent her home to bed; ordered brandy, beef-tea, hot applications, etc. I saw her again at 7 P.M.; noticed the same facial alteration as in other cases. The tongue was dry and wrinkled, eyes sunken, nose pinched, voice whispering. Stools and vomit typical rice water. Temperature below 90°; hands and feet like ice, cold perspiration, and skin wrinkled. She was almost pulseless, but she said she felt better. I at once notified the case as one of Asiatic cholera, and wrote the medical officer of health telling him that I was certain that these were cases of true Asiatic cholera, and that it would be necessary to give up the English cholera diagnosis. I also requested him to see the case as soon as possible, as I thought she would not last more than five or six hours. I also got Dr. Allen to see the case and he concurred in the diagnosis. About 11.30 P.M. Dr. Rice called upon me for details, and asked me if I were quite sure of the diagnosis, and if I realised the gravity of it. I took him to see the case at 11.30. She was in the same condition as when I last saw her; the temperature was about the same; she was still purged and vomiting. She sat up, and asked for a drink, and asked if she could get better. At this time she was almost pulseless. At 3.30 A.M. on the following morning she was comatose, temperature still below 90°, breath cold, respiration slow and catchy. Pulse could only be felt in carotids, about 80. The pupils were unequal, left small, right normal. She died about 4 A.M. Duration, thirteen hours. I made a *post-mortem* examination about 7.30 A.M., and removed about 8 inches of the last part of the ileum. The intestines were very warm, and contained typical rice water. Dr. Klein confirmed my diagnosis bacteriologically.

Remarks.—This patient had washed the clothes of a patient who had had cholera in the same yard. There had been two deaths in the house where the clothes came from. She was a confirmed drunkard.

Case IV.—C. G., aged 14, sent for me about 7 A.M., September 2nd. She had had purging and vomiting for two or three hours. The stools were rice water. Her temperature was subnormal, pulse 120, face pinched and livid, extremities cold and blue, cramps in limbs and body. I notified it at once as Asiatic cholera. I saw her again about 11.30 with Dr. Pratt, and found her worse. We were informed that the assistant medical officer of health and the sanitary inspector had just left. The patient was lying on a couch in a room about 10 feet square; she was vomiting on the floor, and being purged as she lay on the couch. The rest of the family were having their breakfast at a table not 3 feet from the couch. The sister of the patient got up from her breakfast, mopped up the vomit with a floorcloth, dried her hands on her apron, and prepared to go on with her breakfast. It is interesting to note that she went into hospital on September 7th. Her case and the further history of Case IV is reported by Dr. Watts in the British Medical Journal for October 7th.

Remarks.—This patient lived in a backyard where a pump supplied about sixteen houses with drinking water. The cesspool, a large brick one, is about 3 feet from the pump. As we have heard so much of the elaborate precautions taken to prevent the spread of cholera, it may be interesting to mention that all the stools went down the cesspool, and that these people are still drinking that well water.

Case V.—A. B., aged 45. She lived in the next yard to C. G. (Case IV). There had been a case in this yard a week before which ended fatally, and one which recovered. All the stools from these cases were put into the cesspool, which was even nearer to the well than in the other case mentioned. This well has been in a stinking condition for years (there is a slaughter-house next door), and often has the flavour of creasote, which comes from a yard two streets away. This case was notified as Asiatic cholera. The duration was twenty-four hours. The well was not closed until thirty-six hours after her death.

Remarks.—I do not think there has been a single case of cholera in Grimsby where the stools have been collected and destroyed; they have all gone into cesspools or privy boxes; the former are nearly all brick ones of about 20 cubic feet capacity, and cleaned out about twice a year. Some of the drains are of the agricultural type: the latter are always leaky, and are emptied into equally leaky nightsoil carts.

THE CHOLERA.

The diarrhœal outbreak at Greenwich Workhouse has virtually come to an end; for although cases had been reported almost daily up to Sunday last, the total number of attacks up to and including that day had been only 243, with 8 fatalities. Up to Tuesday night no fresh case had arisen, and no deaths have taken place since we reported in our last issue. The inquest on the bodies of the deceased has been adjourned until November 14th, in the hope that the evidence of experts may be then available, and some light thrown upon the present obscurity in reference to diagnosis of the sickness. Meanwhile the officers of the infirmary have been prosecuting their inquiries, in conjunction with Dr. Bulstrode, of the Local Government Board; and tests have been applied to discover if by any means the suspected well can have received pollution likely to cause the epidemic.

The only other suspicion of true cholera in London has been in the case of a girl admitted to St. Bartholomew's Hospital from Clerkenwell, and who died on Monday night. The Local Government Board stated on Wednesday that information in their possession showed that this fatal attack was in no sense due to cholera.

In the provinces a fatal case of cholera occurred at Keighley on Tuesday, the victim having been in attendance on the previous case, which ended fatally on October 13th, and which had been followed by a death from cholera at Ingrow, Bingley, also in the person of an attendant on the Keighley initial case.

No deaths from cholera have occurred at Hull, Cleethorpes, or Grimsby, during the week ended with Tuesday; indeed, the temporary medical staff of the latter town has been reduced on account of the freedom of the borough from choleraic disease.

CHOLERA ABROAD.

Austria-Hungary.—The deaths from cholera in Buda-Pesth are 2 or 3 per

diem, many soldiers being victims. At Stanislau in Galicia 149 cases of the disease had been reported to October 20th, 60 of them in the last ten days, and the district has been declared infected in the terms of the Dresden Convention.

Germany.—Professor Koch has returned from a visit to Stettin, where Dr. Pfeiffer still remains, in connection with an inquiry into the cause of the cholera at present prevailing there. The cause has not yet been satisfactorily ascertained. The water supplied to the town has been found to be of bad quality and imperfectly filtered. Last week, up to Friday, 31 cases and 17 deaths occurred, with other 2 deaths and several attacks on Saturday. Two deaths took place in the week at Grabow-on-Oder, a death each at Konigsberg and Madgeberg, a case at Eppendorf, near Hamburg; at Rixdorf, just outside Berlin; at Zerpenschleuse, and at Tönning; 2 at Hadersleben, and 3, with 2 deaths, at Warson, near Stettin. Supervision stations on the Elbe, Spree, and Oder Canal have been reopened.

Holland.—Last week two cholera attacks occurred at Smilde, and 3 cases, 2 fatal, elsewhere in Holland.

Italy.—In Palermo last week there were 96 cholera attacks, with 35 deaths; in Patti-Marina 6 cases and 3 deaths; in Leghorn 51 attacks and 18 deaths; 1 death in Rome; 3 cases, 1 fatal, at Aquila; and single attacks at Saponara and Giajosa.

Russia.—In St. Petersburg 209 cholera attacks and 92 deaths occurred in the week ended October 19th. At Moscow there were 6 cases and 4 deaths from the 13th to 16th; at Cronstadt some 50 cases, 30 fatal, in the first half of this month. From September 17th to October 7th there were 1,923 cases and 784 deaths in Podolia province; and from September 24th to the same date 1,189 cases and 473 deaths in Volhynia; 706 cases and 244 deaths in Kieff; and 562 cases and 264 deaths in Ekaterinoslav provinces; and in the first week of October in the province of Lomsha 381 cases and 190 deaths; of Orel 193 cases and 59 deaths; and in the second week 23 cases, 4 fatal, in Warsaw city; and 16 cases, 8 fatal, in Dorpat city. In the two weeks Moscow province had 222 cases and 67 deaths.

Spain.—In the Province of Biscay, mostly at Bilbao and its neighbourhood, there were 104 cholera attacks and 41 deaths in the week ended last Monday.

Tunis.—Cholera has broken out at Bizerta, where 10 deaths had occurred to the end of last week.

Turkey.—Cholera is reported be on the increase in Constantinople, all quarters of the city being infected. Concealment of the facts has been made the subject of complaint by the International Hygienic Council.

Four cases of cholera have occurred at Tutracan, near Roustchouk.

MR. ERNEST HART ON "QUARANTINE: ITS MERITS, MISCHIEFS, AND MISTAKES."

IN passing through New York on his return journey to London, from his American tour, Mr. Ernest Hart was invited to deliver an address at the New York Academy of Medicine, and took for his subject "Quarantine: Its Merits, Mischiefs, and Mistakes." The *New York Herald*, the *Sun*, *Post*, and other leading papers report the address in the picturesque fashion characteristic of Transatlantic journalism. The *Sun* introduces its report as follows: "Nothing could be more fascinating or more reassuring than the way Dr. Ernest Hart, editor of the BRITISH MEDICAL JOURNAL, handled the subject of cholera in a talk which he gave to the Section of Public Health at the Academy of Medicine last night on 'Quarantine; its Merits, Mischiefs, and Mistakes.' He handled it as a snake charmer plays with snakes while an awe-struck crowd is gazing at the performance and at the same time keeping at a discreet distance." In this address Mr. Hart dealt especially with quarantine as now understood, and applied in America, where the matter is one of great national interest, especially at New York, whither flows the main stream of commerce and emigration. The interest of the address was heightened by the fact that a cholera ship had recently arrived, and its passengers were then undergoing quarantine.

The mischiefs on which he chiefly dwelt were the absolute inefficiency of any quarantine, which did not circumscribe the port to be protected as with a Chinese wall, and the corresponding danger which reliance on quarantine necessarily induces of inadequate attention to internal sanitation. Quarantine he declared to be a disgrace and not a matter of congratulation to any nation, for it was the measure of its sanitary neglects, and of its cowardice arising out of the consciousness of such defects. Quarantine made cholera contraband, and as such was sure to lead to smuggling of the disease. The English health authorities had a system of medical inspection which did not pretend to be exclusive. It confined itself to the sick, and did not inflict cruelties and indignities upon those who are not sick. That is to say, in cases of ships coming into port only the sick would be held. This had a tendency to discourage the smuggling in of cholera, because it was for the interests of ship captains to own up and tell about the sick, knowing that those of the passengers who were well would not be held.

There was nothing as easy to keep out and deal with as cholera. The fear of cholera had saved more people than all the epidemics had destroyed and could destroy in fifty years. The knowledge that it is a disease due to dirty water and to filth and uncleanliness had compelled local authorities to take such measures as would prevent the disease. Since 1866, when the quarantine did not keep out cholera, there had been spent in the cities in England £22,000,000 in supplying pure water, and £12,000,000 had been expended on sewage works; now they could snap their fingers at cholera.

ROYAL COLLEGE OF PHYSICIANS.

AN ordinary Comitia was held on Thursday, October 26th, at 5 P.M., J. E. POLLOCK, M.D., Senior Censor (Pro-President) in the chair.

The PRO-PRESIDENT having made a brief but feeling reference to the sudden illness of the President, the minutes of the last meeting were read and confirmed.

Sir R. QUAIN moved and Sir H. PITMAN seconded a resolution recording the profound sorrow of the College at the illness of the President, expressing sympathy with his family, and a hope for his complete restoration to health.

Dr. NORMAN MOORE proposed that the Harveian dinner should be held on June 5th, the day on which Harvey was admitted a Fellow. After some discussion the further consideration was postponed to the next Comitia.

John Hannah Drysdale, M.B., Richard Tanner Hewlett, M.D., and Arthur Whitfield, M.B., were admitted Members.

The Licence of the College was granted to 111 gentlemen, of whom only four did not present themselves under the Regulations of the Conjoint Board.

Communications were received acknowledging the addresses of the College to the Queen, the Prince and Princess of Wales and the Duke and Duchess of York on the occasion of the recent Royal marriage.

A communication was read from the General Medical Council respecting the large percentage of rejections at the Final Examination. Sir H. PITMAN moved and Sir DYCE DUCKWORTH seconded, that the matter should be referred to the Committee of Management.

Communications from the Royal College of Surgeons on matters concerning the two Colleges jointly were received.

The resignation of his diploma by a Member of the College was received.

The balance sheet for the year ending at Michaelmas was presented and adopted.

The quarterly report of the Finance Committee was received and adopted.

A report from the Council on the Trinidad Examinations was received and adopted.

Dr. Russell was appointed an Examiner in Chemistry, in place of the late Mr. Heaton.

Dr. THEODORE WILLIAMS proposed, and Dr. PAYNE seconded, a resolution with regard to the retirement in rotation of members of the Library Committee, which was agreed to.

Communications were received from the Committee of Management, and adopted.

Dr. Liveing was unanimously re-elected a member of the Committee of Management.

A report from the Laboratories Committee was received and adopted.

Dr. Halliburton was elected a member of the Laboratories Committee in place of Sir W. Roberts.

The quarterly report of the Examiners for the Licence was received and adopted.

The thanks of the College were voted to the donors of books during the past quarter.

The *Allgemeine Zeitschrift für Psychiatrie* has just celebrated the 50th anniversary of its existence. It was founded half a century ago by Damerow, Flemming, and Roller. The fiftieth volume, which has just appeared, opens with an article entitled A Glance Backwards, by Dr. Laehr, the present editor. At first published as a quarterly, the *Zeitschrift* of late years has appeared six times a year.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1893.

Subscriptions to the Association for 1893 became due on January 1st; and notice is hereby given, in accordance with By-law 5, that Branch Secretaries' subscription accounts close on October 31st, and all unpaid subscriptions must be forwarded after that date to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, OCTOBER 28TH, 1893.

MR. HARNESS AND THE NEWSPAPER PRESS.

At last that champion imposture—the Harness Electropathic Belt—is landed in the front rank of publicity. The *Pall Mall Gazette* has done the world a service, and been rewarded, as usual, by boycotting. We ourselves, on the part of the profession of medicine, and the *Electrical Review* on behalf of their own branch of practical science, have defied and defeated this egregious quack. In fact, since the trial of the Tibbits case in February no person of ordinary means of knowledge need have been ignorant of the true nature of the frauds. But so long as daily newspapers of apparent respectability not only inserted Harness's advertisements, but even lent themselves to his wily arrangements for obtaining quasi-editorial puffs, there was no hope that the tide of credulity would be checked or the consequent flow of gold into the swindler's pockets abated. But Harness, being wise in his generation, felt that the exposures which we and our colleagues in the scientific press had succeeded in compelling were probably the beginning of the end; and on the principle of making hay while the sun still shines, he calmly proceeded to float a new company. This masterstroke has undone him, for we cannot believe that any height of hardihood on his part or any depth of folly in his dupes will make it possible for the "electropathic" fraud to go on successfully after the present ruthless and irresistible attack.

We need not remind our readers of the articles which appeared in the British Medical Journal in July last. We hoped at that time, we confess, that the press to whom we appealed as a whole might be induced to consider a Harness puff or even, like the *Times*, a Harness advertisement as a thing which no self-respecting management could accept. But hitherto that has hardly been the result. There is, on the contrary, some ground to fear that the detested quack has simply used the newspapers which accepted these scandalous advertisements in a more ingenious and misleading fashion than before. We have been at the pains to make a collection of a series of the puffs by which journals of all kinds have assisted this charlatan in his schemes. We regret to say they are altogether too numerous even to summarise here. We shall have to take another opportunity of dealing with their incredibly mischievous varieties. It will hardly be believed that, for example, even within the present year, the cash and audacity of Mr. Harness have enabled him to obtain from the weakness or carelessness of newspaper managers such invaluable help in the business of entrapping fools as must have been afforded, for example, by a whole page of the *Westminster Gazette*, purporting to be an article on "Medical Electricity: its Practice in the Metropolis, by S. J. Mackie, Esq., Science Correspondent of the *Standard*, London," or by the whole seventh page of the *Standard* itself, in which, although the newspaper, for shame sake, has put at the top of each column the word "advertisement," the matter is nevertheless so set that an inexperienced person would probably suppose large portions of it to be editorial. A few days after the last-mentioned advertisement Harness succeeded in obtaining from the *Standard* a different use of the whole seventh page without the word advertisement at the top, in which, upon four separate columns, his matter, displayed in the usual advertising form, was actually ruled off by double lines from a series of puff paragraphs printed as if they were news matter.

We do not single out these papers as if they were the only journals, or even the worst of those who sold this kind of discreditable publicity. The Mackie puff, we believe, was accepted also by many others. A few weeks before, Harness had a page of the *Christian Million* full of his puffs, so arranged that the lower half appeared to be an advertisement as distinguished from the upper half, which appeared to be an editorial. The same upper half page appeared almost at the same time in the *Record*, without any further warning than the letters "Advt." stuck out of the way at one of the top corners of the first paragraph. In June, page 1 of the *New Review Advertiser* consisted of three puffs printed as if they were ordinary matter, and headed respectively "Mr. Robert Rathwell," "The Nervous System," and "Worth Knowing." In the same month the *Daily Graphic* accepted an ingenious half-page advertisement, of which the upper portion was engagingly printed and headed "A Guarantee;" and quite recently *Black and White* published a long "Interview by a medical man with Mr. Harness" in editorial type—a most unblushing puff, ending by an announcement that just at this moment "The Countess of ——" had called to consult Mr. Harness.

We will not pursue further, at the moment, what must be to everyone connected with the press a painful and humiliating subject. The question now is, What are our colleagues in the newspaper world prepared to do? The *Pall Mall Gazette* is said to have been offered the above-mentioned Mackie puff, and to have not only refused it, but replied by publishing a paragraph as to the mischief of misleading the public by puffing quack remedies, including certain electropathic belts. We need not point out that if all respectable journals, or, indeed, any large number of them, were to enter into an engagement that whenever they were offered a Harness puff they would insert a paragraph warning the public against him, his gigantic fraud would quickly become a matter of history. We have ventured to suggest something of this kind before. It may be that the baseless terror of libel actions—evidenced even now by the action of certain of the great bookstall managers—was itself sufficient to stop the way of effectual reform. Now that the *Pall Mall Gazette* has effectually smashed up the whole thing, not even the most timid journalist need be afraid to tell the truth. There are many movements nowadays directed to the alleviation of human misery; but we doubt whether

there is a single one that is more needful or would be more beneficent than the stern suppression of this particular kind of trafficking in human folly.

PATENT MEDICINES AND THE SALE OF POISONS.

A decision of the case referred to in the British Medical Journal of September 23rd has now been given, to the effect that Kay's essence of linseed—having been the subject of letters patent—falls within the exemption provided by the 16th section of the Pharmacy Act, and can therefore be legally sold by any unqualified person, notwithstanding the fact that it contains poison within the meaning of that Act. This decision is one of great and far-reaching importance, and we regard it with especial interest, since it is to some extent a reversal of the success which has hitherto attended the endeavours of the Chairman of the Parliamentary Bills Committee of the British Medical Association to secure more adequate observance of the eminently salutary provisions of the Pharmacy Act in regard to the sale of poisons. It is unnecessary to enter into the legal details of the very elaborate and painstaking arguments, contained in Mr. Swifte's judgment, by which he arrived at the conclusion above stated. For our present purpose it is sufficient to point out that the position arrived at brings the law relating to patents into direct conflict with the law relating to the sale of poisons. The Pharmacy Act declares that poisons shall be sold retail only by persons legally qualified under the Act, and subject to certain conditions. The patent law protects an inventor in the use of his invention, provided its exercise be not contrary to law, or prejudicial to the Queen's subjects generally. But upon the ground of certain words in the Pharmacy Act it is now held that a medicinal preparation, containing poison, can be sold without regard to the provisions of that Act if the preparation be the subject of a patent. This is a legal tangle, in which the patent law appears to be subversive of the Pharmacy Act, or one part of the latter Act to be destructive of the efficacy of the rest, and the practical question is which shall predominate.

But having regard to the unquestionable objects of the Patent law and of the Pharmacy Acts, we cannot reconcile them with the possibility of such a position of mutual incompatibility being really existent. We dispute altogether the soundness of the opinion that the retail sale of a medicinal preparation, containing poison within the meaning of the Pharmacy Act, is outside the provisions of that Act when the preparation is, or has been, or may become, the subject of a patent. A more egregious fallacy could not be imagined, and the fallacy arises entirely from imperfect consideration of the objects contemplated by the statutes which are supposed to lead to such a preposterous result. The possession of a patent cannot supersede the applicability of the statute laws to the exercise of an invention, or to the products so obtained. Thus, for instance, whilst a patent for the production of alcoholic liquor would give an inventor exclusive right to the use of the patented method of production, the sale of the product, and even the conduct of the operation by which it was obtained under the patent, would be as much subject to the operation of the Excise laws regulating the manufacture and sale of alcoholic liquors, as in any other instance. In like manner, we cannot perceive any possible reason for supposing that there is, or should be, in the case of a patent medicine, any different relation between the rights of a patentee and the necessity of conforming to the provisions of the statute law as regards the preparation made under the patent. If it contained a statutory poison it would be subject to the provisions of the Pharmacy Act in that respect, just as the patent alcoholic liquor would be subject to the Excise laws. This view of the subject, while consistent with the terms of the statutes relating to patents and to the sale of poisons, receives very material support from consideration of the specific object of the Pharmacy Act, 1868. Its whole scope is the regulation of the retail sale of poisons, and the restriction of their sale to persons qualified in accordance with the Act. Its provisions are directed exclusively to those objects and "wholesale dealing," as well as "the business of wholesale dealers in supplying poisons," and the sales of articles of poison to be exported, are specifically excluded from the operation of the Act. There are also other exemptions; but among them "the making or dealing in patent medicines" alone needs notice for our present purpose. It is upon these words in the 16th Section of the Act that reliance is placed by those who contend that the retail sale of patent medicines containing poison, is exempt from the operation of the Act. That contention, however, ignores altogether the nature of the business to which the words in question relate. The making of patent medicines is carried on, by or for the patentees and proprietors of such medicines, as a wholesale transaction, and, having regard to the context as well as the particular object of the Act, the "dealing in patent medicines," which is alternatively exempted, cannot reasonably be anything more than the wholesale dealing in those medicines necessarily carried on by or for the patentees and proprietors of them. Consistently with the object and spirit of the Pharmacy Act such dealing would be outside its scope in the same manner as sales of poison in the ordinary course of wholesale dealing are outside the scope of the Act; but the retail sale of patent medicines containing poison is a very different matter, since it involves the particular danger against which the Pharmacy Act was directed, and therefore consistency demands the inference that the retail sale of poison in the form of patent medicines shall be as much subject to the provisions of the Act as the retail sale of poisons under other conditions.

Unless it be assumed that, in passing the Pharmacy Act, 1868, the Legislature deliberately or inadvertently produced a measure, part of which was subversive of the special object contemplated, the view of the subject stated above appears to be as reasonable as it is simple. It presents a means of avoiding the preposterous stultification of the Pharmacy Act which would result if "dealing in patent medicines" were held to include their sale by retail as well as by wholesale. As furnishing an authoritative precedent for such a mode of interpreting words in accordance with the context and manifest object of a statute, reference may be made to a remark of Lord Chancellor Selborne in the judgment delivered by him in deciding the appeal to the House of Lords on the question of the legality of carrying on a chemist's business by a company consisting of persons unqualified under the Pharmacy Act.

The object of the appellants was to extend the application

of the word "person" so as to include a company as well as an individual person. His lordship—considering the object of the Act—held that the context excluded the larger construction of the word "person," and that it was impossible to infer that the object of the Act required it. The principle that the interpretation of the words of the Act should be governed by consideration of what is required by its object, was equally recognised by Lords Blackburn and Watson. In arriving at a conclusion adverse to the appellants, Lord Selborne expressed himself as having been considerably influenced by the fact that, over and above qualification of the individual owner of a chemist's business, other safeguards conducive to the object in view were provided by the Pharmacy Act; and he added that if there had not been those safeguards against the sale of poisonous drugs in a manner contrary to the provisions of the Act, then the argument against a company being permitted to carry on the business of a chemist would have been extremely strong. Applying this dictum conversely to the case of patent medicines containing poisons, the manifest object of the Pharmacy Act, 1868, and the absence of any safeguard beyond its specific provisions as to retail sale, ought to constitute an equally strong argument for holding the retail sale of such patent preparations to be subject to those provisions. The danger to be apprehended from an opposite interpretation is shown by the nature of the medicinal preparations for which patents have been obtained quite recently. Among these may be mentioned one containing 50 per cent. of narceine, and claimed to be useful in the treatment of children's diseases, bronchitis, etc. Another, patented as a remedy for cancer, consists chiefly of a salt of the very poisonous alkaloid neurine. An improved cough mixture, patented by a Leeds chemist, contains morphine and chloroform, while another preparation for removing cancers, fistulas, etc., contains upwards of 40 per cent. of corrosive sublimate. We say nothing against the possible merits of these preparations, or the claims of their inventors to the protection properly afforded by letters patent; but if the view adopted in Mr. Swifte's judgment can be upheld—that being patent medicines, the retail sale of such poisonous preparations can be carried on indiscriminately by persons having no qualification to deal in poisons—we do not hesitate to express the opinion that the safety of the public will be very seriously compromised.

NURSING IN WORKHOUSES.

It is to be hoped that the conferences of lady guardians lately held, in reference to the nursing of the aged and infirm inmates of the workhouses, will have some good effect, and will not be allowed to lapse until some real improvement is made in the lot of a most long-suffering class. To be really ill in a workhouse infirmary is one thing, bad enough no doubt, although often mitigated by good nursing and kind attention, but to live in a workhouse itself and suffer the aches and pains of chronic ailments, and struggle against the feebleness and decrepitude of age unhelped and uncared for, is quite another and much worse thing to hear. At the meeting held on October 23rd, under the presidency of the Countess of Meath, Miss Twining read a paper on the subject, and deplored that the arrangements for the care of the poor were not on such kindly lines as abroad, where sisters and deaconesses were always available for the work. A resolution, proposed by Miss Twining and seconded by Mrs. Shaen, was adopted, to the effect that "it is desirable to form an association for providing trained attendants for the aged and infirm inmates of workhouses as distinct from trained nurses of sick wards." Before the meeting separated Lady Meath promised to pay for the training of the first six attendants.

It must not, however, be imagined, because of the efforts made to extend the benefits of good nursing to the aged and infirm as well as to the sick, that these latter now have all that is proper in the way of care and attention. Since the legislation which led to the erection of separate infirmaries by the metropolitan parishes and unions, the sad lot of the sick poor in London has been immensely alleviated. Anyone who will refer to the reports for 1865 and 1866 by Mr. Ernest Hart and the late Dr. Anstie describing the condition of the nursing in the sick wards of the workhouses in those days, and will then visit one of the modern separate infirmaries, such as the one at Notting Hill, will see what great strides have been made in bringing modern methods to bear on the treatment of the pauper sick. But it is otherwise in the provinces. A few large towns have put up splendid poor-law infirmaries, but in the majority of country places the sick are still treated in workhouse sick wards, much on the old lines. Even in London, however, things are not as they should be. The existence of the great rate-supported infirmaries is apt to encourage a certain sense of pharisaic pride and satisfaction, not entirely well founded. We Londoners are not as dwellers in other towns; we treat our pauper sick in separate infirmaries with trained nurses and proper nursing appliances. Do we? That is just the question.

According to a return presented to the House of Commons in 1891 the metropolitan separate infirmaries and sick asylums (not including the Asylums Board Hospitals) provided 12,464 beds for the sick. This seems an immense number, but according to the same return there are still 5,832 beds in sick wards remaining in metropolitan workhouses the nursing of which is on a very different footing from that which obtains in the better separate infirmaries. Whether it is due to the growth of London or whether it is that the separate infirmaries with their better appliances have drawn to themselves a class of acute cases which formerly were treated at home, the fact remains that the separate infirmaries which were instituted with the object of clearing the sick out of the workhouses do not supply sufficient beds for the purpose and that there are still upwards of 5,000 left within the workhouse buildings.

Again, inquiring from the same return as to the ratio of paid nurses to sick beds quite irrespective of whether th y are trained nurses or not, we find how poorly off the workhouse sick beds are compared with those in the separate infirmaries. Paddington, for example, has one paid nurse for every 10.1 sick beds in its infirmary, but only one to every 33 in its workhouse; Chelsea, 1 to 11 in the infirmary, 1 to 28.1 in the workhouse; St. Pancras, 1 to 14.9, against 1 to

23.6; St. Marylebone, 1 to 14.8, against 1 to 20; Holborn, 1 to 17.3, against 1 to 36.2. This is sufficient to show what we wish to draw attention to, namely, that outside and beyond the sick who are, as we fondly hope, well treated in the specially built separate infirmaries, there is a great mass of sick who have never got into these havens, and still remain in the old workhouses. Nor can we feel quite happy regarding even the separate infirmaries; the old feeling as to the management of paupers dies hard, and so long as a great metropolitan parish like Islington only affords one paid nurse to every 34.1 patients in its infirmary, we cannot feel that the sick poor always get proper nursing even in these great institutions. There is a great opening yet for philanthropy and reform in our dealings with sick and aged paupers. Lady guardians and visiting committees with right of entry would throw a flood of publicity on the inner working of our poorhouses, and might greatly lighten the lot of many of our poorer neighbours who have fallen by the way.

THE DERMATOLOGICAL SECTION AT THE ANNUAL MEETING.

THE result has quite justified the action of the Committee in sanctioning a Dermatological Section at the recent meeting of the Association at Newcastle, for the work done in that Section, under the able presidency of Dr. Allan Jamieson, of Edinburgh, was in every way up to the standard maintained in the most successful of the other Sections. We have already referred to the exceptionally fine collection of drawings contributed by the President, by Mr. Hutchinson, Dr. Radcliffe Crocker, Dr. Colcott Fox, Dr. Stopford Taylor, Dr. Abraham, and others, and displayed in the Pathological Museum—a collection indeed which, in quality as well as in quantity, has probably never been equalled at any such meeting.

As may be judged from the reports of the proceedings which have been published, some very valuable and practical papers were read and discussed, but the communication which occasioned most interest was doubtless that of Dr. Byrom Bramwell on Thyroid Feeding in Psoriasis, which we publish in another column. That the exhibition of thyroid gland or its extract, either by the mouth or by subcutaneous injection, has a marvellously beneficial effect in myxœdema may now be regarded as sufficiently proved, and Horsley's researches furnish us with at least some physiological explanation of its action; but why the gland should have an influence on psoriasis it is by no means so easy to understand. The cases, however, brought forward by Drs. Bramwell and Arthur Davies, and the remarkable photographs shown by the former and reproduced in the JOURNAL (page 933) indicate that thyroid gland must also be accepted as a remedy for psoriasis. Without doubt, it will henceforth be largely tried in other diseases of the skin, having, as it appears, a real influence over the nutrition of that organ.

Another communication of more than ordinary interest was the account given by the Secretary of M. Sabouraud's important researches on the different kinds of the fungus "trichophyton," which produce the various forms of tinea in man and animals. M. Sabouraud had been kind enough to send over a beautiful series of his typical cultures and microscopical preparations, and, as Dr. Abraham observed, the Section was under great obligation to him for allowing them to be exhibited there in England for the first time. The investigations are still in progress, and of course many of the observations need corroboration; but M. Sabouraud has certainly thrown a new light on the matter, and several of his results already explain points which have hitherto been a puzzle to other observers. The special subjects chosen for debate, namely, "The Treatment of Chronic Ringworm of the Scalp," "The Etiology and Treatment of Psoriasis," and "The Diagnosis and Treatment of Lupus," gave rise to some extremely important and practical remarks. Dr. Colcott Fox opened the first debate with a very able and full review of the subject, and it is noteworthy that, like Mr. Alder Smith and many other experienced practitioners, he did not take a very hopeful view of the prognosis of our usual methods of treatment.

The debate on psoriasis was introduced by Dr. Radcliffe Crocker, who gave an excellent summary. His statistics showed—what another speaker insisted on—that psoriasis is a disease of early youth to an extent much greater than is generally supposed. The lupus discussion was to have been led off by Mr. Hutchinson, but that gentleman, not being—like Sir Boyle Roche's bird—"able to be in two places at the same time," was obliged to be away in the Surgical Section. Practical papers on the subject were read by Mr. Leonard Bidwell, who advocated free excision and skin grafting by Thiersch's method, and Dr. Stopford Taylor, who has had good results by a special method of actual cauterisation which he has devised. The interesting communications of Dr. Colcott Fox, Dr. Symons Eccles, and Dr. Walsh—and, in fact, all the others which were read in the Section—will be generally perused with instruction, and not only by those who are solely concerned with the treatment of diseases of the skin. Finally, Dr. Norman Walker's graphic demonstration of the anatomy of rodent ulcer, and the exhibition of several living specimens of skin diseases by other members, lent further practical interest to the proceedings.

The last time that a Dermatological Section was held was at Birmingham four years ago; the success of the Section at Newcastle has been such that it becomes a matter for consideration whether it should not in future be a more frequent feature of the general meeting of the Association.

INFLUENZA appears to be on the increase in London. The fatal cases primarily attributed to it rose last week to 9 from an average of 6. Scarlet fever and diphtheria showed a slight decrease. The general death-rate in London for the week was 18.8.

SCARLET FEVER AT CHRIST'S HOSPITAL.

AT the end of last week Colonel Hay, the Warden of Christ's Hospital, issued a circular to the parents of the scholars intimating that there had been eleven cases of scarlet fever in the school, and giving permission for them to remove their boys if they should desire to do so, at the same time saying that if they availed themselves of this permission it would be well to keep any boy so removed under strict observation for nine days, and call in medical advice at once if necessary. Since then, however, further cases have arisen, and an inspection of the premises has been made by Dr. Sedgwick Saunders, medical officer of health for the City of London; and, as an outcome of a conference between him

and the hospital authorities, it has been decided to close the school at the end of this week, and send home all those who are in a healthy condition. At the meeting of the City Commission of Sewers on October 24th, Dr. Saunders reported that the sanitary defects in the school buildings were serious, and were of such a nature as to render it absolutely impossible to continue their use for residential purposes. The fever has not been of a severe type, there having been no deaths and but few serious cases.

ROTUNDA HOSPITAL.

The Dublin Corporation has renewed the grant of £250 to the Rotunda Hospital in that city. The Councillors were dissatisfied with what they declared to be the inadequate representation of Roman Catholics on the Board of Governors, and accordingly have withheld the grant for several years. They have at last yielded to the outcry against their action, assigning as a reason that their ground of complaint has been in some measure removed.

BRISTOL MEDICAL SCHOOL.

On Friday afternoon, October 20th, Sir Edward Fry distributed the prizes to the students of the Bristol Medical School. Dr. Markham Skerritt, Dean of the Faculty, read the report, which gave a favourable account of the progress of the school during the last year. The two principal events of the year were the opening of the long-needed new buildings, in connection with which they were able to centralise all very important medical libraries existing in the neighbourhood; and the other was the incorporation of the Bristol Medical School with Bristol University College. Sir Edward Fry, after distributing the prizes, referred to several of the evils resulting from competitive examination, and pointed out the difficulties that arose through the vast extent of the new learning in science. To meet the difficulty thus caused, he said the only way was by a rigid mental method. They must train their minds accurately and logically to deal with every matter that came before them, and to know exactly what they did know, and what they did not know. The best thing was to know; the next best thing was to know they did not know.

PRESCRIBING CHEMISTS.

Three cases which have been the subject of coroners' inquests within the last two weeks furnish evidence of the mischievous consequences which may result from incompetent treatment of ailments supposed to be of a trivial nature. These cases fully justify the comments of our correspondents, and we entirely concur with them in thinking that some means should be found to remedy the evil. How that is to be effected is a matter of considerable difficulty. The practice of counter prescribing by chemists and druggists is decidedly discountenanced by the Pharmaceutical Society, and we have reason to believe that the better class of pharmaceutical chemists generally abstain from it. But among the lower ranks of chemists and druggists, many of whom are a residuum of the period antecedent to the passing of the Pharmacy Act, counter prescribing of a most objectionable nature often forms a considerable portion of their business. The origin of this system is to be recognised in the chaotic relations between the practice of medicine and the practice of pharmacy which prevailed during the early part of this century. It must be admitted that shopkeeping doctors have contributed to the propagation of the popular misconception that the place where drugs are sold is also the place where medical assistance is to be obtained. A writer in the *Globe* touches upon this aspect of the matter by remarking that the druggist requires protection from a public which imperatively insists upon having his opinion; but he appears to attach too much importance to the demand thus made. We are more inclined to agree with the view put forward by the *Pharmaceutical Journal* that a proper exercise of discretion by the druggist would enable him to avoid interference with the province of the medical man. It is at the present time particularly appropriate that members of the pharmaceutical body should adopt such a course. They are themselves striving to obtain a more equitable recognition of their position as specially qualified persons, and corresponding protection in the exercise of their calling. In that endeavour they have our full sympathy, but we would suggest the undesirability of their appearing as offenders against the principle involved by exposing themselves to the charge of infringement of the rights of medical practitioners.

THE SOCIETY OF ANÆSTHETISTS.

A very successful dinner, held to celebrate the formation of the above society, took place at Limmer's Hotel on October 19th. It had been arranged by a series of preliminary meetings that an effort should be made to form a society under the above title. Mr. Woodhouse Braine took the chair, and gave the usual toasts. Dr. Dudley Buxton was called upon to propose "Success to the Society of Anæsthetists." Dr. Dudley Buxton, in the course of an interesting speech, described the origin, the aims and objects of the new society. Its initiation was in no small measure due to the efforts of the honorary secretary, Dr. Silk. It was hoped that it would undertake really valuable work upon the science, and improve the practice of anæsthetics as well as such subjects as were germane. Further, the Society would supply a common meeting place for men, who, although practising the same speciality, were yet domiciled in different localities. The ordinary meetings of the Society would be held on the third Thursdays in the month during the winter sessions, at 20, Hanover Square. Membership at present was restricted to medical practitioners holding, or having held, a hospital appointment as anæsthetist. Mr. Mackellar, in a felicitous speech, returned thanks for the visitors, amongst whom were also Messrs. Henry Morris, and Bokenham, and Dr. Childs. Dr. F. Hewitt proposed "The Health of the Chairman." Some excellent music was supplied by the kindness of Dr. Dudley Buxton. The newly elected officers for the year are: President, Mr. Woodhouse Braine; Honorary Treasurer, Dr. Dudley Buxton; Honorary Secretary, Dr. Silk; Council, Messrs. Stallard (Manchester) and G. E. Norton; Auditors, Messrs. Fingland (Liverpool) and H. Davis.

THE OWEN PAPERS.

A collection of papers recently presented to the Royal College of Surgeons by the executors of the late Sir Richard Owen contain several manuscripts of great interest. There is a collection of the notes from which Sir Richard gave some of his earliest Hunterian Lectures, and also notes taken by him at the lectures of Joseph Henry Green, Bell, and others. In the MS. of Owen's lecture given May 9th, 1837, there is a paragraph which may throw some light on John Hunter's matriculation at Oxford. After speaking of Hunter's work on the Lymphatics, Owen says: "This work was unfortunately arrested by a very indifferent state of health, the effect of too much application to anatomy, which obliged Mr. Hunter, then 25 years of age, to retire into the country, when he took the opportunity of matriculating at the University of Oxford." There is a mistake here as regards the age, as Hunter matriculated in 1755, and therefore was 27 years old. Palmer gives 1753 as the date, and as this would agree with the age mentioned by Owen, it is probable that there was a current mistake as to the year of his matriculation. It undoubtedly was in 1755. In the British Medical Journal (vol. ii, 1893, p. 75), it was pointed out that Hunter lived outside St. Mary Hall. The above entry may partly explain this by suggesting that he had a friend to whom he went "into the country" at Oxford for the benefit of his health. This may have been his brother William's friend, Dr. Pitcairn. It may be mentioned that the MS. of this lecture has been

carefully revised by Clift, who would undoubtedly have made a note had he thought there was connection between Hunter going into the country for his health and his matriculation at Oxford. The collection also contains a series of drawings by W. H. Clift of the heads of murderers who were brought to the College for examination after execution. There are many notes and papers accumulated by Owen in the preparation of his various reports as Conservator of the Museum. A MS. report in an unknown hand of Hunter's Croonian Lecture given before the Royal Society in 1777; a MS. volume of Dr. Hunter's Lectures, and the MS. of Owen's Lectures published from notes by W. W. Cooper in 1843 are in the collection. Amongst the papers is a set of documents relating to the celebrated case published by Mr. Maiden of a shaft passing through the thorax, including Clift's drawings for the plates and several letters. Of historical interest are some drawings of the original Hunterian Museum in Lincoln's Inn Fields; one by Scharf, done in July, 1834, shows the museum in process of demolition; another by Owen of the interior shows the arrangement of the specimens; a third by Clift, drawn before 1825, also shows the interior of the museum. There is also a pencil drawing by Scharf of the view from Professor Owen's second floor window at the back of the College. On the top of this drawing Sir Richard has written, "My prospects in 1840." Another view of the roof by Scharf shows the old Duke's Theatre, then in its last form as "Copeland's China Warehouse." In the collection is a "Ground plan of Mr. Hunter's premises level with the street, or parlour floor level" in 1729, drawn out by Clift on "Oct. 31, 1832. 12 A.M., Nov. 1." With his usual love of detail and correctness Clift has here put down the position of all the furniture and pictures in the ground floor of 28, Leicester Square. The spot in the hall is marked where stood Mrs. Hunter's sedan chair, and we learn that Hunter himself had a sofa bed in what is called "Mr. Hunter's afternoon bedroom." At the back of the house, towards Castle Street, there is a doorway which is marked, "Where Mr. Huger met the Irishman." It would be interesting to know if this has any reference to the Irish giant.

FEES FOR NOTIFICATION OF INFECTIOUS CASES.

Doubts have apparently been felt in some quarters—as it appears to us, without much reason—on the question of the rate of remuneration to which medical practitioners are entitled for giving information of the existence of cases of infection as required by the Infectious Diseases Notification Act, 1889. The Act says clearly enough that the fee is to be 2s. 6d. if the case occurs in the private practice of the practitioner who gives the notice, and 1s. only if it "occurs in his practice as medical officer of any public body or institution." Unfortunately there is no definition given of the meaning of the words "public body or institution," and attempts have been made unduly to extend their scope with the object of reducing the amount of the fees payable. Medical officers appointed under the Poor-law authorities and paid out of the rates and those who hold appointments at general hospitals would seem to be the persons whom the Act intended to have the lower scale of remuneration; they occupy a different position from private practitioners from the mere fact of having accepted such appointments. But there seems to be no reason why a man who has agreed to attend a number of individuals—such as the members of a club or friendly society—for a fixed remuneration should be held to have accepted the post of medical officer to a public body. The contention that he does so has, however, been raised in court, and decided against the local authority who wished to get out of paying the half-crown. The case in question came before the sheriff court of Midlothian—corresponding to the county court in England. As the same Act applies to England as well as to Scotland, a decision in a court in one country should be a precedent if the point should arise again. The decision of one inferior court is not, it is true, binding on another, and cases where the sum in dispute is only eighteenpence are not likely to be brought in the superior courts so as to obtain a decision which shall be binding. The judgment of the sheriff in this case appears, however, to be consonant with law and common sense, and should be accepted by the local authorities who have to pay these fees. If payment should be refused, the knowledge that there is a decision in his favour should embolden the defrauded practitioner to institute the requisite proceedings for enforcing his due.

THE EDINBURGH MEDICAL SCHOOLS.

Since a considerable margin of time is allowed for enrolling in the University and extra-academical medical classes, it is difficult as yet to say with any measure of definiteness how the numbers of freshmen will stand. In a general way, however, it would seem as if the University numbers were to be somewhat under, and those in the extramural schools about the average. There is evidently a very definite increase in the number of students attending the Medical College for Women. In connection with the medical education of women, it has to be noted that the managers of the Royal Infirmary have now opened Ward 27 for clinical instruction, and correspondingly the possibilities for surgical instruction and experience have also been extended and improved. The Royal Infirmary now provides for women the number of beds required by the regulation of all the examining bodies. The laboratory of the Royal College of Physicians of Edinburgh is already well represented in respect of workers. Special subjects of study (for example, diseases of the eye, ear, nose, throat, chest, etc.) in the various schools seem to be in increasing demand. Obviously, therefore, students are becoming more alive to the necessity of laying foundations of a wider nature than heretofore.

THE OUTBREAK OF TYPHOID FEVER AT WORTHING.

At the meeting of the Worthing Town Council, held on October 24th, the Mayor made a statement as to the action taken by the authorities after the discovery was made that the public water supply had become contaminated, causing the outbreak of typhoid in the summer. He quoted the dates and results of the several analyses by Dr. Dupré, Professor Crookshank, and Professor Thomson, and of the consequent action of the Council, and in disproof of the assertion that thousands of excursionists from London, principally children and young people, were allowed to drink the contaminated water from a public fountain, showed that the water from that source was cut off on June 8th, that the first excursion did not arrive till June 19th, and that, amongst 10,000 excursionists who visited the town during the month of June, not a single case of typhoid could be traced. It was stated at the same meeting that the fund for the relief of the sufferers from the epidemic now amounted to about £7,000, but that the need for assistance still continued. A separate fund is being raised by the local lodge of Freemasons, who have, up to the present time, received about £600 from members of the craft from various parts of the world.

A NATIONAL DANGER.

Under this title we have on previous occasions called attention to the serious menace to the public health due to the serious defects in the sanitary provisions in the port of King's Lynn. We now learn that the epidemic of typhoid fever, which it was hoped had died out, has again reappeared. The most serious fact in the present condition of things is that the disease has appeared at Gaywood, a village through which flows the open stream that supplies King's Lynn with drinking water. One of the cases at Gaywood is a child, one of a large family, residing in a house close to

the stream, upon the banks of which its brothers and sisters are daily playing. In King's Lynn itself scarlet fever also is rife, 25 cases having been notified this month; and, to add to the anxiety of the sanitary authority, so many cases of diphtheria have been notified recently that the medical officer of health has advised that the elementary schools should be closed. The infectious hospital accommodation appears to be altogether inadequate. A ward was built in 1888 to contain six beds; but the port sanitary authority, which contributed one-third of the cost, has the right to use the hospital, so that the town is liable at any time to be deprived of all infectious hospital provision. As there is only one ward, only one sex could have been dealt with at a time, but that a small cottage intended for the use of a nurse has been made available for three beds. The whole history of the sanitary defects of King's Lynn is a disgrace to our local government, and appears to call urgently for the interference of the central authority.

PRACTICAL TEACHING IN ABERDEEN UNIVERSITY.

With the opening of the winter session of the Aberdeen University a considerable number of changes take place in laboratory and teaching arrangements. Although the work of university extension has caused the temporary demolition of large parts of the anatomy department, any teaching disturbance has been almost quite overcome by the erection of a large and serviceable building, where ample facilities are granted for dissection, museum work, and practical class work. The Professor of Pathology has now in busy operation two well equipped laboratories for bacteriological work. The advantages of these are appreciated by numbers of graduates and students. Professor Cash has also had extensive alterations made in his practical class rooms, so that seventy workers can readily engage in their duties, the laboratory being replete with modern appliances for the study of practical materia medica. A tutorial class connected with the Chair of Practice of Medicine has been entrusted to the care of Dr. Alexander MacGregor, Professor Findlay's assistant, and demonstrations are given on methods of clinical examination daily. The Maternity Hospital is now practically completed, and it is expected that in a week or two it will be open for the admission of patients. This institution may open up a field to the University which in the past has been lacking.

SIR ANDREW CLARK.

The sudden and severe illness of Sir Andrew Clark has aroused everywhere in the medical profession feelings of the warmest sympathy and the most profound regret. Struck down in the prime of active and vigorous life and in the maturity of a rare and ripe experience, his withdrawal, for some time at least, from active professional work will be severely felt and deeply deplored by his colleagues. Sympathetic, public spirited, indefatigable in the fulfilment of official duties as of his private obligations; profusely generous, with a wide tolerance bred of large understanding, but never tainted with indifference; wise in counsel, free and fearless of speech, self-sacrificing and spending himself all too freely in the service of his profession and his fellows, Sir Andrew Clark has risen from the ranks to the head of his profession by force of character, capacity, and unwearied industry, with a record unsullied in thought or act by a tinge of self-seeking. As President of the College of Physicians, he has known how to maintain the honour and advance the interests of that great institution, without losing sight of progressive reforms in harmony with modern sentiment; and he has kept himself in touch with the rank and file of his profession, rendering recent and notable service to the medical officers of the army. Like many others—for Sir Andrew Clark was always accessible, always interested in the solution of difficult public questions, and the redress of professional grievances—we have for many years owed much to his ready good will, his wise counsel, and cheerful readiness at all times, and amid the pressure of heavy professional engagements, to debate, discuss, and advise on professional problems and difficulties, as they successively arose. The warmest sympathy and the most affectionate esteem, innumerable friendships and good wishes cluster around his sick bed; and it is cheering to be able to announce that the last news of his progress is also the best, although convalescence must undoubtedly be slow. Sir Andrew Clark was attacked with right hemiplegia and aphasia on Thursday, October 19th. He thought himself in his usual health up to the time of the attack, although he had for some time suffered occasional attacks of vertigo, with pain on the left side of the head. At the moment of the seizure he was rising from his chair. In doing this he experienced difficulty, and in the course of a few minutes the attack developed. Consciousness could scarcely be said to have been lost, although there was for a time some mental confusion. The paralysis, we regret to hear, still remains complete, but we are glad to be able to announce that Sir Andrew has regained a considerable amount of speech, takes food well, and is progressing in as satisfactory a manner as is possible under the circumstances. During the first few days Cheyne-Stokes respiration was present, but that has now completely passed off. We understand, however, that it has not yet been considered prudent that Sir Andrew should be removed from his study.

WOMEN AS SANITARY INSPECTORS.

The appointment, which we mentioned briefly last week, of two ladies as sanitary inspectors under the Factory and Public Health Acts to carry out the proper inspection of workshops and workplaces where women are employed, is a striking advance in local administration. The vestry of St. Mary Abbotts, Kensington, which, if we remember right, was the first upon which a lady sat, has now set an excellent example by recognising the importance of sending out educated and specially trained women to see that the conditions under which their humbler sisters labour are made as tolerable as possible. When Mr. Asquith, in January last, announced his intention of appointing two women inspectors to the factory staff, one in London and the other in Glasgow, we pointed out the importance of this resolve, not only as an effective act of administration, but also as an example. At the same time, we ventured to urge the necessity of the selection for such and similar posts only of women adequately trained by proper instructors in the principles of sanitation and personal hygiene. On such training the efficient performance of their duties would depend. The two candidates appointed in Kensington have qualified for their new duties by attending the special training course of lectures for teachers of hygiene provided by the National Health Society, and both hold the Society's diploma. There is undoubtedly a large field for the employment of trained, educated women not only for the inspection of factories and workshops, but also in industrial schools, where children work for profit. This system has been at work in Paris for nearly twenty years; it was legalised by an Act of 1874, and has worked well.

MR. HUTCHINSON'S CLINICAL MUSEUM.

Mr. Hutchinson is to be congratulated on the clinical museum which he has erected in Great Portland Street. In it he has accumulated the records of many years of observation. At first sight one might say that it was but a pathological picture gallery, but it is something much more than that. Mr. Hutchinson is a great believer in bringing together descriptions and illustrations, and thus while the upper part of the walls is covered with pictures, below are books, so that the building becomes rather an illustrated library than a mere museum. This method of dealing with illustrations, placing them on walls instead of in books,

seems to have great advantages for purposes of study; similarities and differences strike one more readily, and comparisons are more easily made, for be it observed Mr. Hutchinson does not hang any of his pictures, but rears them up on narrow shelves, so that they can be moved about and taken down for inspection. The plan adopted in this library for preserving and collating current medical literature, journals, pamphlets, etc., is also worthy of note, troublesome probably at the time, but most fertile of benefit to the student who wishes at any time to see at a glance what is doing on any subject. Two hundred thick scrapbooks are provided, each for a separate subject, and each provided with its own index. All the journals are then ruthlessly cut up, and their more important contents sorted out, fastened into these different books, indexed, and thus made to stand ready for immediate reference at any moment. Mr. Hutchinson hopes that this plan will be imitated on a larger scale at other libraries, so that a reader will be able to put his hand on what has been written on any subject up to the very present. During the next few weeks Mr. Hutchinson proposes to give a short clinical lecture at the museum every Tuesday afternoon at 4.15, and we may say that with the wealth of material and experience at his disposal a lecture of this sort, followed by a wander through the museum, every picture in which has a history of its own, becomes as interesting as it is instructive.

ENTRIES AT THE MEDICAL SCHOOLS.

Since the publication of the article on this topic last week some further returns have been received. The Secretary of University College, London, informs us that the number of students who have entered for the full curriculum in the medical faculty of that College is 43. The number of students entered for special classes is 46, and the number of students who have commenced attendance at the classes in Preliminary Science is 75. We understand that the Middlesex Hospital has taken the important step of recommending its students to attend the classes in Preliminary Science at University College. The number of students who have taken advantage of the arrangements made in the medical and science faculties of the University College of South Wales and Monmouthshire at Cardiff is distinctly encouraging. The number who have entered for the full curriculum is 5, for special classes 2, and for preliminary scientific classes 10. The revised number of entries in the medical department of the Yorkshire College is 42, besides preliminary scientific students. The number of entries for the special course is 7.

THE MEDICAL SICKNESS, ANNUITY, AND LIFE ASSURANCE SOCIETY: A NEW DEPARTURE.

Some interesting and valuable further developments of the benefits of the Medical Sickness, Annuity, and Life Assurance Society were announced at the quarterly general meeting of the Society, held on October 25th, at 429, Strand, Mr. Ernest Hart in the chair. The facilities and advantages which the Society offers for the provision of weekly payments during sickness, for annuities at the age of 65, and for life assurance have now, in accordance with the resolutions passed at the annual meeting at Newcastle, been increased in each department. The amounts obtainable during disability from accident, of whatever kind, or from sickness, have been increased from four guineas weekly to six guineas. It had been found that many members regarded the limit of four guineas as less than that for which they desired to insure in order to recoup themselves from loss of income during sickness, and a number of members have already taken advantage of the new tables to increase their sickness pay to six guineas, fifteen having already taken this step in the last few weeks. So also in respect to annuities, of which the amount had hitherto, under the restrictions of the Friendly Societies Act, been limited to £50, commencing at the age of 65, or a corresponding lump sum of about £400 by commutation. All such restrictions are now removed in virtue of a very advantageous arrangement in favour of members with one of the oldest and wealthiest of the British insurance companies. By this arrangement, which has been completed on the most satisfactory conditions, members of the Medical Sickness, Annuity, and Life Assurance Society can now obtain through the Society annuities to practically an unlimited amount, and under conditions suitable to their various needs. All restriction is now also removed from the amounts which the Society can insure for payments at death. These arrangements, which were explained and confirmed at the Newcastle meeting, have just now come into operation, and already several assurances for relatively large amounts have been effected. Any communications relating to these and other matters connected with the working of the Society will receive immediate attention if addressed to Mr. F. Addiscott, at the offices of the Society, 33, Chancery Lane, E.C.

IRISH MEDICAL SCHOOLS' AND GRADUATES' ASSOCIATION.

This Association held its quarterly meeting and dinner on October 25th. The dinner was one of unusual interest and distinction. Professor Cuming, of Belfast, presided, and was supported by Sir W. H. Broadbent, Sir Thomas Crawford, Dr. Stephen Mackenzie, Dr. Heath, Surgeon-Major Carte, Mr. Ernest Hart, Surgeon Colonel Hamilton, Dr. Hayes, Dr. Charles, Professor Ayrton, F.R.S., Professor Perry, F.R.S, and a numerous and distinguished party. Sir W. H. Broadbent, in reply to the toast of "The Guests," took occasion to make a touching allusion to the illness of Sir Andrew Clark, and to express his own feelings and those of the whole profession at the profound sympathy and affectionate desire for his speedy restoration to health, a sentiment which was received with warmest applause. Surgeon Colonel Hamilton and other speakers mentioned with honour the severe loss which the Association had sustained in the premature death of the heroic Parke, who was often a guest at these dinners. Mr. Ernest Hart paid a warm tribute to the national vitality and undying love of country which united Irishmen in every clime, and referred to the power, capacity, and high standing which the great body of Irishmen who, in Chicago and other great cities of America, maintained the high professional reputation of the great Irish school of medicine. Surgeon-Major Carte and others enlivened the evening with songs and recitations of the highest order of merit, and the banquet, at which there were many ladies present, was carried out throughout with unusual spirit, and did not conclude till a late hour.

LEAD IN PUBLIC WATER SUPPLIES.

Cases of lead poisoning in one after another of the towns of Yorkshire, fully corroborated by the recent report of the Local Government Board, prove that the water collected from moorlands, though otherwise presenting a high degree of purity, is charged with vegetable acids derived from the peat, and is thus rendered capable of dissolving lead. Dr. J. A. Erskine Stuart, of Heckmondwike, writing in a local newspaper, states that in the water first drawn off in the morning the lead amounted to $\frac{1}{2}$-grain per gallon, after the tap had been running for five minutes it had fallen to $\frac{1}{12}$, and five minutes later every trace of lead was lost. But as soon as the tap was shut off the process of solution recommenced, the lead detected after three, twelve, and twenty minutes' rest of the water in the pipes having been $\frac{1}{12\frac{1}{2}}$, $\frac{1}{80}$, and $\frac{1}{4}$-grain per gallon respectively, the pressure on the freshly exposed surface having in twenty minutes taken up more of the metal than the contact of a whole night.

Professor Ernst Siemerling, of Berlin, has been appointed to the newly-founded chair of Psychiatry in the University of Tübingen.

SMALL-POX IN ENGLAND.

Twelve cases of small-pox were last week admitted to hospital from London districts, leaving 76 under treatment on Saturday last. No death from the disease was registered. Several fresh attacks occurred at West Ham, with one death; and two cases were heard of in the Edmonton Union. At Walsall the epidemic shows little sign of abatement, there having been some 60 cases last week, heard of by the authorities; whilst it is feared that occurrences are being concealed from the officials; and that infection is being spread by indiscriminate visiting on the part of neighbours. There were some 70 cases in hospital at the end of last week; whilst many are under treatment at home. A man has been fined for failing to notify the existence of four cases in his family. A girl has sickened with the disease at Willenhall, after a visit to Walsall. Single cases have also been notified at Handsworth, West Bromwich, and Leicester, whilst in and around Birmingham nearly two score cases came to light in the week. Westward, Bristol and its neighbourhood had experience of half-a-dozen attacks.

At Bradford matters are getting serious. Towards the end of last week there were 176 cases in the hospital, which can accommodate only 40 more patients. Two wards of the Scholemoor building, however, remain intact, and the erection of further temporary means of isolation, if needed, is contemplated. On Sunday and Monday of last week there were 30 new cases, following 12 on Saturday, and followed by 16, 13, and 8 on the three succeeding days, with a total of 70 for the week, and somewhat over 600 attacks during the current year. Vaccination and revaccination are being resorted to; but, in place of the Warrington plan of extra vaccination stations, the Town Council have invited medical practitioners to operate on all applicants for vaccination or revaccination, at a guaranteed fee of 2s. and 1s. 6d. respectively. It is hoped that much advantage will be taken of this arrangement by the general public. Meanwhile it is gratifying to hear that the authorities look upon the epidemic as having reached its highest point. Four cases have recently occurred at Shipley, three being attributed to infection from Bradford; two cases have also arisen at Pudsey; half-a-dozen attacks at Wakefield, and three at Dewsbury.

At Huddersfield, with its 97,000 inhabitants, there were but nine cases of small-pox last quarter; five were in unvaccinated persons, three were poorly vaccinated, one well vaccinated; and "exactly in the same proportion were the severity of the attacks, and prolonged confinement in the hospital."

ASSOCIATION INTELLIGENCE.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

Border Counties Branch.—The autumn meeting of the above Branch will be held at St. Boswell's at an early date. Members desiring to read papers, etc., will please communicate with the Honorary Secretary, James Altham, Penrith.

Stirling, Kinross, and Clackmannan Branch.—The autumn meeting of this Branch will be held in the Crown Hotel, Alloa, on Tuesday, October 31st, at 3 P.M. Dr. J. C. McVail will introduce a discussion on Isolation Hospitals. Dr. Fergusson will show a case of Jacksonian Epilepsy, and Dr. Currie will exhibit some Anencephalous Monsters. Other members intending to show cases or specimens are requested to communicate with the Honorary Secretary, C. J. Lewis, Stirling.

South Wales and Monmouthshire Branch.—The next meeting will be held at Newport on November 2nd. Members desirous of reading papers, etc., are requested to send titles forthwith to Dr. Sheen, Cardiff.
A. Sheen, D. A. Davies, Honorary Secretaries.

Lancashire and Cheshire Branch.—An intermediate meeting of this Branch will be held at Nantwich on Thursday, December 7th. Gentlemen who wish to read papers, show patients, or bring any other business before the meeting, will kindly communicate as early as possible with the Honorary Secretary, James Barr, M.D., 72, Rodney Street, Liverpool.

Metropolitan Counties Branch.—A special meeting will be held at the rooms of the Medical Society, Chandos Street, Cavendish Square, on Tuesday, November 14th, at 4 P.M. Business: To adopt the revised code of laws approved by the annual general meeting on June 20th, 1893.—Andrew Clark, Isambard Owen, Honorary Secretaries.

South of Ireland Branch.—The annual general meeting of this Branch will be held on Saturday, November 4th, in the School of Art and Science, Nelson Place, Cork. The annual dinner will be held the same evening in the Imperial Hotel, Cork. Members whose intention it is to attend the meeting and dinner will kindly notify to Dr. Philip Lee, 25, Patrick's Hill, Cork, Honorary Secretary.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

The first ordinary meeting of the session 1893-4 was held on October 12th; the President (Dr. Rickards) in the chair. Sixty-two members were present.

New Members.—The following were elected members of the Branch: Annie E. Clark, M.D.; E. J. Whitehouse, M.R.C.S.; J. A. Berlyn, and J. R. Hickinbotham.

Payment of Travelling Expenses.—The President then declared open the adjourned discussion (from the annual meeting of the Branch) of the following recommendation of the Council and of Dr. Douglas's amendment to it. Recommendation: "That this Council considers the payment of railway fares (travelling expenses) of the members of the Parliamentary Bills Committee of the Association would be creating a very undesirable precedent and is unnecessary." Amendment: "That this meeting of the Birmingham and Midland Counties Branch recommends that each representative member of the Parliamentary Bills Committee and the other members, chosen annually by the Council of the Association, when attending either a committee meeting, or a subcommittee meeting, of the Parliamentary Bills Committee, be paid first-class return travelling expenses (railway and boat fares) out of the funds of the Association, as is already done when members of the Council attend meetings of that body."—An apology was received from Dr. Douglas, who was unable to attend the meeting.—After a brief discussion, it was moved and seconded that the discussion be adjourned *sine die*.—Subsequently Dr. Simon moved "the previous question."—This was seconded, and, being put to the meeting, 19 voted for it and 6 against it, and it was therefore carried.

Hour of Meeting.—Mr. Jordan Lloyd moved a resolution, of which due notice had been given: "That the hour of meeting be changed from 4 to 3.30 o'clock."—Two amendments were proposed: (1) "That the opinion of the Branch be taken by circular as to the most convenient time for meeting;" (2) "That the matter be remitted to the Council." Mr. Lloyd's resolution was eventually carried, but only after a vote of the meeting had prolonged the time for matters of business.

Sick Headache.—Dr. Wade read a paper on "An Abortive Treatment of Sick Headache in Certain Cases."—After some remarks by the President, Dr. Foxwell said that in his experience migraine which began purely as a neuralgia of fifth was much more amenable to remedies whose action was of short duration than those attacks which commenced with general *malaise*, nausea, and depression, and culminated in a day or more in extreme weakness, vomiting, absolute anorexia, and vomiting which continued for, it might be, several days. The former class included those cases which were often the direct result of some action of the patient, as undue eye or ear strain. In these, two or three doses of antipyrin or antifebrin, glonoin or cocaine often successfully aborted the attack. But in the other class, though these drugs might for a time ward off the attack, yet it was only for a time, and prolonged rest with very little food alone effected a cure. It almost seemed as if cases of this class were really cases of splanchnic epilepsy—subjective causes constantly acting, culminating in periodic explosions. Still, though medicine could not abort the attack, yet it could do much to modify the causes which produced it, many sufferers being completely cured and

greatly benefited by regulation of their diet and mode of life, accompanied by small doses of some mercurial—preferably the mercury pill of the *Pharmacopœia*—followed the next morning by a saline purge, and the action of the two aided by copious draughts of water taken between meals.—Dr. EDGAR UNDERHILL said that he used formerly to suffer much from headache, especially if travelling even short distances, or with any unusual pressure of work. He was now fortunately troubled but seldom, because whenever one threatened he took 10 grains of antipyrin. At the same time he was careful to drink a large quantity of water to wash away deleterious products excreted by the kidneys.—Dr. THURSFIELD believed that high tension with retention of urates or uric acid was the common cause of these headaches. Suffering much from them himself he found that he combated his troubles most successfully by starving for several hours, drinking hot water, and taking phenacetin gr. x, and caffeine gr. iij in capsule, about midday. He did not lie up unless absolutely obliged, and then endeavoured to get sleep. Exercise in the fresh air he regarded as indispensable to prevent these attacks.—Mr. PRIESTLEY SMITH agreed with Dr. Wade that errors of refraction and defects of motor equilibrium in the eyes should be looked for, and when found carefully corrected in cases of migraine, for they were among the many exciting causes of the disorder, but he thought that most English oculists would agree that the importance of these conditions as causes had been exaggerated. The suffering induced by astigmatism and hypermetropia was proportionate to the nervous instability of the patient, and not to the actual fault in the eyes. Nervous exhaustion from various causes seemed to induce the attacks, and the patients were often over-sensitive in various ways. He asked whether it was the experience of others that persons habitually oversensitive to light on first waking in the morning were often sufferers from migraine. In his experience a useful point in treatment was a daily rest with sleep if possible, but in any case with absolute freedom from disturbance, after the midday meal. Horse exercise, when possible, was a better remedy than any drug.

SPECIAL CORRESPONDENCE.

PARIS.

Sterilisation of Drinking Water on Board Ship.—Model Spectacles.—Medical Martyrs.—Banquet and Decorations to the Surgeons of the Russian Squadron.—The Russian Surgeons and M. Pasteur.—The Notification of Infectious Diseases.

M. TELLIER has written to the President of the Academy of Sciences drawing attention to the fact that the water consumed by the passengers on board steampackets is a cause of epidemics, whether the provision be made before the vessel starts or is replaced by distilled water. If quarantine has an influence on the passengers and cargo, it has none on the water store, which, frequently taken from contaminated sources, carries with it the germs of disease and spreads it broadcast among the passengers and crew; when the store is exhausted it is replaced by distilled water, which is placed in contact with the air in order to aërate it: this very air being contaminated by noxious germs, in districts where cholera and yellow fever are prevalent the water is thus impregnated with the germs of these diseases. If the atmosphere is uncontaminated, the water reservoirs and pipes are not; these are never cleaned nor rendered sterile. M. Tellier proposes as a remedy that water used on board ships should be sterilised at a high temperature, whether it be distilled water or otherwise. All that is not sterilised should not be brought in contact with distilling apparatus. Before starting, water butts, pumps, and pipes should be sterilised. Sailing vessels and others not having sterilising apparatus on board, as soon as they reach a port are to have their water butts, pipes, and pumps seized and sterilised.

L'Association des Industriels de France lately offered a prize for a good model of a pair of spectacles for use in workshops. The first prize (£16) has been awarded to M. Semmelbauer, of Metz; the second prize (£8) to the Paris Spectacle Society. M. Semmelbauer's model is used by the railway companies; its use prevents hot and swollen eyes.

Three deaths have lately occurred among the younger members of the profession in the performance of their medical duties, two from diphtheria and one from typhoid fever.

The Paris medical profession offered a banquet to the Russian medical officers now in Paris—Drs. Brandt, Medredeff, Ochotine, Aristow, and Botkine. Professor Cornil presided. About 200 French doctors attended the feast, among whom were Professor Brouardel, Dr. Dujardin-Beaumetz, M. Roux of the Institut Pasteur; Drs. Lucas Treille and Hyade of the Navy Health Service. The following Russian doctors are named Knights of the Legion of Honour: Drs. Ochotine, Medredeff, and Aristow, attached to the Russian fleet. Dr. Aristow visited the Anthropological School and attended a meeting of the Society. M. Laborde asked that the law excluding foreign members should be infringed, and that Dr. Aristow should be elected member.

The Russian navy surgeons now at Paris went in a body to pay their respects to M. Pasteur, who received them in the big library of the Pasteur Institute, where is placed a bust of the Czar. M. Pasteur told them he was delighted to receive them at the Institute, where they had a number of friends who remembered the help given by the Czar in founding the Institute, and where several of their compatriots passed some years of study.

Some surprise is manifested in the medical world that measles, whooping-cough, and erysipelas should be excluded from the list of infectious diseases drawn up by the Academy of Medicine requiring notification and disinfection. These half-measures are condemned by the medical press, which considers that all contagious diseases should be declared and this should be compulsory.

ST. PETERSBURG.

[FROM OUR OWN CORRESPONDENT.]

Cholera in St. Petersburg.—Accuracy of the Official Statistics.—The Epidemic among Bargemen.—Mortality in this Year's Epidemic.—Treatment of Cholera in the St. Petersburg Hospitals.

THE official return of cases of cholera and deaths from that disease in St. Petersburg show that there were 157 cases and 72 deaths in the seven days ending October 19th (N. S.). The epidemic is for the present almost stationary in the Russian capital.

Will you permit me to controvert a statement in the BRITISH MEDICAL JOURNAL of October 14th, to the effect that the daily averages of cholera cases and deaths in St. Petersburg as officially published, "it is to be feared by no means represent the true facts of the case?" The implication that either many cases occur which do not come under the eye of the authorities, or that the authorities wilfully suppress the existence of cases which do come under their notice, is entirely without foundation. In a capital where notification is compulsory, where the police have exceptional powers, where the sanitary officials have right of entry and examination of premises and inhabitants at all times, where the *dvornik* (a porter attached to every house) is compelled to report cases of illness among the inmates of the house to which he is attached, and where all officials connected with the public health service are (I speak from ocular evidence) constantly on the *qui vive* to discover cases of cholera, it is practically impossible that a case of the disease can be kept secret. The *gradonatchalnik*, or prefect, is empowered to inflict summary punishment on any person who does not report a case of infectious illness, but, so far as I am aware, no such case has arisen in connection with the cholera epidemic. The people willingly co-operate with the authorities in attempting to stamp out the disease. The overwhelming majority of cases are removed to hospital at once, only a small number being treated in their own house.

A great many cases have occurred among the labourers at work on the barges on the many canals that intersect St. Petersburg, and there is strong evidence that the water of these canals contains the cholera poison and is the source of infection.

The epidemic of this year, while less severe in point of

absolute numbers of cases, is very much more severe than that of last year in the mortality rate. I learn from the physicians to the Obuchovski and Alexander Hospitals that whereas last year the death-rate was only 30 per cent., it is as high in the present year as 45 or even more per cent. Dr. Levin, of the first named hospital, would ascribe this partly, but not wholly, to the greater readiness of people last year, under the salutary influence of fear, to come to hospital for even the mildest forms of intestinal disorder, so that many cases of cholera were taken in time and conducted to a cure, while similar cases now are not brought to hospital until the disease has too far advanced for treatment to be of much use.

The use of Cantani's hypodermic injections in the treatment of cholera has been now abandoned in almost all the St. Petersburg hospitals. They were found to be practically useless. In the Obuchovski Hospital intravenous injections of saline solution are now being tried, but the benefit resulting from them appears to be as fleeting as it is, for the time, remarkable. All the physicians I have conversed with on this subject are agreed that heat, both external and internal, is the sheet anchor in the treatment of cholera. Very hot baths (both air and water baths) and hot rectal injections are of undoubted value—a statement that cannot be made unreservedly of any other remedial measure or drug, with the exception perhaps of stimulants, nervine and cardiac. Internal antiseptics of all sorts have been tried and found wanting by most observers, though at the "Alexander Hospital in Memory of the Emancipation of the Serfs" they are thought to be of some use.

BERLIN.

The Virchow Jubilee.—Professor von Helmholtz.—New Clinics.

Professor Virchow left Berlin for a few days last week to escape a recrudescence of Jubilee celebrations. This time it was not his birthday—that would have called forth all the congratulatory ceremonies—but the fiftieth anniversary of his taking his doctor's degree. In spite of his absence addresses, floral offerings, and official and private congratulations rained into his house all day. Of these, perhaps, the most interesting is the renewed diploma of the Berlin medical faculty, in which Virchow's unceasing efforts for the advancement of natural science and medicine in all their branches, his fundamental discoveries in pathology and pathological anatomy, and his untiring work in the service of suffering humanity and public health are spoken of, and he is styled "Princeps Medicorum," and a light and ornament of the Berlin University. The *Berliner klinische Wochenschrift* has issued a special number, entitled *Rudolf Virchow: his Work in Medicine, Hygiene, and Anthropology.* Waldeyer gives an account of what Virchow has done in the domain of anatomy, history of development, and zoology; Von Rindfleisch in that of pathology and pathological anatomy; Hueppe in that of public hygiene and the knowledge of infectious diseases; Bastian and Bartels join in sketching his work in anthropology, ethnology, and primæval history. The President of the Berlin Municipality, Dr. Langerhans, relates what Berlin owes to Virchow in the way of practical hygiene; B. Fraenkel writes of his activity in medical societies, especially in the Berliner Medizinische Gesellschaft; and Veit adds his note to the full chord on behalf of the Obstetric Society. The Berliner Medizinische Gesellschaft has determined to proclaim Virchow honorary president at its meeting this week, when he will be present.

Professor von Helmholtz has happily recovered from the effects of the accident which was mentioned in the British Medical Journal last week, and he was able to return to his Charlottenburg home on October 23rd, accompanied by his wife and daughter, who had come to meet him at Bremen.

Two new clinics, affiliated to the Charité Hospital, are to be opened in the course of the next few weeks. The one is an ear clinic, and is to be directed by Professor Traubmann; the other is for nose and throat diseases, and will have Professor B. Fraenkel as director.

Medical Magistrate.—Mr. Charles Dorrington Batt, M.B., of Witney, Oxfordshire, has been placed on the Commission of the Peace for that county.

SHEFFIELD.

The Coal Strike.—Ambulance Classes.—Abscess of the Liver produced by Needles.—Typhoid Fever.—Alleged Starvation of a Child.

The long-continued strike in the coal trade is causing very widely spread distress, and is thus of interest medically. The effects are by no means confined to the colliers, but workers in the iron and other trades are, in consequence of the scarcity and high price of coal, either put on short hours or are out of work altogether. It is anticipated that during the coming winter distress will be very great.

The Centre of the Ambulance Association for this city continues its work, and at the recent annual meeting it was mentioned that since the formation of the centre 5,651 certificates had been earned. The classes during the last year had been attended by 195 men and 102 women.

An inmate of the Wadsley Asylum died recently from swallowing needles. She had been an inmate for about a year, and as to when she swallowed the needles, before or since her detention, there was, of course, uncertainty, but it is clear that some time must have elapsed. There was an abscess of the liver due to the presence of three darning needles and one smaller needle, which were found partly in the liver. Another darning needle was in the abdominal cavity, but did not appear to have caused much damage. The woman worked with others at sewing, and may have got the needles then. She was known to have swallowed a thimble, but no trace of it was discovered.

Whilst the Medical Officer for Greasborough was able to report a decrease of typhoid fever in his district, the Medical Officer for the adjoining township of Rawmarsh testified to the presence in his district of several cases. They were confined to a small area, and the delimitation strongly pointed to local insanitary conditions as a cause.

The Society for the Prevention of Cruelty to Children has taken up a case of starvation of a child. The medical evidence testified to this as having occasioned the infant's death at the age of 13 months. The father was proved to be in the receipt of good wages, earning some weeks as much as 54s. The father and mother were committed on the coroner's warrant to the assizes on a charge of manslaughter.

CORRESPONDENCE.

CORROSIVE SUBLIMATE IN PUERPERAL SEPTICÆMIA.

Sir,—Dr. C. R. Illingworth, in the British Medical Journal of October 21st, writes: "It is a matter worthy of note that at the time Dr. Barnes, Dr. Cullingworth, and others at the Newcastle meeting, as reported in the Journal of September 16th, were extolling corrosive sublimate as used by Tarnier, that gentleman had announced his resolve never to use the drug again, for the very valid and important reason that it had caused eighteen deaths—two from vaginal and sixteen from intrauterine injections."

May I suggest to Dr. Illingworth that he should read my address more carefully? This is what I said: "The bichloride of mercury, so much extolled by Tarnier, and which has given him and others such brilliant results, has also its dangers. Cases of poisoning by it are not rare. It can hardly be trusted in the hands of midwives or nurses. Some definite rules as to the strength and modes of using it should be rigidly enforced. Hofmeier and Auvard observed that the presence of nephritic complication greatly increased the danger of using corrosive sublimate."—I am, etc.,

Liss, Oct. 21st. Robert Barnes.

THE TITLE OF "DR."

Sir,—I take no interest whatever in this perennial blatter about titles, but, as my name is mentioned by one of your correspondents in associated reference to the Medical Defence Union, will you allow me to say that the Council of that organisation has often decided to interfere in no kind of way in questions of professional titles? Personally I regard the prefix "Dr." applied to a medical practitioner as having gradually and imperceptibly become a courtesy title only.

implying that the person so addressed practises physic, and giving little or no indication of particular qualification. I am in the habit of addressing all my professional brethren as "Dr." except in those cases (consulting surgeons) where I know the title is personally distasteful.—I am, etc.,

Birmingham, Oct. 23rd. LESLIE PHILLIPS.

PRESCRIBING CHEMISTS.

SIR,—Dr. Garrett Horder's letter in the BRITISH MEDICAL JOURNAL of October 21st hits the right nail on the head.

The want is "united action." We have three bodies receiving large revenues from the medical profession and the pharmaceutical chemists, neither of whom seem to be disposed to act in an effective manner. Then there is the Medical Protection Society and kindred voluntary associations with limited funds at command, and as Dr. Horder justly says: "not established for that purpose," but to defend their members when attacked.

If the General Medical Council and the other societies will not undertake these prosecutions, then let them subscribe handsomely annually to the fund proposed to be established and administered by the Council of this society, and let the other governing bodies do the same. The General Medical Council was not established to hoard wealth, but to safeguard the interests both of the public and the profession, by seeing first that men entering the medical profession were properly instructed before receiving a licence to practise, and secondly, that when qualified to practise, they should, like lawyers, be readily distinguished by the public from unqualified practitioners.

I believe the General Medical Council has thousands of pounds at its command, derived from the hard earnings of the profession. Supposing they were to give £500 or £1,000 as a start to the fund, and a handsome subsidy each year providing the work is well done, probably the other bodies would follow suit. With small but well husbanded means we have done great public service; with reasonable funds at our command much more good work can be done.—I am, etc.,

GEO. B. MEAD,

October 21st. Honorary Secretary, L. and C. M. P. S.

SIR,—On reading the letters on this subject in the BRITISH MEDICAL JOURNAL of October 21st, I was reminded of a paragraph which I noticed some time ago in Goodall's *Historical Account of the Royal College of Physicians* (London, 1684). I therefore searched it out, and subjoin a copy, feeling sure that it will make some of your correspondents bewail the degeneracy of our days:

"Mr. Holland, an apothecary, was charged for practising physick upon several persons, which being proved, he was fined 5£, and ordered to be forthwith imprisoned without present satisfaction given to the College. But he continuing contumacious, all the Members of the College were prohibited writing of bills to his shop, or making use thereof, untill he had purged himself *de non exercendâ medicinâ*." (p. 375).

Needless to say, after such an official boycotting, the contumacious chemist knuckled under.

In your current number, after a lapse of more than two centuries, "F.R.C.S." is advising the same plan.—I am, etc.,

Cromwell Road, S.W., Oct. 21st. PHILIP D. TURNER.

SIR,—I know myself of chemists who do not stop at prescribing over the counter, but have a "consulting room," extract teeth (no knowledge of anatomy or dentistry is apparently required for this), treat surgical cases, apply bandages, etc., and have a regular round of visits; and for all these various services charge fees which were I to charge would probably be called exorbitant (ext. cerebri conc. counts for nothing with many folk), yet in the face of all this our profession does nothing. I believe I am correct in saying that on the Continent no one can obtain medicine without a prescription from a qualified medical man; the sooner this system is adopted in England the better for us one and all, and I see no reason why it should not be if our profession unite and try to obtain the necessary legislation for its remedy. Else if "prescribing chemists," "quacks," etc., keep on progressing at their present rate, there will be little work left for "M.D.," "Dr.," or "Mr.," to do in the future.—I am, etc.,

October 23rd. A MEMBER.

SIR,—I have read with interest the numerous letters in reference to prescribing chemists, and perfectly endorse the sentiments expressed in the BRITISH MEDICAL JOURNAL. In and near this immediate neighbourhood the illicit practice of chemists prescribing is carried to a very great extent. In my experience it is a dangerous practice, and fatal mistakes are constantly occurring. Not having the medical and surgical training, chemists must undoubtedly be incompetent of diagnosis—let alone treatment—therefore instances such as following are the rule, and not the exception: A medical practitioner is called to see a patient, finds him advanced with acute croupous pneumonia; on being questioned, he has been treated for three or four days by a chemist for an ordinary cold and biliousness with perfect nonchalance. Another, where a girl is treated for a simple inflamed knee, and allowed to do her work for four days, feeling all the time terribly ill. When seen professionally the patient was found to be suffering from acute rheumatism complicated with pericarditis. Ordinary counter prescribing of chemists is bad enough, but when a medical man's attendance is completely ignored and the preference given to chemists, then it is time something were done. Instance two ladies ill in bed in the same house, very bad with colds and bronchitis for a week or more, treated by a neighbouring chemist, who obtained all his information such as could be brought by an intelligent messenger, but no doctor was consulted at all.

Correspondence alone cannot prevent such "trading." I would suggest two things: (1) Medical practitioners, one and all, should condemn severely every case of such prescribing that comes under his notice, not only for the sake of the public, but to retain the dignity of the medical profession. (2) When a case of death occurs from such prescribing, then the coroner at an inquest should censure the chemist and make an example of him, as was done only recently by the Lambeth coroner. By working universally and prompt in action no doubt the remedy required will soon be effected.—I am, etc.,

October 23rd. M.B. AND C.M.

SIR,—I have read from time to time in the medical journals letters and articles on the above important subject, and I am glad to see that it has once more come up for discussion. But, up to now, in spite of all the correspondence which the subject always calls forth, I have never seen any satisfactory suggestion for the remedy of this growing evil. And it seems to me that the chief reason why we have so far failed to solve the difficulty is that medical correspondents always seem to discuss the question from the same standpoint, and to entirely ignore the converse arguments.

All medical men must agree that the custom of prescribing by chemists is injurious to the profession and detrimental to the interests of the public; but it is a very old grievance (which probably originated in the days of apothecaries and barber-surgeons), and if we would remove it we must go straight to the root of the evil and ascertain the cause of its continuance at the present day. But we must bear in mind that there are two sides to every question. In the first place, a chemist's legitimate business is to sell drugs and other articles appertaining to his calling and to dispense physicians' prescriptions. And we complain that in addition to doing these things he prescribes. In other words, he trespasses upon the domain of the physician.

But let us for a moment look at the question from the chemist's point of view, and ask ourselves the question, Do physicians ever trespass upon the domain of the chemist? and the answer must be, Certainly they do. There are lots of places, not only villages but towns, in which all the medical men dispense their own prescriptions. When that is the case, the very *raison d'être* of the chemist is gone; and what is he to do? He cannot be expected to live on the sale of tooth brushes and patent medicines. "Live and let live" is an excellent motto; and if medical men so overstep the bounds of their profession as to deprive the chemist of his legitimate means of earning his living, they must not

grumble if he retaliates by "paying them back in their own coin."

Of course, in many country places, where there is not a chemist within some miles, it is absolutely essential that the doctor should do his own dispensing. But in towns, where there are plenty of chemists, it is not only unnecessary for doctors to dispense, but it is unjust to the chemists and is contrary to the interests of the public, inasmuch as it is an inducement to the chemists to prescribe. Therefore I maintain that, in the great majority of instances, medical men have only themselves to thank for this very evil which they are clamouring to stamp out.—I am, etc.,

J. K. Kinsman Benjamin, M.R.C.S., L.R.C.P.

Ealing, Oct. 23rd.

Sir,—Will you kindly allow us to point out to your readers that the so-called "chemist" mentioned in the letter of Dr. T. Garrett Horder, of Cardiff, as having been severely censured by the coroner, possesses no claim to the title, inasmuch as his name does not appear upon the *Register of Chemists and Druggists* kept by the Pharmaceutical Society. On the other hand, we are informed that this man belongs to the class of unqualified medical practitioners who in this case, as in many others, thus tend to bring the name of "chemist" into disrepute.—We are, etc.,

John Munday,
Local Secretary, Pharmaceutical Society.
Alfred Coleman,
Deputy Local Secretary, Pharmaceutical Society.

Bloomsbury Square, W.C., Oct. 25th.

INDIAN HEMP AND INSANITY IN EGYPT.

Sir,—I have read with interest the letters on the above subject lately appearing in the British Medical Journal. It has seemed to me a strange thing that in Egypt the natives should have the opportunities of obtaining cannabis limited as far as possible; and yet, as "Pyramid" well puts it, "be driven into the clutches of the *baccals*, who retail the vilest alcoholic compounds."

The towns and most villages of Upper as well as Lower Egypt possess one or more wineshops usually situated in a busy quarter, and kept by Greeks generally, duly licensed to retail these vile alcoholic compounds. By reason of these places, the natives are gradually being taught to break their religious vows, and the place of haschisch is "being taken by a fiend a hundredfold more potent for evil."

My experience has been that the haschasch is a harmless, nervous man as a rule. He obtains his cannabis secretly in some native smoking *café*, and, beyond an individual mental effect, the evil resulting is usually some hours' neglect of his work. He is not often the cause of "noisy behaviour or rioting in the bazaars." What Dr. Ireland says of the evils of cannabis may be said many times over as regards alcohol as sold in Egypt.

If in our zeal for temperance we attempt to stamp out a native vice, we should be careful that in doing so we do not allow its place to be taken by an evil having so far-reaching and destructive effects as alcohol has repeatedly proved to have amongst a people unaccustomed to its use.—I am, etc.,

Harrogate, Oct. 24th. A. W. Hinsley Walker.

Sir,—Dr. Sidney Davies is convinced that "mania is one of the most frequent diseases of the nervous system in Egypt," but he does not mention any grounds for this sweeping assertion. If maniacs are so numerous in the country, how is it they escape observation? A raving madman is not easily restrained or kept in concealment; and the fact remains unassailed that one sole lunatic asylum, with an average of about 300 inmates, suffices for all known cases. Haschisch may, or may not be guilty of all that is laid to its charge, but, as logical people, let us have detailed facts in support of the accusations against it, and not mere *ex parte* statements.

I think it is extremely hard on a simple unoffending people—whom I know well—that quite as a matter of course, and without an atom of proof, they should be branded as guilty of "excessive venery and unnatural practices." I do not believe that in these respects they are any worse than we English people are.

The practical side to the question is that, while in deference to a mistaken idea regarding its noxious qualities, Indian hemp is sternly interdicted in Egypt; the *fellahin*, who insist on having a stimulant or a narcotic of some kind, are being driven into drunkenness. The well intentioned efforts of misinformed philanthropists are paving the way to certain destruction.

Dr. Davies seeks to strengthen his position by reference to mental aberration in the English army of occupation, and on the customary *post hoc* principle lays the blame on alcohol as "the usual exciting cause" of the affection. Now military lunacy is a very peculiar complaint, of which I happen to have had some experience. Apart from *delirium a potu*, which is a totally different thing, I am led by observation to believe that drinking has nothing whatever to do with insanity in the army. One theory is as good as another when both lack direct proof, and mine is that soldiers go mad (temporarily for the most part) in consequence of idleness. Their minds are not sufficiently cultivated to enable them to enjoy *otium cum dignitate*, and their bodily employment on foreign service is reduced well nigh to the vanishing point. They brood during their pernicious leisure time on real or fancied grievances (the latter most frequently), till their cerebral balance becomes upset. Of late years attempts have been made to provide healthy occupation for our troops abroad, but much—very much—still remains to be done in this direction. A good deal, moreover, depends on the capabilities of the station where the corps is quartered. In some it is next to impossible, for climatic and other reasons, to find suitable employment and recreation; but this is not the case in Egypt. The climate is excellent, admitting of outdoor exercise throughout the year, and there certainly ought not to be the excessive loss of service from mental affections mentioned by Dr. Davies.

In this connection it must also be remembered that amongst military lunatics there are always numerous malingerers.—I am, etc.,

October 21st. Pyramid.

THE MEDICAL AND THE DENTAL PROFESSIONS.

Sir,—In the British Medical Journal of October 21st there appeared a report of Mr. Ernest Hart's address upon the "Medical Profession, the Public, and Medical Etiquette." The moment is therefore opportune to bring forward a question with regard to which the attitude adopted by the medical profession has been wholly unsatisfactory and quite at variance with that code of ethics which Mr. Hart so justly commends.

You, doubtless, will anticipate that I am referring to the treatment received by the dental profession as a whole from the medical profession as a whole. Anyone acquainted with the process of evolution which has produced the medical profession as it is now constituted cannot but wonder at the lack of sympathy that has been manifested by the mother profession to its infant offspring during its early struggles—struggles which, in many important features, bear close resemblance to those of its parent in the initial phases of the latter's existence. It is probable, however, that much of the indifference with which the efforts of the founders of the dental profession were received took origin from the ignorance of their opponents of the great influence of dental surgery as a factor in the maintenance of the general health of the public, an ignorance that a better knowledge of the interdependence of the various physiological functions, and a deeper insight into pathological processes, have since done much to dispel.

The unremitting and unselfish efforts of those who succeeded in raising to the dignity of a distinct profession that branch of surgery to which they had devoted their lives, and of those recruits who have entered that profession by the educational channels which its founders provided, have proved the most effectual means of demonstrating the necessity for its existence. The recent restrictions placed by the General Medical Council upon the registration of foreign degrees, and the regulations passed by it anent "covering" in dentistry, are welcome indications of the desire on the part of that body to foster a true professional spirit among its dental *protégés*.

An appeal will shortly be addressed to the General Medical

Council, urging it to exercise its power to declare advertising in dentistry "infamous," and to strike off from the *Register* such persons as are guilty of that glaring breach of professional etiquette. With this attempt on the part of the dentists to vindicate their professional standing all right-minded individuals cannot but sympathise, and it is to be sincerely hoped that the medical press will take this opportunity of atoning for the apathy with which it has hitherto regarded an honest endeavour to rescue from the hands of the ignorant and unscrupulous an important department of the healing art, and by cordial co-operation will exercise its vast influence to help forward a measure that will do much to promote the public welfare.—I am, etc.,

Scarborough, Oct. 23rd. THOS. E. CONSTANT.

THE ST. JOHN AMBULANCE ASSOCIATION AND ITS DOCTORS.

SIR,—Your correspondents are in error. The Association is not wealthy and is not able to pay lecturers. At the same time, I believe that lecturers who are paid do their work far better than unpaid ones, and, therefore, lecturers should insist on payment from the class itself, or from a county council grant. Many of the best lecturers I know, those whose classes have given the most satisfaction, have been paid, and have had a substantial testimonial too. To teach a class well means a large expenditure of time and thought, and often some interference with more strictly professional duties; the lecturer should remember this. It should not be forgotten that giving a couple of courses of ambulance classes generally do the lecturer more good than anything else; they teach him to arrange his thoughts, and they require him to look up many matters which were slipping from his memory. Nor is every medical practitioner competent to give a course of ambulance lectures. Many men are quite helpless when they attempt to teach and lecture, and do not cover themselves with glory; other men, though able practitioners, are not cut out for teachers any more than they are for the stage or for literature. But a good lecturer should be paid, for he is worth a fair honorarium, and he does his work all the better for it, while his pupils value more highly what has cost them something.—I am, etc.,

Wimborne, Oct. 21st. ALFRED J. H. CRESPI.

THE SYMPATHETIC IN GRAVES'S DISEASE.

SIR,—In the discussion on Mr. Maude's paper at the Medical Society on Monday last I am reported to have said that if Graves's disease was amenable in some cases to intranasal treatment it could hardly be dependent upon lesions of the sympathetic. This is the very opposite to what I intended. I regard the possibility of benefiting some cases of Graves's disease by intranasal treatment as pointing to the sympathic origin of the disease in these cases.—I am, etc.,

Wimpole Street, Oct. 23rd. F. DE HAVILLAND HALL.

ABDOMINAL SECTION FOR ABNORMAL ADHESIONS.

SIR,—In your report of my paper at the last meeting of the Clinical Society, I notice it is stated that peritonitis occurred in both cases. This is a little misleading. What I meant to say was that peritonitis had occurred previous to operation in both cases, and that this was the cause of the adhesions.—I am, etc.,

Leeds, Oct. 24th. A. W. MAYO ROBSON.

NAVAL AND MILITARY MEDICAL SERVICES.

THE NAVY.

THE following appointments have been made at the Admiralty:—TIMOTHY J. CROWLEY, Surgeon, to the *Barham*, October 18th; EDWARD H. M'SHERRY, Surgeon, to Haulbowline Hospital, October 18th; H. W. MACNAMARA, Surgeon, to the *Bramble*, for the *Cormorant*, October 24th; H. W. FINLAYSON, Surgeon, to the *Royal Sovereign*, October 24th; A. M. PAGE, Surgeon, to the *Barracouta*, November 7th; E. J. MORLEY, Surgeon, to the Plymouth Hospital, November 7th; J. H. THOMAS, Surgeon, to the *Tyne*, November 7th; H. S. ARCHDALL, Surgeon, to the *Ruperl*, November 7th; E. B. PICKTHORN, Surgeon, to the *Durham*, November 1st.

ARMY MEDICAL STAFF.

SURGEON-LIEUTENANT-COLONEL F. G. ADYE-CURRAN, M.B., F.R.C.S.I., retires on retired pay, October 25th. He entered the service as Assistant Surgeon, October 1st, 1868; became Surgeon, March 1st, 1873; Surgeon-Major, April 6th, 1881; and Surgeon-Lieutenant-Colonel, from April 6th, 1889. He has no war record in the *Army Lists*.

Surgeon-Major ERNEST F. SMITH retires from the service receiving a gratuity, October 25th. He was appointed Surgeon, March 6th, 1880, and Surgeon-Major twelve years thereafter.

Brigade-Surgeon-Lieutenant-Colonel C. A. ATKINS, on arrival from England, will take over the administrative medical duties of the Poona District, Bombay Command.

Surgeon-Captain W. KELLY, who is serving in the Bengal Command, is granted leave to England for six months on medical certificate.

Surgeon-Major F. B. MACLEAN, serving in the Madras Command, is granted an extension of leave from September 26th to November 25th, on medical certificate.

INDIAN MEDICAL SERVICE.

SURGEON-CAPTAIN F. WYVILLE-THOMSON, M.D., is transferred from the medical charge of the 22nd Bengal Infantry, to the medical charge of the 3rd Bengal Cavalry.

Surgeon-Captain C. H. BEDFORD is transferred from the officiating medical charge of the 13th Bengal Lancers, to the medical charge of the 21st Bengal Infantry.

Surgeon-Captain H. B. LUARD is appointed to the medical charge of the 22nd Bengal Infantry.

Surgeon-Captain J. MORWOOD, Bengal Establishment, Civil Surgeon of Sultanpore, is appointed to officiate as Superintendent of the Central Prison at Benares.

Surgeon-Captain E. R. DA COSTA, Madras Establishment, who dates as Surgeon-Captain from April 2nd, 1881, is promoted to be Surgeon-Major, September 12th.

Surgeon-Lieutenant-Colonel J. M'CONAGHEY, Bengal Establishment, Civil Surgeon of Allahabad, is appointed to hold visiting medical charge of Futtehpore District in addition to his other duties.

Surgeon-Lieutenant-Colonel D SINCLAIR, M.D., Madras Establishment, is promoted to be Brigade-Surgeon-Lieutenant Colonel, May 13th. He was appointed Assistant-Surgeon October 1st, 1869, and Surgeon-Lieutenant-Colonel October 1st, 1889.

Surgeon-Lieutenant-Colonel JOHN NORTH, Madras Establishment, whose commissions as Assistant-Surgeon and Surgeon-Lieutenant-Colonel are also dated October 1st, 1869, and October 1st, 1889, respectively, is likewise promoted to be Brigade-Surgeon-Lieutenant-Colonel from July 1st. He served in the Afghan war in 1880 (medal), and with the Burmese Expedition in 1886-87 (medal with clasp.)

The undermentioned officers have leave of absence as specified:—Surgeon-Major J. C. C. SMITH, Bengal Establishment, Civil Surgeon of Berdaun, for seven months from October 7th; Surgeon-Major R. JAMES, M.B., Madras Establishment, 3rd Lancers, Hyderabad Contingent, for six months on medical certificate; Surgeon-Major R. MANSER, M.D., Bombay Establishment, 1st Physician, Jamsetjee Jejeebhoy Hospital, Bombay, privilege leave for three months from September 24th.

The *Calcutta Englishman* announces the death at Darjeeling of Brigade-Surgeon-Lieutenant-Colonel STEPHEN COULL MACKENZIE, M.D., of the Bengal Establishment. He was appointed Assistant-Surgeon March 31st, 1866, and Brigade-Surgeon-Lieutenant-Colonel August 13th, 1891. For many years Dr. Mackenzie was head of Campbell Hospital, and he had for a considerable time past been Police Surgeon of Calcutta.

The Medical Corps in India, which used to be designated the "Army Hospital Native Corps," is now styled the "Army Hospital Corps," and is divided, as at home, into companies distributed in the several districts.

ARMY MEDICAL RESERVE.

SURGEON-CAPTAIN EDWARD CURETON is promoted to be Surgeon-Major, October 25th.

THE VOLUNTEERS.

SURGEON-CAPTAIN R. C. LUCAS, M.B., and Surgeon-Lieutenant J. MARTIN, 4th Volunteer Battalion Queen's Royal West Surrey Regiment (late the 8th Surrey), have resigned their commissions. The commission of the former dates from July 15th, 1882; that of the latter from December 3rd, 1887.

Mr. GEORGE M'INTYRE, M.B., is appointed Surgeon-Lieutenant to the 4th Volunteer Battalion Scottish Rifles (late the 4th Lanarkshire), October 21st.

TRANSPORT OF THE MEDICAL SERVICE IN WAR.

USELESS WITHOUT TRANSPORT sends us the following notes: In each division of an army corps there are two bearer companies and three field hospitals, for the transport of which about a company of the Army Service Corps is required, consisting of 158 men and 234 horses; for a complete army corps three such companies are needed, or 474 men and 702 horses. But the Army Service Corps has now been given a combatant status, and as such it is presumed can have no right to drive or ride the horses of ambulance waggons under the neutral badge of the Red Cross. It would therefore seem necessary to develop drivers of medical transport from the Medical Staff Corps itself, which could be done, not only without difficulty, but with much advantage. For our normal two army corps 940 men and 1,400 horses are required for medical transport; the horses could be found from the remount department, but a peace cadre of men to be refunded in war is an absolute necessity. For this purpose the addition of 500 men to the Medical Staff Corps would be an immense help for many purposes in peace, and enable completely manned and horsed field hospitals and bearer companies to be kept up at such stations as Aldershot, Woolwich, and Dublin. Horses for officers would be supplied from the remounts, as in the Field Artillery and Army Service Corps. If some medical commanding officer could organise a complete company of the Volunteer Medical Staff Corps on these lines it would be a splendid start point for the

regulars as well as the volunteers. The very sight of such an equipped company would at once open the eyes of the public to our pressing necessities. Would that our chiefs would take the matter up!

*** Our correspondent's notes on these and kindred questions are always instructive and suggestive. Medical transport in war is undoubtedly in a most chaotic and unsatisfactory condition; and judging from reports on the late manœuvres not the smallest effort seems made to place it on a proper footing: it is deliberately given the go-bye. We should like to see the question fully discussed raised by our correspondent as to what would be the position of combatant transport, namely, the Army Service Corps as now constituted, in relation to the neutral Red Cross when attached to the medical department in the field.

SHALL WE COMPROMISE WITH THE WAR OFFICE?

Compromise propounds this question as follows: 1. Titles. Mr. Campbell-Bannerman takes his stand on the title showing the professional status, why not then adopt the Italian system of double titles, so much better than ours, namely, Lieutenant-Surgeon, Captain-Surgeon, and so on? It is merely a verbal change, but means much. 2. Foreign service. As to six years in India, let the compromise be a five years' tour to all officers of surgeon-lieutenant-colonel rank. These officers are old, have already had much foreign service, and have families growing up at home; to them a six years' tour is in every way trying. Military lieutenant-colonels only serve four years in India. This would leave the question of the junior ranks still pending. 3. Corps organisation. Why not copy the Volunteer Medical Staff Corps? Its officers' names are borne in two places in the *Army List:* in the general list of the Volunteer Medical Staff, and in the corps list at the end of the staff list. We could then be shown in divisional or district lists at home and abroad, which would be a step towards corps incorporation. Let us remember we have never "evoluted" except by compromise.

THE NETLEY MEDICAL SCHOOL.

Surgeon-Major writes: The kind of instruction given at Netley in bearer company and field hospital work may be judged by Surgeon-Major Hayes's implied statement that such a simple adjunct as an ambulance wagon is not always available. The instruction in these points at Aldershot was reduced one half, under the belief that half the drill was to be taught at Netley. But although the latter is an excellent place for instruction in medical and surgical military work, Aldershot is the place for drill. Let Netley and Aldershot each stick to its own proper training function.

The letter of Surgeon-Major, late Medical Staff, on the different treatment accorded to combatant and medical officers in the matter of Indian sick leave, is duly noted for general reference. But the individual cases he cites and names are altogether too personal for specific comment in our columns.

MEDICO-LEGAL AND MEDICO-ETHICAL.

CENTRAL CRIMINAL COURT, October 24th.

Before the Common Serjeant (Sir Forrest Fulton) and a Jury.

Heere Shah *alias* Kream Bocesh, 26, Khair Deen *alias* Cade, 25, Shahah Bedean, 28, and Karim Bakhsh, 36, Indian oculists, were indicted for an alleged conspiracy to obtain money by false pretences from divers persons with the intent to defraud.

The prosecution was conducted by Mr. Mathews, Mr. Bodkin, and Mr. Muir. The prisoners were defended by Mr. Jarvis, Mr. Bovill Smith, Mr. Warburton, and Mr. Ball. The prisoners each pleaded not guilty.

Mr. Charles Mathews, in opening the case, said the prosecution was conducted at the instance of the London and County Medical Protection Association. The men were charged with conspiring to defraud a number of poor people by pretending that they had requisite skill in curing diseases of the eye, when in fact they could not cure the diseases referred to, and further with obtaining money by false pretences. Heere Shah was the principal operator, he being assisted in a more or less degree by the other prisoners. These men between the summer of last year and April of this year carried on a business which they were pleased to call that of oculists in Richmond, Hammersmith, and Wandsworth, styling themselves "Indian oculists of great celebrity." There were seven specific charges against the prisoners. The first case was that of Mrs. Ralph, who in 1890 was an out-patient of St. Thomas's Hospital, where she was under the care of Mr. Nettleship. She suffered from an affection to her sight which made her eyes practically useless. In 1892 she saw a testimonial speaking in high terms of Kream Bocesh's skill and of the marvellous cure which he had effected, and she went to him. The learned counsel then detailed the circumstances of the case which will appear from the evidence that was called.

Mrs. Sarah Ralph said that in June of last year, owing to her eyesight being defective, she went to consult the defendants. At that time she could see with the right eye a little, but not properly and clearly, and could only distinguish light from dark with the left eye. She went to No. 1, Park Villas, Merton Road, Wandsworth, where she saw Heere Shah and Shahah Bedean. Heere Shah examined her eyes. He rubbed some stuff on a slate, and put it in her eye on an instrument like half a knitting needle. The stuff was put in both eyes. Nothing was said on the first occasion as to why he was putting it there, or what was the matter with the eyes. She was told to go again on the same day, when the same thing was repeated, and some more of the stuff put in the eyes. She went daily for three days. On the third day Heere Shah examined the eye with a handglass, and told her he could cure her in a short time. He said she must pay a guinea down and ten shillings a week afterwards. After the examination Heere Shah cut her temples. She did not see the instrument that he used. After it was done plaster was put on each temple. Some more stuff was put in the eye, which hurt her very much, causing smarting. She continued to go every day twice, week by week, and stuff was put into her eyes daily. On those daily visits she always saw the same two men, Heere Shah and Shahah Bedean. She went on July 15th. They were both present. On that occasion an operation was performed on the right eye. Her husband was present. She could not see who it was operating, but they were both there. One or two hooks, she could not say for certain which, were put in the skin of the eye, and the skin was cut. Some wet wadding was first placed on the eye, and then the hooks were inserted. The operation did not cause any pain. After the operation wadding was placed on the eye, and a bandage over all. She was not told how long to keep on the bandage. Going again the next day nothing was done to the right eye, but some stuff was put in the left eye. She made constant visits until August 14th. On that day she was accompanied by her husband. She saw Heere Shah, Shahah Bedean, Khair Deen, and a fourth Indian. She had gone there previously in the morning, when she saw Shahah Bedean, but he said that as Heere Shah was not there she had better come again. On going in the afternoon wet wadding was put over the left eye by Heere Shah, who then pinched a round lump from underneath the upper eyelid with his fingers. She could not state what the lump was. The operation was very painful. By that date the bandage had been taken off the right eye, and a shade placed over it. After the second operation she went to a convalescent home, and did not return for about a month. She was sent there by her friends, as she was suffering at the time from great debility and weakness. On returning she went to the address given by the defendants at Verandah House, Richmond. That was in October. She then saw Heere Shah. He suggested a third operation, but she said that she could not go on with his treatment. She had no money, and her husband was ill at the time and had no work. Her husband was present with her. Heere Shah asked when she could come under his treatment again. He examined her eyes with a glass, and said God had given her bad sight, but he could give her good sight. He said he would take her for 5s. a week. She saw him once a week for the next two weeks only. On one of those occasions Khair Deen cut her right temple, Heere Shah being present. Cutting the temple caused much pain. Altogether she had paid the defendants £5 11s. The money was paid mostly to Heere Shah and to Shahah Bedean when at Merton Road. She was now nearly sightless with her right eye; it had got much worse. The left eye was getting worse every day. It commenced to get worse soon after the second operation and whilst she was at the Convalescent Home. It did not trouble her at all before that. Her sight had altered for the worse since the operations.

In cross-examination she said she could see a little with the left eye. When she first went to the defendants she had something the matter with both eyes. Her eyes varied. Before she went to the defendants sometimes she saw better with the left than with the right, and the left eye was the best now. What she complained of was that she was not better. She was not treated at the Convalescent Home for her eyes. Her husband had written a testimonial on July 5th in favour of the defendants. She thought that she was gaining sight after the first operation until the second operation with the left eye on August 14th. That second operation consisted in taking something out of the eyelid. She did not know that it was a tumour. She did not derive any benefit from the operation. She could see with the left eye better now, but when she first went to the defendants she could not see so well with the left eye as with the right eye, because the eyes varied so. She did not remember the testimonial that was signed by her husband being read over to her, and was not aware that he was going to sign it. Heere Shah talked her husband into giving the testimonial. She never heard of any second testimonial being signed. She received no money for it or any remission of payments. Before going to the defendants, she had been under medical treatment, and had not got any better. After going to the Indian doctors, some little time before either operation, she could see better than formerly, and there was also some improvement between the operations.

In re-examination by Mr. Mathews, she explained that between June 15th and the first operation the sight rather improved in both eyes. The first operation was upon the right eye, which was afterwards bandaged for about fourteen days, but when the bandage was removed, it was the same as before. After the operation upon the left eye, the bandage was kept on for about eight days. It was in September whilst at the Convalescent Home that they both got worse.

Charles Ralph, the husband of the last witness, said his wife had been affected in her sight for some time past. On July 15th he went with her to the address at Merton Road, Wandsworth. He saw Heere Shah and Shahah Bedean. There were other Indians there, but he did not recognise them. His wife was placed in a chair. They took a powder from a bottle, placed it in a glass of water, put a bit of wadding in the glass, and placed it on the eye. Heere Shah did that. After being on the eye a few minutes it was removed. Heere Shah and Shahah Bedean had each a hook in their hands. When the wadding was taken from the eye the powder seemed to have drawn and puckered the skin of the eye, so that they could get hold of it with the hook. The hooks were put one in each corner of the eye, one being held by Shahah Bedean and the other by Heere Shah. Heere Shah held one hook in his left hand while he clipped the skin between the two hooks with the scissors with his right hand. It was an ordinary pair of scissors. The skin was cut right over the sight of the eye. It seemed to be taken right off all over the eye. A piece of skin was removed the size of a threepenny piece, and was held up on the hooks by Heere Shah. There were several patients in the room sitting round, and if they had wished they could have seen th operation.

The case was then adjourned to Wednesday.

WEDNESDAY, OCTOBER 25TH.

THE trial of these prisoners was resumed.

Mr. Charles Ralph continued his evidence. He said that after the operation his wife's eye was bandaged up and Heere Shah asked for a testimonial. He (witness) consented to give it after Heere Shah had told him that the eye was good. Witness then made out a testimonial, which was produced. On August 14th he went again with his wife. She then went through the same process at the hands of Heere Shah. Mr. Shahah Bedean lanced the upper eyelid right through, and forced something out which put the witness in mind of a lump of "lights," about the size of a filbert. That caused a deal of bleeding. The mass was taken away. Heere Shah gave him a piece of wet rag to wipe the blood off his wife's eye, whilst Shahah Bedean bandaged the eye up. Nothing was then said about a testimonial. He went once again with his wife to the prisoners at Richmond, but nothing was then done.

Cross-examined by Mr. Jarvis: He only signed one testimonial as far as he remembered. That was forced out of him by Heere Shah, as he refused to go on with the operation unless he (witness) gave a testimonial. That testimonial was in the main true. The second eye that was operated upon was not swollen before the operation. He might have exaggerated a little in saying that the lump taken out of that eye was as large as a filbert. His wife did not see the substance taken from the eye. Had he been in full work and able to pay he should have gone to the prisoners again, as they kept on saying the eye was improving, whereas in reality all the time it was getting worse. He could not swear he had not seen a second testimonial before the case was heard before before the magistrates at Richmond. He had made many complaints of the treatment of the prisoners. He took no steps to prosecute the men, and took his wife neither to the doctor or to the hospital.

Cross-examined by Mr. Ball: He did remember seeing a second testimonial about two months before the proceedings at Richmond. On July 5th Heere Shah said that if the eye failed to get better he might contradict it in the paper. The part of the testimonial which said that after six days' treatment she could see better was true. Up to the first operation she was able to go out without anybody taking her; it was during the last month or six weeks that her eye had been getting worse and worse. At the time he thought the first operation successful. It was carefully and skilfully done. He saw a little bit of skin removed from the right eye. It looked thick. After the operation it grew again. Heere Shah and Shahah Bedean were both present at the second operation. Shahah Bedean did the operation.

Re-examined by Mr. Mathews: His wife used frequently to go out by herself before the operation was performed.

James Russell, who was led into the witness-box, examined by Mr. Mathews, said he was a retired gas stoker living at Richmond. In 1889-90 he suffered from both his eyes. He could then see to go about by himself. He went to the Ophthalmic Hospital at Charing Cross as an in-patient for three weeks, and a year and seven months an out-patient. He was then under the care of a Mr. Macnamara. In 1891 he ceased to attend the hospital. No operation was performed whilst in the hospital. Whilst an out-patient he used to have medicine given him only. His sight kept getting gradually worse. Mr. Macnamara said that as the blood left the vessels at the back of the eye he would get blind. His disease was stated as optic atrophy. Unfortunately that opinion was verified in 1892, he had totally lost his sight. About the beginning of that year he could distinguish light from darkness, but by the summer of the same year he lost that power. In the summer of 1892 his notice was drawn to several testimonials which were read by his wife, and he determined to consult Mr. Heere Shah. His wife went with him. It was in the evening. The eyes were examined, and stuff was put in them. Witness was then told to come for three days, at the end of which period Heere Shah would be able to tell whether he could cure him. It was stated that there was no charge for the three days. On the third day he cut or scratched both temples and put blisters on. Before doing that he said, "I can cure you. You have beautiful eyes, and I can give you good sight." He said his fee would be a guinea for the first time, and 10s. a week after. Witness did not tell the oculist what Mr. Macnamara had said, but he did say, "I have been turned from the hospital as incurable, and I am totally blind." He paid the guinea on the fourth day. Heere Shah stated that he was suffering from a disease of the head which was coming down to the back of the eye, and when he could clear that away he would soon get his sight. He recognised the voice also of Shehah Bedean on the third day. He continued to pay the 10s. a week, sometimes going as often as twice daily. At Richmond, about November 22nd, the terms were lowered to 7s. a week by Shahah Bedean. He had constantly complained that he could not keep on paying. He paid 7s. for three weeks, and then it was lowered to 6s., which he paid for two weeks. All this time stuff was being put in his eyes. He took caster sugar and fresh butter, which he took up to the prisoners, and they mixed for him. Then he took pills and snuff. About Christmas of the same year he was told that his eye was ready for operation, and the fee would be 40s. His club advanced the money, which he paid to Heere Shah. The operation was performed on December 29th. Heere Shah and Khair Deen were present, as well as his wife and others. A hook was put in the bottom of the left eye and another at the top, and the skin was drawn up on to the ball of the eye and clipped with scissors. The pain was like dragging the eye out. He could feel the blood running down the cheek. There was no operation on the right eye that day. The eye was then bandaged up. He was to go again in a fortnight, which he did. The bandage was then removed, something was put in the eye, and it was bandaged up again. He continued to visit the prisoners until April, but no operation was performed on the right eye. The weekly payments ceased after the operation. The reason he ceased to go was that in April the prisoners left Richmond. In all he had paid £13 3s. for treatment, and he had been in pain with the left eye ever since the operation, and whenever he got a cold it was extremely painful. The stuff that was put in the eye caused pain. Up to the operation the left eye was not painful; indeed, he suffered no pain from the eyes from the time he left the hospital until he consulted the prisoners.

Cross-examined by Mr. Jarvis: Sometimes he had a little pain in the head, and that pain was lessened somewhat by the treatment he underwent at the hands of the prisoners. He went back afterwards to the same hospital to Dr. Hartridge, but he made no complaint of the treatment he had received from the prisoners. He could not tell how the prisoners examined his eye, he only knew what he felt.

Cross-examined by Mr. Ball: For some time after the operation he wore a shade, by direction of the prisoners, which seemed to increase the pain.

Jane Russell, wife of the last witness, corroborated her husband's evidence and gave further details of the operation. She stated that the operation caused a deal of bleeding, but her husband did not complain at the time. No receipt was given for the money she paid. Her husband's sight had been worse since the operation, and he had frequently complained of pain.

Cross-examined: She did not know that there was a thickness over the eye beyond the atrophy of the optic nerve. The men said "with the help of God" they could cure him. It was not because she was dissatisfied that the second operation was not carried out, as she had never complained of the result of the first.

A number of testimonials from the printed bills distributed by the prisoners were then read.

Alfred Parsons, of Hammersmith, a railway pointsman, was the next witness. He described an operation performed by Heere Shah upon his daughter at Richmond. He stated that she had only one eye. Some three years ago his daughter attended the Ophthalmic Hospital in the Marylebone Road. The sight of the remaining eye was bad. In June, 1892, he consulted the Indian, Heere Shah, as to his daughter's eye. It was stated that the eye could be cured, and he had to pay a guinea, and 7s. 6d. a week, which payments continued for nineteen weeks. He had never learnt the nature of the disease his daughter was suffering from. An operation was performed at Richmond on December 29th, 1892. Hooks were put in the corner of the eye and then the eyelid was turned up. He then got scissors and cut the skin off. He then put the skin on a piece of paper on the table. A guinea was paid for that operation. His daughter appeared to suffer great pain during the operation and very nearly fainted away. She had not improved in her eyesight one bit since the operation.

Cross-examined: He could not say what was the character of the skin removed from the eye; it was simply a piece of dead skin. He could not say that his daughter's eyesight was worse since the operation. He paid £12 10s. 6d. altogether. After the operation he noticed a little white speck on the eye, which had grown larger. The eye itself was not now quite so large as it was before the operation. He had made no complaint to the police or anybody.

Evelyn Parsons, daughter of the last witness, on whom the operation was performed, said one eye was removed at the hospital in Marylebone Road some five years ago. She was then informed that she was then suffering from keratitis. She left the hospital on her own accord. Witness then described the operation by Heere Shah on the 29th, stating that she suffered intense pain, and became stupefied. Since the operation her eye had become worse, but she could still distinguish light from darkness about the same as before. She had had two operations performed at the Ophthalmic Hospital on the right eye before the removal of the left eye. She was told the operations were iridectomy.

Cross-examined: There was a failure by the English surgeon to do any good to her eye. Both operations on that eye took place before the left was removed.

After the adjournment,

Frederick Turner was called, and said he was a stonemason, living at Twickenham. He had a son who shortly after its birth became blind. He was taken to the Westminster Ophthalmic Hospital, but no improvement resulted from that. Subsequently his attention was called to the testimonials of the Indian oculists, and he took his son, who was then 4 years old, to them. An operation was performed by Heere Shah on January 2nd. First of all a wet wadding was put on the eye, as he said, to deaden the pain. After that the boy began crying, and it was taken off. Heere Shah came then with an ordinary size sewing needle and white cotton, and commenced to push the needle through the eyeball, which seemed very hard, as he had to keep his finger on the other side of the ball to prevent it from moving round. He then drew the cotton into the eye. The child began to cry, and Heere Shah said, "It will be all right presently." He then came with an ordinary penknife, and began to sharpen it. He then took hold of each end of the cotton and commenced to saw the piece of the eye with the penknife. He succeeded after some few seconds in sawing a piece off the eye about half the size of a threepenny piece, and about as thick. It was very jagged. The little boy was screaming all the time, but there was no blood. The cotton remained in the skin that came off. He paid £2 2s. for the operation. Subsequently the charge was 10s. a week, which he paid from July to January, or in all £15 11s. The child's eye had been a great deal worse since the operation. There was now a great deal of discharge which had not occurred previous to the operation.

Cross-examined: He could not say whether there was a growth over the eye, but the lid could not be shut down. The film removed from the eye was a hard mass. Since the operation the lump in the boy's eye had become larger. He complained that he had had to pay a lot of money for nothing, and that it was a swindle. Dr. Macdona, of Twickenham, had attended the child for a short time after birth. He put some stuff into the eye and the boy got worse. Neither was any good done to the boy at the hospital.

Mrs. Turner, wife of last witness, corroborated, and produced the boy, the subject of the operation spoken to by the last witness. She stated that Heere Shah said that he would be able to cure the boy. The lad had to take pills, snuff, and something mixed in caster sugar. After the operation he was very bad indeed; she thought that he would have died. Every time the stuff was put into his eyes he seemed in very great pain; otherwise there did not seem to be any very great pain from the eye. Since she discontinued giving him the pills and snuff he had got on wonderfully.

Cross-examined: It was not true that the boy could now shut his eyelid easier thad before the operation.

By the Common Serjeant: She paid her money, not in order that the eyelid might be closed easier, but in order that the child might see.

Eva Stanley, who saw the operation performed on the boy Turner, nex

gave evidence. The piece that was cut off the child's eye by Heere Shah was handed to her, and she took it home to Mrs. Turner. The operation was a very painful one.

Thomas Gillingham, a labourer of Hammersmith, spoke to taking his sister to be treated by Indian oculists at Hammersmith, and subsequently at Richmond. She was totally blind in both eyes, and at Richmond Heere Shah said he would be able to cure her. On January 2nd an operation was performed to remove a skin from the eye. Heere Shah said the effect of that would be to restore her sight. Witness then described the operation, which was very similar in character to those previously described, except that afterwards the eye was painted black all round. He was dissatified with the operation in that the skin was not removed, but Heere Shah said that medicine would do that. Altogether he had paid £7, and his sister had derived no benefit from the treatment.

Cross-examined: His complaint against the prisoners was that they had not done what they said they would do. Heere Shah described the skin over the eye as cataract. All the operation performed was that he cut the eyelid open.

Eliza Gillingham, sister of last witness on whom the operation was performed, corroborated. At the Bristol Hospital she had had operations performed on her eye, but had received no benefit from it. She had also been to the Royal London Ophthalmic Hospital, Moorfields. Heere Shah told her that he could give her beautiful sight in her left eye. The condition of the eye was worse since the operation. She now had a feeling sometimes as if the eye was coming out, which she had not experienced before the operation.

Cross-examined: She had suffered for ten years from her eyes. She first went to Exeter Hospital and had an operation performed on the left eye. That did her no good. It was done by needles. They said it was a critical case and they could not cure her. Three years ago she was at Bristol Hospital and there three operations were performed. The operations there were interrupted by fever, but no advantage occurred to the sight from them. The Bristol operations were on the right eye. Subsequently to the operation by the Indians she went to Moorfields, but she did not tell Mr. Lawford there about her having consulted the Indians. Her complaint against the Indians was that they had promised to give her good sight and had not done so.

Mary Ann Bockett, of Richmond, another of the prisoners' patients, spoke of the treatment she had received. Her right eye, she said, was very dim. Shahah Bedean examined her and said she had beautiful eyes and could cure her. She had paid about £6 for treatment. The effect of the treatment at first was that the right eye got better and was better still, but something uncomfortable had come into the left eye. They said she had a disease in her head which must work out through the eyes before the dimness would disappear. After leaving the Indians she consulted Dr. Archer at the Royal Free Hospital, who prescribed glasses for her, and now when she wore the glasses she could see very well. She gave the Indians a testimonial three weeks after she had been to them, but it was put into the local papers in an altered form. It stated that she had been totally blind, and that was absolutely untrue.

Cross-examined: She may have told the landlady at Verandah House, Richmond, that the prisoners had done her good. The trouble that had come upon her left eye was that of a lump being formed.

Mary Ann Perry, of Richmond, related somewhat similar experiences with reference to treatment by the prisoners. On a second visit, after putting something into her eye, Khair Deen demanded 10s. of her, and because she could not pay he locked her in a room. He said he wanted his money before he let her go. The landlady came in, and subsequently witness was allowed to go on promising to pay by 2 o'clock. She was, however, unable to obtain the money. Subsequently Khair Deen came to her house and burst the door open, but she did not see him again. She asserted that the prisoners had nearly destroyed her eyesight, as at present she continually had a fog in front of her eyes.

Cross-examined: Khair Deen had treated her twice, and she had paid nothing at all.

The Court then adjourned.

THURSDAY, OCTOBER 26TH.

THE trial of these prisoners was continued.

Further evidence of persons who had been subjected to the treatment of the Indians was taken.

H. Allison, an inmate of Wandsworth Workhouse, deposed to undergoing an operation at the hands of Heere Shah, at Merton Road, Wandsworth. The fee to be charged was 10s., and 10s. a week afterwards, but after three days' treatment, being unable to pay the fees, he ceased going. Subsequently he met Heere Shah, who told him to come, and he would make no charge. He went, and the operation was performed, and a testimonial was asked for immediately. The landlady of the house then wrote the testimonial, and it was taken into the next room and read out to all the patients there. The operation resulted in giving a little temporary sight to the right eye, in which he had previously been blind. After six weeks the sight went worse than ever. Before the operation he had never had any pain in either eye, but now they were painful. He never paid any money at all, as he had none.

Cross-examined: He went to St. Thomas's Hospital before he was treated by the Indians, when he was told that nothing could be done with his eye, but he was asked to come in three months' time. He never went.

Mr. C. N. Macnamara, F.R.C.S., Consulting Surgeon to the Royal Westminster Ophthalmic Hospital, said that on February 22nd, 1890, he saw Russell, a witness in the case, at the hospital. He examined the eyes. He was suffering from atrophy of the optic nerve, extending to both eyes. In his opinion no operation performed upon him could have been beneficial. That opinion he then expressed. He had heard the so-called operation described by Russell. It was quite impossible that any such operative treatment could have improved the optic nerve.

Cross-examined: He remembered his case particularly well. He used an ophthalmoscope to make the examination. It was not possible that these Indians used the hooks for doing what the ophthalmoscope would do better. Atrophy of the optic nerve was incapable of cure, and operations could hardly arrest the decay. Russell had injections of strychnine in the arm, which was a method of treatment supposed to do good. Witness had practised a long time himself in India, and did not know of any Oriental herbs which were beneficial in these cases. The general practice of Indian oculists differed largely from that of English surgeons. Where there was optic atrophy there might be other diseases of the eye. A superficial film might grow over the cornea.

Re-examined: When he saw Russell he noticed no film over his eye.

By the Common Serjeant: There were medical colleges in India, and it was there necessary for doctors to get diplomas, but there was no penalty on men practising without diploma. There were also Indian medicine men, but he would rather not call them quacks.

The prisoner (Heere Shah) here stood up, and in his native language said he had the diploma to practise as he had been doing. He was allowed to put certain questions to the witness through an interpreter.

In reply to the prisoners the witness said that in the Calcutta Ophthalmic Hospital, in which he had been for some time, the means of eye doctoring were to some extent the same as those employed in England. Atrophy of the optic nerve was a specific disease.

Mr. G. Hartridge, F.R.C.S., Surgeon to the Royal Westminster Ophthalmic Hospital, said that he also had seen James Russell in April, 1893, and examined his eyes. He was suffering from atrophy of the optic nerve of both eyes. He was practically blind at that time. There was no possibility of curing the disease, but it might have been arrested. He had heard of the so-called operation of the Indians, and in his opinion it could not have been of the slightest use. It could have no beneficial effect upon the optic nerve. Apart also from the condition of the optic nerve, it could have no beneficial effect at all. William Turner (the little boy mentioned in yesterday's evidence) came under his notice. He was suffering from destruction of the cornea in both eyes, due to a previous attack of inflammation. The child was seven months old then. Both the cornea were sloughing. The sight was extremely bad. The cornea was perfectly opaque on both sides, making it impossible for him to see very little if at all. Ointment was given him with the hope of restoring some of the transparency to the cornea, but he got no better. He thought it a very bad case and that there was no chance of the child ever getting good sight. He had heard of the operation performed on the child, consisting of the removal of a portion of the conjunctiva, and was of opinion that it could have had no beneficial effect at all.

By the Common Serjeant: The only attempt at restoring a cornea which had been destroyed was the placing of a small portion of the transparent cornea of an animal into the eye, but that had never been successful.

Cross-examined: No local treatment could do any good in treating atrophy of the optic nerve. Russell had no other disease of the eye in April, 1893. He was not familiar with the drugs the Indians used. As to Turner, he had never thought that he would grow out of the disease. The margin of one of the corneæ was not quite destroyed, and he had thought it possible, by subsequent operation, to enable the child to see better. The operation would have had to be performed on the edge of the cornea opposite the most transparent portion. That would have been by no means by way of experiment. Optic atrophy as a rule was quite painless.

Re-examined: He had that day seen the boy Turner, and both the corneæ were still opaque. In the right eye, the one on which the operation by the Indians had been performed, the opacity was more marked. The right had always been worse than the left. The operation must have been injurious to the eye.

Mr. Dodd, F.R.C.S., Assistant Surgeon at the Royal Westminster Ophthalmic Hospital, corroborated. He also examined Willie Turner in April of this year. The anterior portion of the right eye was bulged considerably, and both the corneæ were opaque. The disease was the result of ophthalmia neonatorum. The operation performed by Heere Shah, described in the evidence, was useless, improper, and cruel. Under no circumstances could it have done the child any good. It was most likely to produce evil results. The instrument used and the use of spittle was most likely to lead to septic contagion and inflammation, and very serious results. It was not an operation which under any circumstances he could conceive of a man of skill performing.

By the Common Serjeant: He did not think that a person who would perform such an operation was able and competent to diagnose diseases of the eye.

Cross-examined: He saw no evil results from the use of the penknife. The only operation he thought of any good to the boy would have been the removal of the whole of the diseased portion of the eye. That was to prevent the bulging, but there could be no cure.

Mr. George Anderson Critchett, M.R.C.S.Eng., F.R.C.S.Edin., Senior Ophthalmic Surgeon at St. Mary's Hospital, said that he had heard a great deal of the evidence given in this case, and was familiar with the statements made by the various witnesses. The witness was taken through the various cases of which evidence had been given in the two previous days. First as to Sarah Ralph, the witness said he remembered the case. In his opinion she was now suffering from iritis of both eyes. It was a good deal worse in the right eye than in the left. He had examined her in the middle of last September, and then her condition was incurable. That referred to both eyes. The disease must have existed for some years. He had heard of the operation performed by the Indians in July, 1892, on Mrs. Ralph, and knew its nature. It could have had no effect for good at all upon iritis. He considered it so absolutely and entirely improper that he had to guard himself in using language regarding it. It was possible that as a result an adhesion might have formed between the eyelid and the eye. He agreed that it was useless, improper, and cruel. As to the second operation performed on the same patient in August, that too could have been of no beneficial effect except it was for the removal of a tumour. The presence of tumour would have been accompanied by pain. The mass which was then said to have been removed from the eye, if the cut was merely superficial, was either fat or cellular tissue, but he thought not, because the patient was very thin. They might have gone deep enough to remove a portion of the lachrymal gland.

(*Proceeding.*)

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

EXAMINERS FOR MEDICAL AND SURGICAL DEGREES.—Dr. D. MacAlister, tutor of St. John's, is appointed Assessor to the Regius Professor of Physic; Dr. H. D. Rolleston, Fellow of St. John's, and Dr. Hill, Master of Downing, Examiners in Anatomy; Dr. A Sheridan Lea, Fellow of Caius, and Professor Schäfer, University College, London, Examiners in Physiology; Mr. E. H. Acton, Fellow of St. John's, and Mr. T. H. Easterfield, Clare, Examiners in Pharmaceutical Chemistry; Mr. F. Darwin and Mr. A. E. Shipley, Fellows of Christ's, Examiners in Biology; Mr. A. Scott, Trinity, and Mr. A. Hutchinson, Fellow of Pembroke, Examiners in Chemistry; Mr. T. C. Fitzpatrick, Fellow of Christ's, and Mr. R. T. Glazebrook, Fellow of Trinity, Examiners in Physics.

PROFESSORSHIP OF BOTANY.—Mr. F. Darwin, M.A., M.B., has been appointed Deputy for Professor Babington, the state of whose health still precludes him from lecturing.

STUDENTSHIP IN PHYSICS.—The Clerk Maxwell Studentship in Experimental Physics, worth £186 a year for three years, is vacant by the resignation of Mr. Cassie. Candidates must be members of the University who have worked for at least one term in the Cavendish Laboratory. Application is to be made to Professor J. J. Thomson before November 18th.

M.D. DEGREE.—Mr. E. A. Shaw, B.A., M.B., B.C., has kept the Act as required for the degree of Doctor of Medicine. Thesis: The Sensory Side of Aphasia.

UNIVERSITY OF EDINBURGH.

GENERAL COUNCIL.—The statutory half-yearly meeting of the General Council of the University of Edinburgh will be held in the Examination Hall of the University, on Friday, October 27th, at 3 P.M.

ELECTION OF LORD RECTOR.—The election of the Rector of the University to succeed the Right Hon. G. J. Goschen takes place on November 11th, and already canvassing, etc., are in full swing. The candidates are Lord Reay and the Lord President of the Court of Session (J. P. B. Robertson), and the election is almost invariably decided on political grounds.

UNIVERSITY OF GLASGOW.

THE following have passed the First Professional Examination for the degrees of Bachelor of Medicine (M.B.) and Master in Surgery (C.M.):

Old Regulations.—W. B. Armstrong, T. Baxter, H. Borland, T. A. Brennan, W. Brown, C. Cairnie, M.A.; T. Cochrane, J. B. Cumming, T. M'G. Fletcher, J. Graham, J. D. Holmes, J. Kirkland, G. L. le Fevre, D. G. Lindsay, R. A. Lockhart, J. Marshall, R. H. Meikle, W. M'G. Montgomery, J. W. Munro, A. B. Murray, G. Murray, A. M'Glashan, J. M'Gowan, A. M'Intyre, H. M'Intyre, R. Rillie, A. P. Robertson, R. Shanks, J. Sillars, D. W. Smith, D. L. Stevenson, M.A.; J. Stirling, A. Taylor, A. C. Wilson.

Women Candidates.—A. K. Anderson, C. Fraser, M. Ransome, M. A. Vakil.

The following have passed the First Professional Examination for the degrees of Bachelor of Medicine (M.B.) and Bachelor of Surgery (Ch.B.) in the subject or subjects indicated after their respective names (B., Botany; Z., Zoology; P., Physics; C., Chemistry):

New Regulations.—J. Aitken (B., P.), G. Alexander (Z., P.), A. S. Allan, (Z., C.), J. Alston (B., Z., P., C.), A. J. Ballantyne (B., P.), J. S. Beveridge (B., Z.), J. G. W. Boleyn (B., Z., P.), T. B. Broadway (B., Z., P., C.), J. J. Buchan (B., Z.), W. C. Burns (B., Z., P., C.), D. L. Cairns (B., P.), R. D. Campbell (B., Z.), R. Carswell, M.A. (B., C.), A. H. Cassells (B., P.), F. J. Charteris (B., P.), G. Clark (B., C.), J. A. Clarke (B., Z., P., C.), G. Coats (B., Z., P., C.), G. W. Coats (P. C.), J. D. Cochran (B., P.), G. J. Cole (Z. C.), J. M. Corbett (B., Z., P., C.), W. Crerar (B., P.), J. Crow (Z., P.), R. Douglas, M.A. (B., P.), B. Dunlop (B., Z.), W. S. Findlay, M.A. (B., C.), J. F. Fleming, P., C.), A. A. Forrester (B., Z., P., C.), T. B. Garvie (B., Z., P.,C.), L. W. Harrison (B., Z., P., C.), H. S. Heap (B., P.), T. Hunter, M.A. (B., Z., P., C.), G. Irving, M.A. (P.), E. F. L. de Jersey (Z., C.), A. Jubb (B., P.), A. Laurie (P., C.), A. M. Lindsay (B., P.), W. M. Lindsay (B., Z., P., C.), J. W. Little (B., Z.), A. Love (B., P.), R. Lunan (Z.), J. A. Mitchell (B., P.), J. Macdonald (B., Z., P., C.), J. M'Haffie (B., Z., P., C.), W. F. M'Indoe (Z., C.), D. M'Kail (B., Z., P., C.), A. G. M'Kendrick (B., Z.), L. A. Mackenzie (B., C.), A. D. Macnair (B., P.), R. R. Macnicol (B., Z.), J. M'Queen, M.A. (B., C.), J. M'Whir (B., C.), W. G. Neill (B., P.), A. D. Nicolson (B., Z., P., C.), R. Niven (P.), J. S. Ormond (B., Z., P., C.), J. Reid (B., C.), D. Scanlan (Z., P.), J. Scott (B., P.), J. W. Scott (B., P.), N. E. H. Scott (B., Z., P., C.), R. Scott (B., Z., P., C.), D. A. Simon (B., Z.), J. L. Simpson (Z., C.), A. B. Sloan (B., Z., P., C.), J. M. Sloan (B., P.), D. S. Smith (Z., C.), J. M'C. Stewart (B., Z., P.), J. Strang (B., P., C.), D. S. Sutherland (B., Z., P., C.), D. Swan (B., Z.), D. R. Thomas (B., Z., P., C.), W. L. Thomson (B., Z., P., C.), H. N. Turner (B., Z., P., C.), W. J. A. Walker (Z. C.), W. Watson (Z., C.), E. Watt (Z., C.), J. P. Wilson (B., P.), J. Wotherspoon (B., Z., P., C.), W. Wyper (P., C.), D. J. Young (Z., C.).

Women Candidates.—D. A. Bennett (Z., P.), D. A. M. Clark (B., Z., P.), M. Gardner (B., Z.), J. Lorimer (B., Z.), M. A. Macfarlane (B., Z.), M. E. M'Neill (B., Z.), J. E. Prowse (B., Z.), A. R. Robson, (B., Z., P.), C. L. Smith (Z., C.), J. H. Smith (B., Z.).

The following have passed the Second Professional Examination for the degrees of Bachelor of Medicine (M.B.) and Master in Surgery (C.M.):

W. Alexander, W. Allan, W. Allen, J. Anderson, M.A., J. Anderson, J. L. Anderson, S. Anderson, W. S. Baird, R. B. Barr, T. Bell, H. Broom, R. Buchanan, M.A., B.Sc., E. A. Campbell, M. Campbell, S. Capie, P. S. Clark, W. Clew, M.A., B.Sc., F. B. Cormick, S. D. Cowan, M.A., P. L. L. Craig, M.A., J. Divine, J. H. Douglas, J. Ferguson, M.A., J. Forster, J. Foulds, T. C. Garrett, J. Gillan, M.A., J. D. Graham, J. A. Graham, J. Green, W. M. Griffith, G. H. B. Harvie, R. Hastie, W. Hay, B.D., A. Holt, G. D. Hunter, A. Iredale, F. J. Jayne, D. C. Kirkhope, J. Knight, W. Lawson, R. K. Miller, J. M. W. Morison, A. C. Muir, J. A. D. Mulholland, D. Munro, J. M'Clure, J. C. M'Clure, W. M. M'Farlane, E. Mackay, J. S. M'Kendrick, L. MacLachlan, M. N. Macleod, W. Macleod, A. A. M'Nab, R. M'Naught, G. M'Pherson, R. Nelson, H. C. Patrick, J. R. G. Phillips, E. J. Primrose, M.A., S. Prior, J. B. Rae, J. Rankin, J. N. Robertson, N. Robson, W. Scobie, B.D., J. Smith, T. O. Speirs, J. Sproull, A. Stevenson, A. Stewart, A. H. Stewart, J. E. F. Stewart, M. W. Symington, J. M. Thornley, C. K. Toland, A. Vost, E. A. Walker, M.A., N. C. E. Ward, H. A. Watson, M.A., H. Whitehouse, J. E. Wilson, F. Wolverson, A. S. Worton, W. H. de H. Wytt, A. Young, J. Young.

Women Candidates.—A. J. Anderson, K. I. Clutterbuck, E. E. Goodrich, M. B. Hannay, E. D. Lyness, E. M. Stuart.

The following have passed the Third Professional Examination for the degrees of Bachelor of Medicine (M.B.) and Master of Surgery (C.M.):

A. *Including Pathology.*—T. D. Brown, J. Brownlee, M.A., H. Carmichael, A. Cochran, W. S. Cook, B.Sc., J. Cumming, H. B. Currie, J. Dunlop, D. Erskine, A. A. Finkelstein, T. J. Forbes, R. W. Forrest, J. F. Gemmill, M.A., A. Girvan, D. Glen, J. Guy, T. H. Hay, R. Howie, W. H. Lang, D. Ligat, C. H. Lumsden, J. Mair, J. H. Martin, M.A., R. Morton, G. Mowat, J. Murray, F. M'Kenna, D. Maclean, A. MacLennan, C. Nairn, H. S. B. Nisbet, H. A. Pattullo, H. Riddell, H. W. Thomson.

Women Candidates.—M. C. Dewar, M. Gilchrist.

B. *Not Including Pathology.*—R. Aitkenhead, T. Angus, E. Bidie, A. Blair, T. Campbell, A. A. Clark, J. A. Cook, W. J. Couper, R. K. Currie, J. Donaldson, W. Donaldson, W. B. Edwards, F. Elliott, D. Ferguson, J. Findlay, J. Forrester, A. F. W. Gunn, F. R. Hill, J. A. Hope, J. Hunter, A. Lawton, J. D. Love, W. D. Miller, J. Morrison, M. N. MacLay, F. Macrae, D. Richmond, J. C. Robertson, M.A.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.

THE following gentlemen passed the First Examination of the Board in the subjects indicated, under the "five years'" regulations, at the quarterly meeting of the examiners:

Part I. Chemistry and Physics.—P. C. Barham, student of St. Bartholomew's Hospital; H. J. M. D. S. Barker, Guy's Hospital; W. F. Bennett, St. Bartholomew's Hospital; J. Bradley, Wolverhampton Free Library; J. F. E. Bridger, St. Mary's Hospital; R. W. Clark, London Hospital; J. S. Cousins, Guy's Hospital; E. J. Crew, Guy's Hospital; F. N. Dakin, Mason College, Birmingham; P. C. Douglass, St. Mary's Hospital; J. M. Edward, Charing Cross Hospital; E. A. Evans, Technical Institute, Swansea; R. Fell, Guy's Hospital; A. E. Francis, University College, London; J. B. C. Francis, Westminster Hospital; W. D. French, University College, London; W. A. Fuller, Guy's Hospital; T. L. Glanville, Charing Cross Hospital; A. S. Good, St. George's Hospital; W. P. Grellet, Guy's Hospital; J. B. Hall, Yorkshire College, Leeds; G. W. Harrison, St. Thomas's Hospital; H. W. Henshaw, St. Bartholomew's Hospital; C. E. Hogan, St. Bartholomew's Hospital; W. Johnston, Charing Cross Hospital; A. G. Leverton, St. Bartholomew's Hospital; H. E. D. Lloyd, St. George's Hospital; F. F. Lobb, St. Mary's Hospital; J. A. McComb, London Hospital; F. J. H. Martin, Guy's Hospital; L. Milburn, Middlesex Hospital; S. L. C. Mondy, University College, London; G. L. Parsons, Westminster Hospital; A. H. Prichard, University College, London; R. W. J. Radley, Guy's Hospital; W. Rains, Owens College, Manchester; O. H. Rogerson, Yorkshire College, Leeds; J. G. Scott, Westminster Hospital; A. F. Seacombe, University College, Liverpool; H. F. Shea, St. Thomas's Hospital; H. Simson, Guy's Hospital; P. Southan, Mason College, Birmingham; G. A. W. Spear, St. Bartholomew's Hospital; J. A. Swindale, Mason College, Birmingham; R. Watts, Firth College, Sheffield; L. E. Whitaker, St. Bartholomew's Hospital; R. Willcox, University College, Bristol; and R. L. G. Worsley, St. George's Hospital.

Part II. Practical Pharmacy.—H. C. Benham, University College, London; F. T. Butler, Owens College, Manchester; C. S. Cato, Westminster Hospital; J. A. Dobson, Mason College, Birmingham; E. F. C. Dowding, St. Thomas's Hospital; J. M. Edwards, Charing Cross Hospital; E. A. Evans, Technical Institute, Swansea; P. Foster, Charing Cross Hospital; T. L. Glanville, Charing Cross Hospital; T. H. Glaze, Mason College, Birmingham; E. Hearn, Firth College, Sheffield; J. E. Hodgson, Owens College, Manchester; A. J. Hull, Guy's Hospital; J. E. Kilvent, St. Thomas's Hospital; C. P. Lankester, St. Thomas's Hospital; D. McIntyre, Owens College, Manchester; A. J. Malcolm, St. Mary's Hospital; M. S. Mayon, King's College, London; L. Milburn, Middlesex Hospital; G. O'Neill, Charing Cross Hospital; R. F. N. Overton, St. Mary's Hospital; A. C. Parsons, St. Thomas's Hospital; G. J. E. Pitman, University College, London; W. Rains, Owens College, Manchester; J. G. Scott, Westminster Hospital; A. W. Shedden, Mason College, Birmingham; H. Smith, private study at Dudley; P. Southan, Mason College, Birmingham; J. A. Swindale, Mason College, Birmingham; C. E. Turner, University College, London; A. W. Tuxford, St. Mary's Hospital; A. J. Watson, St. Mary's Hospital; R. Watts, Firth College, Sheffield; and M. H. Way, Guy's Hospital.

Part III. Elementary Biology.—G. H. Bedford, Guy's Hospital; R. W. Collum, Charing Cross Hospital; F. N. Deakin, Mason College, Birmingham; W. E. H. Hancock, University College, Bristol; H. N. Harness, King's College, London; G. L. Parsons, Westminster Hospital; J. W. Watson, University College, Bristol; and C. H. Welch, University College, Bristol.

Part IV. Elementary Anatomy.—W. Alcock, Firth College, Sheffield; H. Aspinall, University College, Liverpool; T. T. Blythe, St. Thomas's Hospital; J. F. Charlton, Charing Cross Hospital; F. K. Etlinger, University College, London; H. A. C. Harris, St. Thomas's Hospital; O. H. Rogerson, Yorkshire College, Leeds; J. O. Skevington, St. Mary's Hospital; H. T. C. Wilson, King's College, London; and P. Wood, St. Bartholomew's Hospital.

The following gentlemen passed the First Examination of the Board in the subjects indicated, under the "four years'" regulations at the quarterly meeting of the examiners:

Part I. Chemistry and Chemical Physics.—D. J. Ambrose, student of Westminster Hospital; G. L. Atkinson, King's College, London; R. T. Bailey, University College, Liverpool; W. Beckton, St. Bartholomew's Hospital; C. H. Bradbury, Owens College, Manchester; S. S. Broad, Central School of Chemistry; G. M. Brown, Guy's Hospital; P. D'E. Burrell, St. George's Hospital; G. A. Crowe, London Hospital; F. R. Eddison, St. Bartholomew's Hospital; C. T. Fox, University College, London; W. H. Gale, St. Thomas's Hospital; T. R. Griffiths, University College, London; H. C. Izard, St. George's Hospital; A. R. Jones, St. Thomas's Hospital; W. S. Knowles, Mason College, Birmingham; N. Lavers, Guy's Hospital; B. E. Laurence, St. Bartholomew's Hospital; E. A. Le Maistre, London Hospital; E. T. McDonnell, Catholic University, Dublin; W. M. McLoughlin, University College, London; A. E. Maturin, Guy's Hospital; S. J. Meredith, Mason College, Birmingham; J. P. Milton, King's College, London; W. Naylor, Charing Cross Hospital; J. A. Preston, Queen's College, Belfast; E. Schneider, London Hospital; J. Scott, University College and Middlesex Hospital; A. W. S. Sheldon, St. Bartholomew's Hospital; J. H. Waddington, Yorkshire College, Leeds; S. J. Welch, London Hospital; B. S. Wills, St. Thomas's Hospital.

Part II. Materia Medica and Pharmacy.—H. Alexander, Guy's Hospital; G. L. Atkinson, King's College Hospital; C. N. Barton, St. George's Hospital; W. Becton, St. Bartholomew's Hospital; A. C. Bird, St. Thomas's Hospital; M. D. Blake, Owens College, Manchester, and St. George's Hospital; T. H. Body, Guy's Hospital; E. Bowser, St. Bartholomew's Hospital; W. L. Brett, St. Thomas's Hospital; S. S. Broad, Central School of Chemistry; W. Carnes, Yorkshire College, Leeds; C. N. Chadborne, St. George's Hospital; W. L. Cockeroft, Owens College, Manchester; A. E. B. Crosby, Guy's Hospital; J. Deans, St. Mary's Hospital; A. G. Ede, University College, London; W. Escombe, Charing Cross Hospital; C. Farrant, Westminster Hospital; F. D. S. Fayrer, Cambridge and Charing Cross Hospital; J. H. C. Fegan, Charing Cross Hospital; J. J. Foster, Guy's Hospital; E. Grant, King's College Hospital; S. H. Greene, Charing Cross Hospital; A. C. J. H. Hackney, University College, London; A. Hewetson, St. Mary's Hospital; E. P. Hewitt, St. Mary's Hospital; B. Hollander, King's College Hospital; E. A. Houchin, private study; T. H. Hulme, City School of Chemistry and Pharmacy; H. E. Izard, Guy's Hospital; F. P. Jones, Charing Cross Hospital; W. P. Jones, St. George's Hospital; C. R. Kempster, Westminster Hospital; J. R. Kingdon, Cambridge and St. Bartholomew's Hospital; O. H. Leake, City School of Chemistry and Pharmacy; S. H. Longhurst, Guy's Hospital; H. G. McKinney, St. Bartholomew's Hospital; A. E. Malaher, St. Thomas's Hospital; H. Markby, Yorkshire College, Leeds; P. A. J. Maver, King's College, London; W. Mawer, St. Bartholomew's Hospital; G. S. Moore, London Hospital; P. G. Mould, Owens College, Manchester, and St. Mary's Hospital; J. C. Padwick, St. Bartholomew's Hospital; F. A. Phillips, St. George's Hospital; R. T. Richmond, Cambridge University; E. H. Roberts, St. Mungo's College, Glasgow; F. P. Rose, London Hospital; C. B. Salway, St. Thomas's Hospital; E. G. Simmonds, St. Bartholomew's Hospital; G. Smith, St. Bartholomew's Hospital; G. R. Sparrow, University College, Liverpool; E. W. Stabb-Johnson, Guy's Hospital; T. W. Stanton, Guy's Hospital; E. M. Stockdale, University College, Liverpool; R. Tarbuck, Owens College, Manchester; J. H. Tripe, London Hospital; C. J. A. Vertannes, Westminster Hospital; J. G. Wallis, London Hospital; G. H. Warren, London Hospital; C. R. Watson, St. George's Hospital; A. O. Way, St. Bartholomew's Hospital; W. R. Wood, Guy's Hospital.

Part III. Elementary Anatomy and Elementary Physiology.—F. E. Bissell, Mason College, Birmingham; W. L. Burn, St. Bartholomew's Hospital; A. A. W. Cook, University College, London; F. Cooper, Mason College, Birmingham; J. J. Curtin, Queen's College, Cork; R. C. M. Hoare, Mason College, Birmingham; H. J. Hutchens, St. Bartholomew's Hospital; J. R. Jefferson, St. Bartholomew's Hospital; J. A. Preston, Queen's College, Belfast; J. R. Scott, St. Thomas's Hospital and Mr. Cooke's School of Anatomy and Physiology.

Elementary Physiology only.—A. R. Hoare, St. Thomas's Hospital, and E. Hyde, Cambridge University.

ROYAL COLLEGE OF PHYSICIANS OF IRELAND.

At the annual stated meeting of the Royal College of Physicians of Ireland, held on St. Luke's Day, October 18th, 1893, the following officers were elected for the ensuing year:—President: Walter G. Smith. Vice-President: John William Moore. Censors: John William Moore, Conolly Norman, Joseph O'Carroll, W. J. Smyly.

Additional Examiners to take the Place of an absent Censor.—In Medicine: James Craig. In Medical Jurisprudence and Hygiene: S. T. Gordon. In Midwifery: L. Atthill. Examiners for Licence to Practise Midwifery: Andrew J. Horne, A. V. Macan. Examiners under the Conjoint Scheme with the R.C.S.I., not including the above Censors, who also examine at the Fourth Professional Examination:—Biology: E. MacD. Cosgrave. Chemistry and Physics: H. T. Bewley, E. Lapper. Materia Medica and Pharmacy: N. M'I. Falkiner, F. J. B. Quinlan. Physiology: John M. Purser. Pathology: H. C. Earl. Medicine: E. E. Lennon, H. C. Tweedy. Hygiene and Forensic Medicine: H. C. Earl.

Examiners for the Conjoint Diploma in State Medicine.—State Medicine and Hygiene: F. J. B. Quinlan. Chemistry: E. Lapper. Meteorology and Climatology: J. W. Moore. Engineering: A. E. Murray.

Examiners in Preliminary Education.—Science: E. MacD. Cosgrave. Languages: H. T. Bewley. Representatives on the Committee of Management: J. Magee Finny, C. J. Nixon, G. P. I. Nugent. Representative on the General Medical Council: L. Atthill. Treasurer: L. Atthill. Registrar: G. P. L. Nugent. Librarian: S. W. Wilson.

SOCIETY OF APOTHECARIES IN LONDON.

The following candidates passed in:

Surgery.—C. P. Allen, Middlesex Hospital; H. A. Beetham, Leeds; J. H. Campbell, St. Mary's Hospital; A. D. P. Dudley, University College; S. C. C. Fenwick, St. Mary's Hospital; A. H. Hardcastle, Leeds; F. Horseman, Leeds; H. K. Hunter, Birmingham; T. J. McDonald, Toronto; J. Prior, St. Thomas's Hospital; H. C. Renshaw, Manchester; P. Slack, Sheffield; F. C. Sutherland, St. Bartholomew's Hospital; F. H. R. J. U. Walker, St. George's Hospital; H. Whichello, St. Thomas's Hospital; F. H. White, London Hospital.

Medicine, Forensic Medicine, and Midwifery.—W. P. Hilliam, Sheffield; F. Horseman, Leeds; H. K. Hunter, Birmingham; J. H. Jones, Edinburgh; J. K. Kempthorne, King's; E. Quayle, Manchester; F. H. White, London Hospital; E. M. Wilkes, Edinburgh.

Medicine and Forensic Medicine.—C. G. Mathews, St. Bartholomew's Hospital.

Medicine and Midwifery.—A. E. Pryse, University College.

Medicine.—D. D. Brown, St. Bartholomew's Hospital; F. H. Halse-Francis, Guy's Hospital; J. A. Procter, King's College.

Forensic Medicine and Midwifery.—P. L. G. Skipworth, St. Bartholomew's Hospital; A. B. Sturges, Leeds.

Forensic Medicine.—C. F. Gross, King's College.

Midwifery.—J. K. Birdseye, St. Bartholomew's Hospital; J. M. Ritchie, Birmingham.

To Messrs. Beetham, Campbell, Fenwick, Gross, Hardcastle, Hilliam, Horseman, Hunter, Kempthorne, Procter, Quayle, Slack, Sturges, Whichello, White, and Wilkes was granted the diploma of the Society.

OBITUARY.

HERBERT HARDING ASHDOWN, M.D.

It is with feelings of sincere regret that we chronicle the early death of Dr. Herbert H. Ashdown, which occurred at Coningsby, Lincolnshire, on October 10th. A week before he appeared in robust health. Two or three days later he was seized with virulent diphtheria, to which, after four days' illness, he succumbed, adding yet another to the list of victims which the deadly malady claims, year by year, from the ranks of the profession.

Herbert H. Ashdown was born in Northampton in 1859. He received his preliminary education at home, and later at the Edinburgh Collegiate School. In 1877 he commenced the study of medicine at Edinburgh University, where he speedily made his mark. No one was better known or better liked among the men of his time. His student course was distinguished, and he graduated with honours in 1882. Afterwards he received the appointment of Demonstrator of Anatomy under Sir William Turner. In 1883 he obtained, by examination, the position of resident physician in the Royal Infirmary of Edinburgh, in association with Professor Greenfield. The following winter he spent in Leipzig and Berlin, whence he returned to Edinburgh in the summer of 1884, to occupy the post of senior assistant in the physiological department of the University. This was an office after his heart, and he entered on its duties with much zest and earnestness. The fruits of his labours were soon apparent, both in the lecture room and in the laboratory. In relation more especially to original research, he became a focus of awakened interest, and his room in the laboratory came to be the meeting place of many of the more active workers in the school. Unfortunately, in 1887, circumstances occurred, through no fault of Dr. Ashdown's, which left him no choice but to resign his appointment and break connection with the department. In leaving he was entertained at a complimentary dinner, and presented with an address by the great body of his fellow teachers. The magnificent gathering afforded the best testimony that could be offered to the signal success he had achieved and the high esteem in which he was held.

With a keen determination not to drop the threads of several researches he had on hand, he sacrificed more than one tempting offer, and proceeded to London, where he continued his work in University College. He was nominated to the Fence and Houldsworth Scholarship, and prosecuted his physiological investigations with assiduity. Of his published works the most important are (1) his memoir "On Certain Substances Found in the Urine which Reduce the Oxide of Copper upon Boiling in the Presence of an Alkali,"[1] and (2) his research on Absorption from the Urinary Bladder.[2] In the former he demonstrated the occurrence in the urine—from apparently healthy subjects—of glycuronic acid, and suggested the probability of this having been confused with true glycosuria. He also drew attention to the appear-

[1] *Proceedings*, Royal Society Edin., vol. xvii.
[2] *Journal of Anatomy and Physiology*, 1887.

ance of glycuronic acid in the urine after the exhibition of chloroform, morphine, and other agents. By the latter research he largely set at rest the vexed question as to the occurrence of absorption through the vesical mucous membrane. On being promoted to the Doctorate of Medicine he was accorded a gold medal by the Medical Faculty of Edinburgh University. He was a Fellow of the Royal Society of Edinburgh, and a member of the Physiological Society.

In 1889, on the advice of professional friends, he settled in practice at Coningsby. He threw himself into the duties of the new sphere with characteristic energy. His professional standing, high character, and attractive personal qualities quickly gained for him an exceptional degree of trust and regard. Only a month or two since he arranged to share with a partner a portion of his rapidly increasing practice. In August last he took a short holiday in Scotland, and returned to work in excellent health. In the midst of this he was suddenly attacked by illness, and never rallied. He was buried at Coningsby on October 13th.

As regards the estimation in which he was held by his contemporaries, we cannot do better than reprint a striking tribute to his memory which appeared in the *Edinburgh University Magazine* of October 19th:

It is not too much to say that Dr. Ashdown was one of the most unique men that the University has turned out for many years. Gifted with unusual bodily vigour, he possessed mental capabilities of no less vigorous character. He combined in uncommon fashion the qualities of teacher and investigator. Perhaps the chief characteristic of his work was its thoroughness. He could not brook anything like slipshod slovenly methods, and he was fortunate in being able to impress those with whom he came in contact with the same enthusiasm for honesty in work. His published researches were models of precision and unwearying care in observation, and their value has been widely recognised in this country and abroad. He had an immense amount of such work on hand, and one of his saddest reflections in quitting Edinburgh was the prospective necessity of leaving much of it incomplete. His attainments were most varied, and were not limited to medical science. He was well versed in general literature, and was more particularly a discriminating student of poetry; a *connoisseur* in music, he was long a warm adherent of the University Musical Society. He was a keen sportsman, and, next to the calls of the profession, he loved to "hearken to the ring of a clear 'Tally-ho.'"

His geniality of disposition, his sympathetic nature, his devotion to duty, and his thoroughgoing loyalty of spirit—"the homage of a knightly heart"—attached to him in close friendship a large number of the best men among his contemporaries.

"For never man had friend
More enduring to the end,
Truer mate in every turn of time and tide."

WILLIAM FREER LUCAS, M.R.C.S.Eng., L.R.C.P.Lond.,

Casualty Medical Officer to the Middlesex Hospital.

William Freer Lucas died of diphtheria on October 8th, at the early age of 23. At the time that he contracted the disease he was acting as resident medical officer at the Middlesex Hospital. In administering chloroform during tracheotomy the child coughed up into his face. He was attacked by diphtheria four days afterwards. The disease spread to the lungs and terminated fatally in ten days. He was born near Petworth, in Sussex, on August 24th, 1870. He received his early education at Churcher's College, Petersfield, and at the Royal Medical College, Epsom, where his brother, Mr. R. C. Lucas, is now assistant master. At Epsom Mr. Lucas gained many class prizes and carried off the Senior School Scholarship in 1886 and the Anne Hood Exhibition in 1887, and as the first placed amongst the candidates from Epsom College at the Matriculation Examination of the University of London. He passed the preliminary scientific (M.B.) examination in July, 1888, and entered the Middlesex Hospital as the Epsom scholar for that year. At the hospital he amply fulfilled the promise of his school days. In the session of 1891-92 he gained the first Broderip Scholarship (the chief clinical prize) and also the Lyell medal for surgery and surgical anatomy. He became house-physician, and in July last was appointed to the office of casualty medical officer. Mr. Lucas obtained the diplomas of M.R.C.S. and L.R.C.P. in October, 1892, and would have proceeded to the final M.B. at the University of London this year had his life been spared.

In athletics both at school and at the hospital he excelled, and his gentlemanly bearing, uprightness, and candour gained for him many friends. At Epsom, as the most popular boy in the school, he was awarded the Wakley Prize by the vote of his schoolfellows.

The attendance of many members of the resident and non-resident hospital staff at the service held on the eve of the funeral in the newly-erected chapel attached to the hospital and at the grave side at Shamley Green, near Guildford, where he was buried on October 13th, and the handsome and numerous floral tokens from members of the medical and nursing staffs, the resident officers and the students of the hospital, speak with greater eloquence than words of the high esteem in which he was held by all.

We have received from one who was well acquainted with Mr. Lucas, the following touching tribute to his memory.

In Memoriam.

Arbor frondibus decora,
Novis floribus odora
Ante diem cæditur.
Portu vix egressa ratis
Subita vi tempestatis
Fluctibus summergitur.

Heu! juventus animosa,
Vitaque laboriosa,
Vividum ingenium,
Sine fructu perierunt,
Nihil mores profuerunt,
Nil amor sodalium.

Teque magno cum dolore
Flemus in ætatis flore,
Moribus amabilem,
Acerba sorte interceptum
Tuorum oculis ereptum,
Cordibus superstitem.

Verba ne edas profana,
Vita non est illi vana,
Si quis bene vixerit.
Partes suas bene gerens,
Aliisque opem ferens,
Pulchra morte concidit.

Is qui vitam sic transivit,
Plenus fide obdormivit,
Non omnino moritur.
Tutum ratis tenet portum,
Arbor in cælestem hortum
Frugifera transponitur.

N. M. M. P.

GEORGE ANDREW PATERSON, M.D.Edin.

The death of Dr. George Andrew Paterson is reported to have taken place on October 18th at his residence in Edinburgh. The deceased took the degree of M.D.Edin. in 1833, and in 1837 he became a fellow of the Royal College of Physicians, Edinburgh. For some years after graduation, he was in practice in Edinburgh, and was one of the physicians of the Royal Infirmary. He then established himself at Tiverton as a consulting physician, but in 1862 he accepted the position of Deputy Commissioner in Lunacy for Scotland. He discharged the duties of that office with great ability, and his resignation in 1877 was accepted by the Board with great regret. Dr. Paterson was an accomplished linguist, and a great student of the classics of his own tongue.

GEORGE WALKER, M.D.Glasg., M.R.C.S.Eng.

The death took place on October 21st of Dr. G. Walker, of Birkenhead. The deceased was born in Glasgow, and at the University of that city he graduated M.D. in 1835. He practised in Glasgow for some years, went next to Aberdeen, and in 1844 settled in practice in Birkenhead. In the same year he took the diploma of M.R.C.S.Eng. Dr. Walker took an active interest in the borough hospital, to which he was honorary surgeon for a long period, and he was consulting surgeon to the lying-in hospital and dispensary. The deceased gentleman was 78 years of age, and was a well-known figure in Birkenhead.

We regret to have to record the death of Mr. William Williams, of Guilsborough, Northamptonshire, who was one of the earliest members of the British Medical Association. He had resided at Guilsborough for seventy-four years, having gone there in 1819 to be articled to the late Mr. Henry Bullivant, surgeon. He obtained the diploma of the Apothecaries' Society of London in 1826, and became a Member of the Royal College of Surgeons of England in 1843. In 1834 he married the niece of Mr. Bullivant, and upon that gentleman's death he succeeded to his practice. In 1836, when the Brixworth Union was divided, he was appointed medical officer of the second district, and both in this capacity and as a private practitioner he earned the esteem of all with whom he came in contact, and was especially beloved by the poor. He died on October 9th, 1893, at the ripe age of 91 years, and his funeral in Guilsborough Churchyard on October 14th was attended by a large number of representatives of all classes of society.

The death is reported of Dr. Léon Le Fort, member of the Paris Academy of Medicine. The deceased was born in 1829,

and commenced his medical studies at Lille, whence he proceeded to Paris. The deceased acted as surgeon during the Italian campaign, and when the Franco-Prussian war broke out was appointed surgeon-in-chief, and directed the ambulance service during the siege of Metz. Dr. Le Fort was elected a member of the Academy of Medicine in 1876. He was decorated with the Legion of Honour in 1870, and promoted to the rank of officer in 1882.

We regret to have to report the death, after three days' illness, of Dr. Buck, of Primrose Hill Road and Camden Road. He took the diploma of M.R.C.S.Eng. in 1867, and in 1868 he became a L.R.C.P.Edin., and obtained the M.D.Brux in 1887. The primary cause of death was peritonitis. A few days before his death Dr. Buck was attending to his practice in the ordinary way.

On Monday morning, October 23rd, Mr. George Fitzhenry died suddenly at his residence at Brynmawr, at the age of 80 years. He qualified as M.R.C.S.Eng. in 1844, and became L.S.A. in 1863. On the Saturday previous he was about and appeared to be in his usual health.

Deaths in the Profession Abroad.—Amongst the members of the medical profession in foreign countries who have recently died are Dr. E. M. Van Kempen, some time Professor of Anatomy in the University of Louvain; Professor Friedrich Falk, of the University of Berlin, for many years Librarian of the Berlin Medical Society, and well known by his writings on medical jurisprudence, public health, and the history of medicine; and Dr. W. G. Stebbins, of the Boston City Hospital. Dr. Stebbins, who was only 28, was a graduate with honours of the University of Harvard, and was doing temporary duty as Admitting Physician. Within twenty-four hours of his entering on his duties he admitted three patients suffering from diphtheria, and catching the disease himself died a few days later. Dr. Stebbins was a physician of high promise.

The Public Control Committee of the London County Council recommend an increase in the salary of Mr. Troutbeck, the Coroner for Westminster, from £500 to £564, and of Dr. R. Macdonald, the Coroner for North-East London, from £999 to £1,401.

Proposed Medical Congress in India.—The *Indian Medical Gazette* suggests that steps should be taken to convene a congress of medical men in India for the purpose of reading papers on medical, surgery, and sanitary topics, relating especially to the conditions of professional work in India and the tropics. Our contemporary points out that in the proceedings of congresses held elsewhere, tropical diseases receive very scanty attention; these would naturally occupy a foremost place in the discussions at such a gathering as is suggested.

Charing Cross Hospital Dinner.—A most successful dinner of past and present students of Charing Cross Hospital was held on Friday, October 20th, at the Holborn Restaurant, Surgeon-Captain Leahy, M.D., F.R.C.S., in the chair. One hundred and fifty-eight sat down, letters of regret being received from Sir Guyer Hunter, Sir Joseph Fayrer, Dr. Hack Tuke, and others. After "The Queen" the Chairman proposed the toast of "The Staff of the Charing Cross Hospital Medical School," to which Mr. J. Astley Bloxam appropriately replied. Dr. Murray, in an eloquent speech, next proposed the toast of "The Past and Present Students," to which Dr. Colquhoun, of New Zealand University, replied for the past students, relating many amusing incidents of his early academic days, while Mr. F. A. L. Hammond spoke on behalf of the present students. "The Health of the Chairman" was next proposed by Mr. Barwell, who spoke in high terms of the distinguished career of Surgeon-Captain Leahy since his days at Charing Cross—as surgeon to Lord Dufferin in India, and Lecturer in Grant College. A vote of thanks was then passed to the honorary secretaries, Messrs. J. H. Whitehead and H. H. Phillips, who briefly returned their acknowledgments. The musical part of the programme was efficiently supplied by the Bijou Orchestra.

MEDICAL NEWS.

Mr. Owen Lankester, M.R.C.S., is giving a course of six lectures on "First Aid to the Injured and Sick," at Mrs. Jopling's School of Art, Logan Place, Earl's Court Road. The first lecture was given last week.

A Reuter's telegram from Sinaia, Roumania, says that Dr. Playfair, who attended the Princess Marie of Roumania at her recent accouchement, has left for London. Before his departure he was presented by the King with a gold snuff-box and the insignia of a Grand Officer of the Order of the Crown of Roumania.

Mounted Nurses.—The Indian Government has sanctioned the grant of a monthly allowance of 30 rupees for the upkeep of a horse, as at present allowed to military officers, to each lady of the Indian Nursing Service for such time as she may be employed on field service provided that she keeps a horse or pony during such period. Sanction has also been given to the grant of free conveyance of the horse or pony to and from field service.

Annual Medical Dinner at Bristol.—On Friday, October 20th, the above dinner took place at the Imperial Hotel, Bristol, Dr. W. G. Grace in the chair. Amongst those present were the Right Hon. Sir Edward Fry, Mr. Albert Fry, members of the faculties of Arts and Science, and of the faculty of Medicine of University College, and about 100 past and present students of the medical school. The Chairman having proposed the usual loyal toasts, which were duly honoured, the Right Hon. Sir Edward Fry proposed "University College, Bristol; the Royal Infirmary, and the General Hospital." He spoke of the work done by these institutions and of the future before them, and referred to the deaths of two students of the school whilst on duty, one abroad and one at the infirmary. Professor Sydney Young, Dr. Fox, and Dr. Harrison responded. Dr. J. G. Swayne proposed "The Bristol Medical Cricket and Football and Dramatic Clubs." He laid stress on the importance of active exercises for those who followed sedentary lives, and thought that it was a great mistake to give up muscular recreation too soon. He had himself swum a mile and a half when 65 years of age. He considered rowing and swimming particularly healthful muscular exercises. Mr. Norrington, Mr. Swayne, and Dr. Michell Clark responded. Mr. Albert Fry proposed the toast of "The Past and Present Students." He referred to the number of great names which had been associated with the Bristol School, and to the list of honours won by students. He congratulated the present students on the good condition of their lungs, and hoped their brains would prove as vigorous. Mr. Augustine Prichard, Mr. Glassin, and Mr. E. W. Ormerod responded. Mr. Prichard gave some interesting reminiscences of the old school, and of some of the teachers and students of the past. Mr. Munro Smith proposed "The Health of the President," and thanked Dr. Grace for occupying the chair. He referred to his former connection with the Bristol Medical School, which had the honour of educating the greatest cricketer of the age. The President replied, and some songs and recitations followed.

MEDICAL VACANCIES.

The following vacancies are announced:

BELGRAVE HOSPITAL FOR CHILDREN, 77 and 79, Gloucester Street, S.W.—Physician for Outpatients. Applications to Honorary Secretary by November 8th.

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN.—An Acting Physician and a Surgeon Dentist. Appointment for twelve months, but eligible for re-election. Applications to the Medical Board, Children's Hospital, Steelhouse Lane, Birmingham, by November 8th.

CHARING CROSS HOSPITAL.—Surgeon Dentist, must be M.R.C.S.Eng. Applications to Arthur E. Reade, Secretary, by October 31st.

CHELTENHAM GENERAL HOSPITAL.—Resident Surgeon for the Branch Dispensary, unmarried, or if married, without family. Salary, £180 per annum, with partly-furnished house, coal, and gas. Applications to the Honorary Secretary and Treasurer by November 25th.

CITY OF SHEFFIELD.—Resident Medical Officer for the City Hospital for Infectious Diseases; doubly qualified. Salary, £200 per annum with board, lodging, and attendance. Applications endorsed "Medical

Superintendent," to J. W. Pye-Smith, Town Clerk, Town Clerk's Office, Sheffield, by October 28th.

GENERAL HOSPITAL, Birmingham.—Two Assistant House-Surgeons. Residence, board, and washing provided. Applications to the House Governor by October 28th.

GENERAL HOSPITAL, Nottingham.—Assistant House-Physician. Appointment for six months. Board, lodging, and washing provided. No salary. Applications to the Secretary by November 1st.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, Bloomsbury, W.C.—Resident Medical Officer as House-Physician, unmarried. Appointment for six months. Salary, £20, with board and residence in the hospital. Applications to Secretary, by November 7th.

HOSPITAL FOR WOMEN, Soho Square, W.—Assistant Physician. Applications to the Secretary by November 14th.

NATIONAL SANATORIUM FOR CONSUMPTION AND DISEASES OF THE CHEST, Bournemouth.—Resident Medical Officer and Secretary. Salary £120 per annum, with board and lodging. Applications to the "Chairman of Committee" by December 5th.

ROYAL NATIONAL HOSPITAL FOR CONSUMPTION, Ventnor.—Assistant Resident Medical Officer, unmarried. Salary, £70 per annum, with board and lodging in the hospital. Applications to be addressed to the Board of Management at the London Office, 34, Craven Street, Charing Cross, W.C.

TORBAY HOSPITAL AND PROVIDENT DISPENSARY, Torquay.—Junior House-Surgeon and Dispenser; doubly qualified, unmarried. Board, lodging, and attendance provided. Salary, £80 per annum. Applications to the Honorary Secretary, Captain Phillpotts, R.N., by November 13th.

MEDICAL APPOINTMENTS.

ADAMS, James, M.D.St.And., M.R.C.S.Eng., appointed Medical Officer of Health for the Barnes Urban Sanitary District.

ALDOUS, George Fredk., L.R.C.P.Lond., M.R.C.S.Eng., reappointed Medical Officer to the Provident Department of the Plymouth Public Dispensary.

BOROUGH, Frederick, M.R.C.S.Eng., reappointed Surgeon to the Derby Provident Dispensary.

BROOK, W. F., F.R.C.S.Eng., L.S.A., appointed Visiting Surgeon to the Swansea General Hospital, *vice* H. A. Latimer, M.R.C.S.Eng., L.S.A., resigned.

BUCHAN, Wm. Augustus, M.B., C.M.Edin., reappointed Medical Officer to the Provident Department of the Plymouth Dispensary.

BUTLER-HOGAN, B.A.R.U.I., M.D.Brux., L.R.C.P., L.R.C.S.Edin., D.P.H. Cantab., appointed Medical Officer of Health for Shoreditch.

CAITHNESS, James, M.D., C.M.Glasg., reappointed Medical Officer for the Llanrhaiadr District of the Ruthin Union.

COPESTAKE, Walter Goodall, M R.C.S.Eng., reappointed Surgeon to the Derby Provident Dispensary.

CORRIGAN, William J., L.R.C.S.I., L. &L.M.K.Q.C.P.I., appointed Surgeon to the Dowlais Ironworks, Cardiff, *vice* A. Hill-Joseph, M.B., resigned.

CURGENVEN, Wm. Grafton, M.D.St.And., M.R.C.S.Eng., reappointed Surgeon to the Derby Provident Dispensary.

COUTTS, Francis J. H., M.B., Ch.B.Vict., appointed Resident Medical Officer to the Victoria Hospital, Burnley, *vice* A. M. Sinclair, M.B., C.M., resigned.

DAVIES, J., L.R.C.P., L.R.C.S.Edin., appointed Honorary District Medical Officer to the Ladies' Charity and Lying-in Hospital, Liverpool.

DICK, J. Lawson, M.B., C.M.Edin., appointed House-Surgeon to the Clinical Hospital for Women and Children, Manchester.

DIXON, C. J. Whitehead, M.B., C.M.Edin., appointed Resident Medical Officer at the Royal Hospital for Diseases of the Chest, City Road.

EDDOWES, Alfred, M.D., M.R.C.S., appointed Physician to the Western Skin Hospital, *vice* F. A. Cox, M.B., deceased.

FOULDS, H. J., M.R.C.S.Eng., reappointed Surgeon to the Derby Provident Dispensary.

FRASER, Donald Alexander, M.D., M.R.C.S., L.S.A., reappointed Medical Officer of Health for Totnes Borough.

FROST, W. Adams, F.R.C.S., appointed Ophthalmic Surgeon to St. George's Hospital.

LITTLE, James, M.D.Edin., M.R.C.S.Eng., appointed Medical Officer of Health to the Maryport Urban Sanitary District, *vice* William Hy. Spurgin, M.R.C.S.Eng., resigned.

LUCKHAM, L. Stephenson, M.R.C.S.Eng., L.S.A., appointed Medical Officer of the Workhouse of the Alderbury Union.

ORR, John, M.B., C.M.Edin., L.R.C.P., M.R.C.S.Eng., appointed Resident Medical Officer to the Chalmers Hospital, Edinburgh.

PRIDHAM, Chas. Fortescue, B.A.Cantab., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer of the Tenth District of the Wycombe Union, *vice* B. S. Browne, L.R.C.P., L.R.C.S.Edin., resigned.

REES, Albert Hy., L.R.C.P.Edin., M.R.C.S.Eng., reappointed Assistant Physician to the Plymouth Public Dispensary.

SCRATCHLEY, H. W., F.R.C.S., L.R.C.P., reappointed Medical Officer for the Third District of the Poole Union.

SOUTHEY, Albert. Jas., M.R.C.S.Eng., L.S.A., reappointed Medical Officer of Health to the Slough Urban Sanitary District.

SMITH, William R., M.B.Lond., M.R.C.S., L.R.C.P., L.S.A., appointed House-Surgeon to the St. Peter's Hospital for Stone, Henrietta Street, Covent Garden.

TAYLOR, Frederick Ernest, M.R.C.S.Eng., reappointed Surgeon to the Derby Provident Dispensary.

VAUDREY, Edmund, M.D.Edin., M.R.C.S.Eng., reappointed Surgeon to the Derby Provident Dispensary.

WALSH, David, M.B., C.M.Edin., appointed Assistant Physician to the Western Skin Hospital, Great Portland Street, W.

WILSON, J. E. Cheyne, L.R.C.P., L.R.C.S.Edin., reappointed Assistant Physician to the Plymouth Public Dispensary.

WRIGHT, John Lister, L.R.C.P.Edin., M.R.C.S.Eng., reappointed Surgeon to the Derby Provident Dispensary.

DIARY FOR NEXT WEEK.

MONDAY.

LONDON POST-GRADUATE COURSE, Royal London Ophthalmic Hospital, 1 P.M.—Mr. R. Marcus Gunn: External Examination of the Eye.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN, Leicester Square, 5.30 P.M.—Dr. Morgan Dockrell: On Diagnosis and Pathology of Eczema.

MEDICAL SOCIETY OF LONDON, 8.30 P.M.—Dr. G. H. Savage: Some Mental Disorders associated with the Menopause. Dr. A. Morison: The Heart in Infantile Convulsions.

TUESDAY.

LONDON POST-GRADUATE COURSE, Bethlem Hospital, 2 P.M.—Dr. Percy Smith: Developmental Insanity; Circular Insanity Hospital for Diseases of the Skin, Blackfriars, 4 P.M.—Mr. Jonathan Hutchinson: Second Attacks of Syphilis.

WEDNESDAY.

LONDON POST-GRADUATE COURSE, Hospital for Consumption, Brompton, 4 P.M.—Dr. Sidney Martin: Cases of Quiescent Pulmonary Tuberculosis. Royal London Ophthalmic Hospital, 8 P.M.—Mr. A. Stanford Morton: Optic Neuritis.

OBSTETRICAL SOCIETY OF LONDON, 8 P.M.—Specimens will be shown by Dr. Amand Routh, Dr. Lewers, Dr. Hayes, Dr. Eden, and Dr. Horrocks. Dr. J. Braxton Hicks: Further Contribution to the Clinical Knowledge of Puerperal Diseases. Dr. Horrocks: Intravenous Injection of Saline Solution in cases of Severe Hæmorrhage.

THURSDAY.

LONDON POST-GRADUATE COURSE, National Hospital for the Paralysed and Epileptic, Queen Square, 2 P.M.—Dr. Beevor: Paralysis Agitans and Tremors. Hospital for Sick Children, Great Ormond Street, 3.30 P.M.—Mr. Bernard Pitts: The Treatment of Diseases of Joints in Children. Central London Sick Asylum, Cleveland Street, 5.30 P.M.—Mr. John Croft: Cases in the Wards. London Throat Hospital, Great Portland Street, W., 8 P.M.—Mr. George Stoker: Impaired Movements of the Vocal Cords.

SANITARY INSTITUTE, PARKES MUSEUM, 74A, Margaret Street, W., 8 P.M.—Dr. Arthur Newsholme: Occupation and Mortality.

HARVEIAN SOCIETY, 8.30 P.M.—Dr. Robert Boxall: Dislocation of the Heart into the Left Pleural Cavity. Sir William Broadbent: Dilatation of the Stomach.

FRIDAY.

LONDON POST-GRADUATE COURSE, Hospital for Consumption, Brompton, 4 P.M.—Dr. Sidney Martin: Cavities in the Lungs.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY, 8 P.M.—Pathological Specimens.—Dr. Schacht: Uterus, showing one of the Dangers of Tents. Dr. Campbell Pope: Tapeworms. Papers.—Dr. Abraham: Ringworm and Alopecia Areata and their Treatment. Dr. Chapman: Night Terrors.

SATURDAY.

LONDON POST-GRADUATE COURSE, Bethlem Hospital, 11 A.M.—Dr. Hyslop: Puerperal and Lactational Insanity.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTH.

WALLACE.—At Calcutta, on Sunday, September 24th, 1893, the wife of James R. Wallace, M.D., of a son.

MARRIAGES.

CARRUTHERS—HODGSON.—At Ainstable Church, Cumberland, on October 26th, by the Rev. W. G. C. Hodgson, assisted by the Rev. A. G. Loftie and the Rev. L. Morgan, William Hodgson Carruthers, M.D., F.R.C.S., of Halton House, Cheshire, to Mabel, youngest daughter of the late Rev. J. L. Hodgson, of Wetheral, Cumberland.

OGILVY-RAMSAY—ANDREWS.—On October 19th, at All Saints Church, Edinburgh, by the Rev. Canon Murdoch, Maxwell Ogilvy-Ramsay, M.A., M.B., C.M., second son of the Rev. Dr. Ogilvy-Ramsay, Closeburn, to Isabella, eldest daughter of the late William Andrews, Lichfield, Staffordshire.

DEATHS.

IRVINE.—At Craigatin, Pitlochry, N.B., William Stewart Irvine, M.D., F.R.C.S.E., aged 81.

WALKER.—October 21st, at 11, Hamilton Square, Birkenhead, George Walker, M.D., M.R.C.S., aged 78.

WILLIAMS.—On October 9th, at "The Manor House," Hollowell, Northampton, William Williams, M.R.C.S.Eng., and L.S.A., aged 91 years.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

Cancer, Brompton (Free). *Hours of Attendance.*—Daily, 2. *Operation Days.*—Tu. S., 2.

Central London Ophthalmic. *Operation Days.*—Daily, 2.

Charing Cross. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M., 1.30; Dental, M. W. F., 9; Throat and Ear, F., 9.30 *Operation Days.*—W. Th. F., 3.

Chelsea Hospital for Women. *Hours of Attendance.*—Daily, 1.30 *Operation Days.*—M. Th., 2.

East London Hospital for Children. *Operation Day.*—F., 2.

Great Northern Central. *Hours of Attendance.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Ear, Tu. F., 2.30; Diseases of the Skin, W., 2.30; Diseases of the Throat, Th., 2.30; Dental Cases, W, 2. *Operation Day.*—W., 2.

Guy's. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 1. *Operation Days.*—(Ophthalmic), M. Th., 1.30; Tu. F., 1.30.

Hospital for Women, Soho. *Hours of Attendance.*—Daily, 10. *Operation Days.*—M. Th., 2.

King's College. *Hours of Attendance.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, daily, 1.30; o.p., Tu. W. F. S., 1.30; Eye, M. Th., 1.30; Ophthalmic Department, W., 2; Ear, Th., 2; Skin, F., 1.30; Throat, F., 1.30; Dental, Tu. Th., 9.30. *Operation Days.*—M. F. S., 2.

London. *Hours of Attendance.*—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, S., 9.30; Skin, Th., 9, Dental, Tu., 9. *Operation Days*—M. Tu. W. Th. S., 2.

London Temperance Hospital. *Hours of Attendance.*—Medical, M. Tu. F. 2; Surgical, M. Th., 2. *Operation Days.*—M. Th., 4.30.

Metropolitan. *Hours of Attendance.*—Medical and Surgical, daily, 9; Obstetric, W., 2. *Operation Day.*—F., 9.

Middlesex. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Th., 1.30; o.p., M. F., 9, W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu., 9; Skin, Tu., 4, Th., 9.30; Dental, M. W. F., 9.30. *Operation Days.*—W., 1.30, S., 2; (Obstetrical), Th., 2.

National Orthopædic. *Hours of Attendance.*—M. Tu. Th. F., 2. *Operation Day.*—W., 10.

North-West London. *Hours of Attendance.*—Medical and Surgical, daily, 2; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operation Day.*—Th., 2.30.

Royal Eye Hospital, Southwark. *Hours of Attendance.*—Daily, 2. *Operation Days.*—Daily.

Royal Free. *Hours of Attendance.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Dental, Th., 9. *Operation Days.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

Royal London Ophthalmic. *Hours of Attendance.*—Daily, 9. *Operation Days.*—Daily, 10.

Royal Orthopædic. *Hours of Attendance.*—Daily, 1. *Operation Day.*—M., 2.

Royal Westminster Ophthalmic. *Hours of Attendance.*—Daily, 1. *Operation Days.*—Daily.

St. Bartholomew's. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, W. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. *Operation Days.*—M. Tu. W. S., 1.30; (Ophthalmic), Tu. Th., 2.

St. George's. *Hours of Attendance.*—Medical and Surgical, M. Tu. F. S., 12; Obstetric, Th., 2; o.p., Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopædic, W., 2; Dental, Tu. S., 9. *Operation Days.*—Th., 1; (Ophthalmic), F., 1.15.

St. Mark's. *Hours of Attendance.*—Fistula and Diseases of the Rectum, males, S., 3; females, W., 9.15. *Operation Days.*—M., 2., Tu. 2.30.

St. Mary's. *Hours of Attendance.*—Medical and Surgical, daily, 1.45; o.p., 1.30; Obstetric, Tu. F., 1.45; Eye, Tu. F. S., 9; Ear, M. Th., 3; Orthopædic, W., 10; Throat, Tu. F., 1.30; Skin, M. Th., 9.30; Electro-therapeutics, Tu. F., 2; Dental, W. S., 9.30; Consultations, M., 2.30. *Operation Days.*—Tu., 1.30; (Orthopædic), W., 11; (Ophthalmic), F., 9.

St. Peter's. *Hours of Attendance.*—M., 2 and 5, Tu., 2, W., 5, Th., 2, F. (Women and Children), 2, S., 4. *Operation Days.*—W. and F., 2.

St. Thomas's. *Hours of Attendance.*—Medical and Surgical, daily, exc. W. and S., 2; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Tu. F., 1.30; Children, S., 1.30; Dental, Tu. F., 10 *Operation Days.*—W. S., 1.30; (Ophthalmic), M., 2.30, F., 2; (Gynæcological), Th., 2.

Samaritan Free for Women and Children. *Hours of Attendance.*—Daily, 1.30. *Operation Day.*—W., 2.30.

Throat, Golden Square. *Hours of Attendance.*—Daily, 1.30; Tu. and F., 6.30; *Operation Day.*—Th., 2.

University College. *Hours of Attendance.*—Medical and Surgical daily, 1.30; Obstetrics, M. W. F., 1.30; Eye, M. Th., 2; Ear, M. Th., 9; Skin, W., 1.45, S., 9.15; Throat, M. Th., 9; Dental, W., 9.30; *Operation Days.*—W. Th 1.30; S., 2.

West London. *Hours of Attendance.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th. S., 2; Ear, Tu., 10; Orthopædic; W., 2; Diseases of Women, W. S., 2; Electric, Tu., 10, F., 4; Skin, F., 2; Throat and Nose, S., 10. *Operation Days.*—Tu. F., 2.30.

Westminster. *Hours of Attendance.*—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1; Eye, Tu. F., 9.30; Ear, M., 9; Skin, W., 1; Dental, W. S., 9.15. *Operation Days.*—Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

Communications for the Current Week's Journal should reach the Office not later than Midday Post on Wednesday. Telegrams can be Received on Thursday Morning.

Communications respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters non-delivery of the Journal, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

In order to avoid delay, it is particularly requested that all letters on the editorial business of the Journal be addressed to the Editor at the Office of the Journal, and not to his private house.

Authors desiring reprints of their articles published in the British Medical Journal are requested to communicate beforehand with the Manager, 429, Strand, W.C.

Correspondents who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

Correspondents not answered are requested to look to the Notices to Correspondents of the following week.

Manuscripts forwarded to the Office of this Journal cannot under any circumstances be returned.

Public Health Department.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* British Medical Journal *are devoted will be found under their respective headings.*

QUERIES.

A Singular Idiosyncrasy.

A. C. S. asks for a remedy in the following case:—A lady, of decidedly gouty constitution, who observes strict hygiene, is a martyr to the attacks of fleas (pulex irritans). Of all persons assembled in a room, she alone seems to be singled out by the pest.

Treatment of Tinnitus.

M. S. asks for suggestions for the treatment of tinnitus of seven months' duration after influenza, and due to catarrh of the labyrinth. No deafness or pain in the ear.

Asylum for Idiot.

A Member would be greatly obliged by any information as to how to get an idiot into some asylum or home for idiots. The parents are farmers, and could afford to give from £30 to £35 per annum for maintenance. The name of any likely institution would oblige.

*** The Royal Albert Asylum for Idiots, Lancaster, and the Earlswood Asylum, Redhill, Surrey, or the Eastern Counties Asylum for Idiots, Essex Hall, Colchester, might take such a case.

Artificial Teeth.

M. writes: Will you advise me as to the best mode of having artificial teeth put in? Many dentists prefer the American plan of cutting the decayed tooth close off and screwing in a new crown, other dentists prefer artificial teeth to be fixed in plates and refrain from extracting the stumps, as they think by so doing the gums will not shrink. Should I be less liable to toothache by adopting the American plan, or by having teeth set in plates and without the extraction of "stumps"?

*** It is impossible to advise; both plans are good, and, when used judiciously, answer admirably, but very often the best plan of all is that all stumps should be extracted. When stumps are left in the mouth they should be made sanitary, that is, the dead and decomposing animal matter contained in their nerve canals must be removed and the root filled; if this is not done inflammatory trouble will arise around the stump, and acute or chronic alveolar abscess supervene. We would advise our correspondent to go to a good dentist, who has had a hospital training, and to be guided by him. The *Medical Directory* will give the information as to the standing of anybody whom our correspondent wishes to consult.

ANSWERS.

A Member will find information as to the scale of medical charges in the *Medico-Chirurgical Tariffs*, by Dr. J. de Styrap, published by Mr. H. K. Lewis, of Gower Street, price 2s.

Spes.—From the description of the case the patient would appear to be insane. "Spes" might approach the committee of the Manchester Royal Lunatic Hospital, Cheadle, who have the power to admit such cases at reduced rates.

Sigma will find some particulars as to the training of young ladies as nurses in the British Medical Journal of August 26th, p. 504. We believe that in all hospitals young ladies are expected to learn their duties thoroughly, and we are not acquainted with any institution in which they would be excused "drudgery" on account of a money payment.

INQUIRER.—Asparagus is classed by Cantani and Soulier among the plants possessing a feeble diuretic value, due in all probability to some substance other than asparagine. It enjoyed a great reputation for this purpose in the earlier days of medicine, but is not now much used, Broussais uses it as a cardiac sedative, and also as a slight aperient, contraindicated in acute diseases of the urinary organs.

ALPHA.—The British Medical Benevolent Fund extends its operations over England and Wales, as does also the Royal Medical Benevolent College at Epsom. Most county medical benevolent societies are willing to admit as members those who live at all within reach. This provision is made to render it possible to ascertain with ease the real claims of those who apply for relief. The Medical Sickness Annuity and Life Assurance Society, of which the secretary is Mr. F. Addiscott, 33, Chancery Lane, E.C., effects life assurances, and may not improbably meet our correspondent's wants.

TREATMENT OF TINNITUS.

F. R. C. writes: The tinnitus aurium in "M.B.'s" case being probably due to irritability resulting from cerebral weakness, the following might be of service: Bromide of ammonium gr. xv; tincture of nux vomica m x; dilute nitro-hydrochloric acid, m viij; chloroform water ʒ j; with syrup of lemon to flavour; two or three times a day, for a few days.

FOREIGN RESIDENCE.

DR. ALBERT ROSENAU (Bad, Kissingen) writes: In answer to "Alpha," I may recommend Wiesbaden as a suitable place. Schools, both private and public, are excellent, the climate is good, and there is plenty of social life and of amusement going on even during the winter. "Alpha" will find there also a good English society and several clubs.

NOTES, LETTERS, Etc.

Notice to Correspondents and Authors of Communications.

IN view of the great and constantly-increasing pressure on our space, we would urgently request correspondents and authors of communications to assist us in endeavouring to place their views before our readers by condensing their communications to the utmost extent.

THE PRESCRIBING CHEMIST.

ANTIQUACK writes: With reference to the observations of your correspondent of October 14th on this "open sore" of the profession, there are few registered practitioners, I take it, whose income tax is not materially affected by the prescribing chemist. His name is legion, and it is quite a mistake to suppose that his operations are confined to "poor people," unless people with an income of seven or eight hundred a year are so classed.

Hardest of all to bear, perhaps, is the defiant attitude he assumes. There is no law to touch him or disturb his pomposity, and he knows and rejoices in the fact.

FOREIGN BODY IN THE RECTUM.

MR. W. S. SYME, M.B. and C.M. (Gamlingay) writes: On October 13th I removed from the rectum of a butler a glass decanter stopper, the large part, globular in shape, measuring 2¾ inches in diameter. He stated that he had in a fit of depression, due to constipation of four days, forced the stopper into his rectum, large part foremost. It was only with difficulty that I succeeded with both forefingers in removing it.

THE DISCOMFORTS OF ATROPINE.

OUR attention has been drawn to a letter in the *Globe* complaining of the use of atropine by students in out-patient work for dilating the pupil and obtaining a complete examination of the eye. As usual in newspaper comments on hospitals and their doings there is a great deal of exaggeration in the statement, nevertheless we feel by no means sure that those who have to do with these cases always bear in mind as strongly as they might the serious loss involved upon working people by being deprived of accommodation even for a few days. For the correct estimation of some forms of refractive abnormality no doubt complete paralysis of the ciliary muscle is essential. To get the benefit the patient must put up with the loss. But it is otherwise where for the sake of ophthalmoscopic examination strong solutions of atropine are used; skill in the use of the instrument makes wide dilatation rarely necessary. It is but poor practice for a student to work only at dilated pupils, and a week's loss of work is a serious matter to an engraver or a seamstress. The moral is not to dilate unless it is necessary and when necessary to use homatropine.

THE MIDLANDS UNIVERSITY.

THE action of the Committee of Management of the Royal College of Surgeons in reference to medical instruction in the Midlands is, says the *Birmingham Daily Post*, interpreted there as an indication of the importance of the district as a medical centre, and must have a considerable influence on the agitation for the establishment of a Midlands university. Of course, the assent of the Royal College of Physicians must first be obtained, but this is already assured, and there is really no doubt now that in a few weeks the Stoke-upon-Trent School of Science and Art will be recognised, on the initiative of the College of Surgeons, as a place of instruction in chemistry, physics, and practical chemistry, and that the science school in connection with the Wolverhampton Free Library will be recognised as a place of instruction in chemistry, physics, practical chemistry, and biology. The real significance of this action of the authoritative Colleges is the evidence it gives of the fact that the Midlands is not yet properly provided with sufficient educational machinery of a medical character. This confession, it is thought, is a step nearer the establishment of a Midlands university.

LETTERS, COMMUNICATIONS, ETC., have been received from:

(A) Messrs. Allen and Son, London; Prof. Clifford Allbutt, Cambridge; Dr. P. S. Abraham, London; Another M.D. also M.R.C.P., L.R.C.S. Edin.; A. C. S.; Anti-Humbug. **(B)** Mr. J. B. Blackett, London; Dr. R. Bell, Glasgow; H. G. Barling, M.B., Birmingham; Dr. R. Barnes, Liss; Mr. W. Burton, Birmingham; Mr. T. Bates, Worcester; Mr. J. K. K. Benjamin, London; Dr. R. Broadbent, Leicester; Mr. J. P. Bush, Clifton; Dr. R. Boxall, London. **(C)** Dr. C. J. Cullingworth, London; Dr. J. Curnow, London; Mr. A. E. Calvert, Widnes; F. J. H. Coutts, M.B., Burnley; Mr. A. J. H. Crespi, Wimborne; Dr. A. H. W. Clemow, London; Messrs. T. Christy and Co., London; Mr. E. A. Cope, London; Dr. W. Cayley, London; Mr. T. E. Constant, Scarborough; Dr. S. L. Clift, Bournemouth; Professor Crookshank, London; Dr. F. G. Clemow, St. Petersburg; Mr. C. P. Childe, Southsea; Mr. H. Cross, Birkenhead. **(D)** D. B.; Mr. C. J. W. Dixon, Ventnor; Mr. D. L. Davies, Criccieth; Mr. J. Dodd, Glasgow; Mr. L. M. Dunlop, London; Mr. N. F. Davey, Abergavenny; Dr. S. Davies, Plumstead. **(E)** Enquirer; E. H. S.; Messrs. Eyre and Spottiswoode, London. **(F)** Mr. J. H. Ferguson, Dublin; Dr. A. Fraser, Totnes; C. R. Francis, M.B., London. **(G)** A. B. Giles, M.B., Edinburgh; Mr. R. Gilbard, Liskeard; Dr. H. R. Greene, Knaphill. **(H)** Messrs. Hertz and Collingwood, London; W. Hardman, M.B., Blackpool; Mr. C. H. Huish, Canterbury; Dr. J. P. Henry, Lewisham; Rev. J. Harris, London. **(I)** Interested; I. M. S. **(L)** Mr. W. W. P. Lewis, Oxford; Dr. J. A. Lindsay, Belfast; Dr. J. Limont, Newcastle-on-Tyne; Dr. G. Lichtenfeld, London; Dr. C. J. Lewis, Stirling; H. Lund, M.B., Manchester; Mr. W. Lewell, Ilkeston; Mr. H. Littlewood, Leeds. **(M)** Medicus; Dr. G. B. Mead, Newmarket; Dr. E. H. May, London; Mr. J. R. Murray, Queenstown; M. O. H.; M.B., Army Medical Staff; Member; Mr. J. Munday, Cardiff; M.D. and M.B.: M.B. and C.M. **(N)** Miss M. Nicoll, London; Nemo; Mr. P. Newell, Crowborough; Mr. H. O. Nicholson, Kirkcaldy; Non-Combatant. **(O)** Mr. J. Orr, Edinburgh; Oxford University (Secretary of), Oxford; Dr. T. Oliver, Newcastle-on-Tyne; P. T. O'Sullivan, M.B., Cork. **(P)** Mr. G. T. Pritchard, East Retford; Mr. W. Paulson, London; Miss M. C. Pincoffs, Minehead; Dr. C. B. Plowright, King's Lynn; Mr. G. C. Peachey, Wantage; Dr. L. Phillips, Birmingham; Dr. J. Priestley, Leicester. **(Q)** Qualified Practitioner. **(R)** Dr. A. Rosenau, Bad Kissingen; Dr. Risien Russell, London; Dr. A. Robertson, Glasgow; Mr. J. Rothwell, Wigan; R.; Rusticus; Mr. A. M. Raleson, Leeds. **(S)** Dr. R. C. Shettle, Reading; A. Scott, M.B., Edinburgh; Dr. T. Savill, London; Dr. J. M. Smith, West Calder; Stout; Mr. R. G. Strong, London; Mr. W. M. R. Smith, London; J. G. Sharp, M.B., Ashton-under-Lyne; Mr. T. H. Smith, Epsom; Mr. W. A. Smith, London; Dr. C. Spurway, Rome; Society of Apothecaries (Secretary of the), London; Messrs. Salamon and Co., Rainham; Mr. H. W. Scratchley, Poole. **(T)** Dr. T. W. Thursfield, Leamington; Dr. P. D. Turner, London; Mr. L. R. S. Tomalin, London; Mr. C. B. Turner, Great Grimsby; T. M. **(W)** D. Walsh, M.B., London; Mr. A. F. Williams, Guilsborough; G. E. Williamson, M.B., Newcastle-on-Tyne; Mr. E. W. Wallis, London; Dr. E. F. Willoughby, London; W. L. C.; Dr. J. J. Welply, Bandon; Mr. J. Warwick, Workington; Mr. W. R. Williams, Preston; Mr. H. J. Waring, London; Professor B. C. Windle, Birmingham; W. S. S.; Mr. J. H. Whitehead, London; Dr. Worthington, London; Dr. A. W. H. Walker, Harrogate; etc.

BOOKS, ETC., RECEIVED.

Amber; all about it. By J. G. Haddow. Liverpool: Office of "Cope's Tobacco Plant." 1892. 3d.

A Short Defence of Vivisection as now Practised in England. By A. H. Thompson. London. 3d.

A Homely Talk on Health; how to Gain and how to Keep it. By Florence Stacpoole. London: National Health Society. 2d.

Tumours, Innocent and Malignant; their Clinical Features and Appropriate Treatment. By J. Bland Sutton. London: Cassell and Co. 1893. 21s.

Chirurgie des Voies Urinaires, Études Cliniques. Par Dr. E. Loumeau. Bordeaux: Feret et Fils. 1894.

Über Tag- und Nacht-harn. Von H. Quincke. Leipzig: J. B. Hirschfeld. 1893.

Philosophical Transactions of the Royal Society of London. Vol. 184, pp. 505-639. London: Kegan Paul, Trench, Trübner, and Co. 1893.

Diagnostik der Harnkrankheiten. Von Dr. C. Posner. Berlin: Augus Hirschwald. 1894. M. 4.

Pathologie und Therapie der Neurasthenie und Hysterie. Dargestellt von Dr. L. Löwenfeld. Wiesbaden: J. F. Bergmann. 1894. M. 12.65.

***** In forwarding books the publishers are requested to state the selling prices.**

AN ADDRESS
ON
PELVIC ABSCESS.

Delivered at the Opening Meeting of the Midland Medical Society, at Birmingham on November 2nd.

By CHARLES J. CULLINGWORTH, M.D., D.C.L., F.R.C.P.,
Obstetric Physician to St. Thomas's Hospital.

[Abridged.]

I consider it a great distinction to have been invited to deliver this inaugural address. When I looked down the list of those who have had a similar honour paid to them in previous years, and remembered how almost every one of them had made it an occasion for adding something of sterling and permanent value to the literature of our profession, I realised (with much misgiving as to my competence for the task) how serious a duty I had undertaken.

In the Address in Obstetrics and Gynæcology which I had the honour of delivering at the recent meeting of the British Medical Association at Newcastle, I spoke of the debt that gynæcology owed to the enterprise of the modern abdominal surgeon, in regard more particularly to the light that had thereby been thrown on the pathology, diagnosis, and treatment of inflammation of the Fallopian tubes. Remembering that my address this evening would be delivered in Birmingham, the city where for many years abdominal surgery received its chief impetus, it seemed to me natural and fitting that I should utilise the occasion for calling attention to some of the many other directions in which our knowledge of pelvic disease has recently been much advanced, and in which the advance has been due, if not entirely certainly very largely, to the teaching of abdominal surgery. The subject I have chosen is pelvic abscess, or, to speak more correctly, pelvic suppuration in the female.

Until quite recently, all forms of pelvic suppuration were styled indiscriminately pelvic abscess, and our ideas as to their etiology and pathology were exceedingly vague. The changes that have been brought about in our views respecting suppuration in general, and pelvic inflammations in particular, have of necessity affected our notions as to pelvic abscess. We now know that suppuration in the pelvis, as in other parts of the body, is always an infective process, and can never have either a purely catarrhal or a purely traumatic origin. Neither cellulitis nor peritonitis can any longer be regarded as an idiopathic affection. Catarrh and injury may be, and often are, factors in their production, but they are not the essential factors. There must always be an infection of some kind. Our knowledge, too, of the morbid anatomy of pelvic abscess has received important additions. We now know that the immediate sources of pelvic suppuration are much more numerous than they were supposed to be, and that, although it may be convenient to retain the term pelvic abscess as a specific name for cases of suppuration in the connective tissue of the pelvis, and as a provisional diagnosis in other cases of pelvic suppuration, in which the precise locality of the lesion has not yet been discovered, the time has come to discard it as a general term, and to aim, in every case of pelvic suppuration, at a more exact diagnosis than the use of such a term would imply.

Abscess in the Connective Tissue of the Pelvis.

The simplest form of pelvic suppuration is that which occurs in the connective tissue, and it is this form to which I should like to see the use of the term pelvic abscess restricted. It will immensely facilitate our study of this affection if we recognise, once for all, that inflammation of the connective tissue in the pelvis differs in no way from inflammation of the same tissue in other parts of the body which are more accessible to sight and touch. I was glad to see the attention of gynæcologists very forcibly called to this point by Professor Wm. Keiller, of the University of Texas, in the *American Journal of Obstetrics* for September, 1893. Primary cellulitis, as we know it in other parts of the body, is always an acute affection, and is always septic in its origin. Professor Keiller takes as an example the ordinary clinical course of a septic wound of the palm of the hand. The process in pelvic cellulitis is precisely analogous. "The cellular area of the pelvis is shut off from the perineum by the pelvic fascia. This strong aponeurosis is attached to the pelvic wall between the pubic bones and bodies of the ischia along that thickening of the obturator fascia known as the white line. From this it passes as a continuous sheet over the levator ani and coccygeus to the vagina in front and the rectum and coccyx behind. Behind the pubic symphysis it is closely blended with the vaginal orifice under the name of the triangular ligament. All inflammatory exudation connected with the female genitals above the vulva takes place above this strong fascia; and as, in a septic wound of the palm of the hand, the exuded serum or lymph is forced to find accommodation on the back of the hand by the strong palmar fascia and the way in which the skin is bound to it, so the pelvic fascia forces the exuded fluids in septic wounds of the deeper genitals, to find accommodation in the loose tissue above it." The most common source of such exudations is septic absorption through lacerations of the cervix and of the upper part of the vagina, occurring during labour, the latter accident accompanying the use of the forceps much more frequently than is supposed. I have over and over again, in cases of pelvic cellulitis seen in consultation, found wounds of the vagina that had been entirely unsuspected by the medical practitioner in attendance, and that had evidently been caused by the projecting edge of one of the blades of the forceps.

Only less important than parturition in respect to the etiology of this affection are the various surgical measures practised on the vagina and cervix. Before the necessity of rigid aseptic precautions was understood and generally acted upon, the most trifling surgical proceedings in these parts were apt to be followed by an attack of cellulitis. With regard to abortion, I am inclined to believe that septic infection following abortion seldom, if ever, takes the form of pelvic cellulitis, for the simple reason that there being no over-distension of the cervix or wounding of the vagina by the use of instruments, injuries to those parts are less likely to occur. This impression is abundantly borne out by my own experience. In examining the records of St. Thomas's Hospital for the past five years, I find that during that period there have been twenty-two unequivocal and uncomplicated cases of cellulitic abscess in the pelvis. Of these not a single one followed abortion. Twenty-one were the result of parturition; and the twenty-second, the cause of which was not discovered, occurred in the fifth month of pregnancy. In connection with this subject of abscess in the pelvic connective tissue, Professor Keiller very properly calls attention to the *rôle* played by the lymphatic vessels and glands. He points out that nothing is more common, as the result of a neglected septic wound of foot or hand, than to have a suppurating gland in the groin or axilla, and asks if it is "to be expected that the pelvic glands will always escape in vaginal or cervical wounds." I feel as certain as he does that they do not escape, and I can call to mind several cases where, from the position of the abscess, I have no doubt that there was suppuration of the hypogastric glands, those, namely, which surround the iliac vessels at the sides of the pelvis, and receive the lymphatics from the cervix, and the upper three-fourths of the vagina. "Of course," as Professor Keiller says, "we cannot palpate a large and tender gland" in such a situation, "and for this reason we are very apt to forget its presence."

Where do cellulitic abscesses in the pelvis usually point? In the great majority of cases the spread of the inflammation is in a forward direction, from the base of the broad ligament, where it starts, to the connective tissue lying beneath the peritoneum which forms the floor of the anterior pelvic fossa, stripping up the peritoneum where it becomes reflected on to the anterior abdominal wall, and forming a broad strip of induration along and parallel with the upper border of Poupart's ligament. When suppuration occurs the skin over the induration gradually becomes œdematous, and pointing usually occurs at a spot almost immediately above the centre of Poupart's ligament. It will be seen from the accompanying table that, of the twenty-two case of uncomplicated cel-

TABLE I.—*Cellulitic Abscess in Pelvis, 1889-93.*

Pointed above Poupart's ligament,	right side ...	... 9
,, ,, ,,	left side ...	... 9
		—18
Pointed over iliac crest		1
Opened before pointing occurred; abscess situated on posterior wall of pelvis		3
		22

Cellulitic abscess treated during the last five years in the women's ward at St. Thomas's Hospital, the abscess pointed above Poupart's ligament in eighteen, nine times on the right side and nine times on the left. The inflammation is often described as "following the course of the round ligament," but I know of no evidence to show that the round ligament plays any part in determining the course of the inflammation. The study of frozen sections has taught us that, at the end of pregnancy, the broad ligaments have been drawn upwards by the growing uterus, so that the base of the ligament is at the brim of the pelvis, and the peritoneum no longer descends laterally into the pelvis at all. The whole of the lateral space below the pelvic brim is, at this period, occupied by cellular tissue, the quantity of which has become enormously increased.[1] There is, therefore, no need to invoke the intervention of the round ligaments to account for the inflammation passing forwards from the base of the broad ligament to the tissues just above Poupart's ligament. These parts already lie in close juxtaposition and the extension of the inflammation from one to the other really needs no other explanation.

In exceptional cases the inflammation passes round to the loose tissue in front of the bladder and the abscess points above the symphysis, or, mounting up between the anterior parietal peritoneum and the sheath of the rectus, points at the umbilicus. In 3 of the 22 cases tabulated the abscess formed at the back instead of at the front of the pelvis, probably owing to implication of the hypogastric glands, and was opened by making an incision above the anterior superior iliac spine, and dissecting inwards, beneath the peritoneum, to the pelvic brim. It is probably in cases of this kind that the suppuration occasionally extends upwards along the subperitoneal tissue of the iliac fossa, and even into that of the loin, pointing either at the iliac crest, as in one of the cases in the table, or above it. The textbooks speak of the pus in such cases following the course of the psoas muscle, but when matter burrows along the psoas, it is not from a cellulitic abscess but from dead bone. It is along the blood vessels and other parts, such as the ureter, that actually lie in the connective tissue of the pelvis and are accompanied by a prolongation of it as they enter and leave the pelvis, that the pus finds its way.[2] This is not only true of the cases in which suppuration extends to the iliac fossa and the loin, but also of those where the pus leaves the pelvis by the sciatic notch, or, passing beneath Poupart's ligament, points in Scarpa's triangle. In the former case it follows the course not of the obturator tendon but of the sciatic and gluteal vessels, and in the latter it is the femoral vessels that direct the course of the abscess.

It is commonly stated that cellulitic abscesses frequently burst into the rectum, the vagina, and the bladder. This statement appears to me to rest on very slender foundation. Many of the cases quoted in its support belong to an era when little was known of the pathology of pelvic inflammation, and, on carefully reading them in the light of our present knowledge, it is easy to see that at least a considerable number reported as cellulitic abscesses were really cases of intraperitoneal suppuration originating in suppurative disease either of the tubes or ovaries. At the same time, it is only fair to say that there does not appear to be any anatomical reason why cellulitic abscesses should not occasionally discharge themselves into the rectum, the vagina, and the bladder, and that some of the cases in Delbet's collection appear to be genuine examples of such an occurrence.

The next table shows, in regard to the 21 cases in which cellulitic abscess followed parturition, the period that elapsed between delivery and the pointing or opening of the abscess. It will be seen that, judging from the small number of cases here recorded, the usual time for the abscess to point is between the seventh and twelfth week. The earliest period at which pointing occurred was five weeks, the latest fourteen.

TABLE II.—*Period after Delivery when Abscess Pointed or was Opened.*

Over 5 and under 6 weeks				... ...	1
,, 6	,,	7	,,	... ...	4
,, 7	,,	8	,,	... ...	2
,, 8	,,	9	,,	... ...	3
,, 9	,,	10	,,	... ...	5
,, 10	,,	11	,,	... ...	2
,, 11	,,	12	,,	... ...	2
,, 12	,,	13	,,	... ...	1
,, 14	,,	15	,,	... ...	1
					21

The treatment of cellulitic abscess in the pelvis—that is, of true pelvic abscess, is summed up in two words, incision and drainage. Abdominal section is here entirely uncalled for. The abscess should be opened as soon as ever fluctuation is detected or there is the faintest indication of pointing. In ordinary cases the drainage tube is only required a very few days. Unlike other forms of suppuration in the pelvis, cellulitic abscess in my experience tends, when once the matter has been set free, to complete and rapid recovery. I have never seen troublesome sinuses form, and the tendency to lateral displacement of the uterus from subsequent contraction of cicatricial tissue has, I believe, been much exaggerated. This affection offers no bar to subsequent conception, and when pregnancy again takes place its normal course is not interfered with. All this is in strong contrast to what occurs after other forms of pelvic suppuration.

I have had no experience of cellulitic abscesses pointing in the vagina, and therefore have never had occasion to open one there. Frequently I have found in cases of pelvic inflammation soft fluctuating swellings depressing the vaginal vault, both laterally and posteriorly, but such swellings have invariably proved to be other than cellulitic, and I have often had cause to be thankful that I had not been tempted to open them from below.

When I said just now that abdominal section was never required in cases of cellulitic abscess, I had not forgotten Mr. Lawson Tait's historical paper, read before the Royal Medical and Chirurgical Society in 1880. The cases of pelvic abscess, however, that were described in that paper were not cellulitic, but were examples, apparently, of suppurating hæmatoma of the broad ligament, and, as such, do not come within the category of which I have been speaking. They belong rather to the group with which I come now to deal, and of which I agree with Mr. Tait in believing abdominal section to be the only proper treatment.

OTHER FORMS OF PELVIC SUPPURATION.

Passing now to other forms of pelvic suppuration, it is desirable, in the first instance, to obtain some idea of their relative frequency. With that object I have tabulated 83 cases in which I have performed abdominal section and found suppurative disease within the pelvis. The number is not large, but it is sufficient to give some indication of the main sources of intrapelvic suppuration and of their relative frequency. The 83 cases may be classified as follows:—

TABLE III.

Purulent salpingitis (including pyosalpinx)			37
Purulent salpingitis, with suppurating cyst of ovary (eight communicating)			13
Suppurating cyst of ovary			17
Tuberculous disease—of tube		3	
of ovary		3	
of tube and ovary		1	— 7
Disease of vermiform appendix			1
Suppurating retroperitoneal cyst			1
Suppurating lumbar gland			1
Undetermined			6
			83

From this table it is abundantly clear that purulent salpingitis is much the most frequent source of intrapelvic suppuration. It was met with in upwards of 60 per cent. of the cases. In 44½ per cent. no other suppurative disease existed, and in the remaining 15½ per cent., although associ-

[1] Barbour's *Sectional Anatomy of Labour*, pp. 16 to 18.

[2] See Anderson (W.) and Makins (G. H.) The Planes of Subperitoneal and Subpleural Connective Tissue, *Journ. Anat. and Physiol.*, vol. xxv, Part I., Oct., 1890, p. 78.

ated with suppurating cyst of the ovary, there was strong evidence of the suppurative change in the ovary being secondary to the purulent inflammation of the tube. Having so recently spoken of the pathological importance of the Fallopian tubes in connection with pelvic peritonitis, I need not on this occasion further insist upon it. I may, however, point out that the reason why there is no separate mention in the table of cases in which encysted intraperitoneal collections of pus were found is that such collections are almost invariably a mere complication of purulent salpingitis. We are in the habit of thinking of suppurating Fallopian tubes as closed sacs of pus, the pus being pent up in the tube by occlusion of the abdominal ostium. But it must be remembered that in the earlier stages of purulent salpingitis the fimbriated ends are open, and the pus is free to discharge itself into the peritoneal cavity. In a paper recently read before the Obstetrical Society of London I described a case of gonorrhœal salpingitis, in which the fimbriated ends of both tubes were open, and were discharging their purulent contents into Douglas's pouch, which had become closed in by adhesions. The pouch formed a little reservoir of pus, fed by two supply pipes, and with no outlet. Had the case been allowed to go on, no doubt ulceration into the rectum would have taken place. It was particularly interesting to see one of these intraperitoneal collections of pus in actual process of formation.

Suppurating Cysts of the Ovary a Form of Pelvic Suppuration frequently Unrecognised.

Next to purulent salpingitis, the most common form of pelvic suppuration is suppurating cyst of the ovary. The frequency with which acute pelvic peritonitis is due to the presence of small suppurating ovarian cysts which, owing to their size, had not previously been known to exist, is, I believe, not generally recognised. At any rate, it has been quite in the nature of a revelation to me as case after case has occurred in the course of my own work. These cases are invariably sent into the hospital as cases of acute pelvic cellulitis. I feel sure that even when the abdomen has been opened and the suppuration discovered the true nature of the case has not always been made out. Many instances in which a collection of pus has been opened and the cavity drained have, I have little doubt, been cases of suppurating ovarian cyst. The matting together of adjacent parts is of itself sufficient to render recognition difficult. But there is one condition that contributes to increase this difficulty more than any other, and that is the tendency of an ovarian cyst, when it becomes inflamed while still small enough to lie in the pelvis, to contract adhesions to the broad ligament, and in the course of its enlargement to draw the stretched and thickened broad ligament over it, until its anterior surface is completely concealed by it as by a hood. Until an operator becomes familiar with this phenomenon the condition that presents itself to his eye and touch is exceedingly puzzling and misleading. What often happens is that, deep-seated fluctuation being detected, a trocar is passed through the broad ligament into the suppurating cyst behind it, and the cyst is emptied and drained under the impression that it is a collection of pus either in the broad ligament or behind the parietal peritoneum. Operators who have had frequent occasion to open the abdomen in cases of obscure pelvic suppuration will, I feel sure, recognise the truth of this description. The proper treatment of such cases is, not to tap the cyst, but, having obtained access to it by the careful and patient separation of adhesions, to enucleate it, if possible entire, until there remain only the normal attachments, which can then be treated as a pedicle and the whole cyst removed.

Table IV.—*Suppurating Ovarian Cyst* (*Intrapelvic*).

Directly communicating with suppurating Fallopian tube	8
Adherent to suppurating Fallopian tube	5
Adherent to inflamed Fallopian tube	12
Adherent to ulcerated vermiform appendix	1
Source of infection undetermined	4
	30

With regard to the cause of the suppuration in these cysts, the evidence is strongly in favour of the view that in the great majority of cases the suppurative change in the ovary is secondary to purulent salpingitis. Of the 30 cases in which suppurating ovarian cysts were discovered, it will be seen from the next table that active purulent salpingitis was found in 13 and chronic salpingitis in 12.

In the latter the conditions of the parts around showed that the tubal inflammation, though now chronic and comparatively quiescent, had originally been acute and severe. The fire had here, as it were, died out, though in the neighbouring structures to which the flames had extended it was still raging. Thus 83 per cent. of the cases of suppurating ovarian cyst were associated with salpingitis. If it be asked why may not the tubal disease be secondary and the ovarian primary, I reply that if that had been the case one would have expected the mucous lining of the tube to be the last part affected and the least; in other words, one would have expected evidence that the inflammation of the tube had passed from the peritoneal coat inwards rather than from the mucous coat outwards. In eight instances the suppurating tube and the suppurating ovarian cyst were at the time of the operation in direct communication owing to ulceration of the cyst wall and perforation into the adherent tube.

Whether the cystic degeneration in the ovary ever itself begins as an indirect result of inflammatory changes involving the outer coat of the ovary I cannot say. But certainly in the majority of cases it is much more likely that there already existed a small cyst, the contents of which became infected from the adjacent tube and that the cyst then grew so rapidly as to be easily mistaken for a large abscess in process of formation. Of the five remaining cases of suppurating ovarian cyst, in one the cyst had evidently become infected from a diseased vermiform appendix, whilst in the remaining four the source of the suppuration was not discovered. It is of course possible that in these the cysts became infected from their propinquity to the rectum.

To the remaining cases of intrapelvic suppuration enumerated in Table III, I propose only to allude very briefly. The subject of tuberculous disease of the uterine appendages, of which there are seven cases on the list, is one of extreme interest but is much too large to be adequately dealt with on the present occasion. I would merely say, in passing, that when the disease is limited to these parts or when the only other manifestation of the disease is miliary tubercle of the peritoneum, removal of the diseased appendages is not only a justifiable operation but is frequently attended with the most satisfactory results. The female pelvis is one of the situations where we are happily able, when the condition has been discovered in time, to rid our patients of the disease before it has become a focus of general tuberculous infection.

The case in which an intrapelvic suppuration was found to be due to a diseased appendix vermiformis does not, of course, properly come within my province as a gynæcologist. It happened, however, that the acute attack of peritonitis for which the patient was admitted occurred a few days after parturition and was naturally thought to be connected with that process. As it is only under exceptional circumstances that such cases come under my care it is obvious that my individual experience affords no guide to a correct estimate of their relative frequency.

The six cases in which the seat of the suppuration was not definitely made out occurred in the earlier part of my work, when, having not yet attained the boldness that comes of experience, I was content to empty and drain any deep-seated collection of pus in the pelvis without attempting to separate and remove the suppurating organ.

Fistulæ as a Complication of Pelvic Suppuration.

I propose to devote the remainder of the time at my disposal to a consideration of those cases in which collections of pus within the pelvis have burst into the rectum, the genital canal, or the bladder, and in which the opening being insufficient and the evacuation of the pus consequently incomplete, a sinus remains through which there is a constant or intermittent purulent discharge. From amongst a number of such cases that have come under my observation I have selected for mention a single example of each of the main varieties of this form of fistula, beginning with the most common one, that, namely, which occurs as the result of the bursting of a collection of pus into the rectum.

Case I.—A woman, aged 35, who had been in good health all her life and was entirely unaware that she had a tumour of any kind, was ad-

tended in the maternity department of St. Thomas's Hospital in her eighth confinement. On the sixth day the temperature rose to 100.2° F. On the seventeenth day the patient complained of a dull aching pain in the lower part of the back and the outer part of the left thigh. On the nineteenth day there was noticed some swelling in the abdomen, and on the following, that is, on the twentieth day, the patient was admitted into the hospital. The abdomen was irregularly distended. The uterus reached to within 3 inches of the umbilicus, and was pushed forwards by a swelling behind it, which felt like a tense cyst. On vaginal examination, a swelling, continuous with that felt in the abdomen, was found to occupy the hollow of the sacrum, distending the pouch of Douglas. It was of unequal consistence, and in one part gave a sense of fluctuation. The temperature ranged from 99° F. in the morning to 101° F. in the evening. The urine was healthy. It was thought at first that the swelling might be a hæmatocele, but when the patient had been nearly three weeks under observation a large quantity of very fœtid pus was passed by the rectum. The temperature at once fell to normal, and next day there was a marked diminution in the size of the swelling. Pus continued to be passed at intervals for a fortnight, when abdominal section was performed. The swelling proved to be a suppurating dermoid cyst of the right ovary. The cyst was everywhere adherent, and the process of separating and removing it was one of extreme difficulty, occupying two hours and a-half. The cyst contained a compact mass of hair, 4 inches by 3 inches, some pieces of bone, and, in a separate loculus, 28 fluid ounces of thick yellow fluid, which solidified on cooling. A direct communication existed between the cyst and the right Fallopian tube, which was 9 inches in length and greatly thickened, and was in a state of acute suppurative inflammation. The cyst had also opened by ulceration into the rectum. Convalescence was somewhat protracted, but no pus was again seen in the evacuations, and none of the contents of the bowel ever escaped through the wound. The patient left the hospital well in ten weeks. It is now upwards of two years since the operation, and the patient, whom I saw a fortnight ago, remains perfectly well.

In the next case a sinus existed in the vault of the vagina for eight months, and was found at the operation to communicate with one of a series of small suppurating cysts of the right ovary. It is of special interest (1) as being a typical example of the cases that have continually been described by observers who do not operate as instances of cellulitic abscess bursting into the vagina; and (2) as affording an unanswerable argument in favour of dealing with such cases by abdominal section rather than by enlarging the sinus from below. The case has already been published in detail,[3] and I shall therefore be content with giving it here in abstract.

CASE II.—A young married woman, aged 22, was delivered of her first and only child at the age of 19. For twelve months after the labour she suffered from constant pain in the right iliac region. She then remained well for some few months, when the pain returned, and one day, eight months before admission, a sudden discharge of thick yellow fœtid matter took place from the vagina. The discharge had continued, with short intervals, ever since. The pouch of Douglas was occupied by a hard rounded mass, extending further to the right side than to the left. At the upper part of the posterior vaginal wall was a small opening, the size of a pea, with indurated margins. The diagnosis was vaginal fistula communicating with suppurative inflammation of the right uterine appendages. Abdominal section was performed. A soft oblong mass, consisting of the right ovary and Fallopian tube, was removed from Douglas's pouch, where its dense adhesions were separated with difficulty. On examination the diseased ovary was found to consist, on section, of a number of small inflamed cysts, many of them full of pus. An opening large enough to admit a goose quill, and surrounded by granulation tissue, was found on the surface of the ovary, communicating directly with one of the abscess cavities in its substance. The right tube was attached to the ovary, and was elongated. Five weeks after the operation the patient left the hospital well. There had been no further purulent discharge from the vagina. Ten months later no swelling could be detected on vaginal examination on either side of the pelvis. Menstruation was regular, and the patient felt well and strong.

Had the treatment here consisted of enlarging the sinus in the posterior wall of the vagina only one cyst would have been laid open, and the patient would have been left with several others to give trouble later on.

The next case, like the first that I related, proved to be a suppurating dermoid of the ovary, situated deeply in the pelvis; but instead of ulcerating through into the rectum it opened into the cervix uteri, resulting in a fistula in that situation. I published the case in full in a paper in vol. xvii of the *St. Thomas's Hospital Reports*, and shall here merely give an abstract of it.

CASE III.—A married woman, aged 36, was admitted into hospital nineteen weeks after a difficult labour. A fortnight after labour a purulent discharge took place from the vagina, and continued for thirteen weeks, when it suddenly became more profuse and very offensive. Not long after this a quantity of horribly offensive pultaceous material passed, together with a quantity of hair three or four inches in length. The patient subsequently endeavoured to occupy herself in the house, but found that she was becoming thinner and weaker, and that she was never safe from a sudden outburst of ill-smelling discharge. An abdominal swelling had been noticed for the first time about six weeks after the confinement. On admission the patient, who was sent in as a case of pelvic cellulitis, was pale, wasted, and very ill. She had a rounded tumour in the right iliac region, reaching to the level of the umbilicus. On the inner and posterior wall of the cervix could be felt a lacerated depression, and behind it, in Douglas's pouch, was a hard rounded mass. On opening the abdomen the swelling proved of course to be a suppurating dermoid of the ovary. The tumour was carefully and with much difficulty detached all round. As it was being removed, a gush of highly-offensive gas escaped with a distinct whiz. The patient was able to sit up in bed in three weeks, and at the end of six weeks she left the hospital well.

This case, like the first, is an instance of suppurative inflammation of an unsuspected ovarian cyst closely following a difficult labour. The probability is that some laceration of the posterior wall of the cervix took place during delivery, opening up a channel by which septic infection could easily reach the tumour.

The next and last case that I shall relate is, to my mind, the most interesting of all.

CASE IV.—The patient, a woman aged 32, had been married nine years but had never been pregnant. Six months before her admission she had what was supposed to be an attack of influenza. She kept her bed for a fortnight and then went into the country. Whilst there she noticed some thick yellow matter in the urine, which had continued to appear ever since, that is for a period of five months, the daily quantity being estimated by the medical attendant to average about half a fluid ounce. She had suffered pain from time to time in the right iliac region, but this had never been very severe. On examination under anæsthesia, the uterus was found of normal length, the canal directed to the left. On the right side of the pelvis a large, hard, uneven, roughly globular mass was felt, depressing the vaginal roof and extending upwards to the level of the anterior superior iliac spine. A sound introduced into the bladder was prevented by the swelling from passing beyond a very short distance in the middle line, but passed easily to right and to left of it posteriorly. It was evident that there was chronic suppuration of the uterine appendages, and that there was a sinus communicating with the bladder. I had not yet had occasion to operate upon a case of this kind, and although I saw no other satisfactory way of dealing with it, I undertook the operation with considerable misgiving. However, on December 8th of last year I opened the abdomen. The thickened right broad ligament had been drawn over the anterior surface of the diseased parts, and was adherent to omentum and pelvic wall. These adhesions having been separated, access was obtained to the mass beneath and, with the fingers of an assistant in the rectum to serve as guide, separation was slowly and carefully effected. The mass when removed proved to consist of the inflamed right Fallopian tube, and a suppurating cystic ovary three inches in diameter. The ovary was removed without rupture. Its surface was convoluted like that of a tomato. On its under surface was a small opening from which blood-stained purulent fluid oozed on pressure, and which probably represented the aperture of communication with the bladder. On section it was shown to contain two separate cysts, each of them filled with purulent fluid of a brick-red colour, and without ill odour. The bladder was deep down, quite out of sight and out of reach, so that any attempt to close the opening in its wall was entirely out of the question. No urine escaped either during the operation or subsequently. The urine drawn off up to midnight contained pus and blood. The bladder was at first emptied by catheter every two hours to prevent distension. Next day the interval was prolonged to three hours, and on the fourth day to four hours. The patient was able to sit up on the sixteenth day, and left the hospital looking stout and well at the end of two months. Notwithstanding that the general condition was excellent, there continued to be a little suppuration from the lower angle of the wound for six months, when the sinus finally closed. The patient has presented herself since from time to time, and when I last saw her, a month ago, she was in perfect health.

I have narrated these cases with two objects specially in view. The first was to show that when pelvic suppuration is complicated by internal fistulæ, the suppuration is not cellulitic, however much it may simulate it, but is due to intra-pelvic disease that can be properly dealt with only by abdominal section. The second object I had in my mind was to show the feasibility, even in the most unpromising cases, of complete removal of the disease, and to urge the superiority of that method over the mere emptying and draining of the suppurating cavity, and the stitching of the edges of the sac to the abdominal incision.

I am painfully conscious that in offering the foregoing remarks to my colleagues in Birmingham and the Midlands, I am addressing many who have had a far larger experience than I in the treatment of the diseases to which they refer, and before whom it would be much more fitting that I should appear in the capacity of learner than of teacher. Nevertheless, I trust they will appreciate my effort to prove to them that the example they have set, in endeavouring, in spite of much opposition, to advance the department of medicine with which I am more especially identified, has not been altogether lost even upon the benighted Londoner.

[3] *Obst. Soc. Trans.*, vol. xxxiv for 1892, p. 387.

THE new building of the New York Pasteur Institute was opened on October 9th. It is five storeys in height, and is situated just opposite the Central Park in Ninety-seventh Street. Dr. Paul Gibier is the medical director. A large gathering attended the opening ceremony. The building is equipped with laboratories for experimental research, containing the most recent forms of scientific apparatus. Dr. Gibier delivered a lecture on "Microbes."

PRESIDENTIAL ADDRESS
ON
INFECTIOUS DISEASES
WITH
ESPECIAL REFERENCE TO THEIR TREATMENT BY VACCINES.

Prepared for the Annual Meeting of the Birmingham and Midland Counties Branch of the British Medical Association.

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[Abridged.]

I feel I ought to preface my remarks by giving an answer to the question, What is an infectious disease? The framing of a definition is always difficult, and it is especially so in this case, seeing that the class of infectious diseases is already an extensive one, and its borders are being daily enlarged, so that a concise, yet comprehensive, definition which would answer for many members of the class would not fit all. With our present knowledge I think I am justified in defining an infectious disease as a disease caused by the presence in the body of a pathogenic micro-organism from without, having an incubative period and capable of being communicated (by some method) from one individual to another. There are other features which characterise most members of the class, but not all, such as fever, limited duration, and protection of the system from a future attack of the same disease.

Infectious diseases, speaking generally, concern not only those attacked but those around, the whole community—*Tua res agitur paries si proximus ardet.* Hitherto with regard to them our energies have been spent almost entirely on prevention, and, with all our improvements in practical sanitation, outbreaks continue to manifest themselves, though these are looked upon as a reflection on the authorities of the district where they occur. Our curative treatment of these diseases has been essentially expectant; we have stood at the bedside only as nurses to Nature, making domestic conditions favourable, trying to relieve symptoms and combat complications, knowing that the tendency in most of the infectious disorders is for the disease to terminate favourably and feeling assured that if we can keep our patients alive for a limited but varying period of time their recovery will be complete. There appears now promise that we are on the eve of a great medical era, when we shall no longer be satisfied with lessening our losses from infectious diseases by preventive measures and look on while these diseases run their uninterrupted course to recovery or death, but shall have curative methods at our command.

Centuries ago there was a suspicion that some infectious diseases were caused by micro-organisms, and when in the middle of this century it became known that fermentation was the result of the action of a living organism, the term "zymotic" was imported into our medical nomenclature to designate endemic, epidemic, and contagious diseases.

Now the germ origin of infectious disorders is fairly established, bacteriologists are beginning to particularise the various micro-organisms which give rise to the different diseases, to call them all by their names, to figure them, to colour them by stains, to differentiate them by culture, to attenuate and intensify their activity, and to separate their poisonous secretions.

But, apart from the demonstration of microbes in infectious diseases by the microscope and by cultures, we are forced to the conclusion that these diseases are caused by living organisms from the fact that in every infectious disease a developmental period is essential, and the duration of that period in each case is becoming known. The fixed period of the incubative stage and the duration of illness, which varies within narrow limits in most of the infectious diseases, seem to argue in favour of their microbic origin. These features lend colour to the conception of the growth and death of a living organism, its death being the result of a poison secreted by itself, or of starvation of the parasite from its having completely consumed some constituent of the body upon which it feeds. This latter view would go to explain the phenomenon of immunity which is difficult to explain on other grounds. The immunity afforded by an attack of an infectious disease against a future attack of the same disease is further evidence of its microbic origin, for we know of no inanimate poison which will afford such immunity against its own future action.

The study of bacteriology is a gigantic undertaking and quite outside individual enterprise; the necessary appliances, the character of the experiments, the nature of the observations make it a specialism. We are now anxiously waiting for knowledge from the bacteriologist who is endeavouring to learn the life-history of microbes, the conditions favourable and prejudicial to their existence, agents which will destroy them or neutralise the poisons which they produce, or some method by which the human organism may be protected against the attacks of these parasites. The undertaking is not likely to be one of rapid accomplishment, "To climb steep hills requires slow pace at first."

Small-pox and Vaccination.

I wish now to refer in some detail to one or two of the infectious diseases, and first I propose to dwell at some length on small-pox and its preventive treatment by vaccination. Let us first take a cursory glance at the history of vaccination. The ravages of small-pox were met in bygone times by inoculating the healthy with small-pox to produce an attack of the disease which was of a mild character, but yet protected the system against future attacks; when and where variolation was first in operation history does not say. There is no doubt that Lady Mary Wortley Montagu introduced it into this country in the early part of last century, that it was extensively carried on here in the latter part of that century, and that the practice was continued up to 1840, when Parliament prohibited it. While variolation produced very mild attacks, little disfigurement, a mortality of about 1 in 500, and as much security as an attack of the disease acquired by contagion, yet it obviously increased the number of cases of small-pox by giving it to those who would not otherwise have had it and by these in their turn spreading it by contagion.

In 1796 Jenner performed his first vaccination. He found on the hands of a milkmaid in Gloucestershire vesicles contracted accidentally by milking a cow-poxed cow. With lymph from these vesicles he inoculated a boy, and produced vaccine vesicles. This boy, some six weeks afterwards, he inoculated with small-pox without result, and thereby satisfied himself that cow-pox inoculation or vaccination had rendered this boy insusceptible of small-pox.

In 1798 Jenner printed his *Enquiries into the Causes and Effects of the Variolæ Vaccinæ, a Disease discovered in some of the Western Counties of England, particularly Gloucestershire, and known by the Name of Cow-pox.* In this publication he gives an account of his first vaccination, and states how that he lost his stock of lymph, and was therefore prevented from repeating his experiment until March, 1798, when he inoculated a boy with cow-pox lymph straight from a pock on the teat of a cow. The inoculation succeeded, and from vesicles on this boy he inoculated others, and from them others, and, for aught I know, you and I have been vaccinated from the same stock of lymph.

There were failures in vaccinal protection in Jenner's time; he met them by ascribing them to the use of lymph from spurious cow-pox, the lymph of which was not protective. In the year 1845 Dr. Badcock of Brighton had small-pox himself three months after vaccination, and he found failures in others. He concluded that the lymph in use was getting worn out; he raised a new stock by variolating a cow, and this lymph was extensively used.

In 1853 Marson of the London Small-pox Hospital explained failures by insufficient application of the lymph, and said that security might be measured by the number of cicatrices: he found that while the mortality of those with one scar was 7½ per cent., that of those with four scars was less than 1 per cent.

What, I would ask, is our position now in regard to vaccination? May be some of the profession are satisfied to practise on authority, and are pleased to be spared the time

and trouble of thinking; the bulk of us, however, desire to have a reason for the faith that is in us. The consideration of the question in its scientific aspect involves reliance on observations made a long time ago, when criticism, though violent, was not so severe as now. One such observation, showing that human small-pox may be transferred to the cow by contagion, by exposing the animal to clothing from a small-pox patient, and many others which have at one time had credit, are now not generally accepted. Before an opinion can be formed from the scientific aspect of the subject many experiments would have to be repeated, many questions would have to be thought out. For instance, Is our present vaccinia cultivated cow-pox? That is to say, Is the lymph now in use humanised cow-pox lymph, or cow-pox lymph the stock of which has been kept up by heifer inoculation? Is cow-pox a disease arising spontaneously in the cow? Is cow-pox in the cow the same disease as small-pox in man? Is cow-pox inoculated human small-pox?

It is said by some that cow-pox is a local disease and non-contagious, that small-pox is a general disease and contagious, and that therefore the two diseases cannot be the same; but we have learnt of late years how disease may be modified by cultivation, and history tells us of the great difference between inoculated small-pox and natural small-pox; moreover, we know of no disease in man which protects him from a different disease, or even modifies an attack of a different disease; and a strong argument to my mind that cow-pox is inoculated human small-pox is the recorded fact that stocks of lymph raised by variolating the cow have been extensively used for vaccination, and have produced vaccinia, to all appearance the same as that from cow-pox lymph, and bestowing the same protective influence. Cow-pox is seldom witnessed now; it is so rarely found that although I have been in touch with some dairy districts for twenty years, I have never had an opportunity of seeing a case.

The view that cow-pox in the cow is inoculated small-pox explains the rarity of cow-pox at the present time, inasmuch as persons do not now as formerly follow their occupations while suffering from small-pox; and should this view prove to be correct, the value of Jenner's discovery would be much enhanced from a scientific standpoint.

In weighing the claims of vaccination, my mind has been largely influenced by Jenner's experiments, by statistics, especially recent ones, and by my own limited observations. Jenner vaccinated, and then tried in vain to variolate. It would be well if we were permitted to repeat his experiments and so settle the question, but the law forbids. There are some startling statistics in Dr. Barry's report of the small-pox epidemic at Sheffield 1887-88. From his report of that epidemic, it appears that of the vaccinated inhabitants of Sheffield 1½ per cent. were attacked with small-pox, of the unvaccinated about 10 per cent.; that of those attacked the mortality of the vaccinated was about 5 per cent.; of the unvaccinated about 50 per cent.; that of children under 5 years of age attacked, not 1 per cent. of the vaccinated died, whereas of the unvaccinated over 50 per cent. died. All the employees in the post office, 290 in number, who had all been revaccinated on entering the service, escaped the disease. The Report of the Royal Commission on Vaccination, 1890, shows that of the children under 10 years of age admitted into the Hampstead Hospital with small-pox 1876-77-78, the mortality of the vaccinated was about 3 per cent., of the unvaccinated about 50 per cent. Statistics of children carry great weight because the evidence of vaccination and non-vaccination is more recent and reliable, and because the protective influence of the operation has not worn off. In the House of Commons in May last Sir Walter Foster stated that at Leicester twenty-two of the attendants on small-pox patients were either revaccinated or protected by having had small-pox, and not one of them had been attacked; six refused to be revaccinated, and of these four had been attacked and one had died.

A telling circumstance is within my knowledge and is borne out by registers now extant; a village in Leicestershire, well known to me, with 1,300 inhabitants was visited by small-pox in 1872. In this village at that time all but two persons were vaccinated, and of the 1,300, only two died of the epidemic, and these were the two unvaccinated persons, one 30 and the other 32 years of age.

On the other hand I have seen the vaccinated have small-pox, be disfigured by it, and die. The four worst cases of disfigurement I have seen have been in the vaccinated, but in all these cases there had been only infantile vaccination, and all were between 19 and 25 years of age when attacked. My belief is that vaccination efficiently performed with good lymph diminishes susceptibility to small-pox, that the effects of infantile vaccination are worn out at puberty, that vaccination for a limited but at present unknown period of time, modifies an attack of small-pox and reduces the death-rate of those attacked. At the same time I fully sympathise with those who ask for a re-examination of the whole question, a repetition of the old experiments and a searching investigation of every epidemic by men with open minds, and by men from both sides of the question, for vaccination now stands on statistics. If the principle of vaccination is sound, our practice of it is far from perfect; statistics the most favourable to vaccination give the enemies of vaccination an occasion to cry out. If there is anything in vaccination there is in it not only protection against small-pox, but a vital principle probably capable of extension to other infectious diseases. If Jenner was right we are wrong; he asserted that the human body, when once it had felt the influence of cow-pox was never afterwards assailable by the small-pox, and that vaccination was capable of extirpating small-pox from the face of the earth.

It would be idle to pretend that our present statistics while pronouncing in favour of vaccination satisfy Jenner's requirements, and, this being so, we naturally question the mode of operation and the virtue of the lymph now in use. I believe the experience of Marson as to the number of cicatrices desirable is officially ignored, and that one scar meets the demand of the Legislature. There is a growing belief in the necessity for revaccination, and Dr. Corfield, in an address delivered at University College, London, charges modern outbreaks of small-pox in this country to our neglect of it. As to the source of the lymph now in use, I know nothing beyond the fact that some is imported from foreign countries, while some comes from this, some from that chemist.

CHOLERA.

Let us turn now to cholera, the most fatal of our epidemic diseases, slaying as it does at some periods of some epidemics one half of those attacked. It is always imported into this country. Cases have been reported as having originated here, but in spite of well-marked symptoms, unless a supposed case can be traced to a previous case, or can be shown to propagate the disease, the diagnosis of cholera must always be viewed with suspicion.

Cholera, leaving its home in India, dogs the steps of man in its march to other countries, and I cannot but think myself that its germs are conveyed from country to country, from district to district, principally inside man. I do not mean to say that fresh articles of food and recently-worn apparel may not convey the germs from place to place, but I doubt if these are often the chariots of cholera germs from locality to locality. How the cholera bacilli find their way from individual to individual is yet a mystery, though there is probably truth in Mr. Ernest Hart's trite saying that "we eat and drink them;" filthy conditions and moisture seem, however, essential to their interim existence. The bacilli, having effected an entrance into the human body, lodge, increase and multiply in the alimentary canal. The alvine secretions from a cholera patient contain these bacilli in profusion, and act as a temporary depôt until they in their turn are scattered abroad to the spread of the disease. Medical inspection of incoming ships and isolation are our principal preventive methods against the invasion and dissemination of cholera, for it has been found that even such a system of quarantine as would seriously damage the trade of our country would be of no avail in preventing an invasion of cholera, and but for the energetic action of our Local Government Board and port sanitary medical officers in inspecting vessels from infected districts, and in isolating a few suspicious cases, we should doubtless have been visited by a cholera epidemic last year. For cholera we have no specific treatment, nor can we do much in the way of supporting our patient, seeing that the vomiting and purging prevent us from supplying nourishment

to the system; we naturally turn to the bacteriologists. M. Haffkine has prepared from cholera bacillus cultivations vaccines which in animals enable the system to tolerate cholera artificially induced in them; he has proved also that these vaccines are innocuous in man, and now it remains to be proved whether they are protective in man as in animals, and if so, how long the protection lasts.

Hydrophobia.

Hydrophobia is, according to my definition, an infectious disease, though the infection is conveyed, as far as we know, only by inoculation. There is to my mind no room for doubt as to its being microbic in its nature, and while the specific microbes have not as yet been isolated, it is clear that they are the same as those which cause rabies in dogs. The inoculation with rabies virus produces rabies in animals, and no doubt hydrophobia in man. Pasteur professes to have succeeded in preparing a vaccine of rabies virus which, while not producing symptoms of hydrophobia in man, when applied soon after the bite of a mad dog, prevents the subsequent development of hydrophobic symptoms; the value of this method of treatment will have to be decided by statistics, which so far are encouraging. At the Pasteur Institute the mortality among persons bitten by animals known to be rabid and submitted to this treatment is now said to be less than 1 per cent.

Tetanus.

Somewhat akin to hydrophobia is tetanus, for which all the drugs in the *Pharmacopœia* have in vain been tried. Here a distinctive bacillus has been found, and animals inoculated with the cultures of the bacillus have developed tetanus; at the same time, by gradual vaccination with these cultures, animals may be made proof against the disease. Tizzoni and Cattani profess to have obtained from the blood of dogs, thus rendered immune against tetanus, a substance called by them "tetanus antitoxin," which is said to have cured animals and men affected by the disease after its symptoms have shown themselves.

Diphtheria, Enteric Fever, and Tuberculosis.

For diphtheria and enteric fever no vaccines have as yet been found, but bacteriologists now profess to be able to determine the presence of these diseases by examination of secretions before the clinical symptoms warrant a diagnosis; and in tuberculosis, though no preventive or curative vaccine has been discovered, the help which bacteriologists give us in diagnosing this disease is of signal service. Let me cite two cases: A very healthy-looking girl, at the end of a smart attack of measles, suddenly developed a cough and slight expectoration; crepitation was heard over the whole chest; the diagnosis seemed to lie between bronchitis and catarrhal pneumonia. Dr. Russell, my colleague, then house-physician, reported that the sputum contained tubercle bacilli. She died a year subsequently of tuberculous phthisis. Again, in a case where the symptoms pointed equally to enteric fever and pulmonary tuberculosis, and the treatment and prognosis depended upon the diagnosis, the negative result of the examination of the sputum correctly showed the case to be one of enteric fever.

Pyæmia.

Pyæmia, at one time a frequent cause of death in our surgical wards, is now a rarity. How far this change is due to the use of germicides, and how far it is the result of extra cleanliness which prevents putrescible matter, the cultivating medium for germs, from accumulating in wounds, is a question upon which I shall not now enter, but all will admit that the recognition of the germ origin of this disease has brought about the diminution and almost complete extinction of this incurable complication of operation cases.

The Importance of Laboratory Research.

I would not have it inferred from what I have said that I believe any of the vaccination processes for the prevention, mitigation, or cure of any of the infectious diseases, from vaccination against small-pox to anticholeraic vaccination, are at present perfected. I do not think they are; the ways of microbes are dark, but not past finding out, and the apparent failure of any one method of dealing with a particular infectious disease by a vaccine through imperfection of detail must not shake our confidence in bacteriological science generally.

I am free to admit that we are far from home in this matter, but I believe the road is right, and if ever we are to have a definite treatment for the infectious diseases it will be in the direction of vaccines, germicides, or antitoxins, and in respect to these we must look for light from the laboratory.

In the meantime it behoves us to study the modes of dissemination of the germs of infectious disease and their entrance doors into the body, in order that by isolation, disinfection, and other sanitary measures we may prevent and limit outbreaks. There are two diseases—diphtheria and scarlet fever—which, in spite of all our sanitary reforms, are ever rampant in our midst.

Investigation into the distribution of some outbreaks of these diseases have tracked them both to the cow, and the milkman and the pump have both been blamed, but of late a suspicion has been raised that the milk has been infected before it left the cow, and in some instances suspected milk has been traced to sick cows; this, however, is a problem for the future.

With regard to the ingress of germs into the body, it seems reasonable to think that in some kinds of infectious disease local manifestations mark the spot where the microbes creep into the system. This is undoubtedly the case in inoculated small-pox, vaccinia, syphilis, and erysipelas; and do not the bowel symptoms in cholera and enteric fever, the throat symptoms in diphtheria and scarlet fever, and the conjunctival and nasal symptoms in measles lead us to suspect where in these cases the microbes effect an entrance into the system?

We are frequently, especially in our large towns, exposed to specific disease-producing germs which are ever ready to make our bodies their home, and yet, when so exposed, we may escape unharmed; and how do we thus escape? The generally accepted law that two factors are necessary for the development of an infectious disease—namely, a specific germ and a suitable soil—is both probable and comforting; and this law applies throughout creation. We know that a hen comes only from a hen's egg; we know, also, that the egg to be hatched must be placed under favourable conditions. There are in this city at the present moment any number of hen's eggs which will never develop into chickens; some for want of favourable conditions only; some, not a few, from having lost their vitality from long keeping. There is reason to think that the human system in a state of health and vigour is not open to attack by most of the pathogenic micro-organisms, nor finds breeding ground for them. On some such an assumption as this was doubtless founded the usual and desirable practice of post-prandial visits to infectious cases when the tissues of the practitioner are at their best and best able to resist microbes; it seems probable that it is only when the system is run down and the vitality of the tissues is lowered that these become vulnerable; and when the blood is fouled by impure atmosphere, the circulation is slack and the nervous system unstrung, then it is that pathogenic microbes effect an entrance and secure a hold. The bearing of bacteriology on diseases of animals, on commerce and agriculture, is beyond the scope of my undertaking; but I venture to say that the development of bacteriology as a recognised branch of science is every day becoming of more pressing necessity, and calls for State help.

The Chester Medical Society.—The annual dinner of the Chester Medical Society was held at the Masonic Hall, Chester, on October 18th, under the presidency of Dr. Dobie. A large number of distinguished guests were entertained. The toast of "The Medical Society of Chester" was proposed by Dr. Glynn. The President, in speaking of the Society, in returning thanks, said that one of its advantages was that it united its members into a friendly brotherhood, and another was that it helped them by their monthly meetings to keep in touch with the advancing knowledge of the day. Songs and recitations were contributed by several of the members.

Bequests and Donations.—The East London Hospital for Children, Shadwell, has received the following grants from the city companies:—For the building fund: Merchant Taylors, £105; Mercers, £10 10s. For the general fund: Mercers, £10 10s.; Vintners, £10 10s.

FOCAL EPILEPSY: TREPHINING AND REMOVAL OF SMALL HÆMORRHAGIC FOCUS: NO IMPROVEMENT; REMOVAL OF PART OF LEG CENTRE AFTER ELECTRICAL STIMULATION: IMPROVEMENT.

By LEONARD A. BIDWELL, F.R.C.S.,
Senior Assistant-Surgeon, West London Hospital, etc.,
WITH REMARKS BY
C. S. SHERRINGTON, M.D., F.R.S.,
Professor-Superintendent, Brown Institution; Lecturer on Physiology, St. Thomas's Hospital.

THE following case is of a similar nature to that published by Mr. Rushton Parker in the BRITISH MEDICAL JOURNAL of May 27th last, but I have delayed bringing it forward until the result of the operation was more definite. The success, from a surgical point of view, was most satisfactory although the child still has fits, which, however, are modified in character.

A boy, aged 15, was admitted into the West London Hospital on March 9th, 1892, under the joint care of Dr. Herringham and myself:

History.—In 1888 the patient began to suffer from sudden muscular contractions of the right leg; at first these occurred about every quarter of an hour both day and night, but gradually became less frequent, and ceased entirely six months later. He was free from these attacks for two years, but the fits returned in 1890, and did not leave him for eighteen months. He was free from fits from the summer of 1891 until Christmas, since when he has been having from four to fifteen attacks daily. There is no definite history of injury, but the mother thinks that he had a fall on his head two years previously.

State on Admission.—A bright healthy-looking lad, quite intelligent, good at school work and anxious to get some employment. General health good; lungs, heart, and kidneys healthy. The patient described the fit as starting with a tickling sensation in the sole of the right foot; this was followed by a contraction of the great toe, extension of the ankle, and flexion of the knee; there was occasionally slight flexion of the fingers of the right hand; if standing he fell down but did not lose consciousness. A stinging pain in the thigh followed. Each contraction lasted about two seconds. The knee-jerks were normal and there was no wasting or alteration of sensation of the right limb. The attacks occurred more frequently on certain days, and he had a peculiar sensation in the right foot by which he knew when he was likely to be attacked by the fits. There was nothing abnormal in the foot. The head was perfectly symmetrical and there was no depression or tender spot in the neighbourhood of the left motor area. He never had headaches. Mr. Percy Dunn kindly examined the eyes and reported that the optic discs were quite normal.

Symptoms Observed before Operation.—He had six to twelve small fits daily, and on March 12th one of these developed into a true epileptic fit, lasting ten minutes, ending in unconsciousness, with involuntary escape of urine and fæces. March 23rd: Had had two epileptic fits since the last note, and about eight contractions of the right leg daily. On this day a fit was produced by tickling the sole of the foot. It began with flexion of the knee, extension of ankle, and inversion of foot. The question of operation was discussed between Dr. Herringham and myself, and I agreed to explore the motor area if no improvement took place within a month.

First Operation.—April 23: The lad continued to have the same number of spasms daily in spite of large doses of bromide, so the operation was performed. The head was shaved, scrubbed, and washed with ether, and 1 in 20 carbolic acid. The position of the fissure of Rolando was marked out with a blue pencil, having been determined as suggested by Makins.[1] Two hours before the operation the patient had a severe general epileptic fit, followed by unconsciousness; after the fit the right foot perspired freely. A fifth of a grain of morphine was injected hypodermically, and chloroform was given by Mr. Lloyd. A large square flap about 3 inches wide, having its anterior edge just behind the coronal suture, was dissected up, and reflected downwards. A trephine with an inch crown was applied just behind the line of the fissure of Rolando; and, again, more anteriorly, and the intervening bone removed with bone forceps. There was no abnormal appearance in the bone or dura mater, which was opened along the anterior edge of the trephine holes, and reflected down. The fissure of Rolando was exposed with a large vein lying in it. The cerebral substance at the lower part of the exposed area looked discoloured, so the opening was enlarged downwards by removing a further disc of bone with the trephine. The whole of the discoloured area of cortex thus exposed was about the size of a fourpenny piece, and was freely excised with a knife to the depth of three-quarters of an inch. There was some bleeding from the brain substance, which was controlled by a stream of 1 in 20 carbolic acid solution, after a vein in the pia mater had been ligatured with fine silk. The dura mater was sutured with silk, and the bone replaced in small pieces. The wound was closely sutured up, without a drainage tube, and dressed with cyanide gauze.

After-treatment.—The boy had some troublesome vomiting for the first three days, but made a rapid recovery, not suffering once from headache. He had no fit for three days, but then commenced his old attacks. The wound healed completely in a week, and there was no loss of power in the foot or leg. The fits having rather increased in frequency since the operation, Dr. Herringham recommended that the motor area should be again exposed, and that portion excised which produced the increment of the fit when stimulated electrically.

Second Operation.—On May 14th chloroform was again given by Mr. Lloyd after a preliminary injection of ¼ grain of morphine. The head having been prepared and marked out as before, a large square flap, extending further backwards than the former one, was reflected. The pericranium was closely adherent to the replaced bone, the pieces of which were again removed and placed in warm boracic solution. The opening was enlarged by removing two further discs of bone, one above and the other posterior to the old opening, the intermediate bone being removed with bone forceps. The dura mater, which was adherent to the pia mater at the site of the old suture, was divided and reflected downwards. Dr. Sherrington, who had kindly lent the electrical apparatus, was good enough to superintend the stimulation of the cortex. The patient, having been allowed to come round partly from the chloroform, the electrodes were applied to the cortex. No response was produced on stimulating the lateral and posterior part of the exposed surface; but, on applying a strong current just above the part previously removed, movements of the foot and knee similar to the epileptic spasms were produced. After one or two stimulations a typical clonic spasm was produced, which lasted after the withdrawal of the electrodes. The area by stimulation of which these increments were produced was about the size of a sixpence, and was situated just above the discoloured area previously removed. It was freely excised to the depth of ¾ inch with a knife, and bleeding stopped by 1 in 20 carbolic lotion. Before and during the electrical stimulation no antiseptic lotion was used. The dura mater was stitched up with silk, and the wound filled with small pieces of bone. The wound was closed with a continuous suture without a drainage tube, and dressed with cyanide gauze. The operation lasted an hour.

After-history.—The patient again had some troublesome vomiting for the first twenty-four hours, during which time he was given nothing by the mouth except hot water. The wound was healed at the end of a week. There was absolutely no loss of power in the right leg or foot, and no impairment of any movement; there was no loss of sensation or fall in temperature of the limb; the knee-jerks were natural, and there was no ankle clonus.

Some slight attacks of clonic spasm reappeared two days after the operation, and on May 25th one of these was seen by the house physician, Mr. Lakin Paget, who reported that the fits lasted one or two minutes, and appeared to begin without any contraction of the foot or leg. The right arm was flexed, and underwent a series of clonic spasms. The chin was depressed upon the right shoulder, and the right side of the face was contorted, the jaw open and fixed, and the angle of the mouth drawn down; there was also some slight lateral flexion of the body. There was no spasm of the leg, but during the fit voluntary movements were possible. After the fit there was marked paresis of the right arm and the right side of the face, but none of the right leg. He did not lose consciousness.

He continued to have four to six attacks daily, and left the hospital on June 8th, 1892. Since then I have kept him under my observation till the present time. At first nearly every day he had two or three attacks of clonic contraction of the right arm occurring usually between 5 and 7 A.M., but he never had any of the old attacks of spasm of the leg and foot. In August, 1892, during the attacks, an involuntary cry escaped him, and the fits appeared to be more severe but less frequent, but did not stop altogether for more than a few days at a time. The duration of the fit gradually got shorter; at the beginning of this year he began to have attacks of "pins and needles" over the right side of the body and limbs, which lasted some hours, and occurred about once every ten days. These gradually passed off; but during the past two months he has during the early hours of the morning one or two slight attacks of contractions of the muscles of the right thigh and hip-joint which often do not awaken him. Before these attacks he had an aura in the back of the thigh and the fit began with flexion of the knee followed by flexion of the hip, the right hand then became strongly pronated and there was some lateral flexion of the body. The fit lasts about five to ten seconds. Since the operation he has never had an aura in the sole of the foot, nor have the fits affected the ankle or foot. He never loses consciousness during these attacks. The boy is well nourished, and his general health has improved; there is a very firm cicatrix over the trephine holes and only at one point is there any pulsation to be felt. For the first nine months after the operation the patient took large doses of bromide of potassium; he has had none since April, and he appears to have made more progress without that drug.

The state of the right leg at the present time (eighteen months after operation) is as follows: There is no wasting nor lowered temperature of the right limb or foot nor is there any hyperæsthesia or loss of sensation. The boy is able to perform every voluntary movement of the leg and foot, even

[1] *Trans. Anatom. Soc.*, vol. xxiii.

moving the great toe by itself, and adduction and abduction of the other toes. If anything, the muscles of the right leg appear slightly stronger than those of the left, and careful measurements of the girth of the calves and thighs at corresponding distances from the knees showed that the right calf measures a quarter of an inch more than the left, the thighs having the same girth on both sides. The muscles of the right leg and foot reacted well to the galvanic current. The knee-jerk was very brisk, and there was well-marked patella clonus on both sides. The patient has never had any muscular pains in the leg, and walks without the slightest trace of a limp.

On the whole I think that he has benefited greatly by the operations, as when first seen he was having, daily, about fifteen spasms of the leg, which made it quite impossible for him to go about alone; he also had occasional true epileptic fits, which have not returned since the operation. The absence of any alteration in voluntary power or in sensation of the leg after the removal of a considerable piece of the motor area is interesting; so, too, is the shifting of the site of the spasms and the consequent freedom of the ankle and foot.

The portion of the cerebrum excised at the first operation was examined microscopically, and the discoloration found to be due to altered blood, but nothing abnormal was found in the part removed at the second operation. I have reported this case, in spite of the child not being quite cured, because in the present state of our knowledge every such case is of interest.

Note.—Since writing the above I have more carefully tested the sensation of the right leg, and can find absolutely no difference as compared with its fellow. On testing it with a pair of compasses, I found that the extent to which it was necessary to separate the points before two distinct sensations were perceived was exactly the same when the compasses were applied to the right or to the left leg at corresponding points. When blindfolded the patient could indicate with a finger the exact spot where he had been touched on either leg. The sensation of heat and cold was quite normal.

Remarks by Professor Sherrington.

Mr. Bidwell has kindly invited me to append a few remarks regarding the excitation of the cortex in the above case.

For excitation was used an ordinary sliding inductorium (Elliott Brothers) of the Du Bois-Reymond pattern, as generally employed in the physiological laboratory. In the primary circuit were a pair of 1-pint Daniell cells coupled for intensity. A steel reed (Hawksley), vibrating 100 per second, was introduced as an automatic interrupter; a side-wire shunt (Helmholtz) "equalised" the intensities of the make and break currents. Platinum electrodes were used in the form of two short wires curled into springs, but sheathed except at the tips; these can be pressed against the cortex with little risk of injuring its surface, and I have found them very useful in the laboratory. The tips of the electrodes were a quarter of a centimetre apart.

The currents were first applied at the lowest part of the cerebral surface exposed, just in front of the central fissure. The currents were of moderate intensity, the secondary coil being on the scale at 15 centimetres from the primary. No effect being obtained, the secondary coil was brought nearer the primary until within 10 centimetres. Each application of the current lasted about five seconds. The anæsthetisation, which was not deep at this moment, was then further relaxed. I hesitated to resort to more violent stimulation. I was not at the time aware of the observations by Keen,[2] Nancrede,[3] and Horsley[4] regarding the very great intensity of the currents found requisite for obtaining responses from the human cortex. The electrodes were shifted forward and toward the median line, about a centimetre from the place previously tried. The secondary coil was kept within 10 centimetres of the primary. The faradisation still elicited no movement, and this although no fluids that could have been harmful to the cortex had been applied.

The intensity of the currents was now increased, and by successive shifts the secondary coil pushed up to 4 centimetres from the primary. A movement then followed the application of the electrodes. The movement was simply dorsal flexion at the right ankle-joint. The electrodes were then shifted again to the place at which they were applied first of all, and again to a place behind the central fissure. No movement was elicited from this, although the applications lasted full five seconds each. The electrodes were then placed a little lateral to and in front of the point whence the movement at the ankle had been produced. A movement followed. Again dorsal flexion at the ankle; this time followed by flexion at hip and knee, the latter two movements appearing simultaneously, I think. The application was then made a little further laterally; there resulted dorsal flexion at the ankle with drawing up of the outer edge of the foot, followed by flexion at hip and knee. The movement was more vigorous than the previous ones; it persisted after withdrawal of the electrodes and terminated with some clonic contractions.

The excitation was not repeated further.

The surface of the cortex, which did not respond even to the, physiologically speaking, very intense currents found necessary[5] in this exploration (currents quite unbearable on the tip of the tongue), was normal in appearance; its vascular condition at the time was hyperæmic rather than anæmic. The degree to which the patient was under the influence of the anæsthetic was, especially at the time of the second repetition of the application, quite trifling. I think, therefore, this surface must have been, in part at least, one of the inexcitable blanks first observed to exist in the "motor" cortex of man by Lloyd and Deaver,[6] and in the ourang by Beevor and Horsley.

A point incidentally noticed in the exploration was the absence of any sign of sensitiveness in the dura mater.

A point in the case not connected with experimental excitation of the cortex, but yet of some physiological interest, concerns the topographical relation between the sensory aura and the primary movement of the convulsion in the fit. The primary movement in the convulsion was dorso-flexion at the ankle. In slighter fits this was the only movement; in severer fits it was the earliest movement, or as early as any. As to the aura, the patient stated that the fit commenced with a tickling in the right sole. On one occasion the fit was induced by tickling the right sole. Between the skin of the sole and the muscles of the front of the leg there may not at first thought seem any close connection. Experimental work on the lumbo-sacral plexus of the monkey shows, however, that the one is supplied with sensory, the other with motor, nerves from the same lumbar segments of the spinal cord. In the above case, therefore, the aura seems to have been referred to the same spinal segments in which are represented the muscles which were earliest convulsed, and on one occasion the cortical discharge was induced by irritation applied to and through those very spinal segments.

[2] *International Journal of Medical Science*, 1888.
[3] *Medical News*, Philadelphia, 1888.
[4] Beevor and Horsley, Excitation of the Motor Cortex in an Ourang, 1890.

THE NATURE OF VACCINE IMMUNITY.[1]

Presented to the Section of Pathology at the Annual Meeting of the British Medical Association held in Newcastle, August, 1893.

By S. P. KRAMER, M.D.,
AND
RUBERT BOYCE, M.B., M.R.C.S.,
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The following is a preliminary report of an investigation on the nature of vaccine immunity. The experiments detailed in this account are limited to the calf, but we are engaged in extending them to other animals:

It has been demonstrated by some observers that when immunity to infectious disease has been experimentally produced in animals, the serum of the blood of such animals possesses immunising and even curative properties in the case of the disease in question, when injected into other animals. It therefore seemed very desirable to us to apply

[5] *Cf.* Parker and Gotch, British Medical Journal, May 27th, 1893.
[6] *International Journal of Medical Science*, 1888.

[1] The authors desire to express their very great obligations to Dr. Robert Cory for the interest, valuable help, and criticism which he was ever good enough to give them.

this knowledge in the case of vaccinia, a disease which is every day used to confer immunity. Curiously enough, the observations which have been made upon the properties of the blood of vaccinated calves are few, and appear to be limited to French observers. Chauveau injected into the jugular veins of two young horses 500 and 1,000 grammes of blood obtained from a horse in full vaccine eruption. When these animals were subsequently vaccinated typical vaccinia developed. Straus, Chambon, and Menard transfused a calf with 5,500 grammes of blood obtained from a calf seven weeks after vaccination. The calf was inoculated after the lapse of nineteen days, and typical vaccinia was produced. Raynaud, operating with quantities of blood varying from 400 grammes to 4 and 6 kilos., obtained mostly negative results; in some cases, however, it is stated that subsequent inoculation failed to cause a reaction.

In the experiments detailed in this report, we have confined ourselves exclusively to the serum, one kilo. of serum representing in weight about 3 kilos. of blood, and we have injected subcutaneously quantities varying from one half to two litres and a-half. The blood in the first five experiments was taken from calves ten or fourteen days after inoculation; in the sixth case, and in cases which are now under observation, the blood has been taken from calves in full eruption.

The blood is received in sterile vessels, under the strictest aseptic precautions. After coagulation the clear serum is drawn off in sterile siphon pipettes; the clearness of the serum and the failure of agar inoculation vouches for its sterility. The serum is daily (in some cases there has been an interval of two or three days) injected subcutaneously in quantities of from 100 c.c. to 300 c.c., and no local reaction of any kind has been observed around the points of inoculation. The calves are vaccinated as soon after the cessation of the serum injection as possible, usually upon the same or upon the following day.

SUMMARY OF EXPERIMENTS.

CALF I:	Weight	136.4 k.
	Serum injected	415 grms.
	Amount of serum pro kilo. ...	3.04 grms.
	Vaccination successful.	
CALF II:	Weight	150 k.
	Serum injected	1240 grms.
	Amount of serum pro kilo. ...	8.27 grms.
Vaccination not successful. This calf was therefore either rendered immune or had a natural immunity.		
CALF III.	Weight	125 k.
	Serum injected	1250 grms.
	Amount of serum pro kilo. ...	10 grms.
	Vaccination successful.	
CALF IV:	Weight	121 k.
	Serum injected	1380 grms.
	Amount of serum pro kilo. ...	11.8 grms.
	Vaccination successful.	
CALF V:	Weight	132 k.
	Serum injected	2500 grms.
	Amount of serum pro kilo. ...	18.94 grms.
	Vaccination successful.	
ALF VI:	Serum injected	1485 grms.
	Vaccination successful.	

These experiments show with one exception that the above large doses of serum failed to produce immunity as regards the inoculation test of cow-pox. The one exception may mean either an artificial or an acquired immunity. Until we have made some further observations upon the calf and the monkey we will not venture to comment upon our results, but, as they stand, they tend to increase our difficulties of holding exclusively to any one theory of immunity.

BEQUESTS.—The late Miss Deborah Maria Cannon, formerly of Kingstown, and late of Rathmines, has by her will bequeathed £300 each to the Incurable Hospital, Donnybrook; the Adelaide Hospital, and Rathdown Hospital, Monkstown.

GLASGOW OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.—Officers for the ensuing session. *Honorary President:* Robert Barnes, M.D., F.R.C.P. *President:* Robert Pollok, M.B. *Senior Vice-President:* Thomas Richmond, L.R.C.P.Eng. *Junior Vice-President:* Robert Kirk, M.D. *Secretary:* J. Nigel Stark, M.B. *Treasurer:* Alexander Miller, L.R.C.P.Eng. *Reporting Secretary:* Robert Jardine, M.D. *Pathologist:* A. Milroy, M.D. *Members of Council:* Wm. Cullen, M.B.; J. K. Kelly, M.D.; Malcolm Black, M.D.; E. H. L. Oliphant, M.D.; A. Richmond, M.B.; D. N. Knox, M.B.

REPORTS
TO THE
SCIENTIFIC GRANTS COMMITTEE
OF THE
BRITISH MEDICAL ASSOCIATION.

ON THE DISINFECTION OF TUBERCULOUSLY-INFECTED HOUSES:

BEING A PRELIMINARY REPORT TO THE SCIENTIFIC GRANTS COMMITTEE OF THE BRITISH MEDICAL ASSOCIATION.

BY SHERIDAN DELEPINE, B.Sc., M.B.,
Professor of Pathology, Owens College;
AND
ARTHUR RANSOME, M.D., F.R.S.,
Physician to the Manchester Hospital for Consumption.

EVIDENCE as to the existence of tuberculously-infected houses has of late years been largely added to, and the need of special measures, both for the prevention of the spread of consumption and of reinfection has been insisted upon by several writers interested in public health. In February last year an informal conference was held, at the instigation of one of us (A. R.), between the medical staff of the Manchester Hospital for Consumption, Dr. Dreschfeld, of the Manchester Royal Infirmary, and Dr. Tatham, the medical officer of health for Manchester. It was then unanimously resolved that it was desirable that certain cases of phthisis should be notified to the medical officer of health. Dr. Tatham at once undertook to disinfect the house of any such patient, notified to him as being in the third stage of phthisis, or in whose sputum the bacillus of tubercle had been discovered. One of us (S. D.) undertook to test experimentally the effects of the disinfection processes used, and at a subsequent meeting of the N. W. Society of Medical Officers of Health, after a paper by one of us, it was unanimously resolved that similar work should be undertaken by the members of that Society. A record of the cases notified is preserved by the members of the staff of the Consumption Hospital and their subsequent history has been kept in view.

In the first instance the object of the investigation was to test the value of the method used by the municipality of Manchester for disinfecting rooms in which tuberculous patients had lived. The only method which has been used so far is that of disinfection by chlorine or, more correctly, euchlorine, this method being selected by Dr. Tatham as one worthy to be tried. The disinfection was carried out in the usual way by the sanitary authorities. The rest was done at the Pathological Laboratory of the Owens College. Pieces of wallpaper (or, in later experiments, of ordinary paper) were carefully sterilised in glass capsules. They were then infected with tuberculous material, either sputum or pure cultivations of bacillus tuberculosis (human in most cases, avian in a few),[1] then the capsules were sealed, the sputum or cultivation being allowed to dry on the paper. These were then sent to the officer who had to disinfect certain rooms. The capsules were opened just before the acid was poured on the chlorate of potash, and sealed again when the room was reopened. The capsules were sent again to the laboratory, where rabbits and guinea-pigs were inoculated with small pieces of infected paper or superficial scrapings, mixed with sterilised bouillon. In all cases control experiments were made with pieces of paper, treated exactly in the same way, but kept in the laboratory until the capsules which had been sent out had been returned.

Some other precautions were also taken to avoid fallacies which might be caused by the effect of drying or of exposure to light, or of some unknown irritating properties of the wallpaper in use. It was also found desirable to use tuberculous matter from various sources.

In all 51 experiments were performed, of which 12 need not be alluded to here. In 6 cases accidental death occurred, and

[1] The reason why the avian tubercle bacillus was used in some experiments will be given in our full report.

Series.	No. of Experiment.	Animal.	Form of Inoculation.	Infective Material.	How paper Treated after Infection.*	Evidence of Tuberculosis after Death.	Days after Inoculation.	Remarks.
II	1	Rabbit	Peritoneal	Sputum 1	Euchlorine, Room I	†	48	—
I	2	,,	,,	—	Heat	†	48	—
III	3	,,	,,	Sputum 1	†	Abundant	55	—
III	4	,,	,,	,, 3	†	†	9	Accidental death.
II	5	,,	,,	,, 2	Euchlorine, Room II	†	76	—
III	6	,,	,,	,, 2	†	Slight?	84	—
V	7	,,	,,	,, 1	Drying, exposure to air and light for 45 days.	?	86	—
IV	8	,,	,,	,, 1	Drying, exposure to air in darkness for 45 days.	Slight	86	—
II	9	Guinea-pig	Subcutaneous	,, 2	Euchlorine, Room I	†	80	—
III	10	,,	,,	,, 2	†	†	45	—
V	11	,,	,,	,, 1	Exposure to light and air for 45 days.	Incipient?	80	Very slight quantity injected.
IV	12	,,	,,	,, 1	Exposure to air in darkness for 45 days.	Advanced	80	—
VI	13	,,	,,	Pure cultivation of tub. bac. H.	†	Advanced	53	—
VII	14	,,	,,	Pure cultivation of avian tub. bac.	†	†	101	—
—	34	,,	,,	Pure cultivation of avian tub. bac.	Euchlorine, Room II (6 in.)	†	9	Accidental death.
—	35	,,	,,	,,	Euchlorine, Room II (8 ft.)	†	9	,,
—	36	,,	,,	,,	Euchlorine, Room II (13 ft.)	†	9	,,
—	37	,,	,,	,,	Euchlorine, Room III (6 in.)	†		,,
VII	39	,,	,,	,,	†	Well marked, though slight.	17	—
VI	40	,,	,,	Pure cultivation of human tub. bac. on glyc. agar agar.	†	Advanced	26	—
VII	41	,,	,,	Pure cultivation of avian tub. bac.	†	Slight; doubtful	35	—
II	46	,,	,,	Sputum 4	Euchlorine, Room IV (1 ft.)	?	46	—
II	47	,,	,,	,,	Euchlorine, Room IV (6 ft.)	?	28	—
II	48	,,	,,	,,	Euchlorine, Room IV (10 ft.)	†	23	—
VIII	49	,,	,,	Pure cultivation of human tub. bac.	Euchlorine, Room IV (1 ft.)	Well marked; advanced	30	—
VIII	50	,,	,,	,,	Euchlorine, Room IV (6 ft.)	Well marked; advanced	34	—
VIII	51	,,	,,	,,	Euchlorine, Room IV (10 ft.)	Well marked; very advanced.	52	—
II	52	,,	,,	Sputum 4	Euchlorine, Room V (1 ft.)	Advanced	106	—
II	53	,,	,,	,,	Euchlorine, Room V (6 ft.)	Slight	49	—
II	54	,,	,,	,,	Euchlorine, Room V (12 ft.)	Advanced	97	—
VIII	55	,,	,,	Pure cultivation of tub. bac. H.	Euchlorine, Room V (1 ft.)	,,	74	—
VIII	56	,,	,,	,,	Euchlorine, Room V (6 ft.)	,,	84	—
VIII	57	,,	,,	,,	Euchlorine, Room V (12 ft.)	Very well marked tuberculosis.	42	—
III	58	,,	,,	Sputum 4	†	Well marked	43	—
III	59	,,	,,	,,	†	†	107	—
VI	60	,,	,,	Pure cultivation of tub. bac. H.	†	Well marked	20	—
VI	61	,,	,,	,,	†	,,	62	—
III	62	,,	,,	Sputum 5	†	Advanced	21	—
III	63	,,	,,	,,	†	,,	52	—

* Paper allowed to dry for two or three days in all cases; the figures in this column indicate the distance of the paper from the disinfecting focus. † indicates that either nothing has been done or observed. ? indicates ambiguous lesions not looking distinctly tuberculous and in which no tubercle bacilli could be discovered.

in 5 of these this happened before any very definite result could be obtained.[2] Our conclusion must, therefore, be based on the study of 34 experiments, which readily fall into series as follows:

I. Intraperitoneal injection of scrapings of wall paper sterilised by heat (experiment giving negative results as expected).

II. Intraperitoneal injection (in rabbits) and subcutaneous inoculation (guinea pigs) with scrapings or bits of paper infected with tuberculous sputum, and exposed to the action of euchlorine in rooms that were being disinfected. Nine experiments made with three different kinds of sputa; the results show that the effects of the disinfecting process are

[2] Five of these animals died in the course of two days in the middle of winter, apparently from cold.

uncertain; in some cases complete disinfection seems to have been obtained, but the control experiments (III) show that some sputa are not so virulent as others.

III. Intraperitoneal injection (rabbits) or subcutaneous inoculations (in guinea-pigs) with paper infected with tuberculous sputa, the papers not being afterwards exposed to the action of euchlorine. Eight experiments, 5 of which were made with the sputa used in Series II; one of these sputa acted very slowly (sputum No. 2), this possibly accounting for the apparently complete disinfection of papers infected with that sputum.

IV. Inoculations with papers infected with tuberculous sputum, and allowed to dry in the dark for forty-five days. Two experiments; doubtful result in one rabbit, typical tuberculosis produced in a guinea-pig.

V. Inoculation with papers infected with tuberculous sputum and allowed to dry in the air for forty-five days, being at the same time exposed to daylight. Two experiments; no certain evidence of tuberculosis could be found eighty days after inoculation.

VI. Inoculations with paper infected with pure cultivations of bacilli obtained from a case of human tuberculosis not disinfected afterwards. Four experiments; in all cases marked evidences of tuberculosis were found within three weeks from date of inoculation.

VII. Inoculations with papers infected with pure cultivations of bacilli of avian tuberculosis, and not disinfected afterwards. Three experiments; distinct signs of infection were obtained within three weeks from the date of inoculation, but, of these animals, two being allowed to live, one recovered, and slight traces only of tuberculosis were found in the other thirty-five days after inoculation.

VIII. Inoculations with papers infected with pure cultivations of bacilli of human tuberculosis (see VI), and afterwards exposed to the action of euchlorine in rooms that were being disinfected. Six experiments; in all cases distinct evidences of tuberculosis were observed within three or four weeks from the time of inoculation.[3]

The facts which have just been summed up are given in the table on the preceding page; the Roman figures in the left hand column indicating the various series of experiments.

ADDENDUM.—Without giving full particulars here we should add that by means of another method of disinfection (sulphurous acid) we have also obtained, as could be expected from previous work, unsatisfactory results. One of us has, however, obtained in laboratory experiments effects which, so far, seem to be satisfactory, by using an old method of disinfection, and we hope to be able before long to give practical means of efficiently disinfecting places which have been contaminated with tuberculous products.

[3] These last results show that some more efficient method of disinfection will have to be employed in further experiments.

PROFESSOR DE RENZI has been appointed Professor of Clinical Medicine in the University of Naples, in the room of the late Professor Cantani.

THE Duke of York has consented to become Vice-President, and the Duchess a Patroness, of the Surrey Convalescent Home at Seaford. The institution was founded by the munificence of an anonymous donor at a cost of about £25,000, and has already proved most beneficial to some hundreds of working men.

A VERY useful scheme is about to be inaugurated by the Army School of Cookery at Aldershot, with the warm approval of the Duke of Connaught. It is proposed to utilise the services of the regular cooks for instructing the wives of soldiers as to the cheapest markets in which to buy provisions, and the value of the different food stuffs, as well as the best method of turning the stock pot and the dripping pan to advantage.

THE governors of the Taunton and Somerset Hospital on October 25th appointed an honorary physician in place of Dr. Currie, deceased. There were two candidates, Drs. Jacob and Rutherford. The election was by ballot, and Dr. Jacob was elected. The committee reported that there was an adverse balance on the annual account amounting to £413. Sir Alexander Acland Hood, Bart., M.P., was elected president for the ensuing year.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

SUBLIMED SULPHUR AS A LOCAL APPLICATION IN DIPHTHERIA.

CASE I.—On September 30th, I was called to see D. L., aged 4 years. The parents stated she was "croupy" for several days, but had become alarmingly worse. I found considerable laryngeal and tracheal obstruction, husky voice, croupy cough, and rapid pulse. With difficulty I examined her throat, and saw well-marked diphtheritic membrane below and behind either tonsil, and at once pronounced it diphtheritic croup, and recommended immediate removal to hospital, where the diagnosis was confirmed, but the child could not be admitted. On the same day I prescribed a mixture of perchloride of iron, chlorate of potash, and glycerine, with a local application of permanganate of potash; also beef tea, milk and egg. Next day the child was much worse; pulse over 130, with great prostration and anxious expression; temperature only 98.6°; the membrane more extensive. I then decided to blow sublimed sulphur down the throat (the permanganate solution being a failure in application); this I did by means of a paper cylinder, and was ably assisted by the child's father, who repeated it several times daily. The medicine and nourishment were given with great difficulty, and the improvement was slow, but the membrane seemed daily to be thinned and bleached by the sulphur. On October 7th, the pellicle was breaking up, and on the next day it had disappeared. The child is now perfectly convalescent. Sulphur I knew to be a powerful disinfectant, harmless, and a mild laxative: hence the successful trial, to which I attribute the saving of the child's life.

CASE II. On February 18th, 1891. I was called to see H. E. P., aged 11 years, and found him suffering from well-marked diphtheria. He had been ailing for several days, and had had attacks of "chilliness." I ordered him brandy and egg with beef tea, and the same mixture and permanganate application as in Case I, and saw him daily. On the fourth day I was astonished to learn that he had swallowed in his sleep the large membrane. The patient seemed so relieved that he could hardly be kept in bed, although still visited. On March 2nd he was in great pain, suffering from enteritis. He subsequently had tenderness and swelling over the liver, and finally pneumonia. I had a long and anxious attendance on him, covering a couple of months, and by means of poulticing, opium internally and externally, ammonia, bark, and digitalis, with nourishments, got him completely well. I now consider that had I used the sulphur in this case, the complications might have been avoided, as the pellicle would have been disinfected more thoroughly, and some of the sulphur would have reached the stomach to assist.

ROBERT FAIR FRAZER, L.R.C.P.I., L.R.C.S.I.
Lavender Hill, S.W.

A CASE OF HERPES ZOSTER.

THE patient was a well formed otherwise healthy lad, aged 8 years. There was the usual burning pain in the vesicles; no pain radiating from the region of the eruption, no hyperæsthesia of the areas of skin around it. The highest vesicle was on the anterior surface of the lobe of the ear, and the lowest on the left fourth intercostal interspace. The eruption crossed the middle line at the level of the third and fourth interspaces. There were three vesicles on the upper arm on its inner aspect. There was a line of vesicles in the neck following the posterior border of the sterno-mastoid muscle. The largest vesicles were those immediately under the left clavicle and those under the ear and jaw. The vesicles were smallest where the eruption crossed the middle line. Those over the trapezius muscle and over the acromion were not well marked.

The sensory nerves supplying the affected areas were the ascending cervical nerves, namely, the great auricular, small occipital, descending cervical nerves, by their sternal, clavi-

cular, and acromial branches, the lesser internal cutaneous intercosto-humeral and the anterior cutaneous branches of the intercostal. These nerves are derived from the second, third, and fourth cervical and second dorsal roots. It will be noticed that no area of skin is involved having a sensory nerve supply derived from the spinal nerves of the fifth cervical to the first dorsal. Mackenzie[1] points out that when cases of herpes occupy any area supplied by nerves from the fifth cervical to the first dorsal there is no associated eruption on the trunk. Here there is an eruption on the trunk, and no associated eruption on the area supplied by the nerves from the fifth cervical to the first dorsal. It is usually assumed by anatomists[2] that the lower three cervical nerves and the first dorsal have no cutaneous branches. In Horsley's case,[3] where he divided the posterior roots of the eighth cervical and first dorsal there was no anæsthesia of the trunk.

This case of herpes shows no correspondence in its distribution with the arterial supply of the affected areas as set forth by Pfeiffer.[4] It indeed forms a good cross proof in favour of the neurotic origin of herpes.

The vesicles over the upper intercostal spaces on the right side show an overlapping of nerve supply. The communication here is between the descending cervical nerves and the intercostals of the other side. Mackenzie[5] and St. John Brooks mention overlapping of intercostals of the same side, but I can find no mention of a case similar to this.

J. K. Murray, M.B.Edin.

Whittlesea, Queenstown, Cape Colony.

NOTES ON A *POST-MORTEM* EXAMINATION OF A CASE OF ACROMEGALY.

The patient was a woman, aged 35, who was under the care of one of my colleagues at the Sunderland Infirmary, to whom I am indebted for the following brief account of her symptoms. She complained of intense neuralgic pains through the temples and the top of the head and also of shooting pains at the back of the neck, accompanied by general languor and inability to apply herself to any prolonged occupation. Her memory was very defective, and her articulation was slow and deliberate. She never complained of any defect in vision. Her hands and feet were enlarged, as also were the malar bones and maxillæ. Diabetes developed and, later on, pulmonary phthisis, to which she ultimately succumbed.

As, unfortunately, permission was only given for a limited examination, the organs in the thorax and abdomen were not inspected.

The head was increased in size and the face elongated; the malar bones were enlarged and prominent; the superior and inferior maxillæ were considerably hypertrophied, though the lower jaw did not project below the upper. The eyelids were thickened and the supraorbital ridges enlarged. The nostrils were considerably enlarged and very broad, and the ears were much hypertrophied. The hair was scanty and coarse, and the skin coarse and harsh in appearance. The hands and feet were symmetrically enlarged; the nails were broad, and the big toes large in proportion. The shafts of the long bones were not only considerably thickened, but also roughened, approximating the male type. The thorax was considerably enlarged, especially in the upper part; the ribs were uniformly hypertrophied, as were also the clavicles. In the lower cervical and upper dorsal region there was a certain amount of prominence of the spine.

On opening the skull the frontal, parietal, and occipital bones were found to be thickened, the hypertrophy being principally in the diploë. The brain and its membranes were normal. The weight of the former was 46 ounces. The pituitary body was considerably hypertrophied, and the canal communicating with the third ventricle was patent. The optic nerves immediately in front of the commissure were very much flattened, especially the right, which was exceedingly soft, tearing easily. The thyroid gland was enlarged, and weighed nearly 2 ounces. The thymus gland was persistent, the left lobe being hypertrophied, passing behind and to the left of the manubrium sterni. It measured nearly 2 inches in length and weighed 1 ounce. The surface was lobulated, the consistence pulpy—almost diffluent—and the colour a brightish pink.

T. Coke Squance, M.D., F.R.M.S.,
Physician and Pathologist to the Sunderland Infirmary, Consulting Physician to the Monkwearmouth and Southwick Hospital.

[1] Mackenzie, *Journ. Path. and Bact.*, February, 1893.
[2] Gowers, *Nervous System*, 1891, p. 81.
[3] Macalister's *Anatomy*, pp. 273, 543.
[4] Pfeiffer, *Die Verbreitung des Herpes*, Jena, 1889.
[5] Mackenzie, *Journ. of Path. and Bact.*, 1893, p. 335.

ACUTE RHEUMATISM; HYPERPYREXIA; DEATH.

E. M. C., a female, aged 33, had had no previous illness bearing upon this attack. From September 28th to October 1st she was partly in bed. I saw her on October 1st, when she had an ordinary attack of acute rheumatism in the joints of the left arm, with profuse perspirations. On October 4th the temperature, previously about 102°, ran up to 106.5°, all perspiration stopped, and the skin was quite dry and burning. On October 5th, at 4 P.M., the temperature again ran up to 106°. On both these occasions 10 grains of antipyrin quickly reduced the temperature. On October 6th the joints of the right arm and the left knee were attacked; at 9.30 P.M. the temperature was 100.6°, the pulse 100, skin perspiring freely, and condition apparently satisfactory. Five hours later I was called and found the patient comatose, the skin dry and hot, the temperature 112°. Death took place within half an hour. We had time, by wrapping the limbs in sheets wrung out in cold water and by sponging, to take another temperature, which just before death was 110°. The breathing stopped with one longer inspiration quite quietly before the last flicker of the pulse.

The nurse's account was that the patient's condition remained the same after my visit at 9.30; she conversed rationally at 12 P.M., then dozed, and the first warning the nurse had was a slipping down in bed, with some little noise in breathing. I was in the house within half an hour, and death took place within an hour. I never found any sign of pericardial or endocardial trouble. A notable feature of the case was want of sleep, and there was a little mild talking delirium when she did fall off to sleep. On October 1st she commenced taking gr.x of sodium salicylate every two hours; this was increased to gr.xx on the 4th, and for the twelve hours preceding death she had taken ʒiv.

Remarks.—The two early attacks of high temperature I looked upon as danger signals, and pushed the salicylate. On leaving the patient five hours before death her condition was no more alarming than it had been all the week. The last rise in temperature took place during sleep, or rather sleep passed into coma due, I think, to hyperpyrexia. The temperature registered (112° F.) was the utmost limit of the reading of my thermometer; how much above this the real temperature was I could not judge. A marked feature of the hyperpyrexia each time was the stoppage of perspiration, and excessive perspiration was a marked feature of the case. The salicylate certainly failed in the quantities given, and if I had had the chance I had determined to leave it off, for it also failed to prevent further involvement of joints. Neither do I think larger quantities were advisable, for she was well under its influence. This is not my usual experience with this valuable drug. Time did not allow of further trial with the cold sheet or cold water treatment than we were able to give.

North Finchley, N. A. E. Godfrey, M.B.Lond.

SIMULTANEOUS AND UNCOMPLICATED FRACTURE OF BOTH CALCANEA.

As this is somewhat a rare occurrence, perhaps the following case may prove of interest. On June 2nd, J. R. jumped from a height of about thirty feet on to a hard gravel path. No displacement of the feet was present, but on manipulation both calcanea felt like small bags of stones, and crepitation was elicited on the slightest movement. The malleoli were uninjured, and the movements of the ankle-joints unimpaired. The only difficulty experienced during the subsequent treatment was the usual tendency to an upward displacement of the posterior extremity of the bone, which was counteracted by flexion. The treatment consisted of plaster splints, when the great swelling had subsided, and calls for no special comment. No deformity followed.

R. P. Ryan, L.R.C.S., L.R.C.P.I.,
Assistant Medical Officer, Norfolk County Asylum.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

JOHN WHITAKER HULKE, F.R.C.S., F.R.S., President, in the Chair.

Friday, October 27th, 1893.

GASTRO-JEJUNOSTOMY.

MR. BIDWELL read notes of this case. The patient was a gentleman, 69 years of age, who was suffering from cancer of the pylorus. The operation was undertaken to relieve the pain and vomiting. An incision was made in the left linea semilunaris, and the jejunum united to the anterior surface of the stomach by Halsted's method for lateral intestinal anastomosis, twenty sutures only being inserted. The patient made a rapid recovery, not vomiting once after the operation, but died five weeks later from exhaustion and extension of the disease. Special attention was drawn to Halsted's method of suture, which was compared with the use of Senn's plates. Reference was also made to the methods of Mr. Paul and Mr. Mayo Robson. Appended was a table of fifteen published cases, in which gastro-enterostomy had been performed in England since Mr. Jessett's paper before this Society last year; eleven of these cases recovered from the operation, the remaining four dying from shock or exhaustion. Counting the seventeen cases collected by Mr. Jessett, a total of thirty-two cases was obtained with nine deaths, which was equal to a death-rate of 28¼ per cent.

The PRESIDENT remarked that the patient had evidently died with symptoms of his malady mitigated by the operation, and not in consequence of the operation. He was not in favour of bone plates, bobbins, etc. He believed they favoured reflux of the intestinal fluids into the stomach for the first few days after the operation; and much mischief was referable to this cause.

Mr. BALLANCE would have liked to know the results of the *post-mortem* examination of Mr. Bidwell's case. He said that six cases submitted to an operation of this nature improved much for about six weeks, when the opening between stomach and intestine closed, and the old symptoms arose again. He and Mr. Edmunds had performed many experiments on animals, and had found Mr. Paul's method of uniting stomach and intestine the best. When the jejunum was fixed to the posterior surface of the stomach the opening did not close, because a portion of the stomach wall was taken away at the operation or sloughed afterwards in a manner not obtained by any other method of operation. Paul's operation, too, was easy of performance. As to Senn's and Halsted's methods, he believed the former ought to be entirely superseded by the latter.

Mr. SYMONDS had done the operation three times, twice for cancer, both cases being relieved, though they afterwards died. In the other case there was stricture of the pylorus, due to ulceration. The patient was greatly relieved for some six weeks, when a second operation was performed, and the opening made at the first operation could not be found in the stomach wall. He then removed a portion of the wall of the stomach, and the man did well for a time, when the opening closed again. A third operation was then done, of a much more complicated nature. The man was now doing well. He had given up Senn's method.

Mr. MANSELL MOULLIN had done the operation on two occasions. The first was effected with Senn's plates. The patient died six weeks afterwards, when the gastric opening was found to be so reduced in size that only the tip of the little finger would pass into it, although at the time of the operation it had admitted two fingers freely. If that patient had lived for six months he believed the opening would have quite closed. The second patient had died in a week, from exhaustion. In both cases the bone plates and bobbins seemed to favour regurgitation into the stomach until the bobbin or plate was absorbed.

Mr. BATTLE was pleased with Senn's method. An operation of the kind done by him at the Royal Free Hospital he had found to be easily performed in half an hour. There had been complete relief of the symptoms for four months; no regurgitation; and death then occurred from extension of the disease.

Mr. WARRINGTON HAWARD said that as the patients were often not operated upon until their exhaustion was great, it was highly desirable that the operation should be done easily and quickly, and that was possible when Senn's plates were used. As to the regurgitation, it was probably due to the position in which the opening was made. The contraction was probably due to the way in which the opening was effected, the manner of applying the sutures, etc. He thought the evidence tendered against the use of Senn's plates was not very convincing.

Mr. PEARCE GOULD said he had done one case for carcinoma of the pylorus, with distension of the stomach. The jejunum was united to the stomach near the pylorus. He united the cut edges of the stomach and jejunum by a continuous suture, adding a few Lembert's sutures to make the union more secure. The patient died on the sixth day subsequently. He had been, however, greatly relieved for four days, and had taken food. As to where the place of union should be made, he thought the nearer the opening was to the natural position at the pylorus, surely the better it was. Senn's method was easy, though closure of the opening sometimes soon occurred. He had found the jejunum close in front of the notch of the left kidney.

Mr. BIDWELL, in reply, thought Paul's operation must be a long one. He had wanted to operate quickly, as his patient was very ill. As to experimental operations on animals, he considered that there was less chance of the opening becoming closed when, as in these operations upon diseased human beings, there was an obstruction at the pylorus. He had fixed the intestine to the cardiac end of the stomach, on account of the great extent of the pyloric growth.

LIVING SPECIMENS.

Dr. FREDERICK TAYLOR showed a case of Cancrum Oris after Typhoid Fever. The patient was a girl, aged 11. Suppuration took place at the root of a temporary molar, from which apparently the mischief started. It was treated by applications of carbolic acid (10 per cent. solution) every half hour, and then by nitric acid applied under an anæsthetic, which stopped the sloughing process. The patient recovered, but with contractions of the mouth.—Mr. STANLEY BOYD showed a case of Resection of the Symphysis Menti, and insertion of a spanner of stout silver wire. The patient was a woman, aged 61, and the operation was done for extensive epithelioma. The mucous membrane readily united over the spanner. He had previously in another case used a piece of knitting needle for the same purpose.—Mr. C. SYMONDS showed a case of Successful Operation for Ectopia Vesicæ. He first dissected the entire bladder from the abdominal wall, folded it over, and united it in the middle line from top to bottom. Next, bringing up the scrotum with the skin of the penis, he fixed it over the bladder, and made a buttonhole in the perineum through which he fixed the glans penis. Unfortunately the mucous membrane was becoming extruded through this small orifice.—Mr. BALMANNO SQUIRE showed a man suffering from Morphœa of the Fifth Nerve. The disease had somewhat improved under treatment by strong counter-irritation.—Mr. PEARCE GOULD exhibited a man, aged 26, who, after sprain of the wrist, developed a Compound Palmar Ganglion. The swelling, which extended in the sheath of the flexor sublimis digitorum above the wrist and into the palm, was completely exposed throughout by an incision extending through the annular ligament. All the serous membrane was excised, and recovery with good movement followed. The disease returned in the sheath of the flexor longus pollicis, which was opened and plugged with iodoform gauze. Good movement again followed, and the patient had now a very useful hand.—Dr. HALE WHITE showed a child suffering from, probably, Congenital Syphilitic Disease of the Liver. Its mother had been in hospital with nodes. The child was 6 years old. It had three gummata of the liver, which, under large doses of mercury, were becoming lessened. It had keratitis, which was also improving. It had also extra prominence of the parietal prominences. Dr. Hale White also exhibited specimens of Dark Urine from two cases of Pernicious Anæmia. One patient, a man, had at first improved under arsenic, but then died. His liver contained a large excess of free iron, as shown by the Prussian blue reaction. The dark colour of the

urine was due to excess of urobilin. The other patient, a woman, was mending under the use of arsenic.—Dr. Mott had invariably found, in seven cases which he had examined, that the urine was highly coloured from urobilin, whilst in four cases which had died the liver was found to contain free iron.—The President exhibited a child with Congenital Tumour of the Foot and Leg. The child was a twin, and the other twin had a birthmark on the dorsum of one foot.

MEDICAL SOCIETY OF LONDON.

J. Syer Bristowe, M.D., President, in the Chair.

Monday, October 30th, 1893.

Some Neuroses associated with the Menopause.

Dr. Savage pointed out that in spite of the frequency of disorders of the nervous and intellectual systems associated with the menopause very little had been written on the subject. Many mental disorders occurred at the climacteric period which could not be traced to that as a simple cause, though in many cases it was a predisposing cause. No special form of insanity could be called climacteric, but, as a rule, there was a tendency to mental depression rather than to excitement in these cases. Any of the symptoms of the menopause might be so exaggerated as to assume serious mental aspects. There might, for example, be a kind of climacteric hypochondriasis, which might show itself in complaints referred to the circulation, to the head, to the skin, or to the viscera. The unnatural feelings in the skin or about the body sometimes led to false accusations, and the development of hair on the face might lead to miserable feelings of being unnatural or unwomanly. Deafness sometimes arose during the climacteric, and might lead to various delusions, especially of a suspicious nature. Dr. Savage suggested that there was a special form of insanity which was most frequent at this period, in which, with progressive deafness, there was progressive development of delusions of suspicion, a form which was very incurable, and he suggested that it was a parallel to general paralysis of the insane affecting the sensory side, and not as fatal as the disease affecting the more organic side of life. There was a great tendency to the development of disorders of the reproductive organs, and of the feelings associated with their function. Thus there was frequently jealousy, irritability, and general domestic incompatibility. There was also frequently hysterical disorder of one form or another; in single women there were false ideas as to marriage proposals and the like, and, in the married, a redevelopment of sexual desire which might lead to various forms of sexual excess. There was a great tendency to seek stimulants, morphine, etc. The prognosis was fairly good in many of the cases, though a large proportion, especially of those who had had other attacks of insanity, did not recover. He presented tables of a series of cases from Bethlem Hospital, and showed that very rarely the climacteric relieved those suffering from mental or nervous disorders. He advocated general rather than special measures, and deprecated the promiscuous use of the bromides.

Dr. J. P. Richards said that his experience at the Hanwell Asylum led him to doubt whether the climacteric was as important a factor in the causation of mental disturbances as the author would lead them to suppose. One might reasonably have anticipated that the supervention of the menopause would afford relief in cases of recurring insanity associated with the menstrual function, but this was not the case, the only difference observed after the menopause being in the character of the affection, which thereafter exhibited a tendency to a more settled melancholy. It was hardly fair to assert that the insanity of the climacteric period was necessarily of a melancholic type, because for some years past the prevailing type of insanity from all classes was of that character.

Dr. Julius Althaus said some observers were of opinion that the alleged dependence of certain mental and psychical conditions on the climacteric was "all bosh," on the ground that certain affections had a natural tendency to occur at that age, quite irrespective of the cessation of the menstrual flow. Personally he was inclined to side with the author, and to admit some sort of connection between this great physiological change and the supervention of certain affections. He had certainly met with instances of women previously free from any suspicion of mental aberration who had developed symptoms of psychical disturbance of a more or less grave character at, or soon after, the menopause. This was more particularly apt to occur when the change took place suddenly, either as a consequence of shock, or owing to some constitutional peculiarity. Unfortunately they had very little reliable information as to the subsequent mental condition of patients whose ovaries had been removed. There appeared to be two principal forms of the insanity thus engendered—one a violent delirium lasting only a few days, and the other a pronounced form of melancholia. If they could only arrive at a knowledge of what actually took place after double ovariotomy, for example, they might be enabled to arrive at a true knowledge of what the menopause was and what it was not.

Dr. Griffith observed that it would be easy to exaggerate the importance of the menopause in the production of nervous and mental disturbances, so long as they did not understand what it really was. He observed that the external phenomena were often more important than the internal, and the only way to clear up the mystery would be by experimental investigation, as after operations. At the same time, it was hardly fair to compare oöphorectomy with the normal menopause, because in the latter the two functions of ovulation and menstruation did not cease at the same time; in fact, ovulation might come to an end ten years or so before the cessation of the menstrual function. This was evidently a wise provision, in virtue of which all the reproductive functions did not cease simultaneously. In the absence of pathological conditions of the uterus or its appendages he did not believe that the menopause exerted the slightest effect on the mental condition.

Dr. Cullingworth compared the author's figures with his own experience, pointing out that while the graver cases came under the alienist, the slighter cases, in which the mental condition was not so marked, came to the gynæcologist. The experience of the out-patient department of special hospitals showed very clearly what a large proportion of women, not more nervous than their fellows, developed morbid tendencies at the menopause. He failed to see why the results of gynæcological operations should not be placed on all fours with the symptoms observed in association with the natural menopause. He himself had never observed a single instance in which mental trouble had followed removal of the ovaries; but this, he suggested, might be due to the fact that he never removed normal ovaries for the relief of neuroses. He did not believe for a moment that the removal of obviously diseased ovaries would be likely to be followed by mental trouble.

Dr. Richards asked permission to relate the case of a lady whose ovaries were removed for some local disease at the age of 33. She was a highly intellectual and cultivated woman, but within six weeks of the operation her friends noticed a change in her character, and this change took the form of delusions culminating in marked melancholia. He had no doubt whatever that the mental disturbance was directly precipitated by the removal of the ovaries.

Dr. Routh hoped that alienists would in future investigate the condition of the sexual organs of patients who had developed insanity at or about the climacteric period. The removal of the ovaries was very frequently followed by more or less marked mental depression in the victims of the mutilation.

Dr. Savage, in reply, declined to acquiesce in the suggestion that it was desirable or necessary that the condition of the reproductive organs should be examined into in all cases of insanity. He had looked into the matter in America, where lady doctors were attached to asylums for that special purpose, but he denied that any useful result had been obtained either in respect of causation or treatment. He admitted that the menopause was a minor factor in the production of insanity, his 54 cases only representing about 7 per cent. of the women admitted during the period of observation. At the same time, he asserted that the number of women afflicted with insanity admitted at or after the menopause was greater than at any other corresponding period of life.

MIDLAND MEDICAL SOCIETY.

A. H. Evans, M.R.C.S., President, in the Chair.

Wednesday, October 18th, 1893.

Episcleritis.

Mr. Eales showed a man, aged 21, who had suffered from a severe form of episcleritis in each eye of eleven months' duration. Large nodules were seen on the sclera and the margin of the cornea had been infiltrated but the condition had recently much improved. The history and appearances pointed to struma as the cause of the disease.

Cancer of Cervix.

Mr. Jordan Lloyd showed a specimen of cancer affecting the whole cervix uteri, in which vaginal hysterectomy had been successfully performed. The patient was 32 years old and the growth was of several months' duration. The operation was performed some months ago, and the patient is quite well.

Sarcoma of Femur.

Mr. Lucas showed a periosteal sarcoma of the femur removed by amputation at the hip joint. The patient, a girl, aged 12, had noticed a swelling for five months. Amputation was performed by Furneaux Jordan's method after the application of an elastic tourniquet. There was very little loss of blood or shock, and the wound was soundly healed in twenty-three days. The growth proved to be a round and spindle-celled sarcoma.

Bronchiectasis.

Dr. Kauffmann showed a specimen of bronchiectasis of both lungs affecting the lower lobes more than the upper and the left more than the right. The symptoms were unusual inasmuch as the patient, a youth of 20, presented the appearance of a person with advanced phthisis and spat up a large quantity of sputum—thick, homogeneous, and having the putrid smell commonly found in cases of perforating empyema. The bronchiectasis appeared to be due to a prolonged inflammation of the bronchial racemosa rather than to a dragging of interstitial new growth.

Paper.

Mr. Barling read his paper on Cases of Peritonitis treated by Drainage. He showed at the meeting six of the patients on whom he had so operated.

CLINICAL SOCIETY OF MANCHESTER.

T. C. Railton, M.D., M.R.C.P., President, in the Chair.

Tuesday, October 17th, 1893.

Peripheral Neuritis from Arsenic.

The President showed a girl, aged 10 years, who had been treated at the Manchester Clinical Hospital with Fowler's solution for chorea of three months' standing. In three weeks the chorea was cured. The doses given were as follows: 5 drops three times a-day for three days; 10 drops three times a-day for three days; 15 drops three times a-day for fifteen days. Total for the twenty-one days, $1\frac{3}{5}$ drachms of Fowler's solution, equivalent to $6\frac{3}{4}$ grains of arsenious acid. During the course she showed symptoms of stomach derangement, and two days after the discontinuance of the medicine she was noticed to be desquamating freely. Ten days later she could not walk alone, and complained of pains in her arms and legs, the latter being particularly sensitive to pressure. When she put her feet down she felt "pins and needles." She could not button her clothes. Thus motor paralysis, sensory trouble, and ataxy were present. The knee jerks, which were very active before treatment, were lost; she could not flex the feet upon the ankles, and if, when supported, she tried to walk, she showed the soles of her feet completely from behind. The affected muscles of the legs had lost their faradic reaction, and showed the reaction of degeneration with the voltaic current. She could not touch the little finger with the thumb on the right side. The urine was slightly albuminous. The President mentioned nine other cases of children whom he had treated with 15-drop doses of Fowler's solution, three of them for a week only, and the rest for a fortnight. Seven had vomiting, one diarrhœa, three herpes zoster, two erythema, and one had peripheral neuritis, though not so severely as the case above mentioned. In all cases the chorea was cured at the end of the treatment. He considered that 15-drop doses were too much if continued for more than a week, and had determined not to administer this dose for longer than that period in future.

Peripheral Neuritis from Lead.

The President also showed a boy, aged 12, with a blue line at the edge of his gums, and a history of colic and constipation eighteen months ago, who had a somewhat unusual combination of types of paralysis. He had wrist drop and foot drop in a most marked degree, and he had the atrophy and wasting of the intrinsic muscles of the hands [Aran-Duchenne type] equally well marked. He was extremely wasted, and the affected muscles gave the usual electrical reactions. His urine was slightly albuminous, and contained coarse granular casts. His mother had suffered from lead paralysis, and a brother from lead colic, from the same accidental source as the patient.

Cases.

Mr. Herbert Lund showed three patients upon whom he had operated for Cyst and Adenomata of the Thyroid by Enucleation.—Dr. Brooke, Dr. Walter, and Dr. Helme also showed cases.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

Richard Favell, M.R.C.S., President, in the Chair.

Thursday, October 12th, 1893.

President's Address.

The President delivered an inaugural address on "The Prevention of Puerperal Septicæmia." Attention was drawn to the fact that by the rigid carrying out of aseptic and antiseptic measures the death-rate in lying-in hospitals had been reduced below that of private practice. Dr. Boxall's statistics showed that the death-rate was higher in country districts than in large towns, and higher in the provinces than in London. The reason of this no doubt was that in country districts a smaller proportion of obstetric practice was in the hands of those who had been taught to carry out the treatment of midwifery aseptically. Until a satisfactory Bill was passed for the better training of midwives, they could not look for a very much lessened lessened mortality. It was nearly fifty years ago since Semmelweiss demonstrated the septicæmic nature of puerperal fever. To him was due the credit of having removed puerperal diseases from the realm of theory, and of showing that in the vast majority of cases they are due to infection from without. Since the days of antiseptics much had been accomplished in the direction of placing puerperal fever in the class of preventable diseases, the results of both hospital and private practice having much improved. Experience showed the importance of aseptic rather than antiseptic management of the patients. The mortality of lying-in hospitals might be reduced to a few per thousand, and it was the duty of every medical attendant to surround cases in private practice with the same safeguards that are being used in hospitals.

Vote of Thanks.

A hearty vote of thanks to the President for his address was proposed by Dr. Keeling, seconded by Dr. Dyson, and carried unanimously.

The Yorkshire College (Leeds) Students' Medical Society is in a flourishing condition, as will be seen by the following syllabus for the forthcoming session: R. Littlewood, F.R.C.S.: Opening Address; T. L. James: Compulsory Notification; O. B. Trumper: Hands and Feet; P. Ash: Our Deaf and Dumb; R. C. Field: The Diseases of Memory; A. J. Manasseh: Water; T. H. Hunt: The Rise and Progress of Medicine; W. Thompson, F.R.C.S.: Medical Superstitions; H. H. Greenwood: Death; P. H. Feronsides: Dress in Relation to Health; J. Broodley: Vivisection; J. W. Haigh: Lantern Demonstration on the Higher Parasitism; D. Seaton: Antiseptics in Surgery; J. V. Hartley: The Floating Matter of the Air; P. W. S. Sharpe: The Influence of Health Resorts upon Disease; R. Hopton: Darwinism; Evolution Theory.

REVIEWS.

Traité Clinique des Maladies du Cœur et des Vaisseaux. Par H. Huchard. Deuxième edition. (8vo, pp. ii and 892. Paris: 1893. 16 francs.)

M. Huchard is well known to physicians of this day by his enthusiastic devotion to his art, by his clearness in exposition, and by his facile pen. The book before us, although technically a second edition, is virtually a new work, and consists of twenty-nine chapters or lectures. The first five of these deal with "arterial tension" in disease; the remainder are devoted to sclerosis of the heart and great vessels, a subject claimed too confidently by the author as his own. The last four or five chapters are given to the special subject of angina pectoris, true or simulated. The work is illustrated by four chromo-lithographic plates, and by some woodcuts in the text.

On returning to the consideration of the introductory chapters we must at the outset renew our objections to the phrase "arterial tension;" at the risk of being tedious we will again state these objections, for the phrase is not merely an ill-chosen one, but one which leads to much misunderstanding. There is such a thing, of course, as arterial tension, though what many modern writers mean, or think they mean, by "intra-arterial tension" is difficult to divine. By this odd term, however, is betrayed to us the depth of the misunderstanding we would guard against.

"Arterial tension" ought to mean *stress* tending to stretch the walls of the artery, so that the corresponding *strain* is either an increase in the length of the artery or an increase in its diameter. The first kind of strain has a tendency to break the artery across transversely, the second to split it longitudinally. If the blood flowed in a uniform stream along the artery, and was not subject to fluid friction, there would be no tendency to the longitudinal stretching, together with its corresponding tendency to transverse rupture. Thus the lengthening of arteries (observed in senile and other patients) is due to the intermittent motion of the blood in the elastic arteries, together with fluid friction. The stretching by which the diameter of the artery is increased, together with its corresponding tendency to split longitudinally, would exist were the blood to be frictionless, and were it to flow in a uniform current. It is, however, doubtless increased by the fact that the blood flows in pulses.

A roughly approximate calculation might perhaps be made of the amount of tension of the walls of an artery; such calculations are, however, very difficult, partly because of the inherent difficulties in making the measurements, partly because of the interference of nervous and other mechanisms which cause complex variations in the calibre and other conditions of the vessels in several areas. As we said in our review of Dr. Sansom's work, that which authors intend us to understand by "arterial tension" is mean blood pressure. This pressure is to be estimated as so many grammes weight per square millimetre, and is not to be estimated (as in the case of a linear tension on the walls of the artery) as so many grammes per linear millimetre; to apply terms, which properly belong to linear tension, to blood-pressure is to do as one would do who computed a farm by miles instead of by acres. Blood pressure and arterial tension are related to one another as cause and effect, but are not the same thing.

The titles of M. Huchard's earlier chapters—hypertension, hypotension, and the rest of them—if they are terms which we meet with too often in clinical writers, are terms rarely or never used by scientific physiologists.[1]

When we turn to M. Huchard's chapter on plus and minus "tension," we find these terms receive so prominent a place that they are confidently set forth as maladies, and treatment is based upon them of the most frankly "symptomatic" kind. "Hypertension" and "hypotension" are regarded not as indications, but as *mala in se*, and thus the general pathology of morbid processes is lost sight of. To speak of "*une maladie d'hypotension arterielle*" is no explanation, and tends to arrest the study of causation. In respect of collapse, for instance, M. Huchard, after quoting other authors, cries, "since my researches have been made we understand its causes." Well, and what are these? Collapse, he says, of which "*embryocardie*" is the predominant and causative phenomenon, is not only due to cardiac adynamy, but also to the grave depression of arterial tension. Surely, the low blood pressure is an evidence of collapse, not its cause; the cause lies much deeper, and is much concerned with the behaviour of nerves and fluids in the abdominal vessels and spaces. "*Embryocardie*" is one of M. Huchard's fine names; by it he means the so-called "ticking heart." As increase in the speed of the heart is chiefly gained at the expense of the long pause, and as the first sound of the heart grows shorter as its output is lessened, the ticking heart is not a change in kind, not a reversion to some fœtal form, but is merely an extreme stage of rapid action. Dr. Sansom very properly objects to this word, and to the notions which it may imply; for a rapid beat is not a direct sign of weakening of the heart (see p. 5), but of distal interference with its nervous governance; in typhoid fever, for instance, it may be due to a diminution in the whole volume of the blood, and the consequent calls from starving tissues.

M. Huchard has a fine name ready for all occasions. If function slackens in any part he is at hand with the name "*meiopragie*," to mean, as he kindly explains, μεῖον, "less," and πραττω "I do," so that "*antimeiopragique*" (p. 403, etc.) comes in handily as the quality of the physician. To give a dog-Greek name to some well-worn verity, and then to claim it as one's own discovery, may make the reader apprehend with Mr. Shandy that "'tis not by ideas, by heaven; his life is put in jeopardy by words." It is a little too bad, however, in one who is himself a fashioner of words, to attribute to the fathers of medicine the derivation of the words "atheroma" and "sclerosis" from *αθέρομα* and *σκλερὸσις* respectively (p. 96). It is perhaps well that Galen cannot reply. If, again, we turn from Greek to the author's own language, we shall find in "*faux bruit de galop mesosystolique*" (p. 69) a really magnificent expression for a reduplicated second sound. But we must leave these aids to learning and come to weightier matters.

On page 28 we are told that three elements are at work in the production of "arterial tension," namely, (1) the mass of the blood, (2) the cardiac impulse, and (3) the tonicity of the arteries, which results from their elasticity and their contractility. Now, if the author signifies mean blood pressure by arterial tension, these three propositions are either vague or incorrect. The elasticity of the arterial walls merely moderates the changes of pressure due to intermittency of the outflow; this any student could have told him, and an advanced student could have told him that only two factors are concerned in blood pressure, and that these are: (1) the output of the heart and (2) frictional resistance chiefly in the smaller vessels. The mass of the blood has nothing directly to do with the matter. The values given to the contraction volume of the left ventricle (180 to 200 grammes) and to the mean blood pressure (½ of an atmosphere) are out of all measure. The normal mean blood pressure is usually found to be about one-seventh of the barometric pressure. To say (p. 30) that "under physiological conditions the mean pressure in the arteries is maintained sensibly constant and almost invariable, in spite of various influences which it would seem ought to modify it," is, even for M. Huchard, an amazing assertion. Those of our readers who have paid attention to this subject know precisely the reverse—that the arterial pressure varies from minute to minute, and may be raised 25 per cent. by very moderate muscular efforts.

In the same chapter the author formulates, and often applies elsewhere, propositions based upon the assumption that vaso-dilatation raises blood pressure. It is difficult to imagine how this failed to strike M. Huchard as an anomaly. Claud Bernard proved, no doubt, that vaso-dilatation in a small area raised blood pressure in the vessels peripheral to the dilatation, but, *cæteris paribus*, the aortic pressure falls. If vaso-dilatation be general, the aortic pressure must, of course, fall under all circumstances.

On page 33 M. Huchard gives us, after his fashion, sharply contrasted tables of the causes of arterial "hypertension" and hypotension. Systole and diastole are, of course, ob-

[1] Had M. Huchard attended to the matter, he had an example of the proper use of the words "arterial tension" in the quotation he makes from Marey in the note on p. 27. Vulpian, quoted on p. 29, likewise expresses himself correctly.

vious causes, so are likewise compression and release of an artery. We then come to other causes, a few of which are correct, some stated vaguely, some but partially true, some unknown, and some positively wrong. It is often, no doubt, asserted that pressure rises at puberty, in old age, before menstruation (falling after it), at the menopause, and during pregnancy (falling on parturition), but we know of no trustworthy experiments in proof of these propositions, nor of any to prove that blood pressure rises in the evening and falls in the morning, regardless of meals, or that it rises in sleep and falls during waking hours, and so forth. It is positively incorrect to say that blood pressure is raised by the horizontal position and lowered by the vertical; or again, that "moderate muscular exercise without effort"—whatever this may be—lowers arterial pressure.

The chapters on cardio-arterial sclerosis are, of course, the main lesson of the book. The author, in almost every page, informs us that his investigations have taught us this and that or that other writers, "inspired by my researches," have brought fresh support to his opinions. Now, we have carefully read what the author has to say on this subject, and we began our reading with much hope of instruction; we have failed, however, to find any substantial novelty in the results save the novelty which comes of polishing antitheses, of pushing generalisations beyond what facts will warrant, and of embodying a conception of the subject in the taking form which the exquisite language of his country and his own literary talents permit. If there be any exception to this judgment it is in the distinction between dystrophic and inflammatory visceral sclerosis of arterial origin. This distinction we believe to be difficult to follow in detail, and we have very little pathological evidence of it laid before us. M. Huchard utterly repudiates the notion that arterio-sclerosis can be secondary to renal disease, and he regards interstitial nephritis as but an incident in a general process which may forge ahead in one organ or in another, as incidental circumstances may determine. All English physicians will therefore look upon his tests of renal efficiency as very inadequate, seeing that for him this is a secondary matter. In this M. Huchard may be right, but more humdrum authors have seen a difficulty which M. Huchard ignores, namely, that cardiac hypertrophy and high arterial pressure may follow hydronephrosis, say from impacted calculus, in a few weeks.

To speak plainly, M. Huchard's brilliant exposition is premature. Arterio-sclerosis cannot be treated rationally till we know someting more about arterial blood pressure in man, and until he himself condescends to learn the little that is known already. In the present state of our knowledge, it appears to be unsafe to go beyond the dystrophic view of sclerosis.

When we proceed to the study of cardiac rhythms, we find the same defects. We cannot discuss in order the many points we have noted, but the doctrine of irregular rhythms on p. 259 is unsatisfactory. Tachycardia and bradycardia cannot be understood without learning that bradycardia and irregular rhythms are due to efforts of the vagus to save the heart, while tachycardia is, on the other hand, due to reflex excitation of the augmentors, or inhibition of the vagus, from anæmic areas (sclerotic or otherwise) which call for increased blood supply.

Finally, we come to the chapter on angina pectoris, in which we find keen clinical observation and clever description, marred by the author's vigilant egotism. Cohnheim fully recognised that angina is due to ischæmia of the heart, and Walshe not only knew of the neurosis called pseudo-angina, but used this very name for it.[2] Tobacco angina is also familiar to every physician of large experience.

M. Huchard here, as so often elsewhere, puts down the generally received view as his own. Again, in his description of this disease, we well see the danger of smart clinical antitheses and of instruction by types. In constructing an effective picture of angina pectoris, the author seems to forget that diseases refuse to adapt themselves to patterns, and that angina, for example, may even in the same patient show itself at one time as a paroxysmal distress and apprehension without any pain, or with a tolerable pain, and at another with the pain and without the apprehension, and at another time with its full complement of symptoms; it may also come on when the patient is quite at rest. It is none the less dangerous, however, whatever its variations, and none the less is the physician bound to be on his guard.

By the way, in future editions of this work, would it not be well to suppress the little dramas of the sick room in which the author figures as "*annonçant, au grand étonnement de mes confrères, la mort presque certaine et prochaine*," etc.; these and like glorifications of the author's amazing foresight or skill make the reader wishful to see the portrait of the man painted by the lion. The work of Dr. Sansom which we lately reviewed, if less brilliant than the present one, has greatly the advantage of it, not only in soundness of learning, but also in modesty.

M. Huchard has a considerable reputation; in reviewing his book, we looked forward to the grateful duty of giving a cordial welcome to the labours of a foreign colleague. But we feel that, on the present occasion, there is another duty higher, though less grateful, and that is to renounce the facile phrases which too often take the place of serious criticism.

[2] Yet M. Huchard says: 'Cette distinction n'a été faite par aucun auteur!" (p. 758.)

A MANUAL OF MEDICAL TREATMENT OR CLINICAL THERAPEUTICS. 2 vols. By I. BURNEY YEO, M.D., F.R.C.P. London: Cassell and Co., Limited. 1893. (Crown 8vo. Vol. i, pp. 631; vol. ii, 744. 21s.)

IT may seem strange that only within quite recent times has any book been written dealing with disease from the point of view of treatment, for the works by Dujardin-Beaumetz, Hare, and Whitla have only been published within the last few years. It would certainly appear that an account of the methods of treatment and management of disease followed by well trained and experienced physicians, could not fail to be of much value, especially when it is remembered how inadequately this subject is dealt with in some of our best textbooks. Dr. BURNEY YEO points out in his preface that it is not intended to discuss questions of treatment apart from the clinical and pathological aspects of disease, and that this manual is not meant for rapid reference, but that careful consideration is asked for it. For these reasons a short account of etiology, symptoms, morbid changes, etc., precedes in each case the treatment proper.

The first volume deals with diseases of the digestive organs, heart and vessels, and lungs (excluding phthisis), and the second with pulmonary tuberculosis, urinary and renal disease, nervous disease, constitutional disease, and the acute specific diseases.

Perhaps no subject in medicine has been so discussed as the application of the results of bacteriology, not only to the prevention but also to the treatment of disease. It is needless to speak here of the importance and success of the former, and many illustrations of it will be found in these pages. Of the so-called antiseptic treatment of disease, the author is a warm advocate, and in his account of enteric fever he goes so far as to say that to neglect it in the face of evidence recently accumulated is to incur a grave responsibility. Not only in infective diseases of the alimentary canal is this antisepsis recommended but also in such diseases as diphtheria, whooping-cough, phthisis, etc. Under tetanus the antitoxin treatment is referred to, but the author does not think the evidence conclusive as yet. It is perhaps to be regretted that hydrophobia is omitted, for its prevention and treatment illustrate a new and important departure in therapeutics.

Considering the author's advanced views, it is a little disappointing to find that he thinks so little of the value of gastric chemistry as to relegate the whole subject to a note in small type at the end of the chapter on dyspepsia. In hardly any subject is there so much confusion as in the treatment of so-called dyspepsia, and it is much to be hoped that a more exact knowledge of what is going on in the stomach in disease may lead to more satisfactory methods of treatment. The inconveniences in the use of the stomach tube are often (as here) somewhat exaggerated; in many cases it is certainly not more unpleasant, as Professor Ewald says, than a laryngoscopic examination. The author is also at variance with the

distinguished Berlin physician on the question of diet in gastric carcinoma and in the value of hydrochloric acid as an antiseptic. Creasote, carbolic acid, thymol, resorcin, are agents rightly well spoken of in gastric therapeutics.

The treatment of uncompensated valvular disease, as well as the remarks on arterio-sclerosis, are well worthy of careful reading. It is without doubt convenient to speak of the compensation of organic diseases, such, for instance, as that of chronic renal disease, or, as the author does here, of cirrhosis of the liver. The important subject of the treatment of phthisis is discussed in all its aspects.

The danger of the indiscriminate use of pilocarpine in uræmia is very properly insisted upon, but the author does not think it harmful to drain off a large quantity of fluid from the blood without supplying anything to take its place. It must, however, be borne in mind that recent experiments of v. Noorden have shown that the compensatory action of the skin in the excretion of effete products is of very secondary importance. While fully acknowledging the value of salicylates in acute rheumatism, Dr. Burney Yeo thinks that the alkaline treatment has been too much neglected.

Much useful information will be found on the subject of diet, and it is satisfactory to see the fact emphasised that much harm may be done by the indiscriminate use of a strict diet in such diseases as diabetes and renal disease. The information on health resorts is thorough and likely to be of much value in this travelling age.

With regard to surgical help in diseases likely to come under the physician's care, very full and satisfactory information is given, and many very apposite remarks made. Although it is essential for the physician to be acquainted with the indications for such help, and to know in outline how the desired end is to be attained, yet it is hardly necessary to give detailed accounts of such operations as gastrostomy, etc. It is difficult to see the necessity of discussing any other treatment for empyema than incision and drainage with excision of rib (if such should be necessary). The use of Roberts's trocars in tapping the chest would seem to be a simpler procedure than aspiration. In the question of the treatment of tuberculous peritonitis it does not always appear whether the prognosis of the dry adhesive form has been at all materially improved by abdominal section. This is by far the more serious form of the disease.

We miss the mention of several diseases in which, although there is little scope for therapeutic measures, circumstances may arise calling for treatment, such for instance as paralysis agitans, disseminated sclerosis, cerebral tumour, etc. The same reason cannot hold for the omission of acute alcoholism, rickets, etc.

It will be seen that the term medical treatment is used here in its widest sense, that it not only includes the indications for and administration of drugs, but embraces questions of diet, hygiene, hydrotherapy, electrical and climatic treatment, as well as the prevention of the spread of disease to others. This work, with its information always well up to date, may be warmly recommended, as its use will help to disseminate a knowledge of rational therapeutics in the strictest meaning of the term.

Abnormal Man: being Essays on Education and Crime and related subjects, with Digests of Literature and a Bibliography. By Arthur McDonald, Specialist in the Bureau of Education. Washington: Government Printing Office. 1893. (Royal 8vo, pp. 445.)

This is a volume containing much recent information on several subjects which at present excite interest. In the first chapter, dealing with education and crime, the author makes it a little doubtful whether the spread of education is followed by a diminution in crime. Primary education has much improved in France; but crime is shown by one set of statistics to be increasing, by another to be diminishing. In Germany there is an increase in crime, and education is still extending. In Italy there is an increase both in crime and in education; but in England, Scotland, and Ireland, and also in Austria, there is an extension of education and a diminution in crime. These statistics, though fairly presented, require further analysis in order that their full import may be understood. Where the author lets his own views be known on the treatment of crime, they are of a hopeful character. Criminals should have instruction and be taught to work, and when moral improvement is evident their terms of imprisonment should be shortened. American criminology is practical. He cites the experience gained at the Elmira Reformatory and elsewhere as affording hope of the amendment of the less hardened criminals.

Mr. McDonald, while pointing to the State of Kansas, where it is said that the legal prohibition of the sale of spirituous liquors has been successfully tried, does not think prohibition possible in countries thickly peopled, and where intemperate habits are common.

Mr. McDonald gives us some clearly written summaries of the most recent publications of the Italian, French, and German writers on criminal anthropology. There are also some interesting digests of works upon alcoholism and of "charitological" literature.

The chapter on "Insanity and Genius" is below the general level of the book. Moreau was amongst the first to give emphasis to the theory that genius indicated an overtension of the nervous system. This he supported by some striking facts, which he regarded as examples. Since then a number of statements about the diseases of remarkable men have been copied from one book into another till the theory has ended in the shallows and exaggerations of the popular writer. Until someone will furnish us with a scale indicating the frequency of particular diseases amongst ordinary people and their families, to compare with corresponding diseases in men of genius, we may suspend our judgment on this question.

We are not ready to admit that perfection of function is the consequence of disease instead of the highest expression of vigour. It would require a much more careful collection of facts to prove that "the fundamental cause both of genius and insanity is the same — excessive psychical and nervous energy." Many of the statements reproduced in this chapter are erroneous, others incomplete, and some little to the point. He tells up that "Milton, Linnæus, Cuvier, and Gibbon were hydrocephalic." If this be correct, how does hydrocephalus increase psychical and nervous energy? And if a man at the close of a long and active life, in which he has gained distinction, be seized with apoplexy, is this a real support to the theory that genius is a neurosis? Mr. McDonald tells us that "the insanity of Tasso is probable," and he gives as sole proof of the mental derangement of A. Comte that he thought himself "the Great Priest of Humanity." We are willing to help the author so far as to assure him that further study will show that there is no doubt whatever that for some time both Tasso and Comte were quite insane; the insanity much marred their abilities.

The book has a list of works published on the subjects dealt with, which occupies no fewer than 226 pages. This will be useful to the student who knows how to make a selection. On the whole the book is full of information, and does credit to the diligence and judgment of the author.

Ergebnisse der Anatomie und Entwickelungsgeschichte [The Data of Anatomy and Embryology]. Herausgegeben von Fr. Merkel und R. Bonnet. I Band, 1891. Wiesbaden: J. F. Bergmann. (Super roy. 8vo, pp. 778, 47 illustrations, 25 marks.)

Everyone who has occasion to inform himself regarding the work of others is familiar with the German *Jahresberichte*. The aim of these reports is to give a *précis* of every important communication which bears on the literary or scientific study with which the *Jahresbericht* deals. Anatomists and physiologists have long had an excellent example of such a *Jahresbericht* in the well-known annual which bears the names of Hermann and Schwalbe, and it might be doubted whether any attempt to improve upon the abstracts therein contained could easily succeed.

At the first glance the present book seems to represent such an attempt. It is divided, like Hermann and Schwalbe's *Jahresbericht*, into chapters, each dealing with a particular subject in anatomy and development. and each chapter is headed by a list of works which have recently appeared on the subject. Further, an account is given of the contents of these works. Here, however, the resemblance, for the most

part, ends; since it is intended by the editors that the accounts furnished for this work shall be reviews in which the works are not so much to be considered individually as in groups, the results of different authors being compared with one another and subjected to criticism on the part of the reviewer.

The method has both its advantages and its disadvantages. The main advantage is that the salient points in any line of investigation are picked out with accuracy and presented in a form which cannot fail to interest the reader; so that the accounts necessarily furnish a contrast to the dry and disconnected details of the ordinary abstracts. The main disadvantage is that when the critic or reviewer happens to be dealing with a subject upon which he has himself expressed decided opinions the personal bias which is thereby necessarily imported into the review is apt to influence somewhat unfairly his criticism of the opinions and even the facts of other writers.

In the book before us, however, this tendency, although not everywhere absent, is rare, and the names of the reviewers are for the most part a sufficient guarantee that their subjects will be treated in a masterly manner. Thus in the anatomical part Fleming undertakes the cell; Dirse, general anatomy; Barfurth, regeneration; Bardeleben, the bones, ligaments, and muscles; Eberth, the blood vessels; Stöhr, the alimentary canal and glands; Merkel, topographical anatomy, the respiratory system, and the sense organs; Golgi, the structure of the nervous system; and F. Hermann, anatomical *technique* and the urogenital system; while in the developmental part the subject of fertilisation of the ovum is allotted to Boveri, early development to Born, the placenta and membranes to Strahl, the development of the head to Froriep, of the excretory organs to Rückert, and of the vascular system to Hochstetter; while more general developmental problems are discussed by Bonnet and Strasser.

It must be admitted, however, that, in spite of the professed intentions of the editors, some of the chapters are but little to be distinguished from those with which we are familiar in the old-fashioned but most useful *Jahresberichte*. This is much more the case in the anatomical than in the embryological parts, and it is partly, perhaps, on this account that the latter afford the more interesting reading. Many of the embryological chapters are illustrated by diagrams and figures which are introduced into the text, and tend greatly to facilitate the comprehension of the points treated of. Where much is so excellent it is almost invidious to select instances, but one may, perhaps, be allowed especially to commend the manner in which the difficult subjects of fertilisation, the development of the head, and the development of the excretory system have been treated by their respective reviewers. In conclusion, it may be confidently stated that these *Ergebnisse*, of which we hope to see appearing a regular, if not an annual, series, will be found invaluable to all authors, workers, and advanced students who are interested in the sciences of anatomy and development.

A Manual of Veterinary Hygiene. By Veterinary Captain F. Smith, M.R.C.V.S., etc. Second edition. London: Baillière, Tindall, and Cox. 1893. (Crown 8vo, pp. 498. Price 10s. 6d.)

This work, recognised by the veterinary profession as the standard work on veterinary hygiene, most successfully fills a gap too long existent. To the student and the practitioner the book is extremely useful, the principles it inculcates are sound, and although some debateable matter creeps in occasionally the work is particularly free from padding.

The chapter on ventilation is most complete, but occasionally an error occurs. In explaining the methods of arriving at cubic contents, the formula for computing the area of a circle is set forth as "by multiplying twice the diameter by 0.7854." This should be "the square of the diameter by 0.7854." Unfortunately, too, the erroneous formula is the one which has been used in subsequent calculations, and as a result we have the cubic contents of a cylindrical pillar 15 feet high and 6 inches in diameter given as 11.78 cubic feet instead of 2.94 cubic feet.

The chapters on food are, perhaps, the most valuable in the book; the author has collected a large number of facts from foreign as well as indigenous sources, and as a result has presented a valuable epitome of information.

A curious statement remains as in the first edition: it is said, "a truss of old hay weighs heavier than new, owing to the amount of consolidation which has taken place in the rick." A truss is, however, a weight of hay, not a measure, and if the new hay be weighed into a truss before September, the truss should be 60 lbs., a truss of old being 56 lbs.; after September the new is weighed into 56 lb. trusses.

The chapter on individual hygiene is meagre, and as an example of a far-fetched theory of causation may be cited the statement that "brittle feet are often due to digestive derangement." Were an animal to suffer from digestive derangement to the extent of rendering its feet brittle, it would be feeble and useless, whereas thousands of animals with brittle feet are in the highest possible health and condition.

The work as a whole is well done; the amount of pains and trouble which have been taken to compile it must have been enormous, while many original facts and analyses mark the skill and scientific attainments of the author.

A Textbook of Physiology. By M. Foster, M.A., M.D., LL.D., F.R.S., Professor of Physiology in the University of Cambridge. Sixth Edition. Part 1, comprising Book 1: Blood: The Tissues of Movement: The Vascular Mechanism. London: Macmillan and Co. 1893. (Demy 8vo, pp. 406, 76 illustrations, 10s. 6d.)

Professor Foster's textbook still holds its own. In spite of the rivals, which are now so numerous, its popularity is shown by the rapid appearance of the first volume of the sixth edition, the year after the last volume of the fifth was issued.

The changes in the present volume are not great. The account of the heart has been considerably modified by the introduction of the work of Roy and Adami, and of Hürthle. There are several new illustrations, which assist the reader in understanding these recent researches. This work is all extremely valuable, and its introduction adds to the already high value of the book.

NOTES ON BOOKS.

The History, Causation, and Prevention of the Enteric Fever of India. By Surgeon-Captain C. H. Bedford, D.Sc., M.D., C.M.Edin., M.R.C.S.Eng., Bengal Medical Service. (Edinburgh: Oliver and Boyd. Demy 8vo, pp. 30.)—This is an excellent summary of the facts known regarding the prevalence of enteric fever in India, more especially in the European army. The author discusses the various theories of causation which have been advanced from time to time, and adopts the "specific" theory which attributes the disease to a special material or germ transmitted through a variety of agencies or media from the sick to the healthy. He enumerates the various means by which in the barrack and camp life of the European soldier in India such transmission may occur, and lays down rules for prevention founded on these data, which are of the nature of assumptions rather than demonstrations. He also discusses the personal factor. The indications for prophylaxis are summarised in the last paragraph of his paper: "The extirpation of filth as the fostering bed of the virus; the severance, as far as is possible, of the links of transference between the source of production and the young susceptible soldier; the increasing of the age of soldiers serving in India; the increase of length of service in that country; the location of soldiers in hill stations, and the sanitary improvement of the native quarters adjoining and surrounding cantonments."

Ladies at Work: Papers on Paid Employments for Ladies, by Experts in the Several Branches, with an Introduction by Lady Jeune. (A. D. Innes and Co. Demy 8vo, pp. 143, 2s 6d.)—As Lady Jeune observes in the striking introduction which she has written for the articles collected in this volume, "medicine and teaching have hitherto offered the widest scope for women's work, as well as the most lucrative, though the training in both is the longest, and the highest tests are exacted." The book deals not only with

these two professions, but also with other callings into which women may hope to enter, or have entered, with success. Confining our attention to the two articles which deal with strictly medical subjects, that by Dr. Caroline W. Latimer on the Medical Profession, and that by Mrs. Frank Penny on Women's Medical Work in India, a careful perusal shows that they are at once accurate in detail, and broad and liberal in principle. Both writers very properly insist that women should only be satisfied by taking the best qualifications, and strongly recommend a university degree. Dr. Latimer truly points out that to obtain such a degree and to pass through the university curriculum with the greatest advantage, a sound general education is an essential preliminary. A young woman not possessed of the pecuniary resources to obtain such a good general and medical education, or not confident that she possesses the physical health and strength to go through the trials of the curriculum and the fatigues of practice, which, particularly in India, are great, would be well advised to turn her thoughts to some other direction. In making a selection, the book before us will afford much assistance.

The Mineral Waters of Harrogate. By JOHN LIDDELL, M.D.Edin. (Edinburgh and London: Young J. Pentland. 1893. Cr. 8vo, pp. 62, 2s.)—This addition to the numerous monographs on the Harrogate waters is commendable for its brevity, and the author attempts to treat his subject with as much scientific precision as it is perhaps susceptible of. It is a handy and sufficient guide to the use of these important springs. Detailed analyses are furnished of the variety of sources found at Harrogate, and an attempt is made to estimate their action on the human body in health and disease. We would point out to the author that it is not correct to refer to the Sprudel at Carlsbad or to the Ferdinand Quelle at Marienbad as "iron wells."

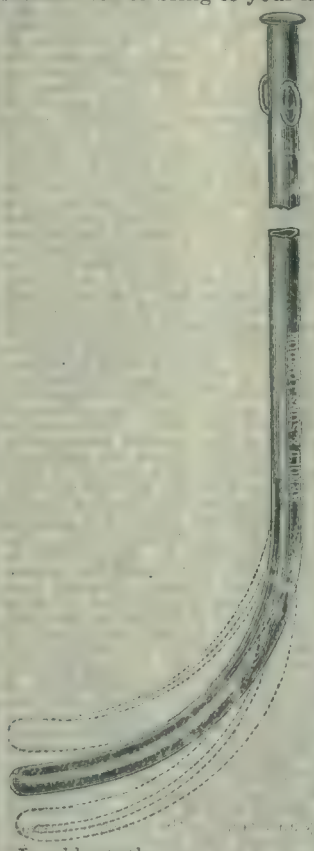
The Westminster Hospital Reports. Edited by R. G. HEBB, M.A., M.D., F.R.C.P. Vol. VIII. (London: J. and A. Churchill. 1893. Demy 8vo; pp. 390. 6s.)—This volume contains (1) original articles, and (2) official reports for the years 1891-2. Among the former, Dr. De Havilland Hall deals fully with epistaxis, Dr. Colcott Fox gives a short clinical record of ninety-six cases of lupus, and Mr. Bond contributes a forensic study based on the Althorpe murder case. In an interesting article on the application to medical uses of the electric lighting current, Dr. Wills points out the superiority of the alternating over the continuous current. The editor's contributions consist in (1) notes on the germicidal action of the blood, immunity, and parasitic protozoa, (2) two cases of malignant jaundice, and (3) eight cases of ulceration of the vermiform appendix. The first-named article affords some interesting reading, but it is open to question whether its value is not diminished by the levity of its style; the last is a further contribution to the now much-discussed pathology of appendicitis. The use of the aëro-urethroscope, an instructive case of abscess of the lung with a foreign body in the left bronchus, an instance of hysterical hiccough, and a short life of Guthrie, form the subjects of other articles. Mr. Hartridge reports two cases (1) sarcoma of the choroid, and (2) double optic neuro-retinitis after influenza. A number of cases from the surgical wards are also put on record. The second part consists of reports from the medical, surgical, obstetric, as well as pathological departments. A short account of all *post-mortem* examinations is given, but the necessary brevity impairs the value of at least some of them. The various tables in the reports are got out with much industry and skill, and perhaps a more special mention may be made of the tables of operations. The elaborate analysis of the cases of acute pneumonia is also valuable. Mr. Stonham describes the pathological specimens recently added to the museum. The volume closes with some account of the medical school, as well as of the societies and clubs attached to it.

A SPECIAL feature of the exhibition which is to be held in connection with the forthcoming International Medical Congress at Rome will be a series of specimens illustrating criminal anthropology, sent by Professor Lombroso.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

A BANGLE-TIPPED CATHETER.

PERMIT me to bring to your notice and that of the profession through your columns an improved catheter, manufactured for me by Messrs. Arnold and Sons. The objects aimed at are to gain the pliancy of the gum elastic while retaining the many advantages of the metal instrument, and also to make the obstruction of the eye by clots of blood or mucus impossible. I make the new instrument with the last 3 or 4 inches in the form of a bangle, so that while the lateral pliancy of a gum elastic is obtained, the necessary firmness, in the arc of the curve, of a metal instrument is maintained. It is obvious, also, that though part of the elongated eye may be obstructed, this is very unlikely to occur to the whole.



Again, in passing an ordinary catheter, say through an old traumatic stricture, the necessary care, patience, and delay at the site of the obstruction results in the membrane being so moulded into the eye by the spasm set up, that stress must be used either to remove or pass the catheter. The V-shaped end of the eye often then abrades the membrane in a manner which, if repeated, cannot fail to be of serious consequence to the patient.

WILLIAM PAULSON,
L.R.C.P.Lond.

Loughborough.

BRAIN DIAGRAMS.

MESSRS. DANIELSSON AND CO. have prepared a set of life-size diagrams of the brain engraved on 12 by 9 inch slates. They are intended for use in the *post-mortem* and dissecting rooms. Each set comprises ten slates, on which are represented 25 different aspects of the brain, and many of the sections are copied from the well-known drawings of Dalton, Bruce, and Obersteiner. Among the advantages claimed for the slates is the fact that they can be freely handled at the *post-mortem* table and can be washed when soiled. They form a permanent series of standard diagrams on which any lesion or anatomical peculiarity may be marked with accuracy, and a negative picture may be obtained by laying a piece of paper on the surface and rubbing it with a lead pencil. The idea is decidedly ingenious and is well carried out: at the same time it must be admitted that, owing to the necessary coarseness of the outlines, the appearance of the transverse sections is too complicated and bewildering for the average student. In that respect they are hardly equal to the shaded paper diagrams which have been supplied by the same firm for some years past and are now in constant use.

UTERINE DREDGER.

DR. ALEXANDER DUKE (Cheltenham) writes: The instrument described under the above heading is not new. I described and pictured in the BRITISH MEDICAL JOURNAL of March 30th, 1889, a similar instrument made for me by Messrs. Arnold and Co., West Smithfield; and Dr. Robert Bell, of Glasgow, at a later date, designed a curette on a similar plan also.

MEDICO-LEGAL AND MEDICO-ETHICAL.

CENTRAL CRIMINAL COURT, OCTOBER 26TH.

[SPECIAL REPORT.]

Before the COMMON SERJEANT (Sir Forrest Fulton) and a Jury.

(Continued from page 973.)

MR. ANDERSON CRITCHETT continued his evidence. If a piece of the conjunctiva was removed, it would reduce transparency. If the lachrymal gland was entirely removed, it would set up a specific disease—xerophthalmia. With regard to James Russell and the operation performed upon him, as described by the witnesses, he could not conceive of the possibility of any benefit from such an operation. The man was deprived of a portion of his eye. At the time he examined Russell he was suffering from no disease except atrophy of the optic nerves. A handglass was of no use in the diagnosis of atrophy of the optic nerves; it could only properly be done by the ophthalmoscope. Previously to the discovery of the ophthalmoscope, the treatment of such a disease as atrophy of the optic nerve must have been somewhat a matter of conjecture. The decay of the optic nerve in the case of Russell was probably caused by a previous history of sunstroke and a severe fall on the back of the head. The case of Evelyn Parsons was next taken. The witness examined the patient in September. She was suffering from a disease of the cornea and iris. The operation performed by the Indians in this case could have had no beneficial effect. A portion of the eye had been removed quite unnecessarily. Any operation was unjustifiable which led to no effect and deprived a human being of something to which he had a right. Such an operation as had been performed might possibly lead to deterioration. On the same day he had examined little Turner, and came to the conclusion he was suffering from ophthalmia neonatorum. As to the operation performed on the child by the Indians, it could not have had any beneficial effect. It was extremely improper, and must have inflicted considerable pain. It was not an operation that anyone capable of diagnosing ophthalmia neonatorum would have resorted to. It was useless, improper, and cruel to perform such an operation. The corneæ had been lost within a short time after birth. There was no film on the outer surface of the eyes of any of the patients operated on by the Indians that he had examined. Eliza Gillingham was suffering, when he examined her in September, from secondary cataract in association with deeper disease. It was possible that the cataract was congenital. The crystalline lens becoming opaque or dull through disease constituted cataract. It would depend upon the nature of a cataract whether it could be detected without the ophthalmoscope. The cataract in the case of Eliza Gillingham would be discoverable to anyone in court. The operation of cutting the upper eyelid was useless, both for the cataract and also the deep-seated disease. It would only allow a little blood to escape, and would be a most cruel method of taking blood. The cutting of the temples with a view to blistering was both useless and cruel, and, except for the effect of giving pain, would have no other. With reference to the case of Mary Ann Bockett, the witness said that when he saw her in September last he found signs of commencing cataract. There was also slight evidence of old trouble in the choroid. It was of an inflammatory character. The operation performed in this case also could have had no beneficial effect at all on the cataract in either eye. If at that time the choroidal trouble was still active, blistering might have been of some possible service to the right eye, but he strongly deprecated incisions in the temple. The choroidal trouble was in the deepest recess of the eye, and could only be discovered by aid of the ophthalmoscope. Mary Perry, another of the patients, was suffering as to her left eye from old iritis, and opacity both of the the lens and of its capsule. The pupil was completely adherent to the anterior surface of the lens. With regard to the right eye she had normal vision. The cutting of the temples in this case was, in his opinion, quite useless. Even with the ophthalmoscope it was difficult to diagnose the case. The left eye was beyond all remedy, but glasses should have been used for the other eye. The remaining case, that of Allison, aged 70, was then taken, the witness again stating that the operation performed in this case was useless. The patient was suffering from glaucoma. The characteristic of the disease was that the eye, instead of being elastic to the touch, was as hard as a piece of wood. Treated by a proper process it was quite curable. It probably had existed for some months. He believed that when the patient consulted the Indians in October, 1892, he was not suffering from glaucoma but cataract, but he thought the cataract was depressed into the lower portion of the eye. Such an operation would at once give a little power of sight, but it so frequently produced traumatic glaucoma, that ophthalmic surgeons had given up performing it. The pain from glaucoma was as intense as any pain which could be suffered. This operation was still alluded to in books as one which used to be performed, but rather in order to warn surgeons against it. Personally, he did not think that glaucoma produced sympathetic inflammation in the other eye. If properly treated Allison might have recovered his sight; 90 per cent. of his patients suffering from cataract did so after operation. He should never advise a person who possessed normal vision in one eye and a cataract in another to resort to operative interference. As to the use of snuff in these cases, it possibly might have damaging results in some of them. This would be so where there was any congestion of blood vessels at the back of the eye. It could have been used for no useful purpose. The paste used for the eyes by the Indians contained oxide of zinc, and if inserted into the eye would cause smarting, but he had no experience of its having any effect for good in regard to the eye. It might be a useful astringent in the case of purulent ophthalmia in an active condition. The effect of its constant use in the eye must have been extremely irritating. It was only within recent years that the study of ophthalmic surgery had been made compulsory at the hospitals. From time to time English and foreign ophthalmic surgeons met and conferred on the progress made in ophthalmic surgery.

The instruments used by the Indians were then handed to the witness, who examined them, and asserted that some of them might possibly be used for ophthalmic operations, but others were worse than useless. The lancets were blunt, rusty, and dirty, and unfit for such operations. The hand glasses were only useful for examining the outer surface of the eye. The majority of the instruments were made in the East.

Cross-examined by Mr. Jarvis: All his evidence that day was his opinion, except in the case of fact. He was a vice-president of the London and County Medical Protection Association, who were prosecutors in this case, but he did not know of the prosecution until two days before the case came on at Richmond. His connection with the Society did not influence him at all in his evidence. The line of the incision in the case of Mrs. Ralph was visible at the present time on her eyelid. The ophthalmoscope was known to educated natives in India at the present time. Twenty years ago the majority of English practitioners would have little knowledge of its use. He considered that in the eight cases cited the Indians acted wrongly in their operations. In the medical profession no surgeon could count upon universal success in operation. Strides in ophthalmic science had been very rapid in the last thirty years.

By Mr. Ball: If there was a growth on the conjunctiva he should remove it. That growth would be of the character of a tumour. He objected to the use of the word "film." In one disease of the eye called "pannus" blood vessels spread over the cornea. There was a diphtheritic membrane which usually occurred on the conjunctiva under the upper lid, but it also appeared in the eye. A similar thing might occur without diphtheria being present in association with blood poisoning. Such growths as he had been describing might occur in addition to other diseases. The diminution of those "films" would be a proper object of ophthalmic surgery. Iritis associated with disease of the cornea might cause a "film" in the substance of the cornea. Before the introduction of the ophthalmoscope, Dr. Mackenzie, of Glasgow, a man of large experience, by taking a number of similar cases, was able to arrive at an approximate diagnosis of deep-seated diseases of the eye. That must have been a species of individual instinct, aided by large powers of observation and acute sight. The removal of the lachrymal gland was a known operation, but one very seldom practised. He did not describe himself as an oculist, he preferred ophthalmic surgeon. He had said that anyone was entitled to call himself an oculist, but perhaps he was not right in saying that, but certainly that was not the case with ophthalmic surgeons. He had known cases of wrong diagnosis in eye cases amongst general practitioners. Those were cases that had been subsequently sent to him. In the case of some very inexperienced ophthalmic surgeons he had found that operations had been performed which he should not recommend. During the last few years the operations on the eyes were performed by aid of cocaine—a local anæsthetic. Previous to the introduction of cocaine, chloroform was used in all but the least painful operations. Ophthalmic operations were always painful, as the eye was one of the most sensitive parts of the human frame.

Mr. E. Nettleship, F.R.C.S., Ophthalmic Surgeon to St. Thomas's Hospital, said, in answer to Mr. Mathews, that Sarah Ralph had been under his care at St. Thomas's. She was suffering from chronic iritis in both eyes, complicated by disease of the more deep-seated portions of the eye. He gave her the best of his attention and skill, but found his efforts unavailing. No progress was made. He had heard of the operations performed on her by the Indians, and in both cases they were absolutely useless and therefore unjustifiable. He had heard Mr. Critchett's evidence, and in general terms he quite agreed with what he had said.

Cross-examined: It was his scientific opinion that these men were unjustifiably wrong in their operations.

Mr. J. B. Lawford, F.R.C.S., Assistant Surgeon at the Royal London Ophthalmic Hospital, Moorfields, described his treatment of Eliza Gillingham, and asserted that the operation performed on her by the Indian was an improper and useless one He entirely agreed with Mr. Critchett in his evidence in regard to Gillingham's case.

Mr. T. B. Archer, M.R.C.S., Surgeon to the Central London Ophthalmic Hospital, spoke of the treatment he had prescribed for Mrs. Bockett. Mr. Critchett had accurately described her case. The operation performed upon her by the Indians was a useless one, and he agreed with Mr. Critchett as to that.

The Court then adjourned.

FRIDAY, OCTOBER 27th.

THE trial was resumed this morning.

Evidence on behalf of the prosecution was continued.

The first witness was a printer, of Wandsworth, who deposed to printing upwards of 100,000 of the prisoners' handbills. Most of them were distributed in the streets. There were about twenty Indians altogether, who were dressed in native costume and distributed the bills broadcast. He did not believe that original copies of the testimonials which he printed were ever sent to him.

Dr. Hugh Woods, M.D., F.C.S., was next called. He said he lived and practised at Archway Road, Highgate. He remembered receiving two cones for analysis from the magistrates at Richmond. He tested them, and found the reactions similar to those drugs in which the active principle was emetine. As to minerals, he found that they contained a considerable amount of zinc oxide, but no other mineral substance. He experimented on his own eyes with paste made from one of these cones. It slightly irritated the eye, making it bloodshot for an hour or two, but it had no effect on the pupil, either by dilating or otherwise. Pills were also submitted to him for analysis. They were a sugary confection containing the rind of some fruit. He took one of them, and it had no effect whatever upon him. Snuff was also submitted to him for examination, and he found it to be simply ordinary powdered tobacco. He tested it by using it for the nose, and it had no effect on the eye, but only caused sneezing in the usual way. The pills submitted to him would have had no effect even on the bodily health, except, perhaps, in removing a little flatulency.

Cross-examined by Mr. Jarvis: He was one of the two honorary secretaries of the London and Counties Medical Protection Society, and the prosecuting solicitor was his brother. Last December the Society prosecuted under the Medical Act of 1858 three of these Indians for styling themselves "doctors." There were three hearings before the magistrates. It was then offered that if they would withdraw the prosecution they (the Indians) would drop the title "doctor." That was declined. In the end the summonses were dismissed on the ground of ignorance of the law on the part of these Indians. He had had large experience in chemical analysis, although he was a general practitioner. He did not do many

analyses in the year. He did not think it would be fairer to the prisoners to have allowed the public analyst to do the work. The zinc oxide in the cones was mixed with some vegetable matter. There were vegetable substances which could not be detected on analysis. In the pills the sugar was the vehicle which carried the drug.

The learned counsel here handed up some snuff, which the witness said was not tobacco, and was not similar to that submitted for his analysis. He was sure he was not mistaken as to the composition of the snuff analysed by him. He was not a specialist for the eye, but a general practitioner.

Re-examined: The two cones he examined he received from the magistrates in open court in Richmond.

The Common Serjeant asked if the prisoners would like the ingredients of the mixture handed up by their counsel analysed.

Mr. Jarvis said that he should like it done, and Dr. Woods agreed to bring his analysis on the following morning.

Mr. Woods, brother of the last-named witness and prosecuting solicitor, next gave evidence, chiefly as to the reason why the public analyst had not been employed to analyse the specimens. Substantially it was objected to on the ground of expense.

A clerk to the last witness proved receiving from Sergeant Hawkins at Richmond a box containing cones, pills, and snuff.

Sergeant Hawkins of Richmond proved the arrest of the prisoners at Morley and Dewsbury in Yorkshire on August 31st, and deposed to seizing certain instruments and drugs. The pills, cones, and snuff he gave to the solicitor's clerk he received from Mrs. Russell.

Cross-examined: When he arrested the men there was no attempt at resistance. The charges for malicious wounding which appeared in the warrants were dismissed by the magistrates, and the prisoners were sent for trial only on the charge of obtaining money by false pretences.

Detective Stevens corroborated.

Mrs. Russell, recalled, said she gave some of the cones, snuff, and pills which she received from the prisoners to Sergeant Hawkins.

This closed the case for the prosecution.

Mr. Jarvis submitted that there was no evidence of false pretence. It was alleged that these men represented themselves as ophthalmic surgeons. There was not a rag of evidence that they ever held out any such title or profession as belonging to their avocation.

The Common Serjeant: If there is evidence as to any one false pretence it is sufficient.

Mr. Jarvis said here there seemed to be only false promises. He should submit that there was no evidence that the prisoners made any representations that were untrue, and therefore nothing to go to the jury.

The Common Serjeant: I cannot say there is no evidence. The case must go to the jury.

Mr. Warburton contended that there was here no evidence of conspiracy to defraud. It was clearly no offence in law to be an unqualified medical practitioner.

The Common Serjeant said the question here was simply one of *bona fides*. If the men honestly believed they were right in what they were doing all the counts in the indictment would fail. It was essentially a question for the jury.

Mr. Jarvis then proceeded to call the witnesses for the defence.

Mr. J. C. Stevens, a coal merchant, living at Rushden, Notts, had had an attack of brain fever as a child, and became short-sighted. In the spring of the following year he was taken to Mr. Soelberg Wells. His mother secured glasses, but they did no good. Subsequently he had consulted Mr. Wharton Jones in London, who examined his eyes. About eleven years ago he noticed a pain in his eyes, and consulted Dr. Bell Taylor, of Nottingham, who galvanised his temples and gave some pills. He derived no benefit from the treatment of these specialists. In July of this year he consulted the Indian oculists at Wellingborough. He there saw Heere Shah, and his eyes were examined. They lanced the temple, put a blister on, and put some dressing in the eye. It was not a painful operation. He had continued since under their treatment up to the time of the arrest. His eyes had been better; he had less pain; his sight was stronger, clearer, and a little longer than before. He had lost the headache he had before going to them. He came quite voluntarily to give his evidence.

Cross-examined by Mr. Bodkin: It was eleven years ago since he went to Dr. Bell Taylor. The pain increased from then until he consulted the Indians. When he went to them he did not tell them the history of his case. He had heard that he was suffering from some disease of the optic nerve, the result of the brain fever. The medicine prescribed by the Indians did him a lot of good, and the general health marvellously improved. The tonic was bitter to the taste but not so unpleasant.

Mr. Randall, a machine upper-closer, of Wellingborough, said he was 63. Previous to March, 1893, he was blind in one eye. In 1888 he went to the Moorfields Hospital. Mr. Hulke, the surgeon, examined his eyes, and said one was blind and the other ulcerated. He gave some drops and ordered glasses. He went again in June, 1892, when he could see a little out of the left eye, but not out of the right. He again saw a surgeon, but not Mr. Hulke, who told him to come again in a short time. Meantime he heard of the Indian oculists, and was taken to them by his wife in August, 1892. Subsequently, in March, 1893, he saw Heere Shah at Kettering. He examined the eyes. He could not then see at all. Heere Shah said: "Come and live here and I will see what I can do for you." Some medicine was put in his eyes. Afterwards he scratched the temples and put a plaster on. This was painless. An operation was subsequently performed, and a cataract was removed from the right eye. He could then see with it; it was like a transformation scene to him, as he had had no vision with that eye for seven years. His sight was now growing stronger daily with the right eye; he could now see anybody.

Cross-examined by Mr. Bodkin: His right eye began to get bad some ten or twelve years ago, as the effect of a snowball being thrown at him. He did not tell Heere Shah the history of his case. The Indians diagnosed his case as cataract. He could have picked up the cataract that was taken from his eye. It looked about as big as a sixpence and was white.

Mr. T. Whitehouse, of Cumberland Road, Loughborough, an engine driver, said that, previous to September, 1892, he was blind. Before then, for two years, his sight was failing in both eyes. He was recommended to go to Nottingham Infirmary at the end of 1889. He had his eyes examined, and was told he had a double cataract. An operation was performed on the left eye.

Mr. Mathews here interposed and asked that the witnesses who were now being examined might be subjected to the examination of a medical expert.

The witness, continuing, said the effect of the operation was to prevent his seeing since. The doctor said: "The right eye will go blind like the left. There is not a doctor in the world who can do anything for you." He did go blind in the right eye about six months after the operation on the left. In September, 1892, he saw Kream Bocesh, and was operated on by another of the Indians. Previous to the operation he was treated by Kream Bocesh. The temples were scratched and a little plaster was put on, but that did not hurt. The operation was not painful. There were several people in the room, and after the operation he could see them. One of the assistants went home with him. He was told to get a brick, make it hot, put it in a handkerchief, and rub it outside the eye two or three times a day. He followed these instructions, and in a week the bandage was taken off and salve put on. He could then see well. He had seen much better ever since the operation.

Cross-examined: The doctor who treated him at Nottingham was Dr. Truman. The operation was performed some few weeks after he went to the infirmary. There was no operation on the right eye. It was one of the testimonials that made him seek the aid of Kream Bocesh. He was treated before the operation by the Indians for a fortnight, but there was no improvement in his sight before the operation. Before he went blind he had used glasses, but found them of no use before the operation. The effect of the operation was instantaneous; he could immediately see. The Indian who operated told him it was a cataract. It was not till a week after the operation that the treatment was resumed. He got better in the course of the treatment. The glasses he was now wearing he got about a fortnight after the operation by the Indians. The eye was bandaged up for a fortnight after the operation.

By the Common Serjeant: He told the optician when he went to buy the glasses that he had had a cataract and had been operated upon by the Indians.

George Martin, a painter, of Tottenham, said his son Albert had suffered from his eyes. He was 14 last birthday. For nine years before last June his sight was very bad, and had been continually getting worse. He took him to St. Bartholomew's for some five or six weeks. That was some seven or eight years ago. He derived no benefit from his treatment there. His mother took him to Guy's about six years ago, and he had taken him to Moorfields. He had also been to Tottenham Hospital some nine or ten months ago. He was treated at all these institutions, but he got no better. He was attracted by a handbill of the Indian oculists. He did not recognise any of the prisoners, but the boy was treated by Indians, and his eyesight very greatly improved. No operation was performed, but he was simply subjected to curative treatment.

There was no cross-examination in this case.

Albert Martin, the boy spoken of by the last witness, was then called, and corroborated his father's evidence.

Mrs. Becker said she lived at 1, Park Villas, Merton Road, Wandsworth, and knew the prisoners, who had had rooms at her house. She also knew Sarah Ralph, and was present when the operation was performed upon her. It was a very quick operation, and without pain as Mrs. Ralph had told her. She wrote out a testimonial at Mr. and Mrs. Ralph's wish after the first operation in July.

Cross-examined: She only knew Kream Bocesh by sight. He did not lodge at her house. She was generally present when operations were performed. She heard Heere Shah ask Ralph for a testimonial after the operation. She wrote the testimonial because the others present could not write. It was not the ordinary thing that she should attend the operation and then accompany the patients to make out the testimonials. She generally gave the one she did immediately after the operations. She drew up Allison's testimonial. Allison could write, but he was ill that day. One eye was bound up, but he could see with the other. She did not make him say in the testimonial that he was totally blind in one eye. What she put down Allison told her to write. She did not know that Allison now had traumatic glaucoma. He came for months after the operation. At the time of the operations, all the patients who were present were called in to see them. She had seen the Indians put one hook into the patient's eyes. She could not say that they used two hooks. She (the witness) used herself to have floating before her eyes, but since treatment by the Indians it had been much better. She had noticed scissors in the hands of the Indians at the time of operation. In the case of a Mrs. Fryer, she remembered a little piece being cut off the eye and held up to the people who were there as the body which had been obstructing the sight. The same thing occurred in the case of Mrs. Ralph. She did not think she was present at more than three operations, and in all those three cases she wrote out the testimonials. She heard the Indians say that all they wanted from Allison was a testimonial.

Re-examined: It was the practice of the oculists to treat poor persons at a low rate. Whilst the Indians were at her house they had a number of patients. She herself derived great advantage from the treatment of the Indians.

Maria Hallam, of Loughborough, said that prior to 1892 she had been blind in the right eye for twelve years. The eyelid was closed over the eye and she could not raise it. In October, 1892, she went to the Indians, and saw Heere Shah and Kream Bocesh (the witness described the latter as Dr. Sixfoot). Her temples were scratched and a plaster put on, but there was no pain. Subsequently the lid of the eye, which was closed, was cut, and she could now read out of it. Even if the perfect eye was shut she could see to read out of the other. She had been better with her eyes ever since.

Cross-examined: She was too nervous to go to any hospital or infirmary. She could raise her eyelid by taking hold of it with her finger, and when it was raised she could see. She could not keep it up. The cutting was about half way up the eyelid. After the cutting it was sewn with a needle and cotton.

Re-examined: She could not keep the eye open or closed if she liked.

Mr. H. Ralfs, a watchmaker living at Norwich, said that eleven or twelve years ago he began to notice a weakness in the right eye. Three

years ago next Christmas he entirely lost the sight in that eye. He had been to some chemists who gave him some stuff for the eyes, but it did no good. In 1891 he had scarlet fever, and Dr. Watson, of Norwich, attended him. The doctor noticed the eye, and after examining it said there was no cure whatever for the sight in the right eye. He suffered very great pain from the eye, and it became more intense after he was blind. In August, 1893, he went to the Indian oculists and was operated upon by one of Kream Bocesh's assistants, and now he could see better. The right eye was treated for the pain, and he had not felt it since. He was still under their treatment. The sight of the left eye was increasing daily, and all pain from his eyes had been lost.

There was no cross-examination in this case, as the witness could not identify any of the prisoners.

Hannah E. Reeve, Norwich, a brushmaker, aged 18, said her right eye became bad at Christmas, 1892. She suffered great pain, and her sight went all at once. She could see out of her left eye, but that also went bad, and a week after Christmas she lost the sight of that eye, and became totally blind. She consulted Dr. Taylor, of Norwich, who examined her eyes, and put stuff in them which hurt her very much. She was four weeks under his treatment, and derived no good from it. He said it was inflammation of the eyes. She afterwards went to the Higham Infirmary, where some atropine was put into her eyes, and that, too, hurt her. She also had medicine and powders. She was seven weeks an in-patient, and an out-patient three months, and derived no benefit from the treatment. She was still blind in both eyes when she left. She was recommended to the Indian oculists by a friend, and went to their establishment in Norwich. She was attended by Sundah, Kream Bocesh's assistant, who put medicine in her eye without hurting her. She also underwent an operation at his hands. She could now see a little, such as fingers close to her eye. The Indian cut both temples, and put a plaster on. She had had no pain since the operation. She got great relief from the operation. She could now go about Norwich without being led, and could lead other patients about.

James Palmer, also of Norwich, said that some time early in this year his right eye became bad. He was an out-patient at Higham Infirmary for one month, but received no benefit. He was advised to go to the Indian oculists. He saw Sundah, who said he was Kream Bocesh's assistant. The medical men at Higham Infirmary asked him what was the matter with his eye, and he said he could not tell. The Indian operated upon him after three days' treatment. He cut the top lid, and took out a speck, and, holding it up, said, "That is the disease of the eye." There was only a very little pain. The operation only lasted a minute and a-half. Before he went to the Indians, his right eye was very painful, but he had now lost all pain. He was still under treatment. Before the operation he could not work, but now he was able to follow his employment.

Cross-examined: The speck taken out of the eye was white. It was as big as the top of his little finger. It looked like a bit of flesh. The Indian put on a plaster, but that did no good, but he then heated an iron and put it on the side of the temple.

An iron was here put to the witness, who identified it as the one used.

The jury pointed out that the witness had a scar on both sides of the head, and the witness said that those scars were caused by the application of these hot irons, but the effect of the application was that all pain immediately left him. He gave his consent to this operation being performed.

Caroline Butler, Wellingborough, said that for twelve months her son had been blind in the left eye. She had taken him to the Northampton Infirmary, but as he received no good there she removed him. She took him again a few months back, and the doctor told her the sight was nearly gone, and that glasses would be no use. Three or four months ago she took the child to Heere Shah and Shah Bedean, and after a month's treatment without operation her son was able to count fingers.

Cross-examined: The doctors at the infirmary did not tell her what the boy was suffering from.

Walter Butler, husband of the last witness, corroborated. He was so grateful to Heere Shah that he came up on purpose to be bail for him.

Mrs. Trew, landlady of Verandah House, The Green, Richmond, deposed to letting rooms to Shah Bedean in September, 1892, and subsequently the rooms were occupied by Heere Shah. She saw the operation performed on Willie Turner, and it was done with great care and kindness. It was not true, as Mary Perry had asserted, that she was locked in a room at Verandah House by Khair Deen. Mrs. Perry was excited. There was a complaint about money. She had heard one or two patients complain that it was a long time before they began to get better.

Cross-examined: She noticed Heere Shah spitting on the mantelpiece whilst operating on Willie Turner.

Nawab Mahomed Eusoof Khan said he was a doctor of medicine of Calcutta, and had been a surgeon in the Indian Medical Service, and was medical officer in charge of Kandahar Fort under Lord Roberts. He was acquainted with a special caste of oculists among Mohammedans all over India. If a Mohammedan left India he required a passport. A description of the business of the man leaving must be inserted in the passport, and it must be signed by a magistrate. The passports relating to Heere Shah and Kream Bocesh were here produced and put in. They both stated that the men were proceeding to Europe for the purpose of curing eye diseases.

Cross-examined: The statements in the passports were made up from statements made by the near relatives of the men. He could swear that he never told Mr. Woods that these men were of the costermonger class in India, and would never be allowed to carry on their business there.

By the Common Serjeant: In India Mohammedan oculists practised among the poor. These men still performed the operation of couching for cataract, and it was very successful.

After further evidence the case was adjourned.

SATURDAY, OCTOBER 28TH.

THE trial was resumed to-day.

Evidence for the defence was continued.

The Foreman of the Jury expressed a desire on the part of the jury to know what the witnesses who had been called for the defence had paid for their treatment by the Indians.

The witnesses were then recalled.

W. Randall said he paid £1 1s. down and 10s. 6d. for 27 weeks to the Indians he consulted at Bedford, and 10s. 6d. down and 7s. 6d. for 11 weeks at Kettering. A fee of £2 2s. was paid for the operation.

Thomas Whitehouse said that he paid about £7 altogether.

George Martin said he paid nothing, as he was out of work at the time the operations were performed. The Indians said "You pay when you can."

James Palmer said that he paid £1 altogether.

Maria Hallam paid £4 altogether, being 10s. a week for eight weeks.

Hannah Reeve paid 17s. altogether.

William Ralfe said he paid nothing at all. Kream Bocesh's assistant offered to treat the case for nothing.

Mrs. Butler said she paid 10s. down, and 6s. 6d. a week for two months, being £3 2s. Her son was still under treatment, but she had paid nothing else.

Mr. Jarvis said that was the case for the defence.

Mr. Dodd, F.R.C.S., was then recalled by the prosecution. Questioned by Mr. Mathews, he said he had examined the witnesses who had been called for the defence. With regard to William Randall, in his left eye, which was not touched by the Indians, he was suffering from senile general cataract. In the right eye, the subject of operation, the lens was absent from its normal position. He could find no trace of operation or external scar. He could not find the lens at all; it might be inside the eye, but he could not see. The pupil was undilated. His opinion was that the couching operation had been performed. He did not think the cataract was actually removed, because he could find no external wounds. He should say it would be impossible that the patient could have seen the cataract fall to his feet. With regard to Thomas Whitehouse, the left eye, which was untouched by the Indians, was sightless. In the right eye, the subject of operation, just behind the pupil, a cataract was lying. He could see it with the ophthalmoscope clearly. In this case a typical couching operation had been successfully performed. In the case of Walter Butler, the patient was suffering from congenital specific disease of the eye, arising from hereditary syphilis. It probably existed from birth. There were traces of past inflammation in both the corneæ. They were clouded. The interior of both eyes was exclusively diseased. He had choroido-retinitis. The improved sight in this case was due to the clearing of the corneæ, either arising from natural causes or the treatment of the Indians. James Palmer was also suffering from congenital specific disease of both eyes. There was marked clouding of both corneæ. He believed the deep structures were affected, but owing to the clouding of the cornea the ophthalmoscope was not operative. The treatment given by the Indians in this case was a very coarse one (it was the case in which the red-hot iron was used). It might have done good by counter-irritation. It was a brutal method of treatment. Much milder methods could have been employed. He should put down the cure of the eye to a certain extent in this case to the counter-irritation alone. In the case of Ralfe's, the right eye was a staphylomatous eye. It was a stretched, irregular bulging eye, in a state of chronic inflammation, and there was a cataract. The eye was practically blind. The left was practically a normal eye. In this case also he considered the treatment excessive. As to Hannah Reeve, she was suffering from congenital specific inflammation of both corneæ. They were both opaque, so that the interior back could not be examined. There were marked scars on both temples. As to the treatment in this case he made the same remarks. She could not tell the time by his watch at a distance of one foot. Albert Martin (aged 15) was now practically free from any disease. His conjunctiva was thickened as if from past inflammation. He thought he had had blepharitis, or inflammation of the borders of the lids. There was also probably an error of refraction. He thought in this case the presumption would naturally be that the lotion and ointment prescribed by the Indians in its specific action effected the improvement. Maria Hallam was short-sighted. She had ptosis or drooping of the lid. Cutting the eyelid would have produced the beneficial result the witness had described.

There was no cross-examination.

Mr. Jarvis then addressed the jury for the defence. He hoped they would not, because these men were foreigners and did not do their business as skilfully as English surgeons, come to the conclusion that they were persons who were only carrying on their trade, not with a view to earning money by serving the people who sought their aid, but with a view of trying to get money out of poor people by false pretences. His position was vastly strengthened by the evidence they had heard that morning from Mr. Dodd. If these men, thinking they had a means of cure, could afford relief, then their advent to this country, so far from being an injury, was an advantage, even if they used clumsy methods in giving relief, because they worked at prices which were within the reach of poor persons.

The Common Serjeant thought it impossible to say that their presence could be otherwise than a grievous disadvantage. If the jury should come to the conclusion that they had acted *bonâ fide* after what they had heard in the case, it could never again be urged on behalf of the prisoners if they ever did the same things that they were acting *bonâ fide*, because it had been clearly emphasised that their methods were cruel and barbarous.

Mr. Jarvis said that at any rate it was a method of treatment which afforded relief, which alone was a source of some advantage. The prosecution was instituted by a medical protection society simply because these men were unqualified persons. If they did not like unqualified persons practising the Legislature should so enact. The genius of the English law, however, seemed the other way. In the report of a Royal Commission which was laid on the table of the House some few years ago, the Commissioners said: "We think it undesirable to attempt to prevent unregistered persons from practising, but, at the same time, we should think they might be prevented from representing themselves as being registered." So jealous was the medical profession of its privileges, that it could not endure any person to think differently from itself. He (the learned counsel) was ashamed that it was a jealous profession, because it was the highest of all professions, but that it was

fenced round with jealousy their action in the case before the jury clearly showed. Even so far back as the reign of Henry VIII an Act of Parliament was passed, the preamble of which said: "Whereas the Company and Fellowships of Surgeons of London, minding only their own lucres and nothing the profit or ease of the diseased, have sued, troubled, and vexed divers honest persons as well men as women, whom God hath endowed with the knowledge of the nature, kind, and operation of certain herbs, roots, and waters, and the using and ministring of them, etc., etc. Be it ordained, and established and enacted by authority of this present Parliament, that at all times from henceforth it shall be lawful to every person being a King's subject, having knowledge and experience of the nature of herbs, roots, and waters, or of the operation of the same, by speculation or practice, within any part of the realm of England, or within any other of the King's dominions, to practise, use, and minister to any outward sore, uncome wound, etc., ... without suit, vexation, trouble, penalty, or loss of their goods." Evidence of failure in operation was not necessarily evidence of want of skill. Even Mr. Critchett admitted that 10 per cent. of operations for cataract by English surgeons were failures. Ophthalmic surgeons in England sometimes failed, and Mr. Critchett had said that in some cases he had made a wrong diagnosis and operated in a manner which subsequent knowledge would have led him to think was not the best. As the evidence for the prosecution stood, did it show that the representation that these men made that they were Indian oculists was untrue or false to their knowledge at the time they made it? The drugs and pills used by the men, although not known to the English *Pharmacopœia*, might nevertheless be very advantageous in their treatment of the eye, and it therefore could scarcely be urged that the evidence as to those medicines, or as to the operating knives, was proof that these men knew that they were making false statements when they represented themselves to be oculists. Nearly all the patients they had treated had been to the hospitals and had derived no advantage. Whether the reason was that the number of poor patients at these institutions rendered it impossible for the surgeons to give them the attention that they deserved he did not know. What a gigantic advantage it was from total darkness to be able to count figures even badly! And could they split hairs and say that because the prisoners' was an older treatment and a rougher system, therefore, in offering to cure by that treatment they obtained the money paid them by false pretences? The question for the jury was not as to the competency of the prisoners, but whether their conduct had been *bonâ fide*. Their mode of operation might not be up to the nineteenth-century standard, but they had been attended with success, and had been beneficial to the persons operated upon. Bearing these facts in mind, he looked confidently to a favourable verdict from the jury.

Mr. Mathews, in a speech of over two hours, in summing up for the prosecution, said he did not retire in any way from the position he took up at the beginning in asserting that this prosecution was of the highest public importance. If the defendants should secure a verdict of acquittal the mischief which they had done so long it would practically be out of the reach of anyone to stop. Fortified by the verdict of the jury, it would be easy to read into it a pronouncement of approval, and so far as reaching them by punishment was concerned neither in the near nor in the far future would it be possible, if they went forth with the fiat of the jury, to say that they had done anything criminally wrong. All possible latitude should be given to men standing charged with criminal offences. None the less he thought that when they came to examine the greater portion of the evidence called by the prisoners it would be found to be, if not irrelevant to the inquiry, at all events of little assistance in forming any proper conclusions upon it. He desired to draw no distinction between qualified and unqualified practitioners. The advantage which the qualified in the sense of registered practitioner had was that he could sue for his fees in a court of law, but in so far as doing wrong was concerned the qualified medical practitioner was in no higher position than he who was unqualified. To make that abundantly clear he would say that if Mr. Anderson Critchett had done what was here charged against the prisoners, in the view which he was about to present, he would have been amenable to the criminal law of this country. He who undertook to perform an operation must bring to it a requisite degree of skill for the expectation of successful performance, and it mattered not in law whether he was paid or unpaid. He contended that the evidence for the prosecution remained unshaken and uncontradicted. But as for the evidence for the defence, how many of the witnesses called for the prisoners came to speak of operations performed by the prisoners at all? Suppose an English surgeon in India were charged with the doing of that which amounted to criminal fraud, and by way of answer he called a number of patients treated by other English surgeons in India than himself, could it be said that because these other surgeons had effected benefit he could not possibly have done other than effect benefit? The thing was absurd. One of the most significant features in the case was the absence of any expert evidence on behalf of the prisoners, and as regarded the insinuation of jealousy which was imputed to the prosecution, no greater slander upon the great medical faculty of England could well be imagined. After carefully reviewing and criticising all the evidence, the learned counsel concluded: Let these prisoners plead their ignorance, but let them not come here in order to profess their skill. I venture to think that, under a plea of ignorance, you would be more inclined to regard them indulgently than by any profession of knowledge, having regard to the nature of some of these operations. If the answer to the case which has been given by the prisoners be in your opinion a sufficient one, by all means accept it. What I would beg, however, is that you do not accept it before you analyse and examine it. And I would ask, What is the answer forthcoming? Is it an answer to these eight cases of ours to speak of others in which some fraud has been successfully attempted? I submit not. When we come to look at the cases brought forward for the defence, we ask how far the defendants themselves enter into them; and if it be that there are others of their class or caste who have given benefit to the persons who have been called before you, is that an answer to the malpractices of which the prisoners stand accused? I have said that the responsibility in this matter must be, after all, yours. For you it is to say "Yes" or "No." Shall these men go free? And, going free, remember they go free with a fiat from you to perform in the future what they have done in the past, and useless and powerless will be any accusation in a criminal shape against them hereafter. Their answer to it will be that after a lengthened investigation, after the most patient and careful attention that could be given to a case, the jury said that all this might be done, and yet no fraud perpetrated. It is a very serious condition of things for you to take upon yourselves. I have said before, and I say it again, it is in the interest of the poorer classes that the prosecution has been instituted. Let the poor go to the great hospitals of this country, and there, without charge, get the best medical advice which knowledge and skill can procure. I would ask you, ere you dismiss the case, to look at it from all sides. Look at it from the prisoners' side indulgently by all means, but look at it also from the public side, the humanitarian side; and, looking at it from that side, I would ask you to range yourselves among the humanitarians who not only condemn cruelty, but would prevent it.

Mr. Ball (who appeared for Khair Deen and Shahab Bedean), not having called any witnesses, had the privilege of addressing the jury last, said that the matter before the jury was no question of public policy whether it was well that these men should be allowed to practise in the future as in the past, but it was simply a question whether they were guilty or not of having pretended to possess a skill which they had not, and, more than that, which they knew they had not.

The trial was then adjourned.

OCTOBER 30TH.

THE trial was continued and concluded to-day.

The Common Serjeant proceeded immediately to sum up the case to the jury. The accused were, he said, broadly speaking, charged with two crimes. The first of these was that they conspired to defraud generally, and in other counts particular persons who had been called as witnesses, and before they could be convicted on any of the counts the jury must be satisfied that with regard to one or more of them they entered into an unlawful compact for the purpose of obtaining the sums or any of them mentioned. He desired, however, to remind them that the mere agreement was itself an offence and though no money might have been obtained in consequence. The second offence charged was that in pursuance of the conspiracy the prisoners actually obtained money by their false and fraudulent pretences. The learned counsel for the prosecution possibly let fall at the conclusion of his address expressions which, on consideration, he thought he would regret having made. He had dwelt upon the gravity of the case, upon the serious consequences which would be likely to ensue to the poorer classes of the population of this country if persons unskilled in the diagnosis and treatment of diseases of the eye should continue to practise in different parts of the country. It was in the highest degree disadvantageous that they should continue, and he could not in any way agree with Mr. Jarvis in saying that the presence of these men in this country was in any way an advantage. No one could now doubt, after Mr. Critchett's evidence, that the methods they used were obsolete and barbarous, but with the consequences accruing from an acquittal the jury had nothing whatever to do. They sat there to administer the law as it stood. That the law was not as it ought to be they had nothing to do with. If the law were defective, then it ought to be altered, and it was the duty of Parliament to alter it. It was not necessary that the representations should be made by word of mouth, or that they should be contained in the printed testimonials which had been sent broadcast throughout the country. It was sufficient for the jury, if they were satisfied that the representations were made by the conduct or demeanour of the prisoners. Should the jury be of opinion that the prisoners made the false representations, and that as reasonable and sensible men they must have known them to be false, it followed as a matter of course that their intention was to defraud. The question resolved itself purely into one of the *bonâ fides* of the prisoners, and as such it was essentially one for the jury. The prisoners were only entitled to the same justice as other subjects of Her Majesty, and their conduct had to be judged by the law as it stood, and not by what might follow if a verdict of "not guilty" was recorded. One thing there could not be the slightest doubt about, and that was that the methods adopted by these men were cruel, antique, and barbarous, and that they were absolutely incapable of diagnosing diseases of the eye: and if they should choose in the future to shut their eyes to these facts, and continue to do what they had done in the past, they could not allege that they did not know that the statements they were making that they were skilled oculists were false, because he had been specially careful to have every word of the expert evidence translated to them. He had given the evidence very careful consideration; he did not find it anywhere suggested that these men were otherwise than kind in the treatment of the persons who resorted to them for aid. They did not require an ophthalmic surgeon to tell them that an operation on the eye, however slight, must cause some pain. But however unskilful a man might be, and however negligent he might be in performing an operation, he committed a wrong, but no crime. That was the law. Some might think it stood in need of amelioration, and far be it from him to say that it did not. The nominal prosecutors in the case were the London and Counties Medical Protection Society, and observations had been made on the *bonâ fides* of the company. He (the judge) greatly regretted that they had been made, for he saw nothing in the course of the case which redounded otherwise than to the honour of the company. No person in their senses would doubt that it was only animated by one desire, and that was to do what they thought was right and to protect the public against persons who ought not to be permitted to practise, as these men had done, on diseases of the eye. His lordship then proceeded to deal in detail with the evidence given on behalf of the prosecution. With regard to the operation on the little lad Turner, it was of about as sad and pitiable a nature as could well be imagined, but it was to be remembered that in respect to this case there was not a tittle of evidence to show that any one of the prisoners made at any time any representation that the operation that they performed was to restore sight. It was to hide from view the distorted appearance of the unfortunate lad's eyeball, not to give sight, and it was undoubtedly a legitimate one. This was a case which had been regarded by the prosecution as telling against the prisoners, but he (the judge) was of opinion that the inference to be drawn was quite an opposite one.

It was only fair that he should say this for the prisoners. And he also desired to point out that in those cases in which the prisoners had been able to do no good at all, no testimonial was ever asked for. Some of the testimonials given were undoubtedly exaggerated, but exaggerated testimonials were not criminal, although it was a most mischievous and pernicious thing to resort to their use. There was no doubt in their own country the prisoners had some repute as eye doctors, and Dr. Mahomed Khan had given formal evidence as to the certificates which they possessed. Dr. Khan had himself spoken as to the practice of oculists in India, but it was evident that if the prisoners knew nothing of the diseases of the eye, Dr. Khan himself knew nothing, for he was about as competent to perform an operation on the eyes as a child. As to the medical evidence, his lordship said that nothing could be more proper than the evidence which had been given by the medical men, and that they were here animated by a feeling of jealousy was absurd. The suggestion of such a jealousy on the part of the medical profession against these persons was the wildest stretch of imagination that the learned counsel for the defence could possibly have indulged in. Reviewing the evidence for the defence, his lordship remarked that it could not be disputed that the prisoners did have some knowledge of eye diseases, although their methods might have had sanction one hundred years ago. Still the fact existed which had been deposed to by several witnesses that the treatment used by the Indians had had a beneficial effect and had given satisfaction. If all this had taken place one hundred years ago, it would probably have turned out that they possessed quite as much knowledge with regard to the eye as any medical man in this country. Surgery was an advancing subject, but medicine was very much where it was at the time of the accession of the Queen. It was evident that in some of the cases the Indians were not in a position to diagnose diseases of the eye from which some of the patients suffered, as, for instance, atrophy of the optic nerve, which required the use of the ophthalmoscope. No feeling of indignation or of displeasure had been manifested against the prisoners until they were prosecuted, when everybody seemed to rise up in arms against them. In concluding, his lordship said: "If you think that in any one of these cases these men or any of them deliberately performed these operations or any of them upon any one of these persons, with the full knowledge that that which they were doing was useless, unnecessary, and cruel, as the skilled surgeons tell you, you cannot resist the conclusion that the intention they had was to defraud. If you think that is not established then they are entitled to be set free, and you must not, you will not allow yourselves to be influenced in the smallest degree by any consideration whatever of what may be any ulterior consequence accruing from the fact of these men being acquitted. If they have broken the law as I have laid it down, then you ought to convict them, but if they have not committed the charge brought against them in this indictment, then you ought to acquit them. I have been most anxious in this long and protracted case, concerning as it does the most important interests of society, affecting as it does the medical professfon, as the prisoners are men in a strange land, that they should have the fullest and fairest trial. It is now a question for you if you come to the conclusion that there was *mala fides* as well as *mala praxis*, you will convict them, but if you think that not established, you will acquit them, regardless of any consequences that may accrue."

The jury, after an absence of two hours, returned with a verdict of "Not Guilty" as to all the prisoners. The Foreman said they wished to add the following rider to their verdict: "We deplore that there exists at present no criminal law to prevent persons with such gross ignorance as the defendants from practising medical surgery."

The Common Serjeant: I entirely concur both with your verdict and the rider. I have endeavoured so far as I could in my address to conceal my opinion of the matter from you, but I may say that my opinion agrees with yours. I think you have arrived at the safest conclusion, having regard to all the circumstances of the case.

The prisoners were then discharged, and the jury exempted from further service for six years.

APOTHECARIES' SOCIETY *v.* ALABONE.

[SPECIAL REPORT.]

AT the Clerkenwell County Court, on November 1st, before Judge Meadows White, Q.C., and a jury, E. A. Alabone was charged by the Apothecaries' Society for an offence against the Apothecaries' Act, 55 G. III, chap. 134, sec. 20. The defendant was a fully qualified surgeon, but his name had been struck off the *Register* on account of unprofessional conduct. The Society claimed that the defendant had not obtained a certificate under the Apothecaries' Act, and that, therefore, although he had been qualified as a surgeon, he was not allowed to practise as an apothecary, and that by so practising he had rendered himself liable to a penalty of £20, which they asked should be enforced.

Mr. Mallinson appeared as counsel for the plaintiffs, and Mr. Schultz Young for the defendant.

Mr. W. Watkinson, called in support of the plaintiffs' case, stated that he was in the first stage of consumption, and had been treated for the disease by Drs. Rudd and Theodore Williams. He did not derive any benefit from their treatment, and, on the recommendation of a friend, he went to Mr. Alabone for advice and treatment. He had been perfectly satisfied with the treatment and had derived much benefit therefrom.

Messrs. G. Hedger, F. Toms, and W. J. Steddal, who were stated to have been patients of Mr. Alabone, were present in support of the plaintiffs' case, but were not called.

Frederick Kay, who had been in Mr. Alabone's employ as packer, deposed to having packed certain medicine, and to handing it to patients. Mr. Alabone had attended his wife in an illness.

This concluded the case for the plaintiffs.

Mr. Mallinson, in addressing the jury for the plaintiffs, submitted that the defendant had clearly been shown to have acted as an apothecary without justification. He argued that it was necessary for a man to hold an apothecary's certificate before he could practise as an apothecary, and that further a surgeon's certificate did not qualify him to act in the capacity of an apothecary.

There were no witnesses called for the defence, and Mr. Schultz Young addressed the jury on behalf of the defendant. He submitted that it had been proved by the Court of Appeal that a person was within his rights in practising as an apothecary, even though he was not qualified. It was true that he could not sue for fees, but he could not be subject to penalties for so practising.

His Honour, in summing up the case to the jury, read a clause from the Apothecaries' Act, which stated that any person who practised as an apothecary without first having obtained a certificate, was liable to a penalty of £20. The Act was not an obsolete one, but was clearly an Act of Parliament which could be enforced, and which had been enforced. His Honour then cited a case during the present year, in which an unqualified man named Jones had been made to pay a penalty for giving medical advice and supplying medicine. It had been laid down by Judge Cresswell that a man acted as an apothecary who advised upon internal complaints, and who administered medicines with a view to curing them, and who applied himself in any way to the curing of a disease. It had been stated in evidence that Mr. Alabone had given medical advice and had mixed and sold medicines; and if the jury believed that evidence it was their duty to find a verdict for the plaintiffs.

After a short consultation the jury returned a verdict for the plaintiffs.

Judgment was accordingly given that the defendant should pay the penalty of £20 and costs.

HIGH COURT OF JUSTICE, OCTOBER 27TH.

CHANCERY DIVISION.

(Before Mr. Justice NORTH.)

RE THE MEDICAL BATTERY COMPANY, LIMITED.

MR. SWINFEN EADY, Q.C., made an application on behalf of the plaintiff (Mr. Wilkinson), who sued on behalf, and with the concurrence of all the other debenture holders, that a receiver should be appointed of the property comprised in the debentures of the company. The applicants held debenture stock amounting to £7,000, and circumstances had arisen connected with the company which made it necessary that a receiver should be appointed. He did not ask for a manager, nor did he ask for directions as to the carrying on of the business. Mr. Harness, the managing director, had resigned his appointment, and creditors were suing. According to the terms of the debentures the principal moneys became payable in the event of a winding-up, and the company had called a meeting to consider their position. He understood that the company did not oppose.

Mr. George Henderson: I appear for the company, and consent to the application.

Mr. Swinfen Eady said the debentures were proved to be due, and the company did not object to the appointment of the gentleman named in the notice.

Mr. Justice North made an order for the appointment of a receiver, to act at once and to give security forthwith.

THE CUSTODY OF THE BODY.

As soon as the coroner or his officer is moved respecting the death of a person upon whom an inquest is about to be held, the legal custody of that body is vested in the coroner, and without his authority or permission no one has any right to interfere with it, except as occasion may sometimes require to remove it to some public mortuary or other safe place to await the inquest, and such examination as may be ordered by the coroner or by the jury.

At an inquest recently held at Chester it appeared that, by some misunderstanding in the case of a man who died from injuries inflicted during a fight, the medical man who had been called to see the body by the police made the *post-mortem* examination without receiving the usual printed order to do so from the coroner, although it was alleged that a verbal message through the constable from the deputy coroner had been received sanctioning the same. The coroner, however, who did not appear to be aware of this, made the following observations at the commencement of the inquest, as reported in the local press:

"He (Mr. Churton) wished to say a word or two with reference to the irregular and illegal proceeding of the medical men in this case, in interfering with the body by making a *post-mortem* examination without legal authority for so doing. It was a serious thing for medical men to act without authority; it was a misdemeanour, and they rendered themselves liable for usurping the power vested in the coroner, who alone could order such an examination to be made. How or what induced such an irregular course of proceeding he could not say. It was the first time in his life he had had to make such remarks as this, and the jury knew he had been in office for over fifty years, and had never had such a case occur before. He sincerely hoped and trusted it might never occur again."

There is little doubt that in this case a verbal message, purporting to come from the deputy coroner, was conveyed to the medical witness to make the *post-mortem* examination, but no written order was given, which is, of course, the legal authority for so doing. The order form for making a *post-mortem* examination is given in the schedule of forms, etc., attached to the Coroner's Act, 1887, and without this order form, printed or written, and duly signed by the coroner or his deputy, it is evidently not wise to perform a *post-mortem* examination. According to Mr. Coroner Churton it is "irregular" and "illegal," and we therefore caution practitioners against acting on verbal messages, otherwise they may render themselves liable to a rebuke from the coroner, and possibly, on a second offence, to a committal for contempt of the Court.

THE LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY, LIMITED.

A MEETING of the South London Division, No. 2, was held on Wednesday, October 18th, in the Elder's Room, Christ Church, Westminster Bridge Road, S.E. The President, Dr. J. W. J. Oswald, occupied the chair, and there were nineteen members present. Dr. G. B. Mead introduced the subject of unqualified practice, and described the methods proposed for its suppression. The discussion was continued by the President and Drs. Gaff, Nelson Hardy, Campbell Boyd, Atkinson, Hart, Sturges, and Leftwich. Finally, it was proposed by Dr. Leftwich, seconded by Dr. Boyd, and carried unanimously: "That this meeting approves of the following

resolution to be proposed by Dr. Mead at the Central Council: 'That the Council be empowered to form a special committee to receive subscriptions for the purpose of dealing with cases of unqualified practice, such fund to be kept entirely distinct from the ordinary funds of the Society, but administered by such committee under the direction of the Council.'" The following gentlemen were added to the Council of the Division: W. A. Atkinson, Camberwell; C. T. Brookhouse, Brockley; C. A. Clarke, Forest Hill; J. D. Gaff, Kennington; F. J. L. Hart, Sydenham; H. S. Robinson and R. J. Swan, Camberwell. The meeting then adjourned.

SANITAS.—In England the authorised scale of fees to medical witnesses for attending before magistrates is 10s. 6d. or £1 1s. for each attendance. Whether there is any different scale in force in Ireland we do not know.

FEES TO MEDICAL WITNESSES.

E. C. C. writes: If the medical witness attended the court in obedience to a summons, he is entitled to his fee, and the answer of the magistrate's clerk that they are unable to allow it is wrong. If he attended merely at the request of the police, the fee is not claimable from the county. It would be advisable to accept the fee offered by the superintendent in this case, and for the future to insist on prepayment. No court can punish a witness for contempt in demanding his fee.

CHANGE OF ADDRESS.

J. P. writes: 1. Is it a breach of ethics for a vendor to introduce the purchaser of his practice by means of printed circulars? 2. Is it allowable for a practitioner to intimate his change of address by the same means (namely, circulars)?

*** When impracticable to notify in person the transfer of a practice, the most unexceptionable mode is to transmit an autograph note to that effect, or a *facsimile* thereof on notepaper, to the *bonâ fide* patients of the vendor, and for the latter to intimate his change of address by like means, or to endorse an ordinary address card with "change of address" inserted at the top, the old address in the lower right corner being defaced by a black line, and the new one engraved in the left-hand corner, or *vice-versâ*.

CALLS ON NEWCOMERS.

ENQUIRER writes: Is there any professional etiquette prohibiting medical men from leaving cards on newcomers to the towns in which they practise?

*** The following is the rule[1] appertaining to our correspondent's query: "Closely akin to solicitation is that of calling upon new residents in the neighbourhood and leaving their card—ostensibly as a mark of respect, but in reality to seek for practice. It cannot, therefore, be too deeply impressed upon such that the true dignified practice and the most consistent, with a due respect for self and the faculty, is to wait until their professional or social acquaintance is sought. In such case, moreover, it is far more likely to be appreciated."

MIDWIFE'S ENGAGEMENT.

JUVENAL writes: A. is a nurse engaged to attend B. in confinement as monthly nurse from September 1st to October 12th. B.'s confinement not coming off till September 26th, A. is kept waiting in the neighbourhood. On October 5th a lady, to whom A. was engaged to go on October 12th, wires for her; she goes, and remains. B.'s case was critical at the same time. Is A. entitled to board wages from September 1st to 26th, and is she entitled to wages after she voluntarily left on October 5th to attend the second case (October 5th to 12th)? I may say that A., the nurse, gave the patient the date September 1st, although I, the doctor, gave it as September 28th.

*** Our correspondent does not state the nature of the written arrangement, if any was made, between A. and B. Assuming the facts as stated to be susceptible of proof, it would appear that A., being engaged from September 1st to October 12th, is entitled to board, lodging, and fee agreed upon for the time, whether she is in or out of the house, and whether the baby is born or not. A., however, ought not to have left before October 12th, and therefore would not be entitled to any wages after October 5th if there had been no prior arrangement on her part to leave B. when C. wanted her.

PATIENTS' FRIENDS.

MR. D. *re* MR. W. S., DR. L., AND MR. H.—A dispassionate review of the several points involved in the allegations made by Mr. D. in the case of Mr. W. S. against Mr. H. and Dr. L. and of the vindicatory replies of the latter thereto, leaves a strong impression on our mind that the regrettable dispute arose in the first instance from the not unnatural intervention of Mr. C. S., the patient's brother, conjoined to his inaccurate report of the interview which, at the suggestion of Dr. L. and Mr. H., took place between him (Mr. C. S.) and Mr. D. Be that, however, as it may, inasmuch as it is in such cases ethically essential that ere the practitioners last called in assume charge of the case they should satisfy themselves that the patient or family have not only determined on dispensing with the services of the previous medical attendant, but had made a communication to him to that effect, in accordance with the principle laid down in the *Code of Medical Ethics*, chap. ii, sect 5, rule 9, we are of opinion that Dr. L. (or Mr. H.), in view of the intimate friendship heretofore existing between Mr. D. and himself, would have acted wisely if, instead of delegating it to Mr. C. S., he or they had personally sought an interview with Mr. D., living as he did within a hundred yards of Dr. L.'s residence. We are, moreover, clearly of opinion that Mr. W. S. and Mr. C. S., in seeking further advice without the knowledge of Mr. D., who had been the family medical attendant for twenty years, acted with great want of consideration.

[1] *Code of Medical Ethics*, chap. ii, sect. 1, rule 3, footnote.

FEE FOR *POST-MORTEM* EXAMINATION.

AUTOPSY writes to inquire whether a second medical man, if desired by the coroner previous to the inquest to assist at a *post-mortem* examination, is entitled to receive £2 2s. although he was not called to give evidence.

*** The practitioner who makes the *post-mortem* examination by order of the coroner and gives evidence thereon is entitled under the Coroners Act, 1887, sec. 22 (*b*), to receive £2 2s., presumably £1 1s. for making the *post-mortem* examination and £1 1s. for giving evidence thereon. With regard to the second practitioner, not called to give evidence but who was requested by the coroner to be present and assist in the *post-mortem* examination—the case, as our correspondent says, being one of special interest—we are of opinion that unless he made some previous arrangement with the coroner as to remuneration, he must be content with the £1 1s. paid for assisting at the *post-mortem* examination. We would observe that in such cases it might be expedient for the medical practitioner or practitioners making the *post-mortem* examination to reserve their opinions and evidence until it is required on oath before the court. In the case which "Autopsy" refers to in his letter, he suggests that the reason "why the second practitioner was not called to give evidence was because the coroner had heard beforehand that both medical men were agreed as to the cause of the death." Had our correspondent and his friend observed the discreet reticence we have suggested, probably both would have been called to enlighten the court and the fee of £2 2s. would have been paid to each.

MEDICAL SICKNESS, ANNUITY, AND LIFE ASSURANCE SOCIETY.

Extension of the Work of the Society.—Unlimited Assurances and Annuities.—Six Guineas Weekly Sickness and Accident Allowances.—Congratulations to the Chairman.—Election of Dr. De Havilland Hall as Deputy Chairman.

THE quarterly general meeting of the Medical Sickness, Annuity, and Life Assurance Society was held at 429, Strand, London, W.C., on October 25th. The chair was taken by Mr. ERNEST HART, and there were also present Dr. De Havilland Hall, Mr. J. Brindley James, Dr. M. Greenwood, Mr. F. Swinford Edwards, Dr. Alfred S. Gubb, Dr. W. Knowsley Sibley, Dr. J. Pickett, Dr. G. E. Herman, Mr. Fred. Wallace, Mr. E. Bartlett, Dr. F. R. Mutch, and Mr. W. J. Stephens.

The report presented by the Executive Committee showed that the Society is steadily increasing its beneficent sphere of operation, and extending its usefulness. Thirty-one new proposals were received during the last quarter, and in addition to this eight of the existing members of more than five years' standing availed themselves of the recent alteration in the rules to increase the benefit for which they had originally assured. By this alteration members of five years' standing may now apply to have their sickness benefit increased to £6 6s. a week, and it is anticipated that in the course of November, when a special circular will be sent to the members drawing attention to this, a considerable increase of the business of the Society will ensue. The accounts show that £967 12s. 2d. was paid out as sick pay during the quarter to members disabled by sickness or accident. This was paid to 72 members, and made a total of 297 weeks and 2 days. There were no claims in the Life Assurance Branch, and as the management expenses were, as usual, very small, the net result of the quarter's working is a handsome addition to the funds—namely, £2,655 0s. 11d., making the total assets of the Society on September 30th last £69,024 6s. 3d. Those figures are very satisfactory; even more so is the evidence which the Committee are continually receiving of the great value to the members of the benefits which the Society secures to them. Cases are continually arising in which the timely aid of the Society prevents the greatest inconvenience, or even worse, and in many instances there is evidence that the sickness payments of the Society have saved the members from the greatest straits. The following letter, one of many of its kind, was read at the meeting.

"Dear Sir,—As this is the last cheque, I must thank you for

the promptness of the remittances and the consideration shown me generally by the Society. I was seriously ill, and my life almost despaired of. I am one of the original members, and previously to this was only on the funds for ten days on account of influenza and bronchitis. Generally I enjoy excellent health, and hope to again. I can truly say that at no time have I ever begrudged my contribution to the Medical Assurance Society. Even if we are so blessed as not to come on the funds ourselves, the feeling that, while assuring ourselves, we are benefiting others, should be a sufficient *quid pro quo*. Again thanking the Society, I am, etc."

An arrangement has now been completed with a leading life assurance company under which the members of the Medical Sickness, Annuity, and Life Assurance Society can, through the Society, effect unlimited assurances on their lives, and secure deferred annuities of various kinds and without limit on peculiarly favourable terms. Satisfactory evidence has already been received that the members appreciate the advantages which this arrangement affords them.

The meeting offered its cordial congratulations to Mr. Ernest Hart, the Chairman and Founder, on his return from his very successful visit in America as the guest of the American Medical Association and Pan-American Congress, and on the warm and flattering welcome with which he had been honoured in the chief cities of the States.

On the motion of the CHAIRMAN, a special vote of thanks was given to Dr. De Havilland Hall for his valuable services to the Society, and he was elected Deputy Chairman.

Prospectuses and all further information may be obtained on application to the Secretary, Mr. F. Addiscott, at the Offices of the Society, 33, Chancery Lane, London, W.C.

THE PHYSIC GARDEN OF THE SOCIETY OF APOTHECARIES.

THE articles, founded on the announcement that the Society of Apothecaries were contemplating the sale of their garden on the Chelsea Embankment as a valuable building site, appear to have been at least premature, for next day was published a letter from Mr. Upton, the clerk of the Society, stating that "the Society of Apothecaries are not making and do not intend to make any application to the law courts to that effect."

The keeping up of this garden has always entailed considerable annual expense on the Society, but so long as a knowledge of botany was required by the various examining boards the Society felt it a duty to improve and maintain the garden for the use of students.

In 1863 it was reported that 500 students had applied for admission to the garden, and the Court of Assistants voted a special sum of £500 towards providing new specimens and paying the celebrated men who gave lectures and demonstrations in the garden.

Now that a knowledge of botany is hardly required by the examining boards, it is not a matter of surprise that the Society "do not relish the expense of keeping up a garden for the benefit of a few stray students." As to the wealth of the company, we learn from the clerk that the Society is much better off than it was twenty years ago. That candidates for its licence "are fewer and fewer" is surely an error, for it is well known that only lately the Society have had to increase the number of their examiners, and arrange a separate board entirely for the examination of those who come up to the quarterly primary examinations. Moreover, two new and commodious examination rooms have been built at the Hall in order to meet the requirements of the increasing number of applicants for the licence. The fact of this licence being a complete one in medicine, surgery, and midwifery, and that all the examinations are held on the premises of the Society, makes it evident that ample space is required in order that everything be carried out in accordance with the instructions of the General Medical Council.

Reference has been made to the "outings" of the Society in search of botanical specimens. A full and interesting account of these excursions may be found in a book entitled *Memoirs of the Botanic Garden at Chelsea*, by the late Henry Field, and subsequently edited by the late Dr. Robert Hunter Semple.

In the days of these excursions interesting botanical specimens were found in Goswell Street, and, after Hampstead Heath had been explored, the party had a frugal meal of roast mutton and table beer at Jack Straw's Castle, and then, after dinner, the specimens were examined and commented upon by that fine old botanist, Mr. Wheeler, apothecary to St. Bartholomew's Hospital and botanical demonstrator to the Society. Mr. Wheeler was a lover of sobriety and order, and doubtless took all proper care of the young men under his charge.

The larger annual herborising of the Society took place towards the end of July, and the plants collected were shown to the members of the Society and some chosen guests, who consisted of the office-bearers of the Royal Colleges of Physicians and Surgeons and other distinguished visitors. At these annual entertainments, when physicians, surgeons, and apothecaries all met, haunches of venison replaced the legs of mutton on the Apothecaries' hospitable board, and the drink probably was something more elevating than the table beer with which Mr. Wheeler and the apprentices were regaled.

THE CHOLERA.

WITH the exception of a fatal case of Asiatic cholera at Keighley, we can learn of no occurrences of the disease in the United Kingdom during last week and up to the end of the past month. Grimsby has been officially declared free from cholera by Dr. Bruce, and free *pratique* to vessels arriving thence is given at Spanish ports, as also is the case in regard of arrivals from London. At Greenwich the cases of diarrhœal disease have now reached 250, with 11 deaths, the last occurring on Tuesday. No inquest was considered requisite. No death from "cholera" was registered in London last week, and the mortality from diarrhœa was below the average.

CHOLERA ABROAD.

Austria.—A case of cholera occurred in Vienna on October 24th, proving fatal four days later, the victim being a sailor on a river boat from Pesth, and who had just arrived from Pressburg.

Germany.—A death from cholera occurred in Berlin on October 25th, the case having been reported ten days earlier; and next day a further case was heard of. In Hamburg 5 cases, 2 being fatal, took place in the week ended October 26th. Several cases and deaths took place last week at Stettin, where 79 attacks, 41 being fatal, have been recorded since September 23rd. There was some widespread diffusion of cholera during last week in the German Empire, as we hear of many places being freshly attacked. Thus, Havelberg, 6 cases, 1 fatal; Zerpensehleuse, 10 cases; Warson, near Stettin, 2 cases; Tilsit, 11 cases, 4 fatal; Nauen, Wittenberg, Ragnitz, Swinemünde (Stettin port), Potsdam, and Breslau, each with one fatal case; Stepnitz, Gleiwitz, and Stendal, each with a non-fatal attack; Neuenkirchen, 2 deaths; Brandenberg Poor, several cases; and 5 cases, 3 fatal, in Pomerania. In Schleswig, 5 cases occurred among navvies on the North Sea and Baltic Canal.

Italy.—At Leghorn and Messina all traces of cholera are reported to have disappeared. Not so at Palermo, where during the week ended October 27th there were 60 attacks and 34 deaths. A few suspicious cases of illness were recorded in Rome.

Russia.—In St. Petersburg in the week ended at midday on October 26th there were 124 cases of cholera with 59 deaths. In the first half of October there were, in the Province of Moscow, 222 cases and 67 deaths; in Tula province 160 cases and 50 deaths. In the three weeks ended October 14th Kieff province had 262 attacks and 100 deaths; and in the week ended on the latter date there were, in the province of Volhynia, 539 attacks, 213 fatal; Lomsha, 478 attacks, 225 deaths; Kursk, 217 attacks, 46 fatal; and Mogilhev, 100 attacks, 38 fatal. In the same week Cronstadt had 32 cases, 15 deaths; and Warsaw city, 23 cases, 4 being fatal. The epidemic is stated to be on the increase in the Crimea, whither a medical staff has been dispatched from Odessa. Elsewhere in southern Russia the disease is declining.

Spain.—The cholera has disappeared from the mining districts of Biscay province, a few cases only being reported from Bilbao and the adjacent villages; but 17 cases, 7 fatal, occurred last week in a village near Logroño, in the valley of the Ebro, the infection being carried from Bilbao.

Roumania.—In the latter half of October there were 42 deaths from cholera in 13 infected centres.

Turkey.—The Porte is pressing for stricter measures of quarantine, to which the Sanitary Board are much averse, regarding the matter of more than local concern. No alarm seems felt in Constantinople on account of the cholera, however.

Tunis.—Cholera has broken out at Susa, 25 deaths being reported. A panic prevails, and 4,000 inhabitants have fled.

THE Queen Regent of Spain has conferred the Grand Cross of the Order of Isabella the Catholic on Professor von Bergmann, of Berlin, in recognition of his services to the Minister, Señor Romero Robero, on whom the distinguished surgeon performed a successful operation some months ago.

DR. HARRY P. MAJOR, of Hungerford, has been appointed a Justice of the Peace for the county of Berks.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1893.

Subscriptions to the Association for 1893 became due on January 1st; and notice is hereby given, in accordance with By-law 5, that Branch Secretaries' subscription accounts close on October 31st, and all unpaid subscriptions must be forwarded after that date to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, NOVEMBER 4th, 1893.

THE INDIAN OCULISTS.

At the conclusion of the trial, fully reported in our pages, that lasted for six days at the Central Criminal Court, a verdict of "Not Guilty" was returned on Monday last in the remarkable case in which certain persons calling themselves "Indian oculists" were defendants. The Indians were committed for trial on the charges of conspiring to defraud, and obtaining money by false pretences with intent to defraud. To warrant a conviction on those charges, it was necessary to prove, not only that the pretences were false, but also that the prisoners knew, or must have known, that they were false. The Indians had held themselves out to be "celebrated oculists" by whose marvellous skill many blind people were cured and many operations were "beautifully, quickly, and successfully performed," so that the blind were "daily receiving sight." That was beyond question a false pretence. Mr. Anderson Critchett deposed that operations habitually performed by them were "useless, improper, and cruel." The Common Serjeant described their methods as "No doubt obsolete and barbarous;" and the jury appended to their verdict a rider "deeply deploring that there exists at the present time no criminal law to prevent persons with such gross ignorance as the defendants from practising surgery." The pretence was false, but the jury evidently thought it not proved beyond all reasonable doubt that the prisoners knew it to be false. In coming to that conclusion, the jurors must certainly have been powerfully influenced, if not led, by the summing up of the Common Serjeant, who, possibly with the idea that the forensic preponderance on the side of the prosecution required a counterpoise from him, dwelt with almost exclusive emphasis on all that could possibly be said to lead to an acquittal. His lordship did, indeed, vindicate the propriety of the prosecution, and in the clearest terms warned the prisoners that, even if they could at this trial be held not to have known that their pretences were false, no such plea could ever avail them again. He ridiculed the suggestion that the prosecution was prompted by professional jealousy, and he attributed its inception to motives that did honour to the London and Counties Medical Protection Society, by whom the prosecution was instituted and conducted. Yet this well-meaning judge and exceptionally intelligent jury, while holding that these "celebrated oculists" were grossly ignorant men who inflicted useless torture by barbarous "operations" on their deluded victims, found, and deplored to find, that "there exists at the present time no criminal law to prevent such persons from practising surgery." It is the truth of this fact—a fact of which this "Indian oculist" case is but one of many instances—that gives importance to the case. The plain fact is that the law as it now stands quite fails to protect the ignorant and credulous. The sickening horrors that have been brought to light in the course of this trial can hardly fail to be an emphatic warning which will have, at least for a time, a salutary effect on the minds of the poor people among whom quackery finds most of its victims. But all past experience shows that, so long as quackery is permitted, it will claim numberless victims.

It is in the interests of the unwary public far more than for the protection of any professional interests that the defects of the Medical Acts should be remedied by adequate legislation. It is satisfactory to observe how generally the necessity for such legislation is recognised and urged by the lay press in commenting upon the trial and acquittal of these Indians.

We are very far from regarding the prosecution as a failure. The London and Counties Medical Protection Society is to be commended for having instituted it and persevered in it, and the profession are much indebted to the eminent ophthalmic surgeons who gave valuable time to the case, especially to Mr. Anderson Critchett and Mr. Nettleship, who were in Court for three whole days. It may be said, as it was said by the counsel defending the Indians, that the wrong remedy was resorted to against the Indians. It was admitted on all sides that heavy damages for malpraxis might have been successfully sued for in civil Courts; but in such cases even a successful lawsuit usually amounts to no more than this, that the plaintiff has to pay the costs, and fails to get the damages awarded to him. Similarly it is useless to sue in the County Courts for penalties under the Apothecaries' Act against persons from whom the penalties if awarded are little likely to be recovered. The uselessness of the Medical Acts in these cases was shown a short time back, when other members of this band of Indians were prosecuted at Marylebone for calling themselves "Dr." The stipendiary, Mr. Cook, benevolently assumed that the defendants did not know they were doing wrong, and dismissed the summons upon the defendants undertaking through their counsel not to do it again. The undertaking was cheerfully given, and the defendants left the court highly satisfied. In that case the Indians were expressly told by the magistrate that they were legally entitled to pursue the calling of oculists if they chose. It is needless to say that this magisterial decision caused the Indians to increase in numbers and boldness. It was stated by the Common Serjeant last Monday that if one of the operations performed so barbarously by the Indians had accelerated death, they would have been guilty of manslaughter whether they knew they were unskilful or not, but he laid it down that, where the injury inflicted fell short of causing or accelerating death, a guilty knowledge of the impropriety of the operation must be proved in order to render them liable to punishment under the criminal law. In short, it is not a crime for ignorant persons to persuade a man into allowing himself to be brutally maimed under the pretence of surgical operations unless and until death occurs. As was ably observed in a leader in the *Times*:

"Tortures were inflicted which, if the victim had been a cat or a rabbit, would have brought upon the operator the severest penalties."

The case has once more demonstrated the defective state of existing legislation. This defect was pointed out again and again by the British Medical Association during the long period of agitation and inquiry which preceded the passing of the last Medical Act. Clauses were drawn to meet the deficiency, but public opinion was not ripe, and they had to be abandoned. We are glad to recognise that the daily press has, with great unanimity, appreciated the importance of the public interests involved, and has called for an alteration of the law. We understand that the Chairman of the Parliamentary Bills Committee will take steps at an early date to summon the Committee with a view to having a suitable Bill drafted, and raising the subject in Parliament. Too sanguine expectations must not, we fear, be founded upon the recent expression of public indignation. The British public quickly passes from the hot fit of righteous indignation to the cold stage of apathy and indifference. It is in this revulsion of feelings that the real strength of the quacks lie. To them the question is a personal one of life or death, and the medical herbalists, medical electricians, Indian oculists, *et hoc genus omne*, will doubtless band together to resist any legislation which would suppress or even hamper their nefarious trade.

UNQUALIFIED MEDICAL MISSIONARIES.

IN another column we publish a letter from the secretary of the Zenana Medical College, in regard to a protest made by us a few weeks ago against unqualified ladies assuming the title of "medical missionaries." The facts admitted by the writer of this letter are pertinent, and emphasise completely the truth of all that we said.

Both to medical women who have been at the pains to qualify, and to the natives, who think they are getting proper English medical treatment, a great wrong is done by foisting into medical practice ladies who have only undergone a two years' training, and who, but for the prestige of the missionary societies, would have no status whatever. Let us not be misunderstood. We have nothing but praise for properly qualified medical missionaries, nor have we a word to say against the ordinary missionary who, having to go out into strange countries far from help, picks up before starting all the knowledge which he can of medicine, or, indeed anything else which may be useful; but that is a very different affair from founding his religious propaganda on a false pretence of medical knowledge. It must be distinctly understood that the primary and ostensible work of these so-called medical missionaries is medicine and surgery, and that their first duty on arriving at the scene of action, after their two years' training, is to set up or become attached to hospitals and dispensaries, of which they take entire charge, giving medicines broadcast, and doing every sort of operation.

The question in its direct form then comes to this: Can such an amount of knowledge and experience be gained in two years as will make a person fit to undertake the responsible practice of medicine, surgery, and midwifery in distant parts, away from all chance of help or consultation? If that is so, how absurd to tie down our students to a five years' curriculum before they can begin to earn their living. If it is not so, what a cruel farce is this pretence of giving medical help to the native races. We are quite aware of the arguments which are brought forward in defence of the practice. The Rev. Moir Duncan, in a report recently published by the Baptist Missionary Society, speaking of medical work, says:

> It was only under the compulsion of unfavourable and exceptional circumstances that we commenced it. Everyone must admit that to commence in a hostile field, a month from the nearest port, with disease following with swift feet in the wake of famine and poverty, to continue with the thermometer at 101° F. during the heat of the summer, it were no less wise than humane to have a reasonable supply of drugs. That is the premiss of an unanswerable argument. Then to witness unmoved suffering unrelieved, and to see without sympathy hundreds smitten with notoriously common and easily diagnosed diseases for which we had specific and certain remedies, would be unpityingly to act the part of the Levite, instead of Samaritan-like ministering mercy in accord with the example of Christ, the dictates of your own heart, and the needs of the afflicted poor. That is the view-point which raises the question at once from one of policy to one of principle, and leaves the missionary without alternative until the home society are able to send a doctor to the field.

Nothing could be better put; especially the last paragraph. Nor do we say a word against the practice under the circumstances described; but that is a very different thing from the doings of the people to whom we allude. That a preacher spending himself upon the heathen should share with them his medicines, his shelter, or his food is a Christ-like act worthy of our highest admiration; but that he should foresee the contingency and go out prepared with second-rate knowledge is another thing altogether, and not so deserving of respect.

Our readers will be curious to know how these medical missionaries are made, and it is a matter of no small interest to compare the training they receive with the sort of work into which they are launched for good or evil at its end. The whole course lasts two years. Anatomy is taught by lectures, books, bones, and pictures, and, at an extra payment, not included in the fee for which a medical missionary can be turned out, by demonstrations on recent dissections; dermatology by lectures and demonstrations given at the College and at a hospital for skin diseases; dental surgery by a dental surgeon at his own house; surgery by diagrams, preparations, and instruments, and a special bandaging class held by the lecturer. What is meant by clinical diseases of women and children we are left to guess at. The lectures, however, are illustrated by preparations, diagrams, instruments, etc. Lectures are also given on materia medica, pharmacology, and case taking, on midwifery, on medicine, on ophthalmic surgery, on tropical diseases, and, lastly, upon physiology. Hospital instruction appears to be given at the South London Ophthalmic Hospital, at St. John's Hospital for Skin Diseases, and at a small private hospital for women and children, where dispensing is also taught, but there seems to be no opportunity for practical work, except such as is afforded by the women and children at the private hospital or lying-in home before mentioned. There is no time for holding any appointments as dressers or clinical clerks. There is, however, a maternity, the work in connection with which doubtless affords a good opportunity of seeing a certain number of cases of labour.

All students are expected to obtain the licence of the Obstetrical Society, and then, on passing an examination, they receive a "diploma," as it is called, to the following effect: "We certify that we have examined ——, a Student in the Zenana Medical College (who is desirous of combining

a knowledge of Medicine with her Missionary work) in the following subjects: Medicine, Disorders of Tropical Climates, Minor and Practical Surgery, including Diseases of the Eye, Midwifery and Diseases of Women and Children; and we find that she possesses such a knowledge of them as will qualify her to render Professional aid in ordinary cases of Disease."

Those who sign this certificate will no doubt shelter themselves behind the phrase "ordinary cases," but there can be no doubt about its real purport. "Professional aid" means something very different from mere amateur help. In the ordinary use of words it means, as it is intended to mean, that medicine is the profession of the holder of the certificate, and that in that profession she is qualified. That this is the interpretation intended is proved by the duties placed upon these ladies when they arrive at their sphere of action. At the annual meeting of the College it was stated that one lady had last year "performed over 300 operations, some of a very difficult nature," and had attended as many as 177 patients in a day. Another is stated to have had over 11,000 out-patients at her dispensary during the year; another has a large dispensary, a hospital where she does all sorts of operations, from cataract to ovariotomy, and also a medical school where native women are trained as medical missionaries "on our lines," and so on. No one can pretend that this is anything short of the most responsible medical and surgical practice. It is trifling with words to speak of such work as giving aid to "ordinary cases of disease." The excuse for this sort of thing is that the field is so vast and that the women of the East are so utterly neglected, that any sort of help is better than none; and we would not deny that the plea would have some force if there were no other alternative, although it is clear that there is no finality in the argument, which is as good in favour of a training of one year as of two. But at the present moment, in England and even in India itself, women are being properly educated for the medical profession; and, if the missionary societies wish to undertake medical work, they should surely at least be honest and provide persons legally qualified to practise. For a long time back, completely equipped true medical missionaries have been sent out by some of the societies, and have been doing splendid work. By all means let that work go on; but do not let it be spoiled by flooding the country with cheap shams. For, after all, that is what it comes to; unqualified workers are cheaper than those who are qualified, and, moreover, are not so apt to desert, since they cannot set up for themselves. Not only is all this ethically wrong, but it is bad as mere policy; few things could more add to the difficulty of providing women doctors for Indian women than this plan of preoccupying the ground by a shoal of unqualified practitioners and of native pupils even more feebly qualified still.

THE HARNESS ELECTROPATHIC BELT.

The *Pall Mall Gazette* of October 30th contains a paragraph to the effect that a writ has been issued against the proprietor of that paper by Mr. C. B. Harness, for libel.

Without commenting upon a matter which may be said to be to a certain extent *sub judice*, we must remark that the course pursued by Mr. Harness seems to have been adopted to serve the double purpose of preventing any continuance of the exposure, and at the same time of introducing the element of civil procedure into what our contemporary urgently impressed upon its readers called for the interposition of the Public Prosecutor.

It would not be the first time, as our experience has shown, that Mr. Harness has taken advantage of the procedure of the Court to avoid adverse criticism of his business and his wares, hoping that the best newspapers might perhaps refrain from making comments which might seem to involve the risk of some interference with the proceedings of the Court.

In the case of the *Pall Mall Gazette*, although the writ has been issued, a period of six weeks will elapse before the plaintiff can be compelled to take any further proceedings in the action, when he may either deliver a statement of claim, or may calmly abandon the action by payment of a nominal sum for the defendant's costs, following the course adopted by him in the case of this Journal.

The statement of claim delivered in the action which Mr. Harness brought against us referring to the paragraph in which we had commended the course taken by the *Times* in refusing to insert his advertisements proceeded to set forth that the British Medical Journal, in publishing that paragraph, meant that the plaintiff company carried on so dishonest and disreputable trade and business, and were so notorious and of so ill repute as a trading company that it was discreditable and unworthy on the part of a newspaper proprietor of high position and standing to transact with the plaintiff company the ordinary business of newspaper proprietors with traders in accepting and inserting at all, or even with more favourable terms, the plaintiff's trade advertisements.

The Journal, in their statement of defence, pleaded that the words were true in substance and in fact. By such a plea the most ample opportunity was afforded to the Medical Battery Company or Mr. Harness to test by a judicial tribunal whether the electropathic belt was genuine or a sham. The plaintiff, however, as will be remembered, took no further steps to bring the matter to an issue, and the Journal was compelled to make an application to the Court to dismiss the action with costs, which was accordingly done. It is also, of course, notorious that in other actions Mr. Harness has withdrawn from proceeding when the merits of the so-called electropathic appliances could have been decided by the Court. We think, therefore, we are quite justified in stating that in the action against the Journal there was a distinct abuse of the process of the court in the course adopted by Mr. Harness or his company; and we refer to this now in order to illustrate the admirable simplicity of the course taken by Mr. Harness against the *Pall Mall Gazette* whereby he secures at least temporary immunity from further criticism.

GLANDERS IN MAN AND ITS PREVENTION.

On October 27th, at the Hammersmith Coroner's Court, Mr. Luxmore Drew opened an inquiry concerning the death of William Wallace, lately a horsekeeper in the employ of the London Road Car Company, who in the latter part of September was bitten on the fourth finger by a horse, which at the time or soon after was found to be suffering from glanders. On October 7th Wallace went to a dispensary, and on the 14th to the West London Hospital. On the 18th he was admitted into the hospital, and died on October

24th. According to the evidence of Mr. Wilks, House-Physician, death was certainly due to glanders. The coroner postponed the inquiry for a *post-mortem* examination which fully corroborated the diagnosis.

The case has once more drawn attention to the fact that we have in our midst a disease of animals menacing the life of man—a disease which in London alone has annually about 2,000 equine victims and one which, according to experts, is yet comparatively easy of extirpation and suppression. Frequently we have directed attention to the danger and national loss which the maintenance of glanders entails and insisted on the necessity for decisive action of the Imperial Government. The duty of the suppression of glanders as a matter of agricultural economy devolves on the Board of Agriculture, but surely there should be some authority to force the hand of the Minister of Agriculture if inaction or incompetence of enactments involves preventable loss of human life. Apparently as an outcome of public expression the present Minister issued in 1892 orders for dealing with glanders of a permissive nature, and their impotence and unpopularity are manifest in the fact that more than a year has elapsed and they remain unadopted. The main obstacle to adoption would appear to be the item of cost which compensation entails. The Glanders Order of 1892 gives power to the local authorities to pay compensation out of local rates. Seventy-nine per cent. of reported cases occur in London, and means for extirpation by slaughter would involve heavy withdrawals from the exchequer of the London County Council, who naturally feel that unless the system were uniform throughout the country London would still be liable to trouble and expense from incursions of the disease.

Glanders scarcely comes within the notice of many provincial county councils, who do not see the necessity for adopting the compensation clauses, and who would as naturally object to contribute what they consider a sum out of proportion to the extent of the disease within their jurisdiction.

It is scarcely within our province to determine or indicate the most economical means of suppressing glanders, but the losses of human life reported afford grounds sufficient for urging that such should be determined and acted on by the proper authorities. We recognise that the eradication of glanders in horses is not unattended by difficulties, and, independent of providing for compensation, the diagnosis of this often occult disease has presented a serious obstacle. We, however, venture to suggest, after the experiences with "mallein" reported by several Continental observers, by Professors McFadyean and Penberthy and others in England, that much of the difficulty under this head is removed. There appears to be no danger from the subcutaneous injection of this sterilised culture of the glanders bacillus into healthy animals, and a most distinctive reaction follows in animals affected with occult glanders. The power of this product to determine the existence of glanders is recognised by several English veterinary surgeons besides those referred to, and it appears to us that we have now arrived at such a reliable means of diagnosis that it is within the power of horseowners to know whether their animals are affected with or free from glanders. Proprietors are not, perhaps, always anxious to possess this knowledge, but surely the circumstances which have elicited these remarks demand that if the reported experiences are not yet convincing, mallein should be put further to the test by means of an official inquiry. If found as effective as we have reason to believe, it should be adopted as an instrument for the eradication of the disease of horses, and the danger thus caused to the life of man. Compulsory slaughter for the extirpation of cattle plague, foot and mouth disease, and pleuro-pneumonia has yielded the most satisfactory results, and, judging from the nature of the disease, the economy of dealing with glanders by rigid inspection and compulsory slaughter of glandered and suspected animals cannot be doubted.

The new law regulating the practice of medicine in France, which was passed on November 30th, 1892, comes into force on December 1st.

At the inaugural meeting of the Glasgow Obstetrical and Gynæcological Society, held on October 24th, Dr. Robert Barnes was unanimously elected Honorary President.

We regret to announce the death from typhoid fever of Mr. Samuel Henry Webb, of Dublin. He died at his residence on October 29th. Mr. Webb was a Fellow of the College of Surgeons, and was formerly resident surgeon of the hospital at Dover.

We understand that the appointment of Superintendent of Statistics in the Office of the Registrar-General, which was vacated by Dr. William Ogle on November 2nd, has been offered to Dr. Tatham, Medical Officer of Health for Manchester. The salary now attached to the office is £900 a year.

The Opium Commission will resume its sittings at Calcutta on November 15th. The first witness will be Mr. Alexander, Secretary to the Society for the Suppression of the Opium Trade, who will also act as the private secretary to the two anti-opium representatives, Mr. Arthur Pease and Mr. J. Wilson. After the Commission has completed its labours, Mr. Alexander will visit the Straits Settlements and China to make personal inquiries on the use of opium in these countries.

In recognition of the fact that women students are now admitted to qualifying clinical instruction in the wards of the Royal Infirmary, Edinburgh, the Scottish Association for the Medical Education of Women has collected amongst the friends of female medical education a sum of £500, and has presented the same as a donation to the funds of the Royal Infirmary.

SIR ANDREW CLARK.

The condition of Sir Andrew Clark has somewhat improved during the week, and he is now considered to be out of all immediate danger. The paralysis still persists, but mentally he is quite himself, and his speech is better than it was.

CAUSE OF THE GREENWICH EPIDEMIC.

We understand that the official opinion in regard to the origin of this epidemic is that it arose from the use of the water from one of the wells on the premises. The analyses show a considerable difference between the waters of the two wells, and the one which is thus shown to be the worst is the one used by those who were attacked. It appears very probable that the condition of the water is due to sewage contamination.

LADIES AT THE ROYAL UNIVERSITY IN IRELAND.

At the recent autumn examination in the Royal University, Miss Winifred Dickson, M.B., who had already obtained a gold medal at the degree examination in the spring, was awarded the travelling scholarship of £100 in physiology and pathology. At the M.D. examination Miss Eleonora Fleury, M.B., was awarded a gold medal, being about equal with Mr. M. J. Dempsey, M.B., who also obtained a gold medal. This degree is conferred at a period not less than three years after the M.B., and on a severe written oral and clinical examination.

THE RECTORSHIP OF ABERDEEN UNIVERSITY.

The term of the Marquis of Huntly is shortly to end as Lord Rector of the University of Aberdeen, and it now seems that there is likelihood of a contest. A section of the students are displeased at the position which the Marquis of Huntly has taken with regard to the centralisation of the classes in Aberdeen. It is supposed by them that he has shown too much sympathy with the proposal to keep all the art classes at Old Aberdeen. This section, therefore, resolve to oppose the re-election of the Marquis of Huntly. There has, however, been no little difficulty experienced in securing a candidate, many being approached in turn only to give some excuse. At length there has been offered the services of Dr. Wm. Hunter, M.P. for North Aberdeen, who promises to attend the meetings of the University Court and support the centralisation of the classes. The students support him because they look on him as one of the most distinguished graduates of their University, for the capable and far-reaching work he has already done in elementary, secondary, and university education, and for his distinction as lawyer, author, and statesman.

CATS AND DIPHTHERIA.

Dr. Edmund Gwynn, medical officer of health for Hampstead, has forwarded us the following case, which may be of interest at the present time, when diphtheria in London is on the increase, as showing once more that the disease may sometimes be traced to domestic pets: In February last a cat in a tenement house situated in Fleet Road was noticed to be very ill and suffering from a bad swollen throat. On February 24th a child, aged 5 years, who had been nursing the cat, was sent into the North Western Hospital suffering from diphtheria. The cat was subsequently sent away for treatment, but returned to the premises on July 22nd, enticed back by the children of the house, with whom it was a great favourite; it was still in a bad state of health and suffering from an unhealed abscess in the vicinity of the throat. On July 26th two other children were found to be affected with sore throat, and one was removed to the hospital suffering from diphtheria on July 31st. The father of the children, believing the cat to be the cause of the infection, destroyed and buried it—much to the indignation of the landlady—so that no opportunity was afforded of examining the animal.

SALE OF A RELIC OF EDWARD JENNER.

An interesting relic of Edward Jenner was sold on Wednesday, October 25th, by Messrs. Debenham, Storr, and Sons, at the Auction Gallery, 26, King Street, Covent Garden. It was described in the catalogue as "A magnificent 18-carat gold presentation snuff-box, beautifully enamelled with the arms of the City of London and other subjects, and bearing an interesting inscription; date 1803; 11 oz. 11 dwt." The inscription reads as follows:—"Presented to Edward Jenner, M.D., LL.D., F.R.S., etc., by the Corporation of London, 11th August, 1803, in the Mayoralty of the Right Hon. Charles Price, M.P., as a token of their sense of his skill and perseverance in the discovery of and bringing into general use the vaccine inoculation." There is no doubt that this box is not a snuff-box as described in the auctioneers' catalogue, but the casket in which the freedom of the City of London was presented to Jenner on August 11th, 1803. The original cost of the box was 100 guineas; it sold at the recent sale for exactly that sum. It is sad to add that the box was sold as a pawnbroker's unredeemed pledge.

SANITATION OF THE MECCAN PILGRIMAGE.

It is a terrible story that has been told by the surviving seamen of the ss. *Etna* during her recent traffic in the pilgrim trade. We read that on her trips from Jeddah to Kamaran, from Kamaran to Yambo, and from Yambo to Beyrout, no fewer than 4,400 pilgrims were taken on board, in batches of 1,700, 1,200, and 1,500 respectively. On each journey cholera broke out with extreme virulence; scores died daily, the men being of the dirtiest and packed like herrings. Several of the crew died also, and during the passage of the Suez Canal the restrictions on the burial of the dead led to storage of the corpses on deck and round the sides of the vessel, suspended by bowlines. Arabs landed at both Beyrout and Tripoli, but the boat was repulsed at Algiers and Tangiers; however, landing was found permissible at Mogadore, and finally, after three days' quarantine near Oran, the ship was fumigated and disinfected. But the story is illustrative of the fearful virulence of cholera in the seagoing circumstances of the Eastern pilgrims, and once more points to the emphatic need of some stringent regulation of the Meccan traffic, such as those urged upon the public attention by Mr. Ernest Hart in his address to the Sanitary Congress at Edinburgh, and subsequently in the *American Monthly Journal of Science.*

THE CARE OF OUR WOUNDED IN WAR.

A very important letter on this subject, signed "Army Medical Staff," was published in the *Times* of November 1st. It would certainly not have appeared in our great daily contemporary had it not been duly authenticated; but indeed, it not only bears internal evidence that the writer is fully qualified to discuss the subject, but also the statement that he has, as principal medical officer, had charge of a large district in India. His statements, therefore, are not merely correct, but coming from "one who knows," are of the gravest moment. His arguments, briefly stated, are that from motives of false economy on the one hand, and from the blind jealousies of the military authorities on the other, the army medical service has been suffered to become entirely unfit for the duties of a great war. There are, no doubt, elaborate arrangements on paper, but total practical inefficiency in men, *matériel*, and transport. For the latter, it is entirely dependent on the Army Service Corps, which is now a combatant body, and therefore ineligible to be covered by the Geneva convention. Here is a curious and pretty pass. We trust the whole matter will be speedily brought before Parliament.

DUBLIN WATER SUPPLY.

The greater part of Dublin is now supplied with canal water. On the north side and in the townships the Vartry is only available for a few hours daily, but the corporation have made arrangements to get a supply from the Northern (Royal) Canal, which will provide for all the wants of the district north of the river. The water from the Grand Canal has been analysed by Professor Dewar, of Cambridge, who gives it a very high character, and Mr. Thornley Stoker has officially reported on the sources for the Grand Canal Company. There are numerous and extensive springs some miles from the city, and the water comes up in great quantities through gravel and sand, being quite free from contamination, vegetable or otherwise. These reports have reassured the citizens. The pressure is even greater than that recently procurable in the Vartry mains, and the water is carried to the tops of most houses, so that little incon-

venience has been felt. Meanwhile Vartry water in the Roundwood reservoir continues to fall. Although there have been heavy rains in Ireland and some districts have been badly flooded, hardly any has descended in the co. Wicklow; yet the decrease seems to be greater than it ought to be, and it is suggested that there must be some serious undiscovered leakage. Some years ago, when the Rathmines Commissioners sought powers to provide for an independent supply, the Dublin Corporation tried to compel them to take the Vartry. The present state of things is an amusing commentary upon the former rather large views of the corporation, particularly as Rathmines has offered help to its former antagonists. It is clear that the Vartry is insufficient for the supply of the numerous districts to which it has been conveyed, and the corporation must set itself to establish new reservoirs at great expense, which must be added to the sum of about £600,000 already expended.

ROYAL MEDICAL SOCIETY OF EDINBURGH.

THE inaugural address of the 157th session was given on Friday, October 20th, by Professor Gairdner, of Glasgow, who gave some personal reminiscences of the past of the Edinburgh Medical School, and of some of its prominent teachers, physicians, and surgeons, among whom he named Warburton Begbie, W. Robertson, Charles Murchison, Saunders, and Sir Robert Christison. At the close of his address he gave some wise counsels as to the formation of character, on the nature of good and patient work and its worth, and on the evil of aiming at mere notoriety. "None of you," he said, "aim merely at notoriety; not one of you is capable of taking an unfair advantage at the expense of his neighbour. Therein lies my little moral, and I hope it may come home without offending any." The Chairman and Senior President, Dr. A. U. S. Carmichael, proposed, and Professor Grainger Stewart seconded, a vote of thanks to the lecturer. The following gentlemen have been elected Presidents of the Royal Medical Society for the session 1893-94: Robert Hutchison, M.B., C.M.; G. L. K. Pringle, M.B., C.M.; D. C. Bremner, M.B., C.M.; George Elder, M.B., C.M.

PROFESSOR CHARCOT.

AT a meeting of the New York Neurological Society on October 3rd, the President, Dr. M. Allen-Starr, in the chair, Dr. E. C. Seguin gave a few personal reminiscences of Professor Charcot. He referred to the generosity of the great physician in placing at the disposal of his students his abundant material and the use of his laboratories and in allowing them to receive the full credit for their labours instead of appropriating it to himself. Many of Charcot's pupils—Bourneville, Bouchard, and others—had been helped by him in every possible way to attain honourable positions. In disposition he was quite different from the popular idea of the Frenchman. He was not quick, or hasty, or mercurial. Every thought was carefully matured and he collected his material for a long time before reaching or publishing his conclusions. He was averse to theorising. He was a close analyst and a devoted follower of the induction method in reaching conclusions. Primarily Charcot was a pathologist, and his reputation would always rest on his achievements in this field of medicine. His work in hypnotism, by which he was greatly fascinated in his later years, can only be regarded as a mere fragment, a digression which in the future would count as nothing.

METROPOLITAN MANSIONS.

THE growing practice of erecting large blocks of buildings, the so-called "mansions," in London, which entail certain peculiarities of construction, is proving to be an insanitary one. It is often found necessary to light many of the rooms by internal areas or courtyards. These, it is found, are often mere narrow shafts, quite inadequate to supply sufficient light and air. The London County Council, whilst taking steps in reference to other building matters to obtain the amendment of the existing law, intend to obtain a clause providing for the adequate ventilation of internal areas or shafts, constructed with a view to providing light and air to rooms in domestic buildings. It is also intended to deal with the setting back of buildings in old streets or on old foundations, making the setting back compulsory, the owner to remain in possession of the land left vacant by such setting back. It seems reasonable to compel the owner to erect his new buildings of such a height and in such a manner as to prevent them from being injurious to the health of their occupants or the occupants of buildings opposite to them. The vestries can, if they desire, purchase the forecourts formed by setting back buildings, and throw them into the public way, thus settling the question of compensation. The Council also intend to have altered a grave defect in the existing law, whereby it has practically no control over such buildings as blocks of artisans' dwellings not fronting on any street, but enclosed in a courtyard exclusively belonging to them.

SIR JOSEPH LISTER AT KING'S COLLEGE.

THE Medical Society of King's College held its first meeting on October 27th, on which occasion Sir Joseph Lister, who was announced to read a paper on "Essentials in Antiseptic Treatment," received a great ovation from the large gathering of members and visitors who had assembled to hear him. In his remarks, Sir Joseph Lister dwelt upon the essential points to be attended to in order to obtain uniformity of aseptic results. He pointed out how greatly procedure had been simplified by the recognition of the truth that microbes, in the attenuated condition in which they are present in the air, are effectually disposed of by the natural antiseptic action of the living body; so that the atmospheric dust may be entirely disregarded in operating. But simple as are the means now employed, Sir Joseph insisted upon the necessity for earnest vigilance in their application, and he cautioned his hearers against lightly abandoning means which experience has proved to be thoroughly trustworthy. The enthusiastic cordiality with which the address was received by an audience including a large number of young men from various different schools augurs well for the future of antiseptic surgery.

WITNESSES' FEES.

REPORTS from newspapers in different parts of the country and complaints from correspondents show that too frequently magistrates'clerks and police officials throw difficulties in the way of medical witnesses obtaining payment of the by no means liberal fees to which they are entitled for attending to give evidence in criminal courts. Excuses are often made, such as that the official who is asked for payment is not responsible or that the witness attended without a subpœna, and so the county is not bound to pay for his attendance. Naturally members of the medical profession are becoming shy of giving their services in cases where the annoyance and waste of time are likely to be serious while the prospect of adequate remuneration seems uncertain. The difficulty in obtaining payment of these fees, though common, is not universal. In some courts and localities the more correct and more sensible practice prevails and medical witnesses who attend to give evidence are allowed their expenses according to the prescribed scale as a matter of course. The inconvenience resulting to everyone from uncertainty on the point was exemplified the other day at the Mansion House Police Court, when a medical witness, who was wanted from St. Bartholomew's Hospital was not in attendance, and the accused had consequently to be remanded. It was stated that the hospital authorities declined to allow their medical officer to attend unless in obedience to a summons, as otherwise they feared he might not get his fee paid. The chief clerk at the police court said that this idea was a mistake as the fees were always allowed. It is satisfactory to know that

at any rate in one of the most important metropolitan police courts the bad practices which prevail elsewhere are not followed. The authorities at St. Bartholomew's Hospital are, however, quite right to be on the safe side. A medical witness who attends only in obedience to a summons or subpœna is much less likely to be cheated out of his fees than one who puts himself in the position of being said to have volunteered his evidence. Where it is quite certain that the fees will be allowed a witness need not insist on the proper formalities to secure his attendance being observed. But where there is no such certainty, and still more in places where any member of the profession has previously experienced a difficulty in obtaining payment, nothing but a formal summons should be obeyed. Practitioners who give their attendance in answer to a mere verbal message from a policeman will have themselves to thank if they lose their time and get no payment for doing so. If a court is sometimes put to inconvenience by reason of the non-attendance of a witness who is not bound to be there the blame must be laid on the bad practices as to fees which are too prevalent.

AUTOMATIC WRITING AND MR. STEAD.

The *Pall Mall Gazette* published recently an able article on this subject by "Hypnos," and we are inclined to think the subject is advanced one step by this writer. It is to be feared that not even a Commission would satisfy the believers in the spook origin of the automatic writing that it can be more readily explained in simpler ways. The writer of the article points out that the chief elements are unconscious movements, gradual education, and faith. The result produced bears internal evidence of being very like the ordinary thoughts of the instrument—that is, the automaton. To explain how the unconscious scrawling can become intelligible sentences he calls in two laws of suggestion, which come to this, that the conditions most suited for the writing are a weak-minded receptivity, a dominant idea, and the power of the dominating idea on the brain (? mind) through faith, training, and education. We agree with this as a whole, and we think the interpretation must be sought through sleep and hypnotic conditions. We all agree that an enormous mass of impressions are received by the senses; many never become perceptions, yet they may have been recorded, and may under certain conditions be called into use. In delirium and in hypnotic states we see this. Disease may bring to a level of consciousness things which have never been reckoned as knowledge. In dreams we have clear revivals of impressions which seem altogether new things to us. Thus many a person has believed that he or some companion in his dreams has spoken a foreign language much better than he himself could speak it, and we have met with persons suffering from hallucinations of hearing, who have used it as an argument that the voices they heard were not their own imaginings, for, as they have said, they speak French better than they ever could. There are then stories of impressions, more or less organically connected with each other in the brain, which, under certain diseased states, may be brought to light, and it seems to be not only probable but certain that what is morbid in one person may be natural in another, so that the poet in his half-sleeping moments may compose and seem to commune with other beings. In some probably there is—by habit assisting a peculiar nature—a power to draw upon the unconscious store—the dream stuff, to use a convenient phrase—of the brain, and once having granted this it is not hard to suppose that the mechanical expression through the machine may be got very readily to work. The whole evolution of the writing, the slow beginning, the steady progress are all like the other mechanical developments; once start a train of thought the line is followed, without control, readily enough, as most men know who have allowed their thoughts to run away with them—the expression of these thoughts may be allowed to run more conspicuously through the machine, one movement readily leading to the next, and so on. This is true of thought and is pretty certainly true of the established methods of expression. We are inclined with the writer in the *Pall Mall Gazette* to think that this removal of higher control may be cultivated, but that there is danger in thus yielding up the reins. Many persons have begun earnestly to investigate spiritism only to be led away by their own fancies. This, of course, is not an argument against investigation, but it is an argument for exhausting every reasonable explanation before calling in spirits from the vasty deep or elsewhere.

THE SAD STATE OF CHRIST'S HOSPITAL.

The dispersal of the scholars of Christ's Hospital has given rise to a certain amount of misapprehension as to the gravity of the outbreak of scarlet fever in the school. The step was not in any way taken in consequence of the character of the attack, but because, on investigation into the sanitary condition of the buildings, it was found that they were such that it was not considered prudent to face an epidemic amid them. The closet arrangements in the sick ward were far from what they should be, and on a further investigation, undertaken by the authorities at the instance of Dr. Sedgwick Saunders, Medical Officer of Health for the City of London, such a series of sanitary defects were brought to light as made it impossible to recommend or to sanction the continued use of the building for residential purposes. These deficiencies more especially relate to the drainage, which is of an antiquated character, immense sewers up which one can walk, the removal and replacement of which will cost a very large sum of money—a sum which the governors may well hesitate to spend just on the eve of their leaving the place altogether. As, perhaps, a natural corollary to the condition of the drainage, it is now found that the water from the well on the premises had undergone a marked deterioration since the last time it was examined, a comparison of the records kept by Dr. Saunders showing a great increase in the nitrogen and chlorides. The use of this water has now been stopped, and a supply obtained from the New River Company. There can be no doubt that the governors are in an awkward fix, for the reinstatement of the sanitary arrangements must take a long time, and it is hardly fair to the boys that their education should be held in abeyance at so important a period in their education. Time and energy will not be wasted in searching for the responsible agent on whom to throw the blame of this catastrophe. We believe we are right in saying that several years ago the attention of the governors was drawn to the condition of the drainage by their own medical officer, and certainly two years ago the continued presence of illness in the headmaster's house led to an investigation, which proved the existence of communication between his basement and the great sewer system of the hospital, and there was no reason to believe that one part of the premises was better than another. These things, we believe, are common knowledge within the circle, and if, with these facts before them, the managers chose to trust to luck and take their chance, or rather, let the boys take their chance, of running to the end of their occupation of the premises without disaster, they surely must take the blame now that the odds have gone against them.

SCHOOLKEEPING AS AN INDUSTRY.

The story of the sanitary deficiencies at Christ's Hospital, following upon those as to the conditions of life at Harrow, and, going still further back, the repeated troubles at Wellington College, raise again with great force the question whether the business of giving board, lodging, and education to growing children should not be brought under inspection like so many other industries. Of all places in the world a public school, proud of its antiquity and imbued with profound reverence for ancient forms and usages, is least open to the influence of modern sanitary knowledge.

Everything depends on a headmaster, probably deeply versed in classics, even perhaps in mathematics, but very disdainful towards a science whose bases shift so quickly as those of sanitation. For good or evil he is as omnipotent as the captain of a ship. Discipline is the order of the day, and not only boys, but masters and all officials, come under its influence, and who shall say that even governors are exempt? It is no easy matter for anyone within the circle to raise a voice of protest, even against abuses everyone knows about. Parents themselves become involved in the same conspiracy of silence. Mothers fret and fathers rage, but both agree that anything is better than making their son a marked boy. Surely the time is not far off when the education of youth, like all other industries which involve the massing together of large numbers of young people, will be placed under regular sanitary inspection by public officials. The lower grades of the scholastic profession, no doubt, occupy positions of small honour and poor pay, but headmasters, housemasters, and people of that class, lead a life of no small comfort, with many consolations for the worry of the term. In a large number of cases their remuneration comes not from large salaries for teaching, but is derived from the permission to take boarders. No doubt the fees are so high that there is but small temptation actually to starve the boys, at any rate as to quantity; but the enormous sums spent upon extra food at some of the very highest class schools show that the temptations to which the housemasters are exposed are of the same character as those to which Mr. Squeers succumbed. So long as schoolmasters are paid by being allowed to save what they can out of the money given them for the board and lodging of their pupils, so long will this mixed business of feeding, lodging, and educating youth remain the very type of an industry which ought to be independently inspected.

THE GENERAL MEDICAL COUNCIL.

The autumn session of the General Medical Council will commence on Tuesday, November 28th; the usual meeting of the Executive Committee will be held on the previous day. It is probable that a good deal of important business will come before the Council during this session. The inspectors' reports to be received will deal with the English Universities and the Irish Corporations, and their presentation, since the present attitude of the Council with regard to the more general recognition of the importance of clinical examination raises many important practical considerations, will in all probability lead to considerable discussion. Another important matter which will probably come before the Council in some form has to do with the revision of the *British Pharmacopœia*, which must take place some years hence. Indian medical authorities have represented that the directions in the *Pharmacopœia* are in certain particulars too hard and fast. Without in any way lowering the standard, it is suggested that it might be possible to permit in some cases the substitution of Indian products for those of European origin; for instance, India produces many oils which might replace olive oil, and Indian opium might, with due adjustment of quantities to provide for differences in alkaloidal strength, replace Turkey opium. The question having been thus raised, it may probably be found desirable to obtain also the opinion of Colonial medical authorities as to the advisability of making provision in future *Pharmacopœias* to meet the special conditions of the various Colonies. Several penal cases will come before the Council, and a very important point will probably be raised with regard to the granting of pseudo-diplomas by "Medical Botanist" Associations. The Council in its very earliest days passed a resolution to the effect that it would not undertake prosecutions, on the ground mainly that it might eventually have to hold an inquiry of a judicial character as to the removal of the name of the incriminated practitioner from the *Register*. In the case, however, of the prosecution of an unqualified and unregistered person this point would not arise, and it appears very desirable that this old resolution of the Council should be reconsidered.

THE AMERICAN MEDICAL PROFESSION AND ITS ENGLISH VISITORS.

Under the heading of "A Distinguished English Visitor on the American Medical Profession" the *New York Medical Journal* of October 14th publishes a farewell letter, dated October 12th, from Mr. Ernest Hart, in which the following passages occur:

I have enjoyed since June the pleasure of a series of friendly and courteous receptions by the leaders of the medical profession in the centres of medical education and activity in this great country, in conference on subjects of professional organisation, State medicine, and public hygiene. On each occasion of the addresses which I have been privileged to give by invitation before large professional audiences at the American Medical Association, at the Association of Medical Editors at Milwaukee, the Chicago Medical Society, the Pan-American Congress, and the State Medical Association of New York, the opinions and views which I have ventured to express on subjects, such as waterborne cholera, medical editing, and medical code, in its relations to professional and public interests, etc., have been received with plaudits of unusual warmth. They have been emphasised by overwhelmingly kind expressions of approval from representative men on the spot, and subsequently at Boston, Philadelphia, Baltimore, Cincinnati, Detroit, and other cities which I have visited with the Pan-American delegation. I have received more numerous, more enthusiastic and grateful endorsements of the views expressed by me in the Washington Congress than of any other of my utterances on this soil, warmly and universally as they have been applauded—far beyond their merits, no doubt, but with the gracious and widespread cordiality which makes my visit to America one of the most delightful memories of my life. Let me now take this last opportunity, since I am leaving these hospitable shores to-morrow, of expressing once more the delight with which I have enjoyed this opportunity of making the personal acquaintance of such great numbers of my American colleagues. Let me record my deep sense of the high honour which they have everywhere done me, and my gratification at their assurances that my visit has not been without usefulness. Let me add the expression of my respect and admiration of the marvellous growth and development of medical skill and education, and of the great medical institutions in all parts of this vast country. I bear away with me many treasured friendships and innumerable assurances of friendly esteem, which I hope will long be continued. I carry with me to my English home associations and recollections which will always bind me in gratitude and affection to the great English-speaking profession on this side of the Atlantic, whose brotherhood we all, in Great Britain, so highly prize, and with which, now for many long weeks, I have been privileged to be in close, happy, and never-to-be-forgotten communion.

LONDON FEVER PATIENTS.

A local contemporary describes "a lamentable condition of affairs in reference to the removal of fever patients" in Marylebone. Certificates of twenty-five cases of infectious diseases were received in one week, namely, one case of small-pox, twenty-one of scarlet fever, and three of diphtheria. Of these cases, four only were removed to hospital. There is no statement as to the number which needed isolation in hospital, but it may be assumed that in more than the four cases mentioned such isolation was necessary. When the Public Health (London) Act passed, the hospitals of the Metropolitan Asylums Board became free. No machinery was provided for distinguishing between those cases which ought to be removed to hospital and those cases which could be isolated in their own homes, nor indeed was there apparently any attempt made to consider whether the provision of the Metropolitan Asylums Board was equal to the demand which might be made upon it in view of the alteration in the law. The result has been calamitous, and we have heard ever since of a scarlet fever "epidemic," as being responsible for our breakdown. That there has been an increase in the number of cases of scarlet fever in London, and that there will for some time be an increase, must be evident to anyone who has studied epidemiology, but this ought to have been held in view, and London, in accepting new responsibilities, ought not to be acting blindly. The

public has a right to know at whose instigation this change in the law was made. Some responsible authority must take the initiative in the matter, and the facts ought to be fully stated.

THE IMPROVEMENT OF LONDON.

The costs to which the ratepayers of large towns are required to submit through the operations of the Housing of the Working Classes Act are the result of the want of any proper control over the erection of buildings such as would have required the provision of ample open space about buildings. In the absence of any opportunity of preventing landowners from covering their land with densely packed houses, slums have come into existence requiring improvement schemes which entail heavy expense upon the ratepayers. The London County Council at their last meeting decided to incorporate in their Amendment Bill of the Building Acts provisions which will compel the owner of every house which is rebuilt to limit the height of his house in proportion to the space on which it is built. This decision is the outcome of an agreement between two Committees of the Council dealing respectively with buildings and public health, and it is to be hoped that Parliament will not hesitate to endorse these reasonable requirements of the Council. But the London County Council, in its desire not to burden the ratepayers with the expense of purchasing and reconstructing unhealthy areas, has practically declined this week to carry out any more schemes at the sole cost of the present ratepayers. An area in St. Pancras, which had been the subject of arbitration by the Secretary of State, and which had been represented under the Housing of the Working Classes Act by the county medical officer, has been rejected by the Council on the ground of the insufficiency of its resources. This, of course, is only a threat, and intended to be regarded as such. The Council has already adopted the same policy in connection with street improvements, but until now this course has not been extended to proceedings under the Housing of the Working Classes Act. It is difficult to appreciate what would be the result of this determination if it were persisted in, for the Council has not been slow to require sanitary authorities to perform their statutory duties, and it would be exposed to a very obvious retort if it showed any desire to enforce on other bodies conditions to which it would not itself submit. We do not doubt that the Council will not maintain its position. Its action is, we anticipate, meant to be a protest and nothing more, and to this extent it will have the sympathy of those who have returned its members, but questions of the incidence of taxation must not be allowed to interfere with the carrying out of schemes necessary for the health of the community, and we do not doubt the work of the Council will go on as heretofore.

LONDON DOGS AND CATS.

Dr. Sykes has recently called attention to the difficulties in the disposal of dead dogs and cats in the metropolis, as well as to the want of facilities for the destruction of our domestic animals when suffering from disease. It may be accepted as a fact that if an ordinary person wishes to kill an old or diseased dog, being destitute alike of knowledge and of appliances for doing the deed mercifully, he destroys the animal in a more or less barbarous and unnecessarily painful manner. The public street, the nearest pond or canal, or, failing these outlets, his neighbour's dustbin or area, becomes the recipient of the carcass. Should a building site be encircled with a hoarding, in twenty-four hours there is sure to be at least one animal corpse sweltering among all kinds of other *débris*. It appears to be a very sensible suggestion that there should be established several centres to which for a small fee an animal could be sent to be painlessly destroyed. The best method is probably that used at Battersea, namely, the lethal chamber invented by Sir B. W. Richardson. Death is produced by carbon monoxide evolved from coke. Coal gas, containing as it does 8 per cent. of carbon monoxide, might also be used in a proper apparatus. In either case, the moments of actual suffering are to be estimated by seconds. A small gas crematorium might be an adjunct to the lethal chamber, in which the bodies could be cremated without odour or nuisance.

ARE NURSES AFRAID OF FEVER?

The question is being asked if nurses are afraid of fever, the ground for the inquiry being a statement made by a conporary that one hundred beds are left unoccupied at the Tottenham Hospital because nurses cannot be procured. We have no hesitation in answering our contemporary's question by a direct negative. Women are not less moved by generous instincts than men, and certainly the records of our hospitals show that they are not less willing to submit themselves to the risks of fever hospitals, and, if necessary, to lay down their lives, than are men. But women are like men in other ways than this. Women who have to earn their own living cannot afford to face times when their services are not required. The demand for nurses, and especially for fever nurses, is not equally great at all times, and a large community like London cannot expect to find waiting for employment at times of exceptional prevalence of disease a sufficient number of nurses if no step has been taken to retain their services and to afford them the means of maintenance during long periods when there are no patients for whom they can be employed. In the old days, when every woman was thought fit to be regarded as a nurse, and no training was held to be essential, there was often difficulty in supplying the needs of public institutions, but this difficulty has been much accentuated at the present time when knowledge and skill are required of every woman who undertakes the nursing of the sick. The managers of the Metropolitan Asylums Board have in the past been criticised by representative bodies when they have endeavoured to maintain the nucleus of a nursing staff during periods when London has been free from disease. It cannot be expected under these circumstances that they can, when the demand for nurses is great, enlist the services of a large and capable staff. Competent women do not wait for years for employment, and if such are to be available when the demand comes, it is evident they must be subject to some arrangement by which their services can be retained when they are not required for actual duty. The matter is very much one of money, and the sooner the ratepayers learn this the better will it be.

PARISH COUNCILS.

Mr. Heneage has given notice that on the second reading of the Local Government (England and Wales) Bill, he will move that the House, whilst approving the extension of the principle of local self-government to district and parish councils, considers that all the powers relating to the Poor-law and sanitary questions should be conferred on county councils, with power to delegate all purely administrative matters to the district councils; and, further, that the principle of grouping parishes is both objectionable and impracticable, whilst many of the powers now proposed to be entrusted to parish councils should be transferred to district councils.

We call attention to the report which we publish elsewhere (p. 1,006) of the prosecution of Alabone by the Apothecaries' Society. Alabone had been struck off the *Register*, and the Apothecaries' Society prosecuted him for continuing to practise as an apothecary. Judgment was given for the penalty, £20 and costs.

The winter session of the Catholic University Medical School, Dublin, was opened on Tuesday, October 31st by Dr. C. J. Nixon, who delivered an address. Archbishop Walsh occupied the chair.

THE FELLOWS AND MEMBERS AND THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS.

THE ANNUAL REPORT OF THE COUNCIL.

The report issued to the Fellows and Members, in preparation for the annual meeting at the College, is a document of more than ordinary interest, and we hope we may say of more than usual promise. We trust we are not too sanguine in thinking that the course pursued lately by the College Council indicates a disposition to meet the legitimate wishes of the Fellows and Members for a larger share in the management of the College than the strict construction of the present charters entitles them to claim and enforce by process of law. We need hardly say that if this is so, it is due to the persevering action of the Fellows' Association, and to the success in the elections to the Council of the candidates who support the views of that Association, many of whom were returned through its exertions; though we would also fain hope that the reasonableness and moderation of the views themselves have recommended them to those members of Council who are not blinded by prejudice and confirmed by habit in an obstinate opposition to change. We see these indications of a change of sentiment in several parts of the report. For instance, on page 6, the following paragraph occurs:

> New University for London.
>
> No further steps have been taken in reference to this question during the past year, but the following resolution in reference thereto was adopted by the Council on January 12th last: "That in order to ascertain the views of the Fellows and Members of the College on the position which, in their opinion, this College should hold in the proposed Teaching University for London, separate meetings of Fellows and Members be convened at an early date after the report of the Gresham Royal Commission has been made public."

Again (pp. 8 and 9), we are told that at last year's meeting the following resolution was passed and forwarded to the Council:

> That this meeting of Fellows and Members wishes again to impress upon the Council that it is absolutely essential for the welfare of the College that the Fellows and Members should be consulted before any change is made in the constitution and external relations of the College, and before the College be committed to any extraordinary expenditure on buildings or otherwise.

The Council in reply quote the following extract from their minutes of November 17th, 1885:

> With the larger questions which more rarely arise, such as those which concern the constitution of the College, the case would be different. On these questions the Council will always be glad to have an opportunity, so far as practicable, of consulting the Fellows and Members.

This minute, it will be observed, is eight years old, and has never been acted on, though questions so large as the relations of the College to the proposed teaching university, or the still more momentous question of the extension of the period of curriculum have come under discussion and have been decided by the Council in the interval. The resolution of January 12th with reference to the new university for London justifies us in hoping that the present Council will not confine itself to passing such resolutions, but will bring them actually into operation. But what is wanted is some practical arrangement for deciding what these "larger questions" are, how the Fellows and Members are to be consulted, and what is to be the effect of the consultation, when it has been held. The Fellows and Members are heartily sick of meetings where they may pass resolutions with practical unanimity, but no notice is taken of them; where the ordinary forms of public meetings are studiously ignored, and where one who ventures to express opinions unpopular with the Council cannot even reckon on fairness or ordinary courtesy. Otherwise the above resolution, if loyally acted on, might form the basis of a satisfactory settlement. No one, as far as we know, wishes to hamper the Council in its legitimate function as managing body of the College; but the reforming party holds that organic changes which do not commend themselves to the general sense of the constituent body ought not to pass.

Another matter on which we can heartily congratulate the Council is that they should have sent to the Royal Commission on Vaccination a resolution on that subject in the following unmistakable terms:

> We consider the evidence in favour of its life-saving power to be overwhelming, and we believe, from evidence equally strong, that the dangers incidental to the operation, when properly performed, are infinitesimal.
>
> Experience has satisfied us that, even when vaccination fails to afford complete exemption from small-pox, it so modifies the severity of the disease as not only to greatly reduce its mortality, but to lessen the frequency of blindness, disfigurement, and other grave injuries.
>
> We should therefore regard as a national calamity any alteration in the law which now makes vaccination compulsory.

In the present day, when every "public man," and, still more, every M.P., is supposed to share the privilege of "the great," who, as Molière says, "know everything without ever having learnt anything about it," and when, consequently, every faddist and collector of so-called "statistics" is thought quite as great an authority as Jenner, it is refreshing to see what is thought on this most important matter by those who have real knowledge of it.

As the Harness case has called attention to the fact that there are practitioners who are base enough to lend their assistance to quacks who are preying on the public, it is satisfactory to find (on p. 12) a resolution condemning this practice, and based, it is stated, on "two particularly glaring instances which have occupied the consideration of the Council during the past year." We look, however, in vain for any statement that the inculpated individuals have been expelled from "the profession" which they so "degraded."

And while the Council is thinking of the interests of the profession, cannot they do anything to repress the practice, which is now becoming so prevalent, of seeing persons for the very smallest fees in the out-patient departments of great institutions? If a private practitioner advertises that he will see all and sundry, and give them medicine for a shilling, he is, and very justly, called to account by the College. Guy's, or any other hospital, may advertise that all comers are seen for 3d., and the College has nothing to say on the matter. But then the Members have nothing to do with the College after the payment of their fees.

Finally, we would call attention to the very flourishing financial condition of the College. We read on p. 15: "The time has now come when the College may well expect to make some addition to its investments each year, and the Committee are of opinion that not less than £2,000 should be set apart for this purpose in each year in which no urgent and exceptional demand for heavy expenditure may arise. The Committee believe that with proper care and without undue parsimony this may well be accomplished."

The College is an institution of which, with all its faults, we are all proud, and we are glad indeed to see that it is likely to increase in splendour and stability.

THE ANNUAL MEETING.

The annual meeting of Fellows and Members was held on Thursday afternoon, November 2nd, at the College, Lincoln's Inn Fields, Mr. Hulke, President, in the chair.

The President said they had met together in order that the Council might present the report of the work done for the past collegiate year ending July 7th last. That report had been already posted to Fellows resident in the United Kingdom whose addresses were known and also to all Members who had notified their desire to receive the same. The report told its own tale, and he would therefore summarise its contents very briefly. The institution of a sinking fund to meet liabilities when the lease of the Examination Hall expired in 1984, must commend itself to all as a prudent provision. By beginning the fund thus early the two Royal Colleges would secure, by the small annual payment of £150, jointly contributed, the final accumulation of a fund of more than £52,000. He had been informed that upon an actuarial estimate it would be nearly £60,000, which would be tied by a trust deed closely to the purposes for which the fund was raised. With regard to the institution of a new university for London, nothing had been done by the Council, for the reason that the Royal Commission appointed in the matter had not yet issued its report. So far as the report related to matters concerning the College, those were manifestly within the scope of the Minute of Council dated November 17th, 1885, namely, that on the larger questions which more rarely arose, such as those which concerned the constitution of the College, the Council would be always glad to have an oppor-

tunity to meet the Fellows and Members. The Council was pledged to convene a meeting of Fellows and Members for conference upon such matters, and consequently the Council would convene a meeting of Fellows and Members for conference upon those parts of the Royal Commissioners' report which concerned the College at an early date after it reached the Council. It would be noticed that the two Royal Colleges had been consulted by the Secretary of State for War upon the subject of the medical and surgical examination of candidates for the British and Indian medical services, and that the Secretary of State had, with some modifications, adopted some of the suggestions of the Council. In the course of the past year, the Council had had under its consideration the cases of several offenders against Clause 2, Section 16, of the by-laws, and two names had been struck off the College roll. In other instances the Council had striven to uphold the honour of the College by cautioning the offenders, which course had not been altogether without salutary effect. It must be highly satisfactory to all to learn that the laboratories upon the Embankment, under the able direction of Dr. Woodhead, continued to be used to the full extent by a large number of intelligent investigators. The share of the laboratory expenditure borne by the College was £861 2s. 8d., which could not be considered large considering the work done. Means had been introduced which would tend to lessen the expenditure without risk to the efficiency. The subjects of research during the year were stated in the report. Large additions had been made to both departments of the museum, and the value of many of the pathological specimens had been greatly enhanced by the full clinical notes accompanying them. He did not think that he was asserting too much in claiming that the Museum in its entirety was, as a place of scientific study, second to none in the world. Some structural alterations in the library had added greatly to the convenience of readers. He regretted that the courses of lectures delivered in the theatre had not been better attended, for it was hoped that fixing the later hour of 5 o'clock would have proved more generally convenient than the earlier hour of 4 o'clock. A recommendation by the Council to alter the terms of the Hunterian Trust so as to make it permissible to reduce the large number of lectures required was under the consideration of the Trustees. The jubilee of the Institution of the Fellowship was held in July last, and was celebrated by a *conversazione*, to which Fellows and Members were invited; by an historical address delivered by the President, Mr. Bryant, listened to by a large and appreciative audience; and by a dinner at the Hôtel Métropole. The surplus left after payment of expenses was devoted by the Dinner Committee to the purchase of a loving cup to be kept by the College as a memento of the jubilee, and to perpetuate the tradition of the good-fellowship and harmony that prevailed at that festival. The high estimation in which the Fellowship of the College was held was attested by the relatively large number of candidates who annually sought that distinction, and he wished to emphasise the fact that the Fellowship was open to every Member of the College. With regard to the examinations, the number of rejections had been a subject of comment; but as a former examiner, and from his knowledge of the manner in which the examinations were at present conducted, he believed that the failures were referable to a growing tendency on the part of students to expect too much of their teachers and to disregard the paramount importance of self-teaching. The death roll contained the names of 39 Fellows, also of 2 Past-Presidents, and 3 former members of the Council. Of the rest, one conspicuous above all others by his scientific attainments was Sir Richard Owen. Soon after his death a public memorial was set on foot, but it was felt by the Council that in that College, where so much of the work had been done which had won for him his wide reputation, his memory ought to be perpetuated by a bust. This was nearly completed, and, when finished, would be placed in the museum. The death roll also included 247 Members, but it was satisfactory to find that their losses had been replaced nearly twofold by fresh accessions to both their ranks. With regard to the financial statement, he said that with the termination of the heavy extraordinary expenditure with regard to the construction of the new museum buildings, it was hoped that the next annual report would show that the College had been able to begin a substantial annual augmentation of its funds. On the whole he thought he was justified in claiming that the past collegiate year had been a prosperous one. He added, as a matter of congratulation, that an excellent accord continued to exist between the Royal College of Physicians and themselves. It was scarcely possible to overestimate the importance of this accord, both with regard to medical education, the general interests of the medical profession, and also of the public.

Surgeon-Colonel Ince moved:

That this meeting of the Fellows and Members desires to thank the Council for the full and interesting report now presented; also for the important concessions already granted to them, and relies upon the Council's continued favourable consideration of such further suggestions as may, in the judgment of the Council, tend to the harmony, stability, and dignity of this great corporation.

He felt sure that the motion would command the hearty support of everyone present. He thought the report was very satisfactory, and also that their acknowledgments were due to the Council for the very important concessions which had been granted, as the result perhaps chiefly of the efforts of those valiant fighting Members and Fellows who in the past days had not even hesitated to attack the building of the College of Surgeons. He did not see at the present moment anything that they as Members could further ask from the Council. He was glad to know that the Council had decided to take into their confidence the Fellows and Members before carrying out any important change with regard to the relations of the College, one of the most important being that which bore upon the University of London. He hoped they would never listen to the suggestion to aid and assist a second university, seeing that the present one was ample for all requirements. He suggested that the Council should take into consideration the question of providing a bust of the late Mr. John Hilton.

The President said it was perhaps not generally known that there was already an excellent oil portrait of John Hilton in the College.

Mr. Craven (of Hull) seconded the resolution. He said he was perfectly satisfied with what the Council had done, and though he was sorry to see so moderate a meeting, he believed it resulted from the fact that all cantankerous feeling had passed away, and that the general body of Members and Fellows were satisfied with the action of the Council. With regard to the poor attendance at the lectures, he thought that fact was a disgrace to the London Fellows and Members. He knew that such lectures would be greatly appreciated in the provinces. With regard to the present system of teaching, he thought that it was not quite as practical as it used to be, and complained that the provincial towns were flooded with M.D.'s of Edinburgh and Aberdeen, who might be very good biologists, but had not had sufficient practical training. As an old practitioner, he believed in teaching the hands as well as the head.

Mr. Nelson Hardy said he wished to congratulate the President and his predecessors and the Council upon the result, so far, of the admirable policy which they had pursued. That result was shown in those empty benches. For many years past hundreds of the Fellows and Members from the country and London had gathered together at the annual meetings. The Council had listened to what had been said, but no result had followed from the resolutions passed year after year. The Members of the College had been mocked by being brought together to receive a report, when at the same time they were not allowed to correct the grossest errors which the report contained or even to refer it back to the Council for correction. What had been the result? It was seen in the fact that thousands of Fellows and Members were represented by two or three dozen assembled in that theatre. If the Council thought that was a matter for congratulation he would congratulate them upon it. It might be called peace, and probably the congratulatory resolution moved by Surgeon-Colonel Ince might be passed by a large majority. He thought, however, there was something else to consider. They had to consider whether they were really satisfying the Fellows and Members by proceed-

ing in this way. They were in a free country, and must have regard to what was said, and particularly to what would be said by the medical press on a subject of this kind. Had they ever found even the most obscure member of the medical press who was able to uphold the proceedings of the Royal College of Surgeons? No one who wrote for the medical press had ever so far forgotten himself as to attempt to defend the utterly indefensible proceedings of the Royal College of Surgeons carried on in that theatre from year to year. As it was assumed that it it was quite useless to move any resolution, no resolution had been sent in, except that congratulatory resolution which might have come from one of the Council themselves; and it was not at all unlikely, if they went on as at present, that the Council would shortly be left to meet by themselves, and so form a mutual admiration society which could pass resolutions in the name of the Royal College of Surgeons. Passing on to the question of the new university for London, he said that was a matter in which London members were specially interested. They were told in the report:

That, in order to ascertain the views of the Fellows and Members of the College on the position which, in their opinion, this College should hold in the proposed teaching university for London, separate meetings of Fellows and Members be convened at an early date after the report of the Gresham Royal Commission has been made public.

The President had stated that the Council would consult the Fellows and Members before taking steps with regard to this new university; but the proposition to hold separate meetings of the Fellows and Members was not one which should commend itself. He thought this was not a subject on which the Members should be consulted separately from the Fellows. In the first place the experiment of holding such a meeting of Fellows had not been such a wonderful success as to make them very anxious to imitate the example. The principal result of such a meeting as far as it had transpired had been a squabble between a few prominent members of the College, and the circumstance did not seem to add to its dignity at all. That was not the sort of thing that the Members would care to imitate. The second reason was because this was eminently a subject upon which the Council should take the opinion, not of a separate section of the College, but of the whole College. The third reason was because, looking upon the Council as the governing body, it was their duty to bring forward questions of policy, and to submit them for the judgment of Fellows and Members, and not merely to sit silent and let statements made go in at one ear and out at the other. His last reason was that a very prominent Fellow of the College (Mr. Holmes) wrote an article nearly twelve months ago in which he stated the case for the Fellows and Members so clearly that he who ran might read. There was not a word in the article from which any Member would dissent, or that might not be pondered on with profit by members of the Council. For these reasons he held that the proposition to hold separate meetings was not one which would commend itself to the Members, and he hoped if such a step was taken they would be left severely alone.

Mr. George Brown said the resolution in itself was harmless, but there were one or two matters in the report which deserved their gravest attention. He maintained that the provinces were beating London in the facilities offered for obtaining a proper surgical education, which was shown by the fact that the London schools were ceasing to attract students, whereas the Durham, Cambridge, and Manchester schools were full to overflowing. With regard to the offer of the two Colleges to undertake the army medical examinations, he thought that it was no part of their duty to have done so, seeing that the work belonged in part to the Scotch and Irish Colleges. He hoped that justice would in this case be done not only to Ireland but also to Scotland. With regard to the question of vaccination, they were told that the Council had forwarded a resolution to the Royal Commission, stating that they "would regard as a national calamity any alteration in the law which now makes vaccination compulsory." Seeing that the College had its own representatives on that Royal Commission, he thought the action of the Council in this respect quite unnecessary. The Commission itself had passed a unanimous resolution calling upon the Government to make an alteration in the law at once. Whether that was right or wrong, he could not say; but for the Council of the College to send such a resolution as it had done to the Commission was certainly an outrage to its own past President and representatives, who were members of the Commission. He thought that no action should be taken by the College until they had further evidence as to the necessity of altering the law or not. With regard to the lecture arrangements, he regretted the alteration in the hour to 5 o'clock, which was just the time when London practitioners were obliged to be in their surgeries to receive patients. If 3 o'clock was the hour, he thought many more would be able to attend. With regard to "Trading Institutions for Treatment of Disease," the Council had passed the following resolution:

That it is degrading to the profession and injurious to the public interest that Fellows or Members of the College should associate themselves with trading institutions for the treatment of disease, and allow their names to be advertised in support of the practice of medicine and surgery by persons not legally qualified.

He was sure they would all agree with that. But was it put forward merely as a pious opinion or were they going to act upon it? If the Council required information to enable them to do so he should be happy to put them in the way of obtaining it. Such action would be a new departure and one which would be hailed with delight by every Member and Fellow of the College. He heard the other day of a much advertised institution which had six qualified men of the medical profession working for it and receiving wages—whether honourable wages or the wages of iniquity it was not for him to say—but at the same time it was a question for the Council of the College to inquire into. If that College and the College of Physicians and other Colleges had done their duty in this respect, those institutions, which were a scandal to London, would not now exist. He thought that the Council of the College were to a great extent responsible for the infamous and scandalous things which were done in institutions carried on by quacks and bolstered up by members of the medical profession.

Mr. Joseph Smith said he had been quite certain that the conduct of the Council, as shown by the report, would create a feeling of disappointment in the minds of the Members. In previous years that room had been crowded, and what was the cause of the present attenuated benches? It was simply the conduct of the Council. There was no mincing the matter at all. The Members had approached the Council year after year, and had laid before them what they considered to be their just and fair aspirations. They had passed resolutions, by overwhelming majorities and had likewise appealed to the members of the profession, and had had the hugest petition that had ever been presented sent up, containing the names of 5,000 Members, and yet the Council had merely said that they would take those opinions into consideration, and had done nothing in the matter. It was no use for the Members to attend, and it was because they felt that to be the case that they were present in such small numbers.

The resolution was then put to the meeting and carried by 17 to 7.

Mr. C. B. Keetley then moved:

That, if separate meetings of Fellows be summoned regularly by the Council for consultation purposes, it is desirable that they should not supersede or interfere with the annual meeting of Fellows and Members at which the annual report of the Council is presented and discussed.

The President stated that so far as he knew there had never been any suggestion that it should interfere with the annual meeting.

Mr. Norton seconded the resolution.

Surgeon-Colonel Ince thought that after the remark of the President the resolution was entirely unnecessary, and he therefore appealed to Mr. Keetley to withdraw it.

Mr. Rivington said that the cause of the Members had been retarded by the action of some of their number. He sympathised with the resolution entirely.

The resolution was then put to the meeting, and carried *nem con.*

Mr. Grant moved, and Mr. George Brown seconded, a vote of thanks to the President, for his conduct in the chair, which was carried by acclamation, and the proceedings terminated.

ENTERIC FEVER AND WATER SUPPLY.

The Lesson of the Epidemic in the Tees Valley.

The detailed report presented by Dr. Barry to the Local Government Board on enteric fever in the Tees Valley during certain periods of 1890 and 1891 has been published this week.[1] It is a document of exceptional interest and importance, dealing as it does at great length and in minute detail with a heavy incidence of enteric fever undoubtedly due to gross pollution of a waterway used as a source of domestic supply. It is a valuable addition to an accumulating series of reports relating to waterborne typhoid, and is a painful illustration of the conditions under which communities are permitted to live amid dangers to health unheeded until disaster overtakes them, and even here, in this palpable case, vast pains have been taken in attempts to upset the theory of water-carried infection. But no unbiassed mind can read this report and doubt the truth of its contention. Briefly stated the facts are as follows:—

Two distinct epidemic prevalences are treated, each of six weeks' duration, the first from September 7th to October 18th, 1890, the second from December 28th, 1890, to February 7th, 1891. The whole area dealt with is one of 706,020 acres, or 1,103 square miles, containing half a million people in ten registration districts, comprising thirty-two separate sanitary areas. In the two epidemics, 1,463 cases of enteric fever were heard of, and 1,334, or 91 per cent., occurred among a population of just over 250,000 persons, situate in three of the ten registration districts, the rates of attack per 10,000 being 29 and 24 respectively in the two epidemics, against 3.5 and 1.5 in the remaining seven districts, with a population almost identical in point of numbers. In the matter of fever deaths this special area had rates three and five times greater than the other seven districts.

In regard of sanitary areas, it was found that of the 32 only 10 had excess of attack rate, 9 of these being in the special area just referred to, 8 being urban and 2 rural districts. Of the 1,463 known attacks, 1,352, or 92 per cent., occurred in these ten districts, with rates per 10,000 of population of 31 to 3 and 26 to 1 as compared with the other 22 districts in the two epidemics. Judged either by attack- or death-rates, the exceptional incidence on this special area was heaviest in the second epidemic, at a season when enteric fever is not apt to be prevalent in this country. Dr. Barry enters at great length into the statistical data here briefly summarised, and, by an excellent series of maps, follows the course of the disease, fortnight by fortnight, in the invaded district as a whole and in certain towns in particular.

Dr. Barry likewise deals very fully with the sanitary circumstances of the special area, and, whilst he lays bare some glaring insanitary conditions, which call loudly for remedial action, he has been unable to find any community of sanitary circumstance other than water supply. But in this important element he found the ten excessively-invaded districts in common, in that all drank of Tees water distributed, after a process of sand filtration, through the works of the Darlington Corporation or the Stockton and Middlesbrough Water Board. This water was laid on to 39,566 houses (all but 447 in the special area), having 219,435 inhabitants, out of the total of 93,974 houses, with 503,616 inhabitants in the gross area. On the 219,435 persons consuming Tees water the attack-rates per 10,000 were 33 and 28 in the two epidemics, in the 284,181 persons drinking other water the rates were 3 and 1. Combining the two epidemic periods, 15 persons drinking Tees water were attacked for each unit of the remaining population.

It is difficult to read Dr. Barry's description of the pollutions to which the River Tees is subject above the water intakes and to believe that people have been content to consume its waters. This portion of the report is illustrated by a series of plates consisting of reproduced photographs revealing some of the "stinking abominations" along the banks of this "common sewer" and "public scavenger." We read of some twenty villages and hamlets, and of the town of Barnard Castle, draining to the river; of washings of highly manured lands, drainage of graveyards and farmhouses, of privies, urinals, waterclosets along the foreshore; of "loads of stinking refuse," ashes, midden refuse, gasworks refuse, and other accumulations of filth aiding the pollution of the river, especially in times of flood. So long ago as 1875 the river was known to be polluted, on the evidence of the present manager of the Water Board referred to; fifteen years later expert evidence pointed to the "disgusting and offensive" state of the Tees; and bacteriological examinations of its waters in 1887 gave indication of "profound sewage contamination" of this river, which had been held up to scorn as in "a disgraceful state of pollution."

Looking to the amount, character, and sources of the filth finding its way to the Tees, and also to the numerous opportunities which are known to have occurred for specific contamination of the river by the poison of enteric fever, it needed only times of flood, coincident with the periods of disease prevalence, to give reasonable explanation of the two outbursts. These floods actually took place, the epidemic periods being preceded, the one by a "much flooded" condition of the river due to excessive rainfall, and the second by "an 8-foot flood," due to melting snow. "Seldom, if ever," says Dr. Thorne Thorne, in concluding his introduction to the report, "has a case of the fouling of water intended for human consumption, so gross or so persistently maintained, come within the cognisance of the Medical Department, and seldom, if ever, has the proof of the relation of the use of water so befouled to wholesale occurrence of enteric fever been more obvious and patent."

[1] *Enteric Fever in the Tees Valley; Supplement to the 21st Annual Report of the Local Government Board, 1891-92* (C. 7054). Price 15s. 10d. Sold by Messrs. Eyre and Spottiswoode, East Harding Street, E.C.

IRISH DISPENSARY DOCTORS.

Deputation to Mr. John Morley.

On Tuesday last, Mr. Morley, Chief Secretary for Ireland, received a small deputation in support of the Bills introduced into Parliament during the late session, one to provide pensions, and the other for the reform of certain special grievances. There were present: Dr. W. G. Smith, President of the College of Surgeons: Mr. Edward Hamilton, President of the College of Surgeons; Dr. Kidd, President of the Royal Academy of Medicine; Dr. Meldon, President of the Irish Medical Association; Mr. Thornley Stoker, President of the Dublin Branch of the British Medical Association; Dr. A. J. Jacob, Sir Philip Smyly, Dr. Hepburn, Mr. Thomson, Dr. Oulton, and, on behalf of non-medical officers, Mr. Manning and Mr. Atkinson.

Dr. Jacob stated the case in favour of compulsory superannuation allowances.

The rest of the speaking was unfortunately monopolised by the lay representatives, and, as Mr. Morley's time was very limited, it was not possible to go into the proposals of the second Bill.

Mr. Morley was most cordial, and expressed his sympathy with the claims put forward on behalf of the dispensary medical officers. He would consult with the Local Government Board, and go into the question. Looking forward for another year he hoped an opportunity would be afforded to introduce the Bill, especially if there was an absence of any serious opposition to it.

SMALL-POX IN ENGLAND.

The record of small-pox in London last week was not so favourable as in recent previous weeks, 25 cases having been admitted to hospital, leaving 87 under treatment, against 79, 84, and 76 on the three preceding Saturdays. Two deaths were registered from the disease. Half a dozen attacks occurred in the West Ham Union. The disease continued to prevail in Bristol, where several fresh cases were heard of. In the Midlands there have quite recently been 17 cases under treatment at Nuneaton. At Aston Manor a dozen occurrences were noted last week, with further serious prevalence of small-pox at Birmingham, where the cases rose from 79 to 101 under treatment, fresh attacks occurring at the rate of 5 per diem, and alarm being felt at the widespread character of the epidemic. Visiting and liberty days at the workhouse have for the present been suspended as a measure of precaution. Two deaths were registered from

small-pox during the week. At Leicester the Sanitary Committee have just met with a refusal of the Beaumont Leys estate for small-pox hospital purposes, and seem as far off as ever from a solution of the site problem. At Walsall matters do not mend. The present hospital for 90 patients having been filled, a tent has been erected close at hand as a temporary expedient. Some 200 fresh cases occurred last month, the average of the week ended last Saturday being 8 or 9, with 10 on one day from Ryecroft, this locality and the districts of Blue Lane and Green Lane being specially affected. Attempted concealment of attacks is credited with causing spread of the disease.

In Yorkshire the Calverley Joint Hospital Board have again opened their institution for the reception of small-pox patients, and cases from Pudsey have been removed there. A separate staff of nurses is to be engaged in the small-pox building, which is moreover to be partitioned off from the other building to obviate, if possible, a repetition of the experience of some months ago, when infection was conveyed from one to the other. At Leeds it is proposed to leave for the new Council the decision as to the erection of a small-pox hospital, at a cost of £10,800, for thirty patients, on the Manston estate. Plans have been drawn up. At Bradford a portion of the Scholemoor Hospital, recently the scene of a fire, is to be rebuilt, at a cost of £300 for the needed repairs to two of the three buildings and the administrative block. There were ten deaths from small-pox in Bradford last week, with double that number of fresh attacks.

DIPHTHERIA IN LARGE TOWNS.

Coincidently with the waning of the scarlet fever epidemic we find ourselves face to face with an alarming increase of diphtheria. About 400 cases weekly have lately been reported, and, instead of the ordinary number of 30 deaths a week, the list has risen to from 80 to 90. In many ways this is a more serious matter than a considerable spread of scarlet fever, for diphtheria is of the two far away the more fatal disease, is much more difficult to treat, requiring in bad cases more skilled attention both on the part of the doctor and the nurse, more dangerous to transport by ambulance, and when dealt with in hospitals not specially constructed much more wasteful of space, it not being considered prudent to place more than about ten or dozen cases in wards built for twenty patients suffering from other diseases. In country places the progress of epidemics of diphtheria has often been checked at once by closure of the schools, but that has only been because there the schools provide the main opportunity for children to come in contact with each other. In large towns we can hardly hope for any such good result from such a measure, for, although school influence is probably just as active a factor in the spread of the disease in towns as in the country, it is in them far from being the only influence at work; still it is of the extremest importance that the utmost care should be taken to keep the schools free from infection, so that they shall be places of safety rather than centres of disease. Much has recently been done to rectify sanitary defects in the buildings under the control of the London School Board, but no perfection of building will prevent the spread of contagion from child to child when sitting side by side for hours together, and the exclusion of all cases of sore throat of every description is at the present moment the first duty of the managers.

The directions given to the head teachers by the London School Board are very explicit and are probably sufficient for the protection of their schools in ordinary times, but they are clearly not stringent enough in the face of a serious and widespread diffusion of such a disease as diphtheria. The teachers are directed that any child showing symptoms of an infectious disease or any child coming from a house where an infectious disease exists must be sent home at once, and information must be given to the superintendent of visitors and to the medical officer of health.

Under the Public Health (London) Act medical officers of health inform teachers of cases of infectious illness in houses from which children attend school, and this information the teacher must forward to the Board's medical officer and also to the superintendent of visitors, who take their own action upon it. It is clear then that when a child is once found to be suffering from an infectious illness he is fenced in by a perfect network of inspection and reports, and that all other children living in the same house are placed under an embargo in the same degree. Nor can they escape until a certificate is given by the medical officer of health that the premises are free from infection, when, after seven more days for the development of any disease they may have within them they can once more resume their education.

Clearly the weak spot is in the early detection of the cases. Teachers are supplied with an official summary of the symptoms of infectious diseases; attention is drawn to certain points which should excite suspicion, even before definite eruptions; thus they are told that "a child sickening for an infectious disease usually complains, perhaps, of headache, or perhaps of sore throat, and often the first symptom perceptible is a shivering fit and occasional sickness;" and under the heading "diphtheria," is the following: "This affection often comes on less suddenly and severely than scarlet fever. There is no eruption, but one or more white patches on the back of the throat, on the soft palate or on the tonsils." This is all very true, but it is a small thing on which to make the health of a school depend. In ordinary times the common sense application of such knowledge as this may be all that is practicable but, bearing in mind all that Dr. Thorne Thorne has so ably laid down in regard to the effect of "school influence" and of so-called "sore throat" in disseminating this disease, we would suggest that in the presence of such an epidemic as that which is now spreading in our midst, it would be not only wise but economical, in the long run, to institute a daily examination, by qualified medical men, of the scholars of all schools within the epidemic area, until the danger shall have passed away.

The mere exclusion of cases which show "white patches" is not enough; interference is too late if we are to wait for the formation of white patches before we isolate. All inflammatory and doubtful throats should be kept out of the schools, and the selection of those which should be eliminated is a matter for medical skill and experience.

LITERARY INTELLIGENCE.

The last number of *Studies from the Biological Laboratory* of the Johns Hopkins University, Baltimore (vol. v, No. 4), edited by Professor H. N. Martin and Professor W. K. Brooks, contains papers by E. A. Andrews on An Undescribed Acraniate, by Maynard M. Metcalf on the Embryology of Chiton; on Cypress Knees on the Roots of the Taxodium Distichum, by Dr. Lotsy; and on Dasya Elegans, by B. W. Barton.

A *History of the Medical Profession of Upper Canada*, by Dr. Canniff, is ready for publication, and will appear as soon as the number of subscribers, who now amounts to 240, reaches 300. Dr. Canniff has been collecting material for his work for thirty years.

The *St. Bartholomew's Hospital Journal*, of which we have received the first number, enters on what we hope will be a long and prosperous existence with every appearance of vigorous life. The editorial programme states that "it will be circulated among the students, past and present, of St. Bartholomew's Hospital, being the *Journal* of the Hospital and the organ of the Amalgamated Clubs." It is further stated that the *Journal* will in no way clash with the *St. Bartholomew's Hospital Reports*, "for there is an enormous mass of material which never finds its way into either the *Reports* or any of the weekly or monthly medical papers." The literary *pièce de résistance* is an address to the Abernethian Society by Sir Dyce Duckworth on "Clinical Aptitude." Incidentally the distinguished lecturer touches on that "Eastern question" of education whether the *literæ humaniores* provide an adequate mental training for those who intend to enter the medical profession. While admitting that "there is justification for the so-called modern side," Sir Dyce Duckworth deplores "a very sad decline in letters, in literary attainments and tastes, even among some of the best of modern students of medicine." He adds: "The inability to write and spell, even the English language, like educated men is very widespread in our profession, while the effort to write a prescription in decent (dog) Latin is too commonly beyond the powers of men who have taken brilliant degrees in science." This is a sad confession to

have to make about a profession which still claims to be called "learned," but it may be doubted whether dog-Latin prescriptions are among the things that the world would not willingly let die. According to Sir Dyce Duckworth, things were different twenty-five years ago. If this be so, the fact suggests some curious reflections, for it is within the last twenty years that the older universities have once more begun to take an active part in the training of medical neophytes; and with such an afflux of B.A.'s and M.A.'s into our ranks, it seems odd that our Latin should be so much smaller than it was when birds of such plumage were comparatively rare. Perhaps the marvel is to be explained by the fact that *artium magistri* nursed on Cicero and Virgil cannot bring themselves down to the proper level of *caninity* for the composition of an orthodox prescription.

ASSOCIATION INTELLIGENCE.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

Thames Valley Branch.—The first meeting of the year will take place at the Talbot Hotel, Richmond, on Wednesday, December 6th; Dr. C. C. Scott, President, in the chair. Applications for election to be sent to R. N. Goodman, Honorary Secretary, Elmside, Kingston-on-Thames.

South of Ireland Branch.—The annual general meeting of this Branch has been postponed to Saturday, November 11th, and will be held in the School of Art, Nelson Place, Cork, at 4.30 P.M. The annual dinner will be held in the Imperial Hotel, Cork, on the same evening at 6.30 P.M. Members whose intention it is to attend the dinner and meeting will kindly notify to Dr. Philip Lee, Honorary Secretary, 25, Patrick's Hill, Cork.

Southern Branch.—An ordinary meeting of this Branch will be held at the Grosvenor Hotel, Queen's Gate, Southsea, on Tuesday, November 7th. The chair will be taken by the President (Mr. F. W. Way) at half-past 4 P.M. Agenda:—Election of Honorary Secretary of District. Living Specimens:—Dr. F. Pearse: Scleroderma. Dr. Cole Baker: Ulceration of Palate. Mr. Newby: Aneurysm of Aorta. Pathological Specimens:—Dr. Ward Cousins: Innominate and Aortic Aneurysm; simultaneous ligature of both subclavian and carotid arteries. Dr. Guillemard: A South African Health Resort. Dr. Ward Cousins: New Chromatic Dial. Gentlemen who are desirous of introducing patients, exhibiting pathological specimens, or making communications, are requested to signify their intention at once to the Honorary Secretary.—J. Ward Cousins, Southsea, Honorary Secretary.

Border Counties Branch.—The autumn meeting of the above Branch will be held at St. Boswell's at an early date. Members desiring to read papers, etc., will please communicate with the Honorary Secretary, James Altham, Penrith.

Lancashire and Cheshire Branch.—An intermediate meeting of this Branch will be held at Nantwich on Thursday, December 7th. Gentlemen who wish to read papers, show patients, or bring any other business before the meeting, will kindly communicate as early as possible with the Honorary Secretary, James Barr, M.D., 72, Rodney Street, Liverpool.

Metropolitan Counties Branch.—A special meeting will be held at the rooms of the Medical Society, Chandos Street, Cavendish Square, on Tuesday, November 14th, at 4 P.M. Business: To adopt the revised code of laws approved by the annual general meeting on June 20th, 1893.—Andrew Clark, Isambard Owen, Honorary Secretaries.

BATH AND BRISTOL BRANCH.

The first ordinary meeting of the session of this Branch was held at Clifton on October 25th; Dr. Shingleton Smith, President, in the chair, and thirty-eight members being present.

Communications.—Dr. Watson Williams read a paper on the Treatment of Diabetes with Pancreatic Extract, which was discussed by Dr. Waldo, Dr. Parker, and the President.—Dr. Waldo showed a case of Motor Aphasia, upon which Dr. Rogers made some remarks.—Mr. A. W. Prichard communicated notes of a Curious Case of Otitis Purulenta Media, and Dr. Fyffe and Mr. Harsant joined in the discussion which followed.—Mr. A. W. Prichard also read a paper upon the Treatment of Hallux Flexus, and the following gentlemen made comments thereon: Dr. Jas. Swain, Mr. Ewens, Dr. Theodore Fisher, and Mr. F. Poole Lansdown.—Dr. J. Michell Clarke read a paper entitled Some Considerations on Syphilis of the Central Nervous System. In the discussion which ensued the following took part: Dr. Waldo, Dr. Fyffe, Dr. Rogers, Dr. Watson Williams, Mr. Ewens, Dr. Hailes, and Dr. Shingleton Smith.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.

The annual meeting of this Branch was held in the Royal Infirmary, Aberdeen, on October 21st, 1893, when there was a large attendance of members. The retiring President, Dr. Ogilvie Will, and afterwards the President for the ensuing year, Dr. Paterson (Inverurie), took the chair.

Report of Council.—The report of Council for the past year was submitted, showing the Branch membership to be now 140, detailing the changes that had taken place during the past year.

Treasurer's Balance Sheet.—The balance sheet for the year was then submitted, and showed a balance of £45 11s. 4d. to the credit of the Branch. The Council's report and the Treasurer's balance sheet were unanimously adopted.

Election of Officers.—The following officers were elected for the ensuing year: *President-elect:* Dr. Stephenson. *Honorary Secretaries:* Dr. Mackenzie Booth and Dr. Thiselton Urquhart. *Honorary Treasurer:* Dr. Dalgarno. *Members of Council: For the Country:* Dr. Wilson, Old Deer; Dr. Ferguson, Banff; Dr. Taylor, Keith. *For the Town:* Dr. Blaikie Smith, Dr. Rose, and Dr. Russell, Aberdeen.

Summer Meeting, 1894.—On the motion of Professor Ogston, Ellon was chosen as the place for the summer meeting, 1894.

Conjoint Meetings.—Dr. Rose gave notice that at the next meeting in November he would move the following motion: "That the Aberdeen, Banff, and Kincardineshire Branch of the British Medical Association invite the Aberdeen Medico-Chirurgical Society to hold their meetings conjointly, that these meetings be held monthly alternately at the meeting places of the two Societies, that the Secretary of the Society in whose meeting place the meeting is to be held be responsible for the arrangement of the programme of the meeting, and that the first joint meeting be held in the Medico-Chirurgical Society's Hall, King Street, in January, 1894."

Communications.—A paper was read by Dr. Barclay, Banff, on his experience of the treatment of cases of Myxœdema and Scleroderma by the administration of Thyroid Extract, and the paper was illustrated by a number of photographs of the patients treated.—Dr. J. Peter Watt, M.O.H. for Aberdeenshire, read a paper on Preventive Measures against Tuberculosis. After giving statistics regarding the prevalence of tuberculosis and its communicability, Dr. Watt referred to its transmission from animals to man (more especially by cow's milk), to preventive measures taken against this in other countries and their success, and indicated the direction in which it was advisable to initiate preventive measures in this country.—The discussion on Dr. Watt's paper was adjourned to a future meeting, and the thanks of the meeting were accorded to Drs. Barclay and Watt for their respective communications.

Vote of Thanks.—The proceedings terminated with a vote of thanks to the Chair.

Hospital Visit.—In the forenoon a hospital visit was made, and demonstrations given to the members present.

Annual Dinner.—In the afternoon the annual dinner of the Branch was held in the Imperial Hotel, Stirling Street, when there was a good attendance of members, and a pleasant evening was spent under the presidency of Dr. Paterson, Inverurie.

HALIFAX (NOVA SCOTIA) BRANCH.

The regular fortnightly meeting was held at Halifax on October 12th; Dr. D. A. Campbell, President, in the chair. There were also present Drs. Reid, Campbell, Anderson, Surgeon-Major Dorman, Surgeon-Captain Barefoot, Surgeon-Captain Fowler, Drs. Kirkpatrick, Cunningham, Goodwin, Finn,

Curry, Milsom, Trenaman, De Witt, Mader, and Carleton Jones.

Communications.—Dr. KIRKPATRICK exhibited a case of Cataract; also one of a Recurring Papilloma on the Vocal Cords.—Dr. CAMPBELL showed a case of Double Facial Paraysis, a case of Spastic Paralysis, and a case of Multiple Sclerosis.

Supper.—After the scientific business the members sat down to supper, the President, Dr. Campbell, presiding.

OXFORD AND DISTRICT BRANCH.

A GENERAL meeting of this Branch was held at the Radcliffe Infirmary on October 27th, the PRESIDENT (Mr. Iles) in the chair. Thirty members were present.

Confirmation of Minutes.—The minutes were read and confirmed.

New Members.—Messrs. Robertson, Hitchins, and Shore were elected members of the Branch.

Communications.—Mr. SYMONDS read notes of three cases of Suprapubic Lithotomy and showed the calculi.—Dr. BROOKS showed a curious and interesting case of Skin Pigmentation.—Dr. COLLIER opened a discussion on the Infectiousness of Phthisis. Mr. HEMMINGWAY, Mr. WINKFIELD, Mr. CHEATLE, Dr. WILSON, Dr. YELF, and Dr. HAYMAN spoke on the subject.

Medical Aid Associations.—Dr. GRIFFIN, of Banbury, gave notice that he would take the opinion of the Branch on the question, "Ought medical men to meet in consultation medical officers of medical aid associations?" and that he would move a resolution.

NORTH OF IRELAND BRANCH.

THE autumn meeting of this Branch was held at Belfast on October 26th, 1893. There was a good attendance of members.

Confirmation of Minutes.—The minutes of the spring meeting were read and confirmed.

The late Professor Dill.—The SECRETARY reported that a letter of condolence, signed by the President, the President-elect, and the Secretary, had been sent to the relatives of the late Professor Dill. This had been acknowledged by the Rev. S. M. Dill, whose reply was read.

President's Address.—The PRESIDENT, Dr. J. Campbell Hall, of Monaghan, then delivered his inaugural address. He called attention to the part played by the products of the growth of micro-organisms in the causation of disease, and to the therapeutic influence which such products might in some cases exert, particularly by the production of high temperature. A hearty vote of thanks to the President was passed by acclamation.

Resignation of Dr. Byers.—The SECRETARY having signified his desire to resign, the PRESIDENT, speaking on behalf of the members of the Branch, congratulated Professor Byers on his recent appointment. He referred to the invaluable services which Dr. Byers had rendered to the Branch during the past six years, and expressed the hope that Dr. Byers could be prevailed upon to reconsider his resignation.—Dr. BYERS said that pressure of work would now prevent him from being able to give sufficient time to the discharge of the duties of the office.

Appointment of New Secretary.—On the motion of Mr. FAGAN, seconded by Dr. J. M. PALMER, Dr. John Campbell was appointed Secretary.

Communications.—Dr. RICHARD PURDON showed a case of Alopecia Totalis in which the hair had commenced to grow on the upper lip after an interval of fifty-three years.—Dr. CECIL SHAW showed a rare case of Progressive Opacity of the Cornea in a child.—Dr. PALMER (Armagh) showed a Tumour in the form of a potato, weighing about a pound, and removed from a child 2 years old. There was a history of maternal impression.—Dr. ST. CLAIR BOYD showed a new Operation Sheet for use at abdominal and perineal operations. He also read notes of a confinement in a patient on whom he had operated for Complete Rupture of the Perineum.

New Members.—Dr. Vint (Belfast) and Professor Thompson (Queen's College) were elected.

SPECIAL CORRESPONDENCE.

BERLIN.

The Cholera and the Water Supply.—Professor Virchow.—Reforms at the Charité.—Boycotting of a Hospital.—Forthcoming Industrial Exhibition.

ISOLATED cases of cholera still occur in Berlin. On October 26th a man was taken ill who for three days had been drinking large quantities of Spree water. In Potsdam, too, a fatal case has occurred. This explains the feelings of delight and relief with which the Berlin population have received the news of the opening of the new waterworks on the Müggelsee. This lake is about 15 miles above Berlin—above as regards the rivercourse, for the Spree flows through it. The supply is taken from the most favourable spot—120 metres from the shore—and the sand filters are covered throughout. They are to give a supply of 122,000 cubic metres when all the filters are finished. At present only half are in working order but all are to be completed by next year. Then the Stralauer waterworks, the supply of which is open to many hygienic objections, are to be definitively closed. The opening of the new waterworks did not take place without an elaborate ceremony at which many official personages—the directors of the municipal hospitals, and Professors Robert Koch and Virchow—were present.

Virchow's installation as honorary president of the Berliner Medizinische Gesellschaft was the occasion of enthusiastic demonstrations. The meeting hall in the Langenbeck House was decorated with plants and flowers. Professor v. Bergmann was the speaker, and handed Virchow the diploma of his "unanimous and enthusiastic" election to the position of honorary president. In his reply, Virchow spoke of his doctor's dissertation—written fifty years ago—on inflammation, especially of the cornea, and of his scientific work since then. He said that, in spite of the many struggles he had had to face, he had always been at heart a man of peace. The proceedings terminated cheerfully by a supper at the Savoy Hotel. Many of Virchow's former pupils had come from different universities to do honour to their beloved teacher.

A series of alterations—or rather reforms—are to be inaugurated at the Charité Hospital. Complaints as to overcrowding of patients and insufficient medical attendance have been repeatedly made of late, and an enlargement of the building with an increase of the medical staff is considered desirable. A few days ago the Prussian Kultus Minister Dr. Bosse, himself visited the hospital and went over each department. It is to be hoped this visit means that serious attention will be given to the matter in the proper quarter.

Apropos of the Charité Hospital, a curious fact is that it has been "boycotted" by the Social Democrats. An order has been issued by the party forbidding its members to go to the Charité, the reason alleged being that the syphilitic patients are treated with indignity.

An industrial exhibition on a large scale is planned for Berlin in the year 1896. The department of "Hygiene and Arrangements for the Public Weal," will be worthily represented, if we may judge by the committee which is to take charge of it, which includes Virchow, Koch, Olshausen, Lassar, and Baginsky.

PARIS.

The Cholera.—Jubilee of the Paris Surgical Society.—Afternoon Clinical Lectures.—Changes in the Professorial Body.

THE epidemic closely resembling cholera which has broken out in the north of Paris is attributed to a bad water supply. The wells in the localities where the epidemic was specially severe have been examined and have been found to be contaminated by sewage. During the second outbreak of cholera at Brest 267 persons have been attacked and 66 have died; very few children or old people have suffered in the epidemic.

The Paris Surgical Society has celebrated the fiftieth anniversary of its foundation. The large amphitheatre of the medical faculty was tastefully decorated for the occasion. M. Marjolin, one of the founders of the Society, was honorary

president. The acting president, Professor Verneuil, after referring to the death of Professor Léon Le Fort in touching terms, presented to M. Marjolin, the Nestor of French surgeons and the distinguished son of a distinguished father, the medal commemorating the fiftieth anniversary of the Society he had helped to found. M. Monod sketched the career of the Society, describing the sea of difficulties and troubles it had passed through before getting into smooth waters. He referred to what was called "enterprising surgery," saying that he knew some talked of a *folie opératoire*, but he believed that if the distinguished professors and teachers now dead could see and hear, they would approve of the present generation of surgeons and be proud to recognise them as their pupils. Drs. Reverdin and Boeckel then spoke in terms of cordial appreciation of the help rendered by the Society to French surgery.

The *Journal des Connaissances Médicales* urges that the special clinical lectures given in certain Paris hospitals should be given in the afternoon. M. Grancher was the first to adopt this innovation three years ago; and his crowded lecture theatre proves the wisdom of the change.

The successor of Professor Charcot at the Academy of Sciences is M. Potain; at the Salpêtrière his successor is not named. M. Brissaud, one of his pupils, is appointed to continue the lectures for a year, and during that time a permanent successor will be chosen. M. Ricard, *professeur agrégé* at the Paris Medical Faculty, has been appointed to replace M. Lannelongue during one year, and to give the pathological lectures.

GLASGOW.

The Opening of the Medical Schools.—Entries and Results of Examinations.—Changes in the Teaching Staff: Professor Leishman's Resignation.—Effects of the New Ordinances.—The University and Queen Margaret College: The Spider and the Fly.—The Faculty of Physicians and Surgeons.

The Glasgow medical schools are only getting under way. The formal opening of each took place a fortnight ago, Professor Charteris giving the address at the University, Professor King at Anderson's College, and Professor Kent at St. Mungo's College. It is not yet possible to say how the entries will compare with those of former years, as the returns are not yet made up, and it will be difficult in any case to make an accurate comparison for various reasons. For instance, at the University matriculation does not end till November 14th. Again, by the new regulations a student must pass all the subjects of the preliminary examination at one and the same time, whereas formerly the preliminary examination might be passed in detachments, and the student might begin his medical studies before he had passed all his preliminary subjects, though he could not register as a medical student till all were passed. Besides, the leaving certificates of the Scotch Education Department are accepted in lieu of the preliminary examination, and the passes in the latter are now no index to the number of students coming up for medicine.

For the new preliminary examination at the University there were 59 candidates, of whom 21 passed. A comparison between the results of the professional examinations is also difficult, since under the new regulations the first professional includes botany, zoology, physics, and chemistry; and a student may pass in one subject, and be credited with that, while he fails in the others. Thus under the old regulations 65 appeared for the first professional, of whom 38 passed, 4 of the candidates being women, all of whom passed; while for the first professional under the new regulations there were 149 candidates, of whom 11 were women, and of these 92 passed in one or more subjects, 10 being women. For the second professional there were 139 candidates, all under the old regulations, of whom 9 were women; of these 94 (6 women) passed. For the third the candidates numbered 100 (3 women), and the passes 64 (2 women).

There are some changes in the teaching staff. At the University Professor Leishman's chair is vacant through the ill-health of its late occupant, who since 1868 has served the University with dignity and distinction. The appointment of the new professor was expected ere this, the candidates being Dr. Berry Hart, of Edinburgh; and Drs. W. L. Reid and Murdoch Cameron, of Glasgow. In St. Mungo's College, Dr. Marshall succeeds the late Dr. Milne in the Chair of Chemistry, Mr. R. T. Kent occupies the Chair of Anatomy in room of Mr. Henry E. Clark, appointed to Surgery, and Dr. D. N. Knox succeeds Professor Macewen in Clinical Surgery. In Anderson's College, Dr. R. Barclay Ness occupies the Chair of Materia Medica, vacant by Dr. Napier's resignation.

Want of funds still hampers the extra-mural schools; in the University it is yet doubtful what the new ordinances and the new financial regulations will bring forth in the shape of laboratory extensions and additions to the facilities for practical teaching. But the salaries of professors being limited by ordinance, the Court is compelled to provide for the payment of assistants and the upkeep of laboratories. In some instances this has already caused the appointment of additional assistants, with, of course, meagre salaries, but the upkeep of laboratories will, for a time at least, be regulated by the expenditure of previous years, and few new developments need be anticipated till experience teaches the Court what funds will be at their disposal. The new ordinances are, however, markedly increasing the number of pure science students, for the higher teaching of whom provision is being made.

The University for the first time begins with a fully-organised department for women in Arts, Science, and Medicine, the final absorption of Queen Margaret College having taken place. When arrangements were yet being made, and the public was being appealed to for funds to endow Queen Margaret College, the language of beautiful metaphor was employed to set forth the proposed amalgamation. The University and Queen Margaret College were said to be about to wed, and the public was invited to provide a dowry befitting the bride. The nature of the amalgamation is now revealed, for Queen Margaret College had a complete staff of lecturers in Arts and Medicine. In Arts several were University Professors who had associated with them, on equal terms, other lecturers, in some cases, though not in all, their University assistants. The Professors gave a few lectures, their associates conducted the chief part of the course as they themselves deemed best. In Medicine only one was a University Professor; the others were independent lecturers without professorial associates. But the absorption being accomplished, the University Court asked each Professor if he were willing to take over the teaching of women in his own subject with the aid of his chief assistant. In Arts most of the Professors have agreed to do so, and now the staff of what was formerly Queen Margaret College appears as Professor So-and-So "and assistant." In many cases the assistant is the man who was formerly the independent lecturer, but now he must just lecture when he is told, and teach according to order, and his identity is obscured in the phrase "and assistant." Should he cease to be assistant, he ceases also to be lecturer to Queen Margaret College. Thus the funds raised from a sympathetic public to endow Queen Margaret College became, in effect, an endowment to the professorial chairs, since they go to raise the salaries of the chief assistants, and thus indirectly benefit the Professors, who are thereby enabled to claim more of their assistants' time and labour. In Medicine the Professors, with exceptions, declined to take over the teaching of their subjects in Queen Margaret College, and so most of the lecturers have been reappointed for one year. But it is clear that what may happen to one may happen to all, and the men whose time and labour and zeal made, in a remarkably short time, the reputation of Queen Margaret College Medical School for Women may unceremoniously, and without notice or recognition, be dropped and their departments become mere appendages to the University chairs. So the fair promise of a magnificent independent College for Women, with a staff of lecturers prepared to adjust their courses of lectures to suit the requirements of women, independently of the need of considering male students, and with University privileges and degrees open to it, is hopelessly destroyed, lest a breach should be made in the ancient ramparts of professorial monopoly.

At the annual meeting of the Faculty of Physicians and

Surgeons, Dr. David Yellowlees was again unanimously elected President.

MANCHESTER.

Southern Hospital.—Professor Leech.—Entries at Owens College.

The annual meeting of the subscribers to the Southern Hospital for Diseases of Women and Children was held last week. The Committee have determined to erect a new hospital on a site having a frontage of 60 yards to Oxford Road and 130 yards to Stanley Grove, on the Owens College Hospital Gardens. The entire area of the site comprises 9,986 square yards. An appeal has been made to the public for donations towards the building and extra maintenance funds, and already about £6,000 has been received or promised. It will be necessary to raise £12,000. During the year the hospital has expended £3,494 on its general work, leaving a deficiency in the year's working of £397. In the out-patient department 1,365 women and 3,283 children have been under treatment, while 1,500 maternity cases were attended to; in-patients, 203 women and 297 children.

Professor D. J. Leech has been elected Chairman of Convocation and representative on the Court of Victoria University.

The revised list of entries at Owens College shows an increase over that already published in the British Medical Journal, and throughout all departments there is great activity, which augurs well for this proving a thorough working session. The approaching completion of the magnificent new laboratories for physiology, pathology, forensic medicine, toxicology, and public health, together with the now more intimate union between the College and the Infirmary, have doubtless contributed to this result. Special arrangements have been made for candidates preparing for the examinations held by the Conjoint Board.

CORRESPONDENCE.

MEDICAL MISSIONARIES.

Sir,—At page 645 of the British Medical Journal of September 16th is an article under the head of "Unqualified Medical Missionaries," to which you will in all fairness allow me to reply, as it bears upon the Zenana Medical (Missionary) College. I should have replied before, but was out of town. The term "medical missionary" has been used in reference to those ladies who have not taken the five years' course, and have been working as "missionaries with medical knowledge" in India, China, Burmah, Ceylon, Africa, Syria, and all those countries where women only are allowed to minister to women and their children, to distinguish them from missionaries with no knowledge of medicine. To those ladies it is immaterial what they are called, since they work not to gain a name for themselves or make a fortune, but to carry out a duty laid upon them. Our committee would be glad to explain to you, Sir, or any of your readers, the home and foreign work of the College students whose work in the countries I have named has been signally successful in the case of thousands upon thousands in times of suffering, sickness, and maternity. The wants and needs of those poor women and children are urgent and great, and to meet them, even though only in a measure, the Zenana Medical College was instituted. Would that there were lady doctors enough to meet all those wants and needs. Native help, as is known to those of us who have spent some time in those countries, is often worse than useless, adding torture to suffering, and death where health might have been renewed, and the poor sufferers restored to life. I enclose you a syllabus of our shortened curriculum; a copy of our diploma, given by our board of examiners after our two years' students have passed their examinations successfully; also, as a sample, a record of some of the work done by our former students in their mission stations, where, otherwise, there would be no one to minister to the millions who have no helpers at all, or to the missionary staff itself. It will let you, Sir, and your readers know that at our College the students receive no mere smattering nor mere superficial knowledge, but that practical instruction which is of value abroad, and which has been proved of such avail. When I say that our former pupils have over and over again performed successfully every operation in midwifery—save Cæsarean section—and in surgery have even done ovariotomy successfully, and that they have "nursed" their cases with a like success; have had and now have their hospitals and dispensaries, their medical schools for the natives on our lines, as well as their home visiting, it will show the value of the training received at the Zenana Medical (Missionary) College.—I am, etc.,

G. de G. Griffith,
Hon. Secretary, Zenana Medical (Missionary) College.
58, St. George's Road, S.W., Oct. 12th.

WOMEN AND SANITARY WORK.

Sir,—It is several years since I first proposed to form a municipal guild of both sexes, to stir up and interest an apathetic public to the great advantages to be derived from the study of municipal life and work. The legislation of the last few years has moved so rapidly that it has outrun the supply of practical workers necessary to carry out the Acts in an educated and intelligent manner. In face of this I now propose to remodel my old idea, and, with the assistance of an awakened public, to deal with the practical and educational side, and confine operations to women only, leaving the men, who have selfishly kept to themselves the municipal work of the past—and grossly muddled much of it.

If our sturdy ancestors of the fifteenth century could return to us, what would they think of our want of independence and our neglect of the present improved opportunities for good? The guilds of the middle ages and their work in connection with the municipal life of those days must ever prove a fascinating subject to students who prefer real liberty and good work to the ambitions and quarrels of kings. London is the place of all others peculiarly suitable for establishing a guild such as is now proposed, as she owes so much of her past glorious history to the guilds of our ancestors. It is to be hoped that one with so good an object will thrive in such a congenial atmosphere. In this letter I can only give a brief outline of the proposed scheme.

All must be educated up to a certain standard before joining the guild, as men are before matriculation at the universities. The students will have to live at least a year at the guild house and subject themselves to college discipline. Some of the prizes open to women after graduating will be public analysts and sanitary inspectors. Both of these offices and others are quite within the scope of women's work of the future.

With district and parish councils at hand, an army of clerks will be required, and influence and jobbery will place incapable men in office.

If women will assert themselves now is their opportunity. In addition there is a wide field for trained municipal women in the English-speaking countries both inside and outside our empire, especially for sanitary work. Though much has been done in our day in this country, there are still many dark and dirty spots, though we are a long way ahead of other nations. In establishing the guild there is no intention to interfere with existing societies, and those who join will do so with a view to get a training to fit them to earn their living. Everything taught will be of the most parochial character; there will be no room for speculative themes, fancy religions, or fancy politics. The success of the guild must depend on the exertions of the women themselves.

There should be at least eighty women employed in London at once under the Factory Acts, and there were not a score forthcoming who passed the modest educational test put to the candidates at the recent appointment of women inspectors made by the Kensington vestry.

I have already received many promises of support, and a very desirable building in a central position is available for the use of the guild.—I am, etc.,

Brompton Square, S.W., Nov. 1st. John Braye.

CERTIFICATION OF MIDWIVES.

Sir,—As the accompanying petition is to be presented to the General Medical Council at its November session, and as I wish to obtain as many signatures as possible to it, may I ask each practitioner who agrees with the contents of this pe-

tition to write his name, qualification, and address across a slip of paper, all on one line, and send the slip to me, so that I may paste it on the petition form?—I am, etc.,

Liverpool, S., Oct. 30th. ROBERT R. RENTOUL.

To the President and Members of the General Council of Medical Education and Registration of the United Kingdom.

The Petition of the undersigned medical practitioners

Humbly sheweth:

1. That certain registered medical practitioners and medical societies have, without the permission of your Council, taken it upon themselves to deliver lectures on midwifery to women, and to grant certificates or diplomas to them, which are stated to give the holders the right to practise midwifery, or to act as midwifery practitioners.

2. That during the year 1892 two Midwives Registration Bills were introduced into the House of Commons with the view of giving legal recognition to a new order of midwifery practitioners, other than those recognised by the Medical Acts; and that the Select Committee of the House of Commons in their report, issued August, 1893, recommend that legislation upon this subject should take place.

3. That if a new order of midwifery practitioners be established, such action would be retrograde and a danger to the public, as it tends to repeal the Medical Act, 1886, which enacts that, if any persons wish to practise midwifery, such persons must, as well as studying for five years, pass a qualifying examination, not only in midwifery, but also in medicine and surgery.

4. That the great aim of the Medical Act, 1886, is to prove conclusively that to successfully practise midwifery, and to afford efficient help to women, a complete knowledge, not only of midwifery, but of medicine, surgery, and therapeutics, is necessary, so that those diseases and conditions which frequently complicate pregnancy, delivery, and the puerperal state may be recognised and treated, a like medical knowledge being needed for the proper treatment of newborn infants.

5. That the weighty recommendation of the Royal Commissioners on the Medical Acts, 1882, bearing upon this complete education, is as follows: "There is no point of medical reform on which there is so general an agreement as that the holding of a licence ought to imply the possession of a complete qualification for practice—that is to say, the attainment of a sufficient standard of proficiency in all the three essential branches of medical practice—medicine, surgery, and midwifery;" and your petitioners trust your Council will see there must be but one high standard of education in obstetrics; that the best obstetric skill may be within the reach of all, so that those of limited means and the poor may not be dependent upon an inferior order of midwifery practitioners.

6. That those Royal Colleges which had power to examine and grant a diploma or certificate in midwifery to those who had neither a medical nor a surgical qualification have allowed such power to lapse; thus showing they are opposed to any retrograde movement in medical education and examination, or a return to the dangerous system of "single" qualifications.

7. That if your Council permit medical practitioners to grant certificates or diplomas which profess to authorise monthly nurses and other persons to practise midwifery, this sanction by your Council will encourage other medical practitioners to grant certificates or diplomas to medical or to surgical nurses and other persons, thus intensifying the present evil and degrading the Faculty of Medicine.

8. That the number of maternity patients now at the disposal of schools for teaching medical students being strictly limited, it follows that this number being encroached upon for the training of another order of midwifery practitioners, the present difficulty in securing the proper clinical instruction in midwifery of medical students will be increased. We would call the attention of your Council to the unpleasant exclusive dealing adopted by the authorities of the Poor-law infirmaries, the City of London Lying-in, the British Lying-in, and the Clapham Maternity, where male medical students are excluded from clinical instruction, but where pupil midwives are admitted for training.

9. That a considerable number of confinements being conducted by midwives or such midwifery practitioners, and newborn infants being also treated by such persons, it follows that a wide and rich field is withdrawn from the newly licensed medical practitioner whereby he might perfect his knowledge in midwifery and diseases of infants by means of such a post-graduate course.

10. Your petitioners have followed with interest the action of your Council at the November session, 1892, in reply to a memorial upon the same subject, and also the remarks of the President at the May session, 1893.

11. Your petitioners would call your attention to Clause 34 of a Medical Bill which was introduced into the House of Commons by Messrs. Hawes, Ewart, and Hutton in February, 1841, and in which it was proposed that from and after a certain date, "no corporation sole, or corporation aggregate, nor any university, nor any person whatsoever, except under the provisions contained in this Act, shall have the power of granting any diploma, certificate, or licence to practise medicine ....." Therefore your petitioners humbly pray:

(*a*) That your Council make a rule to the effect that if any medical practitioners, without the authority of your Council, or unless under the authority of the Medical Acts, take it upon themselves to grant or give any certificate or diploma to any monthly nurses or other persons who have not complied with the recommendations of your Council relating to the preliminary examination and course of professional study, and which profess to authorise the holder to practise midwifery, such action will, when brought before your Council, be regarded by your Council as charges of "infamous conduct" under Section 29 of the Medical Act, 1858.

(*b*) That if any medical practitioners, without the authority of your Council, or unless under the authority of the Medical Acts, take it upon themselves to grant certificates or diplomas to medical or surgical nurses, or to any persons who have not complied with the recommendation of your Council relating to the preliminary examination and course of professional study, such certificates professing to authorise the holder to practise any part of medicine or surgery, your Council will hold such action to be "infamous conduct" under Section 29 of the Medical Act, 1858.

(*c*) And your petitioners earnestly request your Council to have a Bill introduced into Parliament with the view of making it illegal in any persons, other than those universities and corporations recognised under the Medical Acts, to grant any certificate or diploma which professes to authorise the holder to practise any branch of medicine, surgery, midwifery, or dentistry.

And your petitioners will ever pray.

PRESCRIBING CHEMISTS.

SIR,—One of your correspondents on the above question charges certain of his professional brethren with "trespassing on the domain of the chemist" because they dispense their own medicines, admitting, however, that in certain cases it is necessary for them so to dispense. The matter should, I think, be viewed in another light, not simply in the interest of either physician or chemist, but also in the interest of the poor suffering public. The physician, by his professional education and training, is competent both to prescribe and dispense his own medicines. This, however, cannot be said of the chemist. While we admit without question that he is competent to dispense, we cannot allow that he is competent to take the place of the prescribing physician, and yet this is what he does. As a matter of fact, the chemist of to-day often illegally arrogates to himself the office and position which belongs only to the qualified apothecary.—I am, etc.,

October 28th. F.R.C.P.E.

SIR,—I have read Dr. Benjamin's letter in the BRITISH MEDICAL JOURNAL of October 28th, but cannot say that I endorse his opinions.

In the first place, medical men do not "overstep the bounds of their profession" when they dispense their own medicines, and the assumption that they do shows ignorance on Dr. Benjamin's part of the history of the medical profession. Their education includes practical pharmacy, their diploma entitles them to practise medicine, surgery, midwifery, and pharmacy, and the dispensing of medicines has always from the beginning formed an integral part of the daily work of the apothecary or general practitioner.

In the second place, no part of a druggist's or pharmaceutical chemist's education teaches him to diagnose one disease from another, or to select the appropriate therapeutic measures for its treatment, and his diploma of M.P.S. does not entitle him to do so legally. They are therefore most certainly "overstepping the bounds of their profession" when they attempt to practise as apothecaries.

Dr. Benjamin's argument may therefore be stated as follows: That (1) if we prevent a chemist from doing what is not a part of his profession, and what he has no legal right to do; (2) we must take away from the practitioner of medicine the privilege of doing what has always been his prerogative. This is a *reductio ad absurdum*.

It has been urged that the constant handling of prescriptions by a chemist cannot fail to impart to him a certain amount of knowledge of the treatment of disease. I fail to see how the mixing of drugs can either teach the mixer to differentiate one disease from another, or how the reading of a prescription can acquaint the reader with the considerations which prompted the physician who wrote the prescription to select the drugs that he did. As well might we aver that the constant copying of legal documents by a law writer would endow him with the power of giving valuable advice upon intricate cases of law.—I am, etc.,

October 31st. PRACTITIONER.

INDIAN HEMP AND INSANITY IN EGYPT.

SIR,—"Pyramid" asks for proofs of my assertions. First, as regards mania, of course the subjects of it are not allowed to remain at large when they are dangerous, and for the most part their delusions do not take a dangerous form. A large proportion of them are looked on as holy men, and supported by the gifts of the charitable. "Pyramid" makes a great mistake in saying that "one sole lunatic asylum suffices for all known cases;" in my experience there were few provincial hospitals which did not contain at least one case of insanity. As regards my own practice, fifteen cases were brought to me for treatment or certificates in three years, which, I think, is

fully twice as many as I have seen in England in five years. Secondly, as to excessive venery and unnatural practices, I must content myself with reminding "Pyramid" that as a police surgeon I had exceptional opportunities of forming an opinion and saying that I am convinced these evils are far more common in Egypt than England. It is not a point on which statistical evidence is forthcoming.

When "Pyramid" turns to "Tommy Atkins" he is more instructive. Idleness and drinking are sure to be associated, so it would be difficult to apportion the blame; but the remedy is the same, and I fully endorse what he says as to the desirability of finding employment for the British soldier abroad.—I am, etc.,

Plumstead, Oct. 31st. SIDNEY DAVIES.

THE MEDICAL AND THE DENTAL PROFESSIONS.

SIR,—I notice with pleasure in the BRITISH MEDICAL JOURNAL for October 28th a letter by Mr. T. E. Constant calling attention to the fact that an appeal will shortly be addressed to the General Medical Council urging it to exercise its power to declare advertising in dentistry "infamous," and to strike off the *Register* such persons as are guilty of that glaring breach of professional etiquette. I should like to draw the attention of the medical profession to the fact that if such a resolution be passed and the names of advertising dentists be expunged from the *Register*, matters will not be improved, but rather the reverse. There is nothing, unfortunately, in the law of England to prevent an unregistered and unqualified man from practising dental surgery or any other speciality so long as he does not falsely lead the public to suppose that he possesses the qualification to do so. When removed from the *Register*, with no restraint upon him, he will continue advertising to a greater extent than ever, as we have seen from a recent notable instance.

It appears to me that there is only one remedy which, if adopted, would render competition from prescribing chemists, electrical medical institutes, advertising dentists, and the like impossible; that is the passage through Parliament of a short Bill to approximate the conditions of medical practice in this country to those which exist at the present time in France and Germany, and are enjoyed by the legal profession in Great Britain, the scope of the Bill being to make it a criminal procedure to practise any department of the healing art without qualification to do so. If such a Bill had been in existence, Harness's Electropathic Institute, many so-called American dental institutes, and numerous others would not have been able to keep their doors open for a single day.—I am, etc.,

Margate, Oct. 30th. ERNEST A. MILLER, L.D.S.Eng.

EWALD'S *MAGENKRANKHEITEN*.

SIR,—In reply to Dr. Robert Saundby's letter in the BRITISH MEDICAL JOURNAL of September 30th, I would state that I have submitted to Dr. Saundby the various data upon which I have based my statements as to my translation of Ewald's *Magenkrankheiten*, and that I am willing to abide by his decision as to the justice of my claims. In this way alone I believe the present controversy may satisfactorily be adjusted.—I am etc.,

New York, Oct. 12th. MORRIS MANGES.

CORROSIVE SUBLIMATE POISONING IN SEPTICÆMIA.

SIR,—I am obliged by Dr. Barnes's reply; but a simple disavowal from one person does not cover the question at issue when the deliberations of the whole Section were referred to. Dr. Barnes spoke of the "brilliant results" to be obtained by Tarnier's method, but urged the observance of "definite rules" for safety. These having been confidently referred to by Dr. Cullingworth as readily procurable, the rest of the proceedings amounted to nothing less than strong recommendation of the drug by Drs. Cullingworth, Boxall, and Byers. I notice no subsequent protest by Dr. Barnes against the continued use of this dangerous remedy after those gentlemen had so strongly commended it.

The question obviously arising from my letter of October 21st is this: Would the opinion of the Section regarding the bichloride have been different had it been known that the originator of the use of that drug—M. Tarnier himself, who had used it, no doubt with every precaution, for five or six years—was at the time formally denouncing it as too dangerous? Is it probable or in the least likely, I would ask, that, however many rules are formulated and sold, British obstetricians will meet with any fewer fatalities from the employment of so lethiferous a remedy than M. Tarnier and others who have condemned it for all practical purposes since 1888?—I am, etc.,

West Kensington, Oct. 29th. C. R. ILLINGWORTH, M.D.

NAVAL AND MILITARY MEDICAL SERVICES.

THE NAVY.

SURGEON CHARLES J. MATTHEWS has been appointed to the *Sparrow*, October 26th.

ARMY MEDICAL STAFF.

BRIGADE-SURGEON-LIEUTENANT-COLONEL J. H. MOORE, on arrival from England on fresh tour, is appointed to the medical charge of the Station Hospital at Mhow, Bombay Command, *vice* Surgeon-Lieutenant-Colonel A. L. Browne.

Surgeon-Captain W. A. MORRIS, on arrival from England on fresh tour, is posted to general duty in the Bombay District.

Surgeon-Major A. PETERKIN, in medical charge of the Station Hospital at Indore, is transferred to general duty in the Aden District, Bombay Command.

Surgeon-Captain S. F. CLARK is transferred from general duty in the Aden District to general duty in the Sind District, Bombay Command.

Surgeon-Major M. O'C. DRURY, on arrival from England, is posted to general duty in the Mhow District, Bombay Command.

Surgeon-Captain H. A. DE LOM, now on the Bombay Establishment, is permitted to remain in England from September 28th, 1893, to March 27th, 1894, on medical certificate, in extension.

Under instructions from the Horse Guards, it is notified that His Royal Highness the Commander-in-Chief has been pleased to approve of the appointment of Surgeon-Colonel A. A. GORE to be Administrative Medical Officer in the Bombay Presidency, in succession to Surgeon-Colonel J. Davis, nominated for appointment as Principal Medical Officer, Madras Army.

Brigade-Surgeon-Licatenant-Colonel H. S. MUIR has been directed to act as Principal Medical Officer at Aldershot during the absence of Surgeon-Major-General F. W. Wade.

ARMY MEDICAL RESERVE.

SURGEON-CAPTAIN SAMUEL BUTLER MASON, 4th Volunteer Battalion the South Wales Borderers, to be Surgeon-Captain, November 1st.

INDIAN MEDICAL SERVICE.

THE undermentioned Surgeon-Majors, having completed twenty years' full pay service, are promoted to be Surgeon-Lieutenant-Colonels from September 30th:—*Bengal:* A. J. WILLCOCKS, M.D., H. K. MCKAY, F. R. SWAINE, M.B. *Madras:* H. ALLISON, M.D., T. J. H. WILKINS. *Bombay:* M. L. BARTHOLOMEUSZ, M.B.

The undermentioned Surgeon-Captains, having completed twelve years' service, are promoted to be Surgeon-Majors from October 1st:—*Bengal:* L. T. YOUNG, M.B., J. B. GIBBONS, D. ST. J. D. GRANT, M.B., D. G. CRAWFORD, M.B. *Madras:* R. B. ROE, J. SMYTH, M.D., H. GREANY, M.D., E. P. YOUNGERMAN, M.B.

Surgeon-Captain E. JENNINGS is appointed to the medical charge of the 32nd Bengal Infantry.

Surgeon-Major G. S. GRIFFITHS is transferred from the medical charge of the 3rd Bengal Cavalry to the medical charge of the 1st Battalion 4th Goorkha Rifles.

Surgeon-Lieutenant-Colonel R. T. WRIGHT, Bengal Establishment, Civil Surgeon of Shahjehanpore, is appointed to hold visiting medical charge of Hardoi District, in addition to his other duties, pending the arrival of a civil surgeon at that station.

Surgeon-Captain L. G. FISCHER, Bengal Establishment, civil surgeon, is transferred from Minpoorie to Budaun.

Surgeon-Captain J. L. T. JONES, M.B., Bombay Establishment, is appointed to act as Presidency Surgeon Third District, Bombay, during the absence of Surgeon-Lieutenant-Colonel G. Waters.

Surgeon-Major W. R. BROWNE, M.D., Madras Establishment, is appointed to act as Physician and Senior Medical Officer, Madras General Hospital, and as Principal and Professor of Medicine, Madras Medical College.

The undermentioned officers have been granted leave of absence as specified:—Surgeon-Major J. K. KANGA, Madras Establishment, for two years, in and out of India, on private affairs; Surgeon-Lieutenant-Colonel G. WATERS, Presidency Surgeon 3rd District, Bombay, privilege leave for two months and 24 days from October 7th; Surgeon-Lieutenant-Colonel F. C. BARKER, M.D., Bombay Establishment, Medical Officer Kattywar Political Agency, privilege leave for three months from November 15th.

The death of Brigade-Surgeon-Lieutenant-Colonel S. C. MACKENZIE, M.D., Bengal Establishment, which was briefly noticed in the BRITISH MEDICAL JOURNAL of October 28th, occurred at Darjeeling on October 1st, at the age of 51.

THE VOLUNTEERS.

SURGEON-MAJOR J. JOHNSTONE, 2nd Lancashire Artillery, is promoted to be Surgeon-Lieutenant-Colonel, October 28th.

Surgeon-Lieutenant A. FORD, 1st Volunteer Battalion the Prince of

Wales's Own West Yorkshire Regiment (late the 1st West Riding of Yorkshire), has resigned his commission, which was dated July 26th, 1879.

VOLUNTEER AMBULANCE SCHOOL OF INSTRUCTION.

The following officers who have been under instruction from the staff of the school have recently passed the proficiency examination conducted by the Army Medical Staff at the headquarters of regimental and other districts. The Volunteer officers thus earn the extra proficiency grant for their regiment, and become entitled to promotion after completing the necessary period of service.

Yeomanry.—Surgeon-Lieutenants Leopold Hudson, M.B., F.R.C.S., Duke of Cambridge's Hussars (Middlesex Yeomanry Cavalay); J. H. Waters, M.D., Berkshire Yeomanry Cavalry. At present these are the only two medical officers of the Yeomanry who hold proficiency certificates.

Volunteers.—Surgeon-Captains R. W. Edgington, M.D., 1st Worcestershire and Warwickshire Volunteer Artillery; G. F. England, 2nd Volunteer Battalion the Lincolnshire Regiment; J. W. Rigby, 1st Volunteer Battalion the Loyal North Lancashire Regiment. Surgeon-Lieutenants J. B. Berry, 1st Cinque Ports Volunteer Artillery; T. H. Dickson, M.B., 12th Middlesex (Civil Service) Rifle Volunteers; G. C. Cattell, M.D., 2nd Volunteer Battalion Royal Fusiliers; H. Dutch, 1st Tower Hamlets Rifle Volunteer Brigade; W. Duncan Fraser, M.B., 2nd Volunteer Battalion Royal Welsh Fusiliers; G. M. Edmond, M.D., 1st Volunteer Battalion the Gordon Highlanders; James Mason, 3rd Volunteer Battalion (Princess Louise's) Argyll and Sutherland Highlanders; H. C. C. Shaw, West Middlesex Rifles; J. Scarth, M.B., 2nd Middlesex Volunteer Artillery; F. Croucher, M.B., 2nd Volunteer Battalion the Queen's Own Royal West Kent Regiment; J. Boyd, M.D., 1st (Hertfordshire) Volunteer Battalion Bedfordshire Regiment; D. Thomas, M.D., 1st (Brecknockshire) Volunteer Battalion the South Wales Borderers.

Applications to join the next class should be sent to Surgeon-Captain R. R. Sleman, "Artists" Rifle Volunteers, 7, St. Bene't Place, Gracechurch Street, London, E.C.

EXTENSION OF THE NEW TITLES.

Surgeon-General (Retired) writes: I wish particularly to note that in the late *Gazette* extending these titles how careful the authorities were to specify that the rank conceded was only departmental rank, which is virtually a repetition of the declaration that, outside their own department, medical officers have neither military nor army rank; they even possess a lower status than under the old relative rank; their last state is worse than the first. I have always maintained that on the rank question medical officers should take up a definite position, from which they should not depart; and that is, military rank pure and simple. Compound titles should be abolished, and military rank and title in their own corps contended for. There would then be no accusation of sailing under false colours; that is the definite ground to take up and never recede from. Army medical officers should ever be grateful to you and the Parliamentary Bills Committee for ceaseless and energetic efforts on their behalf; but until this matter is fought out and won, the department will never be respected or in a satisfactory position.

DRESS REGULATIONS.

A Correspondent draws our attention to the publication of a little book, which we have not seen, entitled, *A Manual of the Dress and Equipment of the Medical Services of the Army, Militia, and Volunteers*, compiled by Surgeon-Captains Perry Marsh and S. O. Stuart, Army Medical Staff (Ashvale, Surrey: F. G. Britten, West Surrey Printing Works; cr. 8vo, pp. 63; 2s.).

*** We have no doubt, judging from the names of the compilers, that this work is as good and useful as our correspondent declares it to be. Nothing is more necessary than that medical officers should scrupulously avoid incongruities in the wearing of uniform and appointments, for such are not only unsoldierlike, but readily lend themselves to the jeers of their detractors.

THE NEW COLOURS FOR THE MEDICAL DEPARTMENT.

A Non-combatant, writing from India, sends us a long and rather entertaining letter detailing a dispute between him, of the Indian Medical Service, and an officer of the Medical Staff relative to the right of the former to introduce the new colours into the livery of his native servants.

*** Into the merits of the dispute we have neither the knowledge nor the desire to enter. The only communication on the subject of these new colours we have received was noticed in the British Medical Journal on October 14th, and we certainly understood the colours therein referred to were those of the Indian Medical Service. We therefore are unable to answer our correspondent's queries as to whether these colours are registered or to whom they rightly belong, etc.

OBITUARY.

J. G. D. DOUGLAS, M.D.Edin.

We regret to have to announce the death of Dr. Douglas, of Bournemouth, which took place on Wednesday, October 26th, at the early age of 44. Dr. Douglas, after graduating at Edinburgh in 1871, went to Bournemouth as the house-surgeon to the Cottage Hospital and Dispensary. When he had occupied this post for a couple of years he started work in the town, and rapidly gained an extensive practice. He was very much esteemed by a large circle of patients and friends. For some years he had been in failing health owing to tuberculous disease of the lungs, to which he ultimately succumbed. But though suffering from this malady he bravely remained at his post, and with indomitable courage carried on the work both of his private practice and of hospital appointments. The large concourse of persons who assembled at his funeral bore striking testimony to the regard in which he was held. He will be much missed by many to whom his kindly manner and great power of sympathy had much endeared him, as well as by those who valued his high professional attainments. He has been cut off when but in his prime. Devoting himself to the engrossing duties of a large practice, he left himself no time to enrich the literature of the profession, and we are all the poorer for the loss of his large and ripened experience. He was a man of deep religious conviction, and was always ready to help forward any good work. He was firm and loyal in his friendships, and those who knew him best valued most his personal worth. He was at the time of his death consulting surgeon to the Royal Victoria Hospital, and to the Firs Home for Advanced Cases of Consumption.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently passed away are Dr. Anton von Fillenbaum, Surgeon-Major in the Austrian army, head of the Surgical Section of the Vienna Garrison Hospital, a member of the Army Sanitary Committee, well known throughout the Austrian empire as an operator, and a frequent contributor to surgical literature, aged 51; Dr. Oscar Meyer, physician to Prince Peter von Oldenburg Children's Hospital, St. Petersburg, and the leading authority on children's diseases in Russia, aged 56; Dr. E. Warren Bey, a well-known practitioner, formerly Surgeon-General of the Egyptian army, who for some years back had resided in Paris; and Dr. Epaminonda Abate, of Naples, who rediscovered the lost secret of Segato for the petrification of corpses, and applied the results of his researches on the means of arresting putrefaction to the conservation and transport of food, aged 70.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

Examinations.—The Registrary has issued the following table of dates in reference to the ensuing examinations for Medical and Surgical degrees:

	Names sent in.	Certificates received.	Examination begins.
First M.B.—			
Chemistry, etc. ...	November 25	December 2	December 8
Biology	November 25	December 5	December 11
Second M.B.—			
Pharmacy ...	November 25	December 8	December 14
Anatomy, etc. ...	November 25	December 2	December 8
Third M.B.—			
Surgery, etc. ...	November 29	December 6	December 12
Medicine, etc. ...	November 29	December 6	December 12
M.C.	November 29	December 9	December 15

Medical Degree.—At the Congregation on October 26th the following degree was conferred:

M.D.—Frank Papillon Haviland, M.A., Pembroke College.

EDINBURGH UNIVERSITY GENERAL COUNCIL.

The statutory half-yearly meeting of the General Council of the University of Edinburgh was held on Friday, October 27th, the Vice-Chancellor, Sir William Muir, presiding. The first item on the billet was the election of two assessors in the University Court, in room of the Right Hon. J. H. A. MacDonald, C.B., LL.D., Lord-Justice Clerk, and Mr. Thomas McKie, Advocate, whose period of office expires on November 29th next. After the Vice-Chancellor had paid a tribute to the services of the two assessors who thus retire, Mr. J. Hope Finlay, W.S., Keeper of the Register of Sasines, and Mr. A. Taylor Innes, Advocate, were unanimously elected. It was reported that intimation had been received from the Scottish Universities Commission that the powers of the Commission had been extended by Order in Council until January 1st, 1895.

The Business Committee reported that four ordinances had been approved by Her Majesty in Council; six others had been laid before Parliament, and, not being objected to, have now become final; and that eight draft ordinances had been received. The question of theological tests was discussed. Reports on various draft ordinances were received from the Committee of Ordinances. A report on four ordinances was received from the Finance Committee.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

THE following gentlemen, having conformed to the Bye-laws and Regulations, and passed the required examinations, were at the quarterly meeting of the College, on October 26th, admitted Licentiates—namely:

Ainsworth, H., Manchester
Ambler, J. R., Liverpool
Arnold, G. J., St. Thomas's
Baldwin, G. R., St. George's
Ballard, R., King's Coll., University Coll., and St. Bartholomew's
Beddy, T. A., Dublin and Middlesex
Berry, R. S., St. George's
Biggs, J. J. E., Guy's
Bishop, J. R., Manchester
Blandford, J. J. G., Cambridge and St. Bartholomew's
Bruce, W. J., London
Buchanan, A. G., Guy's
Burch, H. E., London
Campbell, R. Belfast
Collyer, B., St. Bartholomew's
Corben, C., St. Bartholomew's
Cowen, G. H., London
Cross, E. W., St. Bartholomew's
Crowther, C. K., St. Bartholomew's
Davies, J. L., University College
Dawkin, G. M., London
De Korté, W. E., Guy's
Dickson, H. A. D., St. Thomas's
Eastment, J. W., Guy's
Eatock, J. A., Liverpool
Feaver, L., St. Bartholomew's
Ferguson, A. S., Middlesex
*Fido, H. A., Bombay and Guy's
*Finnie, J. E., St. Mary's
Foster, J., Manchester
France, C. F., Manchester
Galizia, J. S., Malta and London
Gill, S. E., St. Bartholomew's
Godson, L. J., St. Bartholomew's
Goldney, T. W., Charing Cross
Good, T. S., St. George's
Grove, W. R., Cambridge and Guy's
Harper, J., St. Thomas's
Hartley, F. W., Manchester
Helby, E. H., Middlesex
Hoare, W. W., Edinburgh
Hobart, N. H., St. Bartholomew's
Houfton, E. H., Leeds
Hovenden, A. C., Guy's
Howard, J. A., Guy's
Hudleston, W. E., Middlesex
Hudson, A., Bristol and Charing C.
Humphry, E. S., St. Bartholomew's
Hunt, E., Guy's
James, S., St. Thomas's
Jewell, W. H., Guy's
Jones, P. N., St. Mary's
Kempe, C. G. B., Durham
Kirkby, R. C., Guy's
Kynsey, H. A., University College
Lane, C. A., St. Mary's
Langworthy, W. S., University Col.
Ligertwood. W. H., Bristol
Lock, G. H., Middlesex
McCleland, H. A., St. Mary's
McDougall, A., Manchester
Maingay, H. B., St. Bartholomew's
Manning, G. E., Guy's
Manning, T. D., Guy's
Mathew, C. M., St. George's
May, G. E., London
Melville, S., Liverpool
Mcyrick-Jones, H. M., Durham and Guy's
Morris, C. G., Bristol
O'Leary, R., St. Bartholomew's
Paterson, P., Glasg., Berlin, and Paris
Peacock, W. F., St. Mary's
Pearce, D. A. C., Guy's
Pendred, V., Guy's
Perkins, H. C., King's College
Perry, C. M., Edin. and King's Coll.
Poynton, F. J., St. Mary's
Probyn, P. J., Charing Cross
Quay, F. A. W., Toronto
Quayle, E., Manchester
Rawlings, J. D., St. Bartholomew's
Reid, A. L., St. Bartholomew's
Richards, W. G., Cambridge and St. Bartholomew's
Roberts, A. D., Westm. and Manch.
Rock, F. E., Middlesex
Rostant, A. A., Bristol and St. Thom.
Roydon, W., St. Bartholomew's
Russell, A. E., St. Thomas's
Scott, A. W., Leeds
Seed, W. P., Middlesex
Selby, J. S. E., St. Bartholomew's
*Shillitoe, A., Cambridge and Guy's
Sinigar, H., Birmingham
*Skeels, W., Camb. and Middlesex
Smith, A. E. M., St. Bartholomew's
Smyth, E. J., University College
Spink, E. W., Leeds
Steward, E. S., Leeds
Stoddart, W. H. B., University Coll.
Swinhoe, G. R., St. Thomas's
Travers, F. T., University College
Turner, P. E., St. Bartholomew's
Wallace, R. F. S., Charing Cross
Webb, J. C., Camb. and King's Coll.
Webster, F. B., Manchester
Whait, J. R., Univ. Col. and Edin.
Whiteman, W. A. D., Middlesex
Whitling, H. T. M., St. Barth.
Wilkin, R. H., St. Bartholomew's
Woodhead, T. F., University Coll.
Worth, E. H., St. Thomas's

* Candidates who have not presented themselves under the Regulations of the Examining Board.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE REGISTRAR-GENERAL'S QUARTERLY RETURN.

THE Registrar-General has just issued his return relating to the births and deaths registered in England and Wales during the third, or summer, quarter of this year, and to the marriages during the three months ending June last. The marriage-rate was equal to 15.9 per 1,000, and was 0.6 above the average rate in the corresponding quarters of the preceding ten years, 1883-92.

The births registered in England and Wales during the three months ending September last numbered 229,147, equal to an annual rate of 30.6 per 1,000 of the population, estimated by the Registrar-General to be rather less than twenty-nine and three-quarter millions of persons in the middle of this year. This rate was 0.8 per 1,000 below the mean rate in the third quarter of the preceding ten years, but corresponded with the mean rate in the third quarters of the preceding five years. The birth-rates in the several counties during the quarter under notice ranged from 24.5 in Sussex, 25.1 in Rutlandshire, and 25.2 in Surrey to 35.1 in Staffordshire, 35 3 in South Wales, 35.7 in Monmouthshire, and 36.0 in Durham. In thirty-three of the largest English towns the birth-rate last quarter averaged 31.5 per 1,000, and was 0.9 per 1,000 above the general English rate. In London the birth-rate was 30.6 per 1,000, while it averaged 32.2 in the thirty-two provincial towns, among which it ranged from 23.1 in Huddersfield, 24.6 in Brighton, and 26.0 in Halifax to 35.6 in Preston, 35.9 in Liverpool, and 36.4 in Cardiff.

The births registered in England and Wales during the quarter under notice exceeded the deaths by 85,767; this represents the natural increase of the population during that period. It appears from returns issued by the Board of Tradè that 88,435 emigrants embarked during last quarter from the various ports of the United Kingdom at which emigration officers are stationed. Of these, 44,801 were English, 7,381 Scotch, and 13,581 Irish. Compared with the mean proportions in the corresponding periods of recent years, the proportion of emigrants from each of the three divisions of the United Kingdom showed a decline.

During the third quarter of 1893 the deaths of 143,380 persons were registered in England and Wales, equal to an annual rate of 19.1 per 1,000 of the estimated population. This rate exceeded by 2.1 the mean rate in the corresponding periods of the preceding ten years, and was higher than that recorded in the third quarter of any year since 1884. Among the urban population of the country, estimated at about nineteen and a quarter millions of persons, the rate of mortality during the quarter under notice was 20.6 per 1,000; in the remaining and chiefly rural population of about ten and a half millions, it was 16.5 per 1,000. These rates were respectively 2.3 and 1.8 per 1,000 above the mean rates in the corresponding quarters of the preceding ten years. Among thirty-three of the largest English towns the mean death-rate was 21.8 per 1,000; in London the rate was 20.5, while it averaged 22.8 per 1,000 in the thirty-two provincial towns, and ranged from 16.1 in Bristol, 16.2 in Huddersfield and in Halifax, and 16.7 in Croydon to 28.0 in Blackburn, 28.4 in Liverpool, and 33.2 in Preston.

The 143,380 deaths registered in England and Wales during the three months ending September last included 21,020 which resulted from diarrhœa, 2,490 from "fever" (including typhus, enteric, and ill-defined forms of fever), 2,218 from diphtheria, 2,197 from whooping-cough, 2,075 from measles, 1,729 from scarlet fever, and 244 from small-pox. In all, 31,973 deaths were referred to these principal zymotic diseases, equal to an annual rate of 4.27 per 1,000, against an average rate of 2.80 in the corresponding quarters of the preceding ten years. The mortality from diphtheria, "fever," and diarrhœa showed a marked excess, while that from each of the other principal zymotic diseases was below the average. Of the 244 fatal cases of small-pox, 49 occurred in London, 32 in Essex, 22 in Lancashire, and 57 in the West Riding of Yorkshire.

The rate of infant mortality, or the proportion of deaths under one year of age to registered births, was equal to 214 per 1,000, and was considerably above the mean rate in the corresponding periods of the preceding ten years. In London the rate of infant mortality was 208 per 1,000, while it averaged 279 in the thirty-two provincial towns, among which it ranged from 154 in Bristol, 171 in Huddersfield, and 189 in Plymouth to 375 in Blackburn, 378 in Hull, and 476 in Preston.

The mean temperature of the air during last quarter at the Royal Observatory, Greenwich, was 61.9°, and was 2.2° above the average in the corresponding periods of 122 years; it showed an excess during each month of the quarter. The rainfall amounted to 5.9 inches, which was 1.4 inch below the average amount.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,414 births and 3,622 deaths were registered during the week ending Saturday, October 28th. The annual rate of mortality in these towns, which had been 18.2 and 18.4 per 1,000 in the preceding two weeks, declined again to 18.3 during the week under notice. The rates in the several towns ranged from 10.5 in Croydon, 11.0 in Norwich, 11.1 in Swansea, 12.4 in Brighton, and 13.2 in Plymouth to 21.2 in Birmingham, 22.9 in Wolverhampton, 23.3 in Salford, 25.1 in Newcastle-upon-Tyne, and 27.9 in Liverpool. In the thirty-two provincial towns the mean death-rate was 18.5 per 1,000, and exceeded by 0.5 the rate recorded in London, which was 18.0 per 1,000. The 3,617 deaths registered during the week in the thirty-three towns included 447 which were referred to the principal zymotic diseases, against 544 and 508 in the preceding two weeks; of these, 110 resulted from diphtheria, 94 from diarrhœa, 71 from "fever" (principally enteric), 64 from whooping-cough, 58 from scarlet fever, 35 from measles, and 15 from small-pox. These 447 deaths were equal to an annual rate of 2.3 per 1,000; in London the zymotic death-rate was equal to 2.5, while it averaged 2.1 per 1,000 in the thirty-two provincial towns. No fatal case of any of these diseases occurred in Halifax; among the other towns they caused the lowest death-rates in Huddersfield, Swansea, Plymouth, Derby, and Oldham, and the highest rates in West Ham, Sheffield, Wolverhampton, Blackburn, and Bradford. Scarlet fever caused the highest proportional fatality in Wolverhampton and Burnley; whooping-cough in West Ham and Gateshead; "fever" in Hull and Sunderland; and diarrhœa in Wolverhampton, Birmingham, Salford, and Blackburn. The mortality from measles showed no marked excess in any of the large towns. The 110 deaths from diphtheria recorded during the week under notice in the thirty-three towns included 83 in London, 5 in Liverpool, 3 in Bristol, and 3 in Manchester. Ten fatal cases of small-pox were registered in Bradford, 2 in London, 2 in Birmingham, and 1 in Bristol, but not one in any other of the thirty-three large towns. There were 87 small-pox patients in the Metropolitan Asylums Hospitals and in the Highgate Small-pox Hospital on Saturday last, October 28th, against 79, 84, and 76 at the end of the preceding three weeks; 25 new cases were admitted during the week, against 17 and 12 in the preceding two weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospitals was 2,778 at the end of the week, against 2,801, 2785, and 2,758 on the preceding three Saturdays; 401 new cases were admitted during the week, against 316 and 304 in the preceding two weeks. The 271 deaths referred to diseases of the respiratory organs in London were 97 below the average, and were equal to an annual rate of 3.3 per 1,000.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday, October 28th, 894 births and 513 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 18.4 and 18.6 per 1,000 in the preceding two weeks, declined again to 18.2 during the week under notice, and was slightly below the mean rate during the same period in thirty-three of the largest English towns. Among these Scotch towns the lowest rates were 14.3 in Paisley and 14.4 in Edinburgh, and the highest 24.0 in Perth and 24.2 in Leith. The 513 deaths in these towns included 64 which were referred to the principal zymotic diseases, equal to an annual rate of 2.3 per 1,000, which corresponded with the mean zymotic death-rate during

the same period in the large English towns. The highest zymotic death-rates were recorded in Glasgow, Greenock, and Aberdeen. The 259 deaths registered in Glasgow included 8 from diphtheria, 8 from scarlet fever, and 4 from "fever." Two fatal cases of diphtheria occurred in Aberdeen. The death-rate from diseases of the respiratory organs in these towns was equal to 4.1 per 1,000, against 3.3 in London.

HEALTH OF IRISH TOWNS.

In sixteen of the principal town districts of Ireland the deaths registered during the week ending Saturday, October 21st, were equal to an annual rate of 22.9 per 1,000. The lowest rates were recorded in Sligo and Armagh, and the highest rates in Newry and Wexford. The death-rate from the principal zymotic diseases averaged 3.1 per 1,000. The 164 deaths registered in Dublin were equal to an annual rate of 24.5 per 1,000 (against 23.3 and 24.5 in the preceding two weeks), the rate during the same period being 18.8 in London and 19.5 in Edinburgh. The 164 deaths in Dublin included 22 which were referred to the principal zymotic diseases (equal to an annual rate of 3.3 per 1,000; of these 22 deaths, 9 resulted from enteric fever, 7 from diarrhœa, 4 from whooping-cough, and 2 from measles.

ZYMOTIC MORTALITY IN LONDON.

The accompanying diagram shows the prevalence of the principal zymotic diseases in London during each week of the third quarter of the current year. The fluctuations of each disease during the period under review, and its fatal prevalence compared with that recorded in the corresponding weeks of recent years, can thus be readily seen.

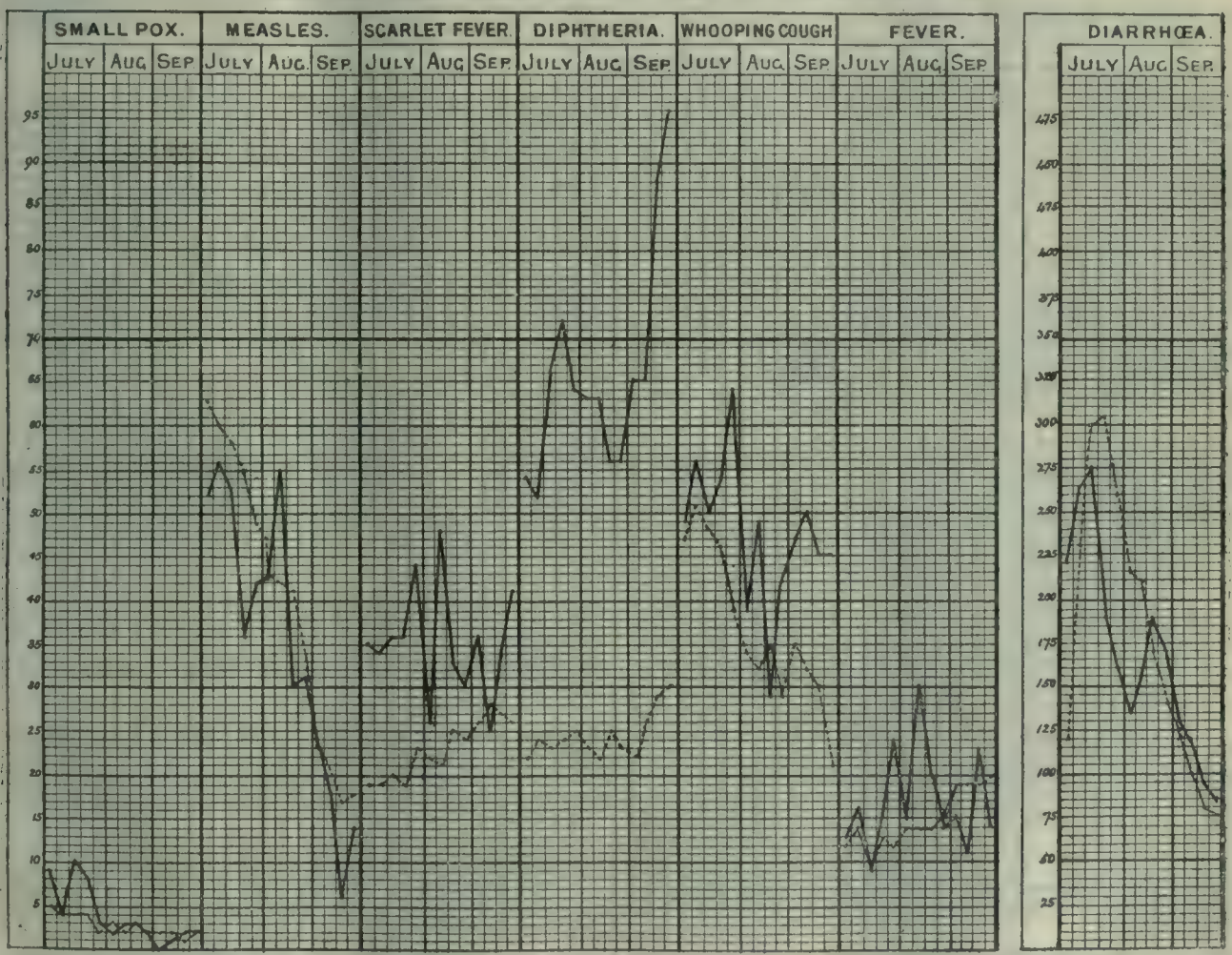
Small-pox.—The deaths referred to small-pox, which had been 38 and 100 in the first two quarters of the year, declined to 49 during the three months under notice, the average number in the corresponding periods of the preceding ten years, 1883-92, being 33. Of these 49 deaths, 7 belonged to Battersea, 6 to Bethnal Green, 4 to Mile End Old Town, and 3 each to Hackney, Newington, and Lambeth sanitary districts. The number of small-pox patients under treatment in the Metropolitan Asylums Hospitals, which had been 248 and 371 at the end of the preceding two quarters, had declined to 71 at the end of September last; 377 new cases were admitted during last quarter, against 506 and 1,309 in the preceding two quarters.

Measles.—The fatal cases of measles, which had been 317 and 349 in the first two quarters of the current year, rose again to 459 during the three months ending September last, but were 65 below the corrected average number. Among the various sanitary districts of the metropolis the highest proportional fatality of measles was recorded in Clerkenwell, St. Luke, Shoreditch, St. George Southwark, Bermondsey, and Camberwell.

Scarlet Fever.—The deaths referred to this disease, which had been 389, 335, and 336 in the preceding three quarters, rose to 458 during the three months under notice, and exceeded by 160 the corrected average number in the corresponding periods of the preceding ten years. Among the various sanitary districts this disease showed the highest proportional fatality in Westminster, St. Pancras, Strand, St. Luke, Whitechapel, Poplar, St. George Southwark, and Plumstead. The number of scarlet fever patients in the Metropolitan Asylums Hospitals, which had been 1,938 and 2,653 at the end of the preceding two quarters, was 2,659 at the end of September. The number of cases admitted to these hospitals, which had been 2,725 and 3,548 in the preceding two quarters, further rose to 4,059 during the three months ending September last.

Diphtheria.—The fatal cases of diphtheria in London, which had steadily increased from 328 to 677 in the preceding six quarters, further rose to 859 during the three months under notice, a considerably higher number than in any quarter on record, and no fewer than 541 above the corrected average. Among the various sanitary districts diphtheria caused the highest proportional fatality in Clerkenwell, St. Luke, Shoreditch, Bethnal Green, Whitechapel, Limehouse, Poplar, St. Saviour Southwark, St. George Southwark, Battersea, Wandsworth, and Greenwich. The cases of diphtheria admitted into the Metropolitan Asylums Hospitals, which had been 678, 677, and 847 in the preceding three quarters, further rose to 1,841 last quarter, and 296 patients remained under treatment at the end of September last.

Deaths from Zymotic Diseases in London during the Third Quarter of 1893.



Note.—The black lines show the *recorded* number of deaths from each disease during each week of the quarter. The dotted lines show the *average* number of deaths in the corresponding week of the preceding ten years 1883-92.

Whooping-cough—The deaths referred to this disease, which had been 170, 531, and 592 in the preceding three quarters, further rose to 619 during the three months ending September last, and were 142 above the corrected average number; the highest proportional fatality of whooping-cough was recorded in Hackney, Limehouse, St. George Southwark, Newington, Rotherhithe, Lambeth, and Wandsworth sanitary districts.

Fever.—Under this heading are included deaths from typhus, enteric fever, and simple and ill-defined forms of fever. The deaths referred to these different forms of "fever," which had been 105 and 122 in the preceding two quarters, further rose to 219 during the three months under notice, and were 26 above the corrected average. Of these 219 deaths from "fever," 212 were certified as enteric fever, and 7 as simple or ill-defined fever, while no fatal case of typhus was recorded during the quarter. There was no marked excess of fever mortality last quarter in any of the sanitary districts of London. The Metropolitan Asylums Hospitals contained 104 enteric fever patients at the end of September, against 37 and 86 at the end of the preceding two quarters; the new cases admitted into these hospitals, which had been 122 and 152 in the first two quarters of this year, further rose to 230 during the three months ending September last.

Diarrhœa.—The 2,188 fatal cases of diarrhœa recorded in London during last quarter were 142 below the corrected average number; this disease showed the highest proportional fatality in Fulham, St. Luke, Shoreditch, Bethnal Green, St. George-in-the-East, and Mile End Old Town sanitary districts.

In conclusion, it may be stated that the 4,851 deaths referred to the principal zymotic diseases in London during the third quarter of this year were 678, or more than 16 per cent., above the corrected average number in the corresponding periods of the preceding ten years 1883-92. This excess was mainly due to the excessive prevalence of diphtheria and scarlet fever. Among the various sanitary districts the lowest zymotic death-rates were recorded in Hampstead, St. George Hanover Square, St. James Westminster, St. Martin-in-the-Fields, London City, St. Olave Southwark, Lewisham, and Plumstead; the highest rates in Clerkenwell, St. Luke, Shoreditch, Bethnal Green, St. George-in-the-East, Limehouse, Poplar, and St. George Southwark.

CHARGES FOR MAINTENANCE OF SMALL-POX PATIENTS.

The Wakefield corporation have achieved what would seem to be a singularly unprofitable victory. They sued a draper for £1 4s. 2d., the cost of maintenance of his wife as a patient at the small-pox hospital. No doubt they were within their legal rights in taking this action, but such a course is almost always impolitic, and in this particular instance the statements made in evidence, and published in the local papers, are of a kind calculated to create considerable difficulty in the isolation of future cases of small-pox. Serious allegations were made as to the management of the hospital, and the arrangements for the comfort of the patients. We will assume that all these matters admitted of satisfactory explanation, although no such explanation appears in the account which the *Leeds Mercury* gives of the proceedings; the administration of the hospital itself may be absolutely free from blame, but that does not render the action of the corporation other than injudicious and ill-timed. For the sake of a few shillings, which can make no perceptible difference to any rate, they have adopted the most forcible way of impressing upon all persons who may in future be inclined to consent to isolation for the sake of the public safety and their own, that they can only do so at the risk of being summoned for the cost of maintenance; and, further, that the place of isolation is one which, in the opinion of at least one patient and her friends, is very far from being a comfortable abode. It is, of course, to the credit of the Wakefield authorities that they have been sufficiently enlightened to provide a hospital at all, but a few blunders of this kind will deprive the institution of much of its practical utility, and will show that the efforts to limit the spread of small-pox are lacking either in earnestness or discretion.

HOW TO SPREAD DIPHTHERIA.

St. Agnes is a Cornish village, or town, of some 2,000 inhabitants, and as regards all matters necessary to the public health, it is under the fostering care of the Truro Rural Sanitary Authority. It has no drainage worth mentioning, no water supply except wells, and no means of isolating infectious cases. Very likely there are many other things which St. Agnes lacks, but these are particularly mentioned by the *Western Morning News*, in connection with an outbreak of diphtheria, which has already caused fourteen deaths. The infection was brought from London, and whatever the shortcomings of the sanitary authority may have been, its diffusion was evidently due in no small measure to the blind folly and recklessness of the people more immediately concerned. Friends and neighbours visited the sick children, and in this way did their best to spread the infection, not without success. There seems to have been scarcely even a pretence of that "home isolation" which some would have us regard as an efficient substitute for hospital treatment of dangerous infectious diseases. It is estimated that in addition to the forty known cases there must have been at least twenty unnotified slight attacks. Great activity is now being displayed in the matter of providing hospital accommodation, and a temporary structure is to be run up at once. Under the circumstances this is the right course, but it does not clear the authority from responsibility for their past default, and for the mischief already done. Nor are they at the end of their troubles even in the one item of isolation. A temporary hospital is rarely found to be a satisfactory provision for future emergencies of like kind. It may be taken for granted that the cost of it will have to be "borne by the rates," for the Local Government Board are not in the habit of sanctioning loans for make-shift structures. Still, for the next year or two St. Agnes will have some sort of accommodation for infectious cases, and if the rural sanitary authority do not relapse into their former state of lethargy, better and more permanent arrangements may be made in the meantime for the district generally.

ENTERIC FEVER AND WATER SUPPLIES.

Dr. Campbell Munro, County Medical Officer of Health for Renfrewshire, has had occasion to make inquiries into the circumstances attending an outbreak of enteric fever in Paisley and Johnstone. From his report, as reproduced in the local papers, it appears that in the early stages of the epidemic a tolerably distinct connection with the consumption of certain ice-creams was traceable, but later on suspicion attached to the water supplies. There were 672 cases among a population of (approximately) 85,850 living within the area supplied by the Paisley Water Commission, an attack-rate of 7.8 per 1,000, while in the outside districts the rate was only 0.3 per 1,000. And, further, in the parts of the "landward" districts of the county supplied from the Paisley mains the attack-rate was 15.1, while in the remainder of the district, otherwise supplied, the corresponding rate was 0.5 only. Dr. Campbell Munro adds that the hot, dry summer of 1887 was followed by an epidemic prevalence of enteric fever in Paisley, Johnstone, and Elderslie, and was attributed by the late medical officer of Paisley to the washing down of impurities into the water reservoirs by the succeeding rains. The Water Commissioners are said to be desirous of doing all in their power to meet the emergency. In a later report it is mentioned that there had been no cases of enteric fever for three months past in the burgh of Renfrew, except in the little suburb of Moorpark, which alone is supplied from the Paisley mains, the rest receiving water from Glasgow.

THE WATER CARRIAGE SYSTEM IN HUDDERSFIELD.

A subcommittee of the County Council of Huddersfield have recommended the adoption of a water carriage system in the borough. The subcommittee were appointed in February last to consider the subject, and have in the interval visited Sheffield and Burnley to see the actual working of the trough and slopclosets at those places. The necessity for the formation of the subcommittee arose in several ways: extension and increasing cost of the tub system in Huddersfield, the attention requisite, the inability wholly to prevent nuisance, and the benefit accruing from excreta being mingled with other matter at the sewage outfall works being amongst other reasons. Against change of system were initial cost, supposed waste of water, cost of maintenance and damage by frost, fouling of sewers, and loss of manurial value of tub contents. After weighing these several points in the light of experience gained at Sheffield, Burnley, and elsewhere, the subcommittee have felt able to give a "decided answer" in favour of water carriage, "both from a health and a pecuniary point of view," recommending indoor waterclosets to better class property, slopclosets to single artisan houses, and troughclosets for blocks of houses in poor neighbourhoods and for mills.

THE "CORRECTION" OF DEATH-RATES.

Dr. Thresh, in his report to the Essex County Council, severely and very properly criticises the practice, which, we believe, is but too frequent with the sanitary authorities of so-called "health resorts" of inducing the medical officers to "adjust" the local statistics with a view to bringing out the lowest possible death-rate. In this instance it is Southend—a place the sanitary reputation of which has of late been under a cloud, but which lays claim to a death-rate of only 14.9. The deaths in the union infirmary of paupers from the district are quietly ignored, and the 21 deaths of visitors are deducted, but at the same time 2,500 is added to the estimated resident population as the average number of visitors present in the town, although some must have been already included in the census enumeration. Dr. Thresh, taking the estimated permanent population and eliminating the deaths of visitors, but including those of paupers belonging to the place, brings out a very different result, namely, 19.3, and it is probable that the figure would be still higher were the Registrar-General's "factor for correction" deduced from the constitution of the population, according to age and sex, to be applied to the recorded rate.

ICE CREAM AND INFECTION.

Recently a very important question was raised in Glasgow by the Health Committee of the Town Council. The only too probable conveyance of infection by ice cream has been under the consideration of Dr. Russell and the public health authorities, and, evidence of infection by such a channel being forthcoming, the Public Health Committee determined to place, if possible, all ice cream shops under the same control as dairies. In Glasgow there are 318 ice cream merchants, of whom 140 registered their business when asked to do so. Others refused, and a test case was raised, which was decided by the sheriff in favour of the Health Committee. The case has been appealed to the High Court, it being argued that if ice cream vendors can be compelled to register, so also can any who sell manufactured articles of which cream or milk is a prominent ingredient—every seller of condensed milk, for example. In Paisley an outbreak of enteric fever is attributed by the medical officer to infected ice cream. No fewer than 360 cases have been notified up to the first week in October, and in the neighbouring town of Johnstone a similar epidemic has occurred. It is, therefore, hardly possible to overestimate the value of the procedure the Glasgow authorities seek to enforce.

INSPECTION OF HOUSES BY M.O.H.

Interested writes: A. and B. are two medical practitioners, residing in a small town. A. is medical officer of health. B. notifies an infectious case to A., who subsequently visit the house and enters the premises, inspecting several rooms, etc., to the annoyance of the inmates. Has A. the power to do this without a magistrate's order in any ordinary case notified?

*** If the tenant objects, A. has no legal right to enter the premises without obtaining a magistrate's order; but it is proper and usual for the medical officer of health or his inspector to make an inspection when a case of infectious disease is notified, and it is very unusual indeed for permission to be refused, so that the necessity for a magistrate's order rarely arises.

SPECIAL FEES IN POOR-LAW PRACTICE.

A District Medical Officer, whose questions were answered in the British Medical Journal of October 14th, page 872, writes another

long letter on the same subject, stating that the guardians have allowed him a gratuity of £1 10s. for the case in which we stated he was not legally entitled to any fee; he finds fault with the law now in operation, and asks whether we consider he has a good chance to recover the fee for the second case, and whether it is wise that he should do so.

*** We believe the fee in question to be recoverable if the necessary legal steps are taken, but we cannot form any opinion as to the wisdom of putting the law in action. Our correspondent himself ought on this point to be by far the best judge. As, however, he has been allowed a fee for a case where he could not demand one, we think it would not be wise for him to forget this.

DEAD DOGS AND CATS.

A long discussion took place on October 23rd at the Salford Council concerning the pollution of the Manchester Ship Canal. Alderman Bailey said that the company were removing dead dogs and cats from the Irwell at the rate of 250 a month.

HOSPITAL AND DISPENSARY MANAGEMENT.

THE LONDON COUNTY ASYLUM, COLNEY HATCH.

On December 31st, 1892, there were 2,252 patients in this asylum, and the average number resident during the year was 2,252. The number of patients admitted was 568; of these 23 per cent. had had previous attacks, 20 per cent. inherited a tendency to insanity, and 11 per cent. were of intemperate habits. There were 42 cases of epilepsy, and 49 were general paralytics. With regard to the prospect of cure among the admissions, Dr. Seward says the patients sent to the asylum appear to be of a more hopeless class every year, and on the male side there are at the present time fewer curable cases than he ever remembers. In not more than 25 per cent. of the male admissions was there the slightest prospect of recovery; 34 were admitted during the year who were 70 years old and upwards, and nearly all of them required infirmary care. Upon this point Dr. Seward suggests that such cases might with great advantage be cared for in an infirmary provided for the purpose in London; the grave risk, he says, involved in a railway journey of many miles would be avoided, the chronic pressure on the infirmary accommodation of the asylums would be relieved, and the patients, who have often only a few days to live, could be more easily visited by their friends. The discharges numbered 317, and of these 214 were recovered. The deaths were 253, and *post-mortem* examinations were made in 217 cases.

THE LONDON COUNTY ASYLUM, HANWELL.

During the year 1892 the total number of cases under treatment was 2,357, and there were 462 cases admitted; a large number of these were general paralytics. This disease shows a steady and marked increase. In 1889 there were 31 men and 8 women admitted who were suffering from general paralysis, and in 1892 there were no fewer than 71 men and 19 women admitted who were the victims of that disease. Dr. Alexander, like his colleague at Colney Hatch, complains of the number of very old people sent to the asylum. Twenty-four cases were aged 70 years and upwards, most of them greatly broken down in health, and seeming more suitable for workhouse than asylum treatment. In two of these cases Dr. Alexander thinks that positive harm was done to their health by removal to the asylum. Of the 462 cases admitted, 112 were discharged recovered, 28 were discharged relieved or not improved, 46 died, and 276 remained in the asylum. The percentages of recoveries calculated on the admissions and excluding transfers were 45.17 for men and 47.09 for women. The death-rate calculated on the total number under treatment was 9.30 per cent. for the men and 7.64 per cent. for the women; 49 men died of general paralysis. Speaking of the Lunacy Act, 1890, as far as the recertification of patients before their reception order expires, Dr. Alexander says, an experience of nearly three years of the section only confirms the bad opinion he had at first formed of it, and that he has now no hesitation in joining the chorus of condemnation with which it has been greeted by asylum medical superintendents.

MEDICAL NEWS.

A course of six lectures on "Sick Nursing," beginning on November 15th at 4 P.M., will be given under the auspices of the National Health Society, by permission of the Duchess of Bedford, at 15, Belgrave Square.

Mr. Charles Jenner, a brother of Sir William Jenner, and the head of a well-known mercantile house in Edinburgh, has just passed away at the ripe age of 84. Besides being a keen geologist and botanist, he was a generous patron of the arts.

Dr. George Padley, of Swansea, President of the Royal Institution of South Wales, has been presented by his friends with an illuminated address and a purse containing 105 sovereigns on the occasion of his retirement from practice. The presentation was made by Lord Swansea at a meeting in the theatre of the institution, which was attended by a large number of ladies and gentlemen, and the tributes borne to Dr. Padley's character and achievement were of the most gratifying kind.

A Reuter's telegram, dated St. John's, Newfoundland, November 1st, says: "Great anxiety is felt here in regard to the fate of Dr. Grenfell, one of the doctors attached to the Deep Sea Mission to the fishing colonies on the Labrador coast. The mission vessel only recently returned from a most successful voyage, and it was expected that Dr. Grenfell would be on board of her. It now appears, however, that he left Battle Harbour, Labrador, on October 18th, in the steam launch, *Princess May*, bound direct for St. John's. The *Princess May* has not been heard of since, and grave fears are entertained for her safety, as bad weather has prevailed lately off Labrador. There is still hope that the launch may have put in for shelter in one of the harbours along the coast, and the mail steamer going north to-day has been ordered to make inquiries at all the intermediate ports.

MEDICAL VACANCIES.

The following vacancies are announced:

BALLYSHANNON UNION (KINLOUGH DISPENSARY).—Medical Officer. Salary, £100 per annum, with £20 yearly as Medical Officer of Health, together with registration and vaccination fees. Applications to Mr. James McGurran, Honorary Secretary. Election on November 23rd.

BAWNBOY UNION (SWANLINBAR DISPENSARY).—Medical Officer. Salary, £90 per annum, with £15 as Medical Officer of Health, together with registration and vaccination fees. Applications to Mr. Thomas McGovern, Honorary Secretary. Election on November 4th.

BELGRAVE HOSPITAL FOR CHILDREN, 77 and 79, Gloucester Street, S.W.—Physician for Outpatients. Applications to Honorary Secretary by November 8th.

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN.—An Acting Physician and a Surgeon Dentist. Appointment for twelve months, but eligible for re-election. Applications to the Medical Board, Children's Hospital, Steelhouse Lane, Birmingham, by November 8th.

CHELTENHAM GENERAL HOSPITAL.—Resident Surgeon for the Branch Dispensary, unmarried, or if married, without family. Salary, £180 per annum, with partly-furnished house, coal, and gas. Applications to the Honorary Secretary and Treasurer by November 25th.

FINCHLEY LOCAL BOARD.—Medical Officer of Health for the Urban Sanitary District; must hold a diploma in Public Health, and reside within three miles of the boundary. Salary, £100 per annum. Applications, endorsed "Medical Officer of Health," to the Clerk by November 4th.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, Bloomsbury, W.C.—Resident Medical Officer as House-Physician, unmarried. Appointment for six months. Salary, £20, with board and residence in the hospital. Applications to Secretary, by November 7th.

HOSPITAL FOR WOMEN, Soho Square, W.—Assistant Physician. Applications to the Secretary by November 14th.

HULME DISPENSARY, Manchester.—Honorary Surgeon; must be M.R.C.S. Applications to F. H. Collins, M.D., Honorary Secretary, Medical Committee, by November 6th.

KENT AND CANTERBURY HOSPITAL.—Assistant House-Surgeon; unmarried. Salary, £50 per annum, with board and lodging. Applications to the Secretary by November 30th.

KILKENNY DISTRICT ASYLUM.—Resident Assistant Medical Officer. Salary, £110 per annum, with usual allowances. Candidates must be unmarried and under 30 years of age. Applications to the Resident Medical Superintendent. Election on November 8th.

LONDON THROAT HOSPITAL, 204, Great Portland Street, W.—Junior Assistant-Surgeon. Applications to Edward Law, M.D., Honorary Secretary, Medical Committee, by November 14th.

NATIONAL SANATORIUM FOR CONSUMPTION AND DISEASES OF THE CHEST, Bournemouth.—Resident Medical Officer and Secretary. Salary £120 per annum, with board and lodging. Applications to the "Chairman of Committee" by December 5th.

OLDHAM INFIRMARY.—House-Surgeon; doubly qualified. Salary, £50 per annum, with board and lodging. Applications to the Secretary by November 14th.

ROYAL NATIONAL HOSPITAL FOR CONSUMPTION, Ventnor.—Assistant Resident Medical Officer, unmarried. Salary, £70 per annum, with board and lodging in the hospital. Applications to be addressed to the Board of Management at the London Office, 34, Craven Street, Charing Cross, W.C.

SALFORD UNION INFIRMARY.—Assistant Medical Officer; doubly qualified. Salary, £130 per annum, with furnished apartments. Applications, endorsed "Assistant Medical Officer," to T. H. Bagshaw, Clerk to the Guardians, Union Offices, Eccles New Road, Salford, by November 14th.

STAFFORDSHIRE GENERAL INFIRMARY.—House-Surgeon; doubly qualified. Salary, £100 per annum, with board, lodging, and washing. Applications to the Secretary of the Infirmary, Lloyd's Bank, Limited, Stafford, by November 18th.

STROUD GENERAL HOSPITAL.—House-Surgeon; doubly qualified. Salary, £80 per annum, with board, lodging, and washing. Applications to the Honorary Secretary, John Libby, New Mills, Stroud, by November 8th.

SUNDERLAND INFIRMARY.—House-Physician; doubly qualified. Salary, £80 per annum, rising £10 annually to £100, with board and residence. Applications to the Chairman of the Medical Board by December 4th.

SURREY DISPENSARY, Great Dover Street, S.E.—House-Surgeon; doubly qualified, unmarried, and over 30 years of age. Salary, £120 per annum, with furnished apartments, coals, gas, and attendance. Candidates must attend before the Monthly Committee on Tuesday, November 14th, at 6 P.M.

TORBAY HOSPITAL AND PROVIDENT DISPENSARY, Torquay.—Junior House-Surgeon and Dispenser; doubly qualified, unmarried. Board, lodging, and attendance provided. Salary, £80 per annum. Applications to the Honorary Secretary, Captain Phillpotts, R.N., by November 13th.

UNIVERSITY COLLEGE HOSPITAL, Gower Street, W.C.—Senior Dispenser. Salary, £150 per annum, and half the fees paid by dispensary pupils. Must be Pharmaceutical Chemist. Applications, marked outside "Senior Dispenser," to the Secretary by November 9th.

WEST END HOSPITAL FOR DISEASES OF THE NERVOUS SYSTEM, 73, Welbeck Street, Cavendish Square, W.—Honorary Resident Medical Officer. Board and residence provided. Applications to the Committee by November 8th.

MEDICAL APPOINTMENTS.

ARNISON, W. D., M.D., B.S., M.R.C.S., L.R.C.P., appointed Anæsthetist to the Royal Infirmary, Newcastle-on-Tyne, *vice* W. Baigent, M.D., resigned.

BEATTIE, T. M.B., B.S., appointed Senior House-Physician to the Royal Infirmary, Newcastle-on-Tyne, *vice* W. D. Arnison, M.D., resigned.

ELLIOTT, George Blacker, L.R.C.S.I., L.M. L.A.H.Dub., appointed Medical Officer of Health to the Brixham Local Board, *vice* Geo. C. Searle, M.R.C.S.Eng., resigned.

ELLISON, A., M.R.C.S., L.R.C.P.., appointed one of the House-Surgeons to the General Infirmary, Leeds.

FIRTH, E. G., L.S.A., appointed Resident Medical Officer to the Ida Hospital of the General Infirmary, Leeds.

FOX, E. L., M.A., M.D.Camb., M.R.C.P.Lond., appointed Physician to the South Devon and East Cornwall Hospital, Plymouth.

HAYDON, Arthur George, M.R.C.S.Eng., L.R.C.P.Lond., appointed Assistant Electrician to St. Bartholomew's Hospital.

HOFTON, E., M.R.C.S., L.R.C.P., appointed Resident Obstetric Officer to the General Infirmary, Leeds.

JACKSON, D. N., M.B., B.S., appointed House Surgeon to the Royal Infirmary, Newcastle-on-Tyne, *vice* W. H. Bishop, M.B., B.S., resigned.

JACOB, Henry W., M.A., M.D.Dub., appointed Honorary Physician to the Taunton and Somerset Hospital, *vice* John Currie, M.D., deceased.

JARDINE, Robert, M.D.Edin., M.R.C.S.Eng., appointed Physician for Diseases of Women and Children to the Public Dispensary, Glasgow, and Lecturer on Midwifery and Gynæcology to the Lady Missionary Training Home, Westercraig, Glasgow.

JONES, Benjamin Evans, L.R.C.P.& S.Edin., L.F.P.S.Glasg., appointed Lecturer to the County Council Technical Instruction Committee (Kirkham and district centre) on Sick Nursing and Ambulance for the Winter Session 1893 94.

KEELE, David, M.R.C.S., L.R.C.P., appointed Honorary Surgeon to the Holloway and North Islington Dispensary.

LEWIS, Frederick H., B.A., M.B., B.C., L.R.C.P., M.R.C.S., appointed House-Surgeon to the Royal Alexandra Hospital for Sick Children, Brighton, *vice* E. L. Sortain, M.D.

MARTIN, Albert Morton, M.B.Durh., B.S., appointed Surgical Registrar to the Royal Infirmary, Newcastle-on-Tyne.

OLDFIELD, C., M.R.C.S., L.R.C.P.. appointed one of the House-Surgeons to the General Infirmary, Leeds.

ROBERT, Robert, M.B., C.M.Edin., appointed Professor of Anatomy in the University of Durham.

SMURTHWAITE, H., M.B., B.S., appointed Junior House-Physician to the Royal Infirmary, Newcastle-on-Tyne, *vice* T. Beattie, M.B., resigned.

STOCKS, W. Percy, F.R.C.S., appointed Assistant Surgeon to the Clinical Hospital, Manchester.

STONEY, W. W., M.B.Vict., appointed one of the House-Physicians to the General Infirmary, Leeds.

WILLIAMS, George Herbert, M.D., M.R.C.S.Eng., L.R.C.P.Edin., appointed Medical Examiner to the United States Branch of the Nederland Life Insurance Company, Limited.

DIARY FOR NEXT WEEK.

MONDAY.

LONDON POST-GRADUATE COURSE, Royal London Ophthalmic Hospital 1 P.M.—Mr. W. Lang: Corneal Affections.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN, 8 P.M.—Paper by Mr. Hopewell Smith.—Communications by Mr. Arbuthnot Lane and the President.

TUESDAY.

LONDON POST-GRADUATE COURSE, Bethlem Hospital, 2 P.M.—Dr. Corner: Climacteric and Senile Insanity. Hospital for Diseases of the Skin, Blackfriars, 4 P.M.—Dr. Payne: Seborrhœa and its Consequences.

PATHOLOGICAL SOCIETY OF LONDON, 8.30 P.M.—Mr. Berry: (1) Bullet Wound of Heart; (2) Wound of Carotid.—Mr. Jackson Clarke: A New Phase of Coccidium Oviforme.—Dr. Charlewood Turner: Intussusception.—Mr. J. C. Hollis: Angeioma of Scapular Region.—Mr. Clutton: Syphilitic Disease of Tibia.—Mr. Cecil Beadles: Lymphadenomatous Growth of Heart.—Dr. Lee Dickinson: Crystals of Bilirubin from an Hydatid Cyst.—Card Specimen: Dr. Lee Dickinson: Kidney partly Hydronephrotic with Double Ureter.

WEDNESDAY.

LONDON POST-GRADUATE COURSE, Hospital for Consumption, Brompton, 4 P.M.—Dr. Hector Mackenzie: Physical Diagnosis of Phthisis. Royal London Ophthalmic Hospital, 8 P.M.—Mr. A. Quarry Silcock: Glaucoma, with Illustrative Cases.

HUNTERIAN SOCIETY, 8.30 P.M.—(Clinical evening.)—The President: Case of Insolatio.—Sir Hugh R. Beevor: Two Cases of Persistent Systolic Murmurs over the Aorta and Pulmonary Artery respectively.—Dr. Fred. J. Smith: (1) Case of Paralysis of Left Face and Shoulder Muscles in a Man, Dating from Infancy; (2) Case of Cardiac Crisis (?) in Tabes Dorsalis.—Mr. T. H. Openshaw: Case of Filaria Sanguinis Hominis.—And other Cases.

THURSDAY.

LONDON POST-GRADUATE COURSE, National Hospital for the Paralysed and Epileptic, Queen Square, 2 P.M.—Dr. Ormerod: Ataxia. Hospital for Sick Children, Great Ormond Street, 3.30 P.M.—Dr. Arthur Voelcker: Some Manifestations of Rickets. Central London Sick Asylum, Cleveland Street, 5.30 P.M.—Mr. John Hopkins: Cases in the Wards. London Throat Hospital, Great Portland Street, W., 8 P.M.—Mr. W. R. H. Stewart: The Complications of Middle Ear Disease.

BRITISH GYNÆCOLOGICAL SOCIETY, 8.30 P.M.—Pathological Specimens.—The President (Mr. Bowreman Jessett): On Twelve Cases of Vaginal Hysterectomy, with Specimens and Microscopic Sections.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM, 8.30 P.M.—Patients and Card Specimens at 8 P.M.—Card Specimens: Messrs. Critchett and Juler: A Case of Pemphigus of the Conjunctiva.—Mr. G. Anderson Critchett: A Case of Conical Cornea treated by the Galvano-Cautery without Perforation.—Mr. Juler: A Case of Central Colloid Changes in the Retina.—Mr. Frederick Bass: A Pocket Refraction Case.—Papers: Mr. Bokenham: Note on Benzoyl-pseudo-tropeine.—And other Papers.

FRIDAY.

LONDON POST-GRADUATE COURSE, Hospital for Consumption, Brompton, 4 P.M.—Dr. Hector Mackenzie: Physical Diagnosis of Phthisis.

CLINICAL SOCIETY OF LONDON, 8.30 P.M.—Dr. Frederick Taylor: A Case of Disease of the Corpora Quadrigemina.—Mr. Mansell Moullin: Traumatic Arachnoid Hæmorrhage, with Symptoms on the same side as the Lesion.—Dr. C. E. Beevor: A Case of Syphilitic Tumours of the Spinal Cord with Symptoms Simulating Syringomyclia.

SATURDAY.

LONDON POST-GRADUATE COURSE, Bethlem Hospital, 11 A.M.—Dr. Percy Smith: Alcoholic Insanity.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTHS.

HAYNES.—On October 24th, at Leamington, the wife of Frederic H. Haynes, M.D.Lond., J.P., of a son.

ROSS.—On Tuesday, October 31st, at Woodbourne, Aigburth, Liverpool, the wife of A. MacLeod Ross, M.B., F.R.C.S.Eng., of a son.

RUSSELL.—On October 28th, at 4, Queen Anne Street, Cavendish Square, W., the wife of J. S. Risien Russell, M.D., M.R.C.P., of a daughter.

VICKERY.—On October 25th, at 52, Elswick Road, Newcastle-on-Tyne, the wife of W. H. Vickery, F.R.C.S.Eng., of a daughter.

WILLIAMS.—On October 11th, at 167, West 81st Street, New York City, the wife of George Herbert Williams, M.D., M.R.C.S.Eng., L.R.C.P.Edin., of a daughter—Agnes Van Vorst.

MARRIAGES.

BIRD—MORTIMER.—On October 24th, at St. Mary Magdalene's Church, Paddington, by the Rev. W. H. Bleaden, vicar, assisted by the Rev. Douglas Braginton, cousin of the bridegroom, and the Rev. C. F. Reeks, the Rev. Harold Braginton Bird, only son of Dr. Bird, M.R.C.P. Lond., of West Brighton, to Georgina Edith Mortimer, eldest daughter of the late Lieutenant-Colonel Thomas Bythesea Mortimer, of the 21st Royal North British Fusiliers and 76th Regiments, and latterly of Her Majesty's Royal Body Guard.

ENGLISH—RIDAL.—On October 26th, at St. John's, Cheltenham, by the Rev. A. Armitage, M.A., Thomas Harks English, M.R.C.S.Eng., L.R.C.P.Lond., L.S.A., of Holderness Road, Hull, and son of the late A. W. English, J.P., of Whitby, to Anna Louisa, youngest daughter of the late A. Ridal, Esq., of Stocksbridge Hall, Yorkshire.

JOSEPH—GLYDE.—On October 25th, at the Congregational Church, Saltaire, by the Rev. J. A. Hamilton, Arthur Hill Joseph, M.B.Lond., of Cardiff, to Gertrude Helen Taylor Glyde, third daughter of the late W. E. Glyde, of Moorhead, Saltaire.

MATHEWS—GUEST.—On October 26th, at Christchurch, West Bromwich, by the Rev. W. Solly, assisted by the Rev. G. E. Lithgow, Frank Edward Mathews, M.R.C.S., L.R.C.P., son of William Mathews, M.D., F.R.C.S., of Manor House, Nantwich, to Lizzie Ethel, fourth daughter of Josiah Guest, of Halton House, West Bromwich.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

The Gross Value of a Practice.

M.R.C.S. bought a practice on the following terms: On entering a certain sum to be paid, and a further sum to be paid at the end of the first year, provided that the gross value of private practice reached a certain figure. What is meant by the gross value? Is it the total receipts or total bookings?

*** The term was evidently intended to embrace the amount of business done, not merely the amount actually paid for.

ANSWERS.

W. S. S.—If our correspondent will forward his address a list of works on the subject will be forwarded to him.

RUSTICUS.—*A Code of Medical Ethics*, by Jukes de Styrap, M.K.Q.C.P.., is published by H. K. Lewis, London, price 3s.

T. S. McC.—We find that the name of Daniel Sutherland was erased from the *Medical Register* on May 20th, 1885, by order of the General Medical Council, for "infamous conduct in a professional respect."

C. L. G., Didsbury College, Manchester.—The Medical Sickness, Annuity, and Life Assurance Society is a thoroughly sound and successful institution. The address of the Secretary is Mr. F. Addiscott, 33, Chancery Lane, W.C.

M.S.—1. The death-rate per thousand of the male population of Great Britain and Ireland in 1891 was 21.0. 2. It is impossible to give the death-rate of males between 18 and 25, as the deaths at each year of age between 15 and 20 are not separately abstracted.

Pruritus Ani.

A.F.P. writes: I would suggest that "Surgeon" should try the local application of peppermint water or of eau de cologne.

To Prevent Fleabites.

IN answer to "A. G. S." in the BRITISH MEDICAL JOURNAL of October 28th, a matron of a "home" writes to say that she thinks she has been less bitten by fleas this summer because she has sponged herself over with infusion of quassia after her bath night and morning.

Valuation of a Practice.

X. Y. Z.—The value of a practice is usually based upon the average of the actual receipts for three years preceding the event, unless the period includes epidemic years, in which case the calculation should be extended over a longer period.

Beef Tea.

M.J.K.—We find it stated in Professor Halliburton's *Chemical Physiology*, p. 597, that "Beef tea is nutritious only to a slight extent, as it contains mere traces of proteids, gelatine, and fats." And further that "its stimulating effect is due to the extractives creatine, xanthine, hypoxanthine, lactic acid, and salts."—*Ibid.*

Wasp Stings.

A.F.P. writes: I would recommend trial in these cases of a very simple remedy and one which is at hand in most households, namely, kerosene oil, applied locally. In India I have found this substance very efficacious in relieving the intense pain of scorpion stings, far more so than ammonia, ipecacuanha, tobacco, etc., the remedies usually resorted to.

Tinnitus Aurium.

J.F.E. writes: In reply to "M.B.'s" query as to the best means of relieving tinnitus aurium, strychnine, bromide, and other treatment having failed, I would suggest the trial of ergot, giving 15 to 20 minims of the liquid extract in water three times a day. The action of the drug by constricting the small capillaries of the internal ear whose loss of tone and consequent dilatation may, by allowing an excessive flow of blood through them, be the cause of the whole trouble, will, it is extremely likely, alleviate the throbbing rushing noise peculiar to this distressing ailment.

NOTES, LETTERS, Etc.

ERRATUM.—In the review of Dr. Oswald Ziemssen's book, the *Treatment of Constitutional Syphilis*, which appeared in the BRITISH MEDICAL JOURNAL of October 28th, p. 950, the words "Dr. Ziemssen has satisfied himthat by this method no mercury enters the body," etc., should read "the mercury," etc.

Newspaper Medicine.

ONE of the New York newspapers lately gave prominence to a most imaginative article on disease of the vermiform appendix. The writer took the position that operations for that disease were done with unnecessary frequency, and cited a case in which an individual affected with it had declined surgical interference, and had ultimately coughed up his appendix.

The Case of Williams *v.* Soden and Meaden.

WE are requested to publish the following brief account of the above case, tried at the Cardiff assizes on March 28th, 1893, which is one that will commend itself to the practical sympathy of members of the medical profession: On August 9th, 1892, Mr. Soden went for his holiday, leaving in charge of his practice Charles Meaden, M.B.Durh., at the usual salary of £3 3s. per week. On August 24th Mr. Williams, of Norfolk Street, Swansea, through his wife, summoned Mr. Soden to attend him. Williams had never previously been Mr. Soden's patient, and his wife employed Mr. Meaden, knowing him to be Mr. Soden's *locum tenens*. It was shown in evidence at the trial that Mr. Meaden dispensed medicine containing ammonia in such a dose as to prove injurious to the patient, who, after taking a dose, vomited and suffered from irritation of the mouth and throat, attended with much pain. Williams attempted to get compensation from Mr. Meaden, but, failing to come to any arrangement, he eventually took proceedings against Soden and Meaden with a view to recovering £500 damages. The case was heard at the last March assizes at Cardiff. A verdict was given for the plaintiff with £27 damages. Mr. Soden was adjudged responsible, as the employer of Mr. Meaden, the judge at the same time remarking that he regretted that Mr. Soden should ever have been dragged into the case.

From promises made before the trial it was understood that Mr. Meaden would, in case of an adverse judgment, bear the expenses. Since, then, however, he has declined to pay even a portion of the plaintiff's costs and damages. Thus Mr. Soden is left to pay, not only his own costs and expenses in connection with the trial, but also the plaintiff's costs and damages. His liabilities are as follows:

	£	s.	d.
Plaintiff's costs, etc., including damages	120	0	0
Mr. Soden's costs	85	0	0
Mr. Soden's expenses at Cardiff during assizes ...	6	0	0
Mr. Soden's expenses for *locum tenens*	9	0	0
	£220	0	0

A committee, consisting of Swansea medical men, have opened a subscription list for the purpose of defraying the expenses of Mr. Soden, who has only recently commenced practice. Subscriptions, which are especially invited from members of the profession in South Wales and the neighbouring English counties, may be sent to the Glamorganshire Banking Company, Swansea, or to the Honorary Secretary to the fund, Mr. W. F. Brook, Mount Pleasant, Swansea.

Subscriptions to the Soden Fund.

	£	s.	d.		£	s.	d.
Wm. Morgan, Swansea ...	5	5	0	R. Roxburgh, M.B., Weston-super-Mare	0	10	6
H. Pringle, M.D., Bridgend	2	2	0	J. W. White, Bristol	0	5	0
E. B. Evans, Swansea ...	0	10	0	J. Swain, M.D., Clifton ...	0	10	0
— Savage, Liverpool Street	2	2	0	D. Campbell, M.D., Calne ...	0	10	6
J. McGinn, Newport... ...	1	5	0	H. Grace, Kingswood ...	0	10	0
F. Lewis, Llandovery ...	1	1	0	J. Stamper, M.D., Pembroke Docks	0	10	0
H. C. Bevan, Nantyglo ...	0	10	6	E. Le C. Lancaster, M.B., Swansea	0	10	6
T. Limberg, Newport ...	0	10	0	J. A. Rawlings, Swansea ...	0	10	0
J. Mullin, Newport	1	1	0	H. Charles, Swansea ...	1	1	0
J. S. Thomas, Cardiff ...	0	10	6	J. Wigmore, M.D., Twerton-on-Avon	0	5	0
A. Eddowes, M.D., 25, Old Burlington Street, London	0	10	0	D. A. Davis, M.B., Swansea	1	1	0
D. T. Edwards, Taff Wells...	1	1	0	A.G. Thomas, M.D., Newport	2	2	0
A. Bethell, Bridgnorth ...	0	10	0	T. Fernandez, M.D., Ross...	0	10	6
L. Manning, M.B., Llanymynech	0	5	0	T. Wallace, M.D., Cardiff ...	1	1	0
J. W. Roe, M.D., Ellesmere	1	1	0	W. F. Brook, Swansea ...	0	10	6
M. Lloyd, M.D., Llanarthney	1	0	0	J. Davis, Swansea	1	1	0
J. W. Riley, Pontesbury ...	0	5	0	T.D. Griffiths, M.D., Swansea	1	1	0
R. Elsworth, M.B., Swansea	1	1	0	J. Evans, Swansea	1	1	0
J. Rattray, M.D., Frome ...	0	10	6				
A. L. Wade, M.D., Wells ...	1	1	0		£35	12	0

Street Noises.

THE noises of the streets are so irritating and so destructive of good work on the part of those who have to use their brains, that it need be matter of no surprise that so perennial a cause of annoyance should this year have yielded an autumn crop of newspaper correspondence. The dull roar of the streets is bad enough although endurable; the cacophonous cries with which London abounds, the meanings of which seem known to none, are more active sources of disturbance to brain workers of every class, but the sounds which bear the palm for destructiveness of all continued mental effort are such as have suggestiveness, and trail red herrings across the line of thought. It is not as

noise alone that music is an interference with mental processes, but as a real obstacle, a something standing in the way, turning off the current of thought into other channels. Fortunately the remedy is in the hands of those who object to the nuisance, if they will but combine for the purpose.

The Improved Medical Practitioner's Cash Book.

We have received a sample of this cash book designed by Dr. C. R. Illingworth; it is ingenious and probably useful. Whether it is worth while to enter such details as the cook's wages in the same book as the professional accounts is one of those matters which every man must decide for himself. One of the points in this cash book is a special column for items which may be deducted for income-tax purposes, and it seems probable that if such deductible items are systematically entered in this column it will add up to a considerably larger amount than some people would expect. We notice that the medical practitioner is not expected to figure as a capitalist; no special column is provided for interest from his investments.

Quarantine in the United States.

The remarks which Mr. Ernest Hart, Editor of the British Medical Journal, and a high authority upon sanitary questions, made on the subject of quarantine before the Academy of Medicine last evening (says the New York *Evening Post* of October 11th), show how far behind other countries we are lagging in clinging to barbaric ideas about cholera, and the way to guard against it. He declares that quarantine is an exploded fallacy, which English experience caused to be discarded over a quarter of a century ago; that it is a cruel and unwarranted proceeding, and that the only effective quarantine is a Chinese wall. As for danger of infection from cholera, he said: "There is nothing so easy to keep out and deal with as cholera. The fear of cholera has saved more lives in the world than the epidemics of the last fifty years have destroyed. The knowledge that it is due to dirty water compels the authorities to take precautions that have saved thousands of lives every year. You can eat cholera, you can drink cholera, but you cannot catch it, even if you run after it. The safest place in a cholera epidemic is a cholera hospital. If I were to put a cholera hospital in New York I would set it down right in Fifth Avenue. It would make a panic, stir up the authorities to keep the Croton clean, the drain pipes clear, and the sewage connections perfect. You do not quarantine against measles or typhus, but you do guard against that which is not catching. Quarantine is a sign of cowardice and reproach. The purity of the water supply, clean streets, not quarantine, are the proper precautions." There is nothing new in this to anyone who is familiar with the scientific progress of the age, as the results are embodied in the health regulations of European countries. We not only continue a barbaric system here, but we employ Tammany men to administer it, and when by great good luck no cholera gets into the country, we lift pæans of praise to them for their wonderful services in keeping cholera out.

Ague on the Medway.

Ague has, says the *Daily News*, in great part been driven away from the Marsh country of the Lower Medway since Pip brought food to the escaped convict in the lone churchyard, a fact which is attributed to the reclamation of large tracts of marsh land and the establishment of great brick and cement works hereabouts. The medical officers of Chatham Prison, however, report that there is still some malarial influence at work in their neighbourhood. Convicts who have come to the prison from other districts in robust health have been observed to become sickly, and the children here have soon lost the ruddy glow of health. Adults become anæmic and subject to chronic rheumatism, but the most noticeable effect of the climate upon prisoners was loss of weight. So well known was the fact that some years ago it was decided that an increased dietary was necessary, and this was continued up to the time of closing the prison. Even then it was observed a large number of prisoners were found to lose weight, and an extra allowance of half a pound of bread daily has, in many instances, been required.

Treatment of Ophthalmia in Girls at Puberty.

Mr. Henry E. Maberley, B.A., M.R.C.S. (Peckham) writes: That the orthodox treatment of this condition is not altogether satisfactory and needs revision at the hands of the specialists to whom the general practitioner owes so much is to some extent, I think, shown by the following history:

In August last a tall, slight, and somewhat pallid girl, aged 15, was brought to me suffering from a very severe attack of conjunctivitis with intense photophobia. The lids were greatly swollen; the upper overlapping the lower to such an extent that it was almost impossible to obtain any view of the eyeball. She had scarcely had any sleep for more than a week owing to the pain; this, combined with an almost total loss of appetite, had made her very weak. The pulse was feeble, the skin dry, the tongue covered with a thin yellowish fur, the breath very offensive, the bowels costive, the extremities cold, and—to my mind, most important of all—she had "never seen anything." Her eyes began to trouble her last November, and "every cold she took they became worse," until in May she was taken to the eye department of a large metropolitan hospital, where she received the routine local treatment for phlyctenular conjunctivitis and was given cod-liver oil with iron. Being no better at the end of ten weeks, she went to Moorfields, where practically the same treatment was adopted. After attending for one month she was brought to me in the condition described. She was told to bathe her eyes frequently with hot milk and water, to wear a shade coming down almost to the level of the mouth to prevent her hanging down her head, to put her feet every night into hot mustard and water, and to take three times daily a diaphoretic and mildly purgative mixture. Improvement began at once. The pain ceased and sleep returned; the tongue cleaned, and once more food was enjoyed. In short, when on October 2nd she left for a long stay in the country, there was nothing remaining to show the severity of the attack but a little photophobia and a very small nebula on the right cornea.

Notice to Correspondents and Authors of Communications.

In view of the great and constantly-increasing pressure on our space, we would urgently request correspondents and authors of communications to assist us in endeavouring to place their views before our readers by condensing their communications to the utmost extent.

LETTERS, COMMUNICATIONS, Etc., have been received from:

(A) "Audi Alteram Partem"; Professor Clifford Allbutt, Cambridge; Mr. R. A. Anderson, Dundee; Dr. W. D. Arnison, Newcastle-on-Tyne. **(B)** Mr. W. F. Brook, Swansea; H. S. Ballance, M.B., London; S. Barwise, M.B., Derby; Dr. H. C. Bristowe, Wells; Dr. E. A. C. Baylor, Dover; Mr. A. E. Barrett, London; Mr. J. W. Blair, Leeds; Dr. R. Boxall, London; Dr. P. Baillie, Rochdale. **(C)** Mr. W. J. Corrigan, Cardiff; C. P. B.; C. L. G.; Compagnie Française, London; Church of England Sanitary Association, Secretary, York; Mr. F. Chapman, London; Mr. E. H. Cory, Bournemouth; Dr. E. Clarke, London; Mr. Campbell-Bannerman, London. **(D)** Mr. P. R. Davies, London; Dr. S. Davies, Plumstead; Dr. W. W. Dunkley, Coventry. **(E)** E. G.; Mr. C. G. Evans, Northampton; Mr. J. F. Elliott, Stafford; Eustace; R. E. Evans, M.B., Selkirk. **(F)** Dr. E. L. Fox, Plymouth; Messrs. Fassett and Johnson, London; Mr. H. Fox, Newcastle; D. Fairweather, M.B., London; Dr. F. W. Forbes-Ross, New Brighton; A. H. Frere, M.B., Leeds. **(G)** Mr. S. C. Gamwell, Swansea; Mr. J. Graham, Sydney; Mr. E. Guyon, London. **(H)** W. Hardman, M.B., Blackpool; "Honour Without Profit;" Mr. A. F. Hunter, Edinburgh; Dr. G. Harper, London; T. E. Hill, M.B., Durham; Mr. J. Hutchinson, London. **(I)** Dr. C. R. Illingworth, London. **(J)** Dr. R. Jardine, Glasgow; Dr. H. W. Jacob, Taunton; Mr. R. A. Jamieson, Shanghai. **(L)** F. H. Lewis, M.B., Brighton; Mr. A. G. Lancaster, Canterbury; Mr. J. W. Ley, Newton Abbot. **(M)** Mr. R. Mosse, Coln; A. M. Martin, M.B., Newcastle-on-Tyne; Mr. S. B. Mason, Pontypool; Dr. M. Manges, New York; Dr. L. W. D. Mair, Croydon; A Member; Mr. B. Macqueen, London; Mr. G. H. Morgan, Weston-super-Mare; Mr. E. Manley, Atherstone; Dr. H. P. Major, Hungerford; Dr. S. Murphy, London; Dr. P. Manson, London; Mr. B. Marshall, Atherton. **(N)** Mr. F. L. Nicholls, Cambridge; Messrs. Newberys and Co., London; Mr. W. H. Nash, London. **(O)** Mr. J. I. Ostagan, Liverpool. **(P)** Sir J. Paget, Manchester; Miss M. C. Pincoff, Minehead; Mr. J. W. Penberthy, London; Dr. H. H. Phillips, Reading; Practitioner. **(R)** Mr. W. H. Radford, Manchester; Mr. W. B. Rotheroe, London; Dr. F. Ransom, Berlin; Dr. Risien Russell, London. **(S)** Mr. W. P. Stocks, Salford; Dr. W. R. Smith, London; Dr. A. R. Simpson, Edinburgh; Dr. S. W. Smith, Cheltenham; Mr. A. W. Sinclair, Petherton; S. A. Powell, M.B., Cachar; Dr. H. R. Spencer, London; Sheffield Medico-Chirurgical Society, Secretary, Sheffield; Dr. F. Schacht, London. **(T)** Mr. F. Treves, London; Dr. J. C. Thorowgood, London. **(W)** Dr. A. G. Welsford, Dover; Mr. C. B. Waller, Bingham; Mr. E. W. Wallis, London; Mr. C. J. Wharry, London; etc.

BOOKS, Etc., RECEIVED.

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***** In forwarding books the publishers are requested to state the selling prices.**

DISCUSSION ON THE RADICAL CURE OF HERNIA.

In the Section of Surgery at the Annual Meeting of the British Medical Association held in Newcastle, August, 1893.

I.—Rushton Parker, M.B., B.S., F.R.C.S.,

Professor of Surgery in Victoria University; Surgeon to the Liverpool Royal Infirmary.

The radical cure of hernia has been attempted and no doubt attained by various means, among which herniotomy holds a conspicuous place. My business to-day is solely with such means as I have myself employed, and any technical knowledge that I have has been derived from the practice of herniotomy, dealing with the projecting sac in some manner intended to abolish the offset of the same from the peritoneal cavity, to obliterate the path along which viscera may protrude; to do away not only with the existence of a hernia, but if possible with even all further tendency to it.

Results as complete as can be wished, and as enduring as have been possible during the twenty or more years that surgeons have been thus at work, are abundantly known and are the monopoly of none. But I know of no method that is not open to failure, even after careful execution, in certain severe and obstinate cases that most require it; some of which still die unrelieved, either without operation at all, or may be after several, each apparently more successful than the last, but all proving of but temporary and sometimes brief duration. I think therefore that those surgeons are the best guides who, while working strenuously for progress in this department of our art, do not profess too much, or lead others to form exaggerated expectations. The two factors with which I am concerned, then, are herniotomy (for access and reduction); and the treatment of the sac (for cure).

Herniotomy Statistics.

My herniotomies up to date have numbered 291, during a period of nineteen years, and will be found recorded to the number of 280 in the August and September numbers of the *Provincial Medical Journal*, in eight tables, including an analysis with percentage of deaths. Omitting 15 before I made systematic attempts at radical cure, and 25 that proved fatal from strangulation, there remain some 250 operations in about 200 persons, in whom radical cure was undertaken. Of 61 strangulated, 30 were inguinal, 21 femoral, and 10 umbilical and ventral. No deaths are included here, as they resulted from the effects of strangulation, and not from the attempt at radical cure.

In 190 unstrangulated there were 8 deaths, or 4.2 per cent., attributable to the operation. To go further into detail, of the 190 strangulated:

137 were inguinal in	107	persons, with 5 deaths, or 3.6 p.c.
25 „ femoral „	20	„ „ 1 death, or 4 p.c.
28 „ umbilical and ventral in	24	„ „ 2 deaths, or 7 p.c.

Of the 137 inguinal cases, 22 were infants and children under 12 (1 strangulated at the age of 3 weeks, in which a perfect radical cure still exists after nine years, and 21 unstrangulated, with 1 death, or 4.7 per cent.). To sum up the varieties, there were 167 inguinal in 128 persons, 46 femoral in 41 persons, and 38 umbilical and ventral in 33 persons. Any trustworthy numerical estimate of the proportion of failures I am entirely unable to make, and can only say that those known to me are a very small minority, in femoral and inguinal cases. The proportion in umbilical cases is, however, considerable.

Treatment of the Sac.

Passing by the details of herniotomy, there remains to consider the treatment of the sac, which in my hands has been confined to two processes—ligature (in less than half the cases) and suture (in more than half). My own first attempt at radical cure by means of herniotomy was made in June, 1879, in a case of inguinal omental hernia in a man aged 28, the sac being sewn up with silk. A perfect radical cure resulted, and was confirmed ten or more years after. The following year I did a similar operation, on a very similar case, in a man aged 24, but the hernia returned in a short time. This not proving a satisfactory or trustworthy method in my opinion at the time, it soon after occurred to me to practise ligature of the sac high up, and on January 4th, 1881, I did my first case in a woman of 45, a femoral omental hernia, of which the narrow pedicle was tied with carbolised catgut along with the neck of the sac. The wound healed by first intention under a single dressing, remaining a complete success when last seen a few years after operation. From this date I systematically ligatured the neck of the sac in every case of hernia on which I operated, whether inguinal, femoral, or umbilical, including strangulated cases, and mentioned the practice to my neighbours, who freely followed my initiative. I afterwards learnt that similar operations had been previously performed elsewhere, notably by Annandale at home and by Czerny abroad. In treating the sac by ligature it was my practice to expose and open the spermatic cord in the inguinal region and to strip the hernial sac from the vessels and duct with which it was usually included in the cord. When the sac was short I stripped it all up with its blind end, either opened or unopened as seemed convenient. When the sac reached down into the scrotum, and especially if down to the testicle I did not make a point of stripping the whole of it up but only enough to get hold of and enable me to reach its offset from the peritoneal pouch, in that case cutting across the sac somewhere about the external abdominal ring, leaving the part below to take care of itself. It is true that I have once or twice tied or otherwise closed the orifice of the scrotal part of the sac thus left as if to construct a properly-formed tunica vaginalis, but I soon gave up this useless proceeding. Similarly in the inguinal hernia of women I have left the labial portion of sac when it extended so far. I did not usually attempt to approximate the pillars of the ring unless widely divergent during the period in which I used ligature for the sac and am not aware that success was vitiated by the omission in them, but in some cases I did so and I think with advantage.

In femoral hernia the sac, and sometimes its covering, were tied as high as could be reached, no attempt being made to approximate by suture the edges of the fascial opening. When the sac was closely surrounded by coverings in femoral and inguinal cases, both were sometimes included in the ligature. When thin and free from coverings the sac was easily tied alone; when thick it was stripped from inside, and also tied alone.

Some of the details of these cases, their size and other characters, may be seen at a glance in the tables I have alluded to as in course of publication. Some of the really severe cases succeeded well, and some of the failures have been in cases that appeared simple, but in the main the results of ligature of the sac, whether inguinal or femoral, have been gratifying.

Causes of Failure.

The failures appeared to be owing to flabbiness of abdomen in some, and tight distension in others. It must also be allowed that improvements in the details of antiseptic practice, not merely in their general arrangement, but also in their special application to hernia, has enabled the operations of more recent years to surpass in success those of an earlier period. It certainly is, I think, a factor in my individual experience. Another cause of failure has been, I believe, an insufficient enforcement of the recumbent posture.[1] Even when one desires to enforce it, there is often difficulty in persuading hospital patients to submit to what they are apt to consider useless sacrifice of time and freedom, when they feel well, and fancy that they must be fit again to work. And it often happens that want of room leads to a too early dismissal of the patient, who will not always consent to lie quiet at home for due consolidation of the reunited parts, but wants to be up and doing. This was more frequently the case during my period of assistant-surgeoncy, when it was sometimes difficult to have patients retained in hospital after they had healed from their wound. But private patients are more easily managed and controlled in a matter of this kind, and almost complete success has accordingly resulted in my cases of that class.

In the year 1881 I operated on two boys, aged 7 and 8, each with a large inguinal hernia, but in both recurrence took

[1] In a conversation with Dr. Macewen at Newcastle the day after this paper was read, I learnt that he keeps his patients lying six weeks at least after herniotomy. I now do the same, feeling that the practice is an important condition of success.

place. I then regarded the operation as perhaps not well suited to that character of case, but now I attribute the failure to imperfections in the details of management, among which may probably have been the use for ligature of material that does not sufficiently long resist absorption; hence the superiority of the chromicised over the carbolised catgut, and of the sulphurised over the merely chromicised, and possibly now the superiority of silk over all. And as for the age of the patients and the large size of their herniæ, I regard infancy and childhood as the time of life above all others in which herniæ can best be treated, even if of large size. My only fatality in children was in the case of a child, aged 7 weeks, in whom the whole of the small intestine had descended into an inguinal hernia. It was hardly a fit case for operation in the first place, but difficult as the operation proved I have little doubt that now I should easily succeed in preventing the death that then only tardily occurred nearly a fortnight after operation. It happened ten years ago, since when I have learnt easily to manage a dressing which then I thought difficult. Moreover, the case had to be treated as an out-patient—a circumstance which probably favoured the eventual occurrence of peritonitis. Out of eight cases under 12 treated by ligature, that single death and the two recurrences above named constitute the only failures that I know of.

Macewen's Method.[2]

I now pass on to the treatment of inguinal and femoral hernia devised by Professor Macewen and published by him in 1886 and 1887, but I regret to say not undertaken by me till September, 1888. As soon as ever I learnt the details of this method it commended itself to me as vastly superior to the method by ligature, which I had previously regarded as both simple and perfect. Macewen's method is sometimes difficult of execution, and may appear to some to be rather complicated; but it is physiologically so sound and reasonable that I adopted it on the first possible occasion after somewhat tardily becoming acquainted with it. If the sac is to be stripped up I consider Macewen's plan of hauling it up and fixing it inside the abdominal wall far superior to that of ligature, and not like the latter injurious to the vitality of the stump.

Of course we know that perfect asepticity prevents sloughing of even a devitalised stump if not too large, but the risks of failure seem to me to be less by adopting Macewen's plan, which I have practised in considerably more than 100 cases. I have, however, had my disappointments with Macewen's method in the form of irritation, serous accumulation, and eventually obstinate suppuration about the suture employed to draw up the sac even in cases where union by first intention had previously occurred. I used at first the green catgut, which I understand is prepared with sulphurous acid, and began to fear that it was imperfectly sterilised. Then I used variously silk and linen thread, sublimated or carbolised (often both), with the same effect in some cases, although occasionally perfect success resulted. It was not till I had practised the operation for four years that it occurred to me that this objection was due to a slight modification I had ventured to make in the method of fixing the sac to the abdominal wall. Macewen draws up the thread that is tied to the end of the sac and laced through it, singly through the abdominal wall, and then fastens it off by passing it several times through the external oblique. I thought it would be a better fastening to leave the thread double, and bring each end through a separate puncture in the abdominal muscles, tying both together in a knot. The effect of this, although an apparently secure attachment of the sac to the inside of the abdominal wall, was, I believe, not so secure as I thought; but worse still, it was, I cannot help thinking, the unforeseen cause of so pinching the included muscular tissue as to set up physical irritation even in an aseptic state of the wounded tissues. The result was a serous discharge, which persisted and later became purulent, with then infection of the thread and the establishment of a sinus, which could only be closed after fishing out the offending suture.

I mention this in detail because the modification upon which I ventured is one that might so easily occur to and be acted on by others—in fact has been, I fancy, so acted upon, and possibly has brought undeserved discredit upon the operation; but it is a drawback that should be avoided. I have never had the advantage of seeing Dr. Macewen perform his operation, but I felt sufficient confidence in it and in him to feel sure that my disappointments were not due to defects pertaining to the operation as originally intended, but rather to some unintentionally introduced into it by me. Since I have kept as closely as possible to the details of the operation, as I understand them from the published directions, I have had little or no trouble from the thread holding up the shrunk and puckered sac inside the abdominal wall. This thread I use of green catgut, which I presume is the material intended. I also approximate the pillars of the ring by overlapping the external over the internal, as nearly as I can according to the injunctions. I also adopted the chicken-bone drainage tubes for a while, but now seldom employ any special means for drainage beyond inserting the sutures as far apart as will serve the purpose.

Much as I like the operation for adult inguinal and femoral hernia, I am bound to own that in a few inguinal cases recurrence has followed. The younger the patient among adults, the better and easier is generally the success, I believe; but great as is the success among young and other adults, it is outstripped by that I have met with in children and infants. Out of thirteen so treated, I know of no failure, and I am paying increased attention to the operation at these early periods of life.

Nothing could be more satisfactory than the curative effect of ligature, simply applied to the stripped peritoneal lining of the sac in several cases of umbilical hernia. One such case, a woman aged 57, sent to me by the Messrs. Gorst, of Huyton, near Liverpool, operated on in July, 1881, lived free from hernia till January, 1892, when she died of apoplexy. But in some umbilical cases the ligature, whether employed alone or combined with sutures to fix the stump down to the abdominal wall, has proved so inadequate to prevent eventual return of the hernia, although succeeding admirably for a while, that I devised a method of suture in in place of it. This consists in covering the aperture with the sac and its coverings arranged in two layers in what I call a double-breasted coat fashion. Such a garment is sometimes doubly buttoned, inside as well as out. Well, in arranging for the closing of an umbilical or ventral hernia that has a distinct and separate sac, I place one half of the sac and its coverings inside the other half, and sew them together. The two halves may be lateral, or upper and lower, according to taste or local appearances and requirements; I have done it both ways. Two series of sutures are first inserted, one along the free edge and the other along the base of the flap that goes undermost. Then the sutures at the free edge of the flap are passed from within outwards through the base of the outer flap and tied outside it. The sutures already at the base of the inner flap are then passed through the edge of the outer flap and there tied. This holds together the two halves of the sac in two layers, and it is well not to tie the sutures too tight. It has succeeded well in some cases, but I am bound to own that in some of the severest cases in which it is most wanted, I have met with a recurrence after apparent but only temporary success.

I have operated altogether in umbilical and ventral hernia over forty times in some 36 patients: 13 were strangulated, with 3 deaths; 28 were unstrangulated, with 2 deaths. The two fatal cases in the unstrangulated series were women—both in good health at the operation. Peritonitis resulted in both, in spite of what I considered as the greatest care I could possibly take; but one was complicated by pregnancy and by the ligature of very large masses of omentum.

I therefore feel that in certain cases of umbilical hernia the difficulties in the way of a permanent cure are great, though simple and harmless healing may be brought about. This is a great pity, for such cases are greatly in need of radical cure.

In a case of strangulated ventral hernia of traumatic origin, operated on in May last, and given in detail in the *Clinical Journal* of July 5th, 1893, I found no sac to deal with, and so closed the opening in the fleshy abdominal wall by three silk sutures, so arranged as to produce overlapping of the lower edge outside the upper, after the manner used by Macewen to close the pillars of the ring in inguinal hernia.

[2] See British Medical Journal, December, 1887, p. 1263.

In my last umbilical case, on July 18th, 1893—a strangulated hernia in a man aged 50, occurring in private practice, under the care of Dr. O. Limrick, of Liverpool—I once more employed a ligature to the neck of the sac, which was too thin to be advantageously treated by my method of double-breasted suture. To fix the ligature sutures were placed around it and through the sac, before and behind. Both sutures and ligature consisted of green catgut; and the patient is now convalescent, but in some respects, of course, still under treatment.

Conclusions.

The conclusions I venture to draw from the practice I have had are: that the radical cure of inguinal hernia in childhood and infancy can be attained with ease, almost as a matter of certainty, and that accordingly our best efforts should be directed to urge operation when the disease exists at this period of life; that the cure of inguinal and femoral hernia in men and women is attainable in the large majority of instances, the exceptions being sometimes large herniæ, at others small; that Macewen's operation is the best for inguinal and femoral hernia at all periods of life; that the umbilical hernia of adults is capable of radical cure, in a proportion which is unfortunately much below that of success in femoral and inguinal, and far short of the urgent requirement of many of the cases; and that the radical cure is as a rule applicable to strangulated and unstrangulated alike.

Finally, having only a week before the meeting received the invitation to open this discussion in place of merely taking a subsequent part in it, if my remarks should have fallen short of what the importance and interest of the subject demand, I hope the fact will be attributed to the shortness of the time I have had in which to formulate them.

II.—J. Ward Cousins, M.D., F.R.C.S.,

Senior Surgeon to the Royal Portsmouth Hospital.

Dr. Ward Cousins said that the important question to be settled on the radical treatment of hernia was simply, What is the best operation? All surgeons agreed that the hope of cure depended upon producing sufficient plastic inflammation and adhesion. Many methods had been proposed, and all had been more or less successful; even in large herniæ, where operative treatment had not resulted in cure, it produced great relief and security with efficient truss support. Every case, in his opinion, must be treated on its own merits and the most suitable method selected. The sac could not always be utilised when large and thick nor excised in the congenital disorder. In some the pillars of the ring and tendinous structures must be ligatured; in others it was quite sufficient to fix the sac high up in the canal. The operations in children were nearly always successful, and a very simple proceeding almost always resulted in cure. He said that the existence of hernia excluded boys from the army and navy, and this fact put very many cases in his way. He described the method he had now practised in 120 cases, with a success of 80 per cent. by one operation. His patients varied from 1 to 12 years. The sac was never opened if empty. The neck was freely and deeply separated, and the cord detached for about an inch, and then the sac was drawn down and secured by two ligatures, not tightly, half an inch apart. Finally, the little plug formed by the ligatures was fixed in the canal by another ligature passed through the tendinous structures above the ring. The success greatly depended upon the after-treatment. He always had the services of a nurse trained for the special purpose. Unfortunately he had lost two patients, one from scarlet fever, the other from septic disorder, which he attributed to accidental causes in the after-treatment. These were among his early cases. Many of his patients were now in the army and navy. Parents were very anxious to have their children treated by operation, and he believed in the near future the treatment of radical cure would be still more extensively practised, and the hernial population of the country greatly reduced in number.

III.—Damer Harrisson, F.R.C.S.Edin.,

Honorary Surgeon Liverpool Northern Hospital.

Mr. Damer Harrison said the operations he had performed during the last twelve years were: first, the simple one of ligature of the sac only; secondly, ligature of the sac with suture of the ring, using wire, sulphurous gut, or silk; thirdly, the operation performed by Professor Macewen. Of the first two operations, the simple one of ligature of the sac only had been the more successful, the larger number of recurrences having occurred in the cases in which the columns of the ring were sutured, and suppuration had taken place. Sutures in the ring, whether of wire, green gut, or silk being a frequent cause of suppuration, by the physical irritation to which Mr. Parker had alluded. With regard to Professor Macewen's operation he (the speaker) had to thank Mr. Parker for inducing him to practise it, and he had done so during the last two years, and so far with the best results, as he had no recurrence to report. The short time, however, that had elapsed did not enable him to speak with the same confidence of the operation of Mr. Rushton Parker. The cases that had been most successful were herniæ of a moderate size which had healed by first intention. In the early days of this operation many surgeons held the superstition that suppuration gave rise to a cicatrix, which offered a firmer resistance to the internal pressure, but it was really in these cases that they found the larger number of recurrences. In his later operations he had given up the use of drainage except in the case of large herniæ.

IV.—J. Crawford Renton, M.D.,

Assistant Surgeon Glasgow Western Infirmary.

It is fortunate that we possess several methods which are easily carried out and are efficient in producing a radical cure of hernia in suitable cases. As to the best method, I think each case of hernia must be considered at the time and the method best suited for it in the opinion of the operator selected. The most important point towards a radical cure is early operation; the sooner after the hernia has been discovered that an operation is performed the better for the patient. I deprecate persevering in the adult with trusses unless in the aged where operation would be contra-indicated. In ordinary circumstances the operation involves no danger, and a few weeks' rest during consolidation is time well spent as saving from future danger and risk. By operating before the tissues are dilated, stretched, and altered you secure more certain results. I believe that ere long many more patients will have their herniæ dealt with instead of wearing trusses, however comfortable they are, and the public should be made well aware of the risks of their condition. In children so many cases recover with the use of proper trusses that unless the hernia resists their use it is not necessary to operate. When called to a case of hernia in an adult, I think our duty is, as a rule, to give chloroform and perform the radical operation, whether there are symptoms of strangulation or not. I would like to see this rule more generally adopted, and we would have less bruising of the tissues and less peritonitis than we sometimes have at present from our severe efforts at reduction. As regards the operations which I have found the most suitable, the three which I have used are Buchanan's in children, Banks's and Macewen's in adults, in inguinal hernia; in femoral hernia, Banks's method, with stitching at the femoral canal when possible. In children Professor Buchanan divides the sac, turns one-half down to make a tunica vaginalis, and the other half is pushed through the internal ring and included along with the stitches. In several cases in children where the hernia was not large, but resisted the treatment by trusses, I have tried inversion of the sac without dividing it, and pushing it up to the internal ring, and then including it with three or four stitches along with the pillars, and this I have found quite satisfactory. Previous to Macewen's method being published in all adult inguinal cases, I used Banks's method of removing the sac, and in all cases of old herniæ I still remove the sac or part of the sac, as I find that cases with old sac are difficult to remove entirely, and lead to trouble unless cut off. Since Macewen published his method I have used it in recent cases, both when reducible and strangulated, and where the sac was easily isolated; and I have found his method of holding the sac and using it as an internal truss very efficient, combined with his method of stitching. The most important point is the stitch at the internal ring, and, if that stitch is not properly applied, the

operation will not succeed. I have examined the parts in the case of one patient who died suddenly of a cardiac condition a fortnight after being operated upon, and Dr. Coats, who made the *post-mortem* examination, and I were thoroughly satisfied as to the efficiency of the operation. I am satisfied from my observation of the cases in which I have operated that the earlier the operation the better the result. I had the pleasure of seeing Mr. Watson Cheyne perform Halstead's operation, and I was pleased with it, except that it struck me as more extensive and severe than ordinary cases required; but this opinion I may alter after more extended experience of it.

V.—E. STANMORE BISHOP, F.R.C.S.,
Honorary Surgeon Ancoats Hospital.

THE question of radical cure of hernia divides itself into two questions: First, is the cure radical? secondly, what is the best operation? The difference of opinion is due, I suggest, to want of sharp differentiation in causation. The causes of reducible hernia are altogether different from those which produce strangulated hernia. All of these are curable or preventable, and should be removed beforehand. As to the best operation, of course no one operation will suit all cases, but it is well, at all events, to have an ideal. So many operations have been suggested that it would probably be possible to combine the best points of each. The idea of a truss, as for hundreds of years the best method short of operation, is taken as a model. This consists of pad and spring. [Mr. Bishop then described his own modification of Macewen's pad, and showed diagrams of its action, especially the effect on the passage of the spermatic cord. The spring was best dealt with by Greig Smith's method.]

VI.—R. J. PYE-SMITH, F.R.C.S.,
Surgeon Sheffield Public Hospital.

AFTER testifying to the great value of operations for radical cure in cases of inguinal, femoral, and umbilical hernia, the speaker said it was an important question how far such operations were justifiable in early life. Inguinal and umbilical hernia, most frequently associated with phimosis, had in children a great tendency to cure without operation. Did inguinal cases demand operation so much more than umbilical? Statistics showed that although seven-eighths of all cases of hernia commenced after the first year of life, yet the proportion of ruptured to unruptured persons was greater for the first year of life than for the general population at all ages, so that the numerous cases which commenced after infancy did not so much as make up the loss occasioned by the cure of infantile cases (for the general mortality among the ruptured was but very slightly in excess of that among the unruptured). He proposed that it should be a rule to avoid, as far as possible, operating on infants under a year old, and never, except under some special circumstances, to operate on a growing child without first trying the effect of a truss or bandage for six months or more. The adoption of such a rule would largely reduce the number of operations deemed necessary.

VII.—RUPERT C. CHICKEN, F.R.C.S.,
Surgeon, General Hospital, Nottingham.

MR. CHICKEN said the cases that gave the best results were herniæ in children and adults who had not worn a truss. The strictures were more distinct and easier of manipulation. He contended that a large proportion of cases which generally passed as acquired herniæ were various forms of herniæ into the tunica vaginalis, either simple or encysted, a pure case of acquired hernia having really an exceedingly delicate sac composed of many layers of fibrous tissue. The treatment of these cases consisted of practically the treatment of the canal and rings, as the sac was too delicate to be either twisted or sewn to the abdominal wall. He deprecated the use of a pad of sac being deposited between the transversalis fascia and the conjoined tendon, as it was a remnant of the old unsuccessful operations in which invagination was practised. He advocated the thorough clearing of the aponeurosis of the external oblique, and the suturing of the surfaces together in such a way that primary union might be obtained between the fibrous tissues. If this was not done, adhesion was obtained only between layers of movable fascia, which, after the absorption of the effused lymph, again separated, and the operation was futile. He laid great stress upon using thoroughly aseptic ligatures, as there was a tendency on the part of some materials to resist the antiseptic processes.

VIII.—PAUL BUSH, M.R.C.S.,
Surgeon Bristol Royal Infirmary.

MR. BUSH would have been glad if some more decided opinions had been given during the discussion with regard to what was the best suture in use for bringing the edges of the ring together. He considered that silk frequently set up suppuration, that catgut was apt to be too rapidly absorbed, but that kangaroo tendon properly prepared was certainly the best deep suture material at present available. Another point raised was, Should the patient use a truss after a radical cure had been done? Mr. Bush was of opinion that no truss ought to be worn if the operation had been complete, and that the use of a truss was likely to do more harm than good by absorbing the very tissues that were required for the cure of these cases.

IX.—HENRY T. BUTLIN, F.R.C.S.,
Surgeon St. Bartholomew's Hospital.

MR. BUTLIN thought that the majority of surgeons were of the same opinion with regard to the best cases for operation: small and recent ruptures in young and otherwise healthy subjects. But what they now wanted to know was how far they could go, up to what age, and in how large herniæ. That information could be obtained only by operating on all cases which came under their care, excepting only those in which the patient was clearly unfit for an operation. With regard to the best operation, he believed that the best operation for the individual surgeon was that which he had thought most over, had most frequently performed, and therefore could best and most thoroughly perform.

X.—T. R. JESSOP, F.R.C.S.,
Consulting Surgeon Leeds General Infirmary.

MR. JESSOP raised the question as to the proper practice to be adopted in cases of strangulated hernia. Whilst in former years the surgeon considered his duty complete when he had relieved the strangulation by herniotomy, it had become increasingly his practice to proceed to radical cure by removal of the sac and closure of its neck by ligature and suture. The answer to the question would be found in the comparative results; and in his experience deaths were fewer after the complete operation than after the old method of simple herniotomy.

XI.—R. J. GODLEE, M.S., F.R.C.S.,
Surgeon University College Hospital.

MR. GODLEE pointed out that it might be gathered from the present discussion that the simplest of all the operations advocated at the present time gave a most successful result, and that it was important that everyone should recognise the fact that in every case of hernia, whether strangulated or not, he might expect that by performing Banks's operation he would effect an efficient radical cure. This operation—supplemented lately by slitting up the external oblique as far as the internal ring, and sewing the internal oblique to Poupart's ligament over the cord—was that which he (the speaker) had always performed, and he had met with no fatalities, and scarcely any recurrences of the trouble.

XII.—J. RUTHERFORD MORISON, M.B., F.R.C.S.,
Assistant-Surgeon Newcastle-on-Tyne Royal Infirmary.

MR. RUTHERFORD MORISON recommended Dr. Halstead's operation. The principle of this operation was removal of the cord from the inguinal canal and entire obliteration of the old canal.

XIII.—ARNOLD H. WATKINS.

MR. WATKINS asked if Professor Parker would complete his admirable paper by two words on the dressings he employed.

XIV.—W. Mitchell Banks, M.D., F.R.C.S. (Surgeon Liverpool Royal Infirmary).—The following statistical tables were presented on behalf of Mr. Mitchell Banks, who was unavoidably absent from the meeting.

Statistics of the Results of the Operation by Removal of the Sac and Stitching the Pillars of the Ring Performed in 168 Cases of Strangulated and Non-Strangulated Hernia.

(1)—Non-Strangulated Herniæ, of Moderate Size.

No.	Sex	Age	Occupation.	Date of Operation.	Nature of Hernia.	Omentum removed.	Interval between Operation and Last Inspection.	Remarks.
1	F.	47	Housewife	July, 1884	Ventral (double)	About size of an orange	9 years	Before operation suffered constantly from attacks of pain and vomiting. Has a protrusion now, but, with help of a calico bandage, works hard with comfort. Partial success.
2	F.	49	,,	Nov., 1890	,,	Some ounces	—	Not traceable.
3	F.	44	Millworker	June, 1888	Umbilical	Size of large tomato	5 years	Complete success. Works hard in mill.
4	F.	41	Housewife	May, 1890	,,	Some ounces	—	Not traceable.
5	F.	51	Nurse	June, 1891	,,	Size of an orange	2 years	Complete success.
6	M.	22	Cooper	Dec., 1880	Inguinal	None	10 years	Complicated by presence of undescended testicle, which was removed. Quite sound till death in 1890.
7	M.	22	Sailor	Mar., 1881	,,	,,	6½ years	Undescended testicle removed. Sound in 1887, when last seen.
8	M.	55	Labourer	April, 1881	,,	,,	6 years	Quite sound up to patient's death in 1887.
9	M.	54	Painter	Dec., 1881	,,	,,	Nearly 5 yrs.	Quite sound when last seen in 1886.
10	M.	26	Labourer	Dec., 1881	,,	Small adherent piece	4½ years	Remained sound for over a year, but his work was of the severest description. He would not give it up, and a complete failure eventually resulted.
11	M.	18	Engineer	Jan., 1882	,,	None	Nearly 3 yrs.	Complete success. Taken as a soldier.
12	M.	30	Flatman	Jan., 1882	,,	,,	11 years	By neglect has gradually become as bad as ever. Complete failure.
13	M.	37	Labourer	Feb., 1882	,,	,,	6 years	Six weeks after operation he brought on a slight return by loading a ship with pigs of lead. Easily retained by a truss, with which he works comfortably. Only partial success. Last seen in 1888.
14	M.	45	,,	May, 1882	,,	Size of hen's egg	—	Not traceable.
15	M.	24	Flour dealer	July, 1882	,,	None	11 years	Quite sound. Says his life was a misery to him before the operation. Now occupied in lifting flour sacks.
16	M.	52	Bricklayer	Oct., 1882	,,	,,	Nearly 11 yrs.	Two years after operation brought on a slight relapse by hard lifting. It remains same size now, and he wheels 2 cwt. in a barrow without a truss. Partial success.
17	M.	64	Shopkeeper	Nov., 1882	,,	,,	—	Not traceable.
18	M.	32	Seaman	Dec., 1882	,,	Small adherent piece	4½ years	Quite sound. Last seen 1887.
19	M.	31	Labourer	Mar., 1883	,,	Large adherent piece	Over 10 yrs.	Quite sound. Carries a hod up a ladder, and wheels 10 cwt. in a barrow.
20	M.	20	Engineer	July, 1883	,,	None	4½ years	Was sound for three years, working as a sailor, then strained himself and got a slight return. Partial success.
21	M.	2	—	Nov., 1883	,, (double congntl.)	,,	Nearly 10 yrs.	Absolutely sound.
22	M.	15	Schoolboy	Jan., 1884	,,	Considerable piece adherent	Nearly 5 yrs.	Quite sound. Last seen October, 1888.
23	M.	55	Clerk	Feb., 1884	,,	None	—	Not traceable.
24	M.	36	Dockmaster	Feb., 1884	,,	,,	Over 9 years	Had a slight return for a while, but, by wearing a light truss, this has quite disappeared. A success.
25	M.	21	Stonemason	April, 1884	,,	,,	Over 9 years	Has very heavy work. Rupture does not come down, but uneasy without truss. Partial success.
26	M.	52	Labourer	May, 1884	,,	Size of apple	—	Not traceable.
27	M.	13	Shopboy	July, 1884	,,	None	Over 4 years	Quite sound. Last seen November, 1888.
28	M.	24	Labourer	July, 1884	,,	,,	9 years	Complete success.
29	M.	41	Cabdriver	Jan., 1885	,,	,,	—	Not traceable.
30	M.	52	Boilrmk'r	Mar., 1885 to Oct., 1891	,,	,,	7 years	Although hernia partially returned, yet with a strong truss went to sea as an engineer till October, 1891, when he fell while lifting a heavy weight, and rupture came back as bad as ever. At second operation testicle removed. Is now comfortable with a truss. Partial success.
31	M.	65	Woodman	Mar., 1885	,,	,,	3 years	Distinct return, but, with a truss, can now follow his occupation, which he could not do before operation. Partial success.
32	M.	31	Ship Strkpr	May, 1885	,,	,,	—	Not traceable.
33	M.	52	Boilermak'r	Sept., 1885	,, (double)	,,	8 years	Distinct return, but keeps up bowel by a strong truss, and goes to sea as an engineer. Partial success.
34	M.	41	Saddler	Feb., 1886	,,	,,	Over 7 years	Complete success. Undescended testicle removed.
35	M.	30	Stonemason	June, 1886	,,	Three ounces	Over 2 years	Quite sound. Last seen December, 1888.
36	M.	6	Schoolboy	Aug., 1886	,,	None	2 years	Quite sound. Last seen end of 1888.
37	M.	9	Schoolboy	Sept., 1887	,,	,,	6 years	Quite sound. Heavy work; glass making.
38	M.	19	Blacksmith	Sept., 1887	,,	,,	6 years	Quite sound; works as a blacksmith.
39	M.	20	Glassworkr	Dec., 1887	,,	,,	16 months	Slight cough impulse. Would come down without a truss, owing to very severe work as a glass flattener. Partial success.
40	M.	41	Collier	June, 1888	,,	,,	5 months	Quite sound. Last seen end of 1888.
41	M.	40	Engineer	Oct. 1888	,,	Very small piece	Nearly 6 yrs.	Works as an engineer in Australia. Sound, but wears a truss. A success.
42	M.	40	Chem's Ast.	Nov., 1888	,,	Considerable piece	—	Not traceable.
43	M.	4	Child	April, 1889	,,	None	4 years	Quite sound.
44	M.	25	Labourer	May, 1889	,,	,,	—	Not traceable.
45	M.	22	Policeman	Aug., 1889	,,	,,	4 years	Absolutely sound.
46	M.	28	Labourer	May, 1889	,,	,,	4 years	Quite sound.
47	F.	17	Servant	June, 1889	,,	,,	4 years	Quite sound.
48	M.	44	Miner	Nov., 1889	,,	,,	—	Not traceable.
49	M.	37	,,	April, 1890	,,	,,	—	Not traceable.
50	M.	24	Groom	May, 1890	,,	,,	3 years	Quite sound. Has to ride horses.
51	F.	38	Servant	May, 1890	,,	,,	—	Not traceable.
52	F.	30	Lundry md.	Feb., 1891	,,	Small piece	2½ years	Quite sound.
53	F.	52	Housewife	Mar., 1891	,,	None	—	Not traceable
54	M.	5	Child	June, 1891	Inguinal	Small piece	2 years	Quite sound.
55	F.	50	Housewife	Oct., 1891	,,	None		Not traceable.

(1.) Non-strangulated Herniæ, of Moderate Size—(continued).

No.	Sex	Age	Occupation.	Date of Operation.	Nature of Hernia.	Omentum Removed.	Interval between Operation and Last Inspection.	Remarks.
56	M.	31	Labourer	Nov., 1891	Inguinal	Several ounces	—	Not traceable.
57	M.	45	Miner	Nov., 1891	,,	None	1½ year	Quite sound.
58	M.	55	Merchant	Feb., 1892	,,	About 8 ounces	1½ year	Quite sound.
59	M.	22	Barman	April, 1892	,,	None	15 months	Quite sound.
60	M.	24	Sailor	June, 1892	,,	,,	12 months	Quite sound.
61	M.	31	Chemist	July, 1892	,,	4 ounces	12 months	Quite sound.
62	M.	16	Labourer	Sept., 1892	,,	None	10 months	Quite sound.
63	M.	39	Carter	Sept., 1892	,,	Several ounces	10 months	Quite sound.
64	M.	12	Schoolboy	Oct., 1892	,,	None	9 months	Quite sound. Undescended testicle removed.
65	M.	14	,,	Nov., 1892	,,	,,	8 months	Quite sound. Undescended testicle removed.
66	M.	2½	Infant	Nov., 1892	,,	,,	8 months	Quite sound.
67	M.	36	Fireman	Feb., 1893	,,	Several ounces	—	Too soon to judge.
68	M.	42	Porter	April, 1893	,,	None	—	Too soon to judge.
69	M.	20	Clerk	April, 1893	,,	,,	—	Too soon to judge.
70	M.	2	Infant	Mar., 1893	,,	,,	—	Too soon to judge.
71	M.	31	Publican	May, 1893	,,	4 ounces	—	Too soon to judge.
72	M.	51	Labourer	May, 1893	,,	2 or 3 ounces	—	Too soon to judge.
73	M.	6	Schoolboy	June, 1893	,,	None	—	Too soon to judge.
74	M.	37	Blacksmith	July, 1893	,,	About 5 ounces	—	Too soon to judge.
75	M.	62	Stonemason	May, 1883	,,	None	—	Recovered from operation, but died about two months afterwards from bladder disease.
76	M.	47	Agent	Feb., 1882	,, (died)	,,	—	Died fourteen days after the operation. A weakly man, the subject of locomotor ataxy.
77	M.	2	Infant	Jan., 1883	,, (died)	,,	—	Died in seven hours from shock. Operation very prolonged owing to extensive adhesion of cæcum to sac.
78	F.	32	Servant	Mar., 1881	Femoral	Size of marble	10 years	Quite sound till death in 1891.
79	F.	55	Dressmaker	April, 1881	,,	Small hen's egg	7 years	Quite sound. Last seen November, 1888.
80	F.	42	Washerwn.	April, 1881	,,	None	7 years	Being very poor has never bought a truss, and has had to work very hard. Rupture slowly returned, and is now about size of small apple; a truss would easily secure it. Failure.
81	M.	37	Sailor	May, 1882	,,	,,	4 years	Quite sound when last heard of in 1886.
82	F.	47	Housewife	June, 1882	,,	Size of turkey's egg	11 years	Quite sound.
83	F.	35	Cook	Nov., 1883	,,	Small piece	—	Not traceable.
84	M.	54	Steward	July, 1884	,,	Size of small fist	3 years	Quite sound. Last seen July, 1887.
85	F.	45	Housewife	Aug., 1884	,,	Very small piece	4 years	Quite sound.
86	M.	65	Shipwright	Oct., 1884	,,	None	9 years	Quite sound.
87	F.	30	Confectnr.	Jan., 1885	,,	Very small piece	2½ years	Complete failure. Last seen July, 1887.
88	F.	57	Cook	Mar., 1885	,,	None	—	Not traceable.
89	F.	60	Servant	Mar., 1885	,,	,,	—	Not traceable.
90	F.	41	Housewife	May, 1885	,,	,,	3½ years	Quite sound. Last seen October, 1888.
91	F.	34	Dairywomn.	July, 1885	,,	,,	6 years	Slight fulness on coughing. With truss does hard work. Before operation could not work at all. Partial success. Last seen April, 1891.
92	F.	30	Cook	Nov., 1885	,,	Small piece	—	Not traceable.
93	F.	40	Housewife	Nov., 1885	,,	None	3 years	Quite sound.
94	M.	27	Painter	Nov., 1886	,,	Pigeon's egg	Over 5 years	Quite sound.
95	F.	35	Seamstress	Sept., 1887	,,	None	—	Not traceable.
96	F.	45	Nurse	June, 1890	,,	Several ounces	3 years	Quite sound.
97	F.	51	Housewife	July, 1890	,,	4 ounces	—	Not traceable.
98	F.	31	Servant	Feb., 1891	,,	Small piece	2½ years	Quite sound.
99	F.	45	Housewife	June, 1891	,,	None	—	Not traceable.
100	F.	40	,,	Jan., 1892	,,	Size of fist	—	Not traceable.
101	F.	40	,,	July, 1893	,,	None	—	Too soon to judge.

(2)—(a) Very Large and (b) Enormous Herniæ Not Capable of Support by Trusses.

102	F.	55	Housewife	Sept., 1885	Umbilical	Great mass	3 years	Very large hernia, about size of big cocoanut. No support has ever been used, and it is now as big as ever. Complete failure.
103	F.	27	,,	Jan., 1880	Ventral	Omentum replaced	2½ years	Very large hernia. No support ever used. When last seen was larger than ever. Complete failure.
104	F.	46	,,	Mar., 1883	,, (double)	None	—	Hernia recurred. Second operation in 1886. With a bandage can work hard; without it a protrusion would soon occur. Greatly benefited. Partial success.
105	M.	46	Collier	Oct., 1883	,,	¾ lb.	5 years	Very large hernia. Slight return brought on by too early exertion in the mine. Quite easily kept up by support. Fires up furnaces. Last seen November, 1888.
106	F.	58	Housewife	Feb., 1884	Inguinal	None	Over 4 years	Enormous hernia, over 1 foot long by 1½ foot in circumference. Wears a truss, and has only the slightest possible fulness.
107	M.	54	Ostler	Nov., 1883	,,	1 lb.	9½ years	Very large hernia. With truss can work hard; it would come back in time if no truss worn.
108	F.	44	Housewife	April, 1882	,,	None	4½ years	Very large hernia. Quite sound when seen in November, 1886.
109	M.	45	Traveller	Oct., 1886	,,	10 ounces	Nearly 6 yrs.	Very large hernia. Carries a 5 stone pack on his back every day about 14 miles. Quite sound.
110	M.	30	Stoker	Aug., 1884	,,	None	—	Not traceable.
111	M.	44	Wine mcht.	July, 1884	,,	None	9 years	Enormous hernia, reaching down almost to knees. Was absolutely useless. With a truss is quite sound.
112	M.	26	Merchant	July, 1882	,,	Large mass	11 years	Very large hernia. Quite sound.
113	M.	45	Labourer	Mar., 1884	,,	None	—	Very large hernia. Recovered from operation, but died two or three months afterwards from some cerebral mischief.
114	M.	28	Manager	April, 1884	,, (died)	Nearly 2 lbs		Enormous hernia. Apparently quite recovered, wound healed, and patient walking about, when on twenty-sixth day an unsuspected abscess in iliac region burst into the peritoneum, and he died in a few hours.
115	M.	39	Carter	Jan., 1885	,, (died)	None		Very large hernia, about 8 inches long. Death on third day from sloughing and septicæmia.
116	M.		Glassblower	Feb., 1887	,, (died)	None		Enormous hernia. It was found impossible, after opening sac, to get the bowels back, and whole affair had to be closed up. Death on third day.
117	M.	67	Gardener	Feb., 1885	Femoral (died	Large mass		Very large hernia, about size of small Swedish turnip. Death on the sixteenth day from septicæmia.

(3)—Strangulated Herniæ.

No.	Sex	Age	Occupation.	Date of Operation.	Nature of Hernia.	Period of Strangulation.	Result.	Interval between Operation and last Inspection.	Remarks.
1	F.	42	Housewife	Dec., 1882	Umbilical	24 hours	Recovered	6 years	Recurred. Second operation after three years. No improvement. Failure.
2	M.	41	Painter	Sep., 1881	Inguinal	3 days	,,	4 years	Quite sound. Last seen December, 1885.
3	M.	53	Plasterer	Oct., 1881	,,	12 hours	,,	7 years	Quite sound. Last seen December, 1888.
4	M.	49	Miller	Dec., 1881	,,	40 hours	,,	7 years	Quite sound.
5	M.	36	Plasterer	Dec., 1881	,,	6 days	,,	5½ years	Hernia has never been down, but would return unless he wore a truss. Partial success.
6	M.	14	Porter	Feb., 1882	,,	54 hours	,,	5 years	Complete failure. Boy would never wear any support, and had heavy lifting to do.
7	F.	63	Housewife	Oct., 1882	,,	48 hours	,,	7 years	Only a slight fulness which does not inconvenience her. Partial success.
8	M.	33	Quarryman	June, 1883	,,	20 hours	,,	—	Not traceable.
9	M.	4	Schoolboy	Nov., 1883	,,	24 hours	,,	10 years	Quite sound.
10	M.	17	Apprentice	Feb., 1884	,,	7 days	,,	1 year	When last heard of had gone to sea. Presumably sound.
11	M.	50	Baker	May., 1884	,,	60 hours	,,	4 years	Rupture came back. Complete failure.
12	M.	37	Labourer	Aug., 1884	,,	30 hours	,,	4 years	Quite sound. Works at boiler firing.
13	M.	48	Porter	Nov., 1884	,,	28 hours	,,	4 years	Quite sound. Lifts cotton bales.
14	M.	22	Traveller	Apl., 1885	,,	30 hours	,,	Over 2 years	Quite sound when seen in July, 1887.
15	M.	40	Porter	Sep., 1885	,,	24 hours	,,	—	Not traceable.
16	M.	24	Carter	Nov., 1885	,,	30 hours	,,	1½ year	Quite sound when last seen in July, 1887.
17	M.	31	Drayman	Dec., 1885	,,	12 hours	,,	3 years	Quite sound when last seen in 1888. Heavy work.
18	M.	20	Fr. Polisher	Jan., 1886	,,	8 hours	,,	Over 7 years	Quite sound.
19	M.	67	Shoesmith	Dec., 1886	,,	34 hours	,,	—	Not traceable.
20	M.	39	Scrip. Readr	Jan., 1887	,,	48 hours	,,	6½ years	Quite sound.
21	M.	56	Blacksmith	Feb., 1886	,,	32 hours	,,	—	Had quite recovered from operation when he died from an attack of cerebral hæmorrhage.
22	M.	43	Porter	July, 1890	,,	15 hours	,,	—	Not traceable.
23	M.	30	Waggoner	Oct., 1890	,,	A few hours	,,	—	Not traceable.
24	M.	40	Agent	July, 1891	,,	24 hours	,,	2 years	Quite sound.
25	M.	30	Labourer	Nov., 1892	,,	A few hours	,,	—	Not traceable.
26	M.	74	Joiner	Apl., 1893	,,	A few hours	,,	—	Too soon to judge.
27	M.	77	—	Feb., 1883	,,	20 hours	Died	—	Bronchitis and septicæmia.
28	F.	62	Housewife	Nov., 1880	Femoral	4 days	Recovered	2 years	Quite sound when last heard of in 1892.
29	F.	37	Housewife	Jan., 1880	,,	[illegible]	,,	Nearly 9 yrs	Slight cough impulse. Partial success.
30	M.	56	Slatemaker	Aug., 1881	,,	32 hours	,,	7 years	Quite sound in 1888.
31	F.	46	Housewife	Aug., 1882	,,	5 days	,,	5 years	Failure. Comes down unless truss worn.
32	F.	50	—	Aug., 1882	,,	2 days	,,	5 years	Quite sound for long time, and then recurred. Failure.
33	F.	62	Housewife	Nov., 1882	,,	60 hours	,,	3 years	Quite sound till she left England three years after operation.
34	F.	72	Housewife	Jan., 1882	,,	4 days	,,	6 years	Complete failure.
35	F.	60	Housewife	1883	,,	—	,,	Nearly 3 yrs.	Quite sound till time of death in 1886.
36	F.	42	Basket Woman	May, 1883	,,	4 days	,,	4 years	Never could buy a truss, and had to carry heavy weights. Complete failure.
37	F.	48	Housewife	Mar., 1884	,,	3 days	,,	3 years	Failure. Nearly the same conditions as in previous case.
38	F.	25	Housewife	Mar., 1884	,,	5 days	,,	Over 9 years	Quite sound.
39	M.	41	Painter	Mar., 1884	,,	—	,,	3 years	Hernia comes down slightly unless truss worn. With that on he does extremely hard work comfortably. Partial success.
40	M.	46	Cook	Oct., 1884	,,	4 days	,,	4 years	Quite sound.
41	F.	64	Nurse	June, 1885	,,	48 hours	,,	Over 3 years	Quite sound in 1888.
42	F.	52	Housewife	Nov., 1885	,,	—	,,	3 years	Distinct return, although slight and easily retained by truss. Partial success.
43	F.	51	Housewife	Jan., 1886	,,	5 days	,,	Nearly 3 yrs.	Quite sound in 1888.
44	F.	43	Nurse	July, 1886	,,	2 days	,,	10 months	Remained quite sound till time of death in April, 1887.
45	F.	70	—	Dec., 1887	,,	4 days	,,	Nearly 1 yr.	Slight fulness. Partial success.
46	F.	40	Spinster	1888	,,	2 days	,,	About 5 yrs.	Quite sound.
47	F.	57	—	Jan., 1890	,,	—	,,	3½ years	Hernia descends slightly unless a truss is worn. Failure.
48	F.	72	—	July, 1890	,,	[illegible]	,,	3 years	Quite sound.
49	F.	52	Housewife	Feb., 1891	,,	Some days	,,	Over 2 years	Quite sound.
50	F.	65	Housewife	May, 1886	,,	5 days	Died	—	Sank from collapse in forty-eight hours. No peritonitis.
51	M.	30	—	1886	,,	—	,,	—	Sank in a few hours from shock.

OBSERVATIONS ON THE CASES IN THE TABLE.

1.—*Number of Cases and Selection of Patients.*—Since I first commenced, about the year 1880, attempting the radical cure of hernia I have only performed the operation 168 times: 117 times on non-strangulated, and 51 times on strangulated herniæ. If, during that period, all the patients who presented themselves at the Liverpool Royal Infirmary on my waiting days had been persuaded to come in and be operated upon, the number might very easily have been doubled. But I have always publicly expressed a strong opinion that no operation (except for very special reasons) should be performed on an adult who can keep up his rupture securely and comfortably with a truss. For I hold that a light and well-fitting truss is hardly any inconvenience to a patient, and is very far from being the bugbear which the advocates of the indiscriminate use of the radical cure would make it out to be. As regards infants, I believe they may all be cured by well-fitting trusses. How many are operated upon in private practice? Hardly any. In hospital and dispensary practice, however, there are constantly found children whose mothers are so stupid and careless that they will not look after them at all, so that the ruptures become uncontrollable. Such are fit cases for radical cure. Of the 117 non-strangulated cases I can safely affirm that not one of them was operated upon who could wear a well-fitting truss, except in special cases, such as where a man was going abroad to a place where no medical help was to be had, or where he had some extremely violent labour to perform which might break down any truss, or where it was necessary for a public appointment that he should be entirely free from rupture.

The Nature of the Operation.—This has been the same in all the cases. I make no claim to any originality in the matter, nor to any priority in time over anybody else. In femoral herniæ it has consisted simply in dissecting out and removing the sac as high up as possible. In inguinal herniæ, in addition to this, the pillars of the external ring have been pulled together by two or three silver wire sutures, which are left in position after their ends have been cut very short. They thus constitute three small silver rings, which never appear again, and are less irritating than any other form of suture. I do not put them in with any object of securing a permanent closure of the external ring, but simply to make sure that the hernia shall not descend for a considerable period, so that the inguinal canal (if it be in fairly normal case) may have a chance of contracting. Unless some extensive "rawing" of the walls of the canal is done, I believe all stitching of it to be of just as much use in procuring permanent union as stitching the edges of a cleft palate would be without freely refreshing them. I do not believe it possible satisfactorily to accomplish a "rawing" of the inguinal canal, while in a very large proportion of severe cases there is no inguinal canal at all; nothing but a big hole into which three or four fingers can be crammed, whose edges are as thin as cardboard, and from which all anatomical relations have disappeared. My reason for adhering to the operation which I have hitherto used is that it is the simplest of any that has yet been devised. Ruptured people are in every place and in every station of life. The operation for their cure should be such that not merely experts or specialists should do it, but that any surgeon to a cottage hospital should be able to perform it. During the last dozen years innumerable complicated operations have been invented, but I venture to believe that the simple operation which I respectfully recommend to you will survive them all by reason of its simplicity alone.

Division of Herniæ into Groups Depending on Size.—When considering the question of mortality, a division of this sort must in fairness be made, because the mortality in small and moderate sized herniæ—say

those up to the size of a fist or somewhat larger—is evidently being reduced to a minimum. But with huge herniæ—I mean things like footballs or small Gladstone bags—the danger becomes very great. This is chiefly due to the great area of loose cellular tissue opened into in removing the sac. In case 116 a huge volume of small gut had been down for a very long period. It had hypertrophied to the size of average great intestine, while the abdominal had so collapsed that by no efforts whatever could the bowels be pushed up. There was no room for them.

Statistics.—In the statistics, by "Quite sound," or "Complete success," is meant that the rupture has never come down since the operation, that there is nothing in the way of a swelling to be felt or seen, and that there is no impulse on coughing. By "Partial success," is meant that the rupture has slightly returned, or threatens to return if unsupported, but that, with the aid of a truss, the patient is in safety and comfort. In many of these cases no truss at all would keep the bowel up before operation, while after it support could be effectively given. In every instance the patients placed in this category declared that they were in a distinctly better position after the operation than before it. By "Complete failure," is meant that the rupture is as big and as troublesome as before the operation.

Statistics of Mortality.—Among the 101 moderate sized non-strangulated herniæ two deaths are recorded. One (No. 77) was distinctly due to the operation. It was a case where there was a "land slip" of the cæcum down into the scrotum, which is a very dangerous condition. The other (No. 76) was doubtful, as the wound was all but healed.

Of the 16 very large and enormous herniæ four cases proved fatal. Septicæmia killed two patients (Nos. 115 and 117), and unsuspected abscess, bursting into the peritoneal cavity after the patient was walking about and deemed sound, proved fatal in No. 114, while in Case 116 the operation could not be completed.

Of the 26 cases of strangulated inguinal herniæ, an old man of 77 (No. 27), died from septicæmia and bronchitis. Of the 24 cases of strangulated femoral herniæ two died: No 50 never recovered from the collapsed state in which she arrived at the infirmary, and No. 51 was moribund when admitted.

It will be seen, therefore, that the mortality of the radical cure in moderate sized herniæ has been 2 per cent., and of the strangulated herniæ 6 per cent.

Statistics of Permanence of Cure.—Of the whole 168 cases, it has been possible to trace for very considerable periods 113. Of these, 79 remain quite sound, 19 are partial successes, and 15 are complete failures. The majority of the failures occurred either in very degraded people, who took no care of themselves, or in persons who had very severe work to perform, and began it too soon.

It will be noticed that by far the greater number of cases on the list have been traced for years. To report as successful those radical cures in patients who have just left hospital, or have only been out for a few months, is worse than useless, because it is misleading. Again, all the cases which had not in 1888 (when I made my last investigation) stood the test of some years, have been seen by myself or by a doctor within the last two or three weeks. When this sort of examination is made, it is astonishing how one's successes melt away. I entertain profound doubts of broad statements and general recollections. The surgeon who indulges in these has nothing but successful cases. I have heard that at the Surgical Aid and Truss Societies the number of persons with ruptures who come for trusses, after being radically cured, is very remarkable.

I have only to say, in conclusion, that I have endeavoured to put the matter as fairly as I can, and have tried to enter upon it without bias one way or the other.

XV.—Mr. Rushton Parker's Reply.

Mr. Parker was glad, in reply, to touch upon several points which he had purposely omitted, for want of time, from his paper. He thought too much was made of the mere removal of the sac, as if that were itself an object, instead of only a slight incident to the operation. For instance, Czerny's method consisted in tying the neck of the sac without stripping or removal. As to trusses, their objection varied with the patient's tolerance. Some almost liked to wear a truss, others could hardly bear them. As regards ligatures, he thought that any substance could be rendered aseptic, or even actively antiseptic, and he preferred those that best answered their purpose. For instance, he preferred yellow catgut to sew the skin in operations where union by first intention was expected or desired, but for the ligature or suture of the hernial sac, or other deep and durable purpose, he preferred the green catgut, or even silk. He could not see any special virtue in kangaroo tendon over other string fibrous tissue. In answer to Mr. Jessop, he distinctly advised and practised the attempt at radical cure in cases of strangulation where the state of the bowel and tissues was not too bad to render their inclusion dangerous. Of course, in the event of herniectomy for strangulation he would probably leave the ends of the cut bowel outside, and so be unable then to attempt radical cure.

Presentation.—Dr. Adams, of Martock, was on October 26th, the occasion of his silver wedding, presented by his friends with a set of silver *entrée* dishes, weighing about 110 ounces, and bearing a suitable inscription.

SOME POINTS IN THE SURGICAL TREATMENT OF SIMPLE ULCER OF THE STOMACH.

By WILLIAM F. HASLAM, F.R.C.S.,
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Cases of perforation of the stomach due to simple ulcer group themselves into three classes:

1. Where no adhesions whatever have formed around the base of the ulcer, so that the contents of the organ pass freely and at once into the peritoneal cavity; or where, if any adhesions have formed, these are so slight that they readily give way, producing a similar result. In these cases the perforation is usually found on some part of the anterior surface of the stomach.

2. Where adhesions have formed between the stomach and some adjacent organ; these adhesions may have formed before any perforation has occurred, or, where the stomach is in close contact with some other organ, the leakage due to perforation may be so gradual that time is allowed for adhesions to form and protect the general peritoneal cavity. In either case a localised peritonitis will be set up, and any resulting suppuration will be shut off from the rest of the peritoneum. In these cases the perforation is more commonly met with at the posterior surface of the stomach, where its relation to adjacent parts are more intimate than on the anterior surface.

3. Those rarer cases where adhesions form between the stomach and some hollow viscus or serous cavity and perforation opens, for instance, the colon, pleura, or pericardium.

It is with the first class alone, namely, those where the peritoneum is rapidly invaded, that I wish to speak to-day as the clinical progress of these cases is essentially different from that in the other divisions, and the surgical treatment of each class has to be conducted on a different principle. In the cases where the peritoneal cavity is suddenly invaded as the result of perforation of a gastric ulcer, our aim is to close the perforation and cleanse the peritoneum. In cases of localised suppuration due to perforation, the resulting abscess has to be treated on the general principles that guide us in the management of any such localised peritoneal suppuration, whether caused by a perforating gastric ulcer, or by a similar perforation of the vermiform appendix; while in the last division surgical treatment has to be conducted according to the exact nature of each case.

For treatment by operation to be of any avail in the cases now under consideration it is absolutely necessary that it should be undertaken as soon as possible after perforation has occurred; delay of a few hours may make just the difference between success and failure, not only by permitting an extension of the intraperitoneal mischief, but by allowing the patient to get into a condition of shock and exhaustion unfavourable for the proper performance of the operation. It is therefore of the utmost importance that those engaged in general practice, under whose care such cases first come, should be keenly alive not only to the symptoms indicating so grave a peritoneal lesion, but to the necessity of taking immediate steps for its repair. I propose, before speaking of the operation, to read notes of a case that was under my own care, and to refer to the records of other cases illustrating the symptoms and progress of this terribly fatal condition. I was asked by my colleague, Dr. Saundby, to see the following case which had been admitted under his care, and which in his opinion was one of perforated gastric ulcer requiring immediate operation:

S. T., aged 17, admitted February 2nd, 1893, in a condition of collapse and with the following history: Her friends stated that on the day previous to her admission she vomited some coffee-coloured matter; that this occurred again on the following morning, and that at 2 P.M., whilst washing clothes at a tub, she was suddenly seized with a very severe pain over the pit of the stomach, followed almost at once by pain over the lower part of the abdomen and under the left breast. The pain was intensely severe, and her friends said "she tore at herself in consequence of it." Pressure over the abdomen increased the pain. She speedily became collapsed, and was admitted into the hospital at 3.30 P.M. An hour and a half after perforation had taken place. On inquiry as to her previous history it was ascertained that during the last three weeks she had vomited after food, but that there had neither been any blood with it, nor the coffee-coloured material that she had vomited during the present attack. It was also stated that she had had an attack of vomiting three months ago, but there was no history of pain after food,

nor had she been at all anæmic. On admission she was found to be pale and collapsed, her face was perspiring, and, though her expression was anxious, there was nothing about it that was typical of an abdominal "facies"; her legs were drawn up, and any movement caused pain. The abdomen was not distended or tympanitic, the abdominal muscles were rigid, and the pain she complained of was increased by pressure. This pain, however, was not localised, but was present all over the abdomen, its intensity being greatest under the left breast, in the region of the heart; she vomited several times; the vomited matter was found to contain blood, mucus, and starch granules. Her pulse was fair in character, and varied from 90 to 100. The temperature was subnormal. At 5.30 P.M. the abdomen was opened above the umbilicus just to the left of the middle line, and the peritoneal cavity found to contain gas and some turbid fluid. The stomach was seen, and after some difficulty a perforation was found on its anterior surface near the lesser curvature, and close to the cardiac orifice. This, which was almost large enough to admit the tip of the little finger, was situated in the centre of a dense mass of induration, the diameter of which was about 1½ inch. The stomach was brought as near to the surface as possible, and fine sutures were passed through the peritoneum in the neighbourhood of the perforation; these, however, would not hold, and finally three stout silk Lembert sutures were inserted through the peritoneal and muscular coats well clear of the induration, and the stomach wall on either side of this was drawn together so as to obliterate the perforation. The peritoneal cavity, which was apparently generally contaminated by the contents of the stomach, was washed out as thoroughly as the condition of the patient would allow, the wound closed, and a glass drainage tube inserted between the liver and the stomach. She gradually got worse after the operation, and died on February 4th, 1893, forty-five hours after it was performed. The *post-mortem* examination showed a general and suppurative peritonitis. The stomach was removed, and the position of the perforation verified; this was completely occluded by the stomach wall that had been drawn over it by the sutures.

The true value of operation for perforated gastric ulcer has yet to be determined, and it is only by a careful record of all cases in which it has been performed that we can provide material on which to base any conclusion; experience alone will show in what cases we may carry out this line of treatment with any reasonable hope of saving life. In the case under consideration there are several points worthy of notice.

1. There was nothing in the previous history that pointed with certainty to the fact of this patient having had a gastric ulcer for any time. It is true that she had vomited at intervals during the past three weeks, but there had not been any pain after food or blood in the vomited matter. This, however, is just the history of so many cases where sudden perforation of a gastric ulcer has taken place. Indeed, from an examination of the records of a number of such cases, it is exceptional to find that there have been previous symptoms suggestive of gastric ulcer. This absence of previous symptoms may be accounted for by the fact that a good deal of pain may be caused by the localised peritonitis and resulting adhesions that are so frequently met with in cases of gastric ulcer. But these are exactly the cases where a sudden perforation is unlikely to occur, for if leakage takes place it causes a localised and not a general peritonitis.

2. The position she was in at the time that perforation occurred must have favoured the passage of the contents of the stomach into all parts of the peritoneum, thus starting at once a widespread inflammation of that sac.

3. When seen three hours after perforation had taken place some of her symptoms were less marked than one would have expected with an extensive perforation. Though there was evidently considerable shock, there was an absence of the extreme anxiety of face so often associated with severe peritoneal injury. The pulse was comparatively low in rate and fair in volume. There was no abdominal distension, and the pain was widely distributed all over the abdomen. These modifications in the symptoms can, however, be readily accounted for by remembering that sufficient time had not elapsed to allow the symptoms of peritonitis to be well developed. The opportunities for watching the early effects of perforation are necessarily few, and one's ideas as to the severity of the symptoms are based on the conditions seen in cases where this lesion has taken place sufficiently long to allow the symptoms of an acute peritonitis to be well developed. In looking over the records of these cases I find that wherever the mode of onset is noted it has been sudden, no matter what the antecedent symptoms may have been. In nearly all cases recorded some mention is made of the sudden invasion of this lesion. The symptoms grouped under the head of "shock" were present in greater or less degree in all. Vomiting, though a frequent symptom, was by no means always present. Abdominal pain and tenderness, increased by pressure, were nearly always present; indeed, one can hardly understand their being absent, yet in one case, though there was acute pain, this was relieved by pressure; in another there was very little pain, but some tenderness on pressure; in another no pain was caused by pressure; and in another the pain, which shifted about, was relieved by firm pressure. Abdominal rigidity in the early stage and distension later on were frequently noted. The duration of the cases varied from seven hours to five days, most of them terminating under twenty-four hours—a significant point to bear in mind when considering what prospect of relief surgery can offer. When, therefore, we consider that the chances of recovery after perforation are practically *nil*, we must feel that, provided that the condition is not so bad as to forbid operation, some attempt should be made to place the patient in a more favourable position, even though the chance of success is but slight.

What, then, is the *technique* of such an operation? Every means must be taken to diminish the shock it will necessarily cause, and to effect this the temperature of the room should be high, the patient's limbs and thorax wrapped in cotton wool and well covered with blankets; and, if the character of the pulse is bad, a brandy enema should be given shortly before commencing. The best position for the incision is above the umbilicus and just to the left of the middle line, so as to miss the falciform ligament. On opening the peritoneum it is possible that positive evidence of perforation will at once be manifest, namely, by there being air in the peritoneum together with fluid from the stomach, causing signs of more or less inflammation according to the time that has elapsed since perforation took place.

In searching for the perforation, and assuming, as seems probable, that it is situated on the anterior surface of the stomach, it is well to bear in mind that the anatomically anterior surface, that is, the portion between the attachment of the gastro-hepatic omentum and the great omentum is only anterior in the undistended condition of the organ, and that it becomes, when the stomach is distended and its position altered, practically an upper surface. Consequently, that portion of the organ first met with on opening the abdomen will be at no great distance above its greater curvature—in other words, the lower part of the anterior surface, a position where perforation does not often occur. If this is regarded as representing the whole anterior surface it is very unlikely that an ulcer will be seen, the fact being that the finger must be carried along this surface upwards and to the back until, far away from the abdominal incision, that portion of the anterior surface near the lesser curvature is found; here, experience teaches us, ulcers frequently perforate. The practical importance of this is that while we rightly describe the ulcer as being on the anterior surface of the stomach, we must not necessarily expect to find it immediately beneath the incision, for, owing to the alteration in the position of the organ by distension (and the history of many of these cases shows that they often follow a meal), it may be well out of sight, and by no means within convenient reach.

Further, a want of recognition of this fact may account for the statement in some of the reported cases that the ulcer was on the posterior surface of the stomach when from the notes it must have been on the anterior surface even though its exact situation may have been at a great depth from the anterior abdominal wall. Obviously if perforation occurs through the posterior wall we can only reach it by first forcing a way into the lesser sac of the peritoneum. In the case on which I operated I was surprised to find that an ulcer on the anterior surface could be so far away from the incision and so difficult to bring forward for suturing. Having found the perforation the next step should be the complete removal of the contents of the stomach. This may be effected by means of a large tube and funnel and some warm water. In some cases the already existing opening at the seat of perforation may be sufficiently large to admit the tube, or if not it should be introduced through the œsophagus, the hole in the stomach being closed either by seizing it between the fingers or holding a sponge over it. The advantages of thus clearing the stomach are evident when we remember that it is frequently full when perforation takes place and that the resulting shock at once stops digestion. This quantity of half digested food, if left, will not only severely test the line of

suture but will in course of time cause movement in the stomach wall or set up vomiting, thus interfering with that complete rest so necesary for repair.

Various suggestions have been made as to the best way to treat the perforation, and while it may not be possible to follow out one plan in all cases we must favour that method which, while it is efficient, will make the least demand upon the patient's power of endurance. The most radical method is to excise the ulcer with its indurated base and then suture up the rent. This plan, however, does not commend itself favourably to me for various reasons:

1. It necessitates the removal of a considerable portion of the stomach wall, consequently the difficulty of efficiently closing this will be great.

2. It must cause free hæmorrhage, and the patient is not in a condition to stand any loss of blood.

3. This hæmorrhage will cause a waste of valuable time.

Closure of the Perforation without its Removal.—This seems to offer in many cases the most satisfactory plan of treatment. To carry this out, the stomach must be drawn up as near the surface of the body as possible, to facilitate which it may be necessary to enlarge the abdominal incision. In applying sutures, which should be of the Lembert type, we must remember that for a considerable distance around the actual perforation the stomach wall is so indurated that it is impossible to cause sufficient inversion of this part so as to get the peritoneal surfaces in opposition, nor, indeed, will the tissues bear the strain put upon them by the sutures. It is therefore necessary to go outside this area of induration, so as to get a good hold of the stomach wall at a point where it can be drawn over the orifice so as to meet the peritoneum from the opposite side. Three Lembert sutures of stout silk passed in this way in the case I have recorded buried the perforation together with its surrounding induration, and completely shut off the cavity of the stomach from that of the peritoneum. I would suggest, however, that in addition to these deep sutures, some small superficial ones should be inserted in the intervals between them, and that a similar precaution should be taken at each end of the resulting puckering.

Suturing having been effected, our attention must be turned to cleansing the peritoneum, and here the question will arise as to whether it will be necessary to drain the pelvis. Bearing in mind that fluids tend to gravitate into that cavity, and the extreme difficulty there is in being sure that every particle of foreign matter has been removed, it seems probable that, at any rate in most cases, pelvic drainage is desirable. If the operator, therefore, intends to use the drainage tube here, he had better at this stage of the operation make the necessary incision for it. This will also facilitate the thorough flushing of the peritoneum, which should be carried out in the most liberal way and with volumes of hot water, the intestines being moved about and the current directed in such a manner as to remove, if possible, every particle of the extravasation. There is no doubt that this is a most important step in the operation, and one that must be persevered in as long as the anæsthetist considers the patient can stand it, unless the operator is satisfied before any such prohibition is necessary that sufficient has been done. All excess of fluid should then be removed, the drainage tubes inserted, and the wounds sutured in the usual way. I feel that it is necessary to emphasise the importance of this thorough flushing of the peritoneum, not only from the fact that the chief cause of failure after operation has been suppurative peritonitis, but on account of a somewhat natural feeling on the part of the surgeon that, after the time already spent in finding and suturing the ulcer, the patient's condition will not permit more than a limited amount of flushing, which, while it satisfies the surgeon's conscience, is of no real value.

It is on every ground undesirable to have a patient die either during an operation or very soon after as an immediate result of it. But it must be understood that a clean peritoneum is the patient's only chance, and therefore the anæsthetist must most carefully watch the general condition of the patient, and only stop the surgeon if he considers that further time spent on the operation will prove fatal.

Two other methods of treatment have been suggested, and these may be considered under one heading. By these the perforation is brought to the abdominal incision and fixed there, either by suture or a bone plate, so as to leave a gastric fistula. While such a procedure may be the only possible course to take in some cases, it is hardly the one to follow where a more complete operation can be done, for, if temporarily successful, it necessitates a second operation later on for the closure of the fistula.

Before closing this paper I should like to suggest whether, considering the dangers incident to a gastric ulcer, it would not be well in a case where the symptoms are unequivocal to seriously consider the question of opening the abdomen with a view to the treatment of the ulcer. This might in some cases be of such a size as to permit of excision, or the stomach wall might be drawn across it so as to prevent perforation; or why might not its base be strengthened and protected by grafting on to it a piece of omentum carefully removed for that purpose? Unfortunately, however, the cases where surgical treatment could be best carried out are just those where, owing to the absence of adhesive peritonitis, symptoms are either entirely absent or do not point so clearly to the nature of the case as to warrant even the slight risk of an exploratory incision. Moreover, we must not lose sight of the fact that ulceration of the stomach frequently occurs at several points, so that the difficulties in the way of dealing successfully with such cases are so great as to offer but little hope of benefiting them to any extent.

THE EFFECT OF REPEATED TAPPINGS ON HYDROCEPHALUS.

By JOHN HERN, M.D., F.R.C.S.Edin.,
Surgeon Darlington Hospital.

The operation of tapping the enlarged and distended lateral ventricles in cases of hydrocephalus which have resisted medicinal and all other forms of treatment, and in which the head continues to increase in size, has, with English surgeons at any rate, not been looked upon with favour. Mr. Erichsen condemns it in his last edition. Mr. Treves does not even mention the operation in his *Manual of Practical Surgery*.

My own cases (6 in number), all tapped more than once, would appear to show much less danger than is usually supposed, and as 5 have improved, and 2 of the 5 appear to have almost recovered, it appears to me that the operation is a justifiable proceeding, even granting the dangers usually ascribed to it, for without operation the result usually is an early death, or a mere existence worse than death, in which the poor child lies perfectly helpless, and is in fact a hopeless imbecile. In all my 6 cases the head was much enlarged, and continuing to enlarge rapidly; in 5 this ceased after the first tapping; in the sixth case the enlargement progressed, and the child died of convulsions. At the *post-mortem* examination a large cerebellar tumour was found, but there was no trace of any harm done by the tappings. The most successful of my cases was, according to notes, copied from my notebook as follows:

Born August 9th, 1887. Head not enlarged. Three convulsions at 6 weeks old. Head noticed enlarging in the tenth week. Continuous treatment for more than a year (thirteen months). No treatment up to thirtieth month—two years and a-half.

Condition then.—Head much enlarged (circumference 22½ inches). Hydrocephalic shape. Fontanelles not ossified, but apparently covered by a tense membrane. Face small and idiotic. Internal strabismus and blindness (total) of left eye. Body emaciated and ill developed (equal to about 10 to 12 months). Height 26 inches; weight 23 lbs. Lies still most of the day, but cries almost all night; crying accompanied by twitchings of the limbs.

First tapped April 29th, 1890. Two ounces and a-half removed. Immediate relief of the crying at night, and all the acute symptoms.

Second tapping July 17th 1890. Head same size as three months previously (date of first tapping). Child uses its limbs freely, and takes more notice, but the fontanelles have ceased to pulsate, and crying at night has returned. Three ounces and a-half removed. From this time progress was steady and uninterrupted.

It would be absurd to expect the tappings to relieve all cases, for obviously this condition can be induced by many and diverse pathological conditions, some of which are incurable. Nevertheless, I consider that, although it is dangerous to argue on such a small number of cases, it is

advisable to put these on record that others may publish their cases, and thus some conclusion may be arrived at which might guide us in the treatment of these unfortunate cases.

To sum up, the points which my cases seem to illustrate are:

1. That the operation, if performed aseptically and the fluid drawn off slowly with the head well depressed, is not attended with the danger usually ascribed to it.
2. That improvement follows the operation as a rule.
3. That if operated on sufficiently early, there is some prospect of the child becoming a useful member of society.

Mr. Arbuthnot Lane congratulated Dr. Hern on the results which he had obtained. He had used interrupted and continuous drainage for these cases, the latter being obtained by the use of a fine hypodermic needle and hydraulic pressure, extending over a considerable period of time, but the result in every case was, though temporarily mitigating the patients' symptoms, yet to produce no permanent benefit. He could quite understand that cases occasionally occurred in which the mechanical conditions were so evenly balanced that the removal of some fluid on one or more occasions might determine the recovery of the patient. It had, however, never been his good fortune to meet with such a case. He considered that Dr. Hern had more than his share of good fortune.

Mr. R. J. Godlee said that the congratulation must be qualified by the reflection that this case might have recovered spontaneously. He had tried this method of treatment, and had been much disappointed with the result. He had not only tried repeated tapping but continuous drainage, but had never met with a successful result. He had spoken to numerous surgeons at children's hospitals in London on the subject, and had always met with the same answer, namely, that they had tried the treatment in the earlier days of their practice, but had ultimately given it up.

Dr. David Newman asked Dr. Hern if he observed any difference in the percussion of the skull after tapping from what it was before the operation was performed. When the pathology of acquired hydrocephalus was considered he thought very little hope was held out of a complete or permanent cure by tapping. In most cases of hydrocephalus the veins of Galen were obstructed by pressure from without, and so the vessels of the choroid plexus became distended, and excessive exudation into the ventricles was the result. This led to increase in the intracranial pressure, to anæmia, and in some instances to atrophy of the brain. If they could remove the cause of obstruction then a cure might be effected, but simply to draw off the exudation could only give temporary relief, for it was certain to reaccumulate.

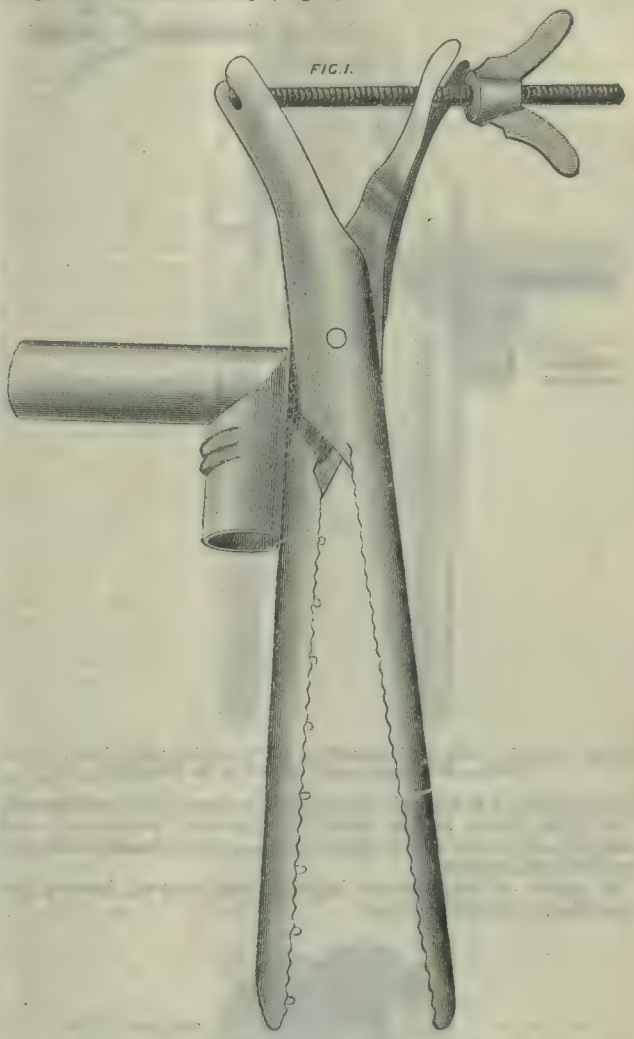
A NEW AND EASY METHOD OF PERFORMING INTESTINAL RESECTION.

By RUTHERFORD MORISON, M.B., F.R.C.S.,
Senior Assistant Surgeon, Royal Infirmary, Newcastle-on-Tyne.

In cases of intestinal growths complicated by obstruction, of irreducible intussusception and gangrenous herniæ, an operation to be successful must be rapidly performed, and should be complete. Resection of the intestine with immediate suture has been followed by some brilliant results, but the operation is long and difficult, requires special skill with trained assistants, and even then has a large mortality. With my instrument (Fig. 1), it is possible to complete such operations in from ten minutes to half an hour.

The principles of the operation I have devised are (1) to provide for the formation of a fæcal fistula primarily, and (2) that a large intestinal anastomosis shall follow the same operation. The advantages are that the distended intestine is drained by the most direct route, and that at one quickly and easily performed operation a radical cure is made possible. The operation will be easily understood by referring to the accompanying diagrams. The steps for an ordinary case are:

1. Draw out the diseased knuckle of bowel through a convenient opening in the abdominal wall (Fig. 3).
2. Pack round the abdominal opening, and make an incision ½ inch long in either intestinal tube on the convex surface away from the mesentery (Fig. 3).



3. Introduce into the upper distended intestine the blade of the forceps with tube affixed.
4. Pass a thick silk ligature through the mesentery, and tie the intestine firmly to the blade and tube in the groove provided (Fig. 2). The most convenient method of passing the silk is to push a pair of sinus forceps through the mesentery, open them slightly on the other side, grasp the silk, and draw it back with the forceps closed.
5. Introduce the other blade of the forceps into the distal end of the intestine, turn the convex surfaces of intestine towards each other, lock and screw up the instrument.
6. Pass a thick silk ligature round the whole loop of intestine, mesentery, and instrument, embracing the ligature previously applied, and cut off mesentery and intestine beyond the ligature, cleanse the whole, then dust the cut surfaces and the ligatures with iodoform.
7. Introduce a continuous or a few interrupted sutures to fix the intestinal loops securely together on the convex surface and below (Fig. 4). On the opposite side the mesentery makes everything secure.
8. Put the intestine with the instrument back into the abdomen to within three-quarters of an inch from the ligature.
9. Suture the abdominal wall and fix the intestine to it.

Dress carefully with iodoform, and pack round tube with

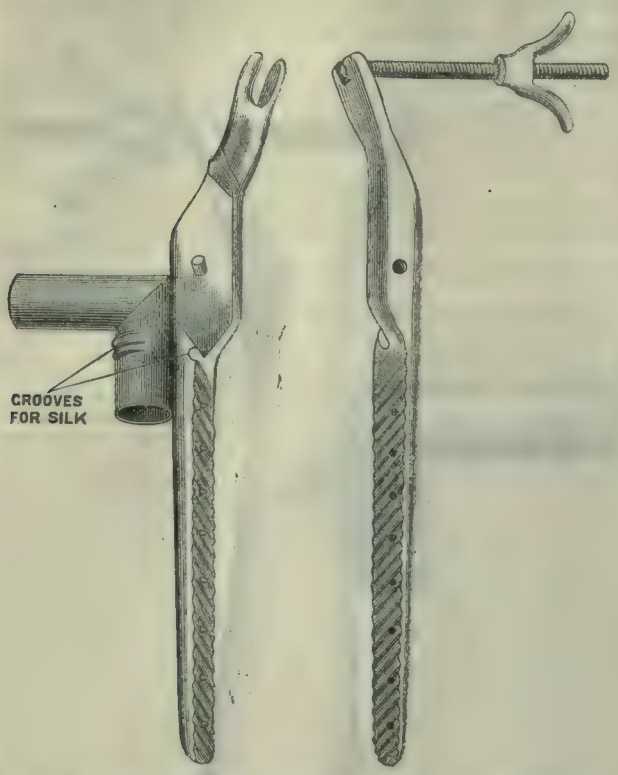


Fig. 2.—Blade for distended upper bowel. Blade for empty lower bowel. (For the drawings I am indebted to Dr. Baigent.)

wool, applying a suitable bandage to support the instrument.

In from three to five days the ligatured peritoneal coat sloughs, when the whole apparatus must be removed and the fæcal fistula dressed.

In cases of gangrenous inguinal or femoral hernia the operation is modified thus:

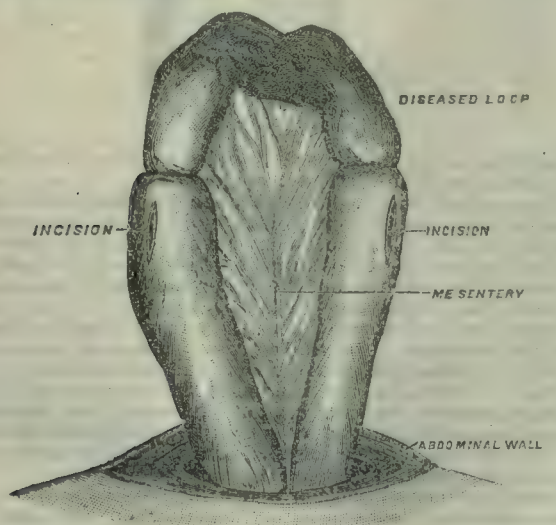


Fig. 3.

1. The sac is opened, and the gangrenous intestine exposed, cleansed, and drawn down till a healthy portion is reached.

2. A thick silk ligature is tied round both tubes and mesentery, and the diseased part beyond cut off.

3. The stump is cleansed, covered with iodoform gauze, and seized through the gauze with strong long clamp forceps such as are used in ovariotomy.

4. The forceps with enclosed stump are passed through the ring into the abdomen and projected from within at a convenient spot against the anterior abdominal wall.

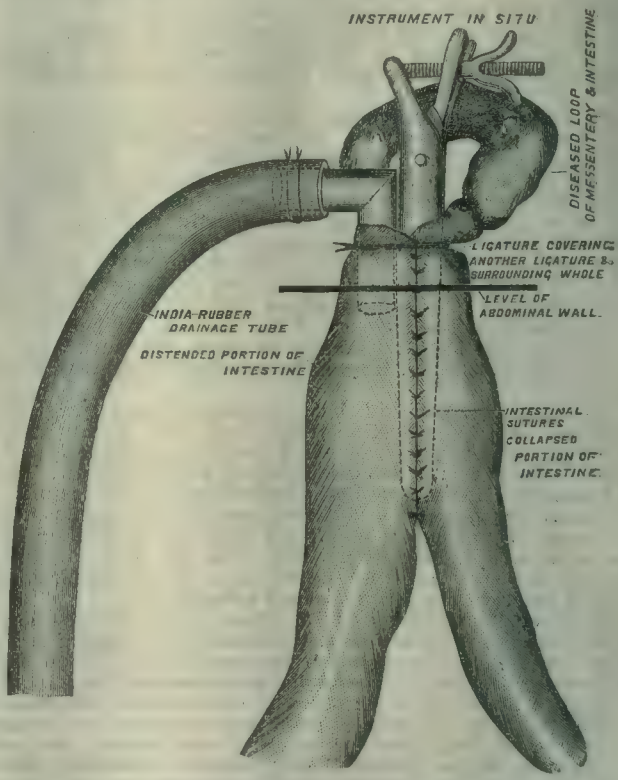


Fig. 4.

5. A small opening is made over the forceps, which with the enclosed intestinal stump is passed through the opening in the abdominal wall.

6. The intestine is released, drawn out through the abdominal opening, the forceps drawn back, and the stages of the previously described operation gone through.

7. The sac may be quickly removed and ligatured at its neck in the hope of obtaining a radical cure of the hernia.

THE FALLACY OF THE VERTICAL FOOTPIECE.

By W. ARBUTHNOT LANE, M.S.,
Assistant Surgeon, Guy's Hospital.

It is curious that for such a number of years surgeons have thought fit to put up fractures of the lower extremity in splints with footpieces so placed in a vertical transverse plane that the inner margin of the foot, when attached to it, is vertical. I will now attempt to prove that nothing can be more unscientific or more fallacious than such treatment.

If one lies on one's back in an attitude of rest the thighs roll outwards and the hip-joints occupy the position of rest for this posture. It is, like all postures of rest, one in which the limb is retained in that position by ligamentous structures—in this case chiefly by the capsule of the hip-joint, no active contraction of muscles existing. It comes about very simply, since the weight of the leg bears such a relation to the hip-joint that when the muscles, by their active contraction, cease to retain the extended limb in any position, it at once rolls outwards until the movement of outward rotation is stopped, chiefly by the strain exerted by the oblique

fibres of the capsule of the hip-joint. The amount of rotation outwards is such that the inner margins of the feet include between them an angle of about 90 degrees, and if the pelvis be horizontally placed each margin forms with the vertical an angle of 45 degrees. Surgeons are not the only sinners in this respect, since one occasionally sees sculptors depicting a supine sleeping figure with the thighs so rotated that the inner margins of the feet are placed vertically and in apposition.

Having now shown what the position of rest of the thighs is in the supine posture, and the reason why that particular position is assumed, we will now pass on to observe experimentally, in the case of a solution of continuity of the segments of the leg, the results of placing the lower segment of the leg in a position of inward rotation through an angle of 45 degrees, while the upper segment is in the position of rest already described.

First, let us strip the muscles from the vicinity of the hip-joint posteriorly, and remove that portion of the capsule which covers in the back of this articulation. By means of a broad chisel or narrow saw divide the neck of the femur freely beneath the head in the position where intracapsular fracture so readily takes place in old people, because of the changes that the structure of this portion of the bone undergoes in old age.[1] If the thigh be left in the position of outward rotation into which it falls the cut surfaces remain in apposition, or the lower fragment of the neck presses forwards and slightly upwards against the front of the capsule, the variation depending on the amount of destruction of bone in making the section; the more the destruction the greater the rotation outwards. It is easy to see that this forward and upward displacement would be exaggerated in the living subject if the leg were allowed to rotate outwards, owing partly to the temporary active contraction of the muscles set up in the vicinity of the fracture, so that the diaphysial extremity of the neck is carried upwards and forwards away from the head, and comes into relation with the bone below the anterior inferior spinous process of the ilium.

If the thigh be rotated inwards till the inner margin of the foot becomes vertical, the lower fragment falls back upon the bone behind the acetabulum, and ceases to have any direct relationship with the head. In the living body this backward displacement would be associated with an upward one due to the temporary active contraction of the surrounding muscles.

Take another body, and by means of a saw or chisel divide the shaft of the femur more or less obliquely, and, fixing the upper fragment in the position of rest, rotate the lower segment of the limb inwards, through an angle of 45 degrees, and you will observe that the rotation produces a separation of the cut surfaces of bone, and a consequent shortening of the limb due to the winding up and alteration in the direction of the muscles surrounding the broken bone. This shortening of the muscles would in a recent fracture be much increased by hæmorrhage into and beneath the muscles. In the living subject this shortening is exaggerated by the temporary active contraction of the surrounding muscles which is set up by the presence of the fracture.

That shortening is not a necessary accompaniment of an oblique fracture of the femur is shown in Gowan's method of oblique section for knock-knee, where great care is taken that one segment of the femur is not rotated upon the other around a more or less vertical axis.

It is obvious that the lower the position of the fracture in the shaft of the femur, the greater the certainty of the upper fragment rotating outwards till it reaches the position of rest.

Again, excise the knee-joint and, fixing the thigh in a position of rest, rotate the leg and foot inwards till the inner margin of the foot becomes vertical, and then compare the relation to one other of the axes of the long bones of the leg, and you see at once that the relation of the side operated on is quite abnormal, and that it corresponds to the extent of the inward rotation of the lower segment.

Passing on to the leg below the knee, divide the tibia and fibula obliquely at the same or different levels, and, retaining the thigh in a position of rest, rotate the foot and lower fragments inwards till the foot is vertical, and then examine the relation of the fragments to one another, when you will see the same conditions as have been already described in the case of the femur—namely, shortening, considerable gaping between fractured surfaces of bone, and in some cases the fragments will alternate so much in position that the four fragments must become ankylosed together. When the fractures are made transversely there is not the same displacement of the tibial surfaces off one another, but the lower fragment of the fibula is displaced forwards and inwards off the upper. Fractures of a certain obliquity forcing the foot into a vertical position may by the powerful leverage action of the broad cut surfaces of bone upon one another produce considerable inward rotation of the upper fragment and subsequently when the patient gets about the foot is found to be rotated considerably outwards.

Erase the ankle-joint by removing every particle of its synovial line by the method I described in a paper read before the Clinical Society in 1892,[2] by dividing the extensor and peronei tendons with the anterior and external lateral ligaments and displacing the foot inwards. Place the foot in such a position that its inner margin is vertically placed, and you observe at once that the outer malleolus no longer occupies its normal relation to the astragalus, but that it lies considerably behind it. If, therefore, after such an operation the foot be retained in this position, the mechanical arrangements of the ankle-joint are altered permanently, and to the considerable disadvantage of the patient. In the cases described in the paper just referred to, I divided the tendo Achillis as well as the peronei and extensors. Subsequent experience has shown me that this is unnecessary, and that the operation can be done quite as effectually without dividing it. As a matter of fact, in practice some of the deformity which ought to result from the vertical footpiece is sometimes obviated, partly by the foot slipping away from the vertical position, partly in some cases by the outward rotation of the upper segment of the limb being limited to some extent by the leg being slung, in the case of fractures of the tibia and fibula, and in fractures through the shaft of the femur to the upper part of the limb being fixed more or less firmly by bandages, etc., to the splint. In such cases a fairly good result is obtained in spite of the vertical footpiece. In a paper read recently before the Clinical Society, and entitled "A New Operation for Old Unreduced Dorsal Dislocation of the Hip-joint, with some Important Points in the Surgery of the Lower Extremity," I pointed out the importance of obtaining a firm joint in part of the transverse axis of pelvic rotation instead of an unsatisfactory one behind it, providing that bony union cannot be obtained between the fragments in the case of intracapsular fracture of the neck of the femur in the old subject. I have no doubt, however, that even in old subjects, bony or dense fibrous union of the opposing surfaces of bone will be obtained much more frequently when surgeons recognise the principles which should guide them in treating these fractures, for in the case of the young subject, where intracapsular fracture takes place through the growing line by retaining the bones in proper position, a good bony union can be obtained.

In this paper I have purposely avoided any reference to the varying angles formed with the vertical by the inner margin of the foot in positions of adduction and abduction, since they do not come into consideration during the occupation of the recumbent posture.

Mr. Pye-Smith asked how far external rotation in the dorsal recumbent position depended on the weight of the femur as compared with that of the foot. If equally, Mr. Lane's advice applied to all cases of solution of continuity of the bones of the leg and thigh; but if the weight of the foot caused greater rotation than that of the femur, it would apply in modified degree only, and some angle less than 45° should then be provided for.

Mr. Arbuthnot Lane felt that it was useless to discuss the several forms of splints which he considered advisable

[1] "Causation and Pathology of the so-called Disease Rheumatoid Arthritis and of Senile Changes."—*Trans. Path. Soc.*, 1886, see p. 445. In that paper I pointed out, I believe for the first time, that the statements of the anatomists as to the neck of the femur yielding during old age were absolutely false, and I showed how the mistake had been made. This has been confirmed by subsequent observers.

[2] Two cases illustrating a new operation by means of which the ankle-joint can be completely and thoroughly erased.

when loss of continuity between several segments of the lower extremity was established, whether by injury or operation. What he considered necessary was that surgeons should be guided by definite and accurate scientific mechanical principles in the treatment they adopted. Surgeons were too often utterly devoid of principle; he did not mean that they were unprincipled in a moral but in a mechanical sense, and that they behaved as disciples rather than as scientific men following the methods of those who were their teachers, without troubling to analyse the mechanical principles, if any, upon which they were based. He could not agree with the President that the surgery of the hip-joint and its vicinity was satisfactory, since he considered that it was to a large extent wrong and empirical. Empiricism might be an important ally to medicine, but should not form part of the armament of the scientific surgeon. As regards any solution of continuity of segments of the lower extremity, he considered that the surfaces of bone must be kept parallel and in apposition by ensuring that the axis of the lower segment shall correspond accurately with that of the upper, and that the shortening consequent upon the hæmorrhage into and beneath muscles and upon the contraction of muscles resulting from the irritation of the fracture be met by extension, the latter being overcome within a few hours while the former takes many days to resolve.

THE APPLICABILITY OF THE PARTING TOOL OR ANGULAR GOUGE TO THE SURGERY OF THE SKULL.

By W. ARBUTHNOT LANE, M.S.,
Assistant Surgeon Guy's Hospital.

I HAVE for many years discarded the use of the trephine, as I consider it a clumsy and unsuitable instrument. Instead of it I have used gouges, and preferably those ground on their concavity, and with them I found that I could remove large pieces of bone with comparative rapidity. It occurred to me that an instrument with its sharp free margin, presenting the form of two sides of an equilateral triangle, if ground on its inner surface, would remove bone much more rapidly than the concave gouge; consequently I consulted Messrs. Down Brothers, and gathered from that that a precisely similar instrument was used in carpentry, and was called a parting tool.

They made me instruments of suitable temper, and I found that the results I obtained more than came up to my expectations, since I was able to remove areas of bone of any form without injury to the dura mater, and with great rapidity. I found it convenient to use two different gouges, so ground that one was more suited to the thicker dense skull of the adult, and the other to the less resistant skull of the child. At first sight one would imagine that there would be some risk in injuring the dura mater with the sharp angle of the instrument, but with the most ordinary care there does not appear to be any risk of doing so. Certainly, I believe that there is infinitely less risk to the dura mater in using the angular gouge than the trephine, and the mechanical advantages of the former over the latter only require a trial to to demonstrate them.

Dr. DAVID NEWMAN said that for surgical operations on bone he had had an opportunity of using the instrument shown by Mr. Lane, but, as a boy, he remembered using exactly the same tool for working in wood, and for many purposes preferred it to a chisel or gouge. It was a tool to be found in every carpenter's chest, and was used in very much the same way as a gouge. On account of its angular form at the cutting edge the tool required less force to drive it along, and was, therefore, more completely under control than a gouge or chisel. To one who had not used it the instrument might seem dangerous, but he was certain that a little practice in its use was all that was required. They were indebted to Mr. Lane for transporting the parting tool from the carpenter's shop to the instrument case of the surgeon.

WE understand that the accident to Prince Louis of Battenberg's eye at Elswick last week was trivial, and that he did not seek advice for it.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

TWO ATTACKS OF SCARLATINA IN FOUR MONTHS.

DR. BARKER'S case of a second attack of scarlatina in three months, recorded in the BRITISH MEDICAL JOURNAL of October 14th, tempts me to publish a precisely similar case which came under my notice in the early part of the present year.

C. W., aged 13, was attacked with scarlatina on March 13th. The illness was moderately severe, with all the cardinal symptoms of a well-marked case; she desquamated freely, and was well at the end of six weeks, when she went to the North. The only disinfection of the apartments she occupied during her illness consisted in abundant fumigation with sulphur; there was no whitewashing or repapering.

She returned from the North on May 8th, and occupied the same rooms as during her previous illness. These rooms were also daily frequented by other members of the family, consisting of six children, none of whom had had scarlatina, and none of whom took it. These were in the room daily, but did not sleep there as the other child did. On July 13th C. W. was attacked a second time; the illness was rather more severe if anything than on the previous occasion; there was slight transient albuminuria, which there had not been before, and the peeling was rather more copious. She recovered in six weeks.

The probabilities are that she took the second illness from some poison left undestroyed by the previous fumigation. Second attacks of measles within short intervals are not very uncommon; certainly I have seen more than one case in which a second attack has occurred within a twelvemonth, but in all the second illness seems to have been modified by the first, and was much less severe. In the case recorded above not only was the interval very short, but the immunity or resistance derived from the first attack appears to have been *nil*; indeed, the second was the more severe of the two.

CHARLES P. CHILDE, B.A., L.R.C.P.Lond., F.R.C.S.
Southsea.

IRON IN SEVERE DYSENTERY.

R. C., aged 19 years, three months in India, was admitted to hospital on May 8th, 1893, with enteric fever. The motions were irregular and costive, the bowels being moved only after castor-oil or enemata, which were required every three or four days. The stools were of the ordinary enteric character; the temperature showed a morning fall and an evening rise; the highest point reached was 105.6° F. He was convalescent on the twenty-ninth day. Four days later diarrhœa set in without fever, and lasted five days. He was then fairly well for a fortnight. At the end of June dysenteric diarrhœa began, and went on almost uncontrollably till the beginning of August. From June 29th to August 7th he had 1,001 stools, or an average of 25 every day, 45 being the greatest number in any one day. The majority of the stools contained blood. He was treated with ipecacuanha in various ways and amounts without any appreciable effect, also with salol, naphthaline, opium, bismuth, bael, hazeline, ergot, isphagoul, calcium chloride, iron, nux vomica, cannabis indica, perchloride of mercury and cold water and astringent enemata. The large cold enemata had a good effect for a short time, the other remedies had none, except the iron which began his cure; the nux vomica and cannabis indica completed it. He is now, in September, quite fat and well, though in July he was merely a living skeleton.

H. A. HAINES,
Station Hospital, Dalhousie. Surgeon-Captain A.M.S.

HOSPITAL SUNDAY.—At the close of the financial year on October 31st the Hospital Sunday collections in London this year amounted to £39,300, as against £41,500 in 1892.

THE fifth Congress of Russian Medical Practitioners will be held in St. Petersburg from January 8th to the 16th. The municipality of the city has voted a subvention of 1,000 roubles towards the expenses of the Congress.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

F. W. Pavy, M.D., F.R.S., in the Chair.

Tuesday, November 7th, 1893.

The President having adverted in feeling terms to the death of Sir Andrew Clark, the general business of the evening was proceeded with.

Bullet Wound of Heart.

Mr. James Berry reported the case of a man who fired a revolver through the left side of the chest, though himself a right-handed man. The course of the bullet was from left to right, and it had passed through the upper part of the right ventricle. Death did not occur until an hour after the injury. At the end of forty minutes he was able to shout and throw his arms about. After death 3 pints of blood were found in the left pleura.

Wound of the Common Carotid Artery.

Mr. James Berry also showed a specimen of the great vessels from a man who was stabbed in the left side of the neck from behind. The knife passed through the left innominate vein, and divided the common carotid artery for about three-quarters of its circumference. The hæmorrhage was mainly from the vein, the cleft in the artery having had a somewhat valvular disposition.

Phase of Coccidium Oviforme.

Mr. Jackson Clarke showed a specimen illustrating a phase of coccidium oviforme, as described by him in the *Medical Press* of August 30th. Having quoted L. Pfeiffer and Laveran to the effect that cultures in the bacteriological sense did not exist for the sporozoa, which were necessary parasites, Mr. Clarke observed that at the present time two modes of reproduction were recognised in coccidium oviforme—namely, that first described by Leuckart, occurring only outside the body of the host, and that quite lately described by R. Pfeiffer—the formation of sickle-shaped swarm spores. The latter process had as yet only been found in the early stage of the acute coccidial affection as it occurred in young rabbits. In the lesions of the liver of a full-grown rabbit the author found a modification of the parasites marked by the absence of a thick capsule, and the presence of short parallel rods placed vertically to the surface. These rods were quite distinct from the ordinary peripheral granules. The parasites in this form presented unequivocal evidence of undergoing subdivision, which resulted in the formation of clusters of minute cells, which sometimes retained the peripheral rays (so recalling certain cell inclusions in cancer), and sometimes assumed the form of granular spheres about the size of red blood corpuscles. These cell clusters were quite distinct from the aggregations of granular coccidia. The phase might be regarded in two ways. It might be looked on as an abortive process, which went a certain way towards, but stopped short of the formation of, sickles (which were nowhere present in this case), or it might be regarded as a reproductive process resulting in the formation of round granular swarm spores.

Mr. W. G. Spencer thought the bodies described were possibly altered hepatic cells, and proposed that the specimen should be referred to the Morbid Growths Committee. This was carried.

Two Cases of Intussusception.

Dr. Charlewood Turner showed two specimens of intussusception, one of the ileo-cæcal, another of the ileo-colic form.

Angioma of the Scapular Region.

Mr. F. C. Wallis recounted the case of a healthy man, aged 44, from whom he had removed a large angioma. It was at its lower part a firm tumour and lay in the infraspinatus region. On aspiration only blood was withdrawn. The diagnosis was sarcoma. It proved to be a simple angioma. The result was unsuccessful.

Mr. Bowlby observed that angiomata of the deeper structures were not sufficiently recognised. He cited two specimens in St. Bartholomew's which had been alluded to by Mr. Wallis. In one the thumb was amputated for a nævus involving the thenar muscles, nothing less having been found practicable. In the other the lower limb was amputated for an extensive nævus implicating the muscles of the calf and lower part of the thigh, and the sheath of the popliteal nerve. Such growths were to a large extent arterial.

Mr. L. Bidwell knew of one case of angioma involving the muscles of the front of the thigh.

Chronic Inflammation of the Tibia.

Mr. H. H. Clutton exhibited a tibia much enlarged from chronic inflammation. The bone, however, was not sclerosed, but, on the contrary, hardly more, in many places, than a thin shell. The patient was 35 years of age, and had suffered from congenital syphilis. The opposite tibia was similarly enlarged, but he could stand and walk with it, whilst, for the past two years, this was prevented to a large extent on the other side in consequence of distortion of the ankle-joint. The author asked whether the osseous changes arising in the hereditary form of syphilis might not, as a general rule, fail to terminate in sclerosis.

Mr. S. G. Shattock considered the atrophy of the enlarged bone to be secondary and a result of diminished use, the bone having been, not necessarily, ever sclerosed, though certainly enlarged, from a production of new osseous tissue. He remarked also that it was certain that, after physiological growth of the bones had ceased, chronic inflammation would produce, not only increase in girth, but also in length. This was proved by the curvatures seen in the radius in cases of osteitis deformans where the ulna was unaffected.

Lymphadenomatous Growths of Heart.

Mr. C. F. Beadles exhibited the heart from a man, aged 40, suffering from mania and delusions; these, five years previously, had taken the form of "snakes inside" and strangulations. He developed consolidation of the lung and died without having ever suffered from symptoms of heart disease. After death a mediastinal growth was found compressing the trachea, and there were growths of similar kind involving the heart, though distinct from the other.

Crystals of Bilirubin from Hydatid Cysts of the Liver.

Dr. Lee Dickinson stated that the cyst had been opened during life and a large number of dead collapsed hydatids evacuated, together with a fatty substance containing crystals of bilirubin; pure bile was subsequently discharged from the wound. The occurrence of such crystals had been frequently observed in hydatids of the liver, by Prescott Hewett in 1845, by Virchow in 1847, and later by Dr. Bristowe, who regarded them as hæmatoidin. The identity of bilirubin and hæmatoidin was now generally held. The author, however, thought them derived from the bile rather than from blood, for they were seldom seen in other hydatids than those of the liver; the effusion or passage of bile into the sac probably was the cause of the death of the parasite.

Billiard Ball Impacted in the Pharynx.

Dr. A. F. Voelcker showed the pharynx of a man who died suddenly after putting a billiard ball into his mouth. The epiglottis was not depressed, but the ball lay over the upper opening of the larynx. All the organs were intensely congested.

Card Specimens.

Dr. Lee Dickinson: (1) Kidney Partly Hydronephrotic, with Double Ureter; (2) Primary Scirrhus of Liver.—Dr. A. F. Voelcker: Aneurysm of the Arch of the Aorta Rupturing into the Œsophagus.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

Richard Favell, M.R.C.S., President, in the Chair.

Thursday, October 26th, 1893.

Cases.

Mr. Snell showed a girl, aged 20, with Amblyopia (?) and Blisters on the Forearm. The latter were due to the application of emplast. lyttæ, which had been found on her person. There had been also blisters on the eyelids. The alleged condition of vision (not even counting fingers) did not cor-

respond at all to what she was observed to be able to do when not noticed; and the malingering nature—hysterical (?)—of the condition was evident. Mr. Snell also introduced a man with Sarcoma (?) of Orbit, involving apparently the lachrymal gland.—Mr. ATKIN showed a case of Phagedænic Pericementitis. The patient was a clerk aged 21, previously healthy. Suppuration commenced over the site of a wisdom tooth, and rapidly spread to the sockets of all the teeth and the cellular tissue of the neck. For three months the mouth was constantly discharging fœtid pus. The new antiseptic, izal, proved of value as a mouthwash.—Mr. EDWARD BARBER introduced an unusual case of Expiratory Habit Spasm in a boy aged ten years. The spasmodic cough which replaced ordinary expiration when the boy was awake and under observation ceased during sleep.

SPECIMEN.

Dr. ARTHUR HALL showed a Heart, with a ring of calcareous degeneration occupying the aortic ring and valves, so that the orifice had become slit-like, and very narrow.

EARACHE IN CHILDREN.

Mr. ATKIN read a note on the treatment of earache in children. Catarrhal cases alone were referred to, and the treatment advocated was breathing into the ear by the mother, a nurse, and aconite internally. In severe cases blistering fluid, leeches, and incisions might be found necessary, and a mixture of atropine, morphine, and cocaine in solution instilled into the ear.

CHOLERA.

Dr. ALFRED ROBINSON read a paper on the recent outbreak of cholera in Rotherham. Rotherham was the first inland town attacked by cholera. This was the more curious, as it is farther from the sea than any other town in England. After an unusual amount of diarrhœa the first case was notified on September 6th. Notes of cases and reports of bacteriological examinations were given, and microscopic slides and specimens of rice-water stools were shown. Dr. Robinson discussed the mode of infection, the value of preventive measures, and the prophylactic regulations which should be taken by sanitary authorities against the spread of the disease. He laid particular stress upon efficient drainage, removal of waste material, and a good water supply.

Dr. KEELING, Dr. MARTIN, Dr. HARVEY LITTLEJOHN, Mr. PYE-SMITH, Dr. BURGESS, and Dr. PORTER joined in the discussion which followed.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

DONALD HOOD, M.D., President, in the Chair.

Friday, November 3rd, 1893.

ALOPECIA AREATA.

DR. PHINEAS ABRAHAM read a paper on this subject. He said the diagnosis of alopecia areata was a matter of no difficulty in the majority of cases, but it was not invariably easy to isolate it clinically and pathologically from certain other affections of the hairy parts. More than one distinct disease might have alopecia areata as a prominent feature or symptom. A localised alopecia, too, might result from external pressure or friction, as on babies' heads from pressure of the pillow, on ladies' heads in the "chignon" days, and on mens' shins just above the boot, as pointed out to the author by Mr. Lloyd. Although certain cases, as shown by Brocq, were the result of a folliculitis or perifolliculitis, no prior pustulation was met with in the vast majority of the cases, as was formerly believed. Accurate observers were more and more admitting that while some cases were undoubtedly of neurotic origin, many could be explained only on a parasitic hypothesis. Since Mr. Hutchinson and Dr. Crocker published their view that the majority of the cases of alopecia were etiologically related to common ringworm of the scalp, Dr. Abraham had investigated the histories of 137 cases of alopecia areata, and had examined a considerable number microscopically. In no case which did not show other evidence of the affection being true tinea tonsurans could a trichophyton be found, and for some time it appeared to him that in comparatively few instances could a history of previous ringworm be obtained. The evidence as to this point seemed, however, to be increasing, and the statistics now presented undoubtedly lent some support to the theory referred to. From the tabulated figures it was apparent that in no fewer than 44 instances, or 32 per cent. of the cases, there had been a previous history of ringworm either in the patient or other members of the family, or persons more or less in contact with the patient had been at some time or other affected with that disease. Short notes of 37 of these cases were given. There were certainly cases, on the other hand, in which no connection with ringworm could be traced. The question of the possible contagiousness of alopecia areata was also illustrated by these figures. In 27 of the 137 there was a clear history of other members of the family or intimate friends having been affected with alopecia, but some of them were of very doubtful value in proving contagion. Quite recently a somewhat analogous series of cases, occurring in an orphanage, had come under his notice. For a long time he had observed that certain cases of alopecia areata had been the subjects of extensive seborrhœa, and he agreed with Brocq that some cases might be the sequel to that affection. The case of a lady with multiple patches was a marked instance; he found that several other members of her family had extensive seborrhœa. Only 13 of the 137 cases gave a history of neuralgias or previous neuroses; and in those who complained of severe headaches he had found the short clavate hairs just as frequently as in the others. This was not in accordance with the views expressed in certain textbooks. One of the cases exhibited illustrated this point. With reference to treatment parasiticide ointments and the cautious occasional application of Burt's fluid were serviceable in a majority of the cases. By their means he had had success with alopecias that had lasted for years, and were apparently hopeless. He frequently used a carbolic and salicylic acid ointment, and sometimes intermittent with lotions like the *lotion excitante* of the St. Louis Hospital. He always treated the seborrhœa, if present. Where he wanted to impregnate an area of scalp with a germicide fluid, he was now using the apparatus exhibited, made for him some months ago by Messrs. Maw, Son, and Thompson. It was constructed on the principle employed in the arts for creasoting logs of wood or railway sleepers. A partial vacuum was first produced over the diseased part, previously epilated, shaved and washed with soft soap, alcohol, and ether; the germicide was then let in under the influence of the atmospheric pressure. It was curious to observe how the spots implicated came into view by a manifest localised hyperæmia of the cutis—a fact of some pathological significance. He had been able to use the method only in a few cases, and could say very little at present as to results.

The PRESIDENT, Dr. EDDOWES, Dr. SQUIRE, and others took part in the discussion.

NIGHT TERRORS.

Dr. COLEMAN referred to the frequent association of night terrors and epilepsy, but he regarded the affections as distinct, and did not consider epilepsy as liable to follow night terrors. Its almost invariable association with disturbances of the alimentary canal was insisted on. Several cases were quoted, especially those where hallucinations were present, even after the attack, when the child recognised its parents, and they had this peculiarity, that the whole figure of the man or other object of terror was rarely seen.

The PRESIDENT, and Drs. CLEMOW, ROCHE, LYNCH, ANDREWS, BALL, ADDENSON, MASTERS, and Mr. S. PAGET took part in the discussion.

TENTS.

Dr. SCHACHT showed a specimen illustrating one of the dangers of tents. It was removed from a woman who died of septicæmia, caused by a slough separating and establishing a sinus into the broad ligament.

Dr. AMAND ROUTH spoke depreciating the value of tents, and expressing a preference for rapid dilatation.

CASE.

Dr. CLEMOW showed a case of Tapeworm for Dr. CAMPBELL POPE.

THE will of Dr. Severin Wielobycki, the centenarian, who died at St. John's Wood, has just been proved. The personalty was sworn at £9,750.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Wednesday, November 1st, 1893.

Joseph Bell, M.D., F.R.C.S.E., President, in the Chair.

Cases.

Mr. Cotterill showed a young man on whom Macewen's operation of osteotomy, for the cure of genu valgum, had been performed. A lump (partly bony and partly bursal) remained on the outer side of the left knee.—Mr. F. M. Caird showed two patients, both of whom had had a Leg Amputated after the osteoplastic method of Bier. In both cases good stumps had been formed on which the patients could lean their weight and walk with the aid of artificial limbs.—Mr. David Wallace showed a patient after Œsophagotomy and Gastrotomy for the removal of a metal plate with artificial teeth. The patient was in hospital six weeks. The wounds were now firmly cicatrised.

Allochiria.

Professor Grainger Stewart showed a man of about 60 suffering from a curious nerve condition. No subjective phenomena of importance, no giddiness. His hands, feet (especially the left), and trunk were chronically tremulous. When touched on the outside of the left forearm he felt as if it had been on the inside, and *vice versâ*; but when touched in the middle of that arm he had a correct place perception. So also in the left leg. There was also inaccurate perception on the left side of the trunk—a train of symptoms suggestive of the condition of allochiria. Perhaps even a better designation might be allogæsthesia. The field of vision was greatly contracted and the field of perception for blue more interfered with than any other. The gait was peculiar: he walked three steps to the right and then three to the left, and so on regularly. This he alleged to be due to weakness of the ankles. Sometimes the thyroid was enlarged.

Friedreich's Ataxia.

Dr. James showed a man, aged 26, suffering from Friedreich's ataxia. At 18 he was noticed to have curvature of the spine and difficulty of speech. Six months later it was noticed he could not walk in the dark without tending to fall. The muscular sense was impaired.

President's Valedictory Address.

Dr. Joseph Bell delivered a valedictory address. During the two years he had been President, he had only been absent from one of the meetings. He referred to the members who had died during his term of office—Mr. Francis Brodie Imlach; Dr. J. D. Gillespie, successively Secretary, Councillor, and President; Dr. J. Young, Edinburgh; and Dr. Stewart, Kirkwall. The work of the last two years was briefly reviewed, and the most important papers referred to. Thirty-one years ago the President's father had in his turn been President of the Society. The meetings of those days were more lively than now, much more warmth and even personal animosity being thrown into the discussions. Now the pendulum had swung too far the other way, and papers were either received with overpowering enthusiasm or "damned with faint praise." The meetings were not so well attended as they might and ought to be. For this many causes were given. He thought if the hour were 5 instead of 8, there would be a much better attendance.

Election of Officers.

The following were elected officers for the ensuing year: *President:* Dr. Clouston. *Vice-President:* Dr. John Wyllie. *Councillors:* Dr. James, Dr. Melville Dunlop, Dr. R. W. Philip, Dr. Joseph Bell, Dr. Russell Wood. *Treasurer:* Dr. Mackenzie Johnston. *Secretaries:* Dr. William Russell, Mr. Hodsdon. *Editor of Transactions.*—Dr. William Craig.

Opium Traffic in Burmah.—Mr. J. G. Scott, Acting Minister at Bangkok, in a recent report gives an interesting description of the Wa-tribes, in the State of West Manglun, in which he states that they grow large quantities of opium, which they eat as a rule, though they smoke it also. "Like all consumers of opium, they are powerful, energetic, and prolific."

REVIEWS.

Epidemic Dropsy. By Kenneth McLeod, M.D., LL.D. Reprinted from the *Transactions* of the Epidemiological Society of London, N.S. Vol. XII. (Demy 8vo, pp. 40.)

This paper refers to a peculiar disease which, between 1877 and 1880, appeared in epidemic form in Calcutta, Shillong, and Mauritius. The leading symptoms of the disease were anasarca preceded or accompanied by fever, vomiting, diarrhœa, and sometimes by irritation of the skin; it was often accompanied by an exanthematous eruption, deep-seated pain in the limbs, dyspnœa, progressive anæmia, and not infrequently by hydropericardium, hydrothorax, or œdema of the lungs. The disease ran its course in from three to six weeks, and had a mortality of from 2 to 40 per cent., death being brought about, often suddenly, by heart failure or by lung complications.

Besides his own observations, Dr. McLeod gives an admirable digest of all that has been written on this singular disease, placing the views of the various observers as to its pathology and nature in a clear light whilst himself carefully abstaining from expressing an opinion. It would seem that in Calcutta and Mauritius the profession was divided in its views as to the nature of the complaint, some regarding the disease as new, others considering it to be beri-beri. To us, whilst recognising points of resemblance between epidemic dropsy and classical beri-beri—to wit, the œdema, the liability to serous effusion in lungs and serous cavities, and the sudden death from cardiac failure—there are many points which serve to distinguish the diseases.

Paralysis, anæsthesia, and muscular atrophy are hardly mentioned in the accounts of epidemic dropsy; they are invariably present, some or all of them, in beri-beri. The fever, gastro-intestinal irritation, rubeolar eruption, intense anæmia, and short and definite course associated very generally with epidemic dropsy are neither characteristic of nor common in beri-beri; and, if they do occur in the latter disease, their presence can only be regarded as an accidental concomitant.

However this may be, Dr. McLeod has done an admirable piece of work in thus systematising and focussing, with much judgment and literary skill, the facts and opinions about this disease which hitherto could be dug out of a confused mass of reports, newspaper articles, and other documents only by an expenditure of much time and patience. This in itself is no slight service to the worker; but Dr. McLeod further deserves our thanks, inasmuch as his labours make very apparent the weak points in our knowledge of epidemic dropsy, and so render evident the direction investigation should take in the future in the event of this epidemic ever again revisiting its former haunts or showing itself on fresh ground.

Cattle Tuberculosis and Tuberculous Meat. By Henry Behrend, M.R.C.P.Edin., M.R.C.S.Eng. London: F. Calder-Turner. 1893. (Crown 8vo, pp. 112. 2s. 6d.)

This little work contains three papers and a postscript. The first and second papers appeared in the *Nineteenth Century* of September, 1889, and October, 1890, respectively. The third (not hitherto published) purports to bring the knowledge of the subject up to the present date.

The importance of his topic certainly justifies Dr. Behrend in the reissue of his well-known papers. They summarise the evidence afforded by the experiments of leading pathologists, establishing beyond doubt the danger of the consumption of the flesh of tuberculous cattle, and the urgent need of legislation for the protection of the public health.

The third paper points out that the communicability of tuberculosis by the ingestion of tuberculous flesh being no longer in dispute, the question now to be determined is the amount of tuberculous impairment which renders the flesh of cattle unfit for human food. The battle is waged between those who hold that any local lesion is sufficient to condemn the whole carcass, and those who consider that unless there

be general tuberculosis or grave affection of internal organs the flesh may be regarded as fit for consumption.

This division into local and general tuberculosis has been taken as the groundwork for legislation in foreign countries. Whether the believers or the sceptics in the danger of localised tuberculosis be eventually proved in the right, there can be but one absolute safeguard—the inspection of every animal destined for human food, as carried out in many of the large cities of Germany. M. Landouzy is quoted in evidence of the inefficiency of the French method of inspection, and Professor Walley, of Edinburgh, and Dr. Duguid, Assistant Inspector of the Board of Agriculture, are cited to show that in Great Britain there is positively no protection against those who traffic in meat unfit for food.

A summary is given of the discussion at the meeting of the British Medical Association at Nottingham. It is evident the author is quite in accord with Dr. Tatham, who, in his summing up, contended that the practice adopted by most sanitary authorities in passing carcasses affected with local tuberculosis could not be justified.

Dr. Behrend's book is full of information on a subject about which information is wanted. It is sure to find many interested readers among members of the author's profession, and it should help to arouse the public to a sense of the grave risks daily incurred by the consumption of tuberculous meat.

THE BRITISH GUIANA MEDICAL ANNUAL AND HOSPITAL REPORTS. Georgetown, Demerara. Baldwin and Co. (Crown 8vo, pp. 206, 5s.)

THE colony of British Guiana is to be congratulated on the energy and public spirit of its medical practitioners as evidenced by the volume before us, containing as it does many excellent and highly practical papers of more than local interest, but which appeal specially to the student of tropical disease. Dr. Barnes's experience of salicylate of soda in leprotic fever is interesting and important; he says: "In true leprotic fever I find the drug has a most marked action, subduing the pain in the tubercles and rendering the patient in every respect more comfortable." We regret that Mr. Ireland, when alluding to the subject, gives us so little information about that peculiar and deadly form of inflammation and ulceration of the anus and rectum known in Guiana as "Caribi sickness," which, under various names, appears to be not uncommon in some other parts of South America—Venezuela, for example—and also, we believe, in Fiji. So far as we know, there is no good description of this disease in medical literature; we would suggest it as a subject particularly deserving the attention of contributors to future volumes of the *Annual*.

Another peculiar form of ulceration is the subject of a joint paper by Drs. Ozzard and Neal. It appears that it is familiar to all medical men practising in British Guiana. This disease, too, so far as we know, has never been properly described. The authors allude to it thus: "In the female will be found, either in one or both groins, on the mons veneris, and on one or both labia majora, frequently in all these situations, and at times also extending up the vagina, or downwards or backwards over the perineum, and around the anus, or both, large patches of what may be described as resembling 'proud granulations.' They are raised above the surrounding parts, and are usually florid, though at times they may be pale and œdematous-looking. They usually discharge a foul-smelling purulent fluid which diminishes, and may become very slight, under proper treatment and cleanliness. The edges of the patch are abrupt, more or less indurated, and at times present everted edges, and there is little or no congestion of surrounding skin. The tissue is usually quite soft, though at times firm discs of more hardened tissue are met with in the midst of the soft granulation tissue. In the male, the ulceration is usually seen affecting the groins, the prepuce and glans penis, the anus; and, as in the female, it sometimes spreads downwards from the groin over the scrotum and base of the penis following the folds of the thighs to the perineum and skin around the anus. There is usually more or less enlargement of the lymphatic glands of the groins." This form of ulceration occasionally occurs in other parts of the body, continues for many years before it kills, is not amenable to antisyphilitic treatment, and, apparently, is neither cancerous nor tuberculous. This, too, is a subject well worth working out, and there seems to be no want of material in the colony.

The excessive infant mortality in British Guiana is discussed in several papers, and there is practical unanimity as to the causes, namely, bad feeding (pap feeding), illegitimacy, syphilis, overcrowding, and removable unhygienic conditions. We are somewhat surprised that trismus nascentium—so common a cause of mortality among infants in the tropics—is not mentioned. Dr. Ozzard contributes some excellent notes on malarial fevers. There is also an important though short paper "On the distribution of tubercle in the body," based on the statistics supplied by 203 tuberculous subjects encountered in 885 *post-mortem* examinations. This paper is by Dr. Rowland, and is a valuable contribution to the subject, particularly as relating to the tropics. These and other papers make up a volume reflecting great credit on the contributors.

STARCH AS A FOOD IN NATURE. By JOSIAH OLDFIELD, M.A. B.Sc. London: The Vegetarian Federal Union. (Pamphlet 8vo, pp. 30, 3d.)

THIS is an excerpt from the *Transactions* of the Federal Union (Vegetarian) Congress at Chicago, and makes one more in the multitude of food tracts. It is well written and well fitted to aid in the "diffusion of useful information," although it is a piece of special pleading. The tone is, in fact, distinctly polemical, and it is easy to see that the author, who, we believe, is the Editor of the London *Vegetarian*, has his pen pointed at that section of the "following" which has lately taken sides with the Editor of *Natural Food* against a farinaceous diet and in favour of nuts and "fruit," with or without a partial resort to the wares of the fishmonger and the butcher.

We must forbear any appreciation here of the comparative methods of this remarkable dispute—*non nostrum inter vos tantas componere lites*. But we may say that Mr. OLDFIELD, as the starch champion, puts in his strokes well, and his facts with sufficient accuracy—though we are unaware what is gained by calling Lieberkühn's glands the glands of Lieber Kühn, evidently with intent. On the other hand, we recall Sir Francis Head's assertion that the starchless diet (beef) of the Gauchos of South America imparts to those fierce herdsmen an "immense power of endurance," while the Arab relies for his strength and activity on a handful of dates—facts which taken together would seem to tell for the "fruitarians." At the same time, the latter dietary proved insufficient for the author of *Les Ruines*.

Perhaps both sides in the controversy might take a useful hint from the common practice in the nut-producing lands which border the Mediterranean, of baking these comestibles—a practice so invariable as to include not only starchy nuts, as chestnuts and hazels, but also the oily nuts, as almonds and pea nuts. In fact, they are all treated as grains, whether by torrefaction or by pounding and making into cakes (*turrón* and *mazapán*). After all, a grain is, botanically, precisely a grass nut. Mr. Oldfield, however, in his zeal for starch, suggests at p. 23 the "soaking" of grain as sufficient to set it, dietetically, on all fours with the nut. Our suggestion is the same treatment for both—the oven; and we feel sure this equal justice will give the most general satisfaction. But we are glad to find Mr. Oldfield has a final good word for cookery; and certainly, if starch is a "natural food" for man, it must be on the trite definition of man as a "cooking animal." The art can count distinguished apologists, not only among physicians, but philosophers. The genial author of the *Cook's Oracle* had, Dr. Milner Fothergill has assured us, no fewer than 250 cookery books in his library; and the famous Mrs. Glass was but the "shy" of Dr. Hill; while the great Dr. Johnson is well known to have announced an intention of "treating the subject, Sir, philosophically," though he did not, in the event, so far as we are aware, enter the lists with Dr. Kitchener.

THE number of new students who have entered the medical faculty of the University of Utrecht this winter semester is 25.

OBITUARY.

SIR ANDREW CLARK, BART.,

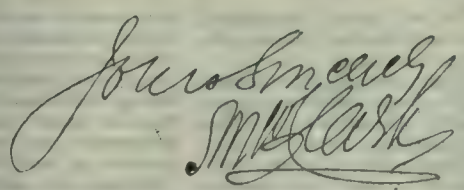
M.D., F.R.S.,

President of the Royal College of Physicians of London.

The dramatic circumstance of one occupying such a prominent position in the profession and community as the President of the Royal College of Physicians stricken down in the midst of his active life has given to the illness and death of Sir Andrew Clark a pathetic interest. Though a rare event, the death of its actual President has not been unprecedented in the history of the College. Sir Henry Halford died President on March 9th, 1844, having occupied the presidency about twenty-four years. He was succeeded by Dr. John Ayrton Paris, who, curiously enough, also died whilst President on December 24th, 1856, and no actual President has died since Dr. Paris until the present sad occasion.

Sir Andrew Clark was born at Aberdeen. His father, also named Andrew, was a medical practitioner residing at Ednie, in the parish of St. Fergus, near Peterhead. He was a gifted and learned man, and an accomplished musician, greatly beloved by all. Sir Andrew's mother did not survive his birth, and his father died when he was about 7 years of age. He was brought up by a foster mother and father, and educated by two bachelor uncles, and appears to have passed a somewhat cheerless childhood. He was at school at Aberdeen and apprenticed at Dundee. His medical studies were pursued at Aberdeen and Edinburgh, where he gave strong indications of his studious nature and high abilities by the numerous prizes he gained, including a valuable bursary at Aberdeen University. Professor Gairdner, of Glasgow, and Dr. Lockhart Roberston were fellow students of his, and the former has informed the writer that Sir Andrew Clark and he contracted typhus in the prosecution of their clinical studies. Having qualified, Clark became Demonstrator of Anatomy at the University of Edinburgh, under the celebrated Robert Knox, and was for some time pathological assistant to the late Dr. Hughes Bennett. The latter exercised a great influence on his career in the example he afforded him of exact clinical observation, and in a love for pathological histology. Clark's health failing at this time, and indications of pulmonary disease presenting themselves, he determined on an outdoor life, and entered the Royal Navy as a surgeon. After a few voyages his special qualifications for the post led to his being appointed pathologist to the Royal Naval Hospital at Haslar, where he taught the use of the microscope in clinical and pathological work.





From a Photograph by Elliott and Fry, of Baker Street.

In 1853 he was attracted to London by the opening afforded by the newly-created office of curator to the museum at the London Hospital. Here, as in every thing he undertook, he threw his whole energies into the work, re-examined and described afresh the various specimens, and rearranged the museum. Until quite recently many of the specimens bore labels in his own handwriting. It was quickly appreciated by the students and staff of the hospital that the young Scotchman who had come amongst them was no ordinary man. He had originally intended to devote himself exclusively to pathology, but in 1854 a vacancy as assistant physician to the hospital occurred, and he was encouraged by some of the staff, especially by the late Mr. Curling, to come forward for the post. He had formidable opponents to contend against; the opinions of the staff were divided as to the merits of the candidates, and Clark had few friends in London. In those days the whole body of governors had to be canvassed, and a contest was a laborious and expensive matter. The students warmly espoused the cause of Clark, and though the contest was a keen one the man who was ultimately to become and to die the head of the medical profession in his country was elected. He took his degree of M.D. at Aberdeen in 1854, and was admitted a Member of the Royal College of Physicians in the same or the following year. Having thus got his foot on the ladder of success, Dr. Andrew Clark commenced to practise in Montagu Place, Russell Square.

In entering upon his duties as assistant physician he brought the methods of clinical research he had acquired at Edinburgh, and the constant employment of the microscope, which at that time was little used in clinical work in London, to the investigation of disease. Above all he brought to his work a burning enthusiasm which proved most infectious to all who worked with or under him. The long hours he devoted to his out-patient work, and how he examined the urine chemically and microscopically in every case are matters of history at the London Hospital. What impressed those who worked with him at that time was the minuteness, thoroughness, and rapidity of his diagnosis. In the nearly thirteen years he spent in the out-patient department he laid the foundation of

that extensive experience of minor ailments and the beginnings of disease which form the great bulk of the practice in a physician's consulting room, which enabled him in after-years to appear to quickly discern by apparently almost intuitive process the maladies of those who consulted him.

Soon after becoming assistant physician, Dr. Andrew Clark was appointed pathologist to the hospital, and the thoroughness of his examinations and his remarkable powers of demonstration attracted a number of workers outside the hospital to the *post-mortem* room. Meanwhile, he was taking his share in teaching at the Medical College. He succeeded the late Dr. W. B. Carpenter as lecturer on physiology, and his lectures were characterised by the same lucidity and interest which his practical teaching evinced. An introductory lecture he gave on "Body, Soul, and Spirit" attracted a great deal of attention in the profession, and made him widely known as a man of marked originality of views and metaphysical research. In later years Sir Andrew Clark held the Chair of Lecturer on Medicine, which, however, he was by pressure of his engagements able to retain only for a few years. He dealt only with a limited number of subjects in his course, but those who were privileged to hear them will always retain a memory of the clearness of his descriptions of disease, and his valuable instruction in treatment.

In 1866 Dr. Andrew Clark became full physician to the hospital. During that year London was visited by cholera, which was almost confined to the East End. The London Hospital opened its doors, and all its physicians devoted themselves to coping with the disease. Conspicuous above all others in his devotion to this work, in his careful investigations, and in his fertility of treatment stood out Dr. Andrew Clark, who, with some of the best of the students and the medical officers of the hospital, worked almost day and night in the wards and *post-mortem* room.

It will be remembered how Mrs. Gladstone threw herself into the good work which was being done for the sufferers and their relatives in the East End of London. This brought her into contact with Dr. Clark, and led to the latter's acquaintance with Mr. Gladstone. Dr. Clark became the medical adviser and friend of the great statesman, and the skilful manner in which he guided so prominent a public man through various illnesses and helped him to maintain his health under a strain few men could endure made him conspicuous beyond most physicians of the time.

Up to this period Dr. Clark had been creating a moderate practice, which was chiefly amongst the most discriminating, and composed largely of men of science, literature, and the legal profession; in fact, he attracted the clever people. About this time he moved to Cavendish Square, and this and the various circumstances narrated contributed to give his practice an enormous impetus. He rapidly came into the first rank of physicians, which position he maintained through the remainder of his career, holding for some years the leading position and the largest practice of his time. He could never have seen the number of patients who daily came to him but for his habit of early rising and the arrangement of his work in a most methodical manner. He began work at 8, and went on seeing patients in his house until half-past 2 or 3, every hour, and indeed every twenty minutes, being parcelled out. No notice of Sir Andrew Clark's life would be complete which did not take notice of his correspondence. All members of the profession know what a daily task this imposes on those in large practice. Sir Andrew discharged that duty most conscientiously, writing long letters with full directions in his own hand. He could not have done this but for his remarkable powers of rapid writing and unfaltering powers of clear expression. His letters were remarkable in the fact that scarcely a single correction or addition was ever needed, every word being most carefully weighed. In 1883 Her Majesty, recognising his position in the profession and his valuable services to medical science, at the instigation of Mr. Gladstone, then Prime Minister, conferred upon him the honour and title of a baronetcy.

It was characteristic of him that he served his full twenty years of service as physician to the hospital at a pecuniary sacrifice and strain upon his powers which few men would have submitted to. He could not have accomplished his task but for two circumstances: his unbounded enthusiasm, and a strong conviction that to give up his hospital work was to lose the habit of exact research which could not be carried out in private practice. In 1886, however, the tenure of his office expired, and he became consulting physician. He did not even then give up his teaching at the hospital. He was appointed Emeritus Professor of Clinical Medicine, and each succeeding year gave a series—often an extended one—of clinical lectures, which were invaluable to those being educated at the hospital. On his retirement from the office of full physician, a testimonial very widely contributed to, and which took the form of an oil painting by the late Frank Holl, R.A., was publicly presented to him in the Library of the College by the hands of H.R.H. the Duke of Cambridge. Sir Andrew Clark always took the greatest interest in the London Hospital and its medical school. He contributed substantially to its funds, and directed the charity of others in this direction. Quite recently, impressed with the importance of systematic clinical teaching, he gave an endowment to establish a medical tutorship at the hospital.

As a teacher in the wards Sir Andrew Clark was characterised by the most minute and painstaking accuracy of observation, carried on with great rapidity, and recorded (by dictation or writing) in terse and pregnant description. Having informed himself of the facts of a case, he discussed these in all their bearings at such length as to weary some who attended his practice. But to many these discussions were not only an intellectual treat from the lucid powers of exposition he possessed and the logical precision of his arguments, but were most suggestive and stimulating to those of a receptive order of mind. Sir Andrew Clark was one of the most careful and accurate auscultators and percussers in the profession. His clinical lectures were models of what such lectures should be; no mere dissertations on a set subject, but the patient was carefully examined before the class, the physical signs fully investigated, the diagnosis discussed in great amplitude, and finally the treatment discussed both as regards principles and the application of these to the case in point.

What impressed those who attended his practice in the wards most probably was his unbounded enthusiasm and his concentration of mind on what he was doing. He so entirely lived for the time in what he was doing that it landed him in many difficulties. He would put aside all other matters for what occupied him at the time, and thus throw all his subsequent engagements into hopeless confusion.

For many years as Senior Physician he presided at the meetings of the Medical Council of the hospital, and there displayed the powers of guidance of the meetings, and a firm but conciliatory attitude, which afterwards were so conspicuous in his more public offices. One of his most striking qualities was the generous encouragement he afforded to his younger colleagues and medical friends. Whilst an acute judge of character his tendency always was to attribute to others the same high objects and aims as actuated himself.

When Sir Andrew Clark came first to London he threw himself actively into the work and discussions at the Pathological Society. He was an occasional attendant at the Medical Society of London, where almost yearly he read a paper; he was President of the Society in 1871. He contributed to the *Transactions of the Clinical Society*, and held the office of President of this Society in 1883 and 1884, never missing a single evening of attendance, and never once late. Sir Andrew Clark took much interest in the affairs of the Royal Medical and Chirurgical Society, especially in the business matters involved in its removal to Hanover Square, and was its President at the time of his death.

His connection with the Royal College of Physicians was one of the most important phases in his career. His conspicuous ability was early recognised there, and very early led to his being elected a Fellow (1858). He held the offices of Lumleian and Croonian Lecturer, choosing as his subjects pulmonary diseases. He became Councillor, Examiner in Medicine, and Censor, and in 1888 was elected President of the College. It will be remembered that the College was by no means unanimous on this occasion, but the wisdom of its choice was soon made manifest. Those who did not know him well, or had not been brought into contact with him publicly, had no idea of his great qualifications for this office. His dignity of bearing, his masterly power of conducting the affairs of a large meeting, his fluency and propriety of speech, fitted him in a peculiar manner for presiding over one of the most distinguished bodies of men. Whether in the Presidential chair, or as the representative of the College on any public ceremonial or social occasion, he always felt and displayed the dignity and responsibilities of his position, and no sacrifice was too great to enable him properly to discharge the duties the suffrages of his professional peers had cast upon him. Only those who are familiar with the inner working of the College know the demand the office makes upon the time and judgment of the President. The meetings of the Censors' Board, of the Council, and of numerous Committees, besides almost daily conferences with the officials of the College, are a serious tax on any man, and when with this the President has an enormous practice and other public duties, it will be realised how great was the strain to which Sir Andrew voluntarily subjected himself. Moreover, during his Presidency, several unusually important and difficult matters have been before the College. The great questions of granting degrees and a teaching university imposed an enormous amount of extra work upon the office bearers of the College, and the President devoted a very large amount of time, and took an infinite amount of pains to master the subject so as to help in the deliberations of the College. The conflict with the General Medical Council relative to the diploma-giving powers of the College was another subject of vital importance to the College, in which he spared no trouble to bring the matter, as was done, to a conclusion satisfactory to the College. The office is an annual one, but it has in recent years generally been held for several years—not exceeding five—in succession. It was felt by many connected with the College that the number of weighty subjects which Sir Andrew had been concerned in dealing with rendered it desirable that he should hold office for a sixth year if the suffrages of the Fellows confirmed this, and though his intimate friends felt this was asking more of him than he could safely afford, his wholehearted devotion to the College made him yield, and he was re-elected for the sixth time. "There has been since the time of Sir Thomas Watson," wrote a distinguished Fellow a week or so before Sir Andrew's death, "no President who has discharged the duties of the office with such ability and dignity;" and this will be the opinion of all Fellows of the College. Nothing was so dear to him as the College, and no sacrifice was too great for him to make in its behalf. Amongst the many services rendered by Sir Andrew Clark to his profession was his strong advocacy in his representative capacity with a deputation to the Government of the claim of the Army Medical Service to substantive rank. His correspondence with Mr. Stanhope in the *Times* will be remembered, and how completely he triumphed. Though not a Court physician, Sir Andrew was consulted by several members of the Royal Family. He repeatedly said in public and in private that he valued far more highly than Royal favours and titular honours the confidence and esteem his own profession—the most competent judges—bestowed upon him in electing him to high offices, especially the Presidency of the College of Physicians. Other honours from his profession and seats of learning were bestowed upon him. He was elected a Fellow of the Royal Society, the University of Aberdeen conferred on him its LL.D., and the same honour was done him by the Universities of Edinburgh and Cambridge, whilst Dublin conferred upon him the honorary degree of M.D. He was Honorary President of the Naval Medical Examining Board, Consulting Physician to the East London Hospital for Children, and formerly President of the Metropolitan Counties Branch of the British Medical Association.

His own threatenings of phthisis gave him early in his professional studies a special interest in pulmonary diseases. He wrote a description of the minute structure of the lung in the late Dr. Herbert Davies's *Diseases of the Heart and Lungs*. He was for a time assistant-physician to the Victoria Park Hospital for Diseases of the Chest, and undoubtedly his favourite subject of investigation and discussion was phthisis. His views were dominated very largely by the teaching of the French school—especially of Louis and Laennec—which he had studied very closely, and he probably never gave a whole-hearted adhesion to the modern bacteriological theory of phthisis. If not the first to describe, he was certainly the first to give a full clinical description of a form of chronic phthisis, which he called "fibroid phthisis." The pathology of this disease has been much disputed, but he held the view that it was not primarily tuberculous, but began in the connective tissue of the lung to which it extended as a rule from the pleura, and that when, as sometimes happens late in the disease, bacilli are found (in scanty numbers) in the sputa, and tubercle found in the lungs and elsewhere after death, they were to be regarded as epiphenomena, and not as the cause of the disease of the lung. He put forward a new theory of the pathology of asthma, which he ably maintained in discussion. Amongst subjects he wrote upon were "Renal Inadequacy and Catheter Fever," "Mucous Disease of the Colon," "Anæmia," and "The Barking Cough of Puberty," all of which displayed keen observation, wide and well used experience, and above all therapeutical knowledge. His writings were characterised by the same precision and elegance of diction which characterised his spoken utterances. He had a remarkable fluency of speech, the individual words were well weighed and aptly chosen, and no matter on what subject he spoke he always elevated it to a high level. His address on Clinical Investigation was printed in the British Medical Journal on February 3rd, 1883; the address on Renal Inadequacy on February 24th, 1883; that on Catheter Fever on December 22nd, 1883. He read a paper on Albuminuria, subsequently published in the Journal, in the Section of Medicine at the annual meeting of the British Medical Association at Belfast in 1884. His Lumleian Lectures on some points in the Natural History of Primitive Dry Pleurisies were published in the Journal in 1885. At the annual meeting of the British Medical Association at Brighton he made a valuable contribution on Valvular Disease of the Heart known to have existed for Five Years without causing Serious Symptoms, which was published with elaborate tables, which must have caused him much time and pains to collect. In the same year, 1887, the Journal contained his lecture on a Method of Treating Hay Fever. His remarks on the Barking Cough of Puberty were published in the Journal of November 20th, 1890.

If one were to sum up his dominant characteristics as a physician, one would say that he believed (1) that nearly all diseases were the outcome of the constant and apparently unimportant violations of the laws of health, and that to restore

the patient to health no details were too trivial for the physician's attention. Accordingly, he inquired minutely into the habits of his patients, and in nearly all cases wrote a detailed regimen for them to follow. It was easy to make light of this, but there can be no doubt that he restored a number of ailing, suffering, and disabled people to ease, comfort, and increased usefulness. (2) He had a happy optimism which led him to encourage those who consulted him to "hold on" and not give up the struggle for health. He himself was a conspicuous example to others of what might be done to struggle against adverse circumstances. To a number of delicate and frail persons tending to invalidism he was of the greatest service by raising their minds to a higher standard, and making them think less of themselves and "live for others."

It is difficult fully to appraise his true position as a physician. Few men, if any, of our time have had a greater influence on contemporary opinion and habits, and this wholly for good, by inducing habits of greater temperance both in eating and drinking. His services were in great requisition in consultation; his care in examination of the patient, his gentleness and delicacy in dealing with the sick, his peculiar powers of explaining the nature of the case to the relatives—all combined to render him most valued in consultation, and made it a treat to those who shared in it. He will be known to posterity chiefly by his writings on phthisis, especially as regards his observations on fibroid phthisis, and it is satisfactory to know a work on this subject embodying his experience and views, in which he had the assistance of Dr. Hadley and Dr. Arnold Chaplin, is in the publishers' hands and practically completed.

As for the man himself no one could meet him without acknowledging he was a great personality. His activity of mind, the wideness of his reading, his original and speculative views all showed his was no common order of mind. His manifold duties left him no time for domestic life and little for social intercourse, but it was always a pleasure to be in his company. His naturally critical and controversial mind often led him into discussions which nearly always took the direction of theology and speculative philosophy. Whilst theology was his favourite study, he held an active religious belief, and carried his religion into his daily life, which was a blameless one, and a powerful example to all associated with him. The only relaxation he indulged in was reading, which he was able to indulge in whilst riding in his carriage or on railway journeys. Recreation in the true sense he hardly understood and certainly did nothing to practise. He held strongly that work did no one any harm, but it can scarcely be doubted he died a practical refutation of his theory. Probably his very active mind would have desired no other ending than to be working to the full bent of his powers to the end of his life. It is satisfactory to know that quite recently he sat to Mr. Watts, R.A., for his portrait, to form one of the series of eminent men that artist has painted, and which he intends to present to the nation.

He was a most generous friend to all in and out of his profession. His services, busy as he was, were ungrudgingly given to his profession, not only in illness, but in the many harasssing difficulties which beset members of his own calling. One of his highest attributes was his love of justice and hatred of anything sordid and mean. His counsel to those who consulted him in trouble was always of the greatest advantage in making them strive for "the better part."

His memory will be cherished by the profession as a physician who, holding the highest views as to the responsibilities of the profession, set an example of self-sacrifice and noble devotion to duty which all would wish to emulate. Working habitually fourteen or sixteen hours a day, it was obvious to his friends that he was taxing his physical powers beyond endurance. At length the spring, which for so many years had been bent to the full, gave way under the strain. He had not been without warnings of the disease which terminated his life, but these he disregarded On October 19th he was seized in the midst of his morning's work with an attack of hemiplegia of the right side and aphasia. He scarcely lost consciousness, but there was clear evidence of a profound lesion in the brain, and within a few minutes of his seizure he had typical Cheyne-Stokes respiration. This continued, with drowsiness, for the next few days, and then passed off. He roused to consciousness when not asleep, and from the first took not only an interest, but a controlling influence, in the management of his case. He recovered a certain amount of speech, but the paralysis, which was complete both as to motion and sensation, did not show the slightest sign of abatement. When he seemed progressing favourably as regards his immediate recovery from danger to life, alternate spasm and distension of the intestines took place, which greatly embarrassed his breathing, and threatened a rapid termination of his illness. He showed, however, a great tenacity of life, and lived for some days. At length his strength could hold out no longer, and the actual passing away was calm and peaceful in the presence of nearly all his family. The numerous offers of assistance in tending Sir Andrew during his illness which were received were a touching tribute to his popularity. The recognition of his merits was evidenced by the Queen and Prince of Wales desiring to be daily informed of his condition, and the extraordinary number of persons who called, wrote, or telegraphed each day to inquire about him. It is sufficient to say that all that could be done for him by his medical friends was done, and that he was never left day or night without one of his friends or colleagues in attendance. On the requisition of the College of Physicians, supported by Mr. Gladstone, many of the present Ministry and Opposition, and a number of distinguished public men, the Dean of Westminster Abbey willingly consented to the first part of the funeral service being held at Westminster Abbey on Saturday at noon. His remains will then be conveyed by train to Essendon, near Hatfield, where the conclusion of the service will take place, and his body interred.

Sir Andrew Clark was twice married, first to Seton Mary Percy, daughter of Captain Forster, R.N., of Alnwick, by whom he leaves a son, Surgeon-Major James Richardson Andrew Clark, the present baronet, and two married daughters. He married, secondly, Helen Annette, daughter of the late Mr. Alphonso, of Leytonstone, who survives him, and by her he leaves a son and two daughters, one of whom is married.

A most eminent surgeon, who was a life-long friend of Sir Andrew Clark, sends us the following estimate of his work and character: Sir Andrew Clark's success was mainly due to his unusual knowledge of his profession, and this knowledge was chiefly derived from clinical observation, helped by good power of immediate insight into personal character as well as into the characters of diseases. But he was never content with swift insight; he readily discerned its insufficiency in any difficult case, and then he studied very carefully, and relied on the results of this study much more than on any first impression. He had not much of what is commonly understood to be scientific knowledge, neither was he devoted to scientific research; but he studied difficult cases in a scientific manner, and helped himself with all the knowledge of the results of modern research that he could gain by reading or by conversation with scientific workers. He had faith in both the practical and the scientific study of medicine. He was in the habit of checking the results of each by those of the other, and when they seemed to differ he preferred to be guided by the practical. The esteem in which he was held by his patients was due, in great measure, to his earnestness in studying their cases and his clearness of statement. He had the kind of fluency and distinctness of speech which appears as the expression of strong conviction founded upon real knowledge. Besides, he never made light of cases; he gave ample guidance in small as in great things, and never appeared wanting in due sympathy.

But, perhaps, that which more than anything distinguished him was his power of work and his love of it, and of the results which he felt that he might fairly gain by it. Even his recreations were intellectual, and many of them, especially his readings in theology and philosophy, helped very much to gain the confidence and praise of men of distinguished intellect, among whom he had a much larger practice than any of his contemporaries, and whose praise added very much to his renown. With these powers and by these means Sir Andrew gained his rare success; and he deserved and

thoroughly enjoyed it. He could feel that he had always worked honourably, and had been fair in competition, and that the good which he had gained for himself was a consequence of the good which he had done to others.

In Memoriam.

Mr. Ernest Hart writes: In Sir Andrew Clark, the medical profession loses one of its most admired and beloved leaders. The public loss may be in some degree measured by the emotion caused by the first news of his sudden and serious illness and the continuous and anxious interest evinced in his progress. He was, perhaps, a more conspicuous figure in public life than any medical man of his generation. In his own profession his conspicuous success as a practising physician aroused no jealousy, and was followed by no envious carping. He possessed a rare combination of qualities which enabled him to win, and fitted him to hold the highest position as a clinical practitioner and distinguished prominence in social life. He rose from the ranks by the force of genius, reinforced by unwearying industry, illustrated by intellectual brilliancy, adorned by generous sympathies, and strengthened by unswerving integrity of purpose.

An Aberdonian.

A Scotchman, who never lost the twang of his Aberdonian brogue, hard headed, and delighting in dialectical fence, he had a natural gift of oratory which only erred occasionally by exuberance. It was marked by a sympathetic and appreciative optimism which saved even his keenest criticisms from the slightest touch of bitterness while it enabled him in all his public utterances to be not less pleasing than profound and to lay bare the soul of goodness in all the persons and the things which surrounded him. During all his life he had hosts of friends among all kinds and conditions of men. He was an enthusiastic admirer and a devoted friend of the great statesman to whom his medical service has been for many years so largely given with so much avail; but he was not less the personal friend and adviser of hosts of the poor in the East End of London. His tender and continuous services at the London Hospital to the cholera-stricken denizens of the East-end in 1866 first won for him the esteem and friendship of Mrs. Gladstone, and established him in the confidential relations which he ever after held with the great statesman whose name she bears. His early life as a practising physician lay in the city districts, and it was not until he had founded a great practice in Montagu Place that he was emboldened to move into the house in Cavendish Square where he now lies dead. His reputation rapidly spread, first among the literary and scientific classes, and then the noble and wealthy. Nearly all the great authors and philosophers of his day have sought the benefit of his medical skill and his personal counsel. For no man was ever more skilled in observing the personal equation of the invalid, and it was his just boast that he treated always the individual as well as the disease. His keen-and sympathetic glance, his cheery address, and the profuseness with which he expended his whole intellectual power in diagnosing and debating the surrounding habits and mental attitude of the patient as well as the clinical characters of his affection won for him, in a degree perhaps never equalled and certainly never surpassed, the unbounded trust and grateful affection of his hosts of patients.

Thirty Years' Extraordinary Exertion.

Sir Andrew Clark began life as a naval surgeon, and taught at Haslar Hospital before coming to London. At the London Hospital his scientific proclivities would have led him to devote himself to purely pathological and histological studies, but his health was weak and his human sympathies were strong; so that gradually he abandoned the close confinement of the laboratory, the hospital ward, and the *post-mortem* room for the more genial and larger sphere of outdoor active practice. At one time repeated attacks of bleeding from the lung indicated advancing phthisis, and threatened to cut short his career at an early date; but, happily, his phthisical disease proved to be of the fibroid variety; the lung healed and consolidated. He was enabled to continue his active labours, and for the last thirty years he followed a course of extraordinary and indefatigable exertion. He never slurred a point in any case, and never passed over a detail which suggested itself to him as being capable of being elaborated for the benefit of his patient. When in the fullest practice he would often spend half an hour over the complete investigation of a puzzling symptom while his waiting-rooms were full to overflowing with attending clients anxious to dispense their guineas. He was not indifferent to gain, for few men have known better how to enjoy fortune, and none how to dispense it with more discriminating though profuse generosity. His way of living was to begin work at 8 in the morning, to go steadily through his consultations till the afternoon, then to spend a few hours in outdoor work, and often at midnight there awaited him still piles of letters, all of which he was wont to answer with singular fulness, and with his own hand. Deeply read in theological subjects, he delighted to declare himself even more of a dialectical theologian than of a clinical physician. The charm of his conversation was irresistible. He was a full, rich talker, stored with information on a great variety of subjects, ready in argument, exuberant in illustration and exposition, and erring only perhaps in his sometimes too evident pleasure in maintaining a dubious thesis with skilful dexterity, and abundant—though not always logical—illustration. He was at the public service for any useful cause. He pleaded eloquently for many a languishing charity. He was always ready to address audiences of medical students, whom he sought to encourage and to inspire; to trumpet the cause of charity, of temperance, of public hygiene, and social reform. He was a warm friend and a co-operator with Cardinal Manning in many of his schemes of social advancement. He was constant in his love for the poor of the East End; a never-tiring supporter of the London Hospital, which he loved so well, to which he owed so much, and to which he gave so much in return. At the medical societies he was a leading figure, but never aimed at undue prominence. He was, perhaps, the best president the College of Physicians of London has seen in our time, punctual to all his engagements, unceasing in the laborious fulfilment of his minutest as of his greatest official duties; a generous donor and hospitable host; an eloquent and vigorous defender of the rights of the College, and yet a discriminating promoter of reforms in its constitution and lines of action.

Working to the Last.

He died in harness. One of his latest acts was to fulfil the duties of president on the occasion of the recent Harveian Oration. It was noticed on that occasion that for the first time during his presidency he arrived late; his apologies were distressful, and the urgency of his regret for this unwonted casualty was notable. It was observed that even in apologising he made some slip of memory as to the fixed hour of the meeting, and seemed more moved at the unimportant and trivial failure than the circumstances would suggest as normal. He was evidently at that moment less well balanced and equable than was his wont, and already the premonitory symptoms of cerebral disturbance, which have so suddenly and prematurely ended his distinguished career, were faintly perceptible. He was struck down in the very act of medical consultation, and this, perhaps, was the most merciful ending to the life of a man to whom public activity and professional usefulness were the very essence of happy existence. He has left hosts of friends, and of him, perhaps more than any other public man, it may be truly said that he never made an enemy. His loss will be deeply and universally mourned. It will be hard indeed for many years to come for any one man adequately to fill the large place in professional opinion, national esteem, and public usefulness, which he so worthily occupied.

Sir Andrew Clark's Career in the Royal Navy.

We find, on inquiry, that Sir Andrew Clark entered the Royal Navy on September 1st, 1846, and resigned the service on February 8th, 1855.

The documents in the Medical Department of the Navy show that the hospital and school where lectures were attended by him were all marked "Edinburgh," and the application for appointment was dated from the Royal Infirmary, Edinburgh. He was recommended by Captain Fergusson, of Pitfour. Sir William Burnett was at that time Director-General. It appears that the future President of

the Royal College of Physicians had served an apprenticeship of four years to Dr. Alexander Wilson, surgeon, at Dundee. His earliest diploma was dated May 31st, 1844.

At Edinburgh he took prizes in anatomy (first prize), surgery (first prize, silver medal), chemistry (first prize, silver medal), materia medica (first prize, silver medal), and practice of medicine (first prize, silver medal).

He seems to have been somewhat delicate while in the navy, and went to Madeira on leave for some time. His general health was improved by this visit, and, in particular, he was relieved of the rheumatism from which he had suffered.

In 1853, however, he sent in his resignation on the ground that his health had been unsatisfactory while in the navy, and that he had found it difficult to perform his daily duties. This resignation seems, however, not to have formally taken effect until two years later.

After applying for a post in the navy he seems to have thought it was long in coming, and while at Edinburgh Infirmary, where he was pathologist, he received an invitation to apply for the post of lecturer on anatomy at King's College, Aberdeen, and in relation to this application had arranged to give a course of lectures on "The Nature of Some Recent Pathological Doctrines, with Modifications, etc.," before the staff of the hospital and others. Before they were delivered, however, he got his naval appointment; he, therefore, threw up all idea of going to Aberdeen. He, nevertheless, delivered his lectures at Edinburgh before starting for London.

REMINISCENCES OF ANDREW CLARK.

Sir Joseph Fayrer writes:

When I joined the Royal Navy as an assistant surgeon in 1847, I was appointed to H.M.S. *Victory* at Haslar Hospital. Captain Sir Edward Parry was then the Governor, and Sir John Richardson was the principal medical officer. Among the assistant surgeons were Dr. Andrew Clark, Dr. Arthur Adams, Dr. Breen. I did not remain long at Haslar, having obtained permission from the Admiralty to travel on the Continent with Lord Mount-Edgcumbe. I did not see Dr. Clark again until after my return to England from India in 1872, when I was delighted to renew acquaintance with my old friend of former years, and to find that he had improved so much in health.

When I made his acquaintance at Haslar, he was a delicate-looking young man aged about 22, of slight frame, rather feeble-looking physique, and with an obvious tendency to pulmonary delicacy. He was somewhat reserved and retiring in his manner, very industrious, and very highly esteemed for his amiable personal character and his great pathological knowledge. He was, indeed, the pathologist of the great naval hospital, and had abundant opportunities of adding to his knowledge of the subject in all its branches, and I believe he made the best use of them.

His early life gave great promise of future distinction, and it has always been a source of great pleasure to me to know how fully this has been realised, and how completely he had thrown off in late years the delicacy which in youth seemed to menace his future.

I have known him intimately since my return to London, and have found that the more I knew him the more I respected and admired him. He was a man of the highest principles and devoted his life and energy to the profession he so greatly adorned.

I little thought when I saw him about two months ago that the end was so near, and when I read in the journals of his serious illness (I was in Scotland at the time) I not only grieved for the suffering of a much-valued old friend but for the loss which impended over our profession.

Alas! that the worst fears have been realised and that we deplore the death of one of the wisest of physicians and best of men. He has died in harness, struck down in the full vigour of his useful and valuable work, but the story of his life will for ever show how energy in work, devotion to duty, and the determination to search deeply into truth when based on the highest principles must in the end result in honour to one who has possessed those attributes and be an example to those who follow him.

Professor Huxley, in the fragment of autobiography prefixed to the first volume of the edition of his works now in course of publication, says that among his messmates at Haslar was "his kindest of doctors" Sir Andrew Clark.

One of his colleagues writes:

Dr. Andrew Clark came to town in the first instance induced by the offer of the post of Conservator of the Pathological Museum of the London Hospital. The salary offered was exceedingly moderate, but there was a prospect that it might lead to the staff. The object specially desired was the preparation of a catalogue of the specimens. Clark had previously been engaged in similar work at Haslar Hospital Museum at Portsmouth. He was at that time a slim, delicate-looking man of about 27, who had been considered consumptive. He was an enthusiast. He set to the work of cataloguing with the utmost speed, prepared a splendid scheme in great detail, and not long after beginning announced to the Committee that it would be requisite to take most of the specimens out of their bottles, and re-inspect them. The microscope was at that time almost new as an instrument of habitual research in pathology, and although Quekett had been a London Hospital man, but little had been done as regards the histology of the tumours which had been placed in the museum. Although section-cutting then was scarcely known Clark was nothing daunted. He had the specimens one after another out of their bottles, often spent the better part of a week over a single one, and prepared most elaborate reports concerning each, often wholly altering the view which had been previously taken. If it be true that "a librarian who reads is lost," it is almost equally so that a pathologist who works in the detail that Clark did will never produce a museum catalogue. Many were the letters which passed between the Committee of the School and their new conservator. Clark was at work almost night and day, and excellent fragments of description were sent in, but the catalogue as a whole was never produced. To a man of Clark's temperament such a work was an impossibility, and this the Committee were at length compelled to realise, and the appointment came to an end. Meanwhile, however, Clark had gained the esteem and high opinion of all who had come in contact with him, and when a vacancy occurred for an assistant physician all the staff worked for his election. The appointment was in the hands of the Governors, and his opponent had large City influence, whilst Clark had none. The contest was hot, and entirely owing to the exertions of those who wished for him as a colleague Clark was elected by a small majority. In the out-patients' room he soon gathered about him a group of students to whom he communicated some of his own enthusiasm. He was at the hospital all day, and often detained his patients till late in the evening. Almost all were made to bring their urine for examination, and every now and then one had to produce his fæces also. Clark's zeal in minute investigation literally knew no bounds. Of what was done in those days Dr. Langdon Down can tell more than most. At this time the senior staff of the London Hospital included Dr. Herbert Davies, Dr. Little, Mr. Leeke, Mr. John Adams, and Mr. Curling. The first and the last of these were those who took most interest in the affairs of the school. From the day that he gained his post Clark's reputation as a practical physician grew apace. There was a rumour that he had at one time thought of restricting himself to pathology, and his reputation was at first that of the *post-mortem* room and museum rather than of the ward. This aspect of things was, however, rapidly changed, and it was soon seen that Clark's abilities as a clinical investigator and as a teacher were unique. He carried with him into the ward the love of labour and of detail which he had displayed in the curator's room. About this time he took a considerable share in the work of the Pathological Society, and some elaborate reports in its volumes are from his pen. The writer of these memoranda well remembers once sitting by Sir George Johnson at one of these meetings, when the latter whispered, whilst listening to one of Clark's detailed descriptions of a specimen, "The Gladstone of pathology." The epithet was discriminative, and it must be borne in mind that it was made many years before the great statesman and

the physician with whom he was afterwards on such confidential terms of intimacy had met.

On the staff of the London Hospital, Clark never had anyone who was not his admiring friend, scarcely anyone who, during the years of his rapid advancement and success, felt any sentiment of envy. His warm and cordial manner, which sprang from a really warm heart, endeared him to us all.

As a clinical teacher Clark was second to none. He loved the work, and engaged in it heart and soul. His bedside visits were always followed by a crowd of pupils, and his systematic and clinical lectures were always more than well attended. His vivacity and energy secured the attention of all classes of mind. He had immense power of adaptation, and could make his subject intelligible to all. The writer, although his colleague and only a year or two his junior, occasionally attended his lectures on medicine, partly for the instruction which they always afforded, and partly for the pleasure of the gratified remonstrance afterwards, "What business have you here?" He was a very observant man, quick and clear in his perceptions. His diagnoses were often reached at a glance, although he was always willing afterwards to go into detail. He was also very skilful in appreciating character and motive, and his judgment, both in public and private affairs, was trustworthy. I was told that he had once pronounced respecting two individuals, a father and son, relatives of the patient, whom he had seen only for a few minutes: "The father has heart disease and the son is a eunuch." Both guesses were correct. They were samples of hundreds of others made with equal rapidity and displaying like sagacity.

When Sir Andrew resigned the office of physician to the hospital he was appointed Emeritus Professor of Clinical Medicine. In that capacity he regularly gave a course of lectures to crowded audiences. In his relations to the students and to hospital officials he was always considerate and generous, and he was deservedly most popular with all. Next to his warm heartedness, the faculty which distinguished Clark was his limitless energy. I never saw him seem tired. He may have looked so occasionally, but he never allowed his bearing to reveal it. The impression which he generally managed to convey was that the engagement in hand, whether a committee or a consultation, was the very one to which he had been looking forward all day with expectant pleasure. He considered himself a very punctual man, but in reality was not so. He took too much interest in what he was about to be always careful of the passing minutes. In all that concerned money he was liberal, and his unostentatious charities were, I feel sure, very large.

His enthusiasm for science and for scientific medicine made him constantly and bitterly regret that his time was wholly taken up by practice. Many were his schemes for escape. When the discoveries of Koch were first announced he gravely proposed to retire from practice for a few years and again devote himself to pathological investigation only. I believe that for a time he seriously contemplated some such step. It was, however, an impossibility. When the Regius Professorship of Medicine at Cambridge was vacant and some of those interested proposed that he should take it, the suggestion was by no means summarily dismissed. There was much that greatly tempted him in it. Residence in a university town, association with men learned in all directions, and above all opportunities for quiet scientific work, these all had great attractions, and for a few days his decision was uncertain. It is impossible not to reflect with regret that had some such step as this been practicable his life might not improbably have been prolonged. In his capacity for social life and his enjoyment in the company of cultured men, as well as in his brilliant success in practice, it has often seemed to me that Clark's life was a closer parallel to that of Dr. Mead than of any other of the great ones of the past.

It is a pleasant fact to be kept in memory by his friends that Sir Andrew's last consultation—that during which his seizure occurred—was a gratuitous one. He was engaged with a lady in discussing a work of charity when the call to cease from all work came to him.

Dr. Gilbart Smith writes: In accordance with your request it would ill befit me to withhold some of the numerous thoughts and memories which crowd upon one at this moment, when we are brought face to face with the great and irreparable loss which the public, the profession, and, more especially, we, his colleagues at his old hospital, have sustained by the death of Sir Andrew Clark.

The empty void he has left behind tells us that a great man has passed away. But, whilst he was yet with us, those who knew him and saw him at work amongst us easily recognised that, *facile princeps*, he stood out in bold relief above his fellow-workers; and in every phase of his busy life—in public or in private, as physician or as friend—this opinion was forced upon one during the long years of a happy friendship.

It was my good fortune to be associated with Sir Andrew Clark as his corresponding junior in his work at the London Hospital; and there the high character, the great abilities, and the well-marked genius of the man combined to render him a notable example of what a true clinical physician should be. His visiting days were a sight to be remembered. Followed by a large class of wondering and interested students—qualified or unqualified; attended by his house-physician, the clerks, sisters, and nurses, the strong individuality he displayed was patent to all. His pose at the bedside; his enthusiastic and earnest features; his characteristic gesture; his careful and thorough examination of his patient; the wonderful combination of a scientific search for truth in its minutest detail, with a gentle sympathy for suffering; his eloquent word painting, by which with a well-chosen word here, and a striking phrase there, he pictured the past, present, and future of the disease under discussion; his kind but thorough cross-examination of his clinical clerks; his old-fashioned courtesy to all, but more especially to the poorest and most woe-begone patient, made him highly impressive as a clinical teacher, and gave his words a not-to-be-forgotten character.

He was pre-eminently the man for the place, and gifted, as he was, with a keen appreciation of the responsibilities of the position, full of wide and active sympathies, highly skilled in methods of clinical investigation, and possessed of a knowledge of the fitness of things, he was never out of harmony with his environments. All these good gifts, so richly possessed by him, and so constantly displayed, could not but make their mark on those with whom he worked. To the students he was especially attractive, aiding them in their work, proving a true friend in their after-career, readily helping the football or cricket club, presiding at the London Hospital Medical Society, or dealing with theological questions and the agnosticism of the medical student as President of the London Hospital Christian Association.

No less striking was his influence amongst his colleagues. For many years, as senior physician, he acted as chairman to the Medical Council, and here my position as honorary secretary to the Council gave me full opportunity for witnessing his weighty influence for good amongst us, and how his knowledge, wisdom, tact, and courtesy, exercised amidst conflicting interests, carried many an important matter to a successful issue.

At a time when there was a fierce discussion waging between the hospital authorities and the staff as to the ownership of the school, it was mainly through Sir Andrew Clark's skilful handling of the ribbons that the London Hospital coach was not upset, and he and his colleagues left wringing their hands by the roadside. Thus it was that collectively his colleagues valued him, and individually held him not only in high esteem, but also in respectful love. For remarkable as were his services in public, those he rendered in private were as striking. None of us sought him in vain; his wise advice, practical help, affectionate sympathy, and genial smile were at the service of each and all, and were freely given, enhanced by a charm rare and unique.

That these sentiments in regard to him were not confined to the London Hospital I had ample opportunity of knowing by means of the large correspondence which passed through my hands when Sir Andrew, on relinquishing his active duties at the hospital, was presented by its president, his Royal Highness the Duke of Cambridge, with his portrait, painted by the late Frank Holl, R.A., the gift of a large circle of his friends.

It was his keen appreciation of men and things that made him so attractive and sought after, and so, notwithstanding the claims of practice and his office at the College of Physicians his eloquence would often be found giving weight to questions of widely different interests affecting the wellbeing of his fellow-men.

And now this living force that was with us and of us is here no more, but whilst we mourn his loss his memory will ever continue fresh and green in our minds, and those of us who in the past were his pupils will in the future strive to practise the lessons taught by his genius and life.

A Fellow of the Royal College of Physicians writes to us: From the moment when, in 1888, by a narrow majority, Sir Andrew Clark was called to fill the Presidential chair at the College of Physicians down to the very day of his fatal illness he never failed to make the interests and welfare of the College his first consideration. During his tenure of office many burning questions have been before the College, in the discussion of which he always showed a thorough mastery of the subject, and he never allowed his enthusiasm to blind him as to the true interests of the College. In the customary annual address at the termination of each year of office he was as a rule singularly happy in his references to those who had recently passed away, appraising their work and character with discrimination as rare as it was just. In the quite early days of his Presidency an opportunity arose of defending the dignity of the College, of which he availed himself with characteristic promptitude and energy and with complete success, and gained for himself a well-deserved and most cordial vote of thanks for it. He gave many proofs of his great affection for the College, one of the last being a donation of £500 last year towards the cost of redecorations. Comparisons are at all times undesirable; but this much is certain, that by his punctuality, his enthusiasm, and his devotion to the College he has made the task of his successor a most unenviable one.

Professor Sheridan Delépine, who was intimately associated with Sir Andrew Clark for several years, and assisted him in the study of the pathology of cases of interest, sends us the following sketch of Sir Andrew Clark as a man of science:

It would be impossible to express in anything like adequate terms the feelings which are awakened by the loss of this great physician. It is hardly possible to realise that so much energy, ceaseless activity, and power for good should have in an instant been so completely crushed.

To those who have known Sir Andrew Clark personally during the last ten years of his life, it has been a subject of wonder how a man could bear the excessive strain of the labour entailed by his immense practice and numerous public duties. He had more than once been reminded by severe attacks of illness, and by the recurrence of very painful symptoms, of the price he was paying for his devotion to work. To him, however, the idea of idleness or even of rest was repulsive; and when people mentioned to him instances of busy men breaking down in their health, he used to say, "It is not work that kills; it is worry." In his mind, the finest end of a physician was to die in the active performance of his duty. In this determination to work to the end was manifest that strength of character, the indomitable energy, and the sense of duty which would have made Sir Andrew Clark a leader in any sphere of life, and which have placed him in the position which he occupied in the medical profession.

He had a remarkable faculty of listening patiently to all that had the privilege of finding access to him, and he hardly ever evinced any symptom of impatience or hurry. He not only listened, but remembered. This faculty, coupled with an intense desire to be independent of any personal prejudice, as well as with a very judicial mind, fitted him in a special manner for the presidential honours which crowned his career. He was a great reader, and loved metaphysics as much, if not more, than medical science. A considerable portion of his large library was composed of modern and ancient philosophical and, more specially, theological treatises. Sir Andrew Clark's views were very broad, but he was strongly opposed to modern materialism. Some of his views on these matters have been expressed in an opening address on "Triune Man." He was not less conspicuous for his powers of observation and his attention to even slight details. Up to the end of his life he used to take notice of trifling alterations of dress or appearance of some of his numerous visitors. He was specially fond of quoting Sydenham's words, "*Tota ars medici est in observationibus.*"

With so many remarkable mental perfections and others left unsaid, it is not to be wondered that Sir Andrew Clark should have found it enjoyable to converse with some of the greatest philosophers, theologians, poets, scientists, lawyers, and politicians among his contemporaries, and that those, from the highest to the lowest, should have found pleasure in his company.

Sir Andrew Clark leaves comparatively few published works, and it is a source of wonder that one having such stores of knowledge at his command should have written so little. It must, however, be remembered that his large practice deprived him of the time necessary to write. Besides, as he used to say himself, he was a fastidious writer. The idea of being obliged to express himself in terms which did not satisfy entirely his high standard of elegance and clearness was abhorrent to him. Then of late years, through his position as President of the College of Physicians and in other capacities, he had devoted much time and thought to many important questions affecting the welfare of various sections of the medical profession. Among them may be mentioned the relations of the Royal Colleges and of the proposed teaching university for London, the position of the army medical officers, the medical examination of candidates for the Civil Service examinations, factory legislation with regard to certifying factory surgeons, etc. Notwithstanding this, Sir Andrew Clark has left valuable papers on a number of subjects. He always looked at disease from a physiological point of view, and was fond of calling bad habits "physiological sins." Sir Andrew already, when assisting Professor Bennett, of Edinburgh, made observations on the nature of the compound granular corpuscle, or, as he called them, "compound granule cell," of inflammatory products.

Whilst at Haslar he discovered the diagnostic importance of the presence of elastic tissue in the sputa of phthisical patients. His early years were largely devoted to morbid anatomy and microscopical work, in addition to his clinical work. Among the things which attracted early his attention one may mention the structure and functions of the tonsils, the structure of the lungs, pneumonia and phthisis, the use of the microscope in medicine, the changes of urine in disease. It was also in these early years that he devoted much time to the study of the transmission of tuberculosis by inoculation (in 1865, when Villemin's work appeared). Sir Andrew Clark was, unfortunately, arrested in his work by a severe attack of hæmoptysis, and never resumed the investigation.

In later years his papers became more purely clinical, though in all he exhibited his love for pathology, his most important contributions being on Fibroid Phthisis, Renal Inadequacy, Catheter Fever, Hay Fever, Dry Pleurisy, Eczema of Mucous Membrane, etc.

PARLIAMENTARY GRANT TO UNIVERSITY COLLEGES.—Steps are being taken to arrange for a deputation representing the university colleges in England to wait, shortly, upon the Chancellor of the Exchequer to urge upon him the propriety of increasing the annual parliamentary grant. A sum of £15,000 has been granted annually since 1890, and when this sum was first placed upon the estimates, it was understood that the question would be reviewed at the end of five years. A Treasury Committee, consisting of Sir Henry Roscoe, Mr. George Curzon, Professor Bryce, Mr. R. G. C. Mowbray, and Mr. W. J. Courthope, have reported recently in favour of the grant being doubled, pointing out that all educational work connected with science is increasing yearly in cost, and that the growth in the number of students and the enlargement of the teaching staff have contributed to strain the resources of the colleges.

DR. W. D. C. WILLIAMS, of Sydney, whom University College men of fifteen years ago will remember as a prominent football player, has been awarded the Certificate of Merit of the Royal Humane Society of Australasia for having rescued a young man from drowning on the ocean beach at Manly.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1893.

Subscriptions to the Association for 1893 became due on January 1st; and notice is hereby given, in accordance with By-law 5, that Branch Secretaries' subscription accounts close on October 31st, and all unpaid subscriptions must be forwarded after that date to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, NOVEMBER 11th, 1893.

PRICKING THE BUBBLE.

Matters have moved with dramatic swiftness in the affairs of Harness and his child, the Medical Battery Company, Limited. It is but a few short weeks ago that an appeal was made to the public through the ordinary Stock Exchange channels for a large sum of money to extend and consolidate the "princely business" of selling electropathic belts for the cure of all sorts of diseases to all sorts and conditions of men at prices adapted to the length of the victim's purse and the depth of his credulity. On Wednesday last he had to appear before the magistrate at Marlborough Street to answer the charge that he did unlawfully combine, conspire, confederate, and agree by false pretences and fraudulent advertisements in newspapers and otherwise to defraud and to obtain by a false and fraudulent pretence the sum of £52 10s. and other sums of money from Colonel Brasyer, and that he conspired to obtain other sums of money from other persons. On the same day his counsel stated in the Court of Mr. Justice Vaughan Williams, to whom a petition was made for the winding up of the Medical Battery Company, Limited, that as the result of the attacks upon Mr. Harness every person who had dealt with him for the last three years, and bought belts and other things of him, has instantly demanded the return of his money. On the previous day, Harness had had to face a meeting of creditors, who carried a resolution to appoint a committee of six to represent the creditors in the courts. Harness has been liberated on bail, but if he escapes from the charge of fraudulent conspiracy he admits that he is bound to fight his action for libel against the *Pall Mall Gazette*, and in our public-spirited contemporary he has a hard nut to crack. The Medical Battery Company we may now leave to the minute and impartial investigation which it is likely to receive in the law courts.

There is another aspect of the matter, however, which must continue to interest the profession. The name of James Montgomery McCully, described as a physician, who was one o Harness's companions in the dock at Marlborough Street, does not appear in the *Medica Register*; but Dr. Herbert Tibbits, whose association with the Medical Battery Company has been for some time most intimate, still remains upon the *Register*. The Royal College of Physicians of London some time ago withdrew the diploma which he held from it; and on November 3rd the Royal College of Physicians of Edinburgh, after hearing him fully in his defence, and taking expert evidence as to the alleged electric qualities of the belts for which he vouched, removed his name from the Roll of Fellows of the College. Dr. Tibbits is still not only a graduate of the University of St. Andrews, but he is a Licentiate of the Society of Apothecaries of London. The Society, however, under its Act of 1874 cannot remove his name from its list of Licentiates until it has been struck off the *Register* by the Medical Council. The profession will naturally expect the General Medical Council to take action in the case. We apprehend, however, that it will not be found expedient by the Council to go into the case during the session which begins at the end of this month. The decision of Mr. Justice Mathews in the Partridge case binds the Council itself fully to investigate a case before removing a name from the *Register* and not to accept the decision of the diploma-granting corporations as final. The whole affair of the Harness belts and the Medical Battery Company must now be fought out in the law courts, and *pendente lite* the General Medical Council may well feel that it would be undesirable for it to hold a quasi-judicial inquiry into charges, the gravamen of which is that the accused practitioner has been closely associated with Harness in foisting his shams on the public.

NURSING IN WORKHOUSES.[1]

II.

Nursing in Country Workhouses.

An inquest on the death of an epileptic in the Newton Abbot Workhouse throws a miserable light on the manner in which these abodes of wretchedness are often conducted in country places. The coroner in this case has taken the very proper step of writing a remonstrance to the guardians. According to the coroner's statement "it appeared that during the night he (the deceased) had an epileptic fit, the noise of which aroused some of the occupants, but there was no one in the ward in authority whose duty it was to give assistance to the epileptics in any way, and during his struggles, whilst in an unconscious state, he turned on his face, and, his head being buried in his pillow, he was suffocated. There is no doubt that had any person given him the slightest assistance by turning him round, the death would not have occurred. It appeared to the jury and myself that this state of things should not be allowed to exist in a public institution, and that persons suffering from disease of this kind should not be allowed to run the risk of death when a slight supervision and assistance given at the critical time would remove all risk."

There is an obviousness about the evil pointed out which would make most people think it almost unnecessary to draw attention to it. Our experience of country guardians, however, by no means leads us to believe that the obviousness of an abuse has any relation whatever to the likelihood of its reform. Where guardians sin in one way they generally do so in others.

At the very meeting at which this letter from the coroner was read it was stated that the treatment of itch was so inefficiently carried out in the workhouse that cases took six or eight weeks to cure, and that in the absence of any proper accommodation for infectious diseases it was the custom to place patients suffering from them in the old

[1] The first article was published on October 28th, 1893, p. 959.

people's wards. To inquire into these matters of itch and scarlet fever a Local Government Board inspector had visited the house. It is to be feared that the death of this unfortunate epileptic, a young man of 25, is but a sample of what is going on.

The nursing arrangements are themselves sufficient to condemn the management. Here we have a workhouse for 453 inmates, with wards for 100 sick, and one paid nurse, fortunately a trained one. One nurse, who is also the midwife, to 100 beds, no assistance except from pauper helps, no night nursing whatever, except such as the paupers can give each other. If this is the condition of the sick wards, what of the workhouse itself, where idiots, epileptics, and able-bodied are huddled together in the same sleeping rooms? When such a state of affairs as this can go on year after year under the very eyes of these so-called "guardians of the poor," we must not be too sanguine that even the remonstrances of a coroner will be of much avail, unless backed by a strong public opinion and a feeling of shame among the ratepayers at such treatment of their sick poor.

After all, however, it is not improbable that there are worse places even than Newton Abbot. Those who only know the London workhouses have no idea of what is doing in the country. No one can say that the London poor are over-nursed. After all the advances which have been made, the metropolitan Poor-law sick wards still have only one paid nurse to 15 beds and one trained nurse to 24 beds, but that is splendid in comparison with the provinces.

In proportion to the sick beds the number of paid officers acting as nurses, and of paid officers so acting who prior to their appointment had received any training in nursing, is as follows :—

	Beds.		Beds.
South-Eastern Counties, paid	1 to 35	—Previously trained	1 to 78
South Midland Counties ,,	1 ,, 43	,, ,,	1 ,, 99
Eastern Counties ... ,,	1 ,, 34	,, ,,	1 ,, 76
South-Western Counties ,,	1 ,, 37	,, ,,	1 ,, 150
West Midland Counties ,,	1 ,, 37	,, ,,	1 ,, 85
North Midland Counties ,,	1 ,, 46	,, ,,	1 ,, 89
North-Western Counties and York ... ... ,,	1 ,, 52	,, ,,	1 ,, 147
Northern Counties ... ,,	1 ,, 29	,, ,,	1 ,, 72
Monmouth and Wales ... ,,	1 ,, 40	,, ,,	1 ,, 172

Averages, however, do not express the full gravity of the position at the worst places.

A return presented to Parliament in 1891 shows that in very many instances, even where large separate infirmaries have been erected, the guardians still struggle on with their attempt to treat the sick entirely without trained nurses, and with a very small number even of paid attendants, and that, in no considerable number, there is not even a single paid officer acting as nurse, the attendance on the sick being left entirely to paupers. Those only who know what pauper nursing really is can realise what this means. It is just the state of affairs which was so effectively exposed in London thirty years ago, and yet these guardians, up and down the country, go on complacently perpetuating the same abuses as if they had never heard of the necessity of nursing the sick people entrusted to their care. There are ten whole counties in none of which is there a single trained nurse in any workhouse or workhouse infirmary, and there is one county in which there is not only not a trained nurse, but not even a paid one. We hear much at the present day of socialism, but a country is a long long way from socialism which allows its poor to be treated thus.

THE CARE OF OUR WOUNDED IN WAR.

The very startling letter, which we noticed last week as having appeared in the *Times* on this subject, opens up a question of grave national importance, which we are glad to see is rousing public attention and will not be allowed to slumber. The first reading of that disclosure must surely have given those responsible for army organisation, whether at home or in India, a very bad quarter of an hour. For the tale unfolded, if deplorable, is true, and affords internal evidence that it is neither inaccurate nor exaggerated.

We have during late years persistently ventilated the disabilities as to status and organisation under which army medical officers labour, and to some our complaints may have seemed merely as personal grievances; but the public will now learn that these disabilities are far-reaching, and really synonymous with inefficiency. Henceforth the so-called "grievances" must be translated into "departmental inefficiency." Those who lent only a dull ear to the former will not be deaf to the latter. The War Office and military authorities have lately shown much zeal in the reorganisation of some of the departments; but to the medical department only neglect—and we grieve to add contumely in certain quarters—has been meted out.

The complaint in the letter is entirely towards non-efficiency; to the effect that the Army Medical Department is utterly insufficient and unprepared to cope with the certain horrors of a modern battlefield; and, if this would be the case in fighting a civilised power, still more terrible would be the fate of our wounded in a great semi-barbarous contest on the frontiers of India. To anyone who chooses to follow up the data given in the letter these contentions seem mathematically demonstrable.

The causes of this medical field inefficiency in our home army are not far to seek—insufficiency in numbers, and the absurdly anomalous relations between the officers and men of the medical establishments, who have no organic union as in all other corps; the confusion introduced in medical field transport by the Army Service Corps, which wholly furnishes it, being made a combatant corps, and therefore ceasing to be under the conditions of the Geneva Convention; neglect to mobilise field hospitals and bearer companies in peace, and so accustom officers and men to act together and handle equipment they must suddenly use in war; the doubt, in the absence of mobilisation, whether equipment exists sufficient in amount, or suitable in form, for active service.

Unless the nation has become callous to the fate of our wounded in war it will at once insist that these matters be pressed on the Secretary of State for War in Parliament. Civilians must do this, for we have little hope of genuine initiative from our military organisers, who in matters medical never seems capable of shaking off prejudices which would be merely puerile and pitiful did they not involve injustice and practical dangers.

The spirit in which army medical field organisation has hitherto been approached, from a military point of view, may be gauged from the monstrous fact that, in late mobilisation tables, the principal medical officer of a fighting army has been contemptuously removed from the eye and ear of the general commanding in front, and relegated back to the line of communications! A more absurd and cruel

satire upon any pretence of care for the wounded on the field of battle than this it would be hard to imagine.

But according to the *Times* correspondent, if matters are bad at home, they are much worse in India. There no reliance whatever can be placed on the so-called Native Hospital Corps, which is not organised for field duties. First aid and removal of the wounded would wholly depend upon the efficiency of the two men per company from regiments trained to ambulance work. But would these men be available? Is it likely, he asks, that in a hotly-contested battle any general could or would spare these men from the fighting ranks? All this unpreparedness, moreover, is in the face of the certainty that with long range and quick firing weapons immediate and direct aid to the wounded in the field will be vastly more needed than ever before. When the question is raised, we are quite prepared to hear the authorities quote with complacency the latent capabilities of medical reserves in men and officers. But even if we fully believed in these sometimes double and treble counted paper reserves, what is the good of them without cohesion, organisation, and, above all, practical mobilisation? "Men with muskets" do not constitute an army, neither do inchoate medical establishments constitute field hospitals and bearer companies, ready to take the field and work together.

If these matters, involving both national honour and humanity, are allowed to slide until some catastrophe occurs, then indeed our vaunted civilisation must be held to be the merest cant and hypocrisy. It is not without reason that the writer of the letter declares our present arrangements for the care of the wounded in war to be "a disgrace to any civilised nation."

In consequence of the funeral of Sir Andrew Clark, President of the Society, the Library of the Royal Medical and Chirurgical Society will be closed on Saturday next.

We are asked to remind old students of St. Bartholomew's Hospital that the subscription list to the Andrew Testimonial Fund will be closed on December 1st. It is requested that any gentlemen wishing to subscribe who have not already forwarded their subscriptions will do so before that date. The Honorary Secretary of the fund is Dr. F. W. Andrewes, 35, Welbeck Street, London, W.

THE PRESIDENCY OF THE GENERAL MEDICAL COUNCIL.

Sir Richard Quain, President of the General Medical Council, completes on November 29th a term of service of thirty years as a member of that body. We understand that Sir Richard Quain has been offered and has accepted renomination for a further period of five years.

DEGREES FOR LONDON STUDENTS.

We believe that the report of the Royal Commission on University Education in London has been settled in all its main features, and it is hoped that about two more meetings will be sufficient to conclude the work.

DRAINS IN THE REGION OF THE UNKNOWN.

From Dr. Dudfield's report to the Kensington Vestry we find that progress is being made towards the production of a drainage map of the parish by inserting all new sewers and drains on the existing ordnance maps; and it is hoped that the material for making and keeping up to date an accurate drainage plan of the district will thus be obtained. The *Builder* says: "All the London parishes or districts ought to make it an object to prepare a drainage plan in the same manner; it is of the highest importance to have an accurate and reliable record of the drainage lines." We knew that the London vestries were pretty bad, but if the suggestion here made is correct, and these sanitary authorities (!) do not even know where their drains run, what are we to think of them?

CHILD INSURANCE—THIRTY SHILLINGS FOR TWOPENCE.

According to evidence given at an inquest at Westminster, a man, his wife, and three children slept together in one bed, and in the morning one of the children was found suffocated. Needless to say, this child had been insured. The mother stated that after the child's death she saw the agent, who said he would pay her 30s. The Coroner: How much had you paid?—Witness: About two weeks, at a penny a week. The Coroner: That is a good investment, to get 30s. for twopence. Comment is superfluous.

THE MEDICAL REGISTER.

We would call the attention of all our readers to an advertisement from the General Medical Council which will be found in our advertising columns. The accuracy of the *Medical Register* is a matter of much importance to the medical profession; and any medical man who has changed his address during the past year should, if he has not already done so, at once communicate his new address to the Branch Registrar by whom he was originally registered, in order that the necessary alteration may be made. If this be not done, the practitioner is liable to have his name erased from the *Register*, and thus not only to incur legal disabilities as provided by Sections 31 to 39 of the Medical Act (1858), but also to put himself to a good deal of trouble to have his name reinstated. The Registrar of the English Branch Council is Mr. W. J. C. Miller, B.A., 299, Oxford Street, London, W.; of the Scottish Branch Council, Mr. James Robertson, 1, George Square, Edinburgh; and of the Irish Branch Council, Dr. R. L. Heard, 35, Dawson Street, Dublin.

THE STATE OF CHRIST'S HOSPITAL.

Our comments on the insanitary condition of Christ's Hospital have led to no small indignation from those who do not like to know the truth. We are told that "the statements made this week in the British Medical Journal are wholly without authority;" also that "the alarmist and gratuitous statements in the British Medical Journal are calculated to do a great deal of harm, create unnecessary anxiety, and expose the governors to most unwarranted criticism." Now, we are ready fully to admit that our statements were "gratuitous," in the sense that they were not paid for; but, if it is true that not only in the sick ward to which we had confined our remarks, but in other parts of the building, the closets ventilate into the sleeping rooms, and if it is true that the condition of drainage now condemned by the medical officer of health was reported upon and brought under the notice of the governors years ago, both by Dr. Sedgwick Saunders and by the resident medical officer, we think most people will agree that the anxiety aroused by our comments is not "unnecessary" nor the criticism to which the governors are exposed "unwarranted." It may be noted that at the meeting of the City Commission of Sewers, held at Guildhall on November 7th, Mr. H. H. Bridgman presiding, Mr. Deputy Sheppard Scott inquired what steps had been taken by the authorities to place Christ's Hospital in a proper sanitary condition. Dr. Sedgwick Saunders, medical officer of health, said he hoped to present a detailed report in a fortnight's time. There were twenty cases under treatment, or about 2 per cent. of the whole school. The place was closed to enable the sanitary conditions of the hospital to be thoroughly examined. The outbreak was very extraordinary. Those attacked came from different parts of the country. He thought the disease must have been brought

into the school, but no doubt the sanitary condition of the place was such as to favour its spread. The attention of the authorities had frequently been called to the drainage, and attempts had been made to remedy matters, but the plea had always been that the school was about to be removed.

PROPOSED MEDICAL CONGRESS IN INDIA.

The suggestion has been made to hold a congress of medical men in India. The scheme, if carried out, would be useful. Papers on medical, surgical, and sanitary topics by medical men practising in India, where diseases are met with in certain modified forms as the result of the climate, could not fail to lead to the dissemination of valuable knowledge. Another reason why the proposed congress would be useful is that tropical diseases are seldom included among the subjects which come forward for discussion in European congresses of medical men, though the International Congress at Rome next spring is to be an exception. The idea is a good one, but we doubt very much whether it could be carried out. Official men would find a difficulty in obtaining leave in sufficient numbers and simultaneously to attend such a meeting, and non-official medical men have neither the ability, public spirit, or means necessary for such an undertaking.

ARRANGEMENTS FOR THE FUNERAL OF SIR ANDREW CLARK.

The first portion of the funeral service for the late Sir Andrew Clark will take place at noon on Saturday next, November 11th, in Westminster Abbey. It will consist of the burial service, omitting those portions which are suitable only for the actual interment. The anthem will be the Rev. J. Gregory Smith's "Comes at times a stillness as of even," set to music by Sir Herbert Oakeley, and the hymn will be, "O God, our help in ages past." The concluding portion of the service will be read at the grave in the churchyard of Essendon, the Hertfordshire village in which Sir Andrew Clark had some time ago made his country home. The College of Physicians will be represented officially by the Pro-President, Dr. J. E. Pollock; the Censors, Dr. W. H. Dickinson, Sir George Buchanan, Dr. Cheadle, and Dr. Gee; the Treasurer, Sir Dyce Duckworth; the Registrar, Dr. Edward Liveing, who with the Bedell Mr. Fleming) carrying the mace will attend in their College robes. The Royal Medical and Chirurgical Society will be represented by Dr. Church and Dr. Hall; the British Medical Association, in whose work Sir Andrew Clark had often taken an active part, by the President, Dr. Philipson; the President of Council, Dr. Ward Cousins; the Treasurer, Mr. H. T. Butlin; and Mr. Ernest Hart, the Chairman of the Parliamentary Bills Committee. A special train will leave King's Cross (main line) for Hatfield at 2.5 P.M., returning at 5.15. Tickets for admission to the service in the Abbey can be obtained (to a limited number) on application by letter to Messrs. Garstin, 5, Welbeck Street. Cavendish Square, W. Fellows of the College of Physicians can obtain tickets for the Abbey by applying at the College.

MEDICAL BISHOPS.

The Right Rev. William Edmund Smyth, M.A., M.B., who was consecrated Bishop of Lebombo in the Cathedral of Grahamstown on November 5th, was born in 1858, the son of the Rev. C. Smyth, Rector of Woodford. Thrapston. He was educated at Eton, where he was on the foundation of the College, and entered as Eton Scholar at King's College, Cambridge, in 1876. There he studied classics and theology, taking honours in the Classical Tripos in 1880, and a first class in the Theological Tripos in 1882. He was ordained the same year, and, resolving to devote himself to missionary work, he proposed to acquire the elements of medicine by attending some of the classes at the Cambridge Medical School and the clinical courses at Addenbrooke's Hospital. He soon, however, found it preferable to take the entire course of medical study from the beginning, and passing the several examinations with credit was admitted to the degree of M.B. in 1888. Bishop Smyth is the second medical graduate who within the last year has been called from Cambridge to assume the episcopal charge of an important Colonial diocese, Bishop Hicks, M.D., F.R.C.P., having but lately been appointed to the see of Bloemfontein.

FOUNDERS' SHARES AND PUFFING.

It will be seen from our law report that an appeal was heard on November 7th before Lords Justices Lindley, A. L. Smith, and Davey, of the liquidator of Macdonald Sons and Co., Limited, against a decision of Mr. Justice Vaughan Williams, that nine medical men, whose names are given in the *Times* report as—Alfred Phillips, William Charles Worley, Henry George Sworn, William Blagdon Richards, Albert F. Richards, Robert J. Carter, Dr. Hoare, R. J. Cundell, and P. Arthur Farr, to each of whom a certificate of a founder's share in the company had been sent—were not liable as contributories in the winding up. The company was formed to carry on the manufacture of a medicated wine, and the medical men had agreed, in consideration of the receipt of a paid-up founder's share, to recommend the goods of the company to their patients. Mr. Justice Vaughan Williams ordered their removal on the ground that they had only agreed to take fully paid shares. Against this decision the liquidator appealed, but the court unanimously decided that the appeal must be dismissed. The facts revealed in the course of this case will probably be brought under the notice of the General Medical Council; we believe that they are now under the consideration of some of the officers.

QUEEN'S COLLEGE, BELFAST: NEW PROFESSORS.

Last week was a memorable one for the Queen's College, Belfast. No fewer than three new professors were inducted to their chairs and delivered their inaugural addresses. On Friday, October 31st, Dr. Johnson Symington, the new Professor of Anatomy, was introduced to his class by President Hamilton, and had an enthusiastic reception. He gave a graphic and lucid address upon the modern methods of anatomical research and instruction. On the following day the new Dunville Professor of Physiology, Dr. W. H. Thompson, was cordially received on assuming the duties of his chair. He gave an able address on the beginnings of life and the relations of physiology to other sciences. On Thursday, November 2nd, Dr. J. W. Byers, the new Professor of Midwifery and Gynæcology, had a cordial reception. He dealt in an interesting way with modern advances in obstetrics and abdominal surgery. We feel sure the addition of these three gentlemen to the professoriate of the Queen's College will strengthen that institution materially, and give a great impetus to the vigorous and progressive medical school of Belfast.

PATENTS AND THE SALE OF POISONS.

We learn with much satisfaction that the Council of the Pharmaceutical Society is taking action in regard to the patenting of medicines containing poison, which we have on several occasions pointed out to be either inconsistent with the provisions of the Pharmacy Act, or to require a reading of that Act different from what has hitherto been acted upon. Last Saturday an application was made to the Court of Chancery for the revocation of one of the recent patents, to which we referred last week, as illustrating the danger likely to arise from the patenting of medicines containing poison. Unfortunately the application in this case was not opposed by the patentee. Consequently the question raised did not receive full consideration or judicial de

cision. But though its settlement is thus deferred, a common-sense view of the matter obviously points to the necessity of adopting one or other of two alternatives. If it be held that the words "dealing in patent medicines" apply to the retail sale of medicines containing poison as well as the wholesale dealing, the grant of patents for such preparations would be precluded, since a patent would, in that case, be nothing less than a licence to disregard the object of the Pharmacy Act. If, on the other hand, those words be construed as relating only to wholesale dealing, in accordance with the general tenour of the Act, the sale by retail of patent medicines containing poison would be subject to the provisions of the Act in that respect, as much as any other retail sale of poison. Mr. Swifte's judgment in regard to Kay's essence of linseed does not touch the question thus raised, but merely decides that a preparation which has been patented is entitled to be called a patent medicine ever after. The question we desire to see decided is whether or not the retail sale of a patented medicine containing poison is subject to the Pharmacy Act. If that is not the case, for example, in regard to Kay's essence of linseed, the patent for which has lapsed, it would follow that this preparation could be compounded as well as sold by any grocer in Stockport, or other incompetent person, and there would be no bar to its indiscriminate sale. The same freedom of sale and exemption from the Pharmacy Act would obtain in regard to other patented medicines containing poison; and, from the facility with which patents can be obtained, the protection to be afforded to the public by the Pharmacy Act would be practically done away with. We trust, therefore, that the Council of the Pharmaceutical Society will stedfastly follow up the action it has taken, and that success will attend its efforts to enforce observance of a very salutary enactment.

RAPID TRANSPORT OF THE WOUNDED.

During the last few days an interesting competition has taken place at Rome. At the International Congress of Red Cross Societies, which was held last year in that city, the King and Queen of Italy offered a prize of 10,000 francs for the best means of rapidly transporting wounded from a battlefield. Sixty-four competitors responded, and the various objects sent in have been exhibited for some weeks. Owing, perhaps, to a want of publicity not a single article was sent from England, though Dr. Amesbury forwarded a bullock cart, dhooly, and other things from India. To decide on the merits of the various exhibits a jury of fifteen members was appointed, of whom seven, including Count della Somaglia, were Italians, the other members being the following representatives: Austria, Dr. Myrdacz; Bavaria, Dr. Neidhardt; Belgium, Lieutenant-Colonel-Surgeon Hermaut; Denmark, Dr. Jörgensen, Principal Medical Officer in the Danish Army; Great Britain, Mr. John Furley; Prussia, Professor Dr. Gurlt; Russia, Lieutenant-Colonel Prince Troubetskoi, Military Attaché at the Russian Embassy in Rome; Switzerland, Dr. Ferrière, member of the International Committee of the Red Cross. As the objects for competition, although of great interest, were not considered of sufficient merit to entitle any one inventor to the whole prize, by permission of their Majesties six prizes, varying from 3,000 to 1,000 francs, and twelve silver medals, were awarded. Drs. Rosati and Pettinati of Rome took the highest prize for a combined exhibit. Before leaving Italy the foreign members of the jury have been invited by the King to dine with his Majesty at the Palace of Mouza near Milan.

ANTICHOLERA INOCULATION IN INDIA.

Dr. Haffkine, of the Pasteur Institute, is following in the track of the Hardwar pilgrims, and with indomitable perseverance and zeal practising his method of protective vaccination against cholera throughout the North-West Provinces and as far as Kashmir. He has secured correspondents in each station, who make preliminary arrangements and ascertain the number of persons willing to submit to the operation. On arriving notice is sent to the "patients," who are therefore duly inoculated day by day, proper records being kept as to the immediate results. The time spent in travelling from place to place alone interrupts his daily labours. At Naini Tal the lieutenant-governor took a warm interest in the work, and sent with Dr. Haffkine a deputy sanitary commissioner and a *tahsildar* to explain to the natives the purpose of the inoculations. In this way the large districts of of Garhwal and Kurnaun were visited, and journeys made along the line from Naini Tal to Srinagar, and thence to Hardwar, the latter being places that have again and again severely suffered from cholera, and from which it has spread over wide areas. The numbers inoculated may be gathered from the statistics at three stations—at Almora 235, at Rhanikhet 375, and at Dworahat 252 persons were treated. At Kainur, after 155 persons had been protected, the supply of material became exhausted, but measures have been taken to obtain further supplies, and the remainder of the village population from Kainur to Pauri, who are eager to undergo operation, will be gratified. Dr. Haffkine is now proceeding to Kashmir in pursuit of his benevolent mission, in which he deserves every encouragement from the English authorities. It is only by dealing with such multitudes of a population periodically subject to the visitation of cholera that his most promising discovery can be efficiently tested. Several thousands of persons have now undergone the series of harmless operations which he has devised, and the next epidemic outbreak of the disease in one of its favourite seats will show what measure of immunity they enjoy.

PRESENTATION TO MR. FAVELL, OF SHEFFIELD.

Upon his retiring from the office of surgeon to the General Infirmary, after having held the post for thirty-five years, a movement was set on foot to recognise in some tangible and lasting form Mr. Favell's long and valued services. It was decided that his portrait should be painted, to be hung at the infirmary, and that a replica should be presented to Mr. Favell's daughter. It is, perhaps, very seldom that a movement has received such cordial and widespread support from all classes and so quickly. It took little time to collect from subscribers about £1,000. The portraits have been completed, and the presentation took place on November 3rd, the Duke of Norfolk very fittingly presiding as President of the infirmary, and in a suitable speech making the presentation. The ceremony was attended by a very large audience, the room, holding several hundreds, being packed to overflowing. The artist, Mr. Shannon, has produced a faithful and pleasing picture, and free expressions of approval of his work were made by those present.

ARMY ORGANISATION IN INDIA.

Although the details connected with the reorganisation of the Indian army, resulting from the abolition of the Presidency commands, may not yet be definitely settled, the following broad outline of the scheme will, we believe, be found to be in the main, correct. The European and native troops will be grouped into four armies: (1) The Army of the North; the largest of all, embracing Punjab, Sind, and the North-West Frontier stations. (2) The Army of the East, including the North-West Provinces, Oude, Assam, and Bengal. (3) The Army of the South—broadly, Madras. (4) The Army of the West—Bombay, Central India, and Rajputana. Each of these armies will be under a lieutenant-general, with a complete military and departmental staff, including a surgeon-major-general, who will be called divisional principal medical officer. Burmah will be a separate major-general's command, probably with a surgeon-major-general as principal medical officer. A reorganisation of the military department of the Government of India and of army headquarters will also follow from these changes. The surgeon-major-general at headquarters will be the principal medical officer of Her Majesty's forces in

India. The high medical appointments alluded to will, it is said, be divided between the Medical Staff and the Indian Medical Service—an equitable arrangement, which would finally dispose of the hardships in this connection which the latter service labours under. We presume the scheme will probably necessitate some alteration in the present "circles"—"circles" under surgeon-colonels—but we trust there will be no reduction in the numbers of the latter. The reorganisation, it is believed, will take effect from the commencement of the next financial year—April 1st, 1894—and is looked forward to anxiously by many officers, both military and medical.

THE GOVERNMENT AND CHOLERA PRECAUTIONS.

THE Grimsby Corporation was on November 3rd estimating the expenditure of its various committees for the ensuing six months. The accounts examined showed that the expense incurred in carrying out the requirements of the Local Government Board for the prevention of cholera had caused a deficiency in the last estimate to the amount of £2,634; and that to make up this deficiency and to provide for the next six months an estimate of £3,500 would be required. The Mayor said he trusted the Government would not expect the ratepayers of Grimsby to pay the whole of this amount, equal to a rate of 7d. in the pound, for protecting the entire country. They must present this account to the Government, and strongly press for the payment of at least a moiety of it. The Chairman of the Cholera Committee said he had had some conversation upon the matter with Mr. Heneage, who suggested that, before the presentation of the next Budget, they should bring to bear all the force they could on both sides of the House of Commons to press the matter upon the attention of Her Majesty's Ministers. The estimate was adopted, and it was decided to use every endeavour—among other means the despatch of a deputation to the Local Government Board—to get some part of the expenses paid out of the Imperial Exchequer. The question is whether this expenditure was incurred for "protecting the whole country." Even if Grimsby made no neglect as regards her action as a port sanitary authority, she got cholera into her own population on such a scale as to render it necessary to issue cholera regulations to prevent the spread of the disease within the limits of Grimsby. The sanitary advantages of Grimsby have turned out *qua* sewerage, and as regards some wells to have been most unsatisfactory. Doubtless this enabled cholera to persist.[1] Is a Government grant to cover this? The point is a totally different one from that of a contribution to port sanitary authorities who really work well, maintain vigilance day and night, and so really protect the country. It remains to be told what the early history of Grimsby was in the August cholera, even before this can be determined. But the payment of expenses incurred under the cholera regulations when a town is invaded is, we should imagine, never likely to be entertained. It might be premium on neglect.

ANTHRAX AT GUY'S HOSPITAL.

THE inquest lately held upon William Powney, who died at Guy's Hospital on October 30th of malignant pustule, has been reported at unusual length in the daily press, and has directed public attention once more to a disease which is prevalent among the waterside labourers and tanners of Bermondsey more widely than is commonly suspected. During the last ten years more than 50 cases of anthrax have been admitted into the wards of Guy's Hospital, and for the last seven years the deaths from this cause have averaged about one a year. The history of the present case is briefly as follows:—The patient, a waterside labourer, aged 23, first became ill on October 26th, and had on that day several "shivering fits," which were attributed to cold. He did not, however, leave his work. On October 27th, when he rose at 7 o'clock in the morning, he noticed a swelling under the right jaw, which he rubbed with camphorated oil procured from a neighbouring chemist. He then first noticed a "head to the swelling," the pimple being situated just beneath the angle of the right jaw. On October 28th he was admitted to Guy's at midday, under the care of Mr. Durham. He was then found to have a typical anthrax pustule with small central slough and vesicular areola, and situated upon a brawny base. The œdema occupied the right side of the face and neck, and extended for some distance beneath the chin on to the left side. The pustule was promptly excised, the base of the wound cauterised, and a strong solution of carbolic acid injected into the neighbouring tissues. The dressing employed was iodoform upon blue gauze. At 2 P.M. on October 29th the patient became unconscious, and remained comatose until 2.45 on the morning of October 30th, when he died. His temperature varied between 100° and 102.2°. At the necropsy considerable hæmorrhage was found in the subarachnoid space, and there was a small hæmorrhage into one of the lenticular nuclei. The arachnoid and the pia mater were intensely congested, and numerous anthrax bacilli were found in the blood taken from the cerebral meninges and from a vein in the forearm. The source from which the patient was infected has not been discovered, but we understand that an inquiry is being set on foot by the energetic medical officer of health of the London County Council, and the results of his investigation will be awaited with interest.

[1] BRITISH MEDICAL JOURNAL, October 28th, p. 995.

THE WINDING-UP OF THE SEVENTH INTERNATIONAL CONGRESS OF HYGIENE AND DEMOGRAPHY.

LETTER FROM THE QUEEN TO THE PRINCE OF WALES.

WE are informed that the final meeting of the Organising Committee of this Congress was held on November 2nd, at 20, Hanover Square, to receive the report of the Finance Committee, and wind up the business. Sir Douglas Galton occupied the chair, and among those present were Sir Joseph Lister, Sir Nigel Kingscote, Surgeon General Cornish, Chairman of the Finance Committee; Mr. Ernest Hart, Mr. Ernest Clarke, Mr. T. Cutler, Mr. W. R. E. Coles, Dr. Mapother, Professor Smith, Surgeon-General Marston, C.B.; Dr. Moline; and Dr. Corfield and Dr. Poore, Honorary Secretaries. The report of the Finance Committee was received and adopted. This report and the accompanying balance sheet down to August 15th, 1893, showed that the receipts had amounted to £8,335, and the expenditure to £7,618, thus showing a balance of £717, which, after payment of the few outstanding liabilities, would leave a surplus of about £650. With regard to this surplus, it was decided to apportion it as follows: Three-twelfths to each of the following bodies—namely, the British Institute of Preventive Medicine, the Sanitary Institute, and the Committee appointed by the Congress for Inquiring into the Conditions of Imbecile and Invalid Children; one-twelfth to each of the following—namely, the English Committee for Furthering the Interests of the Congress to be held at Buda-Pesth in 1894, the National Health Society, and the Society of Medical Officers of Health. Power was given to Surgeon-General Cornish, Sir Douglas Galton, Dr. Moline, and Dr. Poore, to wind up the affairs of the Congress and apportion the surplus as above indicated. The Finance Committee, together with the Presidents of Sections, were constituted a committee, "with power to add to their number," for furthering the objects of the Congress of 1894, to be held at Buda-Pesth. Dr. Poore informed the Committee that, in addition to the bound volumes of the *Transactions* which had been presented to the officers of the late Congress, similar volumes, bound in red morocco, had been presented to the Queen, the Prince of Wales, the Duchess of Albany, and the eight native Indian princes

who had assisted the Congress in its work. The Prince of Wales, as President of the Congress, had personally forwarded to the Queen the volumes of *Transactions*, and Her Majesty had, through Sir Henry Ponsonby, sent a gracious acknowledgement, as follows: "Buckingham Palace, June 7th, 1893. Sir,—I am commanded by the Queen to thank your Royal Highness and the members of the Seventh International Congress of Hygiene and Demography for the copy of the *Transactions* of the Congress, which Her Majesty has accepted with much pleasure. I have the honour to be, Sir, your Highness's most obedient and humble servant, Henry F. Ponsonby. To His Royal Highness the Prince of Wales, K.G." Votes of thanks were passed and special gratitude was expressed for the onerous and successful services of the officers, and especially of Dr. Poore and Dr. Corfield, the Honorary Secretaries.

THE CASE OF DR. CORNELIUS HERZ.

We are informed that since the interview of the official French medical examiners on Saturday last there has been considerable vomiting, associated with dangerous prostration and pain and distress in the region of the heart. We are enabled to state on the best authority, and in conformity on most points with the text of the report of Drs. Brouardel and Dieulafoy now before us, that there is in respect to the physical condition of Dr. Herz a general agreement between the English and French physicians. There has been since June 20th, when Professor Charcot and Dr. Brouardel saw him, a very considerable improvement in his general condition. Under the influence of careful treatment, his nutrition has greatly improved, and his intellectual faculties are in perfect order. He is able to take food, the symptoms of diabetes have very much diminished, and those of organic disease of the kidney have disappeared; but there are indubitable symptoms of disease of the heart, evidenced by a murmur in the mitral region, and also of some aortic lesion. The French physicians conclude that, setting aside the cardio-aortic disease,—(of which, however, they sagaciously and significantly observe, that it is necessary to take account, for the terrible surprises to which angina pectoris may give rise are recognised by all)—so considerable an amelioration in the general condition of the patient has taken place, that it is now possible for him to travel. Difference of opinion exists as to the extent of the risk of a fatal attack of angina pectoris. The English physicians, who have had the patient so long under observation, are aware that the excitement caused by the visit of the French physicians gave the patient the appearance of possessing more strength than he habitually exhibits. It is feared that if after the legal proceedings commence he is kept long in suspense or subjected to fatigue, which in his condition would be severe, a fatal attack may be determined. It is eminently desirable in the interests of justice that Dr. Herz should be treated as an invalid in a serious condition of health, and that any legal proceedings necessary for his extradition—if such be determined on—may be carried through with as much speed and with as little fatigue to him as is possible. It is indubitable—and this the French physicians evidently recognise—that, under any circumstances, the patient by his journey to London and in London must run a very serious risk of his life.

SANITATION AS TAUGHT BY THE MOSAIC LAW.

Dr. Adler, in a paper read before the Church of England Sanitary Association, on November 1st, 1893, explained how various Jewish customs directly derived from the Pentateuch exercise an important sanitary influence on the community; and pointed out that prevention was substituted for the old curative system in dealing with disease. He applied the old principles adopted by the Jews in the treatment of leprosy to specific diseases such as variola, scarlet fever, and typhus, and insisted that if they were as rigorously carried out, these diseases would either disappear or become very rare. In dealing with house sanitation, the Chief Rabbi recommended the destruction of rotten tenements as one means of preventing the spread of disease; a recommendation which is strongly supported by recent investigations with regard to tuberculous infection from the walls of rooms formerly inhabited by phthisical patients. In view of the advances that have been made of late with regard to food sanitation, one of the most important parts of the paper was that which dealt with the dietary laws. It was observed that the animals pronounced unclean among quadrupeds were those particularly liable to parasites, and among birds, the scavengers of garbage and carrion. The whole question of Shechita was dwelt on at considerable length, and the advantage of obtaining the flesh as free from blood as possible was held to be a sanitary basis for the custom. The fact that micro-organisms of disease are often present in the blood, while the tissues of the organs through which the infected blood circulates are free from them, was, with reason, made a strong point in favour of the Jewish method of slaughter. We are, however, obliged to take exception to the suggestion that apart from disease possibly some of the qualities of the animal may be communicated to us by means of its blood. Attention was called to the great care with which the carcases of the animals are searched for signs of disease and the recommendation that the same care should be taken in all slaughterhouses is one which we cannot too strongly support. If, as is probable, the Jewish race owes its immunity from the tuberculous diathesis of phthisis to this measure, this fact alone is an overwhelming argument in favour of the custom. Happily the results of recent researches have left little doubt in the minds of those most competent to judge that many diseases common to the lower animals and man are capable of propagation by means of infected meat, and the importance of the careful inspection of meat before it is allowed for human consumption is becoming more and more recognised. If Dr. Adler's able and comprehensive paper succeeds in giving further impetus to this point in sanitation alone among the many he has discussed the community at large will have every reason to be grateful to him.

SCOTCH FORM OF OATH.

We have frequently called attention to the perversity of the minor officers of the law in reference to the statute which entitles every citizen at his option to take the oath with uplifted hand, instead of adopting the ancient but far from laudable custom of "kissing the book." We had always supposed that the law was safe in this, as in other respects, in the hands of Her Majesty's judges, and we confess that it is with absolute astonishment that we read the following note in the *Lancashire Daily Post* of the facetious remarks of Mr. Justice Day, while he was holding the Lancashire Assizes a few days ago. During the day, Dr. Robert Clark and Dr. Barling, two local surgeons, had occasion to give evidence, and elected to be sworn with uplifted hand. While the Clerk to the Ulveston Bench was proving the evidence on which the charge of perjury was based, his lordship made the remark that the oath was not taken then after the manner of the local medical profession, who, according to the new medical theory, were afraid to kiss the Testament. We understand that the medical gentlemen in question had already left the court before the judge thought fit to make his comment upon their exercise of a statutory right. We do not ourselves understand the force of Mr. Justice Day's remark, but we are informed that it was understood in the town to convey some kind of censure. If Mr. Justice Day does not know that the action taken by the medical profession, and deliberately approved by Parliament, was taken solely from considerations of the public health, we can

only blame him for a very rash and inconsiderate remark. If he does know, it appears to us that the observation was as indefensible as it was uncalled for. Her Majesty's judges are, we suppose, above censure; but we would respectfully appeal to the Lord Chief Justice and to the Lord Chancellor to convey at least a respectful reminder to Mr. Justice Day and his brethren on the bench that they ought not in future to attack with judicial gibes the professional men who conceive that they are discharging a duty to the public by exercising an unquestioned and statutory right.

"A RIDICULOUS ACT."

IN a very sad case of poisoning by morphine, which was the subject of an inquest at Hammersmith recently, the coroner remarked that the Poisons Act was "a ridiculous Act," inasmuch as it allowed poison to be sold to a boy of 15. The jury concurred in that view, and added to their verdict a rider to the effect that further restrictions should be placed on the sale of poison. These remarks may be regarded as expressions of public opinion in accordance with the views to which we have long been endeavouring to direct attention. The facts of the case show, moreover, that the law relating to the sale of poisons, instead of being oppressively restrictive of trade, as the advocates of free trade in poisons contend, is in fact not sufficiently stringent, for it was proved at the inquest that the requirements of the Act had been fully complied with in the sale of the poison. This case ought to have the effect of convincing the legally recognised sellers of poison that it is incumbent upon them, by reason of the position in which they are placed, not only to observe the precautions required by the strict letter of the law, but also to supplement its provisions by a careful exercise of discretion, consistent with the spirit of the Act and with their own qualification to act as guardians of public safety in regard to poisons.

"ANTIDIPHTHERIN."

THE name of Klebs is so honourably associated with the early history of modern bacteriology that any work emanating from his laboratory must necessarily be subjected to the most careful but expectant criticism. It has just been announced that in antidiphtherin Dr. Klebs has found a certain cure for diphtheria. The similar announcement made some time ago by Behring and Kitasato has not been productive of such improvement in the treatment of diphtheria as at one time seemed probable, and the number of cases as yet treated by means of this new substance (if in the light of Behring and Kitasato's work it can be called a new substance) is far too small to admit of any very definite opinion as to its efficacy being given. The paragraph that announces the discovery in this country naïvely remarks, in regard to Dr. Klebs's statement that thirteen cases have been treated successfully, "and, until the contrary is proved, people here are not disposed to question his assertion." In such cases—not of diphtheria, but of announcements of specific remedies—the expectant treatment is usually attended with the most successful results. If there is anything in the remedy, Dr. Klebs's results will be obtained by other workers, and Dr. Klebs and his patients will have lost nothing, but should others be unable to corroborate, we shall not have to submit to another "tuberculin" disappointment. The following particulars as to the mode of preparation of the new remedy are taken from an article in the *Wiener medizinische blätter* of October 19th, which has all the appearance of an "inspired" communication: "'Antidiphtherin' is obtained from cultures of diphtheria bacilli on fluid media, and possesses in the highest degree the property of killing the diphtheria bacilli with which it comes in contact, not only in a test tube, but in the human body. Its use is unattended with danger, and in all cases in which it has been employed in the case of human beings, it has had the effect of reducing high temperature (40° Celsius) in from twenty-four to forty-eight hours, the membranes meanwhile disappearing without any local application. In most cases the disease is at the same time cut short; in a few other measures, particularly the internal use of alkalies and quinine wine, were necessary to combat toxic symptoms. 'Antidiphtherin' is supplied in two degrees of concentration, one of which represents the second, the other the fourth concentration of the original culture fluid. The weaker of these serves for painting (with a pledget of cotton wool or the feather of a quill pen) the diseased spots on the palate and pharynx. The paintings should be done two or three times a day as long as large pieces of membrane are present, which is usually for one, or at most two, days. On the third day, if only small shreds remain, one painting is sufficient. For these applications—numbering in all from four to seven—not more than from 5 to 10 cubic centimetres of the remedy are required, so that a fair trial of its therapeutic virtues can be made at a small expense. If membranes form in the larynx and in the trachea the 'antidiphtherin' must be made to reach the affected parts. The devitalisation of the diphtheria bacilli in the preparation of 'antidiphtherin' is effected by means of orthocresol, and thoroughly proved by cultures. The further stages in the preparation of the remedy, which contains 0.2 per cent. of orthocresol and a certain amount of glycerine, afford absolute security against the presence of diphtheria bacilli. The rapid disappearance of the bacilli under the use of the remedy, with the simultaneous subsidence of the febrile symptoms and the absence of sequelæ in cases treated early, irrefragably prove that we have here to deal with a remedy which, used at the right time, has possibly the absolute power of curing the disease. On the other hand, we have seen many cases in which, after the membranes had been got rid of by other means, death was caused by the sequelæ of the disease. 'Antidiphtherin' is prepared by Professor Edwin Klebs at Karlsruhe, and can be procured from E. Merck, of Darmstadt."

ABERDEEN MEDICO-CHIRURGICAL SOCIETY.

THE President, Dr. Angus Fraser, opened the session of the Aberdeen Medico-Chirurgical Society by an address on University Extension. Dr. Fraser sketched the movement which has led up to the extension of the University buildings. He stated that the individual subscriptions from graduates had fallen far short of what might have been expected, and that the bulk of the subscriptions had come from comparatively a few. With regard to the University classes in Old Aberdeen, he held that the distance from the city had a deterrent effect on the numbers of private students, and that this was one of the main reasons why the number of arts students had not increased in the same ratio as in the other Scottish Universities. The curriculum in arts was also behind the needs of the age, a more modern spirit being greatly required, so that the education of to-day might fitly meet the needs of the present. Dr. Fraser also held that there was an overcrowding in the medical profession — the result of the present system of examinations which allowed a student to pass in what he calls the "dot and carry one" method; that is, allowed a student to pass one subject at a time. He advocated the relegation of students back to their studies till they have passed their full professional examinations. That done, he then would allow of their undertaking new subjects and classes. He wished the widest possible culture in the profession, and from this all-round mental development, which ought to be readily obtained at a university, he hoped that the highest possible honour might ever remain with the members of the medical profession. The President was thanked for his address.

PAN-AMERICAN MEDICAL CONGRESS.

[From a Correspondent.[1]]

Mr. Hart's Address on Medical Etiquette.—The American Press.—Close of the Congress.—Dr. Wolfe.

IV.

The third day of the Pan-American Congress opened with a general meeting, at which, after the customary short complimentary addresses to and from foreign delegates, an address occupying an hour was delivered by Mr. Ernest Hart, to hear which the hall, which had previously been nearly empty, quickly filled up. When Mr. Ernest Hart announced that he should select as his subject Medical Etiquette, and that his object would be to show that the strict observance of the old world code of etiquette and of its American correlative was not only essential for the good government and high repute of the medical profession, but equally, and even more so, for the public welfare, a buzz of sensation passed through the hall, and the audience settled down to listen with intense interest—for medical etiquette is by no small section of American practitioners openly disregarded. The address was delivered without a note, although its substance had evidently been carefully prepared. Almost every sentence was punctuated with applause, and at frequent intervals the lecturer had to stop to allow the rounds of applause to subside as he developed his argument and illustrated his points. This was the more noteworthy because among the audience was a very large proportion of the most representative men from all the great Western cities and many from the East. At the close of the discourse the orator received shoals of congratulations from leading physicians of Cincinnati, Philadelphia, Boston, and all parts of the United States, and the address has since appeared *in extenso* in some of the chief medical papers. The general scope of the address was to compare the leading rules of the etiquette of the medical profession with those of the legal profession, and to assert that such rules were not only the indispensable adjunct of every liberal profession, but that their neglect in America had led to very evil results, on which he only distantly dwelt, and which he rather implied than openly alleged. He was less measured and far more outspoken in his denunciation of the daily press of America, of which he openly declared that many of the leading organs were "detestable" for their venality, the unconcealed obscenity of their advertisements, the encouragement and facility which they gave to the obscene vultures of a debased medical quackery, and for their habitual derision and defiance of the elementary laws of ethics in all that related to medical practice and professional conduct. This part of the oration produced a profound sensation; no one pretended that it was not absolutely true and urgently called for. But the press here exercises a dominant and oppressive power, which it frequently uses unscrupulously for dangerous and degrading purposes. And even a mild version of the outspoken words of the orator has brought down upon him, as must have been foreseen, angry abuse from hundreds of newspapers. He is denounced as "an Æsculapian bigot of the Bourbon type," as "a rasping scoffer," and so on and so forth.

This is, perhaps, the best homage that could be paid to the unflinching assertion which the oration contained of the true principles and basis of ethical conduct, to which nothing can be more foreign than the methods, language, and practice of the ordinary American newspaper, the contents of which are habitually such that no decent household dares let them lie within the ken of its women. It is strange and sad that it should be so, but there is only one opinion in the American medical profession at large as to the perfect justice, moderation, and useful courage of this outspoken protest against the "great pest and plague spot of American literature." Nothing can be a stronger contrast than the purity, high literary merit, and lofty ethical standard of the great American serials and magazines than that which is presented by the impure sensationalism, the venal puffs, the habitual unfairness, the degrading slang, and the obscene advertisements which make up a large part of a great proportion of the leading American newspapers. Every American citizen is conscious of this dishonour, but (like the municipal corruption, degradation, and misgovernment of the chief cities) it has come to be regarded first with horror, then with despair, and finally with indifference. Meantime the average daily paper carries moral infection into millions of households. And few dare raise their voices against it. They are busy, they are engaged in the pursuit of wealth; they are hopeless of any improvement, and they accept it as an unhappy fate. Few go so far as to excuse it, but none dare openly denounce it. They point with pride to a few newspapers, such as the *Post* and the *Sun* of New York, which have resisted the infection, but such newspapers may almost be counted on the fingers of the two hands throughout the length and breadth of the land. This digression may be permitted here, because to the influence of the newspapers may be attributed much of the degeneration of the lower class of medical practitioner in the United States, and much of the financial prosperity which attends there the most unblushing and the vilest forms of quackery. It has in that great continent attained to a rampant audacity and a success in the prosecution of the vilest of medical trades such as never before in the history of the world, and nowhere else on the face of the world, is or ever was seen. Mr. Ernest Hart has published the substance of his paper in the *Forum*, a leading magazine which addresses the best class of American readers.

The Congress concluded by some interesting addresses of farewell.

Among the foreign members present at the Congress was Dr. Wolfe, the well-known ophthalmologist of Glasgow, whose demonstrations and operations excited great interest, as they did at the meeting of the British Medical Association in Glasgow in 1888. Dr. Wolfe's reputation as an original worker and successful operator is well established here, and both at the Congress and in subsequent visits to the great centres of medical teaching in Boston, Philadelphia, and Chicago he was the object of much flattering attention from his brethren. In Chicago, where Dr. Wolfe has been spending some weeks, the desire was expressed by leading members of the profession that he should stay and take up his residence as consulting practitioner in the city, and strong inducements were held out to that end, as well by leading members of the profession generally as by those of his own speciality. His attachment to Melbourne, however, and his high appreciation of the excellent climate, and his affectionate regard for many friends there in the profession, have prevented him from accepting what would otherwise, no doubt, have been a most eligible opportunity of successful and remunerative practice.

Washington, Oct. 1893.

[1] This letter has been delayed in transmission.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

The 11th annual meeting of the Royal Academy of Medicine in Ireland was held in the College of Physicians, Dublin, on October 27th. The annual report showed that the Academy had in invested funds about £700, and had no liabilities.

A resolution was passed, on the motion of Sir W. Stokes, making past presidents members of the General Council.

Dr. G. H. Kidd continues as President for another year.

The following officers were elected:

General Secretary.—William Thomson.

Secretary for Foreign Correspondence.—J. W. Moore.

Medical Section.—President: W. G. Smith. Council: Wallace Beatty, J. Hawtrey Benson, E. McDowel Cosgrave, James Craig, J. Magee Finny, Richard A. Hayes, J. W. Moore, A. N. Montgomery, J. O'Carroll, and H. C. Tweedy.

Surgical Section.—President: Edward Hamilton. Council: C. B. Ball, Kendal Franks, Henry FitzGibbon, John Lentaigne, Austin Meldon, Thomas Myles, Sir William Stokes, W. Thornley Stoker, R. L. Swan, and W. I. Wheeler.

Section of Obstetrics.—President: R. D. Purefoy. Council: L. Atthill, Robert A. Flynn, R. H. Fleming, J. H. Glenn, A. J. Horne, F. W. Kidd, J. L. Lane, S. R. Mason, Arthur V. Macan, A. J. Smith, and W. J. Smyly.

Section of Pathology.—President: J. Alfred Scott. Council: A. W. W. Baker, A. H. Benson, H. Bewley, J. Magee Finny, Edmond J. MacWeeney, Conolly Norman, J. O'Carroll, A. R. Parsons, J. M. Purser, and J. B. Story.

Section of Anatomy and Physiology.—President: Alec Fraser. Council: A. Birmingham, H. Broomfield, D. J. Coffey, D. J. Cunningham, H. C. Earl, and R. H. Woods.

Section of State Medicine.—President: Edgar Flinn. Council: E. McDowel Cosgrave, Thomas Donnelly, Ninian Falkiner, J. W. Moore, J. M. Redmond, and H. C. Tweedy.

OPENING OF THE WINTER SESSION IN BELFAST.

BELFAST ROYAL HOSPITAL.

THE winter session was opened on Tuesday, October 31st, when there was a very large gathering of students. The majority of the members of the medical and surgical staff were present. The introductory address was delivered by Professor Sinclair, F.R.C.S., assistant surgeon to the hospital, who had a very cordial reception. He prefaced his remarks by sympathetic references to the death of the late Professor Dill, one of the consulting physicians of the hospital, and of Dr. Henry Burden, formerly pathologist. After giving expression to the cordial welcome offered by the staff to the students who had joined the hospital, Professor Sinclair referred to the extension of the medical curriculum to five years, together with the academic and clinical changes to which the extension had given rise. The opinion was expressed that even the most eager workers would regard the extension as a relief rather than an infliction, for there would be more time to devote to the special departments without trenching so much upon the time available for general medicine and surgery—subjects that latterly were in danger of being thrust aside by the superior attractions and demands of the special subjects. Attention was drawn to three important differences between the clinical and the academic parts of a medical student's course: (1) That clinical work cannot be hurried through, as the succession of cases passing through a large hospital, and the rate at which this stream flows merely suffice to bring a selection of disease forms under notice, but not to exhaust them, as an academic course of lectures might do in a few months; (2) no settled order or grouping of facts could be rigidly adhered to; and (3) grinding in clinical matters was not possible as in the theoretical parts of the course. Hence the importance of paying attention to hospital work from the outset, and not leaving this branch of training over till the eve of the degree examinations. Students were recommended to regard their teachers as fellow students whose knowledge was a little farther advanced than their own but by no means perfect. They should feel themselves co-workers with their instructors in investigating disease and alleviating human misery rather than expectant pupils desiring to be spoonfed with cut and dried facts of pathology and therapeutics the truth of which they do not question or seek to prove for themselves. The advantage to a student of avowing himself an earnest worker at the beginning and the association of himself with a reading and thinking set was commented upon favourably, and the free discussion of clinical observations among themselves by students of medicine was shown to be one of the best intellectual exercises. A warning was given against working alone or with one teacher, as contributing to narrowness and imperfect grasp of principles, and the view was put forward that a multiplication of teachers was of far greater consequence than an increase of clinical material in informing and expanding the student mind. Junior students were strongly urged to study anatomy with a primary view to practice, to study relations and sectional anatomy, and to concern themselves at first in hospital work with what they could reduce to anatomical, chemical, and physical terms. The second and third years at hospital were spoken of as the most important in a student's career, for if in these the habit of careful investigation of each symptom, subsequent synthesis, and final summing up on the facts observed were not formed, it never would be later; and the opposite habit of precipitate diagnosis, hasty generalisation, and adoption of treatment suggested by some mnemonic rule would be found hard to unlearn. The new arrangements for case taking in the hospital were briefly sketched and the excellent service of this mode of acquiring knowledge strongly impressed. In conclusion, students were asked to prepare themselves to be investigators, and to keep before them the ambition of adding something to the store of medical knowledge as they had opportunity. Advance of medical science depended upon small contributions from many workers in the field. Earnest and conscientious labour during student days would be rewarded; but if, in the future struggles and competitions in life, worldly advantages did not bear some proportion to present endeavour, each one should at least secure for himself that consolatory peace of mind which comes from a lofty conception of duty and its high-minded discharge.

QUEEN'S COLLEGE.

In his inaugural address, Dr. J. W. Byers, the new Professor of Midwifery and Gynæcology, having thanked those present for their cordial reception, referred in feeling terms to the warm support he had received in his application for the Chair of Obstetric Medicine, not only from the President, professors, and students of Queen's College, but from the members of the medical profession in the north of Ireland and elsewhere. While admitting that, owing to its youth, there were wants in the College when one contrasted it with old universities, he spoke of what was being done by the President to secure additional buildings for promoting the social intercourse and comfort of the students, and of the munificence of Mr. Robert Dunville in founding the new Chair of Physiology. Coming back again to the College as a professor where formerly he had been a student, Dr. Byers said he must refer to the changes which had occurred in the interval in the teaching staff. They had lost by death two men, Dr. Andrews and Dr. Gordon, and by resignation Dr. Redfern, each of whom had contributed in no small degree to build up the reputation of the College, and he remarked that three of the present medical professors were their former pupils. Professor Byers said it was common, and indeed only natural, for a teacher to claim special importance for the subjects of his own chair. He did not mean to take this course; but he thought they would all admit that the subjects to be taught in that chair were at least of equal importance with those of medicine or surgery, for the following reasons: First, a teacher of obstetric medicine is expected now to lecture not only on midwifery, but on diseases of women and children; secondly, in practising midwifery, two lives have often to be cared for at the same time; thirdly, he thought physicians and surgeons owed a great deal to obstetricians and gynæcologists for the light they had given them as to the diagnosis, pathology, and treatment of diseases of the abdominal and pelvic cavities. He then showed that many of the diseases of women arose during the puerperium, and in this way gynæcology and midwifery were closely allied. The accoucheur must be a gynæcologist, and the gynæcologist an accoucheur, and progress in the one branch advanced the other. While he upheld the value of systematic and clinical teaching, he impressed upon the students that the greater part of their training must be the result of the intelligent use of their own senses, and in order to learn fully all that the senses could teach, they needed to be both observant and attentive; without observation they were partially blind, and without attention partially deaf, for if what they saw or heard did not reach the mind, they would never in their practice be able to turn it into intelligent use. He then referred to the high mortality of infancy and early childhood, much of which was due to the hygienic mismanagement of children, and spoke of the importance of a thorough practical acquaintance with the maladies of children, who would number one-third of their patients. In conclusion, Professor Byers said: "Let us all work in this class that those who go from it into the world will be able to do more for the preservation of the life and health of women and children, and therefore for their usefulness and happiness, in the years to come than in those that are past; and as we remember our able teachers who are gone with the gratitude they deserve, let us bear in mind in collegiate life 'that they who depart have an interest in what is accomplished by those who abide a little longer.'"

A TRAGEDY OF PROFESSIONAL LIFE.—A sad story comes from Hungary. Dr. Béla Bökh, the leading specialist in children's diseases, in Pressburg, was not long ago summoned to the bedside of a child suffering from diphtheria. On his return home, before he had time to change his clothes, his son ran to him and kissed him in spite of his efforts to keep the little fellow away. Two days later the boy developed diphtheria, which proved fatal. This bereavement upset the unfortunate father's reason, and he died after a few days' illness, during which he had been constantly crying out, "I have killed my son."

THE ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A meeting of the Committee of the Association of Fellows of the Royal College of Surgeons of England was held at 25, Grosvenor Street, W., on November 1st, 1893. Dr. Robert Barnes, in the unavoidable absence of the President, took the chair. The minutes of the last meeting having been read and confirmed,

Mr. Percy Dunn, the Honorary Secretary, stated that the business of the meeting was to take into consideration the draft report of the subcommittee which had been appointed in July last to consider what alterations should be made in the charters and bylaws of the College in the interests of the Fellows. The draft report of the subcommittee was then read and discussed clause by clause; some additional clauses were introduced, and a few verbal emendations were made. As amended the report was unanimously adopted, and a copy thereof was ordered to be forwarded to the Secretary of the College for the purpose of being laid before the Council at its next meeting. A copy was also directed to be sent to each member of the Association, as well as to the medical journals.

The report is as follows:

1. That the Fellows of the College shall be summoned by the Council to meet not less than twice a year.
2. That one of these meetings shall be held on the day of the annual election to the Council.
3. That other meetings of the Fellows may be called either by the Council or on a requisition of twenty Fellows of the College.
4. That at a meeting of Fellows twenty-five shall constitute a quorum.
5. That the subjects to be considered at the meetings shall be (*a*) such matters as may be referred to the meetings by the Council, and (*b*) motions introduced by the Fellows, of which due notice has been given.
6. That printed agendas shall be issued to the Fellows, and that minutes of the meetings shall be kept.
7. That the Secretary or Assistant Secretary of the College shall act as the clerk to the meetings, and be responsible for issuing the agenda and keeping the minutes.
8. That it shall be lawful for the Fellows in meeting assembled to appoint an annual committee, or other committees, to consider and report on subjects referred to them, and to confer when necessary with the Council of the College.
9. That the President of the College shall be elected by the Fellows from among the past or present members of the Council at the meeting in July.
10. That the suggested meetings of the Fellows shall in no way interfere with, or supersede, the annual meeting of Fellows and Members at which the annual report from the Council is presented and discussed.
11. That no alteration in the constitution and external relations of the College shall be effected without the consent of the Fellows convened to discuss such alterations.
12. That the term of office of members of Council shall be six years, and that the system of substitute members be abolished.
13. That members of Council shall not be eligible for re-election after serving for two consecutive periods of six years.
14. That the voting papers for the election of members of Council be sent out to all the Fellows at the same time as the list of candidates, and be received at the College up to the close of the poll
15. That the Council shall have power to increase the number of the members of the Court of Examiners from ten, as now limited, to any number not exceeding twenty.
16. That the meetings of the Fellows, the election of the President by the Fellows, the six years' term of office of the members of the Council, and the annual meeting of the Fellows and Members for the reception and discussion of the report of the Council, shall be provided for in a new charter; and that the conduct of the meetings at the College and other matters referred to in the above clauses shall be regulated by by-law.
17. That the question whether the chairman at the meetings of Fellows shall be the President of the College, or a chairman specially elected by the Fellows, be left undecided for the present.

A discussion then arose concerning the action which the Association should take at the annual meeting at the College on the following day. It was understood that up to the present time no resolution had been received at the College on behalf of the Association of Members. Ultimately the resolution moved by Mr. Keetley, and seconded by Mr. Norton,[1] was passed unanimously, and it was directed to be forwarded to the Secretary of the College.

SOUTH AFRICAN MEDICAL CONGRESS.

Dr. W. C. Scholtz and C. M. Kitching, of Cape Town, have written to us calling attention to the fact that the second South African Medical Congress will be held in Cape Town. They express the hope that one or more of their distinguished colleagues might be induced to pay a visit to their city. The circular which is also forwarded states that the Congress will meet in Cape Town during the last week of December, 1893. The Cape of Good Hope Branch of the British Medical Association has formed a Reception Committee, and is working to make the meeting worthy of the metropolis. His Excellency the Governor has consented to open the Congress; several prominent citizens have intimated their intention of entertaining the members; the programme includes a banquet, excursions to Simon's Town, the Royal Observatory, and the leper establishment on Robben Island.

Greatly reduced fares are promised from the coast ports and on the Government railways. The social success of the meeting is assured, and the Council of the South African Medical Congress are anxious that there should be a large representative gathering of medical men from all parts of South Africa, and that the medical work of the Congress should have a great and memorable success.

[1] British Medical Journal, November 4th, p. 1020.

THE CHOLERA.

No case of cholera has been heard of in the United Kingdom for nearly three weeks.

The Greenwich diarrhœal outbreak had reached a total of 252 attacks at the end of last week, the deaths remaining at 11.

The Grimsby Corporation have estimated their outlay on account of cholera at £2,634 during the past three months or so, and have resolved to bring all possible pressure to bear upon the Government with a view of recoupment of this expense from the Imperial exchequer.

Most of the quarantine restrictions placed on British ports by European countries have now been cancelled.

CHOLERA ABROAD.

Germany.—The Cholera Commission of the Imperial Office of Health have resolved to issue returns in future only twice weekly, in view of the general abatement of cholera. During last week there were 10 cases at Stettin, making 89 with 42 deaths since September 23rd. At Hamburg there were 4 cases, 2 fatal; in Berlin, 2 cases; in Hanover, 1 case; in Potsdam, 3 cases, the last being fatal; at Tilsit, 3; Gartz-on-Oder, 2; Havelberg, 3 deaths. In East Prussia, 6 cases, 1 fatal; Schleswig, 2 deaths; Havelland, 2 deaths, in Pomerania, outside Stettin, 11 cases, 4 fatal. To the end of October 33 cases, 12 fatal, had been recorded at Risedorf, a suburb of Berlin.

Italy.—The Mayor of Rome has declared the health of that city to be excellent, and as rendering unnecessary the issue of further cholera bulletins by the Sanitary Board. Nine cases, 4 fatal, occurred at Palermo on October 30th.

Russia.—In the six days ended at noon of November 1st there were 47 cases of cholera, 25 fatal, in St. Petersburg. In the third week of October there were 9 cases, 5 fatal, in Warsaw city, and 18 cases, 16 fatal, in Sebastopol. Among the provinces Volhynia had 568 cases, 219 fatal; Kieff 342 cases, 128 fatal; Samara 212 cases, 143 fatal; Voronash 115 cases, 64 fatal; Kursk 102 cases, 41 fatal; Warsaw 38 cases, 14 fatal. Many southern coast and other towns have been declared free from cholera.

Persia.—Cholera is practically extinct in Teheran, where in the six weeks to the end of October some 700 deaths occurred from the disease. It prevails still in Khorassan province.

"SOME CHOLERA CASES AT GRIMSBY."

Sir,—We feel it our duty, in justice to the town of Grimsby, to correct a few of the misstatements made by Dr. C. Byron Turner in his notes on the above in the British Medical Journal of October 28th, and to supply some omissions.

I. The sister of C. G. was not admitted to hospital on September 7th, but on September 9th. Her case is not reported by Dr. Watts in the Journal as stated. She was discharged recovered on September 16th.

II. C. G. was seen about 11.15 A.M. by the sanitary officials, and was in hospital before noon. The rest of the family did not continue their breakfast after being informed that the patient was about to be removed to hospital, but prepared some hot tea for the patient to drink. Except for a few minutes when absent ordering the ambulance, the assistant medical officer of health remained with the patient until her removal. The vomiting and emptying of stools into the "cesspool" occurred during his absence, but in Dr. Turner's presence. All soiled clothing was removed with the patient and destroyed; the house was closed immediately, and fumigated.

III. The cesspool, or brick trap, into which the stools were emptied is 50 ft. from the well, and not 3 ft. as stated. There is another cesspool in the yard, 18 ft. from the well, but, so far as could be ascertained, no stools were emptied into it. As soon as the patient was removed the cesspools were filled with disinfectants, the yard washed with a hose affixed to the hydrant, and the drains flushed. The people in this court

still drink the water from the well, because examination has shown it to be pure and wholesome.

IV. In the case of A.B. (Case v) no water was taken from the pump after the patient was visited by the sanitary officials, and next morning, before the patient died, the well was closed, instead of thirty-six hours after death, as stated. In the same yard, the week before, a woman died, but not from cholera, as inferred; the other non-fatal case was not one of cholera.

V. The "cesspools" are cleaned out every two months, or oftener, if required, instead of about twice a year, as stated.

The charges which Dr. Turner makes in his last paragraph against the sanitary administration of this town are entirely without foundation. Each case of cholera and choleraic diarrhœa notified was visited by the sanitary officials, and if it were found that the stools had been emptied into the privy box, this and its contents were removed and burnt. If the patient were not removed to hospital a covered sanitary pail was provided for the reception of the dejecta, which was removed each morning, its contents burnt in the hospital destructor, and another supplied. How, then, can he say that "there has not been a single case of cholera in Grimsby in which the stools have been collected and destroyed," especially as his personal experience was limited to 5 cases out of 112 notified? From the number of corrections necessary in two of the cases he has reported, it may be fairly inferred that his notes are not reliable.

We leave your readers to infer the motive—certainly not a patriotic one—which prompted these notes, and shall in future ignore such rashly-made mis-statements.—We are, etc.,

T. NEWBY, M.D.,
Medical Officer of Health, Grimsby.
JOHN BRUCE, M.B.,
Assistant Medical Officer of Health.

SMALL-POX IN ENGLAND.

THERE has been further increase of small-pox in London, 30 cases being admitted to hospital last week, 1 death being registered, and 110 cases remaining under treatment last Saturday, this number increasing to 121 by Tuesday last, most of the new attacks being from the West End. Further cases cropped up in West Ham, and Bristol is by no means free yet from the disease, one death being registered.

In the Midlands, the Birmingham Corporation are proceeding with the new small-pox hospital at Yardley, irrespective of Government sanction to the expenditure, in hopes of getting two pavilions, to accommodate 50 beds, ready in two or three weeks. The entire scheme is to cost something like £34,000, for 240 patients, or about £150 per bed. The increasing numbers of cases are now being treated under disadvantageous conditions. Four deaths were registered last week, and over a dozen attacks recorded. At Quarry Bank persons crowd round the isolation tents, regardless of danger, and 3 fresh cases of small-pox have been reported. At Walsall the disease shows little sign of abatement, the cases numbering some 50 again last week, with 90 patients in hospital, and many others being privately treated. Another fine has been imposed for concealment of a case of the disease. Two attacks were heard of in Leicester; a score of cases came to light in Bradford; and in Pudsey a public meeting has been held to protest against use, for the isolation of small-pox patients, of a cottage situate near two mills, with other property also adjacent. A Norwegian vessel has reached the Wear with the captain recently recovered, and the mate still suffering, from small-pox.

LITERARY INTELLIGENCE.

DR. FRANK S. PARSONS has succeeded Dr. William F. Waugh as editor of the *Philadelphia Medical Times and Register*.

A new medical journal has lately appeared in Spain. It is entitled *La Gaceta Medica de Cadiz*, and is edited by Dr. Agustin Lopez Aguilar, of Cadiz.

Mrs. Willoughby Gordon O'Neil has translated into Italian Mr. Samuel Osborn's lectures on *First Aids to the Injured*. The Queen of Italy has accepted the dedication of this useful work. A French edition will shortly appear.

Another new special journal has just appeared at Berlin, with the title of *Dermatologische Zeitschrift*. The editor is Dr. Oscar Lassar. In the prospectus it is stated that the new venture is to be an *Archiv für Anatomie und Physiologie, Pathologie und Therapie der Haut, sowie für die Wissenschaft von den specifischen Infectionen im Allgemeinen*.

The *Australasian Medical Gazette* announces that a collection of papers on hydatid disease, by the late Dr. J. Davies Thomas, is now in the press. Some of the papers have already been published in the *Transactions* of the South Australian Branch of the British Medical Association and of the First and Second Intercolonial Medical Congresses. The most important papers, however, dealing with hydatid disease of the organs within the abdomen, of the bones, and of the integuments, have never seen the light. The book, which is edited by Dr. A. A. Lendon, of Adelaide, will be published by L. Bruck, of Sydney.

The last number of the *Journal of the Royal Microscopical Society*, issued at the end of last month, contains an interesting note by Dr. J. B. Nias on the development of the Continental form of microscope stand. Dr. Nias appears to have proved that this now familiar form was designed about 1835 by Strauss-Durckheim, a pupil of Cuvier. He was led to its invention by the necessity, during the course of his study of the anatomy of the coleoptera, of using alternately the simple and the compound microscope with as little disturbance as possible of the preparation. This led to the introduction of a rotating stage, to a limitation of the height of the stand, and to its vertical position, the chief points in which the model differed from older types.

Dr. Louis Robinson, in the *Nineteenth Century* for November, suggests a theory to account for the fact that man alone of all animals, unless the higher anthropoid apes constitute a further example, is unable to swim without being taught. He points out that in the usual quadrupedal method of swimming, the limbs are used in almost precisely the same manner and in the same general order as in terrestrial progression. If a young animal, or any of the less intelligent quadrupeds, such as a rabbit or guinea pig, be suddenly caught up, it will in its fight make the same movements as those employed on the ground when it is endeavouring to escape by speed. He assumes that when certain movements are commonly associated with the endeavour to escape from danger in creatures chiefly dependent on instinct, these movements will tend to appear independently of the will of the animal, whenever fear is the dominant emotion. In the more intelligent animals, when the higher functions are paralysed by fear, the same will hold good. Now, if we admit that man was originally an arboreal animal, then the instinct of this very early man, or precursor of man, was to escape from danger by climbing. Dr. Robinson assumes that the arboreal period of our racial existence must have been many times longer than the bipedal period, and this climbing instinct is so rooted in our nature, that in the unreasoning fear created by sudden immersion, man acts exactly as if he were endeavouring to climb. The hands are alternately thrust upwards, with open clutching fingers, as if to grasp something above his head, and his legs move in unison in the same way as do those of an ape mounting a tree. Man's instinct plays him false, for the climbing movement is the worst possible under the circumstances, since at each elevation of the hand the head is submerged. Man catches vainly at the proverbial straw, but "a twig of the same size has doubtless been the salvation of many an ancestor."

ASSOCIATION INTELLIGENCE.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.—The next meeting of this District will be held at the Kent and Canterbury Hospital on Thursday, November 23rd, at 2.45 P.M., Mr. S. Wacher in the chair. The Chairman will be glad to see members to luncheon at his residence, Dane John, Canterbury, at 1.30 P.M. Members intending to lunch with the Chairman are particularly requested to send acceptances by Tuesday, November 21st, or they will not be expected. Agenda: Dr. F. E. Nichol: Non-traumatic Dislocations. Dr. Tyson: Myxœdema and Allied Diseases; and their Treatment by Thyroid Glands. Dr. Welsford: Gall-stone Obstruction. Tea and coffee will be served in the Board Room of the Hospital after the meeting. All members of the South-Eastern Branch are entitled to attend these meetings and to introduce professional friends.—THOS. F. RAVEN, Honorary District Secretary, Barfield House, Broadstairs.

BORDER COUNTIES BRANCH.—The autumn meeting will be held at St. Boswell's on November 17th. The following papers have been promised: On Lower Molar Abscess, by Dr. Maclaren, Carlisle; On Treatment of Lupus Vulgaris, by Dr. N. Walker, Edinburgh: On the Early Treatment of Laceration of the Perineum, by Dr. Crerar, Maryport; On Medical Aid Associations and Medical Ethics, by Dr. W. Brydon, Hawick; and one on a general subject by Dr. Muir, of Selkirk. Dr. N. Walker, Edinburgh, will call attention to the Parliamentary Bills Committee of the Association. Dr. Barnes, Carlisle, will move that a subscription be given to the Epsom College. Full particulars as to train service will be given in the circular calling the meeting.—JAMES ALTHAM, Honorary Secretary, Penrith.

STAFFORDSHIRE BRANCH.—The first general meeting of the present session will be held at the Station Hotel, Stoke-on-Trent, on Thursday, November 30th. The President, Dr. Charlesworth, will take the chair at 3 o'clock.—GEO. REID, Honorary Secretary, Stafford.

THAMES VALLEY BRANCH.—The first meeting of the year will take place at the Talbot Hotel, Richmond, on Wednesday, December 6th; Dr. C. C. Scott, President, in the chair. Applications for election to be sent to R. N. GOODMAN, Honorary Secretary, Elmside, Kingston-on-Thames.

LANCASHIRE AND CHESHIRE BRANCH.—An intermediate meeting of this Branch will be held at Nantwich on Thursday, December 7th. Gentlemen who wish to read papers, show patients, or bring any other business before the meeting, will kindly communicate as early as possible with the Honorary Secretary, JAMES BARR, M.D., 72, Rodney Street, Liverpool.

METROPOLITAN COUNTIES BRANCH.—A special meeting will be held at the rooms of the Medical Society, Chandos Street, Cavendish Square, on Tuesday, November 14th, at 4 P.M. Business: To adopt the revised code of laws approved by the annual general meeting on June 20th, 1893.—ANDREW CLARK, ISAMBARD OWEN, Honorary Secretaries.

SOUTH WESTERN BRANCH.

THE fifty-fourth annual meeting of this Branch was held at Exeter; Mr. L. H. TOSSWILL, President, in the chair. The Branch Council met at 3.30 P.M. Tea and coffee were served before the general meeting, at which nearly forty members were present.

Report of Council.—After the minutes of the last annual meeting, held at Exeter on June 15th, 1892, and of the intermediate meeting at Torquay on April 13th, 1893, had been taken as read, the HON. SECRETARY (Dr. Deas) read the annual report of the Branch Council. The report stated that the number of members was now 236, being a further increase of three since the last annual meeting, and the highest number yet reached. During the year five members had resigned, three had left the district, and three had died. Among the latter were Mr. Pearse, of St. Tudy, one of the oldest members of the Branch; and Mr. Gray, of Ottery St. Mary, one of the youngest. Mr. Pearse was a well-known figure at the meetings; he was President in 1889-90, and his kindness and geniality rendered the meeting at Bodmin a memorable one. Mr. Gray, a well-known and popular member, was carried off in the prime of life, after a few days' illness from blood poisoning contracted in the discharge of his professional duties. Financially, the position of the Branch was as follows: The receipts had amounted to £25, and the expenditure to £36 6s. The balance in hand had been reduced from £63 7s. 3d. to £52 1s. 3d., but at the last annual meeting 20 guineas were voted in equal shares to the British Medical Benevolent Fund and the Devon and Exeter Medical Benevolent Fund. The ordinary receipts had thus exceeded the expenditure by £10. Instead of the usual autumn intermediate meeting a conjoint meeting of the West Somerset and South-Western Branches was held at Taunton, when a most interesting and suggestive address was delivered by Dr. W. T. Gairdner, Professor of Medicine in the University of Glasgow, on the Future of Therapeutics. Professor Lauder Brunton was also present, and opened the discussion. A largely attended and successful intermediate meeting was held at Torquay on April 13th, at which some very interesting papers and cases were brought forward. With reference to the place of meeting and President-elect for 1894, it was recommended that the meeting be held in Cornwall, and that the Honorary Secretary should write to Mr. W. Nettle, of Liskeard, to suggest the latter as the place of meeting, and to ask that gentleman to allow himself to be nominated as President-elect.—On the motion of Mr. C. H. WADE (Torquay), the report was adopted.

Election of Officers.—The following were elected: *Representative on the Parliamentary Bills Committee of the Association:* Dr. Gordon. *Representatives on the Council of the Association:* Dr. John Rolston (Stoke) and Dr. Gordon (Exeter). *Council:* A. G. Blomfield, M.D. (Exeter), P. Maury Deas, M.B. (Exeter), W. Hammond (Liskeard), R. Hingston (Liskeard) L. Mackenzie (Tiverton), W. Nettle (Liskeard).

Vote of Thanks.—On the motion of Dr. KEMPE (Exeter) seconded by Dr. DEAS, a very cordial vote of thanks was accorded to Mr. L. H. Tosswill for his services as President.

Next Annual Meeting.—It was proposed by Dr. ALDRIDGE (Plympton), seconded by Mr. ACKLAND (Exeter), and agreed to: "That the annual meeting in 1894 be held at Liskeard, and that Mr. W. Nettle be the President-elect."

The Resignation of the Honorary Secretary.—Dr. DEAS then formally intimated his resignation from the office of honorary secretary, which he had held for nine years, and proposed the election, as his successor, of William Gordon, M.B. (Exeter), one of the physicians to the Devon and Exeter Hospital.—This proposal was seconded by Dr. WOODMAN (Exeter), and agreed to unanimously.

Vote of Thanks to Retiring Secretary.—On the motion of Mr. TOSSWILL, seconded by Dr. WOODMAN, a hearty vote of thanks was accorded to Dr. Deas for his services as honorary secretary during the past nine years, and for his exertions in raising the Branch to its present flourishing condition.

Dinner.—The majority of the members present subsequently dined together at the New London Hotel.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.

A MEETING of this district was held at St. Bartholomew's Hospital, Chatham, on October 27th; Brigade-Surgeon RAY, of Milton-next-Sittingbourne, in the chair. Twenty members and friends were present.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Next Meeting.—It was proposed that the next meeting be held at Maidstone in March, 1894.

Objectionable Advertisements.—A letter was read from the Secretary of the Medical Defence Union, drawing attention to the great harm done by the advertisements in certain newspapers of so-called "lady doctors;" and the following resolution, proposed by the CHAIRMAN, was carried unanimously: "That in the opinion of this meeting the course pursued by the press in inserting advertisements of so-called 'lady doctors' is to be strongly condemned; and it is recommended that the Indecent Advertisements Bill be amended, so as to render such advertisements a penal offence."

Epsom College.—A letter was also read from Dr. C. Holman, asking for donations towards enlarging the chapel at Epsom College.

Communications.—Mr. GUSTAVUS HARTRIDGE read a paper on Perforating Wounds of the Eye.—Dr. J. A. COUTTS read a paper on Some Points in the Diagnosis and Treatment of Croupous Pneumonia in Young Children. He drew attention to the greater prevalence of catarrhal than of croupous pneumonia in young children, in the proportion of 50 per cent. of the former to 10 per cent. of the latter; and that in the croupous form the apices were more commonly affected, especially the right. With regard to treatment, phenacetin was found to be the most powerful drug in hyperpyrexia, but the use of antipyretics was generally condemned, and abnormally high temperatures reduced by the tepid bath, sponging, and the use of the icebag. Bleeding was also advocated in certain cases, and the dorsal artery of the foot recommended as the best site for bleeding in young children.

—Mr. RAYMOND JOHNSON read a paper on Some Minor Surgical Ailments of Children, in which he laid stress on the not unusual occurrence of retro-pharyngeal abscess not due to vertebral caries, and the advantages of opening such abscesses by an incision in the neck 1 inch below the mastoid process, and along the border of the sterno-mastoid muscle, instead of by the mouth. In some remarks on diphtheria, he dwelt on the advantages of tracheotomy over intubation, and the importance of early tracheotomy when once the larynx was affected.—All the papers were very interesting and of great practical utility, and gave rise to a prolonged discussion, in which several members took part.

Dinner.—After a vote of thanks to the hospital authorities for the use of the Board Room, ten members sat down to dinner at the Bull Hotel.

STIRLING, KINROSS, AND CLACKMANNAN BRANCH.

THE autumn meeting of this Branch was held at Alloa, on October 31st, 1893, Dr. MCVAIL in the chair. There were also present Drs. Milne, Macpherson, Fergusson, Home Hay, Skeen, Sinclair, Young, and Lewis.

Confirmation of Minutes.—The minutes of last meeting were read and signed.

Cases and Specimens.—Dr. FERGUSSON showed a case of Jacksonian Epilepsy.—Dr. HOME HAY showed (1) the Vault of a Child's Cranium with a Punctured Fracture of the Temporal Bone; (2) the Lung from a case of Death by Drowning, in which previous Severe Pleurisy had rendered the Pleura extremely adherent, and the whole Lung contracted.—Dr. SKEEN exhibited a large collection of Gall Stones, chiefly obtained from females suffering from insanity, and remarked upon the character of the insanity, the age, and sedentary habits of such patients.—Dr. MILNE showed a Battery providing both Constant and Interrupted Currents and the Electric Light.—Dr. LEWIS exhibited a Renal Calculus probably composed of pure cystin.— Dr. MCVAIL discussed the subject of Isolation Hospitals, and prefaced his observations by the exhibition of model sections of walls proposed for such hospitals. Dr. McVail then commented on the advantages of these hospitals and on the relation of medical practitioners to them.

Vote of Thanks.—On the motion of Dr. HOME HAY, a vote of thanks was cordially given to Dr. McVail for his kindness in bringing this subject before the meeting, and for discharging the duties of Chairman.

BURMAH BRANCH.

THE twenty-third regular meeting of this Branch was held at the Lord Bishop's Court on June 5th.

Communications.—Surgeon-Lieutenant-Colonel BAKER related a case of Spontaneous Rupture of an Enormous Hydrocele. He also showed an Unusually Smooth Calculus, 2 ounces in weight, which he had removed from the bladder of a Burman by the suprapubic cystotomy.

The twenty-fourth meeting was held on June 16th, when the following resolutions were passed: 1. "That the members of the Burmah Branch of the British Medical Association desire to express their feelings of regret at the approaching departure of Surgeon-Colonel C. Sibthorpe, the President. As the founder and first President of the Branch, so wisely begun and carefully organised, he has laid the members of the medical profession in Burmah under a deep debt of gratitude. The monthly meetings have already done much in promoting the kindly feeling of good fellowship among the members in Rangoon; whilst the knowledge that reported cases will be considered and criticised is likely to stimulate scientific inquiry inte many of the medical problems peculiar to Burmah." 2. "That with the sanction of the Local Government it is resolved to ask Surgeon-Colonel C. Sibthorpe to accept a silver bowl as a slight expression of the esteem of those who, having known him, have learnt to respect him."

At the twenty-fifth meeting, the Honorary Secretary exhibited the silver bowl before forwarding it to Surgeon-Colonel C. Sibthorpe to Secunderabad. A letter was read from Surgeon-Colonel S. B. Hunt thanking the members for asking him to act as President in place of Surgeon-Colonel Sibthorpe, resigned.—Dr. T. F. PEDLEY related the disabilities of private registered medical practitioners. He laid stress on the fact of their being incapable of recovering fees for professional services rendered, either as an ordinary or a skilled witness, on behalf of the Crown or otherwise, commensurate with loss of time, trouble, or skill. He moved to ask the members to send in objections and criticisms on draft rules under Sections 5 and 13 of the Indian Opium Act, 1878, published in the *Burmah Gazette* of August 22nd.

At the twenty-sixth meeting, Surgeon-Major DANTRA related a case of Cerebral Hæmorrhage controlled by ligaturing the common carotid.

WEST SOMERSET BRANCH.

THE autumnal meeting of this Branch was held at Taunton, on October 27th, under the Presidency of Mr. R. J. COLLYNS. Twenty members and three visitors were present.

New Members.—Mr. Charles E. Abbott and Mr. Harold W. Husbands, already members of the Association, were elected members of the Branch.

The late Dr. Currie.—The following resolution was passed: "That this meeting, feeling how much the Branch was indebted to the late Dr. Currie, who so admirably filled the office of President last year, and who was such a regular attendant and so valuable a contributor at all its meetings, deeply deplores the loss it has sustained by his death; and that a copy of this resolution, accompanied with an expression of sincere sympathy, be sent to Mrs. Currie."

Letters from the Honorary Secretaries of the Bath and Bristol and of the South-Western Branches.—Dr. KELLY read letters from Dr. Markham Skerritt and Dr. William Gordon, each expressing regret that in consequence of their respective Branches having meetings fixed to be held at nearly the same time as the meeting of this Branch, it was feared none of their members would be able to accept the invitation of the West Somerset Branch to attend its autumnal meeting.

Treatment of Myxœdema.—Dr. ARTHUR DAVIES delivered an address on Myxœdema and the Therapeutic Value of the Thyroid Treatment. After giving a brief account of the disease, he described the first direct therapeutic attempts made to use the thyroid gland by grafting, this method being used by Professor Kocher and others. He then pointed out the great advance made by Dr. George Murray, of Newcastle, who tried injections of an extract of the sheep's thyroid, and described a case successfully treated by this method. Allusion was made to the remarkable fact discovered independently by Dr. Hector Mackenzie and Dr. E. L. Fox, of the efficacy of the thyroid gland when administered by the mouth. A modification of this method, namely, a dried extract, had proved also as valuable, and Dr. Davies narrated five cases treated by this method, with very marked benefit. The importance of maintaining treatment through life was insisted on. The beneficial use of the thyroid gland in sporadic cretinism and in psoriasis was spoken of. The address was illustrated by microscopic slides, photographs, and casts, and a series of animal extracts was exhibited.—A discussion followed, and Dr. DAVIES replied.

Dinner and Vote of Thanks.—After dinner the usual loyal toast having been honoured, the PRESIDENT proposed and Dr. WINTERBOTHAM seconded in appropriate speeches: "The reader of the address, with the best thanks of the meeting to Dr. Davies for coming from London to deliver it." Dr. Winterbotham dwelt upon the advantages of conjoint meetings, and upon the good resulting from hearing and discussing such an address as Dr. Davies had given them.—The toast was drunk with the utmost cordiality.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.

THE autumn meeting of this Branch was held on November 2nd at Newport, Mr. H. A. LATIMER (Swansea), President, in the chair. About 20 members were present.

New Members.—A. W. Hughes, M.B., Professor of Anatomy University College, Cardiff; Berry Haycraft, M.D., Professor of Physiology University College, Cardiff, C. J. Weichert (Penygraig), P. H. Hacquoil (Cardiff), and J. J. Buist, M.B. (Cardiff), were elected members of the Branch.

Papers, etc.—Mr. J. L. Thomas (Cardiff) read notes of cases of (1) Pancreatic Cyst, with recovery after aspiration; and (2) Brachial Monoplegia from injury to the brain, ending in recovery; patient shown. Remarks were made by Dr. P. R. Griffiths (Cardiff).—Dr. Paterson (Cardiff) showed pathological specimens of Ulcerative Endocarditis and Malignant Tumours of Larynx, with brief notes of the cases. Messrs. G. A. Brown and D. A. Davies joined in the discussion which followed.—Dr. Griffiths (Cardiff) read short notes on (1) the Incubation Period of Diphtheria; (2) Jaundice, a complication of scarlet fever; and showed specimens of foods and a new preparation of koumiss.—Mr. Stanley Wood (Pontypool) showed a specimen of a new form of Inguinal Truss with the patient wearing it.—Mr. Norris Davey (Abergavenny) showed two interesting Calculi, one from the bladder, a hard stone which had been pierced through by Civiale previous to extraction, and the other from the rectum.—Mr. Walter Basset (Newport) showed a case of Aortic Aneurysm.—Mr. A. W. Loveridge (Newport) showed a case of enlarged Bursa Patellæ extending above the knee on the outer side.

SPECIAL CORRESPONDENCE.

PARIS.

Infectious Illness in Hotels.—Revaccination and Small-pox.—The Diffusion of Cancer.—The Paris Faculty and its Expenditure.

The civil tribunal of the Seine has delivered judgment in a case interesting to foreign residents in Paris. A family staying at a Paris hotel had a child who fell ill with scarlet fever eight days after their arrival. The hotel keeper wanted to turn them out; the doctor who attended the child declared that it was impossible to move the patient. The hotel keeper demanded £80 indemnity, which the parents refused to pay, but they bore the costs of disinfection. The Seine tribunal decided in favour of the parents, the child having contracted the malady during the stay at the hotel and not previously.

M. Créquy has, during the last five years, organised a service of revaccination for the men employed by the Paris Eastern Railway Company. Among 30,000 men there were barely 2,000 who refused to be revaccinated; these 2,000 produced 6 cases of small-pox, while among the 28,000 revaccinated there were only 3. Before the revaccinating small-pox cases made the company lose 380 days' work yearly; the average estimated now is 27 days. At Rheims there were 261 cases among the population; 34 were followed by death; the company's men all escaped. The same circumstances were observed at Commercy, Épinal, Mirecourt, and during the last four years there is no small-pox fatality in this railway company. Similar statistics have also been drawn up in the gas company.

The *Journal des Connaissances Médicales* of November 8th publishes some interesting statistics concerning the contagion of cancer. In one instance facts seemed to indicate that water was a vehicle of contagion. Dr. Mainchon, practising at Ouncy le Château, has in his private practice met with a mortality from cancer fourteen times greater than that of Paris. The locality where this mortality is observed runs across the river Ourcy; cancer is also frequent in the chalky plains of Champagne. Dr. Arnaudet believes cider made from pond water capable of spreading the cancer germ. In 1880 a patient inhabiting the Facul Sylvestre plain died from cancer, and in 1885 a neighbour died from cancer of the stomach. In thirty years, seventeen houses among fifty-one had furnished twenty-one cases; some of the houses in the middle of a certain street constituted a perfect hotbed of cancer; in 1884 five people were attacked almost simultaneously. There was positively an epidemic of cancer; river water and well water appeared to play a part in the diffusion of the disease. In 1891 Dr. Arnaudet reported that the frequent existence of cancer in our country districts may be attributed to external causes; water is the most frequent agent in transmitting the disease; it can also be transmitted from person to person dwelling in the same house. Dr. Arnaudet observed in a little village in the Ardennes four deaths from cancer in one family, living together in a small flat which was somewhat shut in. M. Humbert Mollière records four deaths from cancer in less than ten years occurring in a rich family living in a good house on the banks of the Saone. M. Mollière rejects the hypothesis of coincidence, and thinks that the influence of external causes must be invoked to explain the facts.

The expenditure of the Paris Medical Faculty is not considered by many to be wisely regulated. Warming the Faculty costs a yearly sum of £3,600; under such circumstances economy is necessary, and this has been practised by leaving two professorial chairs vacant and appointing two *agrégés* to give the lectures until a titular professor be elected. The *agrégé* receives £280 yearly for these lectures; a professor's full fees are £480; the Faculty thus economises a sum of £360 a year. The *Gazette des Hôpitaux* declares that this is misplaced economy. A temporary substitute can only take things as he finds them and leave them in the same condition; whatever reforms are necessary he can have neither time nor inclination to effect. No successor to Professor Charcot or to Professor Le Fort will be appointed until next year.

MANCHESTER.

Dr. Tatham.—St. John Ambulance Association.—Compulsory Notification of Measles.—Victoria Dental Hospital.—Victoria University Court.—New Chemical Laboratories at Owens College.

The appointment of Dr. Tatham, medical officer of health for Manchester, to the office of superintendent of the Statistical Department of the Registrar-General's office has given great satisfaction in Manchester, where Dr. Tatham is held in high esteem. His "Manchester Life Tables" are a monument of his diligence and skill in handling statistics. Dr. Tatham is a graduate in arts and medicine of Trinity College, Dublin. His early life was spent in the city of Exeter. On commencing his study of medicine and the practice of surgery he was a student at the Sheffield Medical School, proceeding subsequently to London and Dublin. In 1870 he was appointed house-surgeon to the Ardwick and Ancoats Dispensary, and three years later he became medical officer of health for Salford. The latter position he held for fifteen years, when he was appointed to the corresponding post in Manchester. Dr. Tatham is also lecturer on hygiene in Owens College, so that this appointment will also be vacant, and the Council of the College will soon be called upon to appoint a successor.

At the recent competition for certificates of the St. John Ambulance Association over 100 of the members of the Manchester police force passed the examination. At present over 600 members of the City police force hold these certificates.

The Manchester Medico-Ethical Association have issued a report recommending that measles should be placed in the list of diseases to be compulsorily notified to the medical officer of health, and the Manchester and Salford Sanitary Association, in a memorial to the Sanitary Committee of the City Council, urge the same procedure. In their memorial attention is called to the excessive mortality in the city from the three zymotic complaints chiefly affecting children, as shown by the following figures:

	1891.	1892.
Deaths from scarlet fever	114	138
,, ,, measles	221	369
,, ,, whooping-cough	577	368

It will be noted how much more deadly whooping-cough and measles are than scarlet fever, and a suspicion arises that this heavy mortality is due to the popular notion that these are slight diseases which may be neglected and allowed to run their course without medical advice, and often without treatment. The memorialists do not overlook the fact that measles is infectious before visible indications of it appear, and admit that therefore notification cannot stamp out an outbreak; but they maintain that if the medical officer of health were acquainted with all cases as they are detected much might be done to prevent the spread of contagion, and to ensure such treatment of cases as would largely diminish the mortality from the complaint, and tend also to minimise the danger which now exists of non-notification of cases of

scarlet fever by those who mistake it for measles, and only seek medical advice when serious mischief has been done. The memorialists recognise the difficulty of the expense involved in securing compulsory notification of measles, and, while maintaining that even that consideration should not outweigh the saving of life to be effected, suggest that in case the cost be regarded as a serious obstacle the onus of notification might tentatively be limited to the parents or friends of infected persons. It seems that last year there were 6 000 cases of measles in Salford, with 306 deaths, equal to a death-rate of 5 per cent.

The Students' Society of the Victoria Dental Hospital held the opening meeting of the session recently, when there was a reception by the President, Mr. F. W. Marshall.

At a meeting of the Court of Victoria University, held at Owens College, the Treasurer announced that the income at present exceeded the expenditure by about £300. The following were appointed lecturers of the University: Mr. F. A. Southam, M.A., F.R.C.S., Lecturer in Operative Surgery; Mr. G. A. Wright, M.B., F.R.C.S., Lecturer in Practical Surgery.

The steady rate of increase of the attendance at the various laboratories at Owens College has been recorded from time to time. Coincident with the growth in the medical school the Council of the College is faced by another gratifying difficulty, namely, to provide adequate accommodation for the great increase of the chemical students. Large though the chemical laboratories are, which were erected for 100 students in 1872, the present number actually working in the laboratories is 174, and every available inch of space is occupied, and, for the first time in its history, the department has reluctantly been compelled to refuse application for admittance to the laboratories. A few months ago it was proposed to build a special laboratory for organic chemistry in memory of the late Professor Schorlemmer, and for this purpose £2,000 has been subscribed. But during the past session it became evident that the extension proposed by the Schorlemmer Committee would be insufficient to meet the immediate wants of the School of Chemistry. The Council has therefore had plans prepared for a new laboratory on the main floor, 60 feet long by 30 feet wide, and a lower laboratory beneath it 40 feet by 30 feet, with necessary storerooms. The cost of such a building is estimated at £4,000. The deficiency of £2,000 remains to be supplied.

The Earl of Derby has accepted the office of President of the Manchester Royal Infirmary.

LIVERPOOL.

The Medical Institution: Mr. Victor Horsley's Paper.—The Need for a New School of Medicine.

The present session of the Medical Institution bids fair to be one of the most successful of recent years, judging from the proceedings that have already taken place. At the first ordinary meeting Mr. Chauncy Puzey read a valuable paper on the Treatment of Extravasation of Urine, embodying the results of a wide and well-digested experience. Mr. G. G. Hamilton, the Honorary Secretary, contributed an analysis of 20 cases of extravasation occurring in his practice, attended with 3 deaths. At the following meeting Mr. Victor Horsley, F.R.S., of London, read an important paper on the Cause of Death from Bullet Wounds of the Cerebral Hemispheres. The paper was copiously illustrated with lantern slides. The author maintained that the cause of death from bullet wounds of the cerebral hemispheres was the sudden increase of intracranial pressure brought about by the entrance of the bullet into the cavity of the skull, a cavity which was closed and already full. He showed that when a closed cavity filled with water and lint was fired into, the increase of internal pressure manifested itself by the bursting of the canister with great violence. In the brain the increase of pressure took effect on the respiratory centre, which became paralysed. The paper was listened to with great interest by a large gathering of members.

At the half-yearly meeting of the governors of University College the Earl of Derby was appointed President of the College, in succession to his brother, the late Earl. The Chairman, Mr. Edward Lawrence, in moving the adoption of the general report, spoke of the pressing need that existed for a new school of medicine. He said that it was urgent that a new school of medicine should be called into existence, and it was wanted on the ground that the present school was not large enough for the requirements of the educational work, and because it was desirable to bring the school thoroughly up to date.

BIRMINGHAM.

The Midland Medical Society.—Hospital Sunday.

The inaugural meeting of the Midland Medical Society for this winter's session took place on Thursday, November 2nd, at the Medical Institute. The President of the Society, Mr. A. H. Evans, presided, and nearly 100 members of the Society were present. Dr. C. J. Cullingworth, of St. Thomas's Hospital, delivered the inaugural address on Pelvic Abscess in the Female. The address, which was illustrated by diagrams, was published in the British Medical Journal of November 4th. At the conclusion of the address a cordial vote of thanks to Dr. Cullingworth was moved by Dr. Savage, seconded by Dr. Malins, and carried unanimously. A *conversazione* was held during the evening. Mr. Hall Edwards showed an improved apparatus for photomicroscopy, and there were several exhibitions of instruments and medical and surgical appliances by instrument makers of the city.

The annual Hospital Sunday collection was made on Sunday, October 29th, and the returns, though not yet complete, show that considerably over £4,000 has been collected. The collection is this year to be devoted to the Queen's Hospital, that of last year having been given to the General Hospital. This year's collection will, it is feared, fall short of last year's total by several hundred pounds, but this may be accounted for by the extremely depressed state of trade in the Midlands.

CORRESPONDENCE.

SIR W. JENNER ON DIPHTHERIA AND FEVERS.

Sir,—I notice that the public press has alluded to Sir W. Jenner's remarkable and original observation on the independence of diphtheria of bad hygienic conditions. The fact has now been shown to be absolutely true by Dr. Thorne Thorne in a large array of figures as set forth by him and drawn from all parts of the country. When Sir W. Jenner published his lectures in 1861 the disease had only been recognised amongst us for about five years, and from his experience during this time he wrote his excellent memoir consisting of a truthful exposition of what he had personally observed, including the remarkable statement to which I have referred, and which now, after thirty years, is only just being accepted. It is curious that not very long ago, when diphtheria raged in Kilburn, the authorities were held up to execration by distinguished men on account of the imperfection of the sewers.

To show how strong a hold this insanitary view had on the medical and popular mind, I will quote what a reviewer of Jenner's book said on the subject, first giving Jenner's words, which are as follows: "It is very doubtful if any antihygienic condition favours its development or gives it a more untoward course when it occurs. I saw very few in hospital practice compared with private, the contrary existing in other diseases. Hospital patients are placed in much more unfavourable hygienic conditions than are private patients. These facts are strong evidence in favour of the opinion that the ordinarily reckoned antihygienic conditions are not especially favourable to the development of diphtheria. The percentage of deaths was higher in private than in hospital practice." I will now quote the review, which is to be found in the *Dublin Quarterly Journal* for August, 1861. Speaking of the above words it says; "These propositions are so much at variance with all our experience of all other epidemic and infectious influences, and are so subversive of established doctrines, that for their establishment the evidence should be incontrovertible. It may be asked, Is Dr. Jenner's experience exceptional? Indeed, we believe the experience of the majority of physicians is directly the reverse of Dr. Jenner's, and that the disease has always spread most freely

and most virulently among the ill-fed poor, living in badly-ventilated, filthy localities." The critic speaks of the book, with this exception, as a most valuable contribution to clinical medicine.

At an early period of the occurrence of diphtheria in this country I saw much of the complaint, and came to the same conclusion as Sir W. Jenner, but whether my opinion was original or suggested by reading this author's work I cannot at this distance of time say; nevertheless, my words are worth quoting. They are taken from my lectures which were published in the *Guy's Hospital Gazette* for 1873. After speaking of diphtheria first appearing at Folkestone I say: "From this focus it spread first along the eastern counties and then through the country generally, apparently quite irrespective of soil, impure atmosphere, or drainage. As regards London, it has been more frequently met with in the better class of houses in the suburbs than amongst the lower and dirtier habitations of the poor." These views, however, have not been generally held until Dr. Thorne Thorne published his work on diphtheria, and showed incontrovertibly that the disease was spread by contagion, and apparently had no relation to bad sanitary conditions as regards water supply, sewerage, and drainage.

In his treatise on fevers the clear perception and scientific precision of Sir W. Jenner are equally apparent. The publication of his writings on the subject has necessarily awaked some old discussions as to the amount of originality displayed therein. I well remember when they first appeared, and that my seniors at Guy's were teaching the old doctrine of the identity of typhus and typhoid. They recognised many differences between them, but only as varieties of the same disorder, and this in spite of the fact that the Edinburgh and Dublin schools were describing maculated fever, unaccompanied by any intestinal affection, whilst Broussais at Paris was maintaining that ulceration of the bowel was the very essence of fever. The possibility of there being two diseases under the same name had been spoken of, but no one had so thoroughly investigated the subject as Dr. A. Stewart. This is the reason why many persons have wished to give to him the credit of having made the true discovery. It is remarkable, however, that his paper did not alter the teaching, and for nearly ten years after its publication until Jenner's writing appeared, all the physicians at Guy's, and I have no doubt those elsewhere, were upholding the old doctrine of one "continued fever." I am now thinking of Addison, Barlow, Hughes, Rees, and Gull at my own hospital. I think the reason is obvious. Good as Dr. Stewart's paper was, the conclusion was halting; the proof was wanting. If he had completed this himself instead of referring it to others his claim would have been unquestioned. Dr. Stewart's paper is to be found in the *Edinburgh Medical and Surgical Journal* for October, 1840, and is entitled "Some Considerations on the Nature and Pathology of Typhus and Typhoid Fevers applied to the Solution of the Question of the Identity or Non Identity of the Two Diseases. Read before the Parisian Medical Society, April, 1840." The author gives with great clearness the characteristics of each form, and winds up his paper with these words: "On a review then of all that has been advanced it would appear that typhus and typhoid fevers present important differences as regards their probable origin, their proximate causes, their course, many of their symptoms, their diseased appearances, and the treatment applied in each. Are they, then, identical, or are they not? I feel that it would be presumptuous in me to hazard a reply, nor do I demand an answer in the affirmative merely on the faith of what I have stated. All I can ask or wish for is a careful, extensive, and minute inquiry, without prepossession or love of system, and a satisfactory solution must soon be arrived at." Sir William Jenner a few years afterwards entered upon the inquiry, and by four or five years' close observation at the Fever Hospital, including careful *post-mortem* examination, brought the matter to the proof. If it be true, as Dr. Pye-Smith told us in his Harveian oration, that "he only discovers who proves," it is obvious that the medical world has rightly assigned the crown to Jenner. The two papers on diphtheria and fever display the purely scientific mind cast in the true Baconian mould.—I am, etc.,

Grosvenor Street, W., Nov. 6th. SAMUEL WILKS.

BRITISH MEDICAL BENEVOLENT FUND.

SIR,—For the first time for many years the Committee of the British Medical Benevolent Fund found itself at the monthly meeting on October 31st absolutely without the means of relieving the cases of distress brought before it, the financial honorary secretary reporting an actual deficit at the banker's. Various causes have contributed to this, the chief of which has been an increase in the demands upon the Fund, £1,604 having been already voted in grants this year as compared with £1,657 during the whole of 1892. The number of cases relieved up to and including the September meeting has been 136 as against 123 to the same date in the previous year; but the support accorded to the charity has also fallen off, partly through the prevailing depression, but also by the death of liberal donors such as the late Mr. John Morgan, and of active honorary local secretaries like the late Sir George Macleod of Glasgow.

Winter is upon us, and the help afforded by the Fund will be specially missed at this season. Much suffering will have been already caused by the postponement of assistance, and, unless the profession comes to the rescue, there will be acute distress and actual privation in many families whose sole resource is this Fund.

The annuity department has prospered greatly, and the invested capital derived from legacies supplies annuities, mostly of £20, to nearly 100 aged members of the profession, or their widows and unmarried daughters.

It is the donation department, maintained by subscriptions and donations, the object of which is the relief of urgent distress, which stands in need of immediate assistance; £200 has already been borrowed from the annuity side and exhausted.

The members of the profession may again be reminded that all the offices are honorary, and that no part of the money collected goes in salaries and office expenses. The Fund, again, relies entirely on the kindness of the medical press to make known its needs and objects, and incurs no expenditure in advertisement. Finally, the applicants are not put to the pain and expense of publicity and canvassing for votes. An application, duly authenticated by signatures and letters from medical men, is sent in to the Honorary Secretary for cases, and by him brought before the Committee at the meeting which takes place here on the last Tuesday in every month. The merits of each case are discussed, and a grant is made, varying from £5 to £20, according to circumstances.

In some cases this is sent direct to the applicant or to the medical man who has signed the recommendation, especially if he be an honorary local secretary. But as a rule it is found best to spread the grant over a year by means of monthly instalments which are sent out through the Cheque Bank. The names of applicants who are over 60 years of age and are in other respects eligible for an annuity are put down on the annuity list, and twice a year this is gone through by a special subcommittee and the most necessitous cases are recommended to fill up any vacancies which may have occurred during the previous six months. The annuities are all sent out in monthly instalments through the Cheque Bank, and this has been found to be of the greatest value to the recipients, who are most of them over 70 years of age, and are, many of them, failing in mind and body.

Contributions may be sent to Dr. Sidney Phillips, 62, Upper Berkeley Street, Portman Square, Honorary Financial Secretary; Mr. Edward East, 16, Upper Berkeley Street, Honorary Secretary for Cases; or to myself.—I am, etc.,

W. H. BROADBENT,
84, Brook Street, Grosvenor Square, W., Nov. 6th. Treasurer.

THE STUDY OF ANATOMY.

SIR,—I have read with interest an article on "Methods of Anatomical Study," by Professor Macalister in the BRITISH MEDICAL JOURNAL of October 21st. Whilst agreeing entirely with his remarks, I think one method of anatomical study has been left untouched, namely, the possession of such a knowledge of art as will enable the anatomist to draw with correctness and facility his dissected part. It is a well-known fact that we are in this respect a long way behind our French and German neighbours.

Before entering the profession I had acquired in a school of art great facility in the use of pencil, chalks, and stump. I had in addition such a knowledge of plane and solid geometry, and of orthographic and isometric projection, as enabled me to conceive from the plan and known dimensions the appearance of any object in bulk, or of any section of that object. I do not advocate the teaching of all the technical details of these subjects to medical students, but I contend that, as most students have acquired some knowledge of elementary drawing at school, this knowledge might be utilised, and developed by a course of instruction during the first year of anatomical study.

The great point to be gained is not only how to learn anatomy, but how to retain it for practical use as general practitioners. The reason so many of our general practitioners are afraid in a few years to undertake the simplest operation, or to reduce a complicated fracture is that they have forgotten their anatomy. Consequently, patients crowd the out-patient rooms of an infirmary, or place themselves under quack bonesetters or sham oculists for operations which should be done by the general practitioner at his own surgery.

I have found my anatomical drawings of actual dissections, made years ago, invaluable. If I have to tie an artery, operate for talipes, amputate a limb, resect a joint, or operate for hernia, etc., I do not pore over pages of letterpress description of the part, but go at once to my drawings, and by the aid of the mental picture thus revived carry out the operation with confidence and precision. My practical anatomy I cannot forget, the minutiæ I may.

I strongly advise during the first year of study in all medical schools the formation of a class for instruction in anatomical drawing. A competent teacher, a few casts of the human figure, or the parts thereof, some well dissected specimens in spirit, and a few frozen sections would be all that is required. The two hours a week spent in such a class would be a relaxation to the student, as well as a benefit. He would thus acquire one of the best methods of gaining a correct and lasting knowledge of anatomy. Professor Macalister says: "It is not given to every man easily to visualise things and places;" but I am quite convinced, from practical experience of nearly seventeen years, that the method I suggest would enable many of our future students to acquire that power.

Later on in the course of study, I would encourage those who have a knowledge of water-colour painting to apply it to the drawing of pathological specimens of morbid anatomy.
—I am, etc.,

November 1st. J. H. T.

EWALD'S *MAGENKRANKHEITEN*.

Sir,—I am greatly surprised and undoubtedly flattered by Dr. Manges's proposal to abide by my "decision as to the justice of his claims."

In the first place, Dr. Manges entirely disposes of my original complaint by writing me frankly as follows: "I wish to add that when you find fault with the caption 'authorised translation *with special additions by the author*,' you are right so far as the italicised words are concerned. But let me assure you that Professor Ewald, in sending me the added matter, made no mention of having first submitted them to you, or even that they were not specially written for me." This admission contains all that I have ever claimed.

But Dr. Manges appears to think that he had the sole or prior right of translation, and he seeks to support this by sending me a letter from Professor Ewald, dated November 1st, 1889, in which he is accorded permission to translate, provided he can procure a publisher of good standing. This he did not do until December, 1890: and when he wrote to Professor Ewald he found that the New Sydenham Society's translation was already begun. Whether these facts give him any legal right to complain I do not know, but in 1888, or early in 1889, Professor Ewald wrote to ask me to translate his *Magenkrankheiten* and after a good deal of abortive negotiation with publishers, I introduced the book to Mr. Hutchinson as worth translation. Mr. Hutchinson replied that they were unable at the time to consider it, and so the whole matter remained in abeyance until the end of 1890, when final and definite arrangements were made between the Society, Professor Ewald, and myself for the translation and publication of the work. After this was settled, Professor Ewald received Dr. Manges's letter announcing that he had secured an American publisher, to which Professor Ewald replied, informing him of the arrangement concluded with me, and suggesting that under the circumstances it might not be worth while to issue a separate American translation. The result has been already related in sufficient detail, and need not be repeated. From a perusal of the letters sent to me, I do not think that Dr. Manges has any serious ground of complaint against Professor Ewald for entering into definite arrangements with me while the negotiation between them was pending, because a year is a long time to wait, and it was easy for Professor Ewald to believe that the attempt to find an American publisher had failed.

I look upon translation more as a duty than a privilege, and when I can get a good American translation, I am not at all anxious to do it for myself, so that I was very far from wishing to deprive Dr. Manges of an honour of which I should have been glad to leave him the undisputed possession.—I am, etc.,

Birmingham, Nov. 4th. Robert Saundby.

[We are compelled to hold over a considerable number of letters owing to extreme pressure on our space.]

NAVAL AND MILITARY MEDICAL SERVICES.

THE NAVY.

Staff Surgeon Richard Dormer White, M.A., M.D., has been promoted to the rank of Fleet-Surgeon, October 24th. He was appointed Surgeon, April 1st, 1873, and Staff-Surgeon twelve years afterwards.

The following appointments have been made at the Admiralty: Robert Bentham, Staff-Surgeon, to the *Colossus*, undated; Joseph R. M'Donnell, Surgeon, to the *Colossus*, undated; W. G. Oxford, Surgeon, to the *Penelope*, for Ascension Island, November 4th; E. T. Meagher, Surgeon, to the *Defiance*, November 4th; E. F. Mortimer, Surgeon, to the *Cambridge*, November 4th; Inspector-General Duncan Hilston, M.D., to Haslar Hospital, January 2nd, 1894.

ARMY MEDICAL STAFF.

Surgeon-Major C. A. Webb, on return from leave on private affairs, is appointed to the medicalc harge of the Station Hospital at Indore, Bombay Command, *vice* Surgeon-Major A. Peterkin, transferred.

Surgeon-Lieutenant-Colonel H. C. Guinness, retired pay, has been appointed to the medical charge of the troops at Clonmel.

Surgeon-Major G. W. Brazier Creagh, serving in the Bengal Command, has leave of absence for six months, to Persia.

Surgeon-Captain P. M. Carleton, who is serving in the Madras Command, is granted an extension of leave from September 23rd to the date of re-embarkation for duty in India.

Surgeon-Captain R. J. D. Hall, on arrival from England, is directed to do duty in the Secunderabad District, Madras Command.

Surgeon-Captain J. H. E. Austin, who is serving in the Madras Command, has passed the examination in Hindustani by the lower standard.

INDIAN MEDICAL SERVICE.

Brigade-Surgeon-Lieutenant-Colonel W. P. Warburton, Bengal Establishment, is appointed to officiate as Principal Medical Officer, Assam District, during the absence of Surgeon-Colonel C. Costello on leave or until further orders.

The services of Surgeon-Captain J. L. T. Jones, Bombay Establishment, probationer in the Assay Department, Calcutta Mint, are placed at the disposal of the Government of Bengal, from October 4th.

Surgeon-Captain J. Garvie, Bengal Establishment, Medical Officer 2nd Punjab Cavalry, has been granted leave of absence for one year.

Surgeon-Captain C. H. Bedford, Bengal Establishment, assumed charge of the civil medical duties of the Kohat District on September 26th, relieving Surgeon-Captain G. H. Frost.

The undermentioned Surgeon-Lieutenants of the Madras Establishment, on arrival from England, are ordered to do duty in the districts specified, all being in the Madras Command: H. L. Sutherland, Madras District; E. H. Sharman, Madras District; T. Stodart, Belgaum and Bangalore Districts; T. H. Foulkes, Rangoon District.

Surgeon-Lieutenant W. C. Sprague, M.D., Bombay Establishment, is appointed medical officer to the Kathiawar Political Agency, and in charge of West Hospital. Rajkote, in addition to his own duties, during the absence of Surgeon-Lieutenant-Colonel F. C. Barker, M.D.

Surgeon-Captain M. A. T. Collie, M.B., Bombay Establishment, is allowed to return to duty within the period of his leave.

Surgeon-Major J. E. Ferguson, M.B., Bombay Establishment, is permitted to retire from the service from October 23rd. He was appointed Surgeon March 31st, 1875, and became Surgeon-Major twelve years therefrom.

THE VOLUNTEERS.

Surgeon-Lieutenant D. M. Greig, M.B., 1st Forfarshire Artillery, is promoted to be Surgeon-Captain, November 4th.

Surgeon-Captain J. Atkinson, 2nd Cheshire (Railway) Engineers, promoted to be Surgeon-Major, November 4th.

Surgeon-Major S. Smith, 1st Gloucestershire Engineers, is promoted to be Surgeon-Lieutenant-Colonel, November 4th.

Surgeon-Lieutenant T. P. G. Wells, Forth Division, Submarine Miners, Royal Engineers, has resigned his commission, which dated from January 17th, 1891.

Surgeon-Lieutenant R. L. Sparrow, 6th Volunteer Battalion the Manchester Regiment (late the 22nd Lancashire), is promoted to be Surgeon-Captain, November 4th.

NEW HOSPITAL AT SHORNCLIFFE CAMP.

The War Office have decided to build a large hospital to the west of Shorncliffe Camp, to replace the old wooden hospital which has done duty for forty years. They have also decided to build a large church capable of accommodating 2,000 men, for the use of the troops.

MEDICO-LEGAL AND MEDICO-ETHICAL.

PHARMACEUTICAL SOCIETY v. DELVE.

This was an appeal in the Queen's Bench Division on October 31st, 1893, from a judgment for the defendant in the county court of Manchester in an action for penalties under the Pharmacy Act, 15 and 16 Vict., c. 56, s. 12; it raised a point of interest in relation to the sale of poisons—namely, whether a proprietary medicine containing poison in very small quantities is a poison by 31 and 32 Vict., c. 121. The Pharmacy Act, 1868, s. 1, makes it unlawful "for any person to sell or keep open shop for retailing poisons unless such person shall be a pharmaceutical chemist or a chemist and druggist within the meaning of the Act." S. 2 provides that the several articles named and described in the Schedule A shall be deemed to be poisons within the Act, and the Council of the Pharmaceutical Society may, from time to time, by resolutions, declare that any article in such resolution named ought to be deemed a poison. S. 15. "Any person who shall sell or keep a shop for the retailing.....poisons, not being a chemist.....shall for every such offence pay a penalty of £5." The penalty is recoverable in the county court. S. 17 makes it unlawful to sell any poison unless the box, bottle, wrapper, or cover be labelled with the name of the article and the word "poison," with the name and address of the seller. By resolution of December 20th, 1869, "preparations of morphine" are declared to be a poison in the first part of the Schedule A to the Act.

Mr. Finlay, Q.C., and Mr. T. R. Grey appeared for the appellant and plaintiff. The action was brought by the plaintiff for penalties for keeping open the shop for retailing, dispensing, or compounding of poisons—to wit, a preparation of morphine called "licoricine." The defendant keeps a shop at Manchester called a "drug store." He is not a qualified chemist. On November 17th a Mr. Foulds, instructed by the Pharmaceutical Society, went to the shop and asked for a bottle of "licoricine," and bought one. The bottle contained a notice to this effect: "This preparation combines the properties of liquorice root, chlorodyne, etc., and to insure its careful use according to the printed directions, the Pharmacy Act, 1868, requires it to be labelled poison." The contents of the bottle were analysed. Morphine was found in it. The actual quantity was not estimated, but the analyst said there was "more than a trace," and there might have been from $\frac{1}{20}$ of a grain per ounce, and $\frac{1}{5}$ in the bottle. He was not prepared to say whether the taking the whole contents of the bottle would do an adult any harm.

The county court judge gave judgment for the defendant. He did not consider that the evidence as to quantity was sufficient to justify judgment for the plaintiff. In the case of Pharmaceutical Society *v.* Piper (1893, 1 Q.B., 686), decided lately, it was held that a compound containing one or more of the scheduled poisons as one of its ingredients was a poison. In that case, however, there was evidence that there was sufficient morphine in the bottle sold to kill an adult. Mr. Finlay, Q.C., said the object of the Acts was to prevent unqualified persons from dealing with morphine and similar poisons at all. It would be no answer for a seller who disposed of morphine by itself in very small quantities to say it could not possibly be injurious. It was therefore no answer that it was mixed with other drugs, as here; unless, indeed, it could be said to have changed its character. Mr. Justice Wright said there was no evidence as to the quantity. Mr. Finlay said the analyst was not instructed to find out the quantity. This was done purposely to raise the question whether the presence of a poison was enough to secure a conviction. Mr. Bonsey, for the defendant, was not called on, and the court dismissed the appeal. Mr. Justice Charles said he could not on the evidence differ from the county court judge. This was an action for penalties, and it was for the plaintiff to prove his case. The analyst had not been instructed to ascertain the quantity of morphine in the bottle, and he therefore gave no definite evidence as to that. The county court judge thought the offence was not proved. Mr. Justice Wright said it would be an abuse of language to say that this was shown to be a preparation of morphine. Mr. Finlay asked for leave to appeal, but the court refused, there being so little evidence as to the quantity.

THE MEDICAL DEFENCE UNION.

The regular meeting of the Council was held on October 25th. The work done at the last meeting was long and arduous, the time taken to go through the agenda being nearly three hours. It is impossible in a general report to detail the cases dealt with. The Union has for its first consideration the welfare of its members; and, secondly, the interests of the profession at large. Whilst not neglecting the one it is constantly on the watch for an opportunity to aid the other, and several cases discussed at the last meeting proved this conclusively. Cases of covering, questions referring to fees payable for notification, unwarrantable use by club patients of members' names on trading companies' prospectuses, alleged slander on a medical man by a coroner, and many other of like interest required the serious consideration of the Council. The resolution to impose an entrance fee of one guinea was postponed for various reasons for six months. Local secretaries were appointed to district committees, and other business of more private nature concluded the meeting. Seventeen fresh applications for membership were received, sixteen of which were accepted and one deferred.

THE MEDICAL BATTERY CASE.

In the Court of Chancery on Saturday, November 4th, an application was made before Mr. Justice North in the action of Wilkinson *v.* the Medical Battery Company, Limited. This application came before the court upon a motion for judgment, minutes of an order having been agreed.

Mr. Tanner, for the plaintiff, Mrs. Wilkinson, said the action was brought on behalf of herself and all other debenture holders of the company. Under the terms of the debentures the principal moneys became payable upon a meeting being called to consider the advisability of winding up the company's affairs. Such a meeting had been called, and he believed that a resolution to wind up the company voluntarily was passed on Friday last. On that day minutes of an order were agreed, and it was now proposed to take an order in the terms of these minutes. Mr. Henderson appeared for the defendants. Mr. Justice North asked whether the debentures were payable to bearer or to the registered holder. Mr. Tanner said they were payable to the registered holder. Mr. Justice North: Then I think the minutes are in the proper form. An order was accordingly made in the terms of the agreed minutes, which declared the debentures to be a charge on the assets of the company, and involved the taking of the usual accounts and inquiries.

THE "MORAL AND SPIRITUAL" TREATMENT OF INSANITY.

A remarkable case of suicide whilst of unsound mind was the subject of a coroner's inquest at Eastbourne on October 27th. It appears from the evidence that a lady, 48 years of age (and presumably suffering from climacteric insanity), was in June last received into a private house kept by a Mr. Sherrard. She was sent there—or went there, according to her husband's statement—labouring under the delusion that he was not sufficiently fond of her, and she was depressed about the state of Ireland. When the deceased was at her mother's house previously, she had on one occasion got out on to the roof, and when at home she had gone into the sea with her clothes on.

Mr. Cæsar Dudley Sherrard, of Avalon House, who stated that he kept a medical boarding house, said the deceased's brother-in-law came to see him about taking her, because "he thought religion would cure her of selfishness!" In reply to the coroner, Mr. Sherrard said that his treatment was "moral and spiritual," and, as far as he could judge, she was suffering from morbid vanity. The deceased's depression, he said, did not amount to melancholia, although he admitted she went out one night and walked about in the garden the greater part of the night; and Grace Murray, a nurse, said the deceased had stayed out on one occasion from 7 P.M. till 8 A.M., and said she had been on the hills. Deceased thought she was excessively wicked, and there was no possible means of forgiveness for her. Mr. Sherrard further said he had thirty or forty of these people, and if they did not get well in three months they generally went to an asylum.

We should add that the husband stated that on Monday, October 23rd, he had received a letter from Mr. Sherrard, saying "he had better come over at once, as the deceased had made a silly attempt at cutting her throat, but he did not think anything of it, as he was sure God would not allow anything to happen in that establishment!"

The jury returned a verdict of suicide whilst of unsound mind. They further expressed the opinion that the facts disclosed should be brought to the notice of the Commissioners in Lunacy, and that Mr. Sherrard should be censured for neglecting to report the previous attempts at suicide.

Comment on such a case is needless, and we can leave the matter in the hands of the Commissioners in Lunacy, who will doubtless insure in future that lunatics are not to be subjected to the "moral and spiritual" treatment, such as this unfortunate lady experienced at Avalon House, Eastbourne.

LIABILITY FOR PAID UP SHARES.

Court of Appeal, November 7th, 1893.

(Before Lords Justices Lindley, A. L. Smith, and Davey.)

Re Macdonald, Sons, and Co., Limited, *ex parte* Phillips and Others.

The chief official receiver, the liquidator of Macdonald, Sons, and Co., appealed against an order of Mr. Justice Vaughan Williams, of August 7th, removing the name of Phillips and others from the list of contributories. When the business which the company purchased was turned into a limited liability company, the company agreed with the vendor to issue forty founders' shares of £25 each, to be allotted as fully paid up shares to his nominees. The agreement was not registered. The company was incorporated July 15th, 1892, its object being the sale of medicated wines and biscuits. Its existence was not of long duration, for on the following November 9th it was ordered to be wound up. A certificate of one founder's share was sent to each of nine medical men to induce them to recommend to patients and tradesmen the articles for the sale of which the company was established, but the certificates did not state that the share it represented was fully paid up. A letter, however, accompanied each certificate, stating the fact, and that the recipient of the certificate would incur no liability. In each case the recipient acknowledged the receipt without any condition or qualification. Their names were never placed on the shareholders' register. On October 18th, 1892, when a meeting was about to be called for a voluntary winding up, the secretary of the company, from whose office the certificates and letters were issued, asked for a return of the certificates, as the shares had not been regularly allotted. These certificates were returned. The company was shortly afterwards ordered to be wound up, and the official receiver placed each recipient of a certificate on the list of contributories for £25. They appealed to Mr. Justice Vaughan Williams, who ordered their names to be removed; and the official liquidator now appealed to the Lords Justices, when he was represented by Mr. Cozens-Hardy, Q.C., Mr. Israel Davis, and Mr. J. Bacon, and the respondents by Mr. Warrington. The appeal was dismissed with costs. Lord Justice Lindley would say nothing about the morality or immorality of the arrangement to puff the goods of the company by medical men; the court would not invent a con-

tract for the purpose of putting the names of these gentlemen on the list of contributories of the company. They were not members of the company because they were not registered as shareholders. The certificates were represented to them as being fully paid up shares, and were so accepted, involving no liability. There was no ground for putting those gentlemen's names on the list.

PROSECUTION UNDER THE PHARMACY ACT IN GLASGOW.

THE very common infringement of the Pharmacy Act, which has long been carried on in Glasgow, is now being dealt with by the Council of the Pharmaceutical Society, which is the body empowered by the law to take proceedings against unqualified persons keeping open for the retailing and compounding of poisons, or improperly describing themselves as chemists and druggists. The *Glasgow Evening News* of November 2nd states that a number of cases were brought before Sheriff Birnie on Thursday; and, the respondents pleading not guilty, the trial of the cases was adjourned until November 23rd.

ALLEGED ILLEGAL REVACCINATION.

IN the Queen's Bench Division, on November 6th, an appeal in the case of Bramwich *v.* Ferraby from the decision of the county court judge at Birmingham was heard. The case has been several times noticed in the BRITISH MEDICAL JOURNAL (April 22nd, 1893). The boy was revaccinated during a short detention in the workhouse, and the action was against the medical man for damages for assault. The jury found a verdict for the plaintiff, damages £10, but the judge, after consideration, entered judgment for the defendant. The Queen's Bench ordered the case to be retried in order that the facts might be better ascertained.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.

The Parish Councils Bill.—The second reading of the Local Government (England and Wales) Bill, commonly called the Parish Councils Bill, was moved by Mr. FOWLER on November 2nd. Mr. Fowler's speech was calculated to conciliate opposition founded upon details. The Government, he said, fully recognised that the Bill as it stood would require a good deal of amendment from both sides of the House. The vital principles of the Bill were to establish parish councils, efficient and undisturbed; our system of local government must be completed; the objectionable franchise under which guardians were elected must be got rid of, and boards of guardians must be popularised in their administration of the Poor-law. The main part of his speech was devoted to a discussion of the question of the grouping of the parishes, as to which he stated that the Government desired to leave to the decision of the House the point, whether 300 or 200 people, at which the process of grouping would take effect. He also discussed at great length the effect of the Bill on ecclesiastical charities. In the course of his remarks—before turning to the discussion of the part of the Bill which deals with the Poor Law—he said that no fundamental objections had been brought against the Bill in its sanitary and general local government aspects.—Mr. W. H. LONG, who followed, congratulated Mr. Fowler upon the attitude which he had taken up, and his remarks were chiefly directed to financial questions and to a criticism of the Poor-law clauses, which he recommended to be dropped for the present. He criticised the wording of Clause 8 and referred especially to the words which would empower a parish council to utilise any supply of water within the parish. He admitted that it was desirable that parish councils should have power to deal with the water supply, and he thought that the power to take private supplies might give rise to friction.—Mr. HENEAGE commended to the attention of the Government the opinion expressed by Lord Playfair that the appointment of medical officers of health should not be left to district councils, but should be in the hands of the county councils, which should have been made little local government boards. They would thus have insured that sanitary work was being done in an efficient manner. Lord Playfair further proposed that all medical officers of health should be made officers of the county councils. He commended those and other remarks of Lord Playfair to the consideration of the Government, as they precisely expressed his own views on the subject. If the present number of 1,200 medical officers could be reduced to 200 or 250 with increased salaries their efficiency would, he believed, be increased.—The debate was continued by Sir CHARLES DILKE, Sir F. POWELL, Mr. COBB, Mr. JEFFREYS, Sir A. ROLLIT, and others, attention being directed chiefly to financial questions, to the question of grouping, and to the matter of the enfranchisement of women.—Mr. E. STANHOPE said that both parties were practically agreed as to the principles of the measure. Referring to the special case of London, he said that he believed the establishment of the County Council in London was only the commencement of what was required, and that it was absolutely necessary, if the scheme was to be successful in the long run, that they should on an early day approach the question of district councils.—After some further observations by Mr. H. L. LAWSON and Mr. LEIGHTON, the debate was adjourned.—The debate was continued on November 3rd, when speeches were delivered by Mr. GEORGE RUSSELL, Mr. COLLINS, Mr. STANSFELD, Mr. SHAW LEFEVRE, Mr. COURTNEY, and others. Mr. STANSFELD said that many persons appeared to entertain the opinion that the boards of guardians were to be abolished, and that the district councils were to take their places, but his reading of the Bill was that there would be two bodies: first the District Council, and then the Poor-law Union, and the rural district councillors would also be rural guardians. At present the rural guardians were the rural sanitary authorities. Under the Bill the district councillors would become the rural guardians as well. The sanitary functions were to be conferred on the district councils. There were no doubt inconveniences attending the proposed change, but he did not know that better could be done, unless there was to be a complete reorganisation of the Poor-law system of the country.—The debate was continued on November 6th, when Mr. ACLAND discredited the fears that parish councils would indulge in reckless or unwise expenditure, and stated that the Government regarded the Poor-law clauses as a most important portion of the Bill.—Mr. BALFOUR believed that the Bill could be turned into a substantial improvement of our existing system of local administration, but criticised the financial provisions.—Sir WALTER FOSTER, after referring to the question of grouping and of allotments, expressed the opinion that the transfer of the duty of making sanitary regulations from the guardians to the new district councils would be a sanitary reform. Until there was some efficient sanitary authority in the rural districts it was impossible to hope for anything like the improvement in the condition of the people's health which, under the present sanitary laws, there was every right to expect. The present authorities gave, perhaps, half an hour a month to the consideration of the sanitation of a whole district one hundred miles in extent. They employed inspectors of nuisances, whose orders were to do nothing; and they employed medical officers of health at salaries so small that they were meant to do nothing. The Government believed that the new bodies, elected on the new principle by the whole of the ratepayers, would have a useful effect, and that men directly interested in the sanitary condition of the districts would be brought to serve on them.—The debate was resumed on November 7th, and continued from 4 in the afternoon till midnight. It was wound up by Mr. GOSCHEN, who urged the Government to drop those portions of the measure, such as the Poor-law clauses, that lay outside the establishment of parish councils.—After a few remarks from Sir WILLIAM HARCOURT, the Bill was read a second time.

The Bill of which Mr. Mansfield gave notice on November 2nd, and which will be introduced next Tuesday, is intended to enable testators to leave money for the purposes of scientific investigation, or for other purposes which may, under the present law of mortmain, be construed as inimical to the cause of religion. Its reception is in a great measure due to the experience of the late Mr. Charles Bradlaugh in this regard. He had a sum of money left him during his lifetime, but the provisions of this ancient law prevented him from obtaining it. That is why Mr. Mansfield has undertaken to introduce the Bill.

Isolation Hospitals Bill.—During the discussion on the motion of the adjournment of the House, Sir HENRY ROSCOE said he hoped time would be found for passing the Isolation Hospitals Bill, which no one opposed.

Monday, November 6th.

Death from Anthrax.—In reply to Mr. MACDONA, Sir WALTER FOSTER said that the attention of the Local Government Board had been drawn to the report of the inquest on William Powney, a waterside labourer of Bermondsey, who died in Guy's Hospital of anthrax. It appeared that the man was engaged in loading grain. According to the evidence of the house-surgeon at Guy's Hospital, the case was undoubtedly one of anthrax. The Local Government Board had endeavoured to ascertain whether the grain bags were made of skins or other material likely to communicate the disease, but were quite unable to say how the disease had been contracted, nor were they able to say how the disease in this instance had come into the country. Many months of careful and detailed inquiry had been devoted by the medical department of the Board to the question of the prevention of this disease and a number of useful suggestions had been made, but he regretted to say that hitherto no means of prevention had been discovered.—Mr. MACDONA asked whether there had not been a great increase of the disease.—Sir WALTER FOSTER admitted that there had been some increase of the disease, which was usually imported in skins.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

PROPOSED RESEARCH DEGREE.—A memorial has been presented to the Hebdomadal Council in favour of a scheme for providing that in certain cases the ordinary degree of B.A. may be granted to persons who have not passed the qualifying examinations, this privilege to be granted only to students who have carried on research in Oxford, and whose work shall have been tested and approved in a manner to be prescribed. The memorial has been referred to a committee for consideration.

THE TEACHING OF NATURAL SCIENCE.—The demonstrators in the departments of Natural Science have addressed a memorial to the Hebdomadal Council suggesting that the appointment of a demonstrator should be a University Act, and that he should not be liable to summary dismissal, except with the consent of the Visitorial Board. The memorial was referred to a committee.

UNIVERSITY OF CAMBRIDGE.

THIRD M.B. EXAMINATION.—The Special Board for Medicine have presented a report recommending that "mental diseases" shall in future be explicitly specified as a subject of the Final M.B. Examination.

EXAMINER IN CHEMISTRY.—Dr. W. Ramsay, Professor of Chemistry in University College, London, has been appointed an examiner in that subject.

PHILOSOPHICAL SOCIETY.—Alex Hill, M.D., Master of Downing, has been elected Vice-President of the Cambridge Philosophical Society.

SCIENCE FELLOWSHIP.—Mr. E. W. MacBride, Hutchinson Student and Demonstrator of Animal Morphology, has been elected to a Fellowship at St. John's College.

UNIVERSITY OF EDINBURGH.

GRADUATION CEREMONIAL.

A SPECIAL graduation ceremony for those who had passed their examinations at this time, took place in the Examination Hall of the Old University on October 28th. The Vice-Chancellor, Sir William Muir, presided.

The following gentlemen received the degree of B.Sc. in the Department of Public Health:

C. H. Bond, M.B. (*in absentiâ*), J. K. Brown, M.B., W. T. Crawford, M.B., A. Mirza, M.B., and D. D. Tindal, M.B.

The degree of M.B. and C.M. was conferred on the following forty-eight gentlemen:

F. O. Bell, England; W. Carr, England; W. B. Clarke, Barbados; D. M. Conacher, Scotland; A. E. Dent, England; E. P. Dickin, England; R. A. Dove, England; P. G. Edgar, Straits Settlements; C. R. Edmondson, England; W. Forsyth, Scotland; W. H. Gaunt, Australia; H. F. Green, England; F. P. Hearder, Wales; G. Hodges, New Zealand; J. K. D. Ingram, Scotland; O. H. Izard, England; D. S. Johnston, Scotland; C. W. A Jones, Australia; E. Jones, Wales; J. G. Leslie, Scotland; A. H. Lowe, England; D. Macdonald, Scotland; A. G. M'Intyre, Scotland; H. D. N. Mackenzie, England; J. Michael, Armenia; E. A. Mills-Roberts, Wales; T. P. Monteath, B.A., Canada; J. L. I. Moore, England; R. D. O'Neale, Barbados; J. L. Owen, Wales; F. S. Park, England; J. H. Phyn, Scotland; A. F. M. Powell, South America; M. M'G. Rattray, Scotland; H. A. Robertson, Scotland; A. H. Robinson, England; A. A. Ross, Scotland; G. C. Sandford, England (*in absentid*); A. C. Smith, Scotland; R. Stephens, England; R. K. Tandan, India; W. A. Taylor, Scotland; T. J. Thomson, Scotland; J. A. Thorne, West Indies; A. C. Turner, England; R. B. Wallace, England; G. Warnes, England; H. Weighton, Scotland.

ROYAL COLLEGE OF SURGEON OF ENGLAND.

Lecture Arrangements.

The following are the arrangements, so far as they have yet been completed, for the usual courses of lectures at the Royal College of Surgeons next year:—

By the Professors of Surgery and Pathology: Mr. Thomas Pickering Pick; Mr. William Thorburn (The Surgery of the Spinal Cord); Mr. Raymond Johnson (Tumours of the Breast); Mr. Edward Treacher Collins (The Anatomy and Pathology of the Eye).

By the Professors of Comparative Anatomy and Physiology: Mr. Charles Stewart; Dr. Charles Bagge Plowright (The Fungus Kingdom).

By the Arris and Gale Lecturer: Dr. Ernest Henry Starling (The Physiology of Lymph Secretion).

By the Erasmus Wilson Lecturer: Mr. James Henry Targett.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH, ROYAL COLLEGE OF SURGEONS OF EDINBURGH, AND FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

The quarterly examinations in Edinburgh for the Triple Qualification took place in October and November with the following results:

First Examination (Under the Entire Examination System).—Of 34 candidates the following 18 passed:

A. Branson, P. B. Unwin, E. M. Stuart, H. O'Donohoe, Margaret Georgina Todd, W. Bell, G. A. J. Mackay, W. R. Evans, J. H. E. Trout, Rose G. Rajulu, C. Scott-Wilkinson, E. Blair, J. H. Abrahams, O. Hall, A. J. Nevett, H. T. Wright, J. Shand, and G. S. Collett.

Five Years' Course.—Of 8 candidates the following 5 passed:

E. Ryan, T. J. Walsh, R. N. Woodley, G. H. A. Taylor, and A. J. Laurie.

Three candidates entered for the respective divisions and passed.

Second Examination.—Of 76 candidates the following 31 passed:

W. J. Reid, M. Hall, Margaret Georgina Todd, R. W. Devey, S. B. Siddall, J. Ingram, S. O. Hall, R. Wolfendale, W. Bell, C. W. Laver, J. A. Meeke, P. A. Winckler, F. A. Routch, J. B. Stewart, J. M. Murphy, C. G. C. Scudamore, A. P. Chapman, J. H. E. Trout, J. Johnston, R. K. Imeary, A. Duncan, F. Jeeves, S. F. Blakely, W. J. Collins, G. T. H. De Clive-Lowe, G. Bryce, J. O'Sullivan, J. W. Shiels, Annie Gillespie, H. M. M. Mackenzie, and J. Gallie.

Of 24 candidates who entered for the respective divisions 12 passed.

ROYAL COLLEGE OF SURGEONS OF EDINBURGH.

The following candidates, having passed the requisite examination on July 21st, were elected Fellows of the College at a meeting held on October 18th:

W. A. Botts, L.R.C.S.E.; F. W. Ramsay, M.D., L.R.C.S.E.; H. B. Rygate, M.R.C.S.Eng.; T. H. Littlejohn, M.B., C.M.Edin.; C. A. Sturrock, M.B., C.M.Edin.; M. O. Ramsay, L.R.C.S.E.; G. E. Clemons, M.B., C.M.Edin.

Surgeon-Colonel C. McD. Cuffe, C.B., L.R.C.S.E., was elected a Fellow of the College without examination.

The following candidates, having passed the requisite examination, were admitted Licentiates of the College:

T. B. Richardson, A. H. Nichol.

Final Examination.—Of 149 candidates, the following 76 passed and were admitted L.R.C.P.E., L.R.C.S.E., L.F.P.&S.G.:

S. Wilson, C. A. Foyl, P. Twomey, J. R. Whitaker, J. English, J. A. Swainson, W. Daunt, T. D. S. Shaw, K. McElfatrick, A. McAfee, Florence Ulick O'Sullivan, J. J. Gray, L. W. Harvey, W. M. Sheen, C. G. C. Scudamore, F. Isherwood, R. S. H. Fuhr, J. Ewing, Winifred Agneta Westlake, G. W. Brabyn, C. Dolman, H. T. Hollings, W. M. Keal, Sophia Chamney, G. G. Roe, L. Bostock, J. F. W. Ward, Alice Helen Anne Boyle, J. I. Twohig, W. Candlish, F. A. Hadden, T. Mansour, J. Wallace, H. M. Green, A. G. McKenna, A. W. Mason, L. J. F. Doubreu, E. R. Coffey, A. P. Chapman, D. A. Greaves, S. P. Smith, J. J. Fanning, M. McGann, G. Moore, W. H. O. Garde, A. P. Ross, J. H. Collier, J. Pirie, W. Lawson, J. P. Milne, Effield Lucy Greene, H. F. Ealand, W. P. Dunsmore, C. Peddie, J. Waddell, M. Donovan, S. L. Potter, W. Thomas, D. J. Buckley, A. H. Brown, P. F. James, G. H. Lodge, A. F. Hopworth, A. J. Neill, Susan Campbell, J. McM. Sloan, P. D. Fethers, C. E. G. Bateman, P. R. Cairns, H. L. McCulloch, A. Robertson, R. G. Jayetileke, W. Yeates, J. Tait, L. Bowman, P. W. Griffiths.

Of 28 candidates who entered for the respective divisions, 19 passed.

The following candidates, having passed the requisite examinations held in October, received the Diploma in Public Health of the three Corporations:

A. G. Robertson, M.B., C.M.Edin.; D. G. Braidwood, M.B., C.M.Edin.; W. A. Winter, M.B., B.Ch.Dub.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

The winter session of the Royal College of Surgeons in Ireland was commenced on Thursday, November 2nd, when the President, Mr. Hamilton, presented the medals and prizes awarded to the students who had distinguished themselves during the previous session in the schools of surgery. There was a large attendance. Mr. Jacob, Secretary of the Council, read out the list of prize winners. The President, having distributed the prizes, said it was one of the most pleasing duties which devolved on him as President of the College. To give honour to those to whom honour was due was always a gratifying task. The report of the examiners stated that the prizes have been won on very distinguished answering, while the hearty congratulations of the class fellows gave the assurance that they had been won by honest industry, by patient perseverance, and superior intelligence, qualities which must lead to success, and which were all admired and respected. They must all accept the five years' curriculum, and must do their best to make it more of use to the student, and not let it be a mere expense to guardians and parents. In his own mind the great flaw in the system was the preliminary education. Until this was improved they could not hope for advancement. A good education cannot be achieved in a hurry, and that which was requisite for the student in medicine cannot be learned by cram. It required both education and training to make a man fit to enter with success into the medical classes.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns, including London, 6,155 births and 4,005 deaths were registered during the week ending Saturday, November 4th. The annual rate of mortality in these towns, which had been 18.4 and 18.3 per 1,000 in the preceding two weeks, rose again to 20.2 during the week under notice. The rates in the several towns ranged from 9.6 in Croydon, 11.9 in Halifax, 14.6 in Portsmouth and in Bristol, and 15.0 in Leicester, to 24.1 in Salford, 26.0 in Liverpool, 26.5 Preston, 26.6 in Wolverhampton, and 26.7 in Hull. In the thirty-two provincial towns the mean death-rate was 20.0 per 1,000, and was 0.5 below the rate recorded in London, which was 20.5 per 1,000. The 4,005 deaths registered during the week in the thirty-three towns included 458 which were referred to the principal zymotic diseases, against 508 and 447 in the preceding two weeks; of these, 108 resulted from diphtheria, 81 from scarlet fever, 74 from diarrhœa, 70 from "fever" (principally enteric), 61 from whooping-cough, 57 from measles, and 7 from small-pox. These 458 deaths were equal to an annual rate of 2.3 per 1,000; in London the zymotic death-rate was equal to 2.8, while it averaged 1.9 in the thirty-two provincial towns. No fatal case of any of these diseases occurred in Halifax; among the other towns they caused the lowest death-rates in Newcastle-upon-Tyne, Brighton, Croydon, and Nottingham, and the highest rates in Sunderland, Wolverhampton, Gateshead, and Norwich. Measles showed the highest proportional fatality in Wolverhampton, and Norwich; scarlet fever in Plymouth, Liverpool, and Burnley; whooping-cough in Plymouth, Derby, and Gateshead; and "fever" in Norwich, Birkenhead, Hull, Sunderland, and Gateshead. The 108 deaths from diphtheria recorded during the week under notice in the thirty-three towns included 88 in London, 4 in Sheffield, and 3 in Preston. Four fatal cases of small-pox were registered in Birmingham, 1 in London, 1 in Bristol, and 1 in Bradford, but not one in any other of the thirty-three large towns. There were 110 small-pox patients in the Metropolitan Asylums Hospitals and in the Highgate Small-pox Hospital on Saturday last, against 84, 76, and 87 at the end of the preceding three weeks; 30 new cases were admitted during the week, against 17 and 25 in the preceding two weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospitals was 2,906 at the end of the week, against 2,785, 2,758 and 2,778 on the preceding three Saturdays; 460 new cases were admitted during the week, against 304 and 401 in the preceding two weeks. The 369 deaths referred to diseases of the respiratory organs in London were 21 below the average, and were equal to an annual rate of 4.5 per 1,000.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday, November 4th, 836 births and 528 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 18.6 and 18.2 per 1,000 in the preceding two weeks, rose again to 18.7 during the week under notice, but was 1.5 per 1,000 below the mean rate during the same period in thirty-three of the largest English towns. Among these Scotch towns the lowest rates were 17.6 in Leith and 18.1 in Paisley, and the highest 20.7 in Greenock and 24.0 in Perth. The 528 deaths in these towns included 52 which were referred to the principal zymotic diseases, equal to an annual rate of 1.9 per 1,000, which was 0.4 below the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Paisley and Greenock. The 240 deaths registered in Glasgow included 6 from diphtheria, 6 from whooping-cough, and 3 from scarlet fever. Two fatal cases of diphtheria occurred in Leith. The death-rate from diseases of the respiratory organs in these towns was equal to 3.7 per 1,000, against 4.5 in London.

HEALTH OF IRISH TOWNS.

In sixteen of the principal town districts of Ireland the deaths registered during the week ending Saturday, October 28th, were equal to an annual rate of 20.4 per 1,000. The lowest rates were recorded in Sligo and Drogheda, and the highest rates in Galway and Wexford. The death-rate from the principal zymotic diseases averaged 2.4 per 1,000. The 138 deaths registered in Dublin were equal to an annual rate of 20.6 per 1,000

(against 24.5 in each of the preceding two weeks), the rate during the same period being 18.0 in London and 14.4 in Edinburgh. The 138 deaths in Dublin included 17 which were referred to the principal zymotic diseases, equal to an annual rate of 2.5 per 1,000; of these 17 deaths, 8 resulted from enteric fever, 4 from diarrhœa, 2 from measles, 2 from whooping-cough, and 1 from diphtheria.

ENTERIC FEVER AT BAGILLT.

ENTERIC fever has for some time past been epidemic in Bagillt, in the Holywell rural sanitary district, and after spending £170 in attempting isolation at the homes of the patients the authority have decided to ask the medical officer of health whether he considers it desirable to employ nurses and establish a temporary hospital. An affirmative answer may reasonably be anticipated under the circumstances, but the question comes rather late in the day. The need for hospital isolation must surely have arisen more than once during the twenty years that have elapsed since power was given to make such provision. Probably it would still have remained in abeyance had not the moral pressure brought about by the prevalence of typhoid been reinforced by the appearance of scarlet fever. And after all many districts are even worse off than Holywell in this respect, for there at least the question has reached the stage of being talked about in earnest and with intention to make the only possible amends for past delay by prompt action now. Such at least is the impression conveyed by the account of the situation given in the *North Wales Chronicle*.

OVERCROWDING OF HOSPITAL WARDS.

IN a report by Dr. Spottiswoode Cameron, on the accommodation required for infectious diseases at Leeds, some interesting points are brought out in regard to the influence of overcrowding of hospital wards on the progress of the cases and on the health of the officials. In the year 1890 there were 50 cases of typhoid fever at a time in wards adapted for not more than 32. Out of these only 24 recovered without relapse, 17 recovering after 1 relapse, 3 after 2, and 6 dying; whereas, during another period, when there were only 23 patients in the same space, 22 recovered without relapse, 1 after 1 relapse, and there were no deaths. Or putting it another way, when there was a floor space of 93 square feet per patient, 88 per cent. of them recovered, 12 per cent. died, 42 per cent. relapsed, and the average stay in hospital was 51 days; but when the floor space was 200 feet per patient, cent. per cent. recovered, only 4 per cent. relapsed, and the average stay in hospital was 40 days. The overcrowding also had a very serious effect upon the staff, 9 having caught scarlet fever, 11 typhus, and 10 enteric fever between 1886 and 1892, besides cases of measles, erysipelas, diphtheria, quinsey, etc. All this points to a serious deterioration of the health conditions of the hospital when worked at such high pressure, and that the pressure was at times absurdly high is shown by the fact that, into wards in which there is floor space for 64 patients, 100, and sometimes even 150, patients, were admitted.

Sometime, perhaps, when fans are noiseless and electric motive power is cheap, we may be able to ventilate in a very different way to what we do at present, and then a smaller air space may possibly be found sufficient; but with the means we now have at our disposal, all experience, of which this at Leeds is a very good example, goes to show that a large cubic space, and especially a large floor area, are absolutely necessary for the safe treatment of cases of infectious disease.

LIABILITY FOR SPREADING INFECTION.

THE Public Health Acts, as is well known, contain a series of provisions for preventing the spread of infectious diseases, and for imposing penalties on persons who are guilty of conduct which is likely to cause such diseases to be communicated to those who are well. On the one hand the sufferer and those in charge of him are liable for wilfully exposing him in any public conveyance or place without proper precautions against spreading the disorder, and, on the other hand, the owner or driver of a public conveyance, and the keeper of any lodgings or inn in which an infectious person has been, is bound to have his conveyance or rooms disinfected, and is liable to a penalty if he again lets them before he has had them disinfected. The Acts do not expressly prohibit the sufferer, or those in charge of him, from taking lodgings while he is in an infectious condition, and frequently his removal from his own residence may be the best course to adopt for facilitating his cure and protecting his family from the risk of infection. The removal must, however, be conducted in such a way as to avoid the risk of communicating the infection to the public. If this is done, and the owner of the lodgings to which the patient is removed is willing to receive him, no harm is done to the public, and the law is not broken. In most cases, however, those who let lodgings have a very natural objection to taking in infectious cases, and if they do accept such lodgers will only do so on the terms of receiving such payment as will remunerate them for all the expense and risk they may incur. The would-be lodgers as naturally wish to avoid making these extra payments, and not infrequently persons recovering from some infectious disease do go to the seaside, and take lodgings there without saying anything about the fact that there is a risk of infection from their presence. Persons who do so are guilty of a great moral offence, and are also civilly liable to the lodging-house keeper, and it may be also to others, for any damages which can be proved to result from their conduct. Such persons are usually also guilty of the offence of wilfully exposing themselves, or those under their charge, in public places or conveyances without proper precautions against spreading the infection, and for that offence they sometimes, but far too rarely, are made amenable.

The proceedings in a case reported shortly in the *Daily Chronicle* of October 30th, where the Canterbury magistrates are reported to have fined a lady for taking a child suffering from scarlet fever to lodgings at Herne Bay, probably were really taken under this provision. Local reporters, who send sensational paragraphs to newspapers, are frequently inaccurate in their descriptions, and the report in question must probably be read as suggested. If the proceedings were not for exposure in public, it would be interesting to know under what enactment they were instituted. It would also be interesting to know whether the housemaid at the lodging house, who is reported to have caught the disease, has been compensated by the defendant, or whether she has commenced an action for damages. If the latter, the report of the case when tried should be looked for.

LONDON BAKEHOUSES.

AT the recent annual meeting of the Master Bakers' Protection Society, the President stated that during the year the bakehouses had been inspected frequently both by the factory inspectors and the sanitary officers. The inspection of bakehouses by the sanitary authorities had vindicated the character of the baker, who claimed to have as genuine a desire to conform to cleanliness as any other tradesman. In a few cases only had there been public prosecutions, from which bakers were entitled to claim that the condition of the bakehouses was satisfactory to the authorities. Among a community numbering 4,000 absolute uniformity was impossible, and to condemn the whole trade because it contained a few careless men was unreasonable. Not one of the members of the Society had transgressed the provisions of the Public Health Act, and he believed that the agitation against the baking trade was founded on insufficient grounds. Much allowance has to be made for the chairman or president of a trade society. On such an occasion he necessarily holds a brief for the members. Nevertheless, we feel compelled to protest against the assumption that the sanitary condition of any premises is to be measured by the institution or otherwise of legal proceedings. A prosecution is the last resort of a sanitary authority. A summons is applied for only when a statutory notice has not been complied with. If the 4,000 master bakers have each had their premises visited by the sanitary officers, and in no single instance received a notice to amend, then indeed the Society is to be congratulated, and its membership ought to have a commercial value, for the public would naturally prefer purchasing bread from such cleanly and eminently respectable bakers. So far as we know, there has not been any agitation against the baking trade, nor imputation made against bakers generally, but the fact remains that a considerable number of the London bakehouses are not suitable places for the manufacture of bread. A few swarm with cockroaches, are overrun with rats, are damp, ill-ventilated, dark, and generally unwholesome; and the great proportion are below the street, and are liable to be contaminated with the dust thereof. It is also susceptible of proof that such conditions as these shorten the life of those who have to work at night and in the small hours of the morning in such places. These facts stated generally can be proved in detail. The remedies which have been proposed are the registration or annual licensing of bakehouses, and especially the construction of all new bakehouses above instead of below ground, and, if practicable, the carrying on of the actual process of baking in more reasonable working hours.

THE Westminster Hospital annual students' dinner will take place at the Criterion on November 16th, at 7.30 P.M. Dr. Bourns will preside.

MR. WALTER AMEY, omnibus proprietor, of Bow, was summoned on November 3rd for having caused a diseased horse to be driven along the highway contrary to the Glanders and Farcy Order of 1892, and for failure to give notice. Mr. Hannay imposed fines and costs amounting to £40 4s.

ERYSIPELAS ON THE INCREASE.—Public attention has lately been so engrossed by the epidemics of scarlet fever and diphtheria which have this year spread themselves over London that not much notice has been taken of those maladies which are grouped together in the returns as "other diseases." It is worth while, however, to bear in mind that during the past six months there has been a steady and lately a large increase in the number of cases of erysipelas which have been notified. In the week ending May 20th 174 notifications were received, in that ending September 2nd, 214, and in that ending October 28th, 321. A considerable portion of this rise is doubtless due to the seasonal curve natural to the disease, the last week in November, according to the average for the past 30 years in London, showing the highest mortality of any from erysipelas. An increase from 174 to 321 per week is, however, considerably beyond the normal and is worth bearing in mind by those who have to do with wounds and abrasions. By modern methods serious surgery is to a large extent independent of erysipelas, but in the minor surgery of the casualty departments and in the sort of work done by general practitioners in their consulting rooms this is not the case; patients go home and expose themselves to all sorts of risks, and any wide dissemination of erysipelas poison is apt to be a potent cause of surgical failure. We give the warning, therefore, so that at the present time special and extra precautions may be taken to secure complete asepsis of all, even the most trivial, wounds.

MEDICAL NEWS.

We understand that the Government of India have sanctioned an expenditure of 10,000 rupees for the extension and equipment of the bacteriological laboratory at Agra, under the direction of Mr. E. H. Hankin.

Mr. W. Bratt, public vaccinator for the Shipston-on-Stour District of the Shipston-on-Stour Union, has for the tenth time received the Government grant for efficient vaccination in his district.

Disinfection of Spittoons.—The directors of the Assistance Publique have had an apparatus for the sterilisation of spittoons used by tuberculous patients placed in the Hôpital Bichat. The cleansing agent is boiling water previously made slightly alkaline.

The Secretary of the Hospital Saturday Fund (Mr. W. G. Bunn) reported that during the last month a sum of £3.318 4s. 8d. was received from the various industrial establishments of the metropolis, making a total collection to date of £14,563.

The remains of Lady Rachel Northcote, who was cremated at Woking on Tuesday, October 31st, were placed in a miniature coffin by the side of the late Earl of Iddesleigh, her grandfather, at Upton Pyne recently. Sir Stafford Northcote, her uncle, and her brother, Lord St. Cyres, were the chief mourners.

Spurious Drugs.—At the evening meeting of the Pharmaceutical Society, held on Wednesday, a paper was read by Mr. H. G. Greenish, the recently-appointed Professor of Materia Medica to that institution, on the subject of spurious drugs imported into the London market. It appears that parcels of drugs purporting to be senna, ipecacuanha, jaborandi, etc., are not infrequently offered for sale under the respective names, although obviously spurious. It is also an important fact that these spurious drugs not infrequently meet with purchasers. In the interests of medicine as well as pharmacy it is therefore desirable that such instances should be made known for the purpose of preventing the introduction of spurious or inferior drugs into use. Ipecacuanha has recently been of very variably quality, and in some instances the article offered for sale has not been the produce of the plant officially recognised as the source of that drug. This is a subject which should receive notice by the Committee on Spurious Drugs which was appointed some years ago by the Pharmaceutical Society, but has since been heard of very little if at all.

Medico-Psychological Association of Great Britain and Ireland.—The next meeting of this Association will be held at the rooms of the Medical Society on Thursday, November 16th, 1893, at 10 A.M., under the presidency of James Murray Lindsay, M.D., to further consider the report of the Rules Committee. The resolution carried at the annual meeting was as follows: "That the thanks of the Association be given to the Rules Committee for the work they have done, and that their report, in view of its special importance, be remitted for consideration and fuller discussion at an adjourned meeting on November 16th, 1893, at 10 A.M." The Council meeting will be at 2.30 P.M. At 4.30 Dr. Campbell will again move his resolution, which was deferred at the annual meeting to the next quarterly meeting. The resolution is as follows: "That the Medico-Psychological Association of Great Britain and Ireland are unanimously of opinion that the grant of 4s. a week at present given to boards of guardians to pay for pauper lunatics in county asylums, registered hospitals, and licensed houses should also be given for pauper lunatics (that is "dements" and "imbeciles") in workhouse wards, or boarded out, if kept to the satisfaction of the Commissioners in Lunacy. This has been done in Scotland since 1874. That this resolution be sent by the General Secretary to the President of the Local Government Board and to the Commissioners in Lunacy asking them to assist in carrying the terms of the resolution into effect." The adjourned discussion will take place on Dr. Beadles's paper on the Treatment of Myxœdema and Cretinism, being a Review of the Treatment of these Diseases with the Thyroid Gland, with a Table of 100 published Cases. Dr. Weatherly will read a paper on Our Trials and Troubles. Dr. Menzies will open a discussion upon the Future Supply and Status of Asylum Nurses and Attendants. The members will dine in the evening at the Café Royal at 6.30 P.M. The next examination for the certificate of the Association will take place at Bethlem Hospital in December. Candidates for the bronze medal and prize of 10 guineas must send in their essays to the President before May 30th, 1894. Particulars of the examination for the certificate and of the essay can be obtained of the General Secretary, Dr. Fletcher Beach, 11, Chandos Street, Cavendish Square, W.

MEDICAL VACANCIES.

The following vacancies are announced:

BALLYSHANNON UNION (KINLOUGH DISPENSARY).—Medical Officer. Salary, £100 per annum, with £20 yearly as Medical Officer of Health, together with registration and vaccination fees. Applications to Mr. James McGurran, Honorary Secretary. Election on November 23rd.

CHELTENHAM GENERAL HOSPITAL.—Resident Surgeon for the Branch Dispensary, unmarried, or if married, without family. Salary, £180 per annum, with partly-furnished house, coal, and gas. Applications to the Honorary Secretary and Treasurer by November 25th.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark, S.E.—Senior Resident Medical Officer. Salary, £70 per annum, with board, washing, and attendance. Applications to the Committee of Management by November 18th.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Assistant House-Surgeon, non-resident. Appointment for six months. Salary, £20. Assistant Physician; must be F. or M.R.C.P.Lond. Applications to the Secretary, by November 28th.

HOSPITAL FOR WOMEN, Soho Square, W.—Assistant Physician. Applications to the Secretary by November 14th.

HOSPITAL OF ST. PETER PORT, Guernsey.—Surgeon. Salary, £50. Applications to the President of the Poor-law Board by November 30th.

KENT AND CANTERBURY HOSPITAL.—Assistant House-Surgeon; unmarried. Salary, £50 per annum, with board and lodging. Applications to the Secretary by November 30th.

LIVERPOOL DISPENSARIES.—Assistant Surgeon; unmarried. Salary, £80 per annum, with apartments, board, and attendance. Applications to R. R. Greene, Secretary, Leith Offices, 34, Moorfields, Liverpool, by November 25th.

LONDON THROAT HOSPITAL, 204, Great Portland Street, W.—Junior Assistant-Surgeon. Applications to Edward Law, M.D., Honorary Secretary, Medical Committee, by November 14th.

MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE THROAT.—Assistant Medical Officer; doubly qualified. Honorarium, £25 per annum. Applications to C. W. Hunt, Secretary, by November 21st.

MIDDLESEX HOSPITAL, W.—Aural Surgeon; must be F.R.C.S.Eng. Applications to F. Clare Melhado, Secretary-Superintendent, by November 23rd.

NATIONAL SANATORIUM FOR CONSUMPTION AND DISEASES OF THE CHEST, Bournemouth.—Resident Medical Officer and Secretary. Salary £120 per annum, with board and lodging. Applications to the "Chairman of Committee" by December 5th.

NEW HOSPITAL FOR WOMEN, 144, Euston Road.—Female Resident Medical Officer, and two Female Clinical Assistants for Out-patient Department. Applications to Margaret M. Bagster, Secretary, by November 30th.

OLDHAM INFIRMARY.—House-Surgeon; doubly qualified. Salary, £50 per annum, with board and lodging. Applications to the Secretary by November 14th.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—Two Resident Medical Officers (House-Physicians); doubly qualified. Appointment for six months, but the holder will be eligible for re-election. No salary. Board, residence, and washing provided. Applications to the Secretary by November 27th.

ROYAL NATIONAL HOSPITAL FOR CONSUMPTION, Ventnor.—Assistant Resident Medical Officer, unmarried. Salary, £70 per annum, with board and lodging in the hospital. Applications to be addressed to the Board of Management at the London Office, 34, Craven Street, Charing Cross, W.C.

SALFORD UNION INFIRMARY.—Assistant Medical Officer; doubly qualified. Salary, £130 per annum, with furnished apartments. Applications, endorsed "Assistant Medical Officer," to T. H. Bagshaw, Clerk to the Guardians, Union Offices, Eccles New Road, Salford, by November 14th.

STAFFORDSHIRE GENERAL INFIRMARY.—House-Surgeon; doubly qualified. Salary, £100 per annum, with board, lodging, and washing. Applications to the Secretary of the Infirmary, Lloyd's Bank, Limited, Stafford, by November 18th.

SUNDERLAND INFIRMARY.—House-Physician; doubly qualified. Salary, £80 per annum, rising £10 annually to £100, with board and residence. Applications to the Chairman of the Medical Board by December 4th.

SURREY DISPENSARY, Great Dover Street, S.E.—House-Surgeon; doubly qualified, unmarried, and over 30 years of age. Salary, £120 per annum, with furnished apartments, coals, gas, and attendance. Candidates must attend before the Monthly Committee on Tuesday, November 14th, at 6 P.M.

TORBAY HOSPITAL AND PROVIDENT DISPENSARY, Torquay.—Junior House-Surgeon and Dispenser; doubly qualified, unmarried. Board, lodging, and attendance provided. Salary, £80 per annum. Applications to the Honorary Secretary, Captain Phillpotts, R.N., by November 13th.

UNIVERSITY COLLEGE, London.—Surgical Registrar. Applications to J. M. Horsburgh, M.A., Secretary, by November 16th.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton.—Resident Assistant. Appointment for six months. Board, lodging, and washing provided. Applications, inscribed "Application for Resident Assistant," to the Chairman of the Medical Committee by November 30th.

MEDICAL APPOINTMENTS.

ANDERSON, Mr. W. J., appointed Medical Officer for the Fillingley District of the Meriden Union.

BACQUE, W. J., L.R.C.P.Lond., M.R.C.S.Eng., appointed Assistant House-Surgeon to the Bristol General Hospital, *vice* A. E. Milner, L.R.C.P. Lond., M.R.C.S.Eng., resigned.

BINNIE, Robert M. G., M.D.Glasg., appointed Medical Officer of the Western District of the Durham Union.

BLUNDEN, J. O., L.R.C.S.I., L.A.H.Dub., appointed Medical Officer for the Western District and the Workhouse of the Wirrall Union.

BRASHER, C. W. J., L.R.C.P.Lond., M.R.C.S.Eng., appointed Assistant House-Physician to the Bristol General Hospital, *vice* D. C. Rayner, L.R.C.P.Lond., M.R.C.S.Eng., resigned.

BRYETT, W. R., B.A.Lond., M.R.C.S., L.R.C.P., appointed Assistant House-Physician to King's College Hospital.

CURRAN, Surgeon-Lieutenant-Colonel Adye, appointed Assistant Physician to St. Vincent's Hospital, Dublin.

EMMERSON, Wm. Lindsay, M.R.C.S.Eng., appointed Medical Officer for the Newfoundland District of the Leicester Provident Dispensary.

EVANS, Mr. E. R., appointed Medical Officer for the Llandyssil District of the Newcastle Emlyn Union.

FRASER, J. Leslie, L.D.S.R.C.S.Edin., appointed Dental Surgeon to the Northern Infirmary, Inverness.

GARDINER, Dr., appointed Medical Officer for the Humberstone Road District of the Leicester General Dispensary.

GORDON, J. F., M.D.R.U.I., appointed Medical Officer for the Maghull District of the Ormskirk Union, *vice* J. H. Taylor, M.R.C.S.Eng., resigned.

GROSS, C. F., L.S.A., appointed Assistant House-Accoucheur to King's College Hospital.

HOGG, Mr. A., appointed Assistant Medical Officer to the Birmingham Parish Infirmary.

HORAN, J. A., M.B., B.Ch.Dub., appointed Honorary Physician to the St. John's Hospital, Limerick.

HOWDEN, Robert, M.B., C.M., F.R.S.Edin., appointed Professor of Anatomy in the University of Durham.

HUNTER, William, M.D.Edin., M.R.C.P.Lond., appointed Assistant Physician to the West London Hospital.

INNES, Edward, M.B., C.M.Edin.Univ., appointed Medical Officer to the Nayar Brigade, Travancore, India.

JACKSON, E. S., M.B., C.M.Edin., reappointed Medical Officer for the Fourth District of the Lunesdale Union.

JACOB, Henry Wm., M.A., M.D.Dub., appointed Honorary Physician to the Taunton and Somerset Hospital, *vice* John Currie, M.D.Glasg., deceased.

KENDALL, N. F., M.R.C.S.Eng., L.R.C.P.Lond., appointed Senior Resident Medical Officer to the North West London Hospital, Kentish Town Road, N.W., *vice* J. Atkinson, M.B., C.M.Edin., resigned.

LOUGHTON, G. H., M.R.C.S., L.R.C.P., appointed House-Accoucheur to King's College Hospital.

MINTON, Mr. A. H., appointed Medical Officer for the South District of the Stratton Union, *vice* F. May, resigned.

NALLY, J. E., L.R.C.P., L.R.C.S.I., appointed Medical Officer for the Balla Dispensary District.

NESBITT, Robert Garven, L.R.C.P., L.R.C.S.I., appointed Medical Officer for the Second District of the Penzance Union.

PERRY, G. M., M.R.C.S., L.R.C.P., appointed House-Surgeon to King's College Hospital.

RENDLE, C. E. Russell, B.A.Oxon., M.R.C.S., L.R.C.P., appointed Assistant Surgeon to the South Devon and East Cornwall Hospital, Plymouth, *vice* R. H. Hughes, M.D.Cantab., resigned.

RODEN, Mr., appointed Medical Officer for the Keadue Dispensary District.

SARJEANT, J. F., M.R.C.S.Eng., L.R.C.P.Lond., appointed Junior Resident Medical Officer to the North West London Hospital, Kentish Town Road, N.W.

TATHAM, John F. W., M.A., M.D.Dub., F.R.C.P.Edin., D.P.H.Camb., appointed Superintendent of the Statistical Department of the Registrar-General's Office, Somerset House.

THOMSON, W. Ernest F., M.A.Glasg., M.D.Edin., appointed Surgeon to the Eye Department of the Public Dispensary, Glasgow.

TODD, John, M.R.C.S.Eng., reappointed Medical Officer for the Second District of the Lunesdale Union.

TURNER, William, M.R.C.S., L.R.C.P., L.S.A., appointed House-Physician to King's College Hospital.

WACE, C., M.R.C.S., L.R.C.P., appointed House-Surgeon to King's College Hospital.

WARNER, T., M.R.C.S., L.R.C.P., appointed House-Surgeon to King's College Hospital.

WATERS, Ernest E., M.B.Edin., appointed House-Surgeon to the Sheffield Union Infirmary, Sheffield.

WEEKES, Reginald, M.R.C.S., L.R.C.P., appointed Assistant House-Surgeon to the South Devon and East Cornwall Hospital, Plymouth.

WILSON, J. C., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Haworth District of the Keighley Union, *vice* J. F. Arlidge, L.R.C.P., L.R.C.S.Edin.

WYLLIE, William, M.D.Glasg., reappointed Medical Officer for the Third District of the Lunesdale Union.

DIARY FOR NEXT WEEK.

MONDAY.

LONDON POST-GRADUATE COURSE, Royal London Ophthalmic Hospital 1 P.M.—Mr. R. Marcus Gunn: Cataract.

MEDICAL SOCIETY OF LONDON, 8.30 P.M.—Mr. Edmund Owen: A Case of Axial Rotation of the Testes, with Strangulation.—Mr. Bland Sutton: Nephrectomy for Hydronephrosis.

TUESDAY.

LONDON POST-GRADUATE COURSE, Bethlem Hospital, 2 P.M.—Dr. Hyslop: Insanity with Syphilis; Insanity with Organic Brain Disease. Hospital for Diseases of the Skin, Blackfriars, 4 P.M.—Dr. Payne: Acne.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8.30 P.M.—Mr. C. R. B. Keetley: Operations without Anæsthesia.—Dr. Dawson Williams: A Case of False Disseminated Sclerosis due to Measles, with remarks on the Occurrence of Certain Widespead Nervous Disorders after this and other Infectious Diseases.

METROPOLITAN COUNTIES BRANCH, 11, Chandos Street, W., 4 P.M.

WEDNESDAY.

LONDON POST-GRADUATE COURSE, Hospital for Consumption, Brompton, 4 P.M.—Dr. Habershon: Varieties of Cardiac Disease. Royal London Ophthalmic Hospital, 8 P.M.—Mr. A. Stanford Morton: Ocular Paralyses.

EPIDEMIOLOGICAL SOCIETY OF LONDON, 8 P.M.—The President: Inaugural Address on the History of Epidemiology in England.

ROYAL METEOROLOGICAL SOCIETY, 25, Great George Street, Westminster, 8 P.M.

ROYAL MICROSCOPICAL SOCIETY, 20, Hanover Square, 8 P.M.—Mr. T. F. Smith: On the Value of Aperture in Microscopical Research (with lantern).—Papers by Mr. W. W. West and Mr. G. Sandeman.

THURSDAY.

LONDON POST-GRADUATE COURSE, National Hospital for the Paralysed and Epileptic, Queen Square, 2 P.M.—Dr. Tooth: Cranial Nerve Diseases. Hospital for Sick Children, Great Ormond Street, 3.30 P.M.—Mr. Leopold Hudson: Tuberculous Disease of the Cervical Lymphatic Glands in Children. Central London Sick Asylum, Cleveland Street, 5.30 P.M.—Mr. Reginald Harrison: Cases in the Wards. London Throat Hospital, Great Portland Street, W., 8 P.M.—Dr. Edward Woakes: Tinnitus and Vertigo.

SANITARY INSTITUTE, PARKES MUSEUM, 74A, Margaret Street, W., 8 P.M.—Dr. J. T. Arlidge: Mineral (Non-Metallic) Dusts in the Manufacture of Pottery, etc.

HARVEIAN SOCIETY, 8.30 P.M.—Mr. Victor Horsley and Dr. S. P. Kramer: The Cause of Death from Gunshot Wounds of the Cerebral Hemisphere.

FRIDAY.

LONDON POST-GRADUATE COURSE, Hospital for Consumption, Brompton, 4 P.M.—Dr. Habershon: Varieties of Cardiac Disease.

SATURDAY.

LONDON POST-GRADUATE COURSE, Bethlem Hospital, 11 A.M.—Dr. Corner: Insanity with Cardiac Disease, Phthisis, Gout, Diabetes, etc.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTHS.

BURNET.—On November 6th, at 6, Upper Wimpole Street, W., the wife of R. W. Burnet, M.D., of a daughter.

THOMSON.—On Thursday, October 26th, at Bridge House, Retford, Notts., the wife of George Thomson, M.B., C.M.Edin., of a daughter.

DEATHS.

FOSS.—On November 2nd, at 22, High Street, Stockton-on-Tees, Robert William Foss, M.D., M.B. and C.M., L.S.A.London, Senior Hon. Medical Officer, Stockton Hospital, aged 45.

MARRIOTT.—On November 4th, at Guy's Hospital, of diphtheria, Edgar Buchanan Marriott, B.A., of Clare College, Cambridge, younger son of R. B. Marriott, surgeon, Swaffham, Norfolk, aged 21 years.

ROGERS.—November 3rd, of diphtheria, at Salford House, Tonbridge, Francis Ingram Rogers, L.R.C.P.I., L.R.C.S.I., aged 28 years.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY, TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

DIET FOR RHEUMATIC PATIENTS.

RHEUMATIC asks: What is the best diet to continue after rheumatic fever, with a view of preventing future attacks? Is cider likely to have any effect, or what drink is most suitable?

D.P.H. OF SCOTTISH CONJOINT BOARD.

IOTA would be glad to know the best books to read for the diploma of Public Health of the Conjoint Board in Scotland.

*** The following list of books may be of use to candidates, but the selection of them is left to their own discretion: Physics: *Textbook of the Principles of Physics*, by Alfred Daniell; *Textbook of Physics*, by J. W. Everett. Meteorology: *Handbook of Meteorology*, by Alex. Buchan, LL.D.; *Elementary Meteorology*, by Robert A. Scott. Laboratory Work: Kenwood's *Public Health Laboratory Work*; *Analysis of Air, Water, Bread, Milk, and Tea*, by J. Alfred Wanklyn, M.R.C.S.; *Chemistry of Foods*, Parts I and II, by James Bell, Ph.D.; *Bacteria and their Products*, by G. Sims Woodhead, M.D. Manuals of Public Health: *Manual of Practical Hygiene*, by Edmund A. Parkes, M.D.; *Hygiene and Public Health*, by Louis C. Parkes, M.D.; *Handbook of Public Health*, by A. Wynter Blyth; *The Construction of Healthy Dwellings*, etc., by Douglas Galton. Sanitary Law: Skelton's *Public Health and Local Government Acts*: Fitzgerald's *Epitome of the Laws affecting Health*: Redgrave's *Factory Acts*. Vital Statistics: Farr; Arthur Newsholme. Sanitary Engineering: Bailey Denton; and Baldwin Latham, C.E.; a series of some thirty Acts of Parliament on sanitary law and administration.

ANSWERS.

LANCS.—The history and pathology of leprosy are fully discussed in the work recently published by Dr. Thin (Percival and Co.).

SALPINGITIS.—Our correspondent should consult a respectable medical agent.

ENQUIRER.—Yes.

SYDNEY.—The very full letter which our correspondent has published in a local paper appears to render it unnecessary for us to comment on the case.

MEMO.—The composition of the alleged remedy being undisclosed we can give no opinion on it. The array of alleged "cures" is no more remarkable than is usually similarly adduced in support of the profusion of quack medicines which so many persons delight to pay for and consume.

M.O.H.—*Methods on Gas Analysis*, by Dr. Walther Hempel, translated from the German by L. M. Dennis, and published by Macmillan and Co., will be found a useful guide to the subject. Instruction can be obtained at the State Medicine Laboratory, King's College. The fee is four guineas a month. Apply to Professor William R. Smith.

DR. D. writes: A man in this neighbourhood, who has only one qualification, "L.S.A.," has put on his doorplate and labels "Dr. M., Physician and Surgeon." Can he legally do so?

*** From recent legal decisions it would seem that, strictly speaking, only those who possess the degree of "M.D." are entitled to use the title of "Dr.," and only Fellows of the Royal College of Physicians to use the title "Physician." It is not an infrequent occurrence for medical men not entitled to the degree of "M.D." to prefix "Dr." to their names on doorplate or card, as being the popular appellation of the medical man; also for a medical man entitled to practise medicine and surgery to style himself "Physician and Surgeon." We assume the "L.S.A." referred to received his diploma since June 30th, 1887. Proceedings might be taken, but we cannot say with what measure of success. The "wilful and false" assumption has to be proved. The question of medical titles is a vexed one, and has been much discussed in our columns, but it must be remembered that the diploma of "L.S.A." obtained since the date mentioned above is registrable as a qualification in medicine, surgery, and midwifery.

INSECT POWDERS.

J. M.—Insect powders generally consist of the flowers of *Pyrethrum cinerariæfolium* (Dalmatian) or of *Pyrethrum roseum* and *Pyrethrum carneum* (Persian).

REGISTRABLE QUALIFICATIONS.

A MEMBER.—All qualifications to be now registered under the Act of 1886 must be obtained at "an" examination, that is, at the same examination; no one can be now registered on qualifications obtained subsequently to 1877 from disconnected bodies, such as (1) L.M. Durham M.R.C.S. Eng., and (2) L.R.C.P. Edin. and M.R.C.S. Eng.

GLYCERINE OF PEPSIN.

J. M. S.—Acid glycerine of pepsin is prepared by dissolving the digestive ferment of the pig's stomach in a mixture of glycerine and water acidulated with hydrochloric acid. A formula is given in Cooley's *Cyclopædia*, vol. ii, p. 1252. The value of the preparation depends entirely upon the judgment exercised by the operator in separating the ferment from the stomach and the skill with which that is done.

NOCTURNAL INCONTINENCE OF URINE.

DR. H. OLIPHANT NICHOLSON (Kirkcaldy, N.B.) writes in reply to W. L. C.: In nocturnal enuresis something is generally causing reflex irritation of the detrusor urinæ, and the seat of origin must be sought. These sources of irritation are too numerous to mention. A hardened fæcal mass pressing through the rectum on the urethra is probably a common cause which is easily overlooked; threadworms or a rectal fissure would act in the same way. The urine should be examined so as to exclude the possibility of diabetes or nephritis, also for hyperacidity and deposits of phosphates or urates. Enuresis from sugar in a child's urine is excessively rare, but the urine is often very acid, though alkaline treatment will not always check the incontinence. As a rule, no definite exciting cause will be found, so the child must be treated for the "neurotic diathesis."

Among the various remedies used for nocturnal enuresis, several deserve a thorough trial. Belladonna rarely fails to stop the trouble temporarily. If given in large doses, and persisted with in smaller doses, it will often completely cure the case. But in such cases 3ss of the tincture should be the minimum dose for a child aged 10. This may be given twice daily, with a drachm dose at bedtime, when the drug has been already exhibited in smaller doses. Liq. atropiæ (mij to iij, t.d.s.) sometimes succeeds where this fails. Salicylate of soda is another drug which is most useful in certain cases where there is any rheumatic tendency. It may be combined with bromide of soda, 10-grain doses of each, and taken in 3ij of infusion of digitalis. Ergot is said to be very successful sometimes (mxx to xxv of the liquid extract thrice a day).

But whatever measures are adopted for the enuresis, every patient should be put on general tonic treatment. Tincture of perchloride of iron seems to be the most suitable remedy, given in large doses (mx to xv), with or without nux vomica (mv), thrice daily, and continued for some time. Henoch, unlike most observers, strongly believes in the psychical influence of painful manipulations for this condition, and records several rapid cures after subcutaneous injections of pure water into the buttocks. Vogel denounces such treatment, and considers it quite useless.

Dietetic treatment must not be forgotten; animal food should be restricted; the amount of fluids taken, especially towards night, must be carefully regulated. The child must empty his bladder just before going to bed, and the foot of the bed may be raised so as to keep the urine at the fundus of the bladder. Sleeping on the back is conducive to bed wetting, but the usual means employed to prevent it are unsatisfactory.

Electricity has been used in inveterate cases, and a cure is said to result in a fortnight. Cases of nocturnal enuresis tend to cure themselves about the beginning of the second dentition.

DR. NORRIS F. DAVEY (Abergavenny) writes: I would suggest syrup of iodide of iron, which I have found successful in two or three very obstinate cases. If the boy has the habit of sleeping on his back, it would be well to try the old plan of a waistband with two or three cotton reels strung upon it so as to lie over the lumbar vertebræ; this will compel a lateral posture.

NOTES, LETTERS, Etc.

ANTIPYRIN RASH.

MR. E. G. ARCHER, M.R.C.S. (Brandon) writes: The case recorded by Mr. Childe in the BRITISH MEDICAL JOURNAL of October 28th appears almost identical with one published by me in the JOURNAL in 1891. It seems to me that people who suffer from migraine are peculiarly liable to erythematous eruptions after taking antipyrin, and the curious part of it is that the patches invariably appear in exactly the same place. In my own case, 5 grains of antipyrin always within half-an-hour produce four spots of erythema, two over the sternum and two over the ulnar bone in the centre of forearm. Their appearance is accompanied by an intense burning sensation; they are bright red in colour, and gradually fade to light brown, and disappear in about three weeks. It is worthy of note that my mother after taking the smallest dose of quinine had a patch of erythema appear on the back of the hand.

Denholm v. Tait: The Denholm Testimonial Fund.

We are requested to state that a committee meeting to decide as to the disposal of the above fund was held at 6, Harley Street (by kind permission of Dr. William Duncan) on November 3rd. Letters regretting inability to be present were received from Messrs. Skene Keith, Mead, and Fegen. It was decided to present a handsome silver salver to Dr. Denholm, with an appropriate inscription expressing the sympathy of the subscribers with him in the matter of the recent action, Denholm *v.* Tait.

Alvarenga Prize.

The College of Physicians of Philadelphia announces that the next award of the Alvarenga prize, being the income for one year of the bequest of the late Señor Alvarenga, and amounting to about 180 dollars, will be made on July 14th, 1894. Essays intended for competition may be upon any subject in medicine, but they must not have been published previously. They must be sent with the usual precautions as to concealment of identity, and must be received by the Secretary of the College on or before May 1st, 1894.

The Postponement of Vaccination.

E. G. writes: I have just had a somewhat similar case to that of "E. A. L." The parents were strongly against this their second child being vaccinated, as their first died about five years ago after being vaccinated. I, however, took every precaution to prevent such an untoward result, using fresh calf lymph, and taking care, as usual, that my vaccinator (Maw's) was aseptic. On the thirteenth day I was sent for and found the arm very much inflamed, the inflammation extending over the chest, shoulder, and back, the pustules nearly as large as a shilling and almost confluent, and there was an eruption of small pustules sparsely scattered around. The child's health did not seem to be much affected, so I ordered the lotio plumbi opii to be applied, and found the arm in a more normal condition on the fifteenth day. Should these people have another child, they say nothing will induce them to have it vaccinated.

A New Departure.

The newspapers announce that the Western Ophthalmic Hospital, Croydon, will be opened on Thursday, for the first time, from 6 to 8 P.M., to enable the poorer classes to attend for treatment without losing a day or half a day's work; no governor's letter is needed. In what does this differ from a "sixpenny dispensary?"

Indiscriminate Use of Prescriptions: An Encouragement to Quackery.

G. P. writes: There can be no question of the fact that the medical men who give prescriptions to their patients do an enormous amount of financial injury to themselves and the profession, and by that means encourage quackery. The chemist who makes up the prescription easily finds out the symptoms, and applies the same treatment to patients of his own. He often repeats the medicine, saving the expense of a second visit to the consultant. Many patients are very fond of experimenting on others, and obligingly hand their prescriptions to their friends who have similar diseases as rheumatism, neuralgia, etc., thus causing a considerable loss to the profession. The obvious remedy for this is either to dispense one's own medicines or employ a reliable dispenser, and on no account give a prescription to any patient. These should be guarded as "professional secrets," which the public have no right to know, as often in the hands of ignorant people they do an incalculable amount of harm. Considering the present overcrowded state of the medical profession, and the abominable manner in which the public "are swindled by prescribing herbalists" and advertising quacks, it is absolutely necessary that a special Board should be formed called the Society for the Suppression of Illegal Practice, whose sole duty should be the prosecution of all quacks with the utmost rigour of the existing law. That it is a paramount duty of every "qualified man" to subscribe to such a fund, not only for his own interest but for the protection of the public. All newspapers should contain notices warning the people against the evils of quackery; and leaflets to this effect should be printed and distributed among the people at the expense of the society.

LETTERS, COMMUNICATIONS, Etc., have been received from:

(**A**) Mr. G. Archer, Brandon; Mr. J. R. Armstrong, Denbigh; Mr. H. Alston, Trinidad; Mr. A. E. Ayres, London; A. C. C.; Messrs. Arnold and Sons, London; Anæsthesia; Professor Ayrton, London; Professor Clifford Allbutt, Cambridge; Alpha; Dr. P. S. Abraham, London. (**B**) Dr. D. Brodie, London; Mr. A. E. Barker, London; G. Birt, M.B., Stourbridge; Dr. J. M. Booth, Aberdeen; Mr. J. Braye, London; Mr. O. Beneke, London; Lady Baker, Blandford; Mr. C. W. J. Brasher, Bristol; Dr. R. Bell, Glasgow; Mr. J. W. Bridges, Weedon; Dr. R. Barnes, Liss; J. H. Bailey, M.B., Reigate; Mr. H. T. Butlin, London; Brin's Oxygen Company, London; Mr. G. B. Browne, London; R. H. G. Bruce, M.B., Kendal; Dr. J. Barr, Liverpool; Dr. A. G. Barrs, Leeds; C. A. Ballance, M.B., London; Mr. L. Bennett, London; Mr. W. Bratt, Shipston-on-Stour; Sir J. Banks, Dublin; Dr. A. Bronner, Bradford; F. W. Burton-Fanning, M.B., Norwich; Mr. L. Browne, London; G. Bruce, M.B., Grimsby; Mr. J. K. K. Benjamin, London. (**C**) Mr. T. C. D. J. Cathcart, Belfast; Mr. R. Clark, Lancaster; Mr. W. F. Clark, Cheshunt; Dr. P. M. Chapman, Hereford; Dr. J. M. Clarke, Clifton; Dr. C. H. Cattle, Nottingham; Dr. J. G. Clouston, Edinburgh; Mr. T. E. Constant, Scarborough; Dr. F. G. Clemow, St. Petersburg; T. E. Carter, M.B., Stamford. (**D**) Mr. P. Dunn, London; Dr. W. Duncan, London; Dr. J. Dreschfeld, Manchester; Dr. T. M. Dolan, Halifax; Dr. A. T. Davies, London; Professor Delépine, M.B., Bowdon; Dispensin Chemist. (**E**) . T.; Eyepiece; E. R.; Mr. J. Ewans, Bristol. (**F**) Mr. G. B. Flux, London; Mr. A. Fournet, London; Mr. E. H. Fenwick, London; Mr. J. Furley, Rome; ir J. Fayrer, London; Mr. H. W. Fagge, Lutterworth; Dr. E. L. Fox, Clifton; Mr. O. Friedrichs, Paris; Messrs. Fannin and Co., Dublin; A. E. W. Fox, M.B., Bath; F.R.C.P.; Mr. A. G. R. Foulerton, London; Mr. C. M. Fegen, Brandon. (**G**) Dr. J. J. Gorham, Garstang; Dr. W. A. Griffith, London; G. M. P.; Dr. A. S. Gubb, London; G. Geddes, M.B., Nairn; W. Gordon, M.B., Exeter: Dr. J. Galloway, London; Dr. Gordon, London. (**H**) Dr. J. P. Henry, London; Rev. J. Harris, London; Huggs; E. Hawkins, M.B., York; Dr. P. Horrocks, London; Mr. R. Howden, Newcastle-on-Tyne: Dr. D. Hood, London; Dr. W. P. Herringham, London; T. E. Hill, M.B., Durham; Dr. G. Harvey, London; W. Hardman, M.B., Poulton-le-Fylde; Mr. C. Hunt, Manchester. (**I**) Mr. E. Innes, London; Dr. C. S. Illingworth, Pollokshields. (**J**) J. H. T.; Dr. E. L. Jones, Cambridge; Mr. Vincent Jackson, Wolverhampton; Dr. S. Jex-Blake, Edinburgh; Dr. G. Johnson, London; Dr. A. E. Jones, Manchester. (**K**) Dr. P. Kidd, London; Dr. W. M. Kelly, Taunton. (**L**) Messrs. C. Letts and Co., London; Dr. T. G. Lyon, London; Mr. R. Lake, London; Dr. C. J. Lewis, Stirling; J. Lloyd, M.B., Birmingham; Dr. A. P. Luff, London; Mr. E. A. Lubbock, London; Mr. W. B. Lewis, Wakefield. (**M**) Member; R. S. Miller, M.B., Windsor; Mr. W. L. Morgan, Oxford; Mr. J. W. W. McOscar, Wallington; M.B.; Dr. C. Mercier, Southend; Sir D. Maclagan, Edinburgh; Mr. H. H. Marshall, Edinburgh; Mr. H. G. Maclagan, Stoke-on-Trent; Memo; Mr. C. A. Morton, Clifton; Dr. S. Mackenzie, London; Mr. J. Mitchell, Inverness; Dr. W. Murrell, London; Mr. W. J. Moore, London; Dr. C. McBride, Wigtown; Sir W. Mac Cormac, London; M.D.; Dr. C. A. MacMunn, Wolverhampton; Dr. P. W. MacDonald, Dorchester; Dr. J. Murphy, Sunderland. (**N**) Mr. A. R. Nicholls, Martock; Mr. H. G. Nicholson, Hereford. (**O**) Mr. R. J. W. Oswald, London; Dr. T. Oliver, Newcastle-on-Tyne; Mr. O. E. Owen, Llangefni; Mr. R. C. Owen, Doncaster; Mr. D. Owen, Manchester. (**P**) Dr. C. Porter, Stockport; Dr. C. E, Paterson, Farnborough; Mr. D'Arcy Power, London; Dr. E. C. Perry, London; Dr. J. Phillips, London; Mr. W. H. Plaister, Tottenham; Pneumatic; Pyramid; Dr. G. V. Poore, London; Mr. G. Padley, Swansea; R. Park, M.B., Gosport. (**Q**) Query. (**R**) J. S. R. Russell, M.B., London; A. M. Ross, M.B., Liverpool; Mr. C. E. R. Rendle, Plymouth; Dr. J. Rorie, Dundee; R. Richmond, M.B., Braintree; Mr. H. Redgate, Nottingham; Mr. R. Rauschke, Leeds; Dr. Roberts, London; Dr. J. B. Russell, Glasgow; Mr. T. G. Rogers, Cairo; Dr. E. Ryan-Tenison, London. (**S**) Mr. T. C. Shaw, Banstead; Dr. H. Snow, London; Mr. E. E. Symonds, London; Dr. F. Semon, London; Dr. R. Saundby, Birmingham; Sir E. H. Sieveking, London; Mr. G. Scott, Belfast; Mr. C. Schenk, London; Mr. G. H. Sowry, London; Sir W. Stokes, Dublin; Mr. N. Smith, London; Dr. S. Stirling, Edinburgh; Mr. J. Startin, London; Mr. B. Spicer, New Barnet; Mr. M. Scott, London. (**T**) Messrs. Raphael Tuck and Sons, London; Messrs. R. Twining and Co., London; W. E. F. Thomson, M.B., Glasgow; G. Thomson, M.B., Retfort; Dr. A. H. Twining, Salcombe. (**W**) Mr. R. Wilkinson, London; Dr. J. Wiglesworth, Rainhill; Dr. H. Waldo, Clifton; Dr. F. Warner, London; Mr. E. E. Waters, Leicester; Mr. G. T. Woods, Ripley; Mr. J. H. Worrall, Sheffield; E. W. White, M.B., Dartford; Dr. E. F. Willoughby, London; Mr. A. Willard, London; Dr. F. Winslow, London; Mr. J. A. Whitty, Cape Town; etc.

BOOKS, Etc., RECEIVED.

Handbook for Attendants on the Insane. Second Edition. London: Baillière, Tindall and Cox. 1893. 2s.

Ophthalmic Nursing. By Sydney Stevenson. London: Scientific Press, Limited. 1894.

Behandlung weiblicher Geschlechtskrankheiten. Von Thure Brandt. Berlin: H. Kornfeld. 1893. M. 6.

Grundriss der Geburtshülflichen Operationslehre. Von Dr. Otto v. Herff Berlin: H. Kornfeld. 1893. M. 8.

Mikroskopische Technik zum Gebrauch bei medicinischen und pathologisch-anatomischen Untersuchungen. Von Professor C. Friedlaender. Berlin: H. Kornfeld. 1893. M. 9.

Harveian Oration. Delivered before the Royal College of Physicians, October 18th, 1893, by Dr. P. H. Pye-Smith. London: Ash and Co. 1893.

Traité Clinique de Dermatologie. Par Dr. H. Tenneson. Paris: Octave Doin. 1893.

Symptomatologie und Histologie der Hautkrankheiten. Lieferung 4. Von H. Leloir und E. Vidal. In deutscher bearbeitung von Dr. E. Schiff. Hamburg und Leipzig: Leopold Voss. 1893. M. 8.

L'Inflammation. Par Maurice Letulle. Paris: G. Masson. 1893.

Essentials of Minor Surgery, Bandaging, and Venereal Diseases. Second Edition. By Dr. E. Martin. Philadelphia: W. B. Saunders. 1893. $1.00.

*** In forwarding books the publishers are requested to state the selling prices.

CONCUSSION OF THE SPINE, MORE ESPECIALLY IN ITS RELATIONSHIP WITH RAILWAY ACCIDENTS AND INJURIES.

Read in the Section of Medicine at the Annual Meeting of the British Medical Association at Newcastle, August, 1893.

By BYROM BRAMWELL, M.D.,
Assistant Physician to the Edinburgh Royal Infirmary.

Introduction.

There is much difference of opinion as to the frequency with which concussion of the spinal cord occurs; and the most extraordinary differences of opinion have existed, and still do exist, as to the pathology and significance of the nervous symptoms which result from railway accidents and injuries. These differences of opinion are frequently emphasised and brought into painful prominence in our courts of law. It is eminently desirable, both in the interests of the public and the profession, that we should endeavour to come to an understanding and agreement as to the nature and significance of these cases. I am not without hope that a public debate at this great meeting of the Association will do much to settle some of the disputed points, and to enable the profession to make up its mind once for all as to the true significance of these cases.

At the outset let me say that the subject is so large that it is impossible, without far exceeding the limits of time at my disposal, to attempt to consider it exhaustively and in detail. I shall content myself, therefore, with referring to the more important points. I shall endeavour to consider the subject from a practical point of view. I will give my own conclusions and the results of my own experience (though it is much less extensive than that of many who have written on the subject) rather than the opinions of others, illustrating my remarks with the record of some cases which have come under my own observation during the past few months; and I will emphasise, as I go on, the points about which differences of opinion exist.

Meaning of Terms.

The first question which we have to consider is naturally one of definition. What is meant, or what should be meant, by the terms "concussion of the spine" and "concussion of the spinal cord?" It is unnecessary to say that the term "concussion of the spine" is of much wider significance than the term "concussion of the spinal cord;" and yet in the estimation of the public and of the lawyers they are commonly regarded as the same thing. Indeed, the popular idea of concussion of the spine and concussion of the spinal cord is even more indefinite than this statement would imply. A man who receives a general shake in a railway collision, and who may not have received any direct injury to the back or spine, very frequently, as we all know, subsequently suffers from a train of distressing nervous symptoms, amongst which pain in the back is often prominent. Such a patient is popularly said to be suffering from concussion of the spine; the public and the lawyers, and in some cases even the doctors too, conclude that the symptoms which he manifests are due to concussion of the spinal cord.[1] Such a conclusion is, I hold, in most cases altogether unwarranted, and this is one of the chief points on which I would like to have a clear expression of opinion from the different speakers. In the great majority of cases of this description, there is, in my opinion, no sufficient evidence to show that the patient did, at the time of the accident, receive a concussion of the spinal cord, or that the symptoms which subsequently develop are the result of an organic lesion of the spinal cord or its membranes.

The differences of opinion which exist in the minds of the profession as to the nature and significance of these cases are no doubt partly due to the fact that two separate and distinct meanings may be attached to the term "concussion," and that the two separate and distinct things which these two meanings imply are frequently confounded one with the other. In one sense, the term "concussion" is used to mean the mode of injury or violence. Every blow on the back and every sudden jar or wrench of the spine, the result of external violence, may perhaps in this sense be termed a concussion of the spine. In another sense, the term "concussion" is used to mean the effect, the functional or structural change, which is produced, or which is supposed to be produced (but this is a very different thing) in the spinal cord by such injuries.

"Spinal Sprain."

In illustration of what may, I think, be appropriately termed a very severe sprain of the back, but which some people would call a severe concussion of the spine, without any concussion of the cord, I may quote the following case:—

Case I. *Sprain of Back.*—A gentleman, aged 30, was riding a steeplechase in March of the present year, the ground being very dry and hard. While going at great speed his horse fell after jumping a fence, and the rider was thrown forwards with great force, the right side of the face and right shoulder striking the hard ground. After picking himself up, for he was not rendered insensible, he immediately experienced severe pain in the chest and back at the level of the mid-sternum and interscapular region, great difficulty of breathing, and a feeling of suffocation. The pain and difficulty in breathing were greatly increased by the weight of the head, shoulders, and arms, and were to some extent relieved by allowing the head to fall forwards, and by having the shoulders and arms supported on each side. There was no pain, numbness, or loss of power in the arms or legs, and in fact no spinal (nerve) symptoms. The patient managed to get home, a distance of some thirty miles by train, with very great difficulty; the pain was so intense that at one of the intermediate stations he had to send for a doctor and have a hypodermic injection of morphine. On arriving at his destination he walked home, a distance of some 200 yards. On getting home he immediately went to bed. On the evening of the accident the urine had to be drawn off with the catheter. The retention of urine was thought by the medical men who were in attendance to be due to the pain and general shock from which the patient was suffering, and to the constrained position in which he was obliged to lie, the least movement causing intense suffering; for on the following day the bladder acted naturally. There was never any numbness, tingling, or loss of power in the legs. For several days the patient suffered intense pain in the back and chest. For two days and nights it was necessary to support the arms above the head, as the weight of the shoulders and arms pressing against the chest caused great aggravation of the suffering. For several days he was kept under the influence of morphine. There was no fracture or dislocation of the spine; there was never any local discoloration, but there was marked tenderness on pressure over the spines of the third, fourth, and fifth dorsal vertebræ. The patient, who is by nature extremely active and energetic, was with great difficulty persuaded to remain in bed for five weeks after the accident. During the latter part of this period, and for three weeks after he was allowed to move about, the spinal column was enclosed in a poroplastic jacket. For the past six weeks the patient has been able to follow his profession, which involves much active outdoor exercise. He still feels some deep-seated pain in the back on bending the spine and on violent muscular effort. From first to last the general health has been good. He now looks the picture of health. During the whole course of the case there have been absolutely no nerve symptoms whatever.

In this case the occurrence of retention of urine may by some be considered to have been the result of concussion of the spinal cord; if so, it was certainly the only result; but this supposition is, I think, quite unnecessary. For my present purpose, the temporary retention of urine is of no significance. The point I wish to emphasise is that in this very severe case of concussion of the spine (and, as I shall presently show, the same holds good in a large group of cases in which there is concussion of the spinal cord), the patient did not manifest any of the symptoms which follow (not, be it observed, in rare and exceptional cases, but in a large proportion of cases) after railway accidents and injuries; in which the degree of violence which is directly applied to the spinal column is infinitely less than in the case which I have just related.

It is, of course, impossible to draw general conclusions from individual cases, but I would ask the surgeons who are present this question, Is it not the fact that cases of concussion of the spine similar in kind, though perhaps seldom so severe in degree, as that which was present in the case which I have just related, in which none of the symptoms indicative of "railway spine" are subsequently developed are often met with in ordinary practice? And, in the second place, I would ask those gentlemen who have had large experience of railway cases, Would they not expect—would it not be an almost invariable result—that such a severe concussion of the spine as was present in this case would, if the

[1] One of my objects in selecting concussion of the spine rather than concussion of the spinal cord as the subject for this discussion was to emphasise this point of difference.

injury had been due to a railway collision, have been followed by the usual train of nervous symptoms which, for the sake of brevity, I may describe as indicative of railway spine?

From this statement you will see that I agree with Mr. Herbert Page (to whom the profession is deeply indebted for the light which he has thrown upon this subject) and others who think that in some railway cases the pain and stiffness in the back are due to injury—sprains, twists, etc.—of the external parts (muscles, ligaments, bones and joints of the spinal column) and not to a lesion of the cord or its membranes. In "railway cases" these symptoms (pain and stiffness in the back) are rarely, I believe, indicative of inflammation within the spinal canal, that is, of meningitis or myelitis. I need not, however, dwell on this point; I shall return to it presently. I repeat that if we are to come to an agreement as to the nature of these cases, we must draw a sharp line of distinction between concussion of the spine and concussion of the spinal cord.

Concussion of the Spinal Cord.

It is not less important to come to a definite understanding as to the meaning of the term "concussion of the spinal cord." Some writers would seem to include under the term "concussion of the spinal cord" almost every cord lesion which either immediately results from, or which at a subsequent and often distant date, follows traumatic violence or injury, whether directly applied to the spine or to the body generally.

In the last edition of Mr. Erichsen's great work on surgery I find it stated:

> It is by no means easy to give a clear and comprehensive definition of the term "concussion of the spinal cord." The term is clinical rather than pathological. It is generally adopted by surgeons to indicate a certain state of the cord occasioned by external violence; a state that is independent of, and usually but not necessarily uncomplicated by, any obvious mechanical lesion of the vertebral column, such as fracture or dislocation, a condition that is supposed to depend upon a shake or jar received by the cord, by which its intimate structure is more or less deranged, by which its functions are greatly disturbed, and in which various symptoms indicative of loss or modification of innervation are immediately or remotely induced.

The writer then goes on say:

> It appears that surgeons and writers on diseases of the nervous system have included four distinct pathological conditions under this one term "concussion of the spinal cord," namely: (1) A jar or shake of the cord, disordering to a greater or less degree its functions, without any lesion perceptible to the unaided eye; (2) compression of the cord from extravasated blood; (3) compression of the cord from inflammatory exudations within the spinal canal, whether of serum, lymph, or pus; and (4) chronic alterations of the structure of the cord itself as the result of impairment of nutrition consequent on the occurrence of one or other of the preceding pathological states, but chiefly of the third. These various conditions differ remarkably from one another in symptoms and effects, and have only this in common—that they are not dependent upon an obvious external injury of the spine itself, in which respect they differ from the laceration or compression of the cord by fracture with displacement or dislocation of a vertebra.

Now I contend: First, that some of the lesions which are included under these four heads should not be included under the term "concussion of the spinal cord" at all. Secondly, that the lesions included under the third and fourth headings rarely result from injuries to the back unless the spinal bones are fractured or dislocated. And thirdly, that the occurrences of all of the organic lesions of the spinal cord, included under the headings to which I have just referred, are extremely rare and altogether exceptional after railway accidents and injuries.

The term "concussion of the spinal cord" should, I think, strictly speaking, be limited to those cases in which undoubted symptoms indicative of derangement of the functions of the spinal cord are directly due to a shock communicated to the cord as the result of external violence, and in which there is no obvious naked eye lesion in the bones, membranes, or cord itself to account for the condition.[2]

It may of course be argued, if we accept this definition, that it is impossible, unless the patient dies, to prove whether the case is one of concussion or of contusion—whether the symptoms are the result of concussion without an obvious naked eye lesion (but with perhaps minute capillary hæmorrhages), or of contusion with an obvious naked eye lesion such as extravasation of blood. This of course must be admitted.

Further, it may be argued that, since patients who have been injured in railway collisions rarely die, and since it is therefore impossible to apply the *post-mortem* test in the vast majority of railway cases, it is impossible to say whether patients who are suffering from "railway spine" are suffering from the effects of concussion of the cord or not. This objection would of course hold good if it were admitted that the nervous symptoms which are present in cases of "railway spine" are of spinal origin. But this is just one of the points in dispute. But, granting for the sake of argument that this objection is valid, it may be stated that the only method of arriving at a satisfactory conclusion as to the nature and significance of the nervous symptoms which are present in cases of railway spine, and which it is alleged are the result of concussion of the cord and of subsequent organic disease produced in the cord or its membranes by the concussion, is to contrast the character, progress, and course of the nervous symptoms which are present in cases of "railway spine," with the character, progress and course of the nervous symptoms which result from undoubted traumatic injuries of the spinal cord, undoubted concussion of the spinal cord, and undoubted disease of the spinal cord in ordinary everyday practice; and to see whether in the two classes of cases they correspond or differ. Now, the spinal lesions and diseases which result from traumatic violence in ordinary practice may be arranged in the following groups.

I.—Contusion or Compression due to Fracture or Dislocation.

Cases in which the Spinal Bones are Fractured or Dislocated, and in which the Cord is Contused or Compressed by the Bone Lesion.—Everyone will, I suppose, agree that these cases should not be included under the term "concussion of the spinal cord," and that cases of this kind, though common enough in ordinary practice, very rarely indeed result from railway accidents and injuries. I need not occupy time in detailing the nature of the nervous symptoms which are characteristic of these cases; their significance is obvious.

II.—Spinal Traumatism: Symptoms Developed at once.

Cases in which, after a Blow or Fall on the Back, a Twist of the Spine or a Violent Concussion of the Spine due to a Fall on the Feet from a Height, Grave and Persisting (not merely Temporary and Evanescent), but not necessarily Permanent Symptoms Indicative of Interruption of the Function of the Cord immediately Follow upon the Receipt of the Injury, but in which there is no Evidence of Fracture or Dislocation of the Vertebral Column.—In these cases the symptoms practically correspond with those due to fracture or dislocation of the vertebræ, in fact in many of these cases there is a fracture or dislocation of the vertebræ which is only detected after death; in others, as Mr. Thorburn has shown, there is an extravasation of blood into the substance or on to the surface of the cord, but no fracture or dislocation. In some of these cases the cord is crushed and contused by a sudden twist of the spine in the more mobile cervical region. But whatever the exact nature of the lesion, there is no mistaking the significance of the symptoms. No one with the smallest pretence to medical knowledge could have any difficulty in concluding that in such cases the symptoms are indicative of a grave lesion of the spinal cord or its membranes. These cases should not, in my opinion, be included under the term "concussion of the spinal cord." Cases of this kind very rarely indeed result from railway accidents and injuries, and in any case which did result from a railway accident there would be no difficulty as to the diagnosis. These are not the cases which give rise to differences of opinion in courts of law.

In illustration of this group I may quote the following case:

Case II. *Grave Symptoms without Evidence of Fracture or Dislocation.*—On September 29th, 1892, Mrs. H., aged 62, being tired with a long walk sat down to rest on a wall, which was low on the road side but high on the opposite side, while her friends went to get a cab to take her home. While in this position she fell over the high side of the wall (in conse-

[2] I do not deny that in some cases of concussion of the spinal cord, in which the symptoms (loss of power and numbness in the lower extremities, retention of urine, etc.) last for several days or weeks, but in which complete recovery ultimately takes place, there may perhaps have been capillary hæmorrhages into the tissues of the cord and especially into the grey matter. In the comparatively speaking rare cases in which an injury to the back is, after an interval of time, followed by undoubted organic disease (sclerosis, transverse myelitis, etc.) the occurrence of minute capillary hæmorrhages, followed after an interval by inflammatory or sclerotic changes, is I think the most probable mode of causation.

quence, she says, of a sudden attack of giddiness), a distance of about 8 feet, striking her head and neck against some stones. She was rendered unconscious. When picked up some little time afterwards, both arms and both legs were found to be completely paralysed. She was admitted into one of the surgical wards of the Edinburgh Royal Infirmary under the care of Dr. Peter Maclaren on October 5th, 1892; and was transferred to my care on November 7th. At this date all four limbs were still paralysed; the muscles of both hands and forearms were markedly atrophied, and presented the usual alterations characteristic of the reaction of degeneration; the knee jerks were greatly exaggerated, and ankle-clonus was present in each leg; the bladder was completely paralysed; bedsores had developed; the lower limbs and trunk up to the level of the sixth rib were almost completely anæsthetic; there was also complete anæsthesia in the right arm and some anæsthesia (the exact distribution of which it is unnecessary to detail) in the left arm. The spinal column presented no evidence of fracture or dislocation. At the time of her admission to hospital the patient complained of a dull pain in the upper dorsal region, but there was never any fever, tenderness on pressure, localised swelling, or evidence of displacement of the vertebræ. In the course of six weeks, under the administration of iodide of potassium and hydrobromic acid, considerable improvement took place. The anæsthesia lessened; motor power was in some degree regained in the legs and in the right arm (in the shoulder and elbow); and slight movement could be effected in the right shoulder-joint. At this date the patient insisted, contrary to advice, on leaving the hospital; she was dissatisfied because she was not allowed the free quantity of whisky to which she had been accustomed. I had no opportunity of seeing her again, but I learned that she died about the middle of July.

III.—Spinal Traumatism: Symptoms Developed after an Interval.

Cases in which, after a Blow or Fall on the Back, a Twist of the Spine, or a Fall on the Feet from a Height, Typical and Characteristic Symptoms Indicative of Undoubted Disease of the Spinal Cord or its Membranes are Subsequently Developed.—In some cases of this kind, there are indications of derangement of the functions of the cord immediately after the accident, but in others there are no immediate spinal nervous symptoms, the cord symptoms being only developed after an interval—it may be after a considerable interval of time.

Cases of this kind, in which the subsequent disease can be clearly or with great probability attributed to the injury, are, in my experience, uncommon, but I have met with several which resulted from ordinary injuries. I have never seen a single case which resulted from a railway accident or injury, but such cases do, no doubt, occur. They are, however, quite exceptional and extremely rare. Let me briefly detail the facts of two cases of this kind, which resulted from ordinary injuries:

Case III. *Diving Accident: Late Development of Spinal Symptoms.*—A strong and muscular lad, aged 14, dived into a shallow pool at the beginning of last August, striking his head against the sand, the depth of the water being about 2 feet. His head was not injured, but he gave his neck a tremendous twist. On getting up he felt somewhat stunned, but was able to dress himself and walk home, a distance of a hundred yards; he experienced some tingling in the fingers of the left hand, but this symptom was not marked; he complained more of pain in the shoulders than of anything else. In consequence of the pain in the shoulders he was kept in bed until the end of August, when his father, who was travelling on the Continent, returned to this country. He was then removed from Wales to his home in Aberdeen. There had never been any swelling of the neck, or any projection of the bones, but the head was kept stiff and inclined towards the left side, apparently because of pain. At the beginning of October he seemed to have recovered so completely that he was allowed to attend private classes. After being at school for a week or ten days, while bending the spine, he felt a sudden pain in the left shoulder, followed by numbness and loss of power in the arms, the left being more affected than the right. The paralysis in the arms quickly increased, and the legs soon became affected. In the course of a short time the muscles of the forearms and hands became markedly atrophied. At this time the neck was freely movable and free from pain; there was no local tenderness or swelling; no fever, no alteration in the pulse rate; in short, no constitutional disturbance. On October 12th, when I was consulted by letter, the symptoms were increasing in severity. At this date there was complete loss of motor power in the left arm and hand, less complete but marked paralysis in the right arm and hand and in both lower extremities. Sensation in the upper and lower extremities and in the trunk was markedly impaired. The paralysed parts were rigid, and violent spasmodic twitchings, which were so severe as almost to resemble tetanic spasms, occurred both in the arms and legs, but especially in the arms; the rigidity and spasms were worse in the morning and after waking from sleep. The deep reflexes, both in the upper and lower extremities, were extremely exaggerated. The bladder was not paralysed, but there was obstinate constipation. I advised that the patient should be kept absolutely quiet in bed, with the neck fixed and supported by a pillow; that the actual cautery should be freely applied on each side of the lower cervical and upper dorsal spines, and that iodide of potassium and hydrobromic acid should be given internally. My friend Dr. Blaikie Smith, who was in attendance on the patient, tells me that the application of the actual cautery was soon followed by very marked improvement, which has continued uninterruptedly up to the present time. The patient is now quite well; motor power has been completely regained, both in the arms and legs; there is still, however, slight exaggeration of the deep reflexes in the lower extremities. His father, who is a distinguished member of the profession, in writing to me on July 26th, says: "I shall say, to my dying day, that the actual cautery saved him."

This case should, perhaps, be included in the preceding (second) group, for there were distinct and definite symptoms indicative of spinal injury immediately after the accident. I have included it in the third group, because the chief symptoms did not develop until two months after the original injury.

Opinions may differ as to the exact nature of the lesion which developed two months after the injury. My own view is that it was situated on the surface rather than in the substance of the cord, and that it was probably a sudden extravasation of blood or inflammatory effusion which had implicated the nerve roots in the lower cervical and upper dorsal region, and had pressed upon and interrupted the functions of the spinal cord. But be this as it may, there could, of course, be no doubt as to the serious and organic nature of the condition.

In the next case there were no symptoms indicative of a lesion of the cord at the time of the accident; the spinal symptoms did not develop until six weeks after the accident. The case is as follows:

Case IV. *Fall on Left Side: Late Development of Transverse Myelitis.*—J. U., aged 41, a strongly-built and robust-looking man, consulted me at the Edinburgh Royal Infirmary on July 8th, 1893, on account of paraplegia due, he stated, to a fall received eighteen years previously. He gave me the following account of the accident and of his illness. While pole vaulting, his pole broke, and he fell to the ground from a height of 9 ft. 3 in., alighting on his left hand and knee. Immediately after the accident he felt slight pain in the small of the back, but no numbness or weakness in the legs; in short, no spinal symptoms. For three weeks he was able to walk about with a limp, suffering pain in the left knee, and some slight dull pain in the left lumbar region. At the end of three weeks he felt, he says, quite well; the pain in the back had disappeared; there was no weakness or numbness in the legs, and there was no difficulty in making water. For six weeks after the accident he followed his occupation, which was that of a gasfitter. Previous to the accident, he had been a very healthy man, was married, and had never had syphilis. One Wednesday, six weeks after his fall, when standing on the top of a high ladder mending a gas bracket, he felt as if he had been suddenly struck behind the right knee. He immediately came down the ladder, feeling shaky all over. He continued to follow his employment until the following Saturday, feeling weak and shaky in the legs, and complaining of "a sort of dull pain in the back." The weakness could not, however, have amounted to much, for on the Saturday morning he went to his work at 6 o'clock, walking a distance of four miles. At 10.30 he left off work and walked the four miles home again, but with the greatest difficulty. On getting home he went to bed and sent for a medical man. On Monday morning he attempted to rise and go to work, found that he was unable to stand and fell on the floor, in consequence, he says, of loss of power in the legs. After this date he rapidly got worse; in the course of a few days the legs became completely paralysed, complete anæsthesia developed in the lower extremities and in the trunk up to the level of the waist, the bladder became paralysed, and bedsores developed. He was entirely confined to bed for nine months. During this time his temper was, he says, irritable, but he did not manifest any of the nervous symptoms such as one sees in cases of railway spine. At the end of a year he began to regain a little power in the lower extremities, and in the course of time was able to stand and then to walk. The improvement in motor power very slowly continued during the first eight years after the accident. At the end of ten years the sensation was, he says, completely restored. At the end of thirteen years he regained power over the bladder; up to that time it had been entirely paralysed, but the urine had never been ammoniacal or fetid. When I saw him, eighteen years after the accident, he was able to walk, but only with great effort, and difficulty; a distance of a hundred yards seriously exhausted him. The gait was typically spastic in character, the left leg being somewhat worse than the right; the muscles of the lower extremities were well nourished; the knee-jerks were greatly exaggerated, and ankle clonus was present in both legs; sensibility of all kinds was, practically speaking, perfect both in the lower extremities and in the trunk; and there was no paralysis of the bladder. There were several scars on the back, some due to bedsores, others to the actual cautery, which had been several times applied over the lumbar and sacral regions. There were also several cicatrices on the lower extremities, the results of trophic ulcers which had formed from time to time during the first year of his illness.

It may of course be said that in this case the transverse myelitis, which was obviously the cause of the symptoms, was not due to the accident at all; that its occurrence six weeks after the original injury was a mere coincidence. But with this view I am not disposed to agree. It seems to me that the myelitis was probably the result of a lesion to the cord, perhaps a small extravasation of blood into the grey matter produced at the time of the accident. The facts that the patient was up to the time of the accident an unusually strong, healthy, and robust man, that immediately after the accident he felt a dull pain in the back, and that this pain continued for the three weeks after the accident, seem to suggest a direct connection between the accident and the subsequent myelitis.

In addition to these cases, both of which are of great interest, I have of course met with other cases in which a

traumatic injury, blow or fall on the back, or a fall from a height on the feet or nates, appeared to be the direct cause—the exciting cause at all events—of an organic lesion of the spinal cord which followed it.

Chronic Spinal Meningitis.

I have said nothing, you will observe, of chronic spinal meningitis. In my experience, chronic spinal meningitis due to traumatic injury (blows or falls on the back)—I do not, of course, include cases of pachymeningitis due to fracture of the spine or to Pott's disease following an injury, or to cases of syphilitic (gummatous) meningitis—is an extremely rare condition. In fact, I may go further than this, and say that chronic spinal meningitis—if we exclude (*a*) pachymeningitis externa due to bone disease, (*b*) leptomeningitis and associated pachymeningitis due to syphilis, (*c*) leptomeningitis of the localised form associated with definite and distinct lesions of the cord, such as locomotor ataxy, and (*e*) chronic leptomeningitis the result of a definite and distinct attack of severe acute leptomeningitis spinalis, in all of which conditions the nature of the case is usually clear enough—is exceedingly rare.

Further, I would point out that chronic spinal meningitis (leptomeningitis) when it does occur is usually associated with myelitis, and that it is a grave lesion; that in most cases its course is progressive; and that, although in its earlier stages the diagnosis is often very difficult, in its later periods the symptoms are clearly and unmistakably indicative of a grave organic lesion of the cord or of the nerve roots which happen to be implicated.

Late Occurrence of Gross Lesions.

I wish particularly to elicit the experience of the various speakers, first, as to the occurrence in ordinary private practice and in persons who were previously healthy, after traumatic injuries to the back, of undoubted and unmistakable lesions of the spinal cord, such as transverse or disseminated myelitis, locomotor ataxy, spastic paraplegia, disseminated sclerosis, and especially of chronic spinal meningitis; and, secondly, as to the occurrence, after railway accidents and injuries, of these lesions—of cases, be it noted, in which the cord symptoms are typical and unmistakable, of cases as to the nature of which there can be no possible dispute. I have never seen an undoubted case of any of these cord lesions follow a railway accident or injury; and, as I have already stated, in my experience such lesions rarely seem to be the direct result of injuries to the back and concussion of the spinal cord in ordinary practice.

These facts, if they be facts, are of the greatest significance. Severe injuries to the back, immediately followed by definite and distinct symptoms indicative of concussion of the spinal cord, are, as I shall presently show, of common occurrence, but it is, comparatively speaking, only in exceptional and rare cases, that such injuries are followed by unmistakable organic disease of the spinal cord or its membranes.

Transverse myelitis, spastic paraplegia, locomotor ataxy, and progressive muscular atrophy are common diseases, but it is only in a small proportion of cases that they can, with any degree of certainty, be directly attributed to traumatic injury.

It is a remarkable fact that these undoubted cord lesions are very rarely, if ever, met with in persons who have been injured in railway accidents. Some of the diseases which I have just enumerated are so common, that on the mere theory of chances cases must occasionally occur in persons who have been injured in railway collisions. As I have already said, I have never met with any case of this kind myself, but it is certain that some of them must occasionally occur. The wonder is not that they should, if they do, occasionally occur, but that they should so very rarely occur. The possibility of the mere coincidence of occurrence must be remembered. The mere fact that such a disease as locomotor ataxy develops after an injury to the back does not, of course, show that it was due to the back injury. The special facts and circumstances of each case must be carefully and judicially considered before coming to the conclusion that the disease is due to the injury.

While I am quite willing to admit that all of the lesions included in the three groups enumerated above may perhaps in rare and exceptional cases result from an injury received in a railway collision, I maintain that such a mode of production is so exceptional that it constitutes no argument whatever for the belief (on the contrary, the extreme rarity of its occurrence is, I maintain, a very strong argument in opposition to the belief) that the nervous symptoms which are such a common result of railway accidents and injuries are due to organic disease of the cord or its membranes.

IV.—Concussion of the Cord from Direct Violence.

Cases in which after Direct Injury, such as a Fall of Coal on the Back, Symptoms indicative of Concussion of the Spinal Cord (Temporary Paralysis of the Bladder, Temporary Numbness, and Loss of Power in the Legs) occur.—In ordinary civil practice, concussion of the spinal cord (temporary disturbance of the functions of the spinal cord), strictly analogous to the more common concussion of the brain, is in my experience very rare; but I am not a surgeon; such cases are perhaps more common in surgical than in medical practice.[1] In colliers, concussion of the spinal cord seems to be a not infrequent result of falls of coal on the back. So far as I know, this fact is not generally known to the profession; it is one of the greatest importance in relationship to the concussion of the cord which is supposed to result from railway accidents and injuries.

Colliers are perhaps exposed more than any other class of the community to direct injury to the back in consequence of falls of coal and "roof."

In some cases (fortunately they constitute a small proportion of the whole) the spine is fractured or dislocated—usually, I am informed, as the result of a large and heavy mass of coal or "roof" falling on the upper part of the spinal column; the head and upper part of the spinal column are suddenly and forcibly depressed; the back seems usually to give way in the lower dorsal region. The characteristic symptoms of transverse myelitis or severe acute meningitis and death, or permanent paralysis result.

In other cases (and I am informed that they frequently occur) a fall of coal or stone on the back produces temporary paralysis of the bladder, requiring the use of the catheter, and temporary numbness or loss of power in the legs. The paralysis of the bladder not infrequently persists for several days, or even, in exceptional cases, for some weeks. Obviously, therefore, it is not merely the result of general shock; in other words, it is not analogous to the retention which so frequently occurs after fractures, surgical operations, and in fact almost every kind of severe injury. The paralysis of the bladder, and the loss of power and numbness in the legs (which, according to some of the authorities I have consulted, are more common, but according to others less common, than the paralysis of the bladder) are evidently, in some cases at least, the direct result of a sudden derangement of the functions of the spinal cord produced by the fall of coal or stone on the back.

There can, I think, be no doubt whatever that in some of these cases the spinal symptoms are due to concussion of the spinal cord, properly so called.

Now, if concussion of the spinal cord is a common cause of spinal meningitis, meningo-myelitis, and organic disease of the spinal cord, we should naturally expect that colliers, whose cords have been concussed in the manner which I have just described, would frequently suffer from these cord lesions. But, as a matter of fact, they very rarely, if ever, do so.

And, again, if the symptoms of "railway spine" are the result of concussion of the cord and of organic disease of the spinal cord and its membranes, due to such concussion, colliers ought to manifest the train of symptoms which characterise cases of "railway spine." But as a matter of fact they rarely, if ever, do so.

I have weighty evidence in support of all these proposi-

[1] The night before the paper was read, Mr. Frederick Page made use of a very striking argument which shows that in hospital practice at least concussion of the spinal cord is very rare. He said: "If forty people were injured in a railway collision, the probability is that thirty-five of them would subsequently suffer, or be said to suffer, from concussion of the spinal cord; but if you were to search the records of any large surgical hospital for a period of ten years, you would probably not find ten cases entered in the books as cases of concussion of the spinal cord."

tions. I first learned the frequency with which concussion of the cord is produced by falls of coal on the back from my friend Dr. Drysdale, of Dunfermline. He writes me as follows:

I have during the last eighteen years frequently met with cases in which the bladder has been paralysed for two or three days, sometimes longer, after bruising of the back from falls of coal or stones. Indeed, it has been my usual habit when I have been called to a pit accident of this kind to put a catheter in my pocket. I have also frequently seen temporary loss of power in the legs as the result of these injuries, but as regards this it must be remembered that it is the usual habit of the average collier, when he meets with an injury, to declare that he has lost "all power," and to more or less exaggerate his condition. I have never seen permanent disease of the spinal cord except in those cases in which there was undoubted injury to the spinal column. In the ordinary cases of simple bruising from falls of coal or stones where there is paralysis of the bladder lasting for a few days with slight loss of power of the legs quickly passing off, you get complete recovery in a few weeks. I cannot recall any such case which was followed by permanent disease.

I have also consulted Dr. Nasmyth, now Medical Officer of Health for the County of Fife, who for many years had medical charge of large collieries at Cowdenbeath; Dr. Lennox, of Hamilton, who has had fifty years' experience of colliery practice; Dr. Crawford, of Hamilton, who has also had a very large experience; Dr. Anderson, of Seaton Delaval, and Dr. S. W. Broadbent, of Castle Eden, who have probably had a larger colliery experience in the great coalfields of Northumberland and Durham than any other living men; and Dr. Thomas and Dr. Warburton, of the Rhondda Valley, who have had a vast experience in the coalfield of South Wales. All of these gentlemen, whose opinion may be taken as authoritative, are agreed as to the frequency of the temporary paralysis of the bladder, and most of them are agreed as to the frequency of temporary loss of power and numbness in the legs after these accidents. No one of them has ever seen organic disease of the spinal cord result from a fall of coal on the back, except in those cases in which the spinal column was severely injured. Only one of them has seen, and that only in a single instance, symptoms characteristic of "railway spine" result from a fall of coal on the back, or from the concussion of the spinal cord, which this injury so frequently seems to produce.

I shall not be surprised to hear that in some instances organic disease of the spinal cord does result from falls of coal or stone on the back; indeed, I am astonished that none of the gentlemen whom I have consulted have met with any case of this kind. But even if organic disease of the spinal cord does occasionally follow concussion of the cord (I mean, of course, concussion pure and simple) due to a fall of coal on the back, the large body of evidence which I have collected conclusively, I think, shows:

First. That in colliers falls of coal or stone on the back frequently produce concussion of the spinal cord.

Secondly. That the symptoms indicative of such concussion are in the vast majority of cases merely temporary.

Thirdly. That colliers whose spinal cords have been concussed very rarely subsequently suffer from organic disease of the spinal cord or its membranes.

Fourthly. That they very rarely indeed manifest the train of nervous symptoms which so frequently occur after railway accidents and injuries.

The two last conclusions may in the future be of no small importance, quite irrespective of the subject of railway accidents and injuries, with which we are at present immediately concerned. The tendency of modern legislation is to compensate *employés* who have been injured, provided that the accident is not the result of their own carelessness or error. Now I venture to predict that if the Legislature should enact that colliers are entitled to compensation for the injuries so received, nervous symptoms will in the future be found to result much more frequently from falls of coals and stone on the back than is at present the case.

V.—Railway Spine.

Cases of So-called "Railway Spine," or Cases of Traumatic Neurosis due to Railway Accidents and Injuries.—Of the numerous and diverse symptoms which these cases present many are clearly due to derangement of the functions of the brain rather than of the spinal cord. By the public and the lawyers these cases are not infrequently termed cases of "concussion of the spinal cord" or "concussion of the spine;" scientifically and medically they are best, I think, termed cases of traumatic neurosis due to railway accidents and injuries.

Before describing the symptoms in detail I must distinctly state that I refer to the ordinary common typical cases in which nervous symptoms are developed after railway accidents and injuries, and not to cases which should be included in the first, second, and third of the preceding groups. Nor do I refer to cases in which a localised paralysis follows an injury of one or more of the peripheral nerves; nor to cases in which a peripheral neuritis has resulted from a definite local injury. These peripheral nerve lesions, with their characteristic symptoms, no doubt occasionally occur after railway accidents and injuries, but, like the unmistakable organic lesions of the spinal cord included in the first, second, and third groups, they are, so far as my information enables me to judge, very rare.

The traumatic neuroses are extremely common after railway accidents and injuries, while, after ordinary injuries, they are, comparatively speaking, less frequent.

Symptoms of "Railway Spine."

In my experience the following are some of the most common and characteristic symptoms which patients who have been injured in railway accidents complain of (I refer especially to cases in which the symptoms appear to be genuine, and in which the patients are not intentionally exaggerating or malingering):

General weakness, prostration, and exhaustion.

Extreme nervousness; loss of nerve tone; "loss of nerve."

Sleeplessness; broken and disturbed sleep; unpleasant and frightful dreams; the patient often starts out of a terrifying dream thinking that he is in a railway collision or that he is falling over a precipice.

Confusion of thought.

Failure of memory.

Diminished emotional control.

Inability to concentrate the thoughts; inability to calculate; inability to read; inability to occupy the attention with business matters; total business inaptitude.

Uneasy sensations in the head, rarely amounting to distinct or severe headache; a feeling of weight, of fulness, of oppression, of throbbing, of tightness, of constriction in the head; or of pressure on the vertex.

Temporary giddiness.

Irritability of temper.

Change of disposition; a tendency to be upset and worried by trifles which before the accident would have given the patient no concern.

Black specks before the eyes (muscæ volitantes).

Weakness of sight. This never in my experience amounts to continuous loss of vision; in the cases which have come under my own notice the failure of sight was merely temporary. In many cases when the patient attempts to read, letters, words, and lines are said to run together, and the vision becomes confused or fails.

Photophobia.

Noises in the head or ears; hypersensitiveness to noise.

Palpitation of the heart.

Pain in the back, in many cases increased on movement of the spinal column and on muscular effort.

Difficulty in walking; inability to walk; a feeling of extreme exhaustion and fatigue after walking a short distance; loss of power in the legs, less frequently in the arms.

Numbness, deadness, uneasy sensations, but rarely sharp, shooting, lancinating pains in the legs or arms; pain in the legs on movement; starting and jumpings in the legs or trunk on falling to sleep.

Loss of sexual desire and sexual power.

Constipation.

Irritability of the bladder; in some cases slight loss of expulsive power in the bladder; never in my experience paralysis of the sphincters, or persistent retention.

Loss of appetite.

Loss of weight.

On physical examination the patient has in many cases a careworn, anxious, and exhausted expression. His friends and acquaintances often say that "he is quite a different

man;" that "he is visibly changed;" that "he is ten years older than he was before the accident," etc.

Tenderness rarely limited to one point, but generally diffused over the whole spine, or present in several distinct positions (in the cervical, dorsal, and lumbar regions) can often be elicited on pressure over, or percussion of, the vertebral spines.

In many cases the skin over the vertebral spines or down the whole of the back is extremely sensitive to pressure (hyperæsthesia).

In some cases there is rigidity of the spine. This condition has, in my experience, only been well marked in those cases in which the back has been obviously bruised or strained at the time of the accident, and in which the spinal pain and tenderness have been developed immediately or soon after the injury. But, in all cases in which the pain in the back is prominent (I do not refer to mere hyperæsthesia of the skin) the patient may of course, in order to avoid movement which increases the pain, keep the back more or less rigid and stiff.

Tenderness on pressure over the spine and hyperæsthesia of the skin of the back are very often developed in cases in which there is no evidence that the back was directly injured, sprained, or bruised at the time of the accident. In some cases these symptoms are only slightly marked in the earlier stages of the case, and only become prominent when the general nervous symptoms which I have already described are fully developed.

The patient often walks with an uncertain, feeble, or apparently feeble gait, supporting himself in his efforts to cross the room by leaning with his hand on the table, chairs, etc. In many cases one leg is said to be weaker than the other. In such cases the weak leg may be dragged, but it is usually kept stiff, and the foot moved forward as a whole, the heel touching the ground. The toes do not drag or catch the floor, and the leg is not circumducted as in ordinary hemiplegia. There is no "high action" or typically spastic gait.

The grasping power of one hand, as measured by the dynamometer, is often less than that of the other; but as everyone knows, this is not a sign of the existence of paralysis due to organic disease, or, indeed, of paralysis at all.

The muscles are in some cases soft and flabbly, in others fairly firm and well nourished. But in the cases to which I am referring there is rarely any localised atrophy and wasting.

The knee-jerk is in many cases exaggerated, sometimes normal or subnormal in degree. Ankle clonus is rarely, if ever, present. Provided that proper precautions are taken in conducting the examination, the knee-jerks will usually be found to be equal on the two sides. I have never seen a case in which the knee reflex could not be elicited. The plantar reflex is usually well marked, often exaggerated—a condition which is common in many neurotic and in fact in many (apparently) normal conditions.

Retention of the urine due to paralysis of the detrusor, or incontinence due to paralysis of the sphincter, has never in my experience been present.

Localised patches of anæsthesia or hyperæsthesia and perhaps more, are frequently hemianæsthesia or hemihyperæsthesia.

The pupils vary in size; but they are rarely unequal; they respond normally, both to light and accommodation. The visual fields are said to be in some cases contracted, often more so in one eye than the other; and this limitation or contraction of the fields, both for white and for colours, may be more marked at the end than at the beginning of a long perimeter examination. In other words, the characteristic alterations of the visual field, which are so common in hysteria and neurasthenia, are sometimes present. I have rarely had an opportunity of making a careful perimeter measurement of the fields, only in a few cases seen in my own consulting room.

I have never seen any definite and characteristic changes, such as papillitis or optic atrophy, in cases of this kind.

To sum up: the nervous symptoms which are met with in persons who have been injured in railway collisions are for the most part entirely subjective. Definite and distinct indications of organic disease in the brain or spinal cord are rarely observed.

The mode of onset, progress, and development of the symptoms vary in different cases. In some cases there is a definite local injury (in the form of a contusion, abrasion, superficial wound, localised swelling, etc.) to the back, head, or limbs; in others, the patient has merely received a general shake, but no local bruise or injury. The disproportion between the local injury received at the time of the accident and the severity and long continuance of the subsequent symptoms is in many cases a striking and highly characteristic feature.

Mr. Herbert Page and other authorities who have had large experience in these cases point out that the symptoms which I have just described comparatively seldom occur in railway *employés* (guards, etc.) who have been injured in railway accidents; and that passengers who have sustained severe local injuries, such as fractures of the leg, are much less liable to suffer from the general nervous symptoms which I have just detailed than persons who have been apparently much less severely hurt.

In many cases the patient states that at the time of the collision he was knocked from one side of the carriage to the other, or that he was thrown on to the floor. In some cases he is rendered unconscious, much more frequently he is merely stunned or dazed. In many cases he is able to get up immediately after the accident, feeling, perhaps, ill and faint; not infrequently he is able to go about and help his fellow travellers who have been more severely injured than himself. He is frequently able to proceed to his destination; in many cases walking some distance, feeling perhaps ill, faint, and shaken, on his way home.

After the first effects of the shock have passed off there may be a period of comparative ease, during which the patient perhaps complains of pain and uneasiness in the back, but during which the nervous symptoms, which are subsequently developed, are not yet marked; it may be only after some weeks or even months that the nervous symptoms become fully developed. In many cases, after the first effects of the accident have passed off, the patient attempts to go to business and follow his ordinary occupation, but he soon finds that he is unequal to the effort—any attempt to do business produces a feeling of extreme fatigue, and makes his head symptoms worse.

The future progress and course of these cases is variable. In almost all cases in which the symptoms are severe and the patient is claiming compensation, the symptoms persist and get worse rather than better so long as the anxiety and worry attending litigation are hanging over his head. This is, of course, only what one would expect. After the case is settled some patients get quickly well, but in others recovery is slow; but this again is only what we would expect, for in many cases of neurasthenia met with in ordinary private practice, and still more perhaps in cases of traumatic neurasthenia, recovery is often very slow and difficult. In the great majority of cases recovery ultimately takes place. This is more particularly the case when the patient is young, when he was previously robust and healthy. In old, weakly, and debilitated subjects; in those persons who have little or no reserve of nervous energy, the severe "shock to the nervous system," to speak in popular language, which they have received, and the prolonged suffering which they have gone through, may have so impaired their nerve tone that they never regain their former strength, activity, and nerve tone; but even in these cases—the most unpromising cases—a very considerable degree of improvement usually takes place. In the cases to which I am at present referring permanent paralyses or other evidences of organic and incurable disease, either in the spinal cord or brain, are very rarely, if ever, developed.

Prognosis.

From these statements it will be seen that I take a less hopeful view of the rapidity of recovery, and in some cases of the probability of complete recovery, than some authorities seem to do. But while believing that in some—the most unpromising cases—the effects of the injury (shock, suffering, etc.) may never, perhaps, be completely and absolutely recovered from, I maintain that this does not show, as is sometimes argued, that the patient is suffering from organic disease; and this leads me to speak of the pathology.

Pathology.

The exact pathology of the cases which are included in this, the fifth group, has given rise to a great deal of discussion and debate. Two different views are held:—

1. One view is that the symptoms are the result of concussion of the spinal cord, and of anæmia of the cord, or of subsequent organic disease in the spinal cord and the membranes of the cord (spinal meningitis and meningo-myelitis), the result of such concussion.

2. The other view, which Mr. Herbert Page has done so much to establish, is that the symptoms are the result of a functional disturbance in the nervous system; that they are, in short, indicative of a traumatic neurosis.

By some the condition has been termed traumatic neurasthenia, by others traumatic hysteria. I hardly think that either of these terms fully and accurately describes their nature, though symptoms indicative of neurasthenia and hysteria are often, of course, present.

In my opinion there can be no question that the latter view is the correct one. So far as my experience and observation enable me to judge, the nervous symptoms which are developed after railway accidents and injuries are in the vast majority of cases due to functional disturbance, and not to organic disease. The nature of the symptoms, their mode of development, progress, and course are, in my opinion, altogether opposed to the view that they depend upon spinal meningitis or meningo-myelitis (the organic disease of the spinal cord or of the spinal membranes to which they are often ascribed). I am speaking, be it remembered, of the ordinary, common, typical cases. I have already stated that in exceptional instances organic lesions of the spinal cord, brain, or peripheral nerves may result from railway accidents and injuries. But I am not at present concerned with these exceptions.

In opposition to the view that the symptoms are due to spinal meningitis or meningo-myelitis, the following facts are, I think, of importance:

1. Chronic inflammation of the membranes of the spinal cord (chronic leptomeningitis) very rarely indeed results from injuries to the back in ordinary practice.

2. Chronic spinal meningitis is extremely difficult to diagnose, more especially in its earlier stages.

3. Chronic spinal meningitis very rarely if ever results from falls of coal on the back, though concussion of the cord seems to be frequently produced by such injuries.

4. Chronic spinal meningitis, when it is actually developed, is a very grave lesion and is usually associated with myelitis (meningo-myelitis).

5. The symptoms which are present in the great majority of cases of so-called "railway spine" are not, in my opinion, indicative of meningo-myelitis. In cases of meningo-myelitis the motor and sensory disturbances are much more definite and are much more distinctly localised (limited and distributed) in the areas of distribution of the implicated nerve roots.

6. Further, in the rare cases in which meningo-myelitis follows traumatic injury to the back in ordinary practice cerebral symptoms are usually conspicuous by their absence.

7. In cases of so-called "railway spine," cerebral symptoms are prominent, in fact they constitute a large part of the clinical picture of the case. In order to account for the presence of these cerebral symptoms it has been suggested that in some cases at least the cerebral symptoms are due to inflammation of the cerebral meninges, the result of an injury to the head received at the time of the accident, and that in others an inflammation, which is first excited in the spinal membranes, makes its way upwards, and subsequently affects the membranes of the brain.

Both these views are, in my opinion, untenable. Chronic cerebral meningitis, like chronic spinal meningitis (if we exclude the syphilitic and the alcoholic forms, and the rare cases of chronic basal meningitis which are very occasionally met with in children and young persons) is almost unknown. Further, although it is of course perfectly true that acute (purulent or tuberculous) spinal meningitis is very often associated with acute (purulent or tuberculous) cerebral meningitis, it must be remembered that in such cases the spinal meningitis is usually secondary and subordinate to the inflammation of the cerebral meninges. Cerebral meningitis seems very rarely to result from spinal meningitis, even in acute cases, and chronic cerebral meningitis secondary to, and the result of, chronic spinal meningitis is, in my experience, a condition which is practically unknown. It is one thing to say that acute inflammation of the membranes of the spinal cord is very often associated with acute inflammation of the cerebral membranes; it is another and a totally different thing to say that chronic spinal meningitis is apt to result from traumatic violence, whether applied directly to the back or to the body as a whole, and that the inflammation in the spinal membranes which is in this way established is apt to extend to, and involve, the membranes of the brain.

8. Further, the cerebral symptoms which are present in cases of so-called "railway spine" have never, in my experience, been suggestive of an inflammation of the membranes of the brain.

9. And, again, chronic inflammation of the cerebral meninges, like chronic spinal meningitis, is a grave and serious lesion. The course which the symptoms pursue in cases of chronic cerebral meningitis is usually quite different from the course of the cerebral symptoms in cases of "railway spine."

Electrical Test.

In conclusion, let me briefly refer to the value of the electrical test in these "railway cases." In my opinion an electrical examination is only likely to yield positive information in a very limited number of "railway cases." Further, the difficulties attending a satisfactory electrical examination are so great, and the fallacies are so numerous, that personally I would attach no importance whatever to the results unless the examination had been conducted by a competent observer who is thoroughly skilled and experienced in the use of electricity for diagnostic purposes.

Prognosis.

Dr. J. O. Brookhouse (Nottingham) was glad to be able to support the views and opinions of Dr. Bramwell. The term "spinal concussion" in relation to railway accidents was vague, indefinite, and misleading—vague and indefinite because spinal concussion was an unknown quantity, so to speak; misleading because of simulation, in many instances so cleverly done as almost to defy detection. Subjective symptoms in these cases were unreliable, and even objective signs needed the most careful investigation and review before admission. A case was given by Dr. Brookhouse, within his own experience, where a man was testified to have grave subjective symptoms and objective signs of pain and spinal disease, supported by medical testimony. It was subsequently discovered that he had never been in an accident at all. Dr. Brookhouse concluded his remarks by formulating the following propositions: (1) That on anatomical grounds spinal-cord concussion was a rare accident; (2) that, taking the aggregate of railway acidents, it was of very exceptional occurrence; (3) that in connection with railway injuries the subjective symptoms were for the most part unreliable, and that even where objective signs were manifested they demanded special observation and investigation before admission; (4) that spinal concussion, contrary to what was usually taught and believed, was recovered from in the large proportion of cases. These conclusions were the result and outcome of his experience of more than 500 cases of railway accidents, extending over a period of twenty years.

The Deep Reflexes.

Dr. Alex. Robertson (Glasgow) directed his remarks to the value of the presence in excess or absence of the deep reflexes. His observations applied to disease as well as the effects of railway injury. The condition of the reflexes was of great importance in diagnosis, but in a prognostic point of view they were of less significance. In illustration, he mentioned a case in which a patient with a moderate degree of ankle clonus was in the habit of walking from ten to fifteen miles a day to his work as a slater, and on one occasion had walked a distance of fifty miles in one day, without injury. The case had been one of myelitis, from which he had recovered, except for weakness of the bladder, and some slight symptoms. Another case recorded was more striking in regard to the degree of ankle clonus present. Reference was made to the absence of the knee reflexes with the retention of full power of walking in different forms of disease. A case

was mentioned of railway accident in which the speaker was associated with the late Sir George Macleod, and he quoted the opinions of that surgeon to the effect that he had seen many cases recover completely in which marked ankle clonus was present months after the injury. Such symptoms (Dr. Robertson continued) could not be relied on alone; they must be looked at together with all the symptoms present. It was very important to remember the difference between the significance of such symptoms as the result of disease and the result of injury; in the latter case, they were usually much less serious if the injured person had been previously of healthy constitution.

Classification of Cases.

Professor CLIFFORD ALLBUTT would divide "railway cases" into four rough divisions: (1) local obvious damage, such as fractures, etc.; (2) mischief, if any, inferential; (3) local muscular atrophy; (4) deliberate impostures. Of divisions 1 and 4 he would say nothing, save this: that he would permit medical men to place their special skill at the service of railway and like companies for the detection of imposture and even for the settlement of doubtful cases, on condition that they did not enter the witness box to give evidence on matters of opinion. Of division 3, he would say that in his experience a very small but substantial fraction of the total number presented this symptom—no doubt a serious one, whether due to peripheral neuritis or to central injury. Discussion would centre, therefore, upon cases of the second division. In his experience, these cases formed the vast majority of the total number, and of this the vast majority again were so-called "traumatic neuroses," with areas of anæsthesia and the like, and sometimes with hystero-epilepsy. It must be remembered, however, that, whether called "traumatic neurosis" or not, such cases were of doubtful prognosis and rebellious to curative means, whether "compensation" depended upon the result or not. He would not endeavour in general terms to disentangle the psychical elements of such railway cases, but he would warn the Section that the assertions of such sufferers could not be easily divided into the truthful and the untruthful. As regards spastic symptoms, he would say that such symptoms occurred in traumatic neuroses, and usually passed off. In many cases in his experience changes in the fundus oculi had been alleged; in only two did the allegation seem justified. In both of these arterio-sclerosis was present, but he would not enter on a discussion of the important question of the supervention of accident upon previous degeneration and the acceleration of morbid tendencies. He deprecated the use of such imposing means of diagnosis as electricity, which latter, moreover, required most careful use and most careful witnessing if positive results were to be seen and quoted. In respect of the differences, if any, between railway and other accidents, it must be remembered that an accident in a crowd, with the bewilderment and confusion which resulted in such cases, produced a special effect on the mind.

Organic Lesion Preceded by Hysterical Symptoms.

Dr. BUZZARD had ceased to see patients suffering from disorder attributed to railway accidents for the last ten or twelve years, having previously had large experience of such cases. He knew nothing of concussion of the spine, and had no experience of any railway case in which there were any symptoms of meningo-myelitis travelling up to the brain. He thought the cases in question were of three classes: (1) those in which there was distinct evidence of more or less gross organic injury; (2) those in which there was traumatic neurosis; and (3) those of unmixed but elaborate imposture. As illustrating the caution which should be observed, he referred to the case of a man whom he had seen about ten years ago. He was suffering from marked hemianæsthesia of hysterical character, and complained also of loss of power in the lower extremities, consequent upon a violent blow upon the back in a railway accident. The temptation, in the presence of the anæsthesia, was to attribute all the symptoms to hysteria, but he found on examination loss of power in the quadriceps extensor marked on the right side, on which side the knee-jerk was absent; less marked on the left, in which the knee-jerk could only just be elicited. There was muscular atrophy more marked on the right than the left side, and diminution—almost loss—of faradic excitability. The financial side of the question was put in so unsatisfactory a manner on the part of the plaintiff that the judge non-suited him, but not before the medical evidence had been given and included in the judge's strong remarks upon the unsatisfactory nature of the case. Three or four years afterwards he called, without notice, upon this man, and found him, as he expected, completely and permanently paraplegic. In another case, in which a patient of his had been trephined for intracranial tumour, the operation was followed a few days afterwards by hemianæsthesia of marked hysterical character. It was very important to note that physical shock might certainly give rise to a very marked class of symptoms, which, although "neurotic," were none the less serious, and often long continued. He had never observed optic atrophy after a railway accident, but once had met with cataract in such circumstances. He entirely agreed with Dr. Bramwell as to the necessity for extreme care and experience in estimating changes by the use of electrical currents, and had, many years ago, directed attention to this point.

Cases.

Mr. CHAUNCY PUZEY expressed his thorough agreement with Dr. Bramwell's views on the subject, and commenced by relating briefly the chief features in some cases which had come under his observation. The first case was one in which a gentleman injured in a severe railway collision died, nearly a year after the accident, with all the usual symptoms of fatal ordinary paraplegia. In this case damage to the cord or membranes was early suspected, and as the patient had enlarged epididymis (probably tuberculous) on one side and other unfavourable appearances, those who examined him were not surprised at the result. No *post-mortem* examination was allowed, but no doubt traumatism developed constitutional disease in the lower part of the spinal cord. This was the only fatal case of what might be called "spinal concussion" which Mr. Puzey had seen in twenty-three years' experience in connection with the North-Western Railway Company. A remarkable case of what some would call "spinal concussion" was admitted under his care into the Northern Hospital, Liverpool, with incomplete paralysis both of motion and sensation, affecting the lower extremities, both arms, and partly the muscles of the chest. For a few days it appeared as if the paralysis was becoming more complete. Then, after a week or two of standstill, the symptoms began to pass off, the last part of the body to recover power being the left arm. In this case the injury was caused by the man falling headlong down some steep stairs, so that his head was bent forward on to his chest. The result doubtless was laceration of some of the spinal ligaments and hæmorrhage into the spinal canal so as to cause severe pressure on the cord, especially about the origin and roots of the brachial plexus. At the end of eight or nine months recovery was complete in every respect. These cases illustrated true organic lesions presenting symptoms of so-called concussion of spine. The next case Mr. Puzey brought forward as one of traumatic hysteria following upon a severe blow on the shoulders, with forcible bending forward of the spine. This was the case of a carter upon whom some very heavy sacks fell, doubling him up and knocking him out of his cart, and no doubt causing severe strain of the muscles of the back and loins. The man was treated in a hospital for several months, most actively locally (blisters, setons, cautery) and depressingly constitutionally (bromide of potassium, etc.), and left for home, a short time before the action for damages took place, in such a wretched condition, that his evidence was taken by commission at home. The railway company did not deem it advisable to put their witnesses in the box, and of course the plaintiff obtained heavy damages. Mr. Puzey, feeling convinced that the case was of a neurotic and functional, and not organic nature, took steps to follow up the case. He tried by indirect means to get the patient to try the "Bethshan" or Faith cure, but did not succeed. If this had been tried, he believed the "treatment" would have been successful; for the man had the idea "borne in upon him" that he would recover on a certain date—the second anniversary of his birthday after the accident (the accident having occurred on his birthday); and accordingly on that day he dressed

himself for the first time, and came down to his astonished family to breakfast. A few days after he returned to his former work; and when, at Mr. Puzey's request, he called upon him to describe the manner of his wonderful recovery, he had been for several weeks working ten or twelve hours a-day, and was looking all the better for it.

"Railway Spine" and Previous Organic Disease.

Dr. Saundby protested against the title which had been chosen for this discussion. He had never met with a case which deserved to be called "concussion of the spine." He thought that the cases under discussion were only fatal where there was previous organic disease; this might also be true of those in which permanent damage resulted. In the method of examination, speaking as one who had been almost invariably employed for the defendants, he always confined himself to a few simple questions, leaving it to the plaintiff's medical advisers to call his attention to and to demonstrate any objective signs present. Medical evidence should be given under a due sense of responsibility to the medical profession, but he did not think there was any inherent difficulty in giving such evidence truthfully and honestly. In justice to the railway companies, he desired to say that his experience of them was that there was only a desire to know the truth and act justly, and that the dispute almost invariably turned upon the amount of money compensation due.

Prognosis.

Dr. Eddison said that he was himself unable to distinguish in some cases between concussion of the spine and concussion involving the brain to some extent, but that certainly in many cases concussion of the spinal cord did occur. When it did the effect almost always passed off, leaving very little mischief behind. In most railway cases the whole nervous system seemed to receive a shock, and the extent of the shock and its effects depended very much on the force expended on the body at the time. He held that the production of mental discomfort, hysteria, etc., was as much a serious damage as a mere surgical injury, such as the loss of an arm or a leg. He believed that ordinary cases of concussion of the spine (so-called) needed to get well.

Personal Experiences.

Dr. Barnes (Carlisle) spoke of his own experiences in a railway accident. About ten years ago he had had the misfortune to be in the train which was smashed up at Lockerbie, when several people were killed. He was somewhat bumped and thrown down in the carriage, but did not consider at first that he had sustained any ill-effects, but after a few hours he began to exhibit symptoms of what he described as emotional aphasia. This was transitory, and passed away in about twenty-four hours, and there had been no subsequent ill-effects. He attributed it to shock of the collision conveyed to the nervous centre.

Prognosis.

Dr. Walker (Pollokshaws) speaking from experience of a number of cases of railway accidents, expressed the opinion that in the great bulk of the cases the nervous symptoms were subjective, and should be accepted with considerable caution, as, after compensation had been received, the symptoms soon disappeared. He did not mean to infer that the symptoms were feigned, but believed that the mental unrest that existed while the case was pending disappeared, and the patient soon recovered. Further, he thought it would be allowed that there was a shock in railway accidents greater than in most other accidents, which was well described as railway shock.

Official Reports of Cases.

Dr. Gordon (Exeter) thought it would be worth the while of the railway companies to supply *verbatim* reports of the evidence in these cases. Such reports would bring out several points difficult to arrive at otherwise. In the first place, the whole matter, as it was placed before the court, would be understood, and in the next place some particulars of the patient's condition would be gathered. As an example, he cited loss of memory. He had heard the evidence of a so-called defective memory, and noticed that the memory was much more selective than defective. Not wilfully selective, but selective nevertheless. Then there was the question what efforts the patient had made to be cured. How many of these sufferers sought the aid of the specialist? There were a few other advantages which such reports would give us. It would be a most healthful intellectual time to a medical witness, and certainly much more agreeable to him to feel that he was speaking not merely to the unskilled public as represented by judge, jury, and counsel, but before the majority of his professional brethren. Further, such reports might be of use to counsel. Finally, knowing thus the localities in which patients resided, it might be possible to make inquiry into the final issue of the cases.

Difference between Railway and other Accidents.

Mr. Noble Smith said that one point which required elucidation was the distinction between injuries to the spinal cord and other accidents. He saw a large number of injuries to the spine from ordinary accidents, but hardly ever did he see the nerve symptoms so frequently following railway accidents. He thought that that must be due to difference in the manner of accident. In ordinary accidents the spine was injured by a doubling up of the body, whereas in railway accidents the shock often, or generally, occurred by a blow carried upwards from the feet. In one case of accident in the hunting field a similar shock occurred, from the rider, a heavy man, receiving a shock to the spine by putting up his feet, which came in contact with the posts of a gate at which his horse was bolting. Here symptoms occurred like those following railway accidents. He thought great care should be taken not to overlook organic symptoms in cases in which neurotic symptoms were present.

Dr. Bramwell's Reply.

Dr. Bramwell, in reply, said that it was a great satisfaction to find that they were all practically agreed as to the nature of these so-called railway cases. He felt sure the discussion would do good. While agreeing with much Dr. Saundby had said, he thought that if he had heard the introductory part of the paper he would not, perhaps, have protested so strongly against the use of the terms "concussion of the spine," and "concussion of the spinal cord." These terms were used in our leading textbooks.[1] Dr. Bramwell maintained that they were legitimate terms, provided that they were used in the way he had defined them in his paper. One of the points of the paper was to show that true concussion of the cord was not uncommon to miners. The public and the lawyers supposed that concussion of the spinal cord was a common result of railway injuries. The speakers were unanimously of opinion that that view was erroneous. He had purposely selected the terms "concussion of the spine," and "concussion of the spinal cord," as the subject of the discussion, so that the public and the lawyers might know that the discussion referred to the condition which was popularly, but, he held, quite erroneously, supposed to be due to concussion of the spinal cord. Personally, he thought it desirable to employ the same method of examination in railway cases as in ordinary cases of suspected nervous disease in private practice. In other words, the condition of the whole nervous system should be thoroughly and systematically examined.

THE SEAT OF ORIGIN AND PATHS OF CONDUCTION OF THE FITS IN ABSINTHE EPILEPSY.

[*Preliminary Report.*]

Read in the Section of Pathology at the Annual Meeting of the British Medical Association held at Newcastle, August, 1893.

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The Action of Absinthe.

The action of this drug has been investigated by Marcé, Magnan, and Professors Horsley and Gotch; and these observers have shown the striking resemblance between the fits produced by absinthe and those seen in idiopathic epilepsy. In the absinthe fit there are twitchings of the muscles of the face and ears, which are immediately followed by

[1] Erichsen's *Surgery*, Gowers's *Spinal Cord*, etc.

clonic and tonic spasms of the limb and trunk muscles; there is salivation, the urine is often passed, cries are frequent, and finally a state of unconsciousness may supervene: there is a succession of fits. These toxic effects sufficiently resemble those seen in epilepsy to suggest a toxic origin in some cases of the latter, and to indicate the value of absinthe in the study of the seat of origin of the epileptic fit.

Methods of Procedure.

To try to arrive at the part played by the various divisions of the central nervous system in the production of the fit, the following methods of analysis have been so far adopted, namely:

1. Removal of one hemisphere. 2. Removal of both hemispheres. 3. Removal of whole cerebellum or of one lobe and the opposite half of the cerebrum. 4. Removal of one hemisphere, combined with hemisection of the lower cervical spinal cord; (*a*) on the opposite side, and (*b*) on the same side as the lesion, and *vice versâ*. 5. Division of the spinal cord.

The absinthe excitation in each group was made immediately after the operation, and also in all cases where possible after complete recovery from the shock—that is, on the following day, or at some subsequent date. The following are the results obtained in the cat.

I.—Removal of One Hemisphere.

Series A (1 to 11).—Absinthe excitation immediately after the operation. Results: General diminution of the intensity and duration of the fits. In a few cases the fits are unilateral, but in the majority the fit is bilateral. The fit on the injured side commences slightly after that on the sound side (not constant); the contractions are, as a rule, less powerful and fewer in number; there is a tendency to tonus rather than clonus. Preceding the death of the animal bilateral spasms (asphyxial spasms), accompanied with elevation of the tail and discharge of urine, are very frequent. The characteristic fits pass insensibly into the spasms, and, as they do so, the movements upon both sides tend to become more equal, or even to become more accentuated, upon the side of the lesion. The reflex excitability is greatly increased.

Series B (1 to 10).—In this series the left hemisphere was removed some days or weeks previous to absinthe excitation. The results are for the most part similar to those in the preceding group; the fits are more vigorous and simultaneous, and in many cases are equal on both sides. In these animals there was rapid recovery after the operation, and "paresis" was only represented by a very slight awkwardness of motion. The intensity of the fits was in proportion to the recovery of action of the muscles of the weak side.

II.—Removal of Both Hemispheres.

(*a*) Removal of both hemispheres and immediate absinthe excitation (Series 1 to 8). This produces complete arrest or prevention of the fits in the arms and legs. The face movements may be present. Reflex excitability and respiration is increased. There are bilateral asphyxial spasms. (*b*) Removal of both hemispheres, and absinthe excitation on the second day. In one well-marked case there were bilateral, powerful, slow, clonic spasms. (*c*) Removal of left hemisphere with subsequent removal of the right hemisphere and absinthe excitation (Series 1 to 7). This produces arrest of the typical tonic and clonic fits. A small tonic contraction may be seen on both sides; in one case this was limited to the side first operated upon.

III.—Removal of the Cerebellum.

(*a*) Complete removal of the cerebellum and immediate absinthe excitation has been followed by typical fits. (*b*) (Series 1 to 8) When the left hemisphere and the right lobe of the cerebellum are removed at the one operation and absinthe is immediately given, there is marked unilaterality of the fits, clonus and tonus on the left side, and usually tonus with very slight clonus upon the right side. When the hemisphere is removed subsequent to the right lobe of the cerebellum there is marked unilaterality, strong clonic contractions on the left side, and slight tonus on the right side. The removal of the lobe of the cerebellum produces one-sided weakness. This agrees with Russell's observation in the dog.

IV.—Removal of One Hemisphere Combined with Hemisection of the Cord.

When hemisection is made in the cervical region subsequent to removal of the left hemisphere, there is complete arrest of the fits on the side corresponding to the hemisection, whether this be the right or the left side.

V.—Section of the Cord.

Hemisections in the cervical region are followed by complete paralysis of the corresponding side; the paralysis, however, tends to become less, but is always, as far as observations go, much more marked than in the case of ablation of a hemisphere. In the same way the fit is at first unilateral; but later, and apparently depending upon the degree of recovery, there may be slight tonic and clonic manifestations upon the side of lesion. Complete division of the cervical spinal cord prevents the fits in the limb muscles, but there are clonic and tonic spasms of the face and shoulder muscles.

Conclusions.

In drawing conclusions from these experiments it must be remembered that there are not yet sufficient data to say what share the cerebellum may take in the production of the clonic spasms. Fits may occur in the absence of the cerebellum, but removal of one lobe of the cerebellum, coupled with that of the opposite cerebral hemisphere, tends to produce unilaterality. The question arises, therefore, concerning the auxiliary action of the cerebellum, and the experiments are not sufficient as yet to throw light on this point. That the cerebellum should exercise some influence seems probable from the symptoms which we know follow removal of portions of the cerebellum. The experiments show that one hemisphere, with an intact cerebellum, is capable of discharging impulses to both halves of the body, and they tend to show that one half of the cord can conduct to both sides of the body. They show that the rhythmic clonic fits are not obtained where the hemispheres are absent, the cerebellum remaining intact. They show that the impulses may descend through other channels than the pyramidal tracts; this is shown by the fact that, after the removal of one hemisphere, the corresponding pyramid degenerates and atrophies, yet fits can be obtained on that side by absinthe, which are, however, immediately arrested by hemisection of the cord. The experiments further show that absinthe has an action upon the whole of the central nervous system.

CASE OF EPILEPTIFORM TRIGEMINAL NEURALGIA TREATED BY HORSLEY'S OPERATION FOR NEURECTOMY OF THE INFERIOR DIVISION OF THE FIFTH NERVE.

By A. W. MAYO ROBSON, F.R.C.S.,
Professor of Surgery in the Victoria University, Hon. Surgeon Leeds General Infirmary.

The following case, reported by my house-surgeon, Mr. Walter Mayo, is of interest because of its being one of the earliest cases in which the inferior division of the fifth nerve has been excised by the operation suggested and put into practice by Mr. Victor Horsley:

W. B., aged 60, a publican, residing near Huddersfield, stated that he had always been a healthy man, and had led a fairly steady life. Fifteen years ago he began to suffer from severe agonising paroxysms of pain shooting down the right side of his face in the course of the inferior dental nerve. The paroxysms only lasted about half a minute, but recurred generally about every half hour or at longer or shorter periods, and were brought on by eating or, at times, even by talking. He had his teeth removed on the advice of his doctor, and took various medicines at the hands of several medical men, but never got any real relief. Seven years ago he was admitted into the Leeds Infirmary, under the care of Mr. Mayo Robson, who divided the inferior dental nerve from the inside of the mouth, which operation completely relieved him for two years. The attacks then recurred after exposure to cold, and soon became as severe as before. In April, 1887, he was readmitted into the infirmary, when Mr. Robson trephined the lower jaw opposite the last molar tooth, and removed half an inch of the right inferior dental nerve, giving complete relief for four years, or until eight months ago, when the attacks returned after exposure to cold and damp.

He was readmitted, January 26th, 1892, suffering from severe paroxysms of pain in the right side of the face, not only shooting down in the course of the inferior dental nerve, but radiating all over the right half of the face. They lasted about twenty seconds, occurred on an average every quarter of an hour, and were brought on by eating and talking.

On admission, the patient was a stout, well-nourished man, with eczema over his face and scalp. He looked fairly well, except when the attacks were on, although he said he had not slept long continuously for months. His tongue was coated but not more on the right than on the left. There was neither œdema nor tenderness on the right side of the face.

After the skin had been got into a more healthy condition and thoroughly aspeticised, on February 4th, A. C. E. being the anæsthetic, Mr. Robson performed Horsley's operation for the relief of trigeminal neuralgia. An incision was made a little above the upper border of the zygoma, extending for-

wards for about an inch and a-half, another downwards from this behind the ascending ramus of the jaw, and another from the angle of the jaw along the lower border for about an inch. The flap thus marked out was reflected with the subjacent fat; the branches of the seventh nerve and the parotid duct were exposed, and the interval between them defined. The fascia was then divided, the gland pushed aside, and the masseter muscle exposed. The fibres of the masseter were divided transversely, so far as they were in the way, and retracted. The periosteum was then raised from the subjacent bone, the sigmoid notch and its boundaries well defined, and all bleeding stopped. A ⅜ inch trephine was used, and a piece of bone taken out of the jaw just below the notch, so as to deepen it; a second piece was then removed, and then a third, and on it was found the groove for the entrance of the inferior dental nerve. On sponging out the cavity and getting the wound as dry as possible, the nerve could be seen lying at the bottom.

An attempt was made to ligature the internal maxillary artery, but, on account of its great depth, this was found impracticable, hence pressure forceps were applied and left on. It was not necessary to divide any extensive portion of the internal pterygoid muscle. The nerve was grasped with a pair of pressure forceps, and drawn downwards, when a piece ⅜ inch in length was removed from just beyond the foramen ovale. The wound was well washed out with hot lotion, "1 in 4,000 perchloride of mercury solution," stitched up with silkworm gut above and below, and left open in the middle for the forceps. Stitches were inserted into the middle of the incision, but were left untied until the clips could be removed. The wound was dressed with cyanide gauze and salufer wool. The pressure forceps were removed the next day, when the spare sutures were drawn up and knotted. The stitches were removed on the 10th, and the patient returned home on the 27th quite well, having had no return of pain since the operation, the parts supplied by the inferior division of the fifth nerve being devoid of sensation.

Remarks.—The operation is somewhat difficult on account of the depth of the wound and the proximity of the internal maxillary vessels, which are troublesome to ligature in a deep wound with little space for manipulation. On this account I should in future certainly reserve the operation for those cases in which the more simple division of the nerve at the usual sites had failed. It remains to be seen if the relief is permanent, as the first operation relieved for two years and the second for four. Should the pain return, the question of attacking the nerve within the skull, or of extirpating the Gasserian ganglion will have to be considered.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

EMPYEMA AS A SEQUEL TO INFLUENZA.

J. C., aged 49, had a slight attack of influenza, from which he recovered after five days' rest in bed. He resumed his work in his usual good health. About a week afterwards, while retiring to rest, he was seized with sharp pains under the left breast, shooting back to the lower angle of the scapula. The temperature was 102.6°; the breathing was of necessity shallow; friction sounds and fine crepitations were heard in the regions affected with pain. Opium and diaphoretics were given, and hot poultices applied. On the seventh day physical signs of effusion were manifest. On the tenth day there was a slight rise in temperature, breathing was hurried, and pulse quick.

I told the patient an operation was necessary, but I had to wait two days for the consent of relatives. By this time the patient's condition was urgent in the extreme; breathing was laboured, the pulse weak and thready; the patient was delirious.

Under these conditions I performed the following operation without the aid of an anæsthetic: I made a free incision between the ninth and tenth ribs, 1½ inch below and a little in front of the angle of the scapula, and introduced a large drainage tube, as recommended by Mr. E. B. Baxter. Forty ounces of fœtid pus came away, after which the air was freely drawn through the tube during inspiration, and expelled during expiration, showing there was an extensive communication with bronchial tubes. The tube was kept in ten days, and then replaced by two smaller ones. Patient was soon able to go to Brighton for three weeks. On his return I removed the small tubes, and allowed the wound to heal. Patient has been at work for some months now, and has never complained of the slightest inconvenience.

The success of the case appears to me to be due: (1) to free drainage; (2) to the low position of the incision; (3) to the comparatively early date of operation.

P. F. O'Hagan, L.R.C.S.E., L.R.C.P.E.,
Croydon. L.F.P.S.Glasg.

CONGENITAL DISLOCATION OF KNEE-JOINT.

I have had a case of the above deformity under treatment, and I think it of sufficiently rare occurrence to be worth recording. The confinement was quite normal. On making traction the dislocation was at once reduced with perfect ease, but immediately resumed its former position on releasing the limb. The head of the tibia was displaced forwards. The subsequent treatment consisted in keeping the dislocation reduced by means of splints. After three weeks there was no return of the deformity. The child is now six months old and has a normal limb.

East Acton, W. Garry Simpson, M.R.C.S.

ATROPHY OF PROSTATE AFTER CASTRATION.

The following may be of interest in connection with Professor White's recent address.

A man, aged 65, had for months attended the extern department of the Belfast Royal Hospital, while I was Resident Surgeon there in 1887, for retention of urine due to enlarged prostate. He developed a nodule in the right testicle, for which he was admitted and castrated by Mr. Fegan.

After his discharge he did not visit the extern department for three months, as he had no urinary trouble, and came then only to report himself. The left testicle was small and probably useless, as he had been impotent since the removal of the right.

I made a rectal examination to detect any recurrence of the tumour in the vasa or vesiculæ seminales, but found none. I was much struck by a marked diminution in the size of the prostate, which accounted for the relief of his urinary trouble.

The discussion of the analogy of the uterus and prostate at that time led me to plan an instrument after the Apostoli line of treatment, but my removal to this country, where prostatic diseases (and old men) are rare, prevented my ever giving it a trial.

Probably its use would fall as far short of expectation as the Apostoli treatment of uterine "fibroids" has done.

Cachar, E. Bengal. Arthur Powell, B.A., M.Ch.

REPORTS

ON MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

SOMERSET AND BATH COUNTY ASYLUM, WELLS.

A CASE OF GENERAL PARALYSIS OF THE INSANE AT THE TIME OF PUBERTY.

(By Hubert C. Bristowe, M.D.Lond., Assistant Medical Officer.)

Through the kindness of Dr. Wadé I am permitted to publish the following case, which may be interesting as adding another to Dr. Wiglesworth's list of cases of general paralysis of the insane at the time of puberty. The child is still alive and a patient in the Somerset and Bath County Asylum. There is in this case, as in Dr. Wiglesworth's two cases, a distinct history of trauma, but one which cannot so

easily be put on one side, on the grounds that the injury might have been due to an epileptic seizure, although, of course, the suggestion that the injury was not the cause of the disease may be correct. Anyhow, it was impossible to localise the seat of injury or any special centre of disease, which might have made an operation advisable. In fact the whole history of the case suggests a widespread lesion.

History.—B. L. P., male, aged 13, was admitted on October 3rd, 1892. Two or three years previous to admission he was knocked down by a horse and trap, which went over him, the shaft striking him on the back of the head. He was stunned and remained unconscious for about three hours. Before the accident he was a bright intelligent lad, but was never the same again. At first his home lessons caused him difficulty; these were diminished, but in time he became quite unable to learn anything. Fourteen months before admission he had a kind of seizure in which he lost power on the left side. The weakness remained, and from that time he gradually got worse, and finally became unmanageable. He shouted and screamed without cause, tried to run away, and became dirty in habits and violent in conduct.

On Admission.—He was a thin, fair-haired boy. Eyes grey; pupils equal and sluggish. Power of left leg diminished. No disease discovered in abdominal or thoracic viscera. Mentally was quite unable to appreciate his surroundings or to understand what was said to him.

After-History.—After admission, he was noted to be very weak on his legs, and fell about the ward. He was noisy and troublesome, and dirty in habits. On November 18th, the following note was made: Left pupil larger than right: knee jerks intensely exaggerated; ankle clonus not obtained; gait spastic; would open his mouth, and bite at any object held in front of him; tongue tremulous, protruded straight; speech hesitating; holds his hands in front of him all day, and rubs them together, at the same time talking unintelligibly if spoken to, he echoes the last part of the sentence. On November 26th, he had a seizure, in which he did not appear to lose consciousness. Twitching of the right eye and hand were first noticed, and later the muscles of the right side of the face were involved. After the attack, the right leg was found to be weak, so that he fell over on trying to walk. After the seizure, he fell asleep, as after an ordinary epileptic fit. He then gradually became thinner and weaker, so that in February it was found necessary to keep him in bed. Since then he has had two other seizures, one involving the left side and the other the right. No marked alteration has taken place.

At the present time he lies in bed all day, with his knees drawn up touching his chin, takes no notice of his surroundings, and passes a purely vegetative existence; takes food when it is offered him, but also opens his mouth to bite at anything else that is placed in front of it. Exercises no control over his emunctories. Muscles atrophied, but irritable. Knee jerks cannot be obtained. *Tâche cérébrale* well marked. Mumbles incoherently, and is often noisy at night. Is much emaciated, in spite of a voracious appetite well satisfied. Has never suffered from vomiting, or had optic neuritis.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

William Church, M.D., F.R.C.P., Vice-President, in the Chair.

Tuesday, November 14th, 1893.

Death of Sir Andrew Clark.

Dr. Church, at the opening of the proceedings, referred in a brief but most admirable speech to the great loss which the Society had suffered by the loss of its President, Sir Andrew Clark. Subsequently a resolution of condolence was adopted. [A full report of Dr. Church's speech and of the text of the resolution will be found at page 1111.]

Operations without Anæsthesia.

Mr. C. B. Keetley, who read this paper, said that after the discovery of surgical anæsthesia certain causes led to its abuse: (1) its dangers were not at first realised; (2) surgeons and the public forgot what could be done without it. Nevertheless, local anæsthesia received a hearty welcome; but its applicability was, of course, strictly limited, especially since it had been known that cocaine had its dangers. An alarming case in the author's own practice led him to perform various operations under a nominal cocaine anæsthesia, and experience then acquired gave him an insight into what could be done in operative surgery without anæsthesia. But he first learned the full possibilities in this direction by the necessity of operating on certain thyroid tumours without anæsthesia. A case was shown in which the operation lasted over three hours. The sensitiveness of different structures was then compared. Although a tissue might be itself insensitive, its connections might make it practically very sensitive. If the question of the sensitiveness of the peritoneum was treated from a practical point of view, that of the parts immediately beneath it must be considered at the same time. The amount of pain evoked depended greatly on the instrument used. Could any rules useful in practical surgery be deduced from the facts passed in review? General anæsthesia should, as a rule, be avoided in cases of—(1) Strangulated hernia in old and exhausted subjects; (2) colotomy and colectomy in similar subjects, when the course of operation could be foreseen and planned beforehand; (3) mere tapping, aspirating, sounding, or even laparotomy by small incision for exploring, combined perhaps with evacuation of fluid (or even of simple non-adherent cysts?). On the other hand, general anæsthesia was decidedly indicated in operations on the trunk and head, the full extent of which could not be foreseen, and for such extensive operations as major amputations, excisions, osteotomies, and trephinings. Nitrous oxide was available for many cases in which it was now usual to employ ether or chloroform, especially for special operations which the surgeon concerned was much practised in; for simple incisions, however long; for encapsuled tumours, however large, if superficial; and for refracturing mal-united bones. It was exceedingly economical of time, a most important consideration in these days. The use of cocaine was limited by the dangerous susceptibility of some individuals to any but very small doses. Nevertheless, it was available for many thousands of minor operations for which patients were every year exposed to the risks, discomforts, and expense of chloroform. Many cases in which cocaine was supposed to have acted well were really instances of nominal or imaginary anæsthesia, and especially when the part operated on was the abdomen. Such, also, probably were many cases of hypnotic anæsthesia. The paper concluded with critical remarks on certain questions relating to the subject.

Mr. Power noticed that the author had not touched upon the use of anæsthetics with reference to affections of the eyes. Before the advent of chloroform, such an operation as enucleation of the globe was occasionally a very serious business. Now, except for the more serious operations, as enucleation or abscission, chloroform was not even necessary, a 5 per cent. or 10 per cent. solution of cocaine being quite sufficient to render such operations as iridectomy perfectly painless. Dentists were the people who came most directly in contact with acute pain, and Mr. Power mentioned the exhaustion and depression which followed the abstraction of a large molar. Guthrie, in his commentaries on the war, alluded to a wounded soldier who ran with his intestines in his hands to a farmhouse, where a milkmaid had washed them in warm milk, and replaced them in the abdomen, and the man finally recovered. Mr. Power had been surprised that once, when suffering from pleurisy, the passage of a trocar through his chest wall had been quite painless.

Dr. Kenneth McLeod thought that the option of the patient should always be considered. He mentioned that alcoholic intoxication produced complete anæsthesia. It was as important to relieve the anticipation of pain as the actual pain during the operation.

Mr. George Eastes referred to the enormous variation in relation to pain of different individuals, and quoted a case in his father's practice in which a labourer had had a toe amputated without making a face, and he had himself that morning given an anæsthetic to a lady for the removal of piles, and, although the conjunctivæ were quite insensitive, she yet had evinced signs of pain at the commence-

ment of the operation. In reference to puncture of the chest, a lump of ice previously applied for two or three minutes deadened sensation sufficiently. It was always necessary to determine the depth of anæsthesia suitable to any given patient, and one great value of anæsthesia was to deaden the mental impression so that the surgeon could go quietly to work.

Dr. Hewitt considered that Mr. Keetley had done good service in bringing forward this question. There was no doubt that general anæsthesia was not so successful in some classes of cases as in others. He quite agreed that one should not use a general anæsthetic if local anæsthesia was sufficient. He himself thought that in some cases of strangulated hernia in which the patient was very bad, local anæsthesia was preferable to general. He also thought that in some cases of tracheotomy for diphtheria, in cases of innominate aneurysm with urgent dyspnœa, in large goitres pressing on the trachea in which the patients were suffering from bronchitis or advanced phthisis, local anæsthetics were again preferable to general. One must always remember, however, that this kind of cases constituted but a very small minority of operations. In all cases where the mental element came into consideration a general anæsthetic was necessary. Again, in some pulmonary and pleural conditions, there was a certain degree of risk in the use of a general anæsthetic. He congratulated Mr. Keetley on having been able to operate for three hours in removal of a thyroid without any anæsthetic.

Mr. Walter Spencer thought that the danger of general anæsthetics must be chiefly laid to the door of those who administered chloroform without having had sufficient experience. He considered that operations about the rectum could only be undertaken when the patient was under a general anæsthetic. Although not much used now, one of the quickest and most satisfactory ways of incising the skin was by transfixion.

Mr. Ballance quite agreed with Mr. Keetley in operating on the thyroid without a general anæsthetic. In many cases he felt sure that it was of great advantage to intermit the administration of a general anæsthetic during operations. He always felt that a patient was never so near death as when under profound anæsthesia. Still, for all serious operations he was sure that general anæsthesia was of advantage to both patient and surgeon. In abdominal cases prolonged anæsthesia was by no means always necessary, and if the surgeon would get his sutures into place whilst the patient was unconscious a large part of the operation could be done without continuing the anæsthetic. He considered that general anæsthetics were absolutely necessary in operations upon children.

Mr. Keetley, in reply, quite agreed that anæsthetics should always be used for children, except for such an operation as that for imperforate anus in early infancy. He agreed with Mr. Spencer that transfixion was the best way of removing non-malignant tumours. He defended the removal of the goître without an anæsthetic on the ground that in a previous case the anæsthetic had been almost impossible to administer, owing to impending death more than once during the operation, and it was well known that surgeons who operated largely on bronchoceles, such as some of the Swiss surgeons, had discarded the use of anæsthetics. He thanked Mr. Power for his most interesting remarks on his personal experience of the times before the introduction of anæsthetics.

The Russian Government is understood to have expressed a wish that the Twelfth International Medical Congress, to be held in 1896, should meet at Moscow. It has promised the sum of 50,000 roubles towards the expenses of the Congress.

The Notification of Phthisis.—At meetings of the Oldham Medical Society on October 24th and November 7th, the notification of phthisis formed the subject of a prolonged discussion. The following resolution was carried unanimously: "That the Society, having had its attention drawn to the infection of tuberculous diseases and to the great mortality and injury to the population arising therefrom, is of opinion that these diseases should be the subject of voluntary notification to the sanitary authority."

CLINICAL SOCIETY OF LONDON.

John Whitaker Hulke, F.R.C.S., F.R.S., President, in the Chair.

Friday, November 10th, 1893.

Traumatic Arachnoid Hæmorrhage, with Symptoms on the same Side as the Lesion.

Mr. C. Mansell Moullin read notes of this case. T. C., a stevedore, aged 43, was admitted into the London Hospital on May 30th in a state of almost complete coma, having been struck a violent blow on the right side of the head three hours before by the hook of a swinging crane. He was not stunned, and continued to work until shortly before admission, when he suddenly became faint. The muscles of the right side of the face were paralysed; the right arm and leg were very rigid, and he could not be made to move them. The seat of injury was explored, but there was no fracture. The next day the coma was less, but the paralysis of the face and limbs more marked. This continued until the eighth day, when the coma became much deeper, with intervals of delirium. The right-sided paralysis remained the same, the tongue in addition being affected. As the patient was sinking the left side of the brain was explored over the motor area and found to be uninjured. The day following the patient died, the temperature rising to 106° F. At the necropsy there was no fracture, nor was there any hæmorrhage between the dura and the bone. The arachnoid space on the injured side was filled with a coagulum which covered the surface of the hemisphere, but which could be washed off with a gentle stream of water, leaving the surface of the arachnoid uninjured. The source of the hæmorrhage appeared to be one of the branches of the posterior division of the middle meningeal. The brain was carefully examined on both sides, but no sign of contusion or laceration could be detected. Attention was drawn to the peculiar occurrence of the hæmorrhage, without fracture or aneurysm, and without any distinct evidence of atheroma, and to the fact that the symptoms throughout were on the same side as the injury, neither the face nor the body on the opposite side having shown the least sign of motor paralysis.

The President, referring to the question of the site of the lesion, described a similar case. A man stooping down was struck on the right temple by a falling ladder. He rose dazed. A bruise formed which disappeared after three or four days. He had headache and difficulty of walking, and, ten days afterwards, was brought to the hospital suffering from right hemiplegia. A medical colleague advised that he should, on physiological grounds, be trephined on the side opposite to the injury, but Mr. Hulke cut down at the seat of injury and trephined. Here the bone was quite right, and the dura mater had nothing abnormal external to it. Upon its being incised some bloody serum escaped from beneath it. He recovered consciousness, and was finally restored to health. If the operation had been done on the opposite side on physiological grounds the collection of serum would have been missed and the patient in all probability have died.

Mr. J. H. Dauber mentioned a case of right hemiplegia following injury of the right parietal bone. The man was in a well when a pulley fell on him. For a month after the accident, however, he kept at work. He had by that time an abscess at the site of injury; pus was running from the wound. Pieces of bone were removed from the wound, but the patient succumbed. At the *post-mortem* examination meningitis and cerebritis were found, and one piece of bone was found still embedded in the brain.

Dr. Beevor said that most cases of hemiplegia on the same side as the lesion were traumatic, and it was difficult in such cases to localise the lesion exactly. All the weight of physiological evidence was against the supposition that the right half of the brain could regulate the right half of the body.

Dr. Hale White remarked that he knew of one case in which a surgeon had trephined on the same side as the paralysis, but had found nothing, and after death the lesion was found to be on the other side of the brain. The cortex on the other side in Mr. Moullin's case should have been examined microscopically, to prove that it was uninjured, before one could, on such evidence, overthrow the teachings of physiology.

Mr. MANSELL MOULLIN regretted he had not made such a microscopical examination of the other half of the cortex; it had seemed to him that a large blood clot was sufficient evidence of the site of the lesion.

DISEASE OF THE CORPORA QUADRIGEMINA.

Dr. FREDERICK TAYLOR read a report of this case. The subject was a boy, aged 4, who, four months before admission into the Evelina Hospital, became ill, would not eat, and had drooping of the eyelids. Gradually after this he lost strength. Fourteen days before admission he began to stagger. On admission he was somewhat drowsy, and spoke slowly; there was ataxy of both upper and lower limbs, and the head and neck oscillated in an antero-posterior direction. There was nearly complete double external ophthalmoplegia, including double ptosis, more marked on the right side. There was some lateral nystagmus. The pupils were slightly and unequally dilated, and reacted to light. There was no optic neuritis nor choroiditis. The child could not see. A month later he was semiconscious, swallowing with difficulty, and the arms and legs fell flaccid when lifted from the bed. He became more unconscious, the breathing became of the Cheyne-Stokes character, swallowing became difficult and finally impossible, and he died two months after admission, or six months after the first symptoms. The necropsy showed that the cerebellum was perfectly healthy, but the corpora quadrigemina were flattened, broader, and more extensive than normal, and grey and gelatinous in appearance. There was a similar grey substance showing at the base of the brain between the crura cerebri, and invading them in their inner halves; the third nerves were lost or torn away from their attachments. In the right orbit all the muscles supplied by the third nerve were atrophied, and the nerve and its branches could not be found; in the left orbit the nerves and their branches were present, and the muscles were fairly healthy. The minute investigation of the parts was unsatisfactory from failure in the preserving methods; but there was no doubt that the corpora quadrigemina and adjacent parts were changed by new growth, probably of glio-sarcomatous nature. The case illustrated, more or less completely, the formula laid down by Nothnagel for the diagnosis of disease of, or in the neighbourhood of, the corpora quadrigemina. According to him, the diagnostic signs were "an unsteady reeling gait, especially if this appeared as the first symptom," and "ophthalmoplegia existing in both eyes, but not quite symmetrically, nor implicating all the muscles in equal degree."

Dr. MOTT, speaking as a physiologist, said that the early and persistent ataxic symptoms which seemed, as Nothnagel pointed out, when combined with oculo-motor paralysis to be diagnostic, might be explained in one of three ways. (1) The fillet might easily be involved, and physiologists considered that the fillet conveyed impulses from the nuclei of the posterior columns of the spinal cord. According to Flechsig and Hisel, the fillet passed to the sensori-motor area of the central convolutions. The fillet was, therefore, in all probability a path for muscular sense impressions, and inasmuch as it lay between the crusta of the crus cerebri and the corpora quadrigemina, a portion of it very close to the latter, it was difficult to understand how the fillet could escape if a tumour grew in these bodies. (2) Were the superior cerebellar peduncles involved? They lay very close to the posterior corpora quadrigemina, and on the surface of the superior peduncle turning round to reach the vermis. Just behind the posterior corpora lay the ventral portion of the direct cerebellar tract of the spinal cord. (3) A number of fibres could be traced up the antero-lateral columns of the spinal cord after their section, these fibres terminating in the corpora quadrigemina, and Dr. Mott suggested that possibly they served to co-ordinate the spinal actions of the limbs and eyes.

Dr. BEEVOR had about ten years ago published a case of a tumour that grew from the upper surface of the cerebellum and compressed the corpora quadrigemina. There was ataxy combined with paralysis of ocular muscles, double optic neuritis, and vomiting. The tumour pressed forwards on the corpora quadrigemina, as proved at the necropsy.

Dr. TAYLOR, in reply, said his case showed that there might be ataxy in a child due to disease that was not in the cerebellum. He was confident there was no extensive lesion in the superior peduncle in his case, as the disease was almost entirely confined to the corpora quadrigemina.

SYPHILITIC TUMOURS OF SPINAL CORD, WITH SYMPTOMS SIMULATING SYRINGOMYELIA.

Dr. BEEVOR detailed this case. P. S., aged 50, married, gardener, about two days after exposure to wet, on July 1st, 1892, dragged the left leg and grew weaker in a few hours; he also had numbness in the right knee. In a few hours he had weakness of the left arm. On admission into the National Hospital for the Paralysed and Epileptic in September, 1892, he presented wasting of both the upper limbs, especially the left, and weakness of the left lower limb so that he could only just raise the leg off the bed. Sensation was lost to pain, heat, and cold in the right leg and the right half of the trunk up to the fourth rib, while tactile perception was normal. The knee-jerk was excessive on the left, and left ankle clonus was present. Later on the loss of painful sensation spread up to the right arm ulnar border, and involved the radial border of the left forearm. There was loss of electrical reactions in the interior muscles of the hand. Later he had paralysis of the sixth nerve of the right side, and he gradually became worse and died on November 14th. On examination *post mortem* two syphilitic tumours were found on either side of the brachial enlargement of the cord, the left one passing nearer the cord than the right, but the cord was too soft for accurate examination. Attention was drawn to the fact that loss of heat, cold, and painful sensations had lately been associated with syringomyelia when unattended by tactile anæsthesia, but in this case seemed to have been caused by pressure of a growth from without.

Mr. EASTES asked for further information as to the treatment adopted in the case.

Dr. MOTT asked if there was a tumour on the right, as well as one on the left, side of the cord; and whether microscopical examination had been made to show what tracts were degenerated. In two cases of unilateral syringomyelia it had been reported that the analgesia was on the same side as the cavity in the cord.

Dr. BEEVOR, in reply, said that the question of treatment had naturally turned on the diagnosis. The case had been regarded as one of tumour of the cord, and it was a question as to whether it was one to be explored by operation. The loss of heat and cold sensation pointed to syringomyelia, which was the diagnosis adopted. Small quantities of iodide of potassium were given, but the drug was not pushed. The patient's statement that he had not had syphilis was believed. It was impossible to trace accurately the degeneration in the various tracts of the cord, as it was so very diffluent.

MEDICAL SOCIETY OF LONDON

J. SYER BRISTOWE, M.D., F.R.S., President, in the Chair.

Monday, November 13th, 1893.

STRANGULATION OF THE TESTICLE DUE TO AXIAL ROTATION OF THE SPERMATIC CORD.

MR. EDMUND OWEN reported a case of this nature. The patient was a schoolboy, aged 13, who had an undescended testicle on the left side. After bowling at cricket he was seized with pain and tenderness in the left inguinal region, and began to vomit. He was soon afterwards sent into hospital as a case of strangulated hernia. Between the external abdominal ring and the scrotum was a painful swelling the size of a small hen's egg. There was no impulse in it, and the skin was not discoloured. On gently dragging the tumour downwards the spermatic cord was found to be free, and the external abdominal ring clear. Mr. Owen gave it as his opinion that the swelling was due to engorgement of the epididymis and testis, the result of rotation of the cord. On exposing the parts the cord seemed to be normal. When the capacious tunica vaginalis was opened much blood-stained serum escaped, the testis and epididymis being found blackish, and in a condition of potential gangrene. He, therefore, removed them after tying the cord. Subsequently, on carefully examining the parts, he discovered that the cord was twisted so close to the epididymis that the twist was hidden beneath the upper part of the tunica vaginalis, which itself was implicated in the

twist. The boy went home cured in less than a fortnight. Mr. Owen briefly detailed eleven other cases of a like nature which had been recently reported most of them in England. He thought that not a few cases of sloughing testicles and of testicles wasting after acute inflammation were of this nature. The condition was almost as likely to occur upon the right side as the left, but was specially likely to be found in boys and young adults who were the subjects of undescended testis. It was impossible to differentiate certain of these cases from strangulated hernia, but, as operation would probably be needed in each condition, the want of precision in diagnosis would lead to no harm. He was of opinion that when the engorged mass was exposed the operation should be completed by its removal.

Mr. T. Bryant said he was the first to call attention to this particular condition, but he admitted his inability to afford any satisfactory explanation of the twisting of the cord in such cases, though the association with undescended testicle or other developmental deformity was interesting. He failed to see the close resemblance to strangulated hernia that had been claimed. If the tumour could be separated from, or was outside, the ring the diagnosis was easy, but, under any circumstances, he pointed out that the local symptoms were much more intense in these cases than in hernia, and, in addition, the constitutional disturbance was absent. There was no abdominal pain, no abdominal distension, and the sickness was not persistent as was the case in hernia. He agreed that early intervention was desirable, but he deprecated any rule for general application involving the routine removal of the testicle.

After some remarks from Mr. Nash, Dr. Richards suggested that there might be a congenital twist of small extent which became complete subsequently.

Mr. Owen, in reply, admitted the possibility of a congenital twist.

Nephrectomy for Hydronephrosis.

Mr. Bland Sutton read a paper on this subject. He wished to call attention to the comparative safety of nephrectomy when carried out on certain definite lines. The greater part of the cases of hydronephroses were due to obvious obstruction in some part of the genito-urinary tract, hence they were termed retention cysts. Such hindrance to the flow of urine to produce hydronephrosis must be incomplete, or if complete, only temporary, for when the ureter was completely and permanently blocked the kidney rapidly atrophied. The most startling fact was that in many of the largest hydronephroses no obstruction could be demonstrated, and this could not in most cases be explained on the hypothesis of abnormal movements of the kidneys. The largest hydronephroses were those subject to intermissions, they underwent great diminution and even temporary disappearance. He related a case in which such an intermission took place during the operation for its relief. In this case there was no evidence of obstruction, nor, owing to the connections of the cyst, could abnormal movements have been possible. He showed an unusual specimen of unilateral hydronephrosis removed, *post mortem*, from an old man in whom no trace of obstruction could be found. Although the course of a hydronephrosis was silent, it promptly revealed its presence if it suppurated. This was one of the greatest dangers to which such patients were liable. They must distinguish between a pyonephrosis and a suppurating hydronephrosis. The latter was comparable to a suppurating ovarian cyst, and required the same principles of treatment. A primary pyonephrosis was inflammatory from the onset; it rarely attained a large size, and, as it was usually associated with calculus, it demanded nephrolithotomy or nephrotomy rather than nephrectomy. A hydronephrosis might become septic through the colon, for in some cases the wall separating the cyst from the colon might become so thin as to permit of osmosis of fluid, and so establish suppuration. In such cases the symptoms might simulate those of typhoid fever, of which he mentioned an example. The recognition of a suppurating hydronephrosis was comparatively easy, but it was extremely important to distinguish between renal tuberculosis, pyonephrosis due to calculus, and a suppurating hydronephrosis. The practice of resorting to aspiration for diagnostic purposes could not be too strongly condemned, for it often misled, and was, moreover, the source of much danger. As to treatment, the disorganised organ should be removed if the other was in good working order. The removal of one hydronephrotic kidney, if both were similarly affected, might lead to disaster. In such cases nephrotomy was safest. The principal points in the operative procedure were—having opened the peritoneal cavity in front in the middle line to establish the diagnosis, the wound was closed, and the cyst was exposed through an incision in the ileo-costal space. No attempt should be made to enucleate the tumour until the finger was well within the capsule—a point to which he attached considerable importance. After emptying and ligaturing any large dilated ureter, the pedicle should be transfixed as close to the cyst as possible. The pedicle should never be clamped with large forceps before securing the ligature. Success in nephrectomy demanded decision, celerity, and gentleness—qualities which could only be acquired by constant familiarity with renal operations. The fate of a patient who had undergone nephrectomy, judging from the facts at his disposal, was, on the whole, very reassuring.

Mr. Alban Doran deprecated operating with too much haste in hydronephrosis associated with floating kidney, because this might ultimately subside of itself. He related a very striking instance in which the tumour disappeared only a few hours before the nephrectomy was to be done. In that case a floating kidney remained, which had since been kept in position by means of a belt, and no recurrence had taken place. In another case the ureter, though not altogether impervious, would not empty the cyst unless the kidney was turned upside down, so that no natural relief could be anticipated. He objected to nephrotomy because a second operation so often became necessary. Even hydronephrosis of long standing did not appear necessarily to involve atrophy of the kidney substance, in which case restoration of function was more likely to take place if nephrotomy with drainage was resorted to, provided the ureter could be made patent.

Mr. Henry Morris admitted that no cause of obstruction could sometimes be discovered, but he pointed out that the original cause of obstruction might have become obliterated in the changes associated with the formation of a hydronephrosis. Obstruction low down in the ureter did not of necessity involve dilatation extending up the ureter and into the pelvis of the kidney, for the ureter might yield in one spot, and the bulge thus formed might press upon and obliterate the tube higher up, just as was the case in some aneurysms which obliterated the artery above or below. It did not follow, therefore, that the obstruction was in the pelvis of the kidney because no dilatation of the ureter could be found lower down. He suggested that various conditions might determine the formation of small cysts in the kidney substance, which by coalescing might go on to form a hydronephrosis. He alluded more particularly to two forms of hydronephrosis between which a distinction ought to be made—first, the thin-walled hydronephrosis which collapsed if tapped during the operation, and the other variety in which hypertrophy of the cortex took place *pari passu* with dilatation, so that on opening the kidney one saw the calices separated from one another by thick fibrous septa. This variety might result from the wasting or removal of one diseased kidney, while the other underwent hypertrophy previous to dilatation in its turn. Such kidneys, he admitted, might require to be dealt with as solid tumours. In removing these tumours he agreed that it was desirable to get well within the capsule before attempting enucleation, but he doubted whether this could be done in the case of thin-walled cysts, because in trying to get inside the capsule one was likely to get inside the cyst cavity.

Mr. Sutton replied.

OBSTETRICAL SOCIETY OF LONDON.

G. E. Herman, M.B.Lond., F.R.C.P., President, in the Chair.

Wednesday, November 1st, 1893.

Specimens.

The following specimens were shown:—Dr. Lewers: Patient on whom he had performed Symphysiotomy.—Dr. Eden: Ovarian Cyst, with Sarcomatous Growth.—Dr. A. Routh:

Fibroid of Broad Ligament.—Dr. HAYES: Hydrosalpinx.—Dr. BOXALL: Uterine Myoma.

A FURTHER CONTRIBUTION TO THE CLINICAL KNOWLEDGE OF PUERPERAL DISEASES.

Dr. J. BRAXTON HICKS read this paper. He said it had yet to be ascertained whether the variations in intensity might not be due to a greater or less quantity of the poison taken into the system, or to the greater susceptibility of the patient, or whether the specific poison was accompanied to a varying extent by other poisons generated from the same source; or, indeed, whether a modification or, in regard to bacteria, whether a new phase of growth (common to these organisms) might not determine a modification of kind as well as of intensity of the symptoms arising therefrom. He insisted on the fact that the rapidity of action of the poison, whatever it might be, was much greater than that seen in surgical cases generally; that gave rise to the question whether the entrance of the poison by the genitals and the special circumstances of the situation would suffice to explain the difference in this respect. Further, the special influence of the gonorrhœal poison contracted before delivery, and yet to be determined. Finally, in estimating the influence of infectious diseases, especially those which conferred some sort of immunity, it must be inquired how far patients had been rendered immune by a previous attack—a condition which must obviously be of frequent occurrence. His first group of three cases was derived from the practice of a medical man in a village where a young woman died after a day's illness of some obscure abdominal trouble, ascertained *post mortem* to be purulent peritonitis, the source of which could not be determined. The medical man attended a labour case the same evening, and another on the following day, followed by a third on the fourth. In less than a week all three were dead with similar symptoms. His next series started with a case of old-standing disease of the femur, in which a surgical examination was followed by an outbreak of phlegmonous erysipelas. Thereupon the practitioner ceased to attend midwifery, but after three weeks had elapsed, though still dressing the ulcers, he resumed his attendance on obstetric cases. The first died within thirty-six hours with symptoms of intense intoxication. A second died within two days of labour, and a third narrowly escaped. The medical man gave up attending cases for three or four weeks, but his first case after that interval died with pyrexia, headache, and a scarlatinal rash, and a woman whom he attended in an abortion shortly after had a similar fate. It transpired later that in the room in which the first fatal case occurred the previous tenant had died in the same bed of some offensive disease the nature of which could not be ascertained. Case VII was that of a young married lady in her first confinement. She had a fairly good labour, but the forceps was used, and within twelve hours she fell ill with the usual symptoms, and died three days later, a bright scarlet rash making its appearance pretty well all over the body. Eight days later the baby was attacked by erysipelas and died. No sanitary defect was found in that house, though diphtheria, attributed to a defective sewer, had occurred in the house of which the garden abutted on the garden of the house in question. Case VIII. A woman in the eighth month of pregnancy developed symptoms of influenza. Three days later premature labour set in, in the absence of the medical man, who only arrived half an hour later. She was then greatly exhausted with vomiting, had a high temperature, and complained of a pain in her "stomach." Next day the temperature rose to 103.6°, and the right elbow-joint was inflamed, distended, and painful. Diarrhœa supervened, and four days later the left elbow followed suit, and diphtheritic vulvitis made its appearance, the same condition then appearing on the throat. She died on the ninth day after delivery. The sanitary arrangements of the house appeared to be perfect, but there had been erysipelas and diphtheria in the neighbourhood. Case IX. A woman whom he saw in consultation four weeks after her confinement was thought to be suffering from influenza, several cases of which had occurred in the house. After a few days of feverishness the perineal rent, which had been stitched up, became inflamed and became the seat of erysipelas. This condition lasted three weeks, but when Dr. Braxton Hicks saw her the erythema had subsided. This patient recovered. The child was not affected. It afterwards came to his knowledge that the nurse had been nursing her mother with erysipelas just before. They could not fail to be struck by the extreme virulence of the virus, only a small quantity of which could have been introduced. It seemed to him, moreover, that the amount of poison received by the patient diminished as time lengthened between the original infection of the hand and the infection of the patient, which probably amounted to saying that the rapidity and severity of the symptoms depended on the quantity of the poison received. He was unfortunately unable to give any information as to the kind of purification of the hands (if any) employed in these two groups.

Dr. ROUTH asked whether any special atmospheric influences were noted, as a low barometric pressure led to emanation of gases from the earth. It was well known that before rain common sewers and drains were especially offensive and sources of infection.

Dr. BOXALL thought that time might serve to dilute, but not destroy, septic material. He thought it ought to be generally known that by the adoption of efficient antiseptic precautions, rather than by abstaining from practice, must safety after exposure to infection be secured.

Dr. HANDFIELD JONES had notes of three cases in which foul sewer emanations seemed to have played an important part in the production of puerperal poisoning, and he considered that a woman who for days or weeks before delivery lived in a tainted atmosphere might be so impregnated with poisonous particles that after delivery her tissues would become a favourable breeding ground for septic germs. Where such a condition occurred removal to a purer atmosphere hastened recovery.

The PRESIDENT wished to express in the strongest way his opinion as to the futility in preventing the transference of infection by mere temporary abstention from practice. He did not believe that any mere lapse of time would ever disinfect infected hands and clothes. On the other hand, if the person, instruments, and clothes were properly disinfected (which could be done in a few hours), there was no necessity for further abstention from practice. Many cases were published in which patients who were delivered in houses with defective drainage had been attacked with puerperal illness, and had begun to improve on removal to a purer atmosphere, but he knew of no evidence that the relation between the drainage and the illness was anything more than coincidence. A paper was recently read before the Epidemiological Society by Dr. Sweeting, in which he endeavoured to prove the connection between outbreaks of diphtheria and bad drains, but he entirely failed to do so. He (the President) believed that puerperal septicæmia was produced by infection by contact. It did not necessarily follow that the medical man or the nurse was always the vehicle of contagion, although in the great majority of cases it was one of the two.

Dr. HORROCKS said that so long as a medical man was in attendance upon a puerperal fever case of the grave type he was unfitted for attending midwifery cases. So he should obtain the help of another practitioner either to attend the puerperal fever case or his other cases of midwifery. Whilst admitting the possibility of time not destroying germs, yet he thought it would have the same effect practically by ultimately getting rid of the poison. He considered absolute disinfection could be secured in forty-eight hours (or even less) by a change of all garments, a bath, repeated washing of the hands, and placing them in an antiseptic solution.

Dr. HAYES said what was wanted was a thorough cleansing of the hands, not mere washing in soap and water, but that conjoined with a 1 in 20 solution of absolute phenol. He thought the influence of drain poison or miasma, although a cause of puerperal septicæmia, had been greatly exaggerated.

Dr. DUNCAN could not agree with the last speaker that it was superfluous to change the clothing before attending a midwifery case after having been in attendance on a case of puerperal septicæmia. He thought, however, that if the clothing was hung up in a small room and some iodine burnt over a spirit lamp, disinfection was secured. With this precaution, in addition to taking a bath and thoroughly washing the hands in soap and water, and afterwards dipping them in a 1 in 1,000 mercuric chloride solution, he considered he might

with perfect safety attend a midwifery case in twenty-four hours.

Dr. Lewers believed that complete personal disinfection was quite possible, and that it was not at all essential for a man to abstain from midwifery practice because he had examined a case of puerperal fever. He was very sceptical as to bad drains having much to do with puerperal septicæmia.

Dr. A. Routh expressed his belief in the importance of sewer gas in producing puerperal septicæmia, and mentioned some cases which he considered supported the view.

Dr. Cullingworth considered it a very dangerous doctrine to send forth that puerperal septicæmia could be caused by defective drains and sewer emanations. He agreed with the President as to the unimportance of the time element in ridding a man of infection. If thorough personal disinfection were carried out he did not think abstention from practice at all necessary.

Dr. Francis Taylor asked whether it was to go forth as the dictum of that Society that the presence or absence of sewer gas in the bedrooms of parturient women was a matter of little or no consequence? He quoted cases which pointed the other way.

Dr. Wallace pointed out that some of the cases mentioned supported the thesis indicated by the President, that there was no positive proof of the existence of a causal relation between sewer gas poison and puerperal septicæmia. It was clear that where the pyrexia and other symptoms immediately disappeared after the patients were removed from their insanitary surroundings, the cases were suffering from sewer gas poisoning and not from puerperal septicæmia.

Dr. Hicks, in reply, said he had mentioned the atmospheric surroundings because in looking at the causes of puerperal diseases it was proper to include all things that might act detrimentally to the pregnant and lying-in woman. At present we were ignorant on many of these points, and many of the speakers spoke with more positiveness than our knowledge justified. We used the term sepsis-septicæmia, but as a matter of fact we did not know their nature, neither did we know what sewer gas was, nor how many poisons it might contain. What we did know was that it produced detrimental effects on the system, and in a lying-in woman ill-health interfered with the reparation necessary of those parts bruised, ecchymosed, and lacerated by labour; and so we may have absorption of unhealthy matter, and that whether any specific agent had been introduced or not.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

Henry Power, M.B., F.R.C.S., Vice-President, in the Chair.

Thursday, November 9th, 1893.

Neoplasm of the Iris.

Mr. Lawford read the report of the Committee on Mr. Beaumont's case of Neoplasm of the Iris.

Benzoyl-Pseudo-Tropeine as a Local Anæsthetic in Ophthalmic Surgery.

This paper was read by Mr. T. J. Bokenham. He said benzoyl-pseudo-tropeine, or tropa-cocaine, was a new cocabase extracted from the small-leaved coca plant of Java, and was identical with the pseudo-tropeine obtained from hyoscyamus. The alkaloid as obtained from the plant had considerable irritating properties when introduced into the eye, but this was not the case when it was obtained by synthesis. The specimen of the synthetically prepared alkaloid, in the form of hydrochlorate, was made into a 3 per cent. solution, and tested by the author. It was found most efficient for inducing anæsthesia of the cornea, and had the advantage of causing no dilatation of the pupil, and none of the ischæmia characteristic of the action of cocaine. There was no disturbance of accommodation following its use. As an anæsthetic to the lid before applying mitigated stick or lapis divinus, a 10 per cent. solution had been found as successful as a corresponding strength of cocaine. This had been found sufficient in such operations as strabismus, division of stricture of lachrymal duct, and opening of Meibomian cysts. Tropa-cocaine had the following advantages as compared with cocaine: It caused no dilatation of the pupil, and no disturbance of accommodation; it was much less poisonous than cocaine, and it did not, if swallowed, produce delirium. The vascular condition of the eye was not affected by it, and in the form of a solution it kept better than cocaine.

Spontaneous Rupture of Capsule after Iridectomy Preliminary to Cataract Extraction.

This paper was read by the Secretary for Mr. J. T. Rudall (Melbourne). Five months after an uncomplicated preliminary iridectomy it was found that the cortex of the lens had undergone partial absorption, allowing a clear space between the nucleus, which appeared to be somewhat tilted backwards, and the upper edge of the cornea. It was probable that a limited spontaneous rupture of the capsule had taken place. Fearing that the nucleus of the lens might fall back into the vitreous, the author removed it with a vectis. No vitreous was lost, and the recovery was uncomplicated.

Extreme Hyphæmia of both Eyes with Corneal Abscess of Right Eye occurring as a Sequela of Small-pox.

This paper was read by the Secretary for Mr. Kenneth Scott (Cairo). Ten months before admission into the Kasr-el-Aïni Hospital the patient, a boy aged 9, had been attacked by small-pox, which was immediately followed by loss of vision in both eyes. At the time of admission there was a circumscribed abscess of the centre of the right cornea, the anterior epithelium being intact. There was no pain nor lacrymation, and only moderate injection. The anterior chambers of both eyes were filled with a dark red brown mass, completely concealing the iris. There was no trace of irritation of the left eye. The tension of both eyes was normal. Vision equalled perception of light. After seven weeks' treatment the corneal abscess disappeared, and the upper third of the red brown mass in both anterior chambers had become of a light buff colour, and quite transparent. The patient was kept under observation three months longer, but the eyes remained in exactly the same condition.

Card Specimens.

The following were the card specimens: Messrs. Critchett and Juler: A Case of Pemphigus of the Conjunctiva.—Mr. G. Anderson Critchett: A Case of Conical Cornea treated by the Galvano-Cautery without Perforation.—Mr. Juler: A Case of Central Colloid Changes in the Retina.—Mr. Frederick Bass: A Pocket Refraction Case.—Dr. Rayner Batten: Persistent Hyaloid Artery branching in Vitreous. Mr. Donald Gunn: A case of Syphilitic Conjunctivitis.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Pathology.

Professor J. Alfred Scott, President, in the Chair.

Friday, November 3rd, 1893.

President's Address.

The President delivered his opening address on the Microchemistry of Cells in Relation to the Theory of Immunity.

Spina Bifida Occulta.

Dr. J. O'Carroll exhibited a patient suffering from a fairly typical favus eruption on the head. She had also a large tuft of hair on the sacral or lumbar region, and a peculiar deformity about the left scapula at its superior angle, looking like an exostosis. It was interesting to know that a little sister of hers had a large meningocele in that region. He thought that the one he exhibited would come under the name of spina bifida occulta.

Specimens.

Dr. J. W. Moore showed the heart of a police recruit, aged 21, who died on the ninth day of Acute Rheumatism, the axillary temperature rising to 108.6° shortly before and to 110° shortly after death. The heart was hypertrophied but softened. The aortic valves were healthy, but a large clot adhered to the mitral valve, blocking up its lumen to a very serious extent. The sequence of pathological phenomena probably was an attack of rheumatic endocarditis in

1891, involving the margin of the mitral valve, an escape and consequent perishing of leucocytes, which excited fermentation and caused coagulation of the blood, thus leading to the formation of this great clot, which resembled a vast valvular excrescence, outgrowth, or vegetation.—Dr. James Little next exhibited a specimen of Mitral Narrowing due to atheromatous change, taken from a man, aged 60, who had swelled feet, short breathing, and the various signs of mechanical congestion of the venous system.—Dr. M'Weeney showed a Round-celled Sarcoma removed on October 10th by Mr. Chance from a woman, aged about 50. The tumour was situated on the inner side of the thigh, a little below the knee, embedded in the subcutaneous fat, and at the time of removal had attained the size of a large orange. A nodule, about the size of a walnut, was removed at the same time from a point a few inches below the large tumour. Both growths were round-cell sarcomata with distinctly alveolar arrangement. The cells were large, with vesicular nuclei and an abundance of protoplasm. The nuclei contained granules which exhibited strong affinity for acid aniline stains, and bodies closely resembling the so-called cancer parasites could be seen. Numerous mitoses were visible, many of them being asymmetrical, and hyperchromatosis was of frequent occurrence.—Mr. Story exhibited Sections of an Eye removed from a healthy young man, who had subsequently lost the sight of his second eye from a similar affection. The globe was removed on account of secondary glaucoma, which had not as yet shown itself in the second eye.—Dr. E. J. M'Weeney exhibited Urinary Organs from a case of Cystitis with Surgical Kidneys.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

J. Kilner Clarke, M.A., F.R.C.S., President, in the Chair.

Friday, November 3rd, 1893.

Surgery of the Spine.

Mr. Norman Porritt read notes of a case of intraspinal abscess, the result of caries of the posterior surface of the lower cervical and first dorsal vertebræ, and of a case of dislocation of the seventh cervical vertebra. In the first case laminectomy was done, and the patient died eighteen hours after the operation from hyperpyrexia; in the latter the patient lived a year all but eleven days, although a fortnight after the injury he nearly died from apyrexia, the temperature sinking to 90° F., at the same time that the pulse and respirations dropped to 31 and 7½ respectively per minute.

Mr. Mayo Robson referred to the case of a little boy, suffering from caries of the spine with paraplegia. In this case he had removed some laminæ, relieving the pressure, the child making a good recovery. Some time after this, the patient injured his back, and again became paraplegic. Some bone was removed in the site of the old incision, which had pressed on the cord. The patient's condition was somewhat improved. He was still under observation.

Remarks were also made by the President, Mr. W. Hall, and Dr. Trevelyan.

Traumatic Cyst of the Pancreas.

Mr. W. H. Brown read notes of this case. A lad, aged 17, was struck violently in the abdomen by a buffer of an engine on March 20th, 1893. He was removed to a hospital in North Yorkshire. The abdomen became swollen, and was tapped on the left side; 70 ounces of blood-stained fluid removed. Six weeks later 60 ounces were withdrawn. He was doing well until January 27th, when he fell from a horizontal bar, immediately became very ill, and was admitted to the Leeds Infirmary. On admission, he had severe abdominal pain; abdomen generally distended, tender, dull on percussion. The symptoms becoming more marked, Mr. Brown made an incision into the abdomen, in the median line below the umbilicus. About 3 pints of blood-stained fluid escaped; a drainage tube inserted. None of the pancreatic ferments could be found in this fluid. The patient improved for a few days, but on July 4th a large swelling was noticed in the upper part of the abdomen; there was a good deal of pain and some vomiting. The abdomen was now opened about the umbilicus, the stomach and omentum drawn up, and the wall of the cyst exposed; this was punctured with a trocar, and 3 pints of dark-coloured, peculiar-smelling fluid withdrawn. The opening in the cyst was enlarged, and the edges attached to abdominal wall, and drainage tube inserted. The fluid contained the pancreatic ferments. Seven weeks later the boy was discharged, well. The author emphasised the advantage of incision over tapping.

Mr. Littlewood referred to a case of traumatic cyst of the pancreas he had read before the Clinical Society in 1892. He found on introducing his finger into the cyst he could very easily have opened it from behind on the left side, just below the level of the twelfth rib, and urged that these cases should be first explored in this region, and if fluid was found, to be opened here, and so avoid a peritoneal operation. He remarked that his case, and another he had seen, were certainly effusions behind the ascending layer of the transverse mesocolon in the neighbourhood of the pancreas, and not effusions into the lesser peritoneal sac, for in both cases the layers of the omentum did not form the cyst wall.

Dr. Eddison thought some of these cases cleared up after repeated tappings.

Mr. Norman Porritt referred to a case under his care, in which he had twice aspirated, the cyst again filling, so he opened the cyst and stitched it to the abdominal wall; a sinus still persisted.

Recurrent Appendicitis.

Mr. Mayo Robson related four cases of recurrent appendicitis, in which he had successfully removed the appendix in the quiescent period between the seizures. Two of the patients were women, aged 22 and 27 respectively, the other two being men aged 23 and 31. In all the cases there had been numerous seizures, and in some of them the symptoms had been so severe as to threaten life. He also referred to a number of other cases in which he had operated, and made some remarks on the pathology of appendicitis, dwelling on the anatomical structure of the appendix vermiformis as being such as to predispose it to inflammation, there being simply a layer of epithelial tissue protecting the underlying adenoid tissue from infective organisms.

The paper was discussed by the President, Mr. Draper, Mr. W. Hall, Dr. Braithwaite, and Dr. Eddison.

Cases and Specimens.

Mr. Littlewood showed a woman, aged 53, from whom he had removed a Malignant Mass from the Ascending Colon, stitching the divided ends of the colon by silk sutures after Halstead's method. The patient made a good recovery.—Dr. Irving (Huddersfield) showed a successful case of Trephining for Hæmorrhage from the Middle Meningeal Artery.—Mr. Pickles showed a Fœtal Monstrosity.—Dr. E. Solly (Harrogate) showed a specimen of Strongylus Gigas from the Human Subject, passed *per urethram*.—Dr. Trevelyan: Some microscopic and other specimens of Diseased Cerebral Arteries.—Dr. Wardrop Griffith: (1) Case of Congenital Heart Disease. (2) Case of Unusual Cardiac *Bruit*.—Mr. Hartley: Congenital Nævoid Lipoma in a Child, aged 4 years.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

Pathological and Clinical Section.

Bennett May, M.B., F.R.C.S., President, in the Chair.

Friday, October 27th, 1893.

Cases.

Dr. E. N. Nason showed a patient, aged 22, whom he had trephined three years ago for Cerebral Abscess, which was localised by focal symptoms to the centre of the left arm and left side of face and tongue. An abscess was found in the suspected area and drained, with the result of a complete recovery. Some six or eight months later the patient had a series of epileptiform seizures, in each case apparently determined by a too free use of alcoholic stimulants. These attacks were preceded by a sensory aura, consisting of a peculiar taste sensation on the left side of the tongue. These attacks had now ceased, and the young man seemed in perfect health. Dr. Nason also showed a patient with symptoms

of increased Intraorbital Pressure, probably due to a slowly-growing sarcoma of the orbit.—Mr. Morrison showed a boy, aged 15, on whose right foot he had performed Tarsectomy. The boy was born with a double congenital club foot. The result of the operation was eminently successful. The contrast between the two feet was very striking; and it was proposed to deal with the left one similarly at an early date.—Mr. Eales showed a case of Hemianopsia in a woman, aged 33. Complete right homonymous hemianopia, with contraction of remaining half fields. Central vision normal. Ophthalmoscopic appearances normal. The contraction of remaining half fields was probably functional, as it varied in degree at different times of the day.—Dr. Leslie Phillips presented a youth suffering from Lupus with Intercurrent Syphilis.

Specimens.

Dr. Foxwell showed a Brain, with a glioma the size of a hen's egg occupying the right motor area, but not involving the basal ganglia. Its exact contour was impossible to determine, but its centre occupied the ascending frontal convolution. No abnormality was detected elsewhere within the skull. The patient was a woman of 26, who, sixteen years previously, had been knocked down by a hand cart, and received a severe blow on the upper part of the left parietal region. Three years ago she had a fit, beginning as a "cramp" in the left leg. Similar attacks of Jacksonian epilepsy recurred about once a month. When admitted to the Queen's Hospital (in May, 1893) she was found to have double optic neuritis, double ptosis, double facial paralysis, paresis of all four limbs—much more marked on the left side—no sensory change, ankle clonus on both sides, but patellar clonus on the left side only. There did not appear to be sufficient localisation to justify operation. Towards the end of September she developed pneumonia, and died comatose.—Dr. Simon showed the Intestines from a case of Enteric Fever.—Mr. Marsh showed: 1. An Adeno-sarcoma, the size of a large walnut, removed from the left breast of a woman, aged 32. Two months after the excision of the tumour she came with a similar but smaller growth in the right breast, and with distinctly enlarged glands in both axillæ. There was no recurrence in the left breast. 2. An Adeno-sarcoma, the size of a Tangerine orange, removed from the left breast of a girl aged 19. 3. A Proliferous Cystic Adeno-sarcoma, the size of a large orange, removed with the breast of a woman, aged 51. 4. A Breast, with multiple cysts, removed from a woman, aged 39, which, in some of its features, had clinically resembled a scirrhous growth.

MANCHESTER MEDICAL SOCIETY.

C. E. Glascott, M.D., President, in the Chair.

Wednesday, November 1st, 1893.

Acromegaly.

Dr. Dreschfeld showed a patient, aged 30, who five years ago began to present signs of acromegaly. The bones of the skull and face were enlarged, especially the lower jaw; the hands and feet showed the characteristic thickening and enlargement which was manifest also to some extent in the bones of the forearm and clavicles. There was atrophy of both optic discs, with complete blindness of one eye and diminished vision, but no hemianopsia of the other. The thyroid could not be felt, but on each side was a well-defined swelling dipping down into the thorax, and being apparently connected with a mass there which gave rise to distinct dulness on percussion over the upper part of the sternum. The voice was hoarse, and the epiglottis was distinctly thickened, but there was no paralysis of the vocal cords. The subjective symptoms consisted in occasional pains in the head. There was also marked sexual weakness. The patient sought admission into hospital in consequence of excessive dyspnœa, which soon yielded to arsenic, with distinct diminution in the size of the tumour masses in the neck. He was now able to follow his work. Dr. Dreschfeld discussed the pathology of the affection upon the evidence of the hitherto published necropsies. Neither the persistence of the thymus nor the enlargement of the pituitary body, which must be considered as only one of the symptoms, could be looked upon as the cause of the disease, which appeared to be more of a neurotrophic nature.

Hydatids of Omentum.

Mr. E. Stanmore Bishop mentioned a case of omental hydatids, and showed the patient, together with microscopic preparations of acephalocysts, scolices, and hooklets from the tumour. Special attention was drawn to the fact of the extraordinary mobility of the tumour under chloroform, as a point of diagnostic importance between hepatic and omental forms.

Rupture of Urinary Bladder.

Mr. Thomas Jones mentioned a case of intraperitoneal rupture of the bladder, caused by falling against a wringing machine while the bladder was full. Laparotomy was performed forty hours afterwards, and the edges of the rent brought together with twenty-one interrupted silk sutures. Death occurred six days later, apparently from exhaustion, consequent on persistent diarrhœa. *Post-mortem* examination showed the rupture to be securely and perfectly watertight. There was no peritonitis of post-operative origin.

Self-Retaining Laryngoscope.

Dr. Moritz demonstrated a self-retaining laryngoscope.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

Walter Hunter, M.B., President, in the Chair.

Wednesday, November 1st, 1893.

Presidential Address.

The President delivered an address on "The Comfort of the Patient: Practical Hints Thereon." He took as a text: "What shall a man eat, what shall he drink, and wherewithal shall he be clothed?" All indigestible food the sick man should avoid, or whatever his idiosyncrasy dictated to him as difficult of digestion. Alcohol had its proper place among the drugs, but it was not a food. In drunken persons and in delirium tremens he advocated kola wine. He laid stress on the value of wool clothing next the skin, explaining how cotton, becoming saturated with sweat, clings to the skin, while the perspiration passes through wool, which not only was non-conductor of heat, but from its elasticity did not cling to the skin; wool was, moreover, Nature's covering. In all febrile conditions he advocated the use of woollen night dresses and the patient to be in blankets with no sheets. He expressed an abhorrence for feather beds. As regards the relief of pain he dealt chiefly with facial neuralgia and gastralgia; for the former he advocated quinine, phosphorus, or gelseminum; and he said that the latter could be distinguished from dyspepsia by the presence of actual pain, whereas in dyspepsia there was swelling and discomfort but no pain; gastralgia often existed with anæmia in young women, and was best treated by quinine, and when anæmia existed also by treating this. For eczema he recommended an ointment composed of liq. carbonis detergens, vaseline, and hydrarg. am., or Unna's zinc paste applied as a dressing with several layers of butter cloth.

Vote of Thanks.

A vote of thanks to the President for his address was proposed by Dr. Birnie, seconded by Dr. Powell, and carried by acclamation.

PLYMOUTH MEDICAL SOCIETY.

Marcus Bulteel, L.R.C.P., M.R.C.S., in the Chair.

Wednesday, November 8th, 1893.

Cases.

Mr. Lucy showed a patient, aged 52, in whom the head of the left Humerus was Excised three months ago for the relief of pain, fixity, and paralysis of the musculo-spiral nerve following a dislocation, which had remained unreduced three months. The wound was now healed, and movement good. Mr. Lucy also exhibited a man, aged 21, in whom the Flexor Profundus Tendon going to the left middle finger was successfully United with two chromic gut sutures. There was now complete power of flexion.—Mr. C. E. Russel Rendle demonstrated the result of a Mules's operation, performed sixteen days previously, for Destructive Syphilitic Kerato-iritis of the Right Eye. A silver-gilt globe was inserted and movements of the stump were now excellent. Mr. Rendle also showed a clay labourer, aged 35, with Myopia and Nyctalopia. With antisyphilic treatment and suitable concave glasses

some improvement was gained.—Mr. Lucy showed a boy, aged 18, invalided out of the navy nearly two years ago for Double Empyema following Influenza. The right side was incised, and healed in three months. Resection of the ribs was found necessary on the left side. There was good expansion of the side, and the patient had gained flesh. Mr. Lucy exhibited a Slide of Fluid removed from an Encysted Hydrocele of the Left Epididymis of a man, aged 53.

Diagnosis of Scarlet Fever and Influenza.

Mr. Harley Cough raised the question of diagnosis between scarlet fever and influenza, more especially as regarded desquamation after each.

REVIEWS.

An Elementary Textbook of Biology, comprising Vegetable and Animal Morphology and Physiology. By J. R. Ainsworth Davis, B.A., Trinity College, Cambridge, Professor of Biology and Geology in the University College of Wales, Aberystwyth. London: Chas. Griffin and Co., Limited. 1893. Second edition, revised and enlarged. (Vol. I, crown 8vo, pp. 300. 8s. 6d. Vol. II, crown 8vo, pp. 416. 10s. 6d.).

In this, the second, edition of Mr. Davis's textbook there has been much addition of material and considerable alteration in the text, so much so that the work is now divided into two volumes, the first dealing with vegetable, and the second with animal morphology and physiology. The scope of the work is much greater than that usually found in biological textbooks, and in the second volume the author tells us he has attempted to bridge over the gap between the courses of zoology and human anatomy as successively taken in a medical curriculum.

A good feature of the work is that it justifies to a great extent the appellation of a textbook of biology. Not only is the structure of the types considered adequately given, but much trouble has been devoted to the far more important subjects of comparative morphology and physiology. No attempt has been made to render the work a practical or laboratory book; in this we think the author has acted wisely, there being already an ample supply of excellent works in this direction. Taking the two volumes together, they contain an immense amount of information in a very concise form; and although the amount of detailed description is large, it is so correlated and woven into an organic whole by means of repeated comparison, that the reader is ever reminded that it is a co-ordinated science he is reading, and not a mere collection of separate anatomies—an impression too often carried away by a biological student after completing the usual preliminary course in that subject.

In the first volume, the excellence of the illustrations, many of which are drawn from the classical work of Sachs, will be appreciated. The diagrams of life-histories are also noticeable, but their clearness would be greatly increased by the freer use of various types, and a more marked indication of the dominant phase in each. In the second volume, although the description of the types is correlated in many respects by the addition of the elements of their embryology, yet this characteristic, which is so marked in the first volume, is here not quite so well carried out. That there are greater difficulties in this portion of the organic kingdom we are well aware, and the author is necessarily somewhat cramped in his treatment by the requirements of examining bodies.

In a book of this kind, which is a biological textbook and not, as we have already said, a practical book, we could have wished for a little less detail and more generalisation. Still, on the whole, it is certainly the best "biology" with which we are acquainted, and it owes its pre-eminence to the fact above stated, that it is an excellent attempt to present biology to the student as a correlated and complete science. The glossarial index is a most useful addition.

An Examination of Weismannism. By George John Romanes, M.A., LL.D., F.R.S., Honorary Fellow of Gonville and Caius College, Cambridge. London: Longmans, Green, and Co. 1893. (Cr. 8vo, pp. 234. 6s.)

The facts of heredity and the doctrine of evolution have bearings so important on medicine and pathology that any biologist who pretends to deal with them on broad grounds is sure of an attentive audience among members of the medical profession. Professor Weismann's theories have been very widely entertained in this country, and the interest which his writings have excited has done much to increase the amount of attention given to the fundamental questions of heredity. His theories have been noticed from time to time in these pages, and the changes which they have undergone have been briefly indicated. In the volume before us Mr. Romanes enters upon an elaborate criticism of the scheme elaborated by Weismann both in its penultimate and in its ultimate form.

Mr. Romanes compares and contrasts Weismann's theory of heredity, and the extension of that theory to evolution, with the theories as to heredity propounded by Darwin and by Mr. Francis Galton. It may be convenient to reproduce here the brief summaries of the three theories which Mr. Romanes gives. All three assume the existence of particulate elements of heredity. Darwin held that these particulate elements "all proceed centripetally from somatic cells to germ cells (gemmules); the inheritance of acquired characters is, therefore, habitual." Galton assumed that "these particulate elements proceed, for the most part, though not exclusively, from germ cells to somatic cells (stirp); the inheritance of acquired characters is therefore but occasional." Weismann's theory before its most recent modification was that "the elements in question proceed exclusively in the centrifugal direction last mentioned (germ plasm); the inheritance of acquired characters is therefore impossible."

The first part of Mr. Romanes's book is directed to a criticism of the proposition that the movement of the particulate elements of heredity is exclusively in the centrifugal direction. He argues that facts do not warrant the assertion that germ plasm has shown an "absolute stability" since the first origin of sexual propagation, but only a very high degree of stability, as assumed by Galton.

In the concluding chapter in the book, Mr. Romanes examines Weismann's latest work on *The Germ Plasm*, and shows that in it the theory of the absolute stability is given up, and the door is thus left open for the operation of Lamarckian factors. The question, therefore, as to the possible hereditary transmission of acquired characters remains open.

The subjects discussed by Mr. Romanes are complex, and involve the use of a terminology which is not familiar; moreover, his style does not always contribute to the lucidity of his arguments. But the work is well worth reading, and we would recommend it to everyone who takes an interest in a question of fundamental importance to all branches of biology.

Ventilation and Heat. By John S. Billings, M.D., D.C.L. New York: The *Engineering Record*. 1893. (Demy 8vo, pp. 500, fig. 210.)

In this volume Dr. Billings treats all the important matters connected with ventilation and heating in a masterly way; his book will rank among the standard works on the subject. An interesting account of the history of ventilation is given at the commencement, and an extensive list of the general literature. Dr. Billings tells us that the history of ventilation began with the attempts to ventilate the Houses of Parliament in 1660 by Wren, and adds: "The history of these attempts would be almost equivalent to a history of the art of ventilation in its entirety."

Several chapters are devoted to the chemical and physical properties of the atmosphere, and very completely are the results of investigators collected and tabulated. This is markedly the case in the chapter on carbonic acid in the air, for no fewer than twenty-one tables are given, classifying the results of published researches into the amount of the gas present under every variety of condition of the atmosphere.

The physical aspects of the physiology of respiration are ably dealt with, and the importance of the organic matter discharged and the estimation of it by the albuminoid ammonia method fully gone into. What is said of bacteria is to the point. The question of sewer gas as a means of transmission of specific diseases is fully discussed, and Dr. Billings concludes—although, as he states, some distinguished English sanitarians believe the contrary—that there is no satisfactory evidence that typhoid fever has been spread through the gases coming from foul sewers.

The larger part of the work deals with engineering questions connected with heating and ventilation, and we are acquainted with no book which gives so complete an account of the modern engineering devices as this does. The methods applicable to private houses, hospitals, barracks, theatres, and all kinds of buildings are fully gone into, and the plans and sections of existing buildings which are given are excellent. This part of the work is of great value in showing us what American sanitary engineers have done.

NOTES ON BOOKS.

Boards of Guardians and Nurses. By Catherine J. Wood. (London: Kegan Paul, Trench, Trübner and Co., Limited. 1893. Cr. 8vo, pp. 23.)—With the main object of this pamphlet—which is to advocate the employment of trained nurses for tending sick paupers—we are in complete sympathy; and we have on more than one occasion expressed our warm approbation of the aims of the Workhouse Infirmary Association, with which the name of Miss Louisa Twining is particularly associated. Miss Wood's pamphlet gives a very fair view of the difficulties with which the reform advocated by the Association is surrounded, and offers good suggestions for surmounting them. Its circulation amongst those medical men who have to do with the administration of the Poor Law, and amongst boards of guardians generally, cannot but promote the accomplishment of the very necessary reforms which Miss Twining and her friends have done so much to bring before the notice of the public.

Transactions of the Glasgow Pathological and Clinical Society. Volume IV, Sessions 1891-93. Edited by John H. Carslaw, M.B., C.M. (Glasgow: Alexander Macdougall. 1893. Demy 8vo, pp. 260.)—This volume of the *Transactions* of the Glasgow Pathological and Clinical Society contains a full report of the proceedings during the sessions 1891-92 and 1892-93. Probably the part of the volume which will be found most interesting is the report of the discussion on acute intestinal obstruction, with special reference to treatment, in which Dr. Joseph Coats, Dr. Finlayson, Professor Gairdner, Professor Macewen, Dr. Alexander Robertson, Professor George Buchanan, Dr. Hector Cameron, Dr. David Newman, and others took part. The volume also contains many clinical and pathological papers of no little interest, some of which are illustrated by good drawings.

A Guide to the Examination of the Urine. By Wickham Legg, F.R.C.P. Seventh edition, revised and enlarged by H. Lewis Jones, M.A., M.D., M.R.C.P. (London: H. K. Lewis. 1893. Foolscap 8vo, pp. 136. 3s. 6d.)—This little book deals almost exclusively with such investigation of the urine as may be expected of the student in his clinical work. The various points in the physical, chemical, and microscopical examination are gone through step by step, and to each is appended a short account of the clinical import of the various products found. In the appendix the quantitative examination of urea, sugar, and of chlorides and phosphates, is given. Some mention should be made of functional albuminuria under the clinical import of albumen in the urine. The presence of albumen and casts in an acute illness would certainly be looked upon by many as an indication that the kidney has been damaged in the excretion of the products of the infective process; the importance of this really lies in the precautions to be taken lest the damage should become permanent. The directions for the phenylhydrazin test for sugar are hardly full enough; the strength or quantity of the reagents used should be named. The various urinary deposits are well described, and some good illustrations given; the method of testing for tubercle bacilli in the deposit might, however, have been added. That this book has reached a seventh edition shows its merits and usefulness, yet it may be open for some to think that information of this kind can be given quite as expeditiously and satisfactorily by actual demonstration on the part of the clinical teacher.

Clinical Lectures on Certain Diseases of the Eye. By A. da Gama, L.M.Bombay. (Bombay: Nicol's Printing Works. 1893. Demy 8vo, pp. 69.)—This pamphlet consists of five lectures delivered at the Eye and Ear Infirmary in Bombay. The first three lectures are devoted to the consideration of the symptoms and operative treatment of the different varieties of cataract in the old and young. The remaining two lectures contain a description of the *Erythroxylon coca*, and the author's method of employing cocaine in ophthalmic and general surgery.

St. Thomas's Hospital Reports. New Series. Vol. xxi. Edited by Dr. T. D. Acland and Mr. Bernard Pitts. (London: J. and A. Churchill. 1893. Demy 8vo, pp. 636. 8s. 6d.)—This volume opens with an obituary notice of the late Mr. Le Gros Clark. The notice, which is an appreciative estimate of his life and character, is signed with the easily recognised initials of "W. W. W.," and is illustrated by an excellent photograph. The next article reminds us of another and even more sad loss, more sad as the death of a man in the prime of life must ever seem more melancholy than that of a veteran full of years and of honours. The article to which we refer is an admirable clinical study of infantile hemiplegia with acute onset by the late Dr. W. B. Hadden. Among the other papers in the volume mention may be made of that by Dr. H. B. Hawkins on the "Pathology of Typhlitis;" of a communication on "The Complications of Scarlet Fever," by Dr. Foord Caiger; and on "The Relation of Function to Structure in the Mammalian Heart," by Mr. Stanley Kent. Dr. Percy Smith has an important therapeutical paper on "Sulphonal and Hæmatoporphyrinuria." Mr. Bernard Pitts contributes an essay on "The History of Transfusion," and Dr. S. J. Sharkey and Mr. Clutton place on record "A Case of Successful Removal of a Pancreatic Cyst." The volume, which is well illustrated, also contains the usual statistical reports on medical and surgical cases.

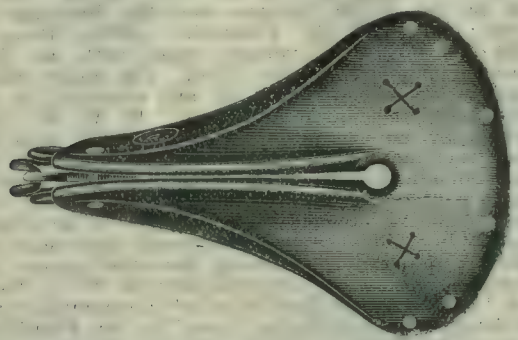
Wright's Improved Visiting List. Compiled by Robert Simpson, L.R.C.P., L.R.C.S. (Bristol: John Wright and Co. 1893. 5s. 6d.)—Amid other signs of the flight of time is the birth of new visiting lists for 1894. Among the first and the best of these is one issued by Messrs. Wright and Co., of Bristol. Within a very handy volume, certainly thinner than many which we have seen adorning the pockets of the "busy practitioner," are contained all the necessary lists, unhampered by the padding which makes some of these pocketbooks so unwieldy. There are a calendar and utero-gestation table, a few pages of doses, antidotes, and suchlike memoranda, and the rest of the book is occupied by lists, records of consultations, obstetric engagements, addresses, etc. One feature of the book is an extremely neat arrangement by which, without enlarging its size, the names of the patients need not be copied more than once a month, space for 160 names each month being provided. The paper is thin, tough, and not inordinately transparent, and as a special mercy we note that the binding seems substantial, and looks as if it would last the year out.

Munificent legacies for public objects are somewhat rare in France, but Mme. Bouisson, widow of a medical professor at Montpellier, has just bequeathed 1,500,000 francs—500,000 francs for the enlargement of the Faculty of Medicine, 40,000 francs for prizes to medical students, 100,000 francs to Mauguio (her husband's birthplace), 100,000 francs for theological scholarships in the Montpellier diocese, and various sums to asylums and other charities.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

IMPROVED CYCLING SADDLE.

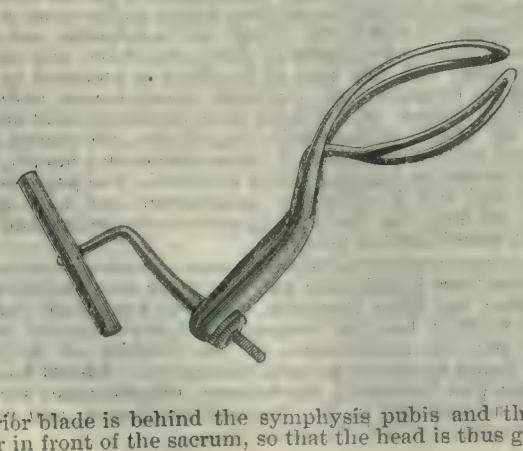
ONE of the most valid objections which have been brought against cycling as a mode of exercise has been that, owing to the small size of the saddle and the usual form of its front portion, an amount of pressure is exerted upon the perineum which must undoubtedly have an injurious effect upon the perineal portion of the urethra. In some cases the discomfort thus produced is very great, and many persons have been compelled to abandon the use of cycles for this reason. In other cases the troubles have made themselves apparent at a later date in some interference with the act of micturition. Mr. Pattisson, 4, Market Place, Oxford Circus, W., has designed a saddle which appears to be a distinct improvement, and to obviate completely this particular objection. The novel point in the saddle is well shown in the accompanying



woodcut. It will be seen that the front of the saddle is bifurcated, and that when the rider is in position no pressure will be exerted upon the central portion of the perineum. The front of the saddle has, in fact, a general concave form from side to side, and the weight of the rider is thus transmitted to the saddle through the ischia. The saddle is well-made, and we are informed that it has been tested by practical cyclists, and found to be thoroughly successful. The pattern is certainly one which deserves the attention of all cyclists.

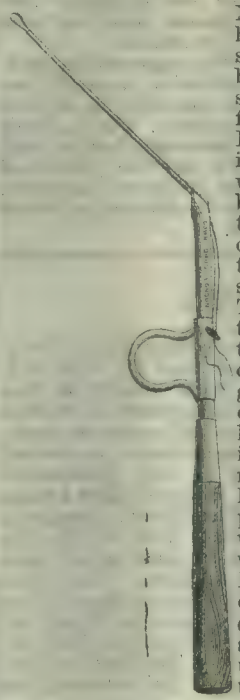
DR. MURDOCH CAMERON'S FORCEPS.

THESE forceps are specially adapted for use in cases of marked contraction of the pelvis, even as small as 3 inches. The blades are marked A for anterior and P for posterior blade. The anterior blade is applied first, and then the second is slipped over its handle. When in position the



anterior blade is behind the symphysis pubis and the posterior in front of the sacrum, so that the head is thus grasped upon its lateral aspects. The handles are fitted with an axis traction rod, which is at once simple and most effective. We are informed that they have been found of service in the Glasgow Maternity Hospital. The makers are Messrs. W. B. Hilliard and Sons, 65, Renfield Street, Glasgow.

AURAL SNARE.



MR. CRESSWELL BABER writes that having found the snares ordinarily sold by instrument makers too bulky for working through a small speculum, he has for some time used a fine aural snare made by Messrs. Down Brothers, the pattern of which is shown in the accompanying woodcut. The wire (very fine iron wire such as is used by florists) runs in a German silver tube, measuring just 1 millimetre in outside diameter. The tube has no thickening at the distal end, and is single throughout its whole length. This has the advantage that after use the wire can be drawn right through the tube, and the latter rethreaded; the only slight disadvantage is that the growth, though cut off, does not always come away with the snare. It can, however, be easily removed by syringing it or other means. The handle is made rather long, which enables it to be firmly held between the three last fingers and palm of the hand. I find, Mr. Cresswell Baber adds, that this snare is very like one used by Dr. C. H. Burnett,[1] of Philadelphia, although it differs in some minor details, and other aurists have doubtless used a similar instrument; it has proved very useful for moving small polypi granulations from the ear.

A NEW TONSIL KNIFE.



IN the case of a tonsillar abscess several causes may prevent the escape of pus after an incision has been made sufficiently deep to be consistent with safety. It is, therefore, my practice when the matter does not escape, to explore more deeply with a probe and then to break down any tissue preventing the liberation of the pus. In every case it is desirable, according to modern views of surgery, to scrape out the abscess cavity. The tonsil knife, figured in the illustration, is adapted to meet all these requirements of bistoury, probe, and sharp spoon combined in a single instrument. The knife is made by Messrs. Mayer and Meltzer, 71, Great Portland Street.

LENNOX BROWNE, F.R.C.S.Edin.
Mansfield Street, W.

INSTEP ARCH SOCK.

WE have received from Mr. Thomas Holland, 40, South Audley Street, London, W., specimens of an improved "instep arch sock," made and patented by him. The new form is furnished with a transverse spring, which shifts the highest part of the arch nearer to the heel than in the old pattern. This is claimed as a distinct improvement, since it brings the sustaining power immediately under that part of the astragalus which is unsupported by the os calcis, and which, owing to the weakness of the calcaneo-scaphoid ligament, is the principal element in flat foot. The instep arch sock has been long and widely used, and the new form appears to embody a distinct improvement.

[1] *System of Diseases of the Ear, Nose, and Throat*. 1893, vol. i, p. 425.

MEDICAL MAGISTRATE.—Dr. E. B. Evans, St. Thomas, Swansea, has been appointed to the Commission of the Peace for that borough.

THE FUNERAL OF SIR ANDREW CLARK.

At Westminster Abbey, on Saturday, November 11th, at noon, a memorial service for the late Sir Andrew Clark, Bart., M.D., LL.D., F.R.S., President of the Royal College of Physicians, was held in the presence of an enormous congregation of friends and the general public. The body was moved from the consulting room at Cavendish Square shortly after 11 o'clock, and, on entering by the cloister door, was met by a procession consisting of the choir and the clergy, namely, Dr. Bradley (Dean of Westminster), Canon Duckworth, Archdeacon Farrar, and the minor canons, the chief mourners, the pall-bearers, the Persian Minister and his secretary, and representatives of the many learned societies with which the eminent physician was associated, many of whom wore their gowns. During the seating of the congregation Chopin's "Marche Funèbre" was played.

The chief mourners were Surgeon-Major Clark, Mr. Andrew Clark, Rev. James Kane, Mr. E. J. Doxat, Mr. Oldfield Thomas, Rev. William Lee, Rev. Edward Nightingale, Rev. J. Elkington, Dr. Stephen Mackenzie, Dr. Barlow, Mr. Paulin, Dr. Sansom, Dr. Allchin, Dr. Hale White, Dr. Drewitt, and Dr. Hadley; and the pall-bearers were the Right Hon. W. E. Gladstone, M.P.; Sir Henry Acland, Bart., Regius Professor of Medicine, Oxford; Sir James Paget, Bart., Vice-Chancellor of London University; Mr. John Whitaker Hulke, F.R.S., President of the Royal College of Surgeons; Sir Richard Quain, President of the General Medical Council; Sir Edward Sieveking, Dr. John Russell Reynolds, and Dr. John Hughlings Jackson.

The outer coffin was of polished oak, and on the lid a plate bore the inscription;

SIR ANDREW CLARK, BARONET,
President of the Royal College of Physicians.
Born October 28th, 1826.
Died November 6th, 1893.

On a purple cushion at the head of the coffin was placed the silver caduceus, or sceptre, upwards of 300 years old, symbolical of the office of President of the Royal College of Physicians, together with the Star and Order of the Second Class of the Lion and Sun of Persia, and the Collar and Star of a Knight of the Order of St. John of Jerusalem. The *cortège* proceeded up the nave to the choir, and the coffin was placed on a purple *catafalque* beneath the lantern, surrounded by numerous wreaths of white flowers, and bearing, outlined in white flowers, the word "Hope" and the cipher R.I.P. Dr. Bridge presided at the organ, and the music used in the office was that of Croft and Purcell. The chief mourners and others being seated, the service commenced with Psalm xc, followed by the lesson, impressively read by the Dean. Sir Herbert Oakeley's anthem, "Comes at times a stillness as of even, steeping the soul in memories of love," was sung by the choir, and, after the two concluding prayers and the hymn, "O God, our help in ages past," the Dean read the collect and pronounced the Benediction. The coffin was then carried to the hearse, which was waiting at the north door, and, the organist meanwhile playing the "Dead March" in *Saul*, accompanied by the mourners, was conveyed to King's Cross Station, *en route* for Essendon.

Amongst those present were the following representatives of universities, departments, and learned societies, universities and colleges:—Oxford, Sir Henry Acland, Regius Professor of Medicine; Cambridge, Dr. T. Clifford Allbutt, Regius Professor of Physic; Edinburgh, Sir Joseph Fayrer; Dublin, Trinity College, Sir Richard Quain; Aberdeen, Dr. Robert Farquharson, M.P.; Royal College of Surgeons of England, the President, Mr. J. Whitaker Hulke; the Vice-Presidents, Sir William Mac Cormac and Mr. N. C. Macnamara; Royal College of Physicians of Ireland, the President, Dr. Walter G. Smith. Departments: Navy Medical, Director-General J. W. Dick, C.B.; Army Medical, Sir Wm. Mackinnon; Director General Local Government Board (Medical Department), Dr. Richard Thorne Thorne, C.B.; British Museum, Sir Wm. Flower. Societies: Royal Society: Professor Huxley, Professor Michael Foster; Medico-Chirurgical, Dr. Church, Pro-President, and Dr. Hare, Treasurer; British Medical Association, Mr. H. T. Butlin and Mr. Ernest Hart; Order of the Hospital of St. John of Jerusalem, Sir Edmund Lechmere, M.P.; Colonel Sir Herbert Parrott, Mr. John Furley, Mr. R. Brudenell Carter. The Royal College of Physicians was largely represented by its Fellows, about 200 being present. Amongst others present in the Abbey were Lord Halsbury, Lord Acton, Lord Kinnaird, Lady Frederick Cavendish, Hon. F. Leveson-Gower, Colonel Hon. W. Colville and Miss Colville, Hon. D. Murray, the Right Hon. John Morley, M.P., the Right Hon. Arnold Morley, M.P.; Sir Edward Sankey, Sir George Johnson, Sir Hugh Gilzean Reid, Sir William O. Priestley, Sir Spencer Wells, Lady Buchanan, Sir Henry Roscoe, M.P., and Miss Roscoe, Lady Flower, Sir Walter Phillimore, Sir William Broadbent, Sir A. Armstrong, Sir A. Garrod, Professor Page, Dr. Sharkey, General and Mrs. Turner, Mr. William Rathbone, M.P.; Rev. Stephen Gladstone and Mrs. W. E. Gladstone, Mr. Jasper More, M.P.; Dr. Braxton Hicks, Dr. W. S. Playfair, Rev. J. J. Coxhead, Rev. Charles G. Williamson, Surgeon-Major Robinson, Mr. Lecky, Surgeon-General Gordon, Rev. R. Mowll, Colonel and Mrs. Edward Neville, Dr. Seguin (of New York), Dr. and Mrs. Crocker, Dr. and Mrs. Platt; Dr. J. E. Pollock, Senior Censor, Pro-President Royal College of Physicians; Dr. W. H. Dickinson, Vicarius for Senior Censor, R.C.P.; Sir George Buchanan, Censor, R.C.P.; Dr. W. B. Cheadle, Censor, R.C.P.; Dr. Samuel Gee, Censor, R.C.P.; Sir Dyce Duckworth, M.D., Treasurer; Dr. Edward Liveing, Registrar; Mr. W. Fleming, etc.

The funeral at Essendon was in striking contrast to the forenoon service at Westminster Abbey, where everything was conducted with a pomp and impressiveness befitting the place. On reaching the terminus of the Great Northern Railway Company at King's Cross the coffin was removed into a van attached to a special train which was in waiting to convey the mourning party to Hatfield. At that station a large number of the townspeople had gathered to watch the arrival of the party, for whom a large number of carriages were in waiting. After a short delay, the company drove a distance of rather over two miles to the village of Essendon, in the immediate vicinity of which the late Sir Andrew Clark's country residence is situate. Amongst those who assembled round the grave were many of the principal mourners who attended the Abbey service. Mr. Gladstone did not attend, but his son, Mr. Herbert Gladstone, M.P., was present, with Lord Kinnaird and many residents in the neighbourhood, as well as leading members of the medical profession from London. The service, a brief and simple one, was conducted by the Rev. W. W. Clerk, Rector of St. Mary's parish, who was attended by the village choir. After the usual portions of the Burial Service had been read, and a hymn, "Jerusalem the Golden," had been sung, the coffin was lowered into the family burying place. Immediately after the funeral the company of mourners drove back to Hatfield, and thence returned, shortly before 6 o'clock, in the special train to London.

Royal Medical and Chirurgical Society.

On November 14th, at the opening of the proceedings of the meeting of the Royal Medical and Chirurgical Society, the first since the death of Sir Andrew Clark, President of the Society, Dr. Church, who was in the chair, said that the gloom which overshadowed their Society at the first meeting of this session had merged into the sadness which they could not fail to experience in consequence of his death. In the full vigour of life and at the summit of his fame he had been struck down by a mortal wound. For those to whom he was near and dear his speedy death intensified the severity of the blow and rendered it more grievous for them to bear, but that the Society—which knew from the first that for their President all active participation in the pleasures and duties of life must necessarily cease—could hardly regret that he had sunk to his rest in the midst of the labours and honours of a singularly complete and successful life. The grace and dignity with which Sir Andrew Clark presided at the Society's meetings, and the pregnancy and appropriateness of the observations with which, out of the ripeness of his knowledge and experience, he was wont to usher in the discussions were still present in their minds; but few except the officers of the Society were aware of the

amount of work, thought, and time which Sir Andrew freely gave whenever he thought he could promote the usefulness or advance the interests of the Society. It was somewhat remarkable, considering the length of time the Society had been in existence—83 years—that the Society had never experienced such a loss as this. No President had ever before died during his term of office. The Society might wish to know what steps were taken under these unprecedented circumstances. An informal meeting of the Council was at once called together, at which it was decided that their senior Treasurer (Dr. Hare) and himself should act as the representatives of the Society, and in that capacity they had attended the memorial service at Westminster Abbey, and accompanied by the resident librarian, and had afterwards gone to the quiet village churchyard at Essendon, where, while the setting rays of the afternoon sun lit up the autumnal landscape, they saw their President laid to rest beneath the overhanging branches of a noble cedar. He then alluded to the steps that had become necessary to carry on the business of the Society under the circumstances. The office of President having become vacant, the Council recommended that, with the consent of the Fellows, the senior medical vice-president should discharge the duties of President until the next annual meeting in March. He pointed out that the Fellows were by no means bound to accept this recommendation of the Council. It was open to the Society to elect a new President forthwith, that is to say, not at that actual meeting, at which indeed not even the expediency of such a step could be discussed, but by a special general meeting which would be convened by the officers of the Society in deference to a request by the Fellows, according to the rules, and the decision then adopted would require to be ratified at a subsequent general meeting.

Dr. Gee moved and Mr. Power seconded the following resolution, which had been approved by the Council: "That the Fellows of the Royal Medical and Chirurgical Society desire to record their profound sense of the irreparable loss that they have sustained by the death of their President, Sir Andrew Clark, and to express their most sincere sympathy with Lady Clark in her bereavement."

We have received the following:

IN MEMORIAM SIR ANDREW CLARK, Bart.

November 11th, 1893.

Stabam fano in sacrato,
Qua solo sanctificato
Jacent clarî Angliæ—

Circumspexi—En, sollennis
Erat visus, et perennis,
Quem videbam undique.

Vasto a concursu itur
Hunc lugere, cui finitur
Omnis dolor, omnis spes—

Magnus medicus decessit,
Et labore requiescit,
Cui non prius requies.

Qui tot morbos allevabas,
Qui tot focis vitam dabas,
Spe finita omnium.

Noscit is, quid tibi debet,
Qui hoc triste munus præbet,
*Dux illustris ultimum—

Illa Ars, tam multis satis,
In hora necessitatis
Nihil prodest domino.

Tibi finis universus—
Pulvis pulveri reversus—
Medicorum maximo.

* The Right Hon. W. E. Gladstone was one of the pall-bearers at the funeral service at Westminster Abbey.

Election of Lord Rector of the University of Edinburgh.—On November 11th the voting took place, when the Lord President of the Court of Session (Mr. J. P. B. Robertson) was elected by 1,145 votes as against 728 given to Lord Reay, a majority of 417. The election was fought on purely political lines, a much-to-be-regretted arrangement in a university contest. There were the usual accompaniments of such elections, finished up by a torchlight procession.

DANGERS OF RIVERS AS SOURCES OF PUBLIC WATER SUPPLY.

The London Water Question.

Whilst the investigations of the Royal Commission on the London Water Supply were going forward, the London Council suspended its action under the provisions of the Metropolis Water Act, 1892. Now we are glad to note that that body intends to obtain powers as soon as practicable for the provision of an additional water supply. The reason for this step is that the Commissioners state that the capacity for supply of the Thames and Lee watersheds will have reached their limit about 1931, and then some outside source will have to be found. Bearing in mind the fact that the various gathering grounds of the country are being taken possession of by other municipalities (provincial towns making provision for a far longer period than forty years), Londoners cannot afford to ignore the danger that in 1931 probably no adequate and suitable source of additional supply will be left for the twelve millions of people who will require an abundant and pure supply, unless perhaps under great difficulties and at an enormous cost. The Council now intends to complete the pending inquiry into the chalk supplies of the lower Thames basin, to prepare a scheme for a public water authority for the metropolis, dealing at the same time, so far as practicable, with the question of purchase; to complete, as far as possible, the investigation of the water companies' accounts; to deal with any Bills that may be promoted by the water companies: and, what is perhaps as important as anything, to deal with the report of the recent Royal Commission, and ascertain whether the conclusions therein as to future supply are to be assumed as established and final. Their task is no light one, but it is becoming very urgent that Londoners should make up their minds on the subject, and take a definite practical step in reforming existing conditions. At a meeting of the London County Council on November 14th the Council resolved that it was desirable to obtain powers for the acquisition of such areas as may be needed for the supply of water to the metropolis, and that the Parliamentary Committee be instructed to publish the necessary notices and prepare a Bill for that purpose.

Excremental Bacilli in a Public Water Supply.

It is upwards of a year since the Local Government Board issued Dr. Theodore Thomson's report on an outbreak of enteric fever caused by the water supply of the Rotherham Corporation, and affecting all the sanitary areas served by their water. In that report Dr. Thomson speaks in no uncertain tone of the Wellgate Spring which issues in the centre of a town of 40,000 inhabitants, and which furnishes a supplemental supply of some 140,000 gallons monthly to the "high level" section which was implicated specially in the epidemic of 1891. Of the spring water he said: "I have had submitted to me five certificates of analysis of this water, one made in 1886, three in 1890, and one in 1892," all by the West Riding county analyst. All contained "indication of serious and similar contamination," referable in at least one instance to "pollution by urine, cesspool drainage, or similar impurity." The *Rotherham Advertiser* states in a recent issue that Dr. Klein has submitted a report to the Corporation of a bacteriological examination of a sample of water from this spring, which records that over and above such bacteria as might reasonably be looked for he finds the bacillus coli in abundance, also a bacillus closely related thereto, and a species of bacillus which is in morphological and cultural respects extremely difficult to differentiate from the typhoid bacillus. Accordingly, Dr. Klein concludes that the water is most probably strongly polluted with excremental matter. Acting on Dr. Klein's report, the Corporation have given public warning to the effect that the water ought to be boiled. The advice may be the best that can be given under existing circumstances, but will it be acted on? Can reliance be placed on a continu-

ance of the practice even if it be commenced? In view of Dr. Thomson's report of last year, in view also of the fact that cholera has been present in Rotherham during the present autumn, and looking to the danger, especially to be feared next year, from any water service liable to contamination, the Rotherham Corporation would be well advised to proceed to the preparation of a water scheme which shall speedily render use of the Wellgate Spring unnecessary. It would be of interest to know the results yielded by bacteriological examination of waters from the remaining sources of supply to which Dr. Thomson also, and on good grounds, took exception. Any conditions conducing to spread of fever will be of tenfold importance should cholera appear in such manner as to threaten the gathering grounds of the Ulley or Dalton sections.

The Dangers of Filters.

Dr. Max Gruber (*Centralbl. für Bakt.*, October 16th) has made some experiments on the well known fact that germs may pass through a filtering material into the filtrate in two ways, (1) by being washed through the filter with the water holding them (this is only possible when the filtering medium if of insufficient density) or (2) by going through it. The slow permeation of the filtering material by growing germs may be checked, he states, by keeping the water at a low temperature, by keeping the filter in constant use, and by occasional removal of the material for sterilisation. Practically, however, it would not be possible to keep drinking water at a temperature low enough for this purpose. Because all filters, if not supervised, are sooner or later permeated by germs growing through them from above downwards, it by no means follows that they are unreliable. To form this conclusion would be to overlook the fact that only such bacteria as are capable of multiplying in water can develop in the pores of the filter. Contamination of the filtrate by pathogenic organisms, especially typhoid and cholera bacilli, is not possible in this way, for water as used for household purposes is quite unsuited to the development of such organisms. Therefore although this permeation of the filter by bacteria necessitates troublesome attention, it brings with it no risk of infection. The danger of infection is associated solely with insufficient density of the filtering material, and this may be an original or acquired fault. Gruber states that the first few minutes should be regarded as the critical period in which to test the value of a filtering material; for Schoefer has shown that material which yielded sterile filtrates tested fifteen to thirty minutes after submitting to the filter freshly inoculated water, permitted the passage of hundreds per c.cm. of the same germs within the first few minutes. The probable explanation is that in the first case the germs had had time to settle on the upper surface of the filtering substance and could not subsequently be washed through. The filtrate should therefore be examined within the first few minutes and care be taken that the germs are actually suspended in the water to be filtered.

Fever and Foul Water.

The epidemic of enteric fever in Paisley and Mid-Renfrewshire appears now to have come to a close, having run through a series of over 700 cases. It appears to have presented several features of special interest. Its inception in the month of July was curiously masked by a circumscribed outbreak of enteric fever, evidently associated with the "walk" of an itinerant ice-cream vendor, in whose family an unrecognised case of the disease had occurred. As time went on and the prevalence of the disease increased it became evident that the ice-cream theory no longer accounted for the prevalence of the disease, and the medical officer for the Burgh of Paisley, Dr. Donald, in his report for the month of September, advised the sanitary authority that the cause of the continued prevalence of the disease in the burgh must be sought for in the water supply. This report the sanitary authority promptly suppressed—"in order to avoid a panic." A few days later, however, the county medical officer, Dr. Campbell Munro, found it necessary to report to the county council that the epidemic prevalence of the disease in the county was limited to the district supplied from the Paisley Water Commissioners' mains, varying, indeed, in intensity in different localities, while outside of this special area there were occurring merely the ordinary autumnal sprinkling of sporadic cases. This was, indeed, but a repetition of an unfortunate chain of events which had characterised the autumn of 1887. The Water Commissioners denied that the epidemic had any connection with the water supply, and called in Dr. Percy Frankland to report upon the quality of the water, and the efficiency of the filtration, which had been called in question. Dr. Frankland, as the result of a chemical and bacteriological examination, advised the Commissioners that the fact that the water was so highly impregnated with organic matter, albeit mostly of vegetable origin, and that bacteria which were at any rate closely allied to the typhoid bacillus were discovered indicated that the conditions in the reservoir, at the time of his examination, were at any rate not palpably hostile to the requirements of the typhoid bacilli. Of the possibility of morbific matter gaining entrance, he said, there could be no doubt, although there was no evidence that the water had received such materials. He further reported that the rate of filtration was in high excess of the usual standard, that the filters were defective, and there were numerous leakages which permitted water to pass without filtration. Acting on the advice of their consulting engineers, Messrs. Leslie and Reid, Edinburgh, the Commissioners have very promptly undertaken to abolish all possible sources of contamination, to increase their filtering capacity by about 50 per cent., thereafter to clean out and repair the existing filters, and to add largely to their filtered-water tanks. It is to be hoped that these organic alterations may suffice to avert any recurrence of such an epidemic.

MEDICAL SICKNESS, ANNUITY, AND LIFE ASSURANCE SOCIETY.

The monthly meeting of the Executive Committee of this Society was held on November 9th, at 429, Strand. The chair was taken by Mr. Ernest Hart, the chairman of the Society, and there were also present the deputy-chairman, Dr. de Havilland Hall, Dr. G. E. Herman, Dr. A. S. Gubb, Mr. E. Bartlett, Mr. F. Wallace, Dr. M. Greenwood, Mr. F. S. Edwards, and Dr. W. Knowsley Sibley.

The statement presented by the Secretary showed that the Society's business was increasing in every branch. Twenty-one proposals were received during the month of October, of which fourteen were from new entrants, and seven from existing members desirous of availing themselves of the facilities for obtaining increased benefits which the recent alterations in the rules afford them.

It was arranged that a circular describing these facilities shall be sent to all members of the Society, along with the renewal premium notices for this month, and it is anticipated that a considerable number will take the opportunity of increasing their sick benefit assurance to £6 6s. per week, and also of adding to their annuities and life assurances.

The question of the valuation of the business of the Society, which takes place at the end of this year, was fully discussed. It was determined that the valuation should be made by the Secretary, Mr. F. Addiscott, who is a certificated actuary, and that the calculations and results should be certified by an independent actuary of rank. Arrangements to this effect have accordingly been made with Mr. George S. Crisford, the Actuary of the Rock Life Assurance Company, who is a certificated Fellow of the Institute of Actuaries, and one of the public valuers appointed by the Government under the Friendly Societies Act. The large experience of Mr. Crisford as a friendly society valuer, and his high rank as an actuary, make this arrangement very satisfactory to the Executive of the Society, and they feel sure that it will be appreciated by the members.

Every month produces evidence of the value of the benefits conferred by membership of the Society, and October was no exception to the rule. In one case brought before the Committee the member had been suddenly stricken senseless, and for over nineteen weeks had been unable to continue his professional work. So swift was the attack that no time had been given him even to advise the Society of his condition, but the Committee considered that in such a case a strict adherence to the letter of the rules would not be in accordance with the spirit in which they were drawn and intended to be applied, and they accordingly met the claim liberally.

Prospectuses and all other information may be obtained on application to the Secretary, at the offices of the Society, 33, Chancery Lane, London, W.C.

THE WORK OF THE PARLIAMENTARY BILLS COMMITTEE.

THE next meeting of the Parliamentary Bills Committee will be held on Wednesday, November 22nd, at 3.30 P.M., when the following reports will be considered. Any members desiring to bring forward other subjects for discussion are requested to communicate at once with the Chairman of the Parliamentary Bills Committee.

1. Report on Amendments of the Penal Clauses of the Medical Act. (The case of the Indian oculists.) 2. On the Law as to Poisonous Proprietary Medicines, with proposals for amendments. 3. On Extension of Sanitary Powers to County Councils.[1] 4. Report on Small-pox in relation to Vaccination and the Cost of Small-pox Epidemics.[2] 5. Special Report on Notification of Infectious Diseases. (To be submitted in proof.) 6. Cholera and the Pilgrims at the Hardwar and other Indian Fairs. Resolution from the Public Medicine Section at the annual meeting held at Newcastle, as follows:

That it be referred to the Parliamentary Bills Committee to take such steps as may be desirable to approach the British and foreign Governments with a view to obtain their intervention in securing measures for the suppression of cholera at the Hardwar and other Indian fairs and at the Meccan pilgrimage; and that for this purpose, also, due submission of the facts be made to His Majesty the Sultan.

7 and 8. To consider the following resolutions passed at the Public Medicine Section of the annual meeting held at Newcastle:

That the Parliamentary Bills Committee of the British Medical Association be requested to bring before the Local Government Board the desirability of taking means, by extending the jurisdiction of the port sanitary authorities or otherwise, to safeguard the island against the danger of persons infected with cholera being landed at any point not under the control of a port authority.

That it is the opinion of the Public Health Section that the extra expenses incurred by the port sanitary authorities in preparing for or dealing with an invasion of Asiatic cholera should be defrayed by the country at large.

9. Physical and Mental Condition of Schoolchildren. Resolution passed by the Council:

That the Parliamentary Bills Committee be requested to consider the best means of carrying out the resolution, that an investigation as to the physical and mental condition of schoolchildren having been made, and a report thereon presented to the Local Government Board, it is now desirable that a commission or scientific inquiry be appointed to the Government to further illustrate the important question raised by that report.

Letter from Dr. Warner thereon; and other business.

COMPULSORY VACCINATION.

HOPES AND SUGGESTIONS FOR THE FUTURE.

AMID much that is discouraging concerning the attitude of the public towards compulsory infantile vaccination, we find the latest official records on the subject such as to inspire hope for the future. The report of the Local Government Board for 1892-93 shows that nearly one hundred thousand children born in England and Wales in 1890 remained unvaccinated "early in 1892," amounting to 113 per 1,000 births against 99 in respect of the preceding year. In the North Midland group of counties the rate was 188 against 159; in the South Midland group, 172 against 141; in Yorkshire, 144 against 130; and in London, 139 against 116. In certain unions we find the rate per 1,000 births to be, in Gloucester, 832; Keighley, 801; Leicester, 787; in ten, over 500 each; in six, over 400; in four others, over 300; and in sixteen others, over 200 per 1,000 births.

But, turning to the brighter side of the matter, we note that seven unions had either no default or under 10 per 1,000; thirty-eight had less than 20 per 1,000 unvaccinated; and "many other unions, some of which have large urban populations," recorded the loss of less than 30 out of each 1,000 births. In Stourbridge it was 17; in Bolton and Kidderminster, 18; in Birkenhead, Dudley, and Barrow, 26; and in Portsmouth, 28. Even in such towns as Middlesbrough, Liverpool, Manchester, Wigan, and Birmingham, the loss only ranged from 41 to 58.

Here, then, is hope that with an enforced law made equally binding on all, much can be accomplished to bring vaccination into general use again. For, since the above good results are obtainable in all parts of the country, notwithstanding the unceasing activity of antivaccinators, and the continued sitting of the Vaccination Commission, there would seem to be great chance of success attending well-directed effort to secure the vaccination of children under the statute, if that statute be upheld alike in all quarters of the kingdom. We feel confident that the amount of default under the Vaccination Acts is in large degree a matter of indifference rather than repugnance, and a knowledge of the fact that local officers would be backed in their efforts to secure obedience to those laws would go far to remove opposition.

So far back as December 10th, 1892, we commended to the consideration of the Royal Commission the question of transferring from boards of guardians to local sanitary authorities the duty of administering the law of vaccination. If it were in the hands of local sanitary bodies responsible to their county council, and through them to the Local Government Board, with such change of procedure as to lymph supply as the popular demand seems to render politic, and with a wise and universal enforcement of the law, the present continued general increase of default would give way to a keener appreciation of the benefits accruing from compliance with that law, and a popular desire to secure those benefits for one and all.

LITERARY INTELLIGENCE.

IN a recent number of the *Journal of the American Medical Association*, Dr. Edmund Andrews, the well-known surgeon of Chicago, takes up the cudgels on behalf of the physique of American women, which, according to Dr. Cyrus Edson, is so sadly deteriorated. On reading the Cassandra-like wail of Dr. Edson, Dr. Andrews and three friends determined to "sample" the community, and see how many of the women known to them had become "physical wrecks" after bearing "one, or at most two, children." By a very moderate amount of conference, supplemented by a little inquiry, they made a list of 163 families in which the mothers had borne from one to thirteen children. Classifying them according to their health, the following results were obtained:—(1) Fifty-two mothers had borne from 1 to 13 children each, and came out with robust, magnificent health, better than that of average men or women; 3 of these had borne respectively 11, 12, and 13 children, and came through in brilliant health; in fact, the women with large families seemed on the average to come out the best. (2) Ninety-five mothers, who had borne from 1 to 8 children each, came out in good, average, nice health, without being, however, so robust as the first class. (3) Eleven were delicate but not great sufferers. (4) Five were confirmed invalids. They could not find a single one physically wrecked by childbirth in a constitution exhausted by overstudy. These women had at the time of enumeration produced about 545 children, which gives an average of over 3 and a third to each mother, and as many of them are still young, and nearly all of them healthy, it is to be anticipated that their husbands will have their quivers yet fuller in due time. On the whole, Dr. Andrews does not despair of the Republic as far as the reproductiveness of the ladies are concerned. In his own words, he has "a cheerful conviction that the women are for the most part all right, and can be depended on to replenish the earth and rule in it in the future as they always have done in the past."

[1] BRITISH MEDICAL JOURNAL, July 15th, 1893, p. 123; July 22nd, p. 187; and July 29th, p. 246.

[2] BRITISH MEDICAL JOURNAL, May 20th, p. 1053.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1893.

Subscriptions to the Association for 1893 became due on January 1st; and notice is hereby given, in accordance with By-law 5, that Branch Secretaries' subscription accounts close on October 31st, and all unpaid subscriptions must be forwarded after that date to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, NOVEMBER 18th, 1893.

THE PARISH AND DISTRICT COUNCILS BILL.

The President of the Local Government Board has every reason to be satisfied with the debate upon the second reading of the Local Government (England and Wales) Bill, better known to all readers of newspapers as the Parish Councils Bill. The broad principles of the Bill received commendation from both sides of the House, and, indeed, there is scarcely room for difference of opinion as to the necessity for some such completion of the Local Government Act of 1888, which gave us county councils and promised that district councils should follow. The outcome of the criticism which the Bill has received, within and without the House of Commons, is to show that while amendment is called for in many points of detail, the measure deserves to rank as a piece of constructive legislation of which any statesman might be proud. Indeed, the chief danger which threatens it would seem to be the multitude of well meant and often valuable suggestions which have been made for its further amendment. Not least in practical importance among them are those directed to the strengthening of the safeguards against neglect on the part of sanitary authorities, and to the establishment of a more rational system of appointment of medical officers of health and sanitary inspectors. For the most part, district councils will differ little except in name from the existing authorities which they are to supersede. There will at first be little alteration in area or in sanitary powers, and probably the same men, or, at all events, the same sort of men, will still be returned. But the environment will be changed in a way which must almost of necessity tend to greater efficiency. Pressure can be brought to bear upon defaulting rural district councils, at all events, by parish councils and county councils as well as by the Local Government Board.

Moreover, the parish councils are themselves to be armed with certain limited sanitary powers, which represent a material advance upon those of the parochial committees of to-day. They include the right to adopt certain permissive Acts, notably those relating to baths and washhouses, public lighting, and cemeteries, and the power to "deal with" certain specified nuisances and to "utilise" any supply of water. These last items are curiously vague, and sadly need more precise definition. The parish council can appeal to the county council in case of neglect or refusal on the part of the district council to carry out works of sewerage or water supply, but no initiative is given to the county council in the absence of local complaint. It would add greatly to the prospect of immediate improvement in the sanitary condition of English villages if this omission were made good by authorising county councils to interfere in either urban or rural districts where the common elementary necessaries of sanitation are ignored. The Bill as it stands gives the county authority no better resource in such cases than the present roundabout method of appeal to the Local Government Board.

As regards the position of what is sometimes a little euphemistically termed the Public Health Service, the reform foreshadowed by the Bill is potential rather than actual, but as we get upon right lines of sanitary government the present anomalies must become more conspicuous and therefore more impossible. It is refreshing to those who know something of the working of the less efficient sanitary authorities to read Sir Walter Foster's caustic comments upon the appointment of "inspectors of nuisances whose orders were to do nothing, and medical officers of health at salaries so small that they were meant to do nothing." When the Parliamentary Secretary of the Local Government Board finds himself constrained to speak in this uncompromising fashion, the necessary reforms cannot be far distant. There is room for hope that when the Bill emerges from Committee it will be found to include some such clause as that which was suggested by Lord Playfair, and emphasised in the House of Commons by Mr. Heneage, transferring to county councils the control of the appointment and tenure of office of medical officers of health.

THE TRAUMATIC NEUROSES.

The subject of the traumatic neuroses is particularly adapted for discussion by reason of its importance from a practical —especially a medico-legal—point of view, its comparative obscurity, and the divergence of opinion which still obtains upon it. In the Section of Medicine at the Newcastle meeting the subject was introduced by Dr. Byrom Bramwell in a paper entitled Concussion of the Spine, more especially in its Relationship with Railway Accidents and Injuries, which we publish in another column.

Spinal concussion is often, of course, only one result of a railway accident. In most "railway cases," as was pointed out in the discussion following Dr. Bramwell's paper, the entire nervous system seems to participate in the shock; the resulting nervous states, commonly included under the term "traumatic neuroses," are produced partly by cerebral, partly by spinal disturbance. This designation is an appropriate one for the disorders under consideration, indicating on the one hand their apparent cause, on the other their probable functional nature.

The symptoms manifested by an individual who has received a "general shake" in a railway collision are often referred to concussion of the spinal cord even when there has been no direct injury to the back. Dr. Bramwell is of opinion that, in the great majority of such cases, there is no sufficient evidence to show that the patient has sustained concussion of the cord, though there may have been concussion of the spine, a term of wider significance, referring merely to the mode of injury. This view was endorsed by almost all those who took part in the discussion. The case of colliers was referred to, than whom probably no class is

more liable to direct injury to the back. In some instances the spinal symptoms may with much confidence be ascribed to concussion of the cord; yet colliers do not present the symptoms of "railway spine," although in their case the degree of violence directly applied to the back is much greater than in the railway cases. The discussion further elicited a general corroboration of Dr. Bramwell's statement to the effect that organic disease of the cord and spinal membranes is very exceptionally the outcome of railway injuries—indeed, very rarely results from actual concussion of the cord, as seen in colliers and others.

With the view that the nervous symptoms in these cases of traumatism are for the most part subjective there was general agreement. Apart from the neuroses are the cases of more or less elaborate imposture, of great importance from the point of view of litigation. Of these but little was said on the occasion in question. In some, discrimination cannot fail to be attended with difficulty, for simulation may easily pass undetected when the actual malady manifests itself in a confused collection of subjective states. If objective symptoms are absent we are deprived of the surest means of discriminating between the real and the feigned. Knowledge that the disorder is mainly functional should dictate especial caution in another respect, namely, the recognition of the signs of organic disease. This point was duly emphasised in the course of the discussion.

At the twelfth German Medical Congress, held at Wiesbaden in the spring of this year, the subject of the traumatic neuroses was introduced by Strümpell and Wernicke in two communications, which formed the basis of a discussion. The former authority laid stress upon the importance of the psychical factor in the production of the symptoms, and his remarks were endorsed by subsequent speakers. Some appeared to look upon the traumatic neuroses as sequelæ of an actual cerebro-spinal commotion, and to believe that the original injury had produced a fine molecular disturbance in the nervous matter. For the majority of cases met with this explanation is inadequate, for the simple reason that the injury was far too slight to have produced serious material disturbance of the central nervous system. By keeping in view the psychical disturbance which accompanies the physical shock a clearer conception of these cases is arrived at; it is then apparent that it is of no consequence whether the trauma was productive of a greater or less degree of material commotion, provided only the attendant psychical commotion was sufficiently pronounced.

The influence of nervous predisposition to mental disturbance—whether inherited or acquired—in the production of these nervous disorders was dwelt upon by Lenhartz. States of mental alienation are especially apt to supervene where hereditary predisposition of this kind exists, and Jolly recorded it as his experience that severe psychoses not infrequently develop in cases of traumatism which were at the outset regarded as serious. A point associated with the psychical disturbance just considered, and one important to bear in mind in the treatment of these cases, was brought forward by Bäumler, namely, the notable susceptibility to "suggestion." Especially in the earlier stages should the physician and friends be careful to adopt a cheerful tone towards the patient; drugs and appliances should, as a rule, be discarded, a hopeful prognosis given, and not too much attention bestowed upon the case. Many so called objective symptoms have certainly been produced by "suggestion," through repeated examination of the patient.

In practice, the question of imposture is probably the most important in connection with the subject of the traumatic neuroses. This was especially emphasised by Unverricht, who gave it as his experience that simulation was common. He went so far as to say that cases of traumatic neuroses will be found to diminish in frequency with the perfection of our methods for detecting simulation. Unverricht has found chloroform useful for this purpose; the patient is thrown, by its means into a state of confusion, short of actual narcosis, in which he forgets his "disease," and can in certain cases be readily exposed. Thus, in a case of spastic contraction of the arm, the patient, whilst under chloroform, gesticulated freely with the affected limb. Whether, however, it is a matter of discovering imposture or of estimating actual damage sustained, it is wise—especially when the question of compensation is under consideration—to stipulate for at least a second examination after the lapse of a certain time.

The objective evidence of disease is well known to be scanty in cases of nervous disorder following traumatism, and this is especially true when the term "objective" is critically employed. Amongst the valuable symptoms of this class Saenger places the group described by himself and Wilbrand under the name "nervous asthenopia" (concentric narrowing of the field of vision, diminution of central acuity of vision, sparks and fog before the eyes); these he has shown to exist in many cases of traumatic neuroses. It is important to note that a second examination, after some time has elapsed, may reveal this condition, although in an early stage there were no signs of it. Amongst objective symptoms Bäumler classes certain psychical states, such as pronounced depression.

Upon the subject of prognosis but few speakers expressed themselves, and there was no consensus of opinion, except as regards extreme caution, the advisability of which was uniformly admitted. Obviously each case must be estimated by itself.

In respect to treatment, beyond a reference by various speakers to the importance of directing the patient's attention as far as possible away from his own case nothing was said, if we except a strong recommendation of massage by Ziemssen, of Wiesbaden.

THE SCOPE AND METHODS OF WATER EXAMINATION.

A number of circumstances have recently conspired together once again to attract public attention to the hygienic importance of water supply, and the means which are at present available for determining the fitness or otherwise of waters for domestic purposes. That this subject should have again come to the surface is not surprising considering the large amount of evidence relating to it which was presented by leading experts to the late Royal Commission on the London Water Supply, whilst the terrible experiences of Hamburg and some other Continental places during the recent cholera epidemics have forcibly brought home even to the most careless the importance of watching over the purity of this first necessary of life. Until some eight years ago, the only available test by means of which the quality of

a water intended for dietetic use could be ascertained was that of chemical analysis. Very different claims are made by different persons as to the scope of chemical analysis in relation to water, but to any impartial person it is obvious that although its sphere of usefulness is a very extended one, it is circumscribed and limited by the very sharpest boundaries. A careful chemical analysis can determine whether a sample of water is markedly polluted with organic matter, and in many cases can actually detect whether this organic matter is principally of animal or of vegetable origin; it cannot, however, reveal the extent to which living matter is present, nor whether any of that living matter has the power of causing those zymotic diseases which, like typhoid fever and cholera, are known to be communicable by drinking water. On the other hand, it has the power, more especially in the case of well water, of ascertaining whether the water is principally derived from the virgin and comparatively untainted strata of the earth's crust, or from such as are largely defiled by the accumulations of animal refuse. Such are the pretensions which conscientious water analysts have uniformly made, whilst they have as resolutely refused to lay claim to any further power of divination. On the other hand, there have, of course, not been wanting others who have unhesitatingly extended their inferences and drawn conclusions, often from the scantiest analytical data, as audacious as they were unwarrantable and misleading.

With the great recent advances in bacteriology naturally came the endeavour to supply the unavoidable deficiencies in the chemical examination of water for sanitary purposes. Methods were speedily devised for ascertaining the number and varieties of bacteria present in water, whilst more recently special modes of investigation have been perfected for detecting with a considerable degree of certainty the presence of the specific micro-organisms of cholera and typhoid fever. But just as some persons have exaggerated the scope and powers of chemical analysis, so others have attached an importance to these bacteriological methods of examination which they do not possess.

Perhaps the limits within which each method of examination can be usefully employed may be most clearly illustrated by means of concrete examples. Thus it has long been customary to submit some more or less turbid surface waters to the process of sand filtration before distribution; the chemical analysis of such water before and after filtration exhibits such a comparatively small difference in the proportion of dissolved organic matter that this process was not formerly regarded as hygienically of any great importance, but when the water before and after filtration was tested by means of bacteriological methods, it was found that an enormous difference existed between the unfiltered and filtered waters respectively. This great contrast was first shown in the case of the London water by Professor Percy Frankland some eight years ago. His investigations revealed that out of every 100 bacteria present in the unfiltered river waters, on an average only from 1 to 2 were found in the water distributed to the metropolis. This great importance of sand filtration, demonstrable by bacteriological methods only, has been put to a terrible practical test in the recent cholera epidemic at Hamburg, for whilst this city supplied with Elbe water in the unfiltered state suffered so severely, the contiguous town of Altona, which was supplied with Elbe water abstracted below Hamburg, and therefore of even worse chemical quality, but submitted to filtration before delivery, remained almost free from the disease. Again, whilst chemical analysis is unable to check the efficiency of such filtration, bacteriological examination is able to detect imperfections in the filters, and has shown how the process must be carried out to secure the maximum degree of safety. On the other hand, a well water might exhibit on bacteriological examination a very small number of micro organisms, indicating that the water had undergone very perfect filtration through the adjacent strata in reaching the well, and on this evidence alone would be regarded as fit and safe for drinking purposes. In the same well water, however, chemical analysis might very possibly discover a large proportion of nitrates, and although this would in no way prove that the water was dangerous to drink at the moment, it would clearly indicate that the water in passing to the well had traversed strata which had received large quantities of animal refuse. In consequence of such a discovery the prudent and conscientious analyst would point out that although the water might for long periods of time be quite wholesome, the possibility of disaster would be ever present, for an accidental fissure in the ground occasioned by frost or some similar cause, or perhaps a heavy flood of rain, would at once afford an opportunity for dangerous polluting matters to be admitted without filtration into the well. Numerous instances of this kind are within the experience of all who have devoted much attention to these matters, and they serve to emphasise the necessity of taking a broader view of the results both of chemical and bacteriological examination of waters. A water is not to be adjudicated upon from the bald results of either form of examination, but all the factors—past, present, and future—which are involved must be duly taken into consideration if a conclusion of any value is to be arrived at. Unfortunately this very particular, in which chemical analysis is capable of rendering such signal service, is systematically neglected by a large proportion of those persons who undertake to analyse water and pronounce upon its merits and demerits.

This matter is adverted to in an interesting article which appears in the current number of the *Practitioner*, in which Mr. Stoddart, of Bristol, points out the serious errors of judgment which arise through the determination of nitrates being omitted by a large number of water analysts. There can be no doubt that the primary cause of this neglect is that the determination of nitrates in water involves more skill and labour than a great many water analysts can or care to bestow for the remuneration which the public in general are prepared to give. In short, the average analyst has been reduced to "cutting his coat according to his cloth," that is, shaping his analysis to his client's purse, with the result that a large number of water analyses so-called are all but worthless, whilst the dogmatic opinions often founded upon them have brought down contempt in many quarters on the practice of water analysis in general. The adjudication on a sample of water is in many cases such a difficult matter that a conscientious analyst must not leave any stone unturned in endeavouring to throw light upon its nature by every analytical means available; but as the labourer is worthy of his hire, such an exhaustive investigation cannot be made for the minimum wage which is

at present paid for work which obviously ought to be regarded as of the most responsible character.

We must, in conclusion, refer to a very prevalent opinion in some quarters that the ultimate object of all water examination will be the determination of the presence or absence of the zymotic poisons, and that therefore the bacteriological methods will alone be employed in the future. A little reflection must, however, surely convince even the most superficial inquirer that this search for pathogenic bacteria is in general a matter of very little real importance, inasmuch as even in the most contaminated waters such zymotic poisons will only be present under comparatively exceptional circumstances, and that a water which is free from them to-day may contain them to-morrow. The guidance we expect from a water examination is not so much as to whether the water is fit to drink at the moment, but as to whether it may at any time be liable to become dangerous to health, and such information we are now happily able to obtain with a greater degree of certainty than heretofore by the judicious application of both chemical and bacteriological methods of inquiry.

Dr. C. S. Sherrington, Professor Superintendent of the Brown Institution, will give a Brown Lecture "On the Knee-jerk," in the theatre of the University of London, on Tuesday next, at 5 P.M.

We are asked to state that subscriptions to the Andrew Testimonial Fund, which will be closed at the end of this month, should be sent to Dr. W. S. Church, 130, Harley Street, W.

At the last meeting of the Royal Institution of Great Britain the managers reported that they had elected Mr. Charles Stewart, M.R.C.S., Fullerian Professor of Physiology for three years.

It will be gratifying to the numerous friends and patients of Sir Andrew Clark to learn that, shortly before the death of the eminent physician, Mr. G. F. Watts, R.A., completed a portrait of him which he intends to include in the series of portraits of celebrities painted by him during the last twenty years, which he proposes to present to the nation. Sir Andrew himself is said to have been so pleased with the picture that, on seeing it in its finished state, he cried out, "Why, it thinks!"

H.M.S. VICTOR EMANUEL.

With reference to the statement widely circulated that an outbreak of fever had occurred on H.M.S. *Victor Emanuel* on the China station, we may state that there is no information in the office of the Medical Department of the Admiralty corroborative of this statement. Should sickness of an epidemic nature have occurred in this ship, the medical officer would have specially reported the same.

A FOOLISH GUARDIAN.

One of the gentlemen who issue red tickets to dispensary doctors in Ireland has just had to pay for his lack of wisdom. The woman whom Dr. Gardiner, of Arklow, was sent to see was not ill at all, and it subsequently appeared that what was required was that the doctor should report on her inability to work, as she had been refused outdoor relief. Dr. Gardiner very properly claimed two guineas from the guardian who issued the ticket and 6s. for car hire. The case came before the county court judge at Tinahely, Wicklow, last week, and a decree for the amount, with a guinea costs, was granted.

MEMORIAL WINDOW TO THE LATE SURGEON-MAJOR PARKE.

It is contemplated, if the necessary subscriptions are obtained, to erect a memorial window to the late Surgeon-Major Parke in the church of Ballybay, where the deceased formerly acted as dispensary medical officer. The subscriptions are limited to half a crown from medical practitioners only. Up to the present only £13 2s. 6d. has been received, and the expenditure for postage, circulars, etc., has reached £7 8s. 4d. We have been requested to state that subscriptions may be sent to the Rev. Blayney R. Young, the Rectory, Ballybay, co. Monaghan, Ireland.

FALSE MEDICAL CERTIFICATES.

We greatly regret to find ourselves so frequently confronted with reports of cases in which medical men have subjected themselves to penalties for giving certificates containing statements which are false. In nearly all the cases the tale is either that the doctor did not arrive till after death, and then, having convinced himself of the cause of death, gave a certificate on the ordinary form; or, that while Mr. A. had attended the case, Mr. B., who had never seen the patient, gave the certificate. In cases of the first class often no harm is meant, and it is a mere error of judgment, although it is difficult to understand how judgment can so err as to allow a man to state what he must know to be untrue. In cases of the second class, however, there is generally an unqualified assistant, or a "branch," at the bottom of the mischief; and when men, for the sake of maintaining the status of their deputies in the public eye, are ready to sign their names to false statements, they are rightly, even if insufficiently, punished by the fines that are imposed upon them. It is indeed a pity that members of an honourable profession should descend so low.

THE DIPHTHERIA EPIDEMIC IN LONDON.

During the past two months the mortality from diphtheria in London has been without precedent, and in each of the past eight weeks the deaths from this disease have been higher than in any previous period on record. No fewer than 103 fatal cases of diphtheria were registered in London last week; this is the highest number on record, the nearest approach to it having been 96 in the last week of September. The mortality was practically confined to children, 73 of the deaths being children under 5 years of age, and 29 of young persons aged between 5 and 20 years, most of whom were under 10 years of age. Only one of the 103 deaths was of a person aged upwards of 20 years. A number of the fatal cases occurred in the Metropolitan Asylums Hospitals; after distributing these and all other institution cases to the sanitary districts in which the patients had previously resided, it appears that 10 belonged to Hackney, 9 to Marylebone, 7 to Greenwich, and 6 each to Poplar, Battersea, Wandsworth, and Camberwell sanitary districts. In proportion to population, Central London showed the highest mortality from diphtheria, and West London the lowest. Among the various sanitary districts the highest proportional fatality of this disease was recorded in Marylebone, Hackney, St. Giles, St. Luke, Poplar, Bermondsey, Battersea, Wandsworth, and Greenwich.

THE INFLUENZA EPIDEMIC.

There is, we learn, undoubtedly another epidemic of influenza prevailing now at Birmingham. Some twenty or thirty new cases are seen daily as out-patients at the General Hospital, and there has been an epidemic amongst the nurses and residents, thus necessitating closing a ward for a time and using it for the residents. At the Queen's Hospital not so many cases are being seen. Practitioners report that there are a great many cases, especially in Edgbaston. The cases have hitherto not been so fatal as in earlier epidemics, but have been attended with just as much prostration and depression afterwards as in previous epi-

demics. The death-rate of the city of Birmingham rose last week to 26.5. This was not due to influenza, at any rate directly, but was entirely due to bronchitis and pneumonia. There were eight deaths registered as due to influenza last week and three the week before.—Our Sheffield correspondent states that influenza has been reported in many Derbyshire villages and in many parts in the neighbourhood of Sheffield.—Our Edinburgh correspondent writes: During the last ten days or so influenza in epidemic form has again appeared in Edinburgh. So far as we have heard, its type differs from former epidemics in being manifestly less severe both in the initial attack and in the sequelæ. It also differs in that there is a relatively larger number of children affected than previously. The present writer saw six children of one family seized within a few hours of each other. In adults the temperatures do not seem to run so high, but there is in many cases great disturbance of sleep for several nights. The nervous prostration is well marked, as are the symptoms of pulmonary catarrh.—It is stated that influenza is at present epidemic in Southern Russia, and that it is rapidly spreading westwards, having appeared in an epidemic form in one of the suburbs of Berlin. We must not, however, be too ready to look on this recrudescence of the malady as indicating any fresh epidemic wave passing over Europe. Unfortunately, influenza has never really left us since its revival in 1890, cases having occurred in various parts of the country with more or less frequency, sometimes in the form of undoubted examples of the disease, but more often taking the shape of ill-defined attacks the nature of which has hardly been made manifest until the occurrence of the prostration during convalescence which is so characteristic of the disease.

DEATH UNDER CHLOROFORM.

We are indebted to Mr. G. E. Norton for the following account of death under chloroform at the Middlesex Hospital: The subject, a short, stout, plethoric man, aged 43, was brought into the anæsthetic room to be anæsthetised, in order that the rectum might be examined for an ulcer from which he was supposed to be suffering. His nervousness and rigidity prevented his being examined without an anæsthetic. A.C.E. was the anæsthetic chosen, but, after inhaling it for a short time, he became so excited and rigid that chloroform was given, when he soon became insensible, and was taken into the operating theatre, and placed on the table on his left side. He became rigid again after the moving, and the chloroform was again applied, when breathing became stertorous, and suddenly ceased. The patient was immediately turned on his back, the tongue drawn forward, and artificial respiration resorted to, ether injected, and warmth applied to the heart. After a few minutes respiration was restored; the pupils, which had dilated, began to contract, and the patient appeared quite right again, when suddenly the respiration again ceased, and all efforts failed to restore it. The pupils this time did not dilate, so that there was hope of getting the man round again, but this was not fulfilled. The *post-mortem* examination revealed a fatty heart, but no valvular disease. The man was very frightened about taking an anæsthetic, and was alcoholic. Eleven years previously he was placed under an anæsthetic for urethral abscess, at which time he nearly died.

A QUITE GRATUITOUS OFFER.

To serve on the council of one's town is doubtless a high honour, and one which those who are oppressed with a strong sense of civic responsibility may fairly seek to have imposed upon them. Unfortunately for Dr. Menzies, the Medical Officer of Health for Inverkeithing, there is a law that no councillor can hold an office connected with the burgh from which he draws a salary; hence, when he was elected on the council, he found his two positions incompatible. He solved the difficulty, however, by asking to be retained as medical officer of health without a salary, and this generous request was granted. While congratulating Dr. Menzies on the possession of so irrepressible a fund of public spirit as to make him long to serve his fellows in such multiform capacities, we cannot approve of his offer to fill so important a post as that of medical officer of health without remuneration. No new departure in the direction of gratuitous medical service should be allowed to take place without protest. The whole community owes an immense debt of gratitude to the sanitary service of the country, and no branch of the profession better deserves good treatment and good pay. The question of remuneration is in its case a pure matter of business, and is never complicated with those feelings of charity or pity which so limit the earnings of those who have to receive payment from the poor. It must be only a very urgent and peculiar state of affairs which can justify a medical man in giving his professional services gratuitously to a public body like a burgh or corporation.

THE PRESIDENCY OF THE ROYAL COLLEGE OF PHYSICIANS.

There is, of course, much private discussion as to the choice of the successor in the Presidency of the Royal College of Physicians of London to Sir Andrew Clark. No steps have yet been taken in the matter. Among the names canvassed is that of Sir Richard Quain, between whom and Sir Andrew Clark the choice of the College lay on the last occasion, but he will probably not be willing to leave the eminent post of public usefulness which he at present occupies as President of the General Medical Council, unless in response to the practically unanimous desire of the Fellows expressed in some unmistakable manner. Other names mentioned are those of Sir Edward Sieveking, Dr. Wilks, Dr. Russell Reynolds, Sir William Roberts, and Sir George Buchanan.

MILK V. BEER.

It has generally been observed that the decrease in the amount of alcoholic liquor consumed in a public institution has been accompanied by a corresponding increase in the consumption of milk. At a recent meeting of the governors of the Devon and Exeter Hospital, however, complaint was made about an increase of twenty-seven quarts of milk daily, the nurses' beer having been withdrawn and beer money substituted. The latter alteration had been effected as the issue of a special inquiry about a year ago after a complaint from the nurses of insufficient diet. With the discontinuance of the beer an unlimited supply of milk was allowed. It was alleged that a doubling of the number of nurses accounted for the rise in the cost of milk, but it would be useful to have a return of the exact facts as to the decreased expenditure on alcohol and the increase on milk, with the corresponding number of inmates, nurses, and attendants.

"LANGUAGE LEAVE" IN INDIA.

It is well known that under the regulations at present in force in India a medical officer cannot draw the staff allowances for "medical charge," civil or military, until he has passed the qualifying examination in a native language. The authorities, however, while rigidly applying this rule, do not hesitate to call upon officers to discharge the duties of responsible medical charges before they have had time to qualify in this particular, but even to send them to frontier posts, where it is impossible for them to obtain the indispensable assistance of a *munshi*, and to keep them in such positions as long as the convenience of the service demands it. But even this hard measure is not all that medical officers have to complain of. In this, as in many other ways, an invidious distinction is made between combatant and medical officers. The former, when serving in a frontier force, always get what is called "language leave" to go

elsewhere for a *munshi*, a privilege refused to medical officers. The authorities, while exacting a strict standard, refuse the same opportunities for preparation. Nor is even this all. The staff corps men are cut half their staff pay when on "language leave;" the officers of the Indian Medical Service not only get no "language leave," but get no staff pay until they pass. The Indian Medical Service is in the present day so shorthanded that at many stations one man is often made to do the work of three, the result being that it is almost impossible to obtain the needful indulgence of leave until broken down by ill-health. The above facts speak for themselves, and are alike unjust, cruel, and impolitic. The Commander-in-Chief and many of the principal medical officers have represented to Government the gross injustice of the rules above described, hitherto in vain; yet the Government affects surprise at the "grumbling" and "discontent" of "doctors."

LONDON CANALS.

The pollution of the Regent's and Grand Junction Canals has been the subject of inquiry by the sanitary authorities of the districts through which the canals pass, as well as by the London County Council, which has received from its medical officer a detailed report, giving account of all the pollutions which the canals receive. The Sanitary and Sewers Committee of the Marylebone Vestry has, we now learn, recommended the Vestry to ask the Council to enforce the Rivers Pollution Prevention Act. Anyone who has had experience of this Act would know how cumbrous it is in its operation, and how ill-adapted it is to secure the removal of small sources of pollution. For this purpose the powers of sanitary authorities under the Public Health Act are much more likely to be effective. It will be interesting to observe whether other sanitary authorities are of the same mind as the Marylebone Committee.

A NATIONAL DANGER.

We are glad to learn that our action in calling attention to the grave danger to the whole country caused by the sanitary deficiencies of King's Lynn has earned the outspoken gratitude of members of the Town Council. The matter of the water supply, to which we have on several occasions referred under the above heading, is to be taken seriously in hand. The Town Council of King's Lynn, at its meeting last week, adopted by 12 votes to 7 a resolution to the effect that application should be made to the Local Government Board for a provisional order, to be confirmed by Parliament, to repeal, alter, or amend the existing waterworks, and to bring water from a satisfactory source into Lynn in iron pipes. It is understood that a provisional order will be sought for borrowing £28,000 for carrying out the scheme. The Council deserve the greatest credit for having had the courage to come to this wise decision in face of the short-sighted opposition of a majority of the ratepayers. Since our last reference to this subject, the health of the borough has improved materially. Owing to the prompt action of the Sanitary Committee in closing the elementary schools for a fortnight, what threatened to be a severe outbreak of diphtheria has been checked. Only two fresh notifications have been made during the last week, and cases recently observed have partaken more of the nature of follicular tonsillitis. During the last ten days only one case of typhoid fever has been notified. A site for an infectious hospital has been selected by the medical officer of health and the borough surveyor, and the Town Council have voted £400 for a temporary building.

COMPULSORY EDUCATION IN IRELAND AND DISPENSARY DOCTORS.

The Irish Medical Association has made a timely protest against the new injustice which is about to be inflicted upon Irish Poor-law medical officers under the Compulsory Education Act, which comes into operation on January 1st, 1894. Under its provisions a registrar or superintendent of births and deaths must give a certificate of any entry for a fee not exceeding sixpence, but the dispensary doctor is required to give a certificate stating that a child is ill without any fee whatever. The Association appealed to the Commissioners of National Education on the subject, but these gentlemen have no power, and must only administer the Act as it stands. It is pointed out by the Association that if the medical officers refuse to perform this work there is no means of compelling them to do so. This being so, we think the dispensary doctors will be wise in taking an opinion as to their position. A test case could easily be tried. Certainly the opinion of the Local Government Board could be obtained. The medical officers were appointed under the provisions of the Medical Charities Act, and it is important to know whether the Local Government Board can hold them to incur penalties at their hands for refusing to perform new duties under a new Act of Parliament administered by another body, and containing no penal clauses.

AN IRISH ELECTION.

Curious scenes have been enacted in Tulla, county Clare, where already two abortive attempts have been made to elect a medical officer to the workhouse. There are two candidates —Dr. Stephen Scanlan, who holds the dispensary, and Dr. M. C. Molony. On October 24th a mob took possession of the boardroom, closed the doors, and refused admission to the guardians, with the exception of two. Stones and bullets were thrown, and finally the election was adjourned. The second attempt was made on November 5th. The scene in the boardroom was indescribable. A local character took the chair, and amused the crowded audience by singing. When Dr. Scanlan appeared, one of the crowd jumped on the table and assailed him with abuse. The chair was taken by a guardian, and when the business of the election was reached the crowd leaped upon the table, and demanded with loud voices that two doctors should be appointed. The clerk seized his books and beat a retreat; and, finally, the chairman left his seat, and the election was again postponed. Then there was an interchange of blows, and some of the mob were roughly handled. A force of forty police was in the neighbourhood preserving order outside the workhouse. The story is not pleasant reading, and in view of such disgraceful proceedings it is hard to believe that the ultimate selection can be made with desirable calmness. There is obviously a well arranged plan to interfere with freedom of election. It would be a salutary lesson if the Local Government Board refused to sanction the appointment of any candidate while this terrorism exists. The Board of Guardians itself ought to be removed, and paid guardians be appointed, to whom the selection of a medical officer could be entrusted.

"COVERING" UNQUALIFIED MEDICAL PRACTITIONERS.

The necessity for some agency to look after the interests of the medical profession and the public could not be better exemplified than by the circumstances attending the conviction of Mr. Holland for giving a false death certificate, which took place at the Worship Street Police Court last week. The facts of the case are the following: Premises at w90, Green Street are occupied by an unqualified man—a 1Mr. Davies. Although the name of Holland—a registered practitioner—is on the outside, that gentleman does not appear to reside there, and from the evidence there is reason to believe that the business is usually conducted by Mr. Davies, the former only being called in when the presence of a legally-qualified practitioner becomes indispensable. Under these circumstances, on October 7th last, a midwife attending upon a poor woman of the name of Hewett, finding the case unusually difficult, sent for the assistance of a

duly-qualified practitioner, purporting to be carrying on his profession at 190, Green Street. The messenger—the husband—brought back with him an unqualified substitute, according to the report before us. He said, in his evidence at the court: "I did not know 'Dr.' Holland, so I thought I was bringing back 'Dr.' Holland to attend on my wife." This substitute, it would seem, actually attempted to perform some obstetrical operation, and, shortly after, the patient died. Mr. Holland subsequently gave a death certificate without having ever set eyes on the patient. The suspicions, however, of Mr. Winter, the district registrar, were aroused, and he communicated both with the coroner and the Registrar-General, and, as the result, proceedings were instituted against Mr. Holland. In reviewing these proceedings two points may be specially noticed: (1) That the prosecution on the part of the Registrar-General is merely directed to draw attention to the breach of the Registration Act; that no attempt is made to show the serious nature of the offence, which is the almost invariable cause of the breach of the law, namely, the illegal "covering" of an unqualified practitioner, or Mr. Holland would never have been let off with the very inadequate penalty of less than half the fine imposed by the law. (2) It is satisfactory to be able to report that, although the fact of the impending prosecution was only known to the London and Counties Medical Protection Society a few days before the proceedings came on, a Council meeting of the North-Eastern Division of this Society was at once summoned, and a solicitor instructed to watch the case on their behalf. Unfortunately, Mr. Beckingsale was not allowed to put questions to witnesses. Had he been permitted to do so, Mr. Bushby must have had facts brought to his knowledge which would have caused him to take a different view as to the serious nature of the offence, and we cannot help thinking that if the Society's representative had had the conduct of the prosecution the magistrate might have preferred to send the case to the sessions rather than take the responsibility of dealing summarily with it. In conclusion, we cannot but express our surprise that so able and acute a magistrate as Mr. Bushby should have made no comment on the facts pleaded by Mr. Morris, the defendant's solicitor, as extenuating circumstances, namely, that the unqualified man Davies had had "great experience" and had often used instruments successfully in similar dangerous cases.

THE FUTURE OF FEVER IN LONDON.

At a recent meeting of the Strand Board of Guardians, Mrs. Evans drew attention to a statement said to have been made by some medical authority to the effect that, with certain precautions, fever cases could be as well treated at home as at hospitals, pointing out that, if that were so, it would be well for the guardians to take the matter in hand, for if something were not done it seemed as if they would have to build an almost endless number of hospitals. It is quite easy to understand the feeling of hopelessness engendered in some by the facts of the present epidemic, but it must be borne in mind that since quite an early date in its history the accommodation at the disposal of the Asylums Board has been entirely inadequate for anything like a complete isolation of the cases which presented themselves. As regards the individuals attacked, the hospitals have done good service; as regards the epidemic, they have done but little, the proportion of the cases they could isolate being so small. We may fairly hope, however, that next year, with the larger number of beds which will be available, isolation will be much more efficiently carried out, and that the disease will in consequence be more effectively held in check. It must not, however, be forgotten that one of the causes of the failure of the efforts made to control the epidemic this year has been the almost complete absence of any power of selecting the cases which it would be most useful to isolate. Difficult as it may be to explain, it remains a fact that scarlet fever has comparatively little tendency to spread in some parts of London, whereas in others the introduction of an infection means the outbreak of an epidemic. The utilisation of the hospitals to the best advantage demands, then, that the ambulance arrangements should be under the control of some central official with full knowledge of these different areas, who, like a wise general, shall decide which points must be defended at all hazard, and which may be safely left to chance. Nothing of this sort has hitherto been attempted. The Board has filled its beds as they became vacant; it has been overwhelmed with applications for admission, which, if any good were to be done, must be attended to at once; there has been neither time nor means for proper selection of cases, and it is to be feared that very often the biggest liar has got in. The want of beds has been great, but the want of some central organisation for the selection of cases has been greater still, and it is to be hoped that some means of filling this great gap in the administrative machinery will be devised before next summer.

THE NOTIFICATION OF MEASLES.

Dr. Behrendt has favoured us with a copy of a report presented to the Scunthorpe Local Board, in which he reproduces, with considerable additions, the information contained in his former communication.[1] Further testimony in favour of the notification of measles is given by the medical officers of health for Blackpool, Reading, and Preston. Dr. Anderson's view is very clearly expressed; "I am most decidedly of opinion that it has been advantageous. . . . Of course we in Blackpool are very subject to importations of the disease, but time after time I stamp it out amongst visitors, although I am sure there is a susceptible infant population around." The experience of Preston leads to a more guarded expression of approval from the Medical Officer of Health, who regards the plan as "useful in small towns." Dr. Behrendt calls attention to the preponderance of opinion in favour of notification of measles in places where the experiment has actually been tried, and submits the following conclusions, based upon the evidence which he has collected:—(1) The great amount of fatality from measles calls for measures to check it; (2) notification would be the first step in this direction; (3) notification, to be of the greatest possible benefit, should be general over the whole country; (4) notification of measles, if carried out on the lines at present in use in the case of other diseases, would prove too costly, at any rate there would be great risk of its being so; (5) if only first cases were paid for in any one household, the expense would not be great; (6) to ensure the best results (and this is true of all notification), notification by the heads of families should be enforced, as required by the Act; unless this is done, cases of infectious disease will continue to remain undetected, and act as centres from which infection will spread around among those who are susceptible.

PROFESSOR HAMILTON ON HUMORAL PATHOLOGY.

Professor Hamilton delivered an interesting introductory lecture in his course on pathology at Aberdeen. Taking up the subject of ductless glands, he went on to speak of the thyroid gland and its relation to myxœdema. He stated that the general impression of the action of the thyroid gland in its natural state of activity, or when administered medicinally, was to furnish something which breaks up the mucin, and probably also some other products which are liable to accumulate in the blood. What the nature of this something may be still remains undecided, but the likelihood was that it was a ferment of great potency. Seldom, he said, was it that an abstract pathological discovery was so soon followed by its practical application in therapeutics; and he looked on the use of the thyroid extract in the treatment of cretinoid conditions as one of the greatest triumphs of modern medical science. Professor Hamilton

[1] British Medical Journal, June 24th, 1893, p. 1349.

next made reference to the functions of the pancreas, in so far as it contained a substance which had the property of breaking up the sugar contained in the blood. He considered the question of pancreatic diabetes, stating that how the pancreas acted in preventing the escape of unutilised sugar was yet uncertain. Either it excreted a substance of the nature of a ferment or poison, the retention of which in the blood acted deleteriously upon the system, and caused the escape of the sugar, or it was one of the normal functions of the gland to favour the splitting up of sugar, so that when removed the sugar was excreted without being utilised. The concluding portion of the lecture was devoted to an explanation of experiments on immunity from disease, with special reference to "serum therapeutics" in tetanus. In concluding, Professor Hamilton said that, even in medicine, history repeats itself. The pathology of our forefathers was called "humoral pathology." It was supposed to have received its deathblow by "cellular pathology." Recent discoveries would seem to point to a revival of the humoral pathology of the past. The more we became acquainted with diseased processes, the more we were convinced that no one system, however plausible, would explain the whole of them.

THE SALE OF POISONS.

An appeal from the decision of a county court judge in a case of prosecution under the Pharmacy Act for illegal sale of poison has been disallowed by the Court of Queen's Bench, on the ground that the evidence brought forward for the prosecution was insufficient. The fact has been mentioned in some newspapers as showing that qualified chemists have failed to maintain their right to the exclusive sale and dispensing of poisons which they claim under the Pharmacy Act. This is an exaggerated statement. The failure of the appeal, as well as the failure of the original prosecution was entirely due to the circumstance that the evidence given in the case was insufficient. That result does not in any degree affect the intrinsic merits of the question at issue, which is simply whether the provisions of an Act of Parliament intended for the benefit of the public are to be upheld or not. Whenever that question comes before a legal tribunal in a proper form we venture to think that there cannot be any doubt as to the nature of the result which will be arrived at.

DILATATION OF THE STOMACH.

At a meeting of the Harveian Society on November 2nd, Sir William Broadbent gave an address on Dilatation of the Stomach, in which he drew attention to the fact that certain anatomical peculiarities of the pylorus and duodenum sometimes lead the stomach, when over-dilated, to form a sharp angle with the duodenum, and thus to produce a real obstruction to the outflow of its contents. One of the most important questions which arise in regard to any case of dilatation is as to whether or not it is symptomatic of, or consecutive to, an obstruction at the pylorus, and it is easy to argue theoretically that when obvious peristalsis exists, and when waves of contraction can be seen to sweep the area of the stomach, some definite mechanical obstacle must stand in the way of the onflow of the chyme. Clinically, however, it is frequently observed that cases in which this peristalsis is markedly visible get well after simple treatment, although no doubt they often return again and again at intervals during years, and that they are evidently unconnected with either cancer or organic stricture. This observation of Sir William Broadbent's, however, explains the apparent anomaly. Given a stomach in which the duodenum is fixed rather high, a comparatively moderate amount of distension may produce this form of kinking, and lead to what for the time is a physical obstacle which may set up all the train of symptoms commonly associated with dilatation from obstruction; and yet when the stomach is emptied by the tube, or other appropriate means, it may return to its normal condition, and the obstruction may quite disappear until some unfortunate meal, or some attack of indigestion, may set up again the whole train of symptoms. A minor degree of this condition is probably not uncommon, especially where the patient is stout and the omentum heavy.

THE CLIMATOLOGY OF ANCIENT EGYPT.

At the recent Pan-American Medical Congress Dr. Grant Bey, of Cairo, read a paper on The Climatology of Ancient Egypt. He referred to its earliest geological times, taking the age of the earth, as estimated by geologists, as six million years. In support of his views, he quoted Sir William Dawson, of Montreal, whose examination of the earliest rocks and fossil trees, such as palms, indicated a tropical climate in that long past, such as in the Soudan at the present time. He traced the geology and climate of Egypt back some twenty thousand years, when the waters of the Red Sea and the Mediterranean met at the termination of the glacial period of Europe. He went back 4,900 years in the history of Egypt, considering its rain and rainless regions as important factors in climatology. He deemed embalming an admirable sanitary measure for rendering the dead harmless. Pharaoh Amenemhat changed the climate by making a fresh water sea in the desert. A canal led the surplus waters of the Nile to a depression in the sands. This, when filled, led to a modification of the climate, profuse vegetation, and a rainfall over what had been a waste of sand and a hitherto rainless section.

COMPENSATION TO WORKMEN IN INJURIOUS TRADES.

By an excellent and far-reaching decision come to on Monday night, November 10th, in the House of Commons, sailors and firemen were brought under the operation of the Employers' Liability Bill, and the principle of employers' liability was extended to workers engaged in injurious trades. A second resolution of the House was an entirely new departure, and one the momentous consequence of which, as the *Daily Chronicle* points out, it is quite impossible to overrate. The House has decided without a division that the worker whose health or life is affected by injurious conditions of work shall have the same title to compensation in the event of the employers' neglect to take reasonable precautions as the victim of more sudden and violent forms of neglect. The clause will be found in full in the Parliamentary report, and those who care to follow the making of industrial history from day to day will do well to acquaint themselves with it. The plea urged that the common law sufficiently meets the case will not bear examination. Judges cannot constitute themselves into factory inspectors and public health experts. They are not qualified to say what standard of hygienic safety ought to be maintained, and what deflections from such standard may constitute neglect. Mr. Asquith will himself have to set the experts and the factory inspectors to work to enforce the necessary regulations, and he will doubtless find, now that the clause has passed its second reading, that employers will co-operate with him most heartily in making the necessary changes. So long as life cost nothing employers could afford to disregard every hygienic safeguard, to vitiate the atmosphere of their workshops with every species of pollution, to load the lungs of their workers with deadly particles which should have been drawn off by fans, to poison their systems with lead and arsenic and mercury, to rot their teeth with acid gases and to burn their bodies with lime. These and a thousand other injuries could be and are inflicted in scores of trades without redress. It is a matter of rejoicing that this great measure of humanity has been adopted by the common voice of both parties.

SMALL-POX IN ENGLAND.

Last week witnessed excessive prevalence of small-pox in several centres, showing on the whole considerable progress of the disease over recent weeks.

In London the attacks exceeded 50, with 2 deaths; 2 additional deaths and several cases occurring in West Ham. In Bristol and the districts around, the prevalence of small pox continues, 3 deaths being registered in the city. Much is being done in the way of public vaccination and revaccination. In Birmingham small-pox has reached alarming proportions, upwards of 60 attacks occurring last week, with 4 deaths; the Manor of Aston and Handsworth also having multiple attacks, Aston, indeed, having resolved to at once expend £1,000 on a hospital site at Witton, with a view of running up some temporary means of increased isolation accommodation, 22 cases of small-pox being last week under treatment in the Witton Fever Hospital. Active measures are in progress for securing general vaccination and revaccination. Walsall maintained its weekly quota of some 50 or more attacks, and Bradford in Yorkshire had no fewer than 52 cases reported during four days of last week, the total of the week showing 3 deaths and a daily average of 11 cases. The health officer and hospital superintendent are indefatigable in their arduous labours, and it is sincerely to be hoped that the general public will support their efforts by avoidance of risk of infection and by resorting to revaccination where requisite. A case of small-pox has recently occurred near Keighley, one death took place at Hull last week, and an outbreak of the disease in West Durham, especially at Leadgate, with 3 fatalities, has given rise to some alarm.

THE CHOLERA.

There is happily no news to record as to cholera at home.

Abroad, we learn of recrudescence of cholera last week in Constantinople, 54 cases coming to light on one day, hot weather having prevailed. Meanwhile, Bulgaria has been trying to induce her neighbours to do away with those frontier quarantine restrictions which are doing such serious injury to trade.

Amsterdam is regarded by Portugal as a suspected port since November 4th.

In Russia, from noon to noon of November 1st to 8th there were 65 cases, 34 being fatal, at St. Petersburg. In Podolia in the last three weeks of October there were 829 cholera attacks, 343 being fatal, and in the same period in Volhynia 380 cases, 169 ending fatally. In the latter half of the month Kieff had 309 attacks, 131 fatal. In the third week there were in Lomsha 205 cases, 97 fatal; in Samara 202 cases, 112 fatal; in Orel 165 cases, 59 fatal. Numerous other provinces return smaller numbers.

At Tunis a recrudescence of cholera took place last week, 22 cases occurring in two days.

The disease which is fatally raging at St. Vincent, Cape Verde Islands, has been regarded as cholera, vessels thence being placed in quarantine at Portuguese ports. On the other hand, denials of the existence of cholera have been sent from the islands, but the feeling that the disease has for some time past been there is daily gaining ground.

ASSOCIATION INTELLIGENCE.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

South-Eastern Branch: East Kent District.—The next meeting of this District will be held at the Kent and Canterbury Hospital on Thursday, November 23rd, at 2.45 P.M., Mr. S. Wacher in the chair. The Chairman will be glad to see members to luncheon at his residence, Dane John, Canterbury, at 1.30 P.M. Members intending to lunch with the Chairman are particularly requested to send acceptances by Tuesday, November 21st, or they will not be expected. Agenda: Dr. F. E. Nichol: Non-traumatic Dislocations. Dr. Tyson: Myxœdema and Allied Diseases; and their Treatment by Thyroid Glands. Dr. Welsford: Gallstone Obstruction. Tea and coffee will be served in the Board Room of the Hospital after the meeting. All members of the South-Eastern Branch are entitled to attend these meetings and to introduce professional friends.—Thos. F. Raven, Honorary District Secretary, Barfield House, Broadstairs.

Staffordshire Branch.—The first general meeting of the present session will be held at the Station Hotel, Stoke-on-Trent, on Thursday, November 30th. The President, Mr. H. M. Morgan, will take the chair at 3 o'clock.—Geo. Reid, Honorary Secretary, Stafford.

Thames Valley Branch.—The first meeting of the year will take place at the Talbot Hotel, Richmond, on Wednesday, December 6th; Dr. C. C. Scott, President, in the chair. Applications for election to be sent to R. N. Goodman, Honorary Secretary, Elmside, Kingston-on-Thames.

Lancashire and Cheshire Branch.—An intermediate meeting of this Branch will be held at Nantwich on Thursday, December 7th. Gentlemen who wish to read papers, show patients, or bring any other business before the meeting, will kindly communicate as early as possible with the Honorary Secretary, James Barr, M.D., 72, Rodney Street, Liverpool.

Metropolitan Counties Branch: South London District.—A meeting of this District will be held at Guy's Hospital (by kind permission of the Treasurer) on Wednesday, November 22nd, at 8.30 P.M. A paper will be read, and cases of interest from the wards of the hospital will be shown. All practitioners, whether members of the Association or not, will be heartily welcomed.—H. Betham Robinson, Honorary Secretary, 6, Mansfield Street, Cavendish Square.

Perthshire Branch.—The annual meeting of this Branch will be held on Friday, December 1st, in the Station Hotel, Perth, at 4 A.M. Council meeting at 3.30. Dr. A. J. A Campbell will read a paper on a case of Poisoning by Anthriscus Sylvestris; Dr. Paton one on a Case of Empyema.—A. R. Urquhart, Honorary Secretary, James Murray's Royal Asylum, Perth.

South-Eastern Branch: East Sussex District.—The next meeting will be held at the White Hart Hotel, Lewes, on Thursday, November 30th. Dr. Crosskey will preside. Meeting at 3.30 P.M. Dinner at 5.30, charge 6s., exclusive of wine. The following communications are promised:—Mr. R. Crosskey: Practical Means of Preventing the Spread of Phthisis. Mr. Cresswell Baber: Notes on the Diagnosis and Treatment of Adenoid Vegetations of the Nasopharynx. Mr. J. Bulkley Footner: A Case of Inguinal Aneurysm, treated by the old operation of laying open the sac and tying the arteries communicating therewith, followed by recovery after amputation of the leg below the knee for secondary gangrene. Mr. T. Jenner Verrall: A Case of Laparotomy for Intussusception in an Infant of Six Months—J. W. Batterham, Honorary Secretary, Bank House, Grand Parade, St. Leonard's.

SOUTH-WESTERN BRANCH.

An intermediate meeting of this Branch was held at Exeter on October 20th, Mr. Tosswill, President, and afterwards Dr. Woodman, Vice-President, in the chair. About thirty members were present.

New Member.—Dr. H. Humphries, of Torquay, was elected a member of the Branch.

Communications.—Mr. Ackland (Exeter) showed a new Splint for fractured lower jaw.—Mr. Harris (Exeter) read a case illustrating the advantage of extralaryngeal treatment of Larngeal Growths in Children.—Dr. Thompson (Bideford) sent a case of Double Dislocation of Lenses.—Dr. Gordon (Exeter) showed a case of Tumour of the Right Cerebellar Hemisphere, and opened a discussion on Cerebellar Lesions, in which Dr. Woodman, Dr. Raglan Thomas, and Mr. Harris took part.

YORKSHIRE BRANCH.

The autumn meeting of this Branch was held at the Queen Hotel, Harrogate, on Wednesday, November 8th, the President (Dr. Rabagliati) in the chair.

Communications.—The following papers were read: Mr. Edward Atkinson: Two cases of Gastrostomy—one successful.—Dr. Myrtle: How Chronic Skin Diseases were affected by the Excessive and Protracted Heat of 1893.—Dr. Alfred Mantle: The Importance of Cardiac Observations in the Anæmic Condition.—Dr. A. W. Kinsby Walker: Pityriasis

Rubra (and showed a case of Eczema).—Dr. Adolf Bronner: Notes of a peculiar case of Mastoid Disease following Scarlet Fever.—Dr. Gibson: (1) Case of Lead Poisoning (patient shown); (2) Spinal Case for Diagnosis (patient shown).—Dr. Mantle showed a Mediastinal Growth involving the Vertebral Column, and producing Myelitis in a Girl, aged 17.

Dinner.—After the meeting the members dined together.

PROCEEDINGS OF THE COUNCIL.

At a meeting of the Council, held in the Council Room of the Association at 429, Strand, W.C., on Wednesday, October 25th, 1893:—

Present:

Dr. J. Ward Cousins, President of the Council, in the chair.

Dr. G. H. Philipson, D.C.L., President.

Dr. E. Long Fox, President-elect.

Mr. Henry T. Butlin, Treasurer.

Dr. J. Barr, Liverpool.
Dr. G. B. Barron, Southport.
Dr. R. W. Batten, Gloucester.
Dr. M. Beverley, Norwich.
Dr. T. Bridgwater, LL.D., Harrow-on-the Hill.
Dr. J. S. Bristowe, F.R.S., London.
Mr. Langley Browne, West Bromwich.
Dr. J. S. Cameron, Leeds.
Mr. Andrew Clark, London.
Dr. H. R. Crocker, London.
Dr. J. L. H. Down, London.
Mr. George Eastes, M.B., London.
Dr. W. A. Elliston, Ipswich.
Dr. R. S. Fowler, Bath.
Dr. J. H. Galton, Upper Norwood.
Dr. Bruce Goff, Bothwell.
Dr. W. Gordon, Exeter.
Dr. O. Grant, Inverness.
Dr. H. Handford, Nottingham.
Mr. J. D. Harries, Shrewsbury.
Mr. J. H. Hemming, Kimbolton.
Mr. T. R. Jessop, Leeds.
Mr. Jordan Lloyd, Birmingham.
Mr. N. C. Macnamara, London.
Sir W. Moore, K.C.I.E., London.
Dr. W. Withers Moore, Burgess Hill.
Mr. Jones Morris, Portmadoc.
Mr. R. H. B. Nicholson, Hull.
Mr. C. H. W. Parkinson, Wimborne Minster.
Dr. C. Parsons, Dover.
Dr. F. M. Pope, Leicester.
Dr. J. Rolston, Stoke.
Dr. R. Saundby, Birmingham.
Dr. A. Sheen, Cardiff.
Dr. E. Markham Skerritt, Clifton.
Mr. Noble Smith, London.
Dr. R. Somerville, Galashiels.
Mr. H. Stear, Saffron Walden.
Mr. J. Taylor, Chester.
Dr. T. W. Trend, Southampton.
Mr. T. J. Verrall, Brighton.
Dr. W. F. Wade, Birmingham.
Mr. F. Wallace, London.
Mr. Joseph White, Nottingham.
Mr. G. E. Williamson, Newcastle-on-Tyne.
Mr. W. L. Winterbotham, Bridgwater.

The minutes of the last Council meeting having been printed and circulated, and no objection taken to them, were signed as correct.

Read letters of apology for non-attendance from Dr. Mackenzie Booth, Dr. Crowe, Dr. Drummond, Dr. Glascott, Dr. Holman, Dr. Wm. Russell, Dr. Urquhart, and Mr. Wheelhouse.

Read letter from Mrs. Coales (sister of Dr. Henry) acknowledging the letter with the resolution of sympathy upon the death of Dr. Henry.

Powis Castle Park, near Welshpool, August 18th.

Dear Sir,—Many thanks for sending the very gratifying resolution of the Council of the British Medical Association, which has been forwarded to me here.—Yours very truly, H. A. Coales.

Resolved: That the same be received and entered upon the minutes.

The President of Council then called upon the President of the Association to read a communication from General Ponsonby, Private Secretary to the Queen, a copy of which is as follows:

Balmoral, September 4th, 1893.

Sir,—Perhaps it may interest you to know that the Queen was much pleased with the beautifully executed and finished address which the British Medical Association sent her in a silver box. The official reply will of course be returned by the Secretary of State.—Yours faithfully,
G. Philipson, Esq. (Sd) Henry F. Ponsonby.

Resolved: That the letter be received and entered upon the minutes and published in the Journal.

Read letter from the Home Secretary, of which the following is a copy:

Whitehall, September 1st, 1893.

Sir,—I have had the honour to lay before the Queen the address of congratulation from the members of the British Medical Association on the occasion of the marriage of Their Royal Highnesses the Duke and Duchess of York, and I have to inform you that Her Majesty was pleased to receive the same very graciously.—I have the honour to be, Sir, your obedient servant, H. H. Asquith.
The General Secretary, British Medical Association, 429, Strand, W.C.

Resolved: That the same be received and entered upon the minutes.

The President then read a letter from the Right Worshipful the Mayor of Newcastle, of which the following is a copy:

Mayor's Chamber, Town Hall, Newcastle-upon-Tyne, August 12th, 1893.

Dear Dr. Philipson,—I have received your letter conveying to me the thanks of the Council of the British Medical Association for whatever aid I was able to render in connection with the annual meeting of the Association held last week in this city. It afforded me, as mayor, much pleasure to do all I could to assist you and other members of the medical profession to make the meeting successful; and I think all our visitors must have carried home with them pleasant remembrances of Newcastle.—Sincerely yours, (Sd) Edward Culley, Mayor.
Professor Philipson, President of the British Medical Association.

Resolved: That the letter from the Mayor of Newcastle be received and entered upon the minutes and published in the Journal.

Read letter from the Hon. Secretary to the Stirling, Kinross, and Clackmannanshire Branch, with proposed alteration of by-laws.

Resolved: That the letter be received, and the alteration of the by-laws of the Stirling, Kinross, and Clackmannan Branch be approved and entered upon the minutes.

Read letter from the Secretary-General to the Congress at Rome, of which the following is a copy:

Eleventh International Medical Congress, Rome, 1893.

My dear Colleague,—I beg to announce to you the postponement of the Eleventh International Medical Congress, which will now take place in Rome in April, 1894. This postponement becomes necessary on account of the existing condition of the public health, necessitating the Governments of the respective European Powers retaining the services of their medical men.

Under these circumstances the Organising Committee is compelled to make a fresh appeal to the illustrious institution under your presidency, and requests you to have the goodness to add to your courtesy by sending delegates to the approaching Congress notwithstanding the present postponement.

The Committee feels certain that, by the aid of your good offices, your institution will become convinced that this adjournment will increase the effectiveness of the work of the meeting in Rome, and will, therefore, the more readily honour the Congress by participating in its deliberations as official representatives.—Yours faithfully,
E. Maragliano, Secretary-General.
To the British Medical Association, London.

Mr. Noble Smith, Mr. James Taylor, Dr. Withers Moore, Mr. Jordan Lloyd, and Dr. Parsons having signified their intention of being present,

Resolved: That these gentlemen be appointed delegates of the Council of the Association.

Read letter from the Medical Defence Union, of which the following is a copy:

Medical Defence Union (Limited).
22, Newhall Street, Birmingham, August 24th, 1893.

Dear Sir,—I forward you the subjoined copy of resolution passed by the Council of the Medical Defence Union on August 23rd, which should be taken as a reply in your favour of the 15th inst.

"That the best thanks of the Council of the Medical Defence Union be and are hereby given to the Council of the British Medical Association for their courtesy in allowing the Union to hold its Council meetings in the rooms of the Association."—Yours truly, Leslie Phillips.

Resolved: That the same be received and entered upon the minutes.

Read resolution passed at the annual meeting held at Newcastle, of which the following is a copy:

"That as a considerable number of Branches are unprovided with by-laws, and in consequence irregularities arise, especially in the election of officers and other important matters, the Council be empowered forthwith to provide a set of model by-laws regulating such matters, and such by-laws be taken and deemed to be the by-laws of every division in which special by-laws sanctioned by the Council do not exist."

Resolved: That the question of a set of model by-laws for Branches which are unprovided by by-laws be referred to the Branch Organisation Committee, and that the latter be re-appointed for the purpose of considering this and the by-laws of the Branches which have now been placed before the meeting, namely: the President, President-Elect, and President of Council, the Treasurer, Surgeon-General Cornish, Dr.

Langdon Down, Dr. Bruce Goff, Mr. Vincent Jackson, Dr. Parsons, and Dr. Trend.

Read resolutions passed in the Public Medicine Section at the Annual Meeting held at Newcastle, of which the following are copies:

"That it be referred to the Parliamentary Bills Committee to take such steps as may be desirable to approach the British and foreign Governments with a view to obtain their intervention in securing measures for the suppression of cholera at the Hardwar and other Indian fairs, and at the Meccan pilgrimage; and that for this purpose also due submission of the facts be made to His Majesty the Sultan." Carried unanimously.

"That the Parliamentary Bills Committee of the British Medical Association be requested to bring before the Local Government Board the desirability of taking means, by extending the jurisdiction of the port sanitary authorities, or otherwise, to safeguard the island against the danger of persons infected with cholera being landed at any point not under the control of a port authority." Carried unanimously.

"That it is the opinion of the Public Health Section that the extra expenses incurred by the port sanitary authorities in preparing for or dealing with an invasion of Asiatic cholera should be defrayed by the country at large." Carried unanimously.

At a general meeting of members held in the New University Buildings, Newcastle-on-Tyne,

It was moved by the Treasurer, seconded by the President of Council and

Resolved: "That the foregoing resolutions be referred to the Council for consideration."

Resolved: That the resolutions passed by the Public Medicine Section at the Annual Meeting held at Newcastle-on-Tyne in August last be referred to the Parliamentary Bills Committee.

Resolved: That the proposed revised by-laws of the Victorian Branch, British Columbian Branch, and the Queensland Branch be referred to the Branch Organisation Committee.

Resolved: That Messrs. Price, Waterhouse, and Co. be reappointed Public Auditors for the ensuing year, in accordance with By-law 26.

Resolved: That 113 of the 114 candidates whose names appear on the circular convening the meeting be, and they are, hereby elected members of the British Medical Association.

Resolved: That the minutes of the Journal and Finance Committee of to-day's date be received and approved, and the recommendations contained therein carried into effect.

The minutes of the Journal and Finance Committee contain the examination of the accounts for the quarter ending September 30th, amounting to £7,062 6s. 6d.; the auditors' quarterly report; the consideration of the advertisements for unqualified assistants; and a grant of £50 to the Anæsthetics Committee.

Resolved: That the minutes of the Medical Charities Committee of October 24th be received and approved, and the recommendations contained therein carried into effect.

The minutes of the Medical Charities Committee contain the reappointment of the subcommittee to continue the work of visiting the various charities.

Resolved: That the minutes of the Premises and Library Committee of October 24th be received and approved, and the recommendations contained therein carried into effect.

The minutes of the Premises and Library Committee contain particulars of the estimates for the drainage of the offices and the report of the Librarian.

Resolved: That the annual meeting for 1894 be held on Tuesday, July 31st, and Wednesday, Thursday, and Friday, August 1st, 2nd, and 3rd.

Resolved: That the minutes of the Arrangement Committee be received and approved, and the recommendations contained therein carried into effect.

The minutes of the Arrangement Committee contain the arrangements for the annual meeting at Bristol, the various sections and the scheme of meetings.

Resolved: That in accordance with the recommendations of the Journal and Finance Committee the questions relating to the constitution of the Parliamentary Bills Committee, and the payment of railway fares, be referred to a Committee consisting of the President, the President of Council, the Treasurer, Dr. Withers Moore, Dr. Glascott, Dr. Bruce Goff, Dr. Byers (Belfast), and Mr. Hemming, with instructions to consider the questions and report to the Council.

Resolved: That the minutes of the Trust Funds Committee of October 24th be received and approved, and the recommendations contained therein carried into effect.

The minutes of the Trust Funds Committee contain the report on the consideration of the award of the Middlemore Fund.

Resolved: That Dr. Saundby, Dr. Glascott, and Mr. Nettleship be requested to act as adjudicators of the Middlemore Prize, upon the conditions of the amended Trust Deed.

Resolved: That the President of Council and the President-Elect be authorised to fill up any vacancies which may occur in consequence of gentlemen declining to serve in office to which they have been invited to act at the annual meeting.

SPECIAL CORRESPONDENCE.

PARIS.

The Herz Incident.—M. Péan and M. Verneuil.—Scientific Missions.

Cornelius Herz succeeds in troubling the medical world as well as the political and financial. Dr. Dieulafoy and Dr. Brouardel, on their return from Bournemouth to Paris, repaired to the Paris Academy of Medicine to read the report of their examination of their, if not illustrious, well-known patient. Notwithstanding Dr. Dieulafoy's undoubted oratorical powers, and Dr. Brouardel's important position in the medical world, the Academy would not listen to the report. The meeting was excessively noisy, most of the members present protesting against the report being read. They, in common with the medical profession and the medical press, are unanimous in saying the report has nothing to do with the Academy of Medicine. The Academy will not and should not allow itself to be mixed up in any political affair. It is true that the report of Drs. Brouardel and Dieulafoy was sent as an "official document from Government." So the President of the Academy declared. But Government, as in former cases, forgot to ask advice from the Academy before taking any steps. This body declines to be made use of as an *agent de publicité*. Its attitude in the matter is approved of by all sections of society, as well as by the medical profession. Dr. Dieulafoy urged that the case is interesting, but this plea evidently is not a serious one.

The old dispute between M. Péan and M. Verneuil as to the priority of invention of forcipressure forceps has culminated in a challenge of an extraordinary character sent to M. Verneuil by M. Péan. A letter from M. Verneuil appeared in the *Bulletin Médical* of July 14th, 1893, in which he proposed to refer the question to arbitration by members of the Academy of Medicine. M. Péan, in the same journal of a few days ago, writes as follows in a letter addressed to M. Verneuil: "It is not four members of the Academy of Medicine on your side and four on mine who can settle our dispute, but the entire Academy, the entire Institute, and the Surgical Society. I therefore propose to you to choose three operations among the following: Removal of a hypertrophied tumour of the thyroid gland as large as the head of a fœtus, or of a solid mesenteric tumour weighing 10 kilos, or of a tumour of the broad ligament and pelvis filling the abdominal cavity, or of a bleeding interstitial fibroma to be removed with the uterus either through the vagina or through an abdominal opening." M. Péan accorded to M. Verneuil the privilege of using "the whole arsenal of surgical instruments of his hundred ancestors." He, for his part, will content himself with his numerous variety of *pinces*, but from pity for M. Verneuil consents to his using Péan's *pinces hémostatiques*. This challenge has greatly shocked the general public, and, coming after the Herz scandal, has hardly added to the *prestige* of the medical profession.

M. A. Loiraide, at the Pasteur Institute, is commissioned to study the epidemics among the lower animals in Tunis. Dr. Lagrange has been commissioned to study the diseases of the liver in Tunis and Algeria.

Drs. Moriz Kaposi and Isidor Neumann have been appointed Ordinary Professors of Dermatology in the University of Vienna.

The Spanish Academy of Medicine.—An interesting religious ceremonial took place in Madrid on November 6th. The Spanish Royal Academy of Medicine, in accordance with one of the statutes of its foundation, was present at a solemn requiem mass in the Church of Nuestra Señora de la Presentacion for the repose of the souls of deceased academicians, of eminent members of the profession whose works had shed lustre on Spanish medicine, and on those whose generosity had contributed to the prosperity of the Society.

ST. PETERSBURG.

Blindness in Russia.—The Cholera Epidemic in St. Petersburg.—The Death of M. Tchaikovski.

BLINDNESS is extremely prevalent in the more remote districts of Russia, and for many years the Institute of the Empress Marie in St. Petersburg has devoted much money and energy to an endeavour to remove some of the causes that lead to blindness. This has consisted mainly in the instruction of nurses and midwives upon the means for preventing ophthalmia neonatorum, and the distribution to mothers of leaflets containing similar instruction. During the past summer, the Institute made the experiment of sending so-called "flying companies," consisting of surgeon, *feldscher*, and nurses, to different country districts, with the special object of treating diseases of the eye. The experiment is said to have met with success even greater than was anticipated. The companies, seven in number, left St. Petersburg early in July, and were away from six to eight weeks. In that period each surgeon treated some 1,200 patients, and performed some 300 operations. More than 1,000 persons who would certainly have remained permanently blind if not operated upon, are stated to have recovered their sight by means of removal of a cataract or construction of an artificial pupil. In many instances such abundance of work was found to be done in the first village at which the surgeon and his company arrived that they moved no further, and could not complete the tour originally mapped out. There is no doubt the experiment will be repeated, and the system may be further extended so as to include the treatment of other diseases than those of the eye. The cost is said to have been small, but some of the surgeons offered their services gratuitously. The others received 100 roubles per month in addition to their expenses.

The records of cholera in St. Petersburg during the seven days ending November 10th (N.S.) show a very slight increase upon those of the previous week, the numbers of fresh cases and of deaths from the disease being respectively 66 and 35, while last week there were 54 cases with 27 deaths.

The death from cholera of M. Tchaikovski, the well-known Russian composer, has caused a very real feeling of sorrow, not only in St. Petersburg, but in all parts of the country. The following details of his last illness may be of interest: M. Tchaikovski (who lived near Moscow, and had only come to St. Petersburg in order to conduct a new symphony of his own composition) attributed his illness to drinking a glass of unboiled water in a restaurant on the evening of November 1st (N. S.). On the following day all the symptoms of cholera appeared, including cramps in the arms and feet, and when medical aid was summoned it was at once seen that the attack was one of cholera of a very severe type. By night the patient was already in an algid condition, and death was threatening from cardiac failure. There was complete anuria from the beginning of the illness. On November 3rd there was an alarming increase in the diarrhœa, the symptoms of uræmia became more marked, and at night the condition was seen to be quite hopeless. Coma supervened, the pulse rapidly became imperceptible, and at 3 o'clock on the morning of the 4th the patient passed away. His illness had lasted a little more than two days. This sudden death of quite the most eminent of contemporary Russian musicians from a disease which has hitherto confined its ravages to the poorer ranks of the population—the so-called labouring classes—has produced a profound impression in St. Petersburg.

SHEFFIELD.

The Presentation to Mr. Favell.—Isolated Cottage Homes for Children.—New Skin Department at the General Infirmary.—News.

NOT the least interesting event in connection with the Favell portrait, to which you alluded in the BRITISH MEDICAL JOURNAL of November 11th, was the luncheon given by Mr. Marshall, the Chairman of the Weekly Board, to commemorate the event, and to which were invited not only all Mr. Favell's colleagues on the staff of the infirmary but the Weekly Board and many leading townsmen and friends. The Duke of Norfolk was also present.

The Sheffield Board of Guardians recently adopted a system of isolated cottage homes for children instead of a cottage home village. The Chairman, at a meeting of the Yorkshire Guardians held a short time since, expounded the way the plan was being carried out. The fundamental idea has been the dividing up and separating the children as much as possible into families and avoiding all aggregations and securing the most complete commingling with the non-pauper population that they could. Three pairs of semi-detached houses had so far been secured and would provide the guardians with six family houses, to accommodate from twelve to twenty children. They would be sent to as many different schools as possible, and in the large Board schools they would be but like a drop in the bucket. They would go to and fro unattended. Boys and girls would assist their foster mothers with household work, but they would make full time at school.

At a special meeting of the Governors of the General Infirmary held last week, the rules were altered so as to allow of the appointment of a physician or surgeon in charge of the new special department of skin diseases which is about to be formed. Steps will forthwith be taken to fill the newly-created post.

The Mayor of Barnsley (Dr. Halton) has been elected for a second term of office.

Sir James Crichton-Browne has been elected an honorary member of the Medico-Chirurgical Society.

Mr. G. K. Thorpe has resigned the post of Surgeon to the Public Hospital and Dispensary which he has held for nineteen years. Several candidates for the vacant office are already in the field.

CORRESPONDENCE.

DIPHTHERIA AND DEFECTIVE DRAINAGE.

SIR,—In the BRITISH MEDICAL JOURNAL of November 11th, page 1,078, there appears a letter from Dr. Wilks, in which he expresses his entire agreement with Sir William Jenner and Dr. Thorne Thorne, as to "the independence of diphtheria of bad hygienic conditions." No one doubts that diphtheria is an infectious disease, but that it is often a result of defective drainage I believe to be as clearly proved as that typhoid fever, pneumonia, puerperal fever, and albuminuria may have such an origin.

I have seen much of diphtheria, both in hospital and private practice. It has been for me a subject of especial interest and study, upon which I have published numerous papers, lectures, and letters since the year 1870. I may refer especially to two publications which embody the results of my maturest experience. First, "A Lecture on the Relation between Croup and Diphtheria,"[1] and, secondly, a paper "On Certain Points relating to the Etiology, Pathology, and Treatment of Diphtheria."[2] Both these papers have been revised, and reprinted in my volume *Medical Lectures and Essays* (Dr. A. Elmsholt).

I cannot here reproduce all the evidence which, to my mind, conclusively proves that defective drainage is a frequent exciting cause of diphtheria, but I will briefly indicate some of the facts which are fully set forth in the papers referred to.

In October, 1855, two children of a village tradesman in Kent were simultaneously attacked by diphtheria; in one the disease involved the larynx and was fatal. I was assured by the gentleman whom I met in consultation that there had been no case of diphtheria in the village or its neighbourhood, and the children had not been from home. There was no drainage, but in the garden there was a copious and most offensive accumulation beneath a common privy, which was used by the entire household.

In January, 1872, I saw some cases of diphtheria with my friend, Dr. Bateman, in a house at Ham. The house is drained into a cesspool about twenty yards distant. This was emptied one day when the wind, blowing towards the house, conveyed a very offensive smell to the inmates. Three days afterwards all the family of four children were

[1] BRITISH MEDICAL JOURNAL, September 18th, 1875.
[2] *The Lancet*, January 2nd and 16th, 1875.

down with diphtheritic throats. In a few days two servants were attacked, one rather severely, and, lastly, the mistress of the house. The only inmates who escaped were the husband, who was away from home all day, and one servant. In a detached country house a succession of cases of diphtheria occurred from November, 1872, to May, 1873. There were no cases of diphtheria in the immediate neighbourhood. The family consisted of father, mother, and nine children, aged from 12 to 1½ year. The mother and the youngest child died.

After various attempts to get rid of the disease by the use of disinfectants and the repair of drains, it was at last discovered that a cesspool full of putrid contents, and disconnected from the drains, had been left under the floor of the drawing-room—a room which from the first had been known to have a bad smell. After the removal of this nuisance, those of the family who had been sent away returned home, and no further cases of illness occurred.

Another case, seen with Mr. Patten at Ealing, was traced to the untrapped waste pipe of a bath, which thus acted as a ventilator from the sewer into the bathroom and the adjoining bedroom.

At the beginning of the year 1875, a gentleman, living in one of the best houses in Queen's Gate, asked me to see his butler, whom I found suffering from a severe attack of diphtheria. The basement of the house looked the perfection of cleanliness, but I advised that a sanitary engineer should be called in to inspect the premises. The result was the discovery of an untrapped sink pipe, near the butler's sleeping room.

A healthy infant had his foreskin partially removed for a congenital phimosis. The wound, made by an eminent surgeon, did not heal, and in a few days was covered by a diphtheritic membrane. The child was the son of a wealthy man, whose spacious house stands on the eastern border of Hyde Park. The two gentlemen in attendance suspecting an insanitary condition of the house, had the child removed to another house, where I met them in consultation and where the wound soon assumed a healthy appearance and healed. With some difficulty I persuaded the father to have his house thoroughly inspected, when grave sanitary defects were disclosed and corrected. I afterwards heard that shortly after the operation on the child two of the servants had sore throat, and in one of them the disease assumed a distinctly diphtheritic character.

These cases, thus briefly narrated, are a few amongst many that I have seen where there has been no evidence of infection from pre-existing cases, but where insanitary surroundings were obviously the exciting cause of the disease. Those who deny or doubt that diphtheria can be caused by drain poison are not likely to search for sanitary defects with the perseverance and thoroughness which are often necessary for their discovery. Not to recognise the frequent filth origin of diphtheria may, in practice, be as disastrous as to ignore the infectiousness of the disease.—I am, etc.,

Savile Row, Nov. 15th. GEORGE JOHNSON.

SIR,—The opinions of Sir W. Jenner and of Dr. Wilks himself command the highest consideration; but when Dr. Wilks says that "the independence of diphtheria of bad hygienic conditions has now been shown to be absolutely true," he is speaking much too strongly, and in a way that Dr. Thorne Thorne himself could not endorse. Dr. Thorne says "that dampness of site, and a surface soil favourable to the retention of wetness and of organic refuse, tend apparently to the fostering and the fatality of diphtheria."[1] And, again, "there remain certain instances in which the occurrence of diphtheria has been in such association with sanitary defects of special gravity that the contention as to the existence of a definite relation between the two sets of circumstances cannot be lightly set aside."[2] Further, suggesting an explanation of this relation, he concludes: "Possibly qualities occasionally attaching to drain air may in much the same way prepare the human system for the reception of specific infections such as diphtheria."[3]

That diphtheria may exist independently of insanitary conditions has of course never been disputed since its direct infectiveness was known, but its invariable or absolute independence has certainly not been shown, nor is it in my opinion at all likely to be. Dr. Thorne and those who agree with him lay great stress on the remarkable increase of diphtheria in towns of late years, cotemporaneously with a marked improvement in their sanitary condition. But in my paper read at the Newcastle meeting I showed that if the table given by Dr. Thorne on page 5 were extended backwards to the year 1860 it evidenced a decrease of diphtheria up to 1877, and I gave reasons for believing that the increase since that date might be explained by the arising of insanitary conditions of a new nature, namely, improper ventilation of sewers. But even if it be proved that this recent urban increase is independent of sanitary conditions, surely it would be rash and unscientific in the extreme to forget the abundance of evidence proving the dependence of diphtheria in the past in both town and country on dampness and foulness of soil. As regards the prevalence of diphtheria, London will still compare very favourably with Cairo, where schools are scarce but the soil is saturated with filth.—I am, etc.,

SIDNEY DAVIES, M.D.,
Medical Officer of Health, Plumstead; and late P.M.O. Egyptian Police.

Plumstead, Nov. 14th.

[1] *Diphtheria*, p. 218.
[2] *Ibid*, p. 84.
[3] *Ibid*, p. 91.

PRESCRIBING CHEMISTS.

SIR,—Will you allow me to emphasise Mr. E. A. Miller's reference to "the only one remedy which, if adopted, would render competition from prescribing chemists, electrical medical institutes, advertising dentists, and the like impossible?" This is the passage of a Bill through Parliament to make the practice of medicine or surgery in any shape or form by any person without legal qualification a criminal offence. Nothing short of this will attack the root of the evil. The arguments against it—such as that it would be an undue interference with the liberty of the subject, that it would tend to crush originality and impede talent, and that it would be difficult to enforce—have time after time been shown to be unfounded on any practical considerations. The sooner it is recognised and insisted upon that this is the only sufficient remedy the better it will be for the profession and the public. Let us bestir ourselves and take every opportunity of influencing public opinion and the opinion of Parliament in this direction. Surely, to realise such an object a large and influential association might be formed. Such an association would command the sympathy and attract the support, not only of the various branches of the medical profession, but also the intelligent and philanthropic section of every grade of society. The interests of the poor and the rich are alike affected.

In the meantime, such an association, even on a small scale, could do much to assist in protecting the public and the profession against the thousand and one frauds which are at present rampant and unresisted in our midst. Tracts, handbills, posters, and even lectures, might be circulated, explaining simply and clearly how to distinguish qualified from unqualified practitioners, and exposing the frauds and deceitful methods of advertising quacks, institutes, and secret medicines. No individual could do this effectually. Even if the expense were not prohibitive, he would be accused of private and selfish motives. An association including among its members representative and prominent men in all professions would be above all such suspicion, and would command a respectful hearing.

I should be delighted, to the small extent of my ability and means, to assist in every possible way in the formation and work of such an association. There would, I am sure, be no lack of voluntary workers, and money would be freely offered both from within and from outside the profession. Now is the time, when the public interest is excited by the Harness revelations, to make a move.—I am, etc.,

H. G. MACLAGAN, M.B.Durh.

Stoke Newington, N., Nov. 3rd.

SIR,—It is amusing rather than otherwise to witness the virtuous indignation of gentlemen who resent the prescribing habit of the retail chemist, in blissful ignorance of the fact that this practice, however much it is to be deprecated, is

the *revanche* of the chemist for the almost universal practice of medical men in this country to dispense their own medicines. If the members of the two great departments of medicine and pharmacy would stick to their last respectively, the abuse would cease of itself. If medical men abandon to the dispensing chemist the function which properly belongs to him of compounding the medicines which his hierarchical superior, the physician, prescribes, there would probably be little difficulty in stamping out counter prescribing by pressure from within the craft. At present, in order to gain a precarious livelihood, chemists are fain to trespass not only on the domain of the duly qualified medical practitioner, but to dabble in groceries (the grocers having taken to selling "patent" medicines) and oil-shop wares—all this simply because he does not get enough dispensing to keep body and soul together. Foreign chemists do not indulge, to any appreciable extent, in the practice of prescribing, because the law prevents medical practitioners from infringing their privileges. Until by consent or legislative enactment the same order of things comes to pass in this country, it will, I fear, be idle to expect the retail chemist to forego so stable a *clientèle*, be he ever so reviled for making hay thereof.

I think it is only fair to urge these views as a set-off to the denunciations which have been so freely showered of late in your columns upon a useful, if sinful, class of men.—I am, etc.,

Gower Street, W.C., Nov. 6th. ALFRED S. GUBB, M.D.

SIR,—I have been reading the correspondence upon the above subject, and am somewhat surprised at the evident ignorance which appertains to the exact scope and meaning of the Medical Act of 1858. The Bill of 1858 strongly sets forth that the art of prescribing is not the sole monopoly of medical men, anyone being free to visit, prescribe, and doctor to their heart's content, provided they do not pretend to be registered or qualified medical practitioners, or assume the title or titles of any of the licensing bodies. The only monopoly which the medical practitioner really enjoys is his title, and this title is the sole and only assurance which the law gives to the public that they are in the hands of a qualified man. The law does not say that the public are compelled to employ the man possessing the necessary qualifications. If the public choose to consult an unqualified person they do so at their own risk; but, on the other hand, if the public are led to consult an unqualified person through some pretence or assumption of titles on the part of this person, then this person breaks the Medical Act of 1858, and is liable to prosecution, but only then.

Turning to the question of chemists prescribing, there is positively no law by which this practice can be stopped, and it is just as sure that the British Parliament will never make such a law. It is quite true that in England or Wales, if the chemist visits and applies a blister or other medicament, the Apothecaries' Society may, if they choose, prosecute; but so long as the chemist keeps behind his counter he is safe.

In justice to the chemists, however, I think it may be safely asserted that there are exceedingly few who, enjoying the rights of their calling by the dispensing of medical prescriptions, find time or necessity for counter prescribing; but it must be remembered that there are thousands of duly qualified registered chemists who do not dispense twenty medical prescriptions from one year's end to the other. And why? Because the doctors dispense their own medicine. But there is another reason why the chemist is often applied to. The public frequently want a simple remedy. A person is seized with, say, cramp, headache, or diarrhœa. Naturally, he walks into the chemist's shop and gets the required dose, and is benefited. The chemist in such cases does not pose as a medical man, and his advice is invariably free.

There is another growing evil among medical men to which I should like to draw attention, one by which they will sooner or later undermine the art of medicine, and lose more fees than they now dream of—namely, the habit of prescribing proprietary medicines. If medical men are wise they will abide as much as possible by the *British Pharmacopœia*, and let their prescriptions be the only communication concerning drugs between them and their patients.—I am, etc.,

Pollokshields, Oct. 31st. GEO. SKEEN ILLINGWORTH, M.B.

SIR,—Prescribing by chemists will continue so long as that *bête noire*, jealousy, is so rampant among medical men in private practice, and prevents them acting in unison in the settlement of many questions affecting their common welfare. This abuse of the work of the qualified practitioner could in the majority of cases be easily remedied by medical men in each town banding themselves together and determining to sink their petty differences for the general good. Unfortunately, in private practice at any rate, this in too many cases seems an impossibility. This is a non-dispensing town, and certainly nineteen-twentieths of our prescriptions are made up by the chemists, and the question of any injustice to them by doctors dispensing their own medicines does not arise. Yet one or two of them (there are exceptions) prescribe freely as well as extract teeth, and I am certain a large sum is yearly lost to the regular practitioners which should legitimately go into their pockets. We could certainly take the bull by the horns in the town I refer to by united action, and stamp out wholesale prescribing by some chemists, but little can be done without combination. There is little more than a handful of us, and yet each of us does not seem to care twopence for his neighbour. A little of that charity which does not look upon an opponent as a natural enemy would do us all good.—I am, etc.,

October 31st. E. M. T.

SIR,—The question of "Prescribing Chemists" is undoubtedly a serious one for the profession. I quite agree with Mr. J. K. Kinsman Benjamin when he says "medical men have only themselves to thank for this very evil which they are clamouring to stamp out;" but for a reason the opposite of that alleged by him, namely, the dispensing of their own prescriptions by medical men themselves. I believe it is because this practice is dying out that the chemists have of late years come so much to the front. An immense amount of work has thus been thrown into their hands, and they have consequently increased rapidly in numbers and prosperity. If it were not for this fewer chemists would be required, and they would be able to live as formerly on the sale of their general stock, and what little dispensing would be required by the pure physicians.

Another mischief resulting from medical men giving up dispensing is that a great increase of power also is voluntarily handed over to the chemists. The profession is pestered with the daily requests for trying the qualities of every new drug or every fresh combination of drugs which the chemists bring out; only one in a hundred probably will be found worthy of being retained.

This, however, is not the only example of suicidal policy of which medical men have been guilty. Midwifery practice has, I believe, always been considered a lucrative branch of the profession, but now we are handing this also over to another class of practitioners, namely, midwives, who are rapidly replacing doctors in this department.—I am, etc.,

A GENERAL PRACTITIONER WHO DISPENSES HIS OWN PRESCRIPTIONS, AND DOES NOT CONSIDER IT DEROGATORY.

Northampton, Oct. 31st.

SIR,—During the space of four years I have rigidly pursued the practice of writing prescriptions to be made up by chemists. I prided myself on the fact that I never dispensed an ounce of physic for any one, but little by little I was most forcibly convinced that my position was untenable, and for the following reasons: Whilst I faithfully sent all prescriptions to chemists, they preferred the course of a little preliminary treatment whenever the temptation came in their way. Over and over again did I find, on being sent for to see a patient, that he or she had had sundry bottles of medicine prescribed by the chemist. Again, many times have I been told that such and such a chemist told So-and-So to take the following bottle of medicine, as Dr. So-and-So used it in such and such a disease, and as the chemist thought he or she was suffering from the same, it would probably do good. I have received very impertinent notes from chemists alleging that I had sent a "customer" to an opposing chemist for such and such a drug which the writer kept in stock; yet he had kept my patient waiting twenty-four hours for the same, much to everybody's inconvenience.

I can recall very many cases which would probably have recovered had the "chemist's treatment" not settled their account before the medical man had a chance. For instance, acute bronchitis in an infant treated with cod-liver oil, and an acute catarrhal condition of the tubes treated with a cough mixture containing a large percentage of morphine, with consequent cyanosis, for which I was called in to give a death certificate. Again, a child with acute bronchitis, who recovered from a first attack after a preliminary treatment by alkalies, sudorifics, and mild, non-stimulating expectorants, followed by a course of the more powerfully stimulating drugs during convalescence, and in a subsequent attack was seen by the chemist, who discouraged sending for a doctor, and who, with the consent of the parents, gave the convalescent stimulating treatment at the onset of the disease, because in the previous attack it "did so much good," and acted so well that I was called in an hour or so before the undertaker was wanted.

This instance shows the danger of trusting an ignorant chemist with prescriptions, copies of which he keeps, and may use for the same patient on his own responsibility, at a subsequent period, with dire consequences.

I could recall many more instances, such as pre-typhoid constipation treated with jalap, colocynth, and sulphate of magnesia; infantile diarrhœa by powerful astringents, "but time and space preclude." Again, one has to submit to having one's prescriptions criticised, and the chemist's opinion taken on its chances of doing good. The public have a firm and deep rooted notion as to the chemist's unquestionable dictum on the physiological actions of drugs. I have repeatedly had my patients frightened out of their wits through a chemist throwing a hint against a drug, really because the drug was expensive, and cut down the profit on the regulation price of a six ounce bottle of medicine; result: I had to change the drug, use a cheaper and more useless ingredient, with more profit to the chemist. One chemist actually sneered at me because I used so many expensive drugs that there was little or no profit from my prescriptions, whereas Dr. So-and-So just prescribed a little "hydrocyan. dil. and water," for which he (the chemist) got 1s. 6d. for the bottle. This was a case of mitral disease with venous engorgement; the patient died a few days after the "acid. hydrocyan. dil. and water." Dr. So-and-So had taken charge of the case in my place.

The final result of all the above is that I now dispense all my drugs at cost price, and am saved endless worry and annoyance.

I should be very sorry to have to recommend a universal dispensing by all medical practitioners from M.D. to F.R.C.P. Lond. alike; yet something must be done to cure the evil. Sixpenny dispensaries are the outcome of "chemists prescribing," and not the reverse, as one of your correspondents allege.—I am, etc.,

F. W. Forbes-Ross, M.D.

New Brighton, Cheshire, Oct. 28th.

Sir,—I am pleased to read the many letters appearing in the British Medical Journal on the above subject. You may remember you were kind enough some months ago to publish my views on the matter and my offer to subscribe to a fund and to formulate a scheme to check the conduct of prescribing chemists whose fraudulent and dangerous practices are constantly coming under my notice. I was astonished at the apathy then shown by my colleagues, only one letter confirming mine subsequently appearing. My offer still holds good. I am willing to meet my brother practitioners who are thoroughly in earnest. The general practitioners must rely on themselves if they desire to stamp out this growing evil.

I do not agree with Dr. J. K. Kinsman Benjamin that doctors should not dispense their own medicines. I say we should. Have we not to pass in practical and theoretical pharmacy at well as in medicine, materia medica, surgery, midwifery, etc.?—I am, etc.,

W. B. R.

London, Oct. 30th.

*** We have received a large number of letters upon this subject, for which, owing to the great pressure on our space, we are unable to find room.

CORROSIVE SUBLIMATE IN OBSTETRIC PRACTICE.

Sir,—In defence of the use of corrosive sublimate as a vaginal injection in obstetric practice, I beg to make the following statement:

At the City of London Lying-in Hospital, during the last eight years, it has been universally employed as such, in a solution of 1 in 2,000, one douche being given whenever practicable during labour, and six afterwards. In not a single instance has a symptom of mercurial poisoning been observed. During this time 3,203 women have been delivered, with a mortality from all causes of 11 (1 in 291), while, during the last two years and a half 1,138 deliveries have occurred without a death, the last having taken place in May, 1891! Let this be compared with the previous eight years, before the sublimate irrigation was resorted to. During this period 2,445 women were delivered with 59 deaths (1 in 41). I leave your readers to draw their own conclusions.—I am, etc.,

Clement Godson, M.D.,
Consulting Physician to the City of London Lying-in Hospital.

London, Nov. 8th.

THE DANGER OF TREATING HYPERPYREXIA OF RHEUMATIC ORIGIN BY SALICYLATES.

Sir,—In the British Medical Journal of November 4th I notice the clinical report of a case of acute rheumatism complicated with hyperpyrexia. In this patient the dangerous symptom appears to have been treated with large doses of salicylate of soda. The writer states "On October 1st she commenced taking gr. x of sodium salicylate every two hours, this was increased to gr. xx on the 4th, and for the twelve hours preceding death she had taken ʒiv. The two early attacks of high temperature I looked upon as danger signals and pushed the salicylate."

In a paper read by me before the Medical Society of London and published in the eleventh volume of their *Transactions*, I attempted to draw very special attention to the danger of treating the hyperpyrexia of acute rheumatism with large, or, indeed any, doses of salicylate. Numerous cases were quoted, all of which showed clearly that with a rising temperature the remedy is strongly contra-indicated and has not the slightest influence upon the fever heat. Since the publication of my paper, now more than five years ago, I have seen many cases which confirm in every particular the views I then held—that salicylates are absolutely useless in cases of hyperpyrexia of rheumatic origin. Moreover, clinical evidence will prove that with such cases these remedies are worse than useless, are, in fact, highly dangerous; for while waiting for the beneficial result which some observers confidently expect from their supposed direct antagonism to the rheumatic poison they are losing valuable time and neglecting the only true remedies against the appalling complication, namely, alcohol and the cold bath.—I am, etc.,

Donald W. C. Hood, M.D.Cantab, F.R.C.P.Lond.

November 7th.

UNQUALIFIED MEDICAL MISSIONARIES.

Sir,—Those most interested in the success of medical women will be most grateful to you for your long-needed protest against what you rightly term the "cruel farce" of sending out women who have had no proper training, and who cannot possibly be qualified for the very serious responsibilities of medical practice either at home or abroad. No course can be better calculated to discredit alike the missionary cause and that of medical women, and as long ago as 1887 I protested vehemently in the *Nineteenth Century* against this as the greatest of all sources of danger to the interests of women as practitioners of medicine. I then said:

> To my mind by far the most formidable danger, and the only one that need really alarm us, arises not from without but from within—from the professed, and probably sincere, friends of the movement itself. I refer to the threatened discredit of medical women by the introduction into their ranks of those who, refusing to go through the door into the sheepfold, are encouraged by well-meaning but ill-judging persons to climb up some other way, and who, therefore, cannot complain if they find themselves held as thieves and robbers. Not long after the foundation of the London School, it was found necessary to prevent the admission to it of foolish persons, who fancied that after taking "a few classes" they might consider themselves competent to practise as medical missionaries or otherwise; and in order to do this a regulation was passed that every medical student must sign a declaration stating her intention to go through the whole course of study, with a view to admission to the National Register. The same rule is in force in Edinburgh,

and therefore neither of the special schools for women can be held in any degree responsible if ill-educated women creep surreptitiously into the profession. Unfortunately, provision has been made elsewhere for "two years' courses" of instruction, and women are being sent out under the name of medical missionaries, who cannot possibly be duly qualified for the very serious responsibilities of practice. Every doctor who has gone through the ordinary four years' course will testify that it has been all too short, and that not a day could be spared from it if even the most essential knowledge is to be secured; and if this is so in this country, where opportunities of consultation with senior practitioners abound, how much more is it the case in the East, where each medical woman is probably isolated in a far-away station, and must meet emergencies of life and death with no outside aid whatever? Let those who think differently ask themselves if they would be willing to trust the lives of their nearest and dearest in the hands of an average second year's student of either sex, or, if they would not do so, whether they can be justified in foisting such deceptive assistance on dying natives, and making it their excuse that they desire the spread of the Christian religion? Is it not rather a case of

"Assist us to accomplish all our ends,
And sanctify whatever means we use to gain 'em—"?

If only the kind people who have been deluded into giving their names and their money in support of these wretched two-year courses could realise the harm they are doing, and the grievous disappointment and bitter awakening that too often await the unhappy students who have thus wasted time and money, and who at the best have to begin all over again, they would surely no longer allow themselves to be made instrumental in injuring the cause they have at heart, but divert their assistance into channels for thoroughly educating qualified medical women, instead (as you admirably put it) of spoiling a noble work "by flooding the country with cheap shams.—I am, etc.,

Edinburgh, Nov. 4th. SOPHIA JEX-BLAKE, M.D.

THE AFTER-TREATMENT OF VACCINATION.

SIR,—I hope the Royal Commission will make some suggestion as to what should be done for the after-treatment of vaccination cases. I do not think it would be too much for board of guardians to provide medicines, ointments, etc., if (as no doubt would mostly be the case) the public vaccinator was willing to prescribe for the many cases requiring it.

I suppose no one doubts that the late spread of small-pox has been simultaneous with the sitting of the Royal Commission, and been caused by them. As they have inflicted the most calamitous evil of modern times upon us they should do what they can, slight though it be, to compensate.—I am, etc.,

Worcester, Oct. 28th. WM. WOODWARD, M.D., Late Public Vaccinator, Worcester District.

MEDICAL ETIQUETTE.

SIR,—In the address delivered by Mr. Ernest Hart at Washington, by invitation of the Pan-American Congress, published in the BRITISH MEDICAL JOURNAL of October 21st, there is a statement of a course which seems to me, if correct, is rarely or never followed. In alluding to the etiquette of consultations it says that the opinion arrived at should be expressed through the mouth of the attending practitioner. I may say that I have never seen this done, and during the last few months I have met several consultants of whom I have no complaint to make. (I mention a few as a guarantee that I am correct in my opinion, as these gentlemen are among those whom it is a pleasure to meet: Dr. Mitchell Bruce, Dr. Sharkey, Dr. Stephen Mackenzie, Dr. Lionel Beale, Dr. Cullingworth, Mr. Nettleship, Mr. Lawford, Mr. H. B. Robinson, Dr. Goodhart, Dr. F. Semon, and others.) In each case the result of the consultation was expressed by the consultant after full discussion with me, but this I have known to be omitted in the case of neighbouring practitioners with other physicians.

I think the point is one of importance, and I think that if Mr. Hart is correct an authoritative statement should be promulgated as to a consultant's duty under the circumstances. That is to say, should the consultant or the medical attendant who has called him in give the result of their deliberations, and the necessary orders as to treatment, etc., resulting from their opinion?—I am, etc.,

November 6th. G. M. P.

ON October 22nd a new Physiological Institute was opened in the University of Moscow. The institute, the building and equipment of which cost 130,000 roubles (£13,000), is believed to be superior to anything of the kind at present in existence in Western Europe.

OBITUARY.

ARTHUR HENSMAN, F.R.C.S.

IT is with regret we announce the death of Arthur Hensman, Aural Surgeon to the Middlesex Hospital, and Lecturer on Anatomy in the Medical School of that institution, which took place at his residence, 31, Harley Street, on November 1st. For several months a few of his intimate friends had noticed that Mr. Hensman did not appear to be in his usual health. On October 1st he fulfilled the duties of chairman at the annual dinner of the Middlesex Hospital School, and began the following day the winter course of lectures on Anatomy; he continued to lecture and see patients as usual until October 21st, when he found it necessary to seek advice in regard to his health; next day the symptoms became alarming, and, notwithstanding the devoted attention and skill he received from his colleagues, Drs. W. Cayley and Sidney Coupland, the illness ended fatally ten days later.

Mr. Hensman was the son of John Hensman, a well-known solicitor of Northampton. He was born at Northampton in 1842, and was educated at the school of Dr. Coles in that town. He received his medical education at the Northampton General Infirmary and at University College Hospital, London, becoming a Member of the Royal College of Surgeons in 1866 and a Fellow in 1879.

Mr. Hensman first began to practise at Chatteris, near Cambridge, but soon came to London, and in 1870 was appointed Demonstrator of Anatomy at the Middlesex Hospital; at that time Dr. R. Liveing was Lecturer on Anatomy. For about twelve years he continued to work in the dissecting room with great success, and during this period published his well-know *Anatomical Outlines for the Use of Students*. In 1882 he was appointed Lecturer on Anatomy, and a little later was elected Surgeon to the Throat and Ear Department of the hospital. During the period he was fulfilling the duties of demonstrator Mr. Hensman also lectured in the summer session on Botany and Comparative Anatomy.

It is somewhat surprising, considering his experience as an anatomist and teacher, that he wrote so little; it certainly was not due to any lack of interest in the science of anatomy, for he was ever ready to assist and encourage those who were willing to carry out original investigation in his department; and the writer of this memoir remembers with deep affection how much he owes to the kindness, facilities, and encouragement he received from his late chief.

The most important of his contributions to anatomical literature are the admirable articles he wrote in Morris's *Human Anatomy* on the Thorax; the Mouth, Salivary Glands, and Œsophagus; and the Organs of Voice, Respiration, and Circulation. In this work he employed his skill as an artist with admirable effect. Hensman was no mean artist; many of his sketches on the dissecting-room slate were skilfully filled in with ease and rapidity, and often produced a startling effect on the class. Although using the chalks for the edification of the class with great earnestness, he loved to paint the beauties of Nature, birds, butterflies, and flowers; many of his old pupils remember his interesting conversations and drawings relating to the fertilisation of flowers by insects; his love of angling, knowledge of the habits of fish, the courtship of birds, and the beauties of flowers, made him an enjoyable companion. He was modest and retiring, caring little for the London medical societies or any kind of evening work, for he was essentially a home-loving man. Next to home his interest was centred in the Middlesex Hospital and School, which he had served faithfully and well for a long period; and it afforded him the greatest possible satisfaction that some of his old pupils became in course of time members of the hospital staff and School Committee. As Mr. Hensman went little into society, it naturally followed that his circle of friends was not large, but he certainly had no enemies; to know him intimately was a privilege, for his gentleness, modesty, earnestness, and amiability soon won the love of those who came in close contact with him, whether they were colleagues, pupils, or patients.

JAMES CLARK GARDNER, L.R.C.P.Edin., M.R.C.S.Eng.

We regret to announce the death of James Clark Gardner, L.R.C.P.Edin., M.R.C.S.Eng., at his residence, Glebe House, Washington, co. Durham, on November 7th. On the night of October 28th he was returning from Newcastle-on-Tyne in a dogcart when, on reaching Springwell, the horse bolted and upset the trap; both Dr. Gardner and the coachman were thrown out. Dr. Gardner was removed to the Springwell Inn, when he was found to be paralysed on the left side. Dr. Murphy of Sunderland was sent for, who attended to his injuries, removed him home, and continued in attendance till his death.

Dr. Gardner was born forty years ago at Winlaton, and was for some years in practice in Felton, but eleven years ago he succeeded Dr. Fennel in practice at Washington, and was colliery surgeon to Washington and North Biddick Collieries. He also held the parish appointment, was a lieutenant in the 5th Volunteer Battalion of the Durham Light Infantry, and had an extensive private practice in the neighbourhood. His medical studies were pursued at the University of Durham College of Medicine at Newcastle on Tyne and at University College Hospital, London. He was given a military funeral, which was largely attended by the gentry and farmers of the district.

HENRY PRATT ROBARTS, F.R.C.S.Eng.

We regret to have to record the death of Mr. Henry Pratt Robarts, the oldest Fellow of the Royal College of Surgeons of England. Mr. Robarts, who came of a Huguenot family, was born in 1801. He received his education first of all at the Hunter Street Academy, and subsequently at St. Bartholomew's Hospital. He became an L.S.A. in 1826, a Member of the Royal College of Surgeons in 1827 and a Fellow in 1844. He had been apprenticed to Mr. Holmes, of Everett Street, Russell Square, whose sister he married, and to whose practice he eventually succeeded. He subsequently moved to Coram Street, in and about which many literary men at that time resided—among them Thackeray, who was at one time a patient of Mr. Robarts. Mr. Robarts became the partner of Mr. Chatto; this association continued until that gentleman was appointed librarian of the Royal College of Surgeons. Mr. Robarts retired from active practice in 1866. For many years he was joint Secretary of the Medical Society. Mr. Robarts took the Silver Medal of the Medical Society in 1826, and the Fothergill Gold Medal in 1844. He was buried at the Great Northern Cemetery, Colney Hatch.

We much regret to report the death of Dr. P. C. Baxter, F.R.C.S.I., of Dublin, at the age of 55. On November 5th he had just sat down to dinner with some guests when he became faint. He was removed to a sofa, where he died of syncope in about twenty minutes. Dr. Baxter had served in the Army Medical Department, and was assistant surgeon to the 93rd Sutherland Highlanders. He served in the Umbala campaign, 1863, and received the medal and clasp. After a short service he retired, and during the Franco-German war he was in charge of an Irish ambulance. For his services he was made Chevalier of the Legion of Honour. He was an M.D. of the University of Dublin (1860), and he obtained the Fellowship of the Royal College of Surgeons in Ireland in 1876. For some years he had been surgeon to St. Joseph's Hospital for Children, Dublin.

The death is reported of Mr. John Gale Barford of Wokingham. The deceased took the diploma of M.R.C.S.Eng. in 1837, and that of L.R.C.P.Lond. in 1861. He was a Fellow of the Chemical Society. His particular inclination was in the direction of physiological chemistry, and for nearly a quarter of a century he acted as Medical Officer and Professor of Chemistry at Wellington College. The funeral took place on November 13th at St. Paul's Church, Wokingham.

Deaths in the Profession Abroad.—The members of the medical profession in foreign countries who have recently passed away are: Dr. Frerichs, formerly Extraordinary Professor in the University of Marburg, and a nephew of the celebrated physician Professor Frerichs, aged 40; Dr. Joly, of Lyons, a well-known otologist and author of a French translation of Professor Politzer's work on diseases of the ear, aged 49; Dr. C. H. Fisher, Secretary of the Rhode Island State Board of Health, several times State Senator, and for some years a member of the State Board of Education, aged 71; Dr. Paul Kanschin, of St. Petersburg, who acquired a considerable literary reputation by his Russian translations of Shakespeare, Byron, Victor Hugo, and other writers, aged 65; Dr. W. F. Hutchinson, of Providence, Rhode Island, formerly editor of the *American Magazine*, author of "Under a Southern Cross" and other books of travel, Professor of Electro-Therapeutics in Tuft's Medical College, Boston, and Assistant Secretary-General of the recent Pan-American Congress, aged 55; Dr. John C. Peters, one of the founders and some time President of the New York Pathological Society, author of "Notes on Asiatic Cholera" and other works, and the physician and friend of Washington Irving, aged 74; Dr. Joseph Vaust, of Liége, well-known in Belgium as an obstetrician, aged 78; and Dr. Moritz Meyer, of Berlin, one of the pioneers of electrotherapy in Germany and author of a treatise on the subject (*Die Elektricität in ihrer Anwendung auf praktische Medicin*), which was published in 1854 and ran through several editions (1861, 1868, 1883). The book was originally written as an essay in competition for a prize offered by the Medical Society of Ghent for the best work on electricity in its relation to medicine. The first prize was awarded to Duchenne, the second to Moritz Meyer.

MEDICO-LEGAL AND MEDICO-ETHICAL.

THE CASE AGAINST MR. HARNESS AND OTHERS.

On November 15th Mr. Hannay resumed, at the Marlborough Street Police Court, the hearing of the charges of conspiracy to defraud brought against C. B. Harness, Managing Director of the Medical Battery Company, Limited, James Montgomery McCully, described as a physician (whose name, however, does not appear on the *Medical Register*), and C. B. Hollier, a salesman. The charges are brought by Colonel Jeremiah Brasyer, Kate Willcocks, Frederick T. Burbage, and others. Mr. Thomas Terrell, barrister, prosecuted; Mr. Horace Avery appeared for Mr. Harness, Mr. A. R. Cluer for Mr. McCully, and Mr. C. F. Gill for Mr. Hollier. Inspector Turner, of the D Division, represented the police.

According to the report of the *Evening Standard*, from which we quote, the case excited a great deal of interest, and the court was crowded.

After Mr. Terrell had formally opened the case and after the prisoners had been formally charged, witnesses were, at the request of Mr. Cluer, ordered to withdraw. Mr. Terrell said that the misrepresentations could be classed under two heads—first, by advertisements and pamphlets representing that there was a person named C. B. Harness who was highly skilled in electrical and physiological knowledge, and able to cure people of various diseases, obtaining money falsely and fraudulently: secondly, that diseases could be cured by certain appliances, particularly by an electric belt. McCully represented that he was a qualified man, whereas some years ago he was struck off the *Register*. The Medical Battery Company had spent in advertising as much as £50,000 in one year. Persons induced to visit the premises at 52, Oxford Street, were ushered in by a man in livery to one or other of the salesmen, whom they naturally supposed to be Mr. Harness, and were induced to purchase one of the appliances sold at the establishment, the price charged depending upon the amount the visitor was prepared to stand. Mr. Terrell said that he would prove by the evidence of some of the most eminent electricians of the day that the belts had no electrical effect whatever. Harness was the principal mover in the enterprise, Hollier was merely a salesman. The counsel then quoted from a number of pamphlets and advertisements issued by Mr. Harness, and stated that the diseases with which Mr. Harness chose to deal were usually of such a nature that persons who had been treated by him were not likely to repeat to others what they had undergone. The examination of witnesses was commenced, and the case was adjourned.

MEDICAL DEFENCE UNION.

We have received from the Honorary Secretary the following report:—

The fortnightly meeting of this Union took place at the rooms of the British Medical Association, 429, Strand, W.C., on November 8th, Mr. Victor Horsley, F.R.S., President, in the chair. Many applications for advice were received and dealt with, and nine new members were elected. Dr. Bateman reported that he had, on behalf of the Union, supported, before the President and Council and Fellows of the Royal College of Physicians, Edinburgh, in Council assembled, the charge preferred against Dr. Tibbits for aiding Mr. Harness in selling electropathic belts which were declared to be medically worthless. The inquiry lasted four hours, and, after a patient hearing of the defence, Dr. Tibbits had been declared guilty of unprofessional conduct, and his name ordered to be removed from the list of Fellows of the College.

Dr. Danford Thomas reported the successful result which had been arrived at in a dispute between two members which had been referred by the Council to his arbitration, and the thanks of the Council were accorded to him for his able and satisfactory conduct of the case. A matter was ordered to be reported to the Council of the Royal College of Surgeons, England, for their consideration, and the question of certain quack advertisements in the public press were referred to a subcommittee, with directions to bring them before Mr. Lockwood, Q.C., M.P.

A vote of condolence with Lady Clark and family on the great loss they had sustained was passed, and the President requested to forward the same to Lady Clark.

The report of the subcommittee *re* amalgamation with another society was dealt with. Local secretaries were appointed, and their warrants signed by the President.

ILLEGAL CERTIFICATE.

At Worship Street, Mr. Neville Holland, M.D., surgeon, etc., of Green Street, Bethnal Green, appeared on November 10th to a summons charging him with having given a false certificate in connection with the death of Emily Hewitt. The evidence showed that Emily Hewitt, of 3, Cambridge Circus, Bethnal Green, a married woman, died in childbirth on November 7th, and the certificate relating to a stillborn infant was signed with defendant's name as having "attended her in her last illness." Alice Horsey, a nurse, proved, however, that the defendant was not the medical man who attended, and the husband said he had since found that a Mr. Davis was the gentleman who attended. Mr. Davis and Mr. Holland were in the same surgery, and he, the husband, went by the nurse's direction for Dr. Holland. It further appeared that, the woman having died after a very short illness—less than twenty-four hours—an inquest was held, and before the coroner the defendant was called, and admitted that he had not attended the deceased, but had given the certificate. Mr. Morris, for the defendant, addressed the magistrate, admitting the breach of the law under pressure of overwork, etc. Mr. Bushby imposed a fine of £3, and £2 2s. costs.

AN ELECTIONEERING CARD.

It is, we have reason to believe, with much regret that our opinion has been solicited in reference to the ethical or other nature of an electioneering "card," which seems to indicate a new medical departure in the art of canvassing for municipal honours and the like, and which displays on one side a fairly executed photograph of the candidate, with the more or less impressive intimation of "Sinclair for St. Luke's," and on the reverse the following announcement, contrary to the traditional and existing etiquette of the medical faculty:

DR. SINCLAIR,

A Master of Arts.
A Doctor of Medicine.
A Justice of the Peace for the City of Manchester.
Professor in the Medical Department of Owens College.
Physician for many years to the Southern Hospital, Clifford Street.
Physician to the Maternity Hospital, Upper Brook Street.
Physician to the Cancer Hospital in Stanley Grove.

All these Medical Institutions are in St. Luke's Ward.

Vote for
DR. SINCLAIR
for
St. Luke's Ward.

A SIXPENNY DISPENSARY.

X. Y. Z. writes: In the BRITISH MEDICAL JOURNAL of October 7th, under the above heading, you speak in very strong terms of a "Dr. E. J. Smith," who appears to have issued a circular and opened a sixpenny dispensary. You even think the intervention of the Royal College of Surgeons and Apothecaries' Society called for. What then is to be said in favour of the advertisement enclosed, offering medical attendance and medicine for 1d. a week for persons over 12 years of age and ½d. a week for young children? The name of a Chancery barrister heads the advertisement, the local archdeacon approves, and subscriptions flow in from the general public, who think they must follow where law and divinity lead. The three doctors who do the work (by deputy, of course) in the different districts send in an annual account of thousands of attendances, and divide among themselves the weekly pence and the charitable contributions, amounting to about £500 per annum. Is this a charitable institution masquerading in the guise of a self-supporting sick club, or what is it? It seems to me to be several degrees lower than the sixpenny dispensary, for the latter is at least open and straightforward; and what about the M.D.'s, etc., who figure as the medical attendants, while the actual work is done by their assistants? and how can I or anyone else in the neighbourhood ask a working man 2s. 6d. for advice and medicine when the standard price here advertised by a leading wealthy M.D. is 1d. a week?

*** We willingly insert "X.Y.Z.'s" communication on his responsibility, and we agree with him that the conditions under which provident dispensaries are worked is a subject than which no other could be better worthy of the attention of the Royal Colleges of Physicians and Surgeons. We have every confidence that the Metropolitan Provident Medical Association, under whose auspices most of the provident dispensaries in London itself are founded, is sincerely anxious to promote the interests both of the poor and of their medical attendants; but it is exceedingly difficult to maintain a proper rate of remuneration, and the other conditions which ought to govern a really satisfactory scheme for this purpose, in face of the constant underselling which prevails. The main ideals of a provident dispensary seem to us to be that it shall be self supporting; that it shall not include persons able to pay ordinary fees; that its fees shall be so fixed as to give a reasonable remuneration to its medical officers; and that these latter shall be any respectable medical men within a certain radius who choose to join. It would be a great public gain if the Royal Colleges could see their way to settling a practicable scheme, and could sanction it by censures directed against those who should try to undersell it; and we are confident that every assistance would be given by those interested in the present dispensaries.

We must add that in publishing "X.Y.Z.'s" letter we hold ourselves perfectly free from the insinuations which he has made against the gentlemen connected with the Kingston Provident Dispensary; and we would also remind him that he quite ignores the difference between paying 1d. a week in health and sickness equally, and being seen for 6d. at any time. We do, however, confess to some disapprobation of the mixture of providence and charity which, if "X.Y.Z." is right, prevails in the case of this dispensary.

FOREIGN AND ENGLISH DOCTORS.

M.D. writes: While on my holiday this year, and passing through Italy, I was unfortunate enough to develop a very painful abscess in the right ear (meatus), and was laid up four days in bed at Milan. Being rather helpless myself, and my friend who accompanied me rather anxious, an Italian doctor was called in. He spoke English well, and told me he had been attached to the Italian Embassy in London, and studied at King's College. After I got well he sent me in a bill, in which he had charged *full* fees (so the hotel proprietor told me), namely, 20 francs for the first visit, and 10 francs for every subsequent one. Of course he knew I was a medico, because I told him so; we exchanged cards, and had several chats about Italian hospitals, etc. I should be glad of your opinion as to what is the etiquette or custom in the above case.

*** Although it is an accepted general rule of the Faculty of Medicine that all legitimate practitioners are entitled to the reasonable and gratuitous services—railway and like expenses excepted—of their medical brethren resident in the immediate or near neighbourhood, whose assistance may be desired, we deem it well to note that in the rule in the Ethical *Code* (chap. ii, sect. 2, rule 1), it is clearly laid down that such attendance is accorded by professional courtesy, and not as a matter of right. However much, therefore, we may regret the lack of international professional courtesy, the practitioner in question was within his right in charging his professional *confrère*. At the same time we may venture to assure him that if these relative positions had been reversed our Italian brother would have failed to induce his British attendant to accept a fee. Moreover, we apprehend, as a resident practioner of Milan, and especially if he were associated with the *Ordine dei Sanitarj della Provincia di Milano*, he could scarcely be ignorant of the rule, inasmuch as it is distinctly set forth in the *Codice di Etica Medica*, Cap. ii, Art. 2, page 39, as translated, by permission of the author, from the British *Code*, by Dr. Ludovico Coulliaux, and published in Milan by Fratelli Rechiedei.

X.—As the law now stands, we fear there is no way of stopping the advertisement, or the practice referred to.

W. H. P.—Our correspondent has, we think, written under a misapprehension on the subject of the action by the Society of Apothecaries against Alabone. Mr. Alabone's name was struck of the *Medical Register*, and he does not now possess any qualification to practise as an apothecary. Any person duly qualified to practise medicine may of course prescribe and dispense medicines.

NAVAL AND MILITARY MEDICAL SERVICES.

THE NAVY.

THE following appointments have been made at the Admiralty:—CHRISTOPHER PEARSON, Staff-Surgeon to the *Unicorn*, November 8th; HENRY B. HALL, Surgeon to the *Caledonia*, November 8th; MICHAEL RONAN, Staff-Surgeon to the *Devastation*, December 5th; JAMES M. FRANCE, Surgeon to the *Vivid*, additional, temporary, December 5th; JOHN J. DINNIS, Staff-Surgeon, to the *Inflexible*, December 5th.

Surgeon JAMES MOORE died in Jersey on November 1st, aged 29. He entered the Royal Navy, February 28th, 1887, and served three years on the China station as Surgeon of the *Plover*. At the time of his death he was on leave of absence from H.M.S. *Defiance* at Devonport.

ARMY MEDICAL STAFF.

BRIGADE-SURGEON-LIEUTENANT-COLONEL WILLIAM H. CLIMO. M.D., is placed on retired pay, November 4th. He entered the service as Assistant-Surgeon, April 1st, 1861; became Surgeon, March 1st, 1873; Surgeon-Major, April 1st, 1876; attained the rank of Lieutenant-Colonel, November 4th, 1881; and was made Brigade-Surgeon-Lieutenant-Colonel from March 19th, 1890. He has no war record in the Army Lists.

Surgeon-Captain L WAY is granted an extension of leave from October 8th to the date of his re-embarkation for duty in Madras.

Surgeon-Captain B. L. MILLS, on arrival from England, is posted to the Belgaum and Bangalore Districts, Madras Command.

Surgeon-Captain J. F. DONEGAN, serving in the Madras Command, is appointed to the medical charge of Malapuram Cantonment Hospital, without prejudice to his other duties, dated September 15th.

Surgeon-Captain G. A. T. BRAY, serving in the Madras Command, has leave to England for six months on medical certificate.

INDIAN MEDICAL SERVICE.

SURGEON-COLONEL R. HARVEY, M.D., D.S.O., Bengal Establishment, Principal Medical Officer Punjab Frontier Force, is appointed to officiate as Inspector-General of Civil Hospitals, Bengal.

The services of Brigade-Surgeon-Lieutenant-Colonel J. H. NEWMAN, M.D., are placed at the disposal of the Foreign Department.

Surgeon-Major J. B. Gibbons, Bengal Establishment, Officiating Superintendent of Campbell Medical School, is appointed Sub., *pro tem*, to that post from October 1st.

Brigade-Surgeon-Lieutenant-Colonel E. A. Birch, M.D., Principal of Calcutta Medical College, and *ex officio* First Physician to the Medical College Hospital, Calcutta, is permitted to retire from the service, which he entered as Assistant-Surgeon March 31st, 1866.

Surgeon-Captain F. O'Kinealy, Bengal Establishment, Officiating Resident Surgeon, Calcutta Medical College Hospital, is appointed to act as Professor of Anatomy, Calcutta Medical College, and Second Surgeon Medical College Hospital, in addition to his own duties, during the absence of Surgeon-Lieutenant-Colonel J. O'Brien.

Surgeon-Major P. W. Dalzell, Bengal Establishment, on return from leave, is posted as Civil Surgeon to Bassein, Burmah, *vice* Surgeon-Major E. P. Frenchman, who proceeds on leave.

Surgeon-Captain T. C. Moore, Madras Establishment, is appointed to act as Civil Surgeon of Cocanada.

The tenure of the appointment of Surgeon-Colonel S. B. Hunt, Madras Establishment, in the administrative grade of the Indian Medical Service, Madras, will reckon from March 1st.

Surgeon-Captain C. M. Moore, M.D., Bombay Establishment, Officiating Medical Officer of the Deoli Irregular Force, and of Harowtee and Tonk Agency, is granted 60 days' privilege leave from August 22nd.

Surgeon-Major E. P. Frenchman, Bengal Establishment, Civil Surgeon of Bassein, Burmah, has privilege leave for one month and twenty-seven days from October 10th.

Surgeon-Major J. E. Ferguson, M.B., Bombay Establishment, has retired from the service from October 23rd. He was appointed Surgeon March 31st, 1875, and Surgeon-Major twelve years thereafter.

Surgeon-Captain W. H. M. Ingham, M.B., Madras Establishment, is transferred to the half-pay list, October 19th. His commission bears date October 1st, 1887.

THE VOLUNTEERS.

The commission of Surgeon-Captain T. E. F. McGeagh, M.D., Hon. Artillery Company of London, is renewed under the provisions of the Royal Warrant of March 12th, 1889, with effect from August 11th, 1893.

The undermentioned gentlemen are appointed Surgeon-Lieutenants to the corps specified, all dated November 11th:—C. L. Cunningham, from the 1st Sussex Volunteer Engineers, to the 1st Devon and Somerset Engineers, Fortress and Railway Forces; Henry Richard Preece, 1st Volunteer Battalion the Cheshire Regiment; Arthur William Wigmore, 19th Middlesex (St. Giles's and St. George's, Bloomsbury).

CHANGES OF STATION.

The following changes of station among the officers of the Medical Staff of the Army have been officially notified as having taken place during the past month.

		From	To
Brig.-Srg.-Lt.-Col.	J. W. Maxham, M.D.	Gosport	York.
Surg.-Lt.-Col.	W. J. S. Campbell ...	York	Netley.
Surg.-Major	J. E. V. Foss, M.D. ...	Birr	Templemore.
,,	P. H. Fox	Templemore ...	Cork.
Surg.-Capt.	J. D. T. Reckitt	Shorncliffe ...	Dover.
,,	B. W. C. Deeble	—	Portsmouth.
,,	C. E. Faunce	Woolwich ...	Portsmouth.
,,	M. O'D. Braddell, M.B....	York	Newcastle.
,,	C. R. Kilkelly, M.B. ...	Portsmouth ...	Aldershot.
,,	M. O'Halloran, M.D. ...	Lydd	Shorncliffe.
,,	R. J. Windle, M.B. ...	Altcar	Aldershot.
,,	W. Dowman...	Wicklow	Cork.
Surg.-Lieut.	H. W. H. O'Reilly, M.B.	Belfast	,,
,,	B. W. Longhurst	Aldershot ...	Gosport.
,,	C. G. Spencer, M.B. ...	,, ...	Woolwich.
,,	C. E. P. Fowler	,, ...	Pontefract.
,,	T. H. J. C. Goodwin ...	,, ...	Burnley.
,,	H. E. B. Porter	,, ...	Wakefield.
,,	A. E. C. Keeble	,, ...	Chester.
,,	A. J. Lattey...	,, ...	Chicester.
,,	D. J. Collins, M.B. ...	,, ...	Devonport.
,,	St. J. B. Killery	,, ...	Dublin.
,,	H. C. French	,, ...	Shoeburyness.
,,	W. W. Smith	,, ...	Canterbury.
,,	W. P. Barter	,, ...	Dublin.
,,	E. M. Williams	,, ...	Devonport.
,,	J. R. McMunn	,, ...	Portsmouth.
,,	J. B. Anderson	,, ...	Gravesend.
Quartermaster	W. H. Barton	—	York.
,,	E. Lines	—	Aldershot.

VOLUNTEER AMBULANCE SCHOOL OF INSTRUCTION.

We are asked to state that the annual dinner of the School will take at Cannon Street Hotel on Saturday, December 9th, on which occasion Surgeon-Colonel J. B. Hamilton, M.D., Principal Medical Officer of the Home District; Brigade-Surgeon-Lieutenant-Colonel J. H. Evatt, M.D., Army Medical Staff; Lord Amherst of Hackney, and other distinguished officers will be the guests of the School, members of which can obtain tickets for the dinner by making early application to Mr. C. J. Downer, Fairfield, Willesden Park, N.W.

P.M.O. MADRAS.

We understand that Surgeon-Colonel Davis, now quartered in India, was nominated for the post of Principal Medical Officer of Madras on promotion to the rank of Surgeon-Major-General. As, however, he had only fifteen months longer to serve, the Government of India declined to accept the nomination. Surgeon-Major-General Wade, who has been only eleven months at home after his last tour in India, has, we carr, been nominated to the vacant post.

ARMY MEDICAL RANK AND TITLES.

A.M.S. traverses the assertion of "Surgeon-General (Retired)" that medical officers have neither military nor army rank, and now possess a lower status than under the old relative rank. He says medical officers have clearly-defined "substantive rank," and really possess everything in the shape of rank that they have any right to or should hold. The nature of their rank is clearly stated in Article 267 A Royal Warrant, Pay and Promotion; while the command of the Medical Staff Corps and of officers and men attached to it for duty, and of patients in hospital, is laid down in Articles 267 and 271. Nothing more in the shape of rank is required except the removal of the restrictions as to the presidency of mixed boards, etc. It is quite different with titles which require revision. There is no use in painting the devil blacker than he is.

*** With the latter sentiment we agree, but remark that it is equally difficult and undesirable to whitewash that individual. The rank of army medical officers may be, and doubtless is, just as literally expressed in the Articles quoted; but it is the shameless ignoring and non-recognition of it on every possible official and ceremonial occasion, even by many bound to set an example, that is complained of. Probably the root of this disparagement and disregard rests in the limitations regarding mixed boards, etc. If medical officers can command officers and men in hospital and attached to them for duty surely they can sit on terms of equality with other army officers in mixed courts. The limitations on their rank in these respects are merely remnants of caste feudalism handed down from the middle ages.

An Old Surgeon-General maintains that nothing but the restoration of the Sidney Herbert Warrant in its integrity will place medical officers in a proper position in the army. That was the Magna Charta of the department, and the basis upon which all subsequent efforts to ameliorate its position has been laid.

*** The Warrant of 1858 was undoubtedly the original lever by which the medical service was raised from old world conditions, and in some respects, as in non-limitation upon relative rank, was ahead of subsequent ones. But the army and the medical service are very different from thirty-five years ago. To meet necessary reforms in rank, title, and autonomy a medical warrant of the future will require to be almost as much in advance of that of 1858 as it was on pre-existing conditions.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Friday, November 10th.

Glanders.—Sir F. Seager Hunt asked the President of the Board of Agriculture whether the partial enforcement of the Glanders Order Act, 1892, by the London County Council had resulted in reducing the disease called glanders in the metropolis. If not, whether he was prepared to make the provisions of Clause 19 compulsory.—Mr. Gardner said he was happy to say that a considerable diminution in the number of horses reported to have been attacked with glanders in London had taken place since the Order referred to came in force, the number being 1,837 in the fifty-two weeks ended October 14th, as compared with 2,478 in the corresponding period for 1891-2. His opinion with regard to the provisions of Clause 19 remained unchanged, but he did not feel that under existing circumstances he should be justified in making those provisions compulsory.

Monday, November 13th.

The Employers' Liability Bill.—In the discussion on this Bill, Mr. Boysfield moved the following new clause: "Where, after the commencement of this Act, in any employment injurious to health, in which the risk of injury to health can be mitigated or removed by the use of reasonable precautions, the death, or temporary or permanent disablement of a workman is caused by the neglect of such reasonable precautions, the workman, or in case of death his representatives, shall have the same right to compensation and remedies against the employer as in other cases of personal injury due to negligence." The hon. gentleman explained that the effect of the new clause would be to provide that compensation could be obtained not only because of injury through accident, but on account of injury to health where negligence was proved.—Mr. Asquith said the Government could not accept the clause, as they had come to the conclusion that the common law was adequate for the purpose in view.—In the course of the discussion which ensued, Sir H. James and Mr. Matthews disputed Mr. Asquith's view of the common law.—After several other members had spoken, Mr. Asquith said that, as the result of the discussion, the Government would accept the clause with a verbal amendment in it.—The clause having been read a second time, Mr. Asquith moved the omission of the words "injurious to health."—Mr. Balfour complained that the words would make the clause too wide and vague.—The Lord Advocate supported the amendment on the ground that it would bring under the clause occupations which were at present in a doubtful category. On a division the amendment was carried by 188 to 71.—Sir R. Webster moved to insert after "employment" the words "not protected by statute."—Mr. Asquith, on behalf of the Government, opposed the amendment, which was eventually withdrawn.—Mr. Matthews moved to insert after "risk of injury" the words "being caused by the employment to health." The debate was resumed on Tuesday, and, after further discussion, the new clause was added to the Bill.

Tuesday, November 14th.

Bhang and Opium in Ceylon.—Mr. Schwann asked the Under-Secretary of State for the Colonies what report had been received from the Government of Ceylon as to the alleged increase in the importation of bhang and opium into that island for other than medical purposes.—Mr. S.

BUXTON, in reply, said the report called for from the Government of Ceylon had not yet been received, but a reminder on the subject would be sent to the Governor.

Vaccination.—Mr. LEON asked the Secretary of State for the Home Department whether he could state when the Royal Commission on Vaccination was likely to make its final report.—Mr. ASQUITH said he was informed that the Commission had nearly arrived at the conclusion of their inquiry and hoped to present their final report in the early part of next year.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

PATHOLOGICAL RESEARCH.—The Vice-Chancellor announces that an anonymous donor has placed in the hands of Dr. Peile, Master of Christ's College, a sum of £100 as a contribution to the support of higher work in pathology during the current academical year.

TEMPORARY REGISTRY.—In consequence of a fire at the Pitt Press, happily attended by no serious consequences, the office of the Registrary is temporarily removed to the Old Library of Pembroke College.

DEGREES.—The following were admitted to the degrees of Bachelor of Medicine and Bachelor of Surgery at the Congregation on November 9th: Charles Alexander Hill, B.A., Trinity; Andrew Sidney Ransome, B.A., Trinity; and Alfred Ashby Shillitoe, B.A., Trinity Hall.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE following gentlemen passed the First Professional Examination in Anatomy and Physiology for the diploma of Fellow at a meeting of the Board of Examiners on Monday, November 13th:

G. B. French, M.R.C.S.Eng., L.R.C.P.Lond., student of Edinburgh University; T. G. Ouston, M.R.C.S.Eng., L.R.C.P.Lond., Yorkshire College and General Infirmary, Leeds; F. H. Westmacott, M.R.C.S. Eng., L.R.C.P.Lond., Owens College and Royal Infirmary, Manchester; J. Clay, M.B. and B.S.Durh., Durham College of Medicine and Royal Infirmary, Newcastle-on-Tyne; A. G. Gullan, University College, Liverpool.

Eleven candidates were referred back to their professional studies for a period of six months.

Passed on Tuesday, November 14th:

J. S. Buchanan, M.R.C.S.Eng., L.R.C.P.Lond., Glasgow University and London Hospital; J. R. Webb, M.R.C.S.Eng., M.B. and B.S.Melb., Melbourne University, Middlesex and London Hospital; W. D. Frazer, St. Thomas's Hospital; A. Cooke, Oxford University and London Hospital; W. G. Mortimer, London Hospital.

Eleven candidates were referred back to their professional studies for a period of six months.

The following are the arrangements for the Final Fellowship Examination, for which forty-two candidates have entered their names:

Monday, November	20th	...	Written Examination, 1.30 to 5.30 P.M.*
Tuesday,	21st	...	Clinical Examination, 1.30 to about 6 P.M.*
Wednesday,	22nd	...	Operations, 1.30 to about 6 P.M.*
Thursday,	23rd	...	Surgical Anatomy, 2 to 4.15 P.M.*
Friday,	24th	...	*Vivâ voce* Examination (Pathology), 5 to about 9.30 at Royal College of Surgeons.

* At the Examination Hall.

Candidates will be required to attend on *all* the above-mentioned days.

At the last meeting of the Council the following recommendation from the Court of Examiners with regard to the regulations for the Primary Fellowship was adopted:

"That Section I paragraph 4 of the regulations for the Diploma of Fellow be altered in the following manner:

"Paragraph as at present: 4. Of having performed dissections at a recognised school or schools during three winter sessions.

"Paragraph as proposed: 4. Of having been engaged in the acquirement of professional knowledge at a recognised medical school during a period of not less than three winter sessions and of having performed dissections at a recognised medical school or schools for a period of not less than eighteen months during the ordinary sessions, that is exclusive of the months April, August, and September."

The Bradshawe Lecture will be delivered by Sir Wm. Mac Cormac on Thursday, December 7th, at 4 P.M.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

ENTERIC FEVER IN MID-LANARKSHIRE.

FOLLOWING upon the prolonged hot dry summer there has occurred a widespread prevalence of enteric fever in Mid-Lanarkshire, which the county medical officer, Dr. McLintoek, has been able to trace in almost every instance to contaminated water supplies. The district is unfortunately situated in this respect. It is honeycombed with underground workings, which drain off the products of springs, and render the sinking of deep wells ineffectual. The people in various parts of the district are, therefore, often, in a dry season, dependent upon surface wells and surface accumulations of water. The county council, however, has risen to the occasion, and has accepted a large scheme for obtaining a general water supply for the whole of this populous district. This will not, of course, be available for a year or two, and, in the meantime, the work of the county health department is carried on in the face of serious difficulties, and the reactionary party have endeavoured to add to their embarrassment. They have raised a *faura* that, in the most heartless fashion, the sanitary authorities were proposing to evict the inhabitants of the village of Auchentibber wholesale. The real facts of the case, however, have emerged. The sanitary authorities had simply, as was their duty, insisted that the proprietor should provide an uncontaminated supply of water to the village, which he objected to do.

SMALL-POX IN LONDON.

DURING the past four weeks there has been a continuous and large increase in the number of small-pox patients admitted into the metropolitan hospitals, the totals being 10, 24, 30, and 48 respectively. An examination of the notification returns shows that this great increase is owing, not to any general rise in the prevalence of the disease in the metropolis, but to outbreaks in four sanitary districts—namely, Kensington, Paddington, Chelsea, and Poplar. Of the 55 cases of small-pox notified during the week ending Saturday last, November 11th, no fewer than 45 belonged to these four districts, including 19 to Kensington, 8 to Paddington, 8 to Chelsea, and 10 to Poplar. Of the remaining 10 cases, one was notified in each of ten other sanitary districts. During the past three weeks no fewer than 36 cases of small-pox have been notified in Kensington, 26 in Poplar, 11 in Paddington, and 9 in Chelsea, or 82 in all, while in the rest of London the notified cases of this disease did not exceed 32 during the same period.

THE EPIDEMIC AT GREENWICH WORKHOUSE.

ON November 14th, at the Greenwich Union Workhouse, Mr. Wood resumed the inquiry into the deaths of eight persons who died during the epidemic recently prevalent in the workhouse. There were altogether eleven deaths out of more than 250 cases. The bacteriological examination made by Dr. Klein negatived the idea that the illness could be attributed to cholera. In nearly all cases the persons who were attacked were past middle age, and the deaths were all those of persons over 64 years of age.

George Brown, engineer at the Workhouse, said the water supplied to the workhouse was derived from a well, the water being pumped up by a rising main into a tank 22ft. square, and about 4ft. deep, made of wrought iron, and covered with wood and canvas.

Dr. Luff, of St. Mary's Hospital, deposed to making an analysis of the stomachs of Mary Ann White and Mary Allen. He had made a very careful analysis for mineral and vegetable poisons, but found none. There was a minute amount of ptomaines present, in quantities too small for identification. Similar ptomaines were found in poisonous articles of food, and were sometimes produced after death. He discovered nothing but what might have been found in bodies of persons who had died from so-called natural causes.

Dr. Bulstrode, one of the medical inspectors of the Local Government Board, said that his own and Dr. Klein's investigation were incomplete, but he believed the epidemic to be an infectious disease. There was nothing to show that the deaths were due to poisoning. He mentioned that the water at the workhouse had been condemned by Dr. Frankland on account of its pollution.

The Coroner said they might have an adjournment to obtain the evidence of Dr. Frankland.

Dr. Bulstrode said that, although the water was condemned, there was no proof that it had any connection with the disease. Dr. Klein was still engaged in making experiments.

The Coroner said the jury could not return a verdict without further evidence. The inquiry would be adjourned until December 12th.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,355 births and 4,254 deaths were registered during the week ending Saturday, November 11th. The annual rate of mortality in these towns, which had been 18.3 and 20.2 per 1,000 in the preceding two weeks, further rose to 21.5 during the week under notice. The rates in the several towns ranged from 11.4 in Plymouth, 13.4 in Croydon, 15.0 in Hull, 15.9 in Halifax, and 16.5 in Cardiff to 24.6 in Salford and in Newcastle-upon-Tyne, 27.1 in Birmingham, 27.9 in Sunderland, and 28.5 in Wolverhampton. In the thirty-two provincial towns the mean death-rate was 21.5 per 1,000, and almost corresponded with the rate recorded in London, which was 21.4 per 1,000. The 4,254 deaths registered during the week under notice in the thirty-three towns included 508 which were referred to the principal zymotic diseases, against 447 and 458 in the preceding two weeks; of these, 127 resulted from diphtheria, 99 from whooping-cough, 78 from measles, 73 from "fever" (principally enteric), 66 from scarlet fever, 50 from diarrhœa, and 15 from small-pox. These 508 deaths were equal to an annual rate of 2.6 per 1,000; in London the zymotic death-rate was equal to 3.1, while it averaged 2.2 per 1,000 in the thirty-two provincial towns. No fatal case of any of these diseases occurred in Halifax; in the other towns they caused the lowest death-rates in Birkenhead, Portsmouth, Swansea, and Brighton, and the highest rates in Bristol, West Ham, Sheffield, Sunderland, and Norwich. Measles showed the highest proportional fatality in Wolverhampton, Norwich, Oldham, Burnley, and Sheffield; scarlet fever in Norwich; whooping-cough in West Ham, Plymouth, Sheffield, and Hull; "fever" in Norwich, Derby, Hull, and Sunderland; and diarrhœa in Salford. The 127 deaths from diphtheria recorded during the week under notice in the thirty-three towns included 103 in London, 5 in Manchester, 3 in Birmingham, and 3 in Newcastle-upon-Tyne. Four fatal cases of small-pox were registered in Birmingham, 3 in Bristol, 3 in Bradford, 2 in West Ham, 2 in London, and 1 in Hull, but not one in any other of the thirty-three large towns. There were 151 small-pox patients in the Metropolitan Asylums Hospitals and in the Highgate Small-pox Hospital on Saturday last, against 76, 87, and 110 at the end of the preceding three weeks; 52 new cases were admitted during the week, against 17, 25, and 30 in the preceding three weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital was 3,071 at the end of the week, against numbers increasing from 2,758 to 2,906 on the preceding three Saturdays; 484 new cases were admitted during the week, against 304, 401, and 460 in the preceding three weeks. The 410 deaths referred to diseases of the respiratory organs in London were 11 below the average, and were equal to an annual rate of 5.0 per 1,000.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday, November 11th, 867 births and 571 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 18.2 and 18.7 per 1,000 in the preceding two weeks, further rose to 20.3 during the week under notice, but was 1.2 per 1,000 below the mean rate during the same period in the large English towns. Among these Scotch towns the lowest death-rates were 14.9 in Aberdeen and 15.8 in Greenock, and the highest rates 20.6 in Perth and 22.8 in Glasgow. The 571 deaths in these towns included 61 which were referred to the principal zymotic diseases, equal to an annual rate of 2.2 per 1,000, which was 0.4 below the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Paisley and Glasgow. The 297 deaths registered in Glasgow included 16 from whooping-cough, 7 from diphtheria, 6 from scarlet fever, and 5 from "fever." Three fatal cases of diphtheria were recorded in Edinburgh. The death-rate from diseases of the respiratory organs in these towns was equal to 5.0 per 1,000, against 5.0 in London.

HEALTH OF IRISH TOWNS.

In sixteen of the principal town districts of Ireland the deaths registered during the week ending Saturday, November 4th, were equal to an annual rate of 23.0 per 1,000. The lowest rates were recorded in Armagh and Dundalk, and the highest in Waterford and Kilkenny. The death-rate from the principal zymotic diseases averaged 2.9 per 1,000. The 180 deaths registered in Dublin were equal to an annual rate of 26.8 per 1,000 (against 24.5 and 20.6 in the preceding two weeks), the rate during the same period being 20.5 in London and 18.5 in Edinburgh. The 180 deaths in Dublin included 27 which were referred to the principal zymotic diseases, equal to an annual rate of 4.0 per 1,000; of these 27 deaths 10 resulted from enteric fever, 7 from diarrhœa, 4 from measles, 2 from scarlet fever, 2 from diphtheria, and 2 from whooping-cough.

SMALL-POX IN EDINBURGH.

Last week two young women, sisters, aged 17 and 14, were removed to the special hospital in Leith, suffering from manifest symptoms of small-pox. The father of the young women recently died at Rotterdam of what was reported to be a non-infectious malady. The matter is being inquired into.

FEE FOR PAUPER LUNACY CERTIFICATES.

A Member B.M.A., whose case is stated in the British Medical Journal of March 25th, p. 674, writes again to say he has failed to obtain a fee for the lunacy certificate he has given, and that the magistrate who called him to his assistance has declined to make an order on the guardians for payment, on the ground that he (the magistrate) has never heard of such an order being made, and that if made it would be laughed at, not being in conformity with statute, etc.

*** We advise our correspondent again to apply to the magistrate, and to point out to him that by Clause 285 of the Lunacy Act of 1890 he has the power to make the order in question. The clause is as follows. (By Subsection 2 of the same clause, the guardians upon whom an order is made may recover any sums paid thereunder against the lunatic or his estate, or the person legally liable for his maintenance, as in the case of orders for maintenance under the Act.) "Wherever a justice directs a lunatic or alleged lunatic, whether a pauper or not, to be examined by a medical practitioner, under the provisions of this Act, the justice directing the examination, or any other justice having jurisdiction in the place where the examination took place, may make an order upon the guardians of the union named in the order for payment of such reasonable remuneration to the medical practitioner, and of all such other reasonable expenses in and about the examination and the inquiry, whether an order for the reception of the alleged lunatic in an institution for lunatics or workhouse ought to be made, and also, if an order is made, for the payment of such reasonable expenses of carrying the order into effect as the justice thinks proper."

HOSPITAL AND DISPENSARY MANAGEMENT.

IMPROVEMENTS IN ADDENBROOKE'S HOSPITAL, CAMBRIDGE.

When this hospital was undergoing alterations during the early part of the year, it was found that the state of the floors left much to be desired, and that unless they were relaid with hard wood the sanitary condition of the wards would still be defective. A special effort was made to meet the expense, and a sum of over £300 was contributed to enable the governors to carry out the work. The governors contributed an equal sum from the general funds, and this sufficed to put in excellent condition two surgical wards and one medical ward. The improvement has been most marked, and it is now possible to keep these wards sweet and clean without the incessant damp and effluvia which accompany the scrubbing and scouring of rough boards. The reflooring wards are, however, all on the men's side of the hospital, while the two wards, medical and surgical, on the women's side are still subject to the old disadvantages. In the hope that the liberality of the friends of the hospital is not yet exhausted, and in view of the great importance of putting the whole of the wards into the sound and healthful condition which is desirable in the interest of the suffering patients, the governors have opened an account at Messrs. Mortlock's for the reflooring of Hatton and and Victoria Wards. If by next summer the public contribute half the estimated expense—some £200—to this account, the governors are prepared to carry out this needed improvement during the ensuing Long Vacation. Any friend who is interested in the welfare of Addenbrooke's has only to visit the men's wards in their new condition and compare them with the women's wards to be convinced of the desirability of completing the work, and rendering the hospital as a whole above reproach from a sanitary point of view.

CORK EYE AND EAR HOSPITAL.

Lady Arnott, the wife of a very charitable citizen of Cork, has lately interested herself in assisting this hospital by making special appeals to various public bodies. The Cork Board of Guardians, the Queenstown Commissioners, and the Cork Harbour Board have each granted £50 on behalf of its funds.

INDIA AND THE COLONIES.

HONG KONG.

Abuse of Morphine.—An ordinance has been introduced into the Legislative Council, Hong Kong, under the title of the "Morphine Ordinance," the object of which is to render illegal the pernicious practice of administering, by injection or otherwise, preparations of morphine to ignorant Chinese coolies, who at present habitually resort to places recently opened, where for a small charge they receive injections of morphine administered by unqualified persons.

VICTORIA.

Insanity.—At the end of 1892 there were 3,958 insane persons in Victoria, being an increase of 87 as compared with the previous year. Of these 2,137 were males and 1,821 females.

MEDICAL NEWS.

A Society for the Protection of Children has recently been founded at Liége.

Sir Andrew Clark was educated at the High School of Dundee along with Dr. Paterson, Bridge of Allan, and Sir William Aitken, Professor of Pathology in Netley Hospital. Of the three, Dr. Paterson is the only survivor.

Medical Magistrate.—The Lord Chancellor, on the nomination of the Lord Lieutenant, has added the name of Mr. John Broadbent, M.R.C.S., South Collingham, to the Commission of Peace for the county of Nottingham.

Professor Henoch has resigned his chair in the University of Berlin, and his clinic of children's diseases in the Charité Hospital. The names of Professor Rauchfuss, of St. Petersburg, Dr. Jacoby, of New York, Dr. von Noorden, of Berlin, Professor Kohts, of Strassburg, Dr. Soltmann, of Breslau, and Dr. Escherich, of Graz, are mentioned in connection with the succession to the chair.

Telephonic Communication with Hospitals.—Dr. Alfred Gubb has called attention in the *Times* to the necessity for our large general hospitals being placed on the general telephone system. We entirely agree with him; at the same time we may point out that a considerable number of them already appear on the list of the National Company. There can be no doubt that their example ought to be immediately followed by the rest, so that the whole hospital system of the metropolis should be in touch with the public and the police.

The Drought of 1893.—At the last meeting of the Royal Meteorological Society (Dr. C. Theodore Williams, President, in the chair) Mr. F. J. Brodie stated that during the four months March to June not only was the absence of rain phenomenal, but the barometric pressure was greatly in excess of the average, the mean temperature about 4° above the average, and the duration of sunshine the longest on record. Along the south and south-west coasts the sunshine was between 50 and 60 per cent. of the possible duration. In the southern counties of England the rainfall was less than one-third of the average; in the eastern counties, Durham, Northumberland, and the south of Ireland it was less than half the average.

Severe Epidemic of Diphtheria.—An epidemic of diphtheria of malignant type has occurred at Halstead, in Essex. Fifty per cent. of the cases have been fatal. The sanitary state of the town is stated to be extremely unsatisfactory, and the pair of cottages used by the sanitary authorities is full of scarlet fever patients. Dr. Thresh, the medical officer of the county council, has been called upon to furnish a special report on the sanitary condition of the town.

Hygiene in Russia.—The first Pan-Russian Hygienic Exhibition, which opened in St. Petersburg on June 2nd and closed on October 22nd, was visited by 200,000 persons. The Russian Public Health Society has decided to establish a hygienic museum in St. Petersburg.

Edinburgh Obstetrical Society.—The following gentlemen have been elected office-bearers for the ensuing session:—*President:* Dr. A. H. Freeland Barbour. *Vice-Presidents:* Senior, Dr. A. Ballantyne; Junior, Dr. Jas. Ritchie. *Treasurer:* Dr. Craig. *Secretaries:* Dr. J. W. Ballantyne, Dr. F. N. Haultain. *Librarian:* Dr. Milne Murray. *Members of Council:* Dr. J. Playfair, Dr. John Thomson, Dr. Duddingston Wilson, Dr. E. H. L. Oliphant, Dr. A. R. Simpson, Dr. Haig Ferguson, Dr. Felkin, Dr. Brewis.

The Dental Hospital of London.—The annual dinner of the staff and past and present students will be held on Saturday, December 2nd, at the Hôtel Métropole (Whitehall Salon), under the presidency of Mr. J. W. Hulke, F.R.S., President of the Royal College of Surgeons. Gentlemen either now or formerly connected with the hospital or school who may, through inadvertence, not have received special notice, and who desire to be present, are requested to communicate with the Dean at the Dental Hospital, 49, Leicester Square.

The late Professor Olivieri.—The late Professor Olivieri, of Naples, who committed suicide a short time ago just after undergoing tracheotomy for cancer of the larynx, was one of the leading operating surgeons in Italy, and had acquired a considerable fortune by the practice of his profession. He has bequeathed 200.000 lire (£8,000) to the Neapolitan Asylum for the Blind, 300,000 lire (£12,000) to the Pellegrini Hospital, to which he was surgeon for many years, and his instruments, his well-stocked library, and 100,000 lire (£4,000) to his friend and pupil, Dr. Mottola, who attended him in his last illness.

At the annual meeting of the Clinical Society of Manchester, the following officers were elected for the year: *President:* E. Stanmore Bishop, F.R.C.S. *Vice-Presidents:* W. Milligan, M.D., and H. W. Boddy, M.D. *Honorary Treasurer:* C. H. Braddon, M.D. *Honorary Librarian:* J. F. Le Page, M.D. *Committee:* W. Bain, S. Buckley, M.D., J. C. Eames, M.D., J. Earle, C. G. L. Skinner, M.D., J. B. Wilkinson, M.D., R. W. Walsh, J. Paulin, E. Roberts, R. T. Williamson, M.D., J. Prince Stallard, M.B., G. T. Wilkinson, M.D., H. Wise, M.B, M. P. Ledward, M.B., and J. W. Grange, M.D. *Auditors:* F. Stephenson and B. Scott, M.B. *Honorary Secretaries:* A. Hill Griffith, M.D., and Herbert Lund, F.R.C.S.

Surgical Congress in Rome.—The Congress of the Italian Surgical Society was held in Rome on October 27th, and three following days under the presidency of Professor Durante. The communications included cases of splenectomy by Drs. D'Urso, of Naples, and Ceci, of Genoa; experiments on the effects of laparotomy in tuberculous peritonitis, by Drs. Nannotti and Baciocchi; a case of wound of the liver cured by laparotomy and suture by Dr. Micheli, of Rome; a paper on the treatment of pyloric stricture, by the President; and one on the experimental resection of the trigeminus at its emergence from the pons, with two cases of intracranial resection of the same nerve, by Professor D'Antona, of Naples.

The International Medico-Legal Congress.—The second session of the International Medico-Legal Congress was held, under the presidency of Mr. Clark Bell, at Chicago, last August. Judging from the number of papers presented, many of which, however, were only read by title, the meeting must have been a great success. None of the papers have as yet been published even in abstract, but several amongst them relate to subjects of the greatest interest and importance. We need only to mention a few of the titles: The Medico-Legal Consideration of Insanity following Traumatism; Aphasia and Testamentary Capacity; Degrees of Responsibility in the Insane; the Legal Responsibility of Drunkards; Diagnosis of Human Blood, and various papers in reference to expert testimony. The papers are to appear in the *Medico-Legal Journal*, and it can hardly be doubted that many of them will be of great value.

Presentation.—Mr. Edmund Cockey has completed his fifty years' work as medical officer to the Frome Workhouse, and in honour of the event gave a tea to the inmates. The officers of the workhouse took the opportunity to present an illuminated address to Mr. Cockey, congratulating him on the conclusion of a jubilee of work as medical officer, during which time he had gained the respect and love of the inmates and officials.

Royal College of Surgeons of England.—The loving cup referred to by the President in his opening speech at the late meeting of Fellows and Members is a handsome silver cup, and bears the following inscription: "Royal College of Surgeons of England. Fellowship Jubilee Cup. Presented to the College by the Committee of Fellows. Thomas Bryant, President; John Whitaker Hulke, Chairman of Committee. 1843-93." The cup was purchased with the balance in hand from the dinner held at the Hôtel Métropole in July last to celebrate the jubilee of the Fellowship.

The Reuben Harvey Memorial Prize.—The fourth award of the Reuben Harvey Triennial Prize open to students of the Dublin Schools of Medicine recognised by the medical licensing bodies in Ireland, and to graduates and licentiates of those bodies of not more than three years' standing, will be made on July 1st, 1894. The prize is awarded to the writer of the best essay, on a subject selected by him, evidencing original research in animal physiology or pathology. The essays must be in the hands of the Registrar of the Royal College of Physicians of Ireland on or before June 1st, 1894. Further particulars will be found in our advertisement columns.

Catholic Holidays.—The Irish Local Government Board last week informed Dr. Meehan, of New Ross Union, that he must attend his dispensary on the fixed days, whether they be Catholic holidays or not. The managing committee thereupon declared their opinion that he ought not to attend on such occasions, and the Local Government Board at once replied that the doctor's deliberate non-attendance on the fixed days, "whether they be Roman Catholic holidays or not," would, if repeated, lead to his removal from office. The necessity for this decision appears to be generally accepted.

Life Assurance Medical Officers' Association.—A meeting, recently held, of medical officers to life assurance offices, convened by a provisional committee, Dr. Symes Thompson presiding, formed itself into the Life Assurance Medical Officers' Association, whose object is "The discussion of the medical aspect of subjects connected with life assurance, with a view to obtaining increased information and a greater unity of opinion." The Association is open to all legally qualified medical men, the subscription being half a guinea. The inaugural meeting will be held on January 31st, 1894, when Dr. Bristowe will give an address. The hon. sec. *pro tem.*, Dr. Glover Lyon, 8, Finsbury Circus, will be pleased to give any information concerning the Association.

Congress of Hygiene and Demography at Buda-Pesth.—In accordance with a resolution passed at the Seventh Congress of Hygiene and Demography, held in London in 1891, a Tropical Section has been constituted in the eighth Congress to be held at Buda-Pesth in 1894. The special work of the Section will be to consider the origin and prevention of tropical diseases and other problems of hygiene and demography specially affecting the torrid regions of the globe. The subjects proposed for consideration by the Section are Cholera, Dysentery and Specific Diarrhœa, Malaria, Yellow Fever, Tropical Affections of the Liver, Elephantiasis, Beri-beri, Yaws, The Influence of Tropical Climates on Persons of European Descent, Tropical Colonisation, Tropical Dietetics; the Use of Alcoholic Liquors in the Tropics, and the Effects of Opium and other Narcotics used in Tropical Countries. Surgeon-Major Theodore Duka, M.D., F.R.C.S., Bengal army (retired), has been appointed President of the Section. The date of the Congress is not yet definitively fixed, but it is expected that it will be held in the early part of September, 1894. Applications for membership should be addressed to the General Secretary, Professor Dr. C. Müller, Rochus Hospital, Buda-Pesth.

The Treatment of Women Inebriates.—A meeting was held in the Conference Hall, Clapham Road, on November 10th, under the presidency of Lady Elizabeth Biddulph, to discuss the impolicy of imposing short terms of imprisonment upon women inebriates. One of the resolutions passed declared that the imprisonment of drunken women for short terms failed to do them any good, and urged that an alternative treatment was indispensable. Sir W. Charley, in his speech, argued that anything like a general adoption of such a system would lead to a revulsion of feeling throughout the country. It was imperative that they should have inebriate homes or asylums to which magistrates should have the power of sending women who owed their fall to drink. In these institutions curative as well as preventive treatment could be adopted. Another resolution was adopted inviting persons of experience to formulate schemes for a new system of judicial treatment, the propositions to be submitted in writing to a specially constituted committee.

The Royal British Nurses' Association.—The attention of all members of the Royal British Nurses' Association is called to the following regulations, which were unanimously passed at a meeting of the General Council of the Association, held on October 27th, at 20, Hanover Square, W. Regulation 1.—That no member of the corporation shall use, or or authorise or permit to be used, the fact that she is a member of the Royal British Nurses' Association in connection with any newspaper or other advertisement of any patent medicine, or of any particular form of medical or nursing treatment, or any proprietary article of any kind or description, unless she has received the consent of the Executive Committee in writing, and under the seal of the Association to such employment of the name of the Association. Regulation 2.—That, in the judgment of this Council, any infraction of the preceding regulation by any member of the Association would be "moral delinquency" in the sense in which that expression is used in the Royal Charter, and should be therefore reported to the General Council, and dealt with accordingly.

American Jottings.—The Philadelphia County Medical Society has appealed to the Board of Health of Philadelphia to place tuberculosis on the list of contagious diseases to be notified to the Board. The Michigan State Board of Health has already issued an order to the effect that medical practitioners within the limits of its jurisdiction must notify to the local health officer all cases of consumption and other diseases due to the tubercle bacillus in the same way as is done in cases of small-pox, scarlet fever, or diphtheria. The local health officer will then report the facts to the State Board, and the State Health Officer will thereupon give such instructions relative to restrictive measures as the nature of the case and the stage of the disease seems to warrant.—Attention has lately been called to a possible source of infectious disease which we do not remember to have seen noticed before. It appears to have been the practice in the public schools of St. Paul, Minnesota, for the janitors to collect all the lead and slate pencils every day after school hours and distribute them indiscriminately among the children the next morning. Health Commissioner Hoyt has requested that hereafter each pupil shall retain his own pencils, as there is reason to believe that diphtheria and other diseases have resulted from children putting in their mouths pencils that have been used by others.

MEDICAL VACANCIES.

The following vacancies are announced:

ALBANY GENERAL HOSPITAL, Grahamstown, South Africa.—Resident Medical Officer. Salary, £200 per annum, increasing yearly by £50 up to £300, with furnished apartments. The selected candidate will have a free first-class passage. Applications to Dr. Macphail, Rowditch, Derby.

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN, Steelhouse Lane, Birmingham.—Resident Medical Officer and Resident Surgical Officer and Extra Acting Physician. Salaries £70, £50, and £60 respectively. The two former will receive board, washing, and attendance. Applications for the first two to the Secretary by December 6th, and for the latter to the Medical Committee by December 6th.

CHELSEA HOSPITAL FOR WOMEN, Fulham Road, S.W.—Resident Medical Officer. Salary, £80 per annum, with board and residence. Appointment for one year. Applications to the Secretary by December 5th.

CHELTENHAM GENERAL HOSPITAL.—Resident Surgeon for the Branch Dispensary, unmarried, or if married, without family. Salary, £180 per annum, with partly-furnished house, coal, and gas. Applications to the Honorary Secretary and Treasurer by November 25th.

CHESTER GENERAL INFIRMARY.—House Surgeon; doubly qualified. Salary, £90 per annum, advancing £10 yearly, with residence and maintenance in the house. A sum of £5 per annum is granted for taking charge of the library. Applications to the Chairman of the Board of Management by December 4th.

EAST LONDON HOSPITAL FOR SICK CHILDREN, Glamis Road, Shadwell, E.—House-Surgeon. No salary. Board and lodging provided. Two Assistant Physicians; must be F. or M.R.C.P. And Pathologist and Registrar. Honorarium of £40 per annum for the latter. Applications to the Secretary by November 29th.

GUY'S HOSPITAL.—Demonstrator of Anæsthetics, and two more Anæsthetists. Applications to the Treasurer, Counting House, Guy's Hospital, S.E., by December 1st.

HOSPITAL FOR DISEASES OF THE THROAT, Golden Square, W.—Honorary Assistant Physician and Honorary Assistant Surgeon. Applications to the Secretary by November 27th.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Assistant House-Surgeon, non-resident. Appointment for six months. Salary, £20. Assistant Physician; must be F. or M.R.C.P.Lond. Applications to the Secretary, by November 28th.

HOSPITAL OF ST. PETER PORT, Guernsey.—Surgeon. Salary, £50. Applications to the President of the Poor-law Board by November 30th.

INGHAM INFIRMARY AND SOUTH SHIELDS AND WESTOE DISPENSARY.—Junior House-Surgeon; doubly qualified. Salary, £50 per annum, with board and residence. Applications to James R. Wheldon, Secretary, 74, King Street, South Shields, by November 20th.

KENT AND CANTERBURY HOSPITAL.—Assistant House-Surgeon; unmarried. Salary, £50 per annum, with board and lodging. Applications to the Secretary by November 30th.

KIMBERLEY HOSPITAL, Kimberley.—Senior House-Surgeon. Salary, £650 per annum, with unfurnished quarters for single men. Applications to H. A. De Beer, Secretary, by December 25th.

KING'S COLLEGE, LONDON.—Sambroke Surgical Registrar. Applications, from King's College students only, to J. W. Cunningham, Secretary, by November 25th.

LIVERPOOL DISPENSARIES.—Assistant Surgeon; unmarried. Salary, £80 per annum, with apartments, board, and attendance. Applications to R. R. Greene, Secretary, Leith Offices, 34, Moorfields, Liverpool, by November 25th.

MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE THROAT.—Assistant Medical Officer; doubly qualified. Honorarium, £25 per annum. Applications to C. W. Hunt, Secretary, by November 21st.

MIDDLESEX HOSPITAL, W.—Aural Surgeon; must be F.R.C.S.Eng. Applications to F. Clare Melhado, Secretary-Superintendent, by November 23rd.

NATIONAL SANATORIUM FOR CONSUMPTION AND DISEASES OF THE CHEST, Bournemouth.—Resident Medical Officer and Secretary. Salary £120 per annum, with board and lodging. Applications to the "Chairman of Committee" by December 5th.

NEWCASTLE-ON-TYNE DISPENSARY.—Visiting Medical Assistant; doubly qualified. Salary, £120 per annum. Applications to R. W. Sisson, Honorary Secretary, by November 24th.

NEW HOSPITAL FOR WOMEN, 144, Euston Road.—Female Resident Medical Officer, and two Female Clinical Assistants for Out-patient Department. Applications to Margaret M. Bagster, Secretary, by November 30th.

PARISH OF ST. MARY, ISLINGTON.—Resident Assistant Medical Officer and Dispenser at the Workhouse and Infirmary, St. John's Road, Upper Holloway. Salary, £120 per annum, with rations. Applications, on forms to be obtained at the office, to Edwin Davey, Clerk, Guardians' Office, St. John's Road, Upper Holloway, by November 21st.

ROYAL BERKS HOSPITAL, Reading.—Physician. Applications to the Secretary at least ten days before the election on December 12th.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—Two Resident Medical Officers (House-Physicians); doubly qualified. Appointment for six months, but the holder will be eligible for re-election. No salary. Board, residence, and washing provided. Applications to the Secretary by November 27th.

ST. LUKE'S HOSPITAL, E.C.—Clinical Assistant. Appointment for six months, with board and residence. Applications to Percy De Bathe, M.A., Secretary, by November 20th.

SEAMEN'S HOSPITAL SOCIETY "DREADNOUGHT."—House-Surgeon for Branch Hospital at Royal Victoria and Albert Docks, E.; doubly qualified. Salary, £75 per annum, with board and residence. Applications to P. Michelli, Secretary, Seamen's Hospital Society, Greenwich, by November 28th.

STAFFORDSHIRE GENERAL INFIRMARY.—House-Surgeon; doubly qualified. Salary, £100 per annum, with board, lodging, and washing. Applications to the Secretary of the Infirmary, Lloyd's Bank, Limited, Stafford, by November 18th.

SUNDERLAND INFIRMARY.—House-Physician; doubly qualified. Salary, £80 per annum, rising £10 annually to £100, with board and residence. Applications to the Chairman of the Medical Board by December 4th.

WESTERN GENERAL DISPENSARY, Marylebone Road, N.W.—Junior House-Surgeon; unmarried. Salary, £50 per annum, with board and lodging. Applications to the Honorary Secretary by November 22nd.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton.—Resident Assistant. Appointment for six months. Board, lodging, and washing provided. Applications, inscribed "Application for Resident Assistant," to the Chairman of the Medical Committee by November 30th.

MEDICAL APPOINTMENTS.

ASHBY, Alfred, M.B.Lond., F.R.C.S.Eng., reappointed Medical Officer of Health to the Reading Town Council.

BANNATYNE, Dr., appointed Parochial Medical Officer for Southend, *vice* William Seright, M.B., C.M.Glasg., resigned.

BASHALL, Mr. C. E., appointed Medical Officer for the Eighth and Ninth Districts of the Kingsbridge Union.

BLANDFORD, J. Guthrie, M.R.C.S., L.R.C.P., appointed Resident Medical Officer to the West End Hospital for Diseases of the Nervous System, Paralysis, and Epilepsy, Welbeck Street.

BUGGY, Louis, L.R.C.P.I. and L.M., L.R.C.S.I., appointed Assistant Medical Officer to the District Asylum, Kilkenny.

CLARK, Ann Elizabeth, M.D.Berne, L.R.C.P.I., appointed an Acting Physician to the Children's Hospital, Birmingham, *vice* John Burges Welch, M.B.Lond.

COLLETT, H. G. O., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer for the Marske District of the Guisborough Union.

DUNN, D. S., B.A., M.D., M.Ch., appointed Medical Officer and Public Vaccinator for the Warboys and Wistow District of the St. Ives Union, Hunts.

EDGE, Arthur, M.B.Lond., M.R.C.S., L.R.C.P., appointed Assistant House-Surgeon to the Metropolitan Hospital, Kingsland Road.

HALL, F. de Havilland, M.D., F.R.C.P.Lond., appointed Joint Lecturer on Medicine at the Westminster Hospital School of Medicine, *vice* W. H. Allchin, M.B., F.R.C.P., resigned.

HOWARD, Frederick Richard, L.D.S.R.C.S.Eng., appointed Dental Surgeon to the Children's Hospital, Birmingham, *vice* Charles J. Fowler. L.D.S.R.C.S.E.

JOHNSON, Raymond, M.B.Lond., B.S., F.R.C.S.Eng., appointed Assistant Surgeon to University College Hospital.

KIRKPATRICK, William, M.D., B.Ch.Dub., appointed House-Surgeon to the Stourbridge Dispensary.

LAKE, Wellington, D.P.H.Camb., M.R.C.S.Eng., appointed Medical Officer of Health to the New Woking Local Board.

MACLAREN, John, M.B. and C.M.Edin., appointed Assistant Medical Officer to the East Riding Asylum, Beverley.

MOWER-WHITE, G. B., M.B., B.S.Lond., F.R.C.S.Eng., appointed Surgeon to the Out-Patients at the Great Northern Central Hospital, Holloway Road, *vice* Raymond Johnson, M.B.Lond., B.S., F.R.C.S.Eng., resigned.

PRIESTLEY, Joseph, B.A., M.D., D.P.H., reappointed Medical Officer of Health for Leicester.

ROLLESTON, L. W., M.B.Durh., M.R.C.S., L.R.C.P., appointed House-Surgeon to the Metropolitan Hospital, Kingsland Road.

STATHERS, G. Nicholson, M.R.C.S.Eng., L.R.C.P.Edin., D.P.H.Camb., appointed Medical Officer of Health to the Brackley Rural Sanitary Authority.

TURNER, William Aldren, M.D.Edin., M.R.C.P.Lond., appointed Assistant Physician to the West London Hospital, Hammersmith.

WIGHT, J. A. S., M.R.C.S., L.R.C.P., appointed House-Physician to the Metropolitan Hospital, Kingsland Road.

WOOD, Mr. F. S., appointed Assistant Medical Officer to the Workhouse and Infirmary of the parish of Paddington.

DIARY FOR NEXT WEEK.

MONDAY.

LONDON POST-GRADUATE COURSE, Royal London Ophthalmic Hospital, 1 P.M.—Mr. W. Lang: Iritis.

TUESDAY.

LONDON POST-GRADUATE COURSE, Bethlem Hospital, 2 P.M.—Dr. Percy Smith: Impulsive Insanity; Homicidal Insanity; Moral Insanity. Hospital for Diseases of the Skin, Blackfriars, 4 P.M.—Dr. Payne: Alopecia; its Varieties.

PATHOLOGICAL SOCIETY OF LONDON, 8.30 P.M.—Mr. H. H. Clutton: Encysted Hydrocele of Round Ligament. Mr. W. L. Wainwright: Cyst of Canal of Nuck. Dr. W. Dowson: The Local Lesion of Scarlet Fever. Dr. Kanthack: Streptococcus Pneumoniæ from a Case of Cerebro-spinal Meningitis. Mr. C. A. Morton: Pyæmic Abscess of one Lung with Suppurative Meningitis and Otitis. Dr. Voelcker: Aneurysm of the Arch of the Aorta rupturing into the Œsophagus. Mr. L. Bidwell: Rodent Ulcer occurring in the Site of a Degenerate Nævus. Dr. R. E. Scholefield: Two Cases of Softening Intracardiac Thrombi. Card Specimen: Dr. Rolleston: Vermiform Appendix with Pouches due to Old Ulceration.

BROWN LECTURE, Theatre of the London University, 5 P.M.—Dr. C. S. Sherrington: On the Knee-jerk.

WEDNESDAY.

LONDON POST-GRADUATE COURSE, Hospital for Consumption, Brompton, 4 P.M.—Dr. C. Theodore Williams: Chronic Pneumonia; its Results. Royal London Ophthalmic Hospital, 8 P.M.—Mr. A. Quarry Silcock: Glaucoma, with Illustrative Cases.

HUNTERIAN SOCIETY, 8.30 P.M.—Mr. H. J. Thorp: Case of Syphilitic Gumma of Parotid Gland. Dr. G. Newton Pitt: On the Inhalation of Oxygen as a Means of Medical Treatment.

METROPOLITAN COUNTIES BRANCH: SOUTH LONDON DISTRICT, Guy's Hospital, 8.30 P.M.

THURSDAY.

LONDON POST-GRADUATE COURSE, National Hospital for the Paralysed and Epileptic, Queen Square, 2 P.M.—Dr. Taylor: Intracranial Growths. Hospital for Sick Children, Great Ormond Street, 3.30 P.M.—Dr. Archibald Garrod: Rheumatism in Children. Central London Sick Asylum, Cleveland Street, 5.30 P.M.—Mr. John Hopkins: Cases in the Wards. London Throat Hospital, Great Portland Street, W., 8 P.M.—Dr. Edward Woakes: Tinnitus and Vertigo.

SANITARY INSTITUTE, PARKES MUSEUM, 74A, Margaret Street, W., 8 P.M.—Dr. Sinclair White: Metallic Dusts, Cutlery, Tool Making, and other Metal Trades.

HARVEIAN SOCIETY, 6.30 for 7 P.M.—Annual Dinner at the Criterion Restaurant.

NEUROLOGICAL SOCIETY OF LONDON, National Hospital for the Paralysed and Epileptic, Queen Square, 8.30 P.M.—Dr. Donkin: Muscular Wasting of both Upper Extremities, and Complete Paralysis of one. Dr. Beevor: Paralysis Agitans, with Tremor of Lips, Tongue, and Jaw. Dr. H. Lewis Jones: Symmetrical Atrophy of the Intrinsic Muscles of the Hand in Young People; and other cases.

FRIDAY.

LONDON POST-GRADUATE COURSE, Hospital for Consumption, Brompton, 4 P.M.—Dr. C. Theodore Williams: Treatment of Chronic Pneumonia.

CLINICAL SOCIETY OF LONDON.—Living specimens at 8 P.M.: Mr. Stephen Paget: (1) Traumatic Encephalocele; (2) A Meningocele that has undergone a Natural Cure; (3) Ankylosis of Spine. Mr. Mansell Moullin: A Case of Charcot's Disease. Mr. Arbuthnot Lane: A Case of Deficient Development of the Jaw after Ankylosis of one Temporo-maxillary Articulation. Mr. Watson Cheyne: (1) A Case of Rotation Outwards of the Lower Limbs treated by Transverse Division of the Femur; (2) Replacement of Dupuytren's Fracture of the Ankle. Mr. Pearce Gould: A Case of Hypertrophy of the Stomach without Dilatation. Dr. Mott: (1) A Case of so-called Idiopathic Sclerosis; (2) A Case of Toxæmic Neuritis. Dr. James Taylor: Cases of Pseudo-hypertrophic Paralysis in Members of the same Family. Dr. Newton Pitt: A Case of Osteo-arthritis with Fibroid Nodules. Dr. Harry Campbell: (1) A Case of Chronic Phthisis involving the Right Apex; (2) An Unusual Form of Œdema. Papers, at 9 P.M.: Dr. W. M. Ord and Mr. E. White: Observations on a Case of Myxœdema treated by Administration of the Thyroid Gland, with special reference to Changes occurring in the Urine. Dr. Newton Pitt: Cases of Osteo-arthritis with Fibroid Nodules. Mr. W. G. Spencer: Empyæma in a Man, aged 36, with Complete and Permanent Collapse of the Lung.

SATURDAY.

LONDON POST-GRADUATE COURSE, Bethlem Hospital, 11 A.M.—Dr. Hyslop: General Paralysis of the Insane.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTHS.

PIEREZ.—At Longlane House, Antigua, Brit. W. Indies, on October 28th, the wife of George E. Pierez, M.D.Edin., of a son.

REES.—On November 7th, 1893, at Thorncliff, Penarth, the wife of J. Hugh Rees, M.D., of a son.

MARRIAGES.

CRICHTON—GRAHAM-FOSTER-PIGOTT.—On November 8th, at Holy Trinity Church, Twickenham, by the Rev. R. Tahourdin, M.A., Vicar of Twickenham, assisted by the Rev. P. B. Drabble, M.A., Vicar of the Parish, George C. Crichton, M.D.Edin., to Elizabeth Mary (Bessie), eldest daughter of the late Rev. George Granado Graham-Foster-Pigott, of Abington Pigotts, Cambridgeshire.

NEALE—THUBRON.—Gateshead, St. Cuthbert's, on November 9th, by the Rev. T. C. Chapman, M.A., assisted by the Rev. D. S. Guy, Albert Ezra Neale, M.B., B.S., of Milford Haven, South Wales, to Lilian Gostelow, third daughter of the late Robert Thubron, F.S.S., Newcastle-on-Tyne.

SMITH—WOOD.—On November 14th, at Lendal Congregational Chapel, York, by the Rev. Russell Thomas, Edmund Moody Smith, M.B., C.M.Edin., D.P.H.Cantab., of Scarcroft Road, York, to Annie, eldest daughter of William Wood, Esq., of York.

WAIT—HARRILD.—On November 7th, at St. George's, Hanover Square, by the Rev. W. H. Bliss, Chaplain in Ordinary to the Queen, uncle of the bridegroom, J. Alfred Wait, B.A., M.B., B.C.Camb., eldest son of John Wait, Esq., J.P., of Ayton House, North Shields, to Clara M. Harrild, of Tunbridge Wells, youngest daughter of the late Robert Harrild, of Round Hill House, Sydenham.

DEATHS.

MAGRATH.—On the 6th November, at "The Croft," Wimbledon, Surrey, Joseph Adolphus Magrath, M.D., in his 70th year.

ROBARTS.—On November 9th, at 5, South Crescent, Bedford Square, Henry Pratt Robarts, F.R.C.S. (1844), in his 93rd year.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

M.D.BRUX. will be glad to be referred to authors on physical education for girls. Can any good system be followed out at home?

J P M asks to be recommended an institution in which a child (girl) 7 years old could be placed whose hearing and speech are nearly entirely absent.

RITA[NS] asks for suggestion in treatment of a case of eczema on the head, face, neck, back, and chest. The irritation is severe, and interferes with sleep. The following drugs have been tried, but their effect passes away in a few days, when they appear to be inert: Arsenic; tar (preparations of); ammoniated mercury; liq. carb. deterg.; cocaine; acetate of lead; menthol; gualtheria; salicylic acid; resorcin; ichthyol; starch baths. Oils make the skin more irritable after use than before.

BOOKS ON ORTHOPÆDICS.

H. C. asks what are the best works and monographs on orthopædics to be read for the F.R.C.S.Edin. exam.

*** It is not necessary to read any special work or monograph on orthopædics for the F.R.C.S.Edin. (or any other surgical diploma). But it is advisable to attend a practical orthopædic department or hospital, and whilst doing so Busch's work (vol. v of *Ziemmsen's Handbook*) (Smith, Elder, and Co.) and Bradford and Lovett's (New York: W. Wood and Co.) can be referred to, the former as an able and philosophical essay on principles, the latter as full of facts and illustrations.

DESQUAMATION AFTER SCARLET FEVER.

RURAL M.O.H. asks: During an epidemic of scarlet fever, upon whom develops the duty of declaring that desquamation, in the various cases, has been completed? Is the medical officer of health expected to pay repeated calls to ascertain this, or does the duty devolve upon the medical attendant?

*** It is not stated for what purpose the declaration is required. If for deciding when final disinfection is due, it is usual for the medical attendant to give an intimation to the medical officer of health.

NIGHT HORRORS.

MEDICUS writes: A son of mine, 8 years old, manly, intelligent, perfectly healthy, active and fearless by day, is terrified at night when alone. We dare not put him to bed alone, as he has rushed downstairs in abject terror, finding his way safely pell-mell downstairs repeatedly. Now he is not sent to bed until his sister or brothers go with him. Then he is all right; but nothing will induce him to sleep if sent up alone; he continually shouts out for others to join him. He has not been over-educated—quite the contrary. No worms or any ailment. Judiciously fed; no heavy suppers. Lots of exercise. He is a nuisance to his sister and brothers, who are double his age.

ANSWERS.

X.—We do not see anything in the prospectus forwarded to justify refusal to consult.

OSMAN DIGNA will find information as to official medical appointments in the Educational Number of the BRITISH MEDICAL JOURNAL published on September 2nd.

ALPHA.—The address of the Secretary of the British Medical Benevolent Society is Mr. Edward East, 62, Upper Berkeley Street, Portman Square, W.

THE BRITISH MEDICAL JOURNAL does not accept or publish advertisements from medical aid associations, and therefore decline that of Mr. T. M. Cooper.

G. H. S. We do not know of any separate book attacking phrenology; as far as we are aware no living physiologist has troubled himself to slay the slain. The article of Dr. Carpenter in the *British and Foreign Medical Review*, October, 1846, p. 534, was said to have caused the discontinuance of the *Phrenological Journal*. The subject is also considered in the older editions of Carpenter's *Principles of Human Physiology*, for example, the fourth edition, London, 1853. Could arrangements not be made for the preservation of the still-existing believer in phrenology, if not for the preservation of his belief, in the museum of the Royal College of Surgeons as an interesting relic of the past?

WARMING A CONSULTING ROOM.

FRIGIDUS has had a Hong Kong gas stove fixed in his study. He finds it very oppressive with very little heat. Can any member recommend a better form of gas heating or an easily-regulated open fireplace for a small room?

ARTERIO-SCLEROSIS.

D. B.—We know of no small work on arterio-sclerosis, a short account of which is given in most of the modern textbooks on medicine. The most important recent writings appear to be in French, such as that contained in the new *Traité de Médecine*, vol. iii. Huchard's book on arterio- and cardio-sclerosis, although undoubtedly over-written, contains many facts of great clinical and pathological importance.

NOTES, LETTERS, Etc.

IN the notice of the presentation made to Dr. Padley, of Swansea, published in the BRITISH MEDICAL JOURNAL of November 4th, p. 1033, we omitted to state that part of the presentation consisted of a microscope by Ross.

DR. HERBERT TIBBITS'S AFFAIRS.

THE case of "Warner *v.* Dr. Herbert Tibbits" came before Judge Lumley Smith, Q.C., on November 14th, in the Westminster County Court, on an application to commit the defendant to Holloway. Defendant said the bill was for work done for him as law stationer in an action he had pending. He was quite without means at present, but would soon have money. He was now living on what his friends sent him. An order to pay the debt by monthly instalments of £1 was made.

MORTALITY FROM ALCOHOL.

THE following figures from a return published by the Sceptre Life Association of Finsbury Pavement afford some valuable evidence on the subject. Mortality experience for nine years ending December 31st, 1892 (according to Institute of Actuaries' H.M. Mortality Table).

General Section.

Date.	Expected Deaths.	Actual Deaths.	Percentage.
Five years 1884-88	466	368	79.00
Year 1889	103	66	64.07
,, 1890	110	93	84.54
,, 1891	115	93	80.86
,, 1892	119	96	80.67
Total nine years ...	913	716	78.42

Temperance Section.

Date.	Expected Deaths.	Actual Deaths.	Percentage.
Five years 1884-88	195	110	56.41
Year 1889	54	33	61.11
,, 1890	57	31	54.38
,, 1891	61	30	49.18
,, 1892	66	37	58.06
Total nine years ...	433	241	55.65

The policy holders in the General, or Moderate Drinkers, Branch are drawn almost entirely from religious bodies, and the figures indicate a very low death-rate; the possibility of any persons having become intemperate users of alcohol is thus excluded, or the fact would have revealed itself in a high mortality. Yet even when compared with these very temperate lives, the members of the Total Abstinence section show a most marked superiority.

A SIMPLE TREATMENT OF AN EMPYEMA.

DR. F. L. NICHOLLS (Fulbourn) writes: The following case appears worth recording, from the simplicity of the treatment combined with the successful result: A child attacked with pleurisy had her pleura full of pus within three weeks of the onset. On aspirating, little could be drawn off, as it would not run freely through the needle, so I decided to give free exit, and insert a tube. The child's father being a labourer, no fees were obtainable, so I had to operate single handed, and consequently general anæsthetic was out of the question. As the ribs almost

touched each other, an incision to insert a tube without resecting a portion of one or more ribs was useless. A simple trochar and cannula, a bit of tube, a little cocaine, and some creolin gauze, were the only instruments used. First injecting cocaine, after well washing the side of the chest with creolin solution, I made a snick in the skin, and then inserted the trocar and cannula. Keeping my finger over the end of the cannula as the trocar was withdrawn, I allowed the pus to flow away gradually, and then passed about 8 inches of tube through the cannula, after which I withdrew the cannula, tied in the tube, and dressed with creolin powder, gauze, tow, and bandages. The chest was on two or three occasions washed out with creolin solution, and the child made a first-rate recovery, and is now sound, robust, and fat.

ICE IN SURGERY.

DR. JOHN SHAND (Edinburgh) writes: Although I have not heard of anyone in this country following my recommendation of ice in surgical operations, as detailed in the BRITISH MEDICAL JOURNAL of May 21st, 1892, under the title of "Ice in Amputations," I am happy to be able to state that it has been used successfully in America in a case of colotomy at Warrensburgh, Mobile, Missouri. After recovery under medical treatment from an attack of inflammation of the bowels, a portion of the colon was found so indurated that after a consultation it was decided that an operation was essential. The Professor of Surgery in Kansas City operated. "A bag of ice was kept lightly on the part after the colotomy for four 'long days,' and the patient is all but healed..... No medicine was used. The ice did it all." Two cases of colotomy in this country are stated to me on good reliable authority in which ice applied reduced a prolapsus of the bowel through the wound in a second. My friend Sir Joseph Fayrer thinks the above case will be of interest to the profession, as I trust it will.

OVULATION AND MENSTRUATION.

MR. LAWSON TAIT (Birmingham) writes that, in support of views for which he has argued at great length in his book on *Diseases of Women and Abdominal Surgery* and elsewhere, he would like to draw attention to a remarkable paper by Mr. Walter Heape, Balfour Student of the University of Cambridge, and just published in the *Proceedings* of the Royal Society, where it is not likely to attract much attention. Concerning the "Menstruation of *Semnopithecus entellus*," he writes: "Out of the ovaries of forty-two specimens of menstruating *S. entellus*, only two were found in which recent discharged follicles were seen. Such a result appears to be sufficient to warrant the statement that (1) ovulation does not necessarily occur during each menstrual period, and (2) that menstruation is not brought about by ovulation." The facts brought to light by Mr. Heape completely confirm those to which Mr. Tait has already directed attention, and their conclusions are identical.

QUARANTINE REGULATIONS.

INCALCULABLE injury having been done to trade by the extreme severity of the quarantine regulations in Eastern Europe, Bulgaria has now proposed to do away with the restrictions on her frontier if Turkey will consent to do the same. If this were done the Orient express service could be resumed with much general advantage. The class of travellers using the service is little liable to carry infection, and cholera is found to be confined to the poorer classes, who do not observe sanitary rules. There would, therefore, be no great danger of the propagation of cholera even if by a stretch of language there could be said to be an epidemic. The re-establishment of the Orient express would greatly assist commercial intercourse between the countries, which is now seriously affected by the ludicrously stringent regulations enforced at the Servian, Bulgarian, and Turkish frontiers. As applied at present these regulations only render the journey to or from Constantinople a matter of hardship, while they practically fail to afford the protection which they are meant to give. The following telegram, dated November 11th, has been received at the Colonial Office from Sir H. A. Smyth, the Governor of Malta: "Twenty-four hours' observation arrivals from German ports in North Sea, Belgium, Holland, French ports, Atlantic, and English Channel discontinued."

"TWO BACILLI IN SPIRITS."

THE following is delightful and amusing:

"*The Only Cure for Leprosy: A Real Specific.*—Mrs. A. Mathers, of Moulmein, Burmah, has, with the aid of her medicines, cured leprosy in its chronic stage. The innumerable bacilli are ejected from the constitution, the sores completely heal, feeling restored to the diseased limbs with a gradual return of health. The two eminent doctors—Beaven Rake and Surgeon-Major S. J. Thomson—of the Leprosy Commission under the patronage of H.R.H. the Prince of Wales, during their visit to Burmah, examined a lad cured of leprosy under Mrs. Mathers's treatment, and were so satisfied that they took away with them *two bacilli* in spirits for careful investigation and report. There is not the least doubt but that the medicine which will eradicate and completely destroy the germ of the disease must be the real specific, and all who are in any way connected with leper asylums or interested in the cure of the disease are asked to give Mrs. Mathers's treatment a trial. Particulars on application."

LETTERS, COMMUNICATIONS, ETC., have been received from:

(A) Professor McCall Anderson, Glasgow; A.M.S. Retired; Dr. R. R. Alexander, London; Professor Adami, Montreal; Messrs. Arnold and Sons, London; Mr. J. P. Aston, Eccleshill; Dr. B. Anningson, Cambridge. **(B)** Messrs. Burroughs, Wellcome, and Co., London; Dr. H. C. Bastian, London; Dr. F. F. Burghard, London; Dr. R. W. Burnet, London; Miss C. S. Bremner, London; Mr. R. A. Bayliss, Ryde; Miss Barrow, London; Dr. E. A. C. Baylor, Dover; Dr. B. Bramwell, Edinburgh; Dr. J. Beddoe, Bradford-on-Avon; B.A.Cantab., M.B.Lond; Mr. A. H. Benson, London; Dr. J. W. Ballantyne, Edinburgh; Mr. T. Brown, King's Lynn; Dr. J. Braithwaite, Leeds; Mr. J. E. Briscoe, Chapeltown; Dr. A. T. Brand, Great Driffield; Mr. C. H. Byers, London; Dr. R. Boxall, London; Messrs. J. Bate and Sons, London; J. W. Batterham, M.B., St. Leonard's; Sir William Broadbent, London. **(C)** Mr. H. S. Claye, Macclesfield; Mr. R. Clark, Lancaster; Dr. R. W. Carter, Weymouth; Mr. A. E. Carruthers, Brighton; Dr. S. M. Copeman, London; Dr. J. Crawford, London: Professor Charteris, Glasgow; Dr. W. F. Cleveland, London; H. H. Clutton, M.B., London; J. J. Clarke, M.B., London; C. F. W.; Dr. F. C. Clemow, St. Petersburg. **(D)** Mr. H. P. Dunn, London; Mr. C. T. Dent, London; Dr. J. Dreschfeld, Manchester; Mr. W. C. Dendy, Aylesbury; S. S. Dunn, M.B., Birmingham; Dr. S. Davies, Plumstead; D. G. **(E)** Dr. A. W. Edis, London; W. S. Elliot, M.B., Dublin; Mr. E. B. Evans, Swansea; Eczema. **(F)** Dr. J. Finlayson, Glasgow; Mr. W. Fleming, London; Mr. G. P. Field, London; Mr. C. Forbes, London; Dr. R. H. Fox, London. **(G)** Dr. C. Godson, London; Dr. K. A. Grossman, Liverpool; Mr. T. D. Greenless, Grahamstown; Dr. J. Griffiths, Cambridge; Dr. H. R. Greene, Knaphill. **(H)** Mr. J. S. Hanham, London; J. Hodgson, M.B., Oldham; Mr. W. F. Haslam, Birmingham; Messrs. Hutt and Co., Winslow; Dr. T. W. Hime, Bradford; Right Hon. T. H. Huxley, Eastbourne; Mr. A. Hanbury, London; Dr. J. B. Hicks, London; Dr. W. Hunter, London; Mr. W. J. Henson, London; Mr. R. J. Hill, Worthing. **(I)** Irritans; Intro; Inquirer; Incertus. **(J)** Dr. H. M. Jones, London; Mr. A. Jackson, Harrogate; Dr. A. B. Judson, New York; Mr. F. B. Jessett, London; C. E. James, M.B., Bagnalstown. **(K)** Dr. J. Kerr, Bradford; T. N. Kelynack, M.B., Manchester; Dr. G. C. Kingsbury, Blackpool. **(L)** Dr. J. M. Lawrie, Weymouth; Mr. J. H. Lewis, London; Dr. E. Liveing, London; Dr. D. Lowson, Hull; R. H. Lucy, M.B., Plymouth; Mr. H. Littlewood, Leeds; Mr. J. Lawrence-Hamilton, Brighton; Lux. **(M)** Messrs. R. and A. Main, London; Mr. A. L. Macphail, London; M.D.Brux.; Mr. G. E. Morton, London; Dr. P. McBride, Edinburgh; Dr. G. H. Mackenzie, Edinburgh; Mr. W. L. Morgan, Oxford; P. Murison, M.B., Dundee; Dr. G. Mackay, Edinburgh; R. S. Miller, M.B., Windsor; Member B.M.A.; Mr. H. arch, London; Medicus; Dr. J. Murphy, Sunderland; Mr. J. P. Myles, Parsonstown; G. R. Murray, M.B., Newcastle-on-Tyne; M.B.; Mr. J. Maclaren, Beverley. **(N)** Dr. A. Newsholme, Brighton; Dr. J. Neil, Oxford. **(O)** Osman Digna; Observer. **(P)** Dr. R. W. Philip, Edinburgh; Mr. H. P. Proctor, London; Peerless Steam Cooker Co., Buffalo; Dr. J. Priestley, Leicester; Dr. J. G. Parsons, Bristol; Mr. H. C. Paull, Luton; Dr. F. L. Phillips, Birmingham. **(R)** Retrac; Mr. K. Roberts, Taunton; Dr. W. B. Ransom, Nottingham; Mr. R. H. F. Routh, Bridgwater; Mr. T. G. Robertson, Newcastle-on-Tyne; Mr. D. Robins, London; W. G. Richardson, M.B., Newcastle-on-Tyne; G. J. Robertson, M.B., Oldham; Dr. H. B. Robinson, London; Dr. J. S. R. Russell, London. **(S)** Sanitas Company Limited, London; Mr. S. Snell, Sheffield; Dr. C. W. Suckling, Birmingham; Dr. J. Shand, Edinburgh; Dr. A. E. Sansom, London; J. B. Story, M.B., Dublin; Dr. R. S. Smith, Bristol; Dr. E. M. Sympson, Lincoln; Dr. J. L. Steven, Glasgow; Mr. A. Sutcliffe, Burnley; Mr. W. R. H. Stewart, London; Mr. C. L. Swanson, London; Dr. T. C. Squance, Sunderland; S. W. M.; Dr. T. Stevenson, London; Mr. R. R. Sleman, London; Mr. H. G. Sworn, London; Dr. S. Stirling, Edinburgh; Dr. C. Steele, Clifton; Dr. E. M. Shirtliff, Ryde. **(T)** Rev. J. Troutbeck, London; Dr. Batty Tuke, Edinburgh; Mr. Lawson Tait, Birmingham. **(U)** Dr. A. R. Urquhart, Perth. **(W)** Messrs. J. Weiss and Son, London; G. A. Wright, M.B., Manchester; Mr. G. E. Williamson, Newcastle-on-Tyne; Dr. P. W. Williams, Clifton; A. E. Wright, M.B., Netley; Mr. W. Whitehead, Manchester; Dr. F. Warner, London; Mr. E. B. Whitcombe, Birmingham; Mr. B. Webb, London; Dr. J. C. O. Will, Aberdeen; Mr. W. R. Williams, Preston; Dr. J. H. Whelan, Aden; Mr. P. Wright, Dublin; W.; Dr. A. McL. Wedderburn, Forfar. **(X)** X. X. **(Z)** Zero; etc.

BOOKS, ETC., RECEIVED.

Précis de Médecine Opératoire Obstétricale. Par S. Remy. Paris: J. B. Baillière et Fils. 1893. Frs. 6.

La Pratique de l'Asepsie et l'Antisepsie en Chirurgie. Par Ed. Schwartz. Paris: J. B. Baillière et Fils. 1893. Frs. 6.

La Pratique des Maladies des Enfants dans les Hôpitaux de Paris. Par Prof. P. Lefert. Paris: J. B. Baillière et Fils. 1893. Frs. 3.

Thérapeutique Journalière. Par C. J. Smith. Paris: J. B. Baillière et Fils. 1893.

Hygiene and Diseases of Warm Climates. By Dr. A. Davidson. Edinburgh and London: Young J. Pentland. 1893.

Sir Morell Mackenzie, Physician and Operator. A Memoir compiled and edited from Private Papers and Personal Reminiscences. By Rev. H. R. Haweis, M.A. Second Edition. London: W. H. Allen and Co. 1894. 3s. 6d.

Transactions of the Edinburgh Obstetrical Society. Vol. XVIII. Edinburgh: Oliver and Boyd. 1893.

*** In forwarding books the publishers are requested to state the selling prices.

DISCUSSION ON THE TREATMENT OF ENLARGED CERVICAL GLANDS.

Read in the Section of Diseases of Children at the Annual Meeting of the British Medical Association, held at Newcastle-on-Tyne, August, 1893.

I.—T. Clifford Allbutt, M.D., F.R.C.P., F.R.S.,
Regius Professor of Physic in the University of Cambridge.

Enlargement of the glands of the neck is practically always due to peripheral irritation; such irritation arises occasionally in the skin, but generally in the mucous membranes of the mouth, throat, nose, or ear. The enlargement of the submaxillary and cervical glands is bubonic, and finds a parallel in the enlargement of such glands in the mesentery consequent upon intestinal tuberculosis, enteric fever, and the like; in inguinal enlargements consequent upon penile irritation; in mediastinal enlargements consequent upon lesions of the respiratory passages, and so forth. These enlargements of conglobate glands are not primary, even as adenitis, but are secondary to irritation and hyperplasia of adenoid tissue in its finer distribution about the submucous tracts, the causative agents passing from the surfaces to the adenoid tissues.

Apart from the implantation of germs themselves, there is nothing specific in the glandular hyperplasia, which may be seen in every degree from increased functional activity to excessive hyperplasia and necrosis. This proposition is intended to apply to all bubonic growths of which the writer has knowledge. The susceptibility of the adenoid tissues, or at any rate the facility of access to them, varies much with the seat of the primary infection, with its nature, with the age of the patient, and probably with individual disposition. In respect of the seat of the irritation we find, as it approaches the parts which are richer in adenoid tissue, that enlargement occurs the more readily. The tonsils, for instance, are rich in adenoid tissue, and irritations of the tonsil are readily propagated to the smaller and larger adenoid cell clusters in connection with it.

In respect of the nature of the irritant, some, such as the poison of mumps, of enteric fever, or of tubercle, act rapidly and severely; others, such as syphilis, act more slowly, but still severely; others, again, such as the milder septic toxins, may act rapidly but yet not severely. There is, however, as I have said, no reason to suppose that the adenitis in these several diseases differs in kind. It consists, first, in a heightened degree of physiological activity, and may not go beyond this; subsequently, if it persists, in loss of physiological balance, in changes, that is, which we then call pathological. The process is probably conservative in intention.

In respect of age we find great differences in susceptibility. The liability to enteric fever, which has its primary buboes in the solitary and agminate glands, diminishes with age, and Dr. Dowson has very clearly shown[1] that the tonsils, after infancy, vary inversely as age, and that the liability to scarlet fever, diphtheria, and the like maladies, which may enter by way of the tonsils, recedes with the tonsils as age increases. In respect of individual disposition we have some accurate knowledge; clinical experience indicates that secondary adenitis arises more readily in some persons than in others, and also that such a disposition may be inherited. Of the specific immunities inherited or acquired we have a large body of learning into which I cannot now enter.

It is probable that in the absence of pathogenic microbes glandular enlargements may occur in the presence of an excess in the products of destruction, but that they are mild and transitory. It is probable that scrofulous neck is always due to the entrance of a pathogenic microbe, generally by way of the tonsil. It is also probable that more than one microbe may enter into some such series—that, for example, the bacillus of tubercle may follow, and carry on the work of Loeffler's bacillus, or of the hypothetic microbe of scarlatina; and ordinary pyogenic cocci may follow any of these.

Hyperplasia of the smaller adenoid masses is probably of no nosological importance. Hyperplasia of the larger masses, when it does not exceed the limits which we conveniently call "physiological," recedes without serious injury to the patient, and may be a beneficent process. When hyperplasia of these masses passes beyond physiological limits, it may lead, and commonly does lead, to necrosis. In the majority of cases, this necrosis is not extensive, the dead stuff is removed more or less quickly, and health is restored.

When the hyperplasia is more excessive, and the necrosis extensive, there is not only much to be done in the removal of the defenders ot the city who are dead, but also in the accummulation of the dead we find new centres of dispersion of evil; either in the dead matter microbes find a favourable bed, or the products of decomposition, by weakening the tissues around, render them more vulnerable, or less capable of defence.

The supervention of such secondary events establishes a secondary pathological series which may have no term within the boundaries of systemic life, or against which there may be no barrier. If the process be less intense, or the patient more vigorous, a cure may be indirectly attained by corroboration of the vital powers of the patient, isolation of the mischief and attenuation of the process in time. Of direct cure there is none by way of medication. If the process be more intense, or the patient be less vigorous, the morbid series may, by implication of additional areas, or by systemic poisoning, end in systemic death, or, if it have a term short of this, may result in serious constitutional injury and in ugly local injury.

When, therefore, indirect means of cure fail, or seem inadequate, direct means must be used by way of surgery. The time for using surgical means must depend upon the conditions of each case.

The relations of disfigurement by the surgeon to disfigurement by disease will be given by my colleague, Mr. Teale. I will point out, however, first, that the obvious swellings in scrofulous neck may not be glandular only or glandular at all, but may be, and often are, secondary cellular suppurations, due, perhaps, to the association of pyogenic microbes with more specific microbes, if any; secondly, that, if the obvious swellings be altogether or in part glandular, these in their turn may be, and often are, secondary to disease in other glands lying out of sight—even far out of sight—as, for example, at the inner end of relatively long and narrow sinuses or behind muscular or fascial extensions.

To be content, therefore, with attacking the visible swellings by means of the actual cautery, as the most advanced surgeons recommended in 1881, in preference to the method of radical investigation recommended at that date by Mr. Teale and myself, is to be content with superficial labour upon a treacherous foundation. Our radical method, described at the International Medical Congress in 1881 by Mr. Teale, will be described by him again in the light of his subsequent experience, which was then insufficient.

That the indirect corroborative measures of relief are none the less valued by us it is needless to say; nor are these measures likely to be underrated by Dr. Ord and Dr. Griffiths, of Swansea, who then gave us their support. I should add that a short treatise on the same subject by us was published by Messrs. Churchill in 1885 under the title of *Clinical Lectures on Scrofulous Neck*, a treatise now out of print.

II.—T. Pridgin Teale, M.A., F.R.S.,
Consulting Surgeon Leeds General Infirmary.

When invited by the President of this Section to open, in conjunction with Professor Clifford Allbutt, a discussion on the treatment of enlarged cervical glands I must confess to a feeling of doubt as to whether I could produce material of value which had not already been adequately brought to the notice of the profession in the works on *Scrofulous Neck* and on the *Surgery of Scrofulous Glands*, published eight years ago jointly by Dr. Allbutt and myself.

This work, an expansion and further development of the paper read by Dr. Allbutt at the International Medical Congress in 1881, enunciated emphatically, from the physician's and the surgeon's point of view, the principles on which the treatment of these cases should be based, and the surgical details which were essential to the carrying out of these principles. Three considerations, however, seemed to justify me in undertaking the task. The first that your President and those jointly responsible with him deemed the subject worthy

[1] Thesis for degree of M.D at Cambridge, 1893 (see page 1153).

of consideration and one the discussion of which was likely to be of service. It would give an opportunity for the interchange of views by those who have had experience in dealing with such cases, and would at the same time lead to the further diffusion of information amongst those medical men into whose care such cases usually fall at first hand. The second consideration is that the work by Dr. Allbutt and myself has long been out of print. A third is that on looking into textbooks I find that so little notice is taken of the principles underlying the accurate surgical management of diseased cervical glands.

In a paper such as this it is impossible to deal exhaustively with the subject or to cover the whole ground. I may, therefore, fairly restrict myself to certain points which seem more especially to demand our attention at the present time. There are two aspects of the question which must be kept steadily in view—the pathological and the æsthetic. Our guiding principle must be, in the words of Professor Allbutt, "that, whenever septic material is contained in the system, we rest not until it is expelled and its burrows are laid open and disinfected." In doing this the surgeon must make it an artistic study how to effect his purpose with the smallest possible amount of blemish. The ugly scars and unseemly depressions, once so familiar in scrofulous necks, should be deemed an opprobrium of surgery; whilst to delay operation until the skin is thin, red, and ready to break down, or has already given way, should be looked upon as mischievous trifling. May we not hope, moreover, that the time is not far distant when the absolute inutility of painting the skin in the hope of influencing a caseating gland deeply seated beneath muscle and deep fascia will be fully realised by the professional mind?

THE ÆSTHETIC ASPECT.

Let us first deal with the æsthetic question, which may be stated in the following propositions.

1. Whenever fluid—that is, pus—can be detected in connection with a diseased lymphatic gland, the operation should be done before the skin becomes red and thin—that is, before the skin has been spoiled by advancing suppuration.

2. When the diseased gland is subcutaneous—that is, not beneath the deep fascia or muscle, and has been completely removed, the least scar will result if neither stitches nor drainage tube be used, especially if it be possible to leave the wound uncovered by dressing and exposed to the air so that the edges may be drawn and glued together by drying lymph.

3. If the diseased gland be beneath the muscle or muscular fascia, then a drainage tube must be used, and the edges of the wound must be united by suture. For this purpose probably horsehair or silkworm gut well soaked in carbolic lotion are the best sutures. The best drainage tube is the gilt spiral wire, especially as it may have to remain from two to eight or ten weeks, according to the depth of the wound, or the completeness of the removal of the gland.

4. Where many glands have to be removed it is better, so far as may be, to remove them through a series of small incisions, and thereby to avoid very extensive ones.

THE PATHOLOGICAL ASPECT.

On the "pathological" aspect the following points are worthy of attention:—

5. That all sinuses and suppurating cavities should be thoroughly cleansed by means of scraper and lint, so as to leave a fresh surface free from granulation or decayed or decaying tissue, and that a drainage exit should be maintained until all the deep parts are healed.

6. It is essential to know, and to bear in mind, that the visible abscess, which has often been called and treated as a suppurating gland, is frequently but a subcutaneous reservoir of pus, the source of which (a degenerate gland), is not subcutaneous but subfascial, that is, under the deep cervical fascia, and often submuscular, under the sterno-mastoid, the communication between the two being a small opening in the deep fascia just large enough to admit a probe or director. This opening may easily be overlooked, and is not always easily found even when searched for, but it must be found, or the operation will be a failure.

7. It is mere trifling and bad surgery simply to incise an abscess in the neck without searching for, and thoroughly eradicating the gland that is the starting point of the abscess. Therefore, no such abscess should be opened without putting the patient under ether, and being prepared with all necessary means for eradicating the diseased gland.

8. It sometimes happens that after the extirpation or evisceration of a gland, the finger detects in the wall of the capsular cavity the slight convex bulging of a contiguous gland. This should be pricked through the wall of the cavity, and so reached and extirpated or eviscerated. In this way in several instances I have emptied from one external opening a group of three or four glands, massed together and suppurating, or otherwise broken down.

9. What has been said hitherto concerns glands which are suppurating or obviously breaking down. As to caseous glands, the conclusions I have arrived at are as follows. When we have dealt with a broken down gland which has proved to be undergoing caseous degeneration, we may infer that any other enlarged glands then present or subsequently appearing are becoming caseous also; therefore, it is my belief that it tends to promote better health of the patient if, in the absence of reason to the contrary, such glands are removed as soon as the surgeon is convinced that the enlargement is persistent and not merely transitory, without waiting for evidence of fluctuation or pus.

10. What shall be done with enlarged glands which are neither caseous, nor suppurating, glands included in the terms lymphadenoma, hypertrophy, etc? I am not clear as to what answer should be given, nor whether their removal is an advantage or otherwise. Probably this will have to remain an open question for some time yet.

11. In a very large number, indeed, in a majority of the instances of scrofulous neck which have come under my care, there was no evidence of any constitutional taint or weakness. The origin of the ailment was often clear and defined, bad drains in many instances, scarlet fever, mumps, etc. The cases were frequently isolated instances in families free from any tendency to constitutional disease, and health and perfect vigour were restored after the destruction of all degenerate or septic material.

In conclusion, let me say that there are certain forms of instruments which have proved to me of great service in dealing with diseased cervical glands:

1. The director described and figured in my Address in Surgery in 1889, published in the BRITISH MEDICAL JOURNAL, vol. ii, p. 362, *et seq.*

2. Bigelow's dilator for widening deep sinuses and avoiding the use of the knife in dangerous regions.

3. Lister's scraper, which is a better form of instrument than Volkmann's spoon.

4. A scalpel of proper lancet shape, also described in my Address in Surgery, 1889.

ULTIMATE EFFECT UPON HEALTH.

In order to test the permanent effect upon health in the 23 cases recorded in our work, and also the question of any signs of persistent constitutional taint, secondary poisoning, or vulnerability, I have within the last month addressed inquiries to everyone that I could trace, with the following results: In 5 instances I have no answer, but one of these was in good health a year ago; 3 have died, one suddenly from heart disease, one from abdominal cancer, and one from phthisis, a year after the operation. I have no record of the state of lungs at the time of the operation. Three are in "fair health," one was in good health one year ago, and the remaining 12 are reported as in very good health. Of these 16, 11 had no secondary operation. Four out of the 23 had multiple operations; 2 of these are in splendid health, one is in fair health, and the other was in good health a year ago. No. 1 had four operations. No. 2 (W. S.) referred to in the book as having had nine operations, underwent the thirteenth two months ago, the last three operations being on the inguinal glands. He is recorded as in "fair health," as he is in full work, and is earning his living. No. 3 (Miss H.) had three operations on the neck, and one on the axillary glands. No. 4 had five or six operations, the last about three years ago. These facts prove two things: 1. That it is possible in most cases to get to the bottom of the trouble in one or two operations. 2. That in most instances disease of cervical glands, whatever its origin, is practically a local disease, and needs

to be dealt with by local measures, and that it is but rarely the expression of a general constitutional defect.

III.—W. Knight Treves, F.R.C.S.,
Surgeon, National Hospital for Scrofula, Ramsgate.

I am glad to have the opportunity of speaking on this subject because I have for the last twenty-six years, as Resident and Visiting Surgeon to the Royal Sea-Bathing Infirmary for Scrofula, been engaged in treating these cases. From the beginning of 1866 I tried various drugs and forms of local treatment without producing any good effect, and in June, 1871, I commenced excising tuberculous glands. I first selected those cases in which the glands were superficial and movable, and in which only a few glands were affected. Subsequently, as I found the operation successful, I extended it to all cases in which the operation was otherwise suitable. I may state, as showing how little danger there is in the operation if carefully performed, that although I have excised in some few hundreds of cases, I have not had a single death. It has been stated that the disease is a local one, and no doubt it is so, but the locality is not in its early stages strictly defined. Nature will make the limit if we give her time to do so. The susceptibility of the patient also is a varying factor, and this susceptibility can be diminished by improving the general health, and giving Nature time to arrest the progress of the tuberculous mischief. When this has been done is the time for operation. In the operation of excision, the chief points are to avoid wounding or tearing the affected glands—to keep, in dissecting, close to the surface of the gland in order to avoid hæmorrhage, and to use transverse incisions. I use no drainage tubes, close up the wound, and carefully apply pressure. As to the question of scars, ugly scars are, I believe, due either to some remaining tuberculous gland or matter, or to infection of the operation wound.

IV.—R. J. Godlee, M.S., F.R.C.S.,
Surgeon to University College Hospital.

Mr. Godlee said that his practice was to cut out the glands in all cases except those in which there was reason to believe that the mischief had extended beyond the limits which could be marked by the knife, and those in which the glands had suppurated and become diffused. In the former each case must be treated on its merits, and the glands must be removed if they caused much inconvenience, without the hope of actually curing the disease. For the latter class of cases the speaker was in the habit of using Volkmann's spoon. Single hard glands were easily cut out. Larger masses of the same sort might also be dealt with through moderate incisions. If the glands had suppurated but not burst they might also very often be taken out. If they had suppurated and burst, it was best to scrape away the granulations and then proceed to cut out the remaining capsule. He advocated small incisions, and had never found it necessary to divide the sterno-mastoid. He described a pair of forceps, with blades like miniature eggspoons, which he had found more useful for holding firmly the mass of glands than a volsella or hook. He also had found a blunt periosteum elevator very useful in digging out glands from inaccessible parts. He had never seen general tuberculosis follow the scraping out of glands, though he had several times seen it follow the use of the instrument in other tuberculous conditions. He never used a drainage tube when he could get a clean-cut wound. He had never lost a case as the result of the operation.

V.—Howard Marsh, F.R.C.S.
Surgeon to St. Bartholomew's Hospital.

Mr. Marsh held that the operation was very valuable if the choice of cases was very carefully made. Some surgeons were, perhaps, a little too ready to remove glands in their early stage. The cases best suited for the proceeding were those in which glands were of the same size and of long duration, and had not yet suppurated. When such glands were removed healing by primary union would be obtained, even although the wound had been extensive. He thought a free incision was desirable, so that the structures dealt with should be safely in view. When suppuration had occurred removal of all the inflammatory products should, if possible, be effected. Complete removal was very important, for if infected structures were cut across there was a very considerable danger that tuberculous material might enter through the open mouths of small blood vessels, and lead to general infection. This was certainly the case when cancellous bone, infected with tubercle, was divided. He did not use drainage tubes except in cases in which suppuration had occurred, and where there was a deep and ramified cavity. Volkmann's spoon must be used with great care, otherwise serious hæmorrhage might be produced. A careful dissection was generally preferable to scraping.

VI.—W. E. Ashley Cummins, M.D.,
Surgeon, Cork Hospital for Women and Children.

Dr. Ashley Cummins referred to the treatment of severe forms of disease of the cervical glands, and mentioned two cases in which extensive operations in the neck and axilla had been followed by acute phthisis. This unfortunate result he believed to be due to the opening up of collections of tuberculous material and large blood vessels during the operation. He believed in early excision of the glands if possible, even if suppuration and adhesion of the gland to the surrounding tissues had taken place in preference to the possibly incomplete removal of half-softened tissue by means of the scoop. With regard to the details of the operation, he believed that drainage tubes were unnecessary, except one or two strands of catgut inserted for twenty-four hours after the operation. Medicinal treatment (syrup of the iodide of iron and iodine paint) was harmful, but he had seen benefit follow the prolonged use of sulphide of calcium.

VII.—Wm. Thomas, M.B., F.R.C.S.,
Surgeon, Children's Hospital, Birmingham.

Mr. Thomas had found chlorate of potash in 3 to 10-grain doses useful, but thought that arsenic was perhaps the most valuable drug. It was difficult to say when medicinal treatment should be abandoned and excision performed, but physicians were too much inclined to persevere with local remedies, which often caused a chronic cellulitis, and made the subsequent removal much more difficult. He had never found any trouble arise from division of the sterno-mastoid. He was in favour of multiple incision in scattered glands, but, where they were aggregated in masses, one large incision was better. Although he would rather do without drainage, if possible, if there was any risk of oozing into the wound, he saw no harm in keeping a drainage tube in for twenty-four hours. He quoted a case of removal of a large glandular mass, which necessitated division of the sterno-mastoid, and drawing up some glands from the thorax. The wound healed favourably, but the patient died fifteen months after from extension of the disease to the bronchial glands.

VIII.—C. H. Milburn, M.B., M.S.,
Assistant Surgeon, Victoria Hospital for Children, Hull.

Dr. Milburn thought that before resorting to surgery for their removal other means of treatment ought to be exhausted. Most of these cases occurred in children living in unhealthy houses, and having bad or insufficient food. Therefore, change of air, suitable food, and healthy surroundings ought to be tried first. Of course, if symptoms of caseation or suppuration occurred, then the glands should be removed at once. Removal, also, in some instances, had a good effect on other diseased conditions. In illustration he related a case of constant and intractable corneal ulceration and opacities; these resisted all modes of treatment, general and local, the child being practically blind. Suddenly the cervical glands became enlarged, and showed signs of breaking down. Dr. Milburn removed them, and in a short time the corneal opacities cleared up, and the child laid on flesh, and became a strong, hearty, lad. This rather traversed the opinion of Professor Allbutt that the gland affection was entirely local, and the result of local irritation. In removal of these glands, especially where deeply placed, Dr. Milburn removed as much gland tissue and hyperplasia as possible with the knife and scissors, and then scraped with the spoon (Volkmann's), especially if there was attachment to the carotid sheath, or if traction on the gland induced unpleasant symptoms from

pulling on the vagus. The question of drainage depended a great deal on the reason for operating. If there was suppuration, then drainage might be necessary; at any rate a little horsehair or catgut for the first twenty-four hours. If the glands had not broken down, and had been cleanly removed, then careful approximation of the surfaces, with careful gradation of pressure by bandaging, ought to be sufficient. Regarding the scar, all blue or infiltrated edges of the skin ought to be removed. Even if there was a large oval wound left, the skin in the neck was elastic enough to enable the wound to close. No age could be fixed as that at which operations could be most suitably done; each case must be judged on its merits. He had removed the glands in a child five months old with a good result, but only because softening was commencing. Thanks were due to Professor Allbutt and Mr. Teale for their pioneer work on this subject. Improvement had taken place in the æsthetic appearance of the scrofulous population, there being now far fewer scarred necks met with than formerly.

IX.—Noble Smith, F.R.C.S.Edin.,
Surgeon All Saints Children's Hospital.

Mr. Noble Smith advocated a free opening and closure of the wound without using a drainage tube. In evidence that section of the sterno-mastoid would not cause wry-neck, he instanced the cases of spasmodic wry-neck in which he had ablated a piece of the spinal accessory nerve. In none of these cases had any distortion of the head occurred, and no disability in consequence of paralysis of the sterno-mastoid had taken place. The application of pressure upon the wound after operation being very desirable, he had devised an appliance of which he showed a drawing. It consisted of a metal band round the head, with processes to bring pressure upon the wound by counter-pressure upon the opposite side. He disapproved of all medicinal remedies which were made in syrups, and had for long used a neutral solution of chloride of lime made without syrup. This he had found agree with the most delicate patients.

X.—D'Arcy Power, B.A., M.B., F.R.C.S.,
Surgeon to Out-Patients, Victoria Hospital for Children, Chelsea.

R. D'Arcy Power drew attention to Mr. Teale's interesting case of a patient affected with tuberculous glands, who died of abdominal cancer shortly after an operation on the glands. He asked for further details, as it was generally held that cancer was rarely coincident with tubercle. Mr. Power had found that lymphadenomatous glands were usually unsuitable for removal, but that they sometimes yielded to large and increasing doses of arsenic, in conjunction with cod-liver oil.

XI.—W. G. Black, F.R.C.S.,
Surgeon, Hospital for Children, Newcastle-on-Tyne.

Mr. Black considered that every case of enlarged gland in the neck should be treated on its merits, but that when the glands were undoubtedly tuberculous they should be removed. He had had many cases under his care in the Newcastle Children's Hospital, and usually resorted to removal of the glands by free incision; he objected to the method of multiple small incisions and the use of the scraper, and advocated operation by a sufficiently free incision to enable all the enlarged glands and their capsules to be removed. Where the glands were covered by the sterno-mastoid he divided this muscle, and subsequently sutured it with buried silk. Where the glands had burst after suppuration he advocated incision and removal of the diseased mass. He now very rarely used any drainage after the operation.

XII.—T. Barlow, M.D., F.R.C.P.,
Physician University College Hospital, President of the Section.

The President thought that Professor Allbutt and Mr. Teale ought to be gratified at the result of the discussion. The only differences of opinion concerned the *technique* of the operation, but the great outcome of the discussion was that a definite advance had been made in the treatment of this disorder by surgical methods. It was clear that the drug treatment of tuberculous glands was at a discount. Drugs were of use for improving the general nutrition, but had little demonstrable effect on masses of caseous material. He thought the keynote of Professor Allbutt's paper was that the glandular affection was the result of peripheral irritation. It appeared to the President that the most important therapeutic indication was to improve the peripheral mucous membrane, which was primarily at fault. There was little doubt as to the right treatment of glands which were actually suppurating, but there were many borderland cases of enlarged glands in which one hesitated about immediate surgery. It would be found in some of these cases that by removing the tonsils and improving the mucous membrane of the naso-pharynx, the enlarged lymphatic glands would subside. He would urge that, especially in all town-bred children, the thorough cleansing of the naso-pharynx and the gums ought to be a matter of daily routine, and believed that thus many cases would be saved from the need of subsequent surgery. The most important practical points in the *technique* of the operation referred to the employment or otherwise of scraping and of drainage. The bearing of the question of scraping was the danger of general tuberculous infection after imperfect operations on tuberculous foci due, as we now believed, to the passage of some of the material into the general circulation.

Reply.

Mr. Teale, in his reply, commented on the following points:

Objections to the Use of the Scraper.—Mr. Teale had never found any ill-results which he could attribute to the diffusion of tuberculous infection. Where feasible, he would undoubtedly dissect out the gland capsule wall, but there were cases in which he had thought it best to be content to scoop out the contents of the capsule, sometimes leaving a perfectly clean case; sometimes, after most careful scraping, leaving a remnant of the undestroyed portion of the gland. For such a case it was necessary to use the wire drainage tube. Time and experience would show whether or not it would be the better course in such circumstances to divide the sterno-mastoid and expose and dissect out the glands in the neighbourhood of the large vessels, or to be content with the less radical method which he had hitherto adopted.

Multiple Small Incisions.—These were especially advocated for the superficial glands, for æsthetic reasons. For glands deeply situated or matted and grouped together, large incisions were unavoidable, the size being regulated according to the surgeon's confidence in his own manipulation.

Lymphadenoma.—The sense of the meeting seemed very much to corroborate the opinion expressed, that the question was not yet ripe for settlement.

SEPTIC THROMBOSIS OF THE LATERAL SINUS: OPERATION: RECOVERY.

By W. H. VICKERY, F.R.C.S.Eng.,
Assistant Surgeon to the Children's Hospital, Newcastle-on-Tyne.

The case I have the honour of bringing before you appears to me to possess great interest to surgeons, because until a few years ago it would have been bracketed amongst the incurables, and the patient would have been left to die, the only loophole being a faint chance of his being strong enough to survive an attack of general pyæmia, whereas now, thanks to the advance of surgical knowledge, by timely operation a very fair prognosis may be given. I believe I am correct in saying that Professor Victor Horsley was the first to suggest the feasibility of surgical interference in cases of septic thrombosis of the lateral sinus, but the first surgeon to actually operate and publish details of the operation was Mr. Ballance of St. Thomas's Hospital. He was quickly followed by Mr. Arbuthnot Lane, who has operated on no fewer than eight cases with seven recoveries, an account of which he has given in the Section of Surgery.

History of Illness.—I was first called to the boy, aged 8, on June 9th, 1893. His history, as given me by his mother, was as follows: He had always been healthy, with the exception of slight bilious attacks. About two years ago he had an attack of measles, but it did not seem to have been severe. He had suffered from intermittent attacks of purulent discharge from the right ear, but whether these dated from the attack of

measles the mother could not say. For about a week previous to the above date he had had a discharge, which stopped on June 8th, and he then commenced to complain of earache. This had been very severe all night. His temperature was 99.2° F., pulse 90. There was puffiness over the parotid region in front of the tragus and behind the angle of the jaw. All over this it was tender on palpation, but nothing definite could be made out. The tongue was thickly covered with white fur, and the mother stated that he had been constipated, but the bowels had acted after a dose of castor oil. There was no tenderness over the mastoid and no headache. I ordered poultices over the ear and face and a cooling mixture, but for two days the symptoms remained the same; there was the same slight fever, the pain, and the foul tongue; the tenderness and puffiness over the parotid were less, but more defined. On June 12th he vomited once or twice, but a bismuth and hydrocyanic acid mixture stopped it. There was practically no alteration of symptoms except less pain, and on June 16th, as the temperature was normal, I allowed him to get up a little. He was, however, very sick about an hour later, and the next day (June 17th) he had a distinct rigor, and complained very much of pain in the neck, with stiffness. He held his head stiffly, inclining toward the right shoulder, to relax his sterno-mastoid.

He passed a very restless night, and the next morning, June 18th, had another rigor. He vomited the nourishment he took, and at my visit I found his temperature 104.6°, pulse 120. He was lying almost on his face, his head held stiffly; he complained greatly of the pain in his neck, and cried at the slightest attempt to move him. There was distinct swelling of the neck, and on palpation tender enlarged glands were felt, extending from below the pinna down to the middle of the neck along the carotid sheath. He vomited from time to time. I saw him again at 8 P.M. that night, and his temperature was 103.6°, pulse 130. He had had another severe rigor, was very restless, and had vomited several times during the day. The next morning his temperature was 103.2°, pulse 130, soft. He had had another restless night, and complained of pain over the right temporo-sphenoidal region. Vomiting continued. The question one had now to settle was, What was the precise condition of affairs, and would any surgical interference be of use? From the fact that the attack started with earache following otorrhœa, that all the pain was referred to the right ear and side of neck, that the boy was showing symptoms of commencing pyæmia, and that there was absolutely nothing to account for it in the chest or abdomen, or in fact anywhere else in the body, it seemed to me I was justified in diagnosing septic thrombosis of the right lateral sinus; and, if so, no time should be lost in operating. The symptoms were not those of cerebral abscess, which was the alternative diagnosis which presented itself. At the request of the friends Mr. Rutherford Morison saw the boy with me. He agreed entirely with my diagnosis.

Operation.—I operated at 4.30 P.M. on June 19th. The parts being rendered aseptic, I made a three-inch incision along the anterior border of the sterno-mastoid, the centre of the incision being at the level of the cricoid, and exposed the internal jugular vein, shelling out some inflamed glands on the way. No thrombosis was found, but the blood stream was apparently very sluggish. A ligature was placed round the vessel at the lower end of the wound, when the vein immediately collapsed. This clearly pointed to blocking of the circulation on the cerebral side, and I decided to explore the lateral sinus. A semicircular flap was dissected down and the trephine applied, the centre of the trephine opening being over the posterior inferior angle of the parietal bone. The sinus was seen to contain fluid, but as it had a yellowish appearance as if it might contain pus I made a free incision into it. If there was any pus it came with the first rush of blood. The free hæmorrhage which ensued was immediately stopped by a pad of iodoform gauze, and then uniting the flap over the pad, tying the first half of the ordinary surgeon's knot and leaving the ends long. This completely controlled the hæmorrhage. The neck wound was then sutured and dressed.

After-History.—At 9 P.M., his temperature was 102°, pulse 120. He was sensible and complained of thirst; his condition was good. He had rather a restless night, but slept at intervals. In the morning (June 20th) the temperature was 97.6, pulse 104, soft, but regular. He had slight pain in the neck and head. No rigors or sickness had occurred, but he was rather irritable. At 6.30 P.M. he had a rigor lasting ten minutes, and was said to be rather blue after. He vomited, and was also purged. At 7.30 P.M., temperature 103.2°, pulse 130, very restless, crying with thirst. Circulation good, and no cyanosis. He was ordered calomel grs. iv and a mixture containing bromide of potassium, chloral, and antipyrin. At midnight his temperature was 99.2, pulse 112, feeble but regular. He had taken some milk and iced water, and had had no more rigors or attacks of vomiting. The next morning, June 21st, his temperature was normal, pulse 120, feeble. He had slept quietly from 1 A.M. to 7 A.M. He looked fairly well, but complained for the first time of pain in the left hand. I found on examination a tender swelling on the palmar surface of the first phalanx of the middle finger, extending on to the palm. No fluctuation was then apparent. At 1 P.M. he had a severe rigor lasting 40 minutes, during which his bowels were opened loosely, and he vomited a good deal. He complained of nothing but thirst, and seemed exhausted after the rigor was over. At 10 P.M. his temperature was normal and pulse stronger. He had had a quiet afternoon and evening, had taken his food well, and expressed himself as feeling much better. The pain in his hand had been relieved with poultices. He had a good night, and at 11 A.M., June 22nd, his temperature was 99.2°, pulse 120, fair. The hand was more swollen and very painful. Slight enlargement of axillary glands was noticed. At 8 P.M. the temperature was 100.4°, and the pulse 126. He had passed a good day, but his hand was more swollen, and fluctuation distinct. The next day the temperature was normal. He had been very restless the previous night until midnight. Then he slept well until the morning. Under choloroform I dressed his wounds, and the drainage tube was removed from the neck. There was no pus, but the edges of the wound looked rather red and irritable around the tube. In the scalp I loosened the stitches that were left partially tied, removed the iodoform gauze, and then secured the stitches permanently. There was no hæmorrhage. After rendering the left hand aseptic I made a free incision, letting out about a drachm of thick laudable pus. At 7 P.M. he had a slight rigor, and complained of pain about the scalp wound. Pain in the hand and axilla was quite relieved. On June 24th the temperature was normal; the pulse 108, stronger. The wound in the hand was discharging slightly. At 8 P.M. he had another slight rigor, and vomited some curdled milk. On June 25th, the temperature 99.6°, and the pulse 118. He had slept well, and taken a quantity of nourishment. From this time his progress was rapid. He had a good appetite, slept well, and expressed himself as feeling well. He has gained flesh considerably, and, but for a certain amount of pallor, has looked better than his friends have ever seen him. The only drawback has been that the lower inch of neck wound has been covered with an exuberant mass of granulations, which, even with the almost daily application of nitrate of silver, has only just been removed.

The explanation of the case seems to me to be that we started with a septic thrombosis of the lateral sinus, but that before I operated a certain amount of the *materies morbi* must have reached the general circulation, causing the palmar abscess and the rigors subsequently to the operation. I think it is fair to conclude that had I operated earlier the recovery would have been as rapid as in the cases related by Mr. Lane; and, on the other hand, had no operation been attempted, a larger amount of septic material would have been poured into the general circulation, and the boy would probably have died of general pyæmia.

The lad is here for inspection, and I think it will be agreed that he shows very little the effects of the serious illness he has survived.

Mr. Howard Marsh mentioned a case in which, in a child of 5, he had lately adopted the form of treatment described by Mr. Vickery. Suppuration of the mastoid antrum had followed chronic disease of the middle ear. The child's temperature was 104°. Two days before the mastoid antrum had been opened fœtid pus had been evacuated and the lateral sinus exposed and found to be apparently blocked. As the operation was followed by no improvement, and as he had symptoms of purulent absorption, the internal jugular was exposed. During this proceeding some large glands in the neck were brought into view. The vein was tied, and divided a little above the ligature. The upper end of the vein did not bleed, showing that the sinus was blocked. The sinus was then cleared out as far as possible. The child's condition, however, was not materially improved, for extentensive blood poisoning had evidently occurred, and this threatened to be fatal.

THE CAUSATION AND TREATMENT OF HYDROCELE AND HERNIA IN YOUNG INFANTS.

Read in the Section of Diseases of Children at the Annual Meeting of the British Medical Association held in Newcastle-on-Tyne August, 1893.

By W. ARBUTHNOT LANE, M.S.,
Assistant Surgeon to Guy's Hospital and to the Hospital for Sick Children, Great Ormond Street.

I propose in this short communication to call attention to what I believe to be the most common cause of hernia and hydrocele in young infants, and I do this because I find that few, if any, authorities writing on hernia or hydrocele occurring at this period of life lay any stress whatever upon it as a cause, if they even regard it as a predisposing factor at all.

Flatulence, which is often considerable, causes first a yielding of the umbilical cicatrix, with the formation of the protrusion of skin filled with bowel or fluid with which we are only too familiar. I would like to say a few words about the presence of fluid in the peritoneal cavity of the infant which is suffering from the results of bad feeding. I have observed in operating on hernia in such cases that a variable, but distinct, quantity of serous fluid existed, while in operating on the abdominal cavity of a child which was supplied with suitable food at proper intervals I have not noticed any fluid present. How far a certain amount of serous fluid is normal to the healthy peritoneal cavity of the infant, and how much is due to the irritation resulting from chronic indigestion, I cannot say with certainty. Arguing from analogy with the more commonly observed conditions in the adult would strengthen the opinion that irritation and distension of the intestinal canal of any duration is accompanied by more or less serous effusion, and this is more likely to be the case in the young infant than in the adult.

As time goes on, the same increased intra-abdominal ten-

sion results in the protrusion of bowel along the inguinal canals, especially on the right side, and in the forcing of fluid along the processus vaginalis, thus forming the several varieties of hydrocele seen at this period of life. In some of the cases that are classified as hernial protrusions, the sac appears to contain fluid only, and in others fluid and bowel. It is obvious, therefore, that the sole cause of the development of both these inguinal protrusions, whether hernial or hydrocele in character, is a simple mechanical one, as in the case of the corresponding stretching of the umbilical cicatrix.

My experience of the usual treatment of these conditions is that the surgeon who sees them is quite satisfied with ordering a truss, or, in the umbilical variety, if a truss is not ordered, an attempt to intrude the protrusion into the abdomen is made by strapping with or without a pad. The results of such treatment, as seen in the out-patient department of a children's hospital, shows that it is almost useless. With very few exceptions, I have found that both umbilical and inguinal hydroceles and hernias in young infants disappear spontaneously after the child has been fed properly for a time.

I do not wish to suggest that in many cases the constant application of pressure by means of a suitable truss will not very often hasten the disappearance of the hernia or hydrocele, but the reduction of the abnormally excessive intra-abdominal tension resulting from indigestion must be the chief consideration, while the local pressure which is exerted on the aperture in the abdominal wall with the object of retaining its protruding contents must be regarded as only an adjuvant. The reason this treatment occasionally fails in out-patient practice is that it is hopeless to make some parents understand the importance of feeding their children properly, or they may be so circumstanced as to be unable to give the infant the attention it requires. I think I have now shown that it is unwise to rest satisfied with treating such cases with a truss alone, whether applied constantly in the form of a washable truss or, as is almost always the case, the mother is directed to remove the truss at night time and when the child is being washed.

I have heard of surgeons stating that they have never seen a hernia in a child, however young, which could not be treated by means of a truss. I fancy that they meant that a skilled surgeon can in any case apply a properly made truss of suitable size and material to a child in such a manner that the instrument will retain the contents of the hernial sac within the abdomen during the few minutes the child is under the surgeon's observation in the room, and one would readily allow that the slighter forms of hernia will recover under this treatment alone, since there exists a very strong tendency to their spontaneous disappearance.

My almost invariable experience of cases in which the hernial contents are retained with difficulty is that unless the child's feeding is attended to, in a very short time, even assuming that the truss does keep the hernia up, the irritation produced by the pad or some other portion of the truss soaked and rendered rough and irritating, produces an eczema by its pressure on the very sensitive skin of the lowly-vitalised infant. We all know how very readily thin, badly-fed children develop inflammation of the skin from any local irritation. As an illustration of this I would point to the almost constant presence of phimosis which exists among them and which is the product of a chronic inflammation of the end of the prepuce due to its being constantly moistened with urine (which itself possibly is irritating in character as the result of bad feeding) and to subsequent contraction of the inflamed orifice. Some surgeons have been so far misled by the frequent association of phimosis with hernia as to suggest that the hernia is produced by the phimosis on the supposition that the child strains forcibly to pass its urine through a constricted orifice. I would, however, willingly admit that a phimosis developing in the manner above described may be so extreme that the straining necessary to drive urine through it will assist the exaggerated intra-abdominal tension in developing a hernia, or in increasing one already developed, or may oppose the recovery of one even when the child is properly fed. It serves as an interesting example of how ready we are to mistake one effect as the cause of another—a very common fallacy in surgery as well as pathology.

HEART DISEASE IN CHILDREN.

By FREDERICK C. COLEY, M.D.,
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Introduction.

I think it will be of more practical utility if I can lead this discussion in a direction tending to throw light upon conditions which are yet imperfectly understood, though common, rather than to refer to cases chiefly interesting on account of their rarity. Partly on this account and partly because of the little scope which such cases offer for practical therapeutics, I do not intend to make any reference to congenital heart disease.

In considering the subject of heart disease in children, the first broad fact that strikes us is the extreme frequency with which evidence of cardiac lesions is found, especially of regurgitation through the mitral valve. Mitral regurgitation causing overt, and even urgent, symptoms, is by no means rare in children, that is, before the age of 12 or 13. But the cases in which, without obvious heart symptoms, *bruits* are found indicating mitral incompetence, are incalculably more common. I have not actual statistics before me, but I believe I am justified in stating that nearly, if not quite, half of the cases treated in the medical wards of the Newcastle Children's Hospital present *bruits* indicating some degree of imperfect closure of the mitral valve. I need scarcely add that the proportion of cases which are admitted on account of obvious heart symptoms is nothing like so large. For fear of misconception, I will remark at once that when I speak of *bruits* indicating imperfect closure of the mitral valve, I do not wish it to be understood that I regard every systolic *bruit* audible at the apex of the heart as proof of deformity of the mitral valve. As I shall have to insist further on, there is no fact in connection with this subject which more needs to be emphasised than this—that there may be, and often is, mitral incompetence without any deformity of the valve curtains themselves.

We start, then, from this point, that mitral regurgitation is extremely common in children, much more common, I am sure, than would be supposed by any who are not accustomed to observe and record physical signs with more than ordinary minuteness, and very much more common than is found to be the case in adults, at least, if we leave out of calculation cases occurring in young women and due to chlorosis. We have, then, two problems to consider; first, the etiology of heart disease, and especially mitral regurgitation, in children; and, secondly, the later history.

Etiology.

Without doubt many cases of heart disease in children are really rheumatic in origin, even where no history can be obtained of an attack of rheumatism of the joints. It is a clinical commonplace that rheumatism in children affects the heart more frequently than in adults, and that the joint affection is usually milder in children. But this is only a small part of the truth. Cases certainly do occur in which acute endocarditis or pericarditis may be the only local manifestation of an attack of acute rheumatism, there being no joint affection at all. It is admitted that this may occur in adults; but it happens much more frequently in children. I may mention, as a typical instance of this form of disease, a little girl who was admitted into hospital under my care for chorea. The chorea followed a fright, and was of the ordinary type, moderate in severity. A systolic *bruit* at the apex was audible when the child was admitted. When the child was almost entirely recovered from the chorea, she suddenly developed a high degree of pyrexia, with severe cardiac distress. There was no joint affection. After a time the acute disease subsided, but it was evident that the heart was left in a worse condition than before. Here was a case of severe acute endocarditis, which, by its occurrence during convalescence from chorea, is stamped as almost certainly rheumatic. But suppose a milder case to occur, without the coincidence of chorea as a guide, it is very likely that the nature of the disease will be misunderstood, or even that it may be entirely overlooked, though quite severe enough to leave behind permanent injury in the valves of the heart. Children often appear tolerant of a considerable degree of

pyrexia, so that in hospitals, where the temperature is regularly taken as a matter of routine, it is not at all uncommon to find that the thermometer reveals a feverish state of which the appearance and demeanour of the patient gave no hint. Even when *malaise* is sufficient to lead to the discovery of pyrexia, there may be little to draw attention to the heart as the seat of the disease, and no examination may be made; and even if it is otherwise and some *bruit* is discovered, unless the practitioner has happened to have examined the heart shortly before the appearance of the acute disease, any morbid signs which are observed may not be recognised as recent; they may be taken to be the result of some older mischief. In all probability many cases of rheumatic endocarditis without joint affection do not produce sufficient obvious disturbance to bring them under medical treatment at all, although they may be quite sufficient to leave permanent injury to the valves.

Pericarditis is not quite so likely to escape notice, because it is more likely to be accompanied by local pain. I believe that these considerations give the key to the origin of many *bruits* in children where no history of rheumatism can be elicited by the closest inquiry. While I am on the subject of acute heart disease, I may mention that the so-called "malignant" or septic endocarditis sometimes occurs in children, and that even very severe examples of this grave disease may recover. A case which apparently belonged to this class was recently under my care in the Children's Hospital. A little girl, aged 12, who had suffered from the symptoms and presented the physical signs of phthisis for more than a year, showed also the evidence of mitral stenosis. This combination of conditions, so very rarely found associated, is in itself sufficient to make the case one of unusual interest. But its after-history was still more remarkable. While the child was in the hospital under treatment for the phthisis her temperature rose rapidly and took on a septic type, with very wide excursions. At the same time there was very severe cardiac dyspnœa and distress, and *bruits* which varied greatly in character from time to time were heard. The spleen became enlarged and tender to pressure, and a hæmorrhage took place from the bowel which was very nearly fatal. After about five weeks the acute febrile disturbance gradually subsided. The child left the hospital with her heart apparently in no worse condition than before the acute attack. She has since presented herself occasionally amongst my out-patients, complaining more of her phthisis than of symptoms referable to the heart.

Although rheumatic endocarditis occurring without any accompanying affection of the joints may serve to explain many cases of heart disease arising in children which might otherwise be obscure, we must not conclude that this key will fit every lock. One of my recent cases has appeared to me to present unusual interest, just because it furnished a puzzle the solution of which seems well nigh impossible. A boy, about 10 years of age, was under treatment in the hospital for severe bronchitis. He had recovered from this, and was for some time allowed to get up. I was about to discharge him one day, but just for routine's sake I examined him before doing so. To my astonishment I found a loud systolic *bruit*, audible over the whole precordial region and at the angle of the scapula. To suppose that this *bruit* had existed before, but had been overlooked both by the resident medical officer and myself, would only be admissible on the understanding that we had both been stone deaf. Under no other circumstances could we have failed to detect in our numerous examinations a *bruit* so widely diffused and so loud. Any attack of acute endocarditis, such as I have described above, was entirely excluded by the ascertained absence of pyrexia; for it is the custom in our hospital to have the temperatures of all patients recorded every night and morning. I sent the child back to bed, and kept him at rest under treatment with digitalis and iron for several weeks. But the *bruit* did not alter, except that it was sometimes audible at the angle of the scapula, and sometimes not so. It would, of course, be more satisfactory if a clear account could be given of the etiology of the heart lesion in this patient. But the case is worth recording if only to show that a mitral regurgitation (promising to be permanent) may arise under circumstances apparently excluding the ordinarily recognised causes of heart disease.

After-History.

The extreme frequency of signs of mitral regurgitation in children, so greatly in excess of what is observed in adults, suggests the necessity of an explanation of the discrepancy. No doubt the severer cases die early; but these are quite the exception, and the number of deaths from heart disease in children is quite insufficient to furnish the solution of the problem. Although we may admit that children having valvular defects (even though not presenting obvious heart symptoms) are likely to resist the attacks of other diseases less successfully than children who are not handicapped in the same way, yet even this would give a very insufficient account of the matter. I think the only explanation at all adequate is that in a very large proportion of cases the mitral incompetence observed in children disappears in later life. I wish it were possible to furnish statistics in support of this proposition. But that is obviously impossible. In the nature of things these mild and favourable cases are just the ones that disappear from our observation the soonest. Physicians to children's hospitals necessarily lose the opportunity of seeing them again in later life. Hence the difficulty of bringing to statistical proof the fact of which I am nevertheless strongly convinced, namely, that mitral regurgitation in children is a condition which is very frequently recovered from.

Now, it is probable that structural alteration of a valve, following endocarditis, may be more readily recovered from in childhood than in later life. But there is another condition equally capable of producing the phenomena observed, and much more readily recoverable—I mean regurgitation through the mitral valve produced by dilatation of the left ventricle. I believe that far less prominence has been given to this condition than it deserves in ordinary clinical teaching. Regurgitation through the tricuspid, arising in a similar manner, is a clinical commonplace. But when distinct evidence of mitral regurgitation is discovered, valvular lesion from old (or recent) endocarditis is usually assumed as the almost necessary corollary. Many authorities certainly speak of mitral incompetence following dilatation, but in ordinary clinical teaching the fact of its frequent occurrence is left in the background. I have shown elsewhere that it takes place in chlorosis much more commonly than is generally supposed. In 400 cases of chlorosis under my own care I found complete evidence of mitral regurgitation (a systolic *bruit* audible at the angle of the scapula, as well as at the apex) in 123. In many of these the graver physical signs were known to have appeared during the time that the chlorosis was getting worse from neglect of treatment; and in a still larger number they entirely disappeared when the anæmia was removed by the administration of iron. It was therefore evident that the mitral incompetence was due to dilatation, and not to any structural change in the valve itself. I cannot doubt that dilatation of the left ventricle plays a very important part in the production of these common mitral *bruits* in children. I am convinced that the small vegetations commonly observed on the edges of the valves in chorea do not explain the bruit which is so frequently heard in the course of that disease, and which is comparatively seldom permanent. For although such vegetations are rarely absent when a *post-mortem* examination is made after chorea, we must recollect that it is only in cases of altogether exceptional severity that death occurs. So that it is rather an unwarrantable assumption that endocarditis is a frequent accompaniment of the ordinary mild type of the disease which recovers. But there is a much stronger reason for doubting the causal relation of these tiny vegetations to the *bruits* in question. It is not at all likely that such vegetations would interfere with the closure of the valve. And, therefore, they would not produce a systolic *bruit*; if they produced any *bruit* at all it would be presystolic. But the bruit in chorea is usually, if not always, systolic. Probably these minute vegetations, when they do develop, have nothing to do with the ordinary transient *bruit* of chorea. I think that ventricular dilatation is a more satisfactory explanation than irregular—choreic—action of the musculi papillares. I once observed, in a girl, aged 11, who had suffered from chorea, a *bruit* audible at the pulmonary area only, the first sound at the appendix being normal. The *bruit* disappeared under treatment. In another patient,

whose age was 24 when I examined her, and who had suffered from chorea following a fright when she was about 10 years old, I found a *bruit* presystolic and systolic at the apex and systolic at the angle of the scapula. Here I should be disposed to attribute the damaged condition of the mitral valve to an attack of endocartis such as I have above described, although I obtained no history pointing in that direction. This seems rather more probable than to lay the blame of such extensive damage to the chorea directly.

It should never be forgotten that, when signs of mitral regurgitation occur in the course of acute rheumatism, this is not necessarily due to endocarditis and its consequences. In a large number of instances a temporary dilatation of the left ventricle offers the more reasonable explanation. This suggests that all such cases should be treated by prolonged rest, with heart tonics, including iron. Even where actual valvular deformity exists, prolonged rest gives perhaps some chance of complete recovery, and certainly affords the best opportunity for the establishment of satisfactory compensation.

Dr. TOWNSEND said that cardiac disease in children was due in most cases to a rheumatic cause, either hereditary or acquired, and was generally very insidious and not indicated by symptoms. To be found it must be looked for. The localisation of a *bruit* in the mitral area, particularly if heard in the posterior scapular region, was the only symptom that pointed out regurgitation through the mitral valve. As an explanation of the occasional disappearance of the *bruit*, Dr. Townsend suggested that the *bruit* might be due to dilatation of the ventricle, and that the restoration of the ventricle to its normal condition might explain the cessation of the *bruit* rather than that an organic lesion was absorbed. The principal dangers to life in these cases were sudden over-exertion, fresh attacks of rheumatism, or degeneration of the arteries in middle age.

Dr. BYERS (Belfast) spoke of the frequency of mitral disease in female children, and pointed out the infrequency of the signs of sclerosis in young children as compared with those of regurgitation. He referred to the frequent occurrence of acute heart disease in children and of severe dilatation. He thought the great proportion of the cases of heart disease in chorea was organic, and he could corroborate Dr. Barlow's observations that when rheumatic nodules appeared in children the prognosis was bad.

Dr. DAWSON WILLIAMS observed that the difficulty of prognosis in heart disease in children was often very great, and suggested that this difficulty was in large part due to incomplete knowledge of the etiology. There was no difficulty in accepting the rheumatic theory when a distinct history of rheumatic joint affections could be obtained, but he questioned whether it was allowable to accept a vague history of pains in the limbs as a history of rheumatism. Was the cardiac disease following scarlet fever truly rheumatic? The so-called malignant endocarditis, that is to say infection of the valves by pyogenic organisms, was, probably, not fatal in all cases, and might be responsible for a certain proportion of the cases of heart disease occurring in association with chorea as well as scarlet fever. The onset of cardiac disease in chorea was sometimes exceedingly insidious and unaccompanied by any obvious signs of rheumatism.

Dr. COLQUHOUN followed Dr. Dawson Williams in thinking that it was not safe to assume that all heart lesions in children were expressions of the rheumatic diathesis. It was safer to assume that we had not definite information on the subject, and wait until we knew more definitely what the poison of rheumatism was. The subject of heredity was very important, as children might no doubt be born with weak hearts, which were easily affected by causes which would not affect the normal heart.

The PRESIDENT (Dr. Barlow), while recognising that other possible factors ought to be borne in mind, thought that it was only safe to exclude rheumatism after the history of the child had been thoroughly ascertained. When first seen there might be no evidence of rheumatism beyond a heart murmur, but later in the case affection of joints, muscular rheumatism, or erythema might be observed, and confirm the diagnosis of rheumatism. He agreed that cases of septic or malignant endocarditis might recover, at any rate from the acute attack. Dilatation was an important factor in the production of cardiac disorders in childhood, and might sometimes be observed in renal disease after scarlet fever. The difficulty of prognosis was often great in heart disease in childhood. He believed that, as a general rule, the louder the murmur the greater the implication of valves.

Dr. COLEY replied briefly.

NOTES ON CASES WITH SPECIMENS OF GASTRO-ENTEROSTOMY AND PYLORECTOMY.

Read in the Section of Surgery at the Annual Meeting of the British Medical Association, held in Newcastle, August, 1893.

BY RUTHERFORD MORISON, M.B., F.R.C.S.,
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CASE I.—W. S., male, aged 65. History of two years' stomach trouble, chiefly attacks of vomiting. During last four months and a-half has had pain, and vomited all sorts of food, retaining very little. The patient is a thin careworn looking man, feeble and emaciated. A few years ago he was much addicted to alcoholic excess. A rounded hard nodular tumour is discovered under the umbilicus; tender on pressure, freely movable to left side, upwards and to right, but not downwards; it is about the size of a tangerine orange; otherwise nothing discovered. On washing out stomach a pint of yeasty offensive compound was removed. On March 3rd, 1892, pylorus excised, ends of stomach and duodenum closed, and gastro-enterostomy with Senn's plates and Lembert's sutures performed. The operation occupied two hours. He was sick at 6 P.M., 7 P.M., and 10 P.M., but never again. March 4th he appeared to be as well as before the operation, and was allowed nothing by the mouth until 7 P.M., when he had a little hot water. Nutrient enemata every two hours. March 5th he is in good condition. Pulse 80, temperature 98.4°. Allowed milk and soda water to drink. March 6th not so well. During the night he had a syncopal attack, with dyspnœa. (He says he had similar attacks at home.) He has taken a tumblerful of milk in divided portions without discomfort. In the afternoon, at 3.30, he died from heart failure.

Pathology.—The portion of stomach and duodenum removed—2½ inches in length—was an annular scirrhous carcinoma of the pylorus. On opening the abdomen all the wounds were found healthy and firm; no peritonitis; a little blood staining of intestine. There was no malignant disease left behind. The stomach was empty. The plates were loose, one lying in the stomach little changed; the other in the ileum, about 2 feet from the ileo-colic valve, in an advanced stage of digestion. The stomach is not dilated; its walls are thick and healthy.

CASE II.—T. S., male, aged 31, a dyspeptic man frequently before. Three months ago pain in stomach with vomiting after a full meal. Coffee-ground vomiting twelve days ago. Vomit has occasionally been in large quantity, and yeasty looking with a bad smell. For the last twelve days has not been in bed, for the pains prevents him from lying. He is a thin, nervous looking man. Cannot lie down for pain in back and stomach, and sits constantly stooping forward for ease. A large, fixed, hard, nodular tumour is felt filling up the whole epigastric region. There is pulsation in it and a *bruit*. Diagnosis, large malignant tumour of stomach involving pylorus. On November 17th, 1892, abdomen opened; tumour adherent to liver, involving pylorus; attached to parietal peritoneum at upper part, and several nodules of malignant growth found on parietal peritoneum. Gastro-enterostomy performed with Senn's plates. Some difficulty was experienced, for stomach was fixed and could not be drawn out of wound. Growth surrounded by a pad of omentum twisted and ring shaped, to prevent pressure on parietal peritoneum. The patient suffered from no shock, and on recovery from the chloroform found his old pain gone. On October 23rd, five days after operation, he sat up in a chair and felt well. On the eighth day he had a sudden syncopal attack after being shaved, and died in a few minutes. His general condition had been in no way disturbed by the operation; his temperature and pulse remaining normal throughout. At the time of his death he was able to eat and dispose of solid food with satisfaction, and was never sick after the operation.

Post-mortem Examination.—Nothing was found but the malignant growth as seen at operation. The union of the stomach and intestine was perfect; there was no peritonitis, except an amount sufficient to glue the omentum round the tumour. No trace of either plates. The stomach was not dilated, its walls were thick and healthy.

CASE III.—J. S., male, aged 53. Twelve years ago had a stomach illness, diagnosed as gastric ulcer. A similar illness has recurred every now and again. Three months ago had to take to bed, and has been bedfast since. Has lost several stones in weight (four, he thinks). Can take nothing but fluids, and even with them has very bad attacks of pain and vomiting. The patient looks as if he had been a ruddy, healthy man, but is much emaciated and weak. He feels hungry, but dare not eat. Dr. Smith, of Ryton, under whose care the patient was, had made a diagnosis of obstructed pylorus from cicatrisation of a gastric ulcer, with dilated stomach. On examination of the abdomen, percussion and succussion showed the stomach to be dilated. On washing it out, 3 pints of water were held without setting up expulsive contraction. Gastro-enterostomy was performed on May 16th, 1893, without Senn's plates, but with three rows of sutures. From the time of recovering from the chloroform, though feeling and looking well, and free from pain, he was frequently sick, and on the following day, May 17th, brought up a considerable quantity of bile and pancreatic secretion. Regurgitation of a similar fluid continued more or less constantly till his death on March 19th. His temperature never rose above 99°, and he had no pain nor distension.

Post-mortem Examination.—No trace of peritonitis. Stomach enormously distended with a greenish, stinking fluid. A scar, about the size of six-

pence, with hard base, which was seen at operation, about 1 inch from pylorus on duodenum. Commencement of descending part of duodenum bound down by a hard cicatricial mass. Duodenum kinked, hard, and contracted, so as to admit finger with difficulty. On opening this portion of intestine some fresh ulceration is seen. At two places perforation has only been prevented by peritoneal coats. Opening between stomach and jejunum of large size, and union perfect; distal end of jejunum points in same direction as pylorus. The stomach wall is very thin, and cavity of immense size.

Specimen iv, from a patient in whom gastro-enterostomy had been performed by Dr. Hume for cancerous stricture of pylorus five months and a-half before death. On examining this opening between stomach and jejunum it will be seen that the orifice has contracted, and only admits the little finger. The silk threads used to stitch peritoneum and mucous coats of stomach are still adherent to opening.

Case v.—T. A., aged 56. Six months ago pain commenced after food, and has continued since. Five months ago vomiting commenced; vomit never fermented, or more than a pint at a time. A grey-haired, anxious-looking man, with pinched features; feeble and asthmatic. On examination a tumour of irregular triangular shape was found in the abdomen, on a level with the umbilicus. It extended from 1 inch below the umbilicus to near costal arch vertically, and from middle line to outer edge of rectus transversely. It was tender on pressure, and descended almost 1 inch on deep inspiration, but felt considerably fixed. There was no evidence of dilatation of the stomach, which held a pint and a-half. The operation of gastro-enterostomy was performed on April 28th, 1892. A large malignant growth, involving the pylorus, was seen, and small nodules of excreta on the intestines and omentum were observed. The operation was followed by no constitutional disturbance, and much relief followed. The patient died of disseminated peritoneal cancer on July 29th, 1893, and I am indebted to Dr. Fielden, of Shildon, for this specimen. Examination shows an opening large enough to admit two finger tips between stomach and jejunum. The threads of silver used to stitch the mucous membrane and peritoneal wall of the stomach together are still attached. The stomach is not dilated, and its walls are healthy, except for a large pyloric growth which completely blocks the pyloric opening. The portion of transverse colon in contact with the growth has been invaded by it, and is strictured so as to admit with difficulty the first finger.

Remarks.

The points to which I wish to draw special attention are:

1. The thin and dilated condition of the stomach wall in Case iii and its association with regurgitation of the intestinal contents after operation. A case I saw in consultation with my brother, Dr. A. E. Morison, of Hartlepool, terminated in a similar manner. His patient was a woman with an enormously dilated stomach, who, in spite of medicinal and dietetic treatment and regular washing out, was steadily losing ground. We agreed that gastro-enterostomy gave her the only chance of recovery, and he performed it. Five days after operation she died in the same way as Case iii. *Post mortem* the operative result was found to be perfect, but the enormous stomach was distended with intestinal contents. The explanation which has been advanced to account for the occurrence of regurgitation of the intestinal contents in cases after gastro-enterostomy is that the intestine has been so attached to the stomach that the peristaltic movements in each do not correspond. Taking into consideration the irregular stomach movements, I think this is not likely to be the correct explanation. If a large opening is made between the stomach and jejunum there is every reason why the intestinal contents should regurgitate into the stomach unless this viscus offers some resistance. Observations made during the performance of abdominal section, lead me to believe that the stomach, when in a fairly healthy state, is tonically contracted; its walls lying firmly apposed when empty, and embracing their contents when full. In the dilated stomach no such obliteration of the cavity is brought about, and intestinal contents pass easily in and fill it up. It is worthy of note, as my specimens show, that in all cases which recovered the stomach has firm thick walls, and is not unduly enlarged.

2. The tendency to contraction of the new opening, as seen in Specimen iv: A large margin of room for contraction would appear to be necessary.

3. The risk of leaving the colon in close proximity to the pyloric growth, for, as Case v shows, invasion of the healthy intestine may follow this operation.

TREPHINING IN EPILEPSY IN DOUBTFUL CASES.

By W. ALEXANDER, M.D., F.R.C.S.,
Surgeon to the Royal Southern Hospital, Liverpool.

The immediate cause of epilepsy, in spite of all the observations made upon it and the multitude of theories spun regarding it, seems to remain as obscure at the present time as it was a generation back. Nearly all kinds of gross brain lesions may be accompanied by epilepsy, and research has hitherto failed to discover a constant, or in fact any, lesion in the so-called essential epilepsy.

Epilepsy is a disease in which the physical and the psychical seem to blend and to influence each other in a remarkable way. Dickens describes in the following words the baneful effect of mental excitement upon epileptics in the case of Mrs. Snagby's little drudge, "Guster," an epileptic: "See what happens," says Mr. Bucket, "another person mixed up in that business and no other, a person in a wretched state comes here to-night and is seen speaking to your maid servant, and between her and your maid servant there passes a paper that I would give a hundred pounds for, down. What do you do? You hide and you watch them, and you pounce upon that maid servant, knowing what she's subject to and what a little thing will bring 'em on, in that surprising manner and with that severity that, by the Lord, she goes off and keeps off, when a life may be hanging upon that girl's words."

Mental worry, depression, and all the relaxing feelings and passions tend to increase epileptic attacks, whilst hope, change, good news, brighter prospects, and the strong desire to accomplish some object prevent the convulsions. Very few fits occur on horseback, going downstairs, or in dangerous places where the mind is kept alert and the automatic functions are being watched by the higher centres.

At the home for epileptics at Maghull it is generally a month, and sometimes more, before we are able to ascertain the normal frequency of attacks owing to the effect of change and the improved surroundings, and were all the patients to stay only a month there, the effects of the home would seem marvellous to those uninitiated in the vagaries of the disease. Probably there are three conditions necessary to an epileptic attack: a sufficiently mobile brain, a weakness of inhibitory power, and a cause capable of liberating the energy stored up in the cells of the cortex. One or even two of these conditions may be normal, and then the others must be more abnormal to produce the convulsions.

We have exemplifications of these conditions in everyday life, and some of them have been already illustrated. That the exciting cause must be of a peculiar kind is proved not only by the fact that identical tumours, indentations of the skull, and degenerations, may or may not be accompanied by epilepsy, and in surgical operations and vivisection experiments, irritations of the cortex by the knife or needle, produce no muscular movement, but a very mild electrical current immediately causes the proper muscle to respond. We have, as I said at the outset, at the present time no idea of the actual cause of liberation of nerve energy in essential epilepsy. When we remove a cerebral tumour, we feel that we may not have removed the cause of the disease, that the tumour was probably only a *causa causarum*, and that causes brought into being by the tumour may exist when the primary cause is removed, or the tumour or other lesion may only have a coincidental relation to the fits, and the operation may either have no effects upon them, or may cure them in an unknown way that has no connection with the removal of the tumour.

This state of ignorance of the true nature of epilepsy, and of uncertainty as to its cause, makes the treatment of the disease irregular, irresolute, and unsatisfactory; and statistics are very unreliable and misleading, unless drawn up with great care, and unless the element of time is allowed sufficient scope to verify the cure.

To take the subject of our paper, "Trephining in Epilepsy," we find Dr. Billings[1] reporting 72 cases; 16 of these proved fatal, 41 are reported as cured, 4 unchanged, and the remainder (11) improved, but not entirely relieved. Dr. Briggs[2] mentions 92 American operations, of which 63 were cured, 13 ameliorated, 2 not changed, and 14 died. He quotes Walsham and *St. Bartholomew's Hospital Reports*, where 130 are summarised. Of these, 75 cases were completely cured, 18 improved, 7 unimproved or worse, and 30 died. In Dr. Briggs's own statistics, 25 were cured, 3 ameliorated, 1 unchanged, and 1 died.

In the above cases the fatalities are far above what they would be at the present time, but I am afraid the cures are also as

[1] Ranking's *Abstract of the Medical Sciences*, vol. xxxiv, p. 58.
[2] *Transactions of the American Surgical Association*, vol. ii, p. 121

far above the results of our operations now as are the deaths. We cannot say that nearly two-thirds of our cases of trephining are cured, much less 25 out of 30, as in Dr. Briggs's cases. I have no hesitation in saying that twelve months after inquiry would have told a different tale.

The results of operations generally will depend on the causes of the disease. Where psychical causes are in the ascendant an entirely irrelevant operation may produce good effects for a long time, but in these cases we must beware the recoil that sometimes occurs with such severity as seriously to endanger life. In some of these cases, however, a complete cure is effected by the improved condition of the nervous system that results after an operation through hopefulness, the fresh interest taken in life, and the strong belief that a cure has been effected. But even with the best, severe misfortunes may at any moment precipitate a relapse. Where the psychical causes are important, but not so prominent, improvement only is obtained. In other cases an irrelevant operation fails to produce any effect, the causes of the disease are too deep to be reached by any moral influence; the patient indeed being sometimes quite ignorant of the fact that he is an epileptic, and the attacks coming on as usual during and immediately after operation. The use of the trephine in epilepsy may depend upon speculation or on a definite diagnosis. Like abdominal surgery, it may be exploratory or operative. The speculative cases are those where medicine has failed, and where mental dulness, imbecility, paresis, or other grave symptoms are threatened. We then grasp at a scar, a depression of the skull, a painful spot, a doubtful aura, a hazy localisation of onset of attack as a clue, and as a relief from our helplessness, and remove a portion of the calvarium over the suspected area. This operation is a perfectly harmless one. I generally perform it by making two large trephine apertures at the extremities of the area to be removed. By means of a spatula-shaped instrument or blunt dissector the dura mater is separated from the calvarium round the apertures, then the area we intend to remove is marked out with a Hey's saw. It is only necessary to saw through the external table, when a strong pair of bone forceps readily completes the removal of the enclosed area of bone, the dura being separated as we proceed in our removal of bone.

During the operation the wound is kept well moistened with weak perchloride lotion (1 in 3,000), and the flap may be replaced without drainage, and with good hope that union by the first intention will take place. Bone may be replaced or not according to the principles on which the operation is conducted. By such an operation we can ascertain whether any cicatrix, adhesion, bony spicule, tumour of brain or of dura mater exists, or whether there is an excess or lack of intracranial fluid. We have removed the impenetrable bony barrier, and palpation and vision have now more power to enable us to form a diagnosis.

When we find nothing that would warrant us in going any further, we finish the operation, not without hope that benefit may accrue, and benefit is sometimes obtained to a very remarkable degree. But how? Well, that we generally do not know, but we guess at explanations. We may have removed a cicatrix, an adhesion—we have certainly performed an operation, we have abstracted a small quantity of blood, we have left a sore, we have diverted the patient's attention, we have relieved the pressure on the brain, we have increased the pressure on the brain, we have altered the diet of the patients, kept them under strict supervision, paid attention to the *prima via*, kept them at rest, free from excitement, and under conditions where their tempers, passions, and desires are restrained. Out of these and other explanations each reader takes his choice according as he is a physician, surgeon, enthusiast, cynic, scientist, or quack. The chief thing for us, however, is to get hold of the facts of these cases, but these are just some of the things there is no getting hold of; up to a certain date we hear of them, and afterwards a silence as profound as the grave is maintained. Let us see what has been the result in my own cases where more or less of the calvarium was removed, and nothing further was done, as these are the only ones we can individually be sure of, and even in our own cases the history after they have left hospital is difficult to obtain.

In 1889 I published two cases of epilepsy[3] where circles of bone had been removed, in one case for a supposed injury and in the other case for a fibro-fatty tumour that swelled and became distinctly more tense during the epileptic convulsions. In the first case a piece of the calvarium, 3 inches by 2, came away. After a few weeks' temporary improvement, we find four months after that no improvement had taken place and the man has not been heard of since.

In the second case a fatty and connective tissue mass was dissected off the temple leaving the calvarium rough beneath, a circle of bone was removed and the wound was closed as no further sign of disease or abnormality was discovered. A doubtful improvement took place, the fits being somewhat less frequent in number and said to be less frequent in severity, but nothing like a cure took place during the year or more that he was under observation.

In the following cases I removed a much larger piece of the calvarium over the suspected area of disease, and opened the dura, letting out more or less fluid.

Case I.—T. P., 21, farm labourer, was well until four years ago when he was said to have had a sunstroke, and in consequence to have fallen off a horse injuring the left side of his head and leaving a depressed scar. The fits came on soon after and were ushered in with general convulsions and ended in sleep. Sometimes seven or more fits occurred on one day, and the right side, and especially the right arm, seemed to be more affected than the rest of the body. Mania or a muttering stupor occasionally took the place of quiet sleep, and rarely the patient was violent and dangerous. Memory dull, thought slow, disposition indolent. The body was fairly nourished, medium height, weight 9 stone 2½ lbs. Specific gravity of urine 1025, acid, urates, and sometimes phosphates. On October 9th, 1888, an area of the calvarium, about three inches square, was removed at the depressed part. Although the scalp was much depressed it was doubtful if the bone beneath was much depressed. There appeared to have been periostitis and some erosion of bone with adhesion of skin to calvarium by cicatrical tissue rather than distinct depression. The middle meningeal artery ran up the centre of the exposed portion of the dura mater and was uninjured. Now observe the note on the 11th, two days after operation: "Feels better, has had no fits since operation, is clearer in his head, and memory seems better; answers questions much more quickly and more readily than before operation" the usual effect of all operations upon epileptics. On the 16th, he had a series of fits with prolonged states of unconsciousness, and the condition continued on the 17th, when he remained unconscious at one time for five hours. On the 20th, the status epilepticus had passed off. He seemed to understand questions put to him, slept well, could read some words, but power of attention seemed deficient. The improvement continued till November 3rd, when he became noisy, violent, and on the 6th he was removed to the workhouse hospital, where he recovered his normal condition in about ten days. From February till July this patient was in the home at Maghull. During February he had 29 attacks of *petit mal*, and 18 of *grand mal*, 13 of the latter being at night. In March, 24 severe attacks, and 26 light attacks; April, 10 severe, 28 light; May, 14 severe, 19 light; June, 22 severe and 10 light; and till July 17th, 5 severe and 18 light, when he was discharged. During all the time he was in the home he took borax. He was taken home by his friends, with directions to continue the treatment. His mental condition was much improved, the fits not having affected his mind for several months. Dr. Gorham, his medical attendant, looked him up for me a few months ago, and found that he had distinctly improved, was in fair health, and able to work on the farm.

Case II.—A. B., aged 25, admitted to Royal Southern Hospital May 4th, 1889. Was a steward for nine years and then joined the army; was a soldier for only eight weeks before he experienced his first fit. He ascribes his attacks to an accident which occurred to him in December, 1888, under the following curious and somewhat incredible circumstances: "He was walking along the street, when a stone struck him on the head and rendered him unconscious for perhaps a quarter of an hour; when he came to himself, he was sitting on a doorstep, and the scalp was cut through." The first fit occurred six weeks after. Has had four or five fits since, and lately they are coming more frequently, and are more severe. The day before admission he had two. Memory and sight failing, is losing weight, is nervous, suffers from jerks (*petit mal*). A scar existed on the left side of the scalp just above a point midway between the parietal eminence and the occipital protuberance. No note of state of fundus oculi. The scar is in about the middle of the region where we would expect the angular gyrus. On May 15th the scar was raised from the bone—under the line of the scar was a distinct ridge of bone—and the trephine circlet of bone that was removed split into two at this ridge on elevating it. The dura mater was adherent at that line, but elsewhere was smooth. The wound healed by the first intention, and the patient went out on June 17th, having had only one fit since the operation, namely, on May 28th. He had several attacks of *petit mal* during the same period. He has not been seen since.

Case III.—W. W., aged 20, fell off a wall when he was 7 years old, and received a wound of the right temple. He was taken to the hospital and had the wound stitched. Patient was ill for three months afterwards with convulsions, but after that he recovered and seemed to be well. When 16 years of age epileptic convulsions began, and he was taken to the hospital again, where he was trephined without effect. Some time after he found his way to the workhouse epileptic wards as a pale, thin, phthisical-looking youth, having severe epileptic attacks of the ordinary kind. On March 10th, 1889, he was sent to Maghull, having had 15 fits there for the remainder of that month. In April he had 6 fits; May, 2 fits; June, 2 fits; July, 10 fits; August, 2 fits, and up to September 16th none. During his stay at Maghull his physique had improved so much that his mother did not recognise him at her first visit, three months after his admission to that institution. He became very stupid by the middle of

[3] *On Epilepsy*, pp. 130 and 133.

the month, and the scar very red, and it was determined to trephine again and see if any irritating cause existed. A small spicule of bone was removed on September 18th, and as this may have been the irritant cause of the epileptic convulsions, the wound was closed without opening the dura mater. He had no fits till October 7th, when he had a very severe one, and another on October 18th. He was sent back to Maghull on October 20th, and during the remainder of that month he had 3 slight and 5 severe attacks; November, 1 slight, 11 severe; December, 4 severe; January, 2 severe; February, 1 severe; March, 5 severe; April, 13 severe; May, 14 severe; and, up to June 15th, 5 severe. The prodromal redness of the scar and the turgescence during an attack encouraged the idea that there was probably some cause of the disease just beneath. The wound was again examined, and the dura mater opened. A diffuse cystic condition of the dura beneath was found enclosing atrophied cerebral convolutions. The cysts were evacuated and drained by catgut drains. The wound healed well without any complications, and the patient was returned to Maghull on August 15th, where an improvement has resulted as far as the fits are concerned, but his mind has never recovered. He is absent, has completely lost his memory and all interest in his work, and looks pinched and vacant. He still eats well, but his food does not improve his nutrition. He has precursive attacks that are very curious. He is, perhaps, sitting still at his meal, in bed, at a concert, or working apparently quite contentedly, when he suddenly becomes restless and fidgety, moves about on his seat from side to side, or sways to and fro as if in two minds about going or remaining. He then rushes off, walking or running as if he were on a life and death errand, his countenance pale and most anxious, and makes desperate efforts to free himself from any attendant who tries to restrain him. In a few minutes, and, after a run of variable length, he comes to himself, resumes his work, and looks quite surprised when we ask why he ran away just now. He has no idea that he ran, and does not seem to know anything about it. These precursive attacks are recent phenomena, not being noticed until after the drainage operation. Probably degenerative processes are taking place in the right frontal lobes of the cerebra, which the operations did not tend in any degree to improve. The future of this case looks very dark. This was written at the beginning of 1893; now, in July of the same year, the report is much better. He has had no fits for about four months, works at odd jobs at Manor House, and takes much interest in his work; is bright and intelligent, and is very anxious to obtain a situation where he may contribute to the support of his mother. The following description of his condition after his last readmission was given me on July 29th, by the matron of the home, Miss Paley. Readmitted February 25th, 1893: "When readmitted looked heavy and depressed, pale face, eyes congested, memory bad; could remember faces of people he had known before, but not names, except in a few cases. Had forgotten his way about the Home. For the first two weeks or so he would stand about in any corner, looking down examining his hands or feet. When told to go to his work he would hurry off, quite willing to do anything, but without the remotest idea where he was going to, or where he had been told to go. Cleaning brasses was his daily work. If taken to the front door and told to clean the brass there, he would go on polishing away on one spot until someone pointed out to him that he had finished that part. He had to do this kind of work in three or four different parts of the house, but he had always to be taken from one part to the other, otherwise he would stop in one place all day. When he had been here a month or five weeks he began to show signs of improvement, looked quite bright and cheerful, took an active interest in everything that was going on, could talk about people whom he had met in the Home three years ago, and of things that happened when he was 10 years of age. Now takes great pride in all his work, and never has to be told to do it."

Case iv.—E. M., 30, of no occupation, has been an epileptic for thirteen years, the alleged cause of the attacks being exposure to the sun and prolonged excitement at a picnic party. This patient was transferred to me from Dr. Carter, who had tried purely medical treatment to the utmost, and under whose judicious treatment the attacks could only be kept in check by hypnotics. Even the bromide of potassium failed lately to give the usual amount of relief that it had formerly afforded to her. The case is described at some length by Dr. Carter in No. 22, p. 73, of the *Liverpool Medical Chirurgical Journal*. He does not there point out especially the nature of the attack, but from what I saw of the patient I looked upon her case as one of hystero-epilepsy, where the mental condition influenced the disease to a large extent, and just a case for an exploratory operation on the principles I have previously laid down. A slight drooping of the right eyelid and premonitory convulsive movements of the right foot guided us to the left hemisphere, but I am not sure that they were of much use, as, in the absence of all indications, one would naturally take the left brain for an exploration. On December 3rd, 1891, and after removal of the scalp, two 1-inch trephine holes were made about 3 inches apart, and a rhomboidal area mapped out by scratching lines through the outer table with Hey's saw, having the trephine holes at the extremities of the long axis of the rhomboid. The rhomboid lay over the position of the motor area of the cortex. A pair of strong bone forceps removed the thickened skullcap in hard ivory-like splinters. The dura mater was exposed, and as that membrane seemed healthy and no signs of any opacity or adhesion to the brain beneath appeared, the wound was thoroughly washed out and the scalp replaced. A hypodermic injection of brandy was given during the evening after patient went down to the wards, as the pulse was considered very weak. One-sixth of a grain of morphine relieved the pains and gave the patient a good night's sleep. Temperature, 99.2°. On December 7th, it is stated, the patient complained of pain in the head occasionally, slept well, had ptosis, and a newly-developed internal strabismus of right eye. December 11th. Dressed today, wound healed by first intention; no fits since operation. December 21st. No fits nor headache since operation. December 30th. Discharged so far well, under the care of Dr. Carter, who wished to observe the case for some time longer. When the patient went from under my care a deep hollow existed at the part of the skull where the bone had been removed. The base of the hollow was hard and firm, and did not show any distinct cerebral pulsations or tendency to bulge outwards. Since then she has had long intervals of relief, but always complains of headache. She had some attack just lately, but it is difficult to get any reliable information, as her surroundings do not seem satisfactory. There is no doubt she has benefited by the operation.

Case v.—J. L., 34, sailor, married, was admitted to the Royal Southern Hospital, December 7th, 1891. He was always a healthy man until the following accident occurred. Twelve months ago his vessel shipped a heavy sea, and the patient was carried by a wave along the ship's deck, striking his head against something which "brought him to" in nautical phraseology but did the very opposite in medical language, for he was unconscious for several days after, and was not able to work for the three remaining weeks of the voyage. Just four weeks after the attack, when in bed and after sexual intercourse, he had his first attack. He was then unconscious for about an hour; some days after he had another fit. The attacks are preceded by a visual and gastric aura; he thinks he sees a person approaching him, and afterwards he feels sick. Then he has vertigo, the head seeming to double between his legs, as if he was about to turn head over heels. After this insensibility sets in; attacks are on an average two per week. Once he was a fortnight without any. He is a robust, vigorous man, with sharp eyes, quick movements, brusque manner, and irritable temper. On inspection there is found a depressed cicatrix, beginning slightly to the left of the median line, 7 inches distant from the vertex, and running obliquely across the vertex to terminate about 10 inches from the occipital protuberance on the opposite side. The curved cicatrix was about 3 inches in length. The fracture is a gutter, and well marked by a depression all the way across. Memory not so good as formerly; remembers dates, and reads the "murder reports" especially. Temper irritable; does not write so well as formerly, and sometimes misses a letter of his name in writing; no headache except just after a fit. On December 9th, 1891, all the depressed area of bone was removed. The calvarium was thick and dense, and near the median line a projecting edge of it pressed firmly against the dura mater. All bone below the ordinary level was removed. The sinuses and dura beneath seemed healthy, and the dura did not seem abnormally adherent to the bone. The wound was dressed for the first time on December 14th, when it was found to be suppurating a little, but afterwards the wound healed without any trouble. The first attack occurred on January 3rd, and the patient went out on January 18th, having had two attacks in the interval. He came to hospital on February 29th, and the report is that his fits have recurred. On examining his head I found another small depression on the vertex, and much behind the one operated on, but whether this occupies any relation to the epileptic attacks it is impossible to say. As the operation is a simple one compared with the grave disease he suffers from I recommended removal of the depression also, but the patient had not the courage to submit to any further operation. We have not heard of him since.

Case vi.—R. R., aged 13, was trephined by me on January 3rd, 1892, for congenital epileptic convulsions. There were numerous daily attacks of *petit mal*, and more rare attacks of *grand mal* extending back to the period of infancy. He had nystagmus, slight stammering, and post-epileptic slowness of intellect, but he was bright and intelligent when he had sufficient free interval. An aura in his left thumb made me trephine over the right motor area, removing the calvarium 2½ by 2. The dura was opened, and brain explored by eye and needle. Nothing was found except a considerable amount of fluid. The bone was not replaced, and the wound healed without difficulty. The patient gradually improved. During March the fits left him, and he has been free with the exception of two doubtful attacks of *petit mal* since, an interval extending from March, 1892, to July 25th, 1893, when he was last seen. He is bright, active, and intelligent, and so far has been a success.

Case vii.—M. A., aged 15, was operated on by me on November 29th, 1892, for epilepsy coming on after an injury that caused a depressed fracture of the right side of the upper extremity of the parietal and adjacent occipital bone. The attacks were mixed, and began mostly on the right side, the same side as the lesion. The cicatrix was cut down upon, and the calvarium was imperfect at one spot. The membrane covering this was removed, the adjacent bone cut away, and the dura opened. A cystic condition was found beneath with atrophied convolutions and enlarged veins, one of which bled rather profusely when its walls gave way, the cyst was drained. The wound healed satisfactorily. On October 21st, 1893, the girl presented herself for inspection. The fits are much less frequent, and the mother says they are much lighter.

Case viii.—H., a Jewish (?) boy, aged 13, an imbecile epileptic for many years, had a bump on the top of his head, extending from the middle of the left parietal bone forwards to the left frontal bone and about 2 inches from the middle line. The attacks did not present any indications for localisation, and no history of its duration could be obtained. The attacks were numerous daily, mostly *petit mal*. The patient would go down on his knees, then become conscious and begin to look under the bed, his situation suggesting to him, no doubt, that he had got down there to look for something. In a moment he would get up confused, and with a laugh go on with his amusement as before. On the principles we have already enumerated, we, on June 15th, 1892, cut down and found first a thick fibrous layer, half an inch thick, covering the bone. The bone itself was half an inch thick, and the dura beneath was thickened. One square inch and a-half of this thick bone were removed. The attacks are diminishing month by month, being only one a day during the past month, and several days have passed without any attack. I look upon this case as very hopeful. October 21st, 1893, improvement maintained.

Case ix.—On February 2nd, 1893, C. O., a girl, aged 16, was trephined over the right motor area on account of numerous epileptic attacks that came on soon after a fall five years ago. The convulsions were observed on the left side of the face and hand, and a scar on the head defined the site for operation. Some excess of fluid was found, but the convolutions seemed natural and were not interfered with beyond a careful examination; the wound healed without anything calling for remark, and the child was afterwards sent to the Home at Maghull. On July 29th she seemed quite bright and intelligent in contrast to her previous depressed state. Her headaches, which were formerly constant, have entirely disappeared, and her fits have become much less frequent. In this case the home country life has no doubt contributed largely to the improvement. The brain does not bulge, and the cicatrix is quite firm and does not give any inconvenience. October 21st, 1893, still improving.

Case x.—On March 2nd, 1893, I operated on a young girl, named G.,

aged 11 years, a congenital imbecile epileptic, with a depressed area of bone over the left frontal and ascending parietal convolutions. The attacks were one-sided at first, and the symptoms pointed to the depressed area as the seat of the epileptic focus, but the information was never definite. About a year before the operation I had seen the case, and recommended elevation, but the parents did not make up their minds till the latter date, when the depression was distinctly less, but still considerable. An area of bone 2 inches by 2 inches was removed, the dura opened, and an excess of clear fluid found beneath. The convolutions looked healthy. The bone was not replaced, and the child recovered without any bad symptoms. On July 29th the child is much improved, is learning to spell, and has had fewer attacks since the operation. We assisted Nature in this case, and I believe had she been assisted long before the imbecile condition might have been warded off.

I could narrate several other cases, but I have mislaid the notes of some, and the others are too recent to be yet of value. The above are sufficient to show the results of these operations.

Concluding Remarks.

Reported as these cases are here reported by me, the results have not been very brilliant as far as the cure of the disease is concerned, but they are certainly encouraging, and will probably improve by time. In all there was an antecedent injury, a long or short period subsequently during which it may be said the disease was incubating, and finally, attacks becoming more frequent and severe up to the time of operation. What is it that develops during the period subsequent to the fall, the blow, or the injury? and what is it that can develop in a few days, or that may not appear for years, that can be held in abeyance by so many causes, and that eludes our search when aided by the most refined instruments that we possess? We cannot tell, but we know that it is something that requires developing, and our only chance is to prevent the development if possible by operating on all recent cases, elevating depressed fragments, embedded spicules, and thoroughly cleansing the wounds. Abnormality of skull, tumours on the scalp that become congested, painful areas, scars, etc., should be attended to early in the disease, before the brain has acquired the something that it cannot part from before the accidentally epileptic has become essentially epileptic. By trephining widely, and replanting fragments of bone, we can obtain a complete reformation of the original bone as good as before the accident. In one epileptic that I made a *post-mortem* examination on, trephining had been performed at the age of 5, but a spicule of bone had been left behind, and when death occurred at 18 years of age from phthisis, the spicule still existed as the cause of epilepsy. Strange to say, in this case the epilepsy, which seemed to be quite essential, was arrested for a time by good feeding, and small doses of bromide, and became much worse under starvation, prison fare, and such adverse circumstances.

We can imagine the brain labouring under the conditions of having too much room or too little, and this will mean diminished or increased quantity of cerebral fluid, serous or sanguineous. The dura mater that before operation was attached firmly to the dome-shaped roof may after operation and according to circumstances either bulge through the aperture in the skull or fall back by atmospheric pressure upon the brain. In the latter event, by shrinking it will assume the position of the string of a bow, instead of the arc of a bow, which was its original position, and thus permanently diminish the size of the cavity of the skull. The outward bulging of the fluid or brain is determined by the tense membrane and can never be very great if the dura has not been opened, whilst the depression may be very marked. When the dura is cut into a tendency to hernia is produced, as in the case of the boy (Case VI) lately operated on, where a bulging has taken place. In all the others a depression is found that neutralises, if it does not more than neutralise, the increased space allowed by the removal of the bone. If the dura mater is opened and weakened by being stitched together again just as the abdominal wall is weakened by abdominal section, then the outward pressure may have some influence in making more room for the contents of the cranial cavity, but if the dura mater is uninjured it is such a dense resisting membrane that it would require great force to push it beyond its dome shape. On the other hand, atmospheric pressure will tend immediately to push the dura mater inwards and to diminish the brain, but this influence is removed as time goes on by the skin and tissues forming a dense resisting membrane or by new bone being formed and the original condition of the calvarium restored.

The greatest chance of relief by trephining, without opening the dura mater, exists in those cases where an inequality of the skull may act as an irritating cause, and where the inequality is removed by the operation. Alteration of the condition of cerebral pressure may act in a few cases beneficially to a permanent extent, but it is nearly always temporary, and its permanent influence upon the disease depends on the improvement of the mind and brain during the operative treatment, and for a short time after, till the skull returns to its original condition.

In most other cases the operation has only moral or accidentally favourable effects. It is a perfectly safe operation, justifiable for exploration purposes, and should always be complete, so as to thoroughly explore the area likely to be affected.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

THYROID FEEDING IN SKIN DISEASES.

In view of the important results obtained by some observers by thyroid feeding in psoriasis and other dermatoses, the following brief notes of cases carefully observed as in-patients are of interest. The only case benefited was that of xeroderma; the results in three cases of psoriasis, and in one of eczema were quite negative.

Case I.—B. B., aged 13. Infiltrated eczema of face and backs of hands, dating from infancy. On August 24th 5 minims of brandy and Martin's thyroid extract was ordered to be taken daily, without any topical remedy, and was taken for nine days. The result was that the eczema was not so well. The fluid was continued for a time, and later changed to Burroughs and Wellcome's tabloids, two or three a day. The thyroid treatment was continued for two months, and pushed until symptoms of thyroidism were produced, but without any beneficial effect upon the disease.

Case II.—M. L., aged 35. General acute psoriasis guttata. She had suffered from outbreaks of the disease once or twice a year since the age of 16. On August 11th brandy and Martin's extract was ordered, 10 minims daily, afterwards increased to 15 minims; later, six tabloids a day were given. The rash was rapidly fading when treatment was begun, and this involution continued while under thyroid treatment; nothing approaching exfoliation, however, was seen. The case remained stationary for a time, and then a manifest increase of the spots took place on the chest. The thyroid treatment was continued till September 30th, when it was stopped, and the skin easily cleared of the disease by means of the usual remedies.

Case III.—M. G., aged 12. Widely distributed chronic guttata psoriasis. Thyroid treatment was given for a month, but no difference in the disease was noticeable.

Case IV.—T. W., aged 44. Xeroderma, with dry, silvery, fine desquamation. August 19th, thyroid extract (Brady and Martin), 10 minims daily. No other remedy. In twelve days the skin was softer and more scaly. On September 19th he left the hospital, showing very marked improvement. The skin was much less dry, and the scaliness was gone. Moreover, he asserts that he has perceptible perspiration while in bed.

The same treatment was adopted in three cases of psoriasis in out-patients (two chronic cases with indurated scales and one subacute), but in neither case did it lead to improvement. In one, T. R., the disease was in the erupting stage, and the thyroid treatment appeared to determine a large increase in the number of guttate lesions, which rapidly increased in size, became confluent and more scaly. The disorder under this treatment became much worse than before its adoption, when the patient was being treated with salicylic acid ointment.

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MALARIA ON SHIPBOARD.

In the BRITISH MEDICAL JOURNAL of October 21st, 1893, there was a letter from Surgeon Lieutenant-Colonel O. Baker directing attention to attacks of ague on board steamers. Having had some years' experience as a practitioner in India and tropical Africa, I am of opinion that perhaps my few general remarks may go far towards throwing light on these seemingly mysterious outbreaks. Malarial poison may be conveyed chiefly in three ways, namely: 1, owing to prevalence of malarial mists due to breezes blowing off the land; 2,

by being contained in the water shipped for drinking purposes; and 3, by shipping timber from malarial regions.

Examples of How these Causes Operate.—1, many of the ships' crews and passengers sailing for the first time to the West Coast of Africa are attacked while 60 miles or more from the coast; 2, even the purest drinking water may be tainted, as the rivers of these regions are choked with decaying vegetation, a hotbed of malarial infection; 3, malignant and fatal attacks of African remittent fever occurring on ships shipping timber from Sierra Leone many years ago quoted by Sir W. Aitken in his treatise on *Medicine*. The timber had probably been lying on the swampy banks of the rivers.

In addition to the above, many ships' surgeons have been without even a hypodermic syringe or a drug that could be absolutely relied on, such as the tabloid form of drugs which are permanent, for instance, those supplied by Burroughs and Wellcome. Many a fever case might be saved by hypodermic medication and rectal feeding, as the intense vomiting—a common and troublesome feature of these complaints—quite precludes the administration of food or medicines by the mouth.

Charles Forbes, M.D., C.M., D.P.H. Cantab.,
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CASE OF OPIUM POISONING.

G. T., aged 3 years, suffering from scarlet fever, was taken suddenly worse, and died in a comatose state. The medical attendant refused to give a certificate of death, with the result that I conducted a *post-mortem* examination, and found as follows:

The child was fairly well nourished; *post-mortem* lividity was well marked on the back and the extensor surfaces of the arms and legs; also on the outer helices of the ears. There were enlarged glands in the neck, especially on the right side; there was no discharge from the ears, and no external signs of bruising. All the organs of the body were healthy with the exception of the stomach, kidneys, and brain. The internal surface of the stomach was subacutely inflamed; this was especially marked at the summits of rugæ along the lesser curvature and in the neighbourhood of the pyloric end. The greater curvature and cardiac end were both free from any signs of inflammation. The stomach contained a quarter of an ounce of fluid (dark brown, grumous, and mucoid), which, on examination by the Otto Stass process, was found to contain traces of meconic acid to the extent of $\frac{1}{100}$ grain. No distinct trace of morphine could be obtained. The microscope showed partially digested milk, a small quantity of mucus, and blood. The kidneys and brain were slightly congested.

A round medicine bottle, capable of holding one ounce and a-half, was found in the bedroom at the time of death, and brought to me for analysis. The bottle contained three teaspoonfuls of a dark-brown, muddy-looking fluid, which on examination I found to contain morphine ($\frac{1}{4}$ grain) and meconic acid ($\frac{1}{10}$) grain, representing about 3 grains of opium, that is, 45 minims of laudanum. There was a trace of camphor and alcohol, whilst microscopically I found oil globes and a few fungus growths.

The evidence elicited at the inquest fully bore out the results obtained by analysis. A dirty bottle, containing a trace of camphorated oil, originally contained four teaspoonfuls of medicine, containing one drachm of laudanum. A teaspoonful of this mixture was given to a child suffering from scarlet fever (that is, 15 minims of laudanum were taken), with the result that death took place in two hours' time. The presence of meconic acid in the stomach and meconic acid and morphine in the bottle found in the bedroom, warranted me in concluding that the $\frac{1}{100}$ grain of meconic acid found represented $\frac{1}{4}$ grain of opium, that is, three or four drops of laudanum (ten drops in all having been administered). I assumed that opium contains 4 per cent. meconic acid.

Joseph Priestley, M.D., D.P.H.,
Medical Officer of Health, Leicester.

A Centenarian.—Polly Thompson, generally supposed to be the Queen's oldest subject, died on November 13th at the Camberwell workhouse in her 107th year.

REPORTS
ON
MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

HEREFORD GENERAL INFIRMARY.

DISLOCATION OF THE CUBOID BONE.

(By H. Gilbert Nicholson, M.R.C.S., House-Surgeon.)

As I believe the above dislocation is one of rare occurrence, the following notes of a case may be of some interest.

R. P., aged 44, an engine driver, on the night of November 1st was walking across the railway line at the station to his engine, and in the dark did not notice the "oil hole," where the engines are oiled, and stepped down into it, alighting on the sole of the left foot, and at the same time heard distinctly something "snap" in the foot. The following were the symptoms on admission at 1.30 A.M., November 2nd:—The left foot was rotated inwards and its natural arch increased, the toes pointed downwards and inwards. The cuboid bone was distinctly visible, and could be felt as a prominent projection on the outer side of the dorsum of the foot, lying apparently forwards on the bases of the fourth and fifth metatarsal bones. There was considerable effusion in the peroneal tendons around the external malleolus. Reduction was easily and readily accomplished by rotating the foot externally with one hand so as to bring it into a straight line, and pressing the bone backwards with the thumb of the other, when it slipped back into its place with a very audible snap, and, with the exception of the effusion above mentioned, the foot resumed its normal shape. Rest on a back splint was all the treatment required. The cause, alighting on the sole of the foot from a height, and the physical signs of the injury coincide closely with the description given by Erichsen.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

F. W. Pavy, M.D., F.R.S., in the Chair.

Tuesday, November 21st, 1893.

Encysted Hydrocele of the Round Ligament.

Mr. H. H. Clutton showed a thickwalled cyst he had removed from a woman, aged 40. When 18 years of age a "rupture" had been noticed, for which a truss was worn; this was subsequently left off. Seven days before admission the swelling in the groin increased. At the operation a closed cyst was removed from the inguinal region; the peritoneum projected down so as to overlap it. Along the back of the cyst was a ridge in which dissection showed a tortuous vessel and strands of tough fibrous tissue, probably representative of the round ligament. The cyst had presumably formed in the canal of Nuck or processus vaginalis of the peritoneum.

Mr. Wainwright exhibited a somewhat similar cyst that had been removed from the labium of a girl, aged 16. The swelling had been long noticed, but had lately increased. It was readily dissected away, and, from its position and the serous character of its contents, had probably arisen in the canal of Nuck.

Mr. C. B. Lockwood observed that at times in operating for hernia he had opened accessory sacs that probably had arisen in unobliterated remains of the processus vaginalis. Possibly the wearing of trusses led to such partial obliterations.

The Local Lesion of Scarlet Fever.

Dr. W. Dowson in this paper contended that in scarlet fever the primary lesion was in the tonsil, and that it was in its commencement and throughout a local disease; but other collateral topics were adverted to, and the statements of recognised writers freely quoted in support of the chief facts cited. He observed that scarlet fever was endemic in populous cities, but that a larger proportion of inhabitants escaped than was generally supposed, the incidence being,

as a rule, well under 5 per cent. With increasing age the susceptibility diminished. The tonsillitis was not a symptom merely, but the primary lesion, and with very few exceptions was present in all cases; in those cases where it had been asserted absent, the lesion was possibly in the pharyngeal tonsil or nose. The disease in all cases damaged the tonsil histologically, but not always symmetrically on the two sides. He thought the increased immunity as age advanced might be due to the damage sustained by the tonsils from other inflammatory conditions whereby a favourable spot for infection was no longer afforded. At any rate, histological changes in the tonsils were very common from different causes. Such cases of scarlet fever as presented only slight soreness of throat and slight rash he thought possibly arose from abrasions of the tonsil or other parts in healthy persons from the ingestion of food. As to the infectiousness of the epidermis, the suggestion made was that it was rendered infective by the breath of the patient himself, and not as part of the disease. He discussed the cases of scarlet fever affecting wounds, and occurring in the puerperal state. In these the sore throat was mostly absent; the wound might be infected primarily, or, secondarily, after the throat. If relapse occurred during the disease, the tonsils also became re-involved, and if the lesions of the tonsils were from the first severe, so were the general symptoms.

Dr. Caley remarked that many difficulties stood in the way of accepting the doctrine that the primary lesion was in the tonsil and was a local one. He did not think the epidermis could be infected as the author suggested, and it remained infective long after the throat affection had disappeared. He had seen many instances of scarlet fever where no disease of the throat was felt or seen, that is, when there had not been a question of the infection having possibly arisen in a wound. Nevertheless, in such cases immunity was conferred as surely as if the throat had been involved.

Dr. Goodall also adverted to the want of correspondence between the general symptoms and the degree to which the throat was affected.

Mr. S. G. Shattock observed in regard to the author's suggested explanation of the increased immunity as age advanced that it was a well-recognised fact that the young of animals generally were less susceptible to microbic diseases at least than adults. One well-known instance was the white rat: the young were susceptible to anthrax infection, the old were immune.

Streptococcus Pneumoniæ.

Dr. Kanthack showed cultures, etc., of this organism, obtained from the pus in a case of purulent cerebro-spinal meningitis. The cultures were from the first pure. A mouse inoculated died within twenty-four hours, and from the heart's blood a diplococcus was obtained. The intracranial pus showed the capsulated form of the organism. In jelly and on agar the macroscopic characters of cultures were much like those of streptococcus pyogenes, but were not identical; and the cocci were not under the circumstances capsulated, except on agar. Its virulence died out under culture. The organism was quite distinct from the streptococcus pyogenes.

Dr. Gaster had obtained the same coccus from cases of meningitis accompanying croupous pneumonia; the meningitis was not necessarily purulent. Of sixteen cases of acute pneumonia, he had known meningitis in three. In one case of purulent cerebro-spinal meningitis, he had found in the pus staphylococcus pyogenes aureus and albus; there were in this case suppurating lesions of certain parts of the subcutaneous tissue.

Card Specimens.

Dr. Rolleston: Vermiform Appendix with Two Dilatations.—Mr. H. H. Clutton: Epithelioma of Scar Tissue, involving the Tibia.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

Richard Favell, M.R.C.S., President, in the Chair.

Thursday, November 9th, 1893.

Honorary Member.

On the motion of Mr. W. F. Favell, J.P., seconded by Mr. Simeon Snell, Sir J. Crichton-Browne was unanimously elected an honorary member of the Society.

Cases.

Mr. Dale James showed (1) a boy, aged 10, suffering from Severe Kerion, with two Patches of Keloid on the Site of the Scar of a Burn; (2) a baby, 10 days old, with a Large Fluctuating Cervical Cyst; aspiration with a fine needle procured arterial blood; (3) a baby, one week old, showing Deformity of both Knees, apparently produced by partial dislocation of the head of the tibia forwards.—Mr. Pye-Smith showed (1) a case of Paralysis of the Inferior Rectus of the Right Eye, which appeared to depend on the muscle having been torn at its insertion by a button-hook; readjustment was suggested as the rational treatment; (2) a woman, aged 30, with Ophthalmoplegia Externa affecting the Right Eye. No history of syphilis. After a month's treatment by mercury and iodides the ptosis partly disappeared and the external rectus recovered.

Specimens, etc.

Dr. Arthur Hall showed some Brain Diagrams on slates made by Danielsson and Co. at the suggestion of Dr. Whitwell; also Microscopic Specimens of Lardaceous Kidney disintegrated by Hydrochloric Acid.—Dr. Sweeten showed (for Dr. Clapham) a Brain with a Patch of Softening in the Left Cortex and a Recent Embolus in a Cortical Branch of the Right Middle Cerebral Artery; Loose Vegetations on the Aortic Valves; Small Kidneys with Adherent Capsules and Wasting of Cortical Substance, the result of Chronic Plumbism; Carcinoma of Stomach, with Secondary Deposits on the Liver—all from the same patient.—Mr. Pye-Smith showed a Human Ovum two months old.—Dr. Knox showed Ruptured Liver and Kidney caused by a fall off a scaffold.—Mr. Cross showed the Bowel from a case of Typhoid with Severe Hæmorrhage, on which the ulcers were most numerous in the ascending colon; also Fibroid Lungs from a Grinder.—Mr. Dale James showed a Drawing of an Eruption occurring after Vaccination in a previously healthy child. Three weeks after vaccination from the calf a few sharply acuminated pink papules appeared on the vaccinated arm and on the face, and were followed by others during six months. The course of the papules was curious: in about three days they developed into oval, tough, semitranslucent vesicles exactly like the pupæ of ants; these existed for a week, eventually shrivelling up into filiform warty patches, which fell away in about a week, and left dry, rough, reddish areas much more extensive than the original ones.

Paper.

Mr. Simeon Snell read a paper entitled "Doctors as Men of Letters."

BIRMINGHAM AND MIDLAND COUNTIES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

Robert Saundby, M.D., F.R.C.P., in the Chair.

Thursday, November 19th, 1893.

Cases.

Dr. Leslie Phillips presented a woman, aged 53, with Lupus Erythematosus occupying the classical bat's-wing shaped area on the face. The point of interest lay in the history of constantly recurring attacks, pointing to circulatory defect, and of a syncopal nature to which the patient had been subject from childhood, and to which was attributed some etiological significance. No manifest heart disease was discoverable, but the rapidity of action was liable to variation within wide limits. Dr. Phillips also presented a case for diagnosis. In the beard region of a man, aged 56, there had existed for a year a dry deliberately Spreading Eruption, with raised and rounded, but not translucent, edge. In the centre were some indications of atrophic scarring, and the lower lip was being invaded. It had never ulcerated or been pustular, but was finely desquamative. There was not much alopecia and no tricophyton elements were detected. It was conjectured that it possibly might be a syphilide, although history, admitted or inferential, was entirely absent. The diagnosis appeared to lie between tinea, rodent, and syphilis.—Mr. Haslam showed a man, aged 34, whose Clavicle he had Removed twelve months before for Sarcoma. The patient was able to do heavy manual work without any difficulty, and the loss of the bone

had not caused any appreciable deformity.—Mr. Jordan Lloyd showed a Cystic Kidney which he had removed successfully from a man, aged 35, by lumbar nephrectomy. The man had made a perfect recovery, and was now better than he had been since the original accident.—Mr. Morrison showed a man, aged 31, from whom he had removed a large Vesical Calculus by suprapubic cystotomy. The stone (which was shown) weighed on removal exactly seven ounces avoirdupois, and measured seven and a-half inches in circumference. It was spheroidal in shape, with a rough, tuberculated surface, scrapings of which yielded, on analysis, uric acid and oxalate of lime. The patient made a safe and rapid recovery, leaving the Queen's Hospital on the thirty-sixth day, with the suprapubic wound closed, and the urinary functions restored to the normal condition.

Instruments.

Mr. Lloyd showed a set of Self-retaining Retractors, or Wound Hooks (made for him by Messrs. Down Brothers). The instrument was to dispense with the hands of assistants.—Dr. E. N. Nason showed a Hypodermic Syringe of his own invention, consisting of an indiarubber force ball and a glass barrel, bent at a right angle, to which is adjusted the needle. The advantages claimed for it were that the parts with which the solution came in contact could be boiled or otherwise made aseptic; that each part was replaceable separately; and that the syringe could be put away quite dry.

Paper.

Mr. Lawson Tait read a paper entitled "An Analysis of the Evidence submitted as the Basis of Criminal Charges of Assault (under the Criminal Law Amendment Act) in Seventy Consecutive Cases."

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

W. Hunter, M.D., President, in the Chair.

Wednesday, November 15th, 1893.

The Gallop Rhythm in Cardiac Disease.

Dr. Handford read this paper. Having defined the scope of the subject as including those cases in which three distinct heart sounds could be heard instead of two, he proceeded to discuss the causation of reduplicated first or second sound. He gave reasons for doubting the adequacy of accepted explanations of this phenomenon. When the extra sound was pericardial, its significance was thought to be practically *nil*. A doubled second sound was important as a help to diagnosis of mitral obstruction. An interpolated first sound might be of great prognostic import, especially when all three sounds were equidistant in time and of equal intensity.

The President and Dr. W. B. Ransom discussed the subject; and Dr. Handford replied.

Case.

Dr. Elder showed a woman, aged 35, upon whom he had successfully operated for Left-sided Pyosalpinx, amounting to 15 ounces. The sac was opened end drained, but could not be removed on account of adhesions. The patient had recently had an attack of typhoid fever, and, presumably, perforation of intestine.

Specimens were shown by Dr. Elder and Dr. Michie.

REVIEWS.

The Diseases of the Male Organs of Generation. By W. H. A. Jacobson, M.Ch.Oxon., etc. London: J. and A. Churchill. 1893. (Demy 8vo, pp. 766, 88 figures, 22s.)

This work is the outcome of much labour and of a wide experience. Since Mr. Jacobson re-edited Sir George Humphry's article upon this subject for Holmes's *System of Surgery* his attention has been specially drawn to it. The time has arrived when such a work is welcome. Much has been learnt since the last edition of Curling's admirable memoir. New knowledge was waiting to be focussed, and Mr. Jacobson has performed this task in a manner worthy of his high reputation. Further, he has added much from his own ripe experience.

The work is divided into five parts: Diseases of the testicle, diseases of the cord, diseases of the scrotum, diseases of the vesiculæ seminales, and lastly those of the penis. We note that the prostate has been omitted, which we regret, although the excuse given in the preface is a valid one. We need hardly say that in each of the above sections each subject has the most minute and painstaking care bestowed upon it. For instance, under diseases of the testis are included the development and transition of the testes, congenital abnormalities and defects of the testicle and its annexa, also hydrocele, hæmatocele, inflammatory affections, tuberculous disease, new growths, and certain functional disorders a proper knowledge of which is of great importance. This last is a topic which is hard to handle in a manner calculated to win the approval of everyone. However, Mr. Jacobson has spoken clearly with high-minded conviction and sincerity, and if precept can succeed he will have advanced the cause of virtue.

There are many points upon which we naturally seek for the author's guidance and opinions. As regards the treatment of hydrocele, we note with approval that in cases which have resisted other methods he is in favour of partial excision of the sac. Everyone who has conscientiously watched the results of the other plans of treatment must have many failures to chronicle. Another point upon which we seek for guidance is the treatment of tuberculous testis. Ought the diseased organ to be excised as soon as the diagnosis is certain, or should resource be had to palliative or medical measures? Mr. Jacobson has very little faith in the latter. He thinks that the chances of tuberculous mischief becoming encapsuled have been greatly exaggerated, and that if the hope of this is held out to the patient, it will end in disappointment, and in the loss of precious time. The disease spreads to the prostate and vesiculæ seminales and other organs. However, we are glad to find that castration is not the only alternative. Opening and scraping out the abscess and tuberculous material is strongly advocated. Professor Verneuil's treatment by the actual cautery is mentioned, but not approved. Castration is a last resource, and not to be done as a mere preventive measure. The *pros* and *cons* of the important subject are impartially given, so that one—whether he agrees with the author or not—has the materials for forming his own judgment. This praiseworthy feature is prominent throughout the whole work.

The account of the varieties of tumours of the testis is clear and good, but we miss representations of their histological structure. We are aware that variations are commonly met with, and that, therefore, typical examples are difficult to choose, but, nevertheless, some good drawings would have been very helpful. As regards the actual occurrence of true scirrhus of the testis, there is, if we remember rightly, a specimen in St. Bartholomew's Hospital Museum. This is probably the only one in London, and, therefore, worthy of a place in Mr. Jacobson's work.

That very common complaint, varicocele, has much space given to it. This affection seems to derive much of its importance from the rigid manner in which candidates for the public services are rejected for the slightest degree of it. Indeed, it is often difficult to find the varicocele which has led to the rejection of an otherwise suitable candidate. We have often wondered why this was so, nor are we yet clear upon this point. That some varicoceles require an operation is certain, but it is also certain that many are done merely to satisfy a craving for an ideal perfection. A record, by a dispassionate observer, of the accidents and sequelæ met with after operations for the cure of varicocele would be interesting reading, and would show that the proceeding is far from being so trivial as some would have us suppose. No one after reading the account given in this work will look upon varicocele operations as trivial proceedings, even if they are so inexperienced as to take this view of any of the operations of surgery.

That very important subject, epithelioma of the penis, receives adequate treatment at Mr. Jacobson's hands. Great stress is, with justice, laid upon the precancerous stage. If this were only recognised, both in the case of the tongue and in that of the penis, operating surgeons would less often be confronted with disease beyond the reach of certain cure. It is still too much the habit to procrastinate and waste golden

hours in treatment with inefficient caustics. We need hardly say that the various operations for the removal of growths of this organ are adequately discussed and illustrated, as is the rest of the volume, with excellent figures. It should be added that the printing and general appearance of the volume are admirable, and that reference is made easy by two excellent indices, one of subjects, the other of authors.

From what has been said it will be evident that Mr. Jacobson's work is one of high merit. All who wish to know the subject will find a place for it upon their shelves. Those who use it will have a safe and sure guide. The author gives the views of others with impartial fairness, and states his own with perfect candour. Indeed, he betrays a chivalrous eagerness to do the fullest justice to the labours of others. These are valuable qualities in an author, and inasmuch as they are here combined with a clear and interesting literary style, they have led to the production of a standard work.

The Insurance File. London: W. J. West. (Long Cr. 4to, pp. 237, 1s., cloth boards, 2s.)

By the Act of 1870 all life assurance associations were compelled to publish their accounts in a shape which enables experts at least to form a tolerably correct opinion of their financial condition. It was soon seen, however, that these accounts were too voluminous for the purpose of easy comparison, and to obviate this difficulty many summaries of these have been issued, some very good but in many cases showing a very distinct bias in favour of certain offices, and *vice versâ*.

The *Insurance File* is at least free from any suspicion of this kind, for in it are found the accounts themselves in *facsimile*, photographically reduced, and anybody with a copy of this useful little book can see for himself all the facts published in the accounts of any life office doing business in the United Kingdom. These *facsimile* accounts fill the first 210 pages of the book, and they are followed by an excellent summary, by which an easy comparison can be made between the offices. Every item relating to income, outgo, liabilities, and assets is scheduled in columns, and separate statements are made of the figures relating to ordinary and industrial companies.

Perhaps the portion of the work which will be most generally useful is contained in the last five pages. Under the heading "Salient Features of Life and other Insurance Offices," a quantity of valuable information is given. The difference between a mutual and a proprietary office is clearly explained, and some useful hints are given upon free travel and residence, fixed surrender values, lapsed policies, bonus options, etc., making it clear that such matters are not only of importance in themselves, but have a much greater importance to some classes of assurers than to others.

The *Insurance File* is an excellent book of reference for anyone interested in life assurance matter.

A Handbook of Local Therapeutics. Edited by Harrison Allen, M.D. London: H. K. Lewis. 1893. (Demy 8vo, pp. 505, 14s. nett.)

It is claimed that in this book all substances which have ever been used for local medication are described, each appearing in alphabetical order; consequently the first is acacia and the last is zinci tannas. Those, the chief use of which is surgical, are described by Dr. Richard H. Harte; those employed for diseases of the skin by Dr. Arthur van Harlingen; those supposed to benefit diseases of the ear and air passages by Dr. Harrison Allen; and those used for diseases of the eye by Dr. George C. Harlan. Thus it is seen that the work is entirely American, and the *United States Pharmacopœia* forms the basis of the book, which will consequently be more useful to Americans than to Englishmen. The account of each individual drug consists first of a description of it, and then of a sketch of its local employment. actual formulæ being given wherever possible. It is clearly impossible, as several hundred drugs are described, that we can review each, and therefore we must content ourselves with saying that as a whole the descriptions are excellent. Such a work as this is of value as a book of reference. For our own part we must confess to a dislike of books of this sort. To take an example, if the reader wishes to find out how to treat diphtheria, he looks up the word in an index of diseases, and finds himself referred to fifty-nine different drugs; and in the case of chronic laryngitis forty drugs are mentioned. Now this is simply bewildering, and gives the unfortunate reader no idea how rationally to treat a case of diphtheria or chronic laryngitis.

The book is well got up, and there is a short introduction on the local application of drugs.

Physiology of Sport. By George Kolb, M.D. Second edition, enlarged and revised. From the German. London: Krohne and Sesemann. 1893. (Crown 8vo, pp. 184, 124 illustrations. 5s.)

This book discusses the physiological condition of those in the height of training for athletic purposes. It takes boating as its main subject; running, dancing, swimming, etc., are considered at shorter length. It does not deal with the influence of various sports when taken simply as healthful relaxations or constitutional exercises, but considers each when pushed to the maximum, its avowed object being to prove that such excess of work is not harmful, as recent German writers have stated, but beneficial. As an enthusiastic sportsman and a medical man, Dr. Kolb is well qualified to speak with authority on the question, and he has no difficulty in proving the superior physique possessed by athletes; his words of warning on the use of alkaloids and the danger of "overtraining" are also useful.

The book abounds with abundance of information. The use of the graphic method, as evidenced by the numerous tracings, sphygmographic and otherwise, has been followed throughout wherever possible, and the author has shown considerable ingenuity in applying it to oarsmen during the progress of, as well as after, races. The numerous data in reference to celebrated athletes will prove of interest to the two classes to whom the book is addressed—the class of physiologists on the one hand, and of sportsmen on the other. We, however, doubt whether the book will be wholly appreciated by either class. The physiologist will feel that the difficulties of investigating the condition of a number of athletes, who could have felt very little scientific enthusiasm in most cases, have been too great to make the work altogether trustworthy. This is especially to be noted in the chapter on the urine. There is a high percentage of urea in that excretion, but without analyses of the food this fact becomes valueless. On the other hand, the non-physiological sportsman will find considerable difficulty in understanding the terms used; for the very technical expressions like dicrotism, emphysema, and others are used without any explanation of their meaning.

Without at all wishing to depreciate Dr. Kolb's efforts in a most praiseworthy direction, the chief fault appears to be what is so often to be noted in German work—namely, a capacity of dealing at great length with details, without the power of digesting them and framing general conclusions. The English translation suffers from having been made by Germans; the long sentences, the German idioms and peculiarities of German diction are reproduced with such faithful accuracy that it is often a difficult matter for an Englishman to make any sense of what the author is talking about.

The Health Resorts of the Canary Islands in their Climatological and Medical Aspects. By J. Cleasby Taylor, M.D. London: J. and A. Churchill. 1893. (Demy 8vo, pp. 94. 3s. 6d.)

The increasing popularity of the Canary Islands as winter health resorts renders a work such as this of great value to the English practitioner who wishes to inform himself of the climatic advantages of those remarkable islands. After some brief observations on the history and geographical and physical features of these islands, Dr. Taylor gives us a most careful collection of meteorological observations recorded mainly in Las Palmas, the capital of Grand Canary. He devotes the next section to the consideration of the distinctive characters of the localities suitable for health resorts. Of La Palma, one of the westernmost of these islands, and its

chief town, Santa Cruz, he speaks with some reserve, but we should gather from his statements that it has far too large a winter rainfall and too many rainy days to make it very suitable for a winter station for cases of chest diseases.

In the island of Teneriffe, besides Orotava, now so well known as a winter resort, and Santa Cruz, its capital and port, Dr. Taylor calls attention to the climatic advantages of Guimar on the eastern slope. This is situated about three miles from the sea and 1,000 feet above it, and is said to have "more sunshine and less rain than any other place:" but at present there appears to be very little accommodation for visitors.

Besides Puerto Orotava, on the coast, and Villa Orotava four miles from the sea and 1,300 feet above it, there is another resort on the northern side of Teneriffe referred to by Dr. Taylor—namely, Icod; this is "on the direct slope of the peak, which is here visible from head to foot." It is to a great extent free from the influence of the "parasol" of clouds which hangs over Orotava. Its climate is stated to be better than that of Villa Orotava, but it is somewhat difficult of access owing to the absence of roads. Dr. Taylor speaks of several villages on this southern slope of the Peak, "the best districts in the whole group," as possessing sheltered dry climates, but at present unsuitable as health resorts on account of their inaccessibility. He also speaks highly of Monte in Grand Canary, six miles from Las Palmas, and 1,000 feet above the sea. In Section 5 the author dwells on the advantages the Canaries offer as winter quarters for invalids; he points to the dryness and warmth of the climate and to the accessibility of the islands, and he enumerates the morbid conditions in which he considers these resorts are specially applicable. There is much other interesting matter relating to these islands in this carefully prepared monograph.

THE ART OF FIGURE CULTURE. By ANNA LEFFLER-ARNIM. London: Metropolitan Printing Works. 1893. (Foolscap 4to, pp. 62, 27 illustrations, 6d.)

FEMALE dress has always been a favourite target for the shafts of the critic. The corset is a specially favoured theme for the satirist. It is manifestly objectionable in many senses, and its existence originated in vanity and is perpetuated by custom. In early youth the waist is slender; that explains the chief motive for the corset. On the other hand, moderate slenderness of the female waist in the prime of life is essential to perfection of figure, and that perfection is impossible without good health. The maintenance of good health depends on exercise. The development of the muscles which support the upper part of the trunk must be ensured by methodical exercise.

Miss ANNA LEFFLER-ARNIM, in the work before us, condemns the corset and advocates systematic gymnastics. She holds that a woman should always be encouraged to look her best, without being charged with vanity, but considerations for appearance should ever, she adds, be determined and modified by the claims due to health. The postures to be assumed in performing the exercises are represented by drawings. The first principle laid down is care about the initial position taken up at the commencement of each exercise. By the second—very rightly—the learner is commanded never to carry an exercise further than can be done with ease and comfort. Among the great disadvantages in local exercise of a limb is the tendency of muscles to become rapidly fatigued. This involves either distinct tremors, which may continue for some time, or, in any case, exhaustion of the muscles, defeating the aim of the exercise. On the same principle, the learner is forbidden to practise two exercises consecutively for the same part of the body.

Miss Leffler-Arnim's work is certainly amusing, and contains much matter deserving reflection. It is based on Ling, so that a minute description of the positions recommended by the authoress would be tedious and unnecessary, so well is the Swedish system known. Every woman, Miss Leffler-Arnim maintains, possesses the natural elements of a waist, which may be brought to a high state of perfection by using the correct methods of cultivation. By the daily use of a moderate amount of systematic exercises a well-proportioned waist may be secured and retained. The authoress's idea of proportion is a circumferential difference of ten inches between the waist and the bust.

We must join with the authoress in condemning stays; we may question how far systematic local exercise, in contradistinction to the general exercise of the muscles involved in lawn tennis and riding, is beneficial, but we are ready to admit that gymnastics of this kind are excellent as physical and moral discipline.

NOTES ON BOOKS.

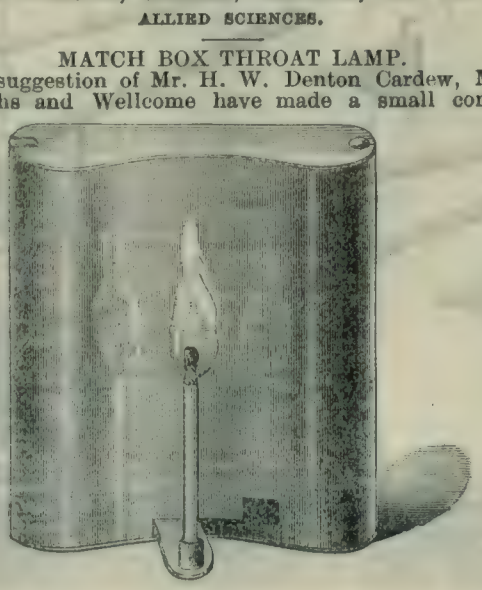
Guy's Hospital Reports. Vol. xlix. Edited by W. HALE WHITE, M.D., and W. H. A. JACOBSON, M.A., M.Ch. (J. and A. Churchill. 1893. Demy 8vo, pp. 630, 10s. 6d.)—The first article in this volume is an essay on the life and work of John Hilton, by Mr. W. H. A. Jacobson, who thus repairs an omission in earlier volumes. It is followed by a biographical sketch of Mr. Edward Cock, by Mr. Clement Lucas. Both articles are illustrated by photographs, and both are well worth reading, giving as they do excellent accounts of the lives and characters of two men who filled a large place in the surgical world of their day; indeed, it may be said of Hilton that the teachings in his work on *Rest and Pain* will remain a possession of surgery as long as surgery exists. Of the many excellent clinical papers in the volume it would be too long to speak in detail, but we may mention as articles which strike us as having a particularly appropriate place in the reports of a hospital the paper by Mr. Howse and Dr. G. N. Pitt on the Results of 100 Cases of Excision of the Knee, and that by Mr. G. Bellingham Smith and Mr. Herbert E. Durham on Glycosuria and Surgery. There is a thoughtful analytical paper on the Accidents of Anæsthesia by Mr. George Rowell, and a valuable discussion by Dr. Theodore Fisher on Peritoneal Sanguineous Cysts and their Relation to Cysts of the Pancreas. Dr. Hale White contributes a paper on Ascites, Mr. Golding Bird a Retrospect in Urethral Surgery, Dr. Frederick Taylor a Study of Some Cases of Malignant Disease of the Chest and Abdomen, Mr. Tubby a note on Regeneration of Fibrous Tissue, and Dr. Thomas Stevenson a report of a Case of Homicidal Strangulation. The volume also includes a list of specimens added to the Pathological Museum during the year 1892, by Mr. Lauriston E. Shaw.

REPORTS AND ANALYSES AND DESCRIPTIONS OF NEW INVENTIONS

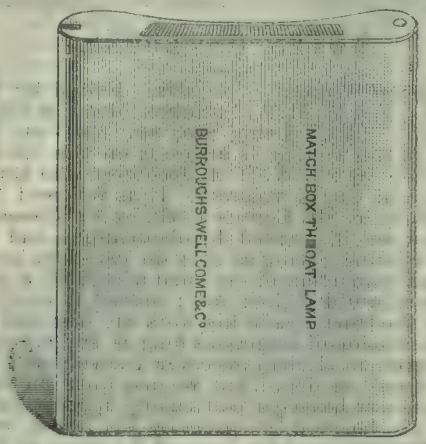
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MATCH BOX THROAT LAMP.

AT the suggestion of Mr. H. W. Denton Cardew, Messrs. Burroughs and Wellcome have made a small combined



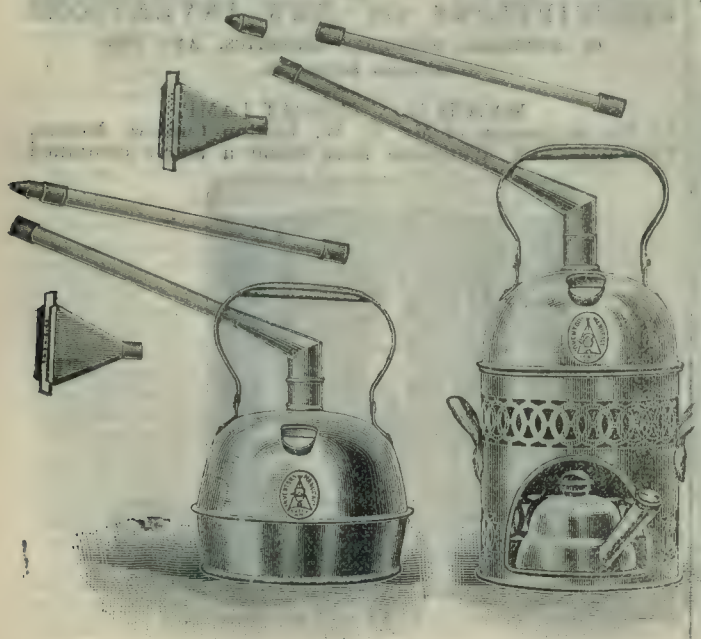
match box and throat lamp, in which an ingenious idea is very well embodied. The box, which is made of white metal, easily burnished, is of moderate size, and generally flat in form. One side, however, is concave, and acts as a condensing mirror. The bottom of the box can be turned outward to form a handle, and at the same time a diminutive candle holder can be turned round in front of the polished surface. This candle holder is intended to hold an ordinary



wax match, and the amount of illumination obtained from the match in this position is really surprising. We have found it quite possible to make an examination of the mouth, tongue, or pharynx with the light, and the apparatus will doubtless be found extremely convenient during the dark days which are now upon us. The box holds a good supply of matches. The price of the apparatus is 2s.

BRONCHITIS KETTLES.

Messrs. James Allen and Son, 21 and 23, Marylebone Lane, Oxford Street, W., who are well-known manufacturers of bronchitis kettles, have sent us two forms which have been improved in certain respects. The one form is designed to be heated over a fire, and the other is provided with a stand and lamp to be placed at the bedside. The new pattern in either case is more portable, and likely to be found more convenient in use. The handles are made to fold down, and the kettle with stand and lamp can, in the improved pattern, be removed for the purpose of refilling without removing the whole apparatus. Each kettle spout is jointed and supplied with two end fittings, the one a draught jet and the other a spreader. The spreader is fitted with a perforated plate in which wadding can be placed to receive a medicated solution. The general form of the kettles can be seen in the accompanying illustrations.



UTERINE CURETTE.

Dr. Robert Bell, of Glasgow, writes that as endometritis always results in a hypertrophied condition of the lining membrane of the uterine canal, this sometimes, and not infrequently, developing into a fungoid or villous condition. It is therefore of the greatest importance to adopt measures which shall enable one to reach the comparatively healthy structure of the lining membrane. Doubtless, this could be accomplished by a systematic use of caustic agents, but a much more expeditious and safer procedure is to employ the curette, but as the uterine walls are frequently in a very softened condition, in consequence of the disease which has been present for such a lengthened period, the spoon curette, which has been so long in use, and which has on many occasions produced most disastrous effects, has in his practice during the past ten years been completely superseded by what some of his London friends have designated "the dredge curette," an idea of which will be obtained by referring to the accompanying woodcut. It is made in six different sizes, commencing with that of a No. 12 catheter, so that it is applicable to the various conditions which are met with in gynæcological practice. The curette is practically composed of four rods of steel, each of which has an edge which acts as a rime, this edge being on the right side of the rod, so that when it is turned from right to left it scrapes off the unhealthy tissue, which falls into the cage-like structure, and thus is withdrawn. By means of this curette the whole surface of the uterine canal can be attacked by one revolution. The mode of employing the curette is to commence with the small size, and introduce successively the larger sizes, until the operator is satisfied that all the redundant tissue has been removed; afterwards an application of iodised phenol is made to the whole extent of the canal, and this may be repeated once or twice a week, as the case may require.



This method of treating endometritis requires to be continued for a much shorter period than otherwise would be necessary were the curette not employed in the first instance.

Dr. Bell has frequently been requested by his medical friends, both in this country and in America, to publish an account of this instrument, and this is his excuse for bringing it before the profession at large. The instrument is manufactured by Messrs. Krohne and Sesemann, 7 Duke Street, Manchester Square.

DOMEN BELT CORSET.

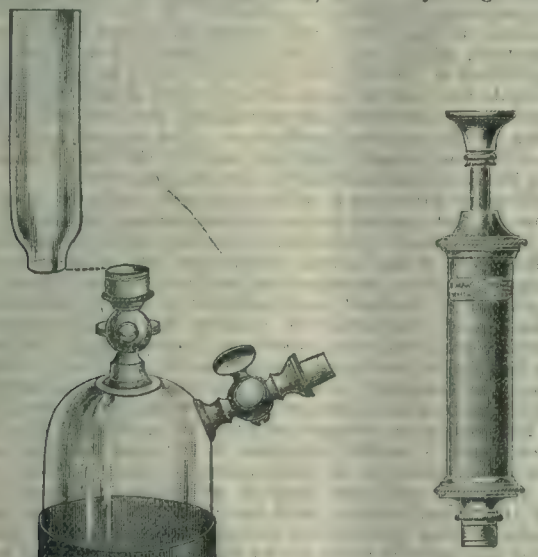
We have received a sample of this belt corset. It is a combination of a corset with a belt, and thus has the advantages of each without the inconvenience entailed when the separate articles are worn. It is claimed that it prevents the down pressure on the internal organs which even moderately tight lacing involves; while it gives efficient support both to the spine and to the abdomen. The belt is of firm construction in front, but has elastic sides over the hips, which provide elasticity and ensure adaptation to the figure.



The death is reported in his 83rd year of Jonathan Elmes, M.B., T.C.D., of Limerick.

THE TREATMENT OF RINGWORM.

Dr. Phin. S. Abraham, of Henrietta Street, writes with reference to Dr. Henry Alston's note on this subject in the British Medical Journal of October 14th, that in July last Messrs. Maw, Son, and Thompson constructed for him an apparatus on the lines suggested, which he believes will greatly promote the penetration of parasiticides into the hair follicles and the impregnation of the skin in and about the diseased spots. It consists of a cupping glass or "artificial leech," with two openings in the bell glass closing by stopcocks. In the one opening is accurately fitted a movable exhaust syringe, and in the other a tubular receptacle to contain the solution of any parasiticide which may be selected. Upon the basal rim of the bell is fixed a thick flattened ring of india-rubber. He recommends bells of different sizes, but always large enough to

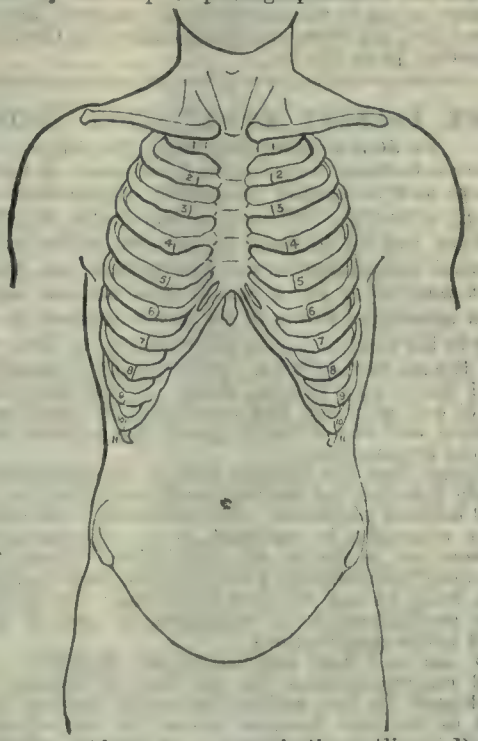


overlap the patch of ringworm, and so enable an area of skin to be antisepticised for some distance around the part affected. Immediately before applying, the scalp should be cleanly shaved, well washed with soft soap and warm water, then with alcohol, and lastly with ether. The bell must be held to the head by an assistant, the stopcock of the feeding tube closed, and exhaustion effected; the syringe stopcock is then closed and the other opened, so that the atmospheric pressure may force in the liquid. The above is a sketch of the instrument now in his possession. His experience in its use is as yet too small for him to speak of practical results.

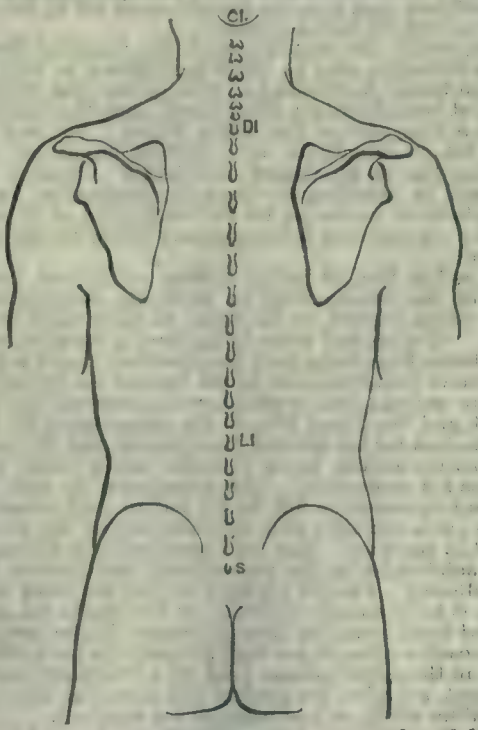
INDIA-RUBBER STAMPS FOR MAKING CLINICAL DIAGRAMS.

Dr. Thomas Harris, of Manchester, writes to say that the following illustrations are *facsimile* reproductions of outline diagrams of the front and of the back of the trunk, which can be made by two india-rubber stamps, and which he believes will be found useful for the purpose of notetaking and the recording of cases. Diagrams produced by rubber stamps offer great advantages over diagrams printed on separate slips of paper, because they can be impressed directly in a clinical notebook or on the case sheet, whilst diagrams printed on separate slips require to be subsequently gummed or otherwise fastened to the notes. Rubber stamps have, therefore, for a long time been in use for clinical purposes, but the majority of the outline diagrams produced by them present so many anatomical errors that it is very difficult to get an accurate representation on them of an area of dulness over the chest, or to indicate the position of any new growth or other tumour in the abdomen.

The drawings from which are made the stamps which reproduce outlines in every respect similar to those given below, have been kindly executed for him by a friend, who has attempted by the help of photographs and his anatomical



knowledge to avoid any gross errors in the outline. Dr. Harris believes they will be found to be of greater use than the majority of other clinical diagrams of the trunk which have been, up to



the present time, available. It must be remembered, however, that it is of course impossible to obtain a single diagram of the trunk which shall suit every case, and on which an

accurate representation of physical signs can be made in all instances, because the size and shape of the chest varies so much in different individuals.

The stamps can be obtained from the makers, Messrs. R. C. Perry and Co., engravers and stampmakers, 14, Cannon Street, Manchester; price 18s. 6d.

THE PRESENT EXAMINATION SYSTEM.

By JOHN STRUTHERS, M.D., LL.D.,
Emeritus Professor of Anatomy in the University of Aberdeen.

The large and increasing proportion of rejections is at last attracting attention. When we reflect on the fact that rejections have run up to some 30 per cent. of the examined—twice what the proportion was twenty years ago, three times what it was thirty years ago—it goes without saying that there is something wrong in the present system of examination, or in the teaching, or in their relation to each other. It is not the student's blame. He is not less industrious than when I knew him twenty, thirty, or fifty years ago. The views of one who has had experience in teaching and in examining, and who is free to speak, may perhaps be of some use at the present time.

I believe that the present system of examination fails seriously to secure the desired results, and that it is injurious to good medical education. The education is the main thing, but the education is regulated by the examinations, more and more so as these are multiplied. Using the word "cramming" deliberately, I hold that the present examination system leads to and rewards cramming; that it does so (*a*) by the multiplication of examinations, and (*b*) by wrong method at the examinations.

(*a*) I am not here suggesting any departure from the general recommendation by the General Medical Council, and adopted by the various examining bodies, that there should, in the new five-year course, be four examinations. The evil lies in the Boards having allowed subdivision of these four examinations, and in intervals between the four examinations not having been prescribed. The result is that the candidate may take the examinations bit by bit, one subject at a time, for which he crams.

Thus, under the regulations of the Conjoint Boards, the first examination may be taken in England in four parts at different times, in Scotland in three parts; the third examination at both Boards in three parts; and the fourth examination in four parts at the Scotch Board. For each of these bit-by-bit examinations the student crams up, and the teaching has to be shaped accordingly. Student life consists, not in studying to know his profession, but in the distractions of preparing for this or that bit of examination, and the teacher has too commonly fallen to the rank of a grinder.

The evil of the bit-by-bit system comes out most manifestly in the examination in medicine, surgery, and midwifery being allowed to be taken in three parts at different times. Of what real value is the kind of surgical or medical or obstetric knowledge that the candidate could not carry in his head or prove with his hands beyond the three or the six or more months that may intervene between the first, the second, and the third bits of the examination? It is the examination for the general practitioner, and the aim of the examination should be to test the man's whole fitness to practise his profession. The permission to take the preliminary examination bit by bit led to such abuse that we had to put a summary stop to it and require the whole to be passed at one time. The four examinations already give as much subdivision to the professional examination as ought to be allowed. I would say they are one too many unless the fourth is to be strictly clinical. It belongs to the schools to see that their students take the classes in the proper order, and to each teacher to see that his students are working. The object in the examinations held by a licensing board should be to test, not what the student can cram, but, after due time allowed for study, to test what he has retained.

While thus criticising the regulations of the London Conjoint Board in regard to the bit-by-bit system, towards which they appear to stand *in loco parentis*, I would ask the consideration of other boards to two admirable rules in these regulations: 1. Intervals are prescribed between the four examinations; six months between the last bit of the first examination and admission to the second; two years between the second and third examinations; and a year between the third and final examination. 2. This final examination is exclusively a clinical examination in medicine and surgery, and in midwifery and gynæcology if that subject has not been taken with the previous general examination in medicine and surgery and allied subjects at the end of the fourth year. It is the only board, so far as I am aware, that has ensured the carrying out of the recommendation of the General Medical Council that the fifth year should be devoted to clinical work at hospitals or dispensaries, or, it may be, half of it spent in pupilage with a practitioner. Except in regard to a weakness in securing efficient teaching in the auxiliary sciences (at present a question for the General Medical Council to deal with), and except in regard to the bit-by-bit system, which may be easily dropped, I would hold up the regulations of the English Conjoint Board as typical; as on the whole the best we have in the United Kingdom, those of no university excepted, for producing the best article for admission to the medical profession. The special points of merit are the compulsory intervals, and, by the last of these, securing the fifth year exclusively for practical work.

(*b*) Still more injurious to education and futile in results I hold to be the present method of conducting the examinations. Far too much importance is attached to the written part. What we wish is real knowledge, not merely word knowledge. Written examination, so far as I could learn, is not employed in medical examinations in France or in Germany, and is of comparatively modern use in this country. It has grown vastly at some boards, and much might be said as to its baneful antecedent influence on the teaching. Long experience in teaching and in examining at various boards has taught me to attach little weight to written examination. It has the seductive recommendation of saving the time of the examiners. I would continue it for that purpose in a different sense, using it as eliminatory in cases in which it affords abundant evidence that it would be a waste of the time of the examiners to send the candidate on to the oral examination. The practice of taking a mean, allowing good marks for the paper to make up for bad marks at the oral and practical, ought to cease. The pass-mark should be required to be reached at the oral and practical part or parts.

But what I desire to insist on most of all is, that the so-called oral examination ought to be more demonstrative or practical, and have more time allowed for it than is customary at nearly all the boards. The modern oral examinations appear to be suffering from the same incompatibilities as the modern teaching. Under the influence of the modern wave, the demand for real instead of word knowledge, there have been added so-called practical classes (some of them not very practical), but without abatement of the over lecturing. The student is pulled about from class to class in distraction, but, on the whole, finds his safety in looking to the old. So, in the oral examinations, there has been the introduction of the objective and the practical to some extent here and there, sometimes real, sometimes only in appearance, but the new wine has not been in quantity sufficient to burst the old bottles. Examiners trained in the old way go on mainly in the old way, and, still more disappointing, the young examiner too, fresh from the cramming school, takes the talking way. What I plead for is an entire reform in method at the oral examinations, for what may be called the laboratary and bedside method all round, and for ample time to be given to it.

If the regulations and recommendations made by the General Medical Council in enacting and planning in 1890 the new five-year course are looked at, it will be seen that, whether in regard to education or examination, what I plead for is arranged for and foreshadowed, leaving it to the examining boards to fill up the framework. Thirty-five long years have come and gone since the Medical Act of 1858 was passed to enable us to produce persons having "the requisite knowledge and skill for the efficient practice of their profession," and yet we are far from having found a perfect way of reaching that goal. Some think we never shall till some kind of State examination is set up. Life is full of disillusions,

and perhaps we were wrong in not taking that view years ago—a State examination, either of a practical kind, or also of the nature of a general review examination. I, for one, have no wish to see a King Stork swallow up all our examining bodies, but less of King Log, in the shape of more power to the General Medical Council, is desirable. But that would mean a Medical Bill, and no man who lived through the thirty years' war of the Medical Bills can desire to live to see another. Is it too much to hope that at least the three Conjoint Boards with their flexible machinery will now set themselves in earnest to carry out to the full these behests of the General Medical Council?

Our aim in regard to education should be to promote practical study in all the branches, training the rising youth to observe Nature for themselves, Nature in the laboratories, the dissecting room, the *post-mortem* room, and at the bedside, and to cultivate the open mind for progress that is sure to be made in our ever-advancing sciences and art. Our aim in regard to the indispensable evil of examinations should be to test such knowledge.

Edinburgh, Nov. 18th, 1893.

THE ALLEGED INCREASE OF INSANITY.

By HENRY RAYNER, M.D.,

Lecturer on Mental Diseases at St. Thomas's Hospital.

The great extension of asylums in recent years has made the question of the increase of insanity of interest both to the specialist and the layman, with the result that very widely divergent opinions have been expressed. The Commissioners in Lunacy, in their latest annual reports, have repeatedly suggested that the increase in the number of the recorded insane was more apparent than real. Mr. Noel Humphreys[1] also refused to admit that the then available statistics gave any conclusive evidence of an actual increase in the rate of occurring insanity. More recently Mr. Corbet, in the *Fortnightly Review*, saw reason to believe that insanity was advancing by leaps and bounds. Dr. Hack Tuke, on the contrary, in treating of the same subject at the annual meeting of the British Medical Association in the present year, arrived at very much the same conclusion as Mr. Humphreys, and Dr. Cobbold has also quite recently endorsed this view.

The primary admissions to asylums, if accurate records had been kept, would at once have solved this question, but unfortunately such statistics as exist are unreliable, so that at present conclusions on the subject can only be drawn indirectly from other facts and figures. The only statistics (for reasons too complex to be briefly stated) which can be relied on for this purpose are those which extend from 1871 to the present date.

The census statistics of insanity for England and Wales analysed in recent articles in this Journal have yielded three clear and definite facts: (*a*) that in the last two decades there has been a progressive diminution in the number of mentally afflicted under the age of 25 years; (*b*) that there has been an inconsiderable increase between the ages of 25 and 45; and (*c*) that practically all the excess of increase has been in persons above the age of 45 years. These results of the recent census, if reliable, would almost limit the question to the inquiry into the reason of this greater excess of cases above the age of 45.

The tendency of census returns is, by all experience, towards greater accuracy, and although there are doubtless still a certain number of mental cases—especially under the age of 5—not recorded in the census tables, yet the probability is in favour of this number being less at the later than in the earlier returns. This should have produced a statistical increase, the absence of which emphasises the recorded decrease in the first twenty-five years of life.

A further increase at those ages should have resulted from the great extension of institutional care. Thus, the census of 1871 showed that under the age of 25 there were 4,025 mentally unsound persons in institutions and 10,415 out of them, but in 1891 there were 8,583 in institutions and only 7,799 out. The diminution between the ages of 15 and 25 was from 2.30 per 10,000 of population in 1871 to 2.16 in 1881 and 2.00 in 1891; but it is probably even larger than this, since it has occurred in spite of the increase which might have been expected from the greater accuracy of census returns and from the larger survivorship from the doubled numbers in institutions.

The decrease of insanity in the population in the first twenty-five years of life, if satisfactorily proved, would go far to convince those who have actual experience of the insane that this must correspond to a diminution in the total production of mental disease. The tendency to increasing degeneration in the families of the insane, resulting in later generations in mental defect, either congenital or developing in early life, has been pointed out by many observers (Maudsley, Baillarger, etc.), and is a well-established fact. If, therefore, there has been a diminution in the early decades of life, this must correspond to, and be the result of, a lessening of hereditary influences, these being by far the largest factors of causation at these ages, which must operate not only in the early, but also in the later, periods of life.

Hereditary causes, in the tables of the Commissioners in Lunacy, do not, however, bear evidence of any diminution; but it must be remembered that these returns are yearly receiving greater attention, that the means of obtaining information of this kind is steadily increasing, and that at all times the estimates of heredity by different observers have varied as widely as from 30 to 60 per cent.

The lessening of hereditary influences by the restraint in asylums of so much larger a proportion of the insane population is probable, and has long been predicted as a possible result.

The slight excess of recorded insanity between the ages of 25 and 45 is of even greater significance than the diminution in the earlier decades. Mentally afflicted persons at these ages (and, indeed, at all ages) have been yearly more and more brought into institutions, from greater confidence in their management, and from the greatly increased comfort therein obtained, but also from the great growth of the urban population (among whom there is much more difficulty in retaining such cases in home life), and, as Dr. Howden, with others, has pointed out, from the changed conditions of industrial life (work being so much more aggregated in factories, etc.), also rendering impossible the home supervision of imbeciles.

These causes, together with an increased keenness, both medical and lay, in the recognition of mental disorder, and a heightened standard of mental fitness from better education, have probably led to more exhaustive registration in the census returns. The influence of these causes is shown by a table prepared by Mr. Humphreys, from which it appears that the proportion of cases disclosed by the census, but unknown to the Commissioners in Lunacy, is as high as 34 per cent. of the insane population of some agricultural counties, while it falls to 13 per cent. in those having large urban or manufacturing centres.

The asylum population (whatever the causes) has increased since 1871 by about 30,000, and if the facts relating to increased survivorship under asylum treatment have any cogency, this (survivorship) would by itself account for the small advance in the census numbers of the insane under the age of 45, from 2.24 per 1,000 of population in 1871 to 2.26 per 10,000 in 1891, without resorting to any theory of actual increase.

This period of life (from 25 to 45), the period of the greatest activity both physiological and social, the period during which the most important causes of insanity have fullest play, and the period of the incidence of nine-tenths of that extensive disease, general paralysis, would certainly be expected to yield conclusive proof of a definite increase of mental disorder, did any such exist. If, on the contrary, it yields evidence of a doubtful character, the conclusion is inevitable that the patent causes of insanity acting during this period of life are also not in any greatly increased activity.

If heredity is diminished in the early decades, and the most potent direct causes not increased during the most active period of life, what are the new factors that lead to a greater development of insanity after the age of 45, if there is any such? Is it, indeed, increase, or mere accumulation from greater survivorship and other causes?

That there is a very greatly increased survivorship of persons mentally affected when cared for in institutions, and especially in the asylums, cannot be doubted,

[1] *Journ. Statistic. Society*, 1890.

Dr. Farr analysed the statistics relative to the death-rate among pauper lunatics, inmates of the metropolitan licensed houses between 1833-9, and found it to be 20.7 per cent. (26.8 males and 16.4 females); this death-rate would obviously not favour accumulation—would, indeed, extinguish the insane population in a few years.

Mr. Noel Humphreys analysed the death-rates for the metropolitan imbecile asylums, finding that their death-rate of 13.34 for 1871-5, fell successively to 8.32 in 1876-80, to 7.73 in 1881-5, and 7.40 in 1886-8. "These asylums," he observes, "contained only 1,344 persons at the beginning of 1871, and 4,919 at the end of 1888. If the mean death-rate of the first three years had continued, and if the average number resident had been maintained by extra admissions, the number of deaths in these asylums alone would have exceeded the number actually recorded by 3,712." He adds: "There is no reason to believe that the death-rate of these imbeciles when in the workhouses was any lower than that which occurred in the earlier years of these institutions."

Mr. Humphreys's analyses of the mortality in the asylums, etc., of England and Wales, prove that the mean annual rate per 1,000 was 103.1 in 1859-68, 101.7 in 1869-78, and only 95.53 in 1879-88. Dr. Hack Tuke has calculated that if the rate of 103.1 in the earliest period had continued until 1891, there would have been 5,624 fewer patients living at the latter date than was actually the case. Increased survivorship from these data would seem to be sufficient indeed to account for nearly the whole of the excess of recorded cases, but other causes remain to be considered.

The transfer of persons from the pauper to the lunatic class is another reason of the apparent excess in the recorded numbers of the insane. The Governmental grant of 4s. per head per week to all pauper inmates of asylum came into operation in 1874, and of its influence in this respect there is a general consensus of agreement. In the years following its operation, asylum superintendents were almost unanimous in their yearly reports in complaints of the increased admission of paralysed persons and aged imbeciles, many recording a considerable rise in the average age of the admissions as a consequence. Dr. Campbell, for example, reports that in the admissions to the Carlisle Asylum, the persons aged 70 and upwards were only 2 per cent. prior to 1872, but in the next decade were 4 per cent., and in the last decade 6 per cent.

If a similar increase of senile admissions obtained throughout the country, in the 130,343 admissions of the first decade and the 152,095 of the second, it would yield an increase in the admissions of 8,589 during the twenty years, and this alone might account for much of the apparent excess of insanity; but to these have to be added a large number of hemiplegic and other paralytics at earlier ages. The question, however, may be raised whether the undoubted increase of senile admissions was due to the 4s. capitation grant, or to an increased occurrence of senile insanity.

Here, again, personal experience and the annual reports of the asylum superintendents (Dr. Clouston and others) confirm the opinion that it is due rather to the increased certification of dotards and paralysed persons, not previously classed as insane, than to increase of disease. This result would appear to be brought about by the changed conditions of life, already alluded to, rendering the working population less able or wishful to keep out of the workhouses their helpless, aged, or paralysed, and the workhouse authorities having become more keen in detecting mental enfeeblement since the capitation grant has been established.

The transfer of persons formerly ranked as criminals to the lunatic class is another mode in which the numbers of the insane have been added to in the last twenty years.

An eminent alienist physician, of large experience in prisons, recently expressed the opinion at a public meeting that a not inconsiderable part of the decrease of criminals was due to the fact that many weak-minded persons, formerly classed as criminals, were now relegated to asylums. The statistics in support of this view are, however, not easily available.

The proof of the greater frequency in the occurrence of insanity has been further based on the great advance in the number of admissions to asylums, which have risen from 9,267 in 1871 to 14,764 in 1891. There are many ways in which this great apparent advance is negatived. One important item is the greater number of relapses from the larger number discharged from asylums; these discharges have increased (in round numbers) from 4,000 in 1871 to 11,000 in 1891. Evidence of this may be found in the Report of the Commissioners of Lunacy for Scotland, 1893, p. 21, in a table giving the asylum history of 1,319 patients first admitted in 1868, which shows that in the twenty years to 1888 these had yielded 496 readmissions, 37.5 per cent. of the original admissions, for the whole period, or 1.875 per cent. annually. This table is a very striking proof of the great advance in admissions (readmissions) which result from any addition to the asylum population, and as this population has increased in England and Wales by about 30,000 in the twenty years, or 1,500 per annum, the calculation based on this Scottish experience may be made that probably a third of the increased admissions may be traced to this cause alone.

If Dr. Campbell's statistics of the increased certification of senile cases are true of the whole country, probably another sixth might be thus accounted for. During this period (1871 to 1891) the number of persons of unsound mind in workhouses and residing with friends has diminished (in round numbers) by 1,000, and those recorded in the census but not officially known by about 1,800; these also must have gone to swell the total admissions to the asylums.

The judicial statistics for 1871 show that 0.26 per cent. of the number of persons committed for trial were found insane, while in 1891 the percentage (on reduced numbers) was 0.46, corresponding to a distinct increase; but there can be no doubt that the recognition of insanity in those arraigned as criminals is more frequent and prompt than formerly both prior to and after committal for trial or condemnation, and accounts for a considerable addition to the numbers of the insane.

The influence of the capitation grant of 1874 in stimulating admissions was very obvious. In 1871 the rate per 10,000 of the population was 4.067. The advance in 1872 and 1873 was 0.008 and 0.180; but in 1874 it was 0.409; in 1876 it reached 0.664, and declined from this point to 0.186 in 1885, since when it has steadily risen to 1.008 in 1891. There can be little doubt that the sudden rise in 1874-78 was mainly due to the capitation grant.

An example of its influence may be taken from the admissions of 1883, which were swollen by 668 pauper imbeciles having been certified to asylums in Lancashire alone in that year.

In addition to these causes of increased asylum admissions there is the probability that the residual insanity undisclosed even by the earlier census returns has been largely drawn upon and has tended to swell those numbers.

If, again, the possible causes of increase be considered in detail, very little evidence can be found to support the excessive increase theory.

Heredity, the most potent factor, would at least not appear to have expanded; intemperance, the next great cause, if police reports can be relied on, is greatly lessened; while two other important causes, poverty and crime, are considerably diminished; Dr. Cobbold points out that fevers and post-febrile insanities are now less frequent. The other principal causes operating during the active periods of life do not appear to have materially added to the numbers of the insane at these ages; and, lastly, reasons have been adduced which throw doubt on there being any real excess of senile unsoundness.

The only form of mental disease in which a great development is alleged is general paralysis; but Calmeil, in 1826, found as large a percentage in the inmates of a French asylum as would be found in many English asylums at the present day. The apparent excess of general paralysis is probably chiefly due to increased care in diagnosis and to such cases being more largely sent to asylums. This form of disease, however, with an average asylum duration of two to three years, would not greatly add to the permanent numbers, except by an increase much beyond that which is claimed for it.

If the influences of civilisation were acting in the direction alleged, a study of the classes of the community ought to produce very important evidence. The statistics of classes, however, would seem to indicate that while there had been a

large increase of the recorded insane in the pauper class, the private or well-to-do class had undergone diminution both in the admissions and the numbers under care. In 1879 the ratio of private lunatics per 10,000 of population was 2.97, which has fallen by steady annual decreases to 2.61; and the admissions of this class have diminished (Dr. Cobbold) in the same progressive manner, from 1.07 per 10,000 in 1882 to 0.92 1892. These facts would be a strong argument against the enormous increase theory, but the facts are so complicated and uncertain that it would be unfair to urge this as a proof of an actual diminution in the occurrence of mental defect in the richer classes, although it certainly negatives the theory of large increase.

If the general or any special causes of insanity, the result of the intensified conditions of civilisation, were in operation, they should produce a steady and progressive development of the numbers of the insane. This, however, is not the case, but the contrary is the fact. The rate of increase, as Dr. Merson has pointed out, has fallen from 512 per million in 1859-69 to 361 in 1869-79, and 212 in 1879-89.

The increase of certificated insanity, on the contrary, has not been steady and progressive, but in waves; a large wave (as previously described) corresponding to the capitation grant in 1874, subsiding in 1885, eleven years later, to the level of 1872. The wave may be more easily traced in the smaller areas of counties, the manufacturing and urban preceding the agricultural, but is also very distinct in the statistics of Ireland and Scotland, where, as Dr. Clouston has pointed out, its influence was quite as marked as in England, but occurred a year or two later.

From these facts the conclusions may be drawn that there is no definite evidence of the increased incidence of any special causes of mental disorder, or of the development of new or special forms of disease; that the accumulation of the insane in asylums has been mainly coincident with the operation of the parliamentary capitation grant, and that the rate of accumulation is undergoing a progressively rapid decline.

Further, it seems probable that the increased numbers of the insane in asylums and elsewhere may be accounted for by the greater survivorship in asylums (overriding even a diminished production in the earlier periods of life), by the transfer of paupers and criminals to the lunatic class, and by the increased accuracy of the census returns.

The ultimate conclusion is that the evidence at present available admits of the interpretation that there is no real excess in the amount of occurring insanity, but is even compatible with the possibility of an absolute diminution, which has certainly occurred in the earlier decades of life, and is probable in the well-to-do classes.

THE EMPLOYMENT OF ELECTRIC LIGHTING CURRENTS FOR MEDICAL PURPOSES.

By H. LEWIS JONES, M.D.,
Medical Officer in charge of the Electrical Department, St. Bartholomew's Hospital.

With the steady advance of electric lighting both in London and country towns the application of electric lighting currents to medical and surgical purposes is coming more and more into notice. Already many medical men use the current from the mains in the treatment of their patients; and more would do so were it not for a widespread belief that there is some risk of accidents occurring, though with properly chosen apparatus and with ordinary care there is no danger.

The current supplied by the companies is in some cases an alternating current and in others a continuous one.[1] The pressure at which it enters houses is usually 100 volts, and, as this is too high for medical purposes, some device must be employed before the current can be applied to a patient. When the supply is an alternating one, it is very easy by means of a transformer to reduce the voltage to any required degree, and then there is no difficulty. A Woakes's or similar transformer enables the operator to obtain the most delicate graduation of the voltage, and it is perfectly safe and easy to handle, and when properly wound it will heat cauteries, light small surgical lamps, or yield an "induction" current for the testing or treatment of paralysed muscles.

The customary pressure for cauteries is 4 volts, that proper for the electric bath is 6 to 8, and for applying "induction currents" to patients is 10 to 16. With the alternating supply the use of a properly graduated transformer[2] to lower the voltage is in every way better than to use the full pressure of the mains and to choke down the current by means of resistances. On the continuous current systems it is a complicated and expensive matter to reduce the voltage by transforming contrivances, and resistances are therefore more often employed for the purpose of reducing the magnitude of the current. These resistances, however, are not very satisfactory.

Five milliampères from a source of electricity at 100 volts is more unpleasant than the same current from a battery of low voltage, especially at the moment of first contact with the skin; for whatever the magnitude of the interposed resistance may be, the electrodes before contact with the body are at the full potential of 100 volts, and when the contact is made the high pressure expends itself in quickly breaking down the skin resistance, with more pain and shock than when the resistance is gradually overcome by a lower voltage. The drier the skin the greater is the discomfort. When the skin is thoroughly moistened and reddened this effect is much less marked; though practically I have found that infants and young children are far less tolerant of current from a high than from a low voltage source, even if the current be the same in both cases.

Another objection to the use of resistances to reduce the current is that several separate types and sizes are required for the different applications of the current; a rheostat suitable for a cautery will not do for surgical lamps, nor will one suitable for the latter do for galvanic applications to patients. In the use of electric light mains for heating cauteries, regulation by a rheostat is dangerous, for any accidental fusing of the platinum cautery wire is likely to be followed by the formation of an electric arc at the broken point, an accident which might lead to the most serious consequences. Moreover, the contacts in the handles of the cautery instruments as at present made are apt to give trouble by sparking and burning away.

There is a plan of avoiding these risks by distributing the current along two parallel circuits, one of which carries the cautery, the resistance of the two circuits being so adjusted that the current through the cautery cannot exceed a certain value. In this way the danger of the formation of an arc is avoided, but the apparatus wastes a large amount of current.

By far the best way of utilising the continuous current supply is to charge accumulators with it in the first place, and then to take out current from the accumulators. This plan requires a smaller outlay in plant and apparatus, and the accumulators being portable the operator is not tied down to one spot as he is by a fixed installation, but can carry his charged accumulators to his patient when his patient cannot come to him.

Although accumulators are most unsatisfactory when they are not properly attended to, this is the fault, not of the accumulator itself, but of its treatment. Under proper conditions of recharging a secondary cell behaves very well, though it soon spoils if left uncharged for three or six months at a stretch; such treatment as that will ruin any accumulator.

By means of accumulators the continuous 100 volt electric lighting current can be made available for medical purposes at a smaller outlay, and with fewer complications than by any arrangement of resistances. The Lithanode Company[3] make excellent secondary cells which weigh less than 8 ozs. a-piece, and indeed they have cells weighing as little as 2½ ozs. each, which are perfectly suited for galvanisation of patients, for electrolysis, or for the testing of muscle and nerve and so on.

[1] The St. James and Pall Mall, Westminster, Kensington and Knightsbridge, Chelsea, Charing Cross and Strand, and St. Pancras Companies supply a continuous current. The Metropolitan, the London, City of London, and House to House Companies supply an alternating current.

[2] A very good transformer is made by Messrs. Miller and Woods, of 2, Gray's Inn Road, and is figured in the *Electrician* for September 29th, 1893.

[3] The Lithanode and General Electric Company, Limited, 64, Millbank Street, Westminster, S.W.

Everyone who has a continuous current electric lighting supply available can keep these cells in first rate order with no more complicated apparatus than a switch, an incandescent lamp and a pair of connecting cords, and the larger accumulator cells needed for the cautery or for surgical lamps can be kept charged as easily. All that is required is to connect the cells with the electric light supply for an hour now and then with a 16- or 32-candle power lamp in the circuit to regulate the rate of charging. For a complete outfit a general practitioner should have three batteries, one of 15 or 20 small cells arranged in a battery box with current collector and galvanometer; one 2-cell accumulator for his cautery capable of discharging at a rate of 20 ampères, and one of 4 or 5 cells, capable of discharging 1 ampère, for his electric lamps. For this last purpose nothing is better than the small portable sets which can be bought ready-made for use as travelling or bedroom reading lamps; they weigh only 4 lbs. or 5 lbs., and are easily modified to suit the conducting wires belonging to all surgical incandescent lamp instruments.

The dangers to be feared in the use of electric light currents for patients are those arising from carelessness on the part of the operator, such as connecting up to the wrong terminals, forgetting to put in proper resistances, and the like. The fear of sudden and unexpected rise of pressure in the mains need not be considered, as it is almost, if not quite, impossible for such a thing to happen under the existing Board of Trade rules. With an 8-candle lamp permanently fixed in the circuit with the patient, his body cannot become the path of a current of really dangerous magnitude; indeed it is doubtful whether a pressure of 100 volts could do any serious injury to a human being except under special circumstances of application, such as are outside of the ordinary methods of electrical treatment.

A SPORADIC CASE OF CHOLERA.

By L. W. DARRA MAIR, M.D.Lond., D.P.H.

THE following is an account of the cholera case in Mitcham.

H. B., male, aged 53, a resident in Mitcham, and employed at a local corn factor's, was first taken ill at 10.30 P.M. on September 11th, with rather severe diarrhœa. This continued throughout the night, and also during the next day (September 12th), although its severity was not sufficient to prevent him partially attending to his work. On returning home in the evening, he complained of the diarrhœa for the first time to his friends, and "feeling queer," went immediately to bed (about 7 P.M.). Although he had taken "diarrhœa mixture" purchased from a chemist, the diarrhœa now became very much intensified, and was accompanied by severe cramps. A medical man was sent for at 10.30 P.M.

The medical attendant reports that the cramps were very severe, affecting chiefly his arms and legs, and causing him to call out frequently, and to ask to be rubbed. His expression was anxious, but there was no cyanosis. The pulse was 120, feeble. The temperature in the axilla was 97°. The tongue was moist, and coated with whitish fur. He complained much of thirst. About a quart of watery evacuation was seen, but its colour was obscured by the presence of red stained paper. No pain was experienced on pressing the abdomen. There had been some vomiting earlier. The general condition was one of moderate collapse. The voice was not hoarse. The medical attendant was called to him at 5 A.M., and he also saw him at 8.30 A.M. the next day, September 13th, and soon after in consultation with another medical man. The case was thereupon reported to me, and I saw him at 1.45 P.M., when I found him in a state of collapse, very drowsy, and much cyanosed about the legs and feet and hands, the skin of the latter being puckered up in a singular manner, presenting the appearance of prolonged soaking in water, as seen in washerwomen's fingers. The limbs were quite warm. The face was very pinched, the expression indicated great pain, but there was no marked cyanosis, the lips being perhaps a little dusky. The pulse was 120, but stronger than the general appearance of the patient pointed to. The tongue was coated with thick brown fur, but was moist. The temperature was 97°. Very little, if any, urine had been passed since 10.30 the previous night, but the diarrhœa had abated considerably, and there had been no vomiting since 5 A.M. No motion had been saved; but some liquid was squeezed out of some sheets which had been placed beneath him. This liquid was like dirty milk and water, and was carefully sealed up in a bottle. He had a severe attack of cramp while I was there, which made him call out with a vigorous voice to be rubbed. Instructions were given that nothing was to be taken out of the room except by the inspector, who was told to call periodically and burn any stained articles that had been used.

He was last seen by the medical attendant at 9 P.M., and he reports as follows: "Temperature 102.4°; pulse 120, exceedingly feeble; respirations 28. Tongue moister and cleaner. Motion passed at 8 P.M., 1½ ounce, of creamy consistency, much bile-stained, chocolate colour, and contained many epithelial scales and blood corpuscles. Very little urine voided. Is drowsy, but rousing frequently and then restless, throwing his limbs about, and turning irritably in bed. Hands cold and rather blue; feet and legs warm, and much less blue than in the afternoon. Voice quite hoarse. Cramps less frequent and less severe. No vomiting. Still great thirst. Face pinched, but not blue."

Death took place at 2.30 A.M. on September 14th.

A necropsy was made at 2 P.M. on September 14th, by Dr. Shelswell, the medical attendant, in the presence of Dr. Seaton, the county medical officer, and myself. Rigor mortis was well marked; the abdomen only was examined; the intestines were distended, pressed against the abdominal wall, and showed much injection of the capillaries. There was no sign of peritonitis. The right kidney was examined; the cortical portion was rather wasted; the medullary portion was apparently healthy; the capsule peeled easily except at one spot. The gall bladder contained about half an ounce of bile. The urinary bladder was quite empty. About one foot of the lower ileum was tied *in situ*, removed and sealed up in a bottle, and the stomach, spleen, left kidney, and suprarenal capsule were also removed and sealed up.

The evacuation, which had been obtained by squeezing the sheets, had been previously taken to the Local Government Board, and the specimens above mentioned, together with the motion passed at 8 P.M. on September 13th, were taken there also immediately on the conclusion of the necropsy.

It was reported that the evacuation first mentioned gave the usual indications of the presence of the comma bacillus, but that in the latter, owing to the fact that Dr. Klein did not receive them until the next morning, when the material was decomposed, the culture experiments were negative, although there could be seen in cover glass specimens bacilli similar to the comma.

Dr. Seaton and I made very careful inquiries, and only elicited the following facts. The patient had not been away from Mitcham for many weeks, except to Tooting for a walk on the Sunday before his illness (September 10th), with other members of his family. He and his family dined off roast pork on that day, all of them (five) partaking of it, and this was also eaten cold by all on the next day. None of the other members of the family were taken ill in any way. He admitted having drunk water from a pump in the yard in which he worked, though he had been told it was only for cattle. The following is an analysis by Dr. Stevenson:

The water was free from odour, of a yellow colour, and slightly turbid. It contained, and yielded, in grains per gallon:

Total solid matters	107.52	Ammonia	0.076
Loss on ignition	7.28	Albuminoid ammonia	0.013
Combined chlorine	9.38	Oxygen consumed	0.121
Nitrates	3.63	Hardness	65°

Nitrites traces.

The turbidity of the water was due to a slight admixture of chalky earth, and a few living and moving organisms. No specific disease-producing organisms were detected. This is a very impure water, evidently a surface water that has percolated through an impure soil. It is also a very hard saline water. I am of opinion that the water is unfit for domestic use, and that its use for drinking purposes is likely to prove injurious to health.

The only other clue that was found was that the patient had been engaged on September 9th with several other men in receiving a consignment of Russian oats that had just arrived from St. Petersburg. On inquiry, however, it was found that the oats had arrived in bulk, and were unloaded

at the docks in London into sacks belonging to the employer of the patient, and that the patient merely carried the sacks on his back from the carts to the store in Mitcham. Moreover, the other workmen had been free from diarrhœa, mild or otherwise.

In conclusion, all due precautions were taken to prevent the spread of the disease, and happily with complete success, which is remarkable if the case is to be considered as really Asiatic cholera, for the conditions were most favourable to its spread. The drain at the back of the houses was found to be in a leaky condition owing to open joints, and it was found that it had been laid in a curved manner—namely, high at each end and very low in the middle. When it is borne in mind that the first evacuations of the patient had access to this drain, that it was well nigh impossible to flush out completely the contents of such a drain (although an attempt was made in this direction with several gallons of perchloride solution), and that this drain was removed, and a properly constructed one laid in its place, it will, I think, be considered a very fortunate circumstance that no other person was infected; and if it was really cholera it is, at any rate, a great tribute to the protective properties of the perchloride solution that was used. I should add that nearly everything that was in the room occupied by the patient was destroyed by fire.

I feel much indebted to Dr. Shelswell for the public spirit which he showed throughout this case, at the loss, I fear, of much valuable time, and also for the accurate notes with which he has supplied me.

INFANT MORTALITY IN CAIRO AND DAMIETTA.

[From a Correspondent.]

Staff-Surgeon Gilbert Kirker, while posing under the questionable disguise of an *advocatus diaboli* in favour of the "much incriminated Nile," is in reality a most potent witness for the prosecution. He endeavours to show that the excessive mortality amongst infants in Egypt is owing to meteorological conditions associated with ground temperature, but in lieu of so doing he unwittingly affords the strongest possible confirmation of all the accusations that have been laid to the charge of Egypt's impure summer water supply. Actuated by a most commendable spirit of fair play our unconscious ally strives to prove that young children die at Cairo and survive in Damietta, because the climate of the latter place possesses a marine character, while that of the former is continental. "Alexandria and Damietta may be fairly assumed to have had the same climate" during the period, says he. This may be readily conceded, the obvious deduction being that the health of the two cities should likewise have exhibited points of resemblance. Next he ventures on the assertion: "Rosetta, which now uses Nile water in a more impure condition than Cairo, but has the same climate as Damietta, had, during the time under consideration, about the same infant mortality as the latter."

Were this uncompromising statement exact it would of course be highly confirmatory of Dr. Kirker's theory, but, unfortunately, it is not borne out by facts. It is, indeed, only too true that the summer water supply of Rosetta is now deplorably bad, but the assumption regarding the health of the infantile population in that town is erroneous. For an unbroken series of years Rosetta used to share with its sister port at the other mouth of the Nile the honourable distinction of being the most salubrious place in Egypt for a great portion of the year; but ever since that unlucky canal was opened, and the public cisterns ceased to be filled, the general health has sunk to the appalling standard exhibited by all the other towns, with one single notable exception. In Damietta the *sahariq* system is still maintained; there is no high-level canal to convey poisonous water during the summer, and the Government therefore is obliged to bear the expense of filling the great public cistern at high Nile for the use of the indigent classes. Well-to-do people keep up private cisterns of their own, and all are alike cleaned out and refilled annually while the water in the river is still pure. The expense is trifling, but the gain is enormous, as evidenced in the low bills of mortality at Damietta, whilst elsewhere the people are undergoing decimation.

The following table, compiled from the returns of the Egyptian Sanitary Department, contains ample confirmation of all the above-mentioned facts, and completely disposes of Dr. Kirker's adverse theory.

1893. Week Ending	Cairo. Percentage of Deaths under 1 Year.	Cairo. Percentage of Deaths under 5 Years.	Cairo. Deaths under 5 Years per 1,000 Births.	Alexandria. Percentage of Deaths under 1 Year.	Alexandria. Percentage of Deaths under 5 Years.	Alexandria. Deaths under 5 Years per 1,000 Births.
June 1	38.2	58.5	738	30.2	53.6	512
,, 8	34.4	63.0	752	34.7	62.8	606
,, 15	35.9	64.9	860	37.6	62.9	682
,, 22	30.5	64.7	859	43.8	65.8	796
,, 29	35.8	65.0	883	*	*	*
July 6	38.4	70.2	889	46.5	64.7	703
,, 13	33.7	67.9	938	36.2	60.7	762
,, 20	39.7	71.2	871	51.0	69.1	740
,, 27	40.3	69.4	1,048	*	*	*
Aug. 3	42.3	76.2	916	*	*	*
Approximate average ...	36.9	67.1	865	40.0	62.8	685
	Rosetta.			Damietta.		
June 1	37.5	62.5	277	21.2	30.3	367
,, 8	61.5	84.6	733	11.5	31.6	226
,, 15	44.4	61.1	647	26.6	43.3	224
,, 22	41.1	64.7	578	20.9	55.8	727
,, 29	14.2	28.5	250	34.4	58.6	435
July 6	30.7	76.9	1,111	23.5	58.8	476
,, 13	57.1	71.4	357	23.8	61.9	448
,, 20	50.0	50.0	454	7.4	29.6	190
,, 27	12.5	62.5	277	32.1	42.8	218
Aug. 3	70.0	80.0	666	9.5	57.4	413
Approximate average ...	41.9	64.2	535	21.0	47.3	371

* No return.

If we measure the infant mortality by deaths under one year of age it will be seen that at Cairo, Alexandria, and Rosetta the fatality amounted respectively to 36.9, 40.0, and 41.9 per cent. of the whole, whereas at Damietta it was only 21.0 per cent. If we take deaths under five years as the standard the figures in the first three towns are 67.1, 62.8, and 64.2, against 47.3 in the last. Nothing could be more conclusive than this, for it does not depend on an imperfectly known population. In Rosetta the deaths under five years per 1,000 births do not reach quite such an appalling total as in the two larger cities, but this is probably owing to an exceptionally high birth-rate, which was returned at 38.0 per 1,000 inhabitants. Rosetta is one of the few towns in Egypt where in all probability the population is not underestimated. In fact if anything the error is likely to be the other way, for unlike the rest of the country, there has been no progress of late years in this ancient port. The fact that 535 little children should die for every 1,000 born is nevertheless sufficiently grave, though it does not indicate quite such a deplorable state of affairs as in Cairo and Alexandria, where the holocaust amounted to 865 and 685 per mille respectively. When we turn to Damietta and find that only 371 infants perished for each 1,000 that came into the world any lingering doubts that may have remained on our minds regarding the incidence of cause and effect must at once be dissipated.

Presentation.—Dr. W. B. Mackay, medical officer for the Glencullen and Kilgobbin Dispensary District, was recently presented by his friends with a complimentary testimonial, consisting of a purse of seventy sovereigns, as a mark of esteem and recognition of his kindness to his patients during the past fifteen years.

The German Emperor has granted a patent of nobility to Dr. Gustav Veit, Ordinary Professor of Gynæcology in the University of Bonn.

ARCHAEOLOGICA MEDICA.

IV.—A CONTEMPORARY ACCOUNT OF THE PLAGUE.

By a Country General Practitioner in the Time of Charles I.

The eighth edition of the *Englishman's Treasure*, printed in the year 1633, contains much that is curious and interesting. No part of it, however, is more curious than the tract placed last in the book. It is by W. Boraston, of Salop, Practitioner in Physicke and Chirurgie, who writes "a necessary and briefe Relation of the Contagious disease of the Pestilence, with the Causes, Signes, and Cures of the same"—a tract breathing the spirit of fervent piety which marked the beginning of the seventeenth century, and written in the pure English which forty years later lent an additional charm to the *Pilgrim's Progress*. It is the work of one who was familiar with the plague, and it bears the impress of a wise and thoughtful mind tinctured throughout by the astrological conceits which formed so great a barrier to the advance of natural science. Nothing is now known of Boraston; but, from the fact that his treatise appears in the *Englishman's Treasure*, it appears likely that in some way he had been connected with the Royal Hospital of St. Bartholomew, and had perhaps been taught by Vicary and the elder Clowes.

"This contagious sicknesse," Boraston begins, "called the Pestilence, is no other thing than a pressure, contagion, or Whip, which God out of his indignation useth to chastise men for their Transgressions. The pestilence is propagated and creepeth from one house to another by the breath, heate, sweate, smell, habitation, and garments from the sick." The astrological causes of the disease are duly set out, and afterwards the seven prognostics, presages, or signs of the pestilence: signs which show that the epidemics were usually ushered in by dull and damp summers with long-continued southerly winds, atmospheric conditions which we now know to be especially favourable to the propagation of a filth disease. The author, however, chooses to interpret the signs differently, for he says: "The third signe is, when there are many flies upon the earth, for this signifieth that the ayre may be venemous and infected. The fourth signe is when the starrs do seeme often to fall, for it is a token that the ayre is corrupted by many venemous vapours which ascendeth." The means to prevent infection from the pestilence are an odd mixture of devotion and common sense, for "in the time of pestilence Penitencie and Confession are to be preferred before all other Medicaments, and withall to change the place for a more pure ayre. Likewise, beware yee dread not death ouer much, but thinke well to liue: For hee that dreads ouermuch, shall imagine hee feeles pricking and mouing thereof at the cleansing places in his owne conceit, when hee feeles nothing."

The preservatives against the plague were numerous. In rue and vinegar, however, he chiefly placed his trust, aided by the moderate use of aloes and rhubarb in the form of a pill. "Many other there are also preseruatives more costly yet farre more powerful in their effects, which may be had at the hands of the Chemists, as Potus Pestilentialis Paracelsi, whereof one dram being taken in the morning fasting, and to sweat thereon, is a preseruative for the Pestilence for sixe dayes. The second preseruative is Sulphur sublimed with Myrrhe and Aloes. Halfe a dragme thereof with sugar being taken in the morning, preserueth a man all that day from all astrall impression. Having set downe sundry means for preuention. It shall be conuenient to speake of some signes and tokens, whereby a man may judge whether hee be infected with the Pestilence or no, and they are these that follow." Twelve signs are given, of which "the twelfth and last sign and surest of all other is There ariseth in the Necke, under the Arme or in the Flanke, a tumour or swelling, or in some other part of the body there appeareth a red greenish or blackish coloured sore: This is an apparent signe of infection with the Pestilence." How many in those days, and for many years afterwards, must have looked in terror for that last and surest sign, known to Lucretius, to Boccaccio, to Defoe, and to all who had lived through one of the plague years as an infallible sign of impending death!

The treatment fit for a person actually seized with the pestilence is then given, and the author closes his work with the wish that "if any there bee that shall receive benefit and recovery by these directions: first let him thank God that have created Medicine of the Earth to heale his people: and secondly pray for mee a Sinner the writer of this little Treatise, for to that intent I tooke the paines." Appended to the treatise is the following recipe, which speaks for itself:

A Medicine for the Plague, for Sicknesse of the Soule.

Take a quart of Repentance of Nineuie, and put thereto both your handfuls of feruent Faith in Christ's Blood, with as much hope and Charitie, of the purest you can get in God's shop: a little quantity of each, and put it into the vessell of a cleare conscience, and let it boile well in the fire of Loue, so long till thou seest (by the eye of Faith) the black foame of the loue of this World stinke in thy stomacke: then skim it cleane with the spoone of faithfull Prayers: that done, put in the powder of Patience, and take the immaculate cloath of Christ's pure innocencie, and straine all together through it, into Christ's cup: then drink it burning hote betimes next thy Heart: this done, rest from beastly Conuersation used in times past, upon the bed of Christ's pure Innocencie, and cover thee warme, with as many clothes of Amendment of life, as God shall strenghen thee to beare, that thou mayest sweat ou all the vile poyson of Couetousness, Idolatry, and the participation thereof, with all kind of Whoredome, beggarly Pride, Oppression, Extortion, Usurie, Prodigality, Swearing, Lying, and Slandering, Enuing, Wrath, Sedition, Sectes, Theft, Murther, Drunkenesse, Gluttony, Sloth, with such like, sweat cleane out of thy Heart, thy Head, thy Bones, and thy Body: with all the other powers or parts of thee: and euer wash thy Heart and Eyes with pure Humilitie, mixed with the Feare of God, and lay the sweet Camomill of good conuersation hard to thy Nose, least thou shouldest smell more than thine owne. And when thou feelest thyself altered from all these aforenamed vices, take the powder of Saywell, and lay it upon the top of thy Tongue, to sauour thy Mouth withall, and the Ears of the hearer: but drink thrice as much Doe-well dayly: And then take the oyle of Good-workes, mixed with the same mercy that God hath willed us to use, and anoynt there with thine Eyes, thine Eares, and thy Lippes, thine Heart, and thy Hands throughly: that they may be light, nimble, quicke, and ready, to minister unto the Poore and dispersed members of Jesus Christ, euer as you are able, and see occasion; but beware thou takest not Wind in the ministring thereof, least deadly Dust of Vaine-Glory, and Hypocrisie, doe thee much harme: and to keepe a dyet for thy Heads sake, use the hot broth of Holinesse, and Righteousnesse continually, and feede thyselfe well with the spoone of godly Meditations in God's holy Word: then annoynt thyselfe with the Oyle of God's peace: this done, arise from Sinne willingly, and take up Christ's Crosse boldly, beare it thankfully, and walke the course worthily, and thou shalt live everlastingly.

LITERARY INTELLIGENCE.

A new journal, devoted to diseases of children, has recently appeared in France. It is entitled the *Journal de Chirurgie et de Thérapeutique Infantiles*, and is edited by Dr. Variot, a Paris hospital physician.

The Russian Ministry of the Interior has sanctioned the publication of an illustrated periodical to be called the *Balneological Gazette*. It will contain all news and other information relating to mineral springs.

Dr. George Mather will publish shortly with Mr. Maclehose, publisher to the University of Glasgow, a biography of John Hunter and his brother William. The volume will contain a full account of the history of the Hunterian museums at the Royal College of Surgeons of England, and at the University of Glasgow.

A very useful list of French periodical publications has just been issued by Albert Schulz, of Paris, under the title of *Catalogue méthodique des Revues et Journaux parus à Paris jusqu'à fin, 1892*. The *Catalogue* gives the title of each journal, the year in which it started, the address of the office, the mode of publication, and the subscription both for France and the other countries in the Postal Union. Reference to the heading "Sciences médicales" shows that there are now 140 medical journals in course of publication in Paris.

The *Chicago Clinical Review*, which, under the able editorship of Dr. George Henry Cleveland, has already taken a leading place in the current medical literature of America, has recently introduced a new feature, which promises to be very useful to students and authors. Under the head of "Current Medical Literature Reviewed," the more important contents of all the leading American and English medical periodicals is given. In addition to this is given a list of the leading clinical articles of the past month, arranged alphabetically by title, giving author and reference. Readers will thus be enabled to see at a glance what is being done by English-speaking workers in any particular field of medical science.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1893.

Subscriptions to the Association for 1893 became due on January 1st; and notice is hereby given, in accordance with By-law 5, that Branch Secretaries' subscription accounts close on October 31st, and all unpaid subscriptions must be forwarded after that date to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, NOVEMBER 25th, 1893.

CREMATION AND DRAINAGE.

Cremation as a method of diposing of our dead is more and more engaging the attention of those who interest themselves in sanitation. The question was discussed recently at the meeting of the Church Congress at Birmingham, when an excellent address was delivered by Sir Douglas Galton, K.C.B., a member of the Council of the Cremation Society of England, which has been reprinted in pamphlet form and should be widely read.[1] Sir Douglas states that the disposal of the dead is rapidly forcing itself upon the public attention and points out that if Greater London had its proper area of cemetery accommodation nearly two square miles of ground would be required for the purpose. But even if this land were provided the geological formation of the area immediately around London is not the kind of soil favourable to the rapid decomposition of animal matter, which, Sir Douglas says, should be dry and porous, and these conditions are certainly not supplied by London clay. To find them one has to go a distance from London, and this means inconvenience and additional expense. Sir Douglas further dwells on the fact that even after a light and porous soil has been obtained the evils of burial are by no means reduced to a minimum, but on the contrary are aggravated on account of the emanations from the soil and the pollution of springs and rivers by the drainage into them of decomposing animal matter. Several very striking instances of this are given by Sir Douglas.

Dealing with the question of how to remedy the evils produced by burial, Sir Douglas compares cremation with earth to earth burial, which latter has been claimed as the most approved method of disposing of the dead. What else is earth to earth burial, says Sir Douglas, than the same process of combustion which is effected by cremation, except that in the one case it is slow and accompanied by abundant evils, and in the other quick, with absolutely no injurious consequence.

Following on the above address is one by Sir Spencer Wells, also a member of the council of the Cremation Society of England, which was delivered at Lord Brassey's house in Park Lane to the Church Sanitary Association. It is not the first time that Sir Spencer has brought the question before what is practically the same body, the Church of England Funeral and Burial Reform Association, with marked success, and it is owing to his efforts that not only has the hostility to cremation which was at one time shown by the clergy of the Church of England as a body to cremation quite disappeared, but that the proposal is now receiving their serious attention as a remedy for the state of affairs they probably are better acquainted with than anyone else. Sir Spencer pointed out the progress that had been made by those who favour cremation, and how numbers of well-known people representing all shades of thought and society had during the last fifteen years been cremated in pursuance of their own expressed wishes. As to the scientific aspect of the matter, Sir Spencer is of opinion that the germs of certain diseases are not destroyed by burial in the earth, but are brought to the surface again and propagate diseases wherever they can find a suitable nidus. The experience of Mr. Lindemann, which from his position as one of the leading water engineers in Germany is very valuable, was cited by Sir Spencer in support of the contention that the distance at which water may be contaminated by graveyards is very great. In one case this was found to be 20 miles. Sir Spencer concluded his address by urging his hearers to adopt cremation as the most sanitary method of disposing of the dead.

It is interesting to note that in answer to the oft-repeated argument against cremation—that it would lead to secret poisoning—the Select Committee appointed by the House of Commons to inquire into the present system of death certification report as follows: "Your Committee are of opinion that with the precautions adopted in connection with cremation, as carried out by the Cremation Society, there is little probability that cases of crime would escape detection; but inasmuch as these precautions are purely voluntary, your Committee consider that, in the interests of public safety, such regulations should be enforced by law." This is what the Cremation Society of England have always contended.

[1] *Cremation.* An address delivered at a meeting of the Church Congress, Birmingham, October, 1893, by Sir Douglas Galton, K.C.B. London and Derby: Bemrose and Sons.

THE GRIEVANCES OF ARMY MEDICAL OFFICERS.

IV.

It was represented to the Secretary of State for War that the three years' service in a rank as qualifying for pension frequently operated hardly upon individual officers in the senior grades, and, through delaying promotion, also caused much embarrassment in the duties of the administrative ranks. Further, that although the full application of a three years' rule might be equitable for officers obtaining promotion while sufficiently young it became inequitable to medical officers, who seldom were promoted to the higher grades until a period of age and service relatively advanced. On these grounds a reduction in the qualifying period was urged, not merely to obviate individual hardship but in the interests of general administrative efficiency. There is no attempt in the reply to traverse these propositions, but as arguments they are simply ignored, and, indeed, treated as if merely covert assaults on the public purse. We repudiate the implication that any such ulterior object was in the minds of those making them. But the jealous guardianship of the public purse, while to be commended, is not the be-all and end-all in intelligent administration. We much question whether the relaxation of the pension rule would

increase the non-effective medical vote, because, as matters are, so delayed is promotion that a number of the most senior medical officers cannot, through age, complete three years in a rank, but, nevertheless, must receive the pension thereof on compulsory retirement. If it therefore be inequitable to the public to grant a pension in less than three years through voluntary, how can it become equitable under the same period through compulsory retirement? Since the retirement question was opened, a scheme has been suggested by a writer in the British Medical Journal, under the pseudonym "Nitram," by which, although the three years' rule would remain in force it would be largely modified, if not in many instances cancelled, by making foreign service a factor in retirement. This is not wholly new, but follows the old rule that once applied to the retirement of inspectors-general of hospitals. It has received wide support in the department and is certain to come to the front in future discussions on retirement.

The proposal to second surgeon-major generals retained up to 62 years has met with refusal. But, to many who feared that the embarrassments in the administrative ranks were such as in time to make extensions of service the rule instead of the exception, it will be satisfactory to hear officially that such cases "can seldom occur." It is something to have that recorded.

The decision on the detailing of medical officers for particular presidencies will, we are told, be communicated later on. Meanwhile, let us repeat the hope that it may be against the present cruel system of pitchforking them on the shores of India in total ignorance of where they may have to serve in that vast country. Surgeon-Major-General Thomson, late principal medical officer in India, and one of the best that ever filled the post, has positively declared that the new, autocratic and heartless system is entirely unnecessary for any purpose of practical administration. Let the detailing be restored to the Director-General, whose hands it should never have left.

The reply states that no information had reached the Secretary of State for India of any proposal for placing officers of the British medical service in charge of native troops. We take this to mean no official information, which we are glad to hear; but the statement does not invalidate the circumstantial report that the proposal was made in India itself, with the monstrous provision that it was to be compulsory without charge pay. We rather fancy the author of this cool proposal will find it convenient, for his own sake, not to broach it again.

Much has been said on the financial extension of medical warrants to India, but the reply does not advance its solution a single step. The only answer vouchsafed is the old official plea that such extension was forbidden by express stipulation in the Warrant of 1879, from which the India Office has never receded, or right or wrong will recede; so an original injustice is sought to be perpetuated. Yet, it cannot be denied that high officials have both recognised and admitted the injustice, which makes the present attitude of the India Office all the more indefensible. We can hardly grasp the grounds for the statement that, were medical warrants applied in "force" in India, pay would thereby be reduced. The Indian Government have a code fixing the pay and allowances of ranks, surely it is not meant they would go behind it in the financial application of the warrants. They have never yet done so, either to medical or other military warrants.

Special facilities for study time are refused, on the ground that little advantage has been sought of such provisions as exist. No one, we surmise, has taken the trouble to ask for what was certain of refusal.

The rules, which have often been called "vexatious," regulating medical exchanges, are said to be as "liberal as compatible with efficient departmental administration," and, therefore, cannot be relaxed. This is the answer to cited instances that medical officers are differently treated from others in the privilege of exchanging. We again have the old arguments advanced against exchanges back to India within a year—namely, the "strain upon health of a tour in India." How curious this "strain" should never be mentioned in connection with a defence of the six years' tour!

Mr. Campbell-Bannerman concludes by expressing regret that, after most careful consideration, he has been unable to meet "most" of the views put forward by the Parliamentary Bills Committee; but trusts his explanations will be found satisfactory. His regrets will be shared by all well-wishers of the Army Medical Service; not in that he has been unable to meet "most," but few, if any, of the views put before him. We fear his explanations will be held to be much in a ratio with his concessions.

So ends the reply, and with it an important chapter in the controversy. Its importance may better appreciated hereafter, when the true value is seen of having the wants and grievances of the Army Medical Service narrowed down to definite issues.

NERVE SUTURE.

By nerve suture is, of course, now understood the accurate apposition of the freshly cut ends of a divided nerve, joined under the strictest aseptic precautions. The operation is, however, supposed to have been practised in the Middle Ages by Guillaume de Saliceto, Guy de Chauliac, Lanfranc, and others. In 1826, Arneman, two years later Flourens, and still later Dupuytren, performed nerve suture; but the operation was first done on a proper scientific basis by Laugier in 1864. No small amount of speculation and controversy has been the outcome of the operation, owing to the difficulty of explaining some of the phenomena which attend it. The recent discussion at the French Academy of Medicine cannot be said to have thrown any fresh light on the chief problem at issue—namely, that of explaining how the immediate return of sensation, which is observed in some cases, is brought about; and while Herzen's adverse criticisms of the views expressed in that discussion are well founded, he cannot be credited with having offered an alternative explanation which is at all more feasible than those he condemns. Perhaps no phenomenon connected with nerve suture possesses more interest, or has been less satisfactorily explained, than the immediate return of sensation which takes place in some cases. It is a rare though well-marked transitory phenomenon, which persists only for a few days. Possibly it is not so rare as the published records of cases would lead us to suppose, as in many such sensation was not tested until several days after the operation, while the accounts of other cases are so imperfect as to render them valueless in this connection, the majority, indeed, drawing no distinction between the immediate re

turn of sensation and that which occurs at a more remote period—two entirely distinct phenomena. When sensation does rapidly return, the patient may be unable to feel a single point touched, while a wide stimulation may be detected, as when the object is drawn along the surface to the extent of an inch or more. In other words, the perception depends on the strength of the stimulus, and this on the number of nerve fibres stimulated.

The problem is how to explain what appears to be the conduction of a physiological effect across the gap; for such immediate union of the divided ends as to allow of conduction of impulses along a continuous fibre, a few hours after the divided ends are brought in contact, is obviously out of the question. The theories that the immediate return of sensation is brought about through recurrent fibres or through anastomosis with other intact nerves are both open to the objection that if sensation could return in this way we should expect it to do so without the intervention of an operation. The only part that the operation could play in this connection is that which is embodied in Brown-Séquard's theory which supposes that the irritation of the nerve by the process of suture is capable of bringing about a reinforcement as it were, so that impulses not formerly perceived are recognised, the process being the reverse of inhibition, which we know to be possible by such irritation. Obviously if this were the true explanation of the phenomenon, mere irritation without apposition of the nerve ends would alone be necessary; whereas we have no trustworthy information that sensibility does return under such conditions, and we look with more than suspicion on the recorded cases in which it is said to have been restored by cutaneous irritation without direct interference with the divided ends of the nerve.

The first point to remember in considering such a problem is that the ends of the nerve are living and recently cut across. All familiar with sections of the peripheral ends of nerves, which have been divided some time before, must have seen non-degenerated fibres scattered among the degenerated ones, in spite of published records to the contrary. It must also be remembered that the gap between the divided ends, when they are in apposition, is extremely small, and that the "sensation" perceived by the patient is a very vague one. Further, the evidence of transmission of a physiological effect from one living tissue to another, when these are simply mechanically apposed, is at hand, for Kühne has shown that if two muscles be clamped end to end so as to make as it were a single muscle of double length, and if one end of one of these muscles be excited, the wave of contraction passes not only along the muscle excited, but is transmitted from it to the muscle with which it is in mechanical contact. Now, as is well known, when a nerve is divided, owing to the difference of potential between its longitudinal and cut surfaces, a resting current is produced. It is quite conceivable that excitation of the peripheral end of the divided nerve may cause a disturbance of the resting current in the central end, since the gap between the two ends is such an extremely small one, occupied by a very thin layer of fluid.

The return of sensation, which occurs at a more remote period (two to four weeks), and which is permanent, leaves less room for speculation, in that sufficient time has elapsed for reunion of the divided ends of the nerve to take place, though the exact manner in which this reunion is brought about has given rise to controversy. The time of complete restoration of function varies according as the case is one of primary or secondary suture. The shortest time recorded in the former class of cases is one month, and in the latter three months, while the longest time that the result has taken to come about in primary cases is eight months, and in secondary cases three years. There can be no reasonable doubt that such restoration of function is due to repair of the nerve, impulses being conducted along fibres structurally continuous, for proofs in support of this view are abundant and reliable.

The Lettsomian Lectures before the Medical Society of London on Peritonitis will be delivered by Mr. Frederick Treves on January 29th, February 12th, and February 26th, and not on the dates previously announced.

Professor Gairdner has been appointed by the Senate of the Glasgow University to fill the vacancy on the General Medical Council caused by the retirement of Professor Leishmann. The appointment is for a period of five years.

Professor Huxley has, at the request of the Rev. Richard Owen, consented to write a final chapter in the forthcoming *Life and Letters of Sir Richard Owen*, which will be an estimate of the work of the great palæontologist.

We understand that the rumour that Dr. Wilks, who on the occasion of the last contest obtained the greatest number of votes after Sir Andrew Clark and Sir Richard Quain, would be unwilling to accept office as President of the Royal College of Physicians is unfounded. Dr. Wilks, who was for some time in indifferent health due to a severe attack of influenza, has now perfectly recovered.

The Organising Committee of the forthcoming International Medical Congress in Rome has definitively decided that the meeting shall be held from March 29th to April 5th, 1894. The Congress will be formally opened by the King of Italy in the Costanzi Theatre on March 29th. The sections will meet in the buildings of the Roman "Policlinico." The Committee announces that steps are being taken to secure comfortable accommodation for visitors at ordinary prices.

By the death of Dr. Gilbertson, of Preston, coroner for the Amounderness Division of Lancashire, a vacancy occurs for that important public office. We understand that Dr. J. A. Rigby, of Preston, is a candidate for the vacant office. Our views as to the desirability, in the public interest, of having medical coroners, are well known, and we trust that in this case also every effort will be made to secure the success of so well-qualified a candidate. For this purpose the influence and active co-operation of the medical profession in the district are much to be desired, and, if effectively used, can hardly fail to secure a successful result.

We regret to announce the death of Mr. Bailey Denton, the well-known sanitary engineer, who died on Sunday, November 19th, at Stevenage, Herts, in his 79th year. For the last forty years of his life, Mr. Denton devoted his attention to the storage of water, water supply, and the sewerage of towns, and, with one or two engineers who are still alive, brought into prominence the method of purifying sewage by means of land, thus doing much to prevent the pollution of our rivers. In Mr. Denton we lose a friend and contributor, whose pen was from time to time employed in our columns on subjects on which he was so valuable an authority, and in which he exercised an important influence.

THE SIR RICHARD OWEN MEMORIAL.

MR. THOMAS BROCK, R.A., has been selected to execute the full length marble statue of Sir Richard Owen, which is to be placed in the hall of the Natural History Museum at South Kensington, where there is already a life-like memorial of Charles Darwin. The subscription list to the Owen Memorial Fund amounted to £1,050 on November 7th.

EXOPHTHALMIC GOITRE AND MYXŒDEMA.

THE Bradshaw Lecture of the Royal College of Physicians of London will be delivered by Professor W. S. Greenfield, of Edinburgh, on November 30th. The title of the lecture, which will be delivered in the theatre of the Laboratories on the Embankment, will be Some Diseases of the Thyroid Gland. The lecture will be illustrated by lantern slides and by a large number of specimens and photographs. In addition, a microscopical demonstration will be arranged an hour before the lecture—that is, from 4 to 5 P.M.—and will be resumed at 6 P.M., after the delivery of the lecture.

PATHOLOGICAL LABORATORY AT CLAYBURY.

ACTIVE preparations are in progress for the erection of the Pathological Laboratory and Museum at Claybury Asylum. It is anticipated it will cost £4,000. It is to be adapted for both physiological and physical examination, and also for microscopical and chemical examination. When ready for use a pathologist of standing and position, who will be available for all the London County Asylums, will be selected with a view to placing London in the front rank in regard to research into the pathology of lunacy. Land adjoining Claybury Asylum has been chosen for the building.

ULSTER MEDICAL SOCIETY.

THE opening meeting of the present session was held in the Museum, Belfast, on November 15th. The retiring President, Dr. Whitaker, took the chair, and introduced his successor in the presidency, Dr. J. W. Byers, who delivered an able address upon Recent Advances in Obstetrics and Gynæcology. There was a very large attendance, and the Society has every prospect of a successful session. Four new members were elected. Dr. Mackisack has succeeded Dr. McCaw, who for five years filled the office of Secretary with great energy and success. The annual dinner of the Society will take place on Thursday evening, November 30th, in Thompson's Restaurant, Belfast.

THE PARKE MEMORIAL FUND.

THE committee of the Parke Memorial appeal to the public for subscriptions to the proposed memorial to the late Surgeon-Major T. H. Parke, so that it made worthy of his heroic life and services. This memorial is being promoted independently of class, creed, profession, or politics, and has the sympathy and approval of the Parke family. The form of memorial has not yet been decided on, and it will largely depend on the amount of funds available how far the committee may be able worthily to carry out the object. Subscriptions to the amount of £196 12s. 6d. have already been received and acknowledged in the press. Further subscriptions are urgently needed, and will be thankfully acknowledged. The hon. secretaries are Mr. Michael F. Cox and Mr. Herbert Malley, 24, Kildare Street, Dublin.

THE ROYAL SOCIETY'S MEDALS.

THE Royal Society's medals this year have been awarded as follows:—The Copley Medal to Sir George Stokes, F.R.S., for researches and discoveries in physical science; a Royal medal to Professor Arthur Schuster, F.R.S., for spectroscopic researches and investigations into terrestrial magnetism and disruptive discharge through gases; a second Royal medal to Professor H. Marshall Ward, for researches into the life history of fungi and schizomycetes; and the Davy Medal to Messrs. J. H. Van't Hoff and J. A. Le Bel for work in connection with the theory of asymmetric carbon and its bearing on the constitution of optically active carbon compounds. The distribution of the medals will take place at the customary meeting on St. Andrew's Day (November 30th), and will be followed by a dinner at the Whitehall Rooms, Hôtel Métropole, on the same evening.

THE LATE SIR ANDREW CLARK.

LADY CLARK and family desire to return their grateful thanks for the great kindness and sympathy shown them during the illness and since the death of Sir Andrew Clark. The large number of inquiries, personal or by letters and telegrams, and the numerous gifts of wreaths and flowers sent, render it quite impossible to thank each individually, but it is hoped by this intimation that all who have manifested their kindness will know how deeply it has been appreciated, and what support and solace it has afforded.

AN EGYPTIAN CRISIS.

THE proposed nomination by Rogers Pasha of an inspector-general for the sanitary administration of Egypt, has given rise to "what is called a Ministerial crisis." It seems that at first the Council of Ministers utterly refused to sanction the appointment, but means were eventually found to bring about a change of policy. We understand that the nominee for this new post, which is worth £1,000 a year, is Surgeon-Captain Pinching, at present serving in the Egyptian army. This officer has been nine years in Egypt, and knows the country thoroughly, from one end to the other. Dr. Rogers has been fortunate in securing the services of so exceptionally-qualified an auxiliary. As usual, the Anglophobic section of the press tried to bring in a charge of nepotism, but, needless to say, the vaguely-projected accusation is utterly devoid of foundation.

STOUT AND BEER.

THERE is a very widespread opinion that most people—most people with a gouty history at least—can drink stout with greater impunity than beer. A question addressed to us some short time ago by a correspondent has led us to make some inquiries as to the probable foundations for this belief. As to the fact of the different effects of stout and ale there appears to be little doubt. The difference is analogous to that obtaining between different wines; some men cannot take a glass of sherry without subsequent discomfort, while others know from experience that they must not indulge in the wines of Bordeaux or Burgundy. Some part in the different digestibility of stout and ale may perhaps be due to a difference in the fermentation, but probably the use of highly dried or torrefied malt for the making of stout has something to do with it, as have also the smaller quantity of the oil of hops which it contains, and the different amount of albuminoid ingredients dissolved out from the malt by the soft water used for brewing stout, and the hard water used in brewing beer. The difference, however, is not so great as is sometimes asserted, and few men who are at all inclined to gout and live sedentary lives can afford to make a practice of drinking stout daily.

DEATH UNDER CHLOROFORM.

WE are indebted to Dr. W. Laurin for the following account of a death under chloroform. The patient, A. W., aged 38, had necrosis of the proximal phalanx of the right second toe; this it was proposed to remove by operation. On November 9th Dr. Tucker kindly accompanied Dr. W. Laurin, and administered a mixture of chloroform and ether, equal parts, on a towel. After some excitement and struggling, in about twelve minutes a desirable condition for operation seemed to have been attained, when the pulse, hitherto good, suddenly fluttered and ceased, the respiration and complexion being just then quite reassuring. The patient's head was at once brought over the edge of the convenient

narrow mattress and allowed to depend. Respiration had now stopped. The tongue was pulled forward, and the head further lowered. Two feeble respiratory movements followed, but no perceptible action of the heart. Artificial respiration was maintained for half an hour, air passing through the larynx freely. Exactly one ounce of the anæsthetic had been used. There had been no vomiting. Necropsy (on third day): Brain slightly anæmic; heart healthy, some fluid blood in both ventricles. Lungs engorged and presenting almost symmetrical morbid appearances; the upper half of the right was adherent, the left less extensively so, the very apex was in each case almost inseparably attached, and throughout both apices was a considerable development of miliary tubercle (of which during life there seems to have been no noticeable symptom). The other organs were healthy. The stomach was empty. The general bodily condition was good, with a thin layer of subcutaneous fat. The patient had that morning had a light breakfast, some beef-tea two hours before, and one ounce of whisky in water just prior to anæsthetisation. The heart had been carefully examined and considered sound.

THE INSANITARY CONDITION OF CHRIST'S HOSPITAL.

The report presented by Dr. Sedgwick Saunders to the City Commission of Sewers in regard to the insanitary condition of Christ's Hospital fully justifies his action in advising that the school should be dispersed, and we hope that those who objected to our comments on this matter will now recognise that we had good grounds for our remarks. We have no space for even a summary of the report, but it is sufficient to say that the facts set forth clearly show that the system of drainage is, in Dr. Sedgwick Saunders's own words, "out of date, defective in design, and insanitary in its working." He states that nothing short of an entire reconstruction of the general system of drainage will suffice to bring the school into focus with modern requirements and make it fit for wholesome occupation. He adds that comparing the condition of the drainage at Christ's Hospital with that of St. Bartholomew's Hospital, upon which he reported fully in May, 1891, the balance was greatly in favour of the latter, inasmuch as although the system was as antiquated and unscientific as the former the drains were found clean and sound. He concludes by expressing an earnest hope that the authorities of Christ's Hospital will prove themselves equally alive to the sacred trust imposed upon them. After a little discussion, Dr. Sedgwick Saunders's report was adopted by the Commission of Sewers.

SCATTERING SMALL-POX.

The recent recrudescence of small-pox in London, notwithstanding the activity of the Asylums Board in removing cases to the ships as soon as they are discovered, draws renewed attention to the modes by which the disease is spread. There is but little doubt that the cases in which the attack is so trifling as not to be discovered at all, and those in which, although discovered, the malady is mistaken for something else, are the great agents in the dissemination of the mischief. Modified small-pox may give but little sign of its existence. A man may feel ill for a couple of days, may even go to a doctor, but by the time the spots come out, by which the disease could be diagnosed, may feel so well that he goes to his work again; he may, in fact, never have left his employment, the spots being perfectly insignificant, or, even if obvious, being thought nothing of, from the fact that the patient feels well as soon as they begin to show. A considerable number of cases of this sort can be picked out from the reports issued every week by the Asylums Board. In regard to one such case it was reported: "A lodger fourteen days ago had a lot of spots on him, and only saw a doctor before they came out." Again, another patient "states that two brothers working on the same gang had spots out on them, but were only laid up for a few days, about three weeks ago." But the cases in which the patients have been known to be ill, but have been thought to be suffering from chicken-pox or measles, are much more numerous. "Measles, followed by a few spots on the face," occurring a fortnight before an outbreak of small-pox, is almost certain to have been modified variola; and as for chicken-pox, hardly a week passes that someone does not develop small-pox about a fortnight after "others in the family had chicken-pox." The diagnosis between the two diseases is distinct enough if seen from the beginning, but it is sometimes by no means easy after a few days, and the possibility of doubtful cases being small-pox should always be kept in mind. A man was removed suffering from small-pox whose brother was stated to have had chicken-pox a fortnight before, and to have gone to Hastings at the end of a week. Another man was discovered convalescent from small-pox. He had had the spots on him a fortnight, and, having been told it was chicken-pox, had continued at his work, and the case was only finally brought to light when others in the family were attacked. Only this month a whole group of cases have occurred, all of which appear to have sprung from one, which had been all along supposed to be chicken-pox, and was going about with the scabs still on her when discovered. It seems to be no uncommon thing for people to work all through their so-called chicken-pox, scattering the seeds of small-pox all the time. There is, indeed, much in the Metropolitan Asylums Board reports to raise a smile in those who are cynically inclined. A man is reported to have been treated for four days at one of our large general hospitals for "blood poisoning," till, being seen by the medical officer of health, he was removed to the wharf. That cigar and cigarette makers should work with the disease upon them is apt to cause a chuckle among the non-smoking portion of the community, and that the cook and kitchen porter at a city restaurant should be so affected, and a caterer at a large newspaper office should be at work with the spots upon him, are provocative of mingled feelings. Few cases, however, will in this respect beat one just reported in which a man continued at work for five days after the eruption came out, his work being—of all occupations in the world—that of "rubber" at a Turkish bath. When a case of small-pox is once reported, the worst is over so far as regards the community, for, by the action of the Asylums Board and the sanitary authority, it can soon be rendered harmless. The difficulty lies with the unrecognised cases; it is the by-ways of small-pox that we want to track out.

"SWEARING WITH UPLIFTED HAND."

Our attention has been called to a new phase of this question. A coroner, who is himself a member of the legal profession, refused to administer the oath with the form of words provided by the British Medical Journal, but preferred to swear the jurors according to an elaborate form of his own. This new invention wasted so much time that many of the jurymen, we are told, preferred to "kiss the Book" rather than to go through this tiresome ceremony. Some time after the inquest the coroner in question wrote to our correspondent and expressed grave doubts "whether Section 5 of the Oaths Act of 1888 applies to a coroner's jury, for it is difficult to see how an oath can be administered in the form and manner in which an oath is usually administered in Scotland, when in point of fact no such similar oath exists in Scotland." He adds, however, the complete answer to his own argument. For he goes on: "Perhaps this is too strict an interpretation to put upon an enabling statute." The fact is that the law advisers of the Crown have long since decided, in accordance with reason and common sense, that when the Oaths Act enabled the Queen's subjects in this part of Great Britain to excuse themselves

from a ceremony to which many of them objected, it was the business of the law and of all its officers to assist the change, instead of obstructing it, whenever the claim was made. In this spirit they have gone so far as to say that if the regular Scotch form of words was inappropriate, or was for any reason not used, the English form of words and the Scotch ceremonial would be a valid and sufficient oath. It is high time that the minor officers of the law understood that it is not their business to spend their ingenuity in trying to defeat the plain intentions of an exceptionally clear and simple Act of Parliament.

THE DIPHTHERIA EPIDEMIC IN LONDON.

THE mortality from diphtheria in London last week showed a slight decline from that recorded in the preceding week, the deaths referred to this disease being 91, against 83, 88, and 103 in the previous three weeks. This number was, however, more than three times the average. In proportion to population, East and South London showed the greatest mortality from diphtheria, and West London the lowest.

THE HARVEIAN LECTURES ON HOUSE SANITATION.

DR. W. H. CORFIELD, Professor of Hygiene and Public Health at University College, will give the Harveian Lecture in the rooms of the Harveian Society of London on December 7th, 14th, and 21st, at 8.30 P.M. The subject will be "Disease and Defective House Sanitation." The subject is an important one, and will sure to be well handled by so competent an authority. The Council of the Harveian Society have departed somewhat from their usual routine in inviting an exponent of sanitary science to deliver the Harveian Lectures on the present occasions. All members of the medical profession are cordially invited to attend.

EPIDEMIC INFLUENZA.

DURING the last month influenza has cropped up in many parts of Europe. There is not at present any widespread epidemic, but the large number of centres in which the disease exists cannot be viewed without some anxiety. The disease appears to be as a rule, to which there are already a good many exceptions, of a mild form, and this mildness is, no doubt, favouring its increase, since it is mainly spread by personal intercourse. A single individual suffering from a mild attack, who keeps about his business, may infect a large number of persons. If every patient, when first attacked, could be induced to keep his room for a few days, it would not only be much better for himself, by diminishing the chance of complications, but also for everybody else, since the risk of infection would be greatly lessened. The disease has been present in the East of London and the neighbouring parts of Essex for three or four weeks, and the number of deaths in London attributed to influenza has risen from 8 to 20, and last week to 22. The epidemic also exists in South Wales—Cardiff, Llanelly, and the Barry districts being especially affected. The prevalence at Birmingham has already been noticed, and the disease now exists in Liverpool, Manchester, Blackburn, and other parts of the North-west, as well as on the East Coast at Newcastle-on-Tyne and Sunderland. The epidemic is reported also from Berlin, and of a somewhat severe type in Bavaria.

THE GREENWICH EPIDEMIC.

THE mystery still remains unsolved. The Lambeth jury has returned a verdict "that the deceased died from gastro-enteritis set up by an epidemic at the Greenwich Union Workhouse, but how it was caused there is not sufficient evidence to show." The Greenwich jury, however, has not finished its labours, having adjourned till December 12th. Analysis of the viscera has shown a complete absence of mineral and vegetable poisons, and although ptomaine has been found, it has not been in such quantity as to suggest that it was anything beyond the mere result of decomposition. The distribution of the disease in relation to diets seems to exclude food poisoning. There is much evidence pointing to the water as the source of the mischief; it showed traces of sewage contamination, and the intestinal contents of the Lambeth case showed bacilli microscopically similar to cholera bacilli, although the cultivations did not yield positive results. The collapse, again, seen in some of the cases was very like that of cholera, which in the presence of polluted water would also point to it as a cause. On the other hand, the character of the epidemic was entirely unlike cholera. We know of no outbreak of cholera so sudden and widespread and yet causing so few deaths in proportion to the cases; 253 persons were attacked, but only 11 died, which is quite unlike the onset of a cholera epidemic. Dr. Klein's investigations are as yet incomplete, so we must await further details from him. In the meantime the epidemic furnishes a good example of the difficulty which attaches to questions of etiology. If an outbreak of this sort, occurring among a community leading a strictly regulated life, is so difficult to unravel, even by the aid of the best special skill available, we need not be surprised that some country epidemics appear absolutely paradoxical.

THE OPIUM COMMISSION.

THE Opium Commission met at Calcutta on November 18th. After the presentation by Lord Brassey, the chairman, of a minute disavowing any desire to interfere unduly with the existing order of things, the examination of witnesses was commenced. The first to be heard were Sir David Barbour and Surgeon-Major-General Rice. The former denied that the use of opium produced the evil effects attributed to it, and solemnly warned the Commission of the probable result of destroying the opium revenue. Dr. Rice defended the general use of opium as beneficial, and declared it to be one of almost daily necessity to the great mass of the population. The Commission held its second sitting on November 20th, when several witnesses of the anti-opium party were examined. The first Calcutta session of the Commission will terminate on December 4th, when Sir James Lyall, Sir William Roberts, Mr. Arthur Pease, and Mr. Mowbray will proceed to Burmah to collect evidence, while Lord Brassey, and Messrs. Wilson, Fanshawe, Hewett, and Haridas Veharidas will hear witnesses in Madras. The Maharajah of Darbhanga, who is also a member of the Commission, will remain at Calcutta owing to ill-health. All the members will reassemble in Calcutta shortly before Christmas. The Commission held its third sitting at Calcutta on November 21st. Mr. Alexander, secretary of an anti-opium society, was examined, and his evidence occupied the entire day. He said that the gradual diminution of the area of cultivation would not satisfy the anti-opium party, as they regarded the trade as immoral. He complained that the orders for the suppression of opium dens had not been fully carried out. He considered that the reforms already taken were steps in the right direction, but that they fell far short of the requirements of the resolution passed by the House of Commons. He thought that compulsion should be exercised with regard to the Native States as a last resort. He quoted the resolutions passed at a public meeting in England and other evidence to show that the English public were willing to submit to taxation in order to supply the loss of the opium revenue.

THE SEWAGE BATH AT DEVONPORT.

PRESSURE on our space prevents us from printing in full a memorial we have received from the Devonport Swimming Association, drawing attention to the sewage pollution of the only spot on their river which is available for bathing, either for soldiers or civilians. The importance of the matter is, however, urgent. Devon-

port is a military and naval town, and Government dockyards occupy the larger part of the foreshore, leaving but one spot free to the public for bathing purposes. Here the inhabitants bathe, here the soldiers hold their bathing parade, and here, also, the drains from the Raglan Barracks empty themselves, as also do those from some of the houses in the town. Complaints have been made; the water has been analysed and found to be disgustingly foul, and still nothing is done; the youth of Devonport go on bathfng in filthy water, while the soldiers are compelled to bathe day by day in their own sewage! A sample of the water having been collected from a spot near the sewage opening, where some boys were at the time bathing, was forwarded to the Borough Laboratory, and the report stated that its impure character was amply evident on mere inspection; "it was turbid, a dirty-brown colour, and emitted a most offensive sewage odour, perceptible two or three feet from the bottle." The danger of bathing in such stuff is obvious, as also is the urgent importance of stopping the discharge of sewage in such a place. We are told that the Government officials say the matter is in the hands of the Town Council, while the latter maintain that it rests with the military authorities, and we sincerely condole with the people of Devonport on the risk they run of falling between two stools, bound with such ridiculous red tape. Does it not seem absurd that the War Office, after all the difficulty it has in finding suitable recruits, and after spending a sum we should be afraid to name in turning such as it gets into soldiers, should expose these good fellows to the inglorious risks of bathing in such water as we have described. We are sorry for the inhabitants of Devonport, who are clearly dominated by the military and naval element; but the public may well be indignant at military authorities who allow such things to go on. Tommy Atkins is ready enough to die before the enemy for the sake of his country, but to die of muddle and filth is hardly in the contract.

ABERDEEN UNIVERSITY: RECTORIAL ELECTION.

The result of the voting on November 18th by the students attending the University of Aberdeen was to return for the second time the Marquis of Huntly as Lord Rector, Lord Huntly receiving 347 votes, and Mr. W. A. Hunter, M.P., 252. The Marquis of Huntly had also a majority of "nations." The election was non-political, and what fight was in it hung around the idea of centralisation of all the classes in Marischal College. The Marquis of Huntly is supposed to be against this proposal, and to be a supporter of the party who desire to maintain King's College, and also to expend money for new buildings on its site. Mr. Hunter was in favour of centralisation. This idea of centralisation is quite new, only having been mooted three years ago, and there can be but little doubt that it will develop, for it becomes more and more evident that the University could have buildings erected on the present site of Marischal College capable of accommodating all the various faculties. It is further felt that now is a fit and proper time to work out the idea, when the extension movement is in active progress. The students held a most successful torchlight procession in the evening, the wildness of the night only adding extra beauty and weirdness to the scene. Over 400 joined in it, in every conceivable costume, from the staid professors robes to those of the "sweet girl graduate."

INEBRIATES' LEGISLATION AND THE CLERGY.

Dr. Norman Kerr, Chairman of the Inebriates Legislation Committee of the British Medical Association, has issued a circular letter to the "clergy of all denominations," in which he says: "The urgent need for further legislation in dealing with habitual drunkards has been officially set forth in the recently-published *Notes of Evidence* and *Report* of a Government Departmental Committee. The British Medical Association, numbering 15,000 registered practitioners, the Society for the Study of Inebriety, and the Homes for Inebriates Association, supported by a general consensus of opinion among magistrates, gaol chaplains, Poor-law guardians, and persons interested in reformatory, rescue, and preventive work have strongly advocated: (1) Power to compulsorily seclude habitual drunkards in special curative institutions; (2) curative seclusion for poor diseased inebriates at the public charge; (3) a removal of the existing hindrances to the immediate reception into a retreat of an inebriate voluntarily applying for admission involved in an appearance before two justices. The Home Secretary, having promised to receive a deputation and to introduce a Bill into Parliament, based on the suggestions of the Departmental Committee, I am instructed to earnestly appeal to all Christian ministers to petition or memorialise the Home Secretary or the House of Commons in favour of this amended legislation, as loudly called for in the interests of the helpless victims themselves, of their distressful wives and families, and of the general community."

DISPENSARIES: PROVIDENT AND OTHERWISE.

There appears in the *Standard* of November 20th a letter from Dr. Hooper, of 3, Trinity Square, on the subject of dispensaries, which he divides into four classes—the old gratuitous dispensaries, parochial, provident, and private. Dr. Hooper's general conclusion is that the gratuitous dispensaries are to be preferred. The "private dispensaries" he justly repudiates as being really only cheap doctors' shops, where advice and medicine are supplied at prices which would really not pay for the medicine alone, if good. The parochial dispensaries he hardly discusses at all, though we cannot see why, if persons are too poor to pay for themselves they should feel it more degrading to receive charity from the public than from private persons. His objections to the provident dispensaries appear to us to be theoretical merely, namely, that that their regulations "tend to economy and niggardliness in prescribing, because the less money spent on drugs the more for the doctors," and because the system "also induces these gentlemen to aim at popularity rather than accurate diagnosis." The very same objections might be made to ordinary private practice, but they are, we believe, totally insignificant. Meanwhile, Dr. Hooper entirely ignores the grave objections that are made on all hands to the old-fashioned dispensaries as distributing so-called charity to persons who have no claim to it, thereby injuring the medical men and undermining the self-reliance of the poor. All this Dr. Hooper coolly passes over, and assures us on his own authority that provident dispensaries are, "at least, quite unnecessary." No doubt the system is one which requires careful regulation, and we have already expressed our opinion that no subject could more usefully engage the attention of the Royal Colleges than the whole system of the provision for the medical treatment of the poor in our great cities. But to say that there is no necessity for improvement is to display a total ignorance of the question. In the same journal we notice a complaint about some so-called "hospital" for women, officered by women, at which it is said that a 5s. midwifery fee and a charge of 2d. for medicine is the scale of payment. We do not know what evidence there is for the statement, nor what is the institution in question, but there are no doubt "bogus" hospitals as well as "bogus" provident dispensaries, and will be so long as the public tolerates the present system or no-system.

THE DANGERS OF WINDOW CLEANING.

The occurrence of a series of fatal accidents to persons engaged in cleaning windows has drawn renewed attention to the danger of the far too common practice of standing on the sill while so doing. The yearly loss of life from this cause is very considerable, and so long as the practice is continued is not likely to diminish. To such as are accus-

tomed to giddy heights the danger may not be great, but to those who are not so habituated even wide window sills are no protection. Faintness or vertigo will always occur in a certain proportion of cases, and to be giddy under such circumstances means death. By Section 28 of the Towns Police Clauses Act, 1847, a penalty of 40s. for each offence, or, in the discretion of the magistrate, fourteen days' imprisonment, is enforceable against any occupier of a house who orders or permits any person in his service to stand on the sill of any window in order to clean, paint, or perform any other operation upon the outside of the window, unless such window be in the sunk or basement storey. It is also further provided that any constable or other officer, etc., shall take into custody without warrant, and forthwith convey before a justice, any person who within his view commits any such offence. A legal correspondent, however, has pointed out that this Act of 1847 applies only when it is incorporated with the "Special" Police Act for a town or district, and that it is not in force in the metropolitan police district. On inquiry at Scotland Yard we find that this is the fact, and that no instructions are given to the police in reference to this very obvious danger, and no attempt made to prevent the recurrence of these catastrophes. Curiously enough some portions of the Town Police Clauses Act, 1847, seem to have been adopted, but not the portion in question. In towns where this Act is in force a policeman, seeing a girl standing on a window sill, would at once warn the occupier to call her in, and, if any hesitation were displayed in doing so, could without warrant convey him or her to the police station, for the occupier must not only not order but must not even permit exposure to such danger. In London, however, things have to take their chance until an accident occurs. Clearly this is a condition of affairs which should not be allowed to continue, and we may fairly ask that the Home Office shall take such steps as are necessary to place London on the same footing as other towns in respect to this matter.

A DUBLIN HOSPITAL SCANDAL.

For two or three weeks there have been unpleasant rumours in Dublin regarding the management of the Coombe Lying-in Hospital, and we regret to say that the current stories prove to be substantially correct. This hospital is a very old institution, situated in a poor part of Dublin. It is partly supported by public subscription, and partly by corporation grant. For years it enjoyed a splendid reputation as a clinical school, especially when it was under the direction of Dr. G. H. Kidd, who was for a long period the Master. He was succeeded by Dr. S. R. Mason, Professor of Midwifery in the Royal College of Surgeons, who attracted a large number of pupils. At the close of his period of seven years the governors proceeded to another election. The contest lay between two Assistant Masters, Dr. Fred. W. Kidd, a very well-known obstetrician; and Dr. J. Colclough Hoey, a Licentiate of the College of Surgeons of 1882, and of the College of Physicians of 1884. Dr. Hoey was appointed by a casting vote of the chairman. Things did not prosper under the new control. Subscriptions fell off, the class of students decreased, and patients did not seek aid in the accustomed numbers. In September last the Corporation Inspection Committee reported that the hospital was "in a most unsatisfactory condition," and it was even recommended that the grant of £200 for the year should be withdrawn. Later on irregularities were reported to the governors. These had reference to the supply of drugs, and the result of an investigation led the Board to call upon the Master to resign. This he at once did, and within a few days he left Dublin for Australia. The Assistant Master, Dr. Curtin, also resigned. The death of the matron on Monday last under circumstances which rendered an inquest necessary, further complicates the story. The matron was a young woman, good-looking, and aged 25. It transpired that she was very ill, the allegation being made that there was some uterine mischief which had been followed by abscess and peritonitis. The case has thus been lifted into the greatest public prominence. It may be stated that twenty years ago the hospital was practically rebuilt by Sir Arthur Guinness, now Lord Ardilaun. At the inquest held on November 22nd on the body of the matron, Miss Mary Anne Fearn, Dr. Curtin, late Assistant Master, offered himself for examination. The deceased was attended by Dr. Hoey, the late Master, and then Dr. Redmond, Dr. Mason, and Dr. J. W. Moore saw her in consultation. Witness never heard that the deceased had been improperly interfered with by drugs or instruments. Professor Purser, who made the *post-mortem* examination, said the deceased died from blood poisoning resulting from an abscess in the pelvis. He did not think the uterus ever contained a full-grown child, but he could not give a positive opinion as to whether it ever contained an immature one. The left Fallopian tube was adherent to the bowel, the uterus was inflamed, owing to the introduction of some poison into its body. He could not say whether anything had recently been done to produce abortion; the poison might have been introduced by an unclean instrument in a necessary operation. The jury found that death was due to blood poisoning.

THE GENERAL MEDICAL COUNCIL.

The General Medical Council, at its session which begins next Tuesday, will, we understand, have before it several important cases. A communication has been received from the Registrar of the Royal College of Physicians of London, stating that the licence of the College held by Dr. Herbert Tibbits has been revoked and withdrawn; a communication has also been received from the Secretary of the Royal College of Physicians of Edinburgh, stating that he has been deprived of his Fellowship and Membership, and his name removed from the College list. A series of cases of alleged covering will come up for investigation. Applications will be considered from Calcutta, Lahore, Ceylon, and Adelaide for admission of degrees or licences to registration on the *Colonial Register*. Among other business will be the submission of the usual tables, and of a notification that Mr. Allinson intends to appeal against the decision of Mr. Justice Henn Collins given shortly before the Long Vacation.

THE DANGER OF EATING OLD MUSHROOMS.

All the members of a family of seven persons were recently taken seriously ill after eating a dish of mushrooms. The symptoms were those of irritant poisoning, and the mother of the family succumbed. It is quite possible that the fungi eaten in this case were real mushrooms, for they are liable to become acrid with age. A fungus, as most persons know, springs up very quickly, attaining its full development in a very short period; and the majority of them decay as rapidly as they grow, or rather expand, because the appearance of the fungus above ground is the expansion of a previously formed cellular structure. No sooner has this body reached its full size than it usually begins to decompose; and it is supposed that the noxious property is due to absorption from the medium in which the fungus grows rather than to secretion within its own tissues. It is not difficult to determine when a mushroom, or any other agaric, is unfit for food. So soon as the brightness of the colour of the gills—the lamellate under part of the cap—disappears, the quality of the fungus deteriorates, and it should be avoided. It is true that many persons eat mushrooms with blackened gills without experiencing any ill-effects; but we repeat the warning we have often given. Do not eat any fungus that has passed the firm, bright stage of its existence. Puffballs and truffles should be firm, solid, and white, or whitish, when cut through.

ANALYSIS AND REPORT
ON
ORIGINAL DOCUMENTARY EVIDENCE CONCERNING THE USE OF OPIUM IN INDIA.

Being an Introduction to a Summary of Upwards of One Hundred Reports to the Parliamentary Bills Committee of the British Medical Association Received from Medical Officers and Civilians Resident in all Parts of India.

The opium question hinges so largely on the actual effect of the use of the drug on the population in whose midst it grows that it has been thought it would be useful, and would tend to the elucidation of truth, if we endeavoured to ascertain the experience and the views of those medical men who live on the spot and have had the largest opportunities for observing the habits and the health of the native races.

With this object Mr. Ernest Hart, chairman of the Parliamentary Bills Committee of the British Medical Association, addressed in July last a circular letter to military and civil practitioners throughout the Indian empire, and for some weeks now answers have been pouring in from every part of India, giving an immense amount of most useful information and indicating clearly enough what must be the drift of the Indian evidence available for the use of the Opium Commission.

It is not our wish at the present moment to enter upon the general question of the use and abuse of opium, nor to consider the social and political problems involved in any attempt to interfere with the habits and customs of so vast a country as India. It must be understood, therefore, that any allusions, views, or opinions contained in the following brief summary of the replies which we have so far received are in no sense our own, but come out of the information which has been poured upon us so lavishly by men of position and experience in all parts of our Indian empire.

The picture of the life of the lower classes in many parts of India is distressing to an extreme degree. The people are often of a fine type, but it is again and again stated that they are underfed, poorly clothed, emaciated, and liable to be pulled down by malaria, dysentery, and other endemic diseases; and it is clear that, although opium is often used as a luxury, it is also the one great remedy to which they fly in the diseases to which their climate exposes them, as well as the one cup of comfort open in that country to the poor man amid the deadly monotony of his weary life.

The Extent of the Use of Opium.

In answer to the inquiry, To what extent is opium used among the population under your observation? there is considerable variety according to the geographical and social differences of the people; but a perusal of the documents shows that there is in India quite as broad a distinction between the moderate and the excessive use of opium as there is in England between the moderate drinker and the drunkard, and also that the excessive use of the drug is rare.

The moderate use of opium, meaning thereby the taking of 2 to 4 grains twice a day, is very common in some parts. Poor people give it regularly to children up to 2 years of age to keep them quiet, and also as a prophylactic against bowel complaints such as enteritis. A few old men, too worn out to work, take to opium smoking, which is injurious to them, spoils their appetite and their digestive powers, and shortens their days; but it is over and over again stated that excessive use of opium is not common, and that the ordinary use of it is not injurious, especially among outdoor workers; although it is admitted that among the idle wealthy, who lead a wholly sedentary life and indulge in opium, as they do in every other vice, in excess, the combined result of these various vices is disastrous. But it is different among those who work in the open, and are exposed to all sorts of weather.

One correspondent—Surgeon-Colonel Gaye—speaking of men who work hard, are exposed to the hot sun and drenching showers, and who live in malarious districts, with scanty cotton clothing, and with a single country blanket their only covering by day or night, says: Men such as I describe, of all castes, use opium in small quantities to eat. They believe it to be, and it undoubtedly is, a prophylactic, a nervine stimulant which prevents hunger and thirst, and enables men to undergo vast fatigue. It is also used to promote perspiration, which in a hot country means life, to check diarrhœa, to stop the pains of dyspepsia and rheumatism, and also, it is to be feared, it is largely used to check the misery and empty sense of want due to the chronic semi-starvation in which they live.

Influence of Use of Opium on the Physical and Moral Condition.

What are your experiences or conclusions as to its influence (1) upon the physical, and (2) the moral condition?—With very few exceptions this is answered positively in the sense that the drug, taken as it is so commonly taken in India, is harmless and without effect.

Surgeon-Major Youngerman says: No influence good or bad.

Surgeon-Lieutenant Seton: From observing cases of men who admittedly eat as much as 5 grains daily, and have done so for years, I have come strongly to the conclusion that in physical and moral condition the opium eater is as good a man as any; he certainly is freer from malaria; it is the bhang eater who suffers.

Brigade-Surgeon-Lieutenant-Colonel King: Its influence on the physical condition is excellent, on the moral perfectly harmless.

A Judge writes: As Judge of the Chief Court I have had to deal with every sort of crime; I have, of course, had to try murderers who murdered under the influence of ganja, but I have never known any crime of violence attributed, or remotely attributable, to opium. Can the English judges say as much for alcohol? The opium eater never hurts his neighbour or troubles the police.

This sort of answer recurs with almost wearisome monotony, only very rarely does any correspondent say that the moderate use has an unfavourable influence, and even these consider that its evils are not as great as those of alcohol, and that if it were abandoned its place would probably be taken by the various forms of Indian hemp.

Opium as a Protective against Malaria or Other Diseases.

The question—Is opium used by the inhabitants as a prophylactic, and how far, in your opinion, has the practice any protective influence either against malaria or liability to other diseases?—has brought out a number of answers which deal rather with belief than with fact. Nevertheless, the belief of observers on the spot resident in their various districts for many years, are worthy of consideration.

Captain C. G. Parsons, Deputy Commissioner of Umballa, answers: Most certainly and with excellent effect. It is a kind of armour against malaria.

Brigade-Surgeon-Lieutenant-Colonel King: Yes, it is largely used as a prophylactic against malarious fever; in my opinion it has a distinctly protective influence against both fever and dysentery.

Surgeon-Major Martin: Yes, but it has little effect.

Surgeon-Lieutenant-Colonel E. Lawrie writes: The people who take it regularly say that it conduces to the regularity of all their functions; regularity of meals, of sleep, and of digestion; and that in this or some other way it protects them against diarrhœa, dysentery, and cholera, which they believe they would be liable to if they were to leave it off. My own opinion is that it does protect against bowel disorders.

Surgeon-Major Doyle says: It is largely used as a prophylactic against fever. It exercises a very beneficial influence against malaria and excessive fatigue.

Surgeon-Major Armstrong says: In the hill tracts of central India, where malaria is of a deadly type, all the hill tribes use opium as a prophylactic against fever, and eat two or three grains every morning before going to work; they suffer very little from malaria. The mortality among the officers and sepoys serving in these hills was dreadful from malarial fever, beri-beri, etc.

Brigade-Surgeon-Lieutenant-Colonel Carmichael says: It is a capital prophylactic against malaria.

On the other hand a considerable number of correspondents do not believe in its efficacy for the purpose.

Progress from Moderation to Excess.

A question which is one of the most important in considering the justice or the advisability of introducing repressive measures, namely, that as to whether many men pass on from taking opium in moderation to taking it in excess, has not been very fully answered; but so far as we have gone in our analysis we have found no assertion that such is the case, although it is stated that the dose is often increased by long indulgence. The normal course of events seems to be that it is commenced in small doses, and then gradually increased until the full dose is arrived at, which is then maintained without change for a long time. In view of the assertion so commonly made in regard to alcohol that moderate drinking leads to drunkenness, it is interesting to observe the absence of any such opinion among those who know regarding the use of opium.

Is the Use of Opium Injurious in comparison with Alcohol?

We now come to two questions as to which there seems to be absolute unanimity: (1) Have you reason to think that the use of opium, as habitually indulged in by the natives, has injurious consequences in any way corresponding in degree to those produced by the use of alcohol in the European population? This is answered by a whole gamut of negatives, ranging from the simple "No," to phrases in which word is piled upon word to emphasise in every way the strength of the writers' conviction. Everyone seems assured that a change from opium to alcohol would be a change to the infinitely worse. (2) Would the abandonment of the use of opium be likely to be followed by excess in the use of other deleterious drugs or of alcohol? This, of course, is a matter of opinion, but that opinion is, almost absolutely unanimously that such would be the case.

Shall we Stop Opium?

The question then is not "Shall we stop opium?" but shall we drive races, accustomed to and demanding some form of narcotic stimulant, to substitute for the time-honoured custom of opium-eating the much more dangerous vice of indulgence in deleterious compounds, of which bhang, ganja, and alcohol are the chief?

Political and Social Consequences.

Many of our correspondents enter on the wider questions as to the possibility of stopping the use of opium, and as to the social and political consequences which would follow any attempt to do so. Even already, since the Government has tentatively closed the "muddock and chandu shops" in some of the towns, twice the number of unlicensed houses have sprung into existence, the money formerly paid as licence going to bribe the police, and all control over them being lost.

The impossibility of stopping traffic in an article which, from its smallness of bulk and its use by the great mass of the people, lends itself so readily to contraband trade, is strongly insisted on by several correspondents, one of whom summarises the results of suppression as "physically, much distress and disease; politically, mutiny in the native army and disturbances among the civil population." Several of the returns draw attention to this matter of our hold over the country. It seems to be well recognised that the strength of our position in India depends largely on the fact that the native races are disunited and wanting in homogeneity; but it is pointed out with some force that an interference with a widespread and ancient custom like that of opium eating, which is the comfort and solace of great masses of the population, of every caste, of every religion, and every nationality, would provide such a rallying point, such a subject of agreement, to these various and at present hopelessly scattered peoples, as to offer a most dangerous lever to all the forces of disaffection and sedition with which our Eastern Empire continually abounds, and would at the same time produce profound dissatisfaction in our native army. Dr. Templewright, civil surgeon, Shahjahanpur, says: "If the House of Commons is fool enough to abolish opium in India, it will throw out of work about half a million of quiet, respectable cultivators, while many millions of natives who take a bit of opium as a Briton takes a glass of beer will be ready to mutiny." The safety and the credit of our rule in India has largely depended on the liberality with which we have allowed the people to retain their national and religious customs, and if ever there was a case in which this "let alone policy" should be continued, it is this of the traffic in opium, interference with which would quickly produce for our confusion a discontented people; a popular rallying cry drawing together under one banner all races and religions; and, in our very time of need, a discontented army. Such are the opinions of men on the spot.

The Opium Commission sat for the fourth time on November 22nd.

The Rev. Mr. Phillips, of the London Missionary Society, said that 90 per cent. of the Mahomedans at Murshidabad were addicted to the use of opium. He attributed their wretched appearance and low morality to this habit. The witness never heard that opium was a protection from fever. He thought its sale should be prohibited except for medical purposes, and suggested that a tax on tobacco would supply the loss of revenue. The next witness, Baboo Sitanath Roy, Secretary of the Bengal National Chamber of Commerce, said the consumption of opium was common to all classes in Bengal, especially in malarial districts. There was a general impression, bordering on conviction, that its moderate use was beneficial, and tended to prolong life. Not a single crime could justly be ascribed to it, and its abuse was less harmful than the abuse of alcohol. The present monopoly system worked admirably. The Indians were most unwilling to submit to additional taxation, and a tax on tobacco would be universally disliked. The wretched appearance of the people of Murshidabad was due to malaria, not opium.

LABOUR'S DEATH ROLL.

Preventable Accidents, Fatal or Disabling.

On Sunday, November 19th, at the Washington Music Hall, Battersea, Mr. John Burns, M.P., lectured to a crowded audience on "Labour's Death Roll," remarking that, although peace might have her victories as well as war, there was a sad reverse to the saying. Labour and industry during the last fifty years had sent more people to their graves, to hospitals, and to beds of suffering than any war which had taken place during the same period; and it was as well, at the end of a memorable week—which had seen the termination of a great lock-out and a charter for labour secured by the passing through Committee of the Employers' Liability Bill—that they should consider whether, by legislation, by trade unionism, by medical and sanitary science, the condition of these workers could not be improved. According to a return issued on the motion of Sir William Plowden in 1890, there were 2,070 deaths and 22,467 injuries in connection with labour. If they added 2,000 for shipping, they had a total of 26,537 deaths and injuries. Evidence given before the Labour Commission showed that the death-rate in many trades had risen, and from the Hearts of Oak Society he learned that in one year they had had 10,094 cases of accident, involving 72 deaths. If that average were maintained through the whole 8,000.000 of workers, it meant that in one year there were 500,000 accidents which ought to have been reported. The London Hospital dealt in one year with some 36,000 accidents, and at Poplar Hospital, situated so near as it was to the slaughterhouses, accidents were admitted at the rate of 3 per hour per day. In the docks, the amount of suffering and death through accident was immense, and if the new Act were properly enforced, 60 per cent. of the accidents now received at the London Hospital might be prevented in twelve months. In the mill sawyer's trade, 397 men out of 2,900, or 10 per cent., were away from work for twenty-six weeks in one year through accidents. In the brickmakers, 8 per cent., and in the steelmakers 7 per cent. were away for the same period from similar causes. Having pointed out the manner in which the men themselves might do something to help their own cause by an abstinence from drinking and gambling, which produced carelessness, and advocated the abolition of the 140,000 half-timers in Lancashire, Mr.

Burns said that in thirty years 31,466 miners had been killed outright, which gave an average of 1,000 per annum; whilst over 120,000 were injured every year. Was it to be wondered at they asked for legislative interference? In South Wales 280 out of every 1,000 met with accidents every year, and in Cleveland 1 out of 8 was away three weeks and a half through accident. The value of legislation had been shown in the case of sailors, for where in 1882 1 out of 59 sailors was lost through accident or other causes, the proportion had decreased in 1889 to 1 in 126. On the Manchester Canal there had been 130 fatal accidents, 1,300 non-fatal, and 165 men permanently disabled. In most cases these men were engaged by sub-contractors, who had hitherto escaped liability, but, thanks to the clause introduced into the Bill, that would not be the case in the future. Continuing, Mr. Burns dealt with the fearful risks which were run by those engaged in chemical and alkali works, and, with regard to the white lead and enamel works, he pointed out that most of the labour was done by women and girls, under conditions which had been tolerated too long, and which ought to be terminated at once. He would abolish female labour in these trades. In the eighteen years from 1874 to 1893, 12,000 had been killed and 160,000 injured on the railways of the kingdom. In seven years 1,220 of 14,000 shunters and brakesmen were killed, and 11,000 injured on their railways, which ment that 80 per cent. could look forward to being killed or severely injured in seven years. These were not the men who asked for contracting out. It was such men as stationmasters, of whom 1 out of 1,738 was killed, and 1 in 993 injured—not the shunter, of whom in 1892 1 in 164 was killed and 1 in 16 injured. In conclusion, the hon. member dealt with the North-Western Company, which contracted out, and compared their official returns with those of the Midland, which did not, proving by the figures that just in proportion as contracting out prevailed, so fatal accidents and injuries increased.

A short discussion followed, and Mr. Burns was accorded a hearty vote of thanks.

The Sanitation of Pottery and Cement Works.

The above subject formed Dr. Arlidge's theme in his lecture at the Sanitary Institute on the Sanitation of Industries. Dr. Arlidge, who has a very exceptional knowledge of this subject, treated it in a masterly fashion.

Pottery stands nearly at the head of the list of unhealthy occupations, and it employs a large number of artisans. The so-called clay used in pottery is very rich in silica, the minute angular particles of which are the chief source of the respiratory troubles occurring in potters. The earlier effects of inhalation of this silica are commonly taken as an unavoidable incident of the calling, and little attention is paid to them. As time goes on chronic bronchitis and emphysema occur, the fully-developed disease being known as potters' asthma or potters' consumption. Occasionally true phthisis may be superadded.

The process of rubbing the ware with sandpaper, or some substitute, has in the past been a chief cause of disease, but the simple plan of doing this work in a nearly enclosed box, provided with a strong current of air, has rendered this dusty process nearly innocuous. There is little doubt that, as the result of this improvement, the next decade's occupational statistics will show great improvement in the returns for potters. The women engaged as china scourers now suffer more than any others in the pottery industry from the effects of dust.

The glazing operations, involving the use of lead in the glaze, introduce the danger of lead poisoning. As the glaze dries with great rapidity, a fine and easily diffusible coating of dust is produced. It may be hoped that the efforts now being promoted by the Home Office and the factory inspectors, will either abolish the use of lead in glazes, or sanction the use of fused lead glaze only, without the usual addition of raw white lead.

The hygienic measures available in the prevention of potters' diseases are efficient ventilation of workrooms, with appliances, such as extracting fans, for removing dust from the point at which it is generated.

The number employed in cement works is, fortunately, comparatively small. In the manufacture of cement clay is ground in a mill. Then the necessary proportions of flint and lime are added and worked up together with water. The mass is spread over the floor of chambers, in which it is dried, the residual dry cement being removed by shovels. This process is very dusty, though less so than the subsequent operation of grinding. The dust is very irritating. It produces ulceration and a partial destruction of the septum nasi. Owing to the affinity of the dust for water, most of it is interrupted before it reaches the lungs, though in course of time the lungs may become injured.

In both these industries it is sad to find that Dr. Arlidge's experience confirms the statements of factory inspectors, that workpeople will not wear respirators as a protection against dust. There is reason to believe that the interference with talk (especially among workwomen) is as much a cause of this unwillingness as the impediment to free respiration. With the spread of education and a fuller realisation of the dangers attending dusty occupations, improvement may be expected in this respect as well as in the uncleanliness, which is a chief cause of lead poisoning among potters.

SMALL-POX IN ENGLAND.

Only 20 cases of small-pox were last week admitted to hospital in London, against 30 and 52 in the two preceding weeks; the disease caused 1 death, and 151 cases remained under treatment on Saturday. One death also occurred in West Ham, where some half-dozen fresh attacks were heard of. In East Ham, 5 cases were reported last month, and a like number in the rural parishes round Halstead. Two deaths were registered in Bristol last week, where many cases were reported, the disease having also reached Bath. In the midland districts, small-pox still gives ground for much anxiety in Birmingham; up to the afternoon of Thursday in last week, 94 patients had been admitted to hospital, 20 going in on Tuesday; the number in the building was then 189; 5 new cases occurred that day, and whilst 4 deaths were registered last week, the new attacks averaged some 10 per diem. The sheds in the stoneyard owned by the guardians have been lent to the city, and are being lined with wood and felt for use as isolation wards. It is hoped thus to tide over the epidemic. Meanwhile we read that the Local Government Board have refused sanction to a loan for a temporary small-pox hospital in Aston Manor Local Board district, where some dozen cases cropped up last week, whilst the disease was also present in the adjacent towns of Smethwick and Handsworth. In Walsall numerous claims are being made on the guardians for relief by persons in whose families small-pox has appeared, the disease last week continuing to make progress at the rate of its daily average of 7 cases during many weeks past, 300 cases having occurred during the seven weeks ended last Saturday. At Kidderminster, a case in the workhouse was removed to the borough hospital, and 5 other doubtful cases were isolated in a detached Poor-law building. Four or 5 cases remained under treatment in Leicester, where a death was registered; and in Derbyshire the disease still prevails round Chesterfield. In Oldham 1 or 2 attacks and 1 death were recorded; 1 death was registered at Leeds, and 8 deaths at Bradford, where the same number of fresh cases occurred on Tuesday of last week, during the whole of which some half-hundred attacks were noted. The Sanitary Committee have been at a loss to know how to proceed in regard of infected families, and have resolved to place in quarantine all houses in which small-pox has appeared or in which persons have been exposed to infection, necessaries of life being supplied at public cost, and a system of police espionage being arranged for.

THE CHOLERA.

The epidemic, which has been prevailing at Santa Cruz, Teneriffe, since mid-October, has now been declared by Dr. Mendoza, the Spanish Government medical inspector, to be Asiatic cholera. Spain has accordingly placed all arrivals thence under a quarantine of ten days' duration.

Thanksgiving services have been held at Moscow on account of the disappeance of cholera from the city. In St. Petersburg there were 46 cases, with 21 deaths, in the week ended at noon on November 15th. Of the provinces, Volhynia, Kieff, and Tchernigoff seem now to be most heavily invaded.

ASSOCIATION INTELLIGENCE.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

PERTHSHIRE BRANCH.—The winter meeting of the Perthshire Branch will be held in the Station Hotel, Perth, on Friday, December 1st, at 4 P.M. Business: Read minutes. Election of Office Bearers. Election of new members—Dr. Henderson, Perth; Dr. Kay, Crianlarich; and Dr. Felvus, Murthly. Report of Council. Report of Treasurer. Report of Representative Member. Fix place of summer meeting. Dr. Campbell: On Poisoning by Anthriscus Sylvestris. Dr. Paton: On Empyema. Council meeting at 3.30 P.M. After the meeting dinner will be served in the hotel at 3s. 6d. each, in time to permit members leaving for the country by the evening trains.—A. R. URQUHART, Honorary Secretary, James Murray's Royal Asylum, Perth.

METROPOLITAN COUNTIES BRANCH: NORTH LONDON DISTRICT.—A meeting of this District will be held on Wednesday, November 29th, at the Temperance Hospital, Hampstead Road, N.W., at 4.30 P.M. The District Committee will meet at 4 P.M. on the same day at the same place. Mr. Bruce Clarke will read a paper on Some Recent Advances in the Treatment of Enlarged Prostate. Mr. Henry Power, F.R.C.S., President of the Metropolitan Branch, will preside.—HUGH WOODS, Honorary Secretary.

BATH AND BRISTOL BRANCH.—The second ordinary meeting of the session will be held at the Grand Pump Room Hotel, Bath, on Wednesday evening, November 29th, at 7.30 P.M., Dr. R. Shingleton Smith, President. The following communications are expected:—Dr. W. Dowson: Calculus passed per Anum. Dr. C. J. Whitby: Some Remarks on Functional Derangement of the Liver. Dr. J. K. Spender: The Atrophic Phenomena of Rheumatoid Arthritis. Mr. T. Pagan Lowe: A Case of Intraperitoneal Hæmatocele, abdominal section, recovery. Dr. T. Wilson Smith: Some Cases of Lead Poisoning presenting Unusual Symptoms.—W. M. BEAUMONT, E. MARKHAM SKERITT, Honorary Secretaries, Bath.

STAFFORDSHIRE BRANCH.—The first general meeting of the present session will be held at the Station Hotel, Stoke-on-Trent, on Thursday, November 30th. The President, Mr. H. M. Morgan, will take the chair at 3 o'clock.—GEO. REID, Honorary Secretary, Stafford.

THAMES VALLEY BRANCH.—The first meeting of the year will take place at the Talbot Hotel, Richmond, on Wednesday, December 6th; Dr. C. C. Scott, President, in the chair. Applications for election to be sent to R. N. GOODMAN, Honorary Secretary, Elmside, Kingston-on-Thames.

LANCASHIRE AND CHESHIRE BRANCH.—An intermediate meeting of this Branch will be held at Nantwich on Thursday, December 7th. Gentlemen who wish to read papers, show patients, or bring any other business before the meeting, will kindly communicate as early as possible with the Honorary Secretary, JAMES BARR, M.D., 72, Rodney Street, Liverpool.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.—The next meeting will be held at the White Hart Hotel, Lewes, on Thursday, November 30th. Dr. Crosskey will preside. Meeting at 3.30 P.M. Dinner at 5.30, charge 6s., exclusive of wine. The following communications are promised:—Mr. R. Crosskey: Practical Means of Preventing the Spread of Phthisis. Mr. Cresswell Baber: Notes on the Diagnosis and Treatment of Adenoid Vegetations of the Naso-pharynx. Mr. J. Bulkley Footner: A Case of Inguinal Aneurysm, treated by the old operation of laying open the sac and tying the arteries communicating therewith, followed by recovery after amputation of the leg below the knee for secondary gangrene. Mr. T. Jenner Verrall: A Case of Laparotomy for Intussusception in an Infant of Six Months.—J. W. BATTERHAM, Honorary Secretary, Bank House, Grand Parade, St. Leonard's.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.

AN ordinary general meeting of this Branch was held at Aberdeen on November 15th. Dr. OGILVIE WILL, Vice-President, in the chair. There was a large attendance of members.

Confirmation of Minutes.—The minutes of the annual meeting were read and approved.

New Member.—Dr. Gordon Fowler (Kinton) was balloted for and admitted a member of the Branch.

The President-Elect.—A letter from Professor Stephenson, intimating his acceptance of position as President-Elect, was read.

Communications.—Professor OGSTON narrated a case of Traumatic Epilepsy in which he had trephined the skull in the frontal region, and showed a piece of bone which was found projecting into the frontal lobe. He also exhibited the patient, who had been free from occurrence of his attacks since the operation was performed.—Dr. MACKENZIE BOOTH gave details of a limited outbreak of erysipelas affecting three of the cases in one of the surgical wards under his care.

Proposed Conjoint Meeting.—Dr. ROSE moved "That the Aberdeen, Banff, and Kincardine Branch of the British Medical Association invite the Medico-Chirurgical Society to hold their meetings conjointly, so that if possible these meetings be held monthly alternately at the meeting places of the two Societies, and that the Secretary of the Society in whose meeting place the meeting is be held responsible for the management of the programme of the meeting."—Professor FINLAY seconded the motion, which, after considerable discussion, was put to the meeting and carried *nemine contradicente*.

Vote of Thanks.—The proceedings terminated with a vote of thanks to the Chair.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

THE second meeting of the session 1893-94 was held on November 9th, 1893. In the absence of the President, Dr. Rickards, Dr. SAUNDBY presided, and there were 58 members present.

New Members.—The following members of the Association were elected members of the Branch: Dr. Douglas Stanley and Mr. Arthur Hunt.

The scientific part of the proceedings is reported at page 1154.

SPECIAL CORRESPONDENCE.

BELFAST.

Professor Thompson's Inaugural Address.—The New Water Supply for Belfast.—The Ulster Hospital.—The Belfast Hospital for Sick Children.

AT the recent opening of the session, Professor W. H. Thompson, the newly-elected Dunville Professor of Physiology, who was very cordially received, delivered his inaugural address, selecting as his subject "The Physiology of some Forms of Early Animal Life." Limiting himself to animal physiology, the amœba, the vampyrella spirogyra, and the arcella were chosen as types. Taking first the amœba, he pointed out that the most striking manifestation presented by it was the occurrence of active and spontaneous movements. Its other life manifestations were dealt with in detail, and lantern slides from photographs were exhibited, showing, amongst other things, an amœba containing a large diatom in its interior. He then exhibited slides of the vampyrella spirogyra, and told of Cienkowski's interesting observations with regard to this little animal's tastes in the matter of food. He drew from these the conclusions that not only does one meet here a power of choice, but also an intelligent consciousness in the process of selecting its food. The same was exemplified in the absorption of food stuffs along our own alimentary canal, and cannot at present be explained on physical or chemical laws, but must be relegated to the unknown factors of "vital" phenomena. In speaking on the question of reproduction and cell division, Dr. Thompson alluded to Leukhart and Spencer's theory, which goes far to show a reason for the necessity of cell division, but in like manner fails, when we push the matter home, to give any true explanation of the process on physical grounds. The food stuffs of plants, chemically regarded, he pointed out were simply grouped but highly oxidised substances, whereas the end products of their metabolism were of high atomic weights, of complex construction, and lowly oxidised. The food materials of animals, on the contrary, were of highly complex construction, but relatively lowly oxidised, namely, albumins, fats, and carbohydrates. These were metabolised in the animal body, and the end products came out as simply grouped but highly oxidised materials. Corresponding to this great difference between the plant and the animal,

another was found which almost necessarily followed from it, namely, that kinetic energy was transformed into potential or latent by the plant, whereas the exact converse held good for the animal.

At a recent meeting of the Belfast Natural History and Philosophical Society, Mr. L. L. Macassey, M.E., B.L., Engineer to the Belfast Water Board, gave an address on the scheme, which has just received Parliamentary sanction, for supplying Belfast with water from the Mourne Mountains. The lecturer said that the water population of Belfast was about 280,000, and the consumption of water per head was 36 gallons per day. The necessity for much more extensive waterworks than the existing ones having arisen, owing to the rapid growth of the city, the Water Commissioners had examined the various available sources of supply, and after careful consideration had selected the Mourne Mountains. The new "catchment" area contained over 9,000 acres, and included the Kilkeel and Annalong rivers. Its average elevation was 1,500 feet, and the rainfall during the last year, which had been an unusually dry one, had been 54 inches, or about twice the quantity that had fallen in Belfast during the same period. Allowing 15 inches as a margin for waste, there would be 39 inches of water, which might be collectable. This would probably yield at least sixteen or seventeen million gallons per day. The present consumption in Belfast was about ten million gallons per day. The character of the district was one well suited to the purposes of a water supply. The mountains consisted of denuded granite, the slopes were steep, and there was not much bog. Professor Dewar had examined the district, and pronounced it one of the most favourable districts for a water supply that he had ever seen. The length of the conduit from the Mourne Mountains to Belfast would be 34½ miles. There would be a reservoir at the proposed "catchment" capable of containing two thousand million gallons, and there would be a "service" reservoir three or four miles from Belfast, with a capacity of seventy million gallons, or about a week's supply at the present rate of consumption. The estimated cost of the scheme is £750,000, and it is expected to be completed in eight years. In the discussion which followed, Professor Everett, F.R.S., Dr. Lindsay, Mr. William Gray, C.E., Mr. Conway Scott, C.E., Mr. P. C. Cowan, Mr. John Brown, and others took part.

The members of the staff of the Ulster Children's Hospital dined together at the Grand Central Hotel, Belfast, on November 17th. Twenty-one gentlemen sat down to dinner, among the guests being Dr. W. H. Thompson, the new Dunville Professor of Physiology in the Queen's College. According to arrangement no speeches were made, the period after dinner being very pleasantly spent in conversation, varied by some excellent songs. All the arrangements, which were under the direction of Dr. Cecil Shaw, Honorary Secretary of the staff of the hospital, were admirably carried out.

Dr. J. S. Morrow has been elected Assistant-Surgeon to the Belfast Hospital for Sick Children. Dr. Morrow, who is a graduate in arts and medicine of the Royal University of Ireland, has had a highly creditable career both as a student, and as house-surgeon and house-physician to the Royal Hospital.

CORRESPONDENCE.

PUERPERAL SEPTICÆMIA.

Sir,—Will you permit me to make one or two observations on the discussion which took place at the last meeting of the Obstetrical Society, on Puerperal Septicæmia? I much regret that I was unable to be present, since views were expressed by several eminent authorities which I should have liked to controvert on the spot, which seem to me exceedingly unsound, and likely, if generally adopted, to lead to a dangerous neglect of necessary precautions.

What I particularly wish to draw attention to is the statement made by the President of the Society, Dr. Herman, that defective sanitary conditions are not matters of importance in the causation of puerperal disease. He is reported to have said that "he knew of no evidence that the relation between the drainage and the illness was anything more than one of coincidence."

Dr. Cullingworth goes even further, and makes the amazing assertion that it is "a very dangerous doctrine to propagate that puerperal septicæmia could be caused by defective drains and sewer emanations. There was no evidence that would bear criticism in favour of such a view, and to preach such a doctrine was to divert attention from the point of real importance, which was personal cleanliness on the part of all around the patient."

These are very serious assertions to be made on the authority of two eminent physicians, both of whom are teachers of midwifery, and I must respectfully characterise them as extremely pernicious. I say so partly because all teaching that is untrue is pernicious, but more so because if such authoritative dicta were generally admitted to be correct, the causation of many important cases of puerperal disease would be overlooked, the only rational remedy would be neglected, and valuable lives would certainly be sacrificed.

When my friends, Drs. Herman and Cullingworth, say that they know of no evidence that defective sanitation is a cause of puerperal disease, I am forced to conclude that they have not done me the honour of reading a paper of mine, published in the *Lancet*, on February 5th, 1887, on Defective Sanitation as a Cause of Puerperal Disease, and if they, or any of your readers, will refer to it they will find not only a good deal of evidence in proof of the evil effects of bad sanitation, but some which I maintain is absolutely conclusive.

I cannot trespass on your space by asking you to publish any of the cases there related, but I will specially refer to one, which is republished, with an illustrative diagram showing the course of the currents of the sewer gas, on pp. 361 and 362 of vol. ii of the latest edition of my book on *Midwifery*. I will just quote what I say at the end of that case: "Now mark how curiously and thoroughly these facts prove the cause of the disease. The patient lay in the bed at *c*, which from the accident of its being winter and the current of sewer gas being drawn, therefore, to the chimney (as subsequently proved by the smoke test) was quite out of its reach, and for the first ten days after her confinement, while she remained in bed, she was perfectly well. On the eleventh day, when she got up, she was placed directly in the current of sewer gas at *d*, and instantly got poisoned. On the twelfth and thirteenth days she was again exposed to the absorption of further and more intense poisoning at *e* and rapidly got worse, while immediately on removal to fresh and uncontaminated air all her threatening symptoms disappeared. It seems to me that this instructive history is about as complete a demonstration of the origin of puerperal disease from defective sanitation as anyone could possibly desire, and I can see no flaw in the chain of evidence."

Now I will challenge Drs. Herman and Cullingworth to read over that case carefully and then explain how it could possibly have been produced in any other way than by poisoning with sewer gas. It could not have been "coincidence," as Dr. Herman says, for neither he nor anyone else, I believe, ever saw a case of septicæmia from conveyed infection which did not commence before the twelfth day; nor can he explain, I think, how, on such an hypothesis, immediate improvement followed on removing the patient from the poisoned atmosphere in which she was lying.

I ask your readers to reflect on what would have happened if this case had been treated on the assumption that defective sanitary conditions cannot produce puerperal disease. The illness was rapidly and daily ingravescing. On the fourth day the patient was removed, with a temperature of 105°; next day it had fallen to 100°; and then she rapidly convalesced. If Drs. Herman and Cullingworth's views had been acted on this would certainly not have been done, and in my belief a valuable life would have been lost.

I assume, of course, that neither Dr. Herman nor Dr. Cullingworth has chanced to meet with a case of puerperal disease which they have traced to defective sanitation; but no amount of negative evidence of that kind can outweigh a single case of positive evidence to the contrary, such as I have recorded in the paper referred to. This sort of argument reminds me strongly of the kind of reasoning one hears

so often with regard to antiseptic midwifery. Dr. Brown, Jones, or Robinson has attended one thousand or two thousand cases of midwifery without losing a patient, therefore all this modern talk about the value of antiseptics is mere twaddle and nonsense. It sounds strangely, however, when coming from two such unquestionably high authorities on obstetric matters.

It will be observed that I have been careful to talk of defective sanitation as a cause of puerperal "disease." I am quite prepared to see it proved that such disease is distinct from "septicæmia." There are more things in puerperal disease than are dreamt of in our philosophy, and the whole subject is too much in its infancy to justify very dogmatic assertion with regard to it. For aught I know to the contrary, it may yet be shown that the two types of disease are as distinct as "typhus" and "typhoid" fevers; all I can say is that hitherto I have not been able to distinguish them, and, therefore, in my book on *Midwifery*, I have described them both under the head of "Puerperal Septicæmia," and I have never been able to see why infective germs suspended in the atmosphere should not be as dangerous as analogous germs on the hands.

Unquestionably puerperal disease from poisoning with sewer gas is neither so common or important as poisoning from infective germs on unclean hands or instruments. It seems, however, a curious argument of Dr. Cullingworth's that it is dangerous to recognise and guard against a source of disease of comparatively rare occurrence because "to preach such a doctrine was to divert attention from the point of real importance, which was personal cleanliness on the part of all around the patient." Certainly I am open to no such imputation, for I have insisted on the paramount necessity of personal cleanliness and rigid antisepticism in obstetric practice as strongly as any recent writer on midwifery.

In conclusion, I am tempted to relate a very important and tragic case that occurred in my own practice thirteen years ago, which has not hitherto been published, because it illustrates a remark made by Dr. Handfield-Jones in the discussion, namely, "that he considered that a woman who for days or weeks before delivery had lived in a tainted atmosphere might be so impregnated with poisonous particles that after delivery her tissues would become a favourable breeding ground for septic germs"—a theory I have always myself maintained to be possible.

I was engaged to attend a lady in her first confinement. A fortnight before the expected date of delivery her labour commenced in her country home, some distance from London. She immediately placed herself in the train, and came to her town house in South Kensington. The labour was over before either I or the nurse reached her. The nurse arrived first, and found the child born, and the placenta lying in the bed, attached to the child. She put on the bandage, and when I came I found the uterus firmly contracted, and I had nothing to do. I particularly beg attention to the fact that neither I nor the nurse had occasion to make a vaginal examination, so that the patient could not have been infected by poisonous materials conveyed on the hands. Three days afterwards puerperal disease of the most intense type developed—to avoid argument I shall not call it septicæmia. Within a week the patient was dead. One of her nurses unfortunately pricked her hand, acute septic mischief resulted, and in a few days her arm was amputated at the shoulder-joint in University College Hospital. Naturally, a tragedy of this sort was most impressive, and the origin of the disease was altogether a mystery to me. Two years afterwards the husband called on me, and said that he felt it to be his duty to inform me that, having had several cases of obscure illness in his country house, he had had the sanitary arrangements investigated, and that a large cesspool had been found under the ground floor rooms, which his wife had occupied for many weeks before her confinement, the emanations from which she must have been constantly exposed to. Dr. Handfield-Jones's theory would explain this lamentable case; I am afraid it would be difficult to reconcile it with Dr. Herman's contention that the relation between the drainage and the illness was nothing more than coincidence.—I am, etc.,

W. S. PLAYFAIR.

George Street, Hanover Square, Nov. 18th.

CORROSIVE SUBLIMATE POISONING IN SEPTICÆMIA.

SIR,—Dr. C. R. Illingworth, in his letters to the BRITISH MEDICAL JOURNAL of October 21st and November 4th, recommends solutions of the biniodide, as superior to bichloride, of mercury in obstetric practice, on the ground that the latter is a "lethiferous remedy." Surely, if there was ever a case of "the pot calling the kettle black," this is one. I am fully aware that sublimate has many drawbacks, not the least of which is the possible risk of mercurialism. And, on this account, I look forward to the day when some equally efficient, but more satisfactory, antiseptic will be found to take its place. But if sublimate be a "lethiferous remedy," what shall be said of biniodide of mercury, which entails the possible risk of iodism in addition to that of mercurialism?

Speaking in the Section of Obstetrics at the Newcastle Meeting with reference to the choice of antiseptic agents in obstetric practice, I said that "I wished to emphasise the fact that, despite its many drawbacks, sublimate has as yet given the best results. For external purposes, such as disinfection of the hands, it is not to be surpassed, and as a douche, provided due care be exercised, it may be used with safety. Generally speaking, unless specially contraindicated I would recommend sublimate in preference to any other antiseptic agent."

Dr. Illingworth asks "whether the opinion of the Section regarding the bichloride would have been different had it been known that the originator of the drug—M. Tarnier himself, who had used it, no doubt with every precaution, for five or six years—was at the time formally denouncing it as too dangerous?" In reply to that question I will say at once that, even if M. Tarnier were at that time formally denouncing it (sublimate) as too dangerous, I, for one, should still have expressed the same opinion.

But, Sir, I find that the reference given by Dr. Illingworth, correctly quoted, reads as follows:—"M. Tarnier *(Jour. des Sages-Femmes)* has determined never to employ sublimate solutions for intrauterine injections." The omission of the three last words gives to the sentence quite a different significance. Had Dr. Illingworth read my remarks carefully he might have gathered that this denunciation of M. Tarnier's had reference to an exceptional measure, demanded by exceptional circumstances, and, I may add, requiring exceptional precautions. Consequently, as it stands, in full, it has but little bearing upon the general question then under consideration.

I have stated that, despite its many drawbacks, sublimate has as yet given the best results. The special grounds upon which I have been led to form this opinion are as follows:—When in 1883 I first became associated with the management of the General Lying-in Hospital, solutions of pure phenol, 1 in 20, were being used for disinfecting the hands, instruments, etc., and phenol solutions, 1 in 40, for the first douche after delivery, followed by Condy's fluid in the lying-in wards. Witness the result. Seven deaths took place from septic poisoning among 1,162 women delivered. In May, 1884, phenol was abandoned; sublimate was substituted. For external disinfection 1 in 1,000 solutions have been continuously used since that time to the present, and for the greater part of the time 1 in 2,000 solutions have been used for douching during and after labour, and weaker solutions after the first three or four days. Now for the result. Since that time but three deaths have taken place from septic causes among 3,778 patients delivered, and none during the last four years. I may mention, moreover, that these fatalities were the result of dearly-bought experience. One death took place when sublimate douche-solutions of weaker strength than those indicated above were tentatively employed, and the remaining two during the two months in which salufer douching was tried instead of sublimate.

From these figures, then, it may be estimated that the net gain effected since the introduction of sublimate has been the saving of about 20 maternal lives, to which, on the credit of sublimate, should be added at least the 2 others lost in the salufer experiment. Nor does this estimate take into account the amount of illness unattended with an immediately fatal result, but often leading to tubal disease and chronic pelvic inflammations, which has also been prevented since sublimate was substituted for carbolic acid. Those

who would inquire more particularly into this matter I would refer to the statistics which I have published in the *Obstetrical Transactions*. The charts there given show that, on the introduction of sublimate, the fever-rate from septic causes declined immediately to zero. This experience is by no means unique. It has been the same in other lying-in hospitals and maternities, as well as in the practice of individuals. And, though I am unwilling to ascribe all the benefit to the use of sublimate, there is ample evidence to show that it has proved an important factor in the elimination of septic influences.

There is, unfortunately, another side to the picture. It is true that fatal results have now and again occurred from the use of sublimate as a douche in obstetric practice. One such fatality, an account of which, by Dr. Dakin, will be found in the *Obstetrical Transactions*, has taken place in the hospital above referred to, and in the same *Transactions* I have described other cases which presented slight indication of mercurialism. But these are practically things of the past. As the result of such experiences we now know better than we did at the outset how to recognise the symptoms, and also how to obviate the dangers of mercurialism as met with in obstetric practice.

Considering, then, the beneficial results which have been achieved at so slight a cost, I should feel disposed to place on the list of "lethiferous remedies" sublimate as used in obstetrics far below chloroform and many other drugs in everyday use. But, on the ground taken up by Dr. Illingworth, the same might be said of opium, which one of the witnesses in the Opium Commission had calculated was sent from India to China in sufficient quantity every year to kill 19,600 million people, and even, as was aptly pointed out in answer to him by Sir William Roberts, of common salt, for, said he, "one pound of salt is a fatal dose, and if you take in the course of a year 12lbs. of salt, the salt that you take would kill you 12 times over."

In conclusion, Sir, I would point out that for external purposes, such as disinfecting the hands, the use of sublimate entails absolutely no risk of mercurialism, and, if used with proper precautions, effectually removes the most important source of danger to a lying-in woman. Further, that no objection from danger of mercurialism can be urged against the use of sublimate as a douche before delivery. But the use of sublimate for douching after labour can only be considered safe in the hands of a doctor who is not only aware of its dangers, but who has also learnt how to recognise these dangers, and the means of preventing them under different conditions. I fully agree that even as a vaginal wash sublimate should never be used by a nurse except under the direct supervision of a doctor, and in no case when, for some special reason it is considered necessary to carry the tube into the cavity of the uterus, should it be employed save by the doctor himself.—I am, etc.,

Weymouth Street, W., Nov. 14th. ROBERT BOXALL, M.D.

DIPHTHERIA AND DEFECTIVE DRAINAGE.

SIR,—In the remarks I desire to make on this subject now again in discussion, I would substitute the words "defective drainage" by the more specific one "privy odours." Bad drainage frequently evolves gases producing typhus, diarrhœa, etc., often witnout diphtheria; but of 43 cases of diphtheria occurring in my practice or supervision in the years 1858, 1859, and 1860, all were in children, the oldest of them being not more than 5 years of age. The large majority of those 43 cases occurred in rural places, sparsely populated, and several of them under conditions which excluded the possibility of being the result of infection by personal propagation; but each house in which those cases of diphtheria occurred was pervaded by a strong privy odour, a condition then quite usual in the labourer's cottage.

Of those cases of diphtheria nearly half died. I do not concur in the term "diphtheric," as I have seen no evidence to induce a belief in a modification of this terrible disease, which appears quite specific. As to any epidemic except scarlet fever spreading by infection from person to person I have seen only very questionable evidence. The cerebro-spinal fever which occurred in 1863 and 1864 could not have been infectious, its sequent cases usually occurred at miles apart. Still this fatal disease continued in England about two years, and then died, no one knew why, nor what induced this peculiar disease. However, with the concurrence of medical men, the spread of an epidemic by personal propagation is always when possible accepted, but evidence occurring in rural districts often gives direct contradiction to the assumption. Is it inconsistent with our present knowledge to assume that, to a specific abnormal condition in the human body, some temporary abnormal condition in the air may mutually react, and so produce this or that epidemic according to the effects of the mutual agency?—I am, etc.,

Milverton, Nov. 20th. GEO. CORDWENT, M.D.

SIR,—Everyone, I think, will agree with Sir George Johnson that many cases of diphtheria are evidently sporadic, and, in all probability, due to "filth." But his contention that "drain poison" is their exciting cause is not a legitimate inference, from the bare fact that the outbreak of the disease is often associated with defective drainage or with the proximity of cesspools. For, in the first place, it often happens that the alleged cause may have notoriously existed for many years, and yet the postulated consequences have never followed. And, secondly, there is not in the nature of the disease, nor in that of the circumstances in which it is said to arise, which points to a causal connection between them.

Diphtheria, it will be conceded, is eminently infectious, and therefore must necessarily have been caused by something which is capable of reproducing itself. Whether that something be the Klebs-Löeffler bacillus or the streptococcus pyogenes, or the combination of both, is for the present purpose absolutely indifferent. It suffices to state that a contagium vivum is involved.

Now, in the usual conditions in which defective drainage is supposed to exert its baneful influence, it is impossible that micro-organisms which may exist in an untrapped pipe or in a cesspool can escape into the air and there do mischief. The force of evaporation is not enough to lift from a moist surface an organism, however small it may be; and even powerful ascending currents of air cannot convey from a dry and porous soil, much less from a cesspool, any germs through a surface-layer a few inches in thickness. Consequently from untrapped pipes and cesspools nothing but irritant and toxic gases can escape. But gases do not produce diphtheria, as is known from the accidents to which the *vidangeurs* are liable. Least of all could the mephitic gases have been, as alleged, the cause of the epidemic at Ham which Sir George observed, in which the inmates of the house were attacked three days and longer after the emptying of a cesspool; for gases act immediately upon their impact, but do not require three days of incubation to manifest their effect.

But while I admit the origin of diphtheria from "filth," I am not inclined to seek it so far as the drainage. Its source is in many instances much nearer the obvious seat of the disease—a matter to which I have elsewhere referred. Nor do I share in Sir George Johnson's apprehension that Sir Wm. Jenner and Dr. Wilks would be less anxious for the removal of insanitary states than are those who look upon defective drainage as the sole cause of all infectious diseases; for the prolonged inhalation of sewer gases is by no means indifferent to general health. But the theory which Sir George Johnson supports is not without serious drawbacks. It is held not only in the drawing-room that the appearance of a sore throat is a proof "that the drains must be out of order;" but the same doctrine has percolated also to the basement, and there is neither a man- nor maid-servant who on similar occasions would not at once invoke the current teachings of pathology. The sanitary engineer who may be consulted would hardly be worthy to pursue his calling if after careful search he could not find an untrapped pipe; and he deserves all possible gratitude if he does not discover more. Thus the overburdened householder is put to no little inconvenience and to a considerable expense in a matter which might have been more easily dealt with by a tooth brush and plenty of water.—I am, etc.,

Wimpole Street, W., Nov. 20th. J. B. BERKART.

SIR,—I am pleased that Sir George Johnson places the weight of his authority in favour of defective drainage as a direct

exciting cause of diphtheria. During the past fifteen years I have given a good deal of attention to the study of diphtheria, and have met with cases over and over again in which the infection appeared, beyond doubt, to come from drains. Further, now that the special infective material has got into our drainage system, I fear we shall have a continuously increasing amount of this disease from this particular source as the years go on, since our main drainage system is now so largely ventilated direct into the open streets. For the individual house and its occupants it is of course very desirable to have intercepting traps between the house and the main drain, in order that regurgitations from the main drain may be kept out of the house. But what about the public health? Such an arrangement merely transfers the dangers from a very limited number of persons within a given house to the much larger public outside. The numberless ventilating traps and shafts which meet the eye everywhere must necessarily vitiate the air to a dangerous extent. In my opinion the increase of diphtheria in and about London (which is being steadily noted) is largely due to this source. If sewer gas is dangerous to a house, it is not less dangerous when turned loose wholesale into our streets. I think that a series of draught furnaces, similar to those in use at Brighton, connected with the main drains in different parts of London might be established; they would not only ventilate the drains, but would destroy the noxious gases, etc., which now escape unhindered into our midst. The present system and arrangements are not, I think, worthy our boasted *fin de siècle* sanitation.—I am, etc.,

London, Nov. 20th. R. W. PARKER.

DR. TIBBITS AND THE MEDICAL BATTERY COMPANY.

SIR,—I have only just seen your issue of November 11th. You state, in a leading article, that my "association with the above company has been for some time most intimate; and that I am charged with having been closely associated with Harness in foisting his shams on the public." To both of your assertions I give an emphatic denial.

My connection with the matter is simply as follows. Mr. Harness, with whom I was unacquainted, applied to me as an expert in medical electricity, to examine and report upon certain appliances, and I did so for a proper fee, to be paid before my examination, and with the proviso that my report should be accepted, whether favourable or not. Mr. Harness accepted these terms. I gave a perfectly truthful and accurate testimonial, which has recently been substantiated by evidence in a court of law by Lord Kelvin (Sir William Thomson), probably the greatest electrician living, as follows:

Q. By Sir Richard Webster, Q.C.: "Do you not say (assuming proper connections) that a current would certainly flow through the body?"—*A.* "Yes; there would certainly be a small current." *Q.* "Whether or not enough to reflect a galvanometer. 'You have not tried?"—*A.* "No; I have not tried."

Now, Sir, I have tried, and the beam of light in Lord Kelvin's reflecting galvanometer was deflected.

Sir, this is the whole of it. The Medical Battery Company never sent me a patient, and I never sent them one, and I never saw or prescribed for any of their patients either at their establishment or elsewhere.

Of the methods in which their business was carried on, I knew nothing, nor was it my business to inquire. I merely reported, as I had agreed to do, upon the appliances submitted to me, and as in duty bound I gave them full details of my experiments.

I trust to your sense of justice to give as prominent a position to this letter as was occupied by your leading article.—I am, etc., HERBERT W. TIBBITS, M.D., etc.

Weymouth Street, W., Nov. 16th.

*** We have published the above letter at Dr. Tibbits's request, but we cannot withdraw the remarks made by us in the leading article to which he refers. The whole matter will doubtless shortly come before the General Medical Council; and it will then be authoritatively decided what the connection of Dr. Tibbits with the Harness Electropathic Belt and Medical Battery Company really was.

A NEW PHASE OF COCCIDIUM OVIFORME.

SIR,—In your report of my communication to the Pathological Society on November 7th I notice an important omission, which I beg you kindly to correct. After mentioning that in the liver of a rabbit some of the coccidia were dividing into granular bodies about as large as red blood corpuscles, I added that these granular bodies might be homologous with the swarm spores I had described in the psorosperms of the ureter and of various cancers.—I am, etc.,

J. JACKSON CLARKE.

St. Mary's Hospital Medical School, Nov. 11th.

☞ Owing to pressure on our space we are compelled to hold over a large number of letters.

MEDICO-LEGAL AND MEDICO-ETHICAL.

A JUDGE BUT NOT JUDICIAL.

WE have recently had occasion to refer to the ill-judged remarks by Mr. Justice Day in relation to the Scotch form of oath; and if his utterances in the ill-advised action of Anderton *v.* Ashurst be correctly reported in the Manchester papers, where he is represented to have said that "doctors claim the right of a monopoly to kill," we have still greater cause for adverse criticism; for a more gratuitous insult and morally indefensible imputation could not well have emanated from the judicial Bench. It might well suggest the temptation to make a kindred retort to his offensive discourtesy to the honoured faculty of medicine, which we venture to believe, as a skilled and beneficently disposed profession, contrasts not unfavourably with that of the legal in the estimation of the general public.

Mr. Justice Day, moreover, thought well to add, "I know that doctors claim a right not to be interfered with; but the public have as much right to change their doctor as they have to change their baker"—an indisputable dictum of immemorial professional usage, which is clearly laid down in the *Code of Medical Ethics*, chap. I, Sect. 2, rule 9, and chap. II, Sect. 5, rule 9, as follows: "The right of a patient to change or to discard his medical adviser is unquestionable; but, like other rights, it is limited by the legitimate claims of others; and, *a priori*, a medical practitioner is justly entitled to expect that he shall not, *sine causâ*, and without reasonable courtesy and explanation, be superseded on a case. In such event, moreover, the superseding practitioner is morally and ethically bound to take due care that the same courteous respect which he individually would exact be paid to his discarded *confrère*, alike by himself and by those whom he has been called in to professionally advise."

"When a practitioner is called in to, or consulted by, a patient who has recently been, or still may be, under the care of another for the same illness, he should on no account interfere in the case, except in an emergency; having provided for which, he should request a consultation with the gentleman in previous attendance, and decline further direction of the case except in consultation with him. If, however, the latter refuse this, or has relinquished the case, or if the patient insist on dispensing with his services, and a communication to that effect be made to him, the practitioner last consulted will be justified in taking charge of the case—ere assuming which, however, he should satisfy himself that such intimation has been given by the patient or family," etc.

Such is our simple response to Mr. Justice Day's ungenerous and baseless invectives against a noble and admittedly self-sacrificing humane profession.

LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY LIMITED.

A MEETING of the Council of this Society was held on October 23rd, at Harley Street. Dr. Heron presided, and there was a numerous attendance. Drs. Sunderland, Foulerton, and Briscoe were elected Vice-Presidents, and nearly 200 new members were admitted. The financial report was read, showing that after providing for the expenses due for six months' working, a substantial balance remained at the bank. It was resolved to call the attention of members in arrears to the fact. The Council accepted the principle of the proposal of Dr. Mead that a Prosecutions Committee be formed with power to receive special contributions, and Dr. Mead reported that he had already obtained special accounts and paid in the subscriptions already forwarded to him, with Messrs. Lacon and Co., bankers, High Street, Newmarket, and produced receipt for the same.

A special Council meeting was held on November 8th at Harley Street, Dr. Heron presiding, to further consider financial and other matters. Applications from members; several were settled by the Council, and others referred to the Emergency Committee, whose prompt action in several cases was approved of, and their recommendations as to further action adopted.

FEES FOR ATTENDING INQUESTS.

IN Ireland as well as in England medical witnesses sometimes find a difficulty in obtaining payment of the fees to which they are entitled for attending in court to give their evidence. Two cases were lately brought before the county court judge at Limavady, in which the coroner disputed his liability to pay the fees of medical witnesses for giving evidence at his inquests. The procedure in Ireland is regulated by the Coroners (Ireland) Act, 1846, which provides that "it shall and may be lawful for any coroner who shall hold any inquest to pay any medical or other witnesses who, having been summoned by him, shall attend and be examined at such inquest," fees according to a scale given in the Act. The coroner then sends the receipts for the fees so paid to the grand jury

who finally order payment to the coroner out of the county funds. The coroner apparently had at some previous time had a difficulty with the grand jury about his accounts, and thought he would avoid it for the future by declining to pay the witnesses' fees until he had money in hand for the purpose. The grand jury, however, are only bound to allow fees which are vouched by receipts, and are in no way responsible to the witnesses. At the hearing before the county court judge, it was argued on behalf of the coroner that the words "it shall and may be lawful" did not cast on the coroner the duty of paying his witnesses, but only empowered him to pay them if he chose. The county court judge thought otherwise, and ordered payment to the plaintiffs of the amounts claimed.

Medical witnesses in England ought to have less difficulty in obtaining payment, for the words of the Coroners Act, 1887, do not give the coroner even the apparent discretion as to payment which the wording of the Irish Act suggests. The English Act provides that "immediately after the proceedings, a coroner holding an inquest shall pay the fees of every medical witness," etc. If the Act of 1846 is strong enough to enable a witness to successfully sue the coroner for his fees, *a fortiori* must the Act 1887 entitle him to recover them. Witnesses who attend in obedience to a proper summons have a right to payment, which they can and should enforce.

MR. HARNESS AND THE AFFAIRS OF THE MEDICAL BATTERY COMPANY, LIMITED.

The hearing of the charge against C. B. Harness, James M'Cully, C. B. Hollier, and Dudley Towers of conspiracy to defraud was resumed before Mr. Hannay at Marlborough Street Police Court on November 22nd.

Further evidence was called for the prosecution, Mr. Lynd, an electrical engineer, being under examination the whole day. He deposed, according to the report in the *Evening Standard*, that he had been engaged by Mr. Harness to give three lectures a week on the applications of electricity. He gave the series of lectures for which he contracted, and his connection with Mr. Harness then ceased. He pointed out to Mr. Harness that, although it was possible, with a highly sensitive deflecting galvanometer, to obtain a deflection from a disc of zinc and copper when the zinc was acted upon by the secretion of the skin, the resistance of the body being so great the ultimate current would be practically nothing. He advised him to make a genuine belt with a separate set of cells in series. Mr. Harness replied that the belt was good enough for him, and therefore good enough for the public, and all he had to do was to sell the goods. Mr. Harness told him the belts cost him 2s. 9d., and that allowed a fair margin of profit, as they were sold at from 1 to 5 guineas. From questions put to him by Mr. Harness, it was obvious that he (Harness) knew absolutely nothing about electricity. He was furnished with an electric hair brush to show at his lectures; it was furnished with a small induction coil in the back, and a battery was connected with it. He saw a large quantity of brushes in the shop which, however, were not electric. One of these brushes had a piece of crinoline steel in the back, and was sold for a guinea. A small compass was sold with it, and the compass was, of course, deflected by the steel, and anyone having no electric knowledge might suppose it to be electric. He observed to Mr. Harness, "You do not appear to sell the kind of brush which you have given me for the lecture-table." He replied, "That is not your business. I arranged with you to lecture on electricity, and we sell the goods in the shop. I don't ask you to sell them." The brush in the price-list produced described as "Harness's electric flesh brush for the generation of electro-magnetic power" was the bogus brush. On the same page were the words, "This is a valuable adjunct to the electropathic belt." "Harness's electric eye-battery, the wonder of the nineteenth century," was simply a conical cup of metal, and it was impossible, by any stretch of the imagination, to call it a battery. The contrivance which he saw could never, under any circumstances whatever, generate electricity. Mr. Harness had objected to his referring to Sir William Thomson (now Lord Kelvin), Mr. Preece, and other electricians in his lectures, and said that he must speak of Harness. Mr. Harness had also told him that he only embarrassed his staff at 52, Oxford Street, by talking about electricity to them. Witness met nobody at the establishment who knew anything about electricity. Witness was cross-examined by Mr. Gill, but the cross-examination elicited nothing material. The case was adjourned until November 29th.

On the same day Mr. Justice Vaughan Williams made a compulsory order for the winding-up of the Medical Battery Company, Limited, the petitioner being Mr. T. B. Browne, advertisement contractor.

AN ELECTIONEERING CARD.

Dr. W. J. Sinclair (Manchester) writes: You have, although somewhat late, conferred on me the distinction of reproducing as far as you could in the British Medical Journal the letterpress of a card issued by my election committee last June, when I was a candidate for the representation of St. Luke's Ward in the Manchester City Council.

Permit me to express my regret that your informant should have had to endure the mental distress of sending a copy of the card to you under a deep sense of the duty thrown upon him. Your own expression of opinion is that certain things which you mention as appearing on the card are "contrary to the traditional and existing etiquette of the medical faculty." As far as tradition goes, I imagine you have extremely little to guide you in forming a judgment as to how far a member of the medical profession should interfere with the action of his election committee when he is engaged in a political contest. I am sure you will confer a great benefit upon myself, who will in all probability have to fight again, and upon many other possible medical candidates for municipal or parliamentary election by giving a plain and explicit statement as to what the "existing etiquette" is under the circumstances. Your own dictum would seem to support the ridiculous thesis that a political candidate must as far as possible conceal his identity.

If, after waiting so long, and with so much time at your disposal, you had taken the trouble of applying to me for some explanation instead of publishing in November a statement which would appear to apply to the November elections, and is to that extent misleading and a misrepresentation, when in fact it refers to the month of June last, you would have performed a more just and probably a more useful action. I have no intention of offering to argue the question with you, but I may be permitted to tell your readers that one of my nomination papers was signed entirely by members of the medical profession, ten in number, headed by my colleague, Dr. Dreschfeld, Professor of Medicine at the Owens College, and among the signatories was one of the honorary secretaries of the Manchester Medico-Ethical Association. It does not appear to have struck any of these gentlemen, who were all in possession of the offensive card, that there had been any breach of of the traditional and existing etiquette of the medical profession. They knew the local circumstances, were aware of the local arts of misrepresentation which were practised by the opponent's canvassers, and, I have no doubt, held my committee justified in proving my identity and indicating what were my qualifications for the position of their representative in the City Council.

*** We adhere to the opinion that a card, one side of which is apparently a reproduction of a *carte-de-visite* photograph and the other a string of medical qualifications and appointments, is not necessary to establish identity nor is it a desirable electioneering device. Nor can we admit that on a point such as this a candidate is not at liberty to interfere with his committee. Perhaps Dr. Dreschfeld and the Secretary of the Manchester Medico-Ethical Association, whose authority is here apparently assumed, may have something to say on this point.

AN UNFORTUNATE MISUNDERSTANDING.

A.—Both our correspondent and his friend B. are in error, for it often occurs that two several non-associated practitioners are simultaneously in attendance upon different members of the same family; and although in the case in question A. had been engaged to attend Mrs. C. (a new resident) in her expected accouchement, and not unnaturally looked forward to attend the family at large, nevertheless this should not have been held to necessarily follow. At the same time, we incline to the opinion that such would have been the case had he not unwisely taken exception to the fortuitous attendance of D., who, on passing through the village, was incidentally met by Mr. C. and solicited to visit his ailing child, whose illness was diagnosed to be scarlet fever, whereon he (D.) was requested to continue his attendance. Moreover, we are distinctly of opinion that A. would have acted wisely in cordially accepting the explanation offered by Mrs. C. at their subsequent casual meeting.

THE MEDICAL AID COMPANY, LIMITED.

P. R. M.—We can only repeat what we have so frequently said before, that the Medical Aid Company, Limited, is in our opinion an association with which no medical man who respects himself should have any connection. We are ready to admit that the remuneration offered by the Company is not less than that given by some Foresters' courts and other amalgamated clubs of working men, which it has long been the custom of reputable medical practitioners to accept, but, while we regret that members of our profession should be obliged, under any circumstances, to accept such miserable pittances for their services, we must hold that there is a great difference between accepting a club of *bona fide* working men and becoming the medical officer of what is nothing more nor less than a joint stock company, instituted for the purpose of getting dividends for its shareholders out of the necessities of members of our profession. Our correspondent is surely not unaware of the feeling of his brother practitioners generally in this matter.

PRESCRIPTION CARDS.

A. B. H.—We have to acknowledge the receipt of another specimen of professional enterprise of a very questionable character, in the shape of a prescription card with a bold printed advertisement of a cheap dispensary and the owner thereof. This practitioner, we gather, carries these cards about with him, and on visiting patients writes his prescriptions on them, and is thus enabled to distribute his advertisements wholesale, and to spare the expense of a "touting" agent. The idea is certainly ingenious, but we should have thought that the "Dr." in question would have kept his private address off the card. We believe that most of his class usually have so much self-respect.

SUBSTITUTION.

X. X. writes: A. and B. are in practice in the same town (B. is the junior practitioner). A. has been in charge of C. and family. One of C.'s children falls seriously ill. C. wishes for almost constant attendance on the part of A., who, unable to give all the time C. requires, calls in B. to assist in watching the case, and to remain in the house of C. The child dies, and C. and family leave the town for a time. On their return B. is sent for to attend one of C.'s children. 1. Is it in accordance with medical etiquette that he should do so? 2. If not, what course ought he to pursue?

*** Although B. would perhaps have acted in stricter accord with the true ethical spirit if he had courteously declined, under the circumstances related, to supersede A. as the medical attendant, and suggested renewed confidence in him (A.), nevertheless, it must be borne in mind that the determining of the more or less important point justly and exclusively rested with C., who, moreover, was strictly within his right in selecting B.

Professor Bernheim, the Coryphæus of what is known as the Nancy School of Hypnotism, has been named a Knight of the French Legion of Honour.

NAVAL AND MILITARY MEDICAL SERVICES.

THE NAVY.

THE undermentioned qualified candidates have been appointed Surgeons in Her Majesty's Fleet, November 14th: JAMES POWELL WILLIS, M.B., WALTER RANDALL KNIGHTLEY, JAMES WILLIAM WILCOCKS STANTON, ARTHUR GASKELL, THOMAS DUFOUR HALAHAN, B.A., M.B., JOHN CHRISTOPHER DURSTON, HENRY NEWPORT STEPHENS, EDWARD ALAN ROGERS, GEORGE DAVID BAKER LEVICK, MORRIS CHARLES LANGFORD, PERCY HAMILTON BOYDEN, M.B., ALFRED HUTTON JEREMY, B.A., M.B.

The following appointments have been made at the Admiralty: CLEMENT ALSOP, Surgeon, to Malta Hospital, November 15th; HENRY HARRIES, Surgeon, to the *Melita*, November 15th; PERCY W. BASSETT-SMITH, Surgeon, to the Royal Marines, Plymouth, November 15th; JOHN C. DURSTON, HENRY N. STEPHENS, EDWARD A. ROGERS, GEORGE D. B. LEVICK, MORRIS C. LANGFORD, PERCY H. BOYDEN, M.B.; ALFRED H. JEREMY, B.A., M.B.; JAMES P. WILLIS, M.B.; WALTER R. KNIGHTLEY, J. W. W. STANTON, ARTHUR GASKELL, and THOMAS D. HALAHAN, B.A., M.B., to Haslar Hospital, November 25th. GEORGE B. MURRAY, Fleet Surgeon to the *Resolution*, December 5th; ALFRED H. MILLER, Staff Surgeon to the *Audacious*, December 28th; CHARLES S. FACEY, Surgeon, to the *Resolution*, December 5th; FRANCIS H. A. CLAYTON, Surgeon, to the *Superb*, December 5th.

ARMY MEDICAL STAFF.

THE leave to England granted to Surgeon-Captain F. J. W. STONEY, serving in the Bengal Command, is extended to January 7th, 1894.

Deputy-Surgeon-General WILLIAM ARMSTRONG died at Dulwich on September 24th last. He was appointed Assistant-Surgeon, January 10th, 1851; Surgeon, January 26th, 1858; Surgeon-Major, January 10th, 1871; and Honorary Deputy-Surgeon-General on retirement, August 21st, 1878. He served with the 54th Regiment in the Indian Mutiny Campaign, and was in medical charge of the expedition to Sylhet in 1857, and also of a Field Force in Oude, and was at the attack on the Fort of Lehean in March, 1858 (medal).

Surgeon-General VERE WEBB, died at Mentone on November 15th, aged 76. He entered the service as Assistant-Surgeon, October 13th, 1843; became Surgeon, March 28th, 1854; Surgeon-Major, October 13th, 1863; Deputy-Surgeon-General, November 29th, 1871; and Honorary Surgeon-General on retirement on half-pay, September 18th, 1877. We learn from *Hart's Army List* that he served with the 10th Regiment throughout the Punjab campaign of 1848-49, including the whole of the siege operations before and surrender of Mooltan, and the battle of Goojerat (medal with two clasps). He was also at the siege of Sebastopol in 1854-55 with the 46th Regiment (medal with clasp, and Turkish medal).

ARMY MEDICAL RESERVE.

SURGEON-MAJORS ANDREW CLARK and SAMUEL SMITH to be Surgeon-Lieutenant-Colonels, November 22nd.

Surgeon-Captain ROBERT WILLIAM EDGINTON, M.D., 1st Worcestershire and Warwickshire Artillery, to be Surgeon-Major, November 22nd.

INDIAN MEDICAL SERVICE.

THE services of Surgeon-Major J. A. BURTON, Madras Establishment, are placed at the disposal of the Madras Government from October 19th.

Brigade-Surgeon Lieutenant-Colonel T. FFRENCH-MULLEN, M.D., Bengal Establishment, Civil Surgeon of Bikanir, is appointed to officiate as Residency Surgeon, Western States of Rajpootana, from the date of assuming charge, and during such time as Surgeon-Major A. Adams, M.D., may officiate as Residency Surgeon and Chief Medical Officer in Rajpootana.

Surgeon-Major H. N. V. HARINGTON, Madras Establishment, Medical Officer of the Deoli Irregular Force, and of Haraoti and Tonk Political Agency, is appointed to officiate as Civil Surgeon of Bikanir.

Surgeon-Lieutenant-Colonel H. JOHNSTONE, Bengal Establishment, is appointed Civil Surgeon of Rangoon.

Surgeon-Major S. H. DANTRA, Bengal Establishment, Officiating Civil Surgeon of Rangoon, is directed to revert to his substantive appointment of Junior Civil Surgeon of Rangoon.

Surgeon-Captain J. H. SELLICK, Bengal Establishment, Officiating Junior Civil Surgeon of Rangoon, is appointed Civil Surgeon of Myingyan, Burmah.

Surgeon-Captain R. H. CASTOR, Madras Establishment, Civil Surgeon of Myingyan, is tranferred to Yamethin, Burmah, as Civil Surgeon.

Surgeon-Major A. SILCOCK, Bengal Establishment, Civil Surgeon, is reposted to Belaspore, Central Provinces, and is appointed to the executive and medical charge of Belaspore Gaol.

Surgeon-Major G. F. A. HARRIS, Bengal Establishment, Civil Surgeon, is permitted to return to duty within the period of his leave.

The services of Surgeon-Major D F. DYMOTT, Madras Establishment, are replaced at the disposal of the Military Department from December 1st.

Surgeon-Major J. HOEY is appointed to the medical charge of the 2nd Madras Infantry.

Surgeon-Major E. R. DA COSTA is appointed to the officiating medical charge of the 16th Madras Infantry.

Surgeon-Lieutenant R. H. ELLIOTT, Madras Establishment, is ordered to do duty in the Madras District.

Surgeon-Captain S. E. PRALL, Bombay Establishment, received charge of Shikarpore Gaol on October 23rd.

The undermentioned gentlemen have leave of absence as specified:—Surgeon-Major G. S ROBERTSON, C.S I., Bengal Establishment, officiating British Agent at Gilgit, privilege leave for three months from October 21st; Surgeon-Lieutenant-Colonel W M. COURTNEY, 38th Bengal Infantry, for one year; Surgeon-Major G. S. A. RANKING, M.D., 5th Bengal Cavalry, for one year; Surgeon-Captain W. H. GRAY, 19th Bengal Infantry, for one year; Surgeon-Captain D. G. MARSHALL, M.B., 17th Bengal Cavalry, for one year; Surgeon-Lieutenant-Colonel J. WILSON, Bengal Establishment, Civil Surgeon of Hazaribagh, for six months on medical certificate; Surgeon-Major H. C. HUDSON, 16th Bengal Cavalry, for six months from October 25th, in India, on private affairs; Surgeon-Major H. P. DIMMOCK, Bombay Establishment, privilege leave for three months from November 4th; Surgeon-Captain C. T. HUDSON, Bombay Establishment, for six months on medical certificate, in extension.

MEDICAL DEPARTMENT R.N.

THE following gentlemen who competed at the examination held on November 6th, and following days, at the Examination Hall, Victoria Embankment, for appointment as surgeon in the Royal Navy have been successful:—

	Marks		Marks
J. P. Willis, M.B.	2,952	J. C. Durston	2,418
W. P. Knightley	2,692	H. N. Stephens	2,401
J. W. W. Stanton	2,663	E. A. Rogers	2,398
A. Gaskell	2,622	G. D. B. Levick	2,317
T. D. Halahan, B.A., M.B.	2,448	M. C. Langford	2,246

THE VOLUNTEERS.

SURGEON-LIEUTENANT W. COX, 1st Gloucestershire Engineers, Fortress and Railway Forces, Royal Engineers, is promoted to be Surgeon-Captain, November 18th.

Mr. WILLIAM TWEED HANNAH, M.B., is appointed Surgeon-Lieutenant to the 2nd Volunteer Battalion the Sherwood Foresters (Derbyshire Regiment), November 18th.

MIXED BOARDS.

A CORRESPONDENT points out that although medical officers are excluded from the presidency of mixed boards in this country, things are better managed in India, and cites a recent board, ordered to report on the sanitation of Cawnpore, composed as follows: President, Surgeon-Major-General Rice; members, Colonel Abbott, Surgeon-Colonel Walsh, Surgeon-Lieutenant-Colonel Hutcheson.

*** An excellent case in point: We put it to our military hierarchs at home, Are the proceedings and recommendations of this board likely to be of less value because presided over by a medical officer? If such things can be done with advantage to the service in India, why not anywhere or everywhere else?

SURGEON-GENERAL J. D. McILLREE.

WE understand the claims of this old and very meritorious retired officer for special recognition are again being pressed on the military authorities. His services in the West Indies during epidemics, but especially in Scutari and the Crimea, undoubtedly merit generous consideration, but the absence of so-called war services has precluded him from these honours and rewards, so freely accorded to his contemporaries who had the luck to be in the front. It must surely be an omission that he has neither British nor Turkish medals for the Crimea. Of course, he is not singular, for many a meritorious officer remains undecorated and unrewarded for want of so-called war services. Peace has its victories, even in the army, as well as war, and we think it would be well if some system was adopted for conferring honours and rewards for long, faithful, and meritorious military services other than those in the field.

MUDDLING ARMY MEDICAL NEWS.

THE following lucid announcement is literally transcribed from the *Homeward Mail* of October 31st, under the head of "Latest Bombay Army Orders:" "Surg.-Major Webb, Army Med. Staff, on return from leave, from private affairs, has been appointed to the medical charge, Station Hospitals, Indore, *vice* Surg.-Major Peterkin, Veterinary-lieutenant. The former, on arrival in India on 11th instant, has been posted as chief, Veterinary Hospital, Kirkee, for duty." Really our contemporary ought to caution its Baboo.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF LONDON.

M.B. EXAMINATION.—October, 1893. Pass List. *First Division.*—H. W. Armstead, University College and St. Bartholomew's Hospital; T. Carwardine, Middlesex Hospital and University College; J. G. Clegg, Owens College and Manchester Royal Infirmary; H. O. Davies, St. Bartholomew's Hospital; H. G. Felkin, London Hospital; S. F. Gibbs, St. Bartholomew's Hospital; J. A. Howard, Guy's Hospital; C. S. Jaffé, St. Thomas's Hospital; W. J. Johnson, Guy's Hospital; Lillie Mabel A. Jones, London School of Medicine and Royal Free Hospital; B. H. F. Leumann, St. Bartholomew's Hospital; E. G. G. Little, St. George's Hospital; J. Morrison, St. Bartholomew's Hospital; J. L. Morton, St. Mary's Hospital; E. A. Nathan, St. Mary's Hospital; A. P. Nuttall, University College; J. A. Pickels, Owens College and Manchester Royal Infirmary; W. J. Potts, Owens College and Manchester Royal Infirmary; F. E. Rock, Middlesex Hospital; K. Rogers, St. Bartholomew's Hospital; W. N. Soden, St. Bartholomew's Hospital; J. O. Symes, St. Mary's Hospital; H. C. Thomson, Middlesex Hospital; W. L. Wainwright, St. Thomas's Hospital; W. B. Warrington, Owens College and Manchester Royal Infirmary; C. J. Woollett, Charing Cross Hospital.

Second Division.—M. Ashley, University College; L. W. Bathurst, St. Bartholomew's Hospital; W. Branson, Sheffield and University College; S. M. Brown, Owens College and Manchester Royal Infirmary; J. Le M. Bunch, B.Sc., University College; D. A. Chaning-Pearce, Guy's Hospital; D. W. Collings, St. Bartholomew's Hospital; R. H. Crowley, St. Bartholomew's Hospital; W. E. De Korté, Guy's Hospital; J. Dickinson, Westminster Hospital; P. S. Eves, University College; J. H. Griffiths, St. Bartholomew's Hospital; J.

L. Iredale, Yorkshire College; T. T. Jeans, Owens College and Manchester Royal Infirmary; G. P. Jerome, Queen's College, Birmingham; A. W. Kirkpatrick-Picard, University College; C. A. Lane, St. Mary's Hospital; F. W. Lewis, St. Mary's Hospital; G. F. Murrell, St. Bartholomew's Hospital; E. A. Perram, St. Bartholomew's Hospital; Ann Frances Piercy, London School of Medicine and Royal Free Hospital; F. P. Piper, St. Mary's Hospital; T. M. J. Powell, St. Bartholomew's Hospital; E. J. Smyth, B.Sc., University College; T. B. Stedman, University College; J. P. Tildesley, Queen's Hospital and College, Birmingham; F. T. Travers, University College; B. P. Viret, St. Bartholomew's Hospital; S. R. Wells, B.Sc., St. George's Hospital; J. R. Whitaker, B.A., University College; A. E. Wilson, St. Mary's Hospital; S. F. Wright, St. Thomas's Hospital.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

The following gentlemen having passed the necessary examinations and having conformed to the by-laws and regulations, were at the ordinary meeting of the Council admitted Members of the College namely:

Ainsworth, H., L.R.C.P.Lond.
Ambler, J. R., L.R.C.P.Lond.
Arnold, G. J., L.R.C.P.Lond.
Baldwin, G. R., L.R.C.P.Lond.
Ballard, R., L.R.C.P.Lond.
Beddy, T. A., L.R.C.P.Lond.
Berry, R. S., L.R.C.P.Lond.
Biggs, J. J. E., L.R.C.P.Lond.
Bishop, J. R., L.R.C.P.Lond.
Blandford, J. J. G., L.R.C.P.Lond.
Boyd, J., L.R.C.P.Edin.
Bruce, W. J., L.R.C.P.Lond.
Buchanan, A. G., L.R.C.P.Lond.
Burch, H. E., L.R.C.P.Lond.
Campbell, R., L.R.C.P.Lond.
Collyer, B., L.R.C.P.Lond.
Corben, C., L.R.C.P.Lond.
Cowen, G. H., L.R.C.P.Lond.
Cross, E. W., L.R.C.P.Lond.
Crowther, C. K., L.R.C.P.Lond.
Davies, J. L., L.R.C.P.Lond.
Dawkins, G. M., L.R.C.P.Lond.
De Korte, W. E., L.R.C.P.Lond.
Dickson, H. A. D., L.R.C.P.Lond.
Durell, R. E., L.R.C.P.Lond.
Eastment, J. W., L.R.C.P.Lond.
Eatock, J. A., L.R.C.P.Lond.
Feaver, L., L.R.C.P.Lond.
Ferguson, A. S., L.R.C.P.Lond.
Fido, H. A., L.R.C.P.Lond.
Finnie, J. E., L.R.C.P.Lond.
Foster, J., L.R.C.P.Lond.
France, C. F., L.R.C.P.Lond.
Galizia, J. S., L.R.C.P.Lond.
Gill, S. E., L.R.C.P.Lond.
Godfrey, H. P., M.B., B.S.Melbourne
Godson, L. J., L.R.C.P.Lond.
Goldney, T. W., L.R.C.P.Lond.
Good, T. S., L.R.C.P.Lond.
Green, W. F. L., F.S.A.
Grove, W. R., L.R.C.P.Lond.
Harper, J., L.R.C.P.Lond.
Hartley, F. W., L.R.C.P.Lond.
Hayes, J., L.R.C.P.Lond.
Helby, E. H., L.R.C.P.Lond.
Hoare, W. W., L.R.C.P.Lond.
Hobart, N. H., L.R.C.P.Lond.
Houfton, E. H., L.R.C.P.Lond.
Hovenden, A. C., L.R.C.P.Lond.
Howard, J. A., L.R.C.P.Lond.
Hudleston, W. E., L.R.C.P.Lond.
Hudson, A., L.R.C.P.Lond.
Humphrey, E. S., L.R.C.P.Lond.
Hunt, E., L.R.C.P.Lond.
James, S., L.R.C.P.Lond.
Jewell, W. H., L.R.C.P.Lond.
Jones, P. N., L.R.C.P.Lond.
Kempe, C. G. B., L.R.C.P.Lond.
Kirkby, R. C., L.R.C.P.Lond.
Kynsey, H. A., L.R.C.P.Lond.
Lane, C. A., L.R.C.P.Lond.
Langworthy, W. S., L.R.C.P.Lond.
Ligertwood, W. H., L.R.C.P.Lond.
Lock, G. H., L.R.C.P.Lond.
McCleland, H. A., L.R.C.P.Lond.
McDougall, A., L.R.C.P.Lond.
Maingay, H. B., L.R.C.P.Lond.
Manning, G. E, L.R.C.P.Lond.
Manning, T. D., L.R.C.P.Lond.
Mathew, C. M., L.R.C.P.Lond.
May, G. E., L.R.C.P.Lond.
Melville, S., L.R.C.P.Lond.
Meyrick-Jones, H. M., L.R.C.P.Lond.
Morris, C. G., L.R.C.P.Lond.
O'Leary, R., L.R.C.P.Lond.
Paterson, P., L.R.C.P.Lond.
Peacock, W. F., L.R.C.P.Lond.
Pearce, D. A. C, L.R.C.P.Lond.
Pendred, V., L.R.C.P.Lond.
Perkins, H. C, L.R.C.P.Lond.
Perry, C. M., L.R.C.P.Lond.
Poynton, F. J., L.R.C.P.Lond.
Probyn, P. J., L.R.C.P.Lond.
Quay, F. A. W., L.R.C.P.Lond.
Quayle, E., L.R.C.P.Lond.
Rawlings, J. D., L.R.C.P.Lond.
Reid, A. L., L.R.C.P.Lond.
Reid, J. B., M.D.Toronto.
Richards, W. G., L.R.C.P.Lond.
Roberts, A. D., L.R.C.P.Lond.
Rock, F. E, L.R.C.P.Lond.
Rostant, A. A., L.R.C.P.Lond.
Roydon, W., L.R.C.P.Lond.
Russell, A. E., L.R.C.P.Lond.
Ryall, E. C., L.R.C.P.Lond.
Scott, A. W., L.R.C.P.Lond.
Seed, W. P., L R.C.P.Lond.
Selby, J. S. E., L.R.C.P.Lond.
Shillitoe, A., L.R.C.P.Lond.
Sinigar, H., L.R.C.P.Lond.
Skeels, W., L.R.C.P.Lond.
Smith, A. E. M., L.R.C.P.Lond.
Smyth, E. J., L.R.C.P.Lond.
Spink, E. W., L.R.C.P.Lond.
Staunton, H. F., M.B.Madras
Steward, E. S., L.R.C.P.Lond.
Stoddart, W. H. B., L.R.C.P.Lond.
Swinhoe, G. R., L.R.C.P.Lond.
Travers, F. T., L.R.C.P.Lond.
Turner, P. E., L.R.C.P.Lond.
Wallace, R. F. H. S., L.R.C.P.Lond.
Webb, J. C., L.R.C.P.Lond.
Webster, F. B., L.R.C.P.Lond.
Whait, J. R., L.R.C.P.Lond.
Whiteman, W. A. D., L.R.C.P.Lond.
Whitling, H. F. M., L.R.C.P.Lond.
Wilkin, R. H., L.R.C.P.Lond.
Woodhead, T. F., L.R.C.P.Lond.
Worth, E. H., L.R.C.P.Lond.

The following gentlemen passed the First Professional Examination in Anatomy and Physiology, for the diploma of Fellow, at a meeting of the Board of Examiners *on Wednesday, November 15th*:

W. W. Griffin, M.R.C.S.Eng., M.B.New Zealand, of Otago Medical School, New Zealand, and London Hospital; C. E. A. MacLeod, M.R.C.S.Eng., L.R.C.P.Lond., of Westminster Hospital; E. M. Hainworth, M.R.C.S.Eng., L.R.C.P.Lond., of St. Thomas's Hospital; F. Belben, M.R.C.S.Eng., L.R.C.P.Lond., of Cambridge University and St. Bartholomew's Hospital; H. G. Lawrence, of St. Mary's Hospital; F. J. Watson, of Cambridge University and St. George's Hospital; and J. P. O'Hea, of St. George's and St. Bartholomew's Hospitals.

Eight candidates were referred back to their professional studies for six months.

Passed on Thursday, November 16th: T. H. Boyd, M.R.C.S.Eng., M.B., B.S.Melb., of Melbourne University and University College; A. W. Sanders, of St. Mary's Hospital; and E. S. Savage, of Oxford University and London Hospital.

Six candidates were referred back to their professional udies for six months.

SOCIETY OF APOTHECARIES OF LONDON.

The following candidates passed in—

Surgery.—F. Chown, St. Mary's Hospital; E. Gill, St. Bartholomew's Hospital; J. W. F. Graham, St. Bartholomew's Hospital; W. G. J. Graham, Bristol; H. G. C. Hardwick, St. Thomas's Hospital; D. Hunter, London Hospital; F. W. Kirbey, London Hospital; A. L. Knapman, Manchester; T. Longmore, Birmingham; W. D. Macdonald, Guy's Hospital; J. E. S. Old, London Hospital; G. F. Palmer, London Hospital; J. P. Stokes, Sheffield; H. L. Thurnell, St. Thomas's Hospital; H. C. Venis, St. Mary's Hospital; R. A. Young, Middlesex Hospital.

Medicine, Forensic Medicine, and Midwifery.—G. Allcock, St. Thomas's Hospital; R. L. Dickinson, London Hospital; G. Higginson, London Hospital; D. Hunter, London Hospital; J. Jones, Manchester; T. Jones, London Hospital; T. Longmore, Birmingham; G. H. Pearce, St. Thomas's Hospital; F. L. F. E. Pfaff, Strassburg; J. H. Spreat, St. Bartholomew's Hospital; A. W. Seal, University College; C. J. Wills, Liverpool.

Medicine and Forensic Medicine.—H. Andreæ, University College; A. Delve, University College; C. A. Marrett, Charing Cross.

Forensic Medicine and Midwifery.—E. A. Tudman, University College; W. B. Welch, St. Bartholomew's Hospital.

Midwifery.—A. H. Bird, St. Mary's Hospital; G. C. B. Hawes, St. George's Hospital.

To Messrs. Chown, Delve, Dickinson, Hawes, Higginson, Hunter, J. Jones, T. Jones, Kerbey, Knapman, Longmore, and Seal was granted the diploma of the Society entitling them to practise Medicine, Surgery, and Midwifery, enabling the holder to compete for medical appointments in the army, navy and Indian service, also for Poor-law appointments.

OBITUARY.

WILLIAM GALLOWAY, M.A., PH.D.GIESSEN, L.R.C.P., L.R.C.S.EDIN.

We regret to have to record the death of Dr. William Galloway on October 26th, after a very short illness. Hale and hearty until Friday, October 20th, the deceased on that day contracted a chill, but this did not deter him from discharging his professional duties on the following Monday. On his return home his illness became serious, and he was obliged to take to his bed, bronchitis thereafter set in, he rapidly became worse, and expired on October 26th. The deceased was 79 years of age, having been born in Arbroath in 1814. He received his preliminary education in his native town, and then went to Edinburgh University, where he took degrees in Arts and Medicine. He was also successful in gaining a diploma from the University of Giessen. His first professional appointment was to the post of assistant-surgeon to the Preston Dispensary, a position he held for two years. After practising for a short time in Arbroath, he set up in practice in Froickheim, where he remained fifteen years. In 1858 Dr. Galloway was appointed outdoor surgeon to the Dundee Royal Infirmary, which post he occupied for two years. In 1860 he started his career in Dundee. Shortly after going there he was appointed a district medical officer to the Parochial Board, an appointment which he held until his death. He was also medical officer to a number of friendly societies. He is survived by a widow, two sons, and two daughters.

JOHN SWANWICH DRENNAN, M.D.,
Belfast.

Dr. J. S. Drennan, one of the oldest and most respected practitioners in Ireland, passed away on November 2nd, at his residence, Prospect Terrace, Belfast. He was in his 85th year. He was a son of the celebrated Dr. William Drennan, the poet and pamphleteer of the United Ireland movement in its earlier and more constitutional stage. Dr. J. S. Drennan inherited much of his father's abilities, and also his love for literature. He obtained his education in Dublin, and practised for a time in Leeds. Removing to Belfast, he became physician to the General (now the Royal) Hospital, and rose to a distinguished position in practice. He held various offices in the different medical societies, and was much esteemed by his medical brethren and the public for his professional knowledge, wide culture, and high character. He had a genuine poetic faculty, and some of his productions deserve to be remembered for their freshness, finish, and humour. He always took a deep interest in the intellectual progress of Belfast, and was for many years one of the governors of the Linen Hall Library. He was a good instance of the happy alliance of medical skill with wide literary and philosophic culture.

RICHARD MOODY-WARD, B.A., M.B.Oxon., M.R.C.S.Eng. We regret to have to report the death of Dr. Richard Moody-Ward, of Reading, which occurred on November 9th. He was born in Devonshire in 1857, and received his early education at the Torrington Grammar School, and subsequently entered Exeter College, Oxford, as Classical and Goldsmith Exhibitioner, where he graduated in 1880, taking a First Class in Science, and Honours in Classics. He afterwards entered Guy's Hospital, where he received his medical education, and in 1884 he obtained the diplomas of the Colleges of Physicians and Surgeons, and in the next year his degree in Medicine at Oxford. During his studentship at Guy's Hospital he won many prizes, and the earnestness of his work was rewarded by his appointment as Assistant Demonstrator of Anatomy, and subsequently House-Physician. In 1888 he was elected Physician to the Royal Berkshire Hospital. Amongst other offices, Dr. Moody-Ward filled the post of Joint Secretary to the Pathological Society in Reading, of Librarian to the Medical and Chirurgical Society of Reading, and of President of the Reading and Upper Thames Branch of the British Medical Association.

Dr. C. W. MacDowell, of Carlow, died at his residence in Carlow on November 7th from the effects of blood poisoning. He was attended during his illness by Drs. Thomas O'Meara, Stawell, and Joseph V. Ryan. Besides a large and lucrative practice, he was medical officer of the Carlow Workhouse and visiting physician to the Carlow District Lunatic Asylum. Dr. MacDowell leaves a widow and several young children to mourn his loss.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently passed away are Dr. A. L. Carroll, of New York, formerly editor of the defunct *Medical Gazette* of that city, and an accomplished physician, aged 60; Dr. Benoit, Honorary Dean of the Medical Faculty of Montpellier; Dr. Angelo Minich, Senator, of Italy; and Dr. A. B. Ribeiro Vianna, Emeritus Professor of Operative Surgery in the Medico-Chirurgical Society of Lisbon, and formerly Surgeon to the Hospital S. José of that city.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Thursday, November 16th.

Gratuitous Revaccination.—Sir Walter Foster, in answer to Mr. W. M'Laren, said he was aware of the notice which had been issued by the guardians of the Barton Regis Union, Bristol, referring to an outbreak of small-pox and offering gratuitous revaccination to persons who were resident within the union and were over 10 years of age. The guardians had clearly a legal right to pay for revaccinations by the public vaccinators which were performed by them in conformity with the regulations.

Proposed Fever Hospital at Norwood.—Mr. H. H. Fowler informed Mr. Sidney Herbert that he had directed a local inquiry as to the proposed fever hospital on the Grangewood Estate at Norwood.

Monday, November 20th.

Quinine and Cinchona.—Mr. Caine asked the Under-Secretary of State for India what quantity of cinchona in the bulk of all preparations had been sold by the superintendent of the Botanic Gardens, Calcutta, each year from 1886 to 1892, and what had been the average price of the year.—Mr. G. Russell said in 1892-93 5,520 lbs. of quinine and 3,650 lbs. of cinchona febrifuge were sold from the factory near Darjeeling to the medical department and to the public at a price of one rupee an ounce for quinine, and ten annas an ounce for cinchona febrifuge.

Army Medical Officers.—Mr. D. Plunket asked the Secretary of State for War why the recommendation of Lord Camperdown's Committee of 1889 (paragraph 34, page 9 of the report) to the effect that "medical officers on leave, in consequence of disease contracted in and by the service, should be entitled to the same privileges as combatant officers," had not been carried out in its entirety; whether Surgeon-Captain Sawyer, having lost his health in the execution of his duty in India, and having in consequence been sent home on half-pay for six months, he was passed over for promotion, and had sixty-five junior officers promoted over him on the ground that no portion of time on half-pay was reckoned towards promotion; and whether the case of Surgeon-Captain Sawyer would be reconsidered, having regard to the fact that the regulation under which he thus lost his promotion had been declared to be unjust, and had been amended.—Mr. Campbell-Bannerman said full effect had been given to the recommendation referred to, but a change of that character could not be made retrospective without the most serious disturbance of the seniority list. At the time Surgeon-Captain Sawyer was placed on half-pay his time on half-pay did not count as service for promotion, although it would do so in a similar case at present. He was afraid nothing could now be done to help him.—Mr. D. Plunket asked whether any steps had been taken to secure to the Army Medical Staff opportunities for acquiring practical experience in field duties, the want of which the Secretary of State for War admitted was a weak point in the present system.—Mr. Campbell-Bannerman said steps would be taken next summer to afford a fortnight's instruction of a practical character in the field duties of the Medical Staff.

Tuesday, November 21st.

Vaccination Prosecutions.—Mr. Asquith stated, in answer to Mr. B. Jones, that the Rev. A. Renshaw, the Rev. W. Soper, and fourteen other persons were committed to gaol from Stroud Petty Sessions on November 17th for seven days for non-payment of fines for offences against the Vaccination Acts. Some of the cases appeared to have been second prosecutions for similar offences. He regretted that the state of the law rendered such proceedings possible. The Government would introduce a measure to alter that state of things. He had no power to interfere with the discretion of boards of guardians. If he were to remit the penalties he would, in effect, be repealing an Act of Parliament.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns, including London, 5,977 births and 4,751 deaths were registered during the week ending Saturday, November 18th. The annual rate of mortality in these towns, which had increased from 18.3 to 21.5 per 1,000 in the preceding three weeks, further rose to 24.0 during the week under notice. The rates in the several towns ranged from 10.8 in Halifax, 11.0 in Croydon, 16.6 in Huddersfield, 16.8 in Nottingham, and 17.1 in Portsmouth, to 27.5 in Oldham, 28.8 in Liverpool, 29.3 in Bolton, 29.7 in Wolverhampton, and 31.4 in Birmingham. In the thirty-two provincial towns the mean death-rate was 23.7 per 1,000, and was 0.7 below the rate recorded in London, which was 24.4 per 1,000. The 4,751 deaths registered during the week under notice in the thirty-three towns included 513 which were referred to the principal zymotic diseases, against numbers increasing from 447 to 508 in the preceding three weeks; of these, 117 resulted from diphtheria, 92 from whooping-cough, 85 from measles, 77 from scarlet fever, 62 from diarrhœa, 61 from "fever" (principally enteric), and 19 from small-pox. These 513 deaths were equal to an annual rate of 2.6 per 1,000; in London the zymotic death-rate was equal to 3.2 per 1,000, while it averaged 2.2 in the thirty-two provincial towns. No fatal case of any of these diseases occurred in Halifax; in the other towns they caused the lowest death-rates in Portsmouth, Derby, Preston, and Blackburn, and the highest rates in London, Hull, Bradford, West Ham, and Norwich. Measles showed the highest proportional fatality in Norwich; scarlet fever in Sunderland; whooping-cough in West Ham and Birkenhead; "fever" in Liverpool and Hull; and diarrhœa in Burnley. The 117 deaths from diphtheria recorded during the week under notice in the thirty-three towns included 91 in London, 3 in West Ham, 3 in Bristol, 3 in Manchester, and 3 in Salford. Eight fatal cases of small-pox were registered in Bradford, 4 in Birmingham, 2 in Bristol, and 1 each in London, West Ham, Leicester, Oldham, and Leeds. There were 151 small-pox patients under treatment in the Metropolitan Asylums Hospitals and in the Highgate Small-pox Hospital on Saturday last, against 87, 110, and 150 at the end of the preceding three weeks; 20 new cases were admitted during the week, against 30 and 52 in the preceding two weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital was 3,129 at the end of the week, against 2,778, 2,906, and 3,071 on the preceding three Saturdays; 363 new cases were admitted during the week, against 460 and 484 in the preceding two weeks. The 615 deaths referred to diseases of the respiratory organs in London were 196 above the average, and were equal to an annual rate of 7.4 per 1,000.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday, November 18th, 865 births and 684 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had increased from 18.2 to 20.3 per 1,000 in the preceding three weeks, further rose to 24.3 during the week under notice, and was 0.3 per 1,000 above the mean rate during the same period in the large English towns. Among these Scotch towns the lowest death-rates were 18.5 in Dundee and 21.7 in Aberdeen, and the highest 28.6 in Paisley and 36.0 in Perth. The 684 deaths in these towns included 68 which were referred to the principal zymotic diseases, equal to an annual rate of 2.4 per 1,000, which was slighly below the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Paisley and Perth. The 307 deaths registered in Glasgow last week included 19 from whooping-cough, 7 from scarlet fever, and 2 from diphtheria. Three fatal cases of diphtheria were recorded in Aberdeen. The death-rate from diseases of the respiratory organs in these towns was equal to 7.5 per 1,000, against 7.4 in London.

HEALTH OF IRISH TOWNS.

In sixteen of the principal town districts of Ireland the deaths registered during the week ending Saturday, November 11th, were equal to an annual rate of 25.5 per 1,000. The lowest rates were recorded in Dundalk and Sligo, and the highest in Drogheda and Galway. The death-rate from the principal zymotic diseases averaged 3.0 per 1,000. The 179 deaths registered in Dublin were equal to an annual rate of 26.7 per 1,000 (against 20.6 and 26.8 in the preceding two weeks), the rate during the same period being 21.4 in London and 20.5 in Edinburgh. The 179 deaths in Dublin included 19 which were referred to the principal zymotic dis-

cases, equal to an annual rate of 2.8 per 1,000; of these 8 resulted from whooping-cough, 5 from diarrhœa, 4 from enteric fever, and 2 from scarlet fever.

THE NEWTON ABBOT WORKHOUSE.

We are glad to find that there is prospect of some reform at the Newton Abbot Workhouse, the management of which lately drew forth such emphatic strictures from the coroner of the district. The visiting committee has reported to the board in favour of an improved dietary; the appointment of two female nurses, one of them to be a certified midwife; provision of a playground for the boys; increasing accommodation for casuals; the placing of the epileptics in two wards, each of which shall be in charge of an able-bodied inmate; provision of better air space and ventilation; the erection of a small isolation hospital; and, if possible, the provision of a reading room for the old men and women.

The temper of the board towards improvements may perhaps be judged of by the facts that this proposal to provide the old people with some sort of place of rest and recreation is noted in the *Western Morning News* as having been received with "laughter." At the next meeting of the board the whole question will, we are told, be fought out. But surely it ought not be possible to get up much of a fight over such meagre improvements as placing an able-bodied pauper in charge of the epileptics, or providing two nurses for 100 sick beds. If such obvious necessities have to be fought over, we fear that the sick poor of that union must at the present time be in a somewhat miserable plight. And yet, for all this, Newton Abbot does not rank among the worst of workhouses. It does, at least, provide some nursing for its inmates, even if only one nurse for 100 beds; many provide none at all.

THE CONNECTION BETWEEN SANITARY CONDITIONS AND DIPHTHERIA.

In his recent monthly report presented to the Marylebone Vestry, Mr. Wynter Blyth gives details of an epidemic of diphtheria connected with Trinity Schools.

From September 5th to October 31st 18 cases were notified, all of them young children, all residing in the neighbourhood of the schools, and all pupils in the infants' department. "The older children were not affected, but it spread occasionally from the patients to relatives and those in attendance; for example, Dr. Lucas, from the Middlesex Hospital, caught diphtheria and died, the disease evidently having been contracted from attending cases connected with the school." The 18 Marylebone cases were not the only cases connected with the school; a large number of the scholars lived in the adjoining parish of St. Pancras, and suffered severely.

A searching investigation of the sanitary arrangements was instituted. Passing over minor defects, there were found underneath the infants' department, from which the cases were mainly if not exclusively derived, a large cesspit, 10 feet by 6 feet, with about 13 inches of stinking deposit; a disused drain pipe under the floor, open at one end, the joints uncemented; another 9-inch drain, choked throughout its length with solid deposit connected with the infants' closets; and lastly, there was a third drain of brick, dilapidated and partly fallen in. Mr. Wynter Blyth suggested that the school should be closed, and after the closing of the schools—which have now been redrained—only 4 cases of diphtheria occurred amongst the pupils.

Mr. Wynter Blyth summarises the above facts as follows:

"Diphtheria broke out in the Trinity Schools in the early part of September.

"The incidence of the disease mainly fell upon the very young children.

"These children were exposed to the influence of the unhealthy conditions described to a far greater degree than those in other portions of the building.

"It is quite true that such a case, remarkable as it may be, does not establish as a principle that diphtheria is connected with sanitary condition; for those who hold the opposite view would say that the outbreak was to be explained entirely by personal contact; that is to say, given a child with masked diphtheria, his playmates are likely to take it, and that, had the sanitary arrangements been perfect, the same results might have followed."

His own experience has, however, taught him that insanitary conditions are so frequently associated with diphtheria that they favour its diffusion and occasionally act as an exciting cause.

DRAINAGE OF WORTHING.

Application is about to be made by the Worthing Town Council for sanction to borrow the sum of £36,000, for the carrying out of a scheme of drainage rendered necessary by the incorporation of Worthing and West Worthing.

LEICESTER FEVER HOSPITAL.

The Leicester Borough Hospital, after having been many months devoted to the exclusive treatment of small-pox, is to be reopened for scarlet fever cases, which are now occurring numerously, and which have in the interval been treated at home. But a ward is still set apart for small-pox cases, of which four remain under treatment, and, though this ward is said to be "surrounded by every safeguard against the spread of infection," we can only look with foreboding on the return of scarlet fever patients into close proximity to this small-pox ward.

WATERBORNE TYPHOID.

Mr. Thomas Macalpine, Paisley, in a communication to a local paper, gives particulars regarding the investigations he has recently made into the condition of the town's water supply, and states that in samples of water drawn from Rowbank Reservoir on October 23rd the typhoid bacillus was found. The samples were submitted to careful microscopical and bacteriological examination. Mr. Macalpine ascribes a bog at the south-east end of the reservoir as a perfect hot-bed, all the conditions necessary being present for the propagation of the bacilli, and he also points out, in support of his conclusions, that since the supply of water from Rowbank was stopped the epidemic of enteric fever had gradually decreased.

INADEQUATE FINES FOR ADULTERATION.

The leniency with which magistrates as a rule deal with cases of food adulteration is almost proverbial. Year after year the Local Government Board, in summarising and reviewing the reports of analysts in all parts of the country, have pointed out the absurdity of expecting that adulteration can be repressed by the infliction, in clearly proved cases, of merely nominal fines of half-a-crown or five shillings. The practice of adding water to milk, or chicory to coffee, is too simple and profitable to be effectually restrained by such inadequate penalties. There is certainly an improvement to be noticed in recent years in some districts, but there is still room for further stiffening of magisterial leniency as regards this important question. From the recently issued report of the Local Government Board, it appears that during the year 1892, in the whole of England and Wales, 4,009 samples were classed as adulterated out of 32,447 samples of food and drugs examined. Prosecutions were instituted in 2,537 instances, and fines were imposed amounting in the aggregate to £3,842, in most instances exclusive of costs. The average penalty was thus £1 16s. 2d., as against £1 11s. 3d. in 1891, and £1 9s. in 1890. There was one fine of £30 (proceedings having been taken under the Margarine Act as well as the Sale of Food and Drugs Act), 10 of £20 each, 7 between £10 and £20, 36 of £10, 15 between £5 and £10, and 181 of £5. On the other hand, 121 fines were of half-a-crown or less, 241 were over half-a-crown but less than five shillings, and 364 were between five and ten shillings. The Board add the remark that "in many cases the leniency of the justices is probably due to their belief that the particular retailer who is summoned is less culpable than the wholesale dealer who has been the actual adulterator, but who generally escapes scot-free." But if the retailer were made to understand that he would be held responsible for the correct description of his goods, whether they be genuine or mixtures, he would soon learn to protect himself against fraudulent or deceptive impositions on the part of the wholesale dealer. Except where special goods are sold in sealed packets, the unfortunate ultimate consumer of an article of food ought not to be expected to look beyond the person from whom he actually purchases it for the shoulders on which to place the responsibility for fraudulent sophistication.

MEDICAL OFFICER AND GUARDIAN.

M.D.—We should regard it as inexpedient for a medical officer to a board of guardians to sit on that board as an *ex officio* member.

VACCINATION RETURNS.

C. W. E.—The Instructions of the Local Government Board for Vaccinators under Contract state: "In cases of primary vaccination, register as 'successful' only those cases in which the *normal vaccine vesicle* has been produced; in cases of revaccination, register as 'successful' only those cases in which *either vesicles, normal or modified, or papules surrounded by areola*, have resulted." Cases of true insusceptibility are extremely rare, but the words we have italicised would lead us to infer that "insusceptible' primary vaccination should be entered in the "unsuccessful" column. In regard of revaccination, we should be inclined to look upon any case as showing "insusceptibility" in which, whilst having been properly done with effective lymph, the above italicised symptoms were altogether and repeatedly lacking. No payment can legally be made for cases of vaccination or revaccination when performed by a public vaccinator which have not had "successful" result.

HOSPITAL AND DISPENSARY MANAGEMENT.

FORFAR INFIRMARY.

Dr. A. Wedderburn appeals to be heard with respect to certain criticisms of the arrangements of the above infirmary which appeared in the British Medical Journal of September 23rd. Dr. Wedderburn repeats that the directors "do not propose to make any addition to the present building. Their proposal is to separate the upper from the lower flat as completely as possible, and to make a separate entrance to the upper flat by an outside stair, so that there need be no communication with the general wards"—it would appear that up to this time the medical, surgical, and infectious wards were all *en suite!* We feel bound to repeat what we have already said, that any arrangement which perpetuates the retention of infectious cases in the same building (although upon a different flat) with medical and surgical cases, and which perpetuates the accommodation of small-pox within the same grounds as surgical, medical, and other cases is little less than criminal. People might acquiesce in it "thirty years ago," but, as it happens, we do not live thirty years ago. We cannot enter into further controversy about this matter.

Doctors of Medicine in France.—The number of persons on whom the degree of Doctor of Medicine was conferred in the seven medical faculties of France during the academic year 1891-92 was 635, being an increase of 41 as compared with the previous year.

Bequests.—The late Mr. Charles Edward Horsfall, of Liverpool, who died in August last, has bequeathed the following among other Liverpool charities: Blue Coat Hospital, £1,200; Royal Infirmary, £800; Northern Hospital, £800; Southern Hospital, £800; Children's Infirmary, £800; Dispensaries, £800; Eye and Ear Infirmary, £500; Hahnemann Hospital, £500; and Home for Incurables, £500.

MEDICAL NEWS.

Mr. R. Hedley, the well-known Local Government Board Inspector, is about to retire.

Bequests.—The late Mr. Samuel Farley, of Lordship Road, Stoke Newington, has bequeathed £3,000 each to the East London Hospital for Children and Dispensary for Women and the Middlesex Hospital.

Dr. A. M. Makejew, Professor of Gynæcology and Midwifery in the University of Moscow, has given 100,000 roubles (£10,000) towards the building of a church in the precincts of the new University Clinics.

Presentation.—Dr. C. J. Whitehead Dixon, who recently was appointed resident medical officer at the Royal Hospital for Chest Diseases, City Road, has, on leaving the Royal National Hospital, Ventnor, been presented by the staff with a very handsome repeating carriage clock, as a mark of their regard and esteem.

The hospitals and kindred institutions of the North Midlands have again received a welcome windfall from the proceeds of the shilling toll which is taken of all visitors to Welbeck. Owing to the fact that the Abbey was closed to the public for some weeks after the death of the Baroness Bolsover, the total received in 1893 was not so large as last year, but still reaches the handsome sum of £741.

The Forthcoming International Medical Congress.—The Organising Committee of the Exhibition to be held in Rome in April in connection with the Eleventh International Medical Congress have decided to form an additional section, which is expected to prove exceptionally interesting. This section will comprise all kinds of antique objects—surgical instruments and appliances, and apparatus used in medicine and hygiene, statues, medals, drawings, engravings, inscriptions, etc.—relating to the practice of medicine, surgery, and public and private hygiene, and to the worship of the divinity of medicine among all peoples from prehistoric times to the eighteenth century.

The Plymouth Medical Society.—The annual general meeting was held on Wednesday, November 15th, at the Duke of Cornwall Hotel, under the chairmanship of Mr. Leah (Stonehouse), retiring President. The following office-bearers were elected for 1893-94:—*President:* Mr. Connell Whipple. *Vice-President:* Messrs. E. M. Russel Rendle (Plymouth), Leah (Stonehouse), and Thom (Devonport). *Honorary Treasurer:* Mr. J. Elliot Square. *Honorary Librarian:* Mr. C. E. Russel Rendle. *Honorary Secretary:* Mr. Reginald H. Lucy. The annual dinner was held at the same date and place, twenty-seven members and two guests being present. The membership now numbers forty-seven.

The Westminster Hospital Annual Students' Dinner took place at the Criterion Restaurant on November 16th, Dr. Bourns in the chair. The toasts were as follows: "The Queen and Royal Family," proposed by the Chairman; "The Staff, Hospital and Medical School," proposed by Mr. De Renzi, and acknowledged by Mr. Walter Spencer and Mr. Bond; "The Old Students," proposed by Mr. White, and acknowledged by Mr. Mills; "Sports," proposed by Mr. Baxter, acknowledged by Mr. Twemlow; "The Visitors," proposed by the Chairman, acknowledged by Sir Leslie Falkiner, Bart.; "The Chairman," proposed by Mr. Nitch-Smith, acknowledged by Dr. Bourns. The dinner was followed by an enjoyable concert.

London Post-Graduate Course.—Daily (vacation) courses in bacteriology, pathology, and hygiene have been arranged, and will commence on Monday, December 4th, and end on Friday, December 15th. Judging from the gratifying success of these classes in September last, there is good reason to believe they meet a want felt by many practitioners who can only leave home for a limited period, and wish further instructions in these allied subjects. The class lists are now being made out, and those wishing to enter can do so on application to Dr. Fletcher Little, 32, Harley Street, W.

New Entries in the Russian Medical Schools.—The number of new students who have entered the University of Moscow this winter semester is 889, of whom 254 belong to the medical faculty. The total number of students in the University at present is 3,895, of whom 1,207 are students of medicine. In the University of Jurjew—better known probably as Dorpat—53 new students have matriculated, of whom 19 belong to the medical faculty. The total number of students is 1,338, as against 1,558 last year, the total number of students of medicine being 791 as against 851. In the University of Kasan the number of entries is 130, of which 70 are in the faculty of medicine. The number of new entries in the St. Petersburg Military Medical Academy is 145.

Aberdeen Medico-Chirurgical Society.—The annual meeting of the Aberdeen Medico-Chirurgical Society was held on November 16th; Dr. Robert John Garden in the chair. The following gentlemen were elected office-bearers of the Society for the year:—*President:* Dr. Angus Fraser. *Vice-President:* Dr. William Stephenson. *Secretary:* Dr. George M. Edmond. *Recording Secretary:* Dr. Ferdinand. *Treasurer:* Dr. John Gordon. *Librarian:* Dr. G. Rose. *Members of Council:* Dr. Robert John Garden, Dr. Robert Milne, Dr. Blaikie Smith, Dr. Dalgarno, and Dr. Finlay. The annual report showed that both in membership and financially the Society was in a flourishing condition. It is expected that certain possible rearrangements may give an extra stimulus to the interest in the Society in the future.

A Quack in Trouble.—A man who assumes the name of "Dr. Henry Franks," and who advertises in Dublin by handbill, has been remanded by the police magistrate there on a charge of having attempted to procure a woman for an immoral purpose. A lady advertised for a situation as housekeeper, and received a letter, signed "W. J. Wilsome," making certain proposals. The letter was handed to the police, who answered it, addressing the reply to the post office. There a detective saw the defendant call, and inquire for letters. Later on a carman came in, and was handed a letter. He was followed, and was seen to give it to Franks, who was on a car. The latter was at once arrested, but, on being searched, the letter could not be found. Evidence in proof of handwriting having been given, the defendant was remanded on bail.

Sarcolactic Acid.—The sarcolactic acid obtainable from muscular tissue is dextrorotary; an isomeric acid has been obtained by fermentation from cane sugar, which is lævorotary. There is a third acid which is optically inactive, which is doubtless composed of equal parts of the other two. Sarcolactic acid, however, is not by any means a unique example of this kind of isomerism. The first instance which was thoroughly investigated was tartaric acid, and it was Pasteur's work on this subject which first brought him into prominence many years ago. Pasteur showed that if the mould *penicillium glaucum* is grown in a solution of racemic acid, dextro-tartaric acid first disappears, and the lævo acid alone remains. This selective action of moulds and other micro-organisms has been abundantly taken advantage of since then, and one of the most recently successful experiments in this line has been performed with glyceric acid. This is of interest in connection with sarcolactic acid, as glyceric acid is closely allied to it. Experiments, however, designed to separate the optically active sarcolactic acids from the inactive acid by fermentation have not hitherto been crowned with success. Great credit is therefore due to Professor Percy Frankland and Mr. MacGregor for their patient search for the right kind of micro-organism to effect the decomposition. Their results are published in the *Transactions of the Chemical Society*, 1893, p. 1028, and though they have not yet fully described the characters of the bacterium in question, its activity appears to be undoubted. It was grown in solutions of inactive calcium lactate, and, as is also the case in relation to calcium glycerate and the bacillus ethaceticus, the dextrorotary molecules are attacked by preference, leaving the lævorotary ones as a residue.

The Paris Surgical Society.—The Paris Société de Chirurgie, which celebrated the fiftieth anniversary of its foundation on October 25th, held its first meeting on August 25th, 1843. The number of original members was seventeen, all of whom subsequently made a name for themselves in one direction or another in the annals of French science. Only two of them now survive—M. Maisonneuve, who for a long time

back has lived in absolute retirement at a distance from Paris; and M. Marjolin, who was Honorary President at the jubilee festival of the Society. The latter gentleman is the son of M. Marjolin, formerly surgeon to the Paris hospitals, and grandson of M. J. R. Duval, who was admitted a member of the Society in 1852, when he was nearly a hundred years old. The Society has an exemplary record as regards the regularity of its sittings; even in the troublous times of 1848 and in the dark days of the *Année Terrible*, there was no interruption of its meetings, except on one occasion (May 24th, 1871), when there was a pitched battle in the streets of Paris between the army and the Communists. The Society owes its existence largely to the initiative of Auguste Bérard, Professor of Clinical Surgery, and in his day a shining light in the surgical firmament.

American Jottings.—Dr. W. V. Cooke, of Evansville, Indiana, died recently of tetanus contracted during the course of a bacteriological investigation.—Professor Roswell Park, of Buffalo, has been dangerously ill with diphtheria caught from a patient on whom he had performed intubation, but is now happily on the way to recovery.—The Senior Class at Yale numbers 185 students; of these 54 wear glasses, the necessity for such aids to vision having in 25 of the cases arisen since the students entered the College. The average age of the members of the class is 22.—An American contemporary states that one instrument maker in New York has sold within the past year no fewer than six dozen special trusses for ventral hernia following operations for appendicitis.—A Physicians' Protective Association has been organised in Kansas city. Nearly all the doctors in the town, to the number of some 300, have joined the Association, one of the objects of which is the formation of a black list of persons who do not pay their doctors' bills. The list includes two different categories of defaulters—namely, those who do pay but only "after long years," as Byron says; and those who never go through that ceremony at all. Once a month this black list is posted up to date, printed, and sent out to every member of the association for a nominal fee. Each member of the association is pledged not to attend (except in a case of emergency) any person whose name is on the black list, unless payment is made in advance.—The "electrocution" of the murderer Foy, which was carried out in the Dannemara Prison, New York, on October 23rd, is said to have been the most successful since the infliction of the death penalty by electricity has been in use. At first a current of 1,640 volts was sent through the body for 4 seconds. The current was then gradually reduced to 150 volts, and at the end of 45 seconds was increased again to 1,640 volts for 2 seconds, and then shut off. In order that there might be no delay owing to the possible giving out of the dynamo, as was the case at the last execution at Auburn, the electrical apparatus had previously been connected with the electric light plant of the town.—The State Commission in Lunacy of New York having denied the requisition for tobacco for the patients of the Hudson River State Hospital at Poughkeepsie on the ground that there was danger of fire by pipe-smoking, the Board of Managers has made a vigorous protest against the passage or enforcement of any rules or regulations prohibiting the use of tobacco by the patients. "In many instances," says the managers, "it is the principal solace and comfort appreciable by them in their unfortunate condition, and to be deprived of its use after having been habituated thereto for long periods, often nearly an ordinary lifetime, would result in genuine distress and hardship. It is also believed that in many cases deprivation from the use of tobacco would be attended with both mental and physical injury to the patient. In the interest, therefore, of humanity, as well as from a medical standpoint, the managers urge that no action be taken by your body, looking to the passage or enforcement of the rule or regulation in question.

MEDICAL VACANCIES.

The following vacancies are announced:

ALBANY GENERAL HOSPITAL, Grahamstown, South Africa.—Resident Medical Officer. Salary, £200 per annum, increasing yearly by £50 up to £300, with furnished apartments. The selected candidate will have a free first-class passage. Applications to Dr. Macphail, Rowditch, Derby.

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN, Steelhouse Lane, Birmingham.—Resident Medical Officer and Resident Surgical Officer and Extra-Acting Physician. Salaries £70, £50, and £50 respectively. The two former will receive board, washing, and attendance. Applications for the first two to the Secretary by December 6th, and for the latter to the Medical Committee by December 6th.

CELBRIDGE UNION.—Medical Officer to the Workhouse and Superintendent Medical Officer of Health. Salary, £100 per annum, with £15 as Medical Officer of Health. Election on December 1st.

CHELSEA HOSPITAL FOR WOMEN, Fulham Road, S.W.—Resident Medical Officer. Salary, £80 per annum, with board and residence. Appointment for one year. Applications to the Secretary by December 5th.

CHELTENHAM GENERAL HOSPITAL.—Resident Surgeon for the Branch Dispensary, unmarried, or if married, without family. Salary, £180 per annum, with partly-furnished house, coal, and gas. Applications to the Honorary Secretary and Treasurer by November 25th.

CHESTER GENERAL INFIRMARY.—House Surgeon; doubly qualified. Salary, £90 per annum, advancing £10 yearly, with residence and maintenance in the house. A sum of £5 per annum is granted for taking charge of the library. Applications to the Chairman of the Board of Management by December 4th.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—House-Physicians. Board and residence, and allowance for washing provided. Appointment for six months. Applications to the Secretary at the Office, 24, Finsbury Circus, E.C., by December 14th.

EAST LONDON HOSPITAL FOR SICK CHILDREN, Glamis Road, Shadwell, E.—Two Assistant Physicians; must be F. or M.R.C.P. And Pathologist and Registrar. Honorarium of £40 per annum for the latter. House-Surgeon. Board and lodging provided. Applications to the Secretary by November 29th.

ESSEX COUNTY ASYLUM, The Chestnuts, Hoe Street, Walthamstow.—Fully Qualified Medical Man, to reside within a mile of the institution. Salary, £50 per annum. Applications to the Committee of Visitors by December 2nd.

GLASGOW EYE INFIRMARY.—Resident House-Surgeon. Salary, £50 per annum, with apartments and board. Applications to William George Black, Secretary, 88, West Regent Street, Glasgow, by December 9th.

GUY'S HOSPITAL.—Demonstrator of Anæsthetics, and two more Anæsthetists. Applications to the Treasurer, Counting House, Guy's Hospital, S.E., by December 1st.

HOSPITAL FOR DISEASES OF THE THROAT, Golden Square, W.—Honorary Assistant Physician and Honorary Assistant Surgeon. Applications to the Secretary by November 27th.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Assistant House-Surgeon, non-resident. Appointment for six months. Salary, £20. Assistant Physician; must be F. or M.R.C.P.Lond. Applications to the Secretary, by November 28th.

HOSPITAL OF ST. PETER PORT, Guernsey.—Surgeon. Salary, £50. Applications to the President of the Poor-law Board by November 30th.

KENT AND CANTERBURY HOSPITAL.—Assistant House-Surgeon; unmarried. Salary, £50 per annum, with board and lodging. Applications to the Secretary by November 30th.

KIMBERLEY HOSPITAL, Kimberley.—Senior House-Surgeon. Salary, £650 per annum, with unfurnished quarters for single men. Applications to H. A. De Beer, Secretary, by December 25th.

KING'S COLLEGE, LONDON.—Sambroke Surgical Registrar. Applications, from King's College students only, to J. W. Cunningham, Secretary, by November 25th.

LIVERPOOL DISPENSARIES.—Assistant Surgeon; unmarried. Salary, £80 per annum, with apartments, board, and attendance. Applications to R. R. Greene, Secretary, Leith Offices, 34, Moorfields, Liverpool, by November 25th.

NATIONAL SANATORIUM FOR CONSUMPTION AND DISEASES OF THE CHEST, Bournemouth.—Resident Medical Officer and Secretary. Salary £120 per annum, with board and lodging. Applications to the "Chairman of Committee" by December 5th.

NEW HOSPITAL FOR WOMEN, 144, Euston Road.—Female Resident Medical Officer, and two Female Clinical Assistants for Out-patient Department. Applications to Margaret M. Bagster, Secretary, by November 30th.

NEW HOSPITAL FOR WOMEN, Euston Road, N.W.—Lady as Assistant Dispenser, must be qualified to dispense. Applications to Margaret M. Bagster, Secretary, by December 2nd.

PORTUMNA UNION.—Portumna Dispensary No. 2. Medical Officer. Salary, £40 per annum, with £5 as Medical Officer of Health, together with vaccination and registration fees. Applications to Mr. L. Taylor, Honorary Secretary. Election on December 2nd.

ROYAL BERKS HOSPITAL, Reading.—Physician. Applications to the Secretary at least ten days before the election on December 12th.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—Senior Resident Medical Officer, doubly qualified. Salary, £100 per annum, with board, residence, and washing. Appointment for twelve months, but eligible for re-election. Applications to the Secretary by December 11th.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—Two Resident Medical Officers (House-Physicians); doubly qualified. Appointment for six months, but the holder will be eligible for re-election. No salary. Board, residence, and washing provided. Applications to the Secretary by November 27th.

ST. THOMAS'S HOSPITAL.—Assistant Physician, must be M.R.C.P. Lond.; and Assistant Surgeon, must be M.R.C.S.Eng. Applications to Mr. E. M. Hardy, Treasurer's Clerk, by November 25th.

SEAMEN'S HOSPITAL SOCIETY "DREADNOUGHT."—House-Surgeon for Branch Hospital at Royal Victoria and Albert Docks, E.; doubly qualified. Salary, £75 per annum, with board and residence. Applications to P. Michelli, Secretary, Seamen's Hospital Society, Greenwich, by November 28th.

SUNDERLAND INFIRMARY.—House-Physician; doubly qualified. Salary, £80 per annum, rising £10 annually to £100, with board and residence. Applications to the Chairman of the Medical Board by December 4th.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton.—Resident Assistant. Appointment for six months. Board, lodging, and washing provided. Applications, inscribed "Application for Resident Assistant," to the Chairman of the Medical Committee by November 30th.

MEDICAL APPOINTMENTS.

ACLAND, Theodore Dyke, M.A., M.D.Oxon., F.R.C.P.Lond., appointed Physician to St. Thomas's Hospital, *vice* John Harley, M.D.Lond.

ATCHLEY, Mr. Edward G. C. F., appointed Medical Officer for the No. 4 District of the Chipping Norton Union, *vice* Henry Roberts, M.D. Brux., resigned.

BALE, Rosa, L.R.C.P.and S.Edin., L.F.P. and S.Glasg., appointed Senior House-Surgeon to the Clapham Maternity Hospital.

BARHAM, Mr. Frank, appointed Medical Officer for the No. 6 District of the Market Harborough Union.

BENNETT, Lawrence H., M.A., M.B.Oxon, appointed Medical Officer for the Ilsley District of the Wantage Union.

BODY, H. M., M.R.C.S.Eng., L.S.A., reappointed Medical Officer of Health for Crediton.

BROWN, John, M.D., D.S.Sci.Vict., reappointed Medical Officer of Health for the Bacup Town Council, and Physician to the Southall Fever Hospital.

CLARK, F. W., M.D.Durh., appointed Medical Officer of Health for the Lowestoft Urban Sanitary District of the Mutford and Lothingland Union, *vice* W. A. S. Wynne, M.D.St.And., resigned.

COWAN, Mr. Michael W. W., appointed Medical Officer for the Leigh District of the Martley Union.

CRUMP, J. Arthur, L.R.C.P.Lond., M.R.C.S., appointed Assistant Medical Officer to the Wye House Asylum, Buxton.

FIELDER, Mr. F., appointed Resident Surgeon and Physician to the Brixton Dispensary.

HINTON, Hammond T., M.B., C.M.Aberd., appointed Medical Officer and Public Vaccinator for the Heytesbury District of the Warminster Union.

KIRKPATRICK, W., M.D., appointed Honorary Surgeon to the Stourbridge Dispensary.

LEWIS, J. W., L.R.C.P., L.R.C.S., appointed Medical Officer for the Quarter-Back District of the Llandilofawr Union.

LIGHTBODY, John Henry, M.D.Vict., M.R.C.S., L.R.C.P., L.S.A., appointed Medical Officer and Public Vaccinator to the Wybunbury District of the Nantwich Union, *vice* G. L. Travis, resigned.

LITTLE, Dr., appointed Medical Officer of Health for Gordon.

MACDONALD, R. Cadell, M.B., C.M., L.R.C.S.E., L.R.C.P.E., appointed Parochial Medical Officer for the Parish of Northmavine, Shetland.

MCDONNELL, William C., L.R.C.P., M.R.C.S., appointed Medical Officer for the No. 6 District of the Hackney Union, *vice* T. Hoskin, L.R.C.P., M.R.C.S., resigned.

MINTON, Mr. Alfred H., appointed Medical Officer for the South District of the Stratton Union.

MORROW, John S., B.A., M.B., B.Ch., appointed Honorary Assistant Surgeon to the Belfast Hospital for Sick Children.

PITTS, Bernard, M.A., M.B.Cantab, F.R.C.S.Eng., appointed Surgeon to St. Thomas's Hospital, *vice* Sir William Mac Cormac, M.D.Q.U.I., F.R.C.S.Eng.

ROBINSON, Harry A., M.B., Ch.B.Vict., appointed House-Surgeon to the Chorley Hospital and Dispensary.

SHEPHERD, Mr. Alfred E., appointed Junior Assistant Medical Officer at the Infirmary of the Fulham Union.

TEMPLE, Dr. Louis Dunbar, appointed Medical Officer of Health for Saddell, *vice* John Cunningham, M.B., C.M.Glasg., resigned.

TILLEY, Herbert, M.D., B.S.Lond., M.R.C.S., L.R.C.P.Lond., appointed Junior Assistant Surgeon to the London Throat Hospital, Great Portland Street.

VINCENT, George, M.D., M.R.C.S., D.P.H.Camb., appointed Parochial Medical Officer to the Bramford and Flowton District of the Bosmere and Claydon Union.

WATTERSON, John Wm., M.B., C.M.Edin., appointed Medical Officer of Health to the Morecambe Local Board, *vice* T. H. Tidswell, M.R.C.S. Eng., resigned.

WEBB, W. H., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer of Health to the Kingsbridge Local Board, *vice* Harold E. Owen, L.R.C.P. Lond., resigned.

WESTLAKE, Winifred, L.R.C.P.and S.Edin., L.F.P.and S.Glasg., appointed Junior House-Surgeon to the Clapham Maternity Hospital.

WHITBY, Dr., appointed Temporary Medical Officer of Health for Thetford.

WHITE, O. M., M.R.C.S., appointed Medical Officer for the Eltham District of the Lewisham Union, *vice* David King, M.D.Aberd., resigned.

DIARY FOR NEXT WEEK.

MONDAY.

LONDON POST-GRADUATE COURSE, Royal London Ophthalmic Hospital, 1 P.M.—Mr. A. Stanford Morton: Ocular Injuries.

MEDICAL SOCIETY OF LONDON, 8.30 P.M.—Clinical evening. Dr. Beevor: Case of Syringomelia. Sir Hugh Beevor: Case of Obliteration of Superior Vena Cava. Mr. Hurry Fenwick: Case of Removal of Hydatid Cyst of the Bladder. Mr. Sheild: Sequel of a Case of Remarkable Congenital Tumour in an Infant. Mr. B. Squire: Case of Enlarged Blood Vessels of the Skin of the Face Obliterated without Scars by Electrolysis. Mr. Lockwood: (1) Case after Operation for Dupuytren's Contraction of the Palmar Fascia; (2) Case after Excision of Diffuse Lipomata of the Neck. Dr. Pasteur: Case of Striæ Atrophicæ.

TUESDAY.

LONDON POST-GRADUATE COURSE, Bethlem Hospital, 2 P.M.—Dr. Corner: General Paralysis of the Insane. Hospital for Diseases of the Skin, Blackfriars, 4 P.M.—Dr. Payne: Psoriasis.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8.30 P.M.—Dr. Dawson Williams: A Case of False Disseminated Sclerosis due to Measles, with remarks on the occurrence of certain widespread nervous disorders after this and other infectious diseases. Dr. W. A. Hollis: On a Disseminated Fibrosis of the Kidney found in Cases of Infective Endocarditis, Aortitis, and Allied Disease: its Pathological Significance, and Chief Clinical Features.

WEDNESDAY.

LONDON POST-GRADUATE COURSE, Hospital for Consumption, Brompton, 4 P.M.—Dr. C. Theodore Williams: Bronchial Asthma. Royal London Ophthalmic Hospital, 8 P.M.—Mr. W. Lang: Squint.

METROPOLITAN COUNTIES BRANCH: NORTH LONDON DISTRICT, Temperance Hospital, Hampstead Road, N.W., 4.30 P.M.

THURSDAY.

LONDON POST-GRADUATE COURSE, National Hospital for the Paralysed and Epileptic, Queen Square, 2 P.M.—Mr. Victor Horsley: The Surgery of the Nervous System. Hospital for Sick Children, Great Ormond Street, 3.30 P.M.—Dr. F. Batten: Tuberculosis: Pathological Demonstration. Central London Sick Asylum, Cleveland Street, 5.30 P.M.—Mr. A. Pearce Gould: Modern Treatment of Common Fractures. London Throat Hospital, Great Portland Street, W., 8 P.M.—Dr. Edward Law: Demonstration of Cases.

SANITARY INSTITUTE, PARKES MUSEUM, 74A, Margaret Street, W., 8 P.M.—Dr. J. T. Arlidge: Textile Manufactures: Silk, Cotton, Woollen, and Linen Industries.

ROYAL COLLEGE OF PHYSICIANS, The Laboratories, Examination Hall, Victoria Embankment, 5 P.M.—Professor W. S. Greenfield: The Bradshaw Lecturer on Some Diseases of the Thyroid Gland (a Microscopic Demonstration will be given from 4 to 5 P.M., and 6 to 7 P.M.)

FRIDAY.

LONDON POST-GRADUATE COURSE, Hospital for Consumption, Brompton, 4 P.M.—Dr. C. Theodore Williams: Emphysema.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY, West London Hospital, 8 P.M.—Clinical meeting. The President, Dr. Donald W. C. Hood: Notes on a Case of Glanders. Dr. H. W. Marett Tims: (1) Microscopical Section from a Case of Xanthoma Diabeticorum; (2) Case of Colloid Milium; (3) Case of Diffuse Symmetrical Scleroderma. Mr. William Steer: Case of Raynaud's Disease. Mr. L. A. Bidwell: (1) Case of Ostitis of Lower End of Humerus; (2) Cases of Lupus. Excised and Skin Grafted. Other cases by Drs. Abraham and Gardner, and Messrs. F. Swinford Edwards, and Stephen Paget.

WEST KENT MEDICO-CHIRURGICAL SOCIETY, Greenwich, 8 P.M.—Clinical evening.

SATURDAY.

LONDON POST-GRADUATE COURSE, Bethlem Hospital, 11 A.M.—Dr. Percy Smith: Lunacy Law.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

MARRIAGE.

RAYNER—ANDERSON.—On November 15th, at Christ Church, Lancaster Gate, by the Rev. C. J. Ridgway, Vicar of the Parish, assisted by the Rev. Moore Neligan, Herbert E. Rayner, F.R.C.S.Eng., formerly of Colchester, son of the late John Rayner, Esq., to Jessie Mary (Marie) only daughter of the late William Anderson, Esq., of Glentarkie, N.B., and of 68, Porchester Terrace, Bayswater, W.

DEATHS.

WHITEHOUSE.—On November 7th, at No. 48, John Street, Sunderland, aged 35 years, John Whitehouse, F.R.C.S.

MOODY-WARD.—On November 9th, at Wellington House, Reading, Richard Moody-Ward, M.B.Oxon, M.R.C.S.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

W. asks to be recommended a mode of treating moles on a child's face better than excision. There are six or seven, and the parents object to so many linear scars.

THE EFFECT OF LIMEWASHING WALLS OF LIVING ROOMS.

NQUIRER writes: Would any reader of the BRITISH MEDICAL JOURNAL inform me if experiments have been performed (and, if so, the result) to determine the action of ordinary limewashing of the walls of living rooms, on noxious or other germs?

WORKS ON VETERINARY PATHOLOGY.

M.B. desires information as to the best books, in English, German, and French, on veterinary pathology.

*** We do not know of any book in the English language dealing with veterinary pathology; it is a subject which is mainly treated of in an intermittent and irregular way in books of veterinary medicine and surgery. Trustworthy works on veterinary pathology in German are: 1. *Bacterienkunde und pathologische Mikroskopie*, by Professor Kitt. 2. *Lehrbuch der speciellen Pathologie der Haussäugethiere*, by Professors Friedberger and Fröhner. The following is the only French work on veterinary pathology: *Pathologie Générale et Anatomie Générale des Animaux Domestiques*, by Professor Cadeac. Friedberger and Fröhner's work, while it contains a good deal of pathology, deals in the main with the practice of veterinary medicine.

ANSWERS.

A. E. W.—We find that Dr. John Francis Churchill is not a member of the British Medical Association.

RETRAC.—We would recommend our correspondent to apply to Mr. Arthur McDonald, Bureau of Education, Washington, U.S.A.

N. B.—The late Sir Andrew Clark became a Member of the Royal College of Surgeons of England in 1844. He took the degree of M.D. Marischal College, Aberdeen, in 1854.

ECZEMA.—The paper by the late Sir Andrew Clark as to which our correspondent inquires is probably a collection of "Clinical Illustrations of Mucous Disease of the Colon," published in the *Lancet*, December 17th, 1859, p. 614.

WARMING A CONSULTING ROOM.

MESSRS. FLETCHER, RUSSELL, AND CO., LIM. (Warrington) write: If your correspondent will communicate direct with us we will set matters right. We suspect your correspondent has a chimney with a down draught.

DR. A. PULLAR (Norwood, S.E.) writes: "Frigidus" will find the "L. W. Leeds's Patent Floor-warming Gas Stove" the most efficient, convenient, and economical appliance for the purpose, all the heat being thrown on the floor by direct radiation, while the air of the room remains perfectly fresh and wholesome. These stoves are sold by Messrs. Hersey, 70, Berners Street, London, W., from whom full particulars can be obtained. I have tried a variety of gas heating appliances, and have found Leeds's stoves by far the best, the principle adopted in them being a strictly scientific one. I have three in different rooms, and find them most satisfactory in every way.

DR. CHARLES E. WINCKWORTH (Shefford R. S. O., Beds) writes: In reply to "Frigidus," I advise him to get a Clarke's siphon stove ("single pillar" enough for small room). It would burn only 3 feet of gas per hour when turned full on. There is an arrangement by which the products of combustion, etc., are conveyed through water, and fall down into a tray beneath; consequently, there is no smell nor oppressive heat. If there be a fireplace or chimney in room, I strongly recommend Roberts's portable stoves, 112, Victoria Street, Westminster. These require no stoking, and will burn for twelve hours or more at a cost of only one penny. I have an ornamental one for drawing-room and one for bedroom. I shall be happy to answer more fully by letter if necessary.

NOTES, LETTERS, Etc.

BRITISH MEDICAL BENEVOLENT FUND.

WE are asked to state that there are two honorary secretaries to this fund—Sidney Phillips, M.D., F.R.C.P., 62, Upper Berkeley Street, Honorary Financial Secretary; and Mr. Edward East, 16, Upper Berkeley Street, Honorary Secretary for Cases.

THE DECIMAL SYSTEM IN RUSSIA.

BY a recent ukase all pharmacists in the Russian Empire are compelled to use the decimal system of weights and measures in preparing and dispensing medicines. The new ordinance comes into effect on January 1st (13th), 1894.

ABSORPTION OF DRUGS THROUGH THE SKIN.

VANNI AND GUICCIARDI[1] have once more attacked the question as to whether the skin may be considered as an absorbing surface. The point they have actually tried to settle is whether drugs (sodium salicylate or morphine hydrochlorate) are absorbed when simply applied to the skin dissolved in human saliva, and if so whether this excipient forms a better means of causing this endosmosis than the oils and fats generally used. They have certainly succeeded in demonstrating the superiority of saliva as a medium for the external application of these drugs, their absorption into the system being easily and rapidly demonstrable. Whether, however, such a method of application will ever come into practical use is quite another matter.

WATER EXAMINATION.

MR. F. WALLIS STODDART (Western Counties Laboratory, Bristol) writes I have read with much interest the article on water examination in which reference is made to my recent contribution to the *Practitioner*. As attention may be directed to the latter, will you allow me to point out that a serious misprint occurs on page 398, line 26, where "5 grains per gallon" should read "0.5 grain per gallon." This and other less important errors will be corrected in next month's issue.

MEDICAL WOMEN IN TURKEY.

THE Constantinople Correspondent of the *Times* reports that the Porte has decided to allow the free exercise of the medical profession to duly-qualified women who present proper diplomas and pass a satisfactory examination at the Imperial School of Medicine. This permission was refused to women generally, but the Grand Vizier, Djevad Pasha, has displayed much liberal spirit and freedom from prejudice in dealing with the subject. It has been in a great measure due to the exertions of the United States Minister that the Sultan has granted permission to Dr. Caroline F. Hamilton and Dr. Mary P. Eddy to practise medicine at Aintab and Beyrouth (Syria) respectively.

DIPHTHERIA AND DEFECTIVE DRAINAGE.

PYRAMID writes: With Dr. Sidney Davies's self-imposed task of correcting Dr. Wilks and Sir W. Jenner I am not concerned, but when the late principal medical officer of the Egyptian Police commits himself to the assertion regarding diphtheria that "London will still compare very favourably with Cairo," I must, in the interests of the absent, beg leave to correct him. In 1892 there were 39 deaths in Cairo amongst the native inhabitants from diphtheria and croup, classed together for statistical purposes, giving, according to the underestimated population, a ratio per 1,000 of 0.11. In London during the same year the mortality from diphtheria alone was 1,856, equal to 0.43 per 1,000. In 1888-89-90 the deaths from the two diseases in the capital of Egypt were respectively 59, 70, and 66, giving an annual average rate of 0.18 per 1,000. Whatever other sanitary sins and shortcomings may be laid to the charge of Cairo, it certainly seems to be less blamable than London with respect to the condition of things, no matter what they may be, which leads to diphtheria.

THE SPREAD OF TUBERCULOSIS.

S. W. M. writes: Practice must lag behind theory for a time, or at least does so; but is our conduct towards the continuance and spread of tuberculosis not unnecessarily primitive, considering how long its direct communicability has been recognised? Tuberculous meat and milk are, very properly, condemned as vehicles of contagion, but what is done, as a rule, to isolate phthisical patients, or to prevent the spread of tuberculosis by their discharges? There is still, unfortunately, a widespread tendency among the public to look on tuberculosis as a hereditary and not as a communicable disease, and I am afraid the tendency is not always opposed energetically enough by ourselves. My attention was first drawn to the subject many years ago by the following case. An elderly couple with ample means and a large family held such strict religious views as regards amusements that the children were practically confined to the house. The father's business took him every day into town, and various duties gave the mother a good deal of outdoor exercise. When I last saw them the parents were in a hale old age, and all the children had died of tubercle save one daughter, who had married young, and was the mother of a family. No responsibility attached to the medical man then; it would not be so now. In this village an apparently robust labourer married a delicate girl. Inside a year she died of tuberculosis; the widower shortly afterwards married a healthy girl, and now, within three years, he and

[1] *Arch. di Farmac. e Terap.*, October 19th, 20th, 1893.

one of his second wife's two children have died, the father certainly of tubercle. So the disease creeps about what ought to be a perfectly healthy village from person to person and from generation to generation. It seems to me sometimes that if some of our public health officers would collect statistics to show approximately the proportion of tuberculous cases which are due to direct infection, and would publish widely the result, along with some simple instructions as to the treatment of patients and their discharges, with a view to lessening, as far as possible, the risks of infection, medical men and the public generally might be roused to do something more than one is accustomed to see at present. When one thinks of the consumptive seamstresses, tailors, bank clerks, shop assistants, etc., not to mention private individuals who are shut up often in unventilated rooms with their unfortunate companions, it is impossible not to contrast such proceedings with the energetic manner in which we deal with cholera, small-pox, scarlatina, and even chicken-pox.

Thyroid Extract and Syphilis.

EYE-PIECE writes: Is there any existing record of cases where thyroid extract proved beneficial and curative in patients suffering from obstinate secondary and tertiary syphilides? I have noticed that marked desquamation and a healthy action of the skin was induced by this treatment. A case of very severe rupia, with extensive ulceration of legs and scalp, which resisted all the routine remedies, has commenced to improve. The healing process began in the centre of the sores, and desquamation took place around the edges of the ulcerated areas. Concurrently with these phenomena the discharge ceased, and the whole of the diseased tissues look drier and healthier on this the third day of treatment. Other patients are being similarly treated, and the cases at present bid fair to heal rapidly and satisfactorily. The tabloid form of the remedy was found most efficient, 10 grains being given daily with a nourishing dietary and tonics. All mercurial treatment has been temporarily stopped.

Increase and Decrease in the Virulence of Infections.

DR. TUCKEY (M.O.H. for the port of Fowey), writes that he has read with much pleasure Dr. Edwin Rickards's address on Infectious Diseases. He is strongly of opinion that "cow-pox is nothing but small-pox modified by its passage through a graminivorous animal." He is inclined to think that to pass any virus through the system of a vegetable-eating animal destroys its potency for evil to an omnivore, and *vice versâ*, and that Pasteur's attenuation of the virus of rabies is to be explained in this way. He would have been a bold man who would have asserted that the hydatid of the ox was the same as the tænia of man until he could show them to be identical by very positive proof. Not only so but possibly the same microbe may exist in different states in the same individual, and there may be relationships between the pneumococcus of pneumonia and the bacillus of phthisis. In a mysterious outbreak of diarrhœa in a village in Dr. Tuckey's district the symptoms did not differ from those of Asiatic cholera, yet Dr. Klein could not discover the comma bacillus. "I have no doubt," continues Dr. Tuckey, "that English and Asiatic cholera are more than first cousins, and that the comma bacillus in one stage will cause cholerine, in others Asiatic cholera. Have the cases of cholera which have been reported in England all been satisfactorily traced to importation? I think not. . . . . Far be it from me to say that the utmost watchfulness over shipping is not necessary. . . . But let us take care that while our sentinels on outpost duty are looking out to sea watching for the enemy he does not creep upon us from behind and rush upon us from the vantage ground of insanitary surroundings and want of pure water."

Gangrene occurring during an Attack of Typhoid Fever.

C. F. W. writes: The notes of the following case may be of interest: H. P., aged 1 year, was first seen by me on November 2nd, 1893, and was then suffering from typhoid fever. He had been ailing for several days, I was informed, and as he had several rose spots out he had probably been ill for ten or twelve days, or perhaps longer. Everything went on well till November 11th, when, during my absence from the hospital, he was suddenly taken worse. When I saw him on my return, about an hour later, his breathing was laboured and rapid, the countenance anxious, the pulse small and rapid, and the temperature subnormal. The thigh displayed a patch of gangrene, surrounded by a bright-red line extending from just below the trochanter major to within about 2 inches of the knee. This condition was discovered about half an hour before my arrival, and, I am informed, was not present when the child was washed in the morning. On examining the chest fine crepitations were heard over the front of the right lung. The child was ordered brandy, carbonate of ammonia, and a turpentine fomentation for the chest. It gradually sank, and the respirations ceased about an hour after my arrival. As the heart still continued beating, artificial respiration was performed for twenty minutes, when no indications of circulation could be detected. Just before death a small patch of gangrene, about an inch in diameter, appeared just over the right wrist. It is a noteworthy coincidence that all the complications, namely, the gangrene on the thigh and on the forearm, and the crepitations in the lung, occurred on the right side. The child was being treated with half-minim doses of carbolic acid.

LETTERS, COMMUNICATIONS, Etc., have been received from:

(A) Mr. H. G. Allford, Grantham; Dr. J. Anderson, Manchester; Mr. J. P. Aston, Bradford; Dr. F. H. Alderson, London; Mr. J. W. Ashworth, Stockport; Dr. J. Ambrose, Devizes; Dr. C. H. Allfrey, St. Leonard's; Dr. H. E. Armstrong, Newcastle-on-Tyne; Dr. F. P. Atkinson, Surbiton; A.B.C. **(B)** Dr. A. G. Blomfield, Exeter; Mr. G. K. S. Bigg, London; Mr. J. E. Briscoe, Leeds; Dr. J. M. Booth, Aberdeen; Dr. J. Brown, Bacup; Mr. W. M. Beaumont, Bath; Mr. L. Buggy, Kilkenny; Dr. R. Boxall, London; Mr. A. R. Barnes, Hailsham; Mr. N. S. Brooks, Dublin; J. M. Bramwell, M.B., London; Mr. J. B. Brereton, Leeds. **(C)** E. M. Cuffe, M.B., Johannesburg; Mr. M. Chorley, Bristol; Mr. T. Carr, Braintree; Dr. W. Cayley, London; A. Cook, M.B., Cardiff; Dr. G. Cordwent, Milverton; Dr. A. H. W. Clemow, London. **(D)** Dr. C. J. W. Dixon, London; Dr. T. Duka, London; J. J. Douglas, M.B., Edinburgh; Domen Belts Warehouse, The Manager of the, London; Dr. T. C. Donaldson, Hounslow; Mr. M. J. Doidge, Haverhill; Dr. J. Davies, Maesteg; Disgusted. **(E)** Dr. F. Edge, Wolverhampton; Dr. C. W. Evans, Bakewell. **(F)** Mr. F. P. Foster, New York; Mr. J. W. Fry, Wateringbury; Mr. J. Freeland, Antigua; Mr. E. Fletcher, London; Messrs. Fletcher, Russell, and Co., Warrington; Dr. P. Fraser, Carnarvon; Mr. E. F. Flynn, London. **(G)** Mr. E. C. Gunther, Boston, U.S.A.; Dr. J. G. Garson, London; Mr. J. Gould, Hatherleigh; Mr. L. M. Griffiths, Clifton; Mr. C. E. R. Gardiner, Arklow; Dr. J. Galloway, London; Dr. W. S. Greenfield, Edinburgh. **(H)** Mr. H. N. Hardy, London; H. L.; Mr. A. Harvie, Devonport; Mr. J. B. Hamilton, Chicago; Dr. F. T. Heuston, Dublin; Mr. R. Harrison, London; Mr. W. E. Hacon, Christchurch, N.Z.; Mr. J. Hodges, Bury St. Edmunds; J. Hamilton, M.B., Enniskerry; Messrs. J. Halford and Son, London; H. R.; Mr. R. J. Hill, Worthing. **(I)** Dr. C. R. Illingworth, London. **(J)** Miss E. Jones, London; Mr. B. Jackson, London; Mr. G. Johnson, London; Mr. H. G. Johnson, Buckfastleigh; Mr. H. P. Johnson, Basingstoke. **(K)** Dr. James Kerr, Bradford; Mr. T. G. Kerr, London; Dr. W. Kirkpatrick, Stourbridge. **(L)** Mr. W. F. Lloyd, Windsor; Mr. J. Lawrence-Hamilton, Brighton; Mr. H. Littlewood, Leeds; Liquor Carnis Co., The Manager of the, London; Dr. J. Limont, Newcastle-on-Tyne; Mr. J. B. Littlejohn, Craven Arms; Mr. W. W. Lawrie, London; Mr. H. Lund, Manchester; Mr. S. R. Lidiard, Hull; L.R.C.P.; Mr. N. B. Langley, Cricklade; Lancastrian; W. Leith, M.B., Norwich; Dr. Loumeau, Bordeaux; Dr. E. Law, London; R. H. Lucy, M.B., Plymouth; Lux; Dr. J. H. Lightbody, Liverpool. **(M)** Dr. G. Macdonald, London; Medicus; Mr. F. F. Mahon, London; Dr. H. W. G. Mackenzie, London; Mr. H. Malley, Dublin; Mr. J. H. Morgan, London; Mr. J. Moore, London; Mr. W. Marriott, London; Messrs. J. Moore and Sons, London; Dr. A. Magelssen, Christiania; Dr. S. Mackenzie, London; Mr. J. D. McFeely, Bundoran; Mr. F. Molony, Taunton; Dr. W. Macewen, Glasgow; J. B. Milne, M.B., Sheffield; Mr. J. Milne, London; Mr. L. Mackenzie, Tiverton. **(N)** Mr. H. O. Nicholson, Kirkcaldy. **(O)** Rev. R. Owen, London; Dr. T. P. O'Connell, Keighley; **(P)** Dr. S. Phillips, London; Dr. A. Pullar, London; Mr. T. E. Pedley, London; Dr. F. L. Phillips, Birmingham; Sir G. H. Porter, Dublin; Dr. W. S. Playfair, London; Pyramid; Mr. R. W. Parker, London; Mr. T. Partridge, Stroud. **(R)** Dr. T. C. Railton, Manchester; W. Rose, M.B., London; Mr. M. Ritchie, London; Dr. A. Robinson; Rotherham; Messrs. H. Rowntree and Co., York; Messrs. E. W. Richards and Co., London; Mr. L. Rawsthorn, Preston; Mr. A. W. Ransom, Tynemouth; Mr. C. Randolf, Milverton. **(S)** Dr. James Swain, Clifton; Mr. J. M. Sloan, Croydon; Dr. J. Struthers, Edinburgh; Mr. F. Spurgin, London; Mr. G. H. Skimmer, London; F. A. Southam, M.B., Manchester; E. S. Sugden, M.B., Liverpool; Mr. H. Saunders, Oxford; J. B. Story, M.B., Dublin; Dr. E. M. Skerritt, Clifton; Mr. W. R. Spowart, Norwich; Mr. W. P. Sladen, London; Dr. J. Swain, Bristol; Mr. A. J. Southey, Colnbrook; Mr. W. J. Staddon, Ipswich; Messrs. Southall Brothers and Barclay, Birmingham; Dr. W. G. Smith, Dublin; Mr. F. W. Stoddard, Bristol; Mr. S. Snell, Sheffield; Mr. F. T. Simson, London; Mr. W. Stokes, Dublin. **(T)** Dr. H. Tibbits, London; Dr. J. C. Thresh, Chelmsford; Dr. H. H. Tooth, London; Mr. T. P. Tolputt, Northwich; Mr. W. S. Turner, Manchester; Mr. T. F. Tracy, Glasgow. **(U)** Dr. A. R. Urquhart, Perth; Messrs. J. and T. Usher, Bristol. **(W)** Dr. S. Wilks, London; Mr. W. R. Williams, Preston; Mr. W. C. Whitfield, Hereford; Mr. J. W. Windle, London; Mr. G. W. Wallis, London; Dr. F. J. Waldo, London; Mr. P. L. Wright, Dublin; Mr. A. White, Birkenhead; Mr. C. E. Winckworth, Shefford; Mr. V. H. W. Wingrave, London; Mr. H. G. Wharry, London; etc.

BOOKS, Etc., RECEIVED.

A Textbook of the Diseases of the Ear. By Dr. J. A. Gruber. Translated from the second German edition, and edited, with additions, by Dr. Edward Law and Coleman Jewell, M.B. Second English edition. London: H. K. Lewis. 1893. 28s.

Smith's Physicians' and Surgeons' Visiting List, Diary, Almanack, and Book of Engagements for 1894. London: Hazell, Watson, and Viney.

Suicide and Insanity: A Physiological and Sociological Study. By Dr. S. A. K. Strahan. London: Swan Sonnenschein and Co. 1893. 5s.

Outlines of Obstetrics. By Dr. C. Jewett. Philadelphia: W. B. Saunders. 1893. 2.00 dols.

Weather Lore: A Collection of Proverbs, Sayings, and Rules concerning the Weather. By Richard Inwards, F.R.A.S. London: Elliot Stock. 1893.

*** In forwarding books the publishers are requested to state the selling prices.

AN ADDRESS
ON
DILATATION OF THE STOMACH.

Delivered before the Harveian Society of London.

By Sir WILLIAM H. BROADBENT, Bart., M.D.,
Physician-in-Ordinary to H.R.H. the Prince of Wales, and Physician to St. Mary's Hospital.

On Dilatation of the Stomach.

Dyspepsia gives rise to a great variety of symptoms, and is responsible for much discomfort and suffering, and even misery, if we take into account the depression of spirits with which it is frequently accompanied. I propose to deal here with one of the consequences of dyspepsia, which, at the same time, aggravates its injurious effects, and constitutes a serious obstacle to remedial measures. This is dilatation of the stomach, which has, moreover, symptoms of its own and requires special treatment.

There are various degrees of gastric dilatation, and I should almost be prepared to say different kinds. The increased capacity of the organ, the imperfect collapse and contraction when digestion is completed, and the exaggerated area of resonance before or after meals are common to all cases, but in some patients splashing is easily elicited, and when the tube is introduced, at whatever interval after food, a quantity of ill-smelling liquid will be withdrawn; in others a splash is heard only for two or three hours after food, and after this time the stomach will be found quite empty by the tube when the line of resonance is as high as the fifth space. It is not easy to draw a line between mere distension and dilatation; theoretically we should say that actual dilatation existed when the stomach tolerates passively the presence of gas, and does not clear itself of contents after digestion.

Causes.

The causes of dilatation of the stomach are such as give rise to indigestion and flatulence, and first among them stands improper and injudicious food and feeding.

Improper and Injudicious Food and Feeding.—Over-feeding generally is a common cause of dyspepsia, which may go on to the production of dilatation. Appetite, which would be satisfied by a reasonable amount of one or two kinds of food, is reawakened by a succession of dishes; the stomach is thus completely overloaded, and is incompetent to deal with the mass of material it receives. Bulky, farinaceous articles of diet, certain green vegetables of the cabbage tribe, which give rise to flatulence, with copious draughts of liquid, will distend the viscus and, by frequent repetition, impair its contractile power. The largest stomach I ever saw *post-mortem* was in the body of an Irishwoman, whose staple diet was potatoes and tea; it extended from the left hypochondrium to the right iliac fossa. Habitual taking of food between meals is a practice which is ruinous to digestion; like other organs, the stomach requires a period of rest. Food, again, taken in a condition of exhaustion or extreme fatigue is never properly digested; and the man of business who thinks he is taking exercise, which in some degree neutralises the ill-effects of confinement to his office, by walking home from the city, not infrequently adds to them by fatigue which impairs his digestion. The rush from work to food, and from food hastily eaten back to work, is, again, a frequent cause of indigestion; as is also the hurry from breakfast to catch a train to town.

Functional Derangements of Nervous Origin.—But the stomach is astonishingly tolerant of excessive and improper food, and adjusts itself to irregularities of meals and untimely feeding with extraordinary facility; and, on the other hand, the severer forms of dyspepsia and gastric dilatation are met with when the meals are wholesome in character, moderate in amount, and regular in time. Some other cause, therefore, than errors in diet must play a very important part in their production. Hereditary or congenital tendency to dyspepsia, injury to the stomach by improper food in infancy and childhood, will account for some cases, but a more potent influence is disturbance by the nervous system, taking effect in some cases on the secretion of the digestive fluids, in others on the muscular contractions of the stomach. A large proportion of the dyspeptics who consult us, and of those who suffer from dilatation of the stomach, are neurotics; and the neurosis is the cause of the stomach trouble, and the nervous symptoms are not the consequence of indigestion, as is so commonly assumed.

Anatomical Conformation.—In dilatation of the stomach, however, my observation has led me to conclude that there is very frequently another factor, an anatomical disposition, which hinders the expulsion of the products of the digestion. This is when the pylorus is suspended high up in the epigastrium by a short lesser omentum, which also limits its movements. Under such circumstances if the stomach is distended and overloaded it is dragged down by the weight of its contents and an acute flexure is formed at the junction of the duodenum and pylorus, which constitutes an obstacle to the passage of the chyme. I have many times seen, when peristalsis has been provoked by handling, an enormously dilated stomach define itself through the thin abdominal walls, making a sharp bend at about two-thirds or three-quarters of its length from the cardiac end, the pyloric portion passing directly upwards or even upwards to the left, while the contraction travels from left to right, and on arriving at the pylorus evidently encounters obstruction which it is unable to overcome. Mr. Mayo Robson has recently pointed out another mechanical cause of dilatation of the stomach in adhesions which have formed as a result of ulcer or of perihepatitis.

Symptoms.

The symptoms to which dilatation of the stomach gives rise are extremely varied. They include all those attributable to indigestion, but it would only lead to confusion to enumerate them, and I shall specify only such as are more or less characteristic of dilatation, and they may be roughly classified as gastric, mechanical, reflex, and as due to ptomaine poisoning.

It is not always easy to say to which of these classes particular symptoms ought to be referred, and they no doubt overlap, but it will facilitate description and discussion to attempt some kind of classification.

Of the gastric symptoms proper the most characteristic is copious vomiting. One meal after another is taken through the day, or, in some cases, for two or three days, with more or less discomfort, but without sickness, and then apparently the whole is returned, the quantity sometimes being enormous. The vomited matters are usually of a brown colour and offensive odour, with a floating scum. This, of course, is a symptom commonly present in malignant or other stricture of the pylorus, and the diagnosis between dilatation secondary to disease of the pylorus and simple dilatation is often difficult. The complete absence of free hydrochloric acid from the vomited matters, or from the contents of the stomach when withdrawn by a tube, has been relied upon as evidence of cancer; but even if this point were absolutely trustworthy, which I doubt, it is very difficult of establishment. The presence or absence of sarcinæ, again, is not conclusive either way; there is always an abundance of fermentative organisms, and sarcinæ may or may not be among them. Time and the results of treatment will ultimately establish the diagnosis, and in most cases the judgment must be held in suspense for a while.

In other cases the vomiting is frequent and occurs at varying intervals, after each meal or every night, the stomach however, never completely emptying itself, so that whenever food is taken it is received into a quantity of fermenting material, and itself undergoes fermentation instead of digestion. Eructation of offensive gases is sometimes a symptom, but in bad cases the stomach has lost the power of expelling gases. The breath may or may not be offensive. The state of the tongue does not afford much assistance in the diagnosis. The most common surface appearance which it presents is a thin, pale, moist coat, which might be described as slimy or greasy looking, while it is large, soft, flabby, and indented at the edges. Almost every variety of fur may, however, be met with, and in some cases the tongue remains quite clean. Usually, the appetite is impaired, and not uncommonly there

is an absolute disgust for food, so that the proper nourishment of the patient becomes a matter of extreme difficulty. On the other hand, there may be a spurious appetite, the patient having a sensation of hunger and sinking very soon after food, and sometimes an imperious craving for food at all times of the day and night.

One of the most serious of the mechanical effects of dilatation of the stomach is upward displacement of the diaphragm and pressure upon the thoracic viscera. The heart is often very greatly embarrassed by pressure and displacement, and when the organ is fatty or dilated, or weak and flabby, dilatation of the stomach may determine a fatal arrest of its action. In one case at St. Mary's Hospital, a patient admitted for extreme breathlessness and weak and frequent action of the heart, and found on examination to have considerable dilatation of the stomach, died apparently from the effect of this upon a sound heart, no other cause of death being discovered *post mortem*. I had ordered the stomach to be washed out, but collapse supervened before this could be done. A hearty or indigestible meal may give rise to sudden death, or the dilatation may render fatal exertion or emotion which would otherwise have been survived.

Palpitation of the heart after meals is a common accompaniment of a dilated stomach. More frequently the heart's action is irregular, sometimes violent, at others feeble; occasionally there is intermission. As a rule, the patient is acutely conscious of irregular or intermittent action of the heart of gastric origin, whereas when it is present from cardiac disease, he knows nothing about it. Probably reflex disturbance may play a greater part in the production of palpitation, intermission, and irregular action of the heart than pressure, since cardiac disturbance may be very severe when the enlargement of the stomach takes a downward direction, and the line of resonance is not very high.

A symptom more distinctly traceable to pressure upon the heart and lungs is oppression and difficulty of breathing on lying down at night. In the recumbent position the weight of the liver and the abdominal viscera generally is more or less thrown against the diaphragm instead of falling away from it, and both heart and lungs are additionally embarrassed by the increase of pressure upon them. Sleeplessness is a very common effect.

A still more common form of sleeplessness is produced by a minor degree of gastric dilatation. The patient sleeps on going to bed, but at 2, 3, or 4 A.M. is awakened, and remains awake for some hours, perhaps till morning. The explanation is that the stomach does not completely expel its contents, and in the course of the night fermentation takes place with evolution of gas, which, by aggravating the pressure on the diaphragm, disturbs and prevents sleep. The subject usually does not recognise flatulence, or discomfort arising from flatulence, as the disturbing influence, but anything which causes the eructation of gas removes the inability to sleep. It may here be remarked that flatulent distension of the stomach produces its worst effects when the patient ceases to be conscious of the flatulence as such. The discomforts arising from the presence of gas are usually due to the efforts of the stomach to get rid of it, and it is when the stomach suspends these efforts and allows itself to be passively distended that the pressure and reflex effects give rise to serious trouble.

The mention of the form of sleeplessness just considered leads up to the consideration of nocturnal asthma, which is the most characteristic of the reflex symptoms. This comes on at about the same time in the night, and almost certainly from the same cause—fermentation, during the first hours of sleep, of imperfectly digested food, with the formation of gaseous and irritating products. The spasm of the bronchial tubes, however, cannot be due to pressure, and must be a result of a reflex from the gastric branches of the pneumogastric to the motor fibres of the bronchiæ. The excitement or aggravation of nocturnal asthmatic paroxysms in predisposed individuals by indigestion or flatulence, late or heavy meals, or certain articles of diet, is matter of frequent observation; when the attacks are habitual, dilatation of the stomach may be suspected as the cause. It is usually in adults at or after middle age that asthma is set up by dilatation of the stomach. There may be no bronchial catarrh whatever, or the gastric affection may precipitate the occurrence of asthma as a complication of bronchitis. The attacks are sometimes very severe. Occasionally nocturnal spasm of the larynx may be provoked in the adult by dilatation of the stomach, and may appear to threaten life.

Vertigo, sometimes so severe that the patient has to cling to railings in the street, or to help himself by the chairs and tables in crossing a room, is not uncommon as a result of dilatation of the stomach. It may or may not lead up to a paroxysm of vomiting. When premonitory of an attack of sickness, the giddiness may be attended with nausea, faintness, pallor, and cold perspiration, which is sometimes so protracted as to threaten life before relief is obtained by an attempt, often futile, to empty the stomach. In other cases, with an extreme sense of giddiness, there is no faintness whatever, and the patient can carry on a conversation or continue writing when he could not move from one chair to another without staggering. The dependence of the vertigo on the state of the stomach is shown by the fact that eructation of gas brings instant relief, and the patient who is not troubled with nerves learns to wait for this with equanimity. This vertigo *a stomacho læso* is distinguished from auditory vertigo by the fact that there is no apparent translation of external objects. The patient is conscious that his head swims, but the room does not turn round, nor the floor tilt up, nor the bed topple over. The attack, moreover, does not come on with overwhelming suddenness, and I do not remember a patient actually falling.

Nightmare, violent starting of the limbs on going to sleep, are other illustrations of reflex disturbance.

The symptoms which may be set down to ptomaines absorbed from the fermenting contents of the stomach are headache, depression of spirits, and morbid ideas. Many of the discomforts attributed to "biliousness" or "liver derangement" are really due to this and other affections of the stomach. Altogether the sum of misery to the patient and his family and friends occasioned by dyspepsia is a very considerable item in the unhappiness of civilised society.

Other effects of dilatation of the stomach which must not be forgotten are loss of flesh and a dark sallow hue of the complexion. The loss of flesh is often such as to be suggestive of malignant disease, especially where there is obstruction of the pylorus, and the dark discoloration of the face might easily be taken as indicative of cancerous cachexia. It can scarcely be called pigmentation, as it clears up too rapidly when the gastric affection is relieved. The conjunctivæ may or may not be stained.

Diagnosis.

The definite diagnosis of dilatation of the stomach rests ultimately upon physical signs. These are an abnormal extension of the area of gastric resonance with a tympanitic echo of the heart sounds over this area, the more or less ready production of splashing, and the tinkling of water falling into the distended viscus when the patient is made to drink, and, finally, the actual measurement of its capacity by means of the stomach tube.

Sometimes the stomach can be seen to bulge out at the epigastric region, forming a rounded prominence across the upper part of an abdomen not otherwise much distended, or, indeed, excavated. The lower limit can be recognised by inspection, and can be defined accurately by stroking the abdomen downward with the flat of the hand, when a difference of resistance is felt as the fingers glide off the distended viscus. This stroking method of palpation often affords valuable corroborative information when no bulging is visible.

In percussing out the stomach it is well to examine the patient in two positions—sitting up and lying down. In a few obscure cases additional information may be obtained by turning him also first on one side, then on the other. In the upright position the weight of its contents may drag the stomach down and away from the abdominal wall, so that the tympanitic note is indistinct, and its extent, and especially its upper margin, indefinite; while in the horizontal position the fluid gravitates to the back, which becomes the lowest part of the viscus, and the whole anterior surface is in close contact with the wall of the abdomen, when the characteristic resonance is easily elicited and is found to encroach upon the chest. Account must always be taken of the period

after meals at which the examination is made, and of the amount and character of the food last taken, in forming an opinion as to the degree of dilatation present and in making comparison between one day and another.

Almost the only question to be solved when there is undue resonance in the epigastrium and left hypochondrium is how much of it is due to stomach and how much to colon. Even when the line of resonance is as high as the fifth space it may be that the stomach is carried up by the colon or by gaseous distension of the small intestine, or atony of the diaphragm may invite displacement upwards.

The first point in differentiating stomach from colon resonance is the uniformity of the percussion note over a given area from above downwards and right and left, beginning in the epigastrium, or just below the heart, where it is probably gastric. The tap must be light and glancing. A perpendicular stroke, especially if at all forcible, brings out a note belonging to the general abdominal resonance, or to any dilated viscus in the neighbourhood, and effectually confuses gastric and colon distension. But percussion alone is never to be trusted absolutely. It is checked in the first instance by placing the stethoscope at some point within the resonant area, and giving sharp flips with the nail over its entire extent. So long as exactly the same ringing note reaches the ear from the various points at which the tap is made, it is probable that they are all upon the same viscus. The stethoscope will be shifted, and the click of two coins, one placed on the skin and struck by the other, may be substituted for the flip with the finger nail. In all these trials, it must be borne in mind that the note belongs to the underlying viscus, whatever it may be, at the point where the tap is made. If, for example, the stethoscope is placed in the epigastrium, and the tap is made over a dilated transverse colon lower down, the colon note will be heard, enfeebled perhaps, but not altered in pitch. Let now the stethoscope and point of impact change places, and a totally different note will probably be heard.

Another check is afforded by the conduction of the heart sounds. When the stomach is dilated to such an extent as to displace the diaphragm upwards, the heart and stomach will be in close contact, with only the diaphragm intervening. The heart sounds are then conducted, or rather echoed, with a tympanitic ring all over the stomach, thus helping to define its limits. It is worthy of note that the second sound is always much more distinct and ringing than the first.

The splashing sound may be elicited in various ways. In the upright position the ear or stethoscope is placed in contact with the anterior abdominal wall at or near the epigastrium, and a sharp motion is then communicated to the body. The splash of the liquid in the dilated stomach is usually very distinct. When, however, the stomach is full, or nearly full, of liquid, and there is no room for gas, splashing cannot be produced, but the naked ear may feel a powerful wave of fluid impinging against the abdominal wall. Care must be taken not to mistake borborygmi, easily induced in the colon, for splashing.

In the recumbent position a sharp push with the fingers from behind over the false ribs will make the liquid splash, or the patient may be partially rolled over. When all the corroborative evidence attainable is desired in a difficult case, the patient may be made to drink while the observer listens at the epigastrium and in its vicinity. If the stomach is dilated and is not too full of fluid, the gurgling and tinkling produced as the water enters it and drops into the liquid which it already contains will often give a good idea of the size of the organ.

In some cases peristaltic action of the stomach can be provoked by handling, and the dilated viscus can be felt to become firm and prominent under the hand. This, indeed, is not infrequently also visible, and the contraction can be seen to travel slowly from left to right up to the pylorus. It only occurs, of course, when there is actual obstruction at the pylorus from thickening or from an acute flexure as already described. No peristalsis can be elicited when the dilatation has resulted from atony of the muscular coats of stomach or from passive distension.

Colonic peristalsis travels from right to left. It is very rarely that a diagnosis can turn on this, but in one case of a patient sent to me by a distinguished physician as dilatation of the stomach due probably to malignant disease of the pylorus, a contraction proceeding from right to left at once indicated obstruction and dilatation of the colon, which was successfully treated.

The final demonstration of the existence of dilatation of the stomach is effected by the employment of the stomach tube. The contents are first withdrawn, and warm water rendered alkaline by carbonate of soda is then poured in pint by pint till the stomach will hold no more. The normal capacity ascertained by this method varies, the average being about one or two pints. Dilatation exists when the amount which can be introduced is three pints or over. In severe cases six or eight pints have been poured in.

(To be continued.)

A MEMORANDUM ON THE INDIAN OPIUM QUESTION.

By Sir JOSEPH FAYRER, M.D., F.R.S., K.C.S.I.,
Physician to the Secretary of India in Council.

It is most strenuously urged by a large and influential, and, as I believe, thoroughly conscientious party, that the use of opium, either by eating or smoking, is attended with the most pernicious results, causing, sooner or later, demoralisation and destruction alike of body and mind. They seem to be of opinion that the degraded condition of the *habitués* of opium eating or smoking houses, whether in India or China, represents the natural, and, one might almost say, the inevitable results of the use of opium. Ideally one would wish that stimulants and narcotics, such as alcohol, hemp, opium, tobacco, chloral, and sundry others of recent invention, had no existence: but unfortunately human nature is so constituted that it will not forego the use of these drugs, each and all of which is liable to be abused, and, when so abused, produces the most degrading and pernicious effects upon the human race.

One of the curses of our own country and our own race is the abuse of alcohol; the amount of disease, misery, and crime produced by it is incalculable. With any who might enter into a crusade against this form of indulgence, which should correct the abuse and limit the use of it within reasonable bounds, I confess that I should have the greatest sympathy, but I should never expect to succeed in excluding alcohol altogether from use as food.

There cannot be a doubt that in the great cities of India, in China, and probably elsewhere in the East, the abuse of opium is carried by a certain but a limited number, to a great extent, but to nothing like the extent to which the abuse of alcohol is carried.

It is well known that over large areas of country in India, by tens of thousands of people, opium, in moderation, is habitually used by the natives, and that they have a thorough belief in its efficiency to protect them against malarious disease, and that, under its influence, all the functions of life are better performed; that life is not shortened, and that physical and mental conditions are improved and not deteriorated. This receives the support of those who know far more about the subject than I do, and I am not aware of anything to controvert it. It is said, I believe, by its opponents, that the tendency to opium eating is ever to increase — to induce, it may be, slow but sure degradation and destruction. I do not believe this. In the course of many years' experience in India I have known so many who have been habitual consumers of a small quantity of opium, without in any way suffering from it, or without any tendency to increase the habit, that I am unable to agree with those who state otherwise. One of my most intimate friends, a native nobleman, with whom I frequently associated, died after the age of 80. He was a man of remarkable intellectual, mental, and physical vigour, of wonderful powers of endurance of fatigue, a great sportsman, a splendid shot, as complete an example of a native gentleman as one could wish to see. He was an opium eater, and consumed his two or three doses a day

with unerring regularity. This he had done for many years when I became acquainted with him. He never increased the quantity, nor had he done so for several years; he showed no signs of degeneration, mental or physical, nor anything suggestive of a pernicious habit. It must be in the experience of old residents in India to have met with similar cases.

It seems to me that this crusade against opium, though well meant, is not reasonable. It is as unfair to argue from the *habitués* of opium smoking houses, as it is from the frequenters of gin palaces and other haunts, where the most degraded forms of alcoholic abuse may be met with in our own country. Both, in extreme cases, are an evil; but the moderate use either of alcohol or opium must be left to the discretion of those who feel called upon to take them.

There is another drug which is also in frequent use in India, the hemp (*cannabis*), which is infinitely worse than opium. I find no objection taken to this drug by the anti-opium party. I can see no medical ground that would justify violent interference with the custom in question. Control and limit the abuse of opium, but to interfere with and suppress it altogether seems to me unjustifiable.

I know no reason why opium should be interfered with and alcohol be exempt. The evils of the one are far inferior to the evils of the other, and the moderate use of both—as I have said—should be left to the discretion of those who want them. It seems to me to be clearly proved that the moderate use of opium is not attended with the evil results ascribed to it, though, as with alcohol, a certain number of persons will abuse it. I repeat, therefore, that on medical grounds I see no reason for advocating the abrogation of the present regulations concerning opium in India. I confine myself entirely to the medical aspect. Other and convincing reasons for maintaining them have been ably advocated elsewhere.

OPIUM AS A PREVENTIVE OF AGUE.

By Surgeon-General Sir WILLIAM MOORE, K.C.I.E.,
Honorary Physician to the Queen.

On several occasions when I have mentioned that opium is preventive as well as curative of so-called malarious fever the statement has been doubted or even contradicted.

Without quoting ancient authors or writers of the early part of the century, I might cite scores, lay and medical, who, since the time of Surgeon O'Shaughnessey (1853) up to the evidence given recently before the Opium Commission in Calcutta by Surgeon-General Rice, have regarded opium as a preventive of fever. There is also a widespread impression in many parts of India that opium not only protects from fever but also prolongs life. A similar belief has also prevailed in the fen districts of this country. In my own experience I have known opium consumers alone remain free from fever when most others suffered during extraordinary malarious seasons. And as servants in India I preferred opium users, they being less liable to get sick from exposure on the march or when taken into the colder climates of the hills.

The opinions of so many persons which might be quoted, and the widespread belief in the power of opium as a preventive of ague cannot be ignored; more especially as one of the constituents of opium, namely, narcotine, has been proved to be an antiperiodic.

Now how does opium act as a preventive? Opium (I especially refer to smoking) in small quantities excites the circulation, and produces a glow throughout the whole system. In large quantities, it soothes the system and blunts nervous sensibility. Both actions are antagonistic to chill, and chill is the first stage of malarious fevers, especially of ague. The Indian, after working and perspiring all day under a tropical sun, is very likely to become chilled by the night fall of temperature, and this liability is increased by his carelessness in not using extra garments. But he comes home, and after, or sometimes before his evening meal, he takes his opium. As a consequence, instead of feeling cold and shivering, he remains warm and glowing, and so escapes chill, which, if not the real and only cause of malarious fever, is certainly the cause of many repetitions of attack.

From recent Indian newspapers, I learn of a great increase of malarious fever in certain parts of India. Naturally the question presents, Is this due to the abolition of opium shops, and to the limitation of the possession of opium per person to one tolas weight, rather less than half an ounce?

CLINICAL LECTURE UPON HARE-LIP AND CLEFT PALATE.

By THOMAS ANNANDALE, F.R.C.S.,
Regius Professor of Clinical Surgery in the University of Edinburgh.

I propose to-day to make some concise clinical remarks upon hare-lip and cleft palate, and to illustrate the subject by bringing before you several cases of these deformities.

Taking the notes of only the last sixteen years of my hospital work, I find that I have treated during this time 236 cases of hare-lip and cleft palate, and in addition to these many other cases have been under my care in private practice. The remarks, therefore, which I now offer you are founded upon well-matured experience.

Deficiencies, or clefts, in the lips and palate are occasionally the result of injury or of ulceration or sloughing, but true hare-lip and cleft palate are congenital deformities or deficiencies.

Hare-Lip.

This deformity is one of the upper lip, but fissures (usually median) have been met with in the lower lip in a few instances, and in rare cases a fissure has extended upwards through the cheek, along the side of the nose, or across the cheek towards the ear.

Hare-lip may, or may not, be complicated with a fissure of the alveolar margin of the upper jaw, or with a fissure of the palate in a part, or whole, of its extent. Various degrees of hare-lip are met with, and the cleft, or clefts (in the double form) may only affect a portion of the lip, or may pass through its entire extent and open into one or both nostrils.

Varieties.—I. "Single" Hare-Lip.

(A.) Uncomplicated.

(B.) Complicated with a fissure through the alveolar margin, with a fissure of the palate, or with both.

In single hare-lip the cleft may be situated upon one or other side of the middle line, but is much more frequent upon the left side. When the alveolar margin of the jaw is fissured, one edge of the fissured bone usually projects more or less and may overlap the other edge.

In connection with fissures through the alveolar margin in single and double hare-lip and in cleft palate it is to be noted that the exact situation of the fissure varies. In single fissures the line of the cleft may be at a point corresponding to the junction of the intermaxillary with the superior maxillary bone, the canine tooth on the corresponding side forming the external boundary of the fissure, or, as is more frequent, the line of the cleft is bounded externally by an incisor tooth ("precanine" tooth) which lies between the cleft and the canine one. In double fissures of the alveolar margin the position of the clefts is similar, there being in a considerable majority, a "precanine" tooth between the canine and cleft. In a few cases it has been observed that a "precanine" tooth existed in connection with one of the clefts but was absent in the other.[1] In both single and double clefts the number of the incisors may be diminished or increased.

II.—Double Hare-lip.

This condition occurs without any separation of the intermaxillary bones, but most frequently it is complicated with a double fissure of the alveolar margin. A fissure of the palate may or may not be present. The central portion of bone ("intermaxillary bones") is displaced to a varying extent. In some instances it projects very markedly and it may stand out from the superior maxilla at an angle almost approaching a right angle. Its neck of attachment to the jaw varies in breadth in different examples of the deformity. The soft tissues covering the central portion of bone are continuous with those of the septum of the nose, and in cases of com-

[1] See an important paper by Professor Sir William Turner, *Journal of Anatomy and Physiology*, vol. xxix.

plete fissures into the nostrils, they are entirely cut off from the rest of the lip, and, therefore, receive their principal nourishment through this connection with the septum. This fact must be remembered when dissecting off these soft tissues from the central portion of bone in operating for double hare-lip, and great care taken to keep the sharp edge of the knife towards the bone so as to avoid injuring the vessels, which, passing from the tissues of the septum, are required to nourish the separated flap.

Cases of double hare-lip are occasionally met with in which the fissure is complete and opens into the nostril upon one side, the fissure upon the other side not being complete.

Treatment of Hare-lip.

Infants affected with this deformity may not be able to take nourishment from the breast or feeding bottle, and if they are not able to do so proper nourishment must be administered by some modification of the feeding bottle or by the spoon until the time for operative interference is advisable.

Operation.

Age for Operating.—Cases of hare-lip may be operated upon at any age after birth, but the operation should never be performed unless the child's condition is satisfactory. Delay will not interfere with the good result of an operation, but there is always some risk of operating in the case of a feeble or ill-nourished patient, and in such patients a good union of the wound is not always to be depended upon. I myself prefer to operate at the age of from 3 to 5 months, always provided that the patient's general condition is good; but should the condition of health be bad, I always advise postponement of the operation until the health be favourable. Should both hare-lip and cleft palate be present, it is best to operate upon the lip first and delay the operation upon the palate until the child is from 2 to 5 years old, according to the extent of the fissure. Should the child be more than 4 years old, I advise operating upon the palate first, and then closing the fissure or fissures in the lip as soon after as convenient.

Principles of Operating.—These may be considered under the following heads.

A. *Paring or Rawing the Edges of the Cleft or Clefts.*—Various incisions have been suggested for this purpose, and although I admit that some of these procedures, including splitting of the tissues of the lip, may in particular cases be usefully adopted, my general practice is to pare freely the margins along the whole length of the cleft by incisions carried directly downwards, parallel to and outside each edge of the cleft, and so completed that the rounded corners of the cleft at the labial margin are removed. In this way the pared edges of the cleft are converted into two straight surfaces, which, when carefully brought together, should present no notch or hollow at the labial surface. In cases in which the lip is deficient owing to a wide cleft, and in aggravated cases of double hare-lip, the slices, or a portion of them from one or both edges of the cleft, may, instead of being entirely removed, be left attached at the labial margin, turned downwards, and their raw surfaces brought together so as to form a projection at the labial margin, and prevent any notch or cleft remaining. If this projection be excessive it can be at any time curtailed. When the nostril is much flattened or displaced, in either single or double hare-lip, I have always rawed the inner surface of the outer wall of the nostril and the opposing side of the septum for some little distance up, so that these surfaces may be brought together. If this is not done an opening between the nostril and under surface of the lip may remain.[2]

In double hare-lip the incisions should be carried along the outer edges of the fissure, as in single hare-lip, and the process of skin covering the central portion of bone should have its edges incised so as to leave a V-shaped flap, which flap should then be dissected up from the bone, its continuity with the skin of the septum being carefully preserved. When the tissues of the lip are deficient in double hare-lip, and the edges of the wound cannot be brought together without tension, the tension may be relieved by carrying an incision round the base of each ala of the nose; these incisions should start from the upper end of the rawed lateral edges of the cleft.

B. *Divide the surrounding attachments* of the lip to a sufficient extent, so as to allow the pared edges to be brought together without tension. In single hare-lip with a displaced and flattened nostril I have found great advantage in separating these attachments only upon the one side—that of the flattened nostril—leaving the other half of the pared lip attached to the jaw. In this way a fixed point is retained, to which the other freely separated and pared portion of lip and nostril can be connected and held in position.

C. *Relieve Alveolar Projections or Displacements.*—If, in single hare-lip, one edge of the alveolar cleft be prominent, an endeavour should be made to bring it into position by bending it over with strong forceps, and in a few cases I have found that making a slight notch with a fine saw through the alveolar margin at a point about 1 inch external to the cleft assisted in bringing the displaced bone into position. Should the projecting bone overlap the other margin of the cleft, or be too large to fit into the cleft when brought towards it, it must be diminished by sawing or clipping off a portion of it. When this is required, the other surface of the cleft may also be rawed, and the two edges of mucous membrane sutured with one or more catgut sutures. In double hare-lip an attempt should be made to force down into position the central portion of projecting bone, the soft tissues over it having first been dissected up from it, and left attached to the septum, as already mentioned. In the large majority of cases the central portion of bone is too wide and too long to fit properly into the alveolar cleft, and in such instances it should be trimmed by saw or forceps, so as to make it of proper size and shape to do so. If the projecting bone is much displaced, or its neck of attachment is very narrow, it is best to divide the neck close to the septum of the nose, and take away this bone altogether, saving, however, the soft tissues over it to assist in filling up the cleft in the soft textures.

D. *Bring carefully together and retain by proper sutures the rawed edges* of the cleft or clefts. These edges may be brought together and secured by various forms of suture, but I prefer pliable silver wire stitches, and usually introduce three of these, one close to the nostrils, one through the centre, and one through the labial margin of the lip. Between these one or more superficial stitches of horsehair should be inserted, and great care taken that the edges of the skin are not turned in, but are secured so that raw surface is in apposition with raw surface. In double hare-lip the upper wire stitch should pass through both edges of the rawed cleft and also through the subcutaneous tissues of the base of the V-shaped flap; the second stitch should also pass through both rawed edges of the cleft and through the subcutaneous tissues of the apex of the same flap, and the third wire stitch should pass through the labial margin of the cleft only, and should not include the central flap. When these stitches are adjusted in cases of double hare-lip, it will be found that the septum of the nose is drawn down towards the lip, causing the point of the nose to be much flattened. This flattening soon disappears, and the nose gradually rises up again. In aggravated cases of double hare-lip it has been suggested that the operation should be performed at two or more stages, one side being first operated upon, and the other side closed at some future time. Having practised this procedure, I can with confidence recommend it in suitable cases.

Delayed Union.—Should the wound in any case of hare-lip not heal soundly or be torn open by accident, the edges may be at once brought together again, being first rawed by scraping or incision, if necessary, and if a cleft or notch at the labial margin result after any operation for hare-lip, a secondary operation for its relief may be performed at any convenient interval.

Treatment of Hare-Lip after Operation.

In all cases careful feeding of the patient by means of a spoon must be attended to. The stitches are to be divided and removed at a date of from four to eight days after the operation, according to the healing of the wound. It is often advisable to divide, but not remove, one or all of the wire stitches upon the fourth day. If left in position after being

[2] Since writing this I have read an interesting paper by Mr. W. Thomas, of Birmingham, in which he advocates, but in a more complete form, the stitching of the displaced nostril to the septum.

divided, they will still act in keeping the edges of the wound together, and their division relieves tension and prevents ulceration. The horsehair stitches may be retained for the full eight days.

When the stitches have all been removed, one or more strips of plaster should be applied across the lip and cheek, so as to keep the edges of the wound from separating, and also to prevent the cicatrix stretching. This plaster should be retained for three weeks or a month, as undue stretching of the cicatrix usually leaves a wider and more perceptible mark.

One more Hint.—When there is considerable tension after an operation for hare-lip, owing to the wideness of the cleft or deficiencies of lip tissue, the nostrils may be obstructed, and the lower lip being sucked into the mouth like a valve during respiration, the breathing may be seriously interfered with, and, therefore, such cases must be carefully watched for the first twenty-four hours after the operation, and the lower lip kept from being thus drawn in.

CLEFT PALATE.

True cleft palate is a congenital deformity, which may or not be associated with some form of hare-lip. Degrees as to the extent and width of the fissure are met with, and it may involve a portion only or the whole of the soft palate, or the whole soft palate with a portion or the whole of the hard palate. In many cases the hard palate is more or less highly arched.

Treatment.—Congenital fissures of both soft and hard palates may be treated by the application of plates or artificial soft palates, but the closing of them by operation is more satisfactory, provided the patient's condition admits of the operation.

Age for Operation.—If the fissure is confined to the soft palate the operation may be performed at the age of 2 years or even earlier—I prefer the child to be at least 2 years; but when the hard palate is involved I am of opinion that the operation should be delayed until the patient is 5 years or older.

PRINCIPLES OF OPERATING.

A. *Pare the Edges of the Whole Fissure Freely.*—In the soft palate this paring can readily be done, but in operating upon the hard palate it may happen that the edges of the flaps of soft texture may after their separation from the bone not be thoroughly rawed, and may therefore require a further paring.

B. *Loosen Surrounding Soft Tissues by Incision and Separation.*—When the fissure is confined to the soft palate this may not be required, but if there is any tension in bringing the rawed edges together, an incision through the mucous membrane and submucous tissue made parallel to and about half or three-quarters of an inch external to the fissure upon each side will suffice to relieve it. If tension still exists after this procedure any tight muscular fibre may also be divided. When the hard palate is involved I still advocate the procedure which I first practised in 1864, an account of which, with illustrated cases—the first cases successfully treated in Scotland—was published in the *Edinburgh Medical Journal* for January, 1865. This procedure consists in first paring the edges of the fissure, making an incision on each side close to the gum, and extending from the canine tooth to the last molar and round it, if necessary, and then separating with a periosteal elevator all the soft textures, including the periosteum, from the bony palate, leaving them only attached in front and behind where the palatine vessels enter. In this way the pared soft textures forming the two edges of the fissure can be slid together without tension and sutured. In the same paper I advised that the entire fissure in both hard and soft palates should be united at one time, but cases are occasionally met with in which the soft palate is deficient, and if in such cases the hard palate is involved, it is better to close the fissure in the hard palate only, and supplement the deficient soft palate by a soft rubber artificial one.

C. *Suture the Pared Edges in Position.*—Horsehair or silkworm catgut sutures may be used, but when the fissure involves the whole of the soft palate or hard palate, I employ two or more silver wire sutures with intermediate sutures of horsehair. It is always well to insert a silver wire suture at the point where the hard and soft palates join, for the wound here not infrequently gives way a little unless its edges are properly rawed and kept firmly in position by a rigid suture.

Position, Anæsthesia, etc.—When operating upon cases of cleft palate, I always have the patient thoroughly under the influence of chloroform and resting upon his or her back, with the head lying over the edge of a table. This position does much to prevent the blood—which often at first flows freely—passing down into the pharynx or air passages. A Smith's or other efficient mouth gag is a very essential aid in performing these operations, and should always be used. As some blood must pass down into the stomach, and may, afterwards, be either vomited up or passed by the bowel, it is well to warn the friends or attendants of the patient that this may occur.

AFTER-TREATMENT.

The principal points to be attended to are to feed the patient with fluid, and soft but nourishing food, such as milk, eggs beat up in milk, and soups, to wash or syringe out the cavity of the mouth several times daily with some mild antiseptic lotion, such as boracic acid solution, and to limit the amount of speaking as much as possible.

The stitches should not be removed for from two to three weeks after the operation according to the amount of healing of the wound. Some of them usually become loosened, and can then be removed, and it is quite common for one or more of them to give way, leaving a gap. If this gap is not extensive, it gradually contracts and heals, but if an opening becomes permanent it may be closed by the application of a hot wire, or if of some size, by a second operation.

After successful operation for cleft palate, the speech may, for a time, not be much improved, but it always is favourably altered, and the patients find that they can speak with more ease. Careful education in speaking and pronouncing words will much aid in improving articulation.

In conclusion, I may state that, having from time to time been consulted by adult patients suffering from congenital fissures of the hard palate, as to the possibility of improving their speech and making them more fit to take part in public positions, I have always advised a closure of the fissure by operation, and several of these patients have—as advised—been operated upon by me.

My experience of the result in connection with these cases encourages me to advise that, even in adults, the closure by operation of a congenital fissure in the palate enables the patient to speak with greater ease and with greater distinctness, both in private and public life.

[In connection with these remarks patients were brought before the class, the characteristic points of these deformities demonstrated, and the suitable operative treatment for their relief described.]

THE TREATMENT OF ANGULAR DEFORMITIES AT THE HIP-JOINT.

Read before the New York State Medical Association, October 10th, 1893.

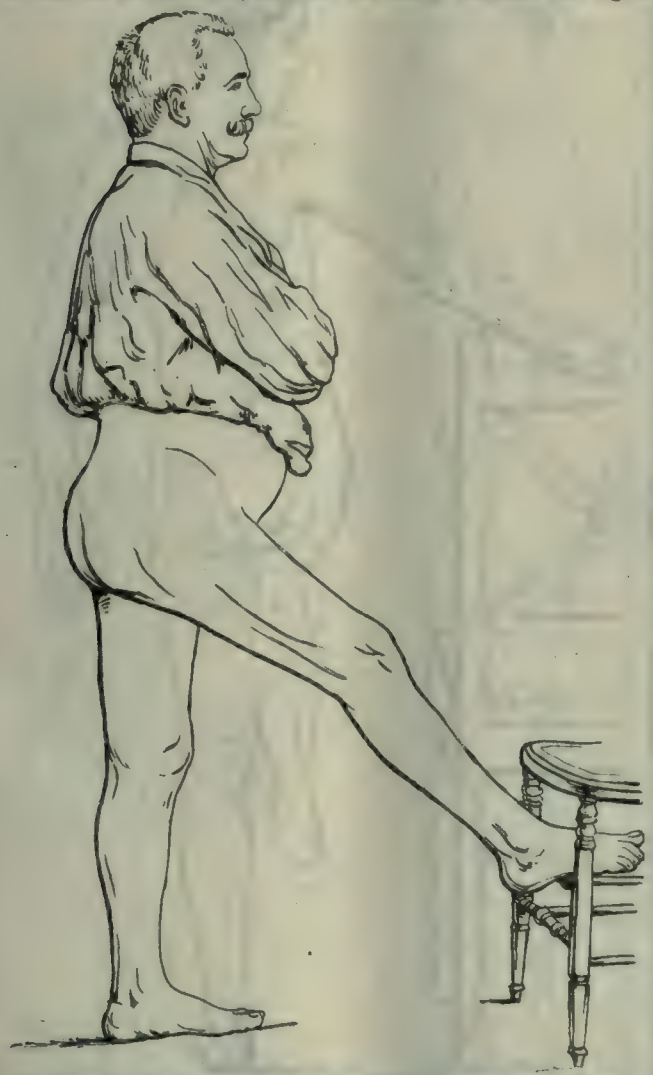
BY REGINALD H. SAYRE, M.D.,
Orthopædic Surgeon, Bellevue Hospital, New York.

LIKE a very large proportion of the cases which come to the orthopædic surgeon for treatment, the best thing to do for angular deformities at the hip-joint is to prevent their occurrence by proper treatment in the first place, and I hold that any patient who has sufficient recuperative power to recover from an inflammation in the hip-joint should do so with the legs practically parallel, and in a straight line with the body. But it very frequently happens that cases are so treated that they do not recover in this favourable position; but when the symptoms of active inflammation have all passed by, the limb is left in a practically useless condition from the amount of deformity present.

The treatment to be adopted in these cases differs with the nature of the disease which produced the deformity, and with the condition of the joint at the time the patient comes under observation, and these conditions vary so widely, that very different means must be adopted in different instances to

secure a favourable result. Perhaps I can best make this clear by detailing the history of a few cases of different classes of injuries at the hip accompanied by subsequent distortion.

Case I.—D. D., Salt Lake City, Utah, a miner, aged about 45 years, stout, thick-set man, was seen in August, 1886. Nine months previously, while working in a coal mine, the ground gave way and fell upon him, burying him out of sight. It was estimated there was about five tons of earth in the mass which covered him. When dug out the left femur was found to be broken just above the knee, and the right foot injured. He was stooping when injured, and received the blow on the small of the back and buttocks. Was confined to bed for two months, and did not know whether his right



Case I.—(A) Fibrous ankylosis of the right hip, showing position of the limb before treatment, after nine months' ankylosis. This figure does not show position which this ankylosis caused when walking, which was much like figure C of Case III.

hip was broken or not. Bedsores formed in less than two weeks, and the catheter was necessary part of the time, so that it is probable that his spinal cord was injured. When he finally got out of bed and moved about on crutches he could not move his right hip or knee, and his right leg seemed short to him. After consultation with various physicians, who decided that nothing had better be done, he was sent to New York.

He was a large, healthy-looking man, and, when first seen, walked with a very marked limp, using a cane to support himself, and stooping a great deal; had very great difficulty in removing his clothes, as his right hip and knee were ankylosed, and the thigh flexed on the body at an angle of 30 degrees, and strongly adducted. Measurement of the limbs, as accurately as could be done in their distorted position, seemed to show that the shortening of the right leg was due simply to flexion and adduction. The left knee could be flexed to a right angle and no more, on account of the callus formed by the old fracture just above the knee. The right hip and knee seemed to be firmly ankylosed, but on attempting to move the joints violently, while an assistant held the pelvis securely, more or less pain was caused, and I therefore concluded that the ankylosis was not bony. My experience in these cases is that if the ankylosis is bony,



Case I.—(B) Result of massage in removing fibrous ankylosis o the right hip, which had been at an angle of 50 degrees

efforts to move the joint are not attended with pain in the joint at the time or subsequently, and that if your efforts at movement are followed by pain, it is very certain proof that it is simply strong fibrosis ankylosis, and that your efforts have caused more or less irritation.

Concluding in this case, therefore, that the ankylosis was only fibrous, I referred the patient to a friend for treatment, but he returned in a few days, saying that the doctor had advised him not to undergo operation, as the risk was more than the probable benefit. I decided in this case to use massage daily, and active and passive movements rather than to attempt to break up the joints by force. Slight movements

were given to the knee and hip after the tissues in the neighbourhood of these joints had been thoroughly massaged every day; and in the course of a month I was able to bend the right knee to a right angle, and move the hip somewhat. The motions became freer and freer in these joints, until in two months from the time when the patient was put under treatment he could stand on either leg, and put the other foot on the seat of a chair in front of him, and could abduct his legs sufficiently wide to ride on horseback, and could cross one leg over the other, bringing the thighs close against the chest, and rise again without assistance.

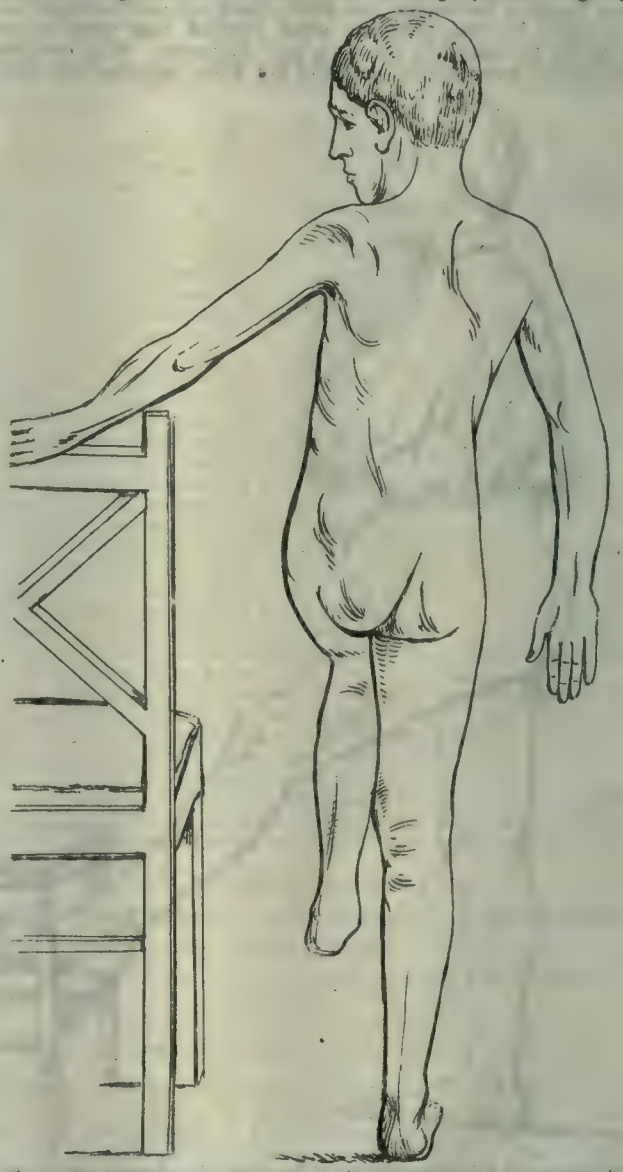
From contraction of the psoas and iliacus muscles of the right side, which had not yet entirely relaxed, the right limb was a quarter of an inch shorter than the left, but with this amount of elevation on the sole and heel of his shoe he walked without hardly any limp, and returned to work. The accompanying photographs show the degree of movement.

CASE II.—W. M., North Carolina, aged 23, had typhoid fever in the spring of 1893, and, after the fever had apparently passed by, was attacked with acute synovitis in the left hip, knee, and ankle. His family physician thought the joints would suppurate, but the inflammation eventually subsided without formation of any abscess. When seen by me in September, 1893, he was in a very emaciated condition, had marks of numerous old bedsores on his body, and walked with great difficulty by the aid of two crutches. His left thigh was rotated so far inward that the head of the femur could be distinctly felt posterior to the trochanter major. His excessive emaciation allowed the limb to be rotated inward almost as far as it is possible on a skeleton, bringing the left knee behind the right. The left foot, being turned at right angles to its normal position, has marked varus of the foot, very limited motion in the ankle-joint, and limited motion in the knee. The adductor tendons in this case were not tense, as in the preceding instance, the joint being held in its position apparently by thickening of the capsular ligament and adjacent structures. After handling and massaging the joint for a few days, having been able to satisfy myself that there was no bony ankylosis in the hip, I felt a slight movement and yielding of the bands that held the joint in its distorted position while I was manipulating the limb one day, and applied immediate force and brought the limb into a normal position, which was accompanied by a loud report, like a pistol shot, where some of the tight structures surrounding the capsule had given way.

I should have preferred to have used an anæsthetic on this patient, but, under the circumstances, when I felt part of the resistance yield, I preferred to break the joint completely, at once, and then immobilise it rather than to run the risk of setting up a fresh inflammation by irritating it slightly, and subsequently irritating it still further by divided attempts at reduction. As soon as I had brought the leg into a straight line with its fellow, and in a straight line with the body, I applied a hoop-iron splint, of the Thomas pattern, as well as an anterior wire splint to prevent, as far as possible, any movement in the joint. These cases of *brisement forcé* require absolute rest of the joint for ten days to a fortnight, and sometimes the addition of icebags to prevent subsequent inflammation, and movement should be deferred till pain and heat have ceased.

The joint was intensely painful for a couple of days following the operation, but inside of two weeks the pain had disappeared, and gradual motions were begun for the purpose of restoring the joint to its normal function, which are at the present time being continued.

CASE III.—W. H., North Carolina, aged 12, had hip disease between the ages of 3 and 4; was treated in a haphazard fashion with long traction splints improperly applied, and finally recovered in the position shown in photograph, the left thigh being flexed on the body at an angle of 50 degrees, adducted strongly as far as his flesh would permit, and apparently ankylosed. Examining the boy without an anæsthetic I thought I detected slight motion in the hip, and proceeded therefore to make a section of the ductor muscles and of the psoas and iliacus through an anterior incision, but found that I was unable (with any force which I felt justified in using) to break up the adhesions between the femur and acetabulum, I accordingly attempted to chisel the femur through just below the lesser trochanter, making use of the anterior incision which I had made for the purpose of cutting the psoas and iliacus muscles. When I had cut part way through the bone, very violent hæmorrhage commenced from a point a little below the smaller trochanter, and close to the under surface of the femur, which I was able to arrest only after tedious effort, the bleeding point having been caught by forceps being passed down very deep in the wound, and which I was obliged to leave fastened to this vessel, as I was unable to pass a ligature around their point. I presume that the edge of the chisel must have projected slightly



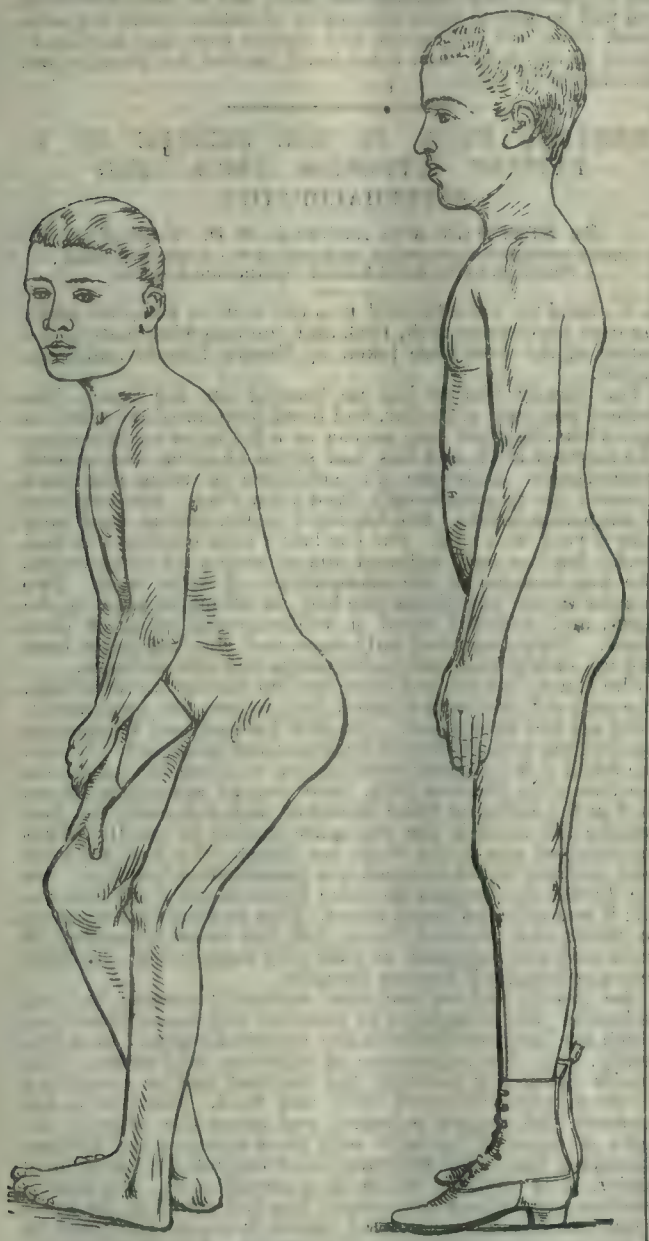
CASE III.—(B) Bony ankylosis of the left hip after hip-joint disease.

beyond the bone and cut the internal circumflex artery, or some branch of it. The wound was packed, leaving the forceps in position. The boy rallied well from the operation, and some weeks later, when the wound had healed, I did a subcutaneous osteotomy of the left femur, just below the trochanter minor, brought the leg into as nearly a normal position as possible, and applied a plaster-of-paris dressing from the toes to the arm-pits, strengthening it in front with a wire splint. By means of this plaster splint, the hip-joint was kept as nearly at rest as possible, while it was very easy to change the boy's position by means of a couple of swings passed around his body, and attached to a block and tackle

which hung from a wooden frame over the bed. His recovery was uneventful, and in two months' time he was walking about on both legs, with a very trifling limp, in an erect position, as shown in photographs.

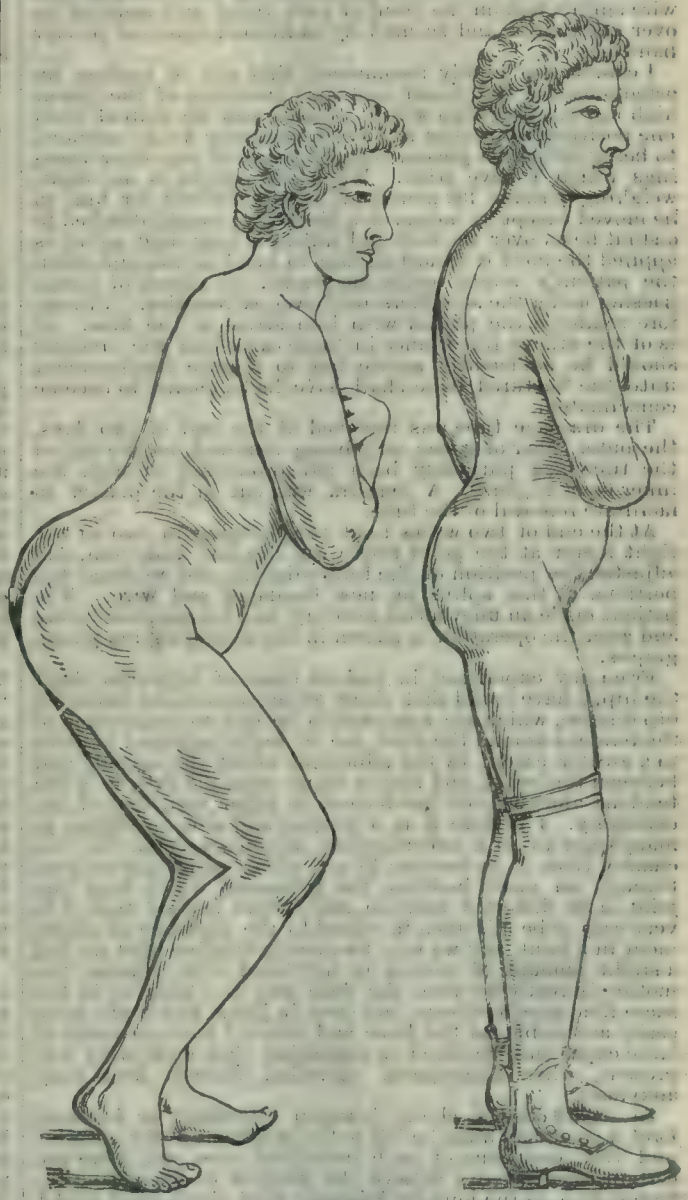
Case iv.—Miss Z., Wisconsin, aged 23, when about 12 years old had what was called an attack of rheumatism, which she attributed to getting wet by wading in a brook in the late Fall. Severe inflammation of both her hips, her right knee, and both ankles followed. The right ankle suppurated and bone was discharged from the sinuses. When seen by me, there were large scars on the sacrum and near the left hip. Whether these were the result of old bedsores or an inflammation of the bone I was unable to determine from the history. She had bony ankylosis of both hip-joints, both thighs being flexed on the body at about 50 degrees, the right one abducted and the left strongly adducted, very much in the position she would assume if riding on a side saddle. The motion in the right ankle was quite limited, a large bony deposit in front of the astragalus preventing the foot from coming to a right angle with the leg. The motions in the right knee were also slightly limited; she walked with great difficulty by means of canes, and presented a very distorted appearance.

After unsuccessfully attempting to break up the ankylosis, at the hips, the pelvis at this time being firmly secured to a table by large clamps, I made an incision over the left trochanter major as if to perform excision, thinking that it might be possible to chisel the head of the femur loose from its attachments and make a movable joint by digging out a new acetabulum, but found the two bones united by so thick and extensive a deposit of new bone that this was impracticable. I therefore chiselled through the femur just below the smaller trochanter, brought the leg in straight line with



Case iii.—(C) Mode of walking with angular deformity of left hip with bony ankylosis.

Case iii.—(D) Result of subtrochanteric osteotomy for angular deformity with ankylosis of the left hip.



Case iv.—Bony ankylosis of both hips, with angular deformity.

Case iv.—Result of synchronous osteotomy for bony ankylosis of both hips, with angular deformity.

the body, and secured it temporarily with a wire splint; having sewn up the incision—leaving one drainage tube in it, as there had been quite extensive laceration of the soft parts in exposing the joint—I then turned her on the other side and did a subcutaneous osteotomy, also below the smaller trochanter, without attempting to form a false joint, as I had proposed to do on the other side. This wound was closed and sealed with iodoform collodion. The patient was then encased in plaster-of-paris bandages from the armpits to the toes of both feet, the plaster being reinforced by iron wire splints laid on the front of each thigh and running up over the thorax, and secured by additional layers of plaster bandages.

I cannot too highly recommend this way of putting up osteotomies of the femur and also fractures of the femur high up, the ease with which patients can be shifted from one position to another and their necessary wants attended to being altogether greater than by means of any other dressings which I have tried. When the patient is an adult, weighing perhaps 180 pounds, it is very difficult for him to be moved except by means of a block and tackle attached to a stout beam over the bed, and unless a very rigid splint is applied the body is almost certain to bend at the hips when the patient's weight hangs suspended by means of straps passing under the shoulders and lower extremities. I therefore reinforce the plaster with iron strips at the hips. It is of the utmost importance in these cases that the dressing should be sufficiently secure not to require readjustment until the fractured bone shall have had a chance to become consolidated.

The drainage tube was removed at the end of two days, the outer layer of gauze only being removed, as the end of the tube had purposely been left projecting through the inner layer of gauze. A fenestra was cut in the plaster to facilitate removal of the tube.

At the end of two weeks I cut the dressing in two on the right femur at the point where the hip and body join, and adjusted the position of the limb slightly, and rejoined the portions of this splint by new bandages and wire. The patient made an uneventful recovery, and her position before and after the operation is shown in the accompanying photographs.

From my experience in various cases of ankylosis about the hip, I have found that many of the distortions following hip disease, which are supposed to be due to contraction of the tendons around the joint, are in reality retained in place to a greater extent by the adhesions about the capsule and between the bones, and that in many cases the cutting of the tendons alone will be insufficient to allow reduction of the deformity. I believe it is a simpler and safer operation in many cases to do a subcutaneous osteotomy below the trochanter than to endeavour to cut, either subcutaneously or through an open incision, the adhesions which bind the joint in its distorted position, and I have learned that it is very easy to be mistaken in regard to the presence of movement in a joint, and we very frequently imagine that we feel a slight amount of motion in ankylosed hips, whereas the motion is really between the flesh and the bone or in the sacro-iliac synchondrosis, and even in joints which are more easily accessible (as the knee and elbow) I have seen men of large experience deceived in supposing that movement was present, when subsequent operation showed firm bony ankylosis.

In regard to the choice between osteotomy or *brisement forcé*, a good deal must be left to the judgment of the operator and the conditions of each individual case, and there are certain cases where I believe the dangers of re-exciting inflammation in the joint by *brisement forcé* are so great that I think it is safer to do an osteotomy, and if the joint is to be broken up, I believe in making section of all constricting bands which can be safely cut, breaking up the adhesions thoroughly under an anæsthetic, placing the limb at once in the required position, and then keeping the part absolutely at rest until all pain, swelling, and tenderness have subsided, and I find benefit in many instances from diminishing the blood supply to the joint by means of moderate compression over the artery supplying it with blood. After the joint is completely free from pain slight motions should be given every day to restore to function, but never carried to the point of producing pain or tenderness which will last as long as twenty-four hours. If your efforts to restore functions are followed by increased heat or tenderness, cease your manipulations and be content with the improved position and a stiff joint. If, however, as in Case 1, there is slight motion in the joint and the employment of gradual manipulation and massage is not followed by inflammatory reaction, continue the procedures daily, increasing in force and frequency as experience warrants, and in many instances you will be able to cause absorption of inflammatory deposits, break down old adhesions, and restore excellent motion to joints which have been considered useless for months and sometimes for years.

REMARKS MADE AT THE BEDSIDE OF A PATIENT SUFFERING FROM LEAD ENCEPHALOPATHY.

By STEPHEN MACKENZIE, M.D., F.R.C.P.,
Physician to and Lecturer on Medicine at the London Hospital; Physician to the Royal London Ophthalmic Hospital.

E. C., aged 26, was admitted into the London Hospital under my care on October 27th, 1893, and the following history and notice of the case were taken by Messrs. Palmer and A. L. Smith.

The family history has no bearing on the case. The patient was born at Poplar, and lived there until 14 years of age, when she went into service as a helper at a coffee shop. She married at 17, and has had seven children and several miscarriages. Only one of the children is living now, aged 9 years; the remainder only lived a few days. She has been of temperate habits. She has lived badly, having meat only once a week as a rule. She has lately been employed in lead works, but has only followed this avocation for three weeks. She was engaged in the manufacture of white lead. Two months before her illness she had an attack of pain in the chest, and vomited about a tablespoonful of thick dark blood. This happened only once, and she has never been laid up, except with her confinements and miscarriages.

She states that she was quite well on Sunday, October 16th. The next day she went to work, but, to use her own words, "did not feel very grand." On the Tuesday and Wednesday she had the same feeling of weakness and pains in her limbs; she felt it was too much trouble even to comb her hair. On the Thursday, October 20th, more urgent symptoms arose. At 8 in the morning some breakfast was got ready for her, but she felt so sick she was quite unable to eat it. What she vomited was white froth—no blood. She took no solid food, and any liquid she took was immediately vomited. On the Friday she brought up some blood, about a tablespoonful; it was pale and tasted sweet. This was the only occasion on which she vomited blood, but the vomit consisted of froth, and was incessant, at least fifty times a day. The day before admission it became greenish.

She lies in bed on one side, markedly anæmic but not cachectic. She complains of constant and severe headache, which she localises chiefly in the occipital region. It is evidently, from her appearance of suffering, very severe. She vomits every few minutes, the vomited matter consisting chiefly of yellowish-green froth and fluid. The bowels are confined, the tongue is furred, and along the edge of the gums of some of the teeth only there is a faint but distinct blue-black line. The abdomen is not distended but is slightly tender, as is the liver, which is of normal size. The heart's position and dulness are normal; the first sound at the apex is murmurish; the precordial region is tender, the pulse is 75, the tension rather below the normal. She is intelligent but very much oppressed with the headache, which has never left her since it commenced. It is chiefly occipital, but extends from thence over the vertex to the frontal region. She no sooner takes anything into the stomach than it returns, and is frequently sick without taking anything. The vomit amounts to 3 or 4 pints per diem; it is acid, bile-stained, and frothy. The pupils are large, and react to light and accommodation. There is internal strabismus of the right eye, the result of an accident when 15 years old. Ophthalmoscopical examination showed swelling of each optic papilla, indis-

tinctness of its margins, distension and tortuosity of the vessels, which in places are partly concealed by the swelling. The special senses are not affected; there is no paralysis of motion or sensation in the limbs; the knee-jerks are slightly exaggerated, and the plantar reflexes readily elicited. She is too ill to test her powers of walking, but she states she noticed her gait had been staggering, and she felt as if she was losing her head, and had no strength in her legs for three weeks. The urine is of pale amber colour, acid in reaction, specific gravity 1020, and is free from sugar and albumen. The temperature is normal.

These are the facts of the case, and the first thing we have to do is to endeavour to arrive at the diagnosis.

The patient was admitted for ulcer of the stomach. The vomiting and a history of bringing up blood probably suggested this, but the more detailed history of the case Mr. Palmer has elicited for us, and the condition of the patient since she has been in the hospital negative this diagnosis. Moreover, the patient has double optic neuritis. Now this is not accounted for by ulcer of the stomach, even if she has this, and there must be something else to have given rise to it. It will be convenient to make this symptom—double optic neuritis or papillitis—the starting point in our diagnosis.

What may this double optic neuritis depend on? In the first place, it may be due to cerebral tumour or some other coarse lesion of the brain. The intense cephalalgia and the frequent and purposeless vomiting would be quite in accordance with this view. It is true there is no evidence of local disease of the brain, such as paralysis or convulsion, but it not infrequently happens that we do diagnose, and that correctly, tumour of the brain from this symptom, optic neuritis, especially when accompanied by pain in the head and vomiting, even when there is not a single localising symptom.

But—and this is an exceedingly important qualification—before we are justified in concluding that optic neuritis, with or without headache and vomiting, unaccompanied by evidence of local brain, is due to a cerebral tumour or some gross encephalic lesion, we must exclude the other causes of optic neuritis—at least the fairly common ones. What are these?—

1. *Anæmia.*—Anæmia not infrequently in my experience gives rise to double papillitis and sometimes to papillo-retinitis. This is most common in chlorosis, but may occur in pernicious anæmia. I have published in the British Medical Journal, vol. i, 1885, p. 328, a very pronounced case of double papillo-retinitis from chlorosis, with remarks on the subject. Now when I examined this patient I pointed out the anæmia. I held up the hand and looked at the nail bed of the fingers, and from the absence of all pink colour ventured to predict that she had less than 50 per cent. of red corpuscles (subsequent examination showed 38 per cent. and great diminution of hæmoglobin). So far, then, the optic neuritis might be due to the anæmia which is present. There is, however, another symptom, to be presently adverted to, which in my mind renders it improbable that anæmia is the cause of the neuritis. Other blood conditions, such as leucocythæmia, may give rise to neuritis, but in leucocythæmia there is more usually a great distension of the retinal veins and hæmorrhages, without marked swelling of the optic nerve.

2. *Bright's Disease.*—You are probably familiar with the ocular changes in this disease. In the great majority of cases it takes the form of a retinitis or papillo-retinitis, numerous hæmorrhages and white spots being seen in the retina, especially in the region of the macula, with or without some swelling of the disc. But in rare cases, of which I have seen a few, optic neuritis, indistinguishable from that met with in connection with cerebral tumour, is encountered. In the present case Bright's disease is excluded by the absence of albuminuria or casts, absence of œdema, and by the absence of increased arterial tension and cardiac hypertrophy. We may therefore dismiss it.

3. *Diabetes.*—I have never met with simple papillitis in connection with diabetes, but have seen several cases of diabetic retinitis closely resembling the retinitis of Bright's disease. In this case diabetes is excluded by the absence of glycosuria and polyuria.

4. *Lead Toxæmia.*—In the conditions in which lead gains admission to the system and is deposited in the tissues a great variety of symptoms may be caused. A case of lead poisoning may present itself as colic, or drop-wrist, or with acute and severe cerebral symptoms. In these conditions double optic neuritis or papillo-retinitis may be caused. I have seen a fair number of cases and published several. Now, in our patient we have the statement that she has recently been employed at lead works; further, she has a "lead line." It is true this is a very slight one, but to one experienced in such cases the testimony is unequivocal. It is a thin blue-black line just at the junction of the gums and teeth. Where a tooth is absent no such line occurs, and in this case it is not present at the edge of the gums over all the teeth. It has to be distinguished from a reddish-blue line near the edge of the gums, which is often present and misleads the inexperienced. Its sharp, well-defined character, blue-black colour, and position at the free extremity of the gums is pathognomonic. It is, therefore, a very tell-tale symptom.

In the presence, then, of this symptom, and the exclusion of positive or probable evidence of cerebral tumour, Bright's disease, and diabetes, we are reduced to two causes of the optic neuritis—anæmia and lead poisoning. As we have an undoubted history of our patient working in lead, and the pathognomonic sign of the lead line on the gums, the presumption is greatly in favour of lead poisoning causing the neuritis. Lead poisoning will account for the anæmia; the anæmia could not cause the blue line on the gums. I therefore arrive at the conclusion that the double optic neuritis is due to lead poisoning.

Having excluded other possible causes of the optic neuritis, we have, to make our diagnosis complete, to ask ourselves the question, Will this diagnosis explain all the phenomena of the case?

We see a good deal of lead poisoning in all its forms at this hospital, owing to there being some large manufactories in the East End of London. These cases assume various types, but I must confine my remarks to cases of acute lead poisoning with cerebral symptoms. This class of case was well described by Tanquerel des Planches in a treatise on Lead Diseases, published in 1838, and translated by Dr. Samuel L. Dana, of Lowell, U.S.A., in 1848. Tanquerel described three varieties of this form of acute cerebral disease from lead, which he calls lead encephalopathy, the delirious, the comatose, and the convulsive forms, which may exist separately or combined. I have seen examples of each, and my experience confirms that of Tanquerel, that the combined form is the most common. Sometimes the disease manifests itself by convulsions, which pass into coma, in which condition the patient dies; or it may begin with delirium accompanied by convulsions. A good case of this kind, with optic neuritis and hæmorrhage, was under my care in this hospital in 1878, and is published in Gowers's *Medical Ophthalmoscopy*, with an illustration. The patient recovered completely. I had a case in George Ward about two years ago. I found the patient, a middle-aged man, comatose, and he had been convulsed. His illness had been a short one, and investigation showed a lead line on his gums. It was elicited that he had been working in lead. He died, and no naked-eye disease was found in the brain or kidneys. I have known insanity to be caused by acute lead poisoning. In the majority of cases it will be found the patient has been losing colour for some time. Even in acute cases, but not in all, there is usually anæmia. Anæmia is usually the first symptom of lead poisoning, then follows vomiting and often headache, sometimes colic.

The diagnosis in lead toxæmia is often much assisted by the use of the ophthalmoscope. It will be observed that there is no mention of defect of sight in our patient; and this illustrates the importance of the routine examination of the eyes, as is done in all cases under my care. The occurrence of changes in the fundus often puts us on the right track, but the most conclusive evidence is furnished by the condition of the gums.

In what circumstances does lead encephalopathy occur? In my own experience I have seen it in those who have worked in lead for years, and in those who have only quite recently been so employed. In our patient, the time she has

been working in lead is unusually short, only three weeks. Women, as shown by Dr. Thomas Oliver,[1] are more susceptible to the influence of lead. Mr. F. M. Corner, in a paper read before the Hunterian Society in 1887,[2] reported five fatal cases of acute lead encephalopathy; all were women. In my own practice, however, in this hospital I have seen as many men as women. The condition of those who work in lead is a factor in the causation. It is especially in those who have been living badly, like our patient, that the severe symptoms are most apt to arise. Many, from the well-known effects of this employment, will not work at it until they are driven to it by destitution. The pay is good, and employment easily obtained. I have several times urged patients who have suffered from various forms of lead poisoning to shun the lead works as they would the plague. But the hard pressure of want has driven them back to the works, to suffer again and again.

A patient who has once suffered from lead poisoning is very likely to be again affected. It is possible this is due to the influence that the lead has already exerted on the tissues and organs, but probably it is due in a greater measure to individual susceptibility, as many work for years without being affected. There are certain processes in the manufacture of lead which are peculiarly liable to produce lead toxæmia. It is in the "unstacking the white lead" that the greatest danger arises, as this is always attended with the giving off of much dust, consisting of carbonate of lead. At the lead factories, as a rule, every precaution is taken to minimise the risk, and the factories are periodically inspected, but in spite of these precautions many cases occur, often from the carelessness and neglect of the workers. Alcoholic habits—and from various causes these are common in lead workers—predispose to its occurrence, and intensify its evils.

What is found in such cases after death? To the naked eye nothing in the majority of cases. The brain, as a rule, shows no disease; the lead line is found on the gums, and often the colon is pigmented from the same cause as the gums, namely, the production of sulphide of lead. There is no reason for supposing that lead is present in these parts more than in others; it is simply due to the fact that in these parts the lead is brought into contact with sulphuretted hydrogen. I often say that potentially a patient has a lead line all over the body. The late Dr. Meymott Tidy examined some brains chemically for me, and found appreciable quantities of lead. In a case reported by Dr. A. Atkinson,[3] Dr. Tidy calculated that the whole brain contained as much as five grains. Dr. Oliver and some other workers have shown the proportion in which lead is found in the various tissues. The intestines and liver contain the most, and this is evidence of the entrance of the poison by the digestive tract. The brain and other nervous structures always show a high percentage, and this accounts for the frequency of symptoms due to affections of the nervous system. From the changes seen in the optic papillæ and retina I have been led to the conclusion that probably the lead induces a condition of cerebritis, but I have made no microscopical examination of the brain. Dr. Charlewood Turner, however, who has examined two cases of fatal plumbic intoxication with cerebral symptoms, found "exudation in perivascular spaces round some of the vessels, which led him to regard the symptoms as due to an inflammatory œdema of the convolutions,"[4] and Dr. Drummond has found similar changes.

It is quite clear, then, that the diagnosis of acute lead poisoning is supported by the symptoms present in this case, and that the diagnosis is adequate to explain them all.

Such a condition is exceedingly dangerous, the majority of cases of acute lead encephalopathy proving fatal. Our patient is evidently very seriously ill. What are we to do to avert her danger? As lead is the cause of all her symptoms—the cerebral condition, the optic neuritis—its elimination must be our principal aim in treatment. Now we have a remedy which exercises a powerful influence in discharging lead from the system by the kidneys, the bowels, and the skin. This remedy is iodide of potassium. I shall order the following prescription: Potassii iodidi gr. x; magnesis sulphatii ℥ij; aquam chloroformi ad ℥j; to be given every four hours. Chlorides, as well as iodides, are believed by the French to eliminate lead. I always encourage patients suffering from lead poisoning to take freely of table salt.

(POSTSCRIPT, November 24th.—It is satisfactory to be able to report that the patient is making a good recovery. The headache became less frequent and severe, and has now disappeared. The vomiting, such an urgent and distressing symptom, yielded more slowly, but has now entirely ceased. Morphine was given twice subcutaneously. The bowels were very obstinate, and required repeated enemata in addition to the sulphate of magnesium, but are now acting freely each day. The patient is now convalescent, but still anæmic, and the optic neuritis is still present, but subsiding.)

[1] *Lead Poisoning in its Acute and Chronic Forms*, 1891, p. 22.
[2] *Hunterian Society Report*, 1886-87, p. 58.
[3] *Lancet*, 1878, vol. i., p. 784.
[4] *Hunterian Society Report*, 1886-87, p. 61

A CASE OF SPINDLE-CELL SARCOMA OF THE IRIS.

Read in the Section of Ophthalmology at the Annual Meeting of the British Medical Association held in Newcastle-on-Tyne, August, 1893.

BY G. E. WILLIAMSON, M.A., F.R.C.S.,
President of the Section; Surgeon to the Royal Infirmary, Newcastle-upon-Tyne.

A HEALTHY-LOOKING girl, 14 years of age, was admitted under my care, into the Royal Infirmary, Newcastle-upon-Tyne, with a condition of her left eye that will be best appreciated from the accompanying drawing (No. 1). The growth was first noticed by the patient about six months before admission, as a small yellow speck. It began apparently at the peripheral part of the iris, and as it grew, it encroached on

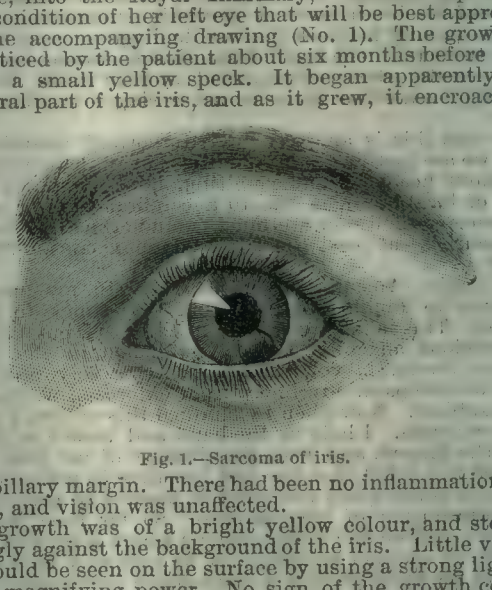


Fig. 1.—Sarcoma of iris.

the pupillary margin. There had been no inflammation about the eye, and vision was unaffected.

The growth was of a bright yellow colour, and stood out strikingly against the background of the iris. Little vascular tufts could be seen on the surface by using a strong light and a high magnifying power. No sign of the growth could be detected behind the lens on examining obliquely by the direct method.

From the history and appearance, I made out that I was dealing with a sarcoma of the iris, and as nothing could be seen of it in the deeper parts of the eye, I tried to remove it through an incision in the cornea. It was, however, so firm that I could not move it on account of its deep connections. Four days later I excised the eye. The patient did well, and there has been no recurrence after the lapse of two years.

After excision I cut the eye into anterior and posterior halves, and put them for a quarter of an hour into a half-saturated solution of perchloride of mercury in methylated spirit. They were stained in bulk in borax carmine, and ultimately embedded in paraffin by the interstitial method. I cut the sections with a Thoma's sledge microtome.

Drawing No. 1 shows the eye as it appeared before the operation. No. 2 represents a section through the tumour and the surrounding parts. In front are the cornea and sclerotic, behind are the club-shaped growth, with its narrow neck, and the ciliary body below it.

No. 3 is from a small portion of the growth seen under a

high power. The cells are typically spindle-shaped, and run in streams, broken here and there by what appear to be groups of small round cells. They are, however, transverse sections of

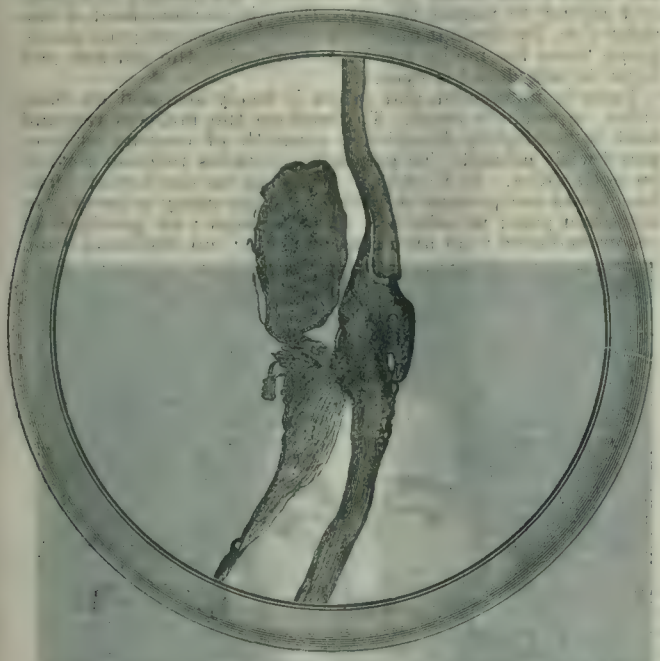


Fig. 2.—Section through the tumour with the ciliary body and the sclero-corneal junction; low power.

the spindles, and the whole mass is composed of spindle cells only, together with imperfectly-developed blood vessels. No. 4 shows the neck of the tumour with spindle cells extending along a vessel into the ciliary body. This justifies the severe measure of excision of the globe, as it would have been im-

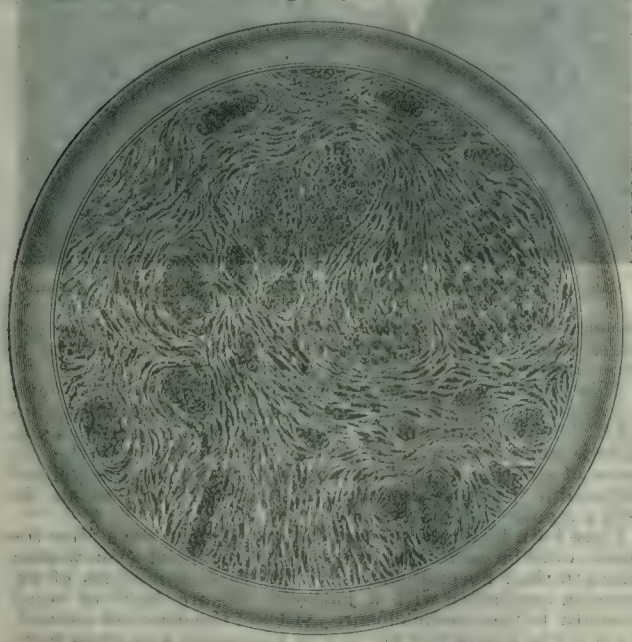


Fig. 3.—Section of the tumour under high power.

possible to remove the whole of the tumour through the corneal incision. No. 5 is a section through the four-days-old incision of the cornea. The epithelium has formed a perfect bridge across, but the edges of the corneal substance proper are still ununited. They are, however, beset with leucocytes.

No. 6 runs through the deep part of the corneal incision, and shows several nests of epithelial cells adhering to the



Fig. 4.—Section through the neck of the tumour showing spindle cells extending along a vessel into the ciliary body.

cut surface of the cornea. They must have been carried in by the knife from the surface, and, finding a congenial soil, have remained and grown.

Now, it strikes me that if ordinary epithelial cells will



Fig. 5.—Section through the epithelial part of the corneal incision four days after operation.

grow well on a deep freshly-cut surface, other cells will do the same thing. Would not cancer cells, for instance, do so even more readily? And if, in an operation for cancer, it is

cut into and the juice escapes over the raw surface of the wound, are not the cells certain to remain and grow, rendering the operation useless as a curative measure? If it is thought desirable to cut into a tumour for diagnosis—say a tumour of the breast—a separate knife should be used, and the incision should be so carefully plugged with sponges that nothing can pass from it into the area of operation.



Fig. 6.—Section through the deep part of the corneal incision, four days old, showing nests of epithelial cells.

In excising the rectum for cancer a cut is often made right through the growth into the healthy tissues beyond, so implanting the rapidly-growing cancer cells into the surface of a fresh wound, where probably some will live and so ensure a recurrence of the disease.

Dr. Little, of Manchester, in vol. iii of the *Transactions* of the Ophthalmological Society, describes a case of sarcoma of the iris; but there were no deep attachments, and he was able to remove it. On examination, it proved to be a pigmented round-celled sarcoma. In the paper Dr. Little also gives references to several other cases of this rare disease.

A CASE OF PERIPHERAL FACIAL DIPLEGIA.

By FRED. W. MOTT, M.D., F.R.C.P.,
Physician to the Electrical Department, Charing Cross Hospital.

J. T., aged 17, came to Charing Cross Hospital on December 12th, 1892, suffering from bilateral facial paralysis. The following history was obtained. He had measles and scarlet fever when a child, and about two years ago he had diphtheria. He had never any pain or discharge from the ears, nor had he ever suffered from rheumatism. He was an apprentice to the electrotyping business, and up till a month ago he was in good health, when he felt unwell and stayed at home three days, and then went to work again (he had no sore throat). A fortnight later—December 2nd—he shivered, felt ill, and complained of cough and pain in the side. He was attended by a doctor, and got better. On December 7th, when returning home from the doctor's, he noticed that his left cheek was swollen, and he was paralysed on the left side of his face. Two days later he noticed that he was paralysed on both sides, for he could not shut either eye On December 12th when he came to the hospital, the following notes were taken.

Patient is found to have paralysis of the facial nerves on both sides, the right being rather more affected than the left. He cannot close the eyes, and smiling and whistling are impossible; in the latter the cheeks alone are slightly blown out. The face is expressionless, and he can neither frown nor smile; the lower lip is everted. On closing the teeth and trying to retract the lips, there is no movement of the right side, but the left upper lip is slightly raised; see photograph taken for me by Mr. V. A. Corbould; the lad was told to smile and close his eyes.

Taste is unaffected, and saliva is freely secreted on both sides. Speech is nasal. To faradism the muscles respond well to a slightly diminished strength of current as compared with normal. To galvanism muscles respond readily on both sides. KCC=ACC. There is no sore throat. The knee-jerks are present on both sides; no ataxy or paresis in any other part; no affection of soft palate; no paralysis of accommodation; no albumin in urine; no discharge from



Case of peripheral facial diplegia; the lad told to close his eyes and smile.

the ears; tympana normal. He was treated with labile galvanism and iodide of potassium with nux vomica, and in three weeks the paralysis had completely passed off.

This evidently was a case of neuritis, peripheral in origin, the cause of which it is difficult to attribute to anything but cold. The only other cause that could be considered as possible is some poison such as the diphtheritic, but the absence of all other symptoms renders this improbable, yet not impossible, when we consider that the lad had had an illness a month previously.

Since both facial nerves and branches eight days after the onset could be excited by the faradic current of even weaker strength than normal, and since the various muscles of expression contracted with a kathodic closure (KCC) of equal strength to the anodic closure (ACC) of the constant current, I was led to give a very favourable prognosis, which was justified by the result.

I considered the cause of the paralysis to be a slight swelling of the nerves as they passed through the stylo-mastoid foramina. As neither taste nor hearing was affected, it may be presumed that neither the fibres which leave the facial to

form the chorda tympani nor the nerve to the stapedius were involved, that is to say, the swelling of the nerves was slight, only sufficient to cause their compression at the stylo-mastoid foramina. It may be inferred that the compression was just enough to interfere with the nerves as conductors of impressions from their nuclear centres, but not enough to produce degenerative changes.

Dr. Gowers says: "Fallopian neuritis scarcely ever occurs on both sides simultaneously, although I have more than once known a second attack on the other side to occur within a few months of the first." The same author says that it occurs but very rarely in diphtheritic paralysis. The other conditions such as syphilis, nuclear paralysis, pontine lesions, and double otitis may be at once excluded. The history and progress of the case point to its being a case of bilateral Bell's paralysis of a mild nature, one side being affected a few days after the other. Whereas unilateral facial paralysis is very common, it is extremely rare for both sides to be affected within a day or two of one another.

DETACHED PIECES OF ARTICULAR CARTILAGE FORMING LOOSE BODIES IN BOTH KNEE-JOINTS.

By W. ARBUTHNOT LANE, M.S.,
Assistant Surgeon to Guy's Hospital and to the Hospital for Sick Children.

The following case is of great interest as illustrating one of the modes of formation of loose bodies in the knee-joint and the apparently very slight injury by means of which a large thick piece of cartilage may be separated from the rest of the articular surface of the condyle of the femur. It also shows how very slowly the fractured edge of the pit from which the fragment is removed and of the fragment undergoes change, and how, after a long period of time that edge is bevelled down, and the articular lamella of bone, which had been exposed, becomes covered by a thin layer of articular cartilage.

That a considerable proportion of the loose bodies which we find in knee-joints are developed traumatically is extremely probable, though the fact probably escapes the notice of the surgeon, for the reason that, on the removal of the loose mass, the joint is not usually sufficiently explored. I would also call attention to the locality of the damage which is sustained by the articular surface of the external condyle, and to the exact symmetry of the conditions on both sides in this case.

On examining the articular surface of the external condyle during the varying degrees of flexion of the normal knee-joint I found that the precise spot from which the piece of cartilage was broken could be felt uncovered by bone when the knee was flexed through an angle of 45 degrees, and as the degree of flexion was increased a further area of articular cartilage behind this level was also exposed to possible injury.

If one kneels upon one knee an area of the articular cartilage covering the outer part of the under surface of the external condyle, and which is triangular in shape and includes the locality of the fractures in the case about to be described, comes into contact with the ground, while the internal condyle, part of whose under-surface is also uncovered by bone in this position, is separated from the floor by a considerable interval.

Therefore it is obvious that the injury I am about to describe could have been produced by a blow upon this portion of the condyle, while the knee-joint was in a position of flexion varying from that of 45 degrees to complete flexion, and that in a fall upon one or both knees this area of the cartilaginous articular surface would be struck.

In the case of this patient, although I inquired from him most carefully and on many occasions and also got him to consult his friends, he was not able to give us a definite history of any injury, and he thinks that his knees did not swell or were not rendered uncomfortable till the foreign bodies were felt.

At the same time from experience one knows how readily a knock or fall is forgotten by people leading such an active, busy, and comparatively laborious life as this patient led.

E. P., aged 25, was admitted into Guy's Hospital under my care on September 25th, 1893, suffering from a loose body in each knee-joint. These caused him pain and inconvenience, with occasional slight attacks of synovitis. He was employed in carrying loads of books to and fro from London to Woolwich. He was unable to remember having struck either knee, or having fallen sufficiently heavily on his knees to produce pain or swelling, yet he said he might readily have sustained such an accident without his being able to remember it. He was an intelligent fellow, and was anxious to give us any information in his power. About two years ago he experienced a gritty feeling in the left knee-joint, and on examining it he found a body which he could move about freely. About three months ago a similar sensation and movable body were detected in the right knee-joint. On examining the two joints the body in the right one felt more gritty and thick than that in the left. There was some thickening of the synovial membrane and some fluid in both knee-joints. On cutting into the right by means of a vertical incision outside the patella a triangular piece of articular cartilage of the size and shape figured in the diagram was readily removed. It was at once obvious that it must have formed part of one of the articular surfaces of the joint, since its margin was sharply cut, and it appeared as if it had only just been broken. The articular surfaces were carefully examined, and in the outer part of the under surface of the external condyle, and towards its anterior part, was found a space in the articular cartilage including its whole thickness, into which the loose fragment could be readily fitted. Like it the sharp, abrupt margin of the cavity formed by the articular cartilage suggested that the injury was very recent, as it had apparently undergone no change whatever since the injury. In the drawing which was made for me by Mr. Rowland, the space is shown very cleverly, the upper part of the articular surface being overlapped by a thick swollen synovial membrane. On opening the left knee-joint a loose body of about the same size was obtained. It differed from the other in that its margins were smooth and rounded, and somewhat bevelled; indeed, it resembled exactly the common variety of loose body with which we are all very familiar. On exploring the condyles with the finger nothing abnormal was felt, but on extending the incision downwards, and flexing the joint sufficiently to render the under surface of the condyle visible on the precisely corresponding area of the femur, a depression was found lined with articular cartilage, which was continuous with the rest of the articular surface by a bevelled margin. When exposed the depression was readily recognised by the finger. It was obvious also that its articular lining performed the functions of, and resembled in structure, the general articular cartilage with which it was directly continuous

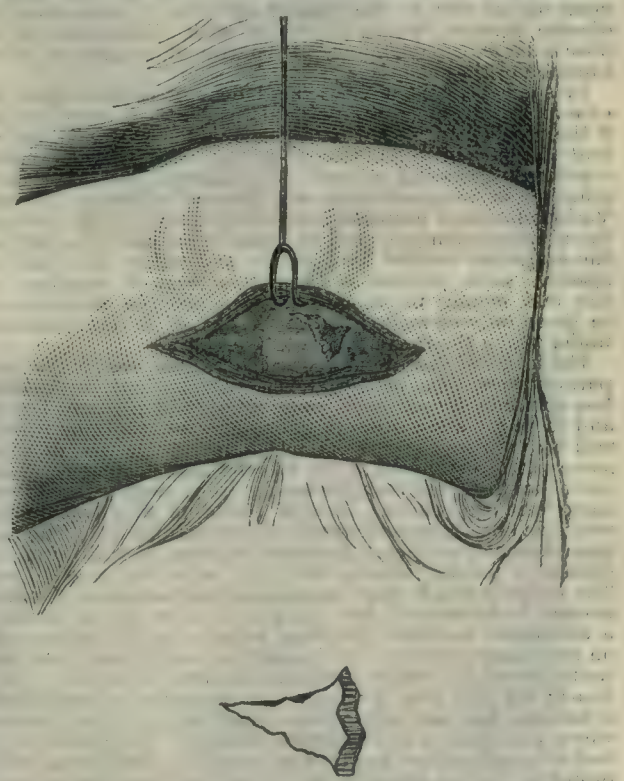


Fig. 1.—The anterior aspect of the right knee flexed at an angle of 45°. The irregular impression is shown on the condyle into which the fragment, separately figured (natural size), could be fitted accurately.

ERUPTIONS FROM BROMIDES AND IODIDES.

A Portion of a Lecture on "Drug Eruptions."

By H. RADCLIFFE CROCKER, M.D., F.R.C.P.,
Physician for Skin Diseases, University College Hospital.

[WITH COLOURED PLATE.]

It is an unfortunate circumstance sometimes attending our therapeutic efforts to alleviate or cure disease that by the action of the drugs we employ we may unwittingly produce disorders of various organs which may lead to consequences as serious as the original disease itself, and, if the drug be persisted in, may even have a fatal result. The skin lesions thus produced are not the least important of such disorders, and are included under "drug eruptions," or the more high-sounding title of "dermatitis medicamentosa."

Even when the eruptions are not dangerous in themselves their diagnosis is often highly important, as they may simulate serious diseases, such as measles, scarlatina, or rötheln, and, more rarely, variola, vaccinia, and syphilis, as well as many skin eruptions which are usually due to other causes.

A large number of drugs may produce an eruption after their ingestion. Nevertheless, drug eruptions are decidedly uncommon. In nearly all cases there is either an idiosyncrasy on the part of the patient or there is renal or cardiac disease present, which interferes with elimination, or the dose is large, the medicine long continued, or there is a combination of these factors.

In some persons a very small dose of certain drugs—for example, quinine—will invariably produce an eruption, and if the dose be increased or the medicine continued, the extent and form of the rash may be much aggravated, a partial erythema becoming general or changing into a vesicular eruption, or a vesicular rash may become bullous or pustular. Various forms of eruption may be excited by drugs, but only the pigmentation produced by arsenic or nitrate of silver, and the eruptions excited by bromine and iodine and their respective salts, produce a distinctive form of eruption; all the rest belong to recognised types, and the diagnosis can in these only be made by a knowledge of the circumstances under which the rash appeared.

The forms of eruption produced by drugs are for the most part erythematous, urticarial, vesicular, bullous, or pustular; less common are purpuric, gangrenous, and pigment lesions, and there are a few other rare or doubtful eruptions which I will not confuse the subject by enumerating. Of all these, some sort of erythema is by far the most common. Thus, out of twenty-eight rash-producing drugs, twenty-three excite some form of erythema; and of the other five, two produce urticaria and three vesicular or bullous eruptions. The most usual kinds of erythema are scarlatiniform, morbilliform, and diffuse or patchy redness, but other varieties may be seen. The mode in which these exanthematous rashes are produced is open to discussion, but the probabilities are in favour of a vasomotor neurosis, the drug acting directly, for example, on the vasomotor centre, as in atropine, or indirectly by reflex irritation of the gastro-intestinal mucous membrane, as in nearly all the rest, for with the exception of belladonna, iodoform, and mercury, these eruptions are only produced when the drug is given by the mouth. The bromide and iodide eruptions are due to a more special and direct action probably on the vascular walls, and to these drugs we will give our chief attention.

BROMIDE ERUPTIONS.

These may be erythematous, urticarial, squamous, bullous, or pustular. The first three have nothing distinctive about them, and are pathogenetically on the same footing as similar eruptions produced by other drugs. The conglomerate bullous and pustular eruptions are the only characteristic lesions, and are readily distinguishable as a rule from all other forms of dermatitis except the almost identical eruptions produced by iodine and its salts. The bullous form of eruption is very rare from bromide of potassium, and I shall therefore reserve it until we are discussing eruptions from iodides, in which it is more often seen.

Among pustular lesions from bromides only the conglomerate form is distinctive. Isolated pustules are quite common in those taking bromides, and are usually referred to as a form of acne—bromide acne as it is called. Individually, the pustules look like acne vulgaris, but usually the lesions are softer and larger than most acne pustules, have no antecedent comedones, and no special distribution. They are generally of rapid and almost painless evolution, occur chiefly in epileptics, have no necessary connection with the age of the patient, and, from all these circumstances, the causation may generally be inferred. The conglomerate or confluent form is much less common, much more important, and often produces a very formidable eruption.

Let us briefly consider some cases, taking first one, which although well developed, is not a very extreme instance.

The drawing (Figs. 1 and 2) was taken from a child, A.F., 1½ year old, admitted into the East London Hospital for Children under my friend and former colleague, Dr. Coutts, who kindly allowed me to have this drawing made. Five weeks before admission the child was treated for bronchitis. Two days later an eruption appeared over the lower part of the legs, "like small blisters, which soon got larger and ran together" and a weak large swelling had developed. The child was soon after taken to another doctor but the rash continued to be evolved and a third was called in, but the rash still increased. What the medicines were could not be ascertained. Vomiting after food was the only symptom. Besides the lesions depicted, there was abundant eruption on the front of the legs, but elsewhere there were only a few other lesions on the abdomen, face, scalp, and right arm. There was no pain or itching. No medicine was given for a week and no fresh lesions appeared, but there was a little more ulceration. Liq. arsenicalis was given, first in 1-minim doses and subsequently 4-minim doses three times a day, and in a week there was marked improvement in the rash, but the child was unwell, with a rise of temperature, and soon meningitis developed and death occurred in ten days. Most of the eruption by this time was almost well. Although the administration of bromide of potassium could not be proved from the history, there was not the least doubt about the diagnosis and the ready response to arsenic was confirmatory evidence.

The next drawing I show you is that of a boy aged 7 months. It is an extreme instance, owing to the drug having been continued for three months. The first appearance of the rash was interesting, as the doctor in attendance thought it was chicken-pox, and the lesions became purulent next day. The lesion near the ankle is to be specially noticed, as it is so like a papillomatous growth. The rest of the lesions individually correspond with the previous description, but the whole is so closely aggregated that, on the scalp, it forms a crusted, closely-fitting cap, while the number of lesions on the face is only moderate.

[Drawings and plates of other cases, which all presented similar characters, and only varied in extent and degree of development, were also exhibited. All were from infants and very young children.]

Though the eruption may occasionally be seen in adults, it is much rarer in them than in children.

Let us take a single typical lesion and examine it, and we shall find that it is a raised bright-red vascular plateau, soft to the touch, on which there is a close aggregation of pin's-head sized pustular points: the whole lesion varies from a threepenny piece to a shilling in area, but is sometimes larger from aggregation. This description perhaps suggests a carbuncle, but there is little or no pain during or after involution; the colour is a bright, not a livid red; the base is soft instead of brawny to the touch; there is no induration beyond the sharply-defined border; no central slough or oozing of pus, but the latter dries up into an irregular sulcated scab of a yellowish-brown or greenish-black colour. The number and aggregation of the lesions and the absence of constitutional disturbance are important criteria. Another peculiarity is the selective affinity for scar tissue. This of itself shows that the glands of the skin are not the seat of the lesion, and when, as I have witnessed more than once, the vaccination scars are the site of the eruption, it may in a young child lead to the erroneous idea that it is due to faulty vaccination. I have also seen it on the site of the scar of a burn, and in that of a strumous ulcer of the leg.

Formidable as these lesions appear, they seldom leave

TO ILLUSTRATE DR. RADCLIFFE CROCKER'S CLINICAL LECTURE ON ERUPTIONS FROM BROMIDES AND IODIDES.



Fig. 1.—[illegible]



Fig. 2.—Bromide eruption; case of A. F.

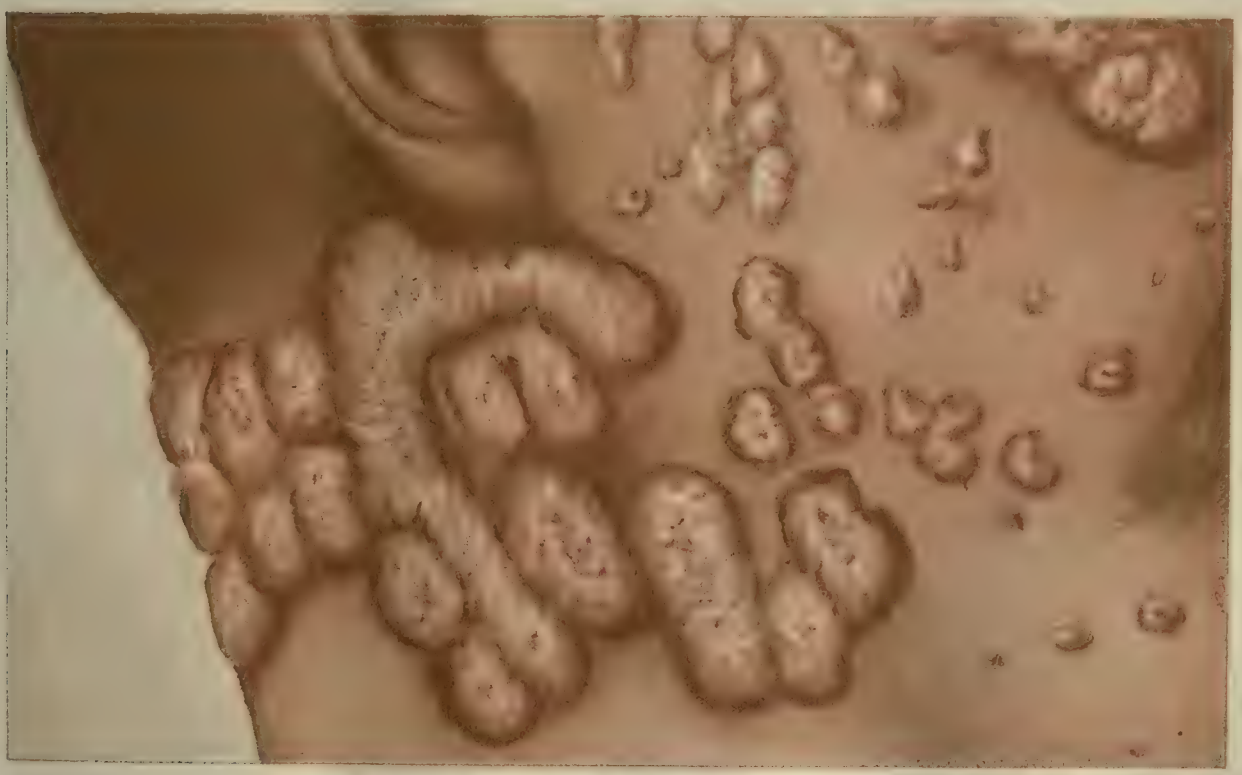
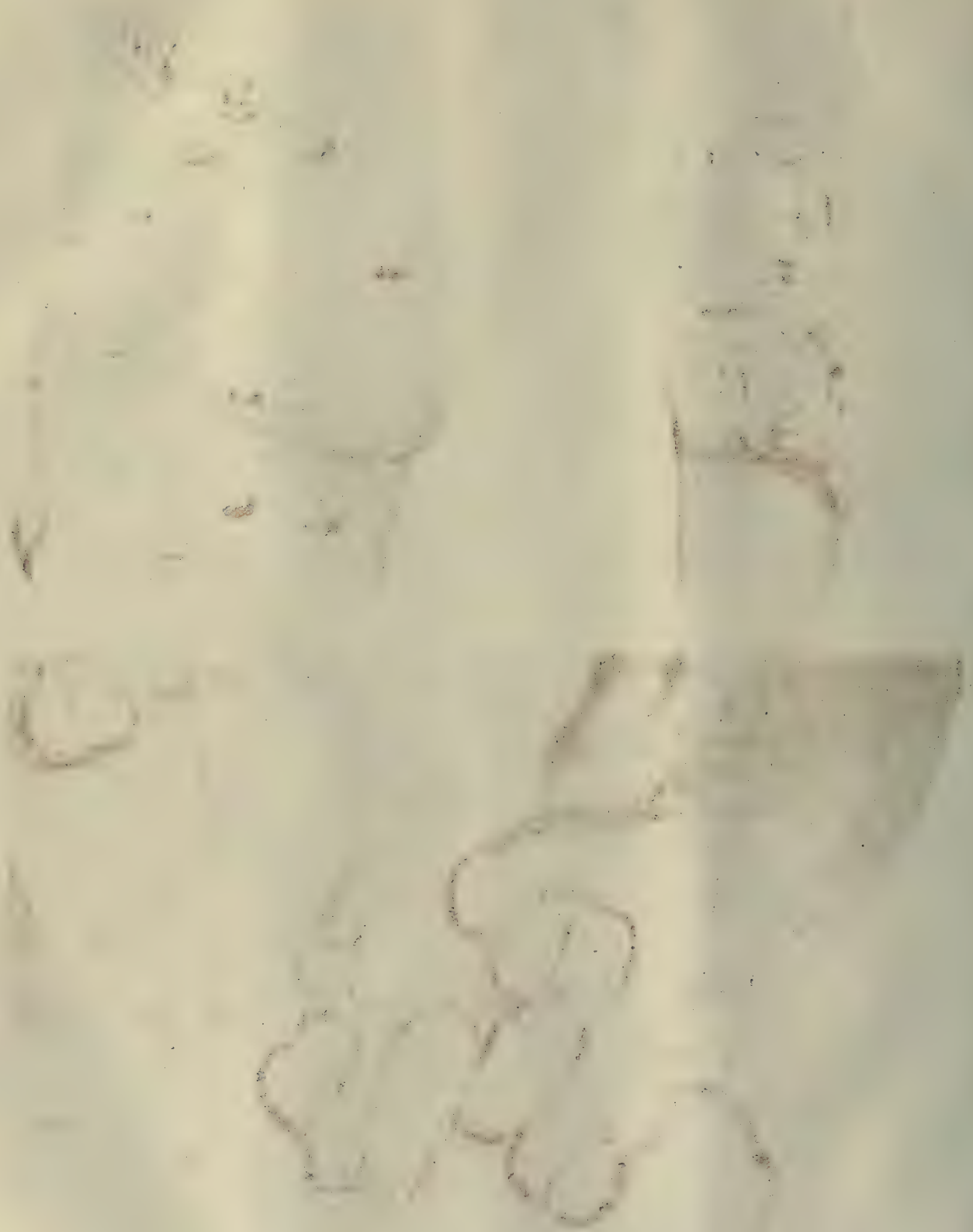


Fig. 3.—[illegible] with albuminuria.



scars, being situated almost entirely in the papillary layer, and beyond transitory staining involution is usually thorough and complete. In the most highly developed lesions a pseudo-papillary formation occurs, and one of the first cases of bromide rash on record is reported by Beigel as a case of papilloma of the skin.

Iodide Eruptions.

The first case to which I will call attention is a fine illustration of what is generally called the bullous iodide eruption, but this is not quite correct, as I shall presently show. The patient was a man aged 30, a painter, under my colleague Dr. Frederick Roberts, and I was asked to see him for the diagnosis of the eruption which had appeared on the face and neck three days previously, and had developed into the condition well depicted in the drawing (see Fig. 3). Recognising that the eruption was due to iodide of potassium, I inquired for kidney or heart disease, which might interfere with elimination, and I was informed that the man had albuminuria, probably from the large white kidney, and that he had taken 5 grains of iodide of potassium three times a day for four days, and that the eruption had begun to appear a few hours after the first dose. As usual, in spite of their bullous appearance, on pricking one of the lesions only a small drop of clear fluid exuded, the pseudo-bullæ being, in fact, solid. The discrete bullæ were distinctly raised about one-eighth of an inch, were flatly convex, of pearly translucent appearance, with a narrow red areola. Many were confluent into large plateaux of several square inches in area, but the component elements of the patch were still discernible. The man good-naturedly allowed me to remove a medium and a small vesicle which were close together; and I am therefore able to show a section under the microscope in which the solid nature of the lesion is evident. It is due to a copious cell exudation pushing up the epidermis as a whole. It has been a disputed point as to whether lesions were seated at a hair follicle or not. This specimen shows clearly enough that it may be round a hair follicle, but that they are not essential to the process is proved by their occurrence in scar tissue, where there are no hair follicles or glands, just as we have seen that bromides have a special predilection for cicatrices.

[Drawings of other iodide eruptions were shown. In one there was very extensive scarring and fungation of the sores in a man with mitral regurgitation. The drug had been given perseveringly on the supposition that the lesions were syphilitic. The photograph of another case was shown in which the lesions were solid nodules of the same colour as the surrounding skin.]

In this case (Dr. Crocker continued) I made the diagnosis from the description and the photograph, as I never saw the patient, and in the face of apparent proof that he had had no iodide of potassium. On cross-examination, at my suggestion, it was clearly brought out that the eruption appeared after taking a quack medicine called "Clarke's Blood Mixture." The man was a chronic drinker, had jaundice and other symptoms of hepatic disease, but there was no albuminuria. He was also very sensitive to arsenic, showing symptoms of arsenical intoxication after a few 2-minim doses—all being evidence of his defective power of elimination.

Differential Diagnosis.

On comparing bromide and iodide eruptions we find great resemblances, but also a few differences which enable us often, but not always, to distinguish the one from the other. The compound bromide eruptions are, as a rule, more pustular than those from iodides. The latter are, as a rule, bullous or pseudo-bullous, which is a rare form of eruption from bromide of potassium. On the other hand, I have never seen in iodide eruptions the aggregation of small pustules on a raised inflammatory base which is typical of bromide rashes.

Bromide eruptions are most common in children, those from iodides in adults, but this is probably largely because children seldom have iodide of potassium given them, and except to epileptics, bromide is not often given for any long period to adults, while iodides are very frequently given to adults for many conditions. Nevertheless, there is over and above this a special susceptibility in infants to bromine in all forms, and even such small quantities as could be derived from the mother's milk when she was taking the drug have produced the eruption in the suckling infant. There is no doubt, however, that iodide eruptions are the most serious in persons with defective elimination, as several fatal cases testify.

Treatment.

Treatment of these cases, both from bromides and iodides, is simple. Of course the drug must be stopped; but the eruption, it must be borne in mind, may continue to come out for some eight or ten days after the cessation of the exciting cause. If the patient is old enough, copious diluent drinks should be given to promote diuresis. Liquor arsenicalis in 3 to 5 minim doses three times a day should be given internally, and simple antiseptics, such as boric acid ointment, may be applied externally if there is any denuded surface requiring protection. Under this kind of treatment the lesions dry up, shrink, and involute, so that when the scab falls off nothing but a reddened surface marks the site of the lesion. Occasionally a few hypertrophied papillæ require to be snipped off. Much, however, may be done in the prophylaxis of these eruptions.

Do not give iodides to people with chronic renal or heart disease. Where, as in epileptics, bromides have to be taken for long periods, it is often possible to omit the bromides for one, or even two, days a week without losing control over the fits. Arsenic, too, has a prophylactic as well as curative effect for both bromide and iodide eruptions, and 2 or 3 minims of Fowler's solution may be combined with the bromides, but this, too, should not be given for long periods continuously, or arsenical pigmentation and keratosis may be produced in a high degree.

Another plan is said by M. Féré to be prophylactically successful—namely, to produce intestinal antisepsis by means of naphthalin internally, or, as I prefer, by salol gr. v three times a day. This method requires further trial, but I commend it to the attention of those who have to treat chronic epileptics.

THOMAS'S OPERATION FOR BENIGN TUMOURS OF THE FEMALE BREAST.

By ALEXANDER JAMIESON, M.A., M.D.,
Corresponding Member of the Société de Chirurgie de Paris; Consulting Surgeon to the Imperial Maritime Customs in China.

In the British Medical Journal for 1888 (vol. i, p. 1216) I published a case of this operation, illustrated by a woodcut from a photograph, which showed that a tumour as large as a Tangerine orange may be removed from the shapely breast of a young woman without a trace of mutilation and with hardly a trace of interference. Such a result is so desirable from the cosmetic point of view, while the risk of breast tumours, benign at their origin, assuming disorderly action and becoming malignant or semi-malignant is so great, that it is a matter of surprise to me that the procedure with which, in 1882, Gaillard Thomas enriched surgery has not received more attention than has actually been accorded to it.

Mr. Bryant[1] alludes to it without comment; Dr. Hayward,[2] of Liverpool, reports a successful case. I have referred to four cases and published one in full, and now offer another. I have not found any other reference to the operation in European or American professional literature, though of course I do not pretend that my search has been exhaustive. This paucity of published instances is no doubt largely due to the comparative rarity of the cases to which the operation is suitable. But that the method is of great value is undeniable, inasmuch as it induces patients to consent to operation at a period when their disease is manageable, and thus saves them from the worse than doubtful chances of their future. In none of my cases could I have obtained consent to operation, once the growth was declared non-malignant, had I not been able to promise recovery without deformity. Accordingly I venture to make a second claim on the already

[1] *The Diseases of the Breast*, p. 107.
[2] British Medical Journal, 1888, vol. i, p. 410.

far overtaxed hospitality of the Journal, and ask attention to the accompanying woodcut from an untouched photograph taken three months after operation.

The case now briefly reported is that of an unmarried American missionary lady, aged 26, who, without any history of local injury, noticed, in February, 1892, a nodule, the size of a large bean, in the lower external quadrant of the right breast. There was no family history of any significance. Menstruation had been established at 14, and the periods had ever since been in every respect normal. She was seen on May 12th, 1893, when, in the position indicated, a smooth, somewhat elastic, spherical tumour, perfectly movable, about the size of a large walnut, was perceptible about half way through the depth of the gland. It was slightly sensitive to pressure; it underwent no change of any kind during menstruation, but, independently of this, had lately become the seat of severe paroxysmal pain, lasting for a couple of hours at a time, and then disappearing completely for seven days. Nipple and areola normal. In the lower hemisphere of the left breast there were a number of small, hard, indolent nodules, evidently lobules of the gland. These disappeared



completely within a fortnight after operation on the right breast, and were evidently due to sympathetic irritation. Precisely the same phenomena had been observed in one of my previous cases.

The operation previously described was performed, and the tumour was easily shelled out from behind. It proved to be an example of the ordinary non-cystic adeno-fibroma of young women. There was no suppuration. On the twenty-second day, the wound being then soundly healed, the patient left for her mission station, where she at once contracted typhoid fever. From this she was convalescent in three weeks, and the disease appeared to have no hurtful influence on the consolidation of the site of the operation.

On August 3rd, 1893, the breast was photographed: and on the following day the patient married. Six weeks later I saw her, and it is perhaps worthy of note that, although both breasts had considerably enlarged since marriage, no pain had been induced in the operated gland, which, as will be seen, had perfectly preserved its natural shape.

OVARIOTOMY DURING PREGNANCY.

By E. HOOPER MAY, F.R.C.S.
Surgeon, Tottenham Hospital

Mrs. C., aged 22, was admitted into the Tottenham Hospital on April 5th, 1893. She was a pale, delicate-looking, diminutive woman, with an anxious expression and an enormously distended abdomen. She was probably at about the end of the eighth month of pregnancy. She had been insufficiently nourished of late. She had been married four years, and had had one child, now 2 years old; no miscarriages. Menstruation was regular till her first pregnancy; she had not menstruated since. She suckled the child till after it ran about. During the summer of 1892 she first noticed that her abdomen was becoming prominent. She had then some swelling of the legs, which had since gone down. The abdomen continuing to increase in size, she attributed her condition to pregnancy. At Christmas the abdomen appeared to be nearly as large as when admitted. The measurement on admission was 50 inches in circumference at the umbilicus, and 27 inches from the ensiform cartilage to the pubes.



Palpation gave the impression of the presence of a large cyst. On vaginal examination the os uteri was felt high up and far back; it could just be reached by the finger tip, and was felt to be soft and open enough to admit the tip of the finger. What seemed to be a child's head could be just felt. Notwithstanding the late period of pregnancy, on account of the patient's half-starved condition it was thought best to feed her carefully for a few days before operating.

She improved rapidly in appearance, and on April 12th at 3 P.M. the operation was done. On opening the peritoneum adhesions were found, and the wound was enlarged quite up to the umbilicus, about 4½ inches altogether. Slight parietal adhesions were broken down, and the cyst tapped, about 36 pints of brown fluid escaping. More slight adhesions were then broken down, giving rise to very slight bleeding, and one large strong parietal adhesion and one to the omentum were ligatured and divided. The pedicle, which was about an inch wide, was tied in the usual way, and the peritoneal layers were stitched together over the face of the stump with

a continuous suture of catgut. The wound in the abdominal wall was then closed by continuous catgut sutures, the peritoneum, muscles, and skin being each stitched separately.

The operation was very well borne. As the patient recovered consciousness she became very wild and restless. She soon began to complain of pain in the abdomen, and it became evident that labour had commenced. A healthy-looking male infant was born about 3 A.M., twelve hours after the commencement of the operation. The pulsation of the cord had ceased, and no sign of respiration was observed. The placenta was soon removed, and there was very little hæmorrhage. The wound was redressed, and appeared to be quite undisturbed. The patient was then quiet and comfortable. After this recovery was uninterrupted. The greatly stretched skin of the abdomen shrank into a flat, brown, rugged surface, the wound looking remarkably small and firm.

THYROID FEEDING IN EXOPHTHALMIC GOITRE.

By DAVID OWEN, M.R.C.S., L.S.A.,
Manchester.

Now that the use of thyroid gland in the treatment of disease is receiving so much attention, the following case may be of interest.

W. U., aged 46, a labourer, came under observation last May on account of an attack of diarrhœa, which had kept him awake the whole of the night before. He said that for twenty years he had had a swelling in the neck and a prominence of the eyeballs. Several doctors had noticed these peculiarities. During that time he had suffered much from palpitation and breathlessness, which rendered him unable to do a good day's work.

His face wore a very anxious expression, the eyeballs were very prominent, a wide ring of sclerotic being visible; the upper eyelids did not accompany the eyeballs in downward movement, and carrying the hand rapidly in front of his eyes did not cause blinking. There was visible arterial throbbing in the neck, and a fulness in the thyroid region protruding well in front of the anterior border of the sterno-mastoid muscles. Pulse 126. The apex beat was in the sixth intercostal space just outside the nipple line. The upper margin of the cardiac dulness was in the third intercostal space, the right margin at the left border of the sternum. No murmur was detected. There was no albumen in the urine.

The diarrhœa was checked by opium. Then quinine, iron, digitalis, and arsenic were given for a fortnight without benefit. He was then put upon raw sheep's thyroid (a quarter lobe per diem), minced and flavoured with a little salt and vinegar. His wife gave him, through a misunderstanding, ½ lb. daily for two days. This caused dyspeptic symptoms—nausea, eructations, vertigo, and insomnia. His face and legs swelled, in consequence, he thought, of the "neckbergs," by which name thyroids are known to butchers in this locality. The thyroid was discontinued for a week, and the unpleasant effects of the previous mistake having passed off, was resumed in the quantity originally prescribed. He steadily improved, and for the last three months has been able to do heavy work without the slightest discomfort—an experience unknown to him, he says, for many years. The exophthalmos is now scarcely perceptible, and would not be suspected without close examination. There is now a depression in place of the previous fulness in the thyroid region. The pulse is 76. The area of cardiac dulness is unaltered. Arterial throbbing has disappeared. The patient is greatly surprised at the change which has come over him, and continues to take a quarter of a lobe twice a week. One cannot be sure that there is a connection between the treatment and the improvement, though the patient has no doubt on the matter.

Medical Students in Switzerland.—The number of students in the medical faculties of the universities of Switzerland during the summer semester of 1893 are officially stated to have been as follows:—Zürich, 297; Geneva, 224; Bern, 224; Basel, 152; and Lausanne, 84.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

LARGE CONGENITAL MENINGOCELE.

On the evening of August 6th, 1893, I was called to Mrs. H. in her second confinement. On my arrival I found the head at the outlet. Some little delay occurred before the head was fully born. Immediately following the escape of the head was a tumour considerably larger than the head itself, depending from the back of the occiput to the shoulders. This proved to be a large meningocele consisting of a membranous bag nearly full of fluid, and measuring in circumference:



laterally 19 inches, and in the antero-posterior direction 12 inches. The child's features were peculiar and old looking, the nose much flattened; in other respects the child (a female) was a fine and well-formed one.

The mother had been delivered fourteen months previously of a fine healthy child, which is still living. She is unable in any way to account for the malformation in this case.

On August 8th a medical friend saw the child with me, and there being no likelihood of it surviving long, we agreed that nothing should be done to the tumour beyond supporting it in cloths.

The child took the breast well. The surface of the tumour soon became congested, and ulcerated in patches. On August 12th the ulcerated patches had become very thin, and appeared likely to give way at any moment. For several days the child had slight convulsions, and seemed much pained when moved. Under these circumstances I deemed it best to evacuate the tumour, which I did by puncturing it with a small trocar. Upwards of a pint of amber-coloured fluid was thus drawn off. The child was evidently much relieved by the tapping, and slept quietly for eight hours, and the convulsions ceased. On August 14th the fluid had reaccumulated to some extent; the child had become restless and continued to cry. I therefore again punctured the sac and withdrew nearly half a pint of fluid. On August 16th the sac, which had refilled, gave way at one of the ulcerated spots, discharging a considerable quantity of fluid. The child then became much worse; severe convulsions followed, and it died at 7.30 P.M. on August 17th, eleven days from its birth.

On *post-mortem* examination, it was found that a fissure existed on either side of the lower part of the occipital bone; that on the right side communicated with the sac, and admitted the passage of my forefinger. The fissure on the left side was closed by membrane, and appeared to have no communication with the sac. The photograph was taken the second day after birth.

Dover. E. Fenn, M.D.

The late Mr. James Rea, who rapidly amassed a fortune in Belfast, has left his entire estate to Belfast charities, which will benefit to the extent of at least £100,000.

VESICO-VAGINAL LITHOTOMY.

DR. FANCOURT BARNES in the BRITISH MEDICAL JOURNAL for September 16th, is reported as expressing his opinion that of the several operations for the removal of stone from the female bladder, the vesico-vaginal method gives most satisfactory results. I wish to add my testimony to this, as well as to emphasise the desirability of leaving the wound to cicatrise and unite spontaneously, without the introduction of sutures. On September 26th, a female child was brought to the Jhansi Sadr Dispensary, with all the classical symptoms of stone in the bladder. She was in a lamentably emaciated condition, excoriated from incontinence, and the clitoris, owing to frequent manipulation of the parts, due to the irritation, had become hypertrophied. A stone of considerable size was easily detected, and the following day removed through an incision dividing the last quarter inch of the urethra and neck of the bladder through the upper vaginal wall. The age of the child was 6 years, and the weight of the stone (uro-phosphatic) $1\frac{1}{4}$ ounce, the dimensions of the latter being $1\frac{3}{4}$ in. $\times$ $\frac{3}{4}$ in. There was not even the rise of a degree in the temperature, and on October 6th the child left the hospital with a perfectly sound bladder, much improved in general health, and gaining flesh daily. The wound had completely healed without a suspicion of a fistula or incontinence of urine. No operation could have given more encouraging results, the only fear for the future being possible dystocia should marriage and conception follow. The risk of this, however, is small, and sufficiently compensated for by the excellence of the present cure. The weeks and often months of dribbling following lithectasy is so pitiable that, in my opinion, it should be abandoned as unjustifiable, and mentioned by textbooks only as a procedure to be avoided.

G. H. BAKER, Surg.-Capt., I.M.S.,
Civil Surgeon, Jhansi, N.W.P.

THE FALLACY OF THE VERTICAL FOOTPIECE.

I SHOULD like to record a scrap of experience, of which I am reminded by Mr. Arbuthnot Lane's interesting paper on "The Fallacy of the Vertical Footpiece."[1]

After treating a considerable number of fractures of the tibia by the ordinary backsplint with vertical footpiece, sidepieces, and Lawrence's swing two or three years ago, I was impressed with the fact that the vertical footpiece had many disadvantages. First was the difficulty of avoiding a sore over the upper part of the posterior face of the os calcis. The skin here is tender, and it is on this part that the foot rests in the vertical position. Secondly, the difficulty of keeping the heel in contact with the base of the footpiece, and the pain or discomfort attendant on efforts to do so. Thirdly, the stiffness of the ankle, which persisted for some time after the patients were up and about, and which was not infrequently their sole cause of complaint. This appeared to me to be due to the unnatural position in which the foot had been fixed. I observed that during sleep in the normal state the extensors were more relaxed and the foot consequently less extended than was permitted by the vertical footpiece in cases of fracture. The heel, in consequence, rested on the hard skin over the tuberosities of the calcis, not on the thin skin over the posterior surface. The foot, moreover, was slightly rotated inwards, and the toes extended.

Assuming that in the "equino-varus" position of the foot in rigor mortis there was the most perfect resultant state of rest of the opposing flexor and extensor forces, and satisfying myself as to the similarity of the positions in rigor and in sleep, I applied a plaster bandage to a foot and leg in a state of rigor, and when it was hard, divided the cast into an anterior and posterior piece by means of lateral incisions along the whole length of the foot and leg.

It was my intention to have papier maché splints of various sizes made on the model of the posterior piece of the cast, but a case of transverse fracture of the tibia and fibula presenting itself before this could be done, a carpenter made for me a very light splint, in which the shaped footpiece had the same relation to the legpiece as in the model made from the cadaver. In treating this case I dispensed with the swing, and the result was satisfactory from the first.

In the only other case in which I had an opportunity of using the splint the fracture was very oblique, and extension had to be applied; slight shortening resulted, but in other respects I was satisfied with the advantages over the vertical footpiece. Though not in my mind at the time, the outward rotation of the lower fragment required, according to Mr. Lane's researches, appears to be obtained by allowing the foot to rest in this natural position.

Two cases are, of course, insufficient to test its value, but, in the light of Mr. Lane's paper, someone with more opportunities may be disposed to model such a splint from the cadaver, and test the principle.

Leeds. J. E. BRISCOE, M.R.C.S.

[1] British Medical Journal, November 11th.

LYMPHANGIOMA CIRCUMSCRIPTUM.

MRS. U., aged 60, has had thirteen children, of whom seven are alive. She has always been healthy till lately, and there is no family history of skin disease. Recently, symptoms consequent on aortic obstruction, with marked dilatation and hypertrophy of the left ventricle, have been showing themselves. About three months ago the feet and ankles began to swell; there was also marked albuminuria. Under digitalis and nux vomica, and partial rest, the œdema has quite, and the albuminuria has almost, disappeared; but the pulse is



still intermittent and soft (108). Two years ago the thyroid gland, especially its right lobe, suddenly and painlessly enlarged. The swelling, which was evidently connected with exposure to cold, subsided in the course of two months, though there is still slight fulness over the gland.

The eruption is confined to the face. It consists of firm round bodies like boiled sago grains, implanted under the epidermis, which seems somewhat thickened, as they are not quite readily punctured. They are mostly discrete, but some have coalesced to form small clusters. They vary in size from that of a pin's head to that of a split pea. They are largest between the eyebrows, on the nose, and about the naso-oral folds; they are smallest, and can just be felt, on the forehead, temples, and chin. In colour they are translucent and like boiled sago grains. They do not appreciably alter on pressure, but are so firm that one is surprised at the thinness of the fluid which exudes on puncture. This fluid is exactly like clear water, but becomes immediately tinged with blood, which refills the vesicle. Microscopically the fluid shows a number of crenate red cells. Between the vesicles, and often running up to them, the skin is beset with injected capillaries. She first noticed the vesicles two summers ago; they came out "in clusters." She says they are smaller in the mornings, and disappear during the winter. During the recent hot weather they were larger than they have ever been, but became decidedly smaller when the heat fell, though it is to be noted by this time the œdema had gone and the albuminuria lessened. They have again grown a little; evidently the old vesicles refill.

The case is, therefore, specially interesting for these

reasons: (1) The patient seems much the oldest in whom this disease has been observed. (2) There is, therefore, little likelihood that it is here congenital. In most of the other cases congenital influences were extremely probable, in four or five of them quite patent. Nor is there in this case, as there was in several others, any connection with a previous inflammation or fever. (3) There is a coexisting heart lesion. (4) The coming and going of the eruption with the tonicity of the patient.

Hamilton. JAMES ADAM, M.A., M.B., C.M.

REPORTS
ON
MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

THE ROYAL INFIRMARY, WINDSOR.

A CASE OF CATALEPSY.

(By W. F. LLOYD, House-Surgeon.)

G. W., male, aged 11, fell down while waiting in the out-patient room. When seen he was apparently unconscious. The face was pale at first, but when placed in horizontal position the colour improved. Respiration was regular, the pulse somewhat feeble; the eyelids were closed, and resisted attempts to open them; the pupils equal, and about 3 m.m. in diameter. The arms, if raised, remained in any position in which they were placed, but with some amount of tremor. The fingers also remained in any ordinary position, but not in abnormal positions. The legs, if raised, gradually sank again to the ground. Rigidity was more marked at the knee and elbow-joints; the knee-jerks were well marked. When pricked or pinched, the patient seemed quite insensible to pain.

He remained in this condition for two hours and a-quarter, and, when he recovered consciousness, complained of pain in both hips. He said that he had no recollection of what had taken place. In half an hour he seemed to be quite well, and walked home.

KILKENNY COUNTY INFIRMARY.

CASE OF RUPTURE OF EYEBALL AND IMPACTION OF FOREIGN BODY IN THE ANTRUM.[1]

(By C. E. JAMES, M.B., Surgeon to the Infirmary.)

P. K., a labourer, was admitted on April 15th, 1893, suffering from a contused wound of the left cornea and rupture and complete disorganisation of the eyeball. There was no external wound. He was very much under the influence of liquor, but it appeared that in the course of an altercation with some militiamen one of them struck at him with a military cane, inflicting the injuries complained of. The patient at first declined to submit to an operation, but symptoms of sympathetic ophthalmia of the right eye supervening, the left eyeball was extirpated on May 31st, 1893.



On June 8th, eight days after the operation, a foreign body was seen showing at the anterior margin of the floor of the orbit at the inner angle. On being extracted this was found to be the metal head of a cane $1\frac{3}{4}$ inch long and $2\frac{1}{3}$ inches round in the thickest part, weighing $\frac{3}{4}$ oz. It had the letters "K.R.R." and regimental badge embossed on it, and was of the size and shape shown in the accompanying drawing. It had penetrated the antrum after glancing off the eyeball, which it ruptured, and fracturing the floor of the orbit. It passed completely into the antrum, and the soft parts had so closed over it that no trace of it was come upon during the operation of extirpation. Strange to say, at no time was there any pain or other symptom pointing to any lesion of the antrum. The cause of its showing in the orbit was that, having entered with the closed extremity downwards, the secretions of the antrum which collected behind it drove it upwards, and caused the rim to project.

After its extraction air passed freely through the wound in the orbit when the patient blew his nose, and fluid injected into the orbit passed freely into the nose and posterior pharynx. The stump of the eyeball healed rapidly, and the wound in the floor of the orbit quickly became filled up, so that the communication with the antrum was very soon cut off, but the ophthalmia, though improvement was fairly steady, ran a chronic course, and there is still a good deal of synechia.

The case was treated throughout with strict antiseptic precautions. There was never any rise of temperature, and the small amount of discharge present was rather mucous than purulent. The cane was partially broken about the middle, and it seemed likely that the injured man, having warded off the blow aimed at his head with his arm, the head of the cane flew off striking and rupturing the eyeball, and glancing downwards to the position in which it was found.

[1] Read before the South-Eastern (of Ireland) Branch.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

WILLIAM CHURCH, M.D., F.R.C.P., Vice-President, in the Chair.

Tuesday, November 28th, 1893.

THE LATE SIR ANDREW CLARK.

THE CHAIRMAN read a letter, sent on Lady Clark's behalf, thanking the Council and Fellows of the Society for their expression of sympathy with her in her loss.

FALSE DISSEMINATED SCLEROSIS.

A paper by Dr. DAWSON WILLIAMS on false disseminated sclerosis due to measles, with remarks on the occurrence of certain widespread nervous disorders after this and other infectious diseases, was read. A case was related of a girl, aged 3 years and 8 months, who on the fourth day of an ordinary attack of measles was seized with convulsions, after which she remained unconscious for ten days. When admitted into hospital about four weeks after the convulsions she was in an apathetic condition, had some difficulty in swallowing, did not speak, and was unable to sit up. Though she could move her limbs feebly she was not able to feed herself or to stand. Very slowly she improved so far that at the end of three months she was able to speak a little, to feed herself, to stand, and to walk with assistance. The movements of the upper limbs were uncertain owing to coarse tremor and inco-ordination. The knee-jerks were present. There was no ankle clonus. When she was 6 years old her speech was peculiar, slow, deliberate, and syllabic; she was backward, though not so deficient in intellect as appeared to be indicated by the vacant expression of her face. There was at this time tremor of the hands aggravated by attention. Two years later her condition had improved. Speech was still very deliberate but she answered questions intelligently. She could walk several miles, but the gait was of the spastic type, the legs were adducted and there was rigidity and imperfect flexion of the knees. Slight coarse tremor affected the limbs during voluntary movements; she drank without difficulty but swallowed in noisy gulps. The knee-jerks were very free and front tap contraction was easily elicited. At a later stage ankle clonus of short duration could be obtained. When 10 years old she was still very backward at school. Tremor, aggravated by attention, was present in all the limbs and involved the head; it interfered with the performance of any fine movement of the hands. She could walk six miles, but her gait had the same character as before. Nystagmus was not observed at any period. Reference was made to recorded cases of widespread affections of the nervous system occurring in association with measles, and the opinion expressed that if hemiplegia and atrophic muscular paralysis were excluded the cases must be classified as follows: 1. Acute disseminated myelitis. 2. Cases presenting at a later date symptoms resembling disseminated sclerosis (false disseminated sclerosis). 3. Cases in which, with some symptoms similar to those of the preceding group, the most prominent symptom was inco-ordina-

tion. 4. Cases of extensive ascending, diffuse, or disseminated paralysis, resembling diphtherial paralysis. A consideration of published cases of nervous disorder occurring in association with scarlet fever, smallpox, typhoid fever, whooping-cough, influenza, and mumps led to the suggestion that they might be classified on the same system, though all the terms of the series had not been observed in connection with all of these diseases. In acute disseminated myelitis complicating variola (Westphal) and measles (Barlow) the changes in the cord were primarily vascular, and clinical evidence lent support to Westphal's suggestion that a slighter degree of mischief might give rise to changes which eventually produced the condition which had been described as false disseminated sclerosis. It was suggested that certain cases of temporary inco-ordination of the lower limbs after acute infectious diseases were probably due to the same pathological condition in a still milder form.

Dr. Ormerod observed that to the list of acute diseases after which this form of disorder occurred might be added rheumatic fever with hyperpyrexia, an instance having been recorded recently by Dr. Foxwell. The condition described, although unusual, presented a very definite group of well-recognised symptoms: the sudden onset during the early part of the infectious disease, the delirium, the affections of speech, the loss of limb power, and the tendency to improvement if the earlier stages did not prove fatal. Ebstein had quoted a case, occurring in the course of either variola or typhoid, of this nature, in which death had occurred about two years later from some other cause. On examination of the cord he had found changes indistinguishable from disseminated sclerosis. But, as Jaccoud had pointed out, the similarity of lesions did not prove that the disease was the same; the clinical conditions had to be taken into account as well. Dr. Ormerod did not consider the terms pseudo-disseminated sclerosis and pseudo-ataxy as very happy, the latter being often used for cases due to a peripheral neuritis. The association of the condition with measles was important. It appeared that various nerve changes were liable to be associated with that disease, as muscular atrophies of both acute and chronic types. He had described a series of the latter kind which Dr. Charcot, in France, and Dr. Tooth, in this country, had shown to belong to the peroneal type of that disease. Dr. Charcot had considered that the measles had not had anything to do with the causation of the muscular atrophy, but Dr. Donkin had subsequently reported other similar cases occurring amongst members of the same family during measles, which seemed to show that measles, coupled with some hereditary predisposition, was a probable factor in its causation.

Dr. Penrose mentioned that in the case of Dr. Barlow's, quoted by the author in his paper, the vascular changes in the cord were remarkably scattered, and that the suggestion had been made by Dr. Barlow that, had the patient lived, a condition somewhat similar to that which formed the subject of the author's paper would in all probability have ensued. He also mentioned that in an unpublished fatal case of influenza with nervous symptoms, scattered foci of diapedesis of leucocytes had been found in the cord.

Dr. Charles Beevor was not altogether satisfied that the symptoms observed in the case under discussion were due primarily to changes in the cord. They might quite possibly be due to vascular changes in the cerebrum, with subsequent descending lesion of the cord. The symptoms differed entirely from those typical of diphtherial paralysis, whereas they resembled very closely the symptoms liable to occur in children after superficial scattered cerebral hæmorrhages, or from thrombosis of superficial cerebral veins. After infantile hemiplegia, inco-ordination of the arm resulted, and if both hemispheres of the brain instead of only one were affected, symptoms similar to those described by the author would ensue.

The Chairman asked Dr. Ormerod if, in the cases mentioned by him, any tremors had been noticed, as he had seen tremors occurring during the progress of typhoid in children. He recalled a case of typhoid in which total unconsciousness had been present for some time, total loss of speech for a longer period with apparently hemiplegia, and the latter symptoms persisted for a long period, though after many months perfect recovery took place. He mentioned the tremors which occasionally followed distemper in dogs, known to veterinary surgeons as chorea, and compared them to the movements mentioned in the paper.

Dr. Ormerod said that in some of the cases tremors had been present, in others not. Westphal, who had paid special attention to the affection of speech in these cases, had pointed out that the words were, as it were, "squeezed out," and that it was not exactly the speech of disseminated sclerosis.

Dr. Dawson Williams, in reply, mentioned that since his paper was written, another case very like the one recorded in the paper had been published in Germany. In his case the condition of the speech was different from that characteristic of disseminated sclerosis, the difficulty amounting almost to stammering, though the syllables were always ultimately distinctly pronounced. With reference to canine chorea, the analogy was very close. Dr. Gowers some eight or nine years ago had in the *Lancet* described sclerotic changes in the cord in the canine disease, but he noticed that Dr. Ormerod would separate sharply the cases in which symptoms came on during the period of the exanthem from those in which they developed subsequently to its subsidence. With this view, although not prepared to contradict it, he was indisposed to coincide, being rather of opinion that the two conditions were really very closely allied. The symptoms, at any rate, were very similar. It was an interesting fact that all the early cases of this condition recorded after typhoid fever were reported as cases of aphasia, this being the most obvious symptom, though others of the "pseudo-ataxic" type were present. In answer to Dr. Beevor, he observed that there had been some cases in which a condition resembling disseminated sclerosis with exaggerated reflexes had followed diphtheria, and a tolerably complete series of cases linking these with the ordinary cases of diphtherial paralysis had been recorded.

Disseminated Fibrosis of the Kidney and Malignant Endocarditis and Aortitis.

Dr. W. Ainslie Hollis had observed, apart from changes due palpably to embolism, three well-marked varieties of renal disorder associated with endocarditis maligna: (1) The tough congested kidney; (2) the large mottled kidney; (3) the small speckled kidney. He maintained that these varieties were only different phases of the same disease, which essentially consisted in scattered groups of readily-stained nuclear bodies within the renal areolar tissue. The writer had found groups of similar bodies in the coats of the aorta and in the cellular tissue around the vasa vasorum of that vessel, whenever atheroma was also present; and this vascular degeneration he had invariably found associated with the above mentioned renal mischief. In the kidneys the presence of groups of these nuclear bodies, which were mostly smaller than blood corpuscles, led (1) to local overgrowths of fibrous tissue; (2) to the destruction or damage of the special renal structures involved thereby; and (3) to an exceptional physiological stress upon the remaining still healthy structures of the organs. The nuclear bodies were described, and their conveyance by the blood from the aorta to the kidney provisionally accepted as a working hypothesis. Finally, the chief clinical features of the disease were recapitulated. The paper was illustrated with both macroscopic and microscopic specimens, and brief notes of some cases were also read.

Dr. Herringham, after examining the microscopic specimens exhibited, could not see in them anything beyond ordinary fibrosis of the kidney. The question raised by Dr. Hollis was, whether the cells seen were brought into the kidneys from infective foci situated elsewhere. He could not agree that the sections shown of aortas showed evidences of any other than atheromatous changes, and these changes were not, so far as was known, due to infective organisms. He noticed that the author grouped together such different conditions of kidney change as the tufted congested kidney which accompanied cardiac disease and ordinary varieties of granular kidney. Before accepting the author's hypothesis that these changes were due to infective processes, much more proof would have to be brought forward than was at present available. Everybody, he said in conclusion, must be grateful to anyone who would throw light on the difficult problems presented by fibrotic kidneys.

Dr. Hollis, in reply, contended that he had shown that there was a possibility of the diseased conditions of the kidneys being due to disease of the aorta. It was well known that changes of the aorta such as he had described were often found in connection with infective endocarditis, and that they were due to a similar process. The bodies described by him differed from blood cells, and some he had found to be apple-pip shaped, and were present both in the kidneys and in the atheromatous aorta. He could not avoid thinking that the disease in the aorta was similar to that in the kidney, and that both were due to the presence of these bodies.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.

John Appleyard, M.B., F.R.C.S., President, in the Chair.

Tuesday, November 7th, 1893.

Tumour in Muscle.

Mr. Althorp showed a patient from whom a tumour of three years' duration had been removed from the tendon on the deep surface of the triceps. It had recurred in scar and muscle in eight months, destroying voluntary movements of the arm, but leaving the sensation unimpaired. The arm was removed, and as the tumour seemed to be attached along vessels and to them, portions of the glenoid cavity and border of the scapula were also taken away. The patient had made a good recovery, but the prognosis was very bad, all the cases followed having suffered recurrence.

Pulmonary Hypertrophic Osteo-arthropathy.

Dr. James Kerr read notes of a typical case of this rare disease, which Marie, of Paris, has lately distinguished from acromegaly. T. W., aged 22, presented himself at Bradford



Infirmary on October 17th, 1893, complaining of swelling of the ankles and wrists. His father had died of a recurrent tumour, but otherwise the family is healthy. The patient had always had perfect health; he weighed 11 stones when in February last he had an attack of pleurisy, probably with pneumonia, and an abscess of the lung, from which he made a tardy recovery. After three weeks' stay at the seaside he was told that the "right lung was clogged with water." He had made a slow recovery. The present trouble began about six weeks ago with aching and pains in the knees and ankles; rapid enlargement of wrists and ankles took place in about three weeks, and since then he had not been able to wear old gloves and had had to get larger boots; he perspired much, ate and drank well, thirst not being excessive. On examination he was fairly nourished, there was no fever, the urine was normal; no noticeable alteration in face, tip of nose little congested and cold-looking. He was mentally clear and bright, free from headaches or affection of the eyes or vision, sensation was normal. Neither neck nor larynx thickened, the thyroid quite distinct, the clavicles and bony thorax unaltered, but a distinct lordosis in the dorso-lumbar region. There was no retrosternal dulness. The heart was displaced a trifle downwards and to the right with epigastric pulsation; there was no accentuation of the pulmonary second sound. There was an impaired percussion note over the lower third of right lung, with considerable resistance over the lower part of this region, vocal fremitus scarcely perceptible, breathing sounds very weak, free from *râles*, voice sounds weak and nasal; exploration with needle did not reach fluid. There was a slight hacking cough, scarcely any sputum during the day, but 2 or 3 ounces in the morning, muco purulent, and free from tubercle bacilli. Both knee-joints were swollen, especially the right, the bones being enlarged, the joints distended but not tensely, and giving a fine crackling sensation on palpation. The enlargement about the joints was chiefly in the bones: the lower two-thirds of the radius and ulna were evenly and smoothly enlarged up to the ends; the wrist-joints seemed a little loose but not distended; they gave the same fine crackling feeling; the carpal bones were not much thickened, the interphalangeal joints all enlarged from thickening about the bone ends. The soft parts were a little hypertrophied, the veins of the forearm not raised above the surface; the muscles were flabby in the arms and wasted in the hands. There was no œdema anywhere, but the hands looked puffy, the skin over the affected parts was thin, elastic, and smooth, with a pale rheumatic look, possibly from frequent perspiration; the fingers had the "spindle-shaped



appearance, like the legs of a stool," the end phalanges being bulbous and over-extended. The nails were very large (*cf.* measurements), thin, much curved, and perfectly smooth, of a deep pink, almost livid, colour. The lower extremities were affected, except that the nails were not so much enlarged as on fingers. The fists could not be quite clenched; the hypertrophied bones used to ache now they were tender, so that lifting a weight was painful from pressure. Height, 5 ft. 4 in.; weight, 9st. 7 lbs. Measurements: Figures in parentheses are mean of three individuals of same height and similar build. Circumference around right knee 15¾ ins., around body of foot 9¾ (9½), round malleoli 10¼ (9), 2 inches above, 9 (7⅞), 6 inches above, 11½ (10⅜), 8 inches above, 13⅛ (12⅛), length of great toe 3½ (2½) ins. Circumference thickest part of right wrist 7⅞ (6⅝), 2 inches above,

7 (6⅛), length of hand 8¼, middle finger 4¾, nail of index finger length 21 mm. (15), breadth 23 mm. (14), circumference of last phalanx of index finger 2⅔ inches (1⅝). Displacement of hand immersed to 2 ins. above wrist 2½ ounces (16 ounces). The photograph shows right hand of patient compared with that of a healthy man (5 ft. 9½ in height). The thick wrist, scarcely altered carpal region, long spindled fingers, and large curved nails show the diagnostic points differentiating from the short spade-like hand, with unaltered nails and sausage fingers, of acromegaly.

Cæsarean Section.

Dr. Rabagliati read notes of this case. The patient suffered from rapidly growing fibroid and metrostaxis. The latter had been relieved by use of the constant current. She became pregnant, and it was evident that the tumour (high in the substance of the cervix) would prevent delivery by the ordinary route. At term, under chloroform, a median incision was made. The uterus seemed of an immense thickness. The child was removed, and then, by compression of the uterus, the placenta shot out. A dozen fine catgut sutures secured the uterine wound. A stout silk ligature was passed round each Fallopian tube near its uterine end. The patient and child were now (after eight months) both healthy, and the mother was menstruating regularly. He thought that this procedure was shorter, and did not involve so great a shock as hysterectomy would do.

Drs. Goyder, Honeybourne, T. C. Denby, S. Johnston, and Horrocks joined in the discussion.

Cholera.

Dr. Honeybourne showed some specimens from recent cases. He said the readiest test of all was to make a small quantity of any ordinary stock broth alkaline with carbonate of soda, and inoculate with dejecta; a copious growth of cholera would form on the surface in twelve hours; addition to this of sulphuric acid would give the cholera red reaction.

Dr. Hime suggested that a drop examined would show the characteristic movements of the cholera bacillus, but that the only real test was gelatine cultures.

Specimens.

Specimens were shown by Dr. Wood, Dr. Rabagliati, Mr. Horrocks, and Dr. Major.

REVIEWS.

The Blot upon the Brain: Studies in History and Psychology. By William W. Ireland, M.D., formerly of H.M. Indian Army; Corresponding Member of the Psychiatric Society of St. Petersburg, and of the New York Medico-Legal Society; Member of the Medico-Psychological Association. Second Edition. Edinburgh: Bell and Bradfute. London: Simpkin, Marshall and Co. 1893. (Demy 8vo, 388 pp., price 10s. 6d.)

This is the work of a physician distinguished not only for his knowledge of psychology and mental disease, but, what is much less common in the profession, for his acquaintance with history. The popularity and success of the book are shown by the fact that a second edition has been so soon called for, and it is, as the author says he has tried to make it, quite abreast of scientific research.

A fresh light is thrown upon many important events in history which hitherto have been obscure; for example, the extraordinary lives of Mohammed and Joan of Arc are attributed to the existence of hallucinations, while those of Caligula, Nero, and Commodus are said to be due to the insanity of power. Proofs are given that many of the Roman emperors or their descendants suffered from various forms of neurosis, which showed itself in the forms of insanity, imbecility, epilepsy, adultery, and murder. The author's criticisms on the lives of Ivan IV, generally called "Ivan the Terrible," Feodor, the Romanoffs, and the Emperor Paul have not been well received in Russia, and it seems that the book has been excluded from the dominions of the Czar. Dr. Ireland traces the history of the royal family of Spain for 350 years, and shows that, during the whole of that time, the different members of it suffered from a hereditary neurosis which at last extinguished it.

The influence of fixed ideas the author shows is responsible for lives like that of Francis Xavier, the apostle of the Indies, for the dancing mania which prevailed in 1237, for the Crusades, and, in later times, for the great rebellion in India in 1857, for he accepts the view that the Mutiny was due to a report that the military authorities had used the fat of cows or pigs to grease the cartridges for rifles to be issued by the Bengal army, and which it was necessary the sepoys should bite before using. It was supposed that the intention of the Government was to ruin the caste of the sepoys, and so render them available for foreign service.

The chapter on wordless thought and the relation of words to thought is an interesting one. There is no doubt that ideas precede words in the evolution of a child's intelligence, and his few words when he begins to speak answer to a great many and pass from an individual to a general sense. A deaf child, who has no idea of speech and has not learnt signs, has ideas of distance, of the relative solidity of bodies, of heat and cold, of what is pleasant and unpleasant, and the usual phenomena of Nature. Anyone will find out by observing and watching his own thoughts that intelligent actions without any accompanying words, or thoughts associated, are, in fact, performed with words. With regard to the relation of words to thought, "although a word has no necessary relation to a thought, when we have once learnt to associate them together, the connection appears inseparable." It is not true to say that we could have no abstract ideas without words, for a child can hold a piece of paper in his hand and know it is white without mentioning the name. Imbecile children, too, often recognise colours and numbers before they know their names.

The chapter on the dual functions of the double brain contains a mass of information bearing on the subject. There are many cases on record in which one side of the brain has been destroyed by disease without any impairment of the memory or intellectual power, but there are no instances known in which the mental faculties remained after destruction of both hemispheres. The author concludes from this "that the intellectual faculties are double, both sides of the brain working at once, and each side having its impressions simultaneously registered."

There are chapters on *folie à deux*, unconscious cerebration, left-handedness and right-handedness, and on mirror writing, which we have not space to notice. Enough has been said to show the wide range of the work. After perusing it one is struck by the immense amount of information it contains on the subjects of which it treats, and the labour that it must have cost to produce such a highly interesting and instructive book.

The Uniform System of Accounts: Audit and Tenders for Hospitals and Institutions. By Henry C. Burdett. London: The Scientific Press, Limited. 1893. (Demy 8vo, pp. 76. 6s.)

We ought sooner to have noticed this useful and practical little book. No one interested in the hospital question can treat with indifference anything which falls from Mr. Burdett. In some particulars we have had occasion to differ from him; but here is a matter in which we should suppose all will agree, namely, that a uniform system of keeping their accounts—provided it is a good and business-like system—would be a boon to hospitals generally; for, as our author truly says (p. 6), it "must result in considerable economy by enabling everyone concerned in the management of a great charity to compare his own expenditure with that of his neighbours, and so to ascertain to what extent and in which particulars differences exist."

There is another respect also in which such a uniform plan would be useful, namely, in checking frauds. Mr. Burdett says, and we believe with truth, that "the commonest form of fraud is due to the circumstance that often the accounts published in the reports do not represent the true facts, because a building account, a suspense account, or some other device has been resorted to with the view of con-

cealing, not only the amount of money received from the public, but the cost at which that money has been raised" (p. 10).

It is to ensure these desirable—we might almost say these necessary—reforms that Mr. Burdett wishes to introduce a method of keeping accounts, holding audits, and procuring tenders which shall be uniform and universal for all hospitals and similar institutions. With regard to the audit, we are glad to see so eminent an authority "inclining strongly to the opinion that an audit by a firm of public accountants alone is neither sufficient nor satisfactory" (p. 41), and urging the necessity of joining some of the governors of the hospital on the committee of audit. There seems just now a craze for "chartered accountants," almost as universal as that for "trained nurses." Yet an accountant after all, however eminent, can only verify the fact of the accurate statement of receipts and payments; of their legitimacy or prudence he neither is nor can be a judge. It is to the governors actually in charge of the institution that the public must look to see that "nothing is suppressed or hidden which ought to be plainly stated," so that their representatives ought to take part in the audit and be responsible to the public for the propriety, not only of the expenditure, but also of the means used for obtaining the income.

It only rests to inquire whether the scheme proposed by Mr. Burdett is calculated to secure these ends. We believe that it is; and we believe also that it has already been adopted more or less textually by many of our chief institutions. But its end cannot be fully secured unless it is adopted by all and on a uniform plan. And this furnishes another reason for regretting the delay in acting on the recommendation of the Lords' Committee for the creation of a central body for the superintendence of our London hospitals. We trust, however, that the matter is only delayed, and that some practical plan will soon be formulated. One of the first duties of such a body would be to examine Mr. Burdett's scheme thoroughly, amend it if in any details it requires amendment, and then press its adoption on the institutions concerned. This would, we are persuaded, result in much saving of money and increase of efficiency.

The Pharmacopœia of the United States. Seventh Decennial Revision. Official from January 1st, 1894. By authority of the National Convention held at Washington in 1890. Philadelphia: The Committee of Revision. 1893.

The preparation and publication of a national *Pharmacopœia* are functions undertaken neither directly nor indirectly by the Government of the United States, but by a convention of delegates sent from the various medical and pharmaceutical corporations and societies throughout the country. The delegates at their meeting appoint a Committee of Revision, to whom are entrusted all the details of the work, the employment of expert assistance, and the scientific and business arrangements generally; the committee publishes the work, retaining exclusive control and ownership, and paying the expenses out of the profits arising from its sale.

The present, which is the seventh decennial revision, has taken three years to complete. The committee consists of twenty-six members, about one-half of whom are medical men and one-half pharmacists. The advantage of this close co-operation is apparent at once in the very great excellence of the pharmaceutical part of the work, the directions for making the different preparations and for carrying out pharmaceutical processes being laid down with an accuracy and attention to detail which show the hand of the expert, and which must be an immense benefit to those who have to work by the *Pharmacopœia*.

The altered conditions of the manufacture of drugs are also recognised to a much greater extent than in our own *Pharmacopœia*. In the latter minute directions are given for making many inorganic drugs, such as bromide of potassium, although it is well known that these are now exclusively and much more cheaply produced by the wholesale manufacturer. The law, however, makes it incumbent on the retail dealer to see that he dispenses only perfectly pure drugs, and in accordance with these conditions the United States *Pharmacopœia* omits entirely the preparation of such substances, but lays down exact and minute directions for ascertaining their purity. The list of reagents and test solutions with instructions for using them, is a part of the work deserving special commendation, and is very much more elaborate than in our own *Pharmacopœia*. In a work of this kind uniformity of method is desirable, but it does not seem to have been always rigidly adhered to in describing the official substances; for instance, no definitions whatever are given of iodine, iodoform, and several other substances, while creasote, charcoal, menthol, and most others are shortly defined before their descriptions and tests are entered upon. Further, certain pills are named "massa," while others are called "pilulæ" for no very apparent reason. It also seems superfluous to have a "massa ferri carbonatis," and "pilulæ ferri carbonatis" two practically similar preparations under different designations. The number of official drugs is large, and a considerable proportion of them must be regarded, even by therapeutical enthusiasts, as of doubtful efficacy. Our own *Pharmacopœia* is bad enough in this respect, but that of the United States is infinitely worse. No fewer than eighty-eight new articles have been added, while ninety have been dismissed from official rank, a result which shows considerable instability of opinion regarding the value of various drugs and preparations.

La Méthode de Brown-Séquard: la médication orchitique, thyroïdienne, pancréatique, capsulaire, et cérébrale. Les injections d'extraits organiques. La transfusion nerveuse. Physiologie; indications cliniques et thérapeutiques. Technique. [Brown-Séquard's Method: orchitic, thyroidian, pancreatic, capsular, and cerebral medication. The injection of organic extracts. Nervous transfusions. Physiology; clinical and therapeutical indications. Methods.] By Dr. C. H. Eloy. Paris: J. B. Baillière et Fils. 1893. (Crown 8vo, pp. 282, fr. 3.50.)

The rather lengthy title of Dr. Eloy's book sufficiently shows its purport. It is an expansion of the articles by Brown-Séquard himself which appeared in these columns (June 3rd and 10th, 1893). It includes more, however; the details of methods are fuller and the history of the subject is well given, that relating to the thyroid and suprarenal bodies being especially interesting. In addition many illustrative cases are given in full, and not only are Brown-Séquard's results detailed, but those of his numerous disciples in France and other countries are very admirably summarised.

In commenting on Professor Brown-Séquard's articles we expressed ourselves very cautiously as to the real and permanent value of his injections; we were distinctly inclined to remain sceptical for the present. This attitude is not altered by the perusal of Dr. Eloy's book. Like most French writers, he is admirably lucid, and his facts and deductions are well set out. He is an uncompromising supporter of Brown-Séquard's views, and does not conceal his contempt for those who have expressed the contrary opinion. We can, therefore, thoroughly recommend the book for its freshness and clearness, and we doubt not that in the more dispassionate investigation of the real value of these injections, and the allied physiological question of the internal secretion of organs, this book will have to be reckoned with both as regards its facts and its inferences.

CHRISTMAS AND NEW YEAR PUBLICATIONS.

The Christmas and New Year publications of the Religious Tract Society are always noteworthy for their excellence, cheapness, and for their wholesome combination of entertainment with instruction, and this year they are well up to their usual high standard. *Icelandic Pictures, drawn with Pen and Pencil* (8s.), by Mr. F. W. W. Howell, F.R.G.S., tells of the exodus of the Vikings, of the Fjords, the Ice Mountains, the Geysir and Sulphur Springs, the Western Classic Land of Iceland, the North-West Peninsula, and the Shores of the Arctic Sea. It is admirably and richly illustrated. Mr. W. J. Hardy, F.S.A., treats us to an account of the *Handwriting of the Kings and Queens of England* (10s. 6d.), full of interesting examples of royal penmanship, of which the existence was unknown until recently, when they were discovered among

some uncalendered documents at the Record Office. Many of these are specimens of extreme rarity; one curious form of the signature of Henry VI. shows that he used a wood block stamp with his name upon it; and there is a long sentence penned by Edward IV., of whose writing no example except the ordinary E. R. was known to exist. There are several hundred illustrations and *facsimiles* in this book, which is one of great social and antiquarian interest. *The Romance of Electricity* (5s.), by John Munro, has for its frontispiece an admirable photograph of lightning taken on the Alleghany Mountains. The electricity of Nature is, comparatively speaking, an æsthetic and scientific study, since it is not immediately connected with commerce; nevertheless, the compilation and digest of the multitude of observations on this romantic subject, as well as on the miraculous achievements of electricity in art, afford numerous entertaining facts and dramatic incidents, which are well presented in this volume. In *The Log of a Sky Pilot* (3s. 6d.) the Rev. T. S. Treanor gives us an account of missionary work and marine adventure among the seamen around the Goodwin Sands. It is the aim of Mr. Treanor to lead and help his fellow voyagers to the skies. *The Chronicles of the Sid* (7s. 6d.), by Adela Orpin, is the story of a lady, Adelia Gates, who, according to Miss Orpin, has passed many years among the sacred sights of the Holy Land and in the Algerian desert, as well as in other distant climes, and the story of her wanderings and her works, though told in simple and unpretentious style, has a deep human interest, and is not devoid of picturesqueness. Of the serial publications of the Society we can do little more than mention the annual volume of the *Leisure Hour* (7s. 6d.) for 1893, abundant and varied in matter, rich in illustration, and a source of perennial interest to readers of every kind; the new announcements for the volume of 1894 are highly attractive. *The Girls' Own Annual* (8s.), profusely illustrated by eminent artists, should be in every library and institution where young girls are to be found, and is a welcome friend in every family home. *The Boys' Own Annual* (8s.) is a worthy companion; *Quicquid agunt pueri nostri farrago libelli* is the appropriate motto for a book of which every page and every picture will interest healthy-minded boys. *The Sunday at Home* (7s. 6d.) supplies recreative Sabbath reading for the household. We cannot withhold the meed of warm approbation for the skill, liberality, and enterprise with which the publications of this Society are conducted.

Cassell's Magazine of Art (16s.) (Messrs. Cassell and Co.), quite unrivalled in the admirable variety and artistic beauty of its contents when considered in relation to its extremely moderate price, this year excels itself. The whole-page etchings and photogravures are especially attractive for art lovers, and for those who wish to note the progress of pure and applied art in this country and abroad this volume is almost indispensable. *Cassell's Family Magazine* (9s.) is also much more artistic in its illustrations than are the ordinary run of magazines of this character. Of its literary contents, perhaps the most interesting are the articles of G. B. Burgin, Baring Gould, and the Master of Downing. There are rather too many second-rate stories for our taste. *The Quiver* (7s. 6d.) is, in a literary sense, we are inclined to think, one of the very best of illustrated magazines for Sunday and general reading. The great majority of its contributors are eminent clergymen and prelates of special literary ability. Of their new books we have received from the publisher only a popular edition of the *Vision of Purgatory and Paradise*, by Dante, but, when we say that it is the translation of Cary and its sixty plates are those of Gustave Doré, it will be seen that both text and illustrations are of the first authority, although this cheap edition is issued at 7s. 6d.

Messrs. Chatto and Windus send us some old and dear friends in new dresses, as well as a few novelties. *The Ivory Gate* (3s. 6d.), by Walter Besant, is an admirable story, of wholesome interest and yet pathologically studied—a singular insight. Ouida's *Dog of Flanders*, *Branch of Lilac*, *Provence Rose*, and *The Leaf in the Storm* (5s.) are delightful stories, which receive a classic position and are here presented in attractive dress, with half-a-dozen illustrations by Edmund H. Garratt. *Rujub, the Juggler* (5s.), one of Mr. Henty's most exciting stories of adventure, is presented in a new edition, with eight excellent page illustrations, by Stanley L. Wood. *The Gun Runner* (3s. 6d.), by Bertram Mitford, is a tale of Zululand, picturesquely illustrating the wild justice of revenge and recalling the eventful history of Cettewayo, the Zulu chiefs and indunas, many of whom were in times past personally known to the writer. George Macdonald's *Heather and Snow* (3s. 6d.) is notable for its spiritual outlook, its pathetic interest, and its invigorating qualities. It is one of the books most treasured by Dr. Macdonald's many admirers. Charles Reade's *Never Too Late to Mend* is issued at the phenomenally low price of 6d., while *Peg Woffington* and *Christy Johnson* appear in another volume at the same marvellously low price, so that all who do not possess them can now thus easily enrich their bookshelf.

Messrs. Blackie and Son send us a stirring series of books of war and adventure for boys. *Through the Sikh War* (6s.), by G. A. Henty, is a tale of those brilliant successions of fights which terminated in the annexation of the Punjab. The hero of this book is kept well in the foreground, and helps to relate the whole of the leading incidents in the two Sikh wars. There is a map of the Punjab, together with twelve excellent illustrations by Hal Hurst. *A Jacobite Exile* (5s.), by the same author, narrates the adventures of a young Englishman in the service of Charles XII of Sweden, and puts picturesquely on paper the events of the first three years of Charles XII's reign, in which he crushed the army of Russia at Narva, and laid the then powerful kingdom of Poland prostrate at his feet. Mr. Robert Leighton, in *The Wreck of the Golden Fleece* (5s.), tells the story of a North Sea fisher boy, and with the help of the accomplished burin of Frank Brangwyn, takes us in search of Michaelmas herrings, treats us to a wreck on the high seas, carries us into the court of justice, imprisons us on board the plague ship, and ultimately leaves us happily homeward bound. *The White Conquerors of Mexico* (Kirk Munro) (5s.), is a tale of Aztec and Toltec in the romantic times of Cortes and Montezuma, with pictures of priests and their human sacrifices, kings and their treasure houses, warriors and battles in historic but gorgeous surroundings. The Huguenot wars live again for us in Henty's stirring story of *St. Bartholomew's Eve* (6s.). No large space is devoted to details of the terrible massacres of the period, nor to the atrocious persecutions to which the Huguenots were subjected, but the author has, as usual, gone to the military events of the struggle for its chief interest, which is considerable. *Gold, Gold in Cariboo*, which is a story of adventure in British Columbia by C. Phillips-Walley (3s. 6d.), brings us to the romance of our nineteenth century. We are infected with the gold fever, and take part in a gilt-edged speculation; and then in a little game of poker we face death on the stoneslide, and then the shadows begin to fall. "We are the victims of a sheer swindle." We hear the bullet's message; we learn what the wolf found, take our chances of drowning in the forest, and put up finally in Rampike winter quarters, and end at last in a ranch on the yellow Chilcotin uplands, where the gold which pleases best is that left by the sun upon miles and miles of sweet mountain grass.

Mr. T. Fisher Unwin sends us a dainty little volume of sketches and stories by Alphonse Daudet, entitled, *The Pope's Mule* (2s. 6d.), selected for translation from the volume entitled *Lettres de Mon Moulin* and from the *Contes du Lundi*. The latter series illustrate the pathetic and patriotic side of incidents relating to the sacrifice of the grave French army in the disastrous war of 1870-71. It is one of the charming little series of the Children's Library. *Wild Nature Won by Kindness* (5s.) is the fifth edition of a series of little chapters by Mrs. Brightwin, Vice-President of the Selbourne Society, and tells of experiences in the companionship of the animal world, and records in the life of pets, describing many pleasant friendships with animals, birds, and insects, and showing how confidence may be gained and the little wild heart won by quiet and unvarying kindness. It is dedicated to Sir James Paget.

From Macmillan and Co. we have only one volume, rather poor showing for a publishing firm of this standing; it is, however, a very pretty and interesting book, *Shakespeare's England*, by William Winter. It reflects well the gentle sentiment and romantic character of English rural life, and has grown up out of a series of sketches, records of exploration and change in Shakespeare's home, and in English scenes associated with his writing. It appeals with no smal

success to the love of the ideal, the taste for simplicity, and the sentiment for veneration. It is daintily bound and charmingly illustrated.

Emily and Edith Hughes supply (Bickers and Son, London) *Selections from the Philosophical and Poetical Works of Constance Nayden*, whose premature loss is so deeply lamented. The bend of Miss Nayden's mind was distinctly philosophical, and her ripest energies were directed in this channel. These isolated gems shine with delightful lustre apart from their settings. It is a book which will find many devotees among the new thinkers of the day.

Mr. George Allen (London and Orpington) issues a quite delightful edition, in two volumes, of Hans Christian Anderson's famous stories and fairy tales, illustrated with 100 pictures by Arthur J. Gaskin. They are delightfully archaic, in the style of Albert Dürer and the little German masters. It is an altogether admirable and satisfactory series, and an inestimable treasure for both little and big folk.

Messrs. Raphael Tuck and Sons' series of Christmas and New Year Cards for 1893-94 is the most notable, the most original, and the most varied yet issued. Nearly 1,100 sets, mustering upwards of 2,500 designs, vie with each other in attractions. The "Boudoir Cards," "The Salon," "The Cameo," "The Dainty," "The Garland," "The Secret," "The Mosaic," "The Jewel," "The Aluminium," "The Juvenile," "The Celluloid," "The Humorous," "The Woodland," and many others, constitute card series which present distinct and novel features of their own, their recital giving but an indication of the wealth and variety of styles combined in this year's selection. As in styles, so with prices, which vary from ½d., 1d., and 2d., gradually ascending at 3d., 4d., 6d., 9d., and 1s., and reaching their climax to the exquisite minuet tableau priced at 2s. 6d. The mottoes, quotations, and verses have obviously been carefully selected.

Messrs. Faulkner and Co. (London) send us a charming series of calendars for 1894, notable among which are *Sweet Arcady*, *The Seasons*, the *Blotting Book Calendar*, the *Shakespearian Calendar*, with words for the wise for every day in the year. *Farmyard Tales* is a big, boldly-illustrated, coloured nursery book. *A B C* may be commended as the best and most attractive coloured alphabet book we have yet seen. *Mr. Hiph; or, Three Friends in Search of Pleasure* is a clever series of caricatures, illustrating the travels and adventures of a hippopotamus and his cubs, by H. Romayne Walker. *Upidee* is a race game for children, with many new and interesting variations. Besides these there are a series of Christmas and New Year cards, very cheap and very pretty.

Messrs. S. Hildesheimer and Co. (London), issue a considerable series of cards—comic, floral, sentimental, and religious, some of them with novel effects in embossed work, transparencies, and lustre painted—at very cheap rates, varying from a halfpenny to 6d. A little packet of twelve pictorial bookmarkers in embossed cardboard, each with a different and appropriate motto, is a marvel of cheapness, and from this the general character of their issue may be fairly estimated.

POCKET BOOKS AND DIARIES.

Messrs. Charles Letts and Co. (Royal Exchange) forward to us their annual parcel of Charles Letts's diaries, which this year more than ever deserve an unqualified praise. Their variety is now so large, 200 sorts, that we can only speak of representative editions submitted. Among these must be mentioned the series of *Letts's Modernised Diaries;* the cheapest and most typically useful are the *Seven Day Diary*, interleaved with blotting paper, in foolscap size, 13 by 8 in., price 1s.; and 73 b, 4to edition, interleaved with blotting paper, 2s.; the 8vo cloth desk diary, one day on each page, strongly bound in cloth (181), 4s. 6d., is a handsome, strong, and handy desk diary. Of the smaller diaries, No. 21, printed on thin paper in leather, gilt edges, is an excellent pocket diary and cash book; No. 488 b, cloth, three days to a page, at 1s., is an admirable little diary for the similar purpose. There are many other forms of extremely portable thin paper pocket diaries and notebooks, among which we may recommend No. 30, leather gilt edges, 1s., a thin waistcoat-pocket diary notebook, in leatherette; No. 5 is issued at 6d. Their well-known *A B C Medical Diary and Visiting List* is issued jointly by themselves and Messrs. Burroughs, Wellcome, and Co., who will, we believe, forward it free of charge to any practitioner applying for it. With it is published a well arranged and very full *Excerpta Medica*, giving abundant hints of the most recent preparations. Messrs. Charles Letts and Co. have this year introduced eight new forms of blotting pad diaries, including a writing table remembrancer and blotting pad with folding cover, at 1s., extremely convenient and singularly cheap; a folio blotting pad diary providing space for a month's notes at a glance, which is always protected from dirt and dust, and can be referred to promptly by merely lifting the front of the pad, while the blotting paper may be renewed as occasion requires. Their boudoir blotting pad diary is on the same principle, it is a handsome and useful pad, price 1s.; and the nurse's diary is a convenient little book, of which the first issue appears this year, and is designed for the use of nurses in private practice as well as in the service of institutions. It contains a list of health resorts, and particulars concerning them. We expect to see this diary considerably developed from year to year. A very useful novelty of the year is a new patent indicator in which the successive leaves are kept from dirt and kept always tidy.

Messrs. John Walker and Co., Limited (Farringdon House, Warwick Lane) have a speciality for very elegant and prettily got up pocket diaries, leather bound in calf and morocco, and with a pencil securely fixed in a tuck at the back of the binding, where it is more convenient and accessible and more securely held than in the ordinary old-fashioned arrangement in front. No. 173, in American Russia, price 5s., having the size of leaf 5⅜ in. by 3½ in., is one of the prettiest and most useful; No. 64, at 2s. 6d., is as serviceable but not quite so decorative; No. 187, size of leaf 2¾ in. by 5¾ in., bound in morocco, is in shape and size exceedingly convenient, and is handsomely and securely bound, 5s. 6d. Each of these has a double pocket and carries a pencil. Walker's No. 2 diary is a little miniature memorandum book, in limp cloth, published at 6d.

Messrs. Hazel and Watson send Smith's Visiting List for 1894, an old-established favourite, now in its 48th year, and so well known as not to need special description; in French morocco with pencil, No. 1a, cost 4s. 6d.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

COCA CHAMPAGNE SUGAR FREE.

Messrs. Hertz and Collingwood (4, Sussex Place, Leaden hall Street) have submitted to us specimens of coca champagne, which realise a very important, and we think hitherto unfulfilled *desideratum*. The heavily loaded sweet wines which are often used in the making of coca wines are here substituted by an excellent brut champagne of 1884 of high class brand, which proves on examination to be a pure wine free from sugar or from any kind of loading. It is standardised with great care and exactness, each pint containing three-tenths of a grain of the alkaloid cocaine, so that, practically speaking, each champagne glass of the coca champagne contains one-tenth of a grain of the alkaloid. Thus it is presented in a form in which it may be used without any misgiving by all invalids and by those who desire to avail themselves of its tonic and restorative powers, and especially by diabetics, gouty and rheumatic persons. It constitutes a decided and laudable progress in what may be called dietetic therapeutics.

The same firm have also submitted specimens of a perfectly dry champagne—a pure wine of high quality and with age and fine flavour, prepared with saccharin and sugar free. The brand is that of Laurent Perrier, and the champagne is of great merit as a pure and high class wine. Sugar free champagne of high quality is a *desideratum* for many.

CALLARD'S FOODS FOR DIABETICS.

Mr. Callard, 65, Regent Street, forwards to us some specimens of foods for invalids which are very noteworthy and scientifically as well as practicably recommendable. Those who have to purvey especially for diabetics, or for any class of case in which starch and sugar are inadmissible as dietetic elements, are well aware, from troublesome if not painful experience, how difficult it is to obtain any form of cake or biscuit which is at once palatable, continuously endurable as an article of frequent diet, and which fulfils the difficult requirement of being starchless and sugarless. Of the foods in the market recommended as foods for diabetics, many are unpalatable and others, we regret to say, cruel frauds. They are announced as gluten foods, and published with analyses exhibiting a largish proportion of gluten, but it will often be found that the analysis omits all mention of the large proportion of starchy matter which they also contain. In fact, as a measure of precaution we should advise no physician to recommend and no invalid to purchase any dietetic preparation of the kind without first applying the very simple test of dropping on to a portion of it a little solution of iodine in water. Tincture of iodine is relatively useless for this purpose; it is necessary it should be a watery solution. We are all the more glad to be able to recommend certain preparations of Mr. Callard's as being at once agreeable articles of diet and so conscientiously prepared that they can be spoken of as starch free and sugar free. First among these may be ranked Callard's almond pound cakes for diabetics. They are light, almost indistinguishable from ordinary pound cakes, and at least as palatable. Next are the almond sponge cakes, which have a character of their own, and which are very good eating and can be continuously used with satisfaction. They also are free from starch and sugar. Mr. Callard supplies also two or three kinds of almond biscuits and cocoanut biscuits which have particularly good qualities.

Other invalid preparations of Callard are the Invalid Meat Jelly, which is a pure meat jelly not concentrated, but always ready for use, and such as would be prepared in the home by an expert cook. It is a refreshing stimulant, well adapted for use to relieve the occasional faintness or weakness to which diabetic patients are liable. Of course this form of meat jelly has a wide use for invalids generally. It is a useful and palatable preparation as an ordinary article of diet for delicate people, and may with advantage be substituted for the occasional nips to which overworked and delicate people are too liable to resort under such circumstances. The Ivory Jelly, which resembles well-made calves' foot jelly in colour, flavour, and consistence, has the advantage of richness in phosphates and bone salts, which gives it an obvious range of usefulness in the nutrition of scrofulous and phthisical patients; it is pleasantly flavoured with brandy and sweetened with saccharin so as to be an additional luxury in the too scanty dietetic list for diabetics.

IMPROVED DRESSINGS FOR THE SKIN.

These "Unnacloth" dressings are a modification of Professor Unna's plaster mulls, and are prepared by Messrs. Howard, Lloyd, and Co., manufacturing chemists, Leicester. They consist of various medicaments (zinc oxide, chrysophanic acid, etc.), combined with a gelatine basis, and are spread upon calico. When the dressing is applied it is fixed in position by means of a bandage. The Unnacloth dressings are certainly a very convenient mode of applying skin remedies, and since the material can be easily washed off with water, they are much cleaner than ointments.

TANOCEA TEA-TONING TABLETS.

These tablets, of about 3 grains each, consist of a combination of gelatine with alkaline salts, and, when added to an infusion of tea in the proportion of one or two tablets to a spoonful of tea, they are said to combine with and decompose the "tannin" present. The idea is an ingenious one; but it must be remembered that the astringent constituent, or so-called "tannin" of tea, forms a compound with gelatine which is soluble to a very large extent in hot water, and consequently the gelatine compound is not separated as a precipitate from an ordinary infusion of tea until it has become cold. For the neutralisation of the influence of tea tannin in disturbing digestion the combination of this constituent with gelatine is relied upon as a preventive. Those whose stomachs are sensitive in this respect or who entertain apprehension that the tannin of tea may prove injurious to them will find these tea-toning tablets a convenient means of securing immunity from the disagreeable effects referable to those conditions. The tablets are manufactured by the Tanocea Tablet Company, Bletchley Station, and may be obtained of all chemists and grocers.

MICROBENE.

This preparation, which is described as a "non-poisonous, stainless, non-corrosive" disinfectant, is a product manufactured from the antiseptic and microbicidal constituents of coal tar. It is claimed to be the strongest non-poisonous disinfectant in existence. It is a thick, dark-coloured liquid, having the characteristic smell of coal tar. When diluted with water to 100 times its volume, it forms a milky liquid of alkaline reaction, the condition in which it is to be used for disinfecting purposes. Microbene we find to contain a considerable amount of cresols, which render it an efficient disinfectant. The form in which it is supplied—¼-lb. tins, sufficient to make 25 pints—appears to be appropriate, and calculated to prevent the possibility of such accidents as are constantly occurring with carbolic acid. This is a great advantage, and though we cannot endorse the claim that the preparation is more than relatively "non-poisonous," there is reason for believing that for ordinary disinfecting purposes it would be preferable to carbolic acid. This preparation is made and supplied by Messrs. Weston, Hunt, and Co., 39, Seething Lane, E.C.

NUTRITIOUS FARINACEOUS FOOD FOR INFANTS AND INVALIDS.

This preparation claims to be a genuine malted food, possessing all those properties for forming bone and flesh which are desirable for the nutrition and healthy development of infants more especially. Our analysis shows that in addition to the necessary constituents of nutritious food, it contains the active diastasic principle of malted grain, which has the effect of facilitating their digestion and assimilation by the body, so as to prevent flatulence and promote growth with increase of weight. The fact that this food is prepared by a qualified pharmaceutical chemist may be regarded as an additional guarantee that proper attention is given to its manufacture, and its proper, as well as uniform, composition and character may be relied upon. The maker of this preparation is Mr. W. Whysall, High Street, Grantham.

COPAIBA CAPSULES.

Copaiba, even in moderate doses, often gives rise to eructations having the odour of the copaiba, and not infrequently occasions nausea. The continued use of it impairs the appetite and disorders the digestive functions. In order to avoid some of the unpleasant effects of this nauseous drug, it is frequently administered in gelatine capsules. One of the latest advances in pharmacy has been the preparation of capsules composed of some keratinoid material which is unacted upon by the fluids of the stomach, but dissolves in the alkaline secretion of the duodenum, the risk of gastric disturbance thus being greatly diminished. We have examined a specimen of Savaresse's copaiba capsules sent by Messrs. Evans, Lescher, and Webb, 60, Bartholomew Close, E.C., and find that they are unaffected by warm acidulated water, but are soluble in water rendered slightly alkaline. We consider these capsules to be an excellent method of administering copaiba.

A COMPOUND COCAINE JELLY.

"A compound cocaine jelly" contained in convenient collapsible tubes has been prepared by W. Forbes and Co., Park Street, Nottingham. This preparation is intended for the use of obstetricians, and is directed to be introduced into the vagina by means of a glass syringe, passing it high up in and around the uterine cervix. It contains 4 per cent. of cocaine, and, judging by the anæsthetic effect it produces upon the tongue, it is reasonable to suppose that it would afford a considerable relief from pain during labour.

THE PARLIAMENTARY BILLS COMMITTEE.

A meeting of the Parliamentary Bills Committee was held on November 22nd, Mr. Ernest Hart in the chair. Dr. Withers Moore, Dr. C. Holman, Dr. Balding, and a large number of members were present. The business transacted was of a highly important and laborious character, including the reception and discussion of reports on the Amendment of the Penal Clause of the Medical Act; on the Law as to Poisonous Proprietary Medicines; on the Extension of Sanitary Powers to County Councils; on Small-pox in relation to Vaccination and the Cost of Small-pox Epidemics; on the Notification of Infectious Diseases; and in District and Parish Councils, suggested amendments and additions to the Local Government Bill 1893. It was resolved to appoint deputations to wait on the President of the Local Government Board with reference to suggested amendments and additions to the Local Government Bill, 1893, with reference to parish and district councils in conjunction with the Society of Medical Officers of Health, and to wait on the President of the Education Department with reference to a memorial on the physical and mental condition of school children. A fuller report of the proceedings, together with the reports presented, will be published in subsequent issues.

THE PROPOSED AMENDMENT OF THE PENAL CLAUSES OF THE MEDICAL ACTS.

Report for the Parliamentary Bills Committee of the British Medical Association.

Presented by the Chairman, November 22nd, 1893.

The recent trial of the Indian "oculists" may, I think, be instrumental in influencing public opinion in favour of some amendment being made in the penal clauses of the Medical Acts. The Committee will probably remember that the defendants were charged with conspiracy to defraud and with obtaining money in pursuance of the conspiracy by their false and fraudulent pretences. The jury returned a verdict of "not guilty," but added a rider to the following effect: "We very deeply deplore that there exists at present no criminal law to prevent persons with such gross ignorance as the defendants from practising medical surgery." In commenting upon this case the *Times* referred to Sir Forrest Fulton's summing up, and remarks that he put the matter as follows:

The actual state of the law is such that if a person dies under the hands of a negligent or ignorant practitioner the latter may be criminally liable, but if any evil short of death befall him the practitioner is only liable civilly. He cannot be prosecuted; he can only be sued for damages, and as the civil suit can only be set in motion by the person aggrieved, whereas a criminal prosecution may be, as in this case, conducted by the Treasury, it followed that the quack was practically secure of immunity. He has mainly to do with poor people, and they will not sue him because of the expense.

Proceeding further, the *Times* was of opinion that the ignorant classes of the population ought to be protected against themselves, and that the law ought to be armed with greater powers for controlling charlatans who meddle with the human body. Herbalists, eye doctors, and even dentists, ought to be under some more efficient control than that which exists at present, which we have said is limited to the action of the criminal law when the victim died, and to civil process initiated by himself when he happened to survive.

The *Daily News*, in referring to the case, said that it was a just verdict, but a cumbrous indictment, which, however, could not have been otherwise framed in the present state of the law, and concluded with the remark that "the law on this subject is chaotic; it should be amended without delay."

The *Daily Graphic* expressed the opinion that it was impossible to regard as satisfactory the state of affairs which permitted the acquittal of the Indian oculists; they were conclusively proved to be grossly ignorant, and proceeded to state the desirability that the people should be protected against their own stupidity by a more rigorous repression of quackery in the persons of all unqualified practitioners.

The *Standard* stated it "did not for a moment concur in the suggestion that the trial of the Indian oculists had proved, or was likely to prove, abortive, because it had not ended in conviction. Further, that the public had at length had a plain and painful object lesson upon the more than precarious value of the irregular surgical remedies which were so persistently impressed on their attention, and cordially endorsed the opinion expressed by the jury, that the law itself ought to be strengthened, so that a man who ventured to practise surgery in a state of crass ignorance as to what he was doing should be made criminally liable for his misconduct."

The *Standard* commended the suggestion to the Parliamentary Bills Committee of the British Medical Association, which had already done such excellent work in other branches of medical law, to the London and County Medical Protection Society, by which the prosecution of the Indian oculists had been instituted, and also to the Government.

The *Daily Telegraph*, in referring to the case, remarked that it was certainly not a satisfactory state of things, as the jury saw that this band of misguided and presumptive amateurs (to give them no harder names) should be let loose to work their will on persons credulous enough to believe in their technical skill. Such, however, is the present state of the law. There is nothing in the world to prevent any quack from going about the country to cure all manner of diseases so long as he is careful to abstain from holding himself out as a duly qualified practitioner.

The *Morning Advertiser* remarked that the unqualified practitioner, of whatever nationality, was a pest of which it would be well that society should be rid. The *Middlesborough Daily Gazette* stated the probability was that the case would lead to legislation to protect sufferers from failing vision or blindness from operations by unqualified or unrecognised practitioners.

It will be seen from the above extracts from a few well-known leading newspapers that it may fairly be said that there is a general consensus of opinion that the law as it stands with regard to unqualified practice necessarily requires amendment.

With regard to the unqualified practice of the Indian oculists the law as it stands is powerless either to enforce a discontinuance of it, or to recover penalties, or to take any criminal proceedings except in the nature of those which have recently failed and which were quite apart from any question of infringement of the Medical Acts. The College of Surgeons cannot or do not prosecute for unqualified surgical treatment.

The Society of Apothecaries were unable to take any proceedings, their Act only enabling a prosecution for unqualified practice in attending, prescribing, and compounding medicines for persons requiring medical (as distinguished from surgical) treatment.

Again, the Indian oculists in question refrained from assuming any medical title or from holding themselves out in any way as if registered practitioners and so escaped the penalty prescribed by the 40th Section of the Medical Act, 1858.

The section only imposes, upon summary conviction for any offence therein prescribed, the payment of a sum not exceeding £20, recoverable in case of non-payment under the Summary Jurisdiction Acts.

It was held in the case of Pedgrift *v.* Chevallier, 8 C. B., N. S., that for a warrant of conviction under this section there must be unequivocal evidence that the party wilfully and falsely pretended. It is not enough, for instance, to prove that his name on his door is not in the *Medical Register*, or that he is called a "surgeon" by persons whom he has attended professionally in the absence of evidence to show that he has done so on his own account and for his own profit. In Ladd *v.* Gould, 1 L. T., N. S., it was held to be a question of fact for magistrates to decide, and not one of law to be reserved, whether by the use of the word "surgeon" coupled with "dentist," or "mechanical dentist," or "chiropodist," or such like titles and by the other facts in each case, the party proceeded against is guilty of an offence under this section.

In Steele *v.* Hamilton the latter, an unregistered person, was summoned upon an information laid under this section, and it was proved that he had signed a certificate of death with the heading "Medical Certificate," and the signature "John Hamilton, Botanic Surgeon, Boston, U.S." It was also proved that over the door of the house where he carried on his business was painted in large legible characters, "J. Hamilton, Surgeon," and, in very small letters underneath, "Boston, U.S.," not registered in England, and that upon a glass panel at the door was painted, "J. Hamilton, Anti-Registered Surgeon," the words "Anti-Registered" being written in small letters in scroll work between the name and the profession, and being illegible except upon close inspection. The magistrate dismissed the information on the ground that there was not sufficient evidence to warrant a conviction under the section, and his decision was on appeal held good.

I have merely quoted these cases to show the difficulties attending prosecutions under Section 40 of the Medical Act, 1858, and the great care which will be required in framing any section having like or similar objects to meet these difficulties in future cases. This section of the Act has been of little avail in effecting the objects which were evidently contemplated at the time.

Dr. Bateman, in a memorandum, which he has been good enough to furnish at my request, for amendment of the Medical Act of 1858 in this respect, refers to the case of Carpenter *v.* Hamilton referred to in the 37th volume of the new series of the *Law Times* to show the weakness of the 40th Section.

In this case—which I have not before me—Dr. Bateman states the man named Hamilton, a "nervous debility" quack of some notoriety, was charged under the Medical Act for wilfully and falsely pretending to be a doctor of medicine, thereby implying that he was registered under that Act and was recognised by law as a physician. Hamilton then kept, and, Dr. Bateman states, still keeps a shop in Oxford Street, dispensing medicines and prescribing for patients, and otherwise acting as a medical practitioner.

In the window of the shop is placed in a conspicuous position a diploma in which he is described as "John Hamilton, Doctor of Medicine of the Metropolitan Medical College of New York"—possibly the same person as is referred to in the above-mentioned case of Steele *v.* Hamilton.

For this offence he was prosecuted by the Medical Defence Association, but the magistrate dismissed the case on the ground that it was not proved that Hamilton had "wilfully and falsely" pretended to be what he was not entitled to call himself.

An appeal was lodged against this decision, but Baron Cleasby and Mr. Justice Hawkins, in the Appellate Court, dismissed the appeal, as the only evidence adduced of false pretence was that Hamilton pretended to be what he really was, and the question was one of fact and not of law.

This appeal was never carried further, and the respondent (Dr. Bateman states) still practises under the same qualification. To remedy this state of things, and to sweep into the net all those who, like Hamilton, use qualifying words after the title M.D., Dr. Bateman proposes the following as a substitute for the penal clause or 40th Section of the Medical Act, 1858.

"Any person who shall wilfully or falsely pretend to be or take or use the name or title of physician, doctor of medicine, licentiate in medicine or surgery, bachelor of medicine, surgeon, general practitioner, or apothecary, or any name, *style*, title, addition, or description *implying that he is a duly qualified medical practitioner*, or that he is registered under this Act, or that he is recognised by law as a physician or surgeon, or doctor of medicine, bachelor of medicine, or licentiate in medicine and surgery, or a practitioner in medicine, or an apothecary, shall upon a summary conviction for any such offence pay a sum not exceeding £20."

Dr. Bateman states that the words added, "name, *style, title, addition, or description implying that he is a duly qualified medical practitioner*," appear to him to be required, as in the case mentioned above Hamilton clearly gave out to the public that he was a duly qualified medical practitioner by the name, style, title, and addition given in the diploma.

Dr. Bateman further states that certain persons also lately have openly avowed their intention to use the title M.D. with the letters (Bc.) signifying botanic appended, and that counsel has already given an opinion that this is not even a colourable imitation or infringement of the Act, as there is no implying that the person using it is registered under the Act. If this be so, Dr. Bateman is of opinion that any person can use the title M.D. with any letters after if they choose, and to make any interpretation of such appended letters as they like, but such persons by practising, and thereby implying that they are "duly qualified," would in the amended (suggested) Act be liable to conviction. It may be argued that the subsequent clause in the original Act "or a practitioner in medicine (recognised by law as") would cover the same ground, but Dr. Bateman holds that "recognised by law" refers to registration, not to "qualification," as at the time the Act was passed certain persons who were not qualified but who had practised previous to the Act, were permitted to be registered, and so became by law practitioners in medicine. Dr. Bateman has also added the word "style" to cover those cases where the words "oculist or ophthalmist" are given as the "style" of the person using them.

Dr. Bateman also suggests that to the 42nd Section of the Act be added, "notwithstanding any subsequent Act," or "anything to the contrary contained in any Act passed before the passing of this Act notwithstanding." The reason for this addition is this:

By the 42nd Section of the Act, all sums recovered as penalties are to be paid over to the Treasurer of the General Medical Council, but this only obtains outside the metropolitan area, for, by the provisions of the Police Courts (Metropolitan) Act, another destination is given; they are claimed and recovered by the Receiver of Police for the Metropolitan District for purposes of police courts for the maintenance of such places, and are thereby lost to the General Medical Council. As the costs given by magistrates under Jervis's Act rarely amount to more than a couple of guineas, in addition to the lost penalty taken possession of by the police, the expenses connected with the prosecution must be taken into consideration.

I cannot say that the suggested amendments of the section proposed by Dr. Bateman would, having regard to all the cases I have quoted, prove sufficient to remove the difficulties even with regard to the unqualified assumption of medical titles. I think such a section would require careful investigation of all the reported cases on the construction of the section in question to enable me to advise precisely as to what form the amendment should take.

Having regard to what is stated above (and which is confirmed by the summing up of the judge in the case of the Indian "oculists") as to the remedy of patients who have suffered from the neglect or ignorance of the unqualified practitioner being by means of a civil action for damages only, and the utter uselessness from a practical point of view of such a remedy for the suppression of quackery, it would seem to be necessary in any amendment of the penal provisions of the Medical Acts, or in any new Act which may be promoted to meet the serious defects of the existing law, to secure, if possible, that there should be power to inflict, not only a fine for any infringement, but also the punishment of imprisonment without the option of a fine; or, if this were further than it might be considered desirable to go, the penalty recovered should not be considered simply in the nature of a debt, as in the case of the Society of Apothecaries. I also quite adopt Dr. Bateman's view that penalties recoverable should be removed from the jurisdiction of the metropolitan police courts.

Then there remains to be considered the question of the methods of procedure in order to put any such penal clauses into operation. Until the Parliamentary Bills Committee of the British Medical Association have formulated their view as to the nature of the amendments in the existing law which they think it desirable to promote, it would be premature to draft any clause or clauses with a view to their introduction into the Bill for the purpose.

It would also be well to have the views of the Committee as to whether the proposed alterations in the law should be effected by some amendments to the existing Medical Acts, in which case the enforcement of the penal clauses would be

vested in the General Medical Council, or whether an entirely new Bill should be introduced, vesting in some other body or bodies the powers of enforcing the proposed penal provisions.

ANALYSIS AND REPORT
ON
ORIGINAL DOCUMENTARY EVIDENCE CONCERNING THE USE OF OPIUM IN INDIA.

BEING AN INTRODUCTION TO A SUMMARY OF UPWARDS OF ONE HUNDRED REPORTS TO THE PARLIAMENTARY BILLS COMMITTEE OF THE BRITISH MEDICAL ASSOCIATION RECEIVED FROM MEDICAL OFFICERS AND CIVILIANS RESIDENT IN ALL PARTS OF INDIA.

II.

Preliminary Remarks.—Historical Data.—Geographical Distribution of the Cultivation of Opium.

(Continued from p. 1176.)

THE "opium question" has in recent years undergone a marked change. The chief battlefield of opinions has been transferred from China to our Indian empire. We have heard and read a great many speeches and reports as to the disastrous influence of opium on the religious, moral, and physical state, not any more of the Chinese, but chiefly of the natives in India. It is hardly necessary to add that all these utterances, coming from certain quarters, presented a striking similarity to each other in certain points: in their aims, their motives, and their feelings, and especially in the results and practical conclusions they are meant to enforce. Considerably less attention, however, has been paid to the facts which should have served as the base of so important a discussion. These were few in number, and were taken bodily from one publication into another; and what was worse, it was taken for granted that certain sad results of the opium trade in China existed to exactly the same extent in India also. It is always more convenient in such cases to affirm boldly and to assume that the facts are already known to everybody than to try to get as large a collection of solid facts as possible. The public at large and those of the medical profession who had no opportunity of forming an opinion from personal experience were thus led to believe two things with regard to India: First, that the use of opium, being ruinous to the health and wellbeing of the people of India, must be put down; secondly, that the resistance of the Government in this matter must be overcome as being based only on financial considerations. The ruinous effect of opium on the population of India being assumed as an undoubted fact, the opinion of numerous intelligent and patriotic persons in India, Englishmen as well natives, was not asked for, nor was their experience made use of. That they had opinions on the subject and were ready and willing to give their experience is clearly shown by the fact that when we decided to embark on this inquiry, in order to ascertain the views of those who lived amongst and worked for the people in India, answers containing full and interesting information began to pour in. Many of these replies are in reality valuable reports on the whole question, and, coming, as they do, from gentlemen whose time must be fully occupied with their official duties, are a striking proof of the interest taken in the matter by those who administer our great Empire in the East. We take this opportunity of tendering our thanks to all our correspondents for the trouble they have kindly taken and for the mass of important information they have supplied.

The replies to our inquiries furnish a most important body of evidence, throwing an entirely new light on the opium question as far as it concerns India. This has hitherto been discussed almost exclusively from a hostile point of view by persons without medical knowledge or experience. It is this that makes the replies which we have received, embodying, as they do, the results of observations by scientific methods, and the experience of trained witnesses, the basis of a strong case for the defence.

How ancient the habit of using opium is in India is evident from the fact that already in the sixteenth century that country was the source of certain kinds of opium. "Opium is mentioned by Pyres (1516) as a production of the kingdom of Cous (Kuch Behar, south-west of Bhotan), in Bengal, and of Malwa."[1] And we are justified in assuming that where a substance like opium is produced, at least the cultivators and a large number of persons besides them also use it. "Its introduction into India appears to have been connected with the spread of Islam." It may be that the long, rigorous, and frequent fasting undergone by the followers of the Mohamedan religion necessitated and favoured the use of a drug which, as we shall see later on, is an excellent means of soothing the pangs of hunger. Yet it was not the religion which the Mussulman conquerors brought with them into India that was the first reason of the appearance of the poppy in India, but the countries whence they came: Asia Minor, Persia, were the chief producers of opium from the first beginning of the use of that drug; and it is a well-known fact that even now Turkey produces the best opium, and Persia a considerable quantity of one which compares favourably with the Malwa opium. Having thus introduced opium into India, the Mussulmans and their rulers also made it a source of income. The Great Mogul monopolised the opium production and trade, and derived a large income from the sale of the monopoly. When, in 1757, after Clive's victory at Plassy, the government of Bengal passed into the hands of the East India Company, the opium monopoly, together with the salt monopoly, became the booty of the victors. Since then, but especially since 1773, when the trade with China ceased to be the exclusive privilege of the Portuguese, the cultivation for export (chiefly to China) has grown larger and larger.

As regards the use of opium in the country itself, it is not easy to state with certainty whether or not, and at what periods, it has increased in its pace of spreading over the various parts of India. Whilst the places where opium is now grown are still mainly situated around the old centres, the use of opium, as our inquiry shows, is nowadays almost universally diffused.

"The largest amount of opium is produced in the central tract of the Ganges, extending from Dinajpar in the east to Agra in the west, and from Gorakhpur in the north to Hazaribagh in the south, and comprising an area of about 600 miles long and 200 miles broad." In that district, that is in Bengal, the Government has the monopoly of the opium industry, and the districts are divided into two agencies, Behar and Benares, which are under the control of officers residing at Patna and Ghazipur. In 1883 the amount of acres under poppy was in Behar 463,829, and in the Benares agency 412,625. As the export of opium has somewhat diminished since then,[2] these figures will be now a little too large. "Anyone who chooses may undertake the industry, but cultivators are obliged to sell the opium exclusively to the Government agencies, at a price which is fixed beforehand by the officials." The Government sells the ready goods to merchants at a much higher price, which difference is paid by the country to which the opium is exported. In India itself the sale of opium is restricted to licensed shopkeepers, a practice which has proved to be useful, because in some places, where the licensed shops have been closed—as is believed by our correspondent, only experimentally—a greater number of unlicensed and secret shops have sprung up and have made the contract insufficient.

(To be continued).

[1] *Aromatum Historia*, ed. Clasius, Ant. 1574. Cited by E. Holmes, *Encyclop. Brit.*

[2] See Parliamentary Reports on the Trade of India for five years, 1887-88 to 1891-92.

IN the United States there are 2,500 women physicians.

IN the metropolis the deaths referred to diseases of the respiratory organs, which had been 369, 410, and 615 in the preceding three weeks, further rose to 669 last week, and were 232 above the average.

ANNUAL MEETING OF THE ASSOCIATION AT BRISTOL, 1894.

THE sixty-second annual meeting of the British Medical Association will be held in Bristol in 1894, commencing on Tuesday, July 31st, and lasting until the end of the week.

Dr. E. Long Fox, Consulting Physician to the Bristol Royal Infirmary, will be the President. An address in medicine will be delivered by Dr. T. Grainger Stewart, of Edinburgh; an address in Surgery will be given by Mr. J. Greig Smith, of Clifton; and Sir Charles Cameron, of Dublin, will deliver an address in Public Medicine. The general arrangements for the work of the meeting will be made on the usual lines.

The service on the first day of the meeting will be held in the Cathedral.

The buildings which will be utilised for the business of the meeting are most conveniently situated within a stone's throw of one another in Tyndall's Park. The buildings of the Faculty of Medicine and the Faculty of Arts and Sciences of University College, Bristol, will afford almost the whole of the accommodation required. The Museum of the Faculty of Medicine will probably be used as the reception room, and the exhibition of foods, drugs, instruments, sanitary appliances, etc., will be held in the Drill Hall close by, while the addresses will be delivered in the spacious hall of the adjacent Grammar School.

Bristol is well supplied with public medical charities, the most important hospitals being the Bristol Royal Infirmary, the Bristol General Hospital, and the Children's Hospital, all of which will be open to the members of the Association.

There are numerous well-appointed hotels in Bristol and Clifton, within convenient distance from the site of the meeting, and private lodgings can be obtained in almost any locality. The lines of communication by tramcars and omnibuses extend throughout the city and its suburbs: the railway service in the district is good, both on the main lines and also on the branches, and special arrangements will be made for the week of the meeting.

The public entertainments will be of the customary character, and Bristol will doubtless act up to its well-known reputation for hospitality. Many objects of interest exist in the city and the neighbourhood; various works and manufactories will be thrown open; and ample arrangements will be made to enable members to become acquainted with the beautiful scenery of the surrounding country. Excursions will probably be arranged to Berkeley Castle, Longleat, Weston-super-Mare, and Cheddar, Clevedon, Chepstow, Tintern, and the Wye, Glastonbury and Wells, and to Lynton, Lynmouth, and Ilfracombe by water.

The meeting may most conveniently be made the starting point for a holiday in any part of the West of England or South Wales; or advantage may be taken of the facilities for crossing over from Bristol to Ireland.

MEDICAL PROVIDENCE.

The Value of the Medical Sickness Society.—£21,000 paid to Medical Men in Sickness and Accident Benefits.—Life Allowances.—Limits to Insurance and Annuities Removed.—Surplus Profits to be Allotted.

WHEN in 1884 Mr. Ernest Hart founded the Medical Sickness, Annuity, and Life Assurance Friendly Society, there was little in the nature of recorded experience on the matter. The main object sought for was to provide means whereby at a moderate cost medical men might assure themselves against the losses caused by the interruption to their labours through illness or accident.

Hundreds of societies professing to secure this benefit for various classes of the community had been started and had failed. A few indeed had survived, but their financial condition was not such as to enable those interested in them to feel very sanguine for their future. The complete, striking, and solid success which has been attained by the Medical Sickness Society is all the more gratifying.

The sickness branch is by far the largest as it is the most unique and original feature of the Society. There are now upwards of 1,200 members receiving its benefits. Great care has always been exercised in selecting the candidates, with the result that, so far, the sickness experienced has been appreciably less than the amount provided for by the tables. The amount paid for sickness benefit has been large, namely:

	£	s.	d.
For three years ending June 30th, 1887	3,878	13	8
,, ,, ,, ,, 1890	6,740	18	6
,, ,, ,, ,, 1893	10,310	2	0
Total ...	20,929	14	2

The value of this to the members who have received it can scarcely be over-estimated. Every month the management receive letters showing how keenly the sick pay benefit is appreciated, and what an amount of embarrassment and in some cases actual distress is prevented by it, and several members suffering from permanent incapacity are in receipt of life-long annuities. To obviate the limitations of amount imposed by the Friendly Societies Act, the Society has now made an arrangement by which the members can obtain, through its agency, life assurances and deferred or other annuities for any amount they may require.

The Rock Life Assurance Company (one of the oldest and wealthiest) have agreed to accept the certificates as to health, etc., furnished by the Medical Assurance Society, and at the same time to allow a rebate of 5 per cent. upon their premiums. In this way members of the Medical Assurance Society can obtain assurance and annuity benefits to any desired extent at a moderate rate and with a minimum of trouble. A considerable number of the members are availing themselves of this arrangement.

When the Society was started £4 4s. per week was considered a large enough amount to secure as a sick benefit, but experience has shown that in many cases a larger amount would be desirable. It has accordingly been arranged that members who had been assured for not less than five years may apply to have their sick benefit increased to £6 6s. per week on supplying satisfactory evidence of health, and paying the necessary increased premium. Many members are increasing their sick benefit assurances up to this limit, and there is good reason to anticipate that the beneficent operations of the Society will in this way be considerably increased.

A valuation of the ten years' work is in hand. No figures can, of course, be quoted at present, but it is certain that the result will show a considerable surplus.

Prospectuses and all other information can be obtained by application to Mr. F. Addiscott, Secretary, Medical Assurance Society, 33, Chancery Lane, London, W.C.

MEDICAL AID ASSOCIATIONS: THE INTERESTS OF THE GENERAL PRACTITIONER.

Report of the General Medical Council.—Action of the Irish College of Physicians and of the English College of Surgeons.—Request to our Correspondents for Cases.

THE present is an epoch of great activity in matters of medical politics and ethics, not the least satisfactory feature of which is the general awakening of the disciplinary authorities to their responsibilities and powers in the great questions which one after another are agitating the professional mind.

A letter from a correspondent (Dr. Leslie Phillips) which appears in our correspondence column indicates that the able report of the Committee of the General Medical Council, based upon its laborious investigation into medical aid associations, is not to be allowed to remain buried in dusty official archives, but is destined to become the authoritative basis of a practical remedy for the scandals which it showed, only too clearly, existed.

From the moment the report of the Committee was issued it was clear that this question could not for long be thrust into the background, and it has been, moreover, abundantly manifest by communications which have reached us that the abuses which were proved by that report to exist have continued to flourish and that no serious attempt has been made by those responsible for the management of the associations to put themselves into line with the requirements of medical custom and opinion. To have expected this to be done was to hope too much, for the abuses would appear to be practically inseparable from such an irregular departure from professional usage and tradition.

If a private individual or a body of lay persons are, with professional sanction, to be the proprietors of a money-making business or practice carried on by means of the paid services of a medical servant and unfettered by the safeguards which the law, by vesting the licensing authorities with disciplinary powers, has created, it follows that a grave danger to the public safety will exist.

The Royal College of Physicians of Ireland has set an example in this important ethical matter, and it has done so in singularly unambiguous language. At the same time it has assigned cogent reasons for its action, reasons which will not only commend themselves to the profession but to every citizen who recognises the necessity for the preservation of professional independence. Its resolution is:

"That the Royal College of Physicians of Ireland desire to express their disapproval of their Licentiates accepting office in medical aid associations as at present conducted in England, inasmuch as the independence of the physician is destroyed by the system and the services of the physician are used so as to produce a profit for lay persons."

The College of Surgeons of England also has done well in dealing with the danger created by its Members associating themselves in practice with "trading institutions for treatment of disease," and it would appear that since medical aid associations to all intents and purposes come within this definition they must be included in the scope of the prohibitory resolution.

That the solution of the problem presented by this question would devolve upon the profession itself was manifest early in the discussion, and the action of the two Royal Colleges referred to will create a widespread feeling of satisfaction that these authorities are alive alike to the welfare of the public and to the interests of the profession. There can be little doubt that the initiative thus so decidedly taken will be followed by like action on the part of the other licensing authorities and we may rest assured that there will now soon be an end of this joint-stock doctoring which has for a time degraded alike the profession and those well-to-do laymen who countenanced and availed themselves of it. In this regard we may quote from the report of the Committee of the General Medical Council:

"Even wealthy patients are by no means excluded. One of our ablest lay witnesses was an ex-mayor of his town, who did not hesitate to say that he took his medical attendance on the terms of 4s. a year." And again, "the fees of the consultant in nearly all instances are paid by the patient, and cases have been cited in which fees of three, four, ten, twenty, and even thirty guineas have been paid."

Although we are unwilling to again refer to the demerits of this system we cannot refrain from giving three other short quotations from the same report, each of which throws a lurid light upon the respective aspects of the question:

1. "One association—a general association—which includes nearly the whole population of a town, was begun with a general canvass of the town."

2. "The total money value of thirty-five of them (medical aid associations) is £19,549."

3. "The medical officer is at times placed in a position of great dependence inconsistent with the conscientious performance of his duties."

The resolutions of the two Colleges will certainly not be allowed to remain inoperative, and we shall be glad to receive information from correspondents as to individual infractions of the Collegiate declarations. There is no desire arbitrarily and without due notice to proceed to extremes, but steps will without doubt be taken to enforce the rules laid down by these licensing bodies, and those holding their diplomas will, we feel sure, welcome the definite guidance which these rules embody.

Medical Students in Germany.—Official statistics show that the number of students in the medical faculties of the universities of the German Empire during the summer semester of 1893 were as follows:—Munich, 1,474; Berlin, 1,116; Leipzig, 788; Würzburg, 752; Freiburg, 506; Greifswald, 416; Erlangen, 400; Bonn, 322; Kiel, 317; Breslau, 300; Strassburg, 286; Heidelberg, 285; Halle, 263; Königsberg, 255; Marburg, 245; Tübingen, 239; Jena, 219; Göttingen, 200; Giessen, 167; and Rostock, 111.

AUTOMATIC WRITING.

II.

The Automaton and the Scientific Sceptic.—The Limits of Ignorance.—Dreaming and Insanity.—Spirits and Spooks.—Cruelty to Children.

There is a class of persons who doubtless believe honestly the statements they make about their experiences, and whose credulity is intensified partly by the difficulty of proving a negative and partly because science may not be able to show that alleged facts are impossible, although it may demonstrate that they are extremely improbable. If a man says that he has seen a ghost, can we refute him by showing that the embodiment of a spirit in however attenuated a form is physically impossible? Can we demonstrate the impossibility of a telepathic influence? Can we show that automatism is independent of external control? Until this can be done the class of introspective and imaginative enthusiasts will increase, so contagious is the example that professes to procure information by methods superior to the laborious paths at present open. Is there any strength in the argument that just as men would have disbelieved some years ago in the possibility of the accomplished wonders of to-day, in (say) electricity, and would have scouted the existence of the force, so the opposition to spiritual manifestations is of the same nature, and that we are now on the track of a great discovery in psychics? None at all, because all the forces with which we are acquainted act on the senses through some medium of a more or less solid kind, and are themselves generated by methods capable of analysis, whilst they are obedient to certain laws.

The only way in which one individual can influence another when out of sight is by speech, touch, or smell, and this, we know, is limited by distance. If the new force can act through very attenuated matter, say, at a distance of 600 miles[1], it ought to be patent to everybody, not to one individual alone. But, say the Borderlanders, we are peculiar people, we have specially sensitive organisations; what is made manifest to us is in virtue of special receptivity. If this is so, then the results are very commonplace, and in so far as they can be understood are equally so to the elect and the uninitiated, though it generally happens that neither class can understand the revelations. And why? Because automatic acts are, as a rule, unattended with consciousness, and especially under two conditions—namely, when the attention is strongly concentrated, or when (as in insanity) it is dormant, and therefore what an individual says or does he is not truly conscious of, and cannot in his healthy state recall or repeat. Air is invisible, and its existence might be disputed, but it can be proved by analysis to exist; it is subservient to laws, and affects all classes. So with heat, light, and electricity; but where are the laws of telepathy, where its universal application? We may acknowledge that some hitherto undescribed force does exist, and in time may be demonstrated and utilised, but we may safely predict that when discovered it will be obedient to laws, will not exist for a few individuals, and will be intelligible to those who call forth its manifestations.

The scientific sceptic and the automaton have a little common ground—that of ignorance. The former acknowledges (though he cannot explain it) a condition of nerve structure which he calls "excitability," "sensitiveness," where what he recognises as ordinary laws of thought are displayed in a manner so intensified or distorted as to be with difficulty identified with the processes of slower organisations. The latter unconsciously performs some acts quite consistent with known mental processes, but in his ignorance, or desire for a satisfactory explanation, he attributes what he does not understand to an unknown agency, or to a special faculty of his own. The former shows that correct manifestations of mind are based upon the integrity of cells which receive impressions from the external senses and assimilate them as a memory, that these memories are stored up, and can be evoked both by the will and against it, though he is at a loss to explain what will is, beyond that in some way it is an elaborated result of highly developed structure and experience.

[1] *Borderland*, vo

An individual's powers, therefore, in any direction are limited to the workings of his cell memories, and these can only be brought into action by the physiological (normal) or pathological (insane) interaction of one upon the other, or by some external agency, but no external agency is of any avail unless it can affect one or more of the senses, and the question of the attenuation of matter that can yet influence a sense organ is the one vital to the subject. If it can be proved that a person 600 miles away can sensorially affect another, then the telepathists have won. We say that no fact has ever been adduced that the senses, unaided, can be influenced through such space, and that all the reported instances of it can be satisfactorily explained by the known laws of brain action.

The two most prominent states of automatic brain action met with are those of dreaming and insanity. Take the case of dreaming, or the projection of registered impressions. No one will deny that what is seen or felt in dreams has a solidarity that seems as actual as do real impressions in the waking state, but no dream can possibly be more than a disjointed tissue of already impressed cell memories. There can be no new matter in a dream. Those dreams that appeal most to the wakeful imagination are such as where a person dreams that a relative appears, and, looking ill, forebodes evil. Such a condition is entirely subjective, and the idea of illness is only the expression of the subjective sense of discomfort or of illness in the dreamer. It is, therefore, unnecessary to introduce a "spiritual" element to explain these phenomena, because they can be explained on a strictly physio-pathological basis. At times in dreaming, but more commonly in the waking state, a strong cerebral excitation evokes a motor act, and automatic writing is the form that such action would take, more especially in a person whose avocation is the handling of the pen, whilst the vagaries of the "revelations" are merely the inco-ordinated expressions of cells in irregular action without a will to guide them.

In the insane one notices an identical process, a jerking action, and an irregular (incoherent) grouping of ideas and latent memories, many of them far superior in range to the ordinary trammelled existence of the individual, rising at times to even frenzied poetic expression, and vesting the person with an intellectual interest never before conceived to exist in him, yet, after all, there is nothing emitted that was not there before.

The truth that in disease we have hallucinations and delusions, which when restored to health we recognise to have been merely subjective conditions, and that in states of excitement, hypersensitiveness, overwork, and worry the same things occur, ought to be sufficient to show that the conditions are identical.

As to whether space is occupied or not with "spirits" or "spooks" or any not understood and unintelligible phantoms we say that we are unable to decide. Granted, even, that it is so, we cannot conceive how an "immaterial essence" can in any way affect human existence; nor have the automatists, clairvoyants, and crystal gazers proved anything beyond what is explicable by other methods. The theory is old and makes no progress, in spite of the frantic assertions of its devotees. They cry to their god, but he makes no more advance than of yore. The nothingness as time goes on fails to acquire substantiality. The spiritualists appear to have had no other foundation for their belief than authority. "There is a spiritual body." True, so we are told, and so we may (must) believe; but we are not told that they are in any way *en rapport* with us, and the assumption that they are so is not warranted either by the authority that announced their existence or by the tests of science.

In the absence of authority what have the Borderlanders to fall back upon for their proofs? Nothing but self-evoked statements of a ludicrous and inconsequent character, in most of which they recognise some of their own ideas.

Anyone who has studied mental phenomena is bound to agree that a state of hypnotism can be set up, but he recognises that it is a morbid condition closely resembling vaso-motor forms of actual insanity, as seen in acute stupor associated with cataleptic rigidity, a condition of brain exhaustion. Crystal gazing may confidently be looked to as a certain method of setting up brain exhaustion or irritation, and automatic writing, that is undirected ideomotor writing, is common enough in acute insanity. To recognise that these manifestations are seen to their fullest development in the insane, the epileptic, the sexually irritated, the neurasthenic generally is proof positive that they are morbid manifestations, and are recognised as such when the individual regains health. That the subjects themselves believe them is no proof of their truth.

Alienist physicians are so constantly brought face to face with the "visions," "revelations," "messages," "communications" from the "spirit world" that exist in the morbid minds of their patients that they can but conclude that a vast deal of neurotic exhibition exists outside asylums. It is impossible for anyone conversant with the writings, sayings, and doings of the insane to take up a publication like *Borderland* without thinking himself among his patients. The use of terms not properly understood—what is the meaning of the "sub-conscious self?"—the emotional and hysterical impulses, the introspective narrations, the egotism, the self-blinding to common sense, all suggest the inchoate conclusions of an overwrought temperament.

One word of advice: Let these psychic lucubrators confine their investigations to their own narrow circle. There is a tinge of cruelty in the instruction of young children in these tricky mysteries, as in the account given (p. 168, *Borderland*, vol. ii) by Mr. Myers of the induction of a young girl, aged 11 years, into the select circle of automatic writers.

Experience has shown that there is a periodicity in these eruptions of "psychic phenomena." There is a form of insanity known as recurrent mania. Are we now passing through another cycle of it?

(To be continued.)

LITERARY NOTES.

Dr. Robert Battey, of Rome, Georgia, has presented to that State about a thousand valuable medical works from his library on condition that it be placed in a separate alcove in the State Library, so as to form the nucleus of a medical reference library in the State Capitol in Atalanta. Dr. Battey says he has often felt the need of such a library during his professional career.

Mr. Edward G. Browne, M.B., Fellow of Pembroke College, Cambridge, and University Lecturer in Persian, has just brought out a volume under the title of *A Year Amongst the Persians* (Adam and Charles Black). After taking his medical degree in 1887, Mr. Browne, who already possessed a thorough knowledge of the colloquial language, travelled in Persia, and there collected the remarkable series of philosophical and religious folklore set forth in his deeply interesting work. He was able to win the confidence of all classes, and in particular he became familiar with the followers of the prophet Mírzá 'Ali Muhammud, who was put to death by the Persian Government in 1850. The Bábís, as they call themselves, are a sect of religious reformers, who now number several hundreds of thousands, and though they have passed through a period of the direst persecution, their simple faith and heroic endurance are likely to win for them an abiding place in the spiritual history of Persia. Mr. Browne has also written for the Cambridge University Press a work on what may be called the Bábí Gospel. It is called *Tarikh-i-jadid*, and gives a circumstantial account of the Bábí movement from its first beginning till the death of its founder, based on the contemporary history of Hájí Mírzá Jání, of Káshán, and supplemented by original documents, plans, and *facsimiles*. One of the popular stories told in *A Year Amongst the Persians* illustrates the bitter hatred of the Persians for the Turks (p. 511): "It is related that once the ass complained to God, saying, 'Why hast Thou created me, seeing that Thou has already created the Turk.' Answer came: 'Verily, We have created the Turk in order that the excellence of thine understanding might be apparent.'"

Mr. Ernest Hart's addresses in America, which have been so extensively published in the States, are being reprinted here: the address on Medical Etiquette, by the *Provincial Medical Journal*; the address on Waterborne Cholera, by the *Dublin Medical Journal*; the address on The Pilgrim Path of Cholera, by *Pearsons' Weekly*. They are issued also as separate reprints in pamphlet form.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1893.

Subscriptions to the Association for 1893 became due on January 1st; and notice is hereby given, in accordance with By-law 5, that Branch Secretaries' subscription accounts close on October 31st, and all unpaid subscriptions must be forwarded after that date to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, DECEMBER 2ND, 1893.

THE BRITISH MEDICAL ASSOCIATION AND THE JOURNAL, 1894.

The records of a prosperous year, like the annals of a quiet kingdom, may be expressed in few words, and need occupy, happily, in view of the crowded state of our columns, but a small space. The year has been one, both for the Association and the British Medical Journal, of unalloyed success and satisfaction.

In respect to the growth of the Association, and the multiplication of its Branches, we note with great pleasure the Cork and South of Ireland Branch has been reorganised, and we trust that a long, influential, and prosperous career is now before it. Other important branches have also been formed in the Colonies—the Manitoba and North-West Branch of Canada, and the Grahamstown and Eastern Province of Africa, and in Ireland the South of Ireland. There are also waiting organisation and recognition an important Branch for Dundee and district, and in the Colonies one for Queensland and another for British Columbia. Of our own progress it is only necessary to state that the issue of the British Medical Journal this time last year was 17,350, and this year it has increased to 17,850 weekly.

A growth of about 500 annually has been the average of the last twenty-eight years, ever since the editorship of the British Medical Journal passed into its present hands. Prior to that date the annual increment had been an average of between thirty and forty. We can only express the hope that the greater growth will not diminish in the future, although the margin of possible extension within the limits of the British Islands is necessarily narrowed from year to year by the very conditions of our success. On the other hand, the increase of circulation of the British Medical Journal amongst the English-speaking races on the great American Continent and throughout the dominions and colonies of Great Britain goes on with pleasing rapidity, and holds out the great promise for the future.

The visit of the Editor of the British Medical Journal to America, the numerous friendships and alliances which were thus formed in the active medical centres, giant cities, and rapidly growing universities and colleges of the great American continent, have increased the mutual friendship, and rendered more lively the personal and scientific interests felt on both sides of the Atlantic in the coincident growth and development of medical knowledge. Up to this date we have, perhaps, been unduly engrossed in European medical topics, and too exclusively attentive to our insular development. Henceforth, America will play a larger part in our vision of scientific, social, and administrative developments. For undoubtedly many important problems in practice and in teaching, as well as scientific studies of clinical and pharmacological importance, are being worked out in the States. We have made arrangements for a much fuller representation of the doings and thoughts and the best aspirations of the American profession in our columns than has ever before been possible. These are among the results of the gracious invitation and most courteous and warm reception which were extended throughout America recently to the official representative of the Association and the British Medical Journal. We trust that they may have a permanently useful effect on both sides of the Atlantic. India, Canada, and the Colonies continue to claim and will receive a larger share of study and representation from year to year.

We trust that at the forthcoming meeting of the Association at Bristol in 1894 both our Colonial members and brethren and our transatlantic cousins will be largely represented. It will be seen that ample arrangements are being made for the work of that most interesting meeting on the usual lines. Dr. E. Long Fox, Consulting Physician to the Bristol Royal Infirmary, will be the President. An Address in Medicine will be delivered by Dr. T. Grainger Stewart, of Edinburgh; an Address in Surgery will be given by Mr. J. Greig Smith, of Clifton; and Sir Charles Cameron, of Dublin, will deliver an Address in Public Medicine.

TEMPERAMENT.

The time and manner of the death of the late President of of the College of Physicians have deeply impressed not Englishmen only, but also men beyond this kingdom. If we may use the word reverently, we would say that there was a dramatic character in his death which could not fail to stir the hearts of all men who came within the influence of the story of it.

Sir Andrew Clark had reached the highest standard of professional honour and success; he was the most eminent physician of his generation; he was actually sitting for the sixth year in the highest place to which his brethren could call him. During these six years the noble self-denial, the high ideals, and the scrupulous rectitude of his life had become as well known to his brethren as his passionate energy and his assiduous toil both in medical and in philosophical studies had been known to them before; and when the hand of death was suddenly put forth to touch him he

was engaged, with his inexhaustible kindliness, in a consultation—not, as it happened, for a hardly-earned fee, but in the cause of charity.

Great as is the loss to medicine, irreparable as is the loss to those of his own house, yet we may, thinking of him, ask ourselves whether such a death were not the death he would have chosen for himself? Of late years we have begun to say that the age of 67 is no great age; but let us also ask ourselves how that strenuous spirit would have submitted to gradual decay, to the failures of the worn-out body in which it dwelt, to the respectable advice of judicious friends, to the counsels of men of the world prating to him of that enjoyment of wealth and ease which they regard as the wages of a life of heroic effort? And now we must moralise when he is gone. Had Andrew Clark taken my advice, one will say, he would have been living now. Well, and what of that, if he had lived thereby a smaller life than his ideal of life?

Far be it from us to say that a man shall close his ears to the advice of his friends and well-wishers, but let his well-wishers remember that a man is not made up of snips of wisdom, but, if he be a man of mark, he has his own temperament, and by this temperament he will stand or fall. This temperament may, no doubt, be modified by education during the earlier and more plastic years of life, but it may also be spoiled. In any case, it must be taken as a whole and educated as a whole, not tinkered at in detail; for, inconsistent as its parts may seem to be on the surface, all its parts have an organic consistency within.

Had Andrew Clark delegated much of his work to others; had he availed himself of labour-saving devices; had he shirked work lest work should kill him, he would have been a more calculating man, perhaps a more prudent man, but he would have been another man. Do we wish him other than he was? Do we wish that one striking personality had been wanting to the roll of the great men of our day? If not, then let us cherish the memory of Andrew Clark thankfully as of one who has been well compared with a soldier who listens to no counsels of safety as he goes into battle, and with that sentry who, overwhelmed with ashes from Vesuvius, stood to his post. As guardians of public and private health we may seem sometimes to pander to a merely selfish desire of prolonging existence, but whatever we may say upon the subject to those who consult us upon health and not upon ethics, we can point at least to three distinguished physicians—to Murchison, to Hilton Fagge, and to Andrew Clark—who, knowing that death might, and probably would, overtake them prematurely, yet calmly determined that when the stroke came it should find them at their posts.

It is well known that Sir Andrew Clark had looked death in the face long before, and more than once before, he was taken away; thus he was permitted to live those added years which shall last men as an example and an inspiration for generations to come; it is known, moreover, that much of his work was done under the discipline of pain; perhaps even in his kindly heart there might at times have been a pathetic irony as he listened to the complaints of others who dare not face the ills of life; nay, perhaps also, as he listened to those who, reading little of his temperament, begged him to weigh out his energies in a balance, and to give of himself that which he could safely spare.

MEDICAL EDUCATION IN THE UNITED STATES.

An interesting address on the subject of medical education in the United States of America was delivered by Dr. J. Collins Warren, Professor of Surgery at Harvard, before the Section on Pedagogy of the Pan-American Congress. Dr. Warren sketched the history of medical education in the States during the last hundred years, and in a learned and skilful manner pointed out the varying fortunes of the medical student of the past and the most important periods through which medical education had advanced in the course of its expansion and improvement. The study of the gradual development of the work and of the efforts of teachers of medicine, face to face with enlarging needs, to meet the difficulties of organisation in a new country and in a new and rapidly growing society is most interesting and instructive. During the colonial period of American history the medical student was apprenticed for three or four years to a practitioner, who had, perhaps, several students in his "office." In return for assistance in dispensing and minor duties, the physician was supposed to give instruction in all branches of medicine to his class, and in some instances the apprenticeship extended to six or seven years.

When the medical schools came into existence they were intended merely to supplement this system of apprenticeship; but, distances being great, the terms were necessarily very short, and short terms have ever since clung persistently to the American system. In 1810 there were five such schools, with an aggregate number of 650 students; those students who had no "college degree" were expected to pass an examination in "Latin, mathematics, and natural and experimental philosophy." In 1840 the schools had increased in number, and the whole number of medical students amounted to 2,500; the courses of instruction were, however, very brief, and were understood to be supplementary to private and other extramural tuition. The usual academical term for the year was but four months—a term, however, crowded with lectures.

This plan worked badly. Nothing like careful instruction by these private preceptors existed, and no one regretted the discontinuance of the teaching "by some respectable practitioner." In return for a handsome fee the student was permitted to register his name in the "doctor's office," to read the books in the doctor's library, and to obtain a certificate for his college.

In 1846 the American Medical Association sprang into existence, and it set before itself the task of improving medical education—and it was high time the task was begun. The curriculum of the schools was substantially increased, although it was still so absurdly short that the best class of students found it necessary to go to Europe to complete their education. These men learned of a new order of things in the great centres of medical teaching in Europe; and Harvard, about the year 1888, lengthened her terms to nine months (having some years previously opposed an extension from four to six months).

It may be justly said that the whole system of medical education in America was the spontaneous outgrowth of the work of the medical profession and of its public spirit and disinterestedness. Dr. Warren does not hesitate, however,

to point out that much still remains to be done; the importance of preliminary training for the study of medicine is as pressing and yet as difficult a matter as it is in England. In Germany entrance to the professional schools depends upon the previous completion of the course in philosophy—a course which corresponds to that of our university degrees in arts.

Again, American physicians complain that the medical department is neglected by every university in the United States: "It is farmed out, or is left to shift for itself." The relations of professional schools to the universities are not understood as they are in Europe, and thus the widening effect of other departments of knowledge is lost upon the student of medicine. Harvard has, however, now provided laboratories which have doubled the advantages of the medical department, and courses previously optional, such as pathological histology, have become obligatory.

Finally, the most glaring fault of the old system—namely, the lack of clinical instruction—is in course of removal. In 1810 the statement that a hospital was absolutely essential to a medical school had to be proclaimed as a novelty, and had to fight its way against the prejudices which resented the intrusion of students into hospital wards; even yet "the number of schools which have a hospital of their own is exceedingly small," and practitioners are appointed to clinical hospitals by laymen who have no knowledge or care concerning medical education. By these criticisms our own withers are not unwrung.

As in England so in America, the question concerning the proper relation of "didactic" to "practical" teaching is not settled. Ought systematic lectures to give place altogether to abundant and varied clinical instruction? This is too large a question for us to discuss at the end of an article; we will content ourselves with expressing once more the interest with which we have read the story of medical education in America under circumstances so widely different to our own as to present the subject in many new lights, and to teach us many important lessons.

DOCTORS' REMUNERATION.

The correspondence in the *Standard* on this subject, to which we alluded in the British Medical Journal of November 18th, has now been brought to a close by a leading article in the same journal for November 23rd. We are not disposed to differ from our contemporary in saying that this correspondence "has not been particularly fruitful in practical suggestions;" and, indeed, the only practical suggestion which is made in the leading article itself is that "the doctor might have an annual retaining fee, in consideration of which he should keep his client in reasonable health and strength," which is precisely the essential principle of the provident dispensaries. In short, the only practical conclusion that we have ever seen from any of these discussions has been the very same—namely, that the only prospect of alleviating (we do not say curing) the many abuses in the medical treatment of the poor lies in the establishment of a proper system of provident dispensaries. In any such scheme the reform of the present out-patient system is a necessary ingredient. We have never concealed our conviction that provident dispensaries are exposed to dangers of their own, and that public and concerted action is necessary to guard against these dangers; but this action must be concerted—that is, it must be settled by public and full discussion on the part of the profession as well as the public, and the results of such discussion must be enforced by some authority in which both the public and the profession can repose confidence. It is natural that, when individuals detect some real or fancied abuse in the management of this or that institution, they should write to the papers and denounce the system under which such institutions are founded; but this will do no real good. If the damage to private practitioners from the indiscriminate distribution of "medical charity" is as grave as we believe it to be, it is for those affected to take public action. The local Branches of the British Medical Association afford a ready means of ventilating the question on its professional side, but it has its public aspect also; and this ought to be set before the public through the press and by public meetings. When, in this way, a basis is laid for the settlement of some scheme, the assistance and guidance of the great medical colleges could be most usefully invoked.

It is understood that Sir Joseph Lister will be elected to succeed Sir Archibald Geikie in the Foreign Secretaryship of the Royal Society. His claims to that distinction are unique.

On the authority of the *Homburger Freisinnige Zeitung*, there were in Prussia, in one year, 1,200 individuals who died from delirium tremens, and 500 who committed suicide through intemperance.

On the nomination of the Lord Provost of Edinburgh (Dr. Russell), Dr. A. H. F. Barbour and Dr. J. Murdoch Brown have been placed on the Commission of the Peace for the city of Edinburgh and county of Midlothian.

Our Belfast correspondent writes that the entries at the Medical School are satisfactory, many of the classes showing a decided increase. This is the more noteworthy as the Royal Hospital has just made a considerable increase in its clinical fees. The number of students there this session is between 170 and 180.

At the intermediate Branch meeting of the Lancashire and Cheshire Branch, to be held at Nantwich on December 7th, Dr. C. E. Glascott will be presented with a service of plate, consisting of silver tea and coffee service, salver, and claret jug. The presentation, which is in recognition of Dr. Glascott's services as Honorary Secretary to the Lancashire and Cheshire Branch, will bear an appropriate inscription.

The Council of the Society of Arts announce that the next award of the Swiney Prize will be made in January next. Dr. Swiney died in 1844, and in his will left the sum of £5,000 in Consols to the Society of Arts for the purpose of presenting a prize on every fifth anniversary of the testator's death to the author of a work on jurisprudence. The prize is a cup, value £100, and money to same amount. The award is made jointly by the Society of Arts and the College of Physicians.

COBRA POISON IN MOTHER'S MILK.

A Mahomedan beggar woman and her infant child (aged about 1 year) recently died in Madras. It would appear, says the *Times* of India, that the deceased woman was bitten

by a cobra, and while in that state she nursed the child, which also died from the effects of the poison. With reference to this statement Sir J. Fayrer, to whose notice we brought it, writes: "I think it quite probable. I long ago showed that the blood of an animal poisoned by cobra virus is itself poisonous. I also showed that the cobra virus is poisonous when placed in the stomach. Nothing more probable than that the milk of a woman so poisoned should be poisonous to the infant, but is it quite sure that the infant did not die of some other cause?"

LOCAL GOVERNMENT IN EGYPT.

We are informed that a sum of £E10,000 has been assigned in the budget for 1894, from the local receipts of certain towns, in which an attempt will be made to start local councils at whose disposal the money will be placed for the purpose of town improvements. Should this experiment prove successful, the same system will, it is stated, be adopted in other towns.

THE GREENWICH EPIDEMIC.

Dr. Frankland has now sent in to the Local Government Board the report of his analyses of samples of water from the wells of Greenwich workhouse and infirmary. He reports that it exhibits very strong evidence of sewage and animal contamination, and must on this account be considered as unfit for dietetic purposes.

THE YORKSHIRE COLLEGE, LEEDS.

The new buildings of the medical department are approaching completion, as are also the examination hall and library of the College. The Council of the College have addressed an invitation to their Royal Highnesses the Duke and Duchess of York to open the buildings in June or July next. A reply has been received from the Duke to the effect that while he cannot pledge himself at this somewhat distant date, he hopes that when the invitation is renewed in the spring he may be able to give a favourable answer to the request.

THE PRESIDENCY OF THE ROYAL COLLEGE OF PHYSICIANS.

A meeting of the Royal College of Physicians of London will be held on Thursday next, December 7th, when a new President will be elected in the room of the late Sir Andrew Clark. The Fellow elected will be subject to re-election at the termination of the College year next Easter. It is impossible to foresee the result of the election, but, as we have already stated, the suffrages of the Fellows are likely to be divided, at the first ballot, between Dr. Wilks, Dr. Russell Reynolds, Sir Edward Sieveking, and Sir William Roberts, to whom may be now added Dr. Clifford Allbutt, the Regius Professor of Physic in Cambridge.

MEDICAL ASSURANCE SOCIETIES.

We publish elsewhere reports of the Clerical Medical and General Assurance Company and of the Medical Sickness, Annuity, and Life Assurance Society. Both are highly successful and solid societies, having specially close relations to the medical profession. It is satisfactory to note that while the expenses of the former are 12 per cent. of the premium income—a fair average rate—that of the Medical Sickness Society, exclusively controlled and managed by medical men for medical men, is rather less than 5 per cent., an unprecedentedly low outlay on administration of which there is good reason to be proud, and which leaves a margin of profit of several thousand pounds on the valuation to the credit of the assured.

BEER IN ASYLUMS FOR THE INSANE.

An interesting fact has been noted by Dr. Claye Shaw, at the London County Asylum, Banstead. Since the withdrawal of beer from the dietary the rate of recovery has gone up. During the past year, for example, the recoveries reached 46.97 per cent. Nearly one-half of the patients had thus recovered during the period stated. These inmates take their food better without the liquor, and they thus are taught that intoxicants are not a necessity of ordinary health.

SEATS FOR SHOP ASSISTANTS.

We desire to call attention to an excellent practical suggestion made by Dr. Hamill towards influencing employers to provide seats for their weary shop-girls. His proposal is that a lady member of a committee of large women's associations should call on every shopkeeper, and urge the necessity for preventing the many physical mischiefs which their female assistants undergo from long standing—the names of the shopkeepers agreeing to provide such seats to appear in the journals, and the members of the associations declining to buy at any shop where seats are not provided.

SUPERANNUATION OF IRISH POOR-LAW MEDICAL OFFICERS.

The guardians of the Athy Union have unanimously passed a resolution protesting against the Bill by which it is proposed to make retiring allowances to medical and other officers under the Poor-law system compulsory. They have requested their representatives—one of whom is Dr. Mark A. McDonnell—to oppose the Bill, and a copy of the resolution has been sent to Mr. Morley and to every board of guardians in Ireland. This resistance was to be expected. The guardians generally do not appreciate any reform which is likely to increase the rates. The opposition will be a real one, and it will demand all the power of the medical officers to overcome it. The Irish members are very much at the mercy of the country guardians, and are certain to be influenced by such a resolution as has now been sent over the country.

CIVIL SERVICE MEDICAL INSURANCE SCHEME AT WELLINGTON, NEW ZEALAND.

A medical assurance scheme, which the Wellington local committee of the Public Service Association suggests should be adopted by the civil servants in that district, has been favourably received. The scheme cannot be brought into operation until 200 subscribers have been obtained, and nearly that number has already been enrolled. A circular was recently addressed to each doctor in Wellington, asking whether he was willing to act as one of the medical officers on the following conditions: That the rate of payment per member per annum shall be as follows: Married members and families, 30s.; single members, 21s., for medical attendance when required—dispensing medicines, accouchements, and other illnesses not allowed to friendly societies being not included. The proportion of medical officers shall be 2 per cent. on membership. Medical men have already signified their willingness to act.

A VACANT CORONERSHIP.

By the death of Dr. Gilbertson the coronership for Preston and the adjacent county, as we mentioned last week, becomes vacant, and we understand that the contest for the appointment will ultimately resolve itself into one between the doctor and the lawyer. Dr. Grierson Gledhill is already a candidate for the post, and as he is not only a fully qualified medical man, but also a barrister-at-law, the electors will probably consider that one possessing these double qualifications would most appropriately fill the vacant office. Dr. Gledhill has for some years past attended

at most of the coroners' courts in London and Middlesex, and has been present at over 800 inquests, and in many cases he has assisted in the proceedings. In a recent election this happy combination of medicine and law found favour amongst the County Council of London, and we recommend Dr. Gledhill and his double qualifications to the favourable consideration of the Lancashire electors. We would strongly urge upon our medical brethren in the district to do their utmost to support a medical candidate as against a purely legal one. Dr. Gledhill, we are informed, comes forward as a medical candidate possessing legal qualification. The late coroner, Dr. Gilbertson, who died on November 18th, led for many years a very active, busy life, and was universally respected both as a medical practitioner and in the official position he occupied.

DR. CORNELIUS HERZ.

The decision of the British Government communicated to the French Cabinet not to take steps to bring Dr. Herz to Bow Street for the purpose of extradition proceedings has the best grounds. We have the highest authority for stating that the health of Dr. Cornelius Herz is deteriorating instead of improving. The vomiting is more continuous and distressing and the attacks of angina pectoris more frequent and severe. The deterioration of the aorta, as evidenced by physical signs, is unfortunately also progressing, and the diastolic murmur at the aortic valves—which the French physicians regarded as being only a prolongation of the second sound, hardly meriting the name of a murmur—is now loud and prolonged. The water-hammer pulse, characteristic of the aortic regurgitation, has not yet appeared, and the valvular disease is chiefly important as indicating the presence of continuous degeneration which is likely to involve more and more the coronary arteries. In his present condition it would be simply homicide to try to remove him to Bow Street, and unless something can be done to put him under more favourable conditions without taking this step, there seems to be every probability of the advancing cardiac degeneration putting an end to his life before many months are over.

LENT LECTURES OF THE NATIONAL HEALTH SOCIETY.

We are requested to announce that the following lectures have been arranged by the National Health Society at the rooms of the Society, 53, Berners Street, W.:—February 14th, 1894, The Feeding of Schoolboys and Schoolgirls, Dr. C. E. Shelly, Consulting Medical Officer of Health to Haileybury College. February 21st, Diphtheria in the House, Dr. Arthur Newsholme, Medical Officer of Health for Brighton. February 28th, Infant Mortality, Dr. George Reid, Medical Officer of Health to the Staffordshire County Council. March 7th, Home Precautions for the Prevention of Consumption, Dr. Solomon Smith, late Consulting Surgeon to the Halifax Infirmary. March 14th, House Sanitation, Sir Douglas Galton, K.C.B., F.R.S., President of the Sanitary Institute. March 21st, Afternoon Tea, After-dinner Coffee, and Morning Chocolate, with modern examples and deductions, Mr. Ernest Hart, Chairman of Council. Hour fixed, 4 p.m.

A MONSTER BAZAAR.

Glasgow is famous for big bazaars. It would appear, indeed, that this is the chief form of dissipation in which Glasgow ladies indulge. But always their indulgence in their favourite amusement is made the occasion for the exercise of some conspicuously useful and discriminating benevolence. Last year it was the endowment of Queen Margaret College for Women that served as the motive, a year or two before it was the endowment and equipment of a union building for the University students. On each of these occasions a sum exceeding £12,000 was raised. This year their sympathies have turned to the incurably sick in mind or body, but not for the first time. Indeed, if we mistake not the era of big bazaars was inaugurated by one held for the benefit of this very class. That was in 1875, and the proceeds were sufficient for the purchase of the estate of Broomhill and the erection of the Broomhill Home for Incurables, which has accommodation for 100 persons. Last week was held the latest of the big series. It was for the benefit of this same home, to provide more suitable accommodation for the nurses of the institution, to permit of some separate provision being made for imbeciles suffering from incurable diseases, and to put the funds of the association on a more satisfactory basis. A sum of £10,000 was aimed at and has been more than realised.

THE LIBRARY AND READING ROOM OF OUR ASSOCIATION.

The Library continues, we are glad to say, to be held in high esteem, and renders increasingly valuable services. There have been nearly 3,400 attendances during the past year. The increase of work in connection with the charge and service of the library and reading room has necessitated the constant presence of a librarian, who is accordingly, by the liberality of the Council, now in attendance from 10 till 5 daily, in accordance with the recommendation of the Library Committee. The attendances of readers during the past month have been 420. From the four lists of presentations which have been published in the Journal during this year it will be seen that a great number of useful books are being presented by the authors and publishers and by the honorary librarian, who is the chief donor, and steady progress is being made in the completion of series. In respect to these donations, the honorary librarian desires to thank members for having so kindly responded to his requests through the medium of the "Desiderata" published in the Journal. The value of this medium is demonstrated by the fact that numerous items necessary to complete series have been forwarded to the honorary librarian, not only from various parts of the United Kingdom, but also in several instances from abroad. The *Transactions* and *Reports* of the most important medical societies and a number of leading periodicals are being brought up to date. In several instances during the present year it has been possible to perfect series of which the missing volumes were out of print.

The library is especially rich in the possession of first-rate copies of such fine illustrated works as Albinus's anatomical tables, *Bourgery and Jacob* (coloured plates), *Quain and Maclise*; the *Anatomie Pathologique* of Cruveilhier and of Lebert; the works of Dalton (with over 100 plates), and of Fraser on the brain; and the classic illustrated works of Alibert, Hebra, and Erasmus Wilson on the skin. It has also the coloured botanical illustrations by Stevenson and Churchill, and Woodville. Among rare and interesting old books, the librarian has recently secured an original copy of Jenner's *Variolæ Vaccinæ*, 1798, and of Harvey on the *Circulation of the Blood*, 1653. Of more recent books there are Byrom Bramwell's *Atlas of Clinical Medicine*; Hirst and Piersol, *Human Monstrosities*; Maclaren, *Atlas of Venereal Diseases*; the invaluable *Jahrbücher* of Canstatt and Schmidt, the *Index Medicus*, etc. Arrangements have also been made for obtaining the important series of the *Thèses de Paris*. A complete list of the 441 *thèses* for the past year may be seen, and these invaluable records of recent progress may be consulted. The Library also continues to do a useful work in the distribution of duplicate volumes; 2,400 books from the duplicate lists have been presented by request to smaller medical libraries and institutions; and from the letters addressed to Mr. Hart we are sure that they are appreciated.

THE TUBERCULOSIS COMMISSION.

WE understand that the delay in the appearance of the report of the Commission on Tuberculosis, which was the subject of a question recently put to Mr. Fowler in the House of Commons, is due to the very large number of *post-mortem* examinations which have had to be made in connection with the inquiry; in each case it has been necessary to make careful microscopical investigation, and the preparation and examination of the specimens—a work in which Dr. Sims Woodhead, the Director of the Royal Colleges' Laboratory—has been assisted by Dr. Cartwright Wood and others, has necessarily been very tedious. The information thus obtained, however, is essential, and the Commission has done well not to be prevented by injudicious clamour from awaiting material of fundamental importance in forming trustworthy opinions on the important practical subject on which they are called upon to report.

THE CHAIR OF MIDWIFERY IN THE UNIVERSITY OF GLASGOW.

CONSIDERABLE surprise has been freely expressed in medical circles, both in Edinburgh and Glasgow, regarding the delay in making this appointment. The professorship was founded by George III in 1815, and is in the patronage of the Crown. We are informed that, at a meeting of the Privy Council held in the end of last week, an ordinance of the University Commissioners, making new regulations for the retirement of professors to the effect that it will not in future be necessary for a professor to apply to any other body than the University Court for leave to retire, was approved. Inasmuch as the Glasgow Court have already approved of Professor Leishman's retirement, it is now an accomplished fact, and the Chair of Midwifery is vacant. The matter has been notified to the Secretary for Scotland.

REPORT OF THE ROYAL COMMISSION ON UNIVERSITY EDUCATION IN LONDON.

THE Royal Commission on University Education in London has nearly completed its labours, and the report will in all probability be presented during the present session. The delay in the appearance of the report has been due in part to the laborious nature of the inquiry and in part to the determined effort which has been made, under the firm guiding influence of the Chairman, Lord Cowper, to arrive at a unanimous recommendation. With this view various disputable matters were referred to subcommittees, and the reports prepared by them have been under the consideration of the whole Commission at a series of meetings held recently. We believe that the Commissioners are unanimous in recommending that a second university should not be created, but that the constitution of the existing University should be radically amended so as to enable it to discharge the functions of a teaching university in addition to those which it now fulfils. Similar proposals in the past have always been wrecked by the opposition of a majority of the Convocation of the University of London, and with this fact in view it is to be hoped that the Royal Commission has found some way of conciliating or, if that be impossible, overriding this opposition, and so removing the obstruction which has hitherto defeated every scheme which has been framed for granting degrees to London students on reasonable terms.

UNFAVOURABLE STATISTICS OF THE METROPOLITAN FEVER HOSPITALS.

AT the last meeting of the Metropolitan Asylums Board the annual report was presented, including that of the Statistical Committee and those of the medical officers to the various hospitals. The total admissions of fever and small-pox patients during last year amounted to 16,624—double the number of any previous year—reaching, together with 1,847 cases remaining in hospital at the end of 1891, to a total of 18,471 patients treated during the year. Of these admissions, 13,093 were cases of scarlet fever, 2,009 of diphtheria, 430 of enteric fever, and 348 of small-pox. The Asylums Board hospitals did not receive quite half the cases which which were notified, 13,093 scarlet fever patients being admitted, against 27,095 notifications, and no doubt during the height of the epidemic, when the hospitals were full, the proportion of admissions to notifications would be smaller still. It is not altogether satisfactory to note that, both as regards scarlet fever and diphtheria, the mortality was higher among the hospital cases than among those who were treated at home, the scarlet fever mortality being 6.4 per cent. in hospital compared with 2.3 at home, and that of diphtheria being 29.1 per cent. in hospital against 22.5 at home. Of course we quite understand that the aim has been to remove to hospital those cases which were in themselves most serious, and also those which came from the crowded dwellings of the very poor, and were therefore likely to have the least stamina and power of resistance. Still, there is an enormous difference between 6.4 and 2.3 per cent., and we cannot shut our eyes to the fact that, from the very methods of the ambulance arrangements, from their perfection and rapidity of action, it was impossible to exercise any real selection of cases during a large portion of the epidemic, and that, in consequence, a fair proportion of mild cases were admitted. Under these circumstances the striking difference between the mortality of the home-treated and the hospital-treated patients raises again the large question, which has so often exercised the minds of epidemiologists, as to the effect of aggregation upon the type of the disease, in reference to which it is interesting to observe the lessened difference of percentage mortality in the case of diphtheria, in which disease we understand a much smaller number of patients were allowed to be together than was the case in regard to scarlet fever. The whole question is worthy of the most careful study.

DANGEROUS FACILITY FOR DEATH CERTIFICATION.

IN a recent inquest in Lambeth, the coroner, Mr. Braxton Hicks, called attention to the dangerous facility which appears to exist for obtaining medical certificates of the cause of death in cases which should be brought under the notice of the coroner. In this case the infant child, aged 3 months, of a railway porter, living in Bird Street, Lambeth, was taken by its mother on November 10th to the Royal South London Dispensary, where the resident medical officer prescribed for it, and told the mother to bring it again in a week's time. The mother accordingly took the child again on the 17th, when the doctor again prescribed for it. Two days afterwards, on the 19th, the child was found dead in bed with its mother, who in due course applied to the dispensary doctor for a certificate. It is clear that this doctor, who does not appear from the evidence to have even examined the body of the infant, had no satisfactory evidence of the cause of death to justify him in giving a certificate. On, however, the strength of the statement of the mother that she found the infant dead by her side, he gave a certificate to the effect that the cause of death was "convulsions." The registrar, having elicited the facts of the case from the mother, on application to register the death, very properly referred the case to the coroner. The result of a *post-mortem* examination was to show that death was due to "acute congestion of the lungs and brain, which might or might not have caused a convulsion." We entirely endorse the coroner's statement that "this was a case in which no certificate should have been given," as it was shown from the evidence that, as Mr. Hicks stated, the assignment of "convulsions" as the cause of death was a mere guess, the result of which would, except for the praiseworthy action of the registrar, have been to evade the inquest, which in such a case was undoubtedly necessary. Such mischievous laxity in giving medical certificates constitutes one of the gravest

dangers in the present system of death certification. It seems very doubtful whether mere dispensary attendance should justify a medical practitioner in certifying the cause of death of a patient, at any rate without careful examination of the body after death, more especially in cases where the death occurs some days after the last attendance at the dispensary.

THE OPIUM COMMISSION.

The sittings of the Opium Commission have been continued in Calcutta. The Hon. D. R. Lyall, of the Bengal Revenue Board, stated that immoderate use of the drug was rare, and its moderate use beneficial in a malarious country. Dr. Maynard, medical officer of the Patna Factory, had seen no ill-effects from opium, which was largely used as a domestic remedy. The evidence of several native medical practitioners was to the effect that the drug had no deleterious effect on the health when taken in moderation, and that its complete prohibition was impossible. The Commission, when the taking of evidence at Calcutta is concluded, will divide into two parties, and continue the inquiry in various localities.

MEDICAL DEFENCE.

We have received from Mr. Victor Horsley, President of the Medical Defence Union, and Dr. Hugh Woods, Honorary Secretary, London and Counties Protection Society, communications, which owing to the pressure on our space we are unable to publish in full. From them we learn that the proposal to amalgamate these two associations, whose aims are almost identical, has broken down. We can only express the hope that some means may be found for preventing the waste of strength and of funds which must inevitably ensue. The Medical Defence Union is the older and the more firmly established, and it may well expect the necessary concessions from its younger rival, which are, we believe, chiefly of a personal character.

THE EPIDEMIC OF INFLUENZA.

Reports which reach us from our correspondents show that influenza in epidemic form continues to prevail extensively in the neighbourhood of Cardiff, and throughout South Wales, in Birmingham and the Black Country, in Liverpool, Manchester, Blackburn, and various other parts of Lancashire. It is extending into the Potteries, and our Edinburgh correspondent writes that, after a short lull, it has broken out again in that city, and in a more grave form; some large offices, including the post office, have had a long sick list, and the death-rate has risen during the last three weeks from 17 to 25, and last week to 27. The mortality last week was 138, and of this number no fewer than 90 deaths were due to diseases of the chest. In this epidemic again the large towns appear to be the foci of infection, which spreads thence into suburbs, and finally into country districts. The epidemic continues to be severe in Berlin, while in Frankfort and Hesse it is said that 20 per cent. of the inhabitants are suffering. In Posen and East and West Prussia, the epidemic is very prevalent, so that in some places one-fourth of the workmen are off duty. It is spreading also in the suburbs of Hamburg, and is present in Lubeck.

ADULTERATION OF BEER.

A correspondence has taken place between Mr. E. N. Buxton, of the Brewery, Spitalfields, and the Bishop of London, in reference to the right reverend prelate's statement in the House of Lords, in introducing his Bill to amend the licensing laws, that "competition drove the publican to adulterate their liquor—not, he was sorry to say, with water." On October 16th Mr. Buxton called his lordship's attention to the circumstance that his assertion had been amplified by other persons, and quoted from the speech of the Chancellor of the Exchequer, and from a letter written by the Chairman of the Inland Revenue Department, to the effect that the general experience of analysts is that beer is not adulterated with noxious ingredients. The Bishop of London was therefore invited either to withdraw his statement or to verify it. On October 27th the right reverend prelate wrote: "My dear Mr. Buxton,—I will answer your letter when I can get a few minutes to do it in. But it must take its turn with other things.—Yours, etc." On November 21st Mr. Buxton reminded the Bishop of London that he was still awaiting his reply, and pointed out that so grave a suggestion as he had made in public was calculated to create prejudice against the entire body of publicans. Up to Saturday last Mr. Buxton had received no further acknowledgment.

A CONGRESS OF QUACKS.

A motley assembly, claiming to be a "National Congress for the Free Practice of Medicine," met in Paris on November 20th. All sorts and conditions of irregular practitioners —*masseurs*, magnetisers, faith-healers, bone-setters *et hoc genus omne*—were invited to take part in the proceedings, the only essential condition of membership apparently being the fact of being engaged in the practice of the healing art without a legal qualification. In such a gathering the possessor of a regular diploma would have been as much out of place as the *testiculi sibi conscius mus* in the temple of the Bona Dea. Unfortunately, no report of the proceedings has reached us, but it is not difficult to imagine the nature and general drift of the discussions. A special feature of the "Congress" was that patients who had been cured by members of the unqualified fraternity were invited to come forward and recount their experiences, for all the world like the brands snatched from the burning at a revival meeting. When the Greek philosopher Bion had his attention called to the votive offerings of persons who believed themselves to have been saved from shipwreck by the power of the gods, he answered, "But where is the list of those who were drowned?" The moral of which remark lies, as Jack Bunsby would say, in the application of it.

THE MACEWAN HALL AT EDINBURGH.

The MacEwan Hall, in connection with the new Medical University of Edinburgh, is now showing signs of approaching completion. During the last week or two boarding and scaffolding has been largely removed on the Teviot Place side, and one can form some better idea of the handsome nature of this addition to an already magnificently equipped school. The carving on the exterior is being done rapidly. In the interior of the building much progress has of late been made. The wood work is well advanced, and painters are at work on the ceiling preparing for the more purely decorative part of the work. For the further and more artistic part of the ceiling Mr. Palin and a staff of assistants are now hard at work painting a series of symbolic figures which, viewed on the ground level, are of colossal size. These go into the panels of the ceiling. It is impossible yet to say when this gorgeous hall will be completed.

HARVEIAN SOCIETY OF LONDON.

The annual dinner of this Society took place at the Criterion Restaurant on Thursday, November 23rd, and proved a very interesting and brilliant entertainment. Mr. Malcolm Morris, President of the Society, was in the chair. Sir Richard Quain, Mr. Hulke, Dr. J. E. Pollock, Sir J. Crichton Browne, Mr. Ernest Hart, Mr. Henry Power, Mr. Roughton, Dr. Boxall, Dr. Gordon Brown, and about 100 other members and their guests, were present. In proposing "Success to the Harveian Society," the Chairman urged anew the amalgamation in an Academy of Medicine of all the medical societies of the metropolis, as a consummation to be devoutly aimed at. Mr. Cripps Lawrence proposed "The Sister Societies," to which Mr. Hulke, President of the

Clinical Society, and Dr. Donald Hood, President of the West London Medico-Chirurgical Society, responded. Dr. J. E. Pollock proposed "The Visitors," for whom Mr. Warrington Haward and Mr. J. Y. W. MacAlister replied. The President's health was proposed in an eloquent speech by Sir J. Crichton Browne; and Mr. Morris replied. Mr. Roughton and Dr. Boxall, Honorary Secretaries of the Society, also acknowledged a toast proposed by the Chairman.

A NEW COLONIAL BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

WE have the gratification of reporting at another page the proceedings of the first meeting of a new South African Branch of the British Medical Association. The Grahamstown and Eastern Province Branch was formally recognised by the Council of the parent Association, at its meeting in Newcastle on August 1st, and the first meeting of the Branch was held on October 19th, at the Albany General Hospital, Grahamstown, when Dr. W. Guybon Atherstone was elected President of the Branch, Dr. Begg Robertson, Secretary, and Dr. T. Duncan Greenlees, who has taken an active part in the formation of the Branch, Treasurer. It is interesting to note that at this first meeting Dr. Greenlees showed a case of acromegaly, probably the first recognised in South Africa. The Colonial Branches of the Association represent one of its most important spheres of work, and important mutual advantages flow from the opportunities afforded for the interchange of opinions, and from the feeling of brotherhood throughout the medical profession which is thus fostered. The Association now has three Branches in South Africa—the Cape of Good Hope Branch, the Griqualand West Branch, and the new Grahamstown and Eastern Province Branch.

PLUCKING AT EXAMINATIONS FOR HIGH DIPLOMAS.

SINCE the paragraph on "Plucking at Examinations" appeared in the BRITISH MEDICAL JOURNAL of October 21st we have received some correspondence in respect to the perils which candidates who have been long in practice must encounter when they present themselves for examination for high diplomas. The examiners are often gentlemen who have devoted themselves to teaching at hospitals, and who know a good from a bad student, yet cannot always tell a good from a bad practitioner. They may be younger than some of the long-qualified candidates whom they examine. Hospital surgeons and physicians are often as badly off as practitioners in the same respect. Hence men who have shown themselves to be able, whether in hospital or private practice, are often rejected, whilst inexperienced young candidates pass easily. The defeated veterans naturally go and talk about "diplomas only meant for boys to gain by cramming." The truth is that a high diploma implies a sound training in advanced anatomy, physiology, and pathology. Young men are fitted for such training; therefore the examiners must expect much of them. Maturer persons, however, cannot easily study the sciences allied to the medical art, yet they may be so well tried and so excelling in their art as to deserve a high diploma. In some respects it would be advisable to drop "primary" examinations in the case of candidates qualified over 20 years, but to compel them to undergo a severe test in medicine, surgery, and midwifery.

THE UNIVERSITY OF WALES.

THE Charter of the University of Wales received the Royal signature at the meeting of the Privy Council on November 23rd. The Charter was approved by a strong Committee of the Privy Council at the end of last July, but some doubt existed as to its ultimate fate in the Parliamentary ordeal to which the College Charter Act of 1871 exposed it. By the terms of this Act a college or university charter must lie on the table in both Houses for the space of thirty days before the sign manual is attached to it. The Welsh Charter was opposed in both Houses and from both sides of politics. On the one hand, the Theological College at Lampeter claimed the right to delay the foundation of a Welsh University until it had leisure to remodel its own charter in such a manner that it could be included in the University scheme as a constituent College; and, on the other, a small number of Liberals objected to the foundation of any university not empowered to offer its degrees to "private students." The contest in both Houses took place on August 29th. In the Lords the champions of Lampeter secured, notwithstanding the Lord Chancellor's clear exposition of the case, a small episcopal majority for their contention; but the disaster of this preliminary skirmish was repaired a few hours later in the Commons, where the Lampeter case was fully answered by Mr. Kenyon, the Conservative member for Denbigh, and the hostile resolution moved from the opposite side of the House negatived without a division. The College Charter Act, unlike the Endowed Schools Act, gives no actual power over a charter to the proceedings of either House, which can exercise only a moral effect upon the decision of the Crown; and the Government rightly determined to ignore the Lords' resolution in the matter, since by no constitutional theory could a narrow majority of the peers be held to outbalance, as an expression of public opinion, the unanimous verdict of the House of Commons.

A BOOM FOR WIESBADEN.

A RECENT issue of the *St. James's Gazette* contained an article with the heading, "In a German Eye Hospital," in which the writer indulges in a lengthy panegyric in praise of the well-known ophthalmic surgeon, Dr. Pagenstecher. Not content with describing in detail several of the methods of treatment in the Wiesbaden "Augenklinik," he proceeds to tell us that the professor is supremely successful as an operator, that all who have been under him seem to have boundless faith in his ability, and that of late years his fame has attracted numbers of Englishmen, and the author of the article takes care to insert the names of several well-known individuals who have been patients at Wiesbaden. After belauding the German professor, he indulges in the following malicious expressions concerning British ophthalmic surgeons: "One thing is quite certain. There is a growing belief in England that people who are suffering from eye troubles will get better and more scientific treatment in Germany than at home. At all events, it is impossible to ignore the fact that every year the want of confidence in British oculists increases." During the last five or six years the daily press and many of the society journals of England have at comparatively short intervals inserted paragraphic puffs of Professor Pagenstecher and his wonderful cures, but it has been reserved for the writer of the article in question to reach the acme of bad taste. Can it be that business has been somewhat slack at Wiesbaden lately, and that this tirade is the outcome of disappointment? Although Dr. Pagenstecher is made the stalking-horse, a not inconsiderable portion of the article is devoted to the beauties and manifold allurements of Wiesbaden, the writer thus following the tactics of the transatlantic revivalists who combined the attractions of evangelism with the sale of soft-toned American organs. He informs us that there is "no town which affords more amusement and occupation than Wiesbaden. It is not like Homburg and other German and French watering places, where, after the short season is over, desolation broods over the waters. Wiesbaden goes on all the year round." He also tells us that "there are hotels in abundance, and that every second house is a *pension*." May it not be that in this last ingenuous statement lies the prime incentive of this systematic advertisement? We are willing to acquit Professor Pagenstecher personally of any direct share in the transaction, though it is difficult to understand that he has been unaware of the base uses

to which his name has now frequently been put, but we have reason to believe that the advertisement boom has been maintained by those who are locally and directly interested in the prosperity of Wiesbaden. A portion of the article might have been taken from *Baedeker's Guide*. It states that there are two concerts a day in the Kurhaus, dancing rooms, lawn tennis grounds, etc., that the climate is fine and dry, and that, besides the waters, there are the grape cure and the milk cure, and that all these ophthalmo-mundane advantages of Wiesbaden may be procured at a very cheap rate. This blend of medical and local attractions has at least the merit of novelty, and in future, should a physician commence practice in the neighbourhood of Cavendish Square, he will have profited little by the example here set, should he fail to remind the public that the proximity of his residence to Madame Tussaud's and the Zoological Gardens endows it with special advantages which should not be overlooked. In one instance it is possible that the writer of the article may have defeated his own object, for his too graphic description of the tortures of the perspiration bath may probably induce many nervous patients to remain safely at home. He says that for all inflammation of the interior parts of the eye perspiration baths are prescribed, and implies that this treatment is unknown here. Yet a little inquiry would have shown him the value of sudorifics in certain ophthalmic cases is fully recognised here, though they are not used with such lack of discrimination as is here alleged to be the custom in Wiesbaden. We gladly quit this unpleasant subject with the expression of an earnest hope that we may have heard the last of a most objectionable system of *réclame*, which reflects the utmost discredit upon those who have pursued it, and is utterly at variance with the honourable customs of a noble profession.

THE NERVOUS COMPLICATIONS OF MEASLES.

At the meeting of the Royal Medical and Chirurgical Society, on November 28th, Dr. Dawson Williams drew attention to certain complications of measles and other infectious diseases which are apt to be extremely puzzling, and the nature of which has been but little understood; he took as his text a case in which on the fourth day of an ordinary attack of measles, convulsions occurred followed by "unconsciousness," lasting ten days and leaving a condition of general paresis and loss of speech, with tremor and inco ordination. A gradual improvement ultimately took place, but the patient was left in a state of intellectual backwardness and presenting many of the symptoms of disseminated sclerosis, with a spastic condition of the lower limbs—a "false disseminated sclerosis due to measles." By reference to cases recorded by various observers in connection with other infectious diseases, it was shown that, possibly from the virulence of the poison during the onset of the malady, widespread lesions of the nervous system, principally originating in its vascular supply, were apt to occur, not only causing serious symptoms at the time, but doing permanent injury to innervation. The onset of coma and convulsions during the course of a febrile infectious disease should not then be looked upon as generally indicating any accurately localised mischief, such as hæmorrhage; nor should consecutive tremors and pareses, discovered after cessation of more serious symptoms, be looked on as descending degenerations likely to end in atrophy and contracture; but the cerebral symptoms should be regarded as pointing to only a part, although the most demonstrative part, of a widespread implication of many areas in the nervous system, and it should be remembered that, the injury once done, a gradual recovery, the limits of which it is at present impossible to define, may slowly take place, separating these cases in a marked manner from those of true muscular atrophy, or true disseminated sclerosis, the progress of which is usually in the opposite direction—a distinction worth remembering.

ORIFICIAL SURGERY.

There is a sect of philosophers in the East who strive to solve the riddle of the universe by a persevering contemplation of their own navels. A similar method of seeking for truth is adopted by some medical specialists who fix their mind's eye on a particular organ till it becomes for them the "centre of our sinful earth" and the root of all evil in the human organism. As the French metaphysician Malebranche saw all things in God, so one learned Theban sees all pathology in the liver, another in the uterus, and a third in the nose. It has always been a subject of wonder to us that a part with such magnificent possibilities as a centre of reflex sympathies as the rectum should have escaped recognition by some one as the pathological *primum mobile*. It is therefore with a feeling of satisfied prophetic instinct that we learn that this retiring region has at last had surgical greatness thrust upon it. The Columbus of this New World of surgery is, as was fitting, an American; America owes Europe something for having discovered it, and she has now paid the debt by revealing to us the mysteries of "orificial surgery." The new cult has not only a prophet, but a temple, and even a journal all to itself, and the ritual is grand in its very simplicity. It consists in the removal of an inch or more of the mucous membrane of the rectum by a slight modification of Whitehead's method. The effects of this procedure, technically known as the "American operation," are best described in the words of the prophet himself: "Orificial surgery," he tells us, "is searching in its action; the effects of the work not only reach out to physical disorders, but influence profoundly the state of the spiritual man, as by its aid the lame have been made to walk, the blind to see, the asthmatic to breathe, the dyspeptic to digest, the neuralgic to enjoy a relief from suffering, and so on through the list of chronic ailments." A striking illustration of the "searching" action of orificial surgery is afforded by the fact that whole opera companies are admitted to the temple aforesaid (which is situated in Chicago), and subjected to the "American operation" for the improvement of their voices! A report of 1,000 cases of the most varied nature treated by this method includes such items as the following: "1 case of acromegalia—greatly improved;" "5 cases of blindness—1 cured, 1 improved, 1 unaffected;" "43 cases of cancer—some of them improved for a time, none cured;" "2 cases of caries of the femur—1 improved, 1 unaffected;" "5 cases of hip disease—all improved and progressing to recovery;" "46 cases of locomotor ataxia—20 cured, 15 improved, 11 unaffected." It is, of course, unfortunate that none of the cancer cases were cured, but *on ne s'arrête pas en si beau chemin*, and the time will probably come when the author of the catalogue of which this is an extract will, like Clive, "stand astonished at his own moderation."

THE DECADENCE OF MEDICAL ETIQUETTE.

The *Provincial Medical Journal*, commenting on Mr. Ernest Hart's American address on "Medical Etiquette," which it publishes in full, expresses the hope that his observations will be productive of a change of medical feeling, both in America and Great Britain, for it can hardly be denied that in both countries medical etiquette has been for some years in a decadent state, and more honoured in the breach than in the observance. At one time, says our contemporary, in all our large cities and towns we had medico-ethical societies, membership of which was tantamount to a certificate that those who belonged to them were respectful of medical customs, and were honourable practitioners. Now it is exceptional to hear of a medico-ethical society, and though we have an increased number of medico-chirurgical societies, ethics are carefully excluded. Membership can be obtained on easy terms by every class, personal character being the least factor. Unless some very flagrant offence against professional and social customs has been committed, the black ball is not used, so that there are in these societies

members who break all the commandments of medicine. The great cause of this decadence of medical etiquette is excessive competition — in the first place between the medical charities and the private practitioner, and now embracing every branch of the profession. This has brought about a state of professional anarchy in which every man's hand is against his neighbour; the medico-ethical code has been thrown to the winds. Mr. Ernest Hart, adds our contemporary, has shown the way to a better state of things by his defence of medical laws. In the world at large interest in the study of ethics has been revived. Life is recognised to be something more than a mere struggle for existence in which the weakest must go to the wall, and the same principles find their application in medicine. We cannot press one another out of the field or trample on the weaknesses of our brethren without injury to ourselves. Our contemporary is fain, however, to acknowledge that in this movement to a higher ethical level our leaders do not lead. The great reforms in the profession have been brought about by workers who had no pretensions to leadership, but were simply honest earnest men, impatient of abuses. The so-called leaders of the profession have seldom done more than step in when the battle was won to claim, not only the fruits, but the glory of victory. It is not the men that are wanting. At the present day there are consultants of the highest ethical type who might exert a most salutary influence on their weaker brethren. Let them but lead; the rank and file will follow.

THE NEW FRENCH MEDICAL LAW.

As we have already intimated would be the case, the new law regulating the practice of medicine in France came into force on December 1st. As inquiries are frequently made as to the conditions under which English and other foreign doctors may practise their profession in France, the following explanation of their position under the new law may be of interest. We give it on the authority, and almost in the words, of the *Journal des Connaissances Médicales*, the editor of which is Professor Cornil, a member of the French Senate, who was president of the Committee which drafted the law, and who, in fact, may almost be described as its author. The new law has taken away the power formerly possessed by the Government of authorising medical men having foreign diplomas to practise in France. Under the new law no one is allowed to practise unless he possesses a French diploma of doctor of medicine. Certain facilities may, however, be granted, according to the circumstances of the case, to foreign doctors wishing to obtain a French diploma. What these are may be gathered from a circular letter which the Minister of Public Instruction has lately addressed to the rectors of the medical faculties throughout France. The periodical registrations required of French medical students may be partly or totally dispensed with, but exemption from examination can never be more than partial. In no case shall candidates be exempt from examination in more than three subjects. Such exemption as may be allowed will be granted by the Minister on the advice of the faculty of medicine before which the candidate wishes to present himself, and of the Consultative Committee of Public Education. In considering applications, the faculties must concern themselves solely with the value of the diplomas and scientific works submitted to them by candidates. The provisions apply to French citizens who have obtained a medical qualification in some other country as well as to foreigners, and, indeed, the Minister instructs the medical faculties to exercise special care in weighing the claims of Frenchmen who, on the strength of a foreign diploma, ask for exemption from part of the tests which are compulsory in the case of their countrymen who go through the ordinary course at home. The course to be pursued by an English medical man who wishes to practise his profession in France is, therefore, to select one of the recognised faculties—Paris, Montpellier, Nancy, Lyons, Bordeaux, Lille, or Toulouse—and submit to it his papers with whatever records of scientific work or other claims to professional recognition he may possess. He will then be informed in due course what examinations he must pass before he is pronounced *dignus entrare in nostro docto corpore*.

FLIES AND THE DIFFUSION OF PATHOGENIC BACTERIA.

Dr. Simmonds's investigations on the transportation of cholera bacilli by flies are of interest in that they give in the form of a definite experimental observation what has long been almost common knowledge. It is well known that flies that have access to tuberculous sputum take the tubercle bacilli into their intestines. If they are examined histologically some time after, these bacilli may be demonstrated with the utmost readiness by the ordinary methods. It is probable, indeed almost proved, that other disease germs, such as the bacillus anthracis, are carried from point to point by flies, and now this has been specifically proved in the case of the cholera vibrio. Dr. Simmonds placed a number of flies which had from time to time settled on the viscera, etc., of a cholera case on which he was performing a *post-mortem* examination in a flask large enough to allow of their free movement. As soon as they had been moving about long enough to ensure their having got rid of most extraneous particles (about three-quarters of an hour), they were placed in a tube containing a suitable nutrient gelatine, from which plate cultures were made. In a couple of days these plates were covered with colonies of the cholera bacillus, and the proof was complete. The inferences to be drawn are obvious. The humble fly-paper vendor is a far more useful and important personage than has yet been acknowledged.

THE HOUSING OF THE POORER CLASSES.

The determination of the London County Council to erect workmen's dwellings, to be let at a rent bringing in only 3 per cent., provides an opportunity to attempt what has never yet been seriously aimed at by any of the model dwelling companies, namely, to raise the tone and the conditions of life of the very lowest rent-paying stratum of society. Such people will not pay one farthing for improved surroundings; from habit, association, and sometimes, unfortunately, from necessity, they demand the cheapest that can be had, and if they are to be drawn into decent surroundings these must be made cheap, cheaper even than the pigstyes which are their alternative. Even 3 per cent. must fly to the winds under these circumstances. If, however, the community is to provide workmen's dwellings at a loss, it does so not as a charity to the individual, but to remove what it feels is a reproach to its civilisation—the continuance in its midst of such a low standard of living as is now the lot of many. Dr. Theodore Thomson, speaking of the housing of the poorer classes, says: "Something else will have to be done with the lowest class of all. Of these it may be said that, were they to-morrow housed in a palace, they would in ten days make it a pigstye. For them remedies are required other than those needful for the class immediately above them. No doubt they will, despite themselves, to some extent be benefited by sanitary improvements of their dwellings, by demolition of unhealthy areas, by improved lodging-houses under the existing laws. But so long as there is an insanitary building left they will go to it, for they do not admire sanitation. They will avoid all model dwellings, for they do not wish to be cleanly and orderly as there prescribed by rule, and they will destroy and fill with filth any interior that becomes theirs." Can these people be tempted into decency by being offered very cheap rents, and can the decency so attained be enforced by constant inspection? If so the community will, at any rate, gain something in return for its loss of interest. Cheap houses on condition of keeping them clean and decent and not crowding them with

lodgers; that would be the contract. Constant inspection would be necessary to see that the contract was fulfilled, but that need cause no difficulty. Give the caretakers an official position as sanitary inspectors, and they might go all through the buildings every day.

INFECTION AT THE SEASIDE.

Both practitioners and parents are tolerably familiar with the risk involved in taking children to strange lodgings at the seaside or elsewhere—the risk that is, of their catching measles, whooping-cough, scarlet fever, or other infectious complaint. Sometimes the people of the house are to blame for such accidents, there being either carelessness or concealment on their part; but probably the responsibility rests more often with visitors who bring children, convalescent after infectious disease, to the seaside for change of air without giving any intimation to their hosts of the fact of recent illness. A case of this kind has been investigated at Herne Bay, and brought before the Canterbury magistrates. A girl who had had scarlet fever was taken during convalescence to Herne Bay, and appears to have infected a servant almost immediately upon arrival, for it is stated that the latter was found to have contracted scarlet fever a few days afterwards. This occurrence led to inquiries, and thus to the discovery of the nature of the illness the newcomer had suffered from. It was stated by the family medical attendant that in his opinion the child was free from infection on leaving home, and, indeed, that he had advised a change. The bench did not accept this as a sufficient exculpation, and inflicted a fine. In the absence of dates it is not clear whether this was one of those unfortunate cases of infectiousness persisting after desquamation has ceased, which cause so much trouble in hospital as well as private practice, or whether reliance had been placed upon the external use of disinfectants without waiting for the usual period. Dr. Robinson, medical officer of health for the East Kent Combined Sanitary District, said in the course of his evidence for the prosecution that three-quarters of the cases of infectious disease at Herne Bay are brought there by visitors.

PORT MEDICAL INSPECTION.

Referring to medical inspection Dr. Collingridge, in his recently issued report, points out that the arrangements for obtaining information as to the health of vessels arriving from foreign ports were previous to 1892 most imperfect, inasmuch as no provision was made for a medical opinion on a medical question until disease was reported by the master of the vessel. It is to the fear of cholera that the present modified system of medical inspection is due. A hulk has been bought and fitted up as a residence for the medical officers. It was moored off the hospital at Gravesend, and a tug engaged with double crew. A medical officer was on duty day and night and visited every vessel on arrival from abroad. This system has served to establish as a broad principle that medical inspection alone should be trusted, inspection, that is to say, of individuals by a medical man who is in a position to avail himself of the information afforded by the surgeon of the ship. It is to be hoped, therefore, that in the near future the system of question and answer by a layman will cease to be considered as any protection to the public health. Cholera is spreading and will no doubt continue to spread on the Continent, and while there is no need for panic, nor, indeed, for any fresh measures of precaution at the moment, there is abundant evidence of the necessity of keeping up those already in existence. Cases must from time to time appear in our ports, and while doubtless our towns are greatly improved in sanitary condition it would be a foolhardy experiment to omit any precaution which is at present taken. When the epidemic comes to an end there will still remain the necessity for a medical man to accompany the Customs officers on their visit and to deal with any cases of infectious disease reported or discovered. Arrangements have been made with seventeen medical men at different points on the river and near the docks to act as port medical officers in the event of emergency on any case of actual or suspected cholera, and printed instructions have been issued to each.

A NEW MEDICAL SCIENCE.

Under the above rather startling title a lay contemporary makes the no less startling remarks, "We learn that there is a strictly scientific argument to be found in favour of the belief of the cannibal savage that by eating the heart or brain of his enemy a proportion of that enemy's courage is absorbed by himself . . and the belief of some races that the hearts of lions or tigers add to the ferocious courage which they consider one of the most noble of human attributes is still common. According to Professor Wood, of New York, there is a foundation for this theory, and it is likely to be elaborated into a new science of sarcology. There are four elementary kinds of flesh—muscle or motor elements, vessels or constructive elements, glands or productive agents, and nerves or exciting agents. Each yields a distinctive fluid named musculine, vasculine, glanduline, and neurine, and when injected into the blood they have very marked and distinctive effects upon the several kinds of tissue to which they apply. There is nothing unreasonable in the suggestion that the special chemical constituents of which the brain, or muscles, or nerves are composed should specially nourish and strengthen those parts when taken as food." We will not vouch for the verbal accuracy of our contemporary in his quotations from Professor Wood, but the foregoing paragraph illustrates very forcibly what we have so often insisted upon in leading articles, namely, the tendency of the human race to seize one particular order of medical facts, and deduce from them a theory of universal application. The success of the thyroid treatment of myxœdema, and the prominence given to Brown-Séquard's injection experiments have led even medical men to premature conclusions regarding the universal applicability of the injection method. Thus we hear of heart disease treated by injections of heart muscle, of nerve disease by injections of brain, and so forth. It is, therefore, pardonable for lay writers to exaggerate still more, and pen such a paragraph as that we have quoted.

LEPROSY IN SIBERIA.

Our St. Petersburg correspondent writes: At the last meeting of the Russian Society of Syphilology and Dermatology three patients suffering from leprosy were exhibited. Dr. Petersen communicated the results of the English Commission upon Leprosy in India. In the discussion which followed Dr. Stürmer gave a short account of his experience of leprosy in Siberia, where he had lived for three years. He stated that while the Russians and Yakuts suffer from the disease, the Tunguses never contract it, although they live under the same conditions of climate and food supply; they are also said to be free from syphilis. The form of leprosy usually met with in the Russians and Yakuts is the tubercular variety. In some villages every inhabitant is said to have died from leprosy. The disease is well recognised by the people, who do not consider it hereditary, but look upon it as contagious, and isolate those who suffer from it. Dr. Stürmer had seen no case of congenital leprosy, and had only met with one case in literature. In a dissertation Dr. Rieshetillo says that he saw a child, aged only 3 days, with clear signs of leprosy. At the same discussion some evidence was given of the value of chaulmoogra oil in treating the disease.

A laboratory of "psychological physics" is about to be established in the University of Brussels at the expense of some private persons interested in the subject.

CONSULTANT AND GENERAL PRACTITIONER:
SHOULD EMINENT CONSULTANTS TAKE SILK?
AN EDITORIAL NOTE WITH A SYMPOSIUM OF OPINIONS FROM THE LEADERS OF MEDICINE AND SURGERY IN GREAT BRITAIN AND IRELAND.

The illness of Sir Andrew Clark has drawn renewed attention to the bodily and mental strain involved in the daily work of a popular physician in active practice, and a correspondence has sprung up in the daily press raising again the old question as to the creation of a rank or class of consulting physicians who would act as "counsel" in medical matters, and never see patients except in consultation with some practitioner. At first sight it seems a reasonable thing that a man of leading, torn and worried by the endless calls upon his time, should give up wasting himself upon ordinary cases and reserve his powers for the elucidation of difficulties exclusively in consultation with practitioners. There is a simplicity and fascination about the idea which makes it crop up over and over again, and yet it never seems to take root. It is openly declared by no mean authority that there neither is nor ever was such a being as a consulting physician—meaning thereby one who sees no patients either at home or outside except in consultation with a fellow practitioner. There clearly must be some inherent difficulty in the plan or we should long ago have seen "silk" in our profession. The difficulty probably lies in this: that however true it is that medicine demands scientific knowledge and scientific methods, its practice is not a science but an art. A well trained and continually growing experience is the foundation of successful practice, and as men grow older they hesitate to cut themselves adrift from what has served them well. Men who have passed their days among out-patients and hospital wards, building up knowledge from large masses of cases, hesitate, when age forces them to retire, to limit the field of observation left them in their consulting rooms. Doubtless the attractions of a higher grade, increased fees, and lighter work are great, but we may presume an instinct whispers that experience should not be over-ripe, and that an art not practised rusts. It must not be forgotten either that to many who have gained high position work is the pleasure of their lives; their consulting rooms are their studios, and to deprive them of the actual treatment of their cases is much like shutting a rose grower out of his garden and confining him to cut specimens; moreover, when a man has reached an age at which it becomes possible for him to take a position such as is proposed, he has often become so surrounded with patients who are also friends that the change is difficult to make—it is harder work to refuse than it is to see them. Honourable as would be the position of a pure consultant, one can imagine many causes which prevent men aspiring to it.

[*We have submitted the above editorial note for comment and criticism to a number of the most eminent consultants in the three kingdoms. We append the communications with which they have favoured us. They have in so many instances preferred that their names should not be published, that we have thought it better to withhold all signatures. These notes are, however, from the pens of recognised leaders of the highest standing.*—Ed. B. M. J.]

An eminent consultant of varied experience writes to us on this subject: "I never saw patients outside my house save in consultations; and at my house, if a patient did more than consult me—namely, paid frequently recurrent visits, after the fashion of regular attendance—I always advised the association of a general practitioner with us—and the general practitioner rarely remembered his reciprocal duty to me in the matter; indeed, I found general practitioners in my most favoured experience do all they could to make matters difficult and drive patients to consultants on the sly. Do I understand that you say on consultation the opinion should be given by the general practitioner 'by his mouth?' This has never been done in my experience unless the physician and general practitioner disagree; then both are heard, the consultant first. I could never agree to the opinion being given by the general practitioner. He is often a dull or an 'inexpressive' creature, and moreover, were I the patient, I should be much dissatisfied to pay a large fee to a dumb man. The general practitioner is present and is always ready to put in a word of correction, and before seeing the family the opinion is agreed upon and even the words of its expression."

The following are from leading consultants in London:—

"I think the "Leader" is very sensible, and as definite as anything that can be well written on such a subject. I cannot add anything likely to be useful. It would be difficult to tell all the reasons for which the proposed reform would be found impracticable."

"There are probably very few elderly consultants who keep practice which is extensive enough to be laborious. In almost all instances those who during their hospital career have been in good practice find it rapidly diminish in advancing years. It would be quite impossible to establish a class of pure consultants; their sphere of experience would soon become so small that they would not be worth consulting. The young, and especially young specialists, tread very closely on the heels of their seniors. If a senior find himself independent as regards means, and in danger of being overworked, the simple expedient is to increase his fees. I am not sure that it might not work well if all who take titles were restricted to liberal fees. Thus, it might be understood that all knights and baronets should receive nothing less than five guinea fees. This would make them virtually consultants, but would not prevent wilful patients from going alone. Energetic men will overwork themselves under all conditions, and no arbitrary rules will ever prevent it. It is, however, very seldom that a man is really hurt by work that is pleasant to him. Men who have once been in driving practice find it, I expect, disagreeable to be without it; they get to enjoy the hurry. Very few, even of the most busy, have, I suspect, more to do in seeing patients than can be got though without injury. It is the collateral work, and especially the letter-writing, which tells. The penny post has thrown upon modern consultants an amount of labour in this line of which our forefathers knew nothing. Every spare minute is taken up in letter-writing. The more time you give to a case, and the greater the interest you show, the more certain it is that a letter with a string of questions will arrive next day. If the public could be made to understand that all letters should be accompanied by a fee, this intolerable burden would be much lightened. When a consultant has become popular, the demands upon his time by those who have a prescriptive right to gratuitous consultation becomes very heavy. The greater his reputation the more numerous are the demands of this class. Those who are not very busy find it a pleasure to see a few gratuitous patients, but when it comes to be every other consultation it is a heavy tax. Most of this class are very considerate, but by no means all. In many cases to have declined to take a fee, is simply to make it certain that you will have letters and visits in double number. The consultations will be twice the usual length, and very often other members of the family will be brought. I have known a mother, whose fee I had refused, bring me two of her children next week."

"There can, I think, be little doubt of the advisability of consultants of large experience and eminent position taking 'silk,' as they would in the law. This could be done quite easily by the simple plan of raising their fees, and seeing no patient in their consulting rooms under five guineas or ten guineas, with correspondingly high fees for consultations outside. Instead of having, as at present, their time frequently wasted by trivial cases so that they are either worn out by over-long hours, or are unable to give full time and their best attention to the cases brought before them, they would be

consulted in graver cases, and the full benefit of their experience and skill would be reaped by medical men and their patients whom they are asked to advise. They would thus greatly lessen their work, they would give a chance to the younger men, and at the same time they would probably not very greatly diminish, even if they did not greatly increase, the amount of their incomes."

A distinguished provincial physician writes:

"Consultants can never form a distinct division of the profession holding the same relation to the general practitioner as the barrister does to the solicitor. There is not, and there cannot be, a special education and examination for consultants as apart from the rest of the profession, nor could any code of etiquette, such as we see at the bar, be now introduced and enforced. Consultants are not, as a rule, produced fully fledged like barristers. A considerable number of them take immediate charge of patients in the early part of their career, and some continue to do so even when in large consultation practice. The word 'consultant,' indeed, as applied to a practitioner, only means that he is frequently called into consultation, though it usually indicates connection present or past with hospital work. But the practice of consultants will differ according to circumstances in which they are placed, and no stringent regulations could be imposed upon them such as a barrister is compelled to submit to. It has, however, been suggested that leading consultants should 'take silk,' that they should separate themselves from the rest by refusing to see any patient at their rooms except in conjunction with another medical man, and by charging a larger fee than others for each consultation. It has also been suggested that they should announce their views only through the medical attendant, as the barrister gives his through the solicitor alone. There can be no doubt, I believe, that if a few of the consultants, desirous of retiring from the active work of life, did this, no harm would happen either to the public or themselves, and this is true, too, in the case of certain specialists; but, on the other hand, the general adoption of such regulations by the leading consultants would be detrimental to the interests of the public, and in most instances disadvantageous to themselves. The general practitioner would, under these circumstances, have the power of deciding whether his judgment as regards diagnosis and treatment should be reviewed by a leading consultant or not. It may be said that this power would not be exercised, but an experience of twenty years of consulting practice does not lead me to this view. It is rarely, indeed, that able practitioners seek to prevent consultations which are desired by those who are under their care, but the weaker practitioners often do so, and the frequency with which patients come to consultants and complain of the difficulty their doctors have thrown in the way when they have desired a consultation makes me think it would not be well to put further power into the hands of practitioners by making their presence a *sine quâ non* whenever their patient required a second opinion from a leading consultant. There can be no doubt in a few cases this objection to a consultation is founded on a doubt as to the *bona fides* of certain consultants, but in a large proportion of cases it is due to the self-sufficiency of the practitioner or to the fear that his want of knowledge may be found out. I am inclined to think that consultants as well as the public would be placed at a disadvantage by the adoption of the regulations to which I have alluded. A consultant's work loses much of its interest from the fact that he cannot watch the progress of many of the cases he sees. His opportunities for this would be still further decreased if he declined to see patients at his rooms except in consultation with other practitioners. He would see such patients for the most part only once, or at least at very long intervals. If he attempted to follow the progress of cases by the aid of the medical attendant, he would be constantly involved in a large correspondence profitable only from a scientific point of view. Moreover, a considerable portion of the pleasure of medical practice is connected with the personal feeling between doctor and patient, and this is at a minimum in consultation with other practitioners. I do not believe that either the public or the profession would be attracted to a consultant because he declined to see patients except with practitioners. In most cases his opportunities for clinical work, as well as pleasure in the work, would rapidly decrease. The exceptions would be where the consultant devoted himself entirely to some special department of disease. Would the increased fees recompense the consultant? I think not. The suggestion that consultants should express their views concerning the diagnosis and prognosis through the practitioner only is, I believe, impracticable. Whilst I hold it undesirable that consultants should adopt new regulations, it would, I think, be well if leading consultants made it a custom to charge five guineas for all cases in which a case was remitted to them by the medical attendant for their examination and opinion. Such a charge is called for when a thorough examination is made and written opinion given."

The following have been received from leading consultants in Edinburgh:

"There is no need for the creation of a class of 'consultants.' A man becomes gradually a consulting physician or surgeon when he is known to his professional brethren to have acquired an amount of experience which leads them to rely upon his practical knowledge. There is not, and cannot be, any true distinction between an ordinary practitioner and a consultant, and I entirely deprecate the attempt to make such a distinction. This might be possible in London, with its large population, but for us it would be impossible, and I think undesirable."

"The question of consultants is a difficult one, and it seems to me that different parts of the country have different customs regarding it. Here in Edinburgh it is understood that a consultant has two kinds of work open to him—namely, seeing cases with, or at the request of, general practitioners at the patient's home or at the consultant's house; and seeing patients who wish to have an opinion and advice from their consultant at his home or chambers without reference to any other attendant. But a consultant is not expected nor entitled to attend patients in their homes regularly, and, as a rule, he does not even go to see patients for once in their own homes without another practitioner. But, then, there are not more than two or three such consultants in Edinburgh. The great majority of practitioners who get a share of the consulting practice are engaged more or less actively in general practice as physicians, and some also as surgeons, or some in both departments; some also in gynæcology, these gentlemen sowing beside all waters."

"If consultations were always or ordinarily required at the instance of the general practitioner, and if the practitioner were understood to have the power of choosing the consultant, the evolution of such a group of consultants as you describe would take place of itself. But so long as patients and their friends have the initiative in the matter, and insist on an opinion of their own choice, it will be difficult to create a class of physicians who never see patients except on consultation with some practitioner. The production of such a class seems to me a fair subject for academic debate, but I do not see how it can be brought into practice."

The following are the opinions of some distinguished Dublin consultants:

"I think it most desirable that, if possible, the class of consultant should be created, but, so far as Dublin is concerned, I see difficulties which are, I believe, insuperable. Ireland is, you know well, very poor, and few now can enjoy the luxury of consultation. I can assure you they are much rarer than they were a few years since."

"I think the suggestion is very good, and the project very desirable, but I fear very difficult, if not impossible, of accomplishment—at least in Dublin. I have a perfect recollection of the late Surgeon Carmichael having announced and circulated widely through the medical press that such was his determination; but he said he found it impossible to resist the importunities of old friends and former patients, who would not have the advice of anyone else while he was available, and who would not or could not afford the expense

of consultation fees; and the junior members of the profession would only consider this as a breach of his determination, and so the matter ended. A great difficulty also arises here in the fact that with few exceptions almost all the physicians practise surgery more or less, and there is almost no exception to even the most eminent surgeon undertaking alone the conduct of the most serious purely medical care; so that I do not think any surgeon in Dublin would confine himself to consultation practice, and very few of the physicians."

"I am of opinion that no leader in this country could refuse to see an old patient, who perhaps would not be able to pay a large fee, merely because another practitioner was not present in consultation."

*** We omit the names for the reasons above stated, but the gentlemen who have favoured us with these contributions are all of them men who stand in the very front rank of the medical profession.

THE PAN-AMERICAN CONGRESS.

[From Our Washington Correspondent.]

Echoes of the Congress.—A Triumphal Procession.—Medical Etiquette.—Faction Fights.—The Future of the Medical Code.

The echoes of the Pan-American Medical Congress and some of its more sensational incidents have not yet died away. Some of them indeed are likely to resound later in spreading waves of sound. The reception of the Pan-American delegates on their tour through the chief cities of the East and West on the sumptuous special train supplied by the munificence of Congress appears to have been an unprecedented and brilliant success. Some £2,000 are said to have been spent on the costs of travelling and entertainment on this veritable train *de luxe*, which visited New York, Boston, Philadelphia, Cincinnati, Detroit, Niagara Falls, Saratoga, and Chicago. At all these cities the profession and the municipalities gave sumptuous and cordial public receptions, and all the great universities, schools, and museums were visited. Only New York sulked, but luckily the reputation of New York was saved by the splendid liberality of the Sayres, father and son, and by the public spirit of Dr. Jenkins and his Sanitary Board. As the invited guest of the Congress Mr. Ernest Hart accompanied the delegation, and with him was his friend Professor Wolfe, the Glasgow ophthalmologist. In view of the delicate and critical character of Mr. Hart's address on Medical Etiquette, and the mingled sensations which it was calculated to arouse, amongst the mixed, and not always highly ethical medical fraternities visited, some of us were curious to see what his reception would be, especially in New York, where the code is avowedly trodden under foot, and every man is a law unto himself. Not being privileged to accompany the delegates, I instructed our American News Agency to furnish me with extracts of relevant newspaper articles from all the sections of country then and since published. The result has been such a massive and undigested mountain of cuttings, that I shrink from analysing them, but send on a boxful of the most relevant. To the honour of our profession, and greatly to the relief of some of us who feared otherwise, the profession here seems with generous unanimity to have recognised the candour, courage, and wisdom of the dicta on medical etiquette, to have given Mr. Hart everywhere ovations unprecedented in our professional history, and if there be any dissentients they have—with the exception of one whose opposition in such a matter is an honour—kept a prudent silence. Mr. Hart's subsequent article in our leading magazine, *The Forum*, on the kindred subject of the etiquette of the professions (law and medicine) as the best safeguard of the public, has met with high approval in medical and legal circles, but opposition is, of course, to be expected from that class of daily papers which are the dishonour and the curse of our country. Moreover, New York is not silenced, although for the moment dumb. The whole subject, to which this lecture has been so valuable a contribution, will shortly come up again at the next meeting of the American Medical Association. It must not be forgotten that some of the men who have perforce accepted the inevitable and applauded these utterances with mouth and hand are, as proprietors or editing owners of a number of minor journals, deeply interested in respect to their advertising receipts in secret or semi-secret remedies of which the formulæ are not made known; and hence medical etiquette as is practised in Europe and mouthed here has many secret foes, who would like to deal with it by distant worship and by relegating it to Saturn for celestial use, but do not desire to have any close practical relations with it. But more of this another time.

UGANDA.

Captain Lugard's book on Uganda,[1] just issued, is of course primarily interesting to politicians, geographers, and sportsmen, and to that hypothetical *helluo librorum*, the general reader, but it also contains matter of interest to medical men. Speaking of British East Africa generally, he says that of all the vast African continent "there is probably no part, with the exception of the extreme south and possibly of the highlands to the north of the Zambesi, which enjoys such natural advantages of climate consequent on its high altitude." The climate of Uganda itself is one of the healthiest in Africa; from this point of view the country is particularly suitable for colonisation by Europeans. The temperature is not excessive, and is fairly uniform; the rainfall averages about 50 in. Ague is prevalent, but this could probably be to a large extent got rid of by drainage of marshy land and the introduction of better conditions of living. Captain Lugard, who has had an exceptional experience of fever in his own person, gives his readers the benefit of the "common sense precautions" which his experience has taught him. Travellers in tropical countries are advised to avoid all unnecessary exposure to the sun when not in active exercise. More harm is done by standing in the sun, or running out of the tent for a few minutes with no hat or only a small cap, than by any number of hours' walking in the hottest hours of the day. Thirst should be freely quenched with water or very weak tea. The stomach, liver, and spleen should be protected by wearing a thick *cummerbund* of flannel. Captain Lugard himself always used a strip of blanket, believing the thin cholera belts sold in England to be useless. He recommends that the *cummerbund* be worn outside the underclothing, so that if a long delay before changing is unavoidable after the clothes have become wet with perspiration the *cummerbund* is still dry, and can be taken off and put on next the skin under the wet clothes. He advises the traveller never to stir abroad until he has had a substantial meal. To a violation of this cardinal rule Captain Lugard attributes the attacks of fever from which he suffered.

Speaking of mosquitoes and other insect plagues he says:

> I have noticed that during a residence in the tropics one undoubtedly becomes inoculated to the venom not only of the mosquito but of other noxious insects, or the attenuation of the blood reduces the irritation that one feels when newly out from Europe.

He has a good word for medical missionaries:

> Beyond doubt (he says) I think the most useful missions are the medical and the industrial, in the initial stages of savage development. A combination of the two is, in my opinion, an ideal mission. Such is the work of the Scotch Free Church on Lake Nyassa. The medical missionary begins work with every advantage. Throughout Africa the ideas of the cure of the body and of the soul are closely allied. . . . As the skill of the European in medicine asserts its superiority over the crude methods of the medicine man, so does he in proportion gain an influence in his teaching of the great truths of Christianity. He teaches the savages where knowledge and art cease, how far natural remedies produce their effects, independent of charms or supernatural agencies, and where divine power overrules all human efforts. Such demonstration from a medicine man, whose skill they cannot fail to recognise as superior to their own, has naturally more weight than any mere preaching. A mere preacher is discounted and his zeal is not understood. The medical missionary, moreover, gains an admission to the houses and homes of the natives by virtue of his art, which would not so readily be accorded to another. He becomes their adviser and referee, and his counsels are substituted for the magic and witchcraft which retard development.

He gives an account of what he supposes to have been the first *post-mortem* examination in Central Africa. The Mambwé men were utterly demoralised by a disease which decimated them, and which they attributed to witchcraft.

[1] *The Rise of our East African Empire: Early Efforts in Nyassaland and Uganda.* By Captain F. D. Lugard, D.S.O., Hon.F.R.G.S., Diploma F.R.S.G.S. With 130 illustrations from drawings and photographs under the personal superintendence of the author. Also 14 specially prepared maps. 2 vols. (Blackwood.)

Fearing that they would desert *en masse* if more deaths occurred, Captain Lugard held a big *mirandu*, and proposed that the doctor should cut open the last man who had died, and ascertain exactly the cause of death. To his surprise this was agreed to, and six men were deputed to watch the proceedings on behalf of the natives. The disease proved to be a violent inflammation of the lower bowel, and this having been ascertained, we are told "the doctor was more fortunate in his treatment of the invalids."

In hewing down cactus so as to allow passage for their camels, etc., the men occasionally got the cactus milk in their eyes, causing intense agony; the natives, however, showed Captain Lugard "a bulb which grew in the cactus jungle, and was full of a thin white jelly, which was a wonderful cure if its juice was squeezed into the eye," an example of the antidote being found in close proximity to the bane, which makes us the more regret that the name of the bulb is not given.

The method of making "blood brotherhood," as described by Captain Lugard, would seem to be an excellent way of diffusing disease:

> We sit down cross-legged on mats and skins, and each of us cuts our forearm till the blood flows; the arms are then rubbed together to mix the blood, and two small pieces of meat are supposed to be touched with the blood; he eats the piece which has my blood on it off the palm of my right hand, and I eat the piece which has his blood on it from his palm (Dualla, holding the meat in his hand, would cunningly substitute his finger, and so avoid the actual blood touching the meat sometimes). Sometimes salt or a coffee-berry (in Uganda and Unyoro) is substituted for the meat. Sometimes the incision for bleeding is made elsewhere than on the arm.

Mr. De Winton, a member of the expedition, fell ill; but there was no doctor in Uganda, and Captain Lugard had to prescribe for him himself. The diagnosis being chill and slight sunstroke, a native leech was summoned to bleed the patient. The following was the method of procedure:

> He had several small cows' horns about 4 inches long, the points being bored through and covered with beeswax. He puts one on the place he means to bleed and sucks through the small hole and then hermetically seals it with the wax. The suction produced by the exhausted air causes the blood to run to the place. Then he takes it off, makes a number of little cuts with a knife, and replaces it, repeating the suction process. By-and-bye he takes it off by opening the hole at the top with a porcupine quill and removes the clotted blood it contains. Again and again he repeats the process, and when no more blood will flow he starts again in a new place. Sometimes he puts on two or three at a time in different places.

Captain Lugard speaks in the highest terms of the kindness which he received from Dr. Laws, of the Free Church Mission at Bandawi, and of Dr. D. Kerr Cross, who accompanied him on one of his expeditions. To the surgical skill of the latter gentleman he owes the conservation of a badly-wounded arm.

The book, which is written in a readable style, contains enough solid information to satisfy the appetite of the most gluttonous devourer of Blue-books, and is as full of moving accidents by flood and field as a novel by Mr. Henty or Mr. Rider Haggard. It is beautifully and abundantly illustrated, and the coloured maps are models of their kind.

COOKING AND HEATING BY GAS.

I.

The advent of December, with its attendant fogs and increasing death-rate, is an unpleasant reminder of the fact that we are still a long way from the attainment of anything like a pure atmosphere in our large towns. Undoubtedly a good deal has been done in the right direction, but much more remains to be accomplished before we can feel any reasonable satisfaction in connection with this matter. Indeed, the solution of the smoke problem is one of the most pressing questions of the day, and one that increasingly demands our attention in view of the continuous crowding of our rural populations into the towns.

The heavy death-rate in our cities from pulmonary diseases during the winter months is largely due to the sulphurous compounds which are the most noxious products of the combustion of coal. During foggy weather these deleterious products, in the form of sulphurous or sulphuric acid, are specially prevalent in the air. This important point is emphasised in a report on the air of large towns, recently published by G. H. Bailey, D.Sc., Ph.D., Owens College, Manchester. In this report it is pointed out that whilst, during dense fog, the proportion of carbonic acid present in the air is not more than doubled, that of the sulphur compounds may be multiplied fifty-fold.

Mr. Bailey points out that the loss of light and proportionately of health in large towns is from 35 to 50 per cent. as compared with suburban districts, and concludes with a strong appeal for the substitution of gaseous fuel for coal in our cities.

The late Sir William Siemens, F.R.S., looked for the ultimate solution of the smoke problem in the same direction, and, dealing with this subject some years ago, said: "I hold that it is almost barbarous to use raw coal for any purpose, and that the time will come when all our fuel will be separated into its two constituents before reaching our factories or our domestic hearths. Such a measure would not only furnish us with the complete solution of the smoke question but would be of great value as a money-saving expedient."

Happily the value of coal gas as a cleanly, convenient, and economical method of cooking and heating is now being universally recognised, and public education in this important



matter has been greatly facilitated by the various gas companies and corporations throughout the kingdom hiring to their consumers at small rentals stoves of approved construction and design. That the public have appreciated this enterprising and wise policy of the companies is abundantly proved by the enormous number of stoves applied for. In the district of the Gas Light and Coke Company, which comprises the principal part of London, there is a stove hired to every fourth consumer, whilst in many of the principal provincial towns and cities, such as Leicester, Nottingham, Newcastle, Glasgow, etc., the results have been equally encouraging.

This is the beginning of a quiet but steady revolution in our domestic economy, the results of which will be to help forward in a most substantial manner the purification of the air of our cities.

The fact is, as we all know, that a very large portion of the domestic work of our homes is connected with the carrying of coals, laying of fires, and cleaning of grates. Gas stoves, whilst instantly at command at all hours, involve no labour in lighting, and almost none for cleaning; dust, ashes, and

smoke are done away with; the dusting of furniture is saved; and, speaking generally, there is a great reduction in the amount of rough dirty work in the household, in many cases enabling a servant to be dispensed with—a saving of £40 to £50 per annum at least.

In cases of sudden illness, a good fire can be obtained at any hour of the day or night promptly and quietly—a matter of the greatest importance—whilst the heat is perfectly under control; the gas can be lowered or extinguished at any time.

No doubt a good deal of prejudice existed in former years against the use of gas stoves, which had its origin in the fact that many of the stoves then in the market were faulty in construction and unsatisfactory in working. This is now altered for the better, and gas companies who adopt stoves to be hired to their consumers make a rigid examination of the construction of the apparatus and a thorough test of its suitability for the purposes intended.

A word about the sanitary aspect of heating stoves. These should always be connected with flues to carry away the products of combustion, and where a down-draught exists, some form of cowl should be fixed on the flue.

Whilst for sitting-rooms, in which fires are burning continuously for ten, twelve, or fourteen hours a day, gas is undoubtedly a dearer fuel than coal, and cannot be recommended on the score of economy (except in so far as servants' labour is saved), yet there can be no doubt whatever of the economy of gas fires for bedrooms, drawing-rooms, etc., where an occasional fire is required. In such cases a fire may be lighted and burned for an hour at a cost of one penny for gas, entailing no servant's labour, either in laying or in cleaning the following morning.

In fact, the expense attached to bedroom fires, where coal is used, practically prevents their use in many cases, and as they are only required for a short period, a mere trifle enables the gas fire to be lit either night or morning.

In conclusion, we submit a drawing of a type of gas fire adopted by the London gas companies, as being at once cheerful, economical, and efficient in its action, whilst entirely free from any objectionable odour. This is the well-known "Princess" fire, which is hired out at the very moderate rental of one shilling per quarter, or four shillings per annum.

The fire is composed of what is termed "hollow ball fuel," a composition of several refractory substances. This fuel rapidly gets up to a red heat, giving the appearance of a glowing coal-fire. It thus presents the advantage of the open fire, giving radiant heat, which is so dear to the hearts of English men and women. After the hot gases have passed through the ball-fuel, they enter a heating chamber above, which is specially constructed to economise fuel. This hot-air chamber being cast in one piece, no products from the combustion of the gas can possibly escape into the apartment, whilst the air does not get overheated, but only agreeably warmed. This "Princess" stove is fitted with hand-painted tiles, and the consumption of gas averages about one penny per hour.

In succeeding articles we shall describe various other stoves, both for heating and cooking.

SMALL-POX IN ENGLAND.

In London last week 21 cases of small-pox were admitted to hospital, against 52 and 20 in the two weeks preceding; 3 deaths from the disease were registered, and 140 cases remained under treatment last Saturday. Around London some score of cases were heard of, many at West Ham, where 1 death occurred. Three deaths were registered at Bristol, with double that number of attacks. At Birmingham 4 deaths took place, with some two score of cases there, at Aston, and other adjacent towns. The disease continues at Walsall, and occurrences have been recorded at Leicester. At Bradford 10 deaths were registered, with upwards of a score of cases. In Durham football teams from small-pox centres have met with refusals to carry out engagements on the score of possible infection.

SELECT PRESCRIPTIONS AND PHARMACEUTICAL NOTES.

I.

[Under this head we propose to publish from time to time prescriptions selected from the writings or drawn from the practice, public or private, of physicians of experience, whether general practitioners or consultants; and we invite contributions, which should be brief, and verified by the name of our correspondents, not necessarily for publication. The best mode of prescribing new drugs, improved methods of ordering old remedies, special combinations of drugs, and simple methods of concealing the taste of nauseous drugs, will be matters to which special attention will be given.]

Diphtheria.—Sir William Jenner advises[1] the thorough application of one or other of the following solutions:

Nitrate of silver ℈j
Water ʒj.

or

Hydrochloric acid
Water. Equal parts.

A camel-hair brush dipped in the solution to be passed over the surface two or three times in quick succession. The application not to be repeated until the discoloration produced has passed away. (With hydrochloric acid this takes thirty-six hours; with the nitrate of silver rather less).

Chilblains.—Dr. E. Stern[2] recommends the systematic use of the following ointment:

Oxide of zinc ʒss
Glycerine ʒiss
Lanolin ʒj ʒiij

To be rubbed in after washing; the surplus to be removed with the towel.

Night Sweats of Phthisis.—Bernheim[3] prescribes the hypodermic injection of ♏xxx of the following on four or five successive evenings:

Salicylic acid ʒiss
Glycerine ʒiij
Alcohol ʒiv
Distilled water ʒj.

Phosphorus in Rickets.—Dr. Louis Guinon has published[4] the following prescriptions (used by Kassowitz) for the administration of phosphorus:

Phosphorus gr. $\frac{5}{100}$
Saccharin gr. lxxvii
Essence of lemon ♏ij
Cod-liver oil ʒiiiss. Dose ʒj.

or as a more palatable alternative:

Phosphorus gr. $\frac{5}{100}$
Lipanine ʒj
White sugar } of each ʒss
Gum arabic }
Distilled water ʒj ʒiij. Dose ʒj.

Whooping-cough.—Dr. Burton-Fanning[5] finds the following to be a convenient form for prescribing bromoform:

Bromoform ♏viij
Compound tragacanth powder } of each ʒiv
Simple syrup }
Water to ʒiv.

Dose: For children under 1 year, ʒij; 1 year to 3 years, ʒss; 3 years to 6 years, ʒj, three times a day.

THE CHOLERA ABROAD.

In Germany 27 cases of cholera occurred in the week ended November 16th, and 17 cases with 9 deaths in the week succeeding. Soldiers have been forbidden to visit Tyrnek, in Silesia, owing to a second death there last week.

In Constantinople there has been a recent increase of cholera, some 30 cases occurring daily, and creating uneasiness among the lower classes who, in their ignorance, think the medical attendants are serving their own interests by administering poisonous medicines, thus making the disease to seem worse than it is as a means of justifying retention of their services by the Cholera Board.

Cholera has broken out at Tripoli, and several deaths have occurred.

In St. Petersburg there were 38 cases, with 9 deaths, from noon of November 15th to 22nd. The disease continues in some 30 provinces, but has been declared absent from Viatka

[1] *Lectures and Essays on Fevers and Diphtheria*, London, 1893.
[2] *Therap. Monat.*, 1893.
[3] *Sem. Méd.*
[4] *Rev. des Mal. de l'Enf.*, November, 1893.
[5] *Practitioner*, vol. l, 1893.

since October 9th, and from Oural and Penza since October 16th and 17th respectively.

From January to September in the Russian Empire there were 62,107 cases of cholera, 24,284 proving fatal, against 433,643 and 215,137 respectively from May to September of 1892, cases of 1893 thus being only about one-seventh and deaths one-ninth those of last year.

ASSOCIATION INTELLIGENCE.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

Thames Valley Branch.—The first meeting of the year will take place at the Talbot Hotel, Richmond, on Wednesday, December 6th; Dr. C. C. Scott, President, in the chair. Applications for election to be sent to R. N. Goodman, Honorary Secretary, Elmside, Kingston-on-Thames.

Lancashire and Cheshire Branch.—An intermediate meeting of this Branch will be held at Nantwich on Thursday, December 7th. Gentlemen who wish to read papers, show patients, or bring any other business before the meeting, will kindly communicate as early as possible with the Honorary Secretary, James Barr, M.D., 72, Rodney Street, Liverpool.

HALIFAX (NOVA SCOTIA) BRANCH.

The regular fortnightly meeting was held at the Library of the Halifax Medical College on Thursday, October 26th, the President, Dr. D. A. Campbell, in the chair.

A paper was read on the Diarrhœal Diseases of Infancy by Dr. Carleton Jones. Drs. Farrell, Milsom, Reid, Campbell, and Cunningham took part in the discussion.

The regular fortnightly meeting of the Branch was held in the Library of the Halifax Medical College on Thursday, November 9th, the President, Dr. D. A. Campbell, in the chair.

Cases.—Dr. Campbell showed a case of Obscure Enlargement of the Liver.—Dr. W. H. Hattie, Assistant Superintendent Mount Hope Lunatic Asylum, read an extremely interesting paper on the Bacteriology of Asiatic Cholera. Surgeon-Captain Barefoot, Surgeon-Captain Fowler, Drs. M. A. B. Smith, Almon, Treneman, Black, Jacques, Mader, and G. M. Campbell took part in the discussion which followed.

SYDNEY AND NEW SOUTH WALES BRANCH.

The 110th general meeting of this Branch was held at the Royal Society's Room on September 1st, Dr. Worrall, President, in the chair. Drs. G. A. Marshall, MacSwinney, Neill, Thring, West, Fiaschi, O'Reilly, Grace Robinson, F. A. Bennet, C. Martin, Crago, Rennie, Langhorne, A. Parker, James Dick, Frizell, G. Davis, Clay, Morgan, Martin, T. M. Kendall, McNeill, and Jenkins were also present.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Communications.—Dr. F. A. Bennet read notes on a case of Ichthyosis Palmaris et Plantaris, and exhibited the patient. Dr. Crago made remarks on the case, and Dr. Bennet replied.—Dr. MacMurray read notes on a case of Dermatitis Herpetiformis associated with Hyperkeratosis of the Palms and Soles, and exhibited an illustration of the case. Dr. Bennet made remarks on the case, and Dr. MacMurray replied.—Dr. Crago read notes on a case of Acute Pigmentation of the Skin. The paper was discussed by the President (Dr. Worrall), Drs. Jenkins, Thring, Rennie, Martin, O'Reilly; Dr. Crago replied.—Dr. T. M. Kendall exhibited Photographs of Leprosy Cases, and presented them to the Branch.

GRAHAMSTOWN AND EASTERN PROVINCE BRANCH, SOUTH AFRICA.

A most successful meeting of this Branch was held in the Albany General Hospital, Grahamstown, on Thursday evening, October 19th; the President (Dr. W. Guybon Atherstone) in the chair. There was a large attendance of members, and Drs. Truter, Begg Robertson, and Gillespie were elected members of the Branch.

Rules and By-Laws.—The amended rules and by-laws were read and confirmed, and the Secretary was instructed to have 200 copies printed for distribution among the medical men in the colony.

Election of Officers.—As this was the first meeting after the recognition by the British Medical Association of the Society as one of its Branches, the nomination of office-bearers for the ensuing year was then proceeded with, with the following result:—*President:* Dr. W. Guybon Atherstone. *Vice-President:* Dr. J. B. Greathead. *Secretary:* Dr. Begg Robertson. *Treasurer:* Dr. T. Duncan Greenlees. *Council:* Dr. W. G. Atherstone, Dr. J. B. Greathead, Dr. Begg Robertson, Dr. Becker, Dr. Saunders, Dr. Fitzgerald, all of Grahamstown; Dr. Robertson, Aberdale; Dr. Ensor, Port Elizabeth; and Dr. Berry, of Queenstown.

Papers and Communications:—Dr. Greenlees showed a case of Acromegaly, with photographs and pulse tracings.—Dr. Greathead showed a portion of the Spinal Cord, with complete rupture in the cervical region resulting from fracture of the vertebral column.—Dr. Chew showed two Cystic Kidneys: also a specimen of Diseased Bladder.—Dr. Truter showed several Microscopical Specimens.

Votes of Thanks.—This having completed the business, the usual votes of thanks terminated the proceedings.

BRITISH MEDICAL ASSOCIATION.

SIXTY-SECOND ANNUAL MEETING.

The sixty-second Annual Meeting of the British Medical Association will be held at Bristol on Tuesday, Wednesday, Thursday, and Friday, July 31st, August 1st, 2nd, and 3rd, 1894.

President: George Hare Philipson, M.D.Cantab., D.C.L., F.R.C.P., Professor of Medicine in the University of Durham.

President-Elect: E. Long Fox, M.D.Oxon., Consulting Physician to the Bristol Royal Infirmary.

President of the Council: J. Ward Cousins, M.D.Lond., F.R.C.S., Senior Surgeon to the Royal Portsmouth Hospital.

Treasurer: Henry Trentham Butlin, F.R.C.S., D.C.L., Surgeon to St. Bartholomew's Hospital, E.C.

An Address in Medicine will be delivered by Thomas Grainger Stewart, M.D.Edin., Professor of the Practice of Physic and Clinical Medicine in the University of Edinburgh.

An Address in Surgery will be delivered by James Greig Smith, M.B., F.R.S.E., Surgeon to the Bristol Royal Infirmary.

An Address in Public Medicine will be delivered by Sir Charles Cameron, Medical Officer of Health, Dublin.

A. Medicine.—*President:* Frederick T. Roberts, M.D. *Vice-Presidents:* E. Markham Skerritt, M.D.; R. Shingleton Smith, M.D. *Honorary Secretaries:* W. T. Brooks, M.D., 32, Holywell, Oxford; J. Michell Clarke, M.D., 28, Pembroke Road, Clifton, Bristol.

B. Surgery.—*President:* W. Mitchell Banks, M.D. *Vice-Presidents:* Nelson C. Dobson, F.R.C.S.; Professor Victor Horsley, F.R.S. *Honorary Secretaries:* G. A. Wright, M.B., 8A, St. John Street, Manchester; James Swain, M.D., 18, Buckingham Place, Clifton, Bristol.

C. Obstetric Medicine and Gynæcology.—*President:* Professor J. G. Swayne. *Vice-Presidents:* E. Malins, M.D.: A. E. Aust-Lawrence, M.D. *Honorary Secretaries:* R. Boxall,

M.D., 29, Weymouth Street, London, W.; WALTER C. SWAYNE, M.D., 3, Leicester Villas, St. Paul's Road, Clifton, Bristol.

D. PUBLIC MEDICINE.—*President:* Professor W. H. CORFIELD, M.D. *Vice-Presidents:* J. LANE NOTTER, M.D.; S. DAVIES, M.D. *Honorary Secretaries:* B. H. MUMBY, M.D., Town Hall, Portsmouth; J. C. HEAVEN, M.R.C.S., 2, Queen Square, Bristol.

E. PSYCHOLOGY.—*President:* G. F. BLANDFORD, M.D. *Vice-Presidents:* S. R. PHILIPPS, M.D.; FLETCHER BEACH, M.D. *Honorary Secretaries:* C. S. W. COBBOLD, M.D., Bailbrook House Asylum, Bath; R. S. STEWART, M.D., Glamorgan County Asylum, Bridgend.

F. PATHOLOGY.—*President:* G. SIMS WOODHEAD, M.D. *Vice-Presidents:* JOSEPH FRANK PAYNE, M.D.; M. A. RUFFER, M.D. *Honorary Secretaries:* NORMAN DALTON, M.D., 4, Mansfield Street, London, W.; C. A. MORTON, F.R.C.S., 24, St. Paul's Road, Clifton, Bristol.

G. OPHTHALMOLOGY.—*President:* F. R. CROSS, M.B. *Vice-Presidents:* H. E. JULER, F.R.C.S.; SIMEON SNELL, F.R.C.S. *Honorary Secretaries:* C. H. WALKER, M.B., 3, Leicester Villas, St. Paul's Road, Clifton, Bristol; J. TATHAM THOMPSON, M.B., 24, Windsor Place, Cardiff.

H. LARYNGOLOGY AND OTOLOGY.—*President:* P. MCBRIDE, M.D. *Vice-Presidents:* W. H. HARSANT, F.R.C.S.; BARCLAY J. BARON, M.B. *Honorary Secretaries:* P. WATSON WILLIAMS, M.D., 2, Lansdown Place, Victoria Square, Clifton, Bristol; W. MILLIGAN, M.D., 28, St. John Street, Deansgate, Manchester.

I. DERMATOLOGY.—*President:* A. J. HARRISON, M.B. *Vice-Presidents:* STEPHEN MACKENZIE, M.D.; H. WALDO, M.D. *Honorary Secretaries:* J. HANCOCKE WATHEN, M.R.C.S., 16, York Place, Clifton, Bristol; H. LESLIE ROBERTS, M.B., 46, Rodney Street, Liverpool.

PROGRAMME OF PROCEEDINGS.

TUESDAY, JULY 31ST.

9.30 A.M.—Meeting of 1892-93 Council.
11 A.M.—First General Meeting. Report of Council. Reports of Committees and other business.
3 P.M.—Sermon.
8.30 P.M.—Adjourned General Meeting from 11 A.M. President's Address.

WEDNESDAY, AUGUST 1ST.

9.30 A.M.—Meeting of 1893-94 Council.
10 A.M. to 2 P.M.—Sectional Meetings.
3 P.M.—Second General Meeting. Address in Medicine.

THURSDAY, AUGUST 2ND.

9.30 A.M.—Meeting of Council.
10 A.M. to 2 P.M.—Sectional Meetings.
3 P.M.—Third General Meeting. Address in Surgery.
7 P.M.—Public Dinner of the Association.

FRIDAY, AUGUST 3RD.

9.30 to 11 A.M.—Sectional Meetings.
11 A.M.—Concluding General Meeting. Address in Public Medicine.

SATURDAY, AUGUST 4TH.
Excursions.

SPECIAL CORRESPONDENCE.

UNITED STATES.

[FROM OUR SPECIAL CORRESPONDENTS.]

NEW YORK.

The Dull Season.—The New York Academy of Medicine and a National Sanitary Service.—A Professional Grill Room.—An Electric Street Car Ambulance.

IN this country there is almost always a period of more or less stagnation in medical matters so far as concerns society meetings and publications of important communications, the period extending from the middle of June to the middle of October. This year that period was more than usually pronounced, probably on account of the meeting of the first Pan-American Medical Congress in September. Members of the medical profession who have in view the preparation of important papers are apt to reserve their communcations for such assemblages. The regular society season here opens early in October. This year the societies cannot be said to have got earnestly to work up to the present time, and the delay is probably to be imputed also to the meeting of the Pan-Americal Medical Congress, which perhaps exhausted for the time being the supply of novelties that might otherwise have been scattered over a number of society meetings. The consequence is that we are now well advanced in the second month of the season, and yet no paper of great importance has been presented before any of the New York City societies. It is true, however, that the New York State Medical Association has held its annual meeting in this city, and that the material presented in the shape of papers and discussions was quite up to the usual standard of that body's work. It may be, and probably will be, several weeks yet, judging from the announcements thus far made, before our city societies get to working at their best.

The New York Academy of Medicine has recently perfected its draft of a Bill to establish a national sanitary service, and it will probably be laid before Congress soon after the opening of its session, which occurs early in December. It is said that the establishment of such a service, under the Secretary of the Treasury, is favoured by the President, but I have heard no statement concerning his opinion on the particular Bill prepared by the Academy's Committee.

It is about a week now since the Academy of Medicine opened its grill room and smoking room. The Academy's membership is large enough to keep such accessories in almost constant use, provided its members were not for the most also members of clubs in which such facilities are, as a matter of course, better developed. This consideration probably accounts for the fact that the Academy's grill room has thus far been but slightly patronised. Its establishment is an experiment made in the face of considerable opposition, and some little time will be required to determine the wisdom of the measure.

An electrical street car ambulance has lately made its appearance in St. Louis. My information is to the effect that one of the principal street railways of that city runs directly past several large hospitals, which fact makes its probable that the new ambulance car will prove of great service.

PHILADELPHIA.

Medico-Political and Quack Aspects of American Life.

WE have just passed through the exciting times of an election, which was one of the greatest importance. The profound moral revolution that carried Mr. Cleveland and the Democratic party into power last year has been followed by an election just as truly moral, and which so far as the scope of the results could carry, has again deposed that party from power. Our two elections, however seemingly contradictory, are in reality evolutionary rather than revolutionary, and are by no means the consequences of a fickle change of public opinion.

To the physician no election that has ever been held in this country has been of such professional interest and significance. One of our medical journals during the last year or two has been urging upon its wide circle of readers the duty of physicians to interest themselves in public affairs so far as relates to the public health and to professional progress. There has been an occasional protest that the sole duty of the physician is to cure his patients' diseases, but, as a rule, the preachings of the earnest editor have met with appreciative response. In New York city the "ringsters" and political plunderers have encountered the dignified and uncompromising opposition of the Academy of Medicine so far as relates to the city water supply and other sanitary matters. In the recent election the corrupt ring has had its back broken, and the influence of physicians and surgeons has been a considerable factor in bringing about the result. In Buffalo, N.Y., the physicians of the city, without distinction of party or "school," held a mass meeting, and resolved to use all their influence with their patients and friends, even to become poll-watchers during election day, to further the cause of good government.

In Ohio there has grown up a vicious system of quack control of legislation. Year after year the profession has heroically sought to get some sort of Bill passed by the Legislature that would be even the least step toward ridding the State of hordes of charlatans. Such medical practice Bills in this country are in the combined interests of the regular,

the homœopath, and the eclectic, and that the "physio-medicals" (of course you hardly know what this term may mean, neither does your correspondent), with the clairvoyants, mesmerists, faith-curists, and all other sorts of medical cranks constitute the opposition.

At last the shame of the disgrace had so eaten into the hearts of our colleagues that rebellion was organised. Every candidate had to go on record as to what his vote would be on the Medical Practice Bill. Everyone who refused to pledge himself was "posted," and everyone who promised to vote rightly if elected was put on the roll of honour. In this good work it was the *Cincinnati Lancet-Clinic*, Dr. Culbertson at the head, that led, and it was by stirring editorials, as also by the organised committees, especially that of the Academy of Medicine, that the 500 physicians of Cincinnati and their 6,000 brethren throughout the State have brought a hitherto unknown force into politics.

I have just received a telegram from Dr. Culbertson saying that the majority of the pledged candidates have been elected in Cincinnati, and, he thinks, throughout the State, and that a Medical Practice Bill will probably be passed by the next Legislature.

To your readers all this may sound somewhat *opera-bouffe* like. You have settled the intolerable homœopathic question, which, like a Jack-in-the-box, pops up whenever we move a hand. You can hardly understand why we also do not *écraser l'infame* of whatever name, whether eclectic, physio-medical, orificial, Christian science, or seventh daughter of seventh-daughterism. You, Mr. Editor, have lately been amongst us, and your nose has encountered some rather discomforting odours, but, as is well known, one has to live in Cologne for quite a time to be able accurately to differentiate and recognise her forty distinct stinks. You did us, Sir, a great public and professional service, for which we as a profession, I trust, are properly, and for which some of us as individuals are most profoundly, grateful. But we naturally did not bring our entire stock of smells out at once for our guest's delectation. Doubtless we gave you enough to satisfy you, but doubtless we shall not have so rank an assortment when you come again, because while here you provided several disinfectants and germicides with such effective and discriminating judgment that the noisome stenches will in future certainly be at least a little less disgusting and deadly.

There are two fundamental curses under which the profession in America labours:

1. The lack of independent medical journals controlled and issued by medical men for medical purposes. At present almost every journal is owned by some publishing or manufacturing concern, which of course publishes it for purely commercial purposes. It is easy to see that in such cases the advertising pages seek to control the reading columns. If an editor shows independence, and refuses to permit the commercial debauchery of his columns, woe be to him!

2. Co-operating with—nay, bound up with—this first misfortune, is the second—the lack of a national or unitary organisation. It at present seems to be impossible to arouse in the professional mind the recognition of the need of professional unity. Without professional unity we cannot speak to the people, criticise abuses, or encourage faint and sporadic attempts at virtue. We have no singleness or strength of voice, journalistic or organic; and from the multiplicity of non-coperating jealous societies, together with the multiplicity of trade journals, our professional disorder of speech is either a sorry laryngismus paralyticus, or a sorrier laryngismus stridulus, whilst the omnipresent quack and patent medicine men and the "likes of them" crowd every farm with nasty advertisements and huge bulletin boards, and bribe to silence or a worse subserviency every secular newspaper of the continent.

CHICAGO.

A Probable Psychological Problem in connection with the Assassination of Mayor Harrison.—The Serious Illness of Dr. Charles Warrington Earle.—The Establishment of a "First Aid to the Injured" Society.—The Return of Professor Norman Bridge.

There is a likelihood of a medico-legal problem arising from the universally deplorable event which marred the last days of the World's Fair—the murder of the city's Mayor—by a member of that considerable class of the human family known as "cranks." This condition of "crank pins"—technically known, I believe, as *paranoia persecutoria*—really prevails more extensively than is generally believed, even by the mass in the profession; and is, moreover, of a seriousness which instances such as the murder, or attempted murder, of a distinguished personage too frequently illustrates. The psychological condition of these "cranks," and their degree of responsibility for acts of this description, may remain to be established; the popular outcry is, however, that the full penalty of the law should be visited upon the culprit, just the same as if no fancy predominated the mind and impelled the deed. There is an element of tainted heredity in the case, together with a more or less indifferent moral atmosphere. The man was reared without a sound purpose in life, and therefore with but little restraint upon the coarser impulses. The question of prevention pertinently arises in this connection, which at once opens to thought and discussion the whole realm of modern sociology.

Many of the readers of the British Medical Journal who have enjoyed the really heartfelt pleasure of meeting the genial Dr. Chas. Warrington Earle of this city, both upon their visits here and upon the occasions of his sojourns in foreign fields, will be greatly pained to learn of his serious illness, which has now extended over a period of two or three weeks, and which, it is feared, will result in permanent disablement if he survives. It would be hard to say too much by way of commendation touching this broad-spirited and representative physician. His place in the hearts of men, irrespective of calling, and his position in the educational faculty of Chicago, will long remain unfilled. In all that has belonged to progressiveness in professional circles, and in very much beyond the purely professional, the influence of his advice, and, what has been of greater value, his hearty personal co-operation has been keenly felt for many years, for he has long stood as a master spirit.

There seems to be an excellent prospect of the establishment of a society for "first aid to the injured" in Chicago, the outcome, largely, of the personal influence of Mr. Ernest Hart while amongst us, as well as of the general influence of the World's Fair and the excellent service then shown under the immediate care of Dr. Gentles, late of London. The Woman's Club, under the presidency of Dr. Sarah Hackett Stevenson, has lately taken the matter up at Mr. Hart's request, and as this organisation is an influential one in works of public philanthropy, there is every promise of a speedy success. At present Chicago has an inadequate ambulance service, and in consequence unfortunate occurrences have been too common. Our police officers and firemen are also insufficiently trained in giving prompt aid to accidents. The movement is expected to be popular. The first general meeting of a few days ago was fairly well attended, and was made interesting and valuable by a demonstration of quick relief work given by Dr. Gentles and assistants from the World's Fair Corps.

PARIS.

Mortuary Chambers.—Fees to Medical Experts.—Abuse of Medical Charity.

M. Gribeaubal has drawn up a report to be sent into the Municipal Council on *chambres mortuaires d'attente*. On application, after death has been certified by a doctor, the body is fetched and removed to the mortuary chamber, where it is decently arranged on a bed, and for fear of simulated death a bell handle is placed in the hand of the deceased. The mortuary chamber is to be disinfected twice a day with corrosive sublimate, creasote, and thymol.

The Conseil d'Etat has issued a decree for the purpose of modifying the fees decreed in 1811 for medical experts. Every year the *cours d'appel* are to issue a list of recognised medical experts; they must be of French nationality, and must have practised medicine five years, and must live in the district to which they are named as experts. The tariff decided on is as follows: Visit and first dressing, 8 francs (6s. 8d.); operation, 10 francs (8s. 4d.); necropsy, 25 or 35 francs (£1 or £1 8s. 4d.), according as it takes place before or after burial; written or verbal reports given before a magistrate

will be paid 4s. 2d. and upwards; journeys are paid at the rate of 2d. and 4d. per kilometre. Experts retained some days for evidence will be paid 8s. 4d. per day.

At a recent meeting of the Municipal Council a member asked the director of the Assistance Publique if a patient possessing means, who was treated during six weeks at the Necker Hospital, had repaid the hospital, and if means had been taken to prevent a recurrence of such an abuse of charitable institutions. The director did not answer the question, but explained the difficulties in the way of preventing such an abuse, and hoped in a few months to be able to adopt a system which would prevent it.

ROME.

The Red Cross Exhibition at Rome.—The Sanitary Condition of Florence.

ON April 21st, 1892, at the inaugural meeting of the Fifth International Congress of the Red Cross Society, Signore Rattazzi, the Minister of the Interior, announced to the President that the King and Queen of Italy had offered prizes for the benefit of the Society, and had determined that the object of the competition should be the improvement of the means for the immediate transport of wounded from the field of battle by the help of the "First Aid" to the temporary hospitals, and from thence to the hospitals at the base. To this intent their Majesties offered 10,000 francs (£400) with which to establish two prizes, besides a certain number of silver medals to those honourably mentioned, the competition to be international. The royal communication was received with unanimous applause, and a special committee was chosen to elect members for an international jury to examine and adjudicate upon models sent in for competition. The exhibition of these models was opened on November 22nd, and the entries included 32 Italian exhibitors, 21 German, 5 Austrian, 2 French, 1 Swiss, 1 Bulgarian, 1 Greek, and 1 from British India. The exhibition also contained a non-competing section, in which the Italian army exhibited their ambulance service, the Swiss army a conveyance for their wounded, with equipage for nurses; and the Italian Red Cross Society a mountain hospital of 50 beds, which can be packed together in large sacks, 4 in each; there were also materials for the formation of ship hospitals, train hospitals, and a "first aid" at a railway station. The jury, having decided that none of the exhibits merited such valuable prizes as were offered by their Majesties, begged that they might be allowed to allot several smaller prizes instead of only two, which was agreed to. At the opening of the exhibition the King was represented by the Minister of War, and there were present the representatives of foreign Powers, the civil and military authorities of Rome, with the members of the Society of the Red Cross. The first prize, 3,000 francs (£120) was awarded to Signori Rosati and Pettanati, of Rome, for a hand-cart with two seats, *dos-à-dos*, in it—seats movable, so as to be available for use when carried between two bearers by the help of shoulder straps; and four very light hand litters. Louis Froelich, Switzerland, received the second prize of 2,000 francs (£80) for a mountain litter constructed after the fashion of a chair, to be carried when strapped on a man's back. A prize of 1,500 francs (£60) was awarded to De Luna, Italy, for a useful folding litter on wheels; a similar prize was awarded to Mascavello, Italy, for a folding litter. To Kühlstein, Germany, was awarded 1,000 francs (£40) for an ambulance cart containing two movable litters, and a long chair for less serious cases; the cart is easily alighted from, and the arrangement of the necessary materials is very ingenious. To Mazzuttini, Italy, was awarded 1,000 francs (£40) for three litters—that is to say, for a jointed litter cart which can be taken to pieces to form two litters, one of iron and one of bamboo, and also a collapsible litter, which last had already received a prize at the Exhibition of Hygiene at Padua, and which has been adopted by the Red Cross Society at Udine. The only exhibit that had been practically tested and found most useful in time of war was that sent in by Surgeon-Colonel Amesbury from India. The authorities passed it by in contemptuous silence as being purely and genuinely foreign. Twelve other exhibitors received silver medals.

It would appear that the complaints of residents in Florence communicated to the *Times* by its Rome correspondent are well founded. The stenches in the streets of the town are notorious. That part of the city occupied by the English and American colony is supplied with new drains supposed to be properly trapped, and the houses have been more or less carefully attended to, but the drainage of the rest of the town is utterly bad. The water supply is insufficient and questionable in quality, though it is boldly asserted in some quarters that "the present water supply of Florence is as good as the best, and better than that of most, English towns which derive their supply from rivers." Its source is from a gallery at a depth of 40 feet in the mixed beds of gravel, sand, and clay upon which the city is built. This gallery, which is 200 feet in length, yields 26,000 gallons of water daily in the wet season, and from 13,000 to 17,000 gallons in the dry season. It is proposed to extend this gallery to ten times its present length, but above this site are the town rubbish deposits, which might pollute the supply. The authorities have ordered their removal, but, knowing how dilatory Italians are in all their sanitary works, however urgently necessary, it is to be feared that the project has been "hung up" indefinitely. In the mountainous districts west of Florence land has been purchased which contains springs capable of yielding upwards of 66,000 gallons of water a day, but it will be a long time before this supply will be available for use.

SYDNEY.

Proposed Lectureship on Bacteriology in the Sydney University.—Marine Biological Station.—Appointment of a Public Pathologist.—A Warning to English Nurses.

THE late Sir William Macleay, a gentleman who in his lifetime took a keen interest in natural history pursuits, and who founded and enriched a valuable museum in connection with Sydney University, has bequeathed the sum of £12,000 for the purpose of establishing a lectureship in bacteriology. Sir William was a member of the University Senate, and the conditions of the bequest are that the University authorities make it compulsory for all students qualifying for a degree in science or medicine to attend a course of six months on bacteriology. The Senate find some difficulty in complying with the rigid and specific conditions set forth in the will. The medical course already extends over five years, and in addition to the usual subjects embraced in the medical curriculum a three months' course in each subject of physics, psychological medicine, and ophthalmology is required of every medical student. It is a difficult matter to increase the burden of the medical student, whose curriculum is already sufficiently arduous, and as the lecturer is required by the conditions to devote himself entirely to the subject it does not appear as if the Macleay Lectureship could become incorporated with the present lectureship of pathology. In the event of the University authorities being unable to comply with the conditions the money passes to the New South Wales Linnean Society, of which Sir William Macleay was the founder, and is to be set aside for the purpose of bacteriological research.

Professor Haswell, who holds the Chair of Biology in Sydney University, is interesting himself in establishing a marine station for biological work. He has published some encouraging letters from several well-known biological workers in Europe, who are strongly in favour of founding such a laboratory in the waters of Port Jackson. The Government has already granted a suitable site at one of the secluded parts of the harbour, and as soon as a little more money is forthcoming the project will be carried out.

The Colonial Secretary, on the recommendation of the medical adviser to the Government (Professor Anderson Stuart) has created the post of public pathologist, and has appointed Dr. George Rennie to the office at a salary of £300 per annum, with court fees. His principal duties will be to conduct such *post-mortem* examinations as may be ordered for medico-legal purposes. The custom hitherto has been for the coroner to order any practitioner he chose to make such examinations, with the result that the profession often felt it to be unfair to the general practitioner and his patients that the coroner should have authority to make any such

arrangement. Besides, it occasionally happens that very grave issues depend on the medical testimony in such cases, and the busy practitioner is not always the possessor of extensive pathological knowledge or medico-legal experience. The new arrangement is eminently satisfactory; the appointment is a good one. and has met with general approval.

In connection with the Thomas Walker Convalescent Hospital, which was formally opened the other day in Sydney, it is stated that nearly a hundred applications were received for the position of matron. This fact alone will perhaps serve as a warning to nurses in England not to look to this colony as a suitable field for the nurse immigrant. It is very evident that at the present time the supply is far greater than the demand, and that nursing as a profession—like doctoring—is overdone. The desire among young women to qualify as hospital nurses has for some years past been very keen here, and the officials of our general hospitals bear testimony to the fact that there is always a long list of names of eligible young women who wish to enter as probationers. Our principal hospitals specially provide for the efficient training of nurses, and grant diplomas after three years' service, provided they satisfy an examining board as to their practical and theoretical fitness. One would like to see some form of organisation among the large number of nurses here who have taken up this line of work as a means of livelihood. At present they have adopted the system of living together in small clusters, getting employment as best they can. What is much wanted is a properly organised home—a common register where medical men could be easily informed as to the nurses available for work. It is to be hoped that something may yet be done to enable this worthy class of women here to enjoy a system of benefit for sickness and infirmity similar in its character to that which has been so successfully established in England.

BIRMINGHAM.

The Influenza Epidemic.—Small-pox.—Small-pox Hospitals as Centres of Infection.

Medical men in Birmingham are at present having a busy time. With small-pox, scarlet fever, and influenza in our midst it is a long time since there has been so much illness in the city and suburbs. Influenza is still rife, running through whole families as in previous epidemics; nor does a previous attack seem to confer any immunity. The death-rate, which rose to 31.1 the week before last, was last week 28.4, but the increase above the normal death-rate is almost wholly due to bronchitis and pneumonia.

Small-pox, though still prevalent around Birmingham, in the city itself seems to be abating. Thirty-nine new cases were reported last week, against 77 in the preceding week. There are at present 186 cases under treatment at the City Infectious Hospital, together with 335 cases of scarlet fever.

There is no doubt that the present accommodation for such cases as small-pox is quite inadequate, and the congregating of so many cases at the City Hospital is becoming a source of alarm, if not of actual danger, to the inhabitants immediately near to it. Comparing the numbers of fresh cases which arise in the streets which are closest to the hospital, or in the parts of the streets nearest to the hospital, with the numbers from other districts, it is obvious that, in its present crowded condition, it is serving as a focus of injection. The district in which it is situated has become too populous, and the hospital itself is too near the road for small-pox patients in any numbers to be treated there without risk of carrying infection. It is therefore to be hoped that when the new infectious hospital is completed the present one will be used exclusively for scarlet fever cases.

MANCHESTER.

Adulteration of Food and Bread.—Influenza.—Owens College Students.

We have before us the report of the city analyst of Manchester (Mr. C. Estcourt) since his appointment in 1873 to the present year—that is, a period of twenty years. It appears that no serious attempt was made to give the people of Manchester the benefits of the Food and Drugs Act in securing a supply of unadulterated food and drink until 1882. During these ten years food that would not pass muster in some more remote towns was sent on to Manchester for sale. Of the staple food of the community the corporation inspectors have wisely directed their attention to the milk and bread supplied to the people. It appears that it requires 12,000,000 gallons of milk a year to supply the wants of the city and its immediate neighbourhood, representing an annual sum of £600,000. In 1881, before there were frequent analyses of the milk supplied, nearly 30 per cent. of the samples supplied were diluted; while in 1893, out of 1,145 samples of suspected milk, less than 5 per cent. were found to be diluted. On making a calculation one found that if even 1 per cent. of water were added to milk on the above huge consumption, it would mean that the people were paying £6,000 a year for added water. As to bread, out of 380 samples taken during the last seven years, none were found to be adulterated.

Influenza is again very prevalent in certain towns around Manchester, chiefly in Bolton and Burnley, where many thousands have been affected. In Manchester also there are many cases, but neither the type nor the complications are so severe as in previous epidemics. Like other institutions Owens College has not been spared; a goodly number of the staff of teachers and many students in the chemical department have been suffering from more or less severe forms of influenza during the last fortnight.

The medical students of Owens College have had a most successful smoking concert during the part of the session just elapsed, and on Tuesday evening the annual dinner of the medical students took place, Mr. G. A. Wright, F.R.C.S., being in the chair. The dinner was well attended, and altogether an enjoyable evening was passed.

CORRESPONDENCE.

[Pressure on space compels us to hold over a large number of letters from, among others, Professor Clifford Allbutt, Dr. Louis Parkes, M.O.H.; Dr. C. H. Allfrey, Dr. A. Wallace, Dr. J. F. Sykes, M.O.H.; Mr. Roger Williams, Dr. Henry Alston, Dr. J. F. Taylor, Dr. J. Black Milne, Dr. W. Hardman, Dr. H. Handford, and Mr. Luke Freer.]

DIPHTHERIA AND DEFECTIVE DRAINAGE.

Sir,—The object of my former letter to you on this question was merely to show the acumen of Sir William Jenner in forming a conclusion as to the nature of diphtheria on its first arrival amongst us which coincides with that of some of the highest authorities at the present time. I also stated that my own opinion had long been in the same direction. I was not attempting to argue the question itself, especially as this had been so admirably performed by Dr. Thorne Thorne in his Milroy Lectures at the College of Physicians. There are those, however, who still dispute his conclusion, like the objectors who have written to your paper, namely, Sir George Johnson and Dr. Sidney Davies. Of the opinion of the latter I am somewhat doubtful, as he says little more than that in which I can quite concur. I would not dispute that sewage, both in form of liquid or vapour, is injurious, nor could I deny that it might alter the course or character of a specific disease. Dr. Davies is careful not to say that bad drainage can originate diphtheria, but this Sir George Johnson does not hesitate to affirm. He says, "No one doubts that diphtheria is an infectious disease, but that it is often a result of defective drainage I believe is clearly proved," and again, "Defective drainage is a frequent exciting cause of diphtheria." These statements open up another question, whether they are not contradictory; that is, whether a contagious disease can have a spontaneous origin. Of course the point for which Sir George Johnson contends can only be determined by careful observation, but the argument which he uses in favour of diphtheria having a local origin is not that which is adopted in discussing a similar question in other well-recognised contagious diseases, such as scarlatina or small-pox. If, for example, we find isolated cases of the latter in places to which contagion cannot be traced, we

assume its existence. I know of no one, except Miss Nightingale, who under these circumstances would attribute it to insanitary conditions or like causes. In like manner, those who regard diphtheria as being altogether on the same lines as small-pox, would argue that if, in a very large majority of cases, it can be proved to arise from contagion, it would be more reasonable to assume the same cause in the small minority which remains, rather than believe these cases arose *de novo* from some local cause, such as defective drainage, especially as it has not been shown that this supposed cause has universally existed in the whole of the minority.

Another part of the British Medical Journal also contains a paragraph stating that an epidemic of diphtheria has occurred at Halstead, and that the sanitary state of the town is extremely unsatisfactory. Had the paragraph stopped here, it would have supported the drainage theory, but it goes on to say that the hospital cottages are full of scarlet fever patients. Will it therefore be argued that these two diseases are both due to bad drainage, for then if typhoid be added we shall have no fewer than three diseases owning the same cause, and this I have heard maintained? Some time ago, I saw in a town not far from the metropolis, at separate intervals, cases of scarlatina, typhoid, and diphtheria. On these three separate occasions the medical man whom I met in consultation attributed them to the foul river which ran through the town. The very important question of the relation of bad drainage to diphtheria requires a very patient inquiry, and a collection of facts from all parts of the country. I know of no work which contains so much material to elucidate the subject as the work of Dr. Thorne Thorne before mentioned.—I am, etc.,

Grosvenor Street, S.W., Nov. 20th. Samuel Wilks.

Sir,—As a curious instance of the obscure connection existing between scarlet fever and diphtheria, permit me to give the following: Mrs. A. lives in a very superior house with very good sanitary arrangements. Her two children were notified a few weeks ago as suffering from scarlet fever. On calling, I made very particular inquiry as to its origin, and was able to exclude almost every source such as milk, sanitary defects, and conveyance by means of servants, etc. One source, however, remained, which was suggested by Mrs. A. herself. This was the clothes which were brought back by the washerwoman on the Friday and put on on the Saturday preceding the Monday on which the children fell ill. Accordingly I made inquiries of the medical officer of health in whose district this washerwoman lives, and to my surprise he informed me that two of her children had been notified as suffering from diphtheria on the same day as that on which Mrs. A.'s two children had been notified, and that one of them had since died. There is good reason for believing that the washerwoman's children were ill for some days before the doctor was called in, and "notified them," that the diagnosis in all four cases was correct, and that no source of origin existed for the scarlet fever cases except these cases of diphtheria.

Dr. Thorne Thorne accepts Dr. Parsons's view that the two diseases are quite distinct, and he puts forward very strong arguments in support thereof. But it still remains possible that the "bacterium" of scarlet fever may be transmuted by suitable cultivation into that of diphtheria, just as the bacillus of anthrax can be made more or less virulent according to its mode of cultivation.—I am, etc.,

Vestry Hall, Paddington, W., Nov. 27th. James Priestley.

MEDICAL ETIQUETTE.

Sir,—Like the writer of the letter, "G. M. P.," on "Medical Etiquette," in the British Medical Journal of November 18th, p. 1130, I am not aware that the proposal referred to in Mr. Ernest Hart's address at Washington—that in consultations "the opinion arrived at should be expressed through the mouth of the attending practitioner"—has been generally acted upon. One can, however, imagine cases in which the friends of the patient might desire that the course suggested should be taken, and doubtless consultants would at once acquiesce. In general the friends seem to expect the consultant himself to explain to them the result of the conference, and, if more than one had been called in, the senior Fellow would probably be requested to give the general view taken, and then one or more of his colleagues and the patient's medical adviser would probably supplement the remarks that had been made, and add any observations thought desirable. Questions that might be asked with regard to the nature and probable course of the malady or the treatment proposed would then be answered. As far as my experience has gone, there has been very seldom any practical difficulty, and questions of etiquette have not been discussed.

Great and advantageous changes have, however, taken place during the last thirty or forty years as regards consultations. There seems to be much less desire and less need to act according to what used to be called etiquette. The relation between the patient's usual medical attendant and the consultant has much changed of late years. In education, qualification, and position the latter has much advanced, and consequently the "consultation" has become more of a friendly conference between thoroughly well-trained practitioners than used to be the case. Two or more practitioners meet together to assist one another in the consideration of any points of difficulty, doubt, or obscurity, and to determine, if possible, the exact nature and proper management of a serious, complicated, or doubtful case. Having deliberated, the friends of the patient are called in to hear the opinion arrived at.

In these days it will not always be necessary to suggest any new view, to write a prescription, or to advocate any change in management. Instead of the consultation nowadays being suggested with the view of obtaining an authoritative declaration on the part of someone credited with exceptional and mysterious powers, and expected to suggest some infallible remedy and means of certain cure, a meeting of two or more well-informed practitioners is arranged for the purpose of deciding the probable nature, course, and result of the illness, the best means of affording relief of suffering, and determining how restoration to health may be most certainly and quickly ensured.—I am, etc.,

Lower Grosvenor Street, W., Nov. 18th. Lionel Beale.

*** The following is the rule of the College of Physicians:—

BY-LAWS AND REGULATIONS: DUTIES AND CONDUCT.

Physicians' Conduct in Consultation.

By-law 174.—If two or more physicians, Fellows or Members of the College, be called in consultation, they shall confer together with the utmost forbearance, and no one of them shall prescribe, or even suggest, in the presence of the patient or the patient's attendants, any opinion as to what ought to be done before the method of treatment has been determined by the consultation of himself and his colleagues; and the physician first called to a patient shall, unless he decline doing so, write the prescription for the medicines agreed upon, and shall sign the initials of the physician or physicians called in consultation, he placing his own initials the last. If any difference of opinion should arise, the greatest moderation and forbearance shall be observed, and the fact of such difference of opinion shall be communicated to the patient or the attendants by the physician who was first in attendance, in order that it may distress the patient and his friends as little as possible.

THE EARLY CARE OF WOUNDED IN WAR.

Sir,—It can hardly be a matter of wonder that attention should have been called as it has been to the question of the primary care of those who may fall wounded in battle, when one observes the general uneasiness which is created by the warlike preparations of the leading Powers of Europe. The question is a very serious and difficult one. It presents less difficulties in the vast armies which can be brought together by a system of conscription than it does in the British army, with its numbers limited by voluntary and costly enlistment. As is well known, the early assistance to the wounded, according to British regulations, is to be afforded by a proportion of men of the corps that has suffered from the fire of the enemy. The army medical regulations instruct medical officers doing duty with corps in the field that "when an action is expected, the trained stretcher-bearers of the corps, in the proportion of two per company, will be placed at the medical officer's disposal; they will leave their rifles and valises in the carts, take the stretchers, and proceed under his directions. In severe actions he will only afford such temporary aid to the wounded as may be within his power, until they are succoured by the bearer companies," etc." This reads very much as if the medical officer were in authority, which he is not, and never can be; a medical officer attached to a corps is necessarily subject to the orders

of the officer commanding the corps on all occasions. I do not imagine that the often-quoted edict of Sir Colin Campbell at the Alma that the first man who left the ranks to carry a wounded man to the rear was to be shot, if ever said by him, was intended to have had anything more than a deterrent effect; but I feel confident that the principle which underlies the saying, namely, that the safety of the whole body overrides the safety of a part, must always influence a commanding officer. It seems extremely improbable that any officer in command of a corps will sanction the abstraction of several rifles at the critical moment of entering upon the uncertainties of action with an enemy, whose numbers are very likely to be far superior to his own. It is on this account that it has always appeared to me to be almost essential in order to ensure early care and proper disposal of the wounded in war that bearer companies should be joined to bodies of troops in time of peace, and practised in moving with them, so that, when active operations in the field occur, they may take the positions assigned to them with order and regularity, and be ready for discharging their special duties at any moment when they may be required. The institution of bearer companies in this country was consequent on a report by Colonel Brackenbury (now Lieutenant-General Brackenbury, C.B.), Major Kemmis, and myself, and it was on the principle of their entire responsibility for the care of the wounded from the place of conflict, over the whole field, till handed over to the field hospitals for definite treatment, that they were first organised. If this is still understood to be their sole and special function while hostilities are in progress, it is obvious that the more the resources of the bearer companies are developed, their organisation and equipment perfected, and the best modes of disposing them among bodies of troops studied, the more thorough will be their capability of fulfilling their important responsibilities. There is a paragraph in the Queen's Regulations and Orders for the Army which directs that "when troops are exercised during summer manœuvres, bearer companies are to be organised and exercised." But whether the exercise of the bearer companies is to take place with the troops, or merely as separate establishments, is not stated. For reasons already given, it is exercises in conjunction with the exercises of the troops that would promise to be the more instructive and profitable.—I am, Sir, yours, etc., Thos. Longmore, Surgeon-General (retired).

Woolstone, Hants, Nov. 20th.

PUERPERAL SEPTICÆMIA.

Sir,—Space will be saved if you will permit us to reply jointly to the letter from Dr. Playfair in your issue of November 25th. We neither of us think that "defective sanitary conditions are not matters of importance." We have no doubt that defective drains may make puerperal women ill, just as they may make anyone else. But we do not think that such conditions cause puerperal septicæmia. Dr. Playfair thinks it possible that the disease caused by sewer gas is distinct from septicæmia; and in this we are happy to agree with him. We are glad, also, to be at one with him in thinking that "puerperal disease from poisoning with sewer gas is neither so common nor so important as poisoning from infective germs on unclean hands or instruments." It will thus be seen that we do not differ from Dr. Playfair so widely as might appear from the opening sentences of his letter.

Dr. Playfair has not been able to distinguish sewer gas poisoning from septicæmia. We cannot furnish him with the differential diagnosis, because the effects of sewer gas poisoning are little understood. Many kinds of illness are put down to it; but we know of no definite set of symptoms that has been proved to be a regular effect of sewer gas poisoning. The phenomena of septicæmia, on the other hand, are uniform and well marked, whether it occurs after a delivery or after a surgical operation. Definite symptoms known to be usually due to a definite cause should not, in our opinion, be put down to a totally different cause without good evidence that it can produce similar effects. Now, it is a striking fact that one never hears of septicæmia being produced by sewer gas poisoning except in the case of puerperal women.

We are acquainted with Dr. Playfair's able and, to some, convincing papers upon the subject. We differ from him chiefly as to the reliance to be placed upon the method of investigation by which his opinions have been reached. It is by applying to individual cases a very imperfect method of exclusion. A patient gets what appears to be septicæmia; a search is made for some source of septic infection; the source is not found, and it is assumed that *therefore none existed*, and that the disease must have been due to some other cause. Some fault is discovered in the drainage, or there is a case of scarlet fever in the next house, and, as the case *cannot* be septicæmia (no source of infection having been found), the drains or the scarlet fever *must* be the explanation. By this method there has been produced what is called proof of the production of septicæmia by scarlet fever quite as strong as any that has been offered of its production by defective drainage. Evidence of the same kind, and of precisely equal value, has been brought forward to prove the production of diphtheria by bad drainage.

We think this mode of investigation fallacious. The method which we think trustworthy is that of ascertaining the course of the puerperium in large numbers of cases, some exposed to sewer emanations, others not; but all of them under conditions otherwise identical. This method has been applied by Dr. Boxall to the theory that scarlatina causes puerperal septicæmia, and he has shown that scarlatina produces scarlatina; and that in those puerperal women in whom scarlatina is not produced by exposure to scarlatinal infection, there is no effect whatever. Nothing like septicæmia is produced. An identical method of investigation has been applied by medical inspectors of the Local Government Board to the assumed connection of diphtheria with drainage defects; but, so far as we are aware, without confirming the theory. We do not know that any thorough investigation, according to this method, of the effects of bad drainage upon the puerperal state, has yet been made. If this correspondence should lead medical officers of health to investigate in a scientific manner what the actual effects of sewage emanations upon puerperal women are, we think much good will have been done.

The case quoted in the sixth paragraph of Dr. Playfair's letter from his work on *Midwifery* is a very instructive one, and no one can help admiring Dr. Playfair's clinical acumen in detecting the cause of the patient's illness; but there seems to us to be no good reason for regarding this illness as septicæmia.

The theory of Dr. Handfield-Jones, that "a woman who had lived in a poisonous atmosphere may be so impregnated with poisonous particles that after delivery her tissues would become a favourable breeding ground for septic germs," is one for which, so far as we know, there is not a scintilla of evidence. Indeed, had we been asked for a speculative opinion, based on the analogy of every day experience in hospital life, as to the probable effect of long exposure to air contaminated by sewer gas, we should have said that it would be to acclimatise the patient to it. Our limited knowledge of Continental towns would make us think that if Dr. Handfield-Jones's theory were true, cases illustrating it ought to be very numerous abroad; but the security given by antiseptics has been as strikingly exemplified in the dirtiest and most malodorous towns as in the cleanest. The case which Dr. Playfair relates in illustration of Dr. Handfield-Jones's theory seems to us to have been a case of septicæmia in which the source of infection was not detected.

To say that it was "a dangerous doctrine to propagate that puerperal septicæmia could be caused by defective drains and sewer emanations," was to use a strong expression, but it was the result of strong conviction. The returns of the Registrar-General (quoted in recent papers by Dr. Boxall, *Lancet*, 1893) and the experience of obstetric physicians engaged either in hospital or consulting work, show that the medical practitioners of this country have not yet generally adopted the use of antiseptics in their private practice. Anything that gives medical men a ready excuse for not adopting them, and a ready way of accounting for any case of puerperal disease that may occur in their practice, is, in our opinion, rightly stigmatised as "dangerous."

As obstetric teachers, we, like Dr. Playfair, are anxious that our teaching should, when carried into practice by those who listen to us, result in the diminution of puerperal mor-

tality and puerperal suffering. Anything that lessens the sense of personal responsibility on the part of the medical attendant is bound to interfere with that result.

Although we are obliged to differ from Dr. Playfair on certain points, we do not forget how much the profession is indebted to him for having directed attention to a possible source of danger to puerperal women; and to the need for more careful and direct supervision, by properly constituted authorities, of our domestic sanitary arrangements.—We are, etc.,

G. Ernest Herman,
November 27th. Chas. J. Cullingworth.

MEDICAL AID ASSOCIATIONS.

Sir,—I am in receipt of the following letter from the Royal College of Physicians of Ireland, the contents of which being of great interest to the profession in general and to the Licentiates of the College in particular, I venture to ask you to publish:—

"Royal College of Physicians of Ireland,
"Dublin, November 13th, 1893.

"Dear Sir,—In reference to your letter of the 17th of August, I beg to enclose the following copy of a resolution passed by the President and Fellows of this College on the subject you refer to:

"Resolved: That the Royal College of Physicians of Ireland desire to express their disapproval of their Licentiates accepting office in medical aid associations as at present conducted in England, inasmuch as the independence of the physician is destroyed by the system and the services of the physician are used so as to produce a profit for lay persons.

"Faithfully yours,
"(Signed) G. P. L. Nugent, M.D.,
"Dr. Leslie Phillips. "Fellow and Registrar."

The Royal College of Surgeons of England, recognising the evils which must arise from its Members associating themselves with "trading institutions for treatment of disease," most properly passed the following resolution:—

"That it is degrading to the profession and injurious to the public interest that Fellows or Members of the College should associate themselves with trading institutions for the treatment of disease, and allow their names to be advertised in support of the practice of medicine and surgery by persons not legally qualified."

Perceiving the applicability of the terms of this declaration to medical aid associations, to individuals, and to insurance companies carrying on medical aid businesses, I applied to Mr. Edward Trimmer, the Secretary of the College, for verification of my surmise, and in the reply he says: "Having regard to its terms (that is, the terms of the resolution), I am of opinion that, on the assumption that such associations are to all intents and purposes trading institutions, it is clear that they must be included in its scope."

I need make no comment on the beneficial importance of these resolutions to the profession, or on their significance to the licentiates of the respective Colleges who hold office in medical businesses of the medical aid type.—I am, etc.,

Birmingham, Nov. 25th. Leslie Phillips.

FILARIA SANGUINIS HOMINIS.

Sir,—I do not think Dr. P. Manson, who has done so much to elucidate the life-history of the filaria sanguinis hominis, has stopped to inquire what the uses of the elastic membrane within which the young worm is enclosed during its stay in the circulating fluid may be. There are uses for the majority of things in the lower animal world. The membrane's primary use is, I think, to protect the soft semigelatinous body of the embryo from the attacks of the phagocytes. It may also protect the embryo on first entry into the mosquito's stomach from the corrosive action of the digestive juice until the proper irritative changes have taken place for the worm's sojourn and thrival in the digestive tract of this insect, its second host.—I am, etc.,

Zanzibar, Oct. 12th. J. H. Whelan, M.D.

A French physician, Dr. Nicole, has been appointed director of the Bacteriological Institute of Constantinople.

GENERAL COUNCIL
OF
MEDICAL EDUCATION AND REGISTRATION.

WINTER SESSION, 1893.

Sir Richard Quain, Bart., President, in the Chair.
Tuesday, November 28th.

[*Owing to great pressure of space we are compelled greatly to curtail our report of the proceedings.*]

The winter session of the Council was opened on November 28th.

New Members.

Dr. W. T. Gairdner was introduced to the Council, and took his seat as representative of the University of Glasgow in place of Dr. Leishman. It was announced that Dr. C. F. Moore had been chosen as the representative of the Apothecaries' Hall in Dublin.

President's Address.

The President, in his address to the Council, referred to the loss the Council had sustained in the resignations of Mr. Collins and Dr. Leishman. The Council would have to deal with a number of penal cases, and the programme of their business involved the consideration of matters of the deepest importance to the medical profession.

A vote of thanks was passed for the address, which was ordered to be printed in the minutes.

Routine Business.

A Business Committee was appointed, consisting of Mr. Wheelhouse (Chairman), Sir William Turner, Mr. Bryant, and Dr. W. Moore.

The usual tables, showing the results of the examinations for the Medical Departments of the Navy and Army, were received and ordered to be entered on the minutes.

Foreign and Colonial Degrees.

A report of the Executive Committee as to the recognition of foreign degrees, and as to the registration of Colonial degrees and diplomas in the *Colonial Register*, was then considered, and ordered to be placed on the minutes. In it the Committee recommend that the respective applications from the University of Calcutta, the Punjab University, the Ceylon Medical College, and the University of Adelaide as to the registration of certain of their qualifications be granted. This recommendation was approved.

The Case of Dr. Herbert Tibbits.

Communications with regard to Dr. Tibbits from the Colleges of Physicians of London and Edinburgh were read and entered in the minutes, whereupon, upon a motion moved from the Chair in accordance with the standing orders, the Registrar was directed to erase from the list of qualifications the qualification of Lic. R. Coll. Phys. Lond., and Member, 1874, and Fell. 1876 R. Coll. Phys. Edinburgh, standing in Dr. Tibbits's name.

That having been done, strangers were ordered to withdraw, and the Council considered a letter from the Medical Defence Union, complaining of Dr. Tibbits's conduct "on account of his having been associated with one Cornelius Bennett Harness," whereupon the Council's solicitor explained the reasons for deferring the matter to the next session of the Council.

Other Business.

Several other communications having been received and entered on the minutes, a motion by Mr. Bryant as to a modification of the requirements of the Council in regard to professional education was postponed until the report of the Education Committee should come up.

Scotch University Ordinances.

The Council ordered the correspondence in relation to the ordinances for degrees in medicine of the Scotch Universities, which had passed between the President of the Council and the Chairman of the Scottish Universities Commission to be entered on the minutes.

Reciprocity.

A report of the Executive Committee on the Reciprocity of Medical Practice in relation to Foreign Countries was also placed on the minutes.

The Royal College of Physicians of Ireland.

A communication was read from Dr. Nugent, Registrar of the Royal College of Physicians of Ireland calling attention to a judgment of Lord Justice Smith in 1893, whereby it was declared that the Royal College of Physicians of London were, at the date of the passing of the Medical Act, 1886, a medical corporation legally entitled to hold independently qualifying examinations in medicine, surgery, and midwifery, and confer the right on those passing such examinations to be registered. The letter further pointed out that, as the Royal College of Physicians of Ireland held charters conferring upon it the same powers as that of the Royal College of Physicians of London, the principle applied equally to it, and the College requested that the General Medical Council direct that its name should be included in the list of corporations capable of solely granting registrable qualifications, in order that their equality with the Royal College of Physicians of London under their charter might be fully recognised.

Sir W. Turner moved:

That the letter of the Registrar of the Royal College of Physicians in Ireland be remitted, along with a copy of the charters of that College, to the legal advisers of the Council, for consideration and opinion.

Sir Dyce Duckworth seconded the motion.

Dr. McVail thought that if the Royal College of Physicians, reland, wanted to have their position made sure, they should go to the Court on their charter and get an opinion, as the Royal College of Physicians of London had done.

Dr. Glover proposed as an amendment:

That it is not the duty of this Council to undertake an investigation to define the powers of the Irish College of Physicians, and that the letter of Dr. Nugent be not further dealt with.

Mr. Teale seconded the amendment.

Dr. Heron Watson supported it.

Dr. Atthill said it was a matter of perfect indifference to the College of Physicians in Ireland what course the Council took in this matter. He felt sure that the Scotch Colleges would in time follow the example of the Irish College.

Dr. Glover's amendment was then put and carried by 13 to 9.

The Council shortly afterwards adjourned.

Wednesday, November 29th.

Penal Cases.

The Council proceeded to consider several penal cases.

The first was that of Francis Charles Scott Sanders, who had been registered as M.R.C.S.Eng., 1881, M.B. Univ. Cambridge 1883. The charge, as formulated by the Council's solicitor, was that he was on November 14th, 1892, convicted at the Central Criminal Court for feloniously forging an acceptance of a bill of exchange with intent to defraud.

The Solicitor (Mr. Farrer) stated that this case had been adjourned from the last session because Mr. Sanders had said that an action was pending in which evidence would appear that showed something in his favour. That action had now been compromised, and therefore the matter would have to be put out of account. No case of the kind where a man had been convicted of forgery and sentence of imprisonment passed had hitherto been allowed to pass without the name being taken off the *Register*.

The Council then deliberated *in camerâ* on the case; Mr. Scott Sanders not appearing on his summons, and on the re-admission of strangers,

The President said that the Council had considered the case, and had directed the Registrar to erase his name from the *Register*.

A similar decision was arrived at in the case of James Findlay (registered as M.B., Mast. Surg., 1884, Univ. Glasgow), who had been informed that he had to appear before the Council on the following charge: "That he was on December 5th, 1892, at Liverpool Assizes, convicted upon an indictment of wounding with intent to murder."

Mr. Findlay did not appear on his summons.

The Council next considered the case of Mr. Sinclair Costerton, registered as L.S.A.Lond., 1878, who had been summoned to appear before the Council to answer the following charges, as formulated by the Council's Solicitor:

That, being a registered medical practitioner, he had continually during the years 1891 and 1892 acted as cover of and by his presence and assistance had enabled one Henry Ernest Jones, an unqualified person, to carry on a medical practice as if he had been duly qualified, such practice being carried on at 138, Stockwell Road, in the county of London.

Also that during the period aforesaid, he habitually signed and gave certificates of vaccination, illness, and death in cases which the said H. E. Jones had attended and he had not attended, and empowered the said H. E. Jones to sign his (Costerton's) name to such certificates in cases attended by Jones and not by him, thereby enabling Jones to practise as aforesaid.

The complaint was laid by Mr. Hentsch. Mr. J. McKeevor, barrister, appeared in support of the information, while Mr. C. Biron appeared on behalf of Mr. Costerton.

The Solicitor to the Council having stated the charge

Mr. J. McKeevor read the declaration of Mr. J. P. Hentsch, of 174, Stockwell Road, Brixton, in support of the charges, and copies of various certificates purporting to be signed by Mr. Costerton were put in.

Mr. Braxton Hicks, Coroner for the South-Western District of London, was called, and produced the depositions of Mr. Jones and Mr. Costerton at the inquest on the body of John Hurson, who was employed as assistant to Mr. Costerton, at 138, Stockwell Road, and who had committed suicide. He stated that Mr. Costerton, when giving evidence at that inquiry, had a certificate bearing his name upon it produced to him, and he said, "I authorised Mr. Jones to sign that."

The witness was cross-examined at some length by Mr. Biron as to the correctness of the depositions. He said they were made by his clerk at the inquest, and he could vouch for their correctness.

Mr. Hentsch gave evidence in support of his information.

Mr. Costerton was then called and examined. He said he was 48 years of age. There was no truth whatever in the allegation that he never carried on a practice at 138, Stockwell Road. In each of the cases in which vaccination certificates had been signed without his seeing the child vaccinated he had ascertained that the operation had been successfully performed. It was true that at the inquest on Hurson, when the certificate was produced to him, he said, "I authorised Jones to sign that certificate."

By Sir William Turner: His name was not on the door at 138, Stockwell Road, and there was no public evidence given by him that he was residing there. He sent no accounts out to his patients because his was a cash practice. He had been living in the Wandsworth Road for the last twelve months.

By the President: He had only had two addresses since he first began to practise.

By Mr. Moore: He and his family, for two years prior to last November, had lived at a private residence close to Stockwell Road.

By Mr. Muir Mackenzie (Legal Assessor to the Council): When his predecessor, Dr. Molony, left 138, Stockwell Road, he (Mr. Costerton) took over all his stock-in-trade and plant, without paying anything for it. He had sold his practice at Stockwell Road in July last, to Mr. Heatley, for £325. He did not now know where Mr. Jones now was.

Mr. Heatley was then called to bear out the statement that he had bought the practice for £325, and after Mr. Biron had addressed the Council on behalf of Mr. Costerton, strangers were requested to withdraw, and the Council deliberated on the case *in camerâ*.

On the readmission of strangers the President said it was his duty to inform Mr. Costerton that in the opinion of the Council he had committed the offence of covering charged against him, that in the Council's opinion the offence was infamous conduct in a professional sense, and that the Registrar had been directed to erase his name from the *Medical Register*.

The case of Maurice Joseph Hickie, L.R.C.P.Edin., against whom a charge of covering was made, was opened, but adjourned until December 2nd, for the attendance of Mr. Hickie.

NAVAL AND MILITARY MEDICAL SERVICES.

THE NAVY.

Staff-Surgeon R. W. Biddulph, B.A., M.B., is promoted to the rank of Fleet-Surgeon, October 19th. He was appointed Surgeon, November 12th, 1870, and Staff-Surgeon, October 8th, 1880.

The following appointments have been made at the Admiralty: George D. Trevor-Roper, Surgeon, to the *Mohawk*, December 1st; Thomas H. Knott, Deputy-Inspector-General, to Hong Kong Hospital, November 23rd; George Maclean, Deputy-Inspector-General, to Haslar Hospital, November 23rd; Howard J. McC. Todd, Staff-Surgeon, to Yokohama Hospital, December 5th; Charles J. Fyfe, Surgeon, to the *St. Vincent*, additional, November 27th.

ARMY MEDICAL STAFF.

Surgeon-Lieutenant-Colonel A. L. Browne, serving in the Bombay Command, is permitted to remain in England from October 29th to the date of his re-embarkation for duty in India, in extension.

Surgeon-Major C. A. P. Mitchell, M.D., serving in the Bombay Command, has leave to England for six months, on private affairs.

It is announced that an examination of candidates for ten commissions in the Army Medical Staff will be held at the Examination Hall, Victoria Embankment, on February 9th next and following days.

ARMY MEDICAL RESERVE.

Surgeon-Lieutenant-Colonel Thomas Cayzer, 6th Lancashire Volunteer Artillery, to be Surgeon-Lieutenant-Colonel November 29th.

Surgeon-Lieutenant William Vernon, 1st Volunteer Battalion the Suffolk Regiment, to be Surgeon-Lieutenant November 29th.

THE VOLUNTEERS.

Mr. Thomas Wood, M.B., is appointed Surgeon-Lieutenant to the 5th Volunteer Battalion the Royal Scots (formerly the 1st Midlothian) November 25th.

Surgeon-Captain E. Jones, 3rd Volunteer Battalion the Welsh Regiment (late the 2nd Glamorganshire), is promoted to be Surgeon-Major November 25th.

Surgeon-Lieutenant H. C. C. Shaw, 5th (West) Middlesex, is promoted to be Surgeon-Captain November 25th.

Mr. Alexander Jamieson Meikle, M.B., is appointed Surgeon-Lieutenant to the 5th Volunteer Battalion Princess Louise's Argyll and Sutherland Highlanders (late the 1st Argyll) November 25th.

Surgeon-Lieutenant W. S. Fincham, London Companies Volunteer Medical Staff Corps, has resigned his commission, which was dated July 26th, 1890.

THE DIFFICULTIES OF THE ARMY MEDICAL DEPARTMENT.

Brigade-Surgeon-Lieutenant-Colonel writes:—The letter which recently appeared in the *Times* on the inefficiency of the Army Medical Service seems to lower the individual medical officer and soldier of the Medical Staff Corps, in the eyes of those who may be unable to discriminate and understand that it is the system and not the individual which is attacked. It is high time the system should be investigated, and probed to its rotten core. Many believe that the breakdown (such as it was) of the medical department in Egypt in 1882 was not unanticipated or undesired in certain quarters; but the causes were fully laid bare in the subsequent Commission. Since that time the anomalous condition of the medical service has attracted attention, but little or nothing done to rectify it. The pseudo-rank of the medical officers is the sport of the army; numbers are so reduced that peace work can barely be carried on; there is no time or opportunity for a man to keep up his professional knowledge.

TITLES OF OFFICERS LIABLE TO RECALL.

Puzzled asks: I am an Honorary Brigade-Surgeon, liable to recall to service, how am I to style myself in adopting the new titles?

*** We do not pretend to be oracular on these subjects but common sense and use should guide him to place on his card and style himself simply Brigade-Surgeon-Lieutenant-Colonel. To this he is clearly entitled under the late extension of the new titles to retired officers liable to recall. The term "honorary" may be used officially but never socially. There are scores of honorary majors, lieutenant-colonels, and major-generals about who assume and receive the titles without any prefix. Titular honorary rank is just as real as substantive.

VOLUNTEER BRIGADE-SURGEON-LIEUTENANT-COLONELS.

Friendly but Just writes: As a regular medical officer permit me to enter a protest against the way in which the Brigade-Surgeon-Lieutenant-Colonel rank has been given to the Volunteer service. In the regular army it is only obtained by selection after an average of twenty-six years' trying service, but in the Volunteers it is given to medical officers of captain's rank, without selection either by the Director-General or the Commander-in-Chief. An officer so completely unqualified to select as a Volunteer Brigadier-General is allowed to bestow this important rank as he chooses; this lowers its value, and turns it into a farce. But the Volunteer medical officers of Artillery, Engineers, and Medical Staff Corps, numbering about 300, are excluded from the rank. The title "Brigade-Surgeon" is bad and misleading; it has no reference to a brigade. Far better would be Staff-Surgeon-Lieutenant-Colonel. This would not be a rank but an appointment. It should be given to the Volunteer principal medical officers of a subdistrict of three or four counties, to whom the regular principal medical officer could look for information concerning volunteers in his subdistrict. I would not object to a Volunteer Honorary-Surgeon-Colonel being appointed in each district, the rank to be held for five years, but renewable, and to follow retirement. An officer of this rank might be attached to the Director-General's office with much advantage.

THE TITLE OF SURGEON-GENERAL.

I.V.R.C. writes: It is absurd to keep the highest rank in the medical department at that of major-general only, which in our army is merely the rank of a brigade commander. Both military symmetry and discipline demand the ranks of surgeon-lieutenant-general and surgeon-general, which are accorded in other branches of the army.

The director-general should have the rank of general and the title of surgeon-general of the army. In like manner the highest sanitary authority in the great empire of India should be surgeon-general to the Government of India.

The surgeon-major-general at the War Office, instead of the fantastic and ridiculous title of professional assistant should be styled deputy-director-general and rank as a lieutenant-general. Similarly the principal medical officer in India, who will be the head of the four surgeon-major-generals of the reorganised army corps, should have the rank of lieutenant-general. The new ranks so created in the Medical Staff would be one surgeon-general and two surgeon-lieutenant-generals, surely not a tall order when it is reflected that every corps, such as Artillery, Engineers, and Marines, have an establishment of such ranks and that they are conferred, *ex officio*, on all the superior military appointments.

*** Our correspondent's suggestions are eminently consonant with military fitness and efficiency, but we fear these are the very qualities now set aside in matters of army medical organisation. The withholding of the two highest military ranks from medical officers is merely on a par with the denial of the highest civic honours and rewards to the medical profession at large. Any private soldier, whatever his origin or antecedents, may become a general in rank, but a medical officer, whatever his character or attainments, never. Any citizen in this great and free (?) country has at birth the potentiality of becoming a temporal or spiritual peer of the realm, provided—and this is the sole and solitary exception—he does not choose the profession of medicine, which is a fatal bar against such distinction. Truly it would be comical if not so monstrous.

HOSPITAL AND DISPENSARY MANAGEMENT.

THE ROYAL HOSPITAL FOR INCURABLES

At the annual meeting of the Royal Hospital for Incurables, it was stated that the finances compared unfavourably with those of the previous year. A report was presented by a committee appointed to consider the criticisms on the institution, made in 1891 by the Select Committee of the House of Lords on the Management of Metropolitan Hospitals. The Lords' Committee recommended five specific reforms, namely: That a resident medical officer should be appointed, with general control in the absence of the committee, as is the case in the Poor-law infirmaries; that a Ladies' Committee should be appointed, as a large majority of the patients are females; that all nurses should be hospital trained; that the contracts for food and stores of all kinds should be by open tender; and that the general supervision by the Committee of Governors should be greatly increased. Ended by saying that "until the management is thoroughly reformed the Committee regret that they feel bound to add that the institution is not one which can be recommended."

The gravity of the present situation arises from the fact that the Committee of Inquiry appointed to investigate the matter differs entirely from the conclusions arrived at by the Committee of the House of Lords. They say: "We have made it our business to inquire into every complaint and criticism of the institution of which we have been able to learn the existence, with the general result that we have not discovered any complaint to be well founded, and that, as regards criticism, the institution to-day will bear favourably the closest examination which its best well-wishers would desire." And then they proceed to negative every recommendation which had been made.

A verdict so sweeping, involving the assumption that the Lords were wrong in every particular, must make us question the status of the jury.

If our information is correct, it was only with considerable difficulty that Lord Aberdeen, the then president, succeeded in getting a committee appointed at all to inquire into the management, and the old element, which was responsible for the matters complained of, was strongly represented on it. Hence, probably, this wonderful report, which at any rate bears out the remark in the Report of the Lords' Committee that "the authorities of this hospital appear to be incapable of effecting reforms, and are extremely resentful of external observation." It is satisfactory to find that both Lord Aberdeen and Lord Arran declined to append their signatures to it, each sending in separate memoranda recommending the appointment of a resident medical officer, and other reforms.

The report was not presented to a special court of governors, but was quietly introduced at the annual meeting without any notice to the governors at all, the advertisement in the *Times* making no allusion to it, but merely calling the meeting for the presentation of the annual report and financial statement, "and the usual business."

A shorthand writer's notes were taken of the evidence before the Committee, and these notes, together with the report and the memoranda signed by Lord Aberdeen and Lord Arran, ought to be circulated among the governors, and considered at a meeting properly called for the purpose.

This institution should not be a mere almshouse; its inmates, no doubt, are admitted as incurable, but short of being cured there are many stages of possible relief. We find it impossible to believe that 200 such sufferers can be fitly dealt with in an institution which has no resident medical officer, and is not adequately provided with trained nurses. We urge the governors, therefore, not to shut up their pockets or withdraw subscriptions on account of the charges which have been made against the management; but to demand, as they alone can demand, publicity and reform.

MEDICO-LEGAL AND MEDICO-ETHICAL.

IN RE CHARLES DOANE, DECEASED.—DOLAND *V.* SYMONDS.

High Court of Justice—Chancery Division.

(Before Mr. Justice Chitty.)

Charles Doane, who died in September, 1890, left a will made a twelvemonth earlier constituting certain persons trustees, and directing that they should set apart £35,000 to be invested, and out of the interest of that sum to pay his niece, Mrs. C. L. Doland, £700 a year, half-yearly, for her separate use. The will provided that if she should endeavour to anticipate or burden her annuity, it was to cease immediately and go to the University College Hospital. What surplus there might be of the annual income of the investment over the annuity was to go, as to one half, to assist his grandnephew in advancement in life, and as to the other to another niece, Mrs. E. S. Tyler, her son and daughter, in proportions advised by Mrs. Doland. Mrs. Tyler, her son and daughter, were not to have a vested interest in their moiety, but only to have it during good behaviour. Mrs. Doland was to have power to withhold her recommendation, and the amount withheld through such want of recommendation was to go to University College Hospital. The ultimate residue of the testator's estate was to go to the Artists' General Benevolent Fund, the University College Hospital, the Westminster Hospital, and the Hospital for Women, Soho Square. Mrs. Doland, and Mrs. Tyler and her son and daughter, contended that the annual payments of £700 a year, and of the surplus of the income of the £35,000 over and above the £700 a year were directed as perpetual annuities.

Mr. Justice Chitty held that on Mrs. Doland's death the bequest would go to the charities.

THE HARNESS CASE.

The hearing of the charge of conspiracy to defraud against Messrs. C. B. Harness, J. M. McCully, C. B. Hollier, and Dudley Towers, *alias* W. R. Sellman, was resumed before Mr. Hannay on November 29th. Mr. W. Lynd, who was examined on the last occasion, was cross-examined by Mr. Avory, who elicited, according to the report in the *Evening Standard* from which we quote, that at one time the witness was connected with "the Electro-Dynamic Institute, 21, Bloomsbury Street, for the electrical treatment of persons in conjunction with the medical profession." Subsequently Mr. F. T. Burbage, one of the complainants, was examined, and stated that he went to 52, Oxford Street, where he saw Hollier, and paid £25 for an electropathic belt, a spine band, and a battery. He did not get the battery. He also saw Towers on this and subsequent occasions, by whom he was importuned for a present. Mrs. Wilcocks, another of the complainants, was under cross-examination when the proceedings were adjourned.

ALLEGED COVERING.

H. S.—Our correspondent should communicate full particulars, with names and address of the alleged "coverer" and person "covered," to the Honorary Secretary of the Medical Defence Union, who will treat such communications as confidential and make inquiries. If the facts are correctly stated, and evidence sufficient can be obtained, he will report the case to the General Medical Council in the usual way. The Honorary Secretaries are Dr. Leslie Phillips, 22, Newhall Street, Birmingham; and Dr. Bateman, 64, Longridge Road, London, S.W.

PROVIDENT DISPENSARIES SO-CALLED.

C. L. S.—The whole question of provident dispensaries ought to be thoroughly investigated by some competent authority. Their principle seems the only one on which a satisfactory plan for the medical treatment of the poor can be founded. Meanwhile, their progress is greatly retarded by the existence of such dispensaries as the one here referred to, which are not in any sense "provident," but are merely cheap doctor's shops. Is it quite vain to hope that our great medical corporations will take some steps to ensure proper treatment for the poor without the scandalous underselling of which this dispensary appears to be an example?

FEES TO MEDICAL WITNESSES.

A. C. E.—*a.* The scale of fees authorised by the Home Office explicitly directs that no witness is to be allowed for his attendance in more than one case in the same day. Taxing officers do not allow more, except by an oversight. *b.* The solicitor who serves the subpœna is *primâ facie* the person to whom to look for costs. *c.* If payment is refused, an action may be brought in the county court against the solicitor or his principal for the fees due according to the scale. If the taxing officer has disallowed a fee, that is usually taken as proof that it is not payable. The only course to take in such a case is to apply to the court to which such officer belongs—for example, to quarter sessions, if the fee is disallowed by the Clerk of the Peace. The court can correct the mistakes of its own officer, but is usually very unwilling to move in such a matter.

MEDICAL FEES AND THE CLERGY.

Gratifying as may be the testimony of gratitude to the medical faculty for their assumed professional liberality to ministers of religion, as recorded in *Church Bells* by "A Suburban Curate," "A Scotch Dean," and other clergy, and true as it would unquestionably be if it related to the period when curates were held to be passing rich on £50 a year and had withal to maintain a respectable exterior in accordance with their social position—at a time, too, when food and raiment, irrespective of the cost of lodgings, were comparatively dear—it might well be that the kindly disposed medical practitioner would be reluctant to claim his fees from young clergymen with so scanty and insufficient a stipend. Such, we have reason to believe (though in the absence of any direct record we are unable to verify it), was the origin of gratuitous services to the clergy, which later on were extended to the unbeneficed, and subsequently to the beneficed and their families, till at last attendance was claimed as a prescriptive right, and the medical profession was reluctantly compelled to resist so unreasonable a pretension and inversion of the original object, and as an act of duty to self were constrained to establish a rule to the following effect for the guidance of the faculty in their professional relations with the clergy.

["Doubt and misconception having long existed in regard to the question of professional charges to the clergy, it will not be deemed foreign to the subject of medical ethics or otherwise inexpedient to remark, in respect to charges for professional attendance on the clergy, beneficed or unbeneficed, and their families, that there is no special general rule other than the simple 'unwritten' one (a time-honoured and 'true Samaritan' principle, alike applicable to other classes) by which the faculty have long been self-guided, namely, although fully and justly entitled to a commensurate remuneration for professional services according to the patient's position in life, to nevertheless make a greater or less reduction, according to the circumstances of the individual case, to such as may fairly be classed among the 'poor clergy' (beneficed or unbeneficed), specially so-called, in contradistinction to the well-endowed and independent clergy, which latter should be charged as ordinary and not as exceptional patients."—*Code of Medical Ethics.*]

In a future number of the British Medical Journal we hope to reproduce valid reasons why gratuitous advice to ministers of religion is mutually undesirable and should no longer obtain.

AN UNFORTUNATE RIVAL.

Enquirer.—Although there is no medico-ethical rule within our knowledge that is directly condemnatory of the suggested course of action on which our opinion is solicited, we need scarcely remind "Enquirer" that the moral law emphatically inculcates the principle of doing unto others as we ourselves would wish to be done by; and therefore, however injudicious and irregular the conduct of the person referred to may have been and be (and which of us, we may ask, is inerrable?), we would, especially in view of his more recent troubles, counsel our correspondent from adding thereto; for if he unwisely persists in his regrettable proceedings it must, we apprehend, lead sooner or later to his withdrawal from the district; and, in such event, "Enquirer" will have nothing wherewith to reproach himself for having delayed to assent to the wishes of his would-be patients.

THE ETIQUETTE OF CONSULTATIONS.

With reference to "G. M. P.'s" note, which appeared in the British Medical Journal of November 18th, p. 1130, on the same subject, it may be well to reprint the following rule as laid down in the *Code of Medical Ethics*, chap. ii, sec. 4, rule 3: "In consultations[1] it is the rule and custom for the consultant, after the usual preliminary conference relative to the history and facts of the case, to take precedence of the family doctor in the necessary physical and questionary examination of the patient. Exceptional circumstances, however, may arise, in which the family attendant should, as an act of confidence and courtesy, be the first to propose the necessary questions; after which the consultant should make such further inquiries and examinations as he may deem necessary to satisfy himself of the true nature of the case, but no observations of any kind indicating an opinion as to the nature of the malady, treatment pursued, or its probable issue, should be made in the hearing of the patient or his friends until the consultation is concluded. Both practitioners should then retire to a private room for deliberation; and the treatment having been determined by the consultation of himself and colleague, the consultant last called in (if there be more than one in attendance) should write the prescription for the medicines decided on, with the name of the patient and the date, and append his initials thereto, and be followed by those of his colleagues in the order in which they attended. He (the consultant) should likewise be the one to communicate to the patient, or his friends, the directions agreed upon, together with any opinion it may have been decided to express; but no statement should be made, or discussion relative thereto take place, before the patient and his friends, except in the presence and with the consent of all the faculty in attendance; and no opinions or prognostications other than those mutually assented to to after deliberation should be expressed."

AN ELECTIONEERING CARD.

Dr. J. Dreschfeld (Manchester) writes: Dr. Sinclair's letter and your editorial note compel me, however reluctantly, to take part in the correspondence. I beg to state that when I nominated Dr. Sinclair I did not know of the existence of the card in question, nor had the card, as far as I know, been issued then. The objectionable lines on the card I noticed for the first time when they appeared in the British Medical Journal of November 18th. It is to be regretted that Dr. Sinclair's committee thought it expedient to issue such a card, but though I do not know the motives which actuated them in doing so, I feel sure that it was not done with the view of advertising Dr. Sinclair.

Dr. John Ferguson (Joint Hon. Sec. of the Manchester Medico-Ethical Association) writes: In your editorial note to Dr. Sinclair's letter, which appeared in the British Medical Journal of November 25th, regarding his "electioneering card," you say, "Perhaps Dr. Dreschfeld and the Secretary of the Manchester Medico-Ethical Association, whose authority here is apparently assumed, may have something to say on the points." To this request I have to reply as follows: I have very carefully

[1] ["As a guide to young practitioners it may be well to note that, in consultations, it is customary for the family doctor to precede the consultant into the sickroom, and to retire therefrom after him. It is scarcely necessary to hold that, as a rule, it rests with the consultant, and not with the regular attendant, to fix the hour of meeting."]

read over Dr. Sinclair's letter, and fail to find that he attaches any responsibility to us for the production of the "electioneering card." I certainly signed Dr. Sinclair's nomination paper, and did so most heartily, and in addition to this gave him in his candidature whatever personal support I could. But I must disclaim any assumption that the "electioneering card" was produced with my approval or assent, as I was only cognisant of its presence when it was left at my house on the day before the contest. Anyone who is acquainted with Dr. Sinclair's professional status in this city must acknowledge that there could not be the slightest need for any intentional unprofessional or illegitimate mode of advertising himself, and would without any hesitation put such an "electioneering card" down to the over-zealous efforts of the election committee to secure his return at the head of the poll.

*** It will be seen that both the witnesses invoked by Dr. Sinclair join with us in regretting and condemning the issue of the election card bearing a list of the qualifications and appointments, as well as a portrait of Dr. Sinclair, in his capacity as candidate for municipal honours. From communications which have reached us during the past week, we gather that the objections we have indicated have presented themselves to other medical candidates, who have taken care that their electioneering cards should not bear any statements as to special medical qualifications or appointments.

INDIA AND THE COLONIES.

INDIA.

NATIVE opinion in Lower Bengal is said to be suspicious of Dr. Haffkine's experiments on cholera inoculation, and when he goes there he is expected to meet with few natives willing to submit to the operation.

MORTALITY FROM WILD ANIMALS IN INDIA.—The annual return of the mortality from wild animals and snakes in 1892 shows that the loss of life from the former was 2,963, as against 2,861 in 1891. The deaths were distributed as follows: In Bengal, 1,664; Central Provinces, 317; Madras, 316; North-West Provinces, 233; Assam, 209; and Bombay, 48. The number of deaths caused by snakes was 19,025, as against 21,389 in 1891. They were distributed as follows: Bengal, 9,120; North-West Provinces and Oude, 4,566; Madras, 1,455; Bombay, 1,038; Central Provinces, 999; Punjab, 871; Burmah, 543; and Assam, 208. Eighty-five thousand snakes were destroyed, and 9,700 rupees given as rewards.

CHARITABLE DISPENSARIES IN BENGAL.—The Triennial Report of the Charitable Dispensaries in Bengal for 1890-91-92 shows 209 dispensaries under the charge of 193 Government doctors and 106 local practitioners. With a population of 70,665,427 there were 4,379,335 patients treated, or 6.19 per cent. of the total population. All the dispensaries show a decided increase in the number of patients treated; while 2,357 beds were available during 1892 for indoor patients only 1,535 were occupied. The death-rate among in-patients was very high, being 12.85 per cent. of those treated. Many of those admitted, however, were moribund. Malarial fevers and bowel complaints contributed the largest quota of admissions; 9,795 cases of cholera were treated in 1892, as against 9,402 and 6,360 in 1891 and 1890 respectively; 2,769 cases of leprosy were treated in 1892; 68,915 surgical operations of all kinds were performed in 1892—9,263 were major operations. This is a far lower figure for surgical work than that of the North-West Provinces and Oude. The number of cataract operations performed in 1892 was 2,333; of these 81 per cent. were successful. The income of Mofussil dispensaries was 5,48,099 rupees in 1892—a distinct increase over previous years. Of this amount the Government contributed 27,978, the balance being made up from municipal and private subscriptions, legacies, etc. The expenditure for 1892 was 36,259 rupees, which is more than double that of 1890.

A HOSPITAL FOR PARSEES.—Sir Dinshaw Manockjee Petit, a wealthy Parsee merchant of Bombay, whose liberal contributions to hospitals for men and cattle are well known in India, has now offered a sum of three lakhs of rupees (about £19,000) as a nucleus towards the raising of a hospital for the exclusive use of his co-religionists. Government has been asked to grant a suitable site on easy terms. A lying-in hospital for Parsees is now in course of erection. The *Times of India* in commenting approvingly on these laudable proceedings, points out that, before providing hospital accommodation for the members of their own community, wealthy Bombay Parsees have nobly contributed to the medical relief of the public, without distinction of race or creed, as the names of the following hospitals already in existence in Bombay betoken: the Jamsetjee Jheejeebhoy General Hospital, the Sir Cowasjee Jehangir Ophthalmic Hospital, the Cama Hospital for Women and Children, the Bomonjee Eduljee Allbless Hospital for Women, the Sir Dinshaw Manockjee Petit Obstetric and Gynæcological Hospital and the Bai Motlibai Hospital.

AN INDIAN MECCA.—The *Pioneer Mail*, published at Allahabad, draws attention to what it fitly calls "a plague spot." It seems as if a great revival of Hinduism were marking the closing years of the nineteenth century. Never were the holy places so crowded with devotees. Puri, or Jagannati, received 200,000 pilgrims at its last Rath Jattra, that festival when the hideous god is dragged on a lofty car over the mile of sandy road which lies between the town and his suburban temple. A visit paid recently to this Hindu Mecca by Dr. Dyson, Officiating Sanitary Commissioner of Bengal, points to it as one great source of the persistent recurrence of cholera in Northern India. For centuries this place has been the objective of pious Hindus throughout the peninsula, and now they not only use the older methods of travelling by road, but crowd the railways and steamers to suffocation. On arriving, over-crowding, sewage poisoning, and infection by foul water seem to be their fate. The 6,000 hotels of the town are unequal to the strain even in ordinary times, and during the great festivals many thousands of pilgrims camp out in the fields. The wells receive the soakage of ground on which for centuries every variety of nuisance has been committed. Four of the tanks are specially resorted to by the pilgrims for purposes of purification. The holiest of these is Seth Ganga, in the heart of the city. Its stygian contents are 40 feet below the surface, and it has been used for the ablutions which form an essential part of the Hindu ritual for seven centuries, during which, apparently, no attempt has been made to remove the mass of fœtid mud which has accumulated. Hence it is not surprising to learn that the chemical examiner to the Government, who tested a sample, reports that it resembles sewage. And this stuff, we are told, "is swilled with rapture by thousands of pilgrims." It is the Hindu representative of the Mohammedan zem-zem at Mecca. Puri is evidently an ideal nursery for cholera, and the mortality amongst the devotees frequenting it is appalling. After the last Rath Jattra festival the canals were covered with bodies flung from the steamers by survivors, and, as round Mecca, the roads were strewn with unconsidered dead and the wells were polluted far and wide. Dr. Dyson's report shows that bad as things are now at Puri they were infinitely worse a quarter of a century ago. The vast improvements in the methods of travel have, however, neutralised the advantages of improved sanitation, such places as Puri being now brought by steam into close contact with great centres of population which are yearly plunged into panic and distress by outbreaks of cholera. Clearly all resorts of pilgrims ought to be kept clean and provided with pure water, for which purpose a tax should be imposed on the pilgrims themselves. A comparatively trifling poll tax on such multitudes would quickly yield a far from trifling fund for the purpose.

VICTORIA.

DEATHS UNDER CHLOROFORM IN MELBOURNE.—From an article by Dr. J. W. Barrett, in the *Australian Medical Journal*, it appears that 16 deaths have occurred under chloroform in Melbourne and its suburbs during the last five years. Of these 2 occurred in 1888; 6 in 1889; 1 in 1890; 4 in 1891; and 3 in 1892, being an average of over 3 per annum in a population of 450,000. Chloroform is thus, according to Dr. Barrett, more dangerous to human life in Melbourne than snake bite, the death-rate from the latter cause in the whole colony being about the same as that from the anæsthetic in Melbourne alone. According to a return furnished by Dr. Molloy, Medical Superintendent of the Melbourne Hospital, 8 deaths have occurred under chloroform in that institution since 1890. In all but one of these cases the patient died while being put under; in the other case death took place ten minutes after inhalation had ceased. During the twelve months, 1891-1892, chloroform was administered in the Melbourne Hospital between 1,500 and 2,000 times.

DOMINION OF CANADA.

ROYAL VICTORIA HOSPITAL, MONTREAL.—We have been favoured with an elevation and plan of the new Royal Hospital, Montreal. The building—beautifully situated on the eastern slopes of Mount Royal—overlooks the city and the broad expanse of the St. Lawrence river, whilst the mountain rising steeply in the rear forms a striking background. The institution owes its origin to the munificence of two distinguished Canadians—Lord Mount Stephen and Sir Donald Smith. These gentlemen have provided the whole of the money (one million dollars) thought necessary for the erection and endowment of the hospital. The buildings have been designed, and the working drawings prepared, by Mr. Saxon Snell, F.R.I.B.A., of Southampton Buildings, after consultation with many of the most eminent authorities in Montreal, including Drs. Craik, Gardiner, Roddick, Ross, and Shepherd. The elevation shows a handsome building, and the plan of the principal floor is arranged with due regard to modern views of hospital construction. Mr. Saxon Snell's high reputation is a sufficient guarantee of the excellence of the general scheme, though particular details may be open to adverse criticism. In the impecunious condition in which most of our own hospitals find themselves at the present time, it is almost with a feeling of jealousy that we congratulate our Canadian cousins on possessing philanthropists so munificent as Lord Mount Stephen and Sir Donald Smith. May their example stimulate our own merchant princes adequately to support some of those great institutions in London, whose beneficent activity is sadly crippled by want of funds.

MAURITIUS.

THE office of Chief Medical Officer of Mauritius, vacant by the transfer o Dr. Francis Lovell, C.M.G., to Trinidad, has been offered to and accepted by Dr. E. Chastellier, an old official of the Colony. Dr. Chastellier entered the Mauritius service in 1866 as Surgeon-Superintendent of the Quarantine Station, Canonier's Point, and since that period has steadily risen in the ranks of the department, until he became Surgeon-Superintendent of the Barkley Asylum. He has on several occasions acted as chief medical officer, and his confirmation in that office is likely to lead to good results.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

THE STUDY OF PHYSICS.—Medical students at Cambridge have for many years been required to show a competent knowledge of Physics as a condition for the M.B. degree; but of late the scope of the examination has been widened by the introduction of a practical test of their familiarity with and power of using instruments in the laboratory. The classes in Practical Physics have consequently increased so greatly in size, that the magnificent Cavendish Laboratory, founded and equipped by the munificence of the late Duke of Devonshire, has become incapable of accomodating them. In the current term, 135 students are attending these classes, which are housed for the present in the galvanised iron building erected some years ago as a dissecting room, and vacated by Professor Macalister when the new Anatomical School was opened. The site on which this building stands is, however, required for the erection of the fine geological museum about to be raised as a memorial to the late Professor Sedgwick, and the classes are threatened with speedy eviction. The Board for Physics and Chemistry accordingly propose that steps be taken for extending the Cavendish Laboratory by adding thereto new

class rooms and laboratories on an adjoining site in Free School Lane. In the straitened state of University finances, it is difficult to see how the means for this much-needed extension are to be found, unless a benefactor not less generous than the late Chancellor is forthcoming.

Mental Diseases.—The study of insanity, which has long been tacitly included among the subjects of examination for the M.B. degree, has by a grace of the Senate been now explicitly enjoined as a specific subject of the third or final examination. This now includes Principles and Practice of Surgery, Midwifery and Diseases peculiar to Women, Pathology, Principles and Practice of Physic, Elements of Hygiene, Medical Jurisprudence, and Mental Diseases.

Anatomy Department.—Over 200 students are this term attending Professor Macalister's courses in Human Anatomy. This is the highest number hitherto attained. The continued growth of the anatomical collections, especially in the ethnological department, has rendered it necessary to provide additional cases in the museum, and a grant for this purpose has been made from the Museums Reserve Fund.

Appointments.—Dr. Hill, Master of Downing College, has been reappointed a University Lecturer in Advanced Anatomy; Mr. E. G. Browne, M.B., Lecturer in Persian; and Mr. W. Gardiner and Mr. A. C. Seward Lecturers in Botany, for the next five years. Dr. Hill has also been appointed Chairman of the Examiners for the Natural Sciences Tripos.

Diploma in Public Health.—The State Medicine Syndicate report that the continued increase in the number of candidates for the diploma in Public Health has justified them in holding two examinations within the year. In April there were 51 candidates and in October 36; of these, 34 and 24 respectively received diplomas. This increase, notwithstanding the increased fee for the examination, speaks well for the repute in which the qualification is held.

Medical Degrees.—At the Congregation on November 23rd, Arthur Edward Hart, B.A., of Jesus College, was admitted to the degrees of M.B. and B.C.

Open Science Scholarships.—The following awards for Natural Science have been made at Trinity College: H. H. Dale, Leys School, £50; C. F. Hadfield, Leys School, E. H. Rayner, Shrewsbury School, and J. S. White, Dulwich College, £40; S. B. Atkinson was elected a Sizar.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.

The Charge against Dr. Turner.—Mr. Buxton said, in reply to Mr. E. H. Bayley: In December, 1891, a charge of assault had been brought against Dr. Turner, the surgeon of the Colonial Hospital, Gibraltar, by a woman who had been an inmate of the hospital, and it was dismissed by the magistrate. The late governor directed the board of commissioners of the hospital to hold an inquiry. The Chief Justice, who was the chairman, declined to take part in the inquiry, and resigned the office of chairman. The Colonial Secretary was appointed in his place, but no inquiry was held, the governor having submitted the matter to the Secretery of State, who, after calling upon the surgeon for an explanation on one point, was satisfied with his explanation, and considered the inquiry unnecessary.

Diphtheria in London.—Mr. Campbell-Bannerman, replying to Mr. Hulse, said he had been informed that diphtheria was prevalent at the present time in London, and that there had been cases in the Regent's Park Barracks. Immediately these were reported, an examination was made by medical officers and sanitary experts into the sanitary system generally, which was found to be of proper construction and in good working order. There had, however, been some neglect in connection with certain stable drains.

Deaths from Carbolic Acid.—Mr. Macdona asked the Secretary of the Local Government Board whether he was aware that since February, 1892, to November, 1893, there had been 230 deaths due to the taking of carbolic acid, 174 of which were suicidal and 56 accidental; whether the Government would place carbolic acid under the Pharmacy Act, so that there might be greater restrictions placed upon its sale in small quantities; whether he would instruct coroners, in certifying the cause of suicides, to certify the name of the poison which caused the death; and whether he would order a return of the number of deaths caused by carbolic acid during the last five years to be placed upon the table.—Sir W. Foster, in reply, said that he had no information as to the number of deaths due to the taking of carbolic acid between February, 1892, and November, 1893, except that which the hon. member had been good enough to furnish. The Local Government Board had no jurisdiction with regard to the articles which were to be deemed poisons for the purpose of the Pharmacy Act, 1868. Additions to the articles specified in the schedule might from time to time be made by resolution of the Pharmaceutical Society, with the approval of the Privy Council, and the Board would bring the matter under the attention of that Society. The Board had no jurisdiction with regard to coroners, and were not empowered to issue any such instructions as the hon. member suggested. As regards the return, he had been in communication with the Registrar-General, and he understood that the particulars could not at present be furnished for a later period than 1891. If the hon. member moved for a return for the five years from 1887 to 1891 it would be granted.

The Compulsory Notification of Diseases.—Mr. Alfred Thomas has given notice to move when the House goes into Commitee on the Parish Councils Bill a resolution intended to make compulsory the Notification of Diseases Acts. He proposes after Clause 29 to insert the following clause: "As and from the appointed day the Infectious Disease (Notification) Act, 1889, and the Infectious Disease (Prevention) Act, 1890, shall come into operation and be compulsory in every part of England and Wales, and it shall be the duty of every district council, both urban and rural, to make at the end of every calendar month a complete return of all births, deaths, and causes of infectious diseases occurring within its district during the preceding month. A copy of such return shall be sent to the Local Government Board and to the county council on or before the fifth day of the next ensuing month."

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

A NEW SPECIALITY: JUGGLING WITH DRAIN-PIPES.

At the last meeting of the Harrow Local Board a nice little bit of trickery was disclosed on the part of a mason who had been engaged to put in the drains to some new houses. When the surveyor went to apply the water test he found that, instead of the whole drain being filled with water, only the last pipe was so charged, a slate having been ingeniously placed across the bottom of it so as to prevent the test water ever getting into the drain at all. The water stood and maintained its level, and a less careful inspector might have gone away satisfied that the drains were perfect. Fortunately, he ordered the plug at the sewer end to be removed and waited to see the water flow away, which, however, it declined to do, and then the whole trickery was laid bare. A letter from the builders was read to the board, stating that they "immediately discharged the bricklayer." The chairman very rightly remarked that "a bricklayer would not take upon himself to deceive our inspector on his own account." But it was afterwards explained that the man they called a bricklayer was a London specialist who had done work for vestries in London. From which it would appear that laying drains is a special job, having a special line of scamping of its own; and we may fairly opine that this is not the first time, nor Harrow the first place, where this little trick has been performed. Clearly, an inspector must not only understand drains, but must possess a deep knowledge of human nature, particularly as developed in the building trade. In the meantime we must accept with thankfulness the very simple lesson that, if the water test is to be of any service, the process must be watched from the beginning to the very end.

SCHOOL CERTIFICATES FOR PAUPER CHILDREN.

Incertus writes to ask if guardians can legally insist on having school certificates for pauper children free of extra charge from union medical officers, and whether they are entitled to such under conditions usually entered into.

*** A board of guardians can demand, for their own use, any reasonable information which their medical officers can give in reference to patients under their care. We consider, therefore, it would be unwise for either a workhouse or a district medical officer to refuse school certificates for pauper children actually under treatment if such certificates are requested by the guardians for their use or guidance.

VAN CHILDREN.

Mr. Fowler has refused to place gipsy and van children under the sanitary regulations of the Local Government Board by means of a simple clause in the Parish Councils Bill, the reason assigned being that the measure is already too heavily weighted.

SMALL-POX IN GERMANY.

The statistics of small-pox in Germany in the six years, from 1886 to 1891, show that during 1886 there were 197 deaths from that disease; in 1887, 168; in 1888, 112; in 1889, 200; in 1890, 58; and in 1891, 40, giving a total of 775 deaths in six years, or an average of 129 a year. In Germany cases of small-pox are most numerous in the frontier districts, where outbreaks are apt to be caused by importation of the disease from some neighbouring country. On the other hand, in the towns in the interior the number of deaths from small-pox is very small; thus, in 1890, there were only 3 in Berlin, whilst in Paris there were 82. Taking into account the difference of population, the deaths from small-pox were thus twenty times more numerous in Paris than in Berlin. Comparing the small-pox mortality in Germany in 1890 with that of certain other countries of Europe during the same period, it appears (according to the *Semaine Medicale*) that in the towns of Switzerland the death-rate was ten times higher, in those of Hungary thirteen times, in those of Belgium forty-two times, in those of France fifty-six times, in those of Austria sixty times, and in those of Italy ninety-six times, greater than in the towns of Germany. The towns of England still show a lower death-rate from small-pox than those of any other European country, but if the Vaccination Commission does not soon bring its lengthy deliberations to an end, thus releasing the Act from the condition of suspended animation in which it has been for the last few years, we shall soon cease to occupy the privileged position which is for the present ours.

A Grateful Patient.—The grateful patient, though fortunately not altogether rare, is yet among the things which, in Captain Cuttle's phrase, when found should be made a note of. We therefore think it worth chronicling that the Spanish Prime Minister, Señor Sagasta, who recently had the misfortune to break his leg, has not been unmindful of the practitioners who first came to his assistance. Drs. Mateo Marin y Perez and Eugenio Echeguren y Calleja, surgeons to the Casa de Socorro of the Central District of Madrid, have been decorated with the Order of Carlos Tercero, and Señor José Fucho y Domend, house-surgeon to the same institution, with the Cross of Ysabel la Catolica, in both cases with remission of the customary fees.

OBITUARY.

The death is reported of Mr. George Frederick Knipe, L.S.A., of Huyton, from an attack of typhoid fever of little more than a week's duration. The deceased identified himself with the St. John Ambulance Association, and materially assisted in forming a corps affiliated with the Liverpool Brigade, of which he was medical adviser, lecturer, and superintendent. He was in his twenty-sixth year.

We regret to have to record the death of Mr. John Whitehouse, F.R.C.S.Eng., L.R.C.P.Edin., of Sunderland. The deceased, who was educated at Queen's College, Birmingham, and Queen's University, Ireland, became an M.R.C.S.Eng. in 1879, L.R.C.P.Edin. in 1880, and in 1883 took the diploma of F.R.C.S.Eng. He had held the posts of house-surgeon to the Queen's Hospital, Birmingham, St. Peter's Hospital for Stone, London, and the Sunderland Infirmary. In 1888 he joined Dr. Maling, of Sunderland, as partner, and remained with him until his death. His loss is deeply deplored by his numerous friends.

Many old students of Owens College will regret to hear of the death of Mr. Joseph Heywood, who for forty-one years was lecture assistant and steward of the chemical laboratories at Owens College. Mr. Heywood had been ailing at the end of last summer session, and since then he has been unable to attend to his College duties, having gradually succumbed from cancer of the liver. Mr. Heywood was born in 1826, and he first entered on his duties under Professor Frankland in 1852, when the College was situated in Quay Street. Although he had not received any special training in chemistry he soon developed a wonderful aptitude for devising new experiments for illustrating the lectures. As assistant to Sir Henry Roscoe, when he was Professor of Chemistry in the College, Mr. Heywood was known to scientific audiences all over England. Sir Henry Roscoe recently bore strong testimony in *Nature* to the eminent services rendered by Mr. Heywood, and there drew attention to the special experiments devised by him. He had a great faculty of arranging lecture experiments, and often it was sufficient to explain to him the nature of the experiment one wished to show when he was always ready with some practical suggestion, which in his hands soon took the form of a brilliant experiment. He was always willing to help the younger men, and many generations of College students have acknowledged his readiness to help them in their difficulties.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently passed away are Dr. C. E. Figuière, a prominent practitioner of Geneva, for many years a member and sometime President of the Municipal Council of that city, aged 79; Dr. Woldemar Poorten, of Riga, well known as a specialist in ear diseases, aged 60; Dr. Carl Johansen, one of the oldest and most eminent practitioners in St. Petersburg, and for 28 years Director of the Municipal Hospital of SS. Peter and Paul in that city, aged 78; Dr. Peter Kraszewski, Director of the "Kindlein Jesu" Hospital of Warsaw, aged 55; Professor Rudolf Kaltenbach, head of the Gynæcological Clinic in the University of Halle; Dr. Hermann A. Hagen, Professor of Entomology in the University of Harvard, and formerly First Assistant in the Surgical Clinic at Königsberg, aged 76; and Professor Eugenio Ribera, Dean of the Medical Faculty of the University of Cadiz.

Hydrophobia in Russia.—During the past year 1,652 persons bitten by rabid animals have been under treatment in the seven Pasteur stations existing in Russia. Of these, 42 have died of hydrophobia.

The *projet de loi* concerning public health which was recently adopted by the French Chamber of Deputies has been referred by the Senate to a Committee, which includes the names of MM. Léon Labbé, Berthelot, and Cornil. M. Berthelot is the Chairman of the Committee.

MEDICAL NEWS.

The Goldsmiths Company has given £100 to the Seaside Convalescent Hospital, Seaford.

Centenarians in Russia.—A Russian journal announces that, during 1892, 8 persons died in the Woronesh Government over 100 years of age. The several ages are given as 130, 113, 110, 105 (in three cases), 104, and 103. Of the number, 5 were men and 3 women.

Medical Martyrs.—Commenting on the deaths of medical men from diphtheria recently recorded in the British Medical Journal, the *St. Petersburger medicinische Wochenschrift* says such occurrences are by no means rare in Russia. Within the last few weeks two practitioners of Sengilei in the Simbirsk Government, MM. Radsiminski and Chrenow, have died of diphtheria contracted from patients under their care.

The International Medical Congress at Rome.—Those who intend to read papers at the coming Congress in Rome should announce their intention not later than January 31st, and should forward with the title of the paper a brief abstract to the Secretary-General, Professor Maragliano, Genoa. The railway companies will allow the same reductions in fares as were promised last September, and tickets at the reduced fares will be available from March 1st to April 30th.

Coombe Hospital, Dublin.—The governors met a few days ago, and had the late scandals under consideration. No information was given to the press, but it has transpired that one of the Board, Mr. Summers, was taken to task for some letters which he had written on the subject, and it was actually proposed to remove him from the Board. This course, however, was not persevered in, but Mr. Summers subsequently resigned. There has been no further development.

The will of Sir William Jenner's brother, the late Mr. Charles Jenner, of Edinburgh, benefits an unusual large number of celebrities. It gives £3,000 to Sir William and £7,000 to his children, £2,000 to Mr. Thomas Woolner, R.A. (now deceased), £2,000 to Dr. William Smith, the translator of *Fichte*, etc., and £4,000 to his two daughters, £200 to Mr. David Patrick, editor of *Chambers's Encyclopædia*, £1,000 to Sheriff Campbell Smith, of Dundee, and £3,000 with an annuity of £50 to his daughter.

Medico-Psychological Association.—The next examination for the certificate in Psychological Medicine will be held in England on December 7th, at Bethlem Hospital, London, at 11 o'clock in the morning. The examination in Scotland will take place on December 16th. Candidates should at once give notice to the General Secretary, Dr. Fletcher Beach, 11, Chandos Street, Cavendish Square, W., if they wish to be examined in England, and to the Secretary for Scotland, Dr. Urquhart, Murray's Asylum, Perth, if they desire to be examined in Scotland.

Belfast Students' Union.—The movement for establishing a students' union at Queen's College, Belfast, continues to make satisfactory progress. The general subscription list now amounts to £3,700, and a committee has been for some time at work organising a bazaar and summer fair, to be held in the College grounds next June, in aid of the proposed union. President Hamilton is pressing forward the movement by every means in his power and is receiving much sympathy and support. It is hoped that the total amount realised will not fall short of £6,000.

The Medical Profession in Hungary.—There appears to be one European country at least where the medical profession is not overstocked. In 1892 the total number of medical practitioners in Hungary was 4,047, of whom 3,556 were Doctors of Medicine and 491 surgeons. This gives a proportion of practitioners to population of 2.66 per 1,000. In Austria the corresponding ratio is 3.16, and in Germany 4.15 per 1,000. The midwives in Hungary number 7,570, which is hardly up to the requirements of the population. There are 1,186 pharmaceutical establishments, being 1 to 12,418 inhabitants and 2,289 square kilometres. The death-rate averages 7.15 per cent. The total number of deaths in 1892 was 500,439.

A Curious Point.—At a recent election for the medical officership of Keadue Dispensary, Boyle Union, there were two candidates, Dr. Roden and Dr. Monahan. When the name of one of the guardians was called at the voting, he replied "Dr. Roden," and at once said "I meant Dr. Monahan." The chairman recorded the vote for Dr. Roden, and refused to alter it. The appointment thus went to Dr. Roden, and Dr. Monahan claims it on the ground that the vote was for him and not for his opponent. The matter will come before the Local Government Board.

Vacant Sanitary Appointments.—The Secretary of State for Foreign Affairs has received notice that the Quarantine Board of Egypt will, until January 31st next, consider applications from candidates for the sanitary service at Suez and Moses Wells. Four appointments will be made—three at 8,000 francs rising to 12,000 francs, and one at 12,000 francs rising to 15,000 francs. Candidates must possess a regular diploma, and preference will be given to those having devoted special study to practical bacteriology and epidemiology. Applications must be addressed to the Secretary of the Maritime, Sanitary, and Quarantine Board of Egypt at Alexandria, and must be accompanied (1) by a diploma issued by a university or by the State; (2) by a certificate showing that the candidate has studied practical bacteriology, and by papers showing that the candidate has special knowledge of epidemiology.

The Clerical, Medical, and General Assurance Company.—Sir John Mowbray, M.P., presiding at the annual meeting of this life assurance society recently, said the proprietors would no doubt concur with the directors in thinking the report then presented an eminently satisfactory one. The ordinary income of the year had risen from £358,853 to £362,122, the increase having been almost entirely in the premiums. The expenses, which were 12.83 per cent. on the premium income, were much less than those of last year, which included the special valuation expenses, and returned to the normal ratio, the percentage being fractionally smaller than that of two years ago, while the claims of death were £64,917 below those of last year, and as a consequence the surplus income was large. The report was unanimously agreed to, and Sir Walter Foster, M.P., was elected a director in the place of he late Sir Andrew Clark, whose death the chairman referred to in feeling terms.

The Association of Fellows of the Royal College of Surgeons of England.—A meeting of the committee of the Association of Fellows of the Royal College of Surgeons was held on November 22nd, Mr. George Pollock, President, in the chair, to consider further the report which the committee had passed at the last meeting. It was agreed unanimously to insert the words "body corporate" in the place of "Fellows" in Clause 11 (British Medical Journal, November 11th, p. 1073), and to add a new clause to the following effect: "That members of the Court of Examiners of the Royal College of Surgeons shall be elected annually, and that no member of the Court shall hold office for more than five consecutive years, and at the expiration of this term he shall not be again eligible until after a period of two years has elapsed." The foregoing clause was one of the recommendations sent by the Association of Fellows to the Council of the College in 1884, which the Committee of the Council declined o adopt. It is in substance the same as the resolution which was brought forward by Mr. Willett and Mr. Tweedy at the meeting of the Council of the College in July last. The report as appended was decided to be printed.

A Medical Leander.—A rival to Leander and Lord Byron has, according to the *New York Medical Journal*, appeared in the person of Dr. Judson Daland, of Philadelphia, who recently swam the classic Straits of Messina, where are the rock of Scylla and the whirlpool of Charybdis so dreaded by the ancients. We are assured that the oldest inhabitant of Faro, a neighbouring fishing village, has no recollection of the feat having been accomplished before. Dr. Daland entered the sea at Faro, and, after much battling with adverse currents, he passed the rock of Scylla and landed at Reggio in Italy. He gives the following account of his performance: "The entire swim was made without rest or stimulants, and I restricted myself to the breast and side stroke, not using the back at all. I encountered during the swim strong currents, running apparently in all directions, the directions changing every few moments; these currents were at times warm and at others icy cold. There was a high wind and a choppy sea, making it extremely difficult to breathe. I returned to Messina in good condition, and that same evening went to the opera." The straits at the northern extremity, between the Faro Tower and the Rock of Scylla, where the swim seems to have been accomplished, are two and a-half miles in breadth, but the actual length of the swim is given as six or seven miles. The time occupied was two hours and twenty minutes. Dr. Daland has beaten Byron, for he had a more dangerous current to deal with, and he was able to go to the opera after his swim, while Byron, on his own testimony, "had the ague."

MEDICAL VACANCIES.

The following vacancies are announced:

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN, Steelhouse Lane, Birmingham.—Resident Medical Officer and Resident Surgical Officer and Extra Acting Physician. Salaries £70, £50, and £60 respectively. The two former will receive board, washing, and attendance. Applications for the first two to the Secretary by December 6th, and for the latter to the Medical Committee by December 6th.

BRADFORD TEMPORARY SMALL-POX HOSPITAL.—Resident Medical Officer. Salary at the rate of £150 per annum, with board, lodging, and washing. Applications to the Medical Officer of Health, Town Hall, Bradford.

CHELSEA HOSPITAL FOR WOMEN, Fulham Road, S.W.—Resident Medical Officer. Salary, £80 per annum, with board and residence. Appointment for one year. Applications to the Secretary by December 5th.

CHESTER GENERAL INFIRMARY.—House Surgeon; doubly qualified. Salary, £90 per annum, advancing £10 yearly, with residence and maintenance in the house. A sum of £5 per annum is granted for taking charge of the library. Applications to the Chairman of the Board of Management by December 4th.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—House-Physicians. Board and residence, and allowance for washing provided. Appointment for six months. Applications to the Secretary at the Office, 24, Finsbury Circus, E.C., by December 14th.

CITY OF LONDON LYING-IN HOSPITAL, City Road, E.C.—District Surgeons. Applications to R. A. Owthwaite, Secretary, by December 19th.

DENTAL HOSPITAL OF LONDON, Leicester Square, W.C.—Demonstrator. Honorarium, £50 per annum. Applications to Mr. Morton Smale, Dean, by December 18th.

DUDLEY DISPENSARY.—Resident Medical Officer; doubly qualified. Salary, £130, with increase at the end of twelve months if the services are satisfactory. Good house, coal, gas, and water found, and all rates and taxes paid. Applications to H. C. Brettell, Honorary Secretary, by December 11th.

EDMONTON UNION.—Medical Officer for the District of Cheshunt. Salary, £70 per annum, and 20 per cent. thereon in lieu of payment for expensive medicines, and usual extra fees. The candidate will also be appointed Public Vaccinator at the remuneration of 1s. 6d. for each case of successful primary vaccination. Applications, on forms to be obtained at the Clerk's office, to Francis Shelton, Solicitor and Clerk, 808, High Road, Tottenham, by December 5th.

ESSEX COUNTY ASYLUM, The Chestnuts, Hoe Street, Walthamstow.—Fully Qualified Medical Man, to reside within a mile of the institution. Salary, £50 per annum. Applications to the Committee of Visitors by December 2nd.

GLASGOW EYE INFIRMARY.—Resident House-Surgeon. Salary, £50 per annum, with apartments and board. Applications to William George Black, Secretary, 88, West Regent Street, Glasgow, by December 9th.

KIMBERLEY HOSPITAL, Kimberley.—Senior House-Surgeon. Salary, £650 per annum, with unfurnished quarters for single men. Applications to H. A. De Beer, Secretary, by December 25th.

NATIONAL SANATORIUM FOR CONSUMPTION AND DISEASES OF THE CHEST, Bournemouth.—Resident Medical Officer and Secretary. Salary £120 per annum, with board and lodging. Applications to the "Chairman of Committee" by December 5th.

NEW HOSPITAL FOR WOMEN, Euston Road, N.W.—Lady as Assistant Dispenser, must be qualified to dispense. Applications to Margaret M. Bagster, Secretary, by December 2nd.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, N.E.—House-Surgeon; doubly qualified; appointment for six months, and at the expiration of that time will be required, if eligible, to serve as Senior House-Surgeon for a further period of six months. Salary for the junior post at the rate of £60 per annum, and for the senior post at the rate of £80 per annum. Applications to the Secretary, 27, Clement's Lane, E.C.

NORTH LONDON HOSPITAL FOR CONSUMPTION, 41, Fitzroy Square, W.—Dispenser to the Out-patient Dispensary. Applications, marked "Dispensership," to the Secretary by December 5th.

ROYAL BERKS HOSPITAL, Reading.—Physician. Applications to the Secretary at least ten days before the election on December 12th.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—Senior Resident Medical Officer, doubly qualified. Salary, £100 per annum, with board, residence, and washing. Appointment for twelve months, but eligible for re-election. Applications to the Secretary by December 11th.

ST. MARY'S HOSPITAL, Paddington.—Demonstrator of Chemistry. Salary, £75 per annum. Applications to the Secretary by December 9th.

SUNDERLAND INFIRMARY.—House-Physician; doubly qualified. Salary, £80 per annum, rising £10 annually to £100, with board and residence. Applications to the Chairman of the Medical Board by December 4th.

DIARY FOR NEXT WEEK.

MONDAY.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN, 8 P.M.—Mr. J. W. Pickering: The Physiology of the Heart in Relation to Anæsthetics. Casual communications by Messrs. W. Hern, Henri Weiss, A. W. Barrett, and C. Robbins.

TUESDAY.

PATHOLOGICAL SOCIETY OF LONDON, 8.30 P.M.—Dr. Voelcker: Aneurysm of the Aorta Rupturing into the Œsophagus. Mr. Bidwell: Rodent Ulcer occurring in the Site of a Degenerate Nævus. Dr. Scholefield: Softening Intracardiac Thrombi. Mr. Lockwood: Hernia of the Ovary. Dr. Pye-Smith: Perforating Ulcer of Duodenum. Dr. Soltau Fenwick: Diphtheria of the Stomach. Mr. Wallis: Large Sacculus of Bladder due to Stricture following Amputation of the Penis. Mr. Paul: Incisor Tooth from a Dermoid Tumour of the Face. Card Specimen.—Mr. Warrington Haward: Stomach and Jejunum five days after Gastro-jejunostomy.

WEDNESDAY.

OBSTETRICAL SOCIETY OF LONDON, 8 P.M.—Specimens will be shown by Mr. Heape, Dr. William Duncan, and others. Dr. Horrocks: Intravenous Injection of Saline Solution in Cases of Severe Hæmorrhage. Dr. Gow: A Note on Vaginal Secretion.

THURSDAY.

HARVEIAN SOCIETY, 8.30 P.M.—Professor Corfield: The Harveian Lectures on Disease and Defective House Sanitation.

FRIDAY.

SANITARY INSTITUTE, PARKES MUSEUM, 74A, Margaret Street, W., 8 P.M.—Professor T. Oliver: Metallic Poisons, Lead and Arsenic.

BRITISH LARYNGOLOGICAL AND RHINOLOGICAL ASSOCIATION, Rooms of the Medical Society of London, 2.30 P.M.—Clinical cases will be shown by Dr. W. McNeill Whistler, Dr. Ed. Woakes, Dr. A. Sandford, Mr. Mayo Collier, Mr. Lennox Browne, Dr. Dundas Grant, Mr. Geo. Stoker, Mr. Marsh. The President (Dr. J. Macintyre, Glasgow) will deliver his Inaugural Address. A special discussion on the Pathological and Clinical Features of Atrophic Rhinitis will be introduced by Mr. Wyatt Wingrave.

CLINICAL SOCIETY OF LONDON, 8.30 P.M.—Dr. Newton Pitt: Cases of Osteo-Arthritis with Fibroid Nodules. Mr. W. G. Spencer: Empyema in a man aged 36, with complete and permanent collapse of the lung. Dr. Henry Handford: (*a*) Recurrent Venous Thrombosis, (*b*) Endemic Hæmaturia. Dr. Soltau Fenwick: Acute Phthisis following destruction of the Mucous Membrane of the Stomach by Corrosive Fluids.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTHS.

MCNAUGHTAN.—On November 22nd, at South View, H.M. General Prison, Perth, the wife of John McNaughtan, of a daughter.

RICHARDSON.—On November 26th, at Audrey House, Gosport, Hants, the wife of Martin J. Richardson, M.B., of a son.

MARRIAGE.

DUNBAR-BRUNTON—BENNETT.—On November 22nd, at All Saints, Leamington, by the Rev. Dr. Nicholson, Rector of St. Albans, assisted by the Rev. Wilfred Jones-Bateman, Rector of St. George's, Grenada, West Indies, James Dunbar-Brunton, M.B., Sorrento, Italy, eldest son of John S. Brunton, Esq., J.P., Ladhope, Roxburghshire, N.B., to Charlotte Riley Bennett, daughter of the late James I. Bennett, Esq., of Pittsburg, Pennsylvania, U.S.A.

DEATHS.

BOYNTON-LEE.—On November 20th, at Lansdown Park, Bournemouth, Francis Boynton Boynton-Lee, F.R.C.P., aged 55.

FOGERTY.—On November 20th, at the Royal Naval Hospital, Haulbowline, Surgeon John S. Fogerty, M.D., R.N., H.M.S. *Banterer*, aged 34 years.

MACWILLIAM.—On November 22nd, at Wayside, Cults, Aberdeen, Edith Constance, wife of John A. MacWilliam, M.D., Professor of Physiology in the University of Aberdeen.

O'CONNOR.—On November 26th, at Market Deeping, Lincolnshire, Jessie M. C., dearly beloved wife of E. M. H. O'Connor, L.R.C.P.I., etc.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters non-delivery of the JOURNAL, etc., should be addressed to the Manager' at the Office, 429, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

MEDICUS is anxious to know the name of any place in the South of France where living is inexpensive, good winter climate, and not too dull.

"LUX" wishes to know where diagrams or lantern slides, illustrative of laws of light, anatomy of human eyes, and physics of sight can be obtained.

A MEMBER, who would like to become surgeon to volunteer corps, would be obliged for information as to how such appointments are made, and to whom he should apply. Are there any particular qualifications, etc., necessary?

DR. STEEN (413, East India Road, Poplar, E.), writes: I have a patient, an old man aged 78, who is suffering from Menière's disease. He has an allowance of 8s. a week. I am anxious to get him into some home for old men, where he would be taken care of.

DR. W. J. STADDON (Ipswich) asks: What is the value of a book I lately picked up amongst a lot of old ones; it is Thomas Johnson's translation of Ambroise Paré's work on surgery, published in 1579? The twenty-fourth book, I find, has been torn out.

*** This book has sold for prices from 15s. up to £2 or £3; if perfect, an average price would probably be about 25s., but any imperfection would, of course, much diminish the value.

SHORTHAND FOR MEDICAL MEN.

A. W. writes: Which system of shorthand would you recommend a youth to learn who contemplates entering the medical profession?

*** Pitman's phonetic shorthand or phonography. It is the system employed by 95 per cent. of shorthand writers, and by a still larger proportion of those members of the medical profession who use shorthand, and do so, among themselves, in professional correspondence. Those who have used shorthand extensively in professional work (Dr. Gowers for instance, and Dr. Gray, of Oxford), are strenuous in its advocacy.

REVACCINATION AND SICK ASSURANCE.

H. R. writes: I am in attendance on a case of variola confluens. Would like to know if, having been revaccinated at age of 15 fifteen years ago, it would be necessary to undergo the operation again. Also, if I did get revaccinated, would I have a claim on a sickness assurance society for sick benefit when unable to work after the formation of the vesicles in my arm?

*** Revaccination was made compulsory in Germany some nineteen years ago, and that country has been practically exempt from small-pox ever since. Very likely, therefore, H. R. would be quite safe without undergoing another revaccination, but small-pox is so serious a disease that, in the circumstances, he had better make doubly sure by getting his protection once more renewed. We have no doubt that his claim for sick benefit would be valid if he were temporarily unfit for work through his revaccination. Personal misconduct is about the only reason in most benefit societies for refusing sick allowance, and, in spite of loud-mouthed antivaccination leagues, a medical man's protection of himself by revaccination against small-pox has not yet been set down as misconduct.

ANSWERS.

E. R. H. C.—It is not an infringement of the Medical Act.

PUBLIC EXHIBITIONS OF MESMERISM IN ITALY.

DR. BRAMWELL (Henrietta Street, W.) writes to us: I am unable to answer this question myself, but have put Dr. Godfrey into communication with a medical friend in Rome who practises hypnotism, and who can give him any information he desires on the subject.

PHRENOLOGY.

H. S. M. writes, in reply to G. H. S.: Professor Oliver Wendell Holmes ("the Autocrat of the Breakfast Table") wrote an interesting essay on the "pseudo-science" phrenology, in a book published under the title *Currents and Counter-Currents in Medical Literature*. I see that in a complete edition of his works, now being advertised, one of the volumes is called *Medical Essays*, and I imagine the essay referred to would be found therein.

MEDICAL STUDY IN VIENNA.

C. M.—Our correspondent can obtain information as to the facilities afforded to foreigners for medical study in Vienna by applying to the Secretary of the Anglo-American Vienna Medical Association, 12, Landesgerichtsstrasse, Vienna. The Association keeps a list of lodgings, and in other ways also smooths the course of the English-speaking student newly arrived in Vienna.

TREATMENT OF ECZEMA.

DR. ALEX. RAE (Douglas, Lanarkshire) writes: For his case of eczema I would advise "Ritans" to try (if for an adult) 30-grain doses thrice daily of the acetate of potassium. The discharges may be advantageously dusted with tannin. A saline aperient should, if required, be occasionally administered. If, as not infrequently happens, the patient is about the age of puberty, 20-grain doses of the acetate will suffice. This treatment, faithfully carried out for ten days or a fortnight, may be expected to yield gratifying results.

PERCENTAGE SOLUTIONS.

W. S. T.—The difficulty you experience arises from the misapplication of the term "percentage solution" to preparations which are not of that nature. The official solutions represented as having a strength of 1 in 100 or 5 in 100 are more nearly solutions containing 1 or 5 grains of a particular ingredient in 100-grain measures of the respective solutions. In making such solutions the relative specific gravities of the solvents employed need not be taken into account, and, except in so far as expansion or contraction of volume may be the result of mixture of their ingredients, the strengths of such solutions fairly well correspond with the descriptions given of them in the *Pharmacopœia*. The calculations sent have no bearing on the case, and we would suggest the desirability of some practical instruction in the application of elementary arithmetic to chemical and pharmaceutical subjects such as could be obtained at the Owens College in the city where our correspondent resides.

INCOME TAX APPEALS.

E. R. writes: Should the surveyor of taxes base his assessment of my income tax upon the estimated earnings or the estimated receipts for the year? As I have lately bought a practice which will be a probable loss the first year, it seems to me a great injustice and hardship that I should be expected to pay income tax upon possible future profits.

*** The assessment of a person succeeding to a practice, whether by purchase or otherwise, would be based upon the profits made by his predecessor; and the surveyor of taxes would in all probability assess him at the same amount as his predecessor was assessed at. Our correspondent has his remedy at the end of the year of assessment, when, if he could prove that he had not made the profits on which he had been charged, he would then have a right to appeal. Further information and assistance can be obtained from the Income Tax Repayment Agency, of 25, Colville Terrace, W.

NOTES, LETTERS, Etc.

ERRATUM.—In Dr. Leslie Phillips's clinical note on "Thyroid Feeding in Skin Diseases," p. 1152, "brandy and Martin's," which occurs in two places, should read "Brady and Martin's."

A COMPLIMENTARY CHEQUE.

IN liberal contrast to the course often pursued by publishers on both sides of the Atlantic in appropriating literary matter not doubly copyrighted, Messrs. Pearson have, we are informed, in reprinting Mr. Ernest Hart's paper on The Pilgrim Path of Cholera, from the *American Science Monthly Magazine*, forwarded to him a complimentary cheque in recognition of his moral (not legal) rights. The example is one worth recording—and following.

MRS. MALAPROP IN THE CONSULTING ROOM.

MRS. MALAPROP, writes an out-patient physician, occasionally makes her appearance in the consulting room, and her fondness for long words sometimes produces curious forms of well-known technical terms. She told me for instance not long ago that she had been very ill "with pæonia and bronchitis," no doubt *a florid* form of the disease. A little girl suffered from a nervous disorder, which was on one occasion called "the vipers dance," and on another was given the title, *très fin de siecle*, of "the advertusment's dance," which would be a happy term for a disorder from which a good many more or less distinguished people suffer. In making inquiries as to the family history, one day I learnt that one of the children had died of "digestion of the bowels," but the phrase which pleased me most by its unconscious graphic force was the statement that one of the boys had "suffered from a conflagration of diseases."

THE LATE SIR WILLIAM GULL.

THE grave of the late Sir William Gull in the churchyard of Thorpe-le-Soken, Essex, is now marked by a plain white marble cross bearing the following inscription:

In
Loving Memory of
WILLIAM WITHEY GULL,
Who Died January 29th, 1890,
Aged 73 years.
"What doth the Lord require of thee, but to do justly, and to love mercy, and to walk humbly with thy God."
Micah vi, 8.

AN OVERSTOCKED MARKET.

M.R.C.P.LOND. writes: The excessive supply of masseuses must be often noticed by anyone practising in the West End of London, and probably in other districts. The BRITISH MEDICAL JOURNAL would, I submit, confer a kindness on poor ladies by warning them against inducements to expend their slender means on acquiring "certificates" of fitness, or even obtaining cards inscribed "certificated masseuse." According to my own experience, there are more masseuses than there are patients who are willing to pay for their services, and the gains are to the instructors.

GERMAN OPINION OF SIR ANDREW CLARK.

In the course of a sympathetic obituary notice of the late Sir Andrew Clark published in a recent number of the *Berliner klinische Wochenschrift*, it is well said that anyone who met him, even for a brief interview, carried away the impression that he had been in contact with a strong spirit, and a leader among men. "Sir A. Clark was the type of a leading English physician, such a man as can be formed only in London with its gathering together of people from all the ends of the world. His name will surely be long remembered and honoured."

"SEEING THE DOCTOR."

GEORGE EDWARDS, a clerk, aged 42, has been in the habit of calling at the houses of medical men, who happened at the time to be out on their visits. Shown into a room to await the doctor's return, he would pick up whatever portable property presented itself, and slip out of the house unobserved. The trick failed at the house of Dr. Alfred Barker, owing to the intervention of the housemaid, who followed the man out of the house and gave him into custody, when books of the value of 15s. were found in his possession. At the Middlesex County Sessions Edwards pleaded guilty to this robbery, and also to a robbery at another doctor's house, when a quantity of plated spoons and forks were taken. Several previous convictions were proved against him for similar offences, and he was sentenced to five years' penal servitude. Jane Waller, the servant alluded to, was complimented for her promptness and courage, and awarded £2.

THE NATIONAL HEALTH SOCIETY.

THE lecture given by this Society last week was the first of six to be delivered by Sister Katharine—an admirable lecturer, who possesses the art of making her hearers realise the importance of details which are apt to be slurred over as commonplace. Most women, at some period of their lives, are called upon to act as sick nurses, and though the gift of nursing is to some extent intuitive, there is much practical knowledge which can only be gained by study and experience. That the sick room should always be at the top of the house, for the sake of isolation and quiet; that even in summer a fire or a lighted lamp should be placed in the grate: that a fire laid with a good supply of coal at the bottom and the paper and wood at the top, will light more quickly and burn three times as long as the ordinary fire; that a window may be opened with safety in the dampest weather by placing a piece of flannel over the opening, so that the air filters through with the chill off, and there is no draught—these and similar hints, together with practical instruction on medical and surgical nursing, infectious diseases, diet, and the nursing of special diseases, are the subjects of the course of lectures.

MEDICINE AND TOBACCO.

THE idea of an Established Church of Medicine, which was once more mooted recently at a meeting of a medical association, is, according to the *Westminster Gazette*, about to enter the sphere of practical politics in Switzerland. The Workmen's Congress at Zürich proposed to secure an initiative in favour of free medical aid for the people. M. Grenlich, the secretary, urges that the expenses of such a reform will be within 15,000,000 francs. The idea is that the country shall be divided into 182 "cures," each with an established doctor paid by the State. The doctors would receive on an average 6,000 francs per annum (£240), and the State would also manufacture the drugs at its own laboratories. Hospitals in Switzerland are already paid for by Government, but they would need some 2,000,000 francs more under the new scheme. The private practitioner and family chemist would only exist henceforth as *articles de luxe*. The expense of the 15,000,000 francs would be covered by a Government monopoly of tobacco. The Federal Council is already occupied in the consideration of this monopoly, having commissioned the Financial and Industrial Departments to report on the subject.

TUBERCULIN AND TUBERCULOSIS.

CONCLUSIVE proof of the value of Koch's tuberculin as an agent for the detection of tuberculosis, has, says the *Yorkshire Post*, been furnished to the Royal Agricultural Society, in a report upon some experiments with Lord Spencer's herd of Jerseys at Althorpe. Tuberculin was used after two or three cattle had fallen victims to this disease, and, inoculation being effected throughout the herd, every animal, with one doubtful exception, showed the symptoms indicative of tuberculous infection. Before slaughtering them all, Lord Spencer's agent wished to satisfy himself beyond doubt of the trustworthiness of Koch's method of diagnosis, and two animals, a heifer and a cow, were first killed. *Post-mortem* examination revealed unmistakable evidence of the disease, and thereupon the whole herd was destroyed, with the same result.

HEALERS, SPIRITUAL AND PHYSICAL.

THE Queen of Roumania, who has won for herself a considerable place in the republic of letters under the pseudonym of "Carmen Sylva," thus compares, in her little book entitled *Musings*, the methods of the healers who minister to mind and body respectively: "It is better to have a physician than a priest for a confessor. You tell the priest that you hate mankind. He answers: 'You are not a Christian.' The physician gives you a dose of rhubarb, and you love your fellow creature. You tell the priest that you are tired of life. He answers: 'Suicide is a crime.' The physician gives you a stimulant, and you immediately find life endurable." This is very flattering to our art and, to a certain extent, it is true, but they are the wisest physicians who recognise that there are sufferings beyond the reach of the *Pharmacopœia* and troubles for which "not poppy, nor mandragora, nor all the drowsy syrups of the world" can bring oblivion. Rhubarb, no doubt, will often charm away melancholy, and blue pill is a most potent exorciser of "blue devils," but, still, in ministering to a mind diseased, recourse must sometimes be had to different weapons.

THE MEDICAL STUDENT.

OUR contemporary, the *Bristol Times and Mirror*, has been disturbed by a rumour—we need scarcely say from a foreign source—that the English medical student is becoming almost needlessly pious"; they have been represented also as "quiet retiring gentlemen," which sounds dull. Happily our contemporary, priding itself on robust common sense, declines to believe these fables, fables intended, as he surmises, for the consumption of the marines. "Lamp smashing and knocker wrenching," the editor opines, "are not yet unknown pursuits," if he may rely upon the police reports. To our mind the odd thing is that the culprit in these cases is invariably a "medical student," so that these evidences of a bold and generous spirit seem to be unknown in other walks of life, an observation which does not seem to have suggested itself to our ingenuous contemporary. Whatever may be the value of medical example in these pursuits, it is pleasant to know, as we do know, that "our young professors of medicine are more considerate of their patients than of door knockers, whatever cynics and grumblers may say."

HERNIA IN INFANTS.

DR. HENRY E. MABERLEY (Peckham, S.E.) writes: In reference to Mr. Lane's interesting paper on the hernia of infants, in the BRITISH MEDICAL JOURNAL of November 25th, I would suggest that indigestion acts as a cause in these cases principally by producing perpetual crying and straining. The latter, to my mind, is the one efficient cause in forcing open weak spots in the abdominal wall; and, in the case of two infants in the same family who were ruptured, and whom I circumcised, there could be little doubt that in each case the rupture was caused by the constant fretting and straining due to difficult micturition. Both infants were remarkably strong and healthy, nursed by a healthy mother, and certainly did not suffer from indigestion. It was in each case the reduplicated and adherent mucous membrane of the prepuce that caused the obstruction, and this has always been my experience, as probably it is the experience of all those who find it necessary to circumcise for phimosis in infants.

OPERATIVE TREATMENT OF SCROFULOUS GLANDS.

DR. J. ELBOROUGH SCATLIFF (Honorary Surgeon Brighton Throat and Ear Hospital) writes: For some time past we have been in the habit of removing scrofulous glands by operation at the Throat Hospital, Brighton, with varying success. One thing has struck me when assisting at some cases, especially in which my colleague Mr. Edward Treves (rather than in my own cases or Mr. Cresswell Baber's) operated—namely, that with a free incision the scrofulous glands can be reached by the index finger, and dragged to the opening when situated at a considerable distance from the primary incision in the skin. I should therefore suggest that, for æsthetic purposes, incisions should be made sufficiently far from the side and front of the neck to avoid disfigurement—say low down near the collar bone sometimes, or, what might answer better, well back behind the sterno-mastoid. Glands in front of the sterno-mastoid can be removed often easily through a wound behind that muscle. The skin is freely movable over the loose cellular tissue of the cervical region, and I am sure that with combined probing with the fingers and handle of scalpel and dragging of the skin, suitable positions being provided for relaxation of the muscles of the neck, a great deal can be done to avoid ugly wounds in prominent situations. My own experience is that the wounds, when they have healed nicely and are apparently going to leave no disfigurement, become disfigured after the patient leaves the hospital by a gradual stretching and thinning of the new cicatricial skin; and in cases in which permanent disfigurement is required to be prevented, the patients will be requiring attention, so as to avoid positions of the neck which put tension on the scars for a period probably of six months or more (I cannot, of course, say how long), in order to make sure that, after all your trouble, you and your patient are not in the end disappointed.

LETTERS, COMMUNICATIONS, ETC., have been received from:

(**A**) Alpha; Mr. J. R. Armstrong, Abergele; Dr. R. R. Alexander, London; Messrs. Arnold and Son, London; Anti-Humbug; Dr. W. Andriezen, Wakefield; Mr. F. V. Adams, London; A.B.C.; H. H. Aitchison, M.B., Wallsend-on-Tyne. (**B**) Dr. R. Boxall, London; Mr. F. J. Burman, Wath-on-Dearne; Dr. B. Bramwell, Edinburgh; Mr. H. Bechhold, Frankfort; Messrs. Burroughs, Wellcome and Co., London; Mr. W. Berry, Wigan; Mr. T. B. Browne, London; Dr. C. Beale, London. (**C**) Dr. E. Clarke, London; Mr. H. N. Custance, London; Mr. J. S. Cameron, Leeds; D. J. Caddy, M.B., London; Mr. J. Couldrey, Liverpool; Dr. E. W. Collins, London; Dr. W. H. Corfield, London; Dr. F. G. Clemow, St. Petersburg; Dr. W. Collier, Oxford; Cheseborough Manufacturing Company, London. (**D**) Dr. J. Dreschfeld, Manchester; Dr. A. Duke, Cheltenham; Mr. P. Dunn, London; Devonian; Dr. T. O. Dudfield, London; D. P. H.; Mr. T. Dale, Scarborough; Mr. S. Davies, London. (**E**) Mr. H. E. Edlin, Levenshulme; E. R. H. C.; Ex-Union Official; W. S. Elliott, M.B., Malahide; Mr. W. H. Evans, London. (**F**) Family Physician; Mr. G. H. Foott, Plymouth; Mr. J. Ferguson, Manchester; Mr. N. Flynn, London. (**G**) Dr. W. R. Gowers, London; Mr. J. G. Gledhill, Ashton-on-Ribble; Messrs. Greene and Underhill, London; Mr. H. Gold, London; Dr. W. S. Greenfield, Edinburgh; Dr. C. E. Glascott, Manchester; Dr. H. R. Greene, Knaphill. (**H**) Dr. G. P. Hadley, Birmingham; Dr. T. W. Hime, Bradford; Mr. G. F. Hilchen, London; H. G. M.; Mr. C. H. Hartt, London; Dr. D. Hooper, London; Mr. C. P. Hooker, Cirencester; H. S. M.; Dr. L. Henry, Melbourne; Mr. R. Harrison, London; Mr. W. S. Hedley, London; Mr. M. Hardy, London; Mr. W. H. Heffernan, London; Dr. H. Handford, Nottingham; Mr. A. Hodgkinson, London; Mr. J. Hogg, London; Dr. J. Haddon, Canonbie. (**J**) J. Jardine, M.B., Heywood; Dr. H. M. Jones, London; Dr. R. Jardine, Glasgow; J. F. Jordan, M.B., Birmingham. (**K**) J. R. Kaye, M.B., Huddersfield; Mr. S. Karger, Berlin. (**L**) Mr. A. M. B. Lee, Bournemouth; Dr. T. Linn, Nice; Dr. E. Liveing, London; Dr. Levillain, Nice; Mr. H. K. Lewis, London; Messrs. C. Lett and Co., London; Mr. H. Littlewood, Leeds; Mr. F. W. Lowndes, Liverpool. (**M**) Mr. G. H. Makins, London; Mr. R. Mitchell, Newcastle-on-Tyne; Mr. E. G. Mesnard, Sunderland; Mr. H. J. Manning, Salisbury; Mr. J. A. Milnes, Dover; Mr. H. E. Maberley, London; Mr. H. Malley, Dublin; M.D.; Dr. A. Mitchell, London; Dr. T. Mitchell, Gorseinon; Mr. W. McDonald, Maryhill; Mr. G. B. Millett, Penzance; M.D.Lond.; Member; M.B., C.M. (**N**) Dr. A. Newsholme, Brighton; Mr. G. H. Newby, London. (**O**) Observer. (**P**) Mr. H. O. Pilkington, Preston; Dr. J. A. P. Price, Reading; Dr. J. F. Payne, London; Dr. L. C. Parkes, London; Dr. T. Partridge, Stroud; Dr. J. Priestley, London; Professor J. Penberthy, London. (**R**) Dr. H. T. Rutherford, Taunton; Mr. A. Rae, Douglas; Mr. L. Rawsthorn, Preston; Mr. R. Rauschke, Leeds; Mr. E. H. Ryan-Tenison, Belstone, N. Devon; Mr. W. Rosser, London; Dr. T. F. Raven, Broadstairs; Dr. W. B. Ransom, Nottingham; R. J. Ryle, M.B., Barnet; Mr. F. J. Rebman, London; Dr. J. A. Rigby, Preston; A. B. Ritchie, M.B., Manchester. (**S**) Dr. W. J. Sinclair, Manchester; Mr. C. Smyth, London; Subscriber; J. R. Steen, M.B., London; Dr. W. Smith, London; Mr. E. Stanford, London; Dr. J. M. Scatliff, Brighton; Mr. W. E. S. Stanley, Bath; Dr. W. Stokes, London; Mr. H. Sell, London; B. Squire, M.B., London; J. F. J. Sykes, M.B., London; Dr. J. M. Smith, West Calder; Mr. J. Sim, Montrose; Dr. W. Stokes, London; Sanitas Company, Managing Director, London; Mr. R. W. Savage, London; Dr. S. H. Snell, Grays; Messrs. Salamon and Co., Rainham. (**T**) Tonsil; Mr. C. B. Turner, Great Grimsby; Mr. J. Taylor, Tanderagee; Mr. T. F. Tracey, Glasgow; Mr. A. Thomson, Oxford; Mr. Trevail, Truro. (**U**) Mr. F. W. Underhill, Birmingham. (**V**) G. H. Vos, M.B., London; Dr. F. Vacher, Birkenhead. (**W**) Dr. C. J. White, Bournemouth; Dr. J. J. Welply, Bandon; Mr. N. V. Wise, Trowbridge; Dr. J. W. Washbourn, London; Mr. A. H. Wilson, Liverpool; Dr. A. Wallace, London; Mr. D. B. Walker, Kirkby; Mr. E. R. Waters, Sheffield; Mr. J. A. White, London; Mr. S. Winns, London; Mr. W. B. Wall, Pembroke; G. A. Wright, M.B., Manchester; Mr. F. Willard, London; Mr. A. Wright, Romford; Mr. H. Williams, Nottingham; Mr. C. H. Wilson, Leeds; Dr. S. White, Sheffield; etc.

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THE BRADSHAW LECTURE

ON

SOME DISEASES OF THE THYROID GLAND.

Delivered before the Royal College of Physicians.

By WILLIAM S. GREENFIELD, M.D., F.R.C.P.,

Professor of General Pathology and Clinical Medicine in the University of Edinburgh.

[Professor Greenfield first referred to the death of the late President, whose great consideration and thought he had experienced in connection with this lecture.

He then referred to the great and rapidly growing importance of the diseases of the thyroid, especially, but not solely, myxœdema, since many others not yet accepted might also probably come under the head. Instead therefore of going more widely into the subject of the pathology and physiology of the glands, either of which might have afforded much material, he proposed to speak of Graves's disease and Basedow's disease as if it were possibly a primary disease of the thyroid.

In so doing he was not acting upon any hasty or recent change of opinion—for ever since he had studied myxœdema first in Dr. Ord's early cases he had been struck with the antithesis afforded by it with exophthalmic goître. And since ten years and a-half ago, when a fatal case under his care afforded him the means of making a fuller research, he had formed the views and constantly taught the facts afforded by a continued series of observations.]

In thus discussing Graves's disease, even provisionally, as a disease of the thyroid gland rather than of the nervous system, I am aware that I am opposed to nearly all English and American physicians of eminence. It is only necessary to look into the more recent writings of my friends Drs. Bristowe, Hughlings Jackson, Gowers, Osler, and others, to see that this relation is usually either ignored or rejected.

The only physician of any authority who has to my knowledge expressed similar views based on the clinical contrast is Dr. Byrom Bramwell.

On the other hand several foreign authors, especially Th. Wette, Möbius, Joffroy and Achard, and J. Renant, have adopted views somewhat similar to my own.

Seeing then that my object is rather to marshal the facts which bear upon this question of the thyroid origin of Graves's disease than to enforce any dogmatic conclusion, I shall classify them under the following heads:—

1. The examination of the thyroid, which so far as I have been able to obtain material reveals in nearly all cases a peculiar form of proliferation of the gland tissue, unlike that seen in other goîtres, and resembling a proliferation for the performance of increased function.

2. The relief afforded by removal, partial or entire, of the gland.

3. The presence in the nervous system of changes, slight in degree, but widespread, especially affecting those centres or nerves which we should suspect from the symptoms to be involved. The fact that these alterations are of a like nature to those seen in toxic diseases, for example, hydrophobia and tetanus, suggesting that they also may be of toxic origin.

4. The contrast, in many of the leading conditions, of myxœdema and Graves's disease, these including both symptoms and anatomical changes.

5. The correspondence, in some important respects, of the phenomena of Graves's disease with those produced by artificial introduction of thyroid secretion.

Changes in the Thyroid Gland in Graves's Disease.—Of all the remarkable facts in connection with the history of this disease, the most striking is the apparent neglect of the direct study of the changes in its structure of the thyroid gland itself.

[How little attention was paid to the condition of the gland itself at a comparatively recent date is shown by the discussion at the Ophthalmological Society in 1886 (*Trans. Ophth. Soc. of Great Britain*, vol. vi, 1886). In the circular of queries, the only question is as to equality of enlargement on the two sides. I do not find any reference to the possibility of functional derangement of the gland as a cause. Of the fatal cases recorded, the following brief outline of *post-mortem* results may be given: Dr. Bristowe, four fatal cases: (1) Thyroid slightly enlarged; no disease of nervous system. (2) Thyroid much enlarged, especially the right lobe. (3) Lateral lobes larger than natural. (4) The isthmus had been removed to relieve pressure some months before death. Goître small. Dr. Wilks mentions one fatal case. No mention of microscopical examination. Dr. Samuel West, two cases in which *post-mortem* examination. Case 37, condition of thyroid not mentioned. Case 38, "*post-mortem* examination negative." Mr. C. Higgens, one case in which *post-mortem* examination made by Dr. Goodhart, "enlargement of thyroid." Mr. Quarry Silcock, one case. Thyroid weighed 4½ ounces. The section resembled one across the fibres of the gluteus maximus, but paler. Overgrowth of the interacinous connective tissue, extensive proliferation of the acinal epithelium, nervous system normal. It is important to note that the disease had lasted twelve years before the fatal issue. Thus there is only one case mentioned in which a careful microscopic examination is recorded, and in describing this no reference is made to the presence of any large amount of newly-formed gland tissue, though it would seem probable that it was present.]

Changes are indeed described by various writers, but for some years at least there appears to have been little or no application of our improved methods to the study. In many most valuable papers, even to the most recent, either no mention whatever is made of the nature of the changes visible to the naked eye or with the microscope, or they are disregarded, and the disease attributed to the nervous system. It may be that I have overlooked some important paper, but as I have been seeking evidence for several years, and have been constantly disappointed, and as careful writers repeat the same statements as to the nature of the changes, I cannot think that those I have observed are generally recognised. And whilst the material at my disposal is limited in extent, being derived from only six fatal cases, the constancy in the general character of the changes, and their total deviation from those usually alleged to exist, make me regard the observations as of some importance. The long intervals of time between my fatal cases and their small number, have prevented me from doing more than form and mention in teaching the views I have long entertained, waiting for more extended observations before publication.

Most writers, if they refer to the gland at all, adhere to the view that the enlargement is consequent on and associated with active hyperæmia and vascular dilatation. Thus Ziegler, in his textbook on *Path. Anat.*, 6th edition, p. 723, speaks of the chronic enlargement of the thyroid, "which occurs as a symptom of that peculiar neurosis of the vessels described as Basedow's disease," as a condition due to congestive hyperæmia; and he adds that it is in accordance with the view that the excessive blood supply is the cause of the overgrowth, that there is an abundant vascularisation found in the growing gland tissue.[1]

Taken in a certain sense, but not in that evidently intended, it is no doubt true that a proliferation of blood vessels does occur, as in all active hyperplasia of glands, as also of other parts. But so far from this vascularity being excessive, it has not been specially prominent in any case I have seen. In one case there was very slight vascularity towards the surface of the lower lobe. The enlarged gland, which may be many times its normal bulk, is, on section, of pale pinkish colour, and so closely resembles in appearance a salivary gland, that a portion may readily be mistaken for one. A few cysts, usually minute, may be present, containing usually a clear serous fluid, but they may be absent entirely, and are relatively less frequent than in mammary or other glandular tumours. Most of the substance is comparatively solid but elastic, and of far less consistence than the normal gland.

In shape the enlargement in typical cases differs from most others from the fact of the gland being usually more uniform, its varieties partly depending on the normal marked variations in shape of the gland. I do not assert that this need always be so, for the degree of change usually varies in different parts. Microscopic examination shows that the enlargement is due to an enormous hyperplasia of the secreting structure. It bears to the normal gland the same relation which the mammary gland in lactation bears to that in quiescence. In no other way can we account for its condition, or find any analogue than by such a comparison, for whilst, as in all such hyperplasias, we may find, especially in ductless glands or glandular tumours, some tendency to cyst formation, this must occur from the physical condition.

I have sought in vain for any *post-mortem* evidence of absence of enlargement, or marked change in the thyroid, accompanied, as it must be to be of any value for scientific purposes, by microscopical examination. It is true that the enlargement may be so slight as readily to escape detection during life. I had under my care, two or three weeks ago, a most marked case of the disease, in which the thyroid is situated so low, and its enlargement is so slight, that but for very careful examination it would have been overlooked. But from what we know of like changes in other organs, it is evident that altered structure, and not size, is the test of disease. Failing this evidence, we have nothing to oppose to the positive argument from actual observation.

The more striking changes in the thyroid are two: closely allied in nature and usually existing in an especially marked manner in different parts of the same gland.

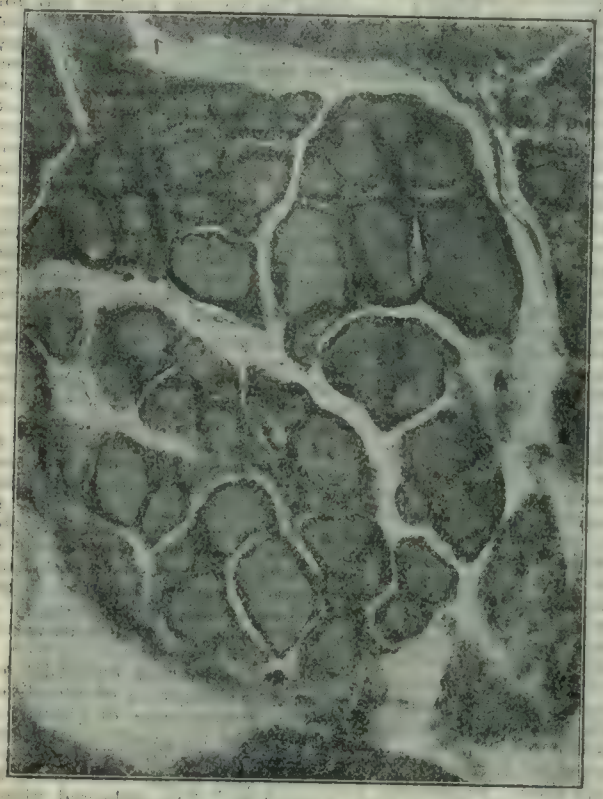


Plate A.—Normal, 40 diam.

That which appears to be the earliest is an alteration in the character of the epithelium lining the spaces from a cubical to a columnar type. This change is associated with greatly increased proliferation, similar to that seen in adenomas, so that papillary projections into the spaces are common. In this condition, the resemblance to a cystadenoma of the ovary is striking. In addition, there appears to be active secretion, and² absorption of the colloid material, which is replaced by a more mucinous fluid. Desquamation of the altered epithelium is also common, the masses of columnar cells lying free in the space, which may be dilated. It is observed that the glandular character and arrangement is not lost.

With this, there may often be seen elongated duct-like spaces, which suggest the idea that there are ducts in the gland.

The second change is the production of an enormous number of newly formed tubular spaces, lined by a single layer of cubical epithelium. In their structure, and the regular arrangement of their epithelium, they exactly correspond to the tubules of a secreting gland, for example, the sweat glands.

Both of these changes exactly correspond to such as may be seen in a gland in active evolution, and, if we except the development of an adenoma, have no other pathological equivalent.

Associated with these changes we usually find no increase in vascularity but rather a diminution, although there can be little doubt that the proliferation of the tubules is associated with a corresponding evolution of capillaries.

A comparison of these changes with those found in the development of adenomatous growths in the thyroid reveals striking differences.

The change is a general one, not localised, and spreading in a tumour-like manner. Moreover, the regular mode of evolution, and the absence of the irregular growth, and filling of the tubes with cells of irregular size and shape, is distinctive. I do not say that some adenomas of the thyroid

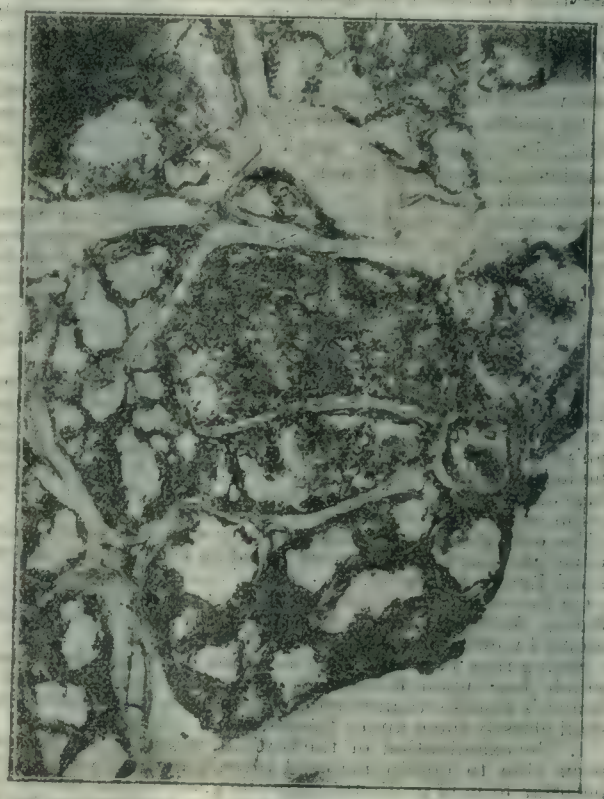


Plate B.—40 diam. Catarrh from septicæmia, disappearance of "colloid."

may not show a similar structure, but I have been unable to find them in the cases I have examined.

As a sequel of these proliferative changes we may find catarrh. This is sometimes prominent in advanced cases. The epithelium desquamates, undergoes cloudy swelling, and here and there may fill the tubules. This is especially seen where death has occurred with high temperature.

From the study of cases of long duration, it appears that this proliferative change is liable to be followed by fibrous overgrowth. At first there is little sign of this. The fibrous septa, which are little prominent in normal conditions, may show some thickening at a comparatively early date. But within the lobules no such change is seen. In advanced cases the fibrous overgrowth, starting from the septa, invades the glandular structure, and in parts completely obliterates it. The lining epithelium undergoes atrophic changes similar to those seen in all interstitial overgrowth in glands. It becomes small, separates from the subjacent tissues, and then disappears entirely.

Two points deserve mention. In the normal structure of the thyroid we find a number of undeveloped glandular spaces, often in clustered masses. This suggests that nor-

mally there exists, as has been shown to be the case in other glands, a reserve of secreting tissue capable of development in accordance with physiological needs, and probably always used up during the course of life. The absence of increased vascularity, in fact, the apparent diminution in the vessels, is a point of great practical importance. For there is no doubt that the idea that the thyroid was especially vascular in Graves's disease has been one great deterrent to the surgeon against operation. The cause of the apparent vascularity I shall discuss later.

In conclusion, I would suggest that since the change in the thyroid in typical cases of Graves's disease corresponds so closely with that seen in glands undergoing evolution for increased function, it must have some profound effect both on the quantity and quality of the secretion.

Now it is true that we could not, from the study of this condition alone, determine the effect on function. If we regarded the change as catarrhal, we should anticipate alteration in the secretion, perhaps with excess in quantity, almost certainly with defect in quality. But a study of other conditions of its enlargement, the contrast afforded by the reversed condition in myxœdema, and comparison with other glandular enlargements convinced me that this could not be the essential condition. In a series of cases, not of Graves's disease, which I have had opportunities of observing marked enlargement of the gland has occurred during pregnancy, subsiding either during lactation or later. And in one or two cases the presence of enlargement in persons with an unusually large thyroid has been noticed to concur with increased rapidity of pulse and a slightly elevated temperature, only, however, from one- to two-fifths of a degree, but persistent. And here I may note that such minor degrees of enlargement and variations in size are by no means infrequent in women, and deserve careful study.[3]

I would especially emphasise the point that it is not the mere size of the gland which is of importance, but its structural alterations. For it is quite possible that hyperplasia of the kind I have described, a great alteration in the amount of secreting tissue and greatly exaggerated function may be present without notable increase in volume. It may well be that it is in those cases in which catarrhal and cystic changes are least prominent the activity of secretion is greater than where the derangement of proportion in size is greater. The intensity of the symptoms certainly bears no proportion to the actual size of the gland, some of the severest cases being where it is only moderate in degree.

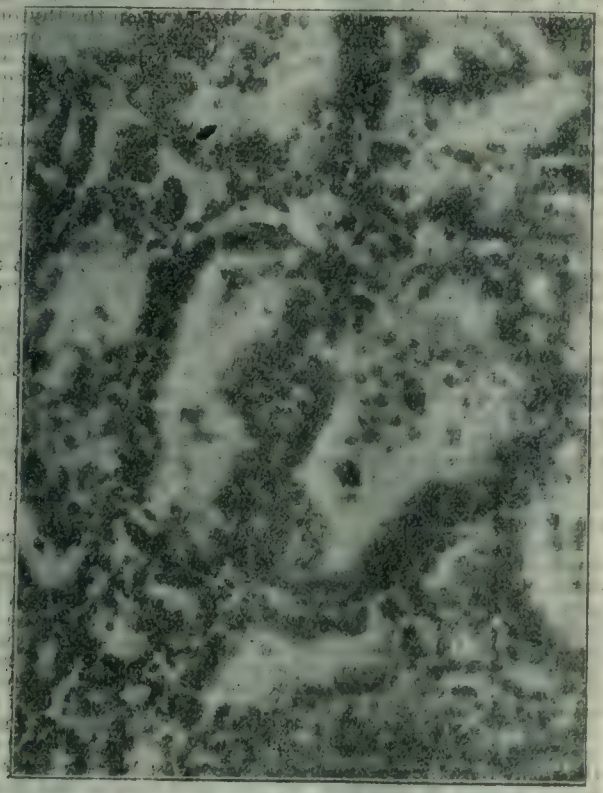


Plate B.—200 diam. Graves's disease, Case II. Character of villi.

Vascularity of the Thyroid.—It has been alleged by some that the enlargement of the thyroid is caused by excessive hyperæmia, and also that in Graves's disease it is always highly vascular. If the thyroid enlargement is due to excessive vascularity, how comes it that no similar enlargement, that is, with proliferation, occurs in other adjacent parts or from experimental hyperæmia? The concentration of the hyperæmia should surely suggest that if it exists there must be some special relation between the gland and the vasomotor changes. Whatever hyperæmia may exist, in so far as it is not such as is seen in the mammary gland during lactation, it shares with other parts, and neither in physiology nor pathology do we find that hyperæmia alone affords any parallel in the production of such changes.



Plate C.—40 diam. Graves's disease, Case III. Low power to show general character.

Apparent Increase in Vascularity of the Thyroid.—It appears to be commonly accepted that the thyroid actually pulsates in Graves's disease. I have carefully examined many cases, and have failed to find any sufficient evidence of this.

The pulsation is far more marked over the arteries than elsewhere. A thrill may often be detected over the superior thyroid artery when it cannot be found elsewhere, and a general thrill I have never seen. The apparent thrill appears to me to be due to the relaxation and enlargement of the arteries. It has been shown that the arteries actually enlarge, and may undergo irregular dilatation. But this enlargement of nutrient arteries is also seen in all active hyperplasias. For examples, the mammary and uterine arteries may be cited.

Added to this, we have the pressure both on arteries and veins which must undoubtedly occur. The carotid and its branches must be compressed and stretched, and commu-

nicate their pulsation in an abnormal degree. The internal jugular and the plexus of veins over the thyroid must also be compressed. Indeed, it has been suggested that by its pressure on the jugular the thyroid controls the vascularity of the brain—an hypothesis in which I do not concur. But, if the pulsation is only in the vessels, why does not the same phenomenon occur in ordinary goître? The explanation seems to lie in the relaxed condition of the arteries, which may produce a murmur in the other great vessels, heard over the sternum; and also in the fact that the veins are engorged, not from pressure alone, but from the active changes in the thyroid, just as the mammary veins are engorged during lactation. Except in cases in which, through cardiac valvular disease, or dilatation, venous pulsation existed in all the visible veins in the lower part of the neck, I have never been able to detect any pulsation which could not be accounted for by these causes.

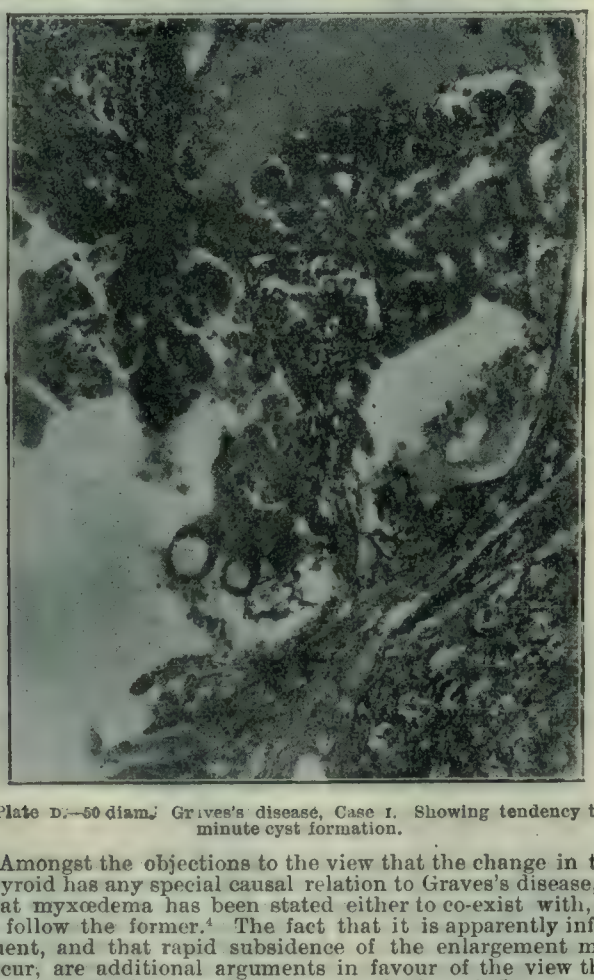


Plate D.—60 diam. Graves's disease, Case I. Showing tendency to minute cyst formation.

Amongst the objections to the view that the change in the thyroid has any special causal relation to Graves's disease, is that myxœdema has been stated either to co-exist with, or to follow the former.[4] The fact that it is apparently infrequent, and that rapid subsidence of the enlargement may occur, are additional arguments in favour of the view that the hyperplasia is rather functional than inflammatory, that is, that it is governed by the laws regulating evolution for increased functional activity.

But I must add that I have rarely seen complete subsidence without any induration. Nor can I concur in the view that the enlargement usually or even commonly occurs in the course of Graves's disease, the thyroid being previously healthy. My own experience suggests that some enlargement commonly precedes, it may be for some years, the more rapid enlargement and greatly exaggerated function, which may be called into existence by some sudden exciting cause.

Some writers confidently allege that Graves's disease may exist without enlargement of or marked structural change in the thyroid. As regards the alleged co-existence of myxœdema and Graves's disease, it would be especially interesting to know whether the Graves's disease was first in order of occurrence. I have not been able to examine the records of alleged cases. But the fact that in some long-standing cases of Graves's disease we may find so extensive fibrous and atrophic changes raises the question whether increase of activity in the functions of the gland, if the cause of the disease, must necessarily persist, or whether persistent changes in the nutrition and structure of the nerve centres, due to prolonged irritation, may not keep up some of the symptoms; if so, there would be nothing contradictory in the persistence of these together with the phenomena of myxœdema.

Relation of other Forms of Goître to Graves's Disease, especially with Reference to Operation.—In comparing the current expressions of opinion on the relation of thyroid enlargement, no fact is more striking than the existence of two opposite views, and the fact that many writers appear to accept both views, though they appear to me highly inconsistent. One view is that there need be no change at all in the thyroid; that all the phenomena are of primarily nervous origin. Thyroid change, if it exists, is regarded as only one of a group of secondary changes. The other view, which seems to be that especially adopted by surgeons, is that any kind of goître may cause either the complete disease or only those imperfect forms which manifest one or more of the leading phenomena, especially tachycardia; and the tendency is to explain these symptoms by the pressure results. Only by a complex process of argument, and by omitting some points in favour of each view, can these be brought into harmony. The old sympathetic theory is the nearest approach to a consistent view, but it fails absolutely to explain why, on the nervous theory, the peculiar and special change in the thyroid should be produced.

It is true that some of those surgeons who have paid most attention to goître in all its forms have been led to adopt a view much in accordance with that which I have been urging—namely, that the symptom complex is the result of some irritant poison generated in the thyroid. Notably, Th. Wette, whose very large experience of all forms of goître makes his conclusions of especial value, has argued in favour of this view. His valuable paper[5] should be read by all who seek the latest information of the facts from the surgical point of view.

I can only refer cursorily to observations on such occurrence of some of the phenomena of exophthalmic goître in cases of other chronic goître, referring you to fuller information to such papers as his. But whilst we must take all the facts into consideration before arriving at conclusions on the pathology of the disease, yet it is obvious that the cases with which we as physicians are familiar are not of this type. The fact that the cases which come under our observation are of fairly uniform type and history, that the course of the disease and the possible great diminution under treatment are unlike the course of cystic or adenomatous goître, and that the remedies which are efficient in endemic goître are found useless in this form, all lead us to believe that we are dealing with a special and peculiar disease. Moreover, the large degree of correspondence in the changes found in the thyroid in such examples as I have brought forward, and in other cases where the record of the examination of the thyroid has been complete,[6] all point to the same conclusion. So that, in so far as corresponding symptoms may be produced in other forms of goître, we must regard this special form as affording a clue to the others. The very fact of the extreme rarity of such symptoms, even to an imperfect degree, in common goître, is opposed to the view that other enlargements or changes in structure, however great, are alone efficient to produce the disease. When, therefore, such symptoms do arise in connection with other goîtres, we may reasonably suppose that they also depend on the accidental presence of corresponding changes in function, possibly also in structure, to those in the more special form.

Examination of some goîtres—unfortunately only a few at present—has shown me that the structural changes in different parts of the same thyroid may be of very various type; hence an examination of only one part is of little value. The only direct observation on the structure of a localised chronic enlargement with exophthalmos which I have been able to make is in a case in which my friend, Mr.

Francis Caird, removed the right lobe of the thyroid for a great and chronic enlargement. Some symptoms of Graves's disease were present, but I have not yet seen the complete record. On examining a portion of the thyroid the most striking fact, as compared with other common goitres, is the presence of an enormous increase of small spaces, instead of the usual great enlargement of nearly all. The change appears, in fact, to be one of great increase of the normal structure, with, upon the whole, a relatively normal, though actively developing, gland structure.

If we accept the view that the colloid material is the active ingredient in the thyroid secretion, this case would suggest an enormous increase of thyroid activity. But even without this view there are appearances suggesting a great and, apparently, increasing activity of secretion. If such were the case it would tend to support the view that this alone may be the cause of Graves's disease.

One cannot, upon so slight grounds, infer that this is the condition in all the cases of common goitre associated with Graves's disease, but it suggests a fuller research into the cases of this kind.

Operative Treatment.

In investigating the literature of surgical interference in exophthalmic goitre great difficulty is met with, owing to the fact that the cases are often so imperfectly recorded or that the presence of a moderate degree of tachycardia has sufficed to cause a case to be recorded as one of Basedow's disease. One very important practical conclusion from this is that the statistics of recovery after operation for Graves's disease are unreliable as a guide to the physician in recommending, and the surgeon in performing, operations for partial removal.

In spite of this the number of cases fully recorded, and undoubtedly true cases, in which cure of the disease has resulted is sufficient to encourage operation, and the small mortality in cases treated with strict antiseptic precautions removes one great objection to operation. In no case which I have found recorded did any excessive hæmorrhage occur from cutting through the gland itself, the chief source of hæmorrhage being the enlarged veins on the surface and the comparative abundance of small arteries around the gland.

It was my purpose to give some details of the recorded cases, but, since the subject has been so fully studied in Wette's recent paper, I need not do more than refer to it.[7]

It has proved unnecessary to remove the entire gland. Removal of one lobe, or even, in some cases, of the isthmus or some especially enlarged portion, has sufficed, not only to arrest the symptoms, but to cure the disease.

In some cases the exophthalmos has disappeared almost immediately after the operation—a fact strongly antagonistic to the view that it depends on increase of orbital fat. Indeed, the observations in favour of this theory are so open to doubt from various points of view that it is surprising that it should ever have been seriously entertained.

Observations on the Nervous System.

In considering the phenomena usually attributed to the nervous system it is obvious that I cannot, in the time at my disposal, review, however briefly, the numerous and conflicting theories as to the cause or site of their production, the observations by which they are supported, or the history of the changes in the theories predominant from time to time.[8] It must suffice to remind you that whilst the sympathetic, especially in the cervical region, was formerly regarded as the chief site of the lesion, further consideration led many authorities to shift the site to the vagi, and later to the medulla oblongata. More recently it has been found necessary to acknowledge that, in order to account for hysterical and emotional disturbances, etc., and for mania, we must regard the higher cerebral centres as in some way involved; but in what region, and of what nature, the changes are hardly any two authorities agree.

Such observations as have been made of the existence of definite lesions in the nervous system, whether central or peripheral, have, even by the observers themselves, been often regarded as accidental, or others have shown that like changes may occur without analogous symptoms, and in other diseases.

Before entering upon the actual observations, it is well to suggest one or two general considerations.

First, that in the present state of our physiological knowledge, we meet many problems which involve the solution of points which physiologists acknowledge to be unsettled, and the results of experiments are as yet conflicting. Such are the nature of cardiac innervation, and the results of section or irritation of various nerves on the heart's action. When we find that it is regarded as doubtful whether there are intracardiac ganglia, and that the distribution of the nerves differs so much in different animals, and so on, we may well be cautious as to the results of experiments on pressure on parts of the vagus and sympathetic, or the supposed effects of their irritation.

Secondly, that as regards some of the phenomena usually attributed to the nervous system, their analogy with the phenomena produced by some drugs lead us to believe that they may be equally explicable by direct effects of local irritation of a toxic nature, or by other factors. Under this head come tachycardia, arterial paretic dilatation, etc.

Thirdly, that on a general view of the nature and mode of occurrences of the "nervous" phenomena, it appears that they are, with one or two exceptions, liable to rapid alteration. For example, in one recent case of my own, there occurred, in rapidly alternating succession, irregular elevations of temperature, ophthalmoplegia, varying from day to day in degree and localisation; polyuria, albuminuria, each only lasting for a day or two, and recurring at intervals; diarrhœa of great severity, unilateral sweating, and various other phenomena, the only persistent symptoms being tachycardia and exophthalmos. Even the two latter symptoms showed remarkable variations within brief periods; so also did the tremor, which was very marked, and the great excitability and rapid and sometimes confused speech.

From such facts we might well suspect that whatever changes might be found in the nervous system would probably be of such minute and transient character, that only by very minute and widespread examination could they be detected. Indeed, one would say that unless they caused permanent degeneration of some of the tissue elements, we might not be able to detect them by our present methods.

When, therefore, actual lesions are discovered after death, especially where any definitely localised nervous phenomena have immediately preceded death, or, as with hyperpyrexia, have been its cause, the discovery of such lesions is of prime importance. Let me remind you that even in hemiplegia, and in some cases of spinal paralysis, no change may be discovered. Moreover, if the cause of nervous lesions is a generally acting one, we need not exclude from its operation either the sympathetic, the peripheral nerves, or the ganglia.

Not only have such changes been recorded by others, but I have myself some actual observations. And I hope to give some evidence that these lesions are especially observed in those regions or centres of which the function is especially impaired. Moreover, that in their nature, and to some extent in their distribution, they correspond with those seen in tetanus and hydrophobia—a fact which, taken in conjunction with other considerations, suggests that they depend on a toxic irritative action.

If time permits I hope to show that from comparison with the nervous system in myxœdema, which are in some parts of an opposite nature, it is not improbable that the irritative lesions in Graves's disease especially affect those parts of the nervous system which are normally most dependent on the thyroid secretion for incitement to normal function; that the absence of the secretion leads to atrophic changes, whilst excess or alteration of the secretion leads to irritative and toxic phenomena. But, since time forbids a detailed statement of these changes, I must reserve them for the microscopic demonstration.

Nervous System.

Cervical Sympathetic in Graves's Disease.—Although I have examined the cervical sympathetic in four cases of Graves's disease, there are only two which have been examined by modern methods, and can be referred to with confidence. In this examination, owing to the way in which the nerves were removed, it is difficult to localise exactly the site of the changes. But I have made sections in various parts, both of the ganglia and the nerves, by transverse and longitudinal sections. The middle cervical ganglion and the parts adjoining have been those especially studied.

Very marked changes have been found. The ganglia have appeared to be somewhat swollen. Marked hyperæmia, especially in the more superficial parts, but not limited to them, has been constant. In the most marked case, from which most of the sections shown are taken, the principal changes found were:

1. Presence of subacute inflammatory change, evidenced by leucocyte emigration from the minute venules, and their marked hyperæmia.

2. Active invasion of the tissue by leucocytes, which especially invade the spaces in which the ganglion cells lie.

3. Degenerative changes in the ganglion cells, which appear to be invaded by leucocytes. In some of the cells, however, more passive degeneration was seen.

The longitudinal sections of the sympathetic cords showed much less marked change.

From a comparison of these changes there can be no doubt that the sympathetic ganglia are the seat of a subacute inflammatory process. It may be fairly assumed that this leads to changes in function, either by irritation or by degeneration. The contrast of similar parts in myxœdema is very striking.

In myxœdema the ganglia appear much smaller than in Graves's disease, when corresponding parts are compared. The principal changes found are:

1. Marked interstitial fibrous overgrowth, especially at the peripheral parts, where, on transverse section, ingrowths of fibrous tissue are seen. On longitudinal section, also, bands of fibrous thickening are seen, especially along the nerve bundles.

2. Degenerative changes in the ganglion cells. These are, for the most part, of the type seen in chronic degenerations, and are accompanied, in many parts, by marked pigmentation.

I have not seen any sign of myxomatous degeneration in these parts. For purposes of comparison I have shown alongside these the degeneration consequent on the invasion by new growth.

Central Nervous System in Graves's Disease.—The parts especially examined have been the pons and medulla in two cases. I regret that, owing to the long time since I examined these parts and the methods employed, many have deteriorated, and that many of the sections have been mislaid. I can, therefore, only show some of the more prominent changes. These are seen throughout the pons and medulla, but are especially to be observed in the medulla oblongata. They are closely analogous to those seen in the sympathetic ganglia. In various parts, especially in close relation to the ganglion centres, there are here and there dilated vessels filled with leucocytes, some of which are escaping or have escaped into the surrounding tissue. Together with these minute hæmorrhages are frequent. Many of these are so minute as to escape detection unless examined with a high power. When thus examined, some of the microscopic hæmorrhages are found to be in process of absorption. In addition to these, in one fatal case with high temperature, numerous small hæmorrhages were found in the floor of the fourth ventricle but not limited to it.

In many groups of ganglionic cells examined some of the cells were found to be in process of atrophy. This was of a kind allied to cloudy swelling, one or two cells in a group examined being found swollen, the nucleus invisible, and the protoplasm staining imperfectly. In some cells a sort of vacuolation was seen. The fact of the presence of these changes suggests that a slight and persistent condition of irritation, with subacute inflammation in parts, was present. I should add that the changes were not confined to the centres, but that patches of leucocyte emigration were seen here and there in some of the nerves shortly after their emergence from the brain.

I have not been able to make a sufficiently exhaustive examination as yet to determine which nerve centres were especially affected. The changes seen resembled in general character those seen in tetanus and hydrophobia, less in degree.

It was my intention to enter somewhat fully into the changes found in the central and peripheral nervous system in myxœdema, and to contrast and discuss their bearing on the pathology of the disease. Time forbids more than a demonstration of some of the more characteristic. In all of five cases examined very marked changes were found, of a degenerative nature, especially in the nerve trunks of the lower limbs; and whilst they were irregularly distributed, I think they were most abundant in some nerves, for example, great sciatic, than in others. Nor is it possible for me within the time to discuss the many interesting questions as to the intimate causation of tachycardia, exophthalmos, etc. Physiological experimenters, with few exceptions, regard exophthalmos as due to irritation of the sympathetic, with or without some abnormal condition of the muscle of Müller.

TACHYCARDIA.

But tachycardia has received many explanations. Irritation of the sympathetic, pressure on the vagus, central change affecting the controlling centres in the medulla oblongata, etc., have been invoked. But there are two other possible causes or adjuncts. One is the paretic dilatation of the arteries, the other a possible direct irritation of the muscle of the heart. Owing to this the heart muscle may be in a state of abnormal excitability corresponding to that of an irritable muscle. In other words, it may not be a nervous phenomenon at all. I regret that time forbids me from bringing forward facts bearing on these questions.

Antithesis of the Clinical Phenomena of Myxœdema and Graves's Disease.—It seems needless to dwell in any detail on the contrast presented by the symptoms and general conditions of the two diseases, since they are obvious to all who have compared them. The one (Graves's disease) occurs, especially in females, at the age of greatest activity of the generative organs, of increased excitability, of nervous tremor, of tachycardia and ready mobility of the arterial reflex, of liability to exaggerated temperature from slight causes, and still more in febrile diseases, of ready and excessive perspiration, of altered vascularity and nutrition of the skin of an opposite character to that in myxœdema, of excitable and active mental condition, and the frequent presence of amenorrhœa. In myxœdema we have the occurrence in women, especially at the period of menopause, abnormal diminution of excitability where mania is absent, stolidity and slow movement, and absence of tremor (except in the very rare cases of tetany), of slow action of the heart and unexcitable pulse, of abnormally low temperature in ordinary conditions, and of a such a degree of immobility of the heat-controlling centres that the course and phenomena of febrile diseases are either largely altered or suppressed, the absence of even normal cutaneous transpiration and the difficulty of exciting sweating, the changes in the skin and subcutaneous tissue leading to a chronic dropsical condition, the large abeyance or slowness of thought and expression, the altered speech, and the frequent presence of menorrhagia.

In the form of mania there are also differences, for while in Graves's disease the tendency is to active mania, in myxœdema the commonest form is similar to that sometimes occurring in association with cardiac failure, depression, delusion of melancholic type, etc., being commonest. It is true that we sometimes meet with mania of more active type, that in some of the milder forms there are exalted delusions, and that during the periods of mental symptoms we may find the patient in a very happy frame of mind, the speech may become rapid, although it still exhibits the tendency to the use of periphrases and long words which indicate difficulty in verbal expression of ideas; and that in the more severe conditions there may be very great violence, periodic exacerbations, etc.; in others the mania may be recurrent and suicidal. Yet on a general view, we find that in myxœdema it corresponds with those forms of insanity associated with malnutrition, and although we cannot draw any such sharp line of contrast in individual cases, yet, on comparison of the general tendency, we find that in Graves's disease there is a greater tendency to acute delirious mania, or to a type approaching choreic mania, while in myxœdema this is rarely present.

There is another point of contrast which I am inclined to regard as of some importance—namely, the great tendency in myxœdema to tuberculosis; of course, it may occur in Graves's disease, but, so far as I can judge, there is no

especial tendency to it. In myxœdema it is especially frequent. Of the fatal cases under my care, and in two of those which I have, through the kindness of friends, been able to examine all the organs, tuberculosis widespread and advanced was present in five out of seven cases, and in one case of sporadic cretinism. In all the symptoms were marked, and the temperature greatly modified. In three of these cases the tuberculosis was remarkably widespread. On the other hand, it was very slow in progress, and in one case the tuberculosis in the lungs had undergone an almost complete cure before death. In one other fatal case, which was long under my care, and died soon after leaving the infirmary, no *post-mortem* examination was made, but she had exhibited some symptoms of tuberculosis. Her only child died in my wards from tuberculous tumour of the cerebellum. In none of the fatal cases of Graves's disease, though they had been long in hospital, were there any signs of tuberculosis. It may be worth while to direct attention to this fact, and possibly to try the effects of thyroid extract in phthisis; but I cannot say that I am very hopeful of favourable results. Tubercle in the thyroid has not often been observed in ordinary cases, but I have found it in cases of rapid tuberculosis as in a specimen which I show, but I do not think it has ever been seen in myxœdema.

Action of Thyroid Secretion.

Whatever other functions may be subserved by the thyroid in the animal economy, whether in blood formation, proteid metabolism, or as supplementing the action of other organs, we cannot now doubt that all its more important functions are due to a secretion, which can be separated, though not as yet in a pure state. This is abundantly shown by the fact that the symptoms and deleterious results of atrophy, congenital deficiency, or removal can be averted or cured by a substance chemically separated, and introduced by the stomach. This fact, if it threw no other light on the physiology of the thyroid, serves to abolish all the theories grounded on the view that it acts by the removal of a poisonous substance from the blood, or by transforming mucin into "colloid" within the gland. True, it does not prove that no such action is exerted by the substance within the blood or tissues, but it minimises the previous observations as to the accumulation of mucin, etc., in the blood as explaining any part of the pathology of myxœdema. And if, as seems probable, the essential constituent of the secretion should prove to be of the nature of a ferment, the usefulness of the colloid material will also be negatived.

I have recently made numerous observations on the nature of the substances contained in thyroid extracts. But since others more competent are engaged in the work, I need only refer you to such papers as that of Mr. E. White.[9] No one can, after such observations, question that the amount of the active ingredient forms a very minute proportion of the extract from the gland. The physiological action of the secretion on healthy animals, and to various diseases, also urgently demands further investigation.

The observations on myxœdema can, of course, only be accepted with some deductions. Where only a moderate dose has been employed, the effects of restoration of the normal conditions as to temperature, skin excretion, action of the kidneys, restoration of the general nutrition, and of the cerebral functions, are well known. Valuable evidence is also given by the effects of overdoses, where the rise of temperature is beyond normal, the acceleration of the pulse and its characters, and the production of sweating, diarrhœa, etc., correspond with the phenomena of Graves's disease in many respects. A few observations are also recorded by medical men on themselves. Such are those of Dr. Alex. Haig[10], who found that relaxation of the arterioles, diuresis, etc., were produced by it.

The only satisfactory observation I have made on a healthy subject was one in which dried tabloids were given; the effect was slight irregular rise of temperature, tachycardia. It was noted that the tachycardia and ready excitability persisted for some days after the drug was stopped. The glycerine extract had proved inert in this and other cases.

We cannot but be impressed by the fact that the partial arrest of the several functions in athyrea is removed by thyroid secretion, and may be exaggerated by an overdose. One is indeed inclined to think that the evidence in this respect is conclusive as to the physiological effects of the secretion.

At the same time one cannot but see that there are flaws in the argument from a strictly scientific point of view, and that it does not serve as proof that a mere excess of the secretion is the sole and essential factor in Graves's disease.

Nor does it seem to me that experiments on the healthy human subject can rightly be made to afford conclusive evidence. For in order to produce all the phenomena we must push the administration to a degree which would be dangerous, and which might lead to permanent damage to the nervous centres and to the heart.

For this reason experiments on animals are essential. In them the doses given might be of such amount and duration as to cause changes in the central nervous system which could be studied microscopically, and might reveal similar changes to those which I have described.

There is one point of especial importance in respect to experiments on healthy animals. In relation to all active secretions there are means by which either the production is controlled or the excess removed. In prolonged athyrea the control is removed, and probably, as in all functional abeyance, the controlling mechanism becomes defective and its agents atrophied. Hence we should expect that the effects of artificially introduced secretion would be more intense than in healthy animals. After partial recovery the control is probably regained.

But in healthy animals, unless this control system is paralysed, the effects cannot be expected to be so great. We do not know, and can only infer, wherein this control lies, and in the human subject, we might find that unexpectedly serious results might follow if disease of the necessary organs existed.

It seems probable that the skin, mucous membrane of the alimentary canal and possibly the kidneys, are the organs of its excretion.

Notes and References.

[1] Birch-Hirschfeld; also "Die Anschweilung der Schilddrüse bei der Basedow'schen Krankheit beruht wesentlich auf Erweiterung der Gefässe," 3rd edition, 1887, p. 395. [2] Dr. Murray (British Medical Journal) has been misled by an erroneous and unauthorised report. What I said was that there was an enormous diminution (not increase) in the colloid material. [3] Similar observations are common to most writers on the subject, from Graves onwards. Especially frequent is the mention of palpitation and tachycardia, without other symptoms, in cases of enlargement of the thyroid. See Trousseau, etc. [4] See especially a recent article by J. J. Putnam on "Feeding Thyroids in Myxœdema" (*Amer. Journ. of Med. Sciences*, August, 1893.) I should have entered more fully into some of his arguments but that I have been only able to see the article since the greater part of this lecture was written. [5] Th. Wette, *Archiv f. klin. Chirurgie*, 1892, pp. 652 and 785. [6] For example, Professor Grainger Stewart and Dr. George Gibson have recorded two cases in which similar changes were present. British Medical Association, August, 1893. [7] See also Putnam, *loc. cit.*, Möbius. [8] For an able summary of this question see Ballet, *Revue de Médecine*, 1888, p. 513. [9] "The Pharmacy of the Thyroid Gland," *Pharmaceutical Journal*, September 2nd, 1893. [10] British Medical Journal, September 23rd, 1893, p. 674. See also Dr. Johnston and Dr. Murray.

Pasteurism in Cochin China.—The statistics of antirabic vaccinations performed at Saigon from May 1st, 1892, to May 1st, 1893, by Drs. A. Calmette and J. Pineau, show that during the twelve months in question (being the second year that the Bacteriological Institute of Saigon has been at work), the total number of persons treated was 62. Of these, 10 (all Europeans) came from the Dutch Indies, 31 (including 2 Europeans) from Cochin China, 14 (including 3 Europeans) from Annam and Tonquin, 1 (European) from China, 1 (European) from Hong Kong, 3 (including 1 European) from Siam, and 2 (both Europeans) from British India. In 12 of these cases it was proved experimentally that the animal which inflicted the bite was rabid; in the other cases the diagnosis of rabies was made clinically on the authority of veterinarians, or in some cases, apparently, of the civil and military authorities! Only 1 of the 62 patients treated died of hydrophobia. This was a Dutchman from Java, who came under treatment only on the thirtieth day after being bitten on the hand; he underwent a complete course of intensive treatment, and died eleven days after leaving Saigon. The bites were inflicted by dogs in all the cases except 1, when the biter was a man suffering from hydrophobia. Since the establishment of the Institute, on April 15th, 1891, up to May 1st, 1893, the total number of persons treated has been 110, with 2 deaths, a mortality of 1.8 per cent.

AN ADDRESS
ON
DILATATION OF THE STOMACH.

Delivered before the Harveian Society of London.

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(Continued from page 1195.)

TREATMENT: DIETETIC.

IN treatment of dilatation of the stomach induced by a single excessive and indigestible meal or by a comparatively short course of overfeeding, or by an alcoholic debauch, it may be sufficient to fast absolutely for twenty-four or forty-eight hours to effect a cure, and in all cases in which the cause has been overfeeding or improper food, or food taken at a wrong time, an extremely strict and meagre diet for a few days will be the best starting point for treatment. No advantage would, however, result from fasting or low diet in cases of neurotic origin. Patients of this class will, it is true, often experience extraordinary relief for a time when first released from the obligation of taking food, but the effects are disastrous later. The inadequate supply of food leads to weakness, and with weakness comes impairment of the digestion and aggravation of the nervous susceptibility and irritability. A return of pain after meals is attributed to some article of diet, which is thereupon expunged from the list of permissible foods, and the patient enters upon a downward course of starvation, weakness, emaciation, indigestion, and pain, which often ends in an acute illness of some kind.

Having said so much with regard to the dieting of patients whose dyspepsia and gastric dilatation are primarily neurotic, the subject may be continued. The object we set before ourselves must be, as I have said elsewhere, not to level down the diet to the digestive capabilities of the stomach but to level up the digestion till it can deal efficiently with the amount of food required for the due support of the nervous system. No hard and fast rule can be laid down. A careful study of the patient's idiosyncrasies will be required, and the diet must be adjusted to these. Speaking generally, such a patient will digest better food which he relishes, even if it have the reputation of being indigestible, than the most digestible and scientifically prepared food which he eats by order and dislikes. A very common experience is that he is tempted by a good dinner, eats largely and indiscriminately, and then, instead of a bad night and great discomfort which he thinks he has deserved, he sleeps well and feels all the better for his indiscretion. A very important point will be to disabuse the patient's mind of the idea that pain after meals necessarily indicates that the food has been unsuitable; this will be more difficult to effect with women than with men. One day and under one set of circumstances anything will agree, on another day and under different circumstances nothing is digested. The general directions to be given will be to restrict the amount of fluid taken at meals, to eat starchy food in very moderate quantity as it is bulky and lends itself readily to fermentation, to take only one vegetable at a meal, not to eat when exhausted or especially when excited or anxious, or to eat very sparingly and simply at such times, not to jump up from meals and rush off to work of any kind. Subject to some such limitations as the above the food should be varied so as to tempt the appetite, and the resources of good cooking may be freely employed for the same purpose.

With regard to stimulants, a small amount as part of the two principal meals is usually helpful to the digestion, by giving a fillip to the stomach, which may or may not increase the secretion of gastric juice, but more certainly augments the energy of the churning movements of the stomach. Experience is the best, and, indeed, the only sure guide in the choice of a stimulant. Good spirit, well diluted, is simpler than wine or beer, and can neither start fermentation nor supply fermentable material. For myself, I have never been able to recognise the superiority of whisky over brandy; and I am disposed to think that the reason why the former has been so largely ordered by medical men is that it is nastier, and perhaps, therefore, less likely to be taken in excess. Good whisky is, no doubt, better than bad brandy, and *vice versâ*. When any good, sound, genuine wine agrees with the patient, it may be taken in preference to spirit.

When the dilatation of the stomach has been primarily due to what may be called gastric causes, excessive and improper food and the like, the rules with regard to diet must be applied more strictly, and, as already stated, temporary starvation and a very limited amount of food for some time may be most useful. The rules will be: regularity in the hours of meals, and strict avoidance of intermediate food; little fluid with meals, and very little starchy matter, the object being, of course, to avoid distension of the stomach, whether by the bulk of food and drink introduced, or by the generation of gases. A familiar out-patient formula is "no beer, tea, or potatoes." Only one vegetable should be taken at a time. The application of rules may usually be left to the common sense of the patient, but when this mental quality is entirely lacking it may be necessary to write down the dietary. Stimulants are less necessary than in the case of neurotic patients, and may often be forbidden altogether with great advantage.

An expedient often of great service in relieving some of the effects of dilatation of the stomach, and sometimes contributing to a cure, which may perhaps best be mentioned in connection with diet, is drinking hot water. This has become a common practice, and hot water is taken with meals or after or before or between meals for the relief of indigestion, the reduction of obesity, and various other purposes. The special object for which I have employed hot water has been the prevention of sleeplessness and nocturnal asthma. As already explained, flatulent distension is a frequent cause of inability to sleep on lying down, and especially of waking up at a given hour. In the latter case, remains of the last meal not carried on into the duodenum ferment and evolve gases. A large tumbler of very hot water sipped at bedtime stimulates the stomach to contract; almost always a certain amount of gas is expelled at once, and frequently sufficient to allow of sleep in cases where flatulence has prevented it. The contraction has the further effect of carrying any contents of the stomach forward into the small intestine, so that the copious draught of hot water washes out the stomach and prevents the lingering behind of contents which would undergo fermentation. Sometimes the addition of carbonate of soda, with perhaps sulphocarbolate of soda, will add to the efficacy of the hot water, or a draught containing these salts with ammonia, compound tincture of chloroform, and other carminatives may be given half an hour before the hot water. Numerous cases of habitual and aggravated sleeplessness, and several of nocturnal asthma, have been effectually and permanently relieved by simple measures of this kind. Sometimes, however, the stomach is incapable of responding to the stimulus of hot water, even when aided by carminatives, and then the discomfort and distress are aggravated.

While speaking of the employment of hot water, it may be remarked that taken on an empty stomach in the morning the effect is entirely different; it is rapidly absorbed, and, passing through the tissues, acts as an eliminant. For stout and overfed people this is often very beneficial, but weak, thin, neurotic subjects are weakened and ultimately depressed by it.

Several objects have to be held in view in the treatment by drugs of dilatation of the stomach. The two principal are to rectify the chemical processes taking place in the stomach, so as to promote digestion and substitute peptonisation, which is not attended with evolution of gases, for fermentation, which gives rise to the formation of acids of various kinds and the setting free of gases, and to promote the contractile energy of the muscular walls, so that not only may the churning movements be efficiently be performed, but the contents completely expelled at the end of digestion, and passive distension be resisted.

When there is pain after food it may be necessary to give bismuth and magnesia or soda, with perhaps a small dose of opium before meals, and when there is heartburn to give carbonate of soda or other alkalies; when, again, there is flatulent distension, carminatives may be required. But it should be recognised that measures of this kind are only palliative, and that in employing them we are not treating the disease,

but only some of its consequences. It is, of course, useful, and indeed necessary, to procure the eructation of gases which are distending the organ, but, if no other result is sought, the benefit is fugitive, and the remedies in time lose their efficacy. So, again, with alkalies: unless the acid fermentation is stopped they are required in increasing quantity, and the amount taken may come to be enormous—if I rightly understood a professional friend the other day he was taking 6 drachms of bicarbonate of potash per diem. A good method for the administration of antacids is in the form of lozenges, which are to be slowly sucked, so that alkaline saliva is carried down in quantity as well as the drug, as was pointed out by Sir William Roberts.

Pepsine, again, and especially peptonised foods, which often find a useful place, are also to be looked upon as chiefly palliative.

The two main objects in the treatment of dilatation of the stomach, the prevention of gaseous distension and improvement of the contractile energy of the muscular coats, are attained more or less perfectly by many familiar mixtures and pills, and different members of the Harveian Society will have been led to place confidence in one or other combination of antiseptics and tonics. I will simply indicate some which have appeared to me to be of service.

When there is eructation of gas having the odour of sulphuretted hydrogen the best remedy is, according to my experience, sulphite of soda. The sulphurous acid disengaged probably combines with the sulphuretted hydrogen, and also kills the particular microphytes which disengage this gas. At any rate the foul smelling eructations have always promptly ceased. The sodium sulphite may be given in doses of 5 to 10 grains, with carbonate of soda and nux vomica between meals.

Another combination which I have frequently employed with conspicuous benefit has been sulpho-carbolate of soda in doses of 5 to 10 grains with carbonate of soda, spirit of ammonia, and gentian. It may be given in the early stages of a case when there is distension and discomfort at a certain interval after meals with eructations. Ginger, chloroform, or peppermint may be added to the mixture to promote the expulsion of gases. If there is gastric or intestinal catarrh, or when the evacuations are pale, phosphate of soda in half-drachm or drachm doses is a useful addition; or 1 or 2 drachms of phosphate of soda may be given early in the morning in hot water with taraxacum.

Other useful remedies are creasote and carbolic acid, which are best given in pill form with strychnine. Advantage may also be taken of the bactericidal powers of mercury to arrest fermentation and the formation of ptomaines. A very useful combination is gr. $\frac{1}{12}$ each of hydrarg. perchloride, or binioidid., and strychnine with $\mathfrak{m}$ j or $\mathfrak{m}$ ij of creasote or carbolic acid in a pill which may be given before or between or after meals. When arsenic is indicated as a tonic by the condition of the nervous system gr. $\frac{1}{24}$ to gr. $\frac{1}{8}$ of arsenious acid may be included.

In a large proportion of patients, careful diet on the lines indicated and persevering treatment will bring about improvement of the digestion and removal of the dilatation of the stomach; but relapses are frequent and difficult to prevent, and cases are met with in which, from mechanical causes or from entire loss of tone and contractility in the muscular walls, no impression is made on the condition. Fortunately a resource still remains open to us in the stomach tube.

Washing out the Stomach.

The process of washing out the stomach is a very simple one. The fluid usually employed is a weak solution of bicarbonate of soda, about a drachm to the pint of lukewarm water; 10 to 20 grains of sulphocarbolate of soda may be added when the contents are offensive in character. The introduction of the tube is at first disagreeable, and provokes retching and perhaps vomiting, but the patient very soon learns to pass it for himself. He should sit bolt upright in a chair, bending the head slightly forwards, and the tube should be carried boldly to the lower end of the pharynx, the patient being told to make swallowing movements, and in the intervals to breathe deeply. When the extremity has reached the stomach, sufficient liquid should be poured into the funnel to fill the tube, without which it will not act as a siphon. The tube is then pinched, and the funnel end is lowered so as to be well below the level of the stomach, when the water introduced and the contents of the viscus will flow out. The liquid should now be poured in till a sense of discomfort and fulness is produced (the amount required being noted), upon which it is made to return by again lowering the extremity of the tube. When the patient has become accustomed to the proceeding, the flushing may be repeated once or twice till the gastric contents have been completely cleared out, and any mucus clinging to the walls has been washed away.

Care should be taken that the whole of the fluid introduced is withdrawn, or discomfort and sharp purging may follow. The capacity of the stomach may thus be definitely ascertained, and the amount of liquid it will hold should be carefully noted. It will usually be found to diminish, at first rapidly, later more gradually.

The relief afforded by washing out the stomach is usually very striking. When irregular and intermittent action of the heart has been one of the most troublesome symptoms, this is at once suspended, so that for a time the pulse becomes quite regular, for how long I have had no opportunity of noting, probably till after the next meal, and the heart's action becomes steadier and stronger from day to day, and the patient can take exercise with greater comfort.

Sleeplessness is usually much relieved. I have not yet found it necessary to order the washing out at bedtime, but it would probably be still more efficacious in preventing disturbance of sleep if done then.

Vomiting is of course put an end to; there is no further occasion for it. Flatulent distension also is usually got rid of more easily by eructation. But more important than the removal of these symptoms is the return of appetite and the disappearance of the loathing of food which is so common.

By way of conclusion, two or three cases may be related in outline.

Case I.—A lady, aged about 45, whom I saw in consultation with Mr. J. T. Mould. The special feature in her case was vomiting. This usually occurred in the evening or during the night, sometimes more frequently, and was very copious. She had reached an extreme degree of emaciation and weakness; her skin hung in folds and wrinkles, and her complexion had a deep yellowish brown tint. She might have sat for a picture of cancerous cachexia. She was very energetic, and insisted on going out, but could only crawl for a few hundred yards. The abdomen was deeply excavated, and the enormously dilated stomach could be seen in its upper segment. The lower border descended from the left hypochondrium to near the umbilicus, where the pyloric third bent suddenly upwards towards the liver. On handling, the muscular walls contracted, and the stomach defined itself through the thin abdominal wall, while a peristaltic movement travelled slowly from the cardiac to the pyloric end. On succussion a heavy fluid wave could be felt to impinge on the hand or stethoscope when the stomach was full; when it contained only a small amount of fluid a loud splash was heard. The suspicion of cancer of the pylorus was heightened by the presence of a small firm tumour just where this end of the stomach dipped under the liver. It appeared, however, to be too mobile and to move independently of the pylorus, and it was not always to be felt. On careful examination it was concluded that it was probably the gall bladder containing a calculus or calculi. Mr. Thomas Smith saw the patient two or three times, and the question of operation was carefully discussed. Some relief, however, had been afforded by washing out the stomach, and it was decided to give this treatment a thorough trial. It was undertaken by Dr. Callender, who had done the preliminary washing out. The patient very soon learnt to pass the tube for herself, and the result was a complete recovery. The last I heard of her was that she mingled with the crowd at the Royal wedding.

Case II.—In June I was asked to meet Mr. Bryant, the President of the Royal College of Surgeons, Dr. Crisp, and Mr. Lyster at the Bolingbroke Pay Hospital to discuss the question of operation upon a young man, aged 27, who had been suffering for two years from vomiting. He was much reduced in flesh, weighing only seven stone (his height being 5 feet 8 inches). There was tenderness on pressure in the epigastrium, and in this region was a firm, solid mass, not moving freely in respiration, and not very well defined as to its lower border. An important consideration was whether or not this was a malignant growth. At the age of the patient, however, cancer in this situation would not have taken two years to bring about a fatal termination, and it was thought to be more probably a mass of inflammatory exudation consequent upon a gastric ulcer which had nearly perforated. Adhesions and exudation round the pylorus would obstruct peristalsis, and prevent the stomach from emptying itself, and retention of the gastric contents would interfere with the healing of an ulcer. It was decided, therefore, to wash out the stomach, which was carried out by Mr. Lyster. The vomiting ceased, and the patient left the hospital a stone heavier, and has since been able to return to partial work in the city.

In dilatation of the stomach of neurotic origin, or in which the principal symptoms are cardiac, while the results of washing out the organ are not so palpable, they are often very striking.

In one case a gentleman, aged about 60, had apparently nearly lost his

life from embarrassment of the heart, brought on by hurrying to catch a train after a hasty meal: he had been brought home pulseless, cold, and cyanosed. For some time afterwards he was liable to attacks of faintness and breathlessness in the night or after food, and the action of the heart faltered after the least exertion. Great dilatation of the stomach was found to exist, with considerable upward displacement of the heart. This had, no doubt, been kept up by incessant feeding, which an anxious wife had insisted upon against the advice of the medical man, but when the diet was properly ordered the dilatation persisted sufficiently to give rise to serious discomfort from heart symptoms. Here a few washings out by Dr. Callender were followed by remarkable relief, although the gastric contents were on the first occasion which I witnessed only a few shreds of undigested food and a small quantity of mucus.

The moral of this communication is the desirability and usefulness of a careful physical examination even in an affection which is so generally regarded as a purely functional derangement as is dyspepsia.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

POISONING BY ESSENCE OF PENNYROYAL.

I WAS called to Mrs. S., a small, delicate woman, at 10 P.M., October 29th. An hour previously she had taken threepennyworth (ʒ iij) of essence of pennyroyal, with the object of procuring abortion. She was two months pregnant. She was in a very excited and frightened state. Both pupils were dilated to the size of a sixpence. The pulse at the wrist was very feeble on my arrival, and in a few minutes after not perceptible at the wrist. I gave a stimulating emetic immediately, followed by two quarts of tepid water. This acted well, and she rapidly recovered. Next day she was nearly quite well, but kept her bed.

I find pennyroyal described in Taylor's *Medical Jurisprudence* as having no therapeutic action, and being quite harmless. The patient assures me she took nothing else, and when I arrived the room smelt strongly of the peculiar pungent odour of essence of pennyroyal; and the bottle, an 8-ounce one, which contained it, was handed to me, and I searched the room, and could find nothing else. It is quite possible she may have taken more than she says. I saw the the chemist where she obtained it, and he says the quantity he sold was ʒ iij.

Clapham Common, S.W. E. F. FLYNN, L.R.C.S., L.R.C.P.

COW-POX AND SMALL-POX.

I HAVE read Dr. Edwin Rickards's presidential address, reported in the BRITISH MEDICAL JOURNAL of October 4th, from which it appears that Dr. Rickards holds the opinion *inter alia* that "cow-pox in the cow is inoculated small-pox."

The following circumstance, which came under my observation when acting as dispensary medical officer in an adjoining district would hardly bear out that view:

In the summer of 1887 some patients appeared at the dispensary suffering from a rash over their hands and arms, which so closely resembled small-pox that they would seem to have been inoculated a few days previously. On inquiry I found they had all been engaged occasionally in milking, and noticed a somewhat similar rash on the teats and udders of the cows, and believed that they had contracted it from them. Soon after I examined some of the cows; they seemed to be suffering from typical cow-pox, the rash, which was almost exclusively confined to the teats and udder, being in some cases pustular, in others vesicular, according to the stage of development. There seemed little constitutional disturbance, but the animals failed greatly in their milk. About the fourteenth or fifteenth day the rash began to disappear. Almost all the cows within an area of 3 and 4 miles were affected. No death occurred. The outbreak lasted over one month. I was informed that a similar outbreak occurred in the district about ten years previously. With regard to the patients affected: (1) None but milkers were affected; (2) the rash ran a typical inoculated small-pox course; (3) one patient was inoculated on the left arm from lymph taken from a vesicle on the right, which "took" splendidly; (4) there had not been small-pox or scarlatina in the district, nor any adjoining district, for at least three years previously; (5) no one seemed to be in any way affected by using the milk.

I much regretted that I was unable to procure a supply of the lymph, either from the patients affected or from the cows, the idea having become in some way prevalent that it would be against their interests. In what manner the disease originated it is impossible to say, but I was unable, after a good deal of inquiry, to trace any source or cause. It seemed to occur spontaneously, and to spread from one animal to another in the same building and in the immediate neighbourhood. There was one farm, about three miles from the village, on which the animals were affected, but I had not been able to trace any connection with the others, the nearest cattle being over half a mile.

From the above it will, I think, be admitted that it is a little premature to put forward the view "that cow-pox in the cow is inoculated small-pox," and "that the rarity of cow-pox at the present time is due to fewer persons following their occupations while suffering from small-pox."

Bundoran, co. Donegal. J. D. MCFEELY, L.R.C.S.I., etc.

CONCEALED ACCIDENTAL HÆMORRHAGE.

IN October, 1892, I was called to see Mrs. A. I found her in a collapsed condition, markedly anæmic, face bathed with a profuse perspiration, cold extremities, sighing respiration, and pulse imperceptible at the wrist. The abdomen was much distended, the right side being more prominent than the left. I could distinctly make out the outline of the uterus with its contents. On firm pressure on the right side and posteriorly, it felt unusually soft and boggy, and feeble uterine contractions could be detected on firmly grasping that organ, but the patient was apparently insensible to them. No fœtal heart sounds were audible. There was no external show; the os was high up, soft, and dilated to admit two fingers, the head presenting.

Her previous confinements were normal. She was over eight months pregnant, and had only arrived in the village the previous day. She stated that when leaving home in the morning she felt perfectly well, but on the way she was sitting behind a van, and accidentally slipped off, coming heavily to the ground. She got up and proceeded on her journey, feeling no great inconvenience from the fall. This occurred in the evening. When she arrived at her destination she partook of a hearty supper, went to bed, and slept soundly till the morning, when she awoke with cramp-like pains in the stomach. On attempting to get out of bed she fainted.

I diagnosed concealed accidental hæmorrhage. I lowered her head, elevated the limbs, applied heat to the body, gave her a full dose of ergotin and sal volatile hypodermically, and put on a firm binder. I also ordered her brandy and milk in small quantities frequently by the mouth. I then introduced my hand and ruptured the membranes. What little liquor amnii came away was almost clear. Having no uterine dilators with me, I proceeded to dilate with my fingers. Fortunately the os was in a pliable condition, and after some little time I got it sufficiently dilated to enable me to apply the forceps and deliver.

The child was born in an asphyxiated state, and possibly might have survived had I been able to pay it sufficient attention; but the mother's condition was so alarming that it occupied all my time, as she fainted with the birth of the child. I gave a hypodermic injection of ether, and an enema of hot water and salt, removed the binder and got firm hold of the uterus, and succeeded in expelling the placenta and a basinful of clots. I still kept firm hold of the uterus to prevent any relaxation. She rallied after some little time, and the uterus contracted firmly without any further loss of blood. Recovery was uninterrupted though slow.

My reasons for publishing the case are as follow: First, the time that elapsed between the accident and the appearance of the symptoms—about seventeen hours—for I have no doubt that the fall the previous evening was the cause. Secondly, the fact that the child, in spite of the imperfect blood supply, was born alive; the placenta, in my opinion, was centrally detached, and only adherent to the uterine wall by its margins. Thirdly, the lateral bulging of the wall of the uterus causing a prominence of the abdomen.

Harlington. TOM C. DONALDSON, M.D.

REPORTS
ON
MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

UNIVERSITY COLLEGE HOSPITAL.

OVARIOTOMY ON A PATIENT IN HER EIGHTY-THIRD YEAR.

(By Herbert R. Spencer, M.D., B.S.Lond., M.R.C.P., Professor of Midwifery in University College, London; and Obstetric Physician to the Hospital.)

M. A. F., was born on September 8th, 1810. She was married in 1836, and had five children, but no miscarriages. Her mother died at the age of 76, and she lost one sister at the age of 70, another at over 70, and has one living, aged 79.

The patient was sent to me on November 7th, 1891, by my colleague Mr. Godlee, complaining of pain and swelling in the abdomen for eighteen months. She first menstruated at 18, and ceased at 52. With the exception of slight œdema of both legs she appeared to be in excellent health, and had a good colour and pulse. There was no vaginal discharge, and micturition and defæcation were normal. The abdomen was occupied by a flaccid cystic tumour having all the characters of an ovarian cyst, which reached to a height of 7 inches vertically above the pubes, 2 inches above the umbilicus. The uterus was small, somewhat retroverted, and freely movable; the lower end of the tumour could be felt in front of the uterus. The diagnosis was "a simple ovarian cyst free from adhesions." The patient at first refused operation, and as the amount of pain was trifling it was decided to wait. The patient, therefore, used to come a distance of two miles and see me about once a month.

On June 10th, 1892, the tumour reached upwards for 8 inches above the pubes. The girth at the umbilicus was 32½ inches. On July 4th, 1892, the patient had had a great deal of pain and also much difficulty in walking on account of the size of the tumour. On October 7th, 1892, she had been free from pain for some weeks, and looked in perfect health for her age. The tumour reached to a height of 4½ inches above the umbilicus and 8½ inches above the pubes. On account of the difficulty in getting about, and the attack of pain, she consented to have the tumour removed, and was admitted to University College Hospital on December 17th, 1892.

She was in very good health, bright, cheerful, and intelligent; had fair yellow-grey hair, no arcus senilis, and could read the smallest print without glasses. The urine, of specific gravity 1010, was acid and contained a little mucus, but no albumen. The heart and lungs were normal, except for a few *râles* at both bases posteriorly. There was a fair amount of colour in the cheeks and mucous membranes, and the skin was like that of a much younger person.

There was about half an inch of fat in the abdominal wall. The abdomen was distended, as by the uterus at the eighth month of pregnancy, by a lax tumour reaching up for 10 inches above the pubes. The outline of the tumour could be felt, and fluctuation and a thrill were distinctly obtained. The flanks were resonant, and, usually, the tumour was dull on percussion, but in the morning, when the present state was taken, the area of dulness reached only up to the umbilicus, and the upper part of the tumour felt as if it had intestines in front of it. In the afternoon the bowels had been opened, and the tumour was then dull all over as usual. The abdomen measured 37 inches in circumference below the umbilicus. The hand could be pressed deeply between the tumour and the pubes. The uterus was retroverted, small, and freely movable.

On December 19th, 1892, at 9.30 A.M., I operated and removed a multilocular left ovarian tumour of the size and shape of a large "cottage" loaf. (It was this peculiar shape which had permitted the intestines, when distended, to cover the upper smaller part of the tumour, giving rise to the resonance previously mentioned.) The pedicle was twisted one time and a half as by the tumour's rotating in the direction of the hands of a clock when the tumour was viewed from the left side. The fluid in the tumour was dark brown, and contained a considerable amount of blood corpuscles, cholesterin crystals, and granular matter. The right ovary was not removed; it was healthy, smooth on the surface, and resembled that of a girl 12 years old. There were no adhesions, and the operation, which was performed under "gas and ether" anæsthesia, and with full antiseptic precautions, was very easy. From the time the first incision was made until the dressing was applied occupied only seventeen minutes.

The patient rallied well and did not vomit. During the afternoon she passed two motions, and in the evening became very talkative, and only slept two hours. On December 20th she was still very talkative and restless, but otherwise in excellent condition. On December 21st she became very strange in her manner, and spent the night in talking and trying to take off the bandages, and to get out of bed. She had delusions as to her surroundings, but recognised the obstetric assistant and myself. A drachm of bromide of sodium failed to make her sleep, but she slept for an hour and a-half after a hypodermic injection of one-fifth of a grain of morphine.

She slept fairly well on the following night, and during the day the mind became comparatively clear. She took three ounces of milk and barley water, and 2 drachms of peptones every two hours.

On December 26th the deep sutures, five in number, were removed. Union had taken place by the first intention. The patient looked well, and was quite rational.

During the next three weeks she remained in bed, suffering from slight bronchitis. The weather was very foggy and cold. During the greater part of the day she was quite rational, but towards evening she "wandered" a little and wanted to get out of bed. She also passed urine and motions under her. She did not get up until January 16th, when she was quite well and rational; the scar sound, 3¼ inches long; the uterus freely movable, no pelvic swelling nor tenderness.

She left the hospital on February 6th, being then very well. From that time her general condition improved, and she was able to get about without any trouble or pain. She discarded her belt in March. She had regained control over the bladder and rectum, and her health, physical and mental, was excellent. She came frequently to see me, and was free from complaint of any kind. I last saw her on November 1st, 1893, nearly eleven months after the operation, in excellent health for her age, and with good spirits and clear intelligence. The scar was quite sound, linear, and there was no tendency to hernia.

During her stay in the hospital the axillary temperature only once reached 99.4° F.

Remarks.—This patient was more than 82½ years old at the time of operation, and is, as far as I know, the oldest upon whom ovariotomy has been performed, with the exception of Dr. Homans's [1] case, which was apparently a few weeks older. Without having made a very extensive research in this direction, I am only acquainted with four other records of ovariotomy performed upon women 80 years of age and upwards. Schroeder's [2] and Owens's [3] cases were aged 80, Edis's [4] aged 81, and Homans's 82 years and four months. The fact that all five cases recovered is encouraging, and should make us not hesitate to extend the benefits of the operation to sufferers at any age. My own patient, while benefiting greatly in freedom from pain and difficulty in walking was not in the least the worse for the operation, and it was not followed by fever, distension, sickness, tenderness, or pain. The wound united by first intention, and the scar remained sound, although the patient only wore the belt for six weeks. The slight temporary mental alienation was possibly due as much to the bronchitis, aggravated by the cold, foggy weather (so depressing to old persons), as to the operation. In aged patients I think the operation should be performed as rapidly as possible, and, preferably, in the warmer months of the year.

[1] Homans, *Boston Med. and Surg. Journal*, 1888.
[2] Schroeder, Olshausen, *Krankheiten der Ovarien*.
[3] Owens, *Journal of Brit. Gyn. Soc.*, vol. iv.
[4] Edis, *Journal of Brit. Gyn. Soc.*, vol. viii.

We are requested to state that Dr. Burney Yeo's paper "On the Use of Lectures in Medical Teaching," which was to have been read before the Medical Society of King's College Hospital on December 1st, has been postponed till Friday next, December 15th.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

F. W. Pavy, M.D., F.R.S., in the Chair.

Tuesday, December 5th, 1893.

Aneurysm of the Thoracic Aorta opening into the Œsophagus.

Dr. A. F. Voelcker showed the above specimen, which was obtained from a man, aged 44, who had suffered for two years from dysphagia and cough. The patient suddenly vomited much blood, and became unconscious, but rallied, and was admitted into the Middlesex Hospital, where he died the day following, from a similar recurrence of hæmorrhage. In addition to the chief aneurysm of the thoracic aorta, there was another of the arch; the occurrence of more than one aortic aneurysm statistics showed to be uncommon.

Rodent Ulcer.

Mr. L. Bidwell exhibited sections of a rodent ulcer which arose in a mole in front of the right ear of a woman aged 72. In its histology it was a typical carcinoma of this variety; the origin of carcinoma from moles was unusual. In the mole itself were many enlarged sebaceous glands.

Mr. Golding-Bird commented on the confusion at present existing as to the histology and diagnosis of "rodent ulcer." He did not regard the term as any other than clinical; and in his experience ulcers of various kinds were so called, if they were situated between the brow and the mouth. Some such were ordinary epitheliomata, showing birds' nests in section. The typical rodent ulcer had been usually described as having no raised edges, but even such were not invariably of the same histological structure.

Dr. Kanthack commented on the confusion which had arisen in connection with the term "cell nests."

Mr. A. Bowlby thought the term "rodent ulcer" a bad one, but it expressed a distinct entity which admitted of ready diagnosis on microscopic section, and was a form of carcinoma. In his opinion it grew from the cutaneous glands: the cells were small and polygonal, and did not undergo squamous transformation; imperfect nests might occur, but no true horny change was to be observed. The pathological formation did not, however, invariably present the same clinical characters, though secondary infection of the lymphatic glands was always absent.

Two Cases of Softening of Intracardiac Thrombi.

Dr. Scholefield, after observing that the condition had been well described, amongst others, by Drs. Wilks and Moxon, gave the history of his first case. In this the thrombi were globular, and quite readily fell out from between the trabeculæ of the left ventricle; they were soft within, filled with puriform fluid in which the microscope showed pus cells and micrococci, and they possessed no definite cellular wall. The patient was a woman, who had been confined six weeks before death; after confinement she contracted scarlet fever, and subsequently suffered from empyema and abdominal abscess; one marked symptom was orthopnœa arising from cardiac trouble. In the second case the heart presented a similar condition. Death occurred from phthisis, but the *post-mortem* examination threw no light on the cardiac condition. In the first the cause of the central softening was, he held, due to the presence of the micro-organisms.

Dr. Voelcker said that there were several preparations in the Middlesex Hospital Museum similar to those shown by Dr. Scholefield, and in all there was endocarditis of the valves.

Dr. Charlewood Turner considered that the formation of such clots was due to changes in the endocardium, as the hollowed thrombi had a different appearance from such as were common in the ventricles from slowing of the blood current; there were possibly endothelial abrasions at the sites of their formation.

Dr. Scholefield, in reply, observed that the complete want of attachment of the thrombi was against this view; moreover, microscopic examination did not reveal any changes in the endocardium.

Hernia of the Ovary.

Mr. C. B. Lockwood reported a case in which the ovary had been removed by operation. It lay within a hernial sac in the labium majus, and had caused no trouble until shortly before the operation; no ovulation had apparently taken place in the ovary. He showed, also, a second specimen, the sac of an inguinal hernia removed by operation, which contained one of the ovaries; connecting the end of the sac with the labium was a band of muscular tissue by which the peritoneum had probably been physically drawn out. In the first preparation, also, muscular tissue lay on the back of the sac.

Perforating Ulcer of the Duodenum.

Dr. Pye-Smith recounted the case of a man, aged 33, who was well, except for slight dyspepsia, until a fortnight before death, when he was seized with severe abdominal pain and vomiting of blood; he subsequently showed signs of septicæmia, and died with pneumonia. After death a perforating ulcer was found in the first part of the duodenum close beyond the pylorus. In connection with the perforation there was a cavity filled with foul serous pus. The author remarked that such ulcers were exactly of the same nature as those met with in the stomach, and they were confined to the upper part of the duodenum, since here the intestinal contents were still acid, and, whatever started the ulceration, the action of the gastric secretion was the factor that led to its progress. As to gastric ulcer itself, contrary to the general belief, he had shown from statistics that it was as common in men as in women. In answer to Mr. Lockwood, he stated that the ulcer was situated at the upper part of the duodenum.

Dr. Galloway was interested to hear of the precise situation, as ulcers seated at the upper part and behind contracted adhesions with the liver, and in this way fatal perforation was at times prevented; some such might even heal.

The President had at one time studied the subject of gastric ulcer; it was not so much an ulcer as an erosion. In his opinion, it was the gastric secretion that caused the erosion, but it was first necessary that the circulation through a portion of the mucous membrane should be interfered with. In his experiments, the removal of patches of the gastric mucous membrane in dogs was not followed by ulceration; but this ensued after ligation of arteries, or if a piece of the membrane was tied up with a ligature. He held still that the normal counteracting influence to the action of the gastric juice was the circulation of alkaline blood through the vessels. It had been used as an argument against this view, that as the digestive action in the intestine was alkaline the wall of the intestine would have no such means of protection. He thought, however, that the epithelial lining of the stomach and intestine were different in the protection they afforded.

Carcinoma of the Duodenum.

Dr. Pye-Smith exhibited a stomach affected with carcinoma of the pylorus, from a case in which there existed also a second growth in the duodenum of later date. He compared this concurrence with the appearance of carcinoma in both breasts, in that it was an instance opposed to the general rule that parts which were the frequent seats of primary cancer were rarely the seats of secondary.

Mr. S. G. Shattock referred to cases of a similar kind when in the alimentary canal the presence of a primary carcinoma was succeeded by that of others at a lower level, and observed that the most probable interpretation of such was that an infecting virus had been transferred from the primary growth, and set up secondary disease by a process of auto-inoculation.

Card Specimen.

Mr. Warrington Haward: Stomach and Duodenum five days after gastro-jejunostomy.

CLINICAL SOCIETY OF LONDON.

John Whitaker Hulke, F.R.C.S., F.R.S., President, in the Chair.

Friday, November 24th, 1893.

The Urine in Myxœdema Treated by Thyroid Extract.

Dr. William M. Ord read for himself and Mr. Edmund White a report on a case of myxœdema treated by administration of the thyroid gland of the sheep, with special refer-

ence to changes occurring in the urine. The subject was treated by the authors in a paper printed in the British Medical Journal of July 29th, p. 217. The authors added that the changes in the urine in such cases were of great value in presenting some estimate of altered metabolism following the use of the thyroid. They recognised that their observations were not final, but must be supplemented by more numerous and more varied experiments. They went on to consider some of the methods of preparing and administering the thyroid gland as a whole, as glycerine extract, as powder, etc., and offered some remarks regarding dosage.

Mr. E. White emphasised the fact that the amount of nitrogen excreted under the thyroid treatment actually exceeded the amount of nitrogen taken as food by about 5 drachms daily, and that the increased quantity of nitrogen was almost entirely due to increase of the urea. Before treatment the quantity of nitrogen ingested exceeded that which was excreted, but this was reversed when the treatment was begun.

Living Specimens.

Mr. Stephen Paget showed three specimens: A Traumatic Encephalocele; a Meningocele that had undergone a Natural Cure; and a case of Ankylosis of the Spine.—Dr. Mansell Moullin showed a case of Charcot's Disease.—Mr. Arbuthnot Lane exhibited a case of Deficient Development of the Jaw after Ankylosis of one Temporo-maxillary Articulation.—Mr. Watson Cheyne showed a case of Rotation Outwards of the Lower Limbs treated by Transverse Division of the Femur; also a case of Replacement of Dupuytren's Fracture of the Ankle.—Mr. Pearce Gould showed a case of Hypertrophy of the Stomach without Dilatation.—Mr. Ballance showed a case of Empyema of the Maxillary Sinus, and illustrated the diagnostic value of Heryng's method of transillumination, a dark shadow being evident over the affected antrum when an electric light was introduced into the mouth, other sources of light being excluded.—Dr. Mott showed a woman, aged 30, the subject of so-called Idiopathic Sclerosis, apparently of cerebral origin, following parturition. He also showed a man, aged 34, suffering from Multiple Toxæmic Neuritis.—Dr. F. Hawkins showed two children, aged 11 and 8 respectively, belonging to a family who presented well-marked symptoms of Pseudo-hypertrophic Paralysis.—Dr. James Taylor showed four patients of the same family also suffering from Pseudo-hypertrophic Paralysis.—Dr. Newton Pitt showed a woman the subject of Osteo-arthritis who had developed Fibrous Nodules over various articulations.—Dr. Harry Campbell showed a case of Chronic Phthisis involving the Right Apex; also a woman with an Unusual Form of Œdema of the Left Forearm.

MANCHESTER MEDICAL SOCIETY.

C. E. Glascott, M.D., President, in the Chair.

Wednesday, November 15th, 1893.

Hysteria Simulating Insular Sclerosis.

Dr. Leech showed a man who had suffered from tremors on movement closely simulating those observed in insular sclerosis, apparently of hysterical origin. He had suffered from two attacks, in the first of which the tremors on movement were extremely marked, but at the end of two months they entirely passed away and the patient was able to resume work. In three months the tremors on movement returned, but to a slighter extent. Under hospital treatment he quickly improved.

Sporadic Cretinism.

Dr. Holgate Owen showed a female cretin, aged 26, who was born in Manchester and had lived there all her life. At birth she was a big, healthy-looking child. For twelve months her mother nursed her at the breast. She was long in learning to walk, and dentition was delayed. At the age of 6 a deformity in the back was noticed. Her present height is 40¾ inches; weight, 45 lbs. Her face has the characteristic appearances; the skin is harsh, dry, and scaly. The mammæ are slightly prominent and a small amount of gland tissue can be felt. There is marked scoliosis with convexity towards the right side, involving the whole of the dorsal vertebræ. The urine is free from albumen and sugar, but contains a very small amount of urea (66 grains in the twenty-four hours). The temperature is subnormal. No thyroid gland can be felt, nor are there any supraclavicular swellings. Under the administration of tabloids of thyroid extract improvement occurred. On one occasion the pulse rate rose to 240. The excretion of urea was also very markedly increased.

Paralysis of the Third Nerve.

Dr. E. S. Reynolds showed a case of right hemiplegia with paralysis of eye muscles on the left side. The hemiplegia was evidently due to a hæmorrhage in the left internal capsule. The lesion was probably in isolated branches of the third and sixth nerves, being most likely a syphilitic infiltration.

MEDICAL SOCIETY OF LONDON.

Frederick T. Roberts, M.D., F.R.C.P., Vice-President, in the Chair.

Clinical Evening.

Monday, November 27th, 1893.

Syringomyelia.

Dr. Beevor showed a young woman, aged 23, who had had had an illness six years ago. This was followed by numbness in the upper arm, spreading slowly downwards. She had been subject to whitlows for years. There was wasting of the thenar and hypothenar eminences of both hands, and anæsthesia, with a tendency in the hands to become claw-shaped. The condition was less marked on the left side. The reflexes were increased, but the electrical reaction showed nothing abnormal except in the hands.

Congenital (?) Pemphigus.

Mr. Lunn showed a diminutive boy, aged 10, who had been under observation for four years on account of blebs which formed persistently all over the body, and which had continued to form since three days after birth. He had snuffles at birth. There was wasting of the nails of the hands and feet. No kind of treatment had had the slightest effect.

Cretinism Treated by Thyroid Extract.

Mr. Lunn also showed a cretin aged 26 (though she looked about 10), who had come under his care in an idiotic condition last May. She was put on the thyroid treatment both by the mouth and by injection, and the improvement had been most remarkable. She had become relatively very intelligent. Previously amenorrhœic, the catamenia had commenced soon after the institution of the treatment. The urine had been slightly increased in quantity, but was otherwise normal.

Hæmatoma after Aneurysm.

Mr. Lunn also showed a man who was admitted with a pulsatile swelling behind the left knee-joint, diagnosed as aneurysm. He had called in Mr. Ballance, but they were uncertain whether it was a simple aneurysm or an aneurysm *plus* a tumour. The knee-joint was full of fluid. Ultimately Mr. Ballance ligatured the femoral artery, whereupon all pulsation ceased. The swelling immediately got much smaller after ligature, and there was no disturbance of the limb in consequence. There remained, however, a large fluid swelling in the site of the aneurysm, which he assumed to be of the nature of a hæmatoma. They proposed to leave this alone for a time to see if it would clear up, and, failing this, they intended to cut down, turn out the clots, and stuff the cavity with gauze.

Mr. Ballance pointed out that the interest of the case lay in the difficulty of diagnosing whether it was simply an aneurysm or an aneurysm complicated with a tumour. He had used ligatures of goldbeaters' skin, which he thought much superior to catgut.

Obliteration of Superior Vena Cava.

Sir Hugh Beevor showed a man, aged 41, who presented tortuous dilated veins from below upwards over the trunk, first noticed fifteen years ago. The patient then found that after stooping he suffered from dyspnœa and a sense of constriction in the throat, his face becoming intensely congested at the same time. He ultimately became unable to follow his occupation. No evidence of disease could be detected on auscultation or percussion. He had had syphilis. He referred

to a case in which a man with a history of recent syphilis had developed obstruction of the superior vena cava as the result of gumma of the mediastinum.

HYDATID CYST OF THE BLADDER.

Mr. HURRY FENWICK showed a man from whom he had removed a hydatid cyst of the bladder. He remarked that it was the only case recorded in the literature of the subject during the last 200 years. He had got at the cyst by dislocating the shrunken bladder into the left iliac fossa. He punctured and withdrew about 34 ounces of fluid. The operation was followed by rapid recovery. As the cyst was being emptied the bladder filled with urine. Only eight of fifty recorded cases had recovered.

Mr. MARMADUKE SHEILD and Mr. BALLANCE related similar cases.

SEQUEL OF TUMOUR IN AN INFANT.

Mr. MARMADUKE SHEILD showed a tumour removed *post mortem* from an infant whom he had brought before the Society for diagnosis last year. The tumour, which sprang from the front chest wall, was variously diagnosed as an included fœtus, a nævus, etc. It was suggested that it would very likely spontaneously inflame, and in spite of every precaution this was what had happened, and the child succumbed. *Post mortem* they found that the tumour extended under the clavicle into the root of the neck and right shoulder, implicating the vessels in the former situation. Surgical intervention would necessarily have proved unavailing. It proved to be composed of dense connective tissue mixed with fat, and where it passed under the clavicle it contained numerous cysts. Microscopically there was an appearance suggestive of malignancy, and he supposed it belonged to the category of cystic hygroma. He insisted on the fact that such tumours, though apparently superficial, were invariably deepseated, and he referred to a case in which such an one in the neck when operated upon proved to pass beneath the cervical fascia.

OBLITERATION OF ENLARGED VESSELS ON THE FACE BY ELECTROLYSIS.

Mr. BALMANNO SQUIRE showed a person on whom he had obliterated a number of dilated vessels on one half of the face by the application of the electrolytic needle, which was introduced slightly into the skin over the vessel.

THROMBOSIS OF THE LATERAL SINUS.

Mr. BALLANCE showed a young man who was admitted at the end of September last with typical symptoms of lateral sinus pyæmia of eight days' standing. He was drowsy, and his temperature was 105.5 F.; there was fœtid otorrhœa and a swelling over the upper part of the internal jugular vein in the neck and over the mastoid process. Mr. Ballance had at once operated, and found the petrous and mastoid bones carious. He exposed the sinus, but found no evidence of thrombosis, so he cut down on the jugular vein just below the parotid gland and tied it just below where it was thrombosed, at its junction with the subclavian vein. He then enlarged the opening in the bone and made a free incision into the lateral sinus, which bled freely. The sinus was not blocked in the usual place, near the mastoid bone. The operation was followed by an uneventful recovery.

OPERATION FOR DUPUYTREN'S CONTRACTION.

Mr. LOCKWOOD showed a cast of the hands of a man who came to him with Dupuytren's contraction of the palmar fascia in both hands and the man himself in order to demonstrate the results of operative procedure. He had performed Adams's operation by multiple puncture and forcible straightening of the fingers, and the result, as he was enabled to show, had been highly satisfactory.

REMOVAL OF LARGE DIFFUSE LIPOMA OF NECK.

Mr. LOCKWOOD also showed a man, aged 45, from whom he had removed a large diffuse lipoma from the back of the neck, involving a very extensive operation, but with satisfactory results. The hæmorrhage had not been troublesome.

SKIN GRAFTING FOR LUPUS.

Mr. WATSON CHEYNE showed a lad on whom he had transplanted large grafts of skin for lupus, one whole cheek being thus renovated. He cut the lupus right away before transplanting the skin. He alluded to an old-fashioned treatment, namely, the application of sanguinaria saturated with chloride of zinc, which he said was a very painful but, on the whole, a very efficacious proceeding.

HARVEIAN SOCIETY.

MALCOLM MORRIS, F.R.C.S.Edin., President, in the Chair.

Thursday, November 2nd, 1893.

DISLOCATION OF THE HEART INTO THE LEFT PLEURAL CAVITY.

DR. ROBERT BOXALL showed a coloured drawing of the chest organs of a woman, aged 28, who died on the third day after the birth of her third child, with symptoms simulating pulmonary thrombosis. The necropsy, however, showed a congenital defect in the pericardial sac on the left side. Through this opening the heart had escaped, and was found lying in the left pleural cavity in immediate contact with the lung. The upper surface of the diaphragm in the neighbourhood of the apex was coated with recent lymph. Behind the heart was found a sickle-shaped fold, attached to the diaphragm below, and extending upwards as far as the entrance of the vena cava inferior into the right auricle. The above-mentioned fold formed a pouch three-quarters of an inch deep, from which the apex of the heart had escaped. This accident was followed by urgent dyspnœa and collapse. A distinct systolic murmur was audible over the whole cardiac area. The patient died thirty hours after the accident had occurred.

DILATATION OF THE STOMACH.

A paper on this subject, which was read by Sir WILLIAM BROADBENT, is published in the BRITISH MEDICAL JOURNAL, pp. 1193 and 1268.

Dr. CALLENDER called attention to the fact, observed by him in treating cases of dilatation of the stomach, that in those cases referred to by Sir William Broadbent as neurotic cases there was always a quantity of mucus secreted by the stomach which created difficulty in washing out the stomach, and that this was not so in those cases in which the stomach contained quantities of fermented food. Severe orthopnœa also occurred in cases of considerable dilatation of the stomach, and was rapidly relieved by washing out. He asked for an explanation of the great irregularity of the heart's action in those cases in which the stomach, though greatly dilated, did not push up the diaphragm or encroach upon the heart, and mentioned one such case under his care which had benefited very much by the washing out treatment, but in which the heart's action was still irregular after a month's treatment.

Dr. GOODHART said the great interest of the subject to him was a physiological one, because the clinical history of dilatation of the stomach seemed to him to be an illustration of the occurrence of dilatation first, and hypertrophy as its consequence; which, as Sir William Gull used to teach, occasionally happened with the heart. This was a matter of importance as regarded the treatment of these cases. Records were cropping up where the operation of opening the abdomen and stretching the pylorus had been performed; and this was no doubt due to the fact that dilatation of the stomach was assumed to be the result of pyloric obstruction. But was it? The history pointed against that view. Patients came into the hospital, and were dieted, and the stomach was emptied and washed out, and they were much relieved for the time. But they reappeared, time after time, and the disease pursued a chronic cause for many—at any rate, several—years. And there was no certain evidence what was the end of them; therefore it was possible that they recovered. But if they were cases of dilatation consequent upon obstruction, surely the dilatation would be but the beginning of the end, unless the obstruction were removed. He had, therefore, come to the conclusion that the contraction of a gastric ulcer, the old adhesion, the various other causes that he had accepted as the explanation of these cases, were non-existent in many cases; and having given up the idea of obstruction as an inadequate one, it was much more easy to understand how it was that the regular evacuation of the contents of the stomach should produce so much relief and even permanent amelioration of the symptoms, not to say cure. Dr. Goodhart thought, therefore, that one should be very jealous of handing such cases over to surgery, for, in his opinion, the obstruction was more

apparent than real, and the suggested treatment of stretching the pylorus mistaken.

Mr. William Adams wished to draw attention to one class of cases in which dilatation, with atrophy of the stomach, occurred, and led to the death of the patient. He referred to cases of infantile paralysis in its most severe form, in which both arms, both legs, and the muscles of the trunk were affected. The natural recovery in these cases, which were fortunately of rare occurrence, was comparatively slight, and sometimes limited only to the arms, but it was always very slow, partial, and incomplete, the permanent defect remaining through life being considerable. There was always great difficulty in feeding these children, the stomach frequently rejecting food, and being evidently in a very feeble condition from impaired nutrition. Atrophy and dilatation of the stomach took place, and, in a later period of growth, in addition to the liability to vomiting, a liability to fainting occurred, and in a fainting fit these patients generally died between the ages of 18 years and 23 years. In one of these cases, a young gentleman, aged 20, who had not walked from childhood, the difficulty of feeding the patient had lasted for many years, and he died suddenly from syncope during one of Mr. Adams's visits. No *post-mortem* examination was allowed, but a dilated and atrophic condition of the stomach probably existed. In another case a young lady, aged 18, who had never walked since childhood, and had only been able to get about the room with assistance, a very experienced nurse told Mr. Adams she had had great difficulty in feeding her for many years, the stomach frequently rejecting food. She would then pass into a half-fainting condition, and at last she died suddenly from syncope. On *post-mortem* examination the stomach was found to be enormously dilated, and its walls extremely thin and atrophied. No other organic disease existed. Mr. Adams also knew of several other cases of this class, in which death had occurred under similar circumstances. These cases came under his observation in consequence of the contractions and deformities which always occurred both in the upper and lower extremities, as well as in the spinal column.

Dr. Burney Yeo desired to emphasise the statement made by the author of the paper that the too frequent taking of food was a common cause of gastric dilatation. The "little and often" method of feeding was most productive of dyspeptic states. With many persons the rate of stomach digestion was much slower than was generally supposed. He also called attention to the difficulty occasionally encountered in distinguishing a distended colon from a dilated stomach, and gave an instance. He had treated some cases of moderate dilatation in persons who objected to the use of the stomach tube by giving Carlsbad water, fortified by the addition of Carlsbad salts, in repeated doses in the morning, fasting, until free action of the bowels was excited, and so had washed out their stomachs through the intestinal tube. This plan had answered well, combined with rest in bed for a week or ten days and an absolute milk diet for the same period.

After some remarks by Mr. Fearnley and Mr. Hames, Sir W. Broadbent, in reply, thanked Mr. Fearnley for calling attention to the crescentic curve formed by the upper border of the dilated stomach, which he had often seen, especially when it contracted under manipulation. He supposed that the irregular action of the heart sometimes met with when the distension of the stomach took a downward direction, and when, therefore, there was no pressure on the diaphragm, which had been observed by Dr. Callender, must be of reflex origin; he had no other explanation to suggest. He was disposed to think that the hypertrophy of the muscular walls of the stomach, of which Dr. Goodhart had spoken, was not simply a result of dilatation, but of difficulty in expelling the contents due to flexure at the junction of the pylorus and duodenum. Washing out by restoring the organ to its proper dimensions and diminishing the drag upon the pylorus removed the obstacle and obviated the necessity for surgical interference, as in the cases he had related. He had been greatly interested in the cases described by Mr. W. Adams in connection with infantile paralysis, which were new to him. He had no such experience in the employment of massage as that so humorously described by Mr. Hames, but, as a general massage of the abdomen was often useful in constipation, it might be of service in the reduction of dilatation of the stomach. He agreed with Dr. Burney Yeo as to the evil effects of frequent feeding, and as to the advantages of a dry diet, but he was not disposed to attach much value to the analogy of animals not eating and drinking at the same time. In a state of Nature they did not find food and drink together, but often had to go long distances for water at the end of the day. He had observed, when driving in Switzerland, that the horses had both corn or bread and water at their baits. Dr. Burney Yeo had described a method of physical examination with which he was not familiar. The drenching with Carlsbad water would, he thought, be chiefly useful in cases due to overfeeding. In conclusion, Sir W. Broadbent thanked the President as an old pupil, friend, and colleague for the invitation to read a communication before the Society, and for his kind remarks and congratulations, and the Society for the cordial welcome it had accorded him. He did not forget that it was to the Harveian Society that some of his earliest and best work was submitted, first in the form of papers and later in the Harveian Lectures.

HUNTERIAN SOCIETY.

F. Gordon Brown, M.R.C.S., President, in the Chair.

Wednesday, October 25th, 1893.

Thyroid Treatment in Myxœdema and Skin Disease.

Dr. Arthur Davies read a paper on Thyroid Gland and its its Therapeutic Value in Myxœdema and certain Skin Affections. He first briefly discussed the different theories as to the function of the thyroid gland, and showed that from experimental and clinical evidence the most important of these was that one which connected the function of the gland with the metabolism of the body. The results of transplantation of the thyroid gland by Kocher and Van Esselberg, and the able experimental investigations of Horsley were alluded to. He then described the great therapeutic advance made by Dr. George Murray, who most successfully carried out the injection of the thyroid juice in a case of myxœdema. The disadvantages were also dwelt on—namely, (1) loss of consciousness, (2) tendency to syncope, (3) acceleration of pulse rate, (4) abscesses and indurations, (5) nausea, (6) flushings, (7) tonic spasms, (8) stabbing pains in the lumbar region. Dr. Davies showed a man who had suffered from myxœdema for fifteen years, and who had been successfully treated by the thyroid injections. He then referred to the remarkable discovery made independently by Dr. Hector Mackenzie and Dr. E. L. Fox, as to the efficacy of the thyroid gland when given raw or in the form of a glycerine extract by the mouth. He also gave an account of a further modification of this method—namely, the administration of a dried extract from the gland, and showed a series of five cases successfully treated by this means. The rapid loss of weight during treatment was dwelt on, and the importance of keeping a weekly record of this so as to control the activity of the thyroid principle. Casts of hands were shown illustrating marked diminution in volume after treatment. It was also shown how important it is to keep up the treatment for the rest of life. The great value of the thyroid treatment in sporadic cretinism was pointed out, and the rapid growth noted in such cases. Lastly, Dr. Davies showed a series of photographs kindly lent to him by Dr. Byrom Bramwell, illustrating the marked improvement in psoriasis after thyroid feeding, which he had also observed in two cases of psoriasis, one of chronic eczema, and one of xeroderma with icthyosis.

Drs. Hector Mackenzie, Fletcher Beach, Pasteur, and others discussed the paper.

F. Gordon Brown, M.R.C.S., President, in the Chair.

Wednesday, November 8th, 1893.

Cases.

Dr. Chaplin showed a case of Congenital Malformation of the Heart in a boy, aged 10, who suffered from cyanosis, clubbed fingers, etc.—The President showed a member of the city police force who in August last had an attack of Insolation, followed by delusions, increased knee-jerks, melancholia, and, lastly, universal steadily increasing tremor and general weakness.—Sir Hugh Beevor showed a woman, aged

20, with a loud Systolic Pulmonary Murmur, with no cyanosis; and another woman, aged 42, with a remarkably loud Musical Systolic Aortic Murmur.—Dr. F. J. SMITH showed two cases of Hemiplegia dating from infancy, one aged 28, now presenting well marked right-sided athetosis; the other, aged 42, presenting complete flaccidity with marked wasting of the limbs on the left side.—Mr. OPENSHAW showed a Nævus of the Tongue as large as a tangerine orange, which had been thought sarcomatous.

EPIDEMIOLOGICAL SOCIETY.

J. F. PAYNE, M.D., President, in the Chair.

Wednesday, November 15th, 1893.

PRESIDENT'S ADDRESS.

THE PRESIDENT delivered an address on the History of Epidemiology in England. After pointing out that, until the sixteenth or seventeenth century, when, with the revival of learning, Greek scholars, like Vesalius and his contemporaries in Italy and our Caius or Dr. Kay, began to study the works of the Greek physicians in the originals all originality—even the power to see with their own eyes—seemed to have been lost to men. The first works by English physicians containing any original observations or clinical notes were Caius's on the sweating sickness, published in Latin in 1552, of which an abridgment in English appeared four years later, and Brandon's *Annual Observations of Disease*, in which was found the first account of an outbreak of ergotism in this country, under the name of epidemic gangrene. So, too, abundant as was the crop of treatises on the plague, which ushered in each visitation, two only were written from personal observation—Hodges's *Loimologia* and Boghurst's work, which existed only in a manuscript, in the British Museum, and like that of Hodges, though with more originality, was based on the writer's experience of the great plague of 1665. To the alarm caused by successive outbreaks of the plague were due the Bills of Mortality, which might be looked on as the germs of our present Registrar-General's reports, and which were used by Grant, Petty, and Halley in their early efforts in vital statistics. They were of considerable value, notwithstanding their peculiar nomenclature, the causes of death being assigned by "old women," who viewed the dead, and he might remark that to them were due the recognition and name of rickets nearly twenty years before the monograph of Glisson. The latter half of the sixteenth and the earlier part of the seventeenth centuries were a period of considerable activity, and Willis, Morton, Sydenham, and Huxham might rank as epidemiologists, Huxham having also kept a record of meteorological observations for a quarter of a century. They were followed by Freind, who translated Hippocrates into English, and Mead, Heberden, and Fothergill, who greatly advanced the diagnosis and study of fevers, while Sir John Pringle and Sir Gilbert Blane—the former of whom was so far in advance of his age as to maintain the futility of quarantine—were the forerunners of the long succession of military and naval medical officers who, from the opportunities afforded by service in almost every part of the globe, had done so much for the study of epidemiology.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

DONALD HOOD, M.D., President, in the Chair.

Friday, December 1st, 1893.

CLINICAL EVENING.

GLANDERS.

THE PRESIDENT read notes of a case of glanders which was fatal in ten days. No history of injury was obtainable. The arms were first affected, but there were no papules until three days before death. The nose and lungs were extensively affected; also the right forearm.

CASES.

The following cases were shown:—By Dr. INNIS: A case of Sclerodermia Diffusa; the patient was improving under massage and glycerine.—By Mr. S. PAGET: (1) A case of Traumatic Cephal-hydrocele in a child after a slight injury; (2) a case of Ankylosis of the Spine after injury.—By Dr. P. S. ABRAHAM: (1) A case of Bromide Rash; (2) a case of Rupia existing since secondary symptoms, over two years ago, with early keloid now showing.—By Dr. STEER: A case of Raynaud's Disease. Dr. SEYMOUR TAYLOR said that he felt inclined to agree with those who considered the pathology of the disease due to arterial spasm; Dr. MAY considered it due to sclerodermia; and Dr. F. SAVERY, Drs. CLEMOW, BALL, DOCKRELL, ABRAHAM, and Mr. PAGET also took part in the discussion.—By Mr. BIDWELL: (1) A case of Ostitis of Humerus, and (2) three cases after Excision of Lupus and Grafting by Thiersch's Method.—By Mr. SWINFORD EDWARDS: A Cysto-sarcoma of the Sacrum of rapid growth. Remarks were made by Messrs. KEETLEY, BIDWELL, and LLOYD.—By Dr. DOCKERELL: (1) A case of Lupus Erythematosus; (2) the sister of the previous patient with a small Papule on the cheek which had taken three years to come to the surface.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

T. KILNER CLARKE, M.A., F.R.C.S., President, in the Chair.

PATHOLOGICAL EVENING.

Friday, November 17th, 1893.

SPECIMENS.

DR. ALLAN showed (1) Cystic Kidneys; (2) Melanotic Sarcoma of Lungs and Liver from the body of a man, aged 34; (3) Carcinomatous Stricture of Œsophagus from a man, aged 53.—Dr. BARRS showed (1) Brain with embolism of both middle cerebral arteries with diffluent softening of the left hemisphere, but no material softening of the right hemisphere. The left middle cerebral artery was plugged six days before death, the right twelve hours before death. The source of the emboli was probably a large patch of fibroid disease in the apex of the left ventricle. (2) Brain with recent gross hæmorrhage into the pons Varolii and immediately adjacent parts of the isthmus cerebri and cerebellum; also the Liver from the same case, which weighed 126 ozs., and was an unusually fine specimen of large cirrhosis. (3) A Spinal Cord with a caseating lump embedded in its substance at the level of the eighth dorsal spine. During life the case had all the symptoms and signs of diffuse myelitis.—Dr. T. WARDROP GRIFFITH showed (1) Viscera from a case of morbus cæruleus. Three points of interest were noted: (*a*) That causing the cyanosis was extreme narrowing of the pulmonary artery with compensatory patency of the ductus arteriosus and short circuiting of the pulmonary circulation by patency of the foramen ovale and absence of the undefended space; (*b*) partial lateral transposition; (*c*) the aorta and pulmonary artery were not only transposed laterally but the pulmonary artery arose behind the aorta from just in front of the anterior flap of the left auriculo-ventricular valve. (2) A large Mediastinal Growth involving the right lung and almost plugging the superior vena cava.—Mr. WARD showed (1) A Calculus removed from the bladder of a girl, aged 8, by suprapubic cystotomy. It formed an accurate cast of the contracted bladder, which it completely filled, giving rise to absolute incontinence. (2) Cyst derived from Meckel's diverticulum, removed with testes and sac of unclosed vaginal process.—Dr. JACOB showed (1) Microscopic Sections illustrative of Syphilitic Disease of the Liver, congenital and acquired, chronic and acute. (2) Blood from a case of Leukæmia, in which there was an extraordinary variety in the character of the leucocytes.—Specimens were also shown by Dr. SWANN (Batley), Mr. ATKINSON, Dr. CHURTON, Dr. BRAITHWAITE, and Dr. TYRIE.

MINUTE CARDIAC PATHOLOGY.

Mr. C. F. EAMES contributed a paper (communicated from the Leeds Infirmary Laboratory by Dr. Trevelyan) on some points in minute cardiac pathology. The morbid histology of pericarditis was illustrated by sections from cases secondary to rheumatism and empyema. Sections were also shown from the inflammatory and degenerative forms of valvular disease, both recent and old. The probable origin of atheroma was illustrated by a specimen in which the vasa vasorum in the aortic walls were greatly diseased. Sections from an aortic valve affected by malignant endocarditis were shown. Diseases of the myocardium were next considered. The histology of acute myocarditis was demonstrated from a case of peri- and endocarditis, and from three cases of pyæmia,

in two of which there were minute abscesses in the cardiac muscle. The view that the disease begins in the interstitial tissue was supported. Degenerative changes in the myocardium were considered under (1) disease of the minute vessels, the coronary artery being healthy, and (2) *vice versâ*. Sections and specimens were shown illustrating these points, including a marked example of advanced cardio-sclerosis, and one of slighty fatty heart. The effects of the disease upon the interstitial tissue and in the parenchyma of the organ were then discussed. Finally, attention was drawn to the importance of changes in the myocardium, both in the acute infective processes, in chronic valvular disease and in generalised arterio-sclerosis.

Comparative Pathology.

Dr. Ernest Jacob gave an account of Metschnikoff's experiments in comparative pathology, pointing out the defensive mechanisms found in the invertebrates as akin to the processes of inflammation in the higher vertebrates. Diagrams were shown by the lantern.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

Richard Favell, M.R.C.S., President, in the Chair.

Thursday, November 23rd, 1893.

Cases.

Mr. Snell introduced (1) a man who had been shown at a previous meeting with an Indurated Lachrymal Gland—the tumour was disappearing; (2) a Case of Conical Cornea well marked; (3) Double Micro-ophthalmos.—Dr. Cocking showed a case of Myositis Ossificans in a stonewaller, aged 63. Distinct signs of locomotor ataxy were present.—Dr. Burgess showed (1) a man, aged 40, with Tremors of Lips and Tongue, Tremulous Scanning Speech, Epileptiform Fits, Mental Depression, Optic Atrophy, and greatly exaggerated Knee-jerk. There was evidence of syphilis. (2) A Case of Sensory Aphasia with Alexia (but not Agraphia) and Right Hemianopia.

Acute Axial Rotation of a Parovarian Cyst.

The President related this case. A single woman, aged 26, who was known to have had a small ovarian cyst, was seized during the night with severe abdominal pain accompanied by sickness. Five days afterwards abdominal section was performed. The pedicle was found to have rotated a turn and a-half from without inwards. The symptoms coming on when the patient was in bed, pointed to the rotation being caused by the cyst becoming extruded from the pelvis and passing above the brim when the woman was in the recumbent position. There was no history of a fall or sudden shock. The patient made a rapid recovery.

Ergotin in Epistaxis.

Dr. Cleaver read a note on the hypodermic administration of ergotin in epistaxis, citing a recent case in his practice in which two tabloids of one hundredth of a grain of citrate of ergotinin signally failed, and an injection of 5 grains of freshly prepared "inject. ergotini hypoderm.," was eminently successful.

Specimens.

Dr. Martin showed a specimen of a Dermoid Cyst of Ovary which he had removed by abdominal section from an unmarried domestic servant, aged 28. The patient made a good recovery.—Specimens were also exhibited by Dr. Hugh Rhodes, Dr. Knox, Dr. Burgess, and the President.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Surgery.

Edward Hamilton, P.R.C.S.I., President, in the Chair.

Friday, November 10th, 1893.

President's Address.

The President delivered the inaugural address, in which he recounted the origin and history of the surgical societies, which were now represented by this Section of the Royal Academy of Medicine.

Tumour of the Brain.

Mr. F. Alcock Nixon read notes of a case in which he had removed from the cavity of the skull a tumour 2 inches long, 1 inch broad, and ½ inch thick. It implicated the motor area, commencing in the leg centre. It was accurately localised by a careful grasping and analysis of the symptoms. Prior to the operation the patient was comatose and hemiplegic, and his friends refused to allow anything to be done on the ground that he was obviously dying. A month afterwards he was quite conscious, able to move his arm and leg, to sing and repeat the verses of a song. He described correctly events which had occurred more than a year previously. His temperature was normal. Subsequently he suffered from hæmorrhage from the surface of a hernia cerebri, and died a few hours afterwards. No necropsy could be obtained. Mr. Nixon expressed the opinion that Fraser's method was of greater practical utility to the surgeon than Reid's or Thane's.

The case was discussed by Mr. Thornley Stoker, Sir W. Stokes, Mr. Wheeler, Mr. M'Ardle, and Mr. Myles; and Mr. Nixon replied.

The Treatment of Urinary Fistula.

Mr. Myles said that however varying were the methods described by operators for the treatment of this condition, the general principles that underlay them were only two—(1) To make it easier for the urine to escape by a natural channel than by the fistula. (2) To relieve the fistulous tract of the irritation caused by the trickling of urine over its surface. With reference to the first point, Mr. Myles expressed a decided preference for the method and instrument of Maisonneuve. With reference to the second point, he gave it as his opinion that in obstinate cases the plan recommended by Mr. Thomson, of the Richmond Hospital—namely, suprapubic cystotomy as a preliminary measure, followed by free division of the stricture and dissection away of the fistulous channels—was the best. Illustrative cases were related.

Remarks were made by the President, Dr. Brooks, Mr. M'Ardle, Mr. Thomson, Dr. Bennett, Mr. Wheeler, Mr. Nixon, and Mr. Thornley Stoker; and Mr. Myles replied.

CLINICAL SOCIETY OF MANCHESTER.

E. Stanmore Bishop, F.R.C.S., President, in the Chair.

Tuesday, November 21st, 1893.

Suprapubic Cystotomy.

Mr. Southam mentioned (1) three cases of suprapubic lithotomy, in each of which collections of calculi were removed from a deep post-prostatic pouch; (2) a case of chronic cystitis accompanied by hæmaturia, due to the presence of several ulcerated patches on the posterior wall of the bladder, which were exposed and cauterised through a suprapubic opening; (3) a case of large villous tumour of the bladder, occurring in a female, which was removed by suprapubic cystotomy.

Diagnosis of Abdominal Tumours.

Dr. A. T. Wilkinson made some remarks on the differential diagnosis of abdominal tumours, and showed several cases. Amongst the points emphasised were the following: (1) The readiness with which displacement of the colon occurred. In one case the transverse colon occupied the right inguinal canal and scrotum; the stomach lying vertical in the abdomen, with the pyloric orifice 1½ inch below and slightly to the right of the umbilicus. In another, the transverse colon fringed the vertical edge of a huge tumour, filling the whole of the left and encroaching somewhat on the right half of the abdomen. It was mainly sarcomatous, and arose from the back of the abdomen in the region of the left kidney, which it had completely destroyed. Tumours arising in this region might, therefore, carry the colon with them, skirting their inner edge and lower margin, so as to present at the abdominal wall a continuous area of dulness unbroken by any bowel sound. (2) Although the left kidney was completely destroyed, there were no renal symptoms. The full average excretion took place, on one occasion the amounts registered being 52 ounces and 504 gr. of urea. (3) The immense size which tumours in the abdomen not directly implicating the bowel might reach. In this case the growth of the tumour masked the loss of weight on the part of the patient, at one period the combined patient and tumour actually gaining weight in spite of the evident loss of the vital energy of the body. (4) The extreme mobility of certain tumours situate

in the central region of the abdomen, especially hydatids in or adjacent to the great omentum.

SALOL IN DIARRHŒA.

Dr. CHARLES SKINNER read a communication on this subject. He said that salol passed unchanged through the stomach, but split up by the action of the pancreatic juice into carbolic acid and salicylic acid, thus forming an antiseptic lotion for the interior of the intestine. It was useful in almost all forms of diarrhœa, its good effect being probably due entirely to its direct antiseptic action on the contents of the bowel. Two or three 10-grain doses were generally sufficient to avert an attack of diarrhœa. It must not be given too frequently or for too long a period, owing to the danger of carbolic poisoning.

SOUTHERN BRANCH: SOUTH-EAST HANTS DISTRICT OF THE BRITISH MEDICAL ASSOCIATION.

F. W. WAY, M.R.C.S., President, in the Chair.

November 17th, 1893.

ELECTION OF HONORARY SECRETARY AND TREASURER.

DR. C. C. CLAREMONT was elected Honorary Secretary and Treasurer of the District.

CASES.

Dr. F. PEARSE exhibited a patient labouring under well-marked Scleroderma.—Dr. COLE BAKER showed a case of Extensive Ulceration of the Mouth and Palate.—Mr. C. H. NEWBY showed a patient with Aortic Aneurysm who had derived great benefit by rest and treatment.

PATHOLOGICAL SPECIMEN.

Dr. WARD COUSINS: Innominate and Aortic Aneurysm treated by simultaneous ligature of both subclavian and carotid arteries.

PAPER.

Dr. AXFORD read a paper sent by Dr. GUILLEMARD, who is now residing in South Africa, entitled a South African Health Resort, which will be published.

REVIEWS.

NOTES ON SOME OF THE MORE COMMON DISEASES IN QUEENSLAND IN RELATION TO ATMOSPHERIC CONDITIONS, 1887-1891. By D. HARDIE, M.D. Brisbane: J. C. Beal. 1893. (Demy 8vo, pp. 132, with charts.)

EVERYONE who is in the daily habit of dealing with large numbers of patients is impressed by the fact that certain common diseases prevail at certain periods, and it is generally admitted that this periodical prevalence is in great measure dependent upon atmospheric conditions, though other factors are concerned. We have in Dr. HARDIE'S work a laborious and conscientious attempt to throw light on this connection between weather and disease. Such a problem can only be approached from the statistical side, and we have in this essay a study in comparative statistics which is well worthy of notice. It forms a step in the march of preventive medicine.

The method employed is a graphic comparison of the weather reports supplied by the Chief Weather Bureau of Brisbane with the mortality statistics of the Registrar-General, the whole of Queensland, with a population of nearly 400,000, being laid under contribution. The weather reports comprise the height of barometer and thermometer, the mean and absolute range of temperature, the humidity, rainfall, rainy days, cloud, and wind, and in drawing conclusions as to the incidence of disease all these subdivisions are taken into consideration. The mortality tables refer chiefly to diphtheria, whooping-cough, phthisis, acute respiratory diseases, diarrhœa, dysentery, and typhoid fever. Without going into detail, the broad connection of certain diseases with certain weather states seems fairly proved, and thus far great value attaches to the work. But, as Dr. Hardie admits, his results must be placed side by side with similar work in all quarters of the globe, before any certain conclusions as to the effect of the weather upon the public health can be drawn. At the same time, it must be remembered that, if, as Dr. Hardie anticipates, the day shall ever come when weather forecasts can be issued which shall be of direct use in forecasting the approaching form of disease, such a forecast must necessarily be of local application.

The chief criticism to which this essay is open bears on a point to which the author himself calls attention, and it is a point which seriously detracts from the value of any inquiry into the causation of disease. It is the taking of mortality statistics as a gauge of the occurrence of disease. In the first place, it is easily recognised how greatly epidemics of such a disease as diphtheria vary in malignancy. It is certainly possible for a greater number of cases to occur in one year as compared with another, while the total mortality is but little altered, so that any conclusion drawn from the recorded number of deaths may be erroneous. Then, apart from periodical variation in malignancy, the absolute number of deaths can hardly be accepted as a guide to the occurrence of disease, except in the case of diseases which run a short and definite course, such as pneumonia or typhoid fever. When such chronic affections as phthisis and dysentery are thus handled, mortality statistics throw light rather on their course and result than on their causation. This difficulty can be overcome by the utilisation of statistics of entry into the hospitals of large towns, though this, again, has the defect of not giving due consideration to the rural population. In fact, in order to obtain an accurate insight into the relation of weather and disease, a system of notification of general diseases must be introduced, such as is now in force in many parts of the world for infectious diseases alone. The method of inquiry by comparative statistics has an inherent weakness, in that the conclusions drawn are largely influenced by the personal equation. Charts of curves, in which comparison is made of two such conditions as weather and disease, cannot be read off and translated into black and white with mathematical certainty. The results present themselves differently to different minds. On the whole, Dr. Hardie's conclusions appear to be judicial and amply supported by the figures; and the essay has the merit of giving the actual figures in full, as well as the conclusions drawn and the grounds on which they are based, so that it is open to anyone to form an independent judgment.

THE RELATION OF LIFE INSURANCE TO INEBRIETY. By T. D. CROTHERS, M.D., Superintendent Walnut Lodge Hospital, Hartford, Conn., Editor *Journal of Inebriety*. Read before the American Association for the Study and Cure of Inebriety. Reprinted from the *Journal of the American Medical Association*.

THE writer, in the commencement of the paper, states that he has been for fourteen years "exclusively engaged in the institutional cure and treatment of inebriates." The paper before us affords an example of the effect that too exclusive attention to one class of case has in warping the judgment. We need only quote the following sentence in proof of this statement: "Companies whose managers and medical advisers are moderate drinkers are on the road to failure." If this be true, all we can say is that the road to failure must be a much longer one than we have hitherto considered it to be this side of the Atlantic; but America, as we know, is the country of magnificent distances. Making, however, due allowance for the author's extreme views, there is no doubt that he has done good service in directing the attention of the medical profession to the importance of inebriety in relation to life assurance.

The author is evidently no believer in moderate drinking in America, as, according to him, "the excitement and revolutions of civilisation, climate and strains, either precipitate the drinker into an inebriate of some sort, or end in acute organic disease." He makes the remarkable statement that "Many of the most incurable cases under my care have rarely exceeded an ounce and a half of absolute spirits daily." All assurance medical officers will, however, agree with him in regard to reformed drunkards. "Correct personal habits and careful hygienic living may do much to restore the lost capacities, and even though a most minute physical examina-

tion will fail to find traces of this brain and nerve strain; yet they exist, and any strain or exigencies will bring them out again."

The suggestion that moderate users of spirits should only be accepted with an addition is certainly not one that could be entertained by the vast majority of assurance offices in this country. Greater care than is at present exercised should, however, be taken to inquire into the amount of alcohol consumed, and, in doubtful cases, especial attention should be directed to the time of day at which stimulants are drunk. Applicants who habitually take spirits before the midday meal are not desirable subjects for life assurance. We agree with the author's objection to "club men," that is, men "without business, having wealth, and living leisure lives." Late hours, want of exercise, and an excessive amount of alcohol frequently combine to bring about an early death.

Leçons de Thérapeutique. [Lessons in Therapeutics.] Par George Hayem. Les Médications. Quatrième et dernière série. Paris: G. Masson. 1893. (8vo, pp. 806, 12 fr.)

This is the fourth and concluding volume of a large work. It discusses the treatment of dyspepsia, of dyspnœa, of cough, of expectoration, of albuminuria, of uræmia, and of sweating. The therapeutics of dyspepsia occupy nearly seven-eighths of the whole volume; and although it contains reference to all the more recent advances in the treatment of this disorder, it is not likely to be widely read in this country, for exactly what the reader wants to know is buried in a mass of detail. The author has really written a book on dyspepsia. For example, the causes of dilatation of the stomach are discussed. In a sense, no doubt, Dr. Hayem is right, for we certainly cannot properly treat a disease unless we know its cause and course; but in this book all sorts of unnecessary details are introduced, and thus the reader is bewildered. Much attention is devoted to the chemical side of dyspepsia, and the reader who wishes to study this part of the subject will find the present book very valuable, for the author has worked it out with admirable care. The chapter on purgatives is very good, and many excellent prescriptions are given. In the part of the book which does not treat of dyspepsia, the work shows a great falling off. The discussion of expectorants is far too brief, and many well known drugs are entirely omitted. Then, also, if the treatment of albuminuria is worth discussing at all, it is certainly worth more than 20 pages out of 800; and, in so large a work as this, uræmia should not be dismissed in 10 pages. Some drugs, such as zinc salts, which are occasionally used to attempt to check sweating, are left out in the chapter on antisudorifics. To sum up, this volume is practically an excellent, although diffuse, account of dyspepsia.

Outlines of Practical Hygiene. By C. Gilman Currier, M.D. New York: E. B. Treat. 1893. (Cr. 8vo, pp. 468).

The design of the author of this book has been to produce a "compendious work upon practical hygiene adapted especially to American conditions," and to embody in it the most recent work of foreign investigators and practical men. We are told that the author has "at his command all modern treatises of importance that bear any relation to the subjects touched upon," and that "even a partially complete list of the works consulted would seriously increase the size of the volume."

To carry out a large scheme of this kind adequately would appear a difficult task to execute in small compass, but the hopelessness of it becomes apparent when it is seen that no attempt is made by the writer to confine himself to the matter in hand.

The book deals, among other things, with the treatment of corns and foot sweating, with the removal of foreign bodies from the eye, with an apparatus for saving the lives of drowning persons, and with directions for those who contemplate spending their vacation in "camping out."

The author has no sense of proportion; he is content to dismiss an important question raised in this country with respect to the etiology of scarlet fever with the statement that "this disease is probably not derived from animals," and can, nevertheless spare a paragraph for the purpose of alluding to the inoculation of neurin as a cure for cancer—a proceeding which he naively remarks "is not mentioned here as having any value."

The book is chatty and amusing, but now and again the reader is startled by some statement which possibly astonishes him merely because he is not sufficiently adapted to American conditions. Thus we read, "in favour of chewing, it may be said that tobacco has a slight antiseptic value." Again, *apropos* of dealing with the spread of tuberculosis in schools, "All scholars and teachers should spit only into suitable spittoons." The author places much faith in the self-purifying powers of rivers; he says "sewage can, as a rule, be allowed to flow into most of our large rivers, if this be done advisedly and with due regard for the health of all." He admits, however, that "no privy should be within the walls of the school building, nor should it be where it may chance to contaminate a well." Indeed, he goes so far as to say "the average privy vault gases are unhealthful when strong."

Dealing, as it does, with much extraneous subject-matter, the book necessarily omits to mention not a few questions of hygienic interest; in fact, no one who has read this book alone can claim to have mastered the outlines of practical hygiene.

NOTES ON BOOKS.

Manual of the Diseases Peculiar to Women. By James Oliver, M.D.Edin., F.R.S.Edin., M.R.C.P.Lond. (London: J. and A. Churchill. Foolscap 8vo, pp. 222. 3s. 6d.)—The author has set down in this little book some more or less elementary gynæcological facts which can be obtained in greater abundance from the existing textbooks. The book is said to be "intended more especially to meet the requirements of the general practitioner in his everyday work." Such an intention would have been better fulfilled if the author had devoted more attention to the differential diagnosis and treatment of the diseases on which he writes. In these respects there is hardly one subject adequately treated, even from the practical standpoint. The author correctly describes his remarks upon development and anatomy as "jottings"; the other chapters might have been similarly headed. It is a book of gynæcological jottings.

A Practical Textbook of the Diseases of Women. By Arthur H. N. Lewers, M.D.Lond., M.R.C.P.Lond. Fourth Edition. (London: H. K. Lewis. Crown 8vo, pp. 459. 10s. 6d.)—The author has in the present edition introduced few changes. He does well, however, to call attention to the great danger of laceration of the nulliparous uterus by rapid dilatation with Hegar's bougies. He also discusses, in the light of our most recent knowledge, the question of supravaginal amputation *versus* vaginal hysterectomy for cancer of the cervix. This practical textbook is one of the safest guides upon diseases of women both for the student and practitioner, and we do not doubt that the present edition will be received with the same favour as its predecessors.

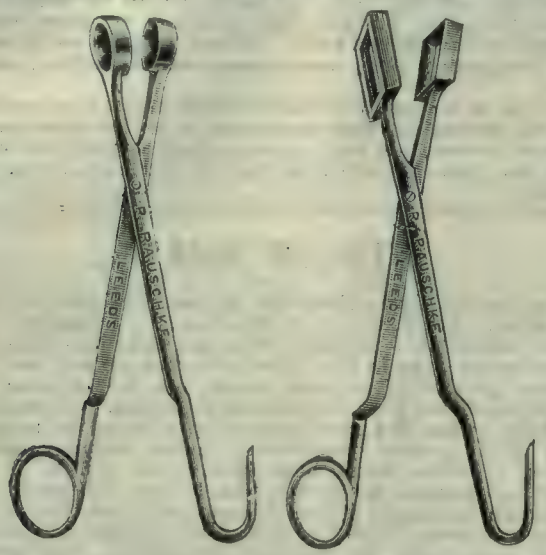
A Homely Talk on Health: How to Gain and How to Keep It. By Florence Stacpoole, Lecturer to the National Health Society. (London: The National Health Society. 1893. Foolscap 8vo, pp. 32. 2d.)—This is one of the best books of the kind with which we are acquainted. It contains three conversations: the first on Air, the second on Food, and the third on Clothing. The difficult method of dialogue is managed with a good deal of literary skill, and though the way in which some of the facts are put appears to the mere dull-witted male person a little odd, a moment's reflection shows that just such expressions are used as a lady might employ in ordinary conversation. The teaching is, on the whole, sound and quite up to date, and the pamphlet is thoroughly readable.

Dr. Dubois has submitted to the Conseil Général of the Seine Department a proposal to establish a home for the treatment of alcoholic patients.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MR. THOMAS JESSOP'S PROSTATE SCISSORS.

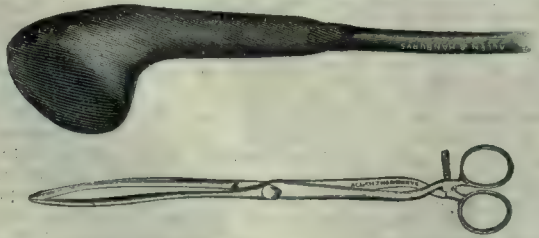
The scissors consist of a ring at the end of each blade. The smaller ring is made with a cutting edge, and fits exactly into the circle of the larger one, the edge of which is also sharp. The diameter of the rings in each of the three sizes made measures $\frac{7}{8}$, $\frac{9}{10}$, and $\frac{8}{8}$. In performing suprapubic



prostatectomy the scissors are passed into the bladder, and the projecting lobe of the prostate snipped away either at once or piecemeal. The instrument has also proved of great service in the removal of vesical growths. It can be obtained from Mr. R. Rauschke, 35, Bond Street, Leeds.

A MODIFICATION OF "CHAMPETIER DE RIBES'S" BAG.

Dr. W. McD. Ellis (Bath) writes: The chief objections to the use of Champetier de Ribes's bag seems to be the danger likely to arise owing to increased tension in the uterus, and also the danger of displacing the head, and converting a natural presentation into an unnatural one. In order to obviate these dangers, and at the same time to keep the bag large enough for all practical purposes, Messrs. Allen and Hanburys at my request have reduced the circumference of the larger end, and also shortened the length of the bag, as shown in the woodcut, so that when introduced into the



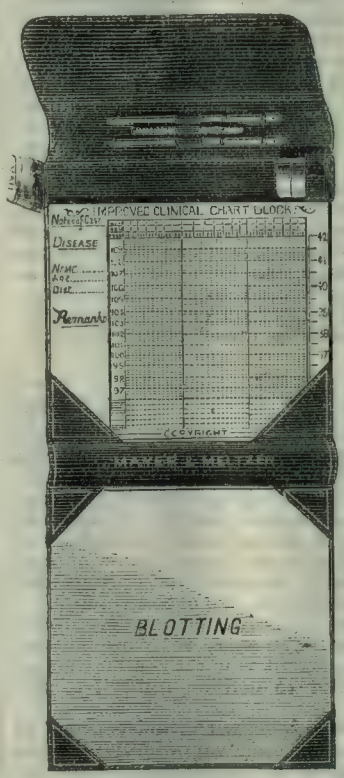
cervix and distended it will not occupy so much space in the uterus.

A point that seems to me of great value in the use of Champetier de Ribes's bag is that it can be made to act as an artificial "bag of membranes," so producing dilatation from above down, and in order to carry out this effectually I have had a non-expansile cord introduced into the tubing so that traction to any extent may be applied without injury to the bag or tubing. I have also had the bag made of a material which obviates the necessity of stitches, and so can be made thoroughly aseptic. As the size of the "bag" has been reduced, I have been able to have the forceps made considerably smaller and lighter.

THE "EAGLE'S CLAW" VULSELLUM.

Those who have frequently to do operations in which the use of a vulsellum is necessary, such as the various gynæcological operations in which the lip of the uterus is seized, must have frequently seen the instrument tear out when any traction of consequence is made upon it. This especially takes place when the traction is made to one side, the vulsellum being as usual in the hands of an assistant, who holds it so as to be out of the way of the operator. It is a most exceptional thing for the instrument to be retained by the operator in his own hand. He fixes it, and then gives it to his assistant, who makes traction upon it, and pulls it as usual out, lacerating the tissues somewhat. Dr. James Braithwaite is of opinion that all vulsellums are wrongly made; they are safe only when the traction is made in the direct axis of the instrument. A vulsellum has been made for him by Mr. Rauschke, Bond Street, Leeds, the hold of which, although it is safe when the traction is direct, is safer still when it is pulled to one side. This is accomplished by the claws at one side being longer and more curved than at the other. The handle being curved also, the instrument is necessarily pulled in the direction of the curve, and when so pulled the claws will not pull or tear out. It is exactly like the claws of an eagle, and, at the suggestion of Mr. Atkinson, senior surgeon to the Leeds Infirmary, it is called the "eagle's claw" vulsellum. It can be obtained from Mr. Rauschke.

IMPROVED CLINICAL CHART BLOCK AND CASE.



The accompanying illustration shows a convenient and portable form of temperature chart block and case, and has been found most useful in practice. It combines a handy case for the "registered chart blocks"—which can be had separately—ink bottles, pens, and clinical thermometer. The advantage of the chart block, from which the sheet can be separated when filled, is obvious, single sheets sometimes getting mislaid before completion. A pocket is made under the blotting pad to contain the used charts. The appliance is manufactured by Messrs. Mayer and Meltzer, of Great Portland Street.

It is announced that Professor Karl Stellwag von Carion, of Vienna, who is the oldest Professor of Ophthalmogy in any German-speaking university, will resign his chair at the end of the present semester.

An Extraordinary Death Certificate.—At an inquest held on December 2nd, at Sheffield, Mr. D. Wightman, the coroner, is reported to have said that the following certificate had been put in: "This is to say that C. Snake is dead, and I believe it is from a birth. E. M'Donnell, L.R.C.P., 40, South Street, Park."

PARLIAMENTARY BILLS COMMITTEE.

A meeting of the Parliamentary Bills Committee was held on November 22nd, Mr. Ernest Hart in the chair. Among those present were: Mr. E. H. Galton (Brixton), Dr. E. Marriott Cooke (Powick), Dr. George Reid (Stafford), Dr. William Gordon (Exeter), Dr. A. R. Manby (East Rudham), Dr. Robert Barnes (Lyss), Mr. J. Wickham Barnes (London), Dr. Robert Esler (London), Mr. J. Hughes Hemming (Kimbolton), Dr. W. Withers Moore (Burgess Hill), Dr. W. G. Lowe (Burton-on-Trent), Dr. D. B. Balding (Royston), Mr. C. H. Watts Parkinson (Wimborne Minster), Dr. James Murphy (Sunderland), Mr. W. D. Spanton (Hanley), Dr. Francis Vacher (Birkenhead), Mr. Charles T. Street (Newton-le-Willows), Dr. Robert Jones (Claybury Asylum), Dr. C. Holman (London), and Dr. D. Nicolson (Wokingham).

Letters and telegram expressing regret for non-attendance were read from Dr. Bridgwater, Dr. G. H. Philipson, Dr. Ward Cousins, Dr. Bruce Goff, Dr. A. J. Harrison, Dr. R. R. Rentoul, Dr. Stanley Haynes, Dr. R. Somerville, Dr. Phillips, Dr. Ritchie, and Dr. Hugh Ker.

A letter was read from a member of the Committee stating that it would be more convenient to hold the meetings of the Committee on the day before or after the meetings of the Council of the Association, in order that members representing the different Branches of the Association on the Council and the Committee could attend the meetings with only one journey to London.

The Chairman said it was the rule, as far as possible, always to have the Committee meeting on the day prior to the Council meeting, but it was obvious that the business of the Committee could not be absolutely regulated by any fixed day; it must depend upon Parliamentary business.

Mr. Parkinson said the Committee knew well enough that the meetings were always called, as a rule, on the day before the Council meetings.

The Chairman said the first thing on the agenda was the proposed strengthening of the penal clauses of the Medical Acts. With reference to this subject, he had drawn up a report. For many years, in fact so long as the question of the reform of the Medical Acts had been under consideration, it had been the constant effort of the British Medical Association, of the Medical Reform Committee of the Association, to endeavour to get the 40th Clause of the Medical Act strengthened. The only effect of the clause at the present time was not to prevent irregular practice, but only to prevent anyone practising under false pretences. The Reform Committee carefully and continuously drafted stringent amendments for the penal clause to curtail irregular practices, but not only would the Ministers refuse to listen to it, but they could not get anyone to attempt to introduce the amendments. The opinion was expressed that the House of Commons would never consent to say to any Englishman "You must not consult So-and-So," and they would never consent to say "You shall not practise." If any person chose to consult a bonesetter, knowing that he was a bonesetter, he was at liberty to do so, and the same with regard to consulting a medical botanist. The consequence was that the efforts of the Committee had always been frustrated. The result of the recent Indian oculist trial was to produce a most remarkable change in public opinion so far as expressed in the public press. Whether that change was a temporary or a permanent one time only could show. He thought it very desirable to make a fresh effort, and had drawn up the report. In drafting the report he had commenced by quoting eight or nine leaders from the leading daily and provincial papers, which all expressed the opinion that the Act required amending. The jury said they very deeply deplored that there existed at present no criminal law to prevent persons such as the defendants from practising medicine and surgery. The *Times* declared that the ignorant class of the population ought to be protected against themselves. All this was exactly the opinion the Association had been expressing for a great many years. In order that the report might be based upon and well related with facts, and carry other convictions as well as his own, he had had the material gone over by Mr. Upton, clerk to the Apothecaries' Society, who acted for the Association in such matters, and also Dr. Bateman, who had rendered such excellent services in that connection for the Medical Defence Union. After putting before those gentlemen his own views and giving them material for reciting the history, he had prepared the report.[1]

After some discussion it was moved by Dr. Murphy, seconded by Dr. Esler, and resolved:

That the report be approved and referred to a subcommittee, to consist of the Chairman, Dr. Bateman, and Dr. Withers Moore to consider the subject, with power to take what legal advice was thought necessary.

The Chairman said he had received a letter from the London and Counties Medical Protection Association, enclosing some recommendations on the subject. He thought it would be well to ask that Society to communicate further with the subcommittee.

On the motion of Dr. Parkinson, seconded by Dr. Bateman, it was resolved:

That the Council of the British Medical Association be recommended to add the name of Mr. Jonathan Hutchinson to the Parliamentary Bills Committee, as chairman of the London and Counties Medical Protection Association.

The Sale of Proprietary Medicines Containing Poison.

The Chairman said it would be interesting to relate the progress of what he had been doing in the matter of the labelling of secret medicines, especially because there were certain questions still undetermined. A general decision had been given establishing the necessity to comply with the Pharmacy Act, by labelling preparations containing poison with the word poison. A great number of these proprietary medicines had been labelled, but there had been a recent construction on the Act which made the matter rather more complicated than the previous decision indicated. In the first place there had been a decision in the Dublin Police Court, stating that a medicinal preparation containing a poison within the meaning of the Pharmacy Act, and also entitled to be called a patent medicine, was so far exempt from the provisions of the Pharmacy Act that it could be sold retail by anybody whatever. The result of all that is, that as these persons are not under the necessity of taking the precautionary measures which the Act required of persons selling poisons; they had to keep no register, and they had not to enter up the names. This recent construction of the Act materially lessened the safety of the public. It was not desirable that any grocer or village shopkeeper should be able to sell these proprietary medicines because they were patent medicines. He had no doubt there would be an appeal against the decision, and he would ask the Committee to authorise him to communicate with the Council of the Pharmaceutical Society, strongly urging them to appeal against the police-court decision, which he did not think would be upheld. If the appeal was dismissed it would be necessary to get fresh legislation.

Another point in connection with the matter had occurred. Recently a decision had been given that unless it was proved that there was a given quantity of morphine in any particular bottle sufficient to make it poisonous, the Pharmacy Act did not apply to that preparation. That was to say that if the quantity of morphine was small, it could not be said that the preparation was poisonous, and therefore a magistrate in Manchester had refused to apply the law. That, again, he (the Chairman) believed to be a very unsound one. At any rate, it would be necessary to take the case to a superior court, for if the decision was upheld, the Act required amendment in that direction also. He had great pleasure in presenting the report on the matter to the Committee:

It was proposed by Mr. Hemming, seconded by Dr. Wickham Barnes, and resolved:

That the report presented be accepted, and that the Chairman be authorised to take any further steps in the matter which he might think necessary.

Extension of Sanitary Powers to County Councils.

The Chairman called attention to a report which he had drawn up on the subject of Extension of Sanitary Powers to County Councils published in the British Medical Journal of July 15th, p. 123; of July 22nd, p. 187; and of July 29th, p. 246. He said the report had been drawn up after consultation with a great number of leading medical officers of health, all of whom had had copies submitted to them in proof, and had revised it. He drew it up in anticipation that there might come some opportunity of discussing the whole question in Parliament, but that opportunity had not come in its fulness.

[1] See British Medical Journal, December 2nd, p. 1221.

The report had been approved by all the leading medical officers of health in Great Britain. The next step would be to bring the report under the notice of the lay authorities, and if they approved, he would propose that there should be a conference of the Parliamentary Bills Committee and the officers of the county councils throughout England; and as the result of that conference, they could establish a joint committee, comprised of certain members of the Parliamentary Bills Committee and of some of the officers of the county councils, and conjointly bring a Bill into Parliament.

It was proposed by Dr. Holman, seconded by Mr. Spanton, and resolved:

That the Chairman be authorised to have the report reprinted and circulated to all the officers of the county councils for their consideration and criticisms, and that such further steps may be taken as may naturally arise out of their criticisms.

Dr. Reid proposed as a rider to the resolution:

That the Committee endeavour to obtain the approval of, and work in conjunction with, the County Councils Association.

Dr. Reid said he knew that the County Councils Association were anxious to obtain extended powers, and thought there would be no difficulty in their working with the Parliamentary Bills Committee, who would thus have much stronger power and support.

This was seconded by Dr. Vacher, and carried.

It was decided to send copies of the report, with a letter to a number of members of county councils, asking them to see that the report was considered, and not filed away without any notice being taken of it.

District and Parish Councils Bill.

The Chairman said that with reference to the District and Parish Councils Local Government Bill, 1893, the Committee knew already that it was a very complicated and difficult matter. It was necessary not to do too much. He had consulted some very experienced county medical officers as to what would be the most useful and practical precautions to introduce into the Bill. He submitted the following clauses, which had been prepared after consultation with a very competent county medical officer, after he had discussed the matter with some of his colleagues:

"*Suggested Amendments and Additions to the Local Government Bill, 1893.*

"8. (*d*) To execute such works as they may consider necessary for improving or protecting or rendering more available any public supply of water within their parish, or for utilising any available supply.

"(*e*) To execute such works as they may consider necessary for the cleansing, emptying, or refilling up of any pond, pool, open ditch, or drain, within the area of the parish.

"15. If it appears to a county council upon complaint made to them by resolution of a parish council within their county, or upon complaint made to them in writing, signed by ten or more ratepayers in any district within their county, or upon the report of the medical officer of health for any such district, or upon the report of the medical officer of health of the county council, that any district council within their county ought to have enforced with regard to their district or any part thereof any provision of the Public Health Acts, and have failed to do so, the county council may direct a local inquiry to be made by a committee of their number; and if upon such inquiry the county council are satisfied that the district council have so failed, they may resolve that the duties and powers of the district council for the purposes of the matters in which default has been made shall be transferred to the county council, and the said duties and powers shall be transferred accordingly.

"The effect is to give the county council opportunity of interfering in case of default in *urban* as well as *rural* districts; and without necessarily waiting for complaint by parish council. The Government Clause 15 limits their powers to rural districts and to matters brought before them by parish councils.

"It often happens that neglect is evident from the annual report of the district medical officer of health; the Local Government Act of 1888 (Section 19) recognises this, and provides a roundabout remedy by way of appeal to the Local Government Board.

"It may be thought expedient to require the approval of the Local Government Board (upon appeal from the superseded district council).

[To come in between Clause 24 and 25 of Government draft.]

"25. Every district council shall appoint a medical officer of health and one or more sanitary inspectors; such appointments to be subject in all respects to the approval of the Local Government Board and of the county council, and terminable only by the death or resignation of such officer, or upon six months' notice given to him in writing by the county council or by the district council, with the approval of the county council, and subsequently approved by the Local Government Board.

"If for a period of six months a district council fail to appoint a medical officer of health or a sanitary inspector to the satisfaction of the Local Government Board and of the county council, the county council shall proceed to make such appointment; and the officer so appointed shall be considered to have been duly appointed by the district council.

"A district council may transfer to the county council their duties and powers with regard to the appointment of a medical officer of health or of a sanitary inspector for their district, and the county council shall thereupon make such appointment as may be necessary, the medical officer of health appointed not being the county council medical officer of health, and shall contribute three-fourths of the salary of each officer so appointed by them.

"The effect intended by this new clause is to give security of tenure, and it is hoped adequate payment to the medical officer of health and sanitary inspector, during 'good behaviour;' and to give the county council the duty of appointing if the district council do not.

"At present half of the salaries of the medical officer of health and sanitary inspector may be claimed from the county by the local authority.

[To follow new Clause 25, and to precede Government Clause 25.]

"26. From and after the commencement of this Act, every district council shall be deemed to have adopted the provisions of the Infectious Disease (Notification) Act, 1889."

Dr. Vacher said that the Parish Councils Bill was considered at the meeting of the Society of Medical Officers of Health held on November 20th, when the President made a very careful summary of the whole Bill, and invited discussion upon it. The Government proposals were fully debated, and the Bill was referred to a subcommittee, which had met that afternoon and came to the conclusion apparently not dissimilar to that come to by the Parliamentary Bills Committee, which was to refrain from attempting to burden the Bill with too much sanitary matter. If they wished to do anything, it was best to limit the requests they made. After consideration the subcommittee of the Society of Medical Officers of Health decided that the Bill would be strengthened if they could introduce into Section 8, after Subsection E a subsection, which might be called E 1, to the effect: "To exercise with respect to any nuisance likely to be prejudicial to health in the parish under their control such powers as may be exercised by an authority under Section 91 of the Public Health Act, 1875." It might be thought sufficient to strike out Subsection E as it at present stood with reference to ponds, pools, open ditches, drains, or places containing or used for the collection of any drainage or filth, and to introduce the proposed subsection in its place. However, it was pointed out that occasionally it was a great advantage to have the power of dealing with an open ditch or pool quite irrespective to its being a nuisance. The proposed addition would enable parish councils to abate all ordinary nuisances. Section 91 of the Public Health Act defined a nuisance. Under Section 14 it was proposed to permit district councils to delegate certain powers to parish councils. The result of this permission might be that a parish council having certain obligations which they were not desirous of discharging would get rid of them by delegating them to the parish council, and the parish council would leave the matter alone. This might be remedied by adding after "parish council" the words "with the consent of such parish council and for a period not exceeding one year." The effect of this would be that a parish council would not have powers thrust upon it which it did not desire and would not use. Section 15 was really the strongest and best section of the

whole of the Bill, from a sanitary point of view. It would enable the county councils, on complaint by parish councils of neglect of districts councils, to take upon themselves certain duties with reference to the making or maintaining of sewers, providing the parish with water supply, etc. One of the greatest difficulties in rural districts was getting proper sewerage and water supply. Each district managed for itself and there was no ready way of securing combined action. If parish councils had the right of appeal to county councils, and the latter had power to act, combined works would often be carried out. The Society of Medical Officers of Health thought Section 15 would be strengthened by altering it so as to make it compulsory instead of being merely permissive. Thus the words of the Bill would be that on neglect of the district council "the parish council *shall* complain to the county council, and the county council, if satisfied after due inquiry that the district council have so failed as respects the subject matter of the complaint *shall* resolve that the duties and powers of district councils for the purpose of the matter shall be transferred to the county council, and they shall be transferred accordingly." Investigation would show in each case whether a complaint was warranted. When the county council had fully inquired into the matter and found the complaint was reasonable and just they would be required to exercise the duties. After Clause 15, and before Clause 16, it was thought that the Bill would be much strengthened if there could be inserted Section 100 of the Public Health London Act 1891, varied as may be required. This section gave the London County Council power to prosecute in default of the sanitary authority.

Dr. Withers Moore proposed, and it was carried unanimously:

That a subcommittee, consisting of the Chairman, Dr. Reid, and Dr. Vacher, be appointed to take, in co-operation with the Society of Medical Officers of Health, the necessary steps to get the clauses proposed introduced.

Small-pox and Notification of Infectious Disease.

The Chairman, in presenting reports on these subjects, said it had entailed a most laborious amount of work. They were very important reports, and deserved some special mark of approval. He thought they would form presently a really valuable body of literature such as had never before been collected.

It was proposed by Dr. Murphy, seconded by Dr. Robert Barnes, and resolved:

That the reports on small-pox and the special report on notification of infectious diseases be received, adopted, and printed.

Cholera at the Hardwâr and other Indian Fairs.

The Chairman said the next thing was the following resolution of the Public Medicine Section of the Newcastle meeting of the Association:

That it be referred to the Parliamentary Bills Committee to take such steps as may be desirable to approach the British and foreign Governments with a view to obtain the intervention in securing measures for the suppression of cholera at the Hardwâr and other Indian fairs, and at the Meccan pilgrimage; and that for this purpose also due submission of the facts be made to His Majesty the Sultan.

The resolution was the result of a paper read by him in that Section and before the Congress of the British Institute of Public Health at Edinburgh, and it had been referred to the Parliamentary Bills Committee to approach the British and foreign Governments with reference to the subject. The paper he read had been printed in the British Medical Journal, and it showed that a large part of the cholera proceeded from the Hardwâr fairs and the Mecca pilgrims. He would ask the Committee to refer the matter to him, and he was anticipating going to Constantinople to see what could be done with the Ministers there. He believed Lord Rosebery would back any suggestions proposed, and probably Sir Henry Roscoe would go with him to Constantinople. He would communicate with certain French and German officials, and see how far their Governments would support any proposals. The Mahommedans themselves were asking for something to be done. When his first paper on the subject was published in the British Medical Journal and an expansion of it subsequently in the *Nineteenth Century*, the Mahommedans in Southern India read it, and at a meeting held passed resolutions warmly in favour of it. He should suggest that if the Government could not suppress cholera in India, then it should, as far as possible, limit the exportation of cholera by putting on similar measures of isolation and quarantine on pilgrim ships as were now put on the Queen's ships. If that was done also to the pilgrim ships, no doubt the exportation of cholera to Mecca would be limited.

It was proposed by Dr. Reid, seconded by Dr. Manby, and resolved:

That the Chairman be requested to take such steps as may seem necessary to carry out the resolution of the Public Medicine Section.

Costs Incurred by Port Sanitary Authorities.

The Chairman said he had been in communication with the authorities, and had had the whole of the facts of the costs incurred by the port sanitary authorities, and to what extent they involved Imperial questions put into the form of a special report.

It was resolved:

That the report be printed, and referred to a subcommittee consisting of the Chairman, Dr. Armstrong (Newcastle), and Dr. Vacher (Birkenhead), to take whatever steps they think necessary in the matter.

Physical and Mental Condition of School Children.

The Chairman said that the Council had referred the matter to the Committee. It was really a question for the Council itself to deal with, but as it had been referred to the Committee, he should propose that they should represent the memorial, presented to the Council, to the Education Department by deputation. He believed Mr. Acland was favourably disposed in the matter.

It was proposed by Mr. Wickham Barnes, seconded by Dr. Galton, and resolved:

That a deputation from the Parliamentary Bills Committee, including members of the Council of the British Medical Association and members of other bodies interested in the matter, should wait upon the Education Department, and present the memorial on the question of the physical and mental condition of school children.

The Opium Question.

The Chairman said some time ago he had sent to a large number of Indian medical officers and officials a series of questions, and asking for answers on the use of opium. Within the last fortnight, upwards of one hundred of these replies had been received, and they were still coming in, containing a most valuable body of evidence. He thought that, as the Opium Commission was meeting in India, and a short summary of it was being telegraphed every day, it was desirable that the information in their possession might be available for public purposes, and he proposed to publish an analysis of the first batch of replies in that week's Journal.

It was proposed by Dr. Robert Barnes, seconded by Mr. Parkinson, and resolved:

That the Chairman be authorised to publish the analysis of the returns, and that they be brought under the notice of the leading newspapers and members of Parliament.

The Chairman said he would have to ask the Committee to recommend the voting of certain sums of remuneration for the work done by the clerk of the Committee and by the gentlemen who had assisted in drawing up the statistical tables and collated the data of the reports now presented to the Committee.

It was proposed by Mr. Hemming, seconded by Mr. Parkinson, and resolved:

That the Parliamentary Bills Committee recommend that the amounts mentioned by the Chairman be paid to the gentlemen who had assisted him in preparing the reports and the work of the Committee.

SALE OF POISONS.

Report for the Parliamentary Bills Committee by the Chairman.

The work done by the authority of the Committee during the last three years in connection with the sale of poisons has already been productive of very considerable amendment of the practices which had long been condemned by the medical profession as the frequent cause of deplorable calamities, and fraught with serious danger to the public. But notwithstanding the satisfactory progress which has been made towards a realisation of suitable precautionary control of the sale of poisons, there are still several points remaining undetermined, and they are of sufficient importance to demand further efforts in the same direction. For the purpose of elucidating the requirements which are still unsatisfied in practice, it will be desirable, in the first place, to recapitulate briefly what has been done up to the present time.

Scope of the Pharmacy Act.—In entering upon this work I ex-

pressed to the Committee the opinion that as the Pharmacy Act of 1868 was passed expressly for the purpose of protecting the public from danger likely to arise from the unregulated sale of poisons, it was reasonably to be expected that the provisions of that Act should be sufficient for the purpose. In apparent opposition to that view was the notorious fact that poisons of various kinds were being very extensively sold without regard for any of the precautionary measures prescribed by the Pharmacy Act. Consideration of this anomaly and inquiry into the reasons for its existence led me to the conclusion that the evil to be dealt with was not due to defects in the law relating to the sale of poisons, but solely to systematic disregard of its provisions. As the most flagrant instance of this kind, the sale of secret medicinal preparations first received attention. The vast extent to which the sale of such preparations, containing poison, was carried on was well known to the medical profession, and the mischievous consequences resulting from it were to some extent proved by numerous fatalities constantly becoming the subject of coroners' inquests.

Labelling of Secret Remedies.—Acting upon the view which had been expressed on behalf of the Treasury, that the sale of a secret preparation containing poison within the meaning of the Pharmacy Act, would be regarded as a sale of that poison, and as subject to the provisions of the Act, and also upon the further assurance, on the same authority, that whenever occasion arose a prosecution would be instituted, I decided by authority of the Committee to commence its work by attacking the sale of secret remedies. Some difficulty was at first experienced in obtaining the requisite evidence of the presence of poison in these articles; but eventually, through the assistance of Dr. B. H. Paul, I was enabled to place before the Treasury authorities a list of secret remedies containing poisons within the meaning of the Pharmacy Act. A prosecution was thereupon instituted in regard to one of these preparations—chlorodyne—and it was defended by the proprietors on the plea that it was a "patent medicine," and as such exempted from the operation of the Pharmacy Act by the provision in Section 16 relating to the "making or dealing in patent medicines." Evidence having been produced that chlorodyne was not the subject of letters patent, the magistrate who heard the case refused to admit the argument that chlorodyne was, on the ground of ordinary parlance, to be regarded as a patent medicine, and, adopting the definition of a patent medicine in the Medicine Stamp Act, he decided that chlorodyne was not exempt from the provisions of the Pharmacy Act in regard to the sale of poison.

That decision had a general bearing upon all similar preparations. It established the necessity of complying with the Pharmacy Act by labelling such preparations with the word "Poison" and the name of the article which was a poison within the meaning of the Act. As a necessary consequence of this disclosure of the presence of a scheduled poison the sale of all preparations of this kind became obviously subject to the restrictions laid down in the Pharmacy Act, and their sale by unregistered persons was therefore a punishable offence.

Restriction of the Sale of Preparations containing Poison.—A basis was thus obtained for enforcing more adequate observance of the Pharmacy Act, and preventing further continuance of the sale of secret remedies containing poisons either without being labelled or by persons unqualified under the Act. The requirement as to labelling was in many instances promptly complied with by the proprietors of preparations of this kind; but the restriction of their sale was opposed by grocers and the other unqualified persons who had been in the habit of selling these articles. It was therefore necessary to have recourse to the Pharmaceutical Society as the body empowered to enforce the provisions of the Act against unqualified vendors of poisons. The prosecution of a firm of grocers for the sale of chlorodyne was then instituted by the Council of the Society. For the defence it was again alleged that the term "patent medicine" was applicable to all secret remedies and proprietary preparations, and that the poison contained in chlorodyne, being mixed with other ingredients, was not subject to the provisions of the Pharmacy Act. Upon those grounds it was argued that the sale of secret remedies containing poison did not come within the scope of the Act, and that the restriction of their sale to persons qualified to sell poisons was not necessary for public safety. After a prolonged hearing his Honour, Judge Bacon, decided against the defendants on both of these points. He held that the term "patent" was obviously inapplicable to secret remedies, and that the whole mischief which was intended to be prevented by the Act would be allowed if it were once admitted that by mixing poison with something else, it then ceased to be poison within the meaning of the Act. This decision was appealed against, and after the case had been argued for two days in the Court of Queen's Bench, Judge Bacon's decision was upheld by Justices Lawrance and Collins.

Present Construction of the Pharmacy Act.—The judicial construction of the Pharmacy Act thus obtained had the effect of establishing its applicability in every respect to the sale of secret remedies or other preparations containing poisons, and it has so far fully supported the view that the provisions of the Act in regard to the sale of poisons are adequate for the purposes contemplated by it. The course to be adopted by the Council of the Pharmaceutical Society was thus clearly defined. It has been followed by that body with commendable regard for its public duty, and in a very large number of cases in which action has been taken on that line the authority of the law has been successfully upheld. In some of those cases forensic ingenuity was applied to the question, What is a poison? with the object of showing that the applicability of the word is to a great extent relative. Anything may be poisonous when taken in excess, and everything may be harmless when administered in proper quantity; but in regard to the Pharmacy Act, such discussion of the subject is irrelevant, because poison, in the eye of the law, is clearly defined. There are many articles of a poisonous nature the sale of which is left free from restriction because they are frequently required for various technical purposes. The poison schedule comprises only a small number of articles, mostly employed for medicinal purposes, and hence it may reasonably be inferred that absolute prohibition of their sale by any but qualified persons was the intention of the Pharmacy Act. If restriction of the sale of poison were limited by consideration of poisonous quantities the poison schedule would require to be extended so as to include a very much larger number of articles than it does now.

Questions still Undetermined.—There have, however, been two exceptions to the successful results of the attempt to enforce the Pharmacy Act, and the points raised in these instances are those already referred to as being still undetermined. One of them is the extent to which the exemption of "the making or dealing in patent medicines" extends. In the Dublin Police Court it has been decided that a medicinal preparation containing a poison within the meaning of the Pharmacy Act, and also entitled to be called a "patent medicine," is so far exempt from the provisions of the Act that it can be sold retail by persons unqualified to sell poisons. That decision has not yet been appealed against; but it appears to be distinctly at variance with the object of the Act. It would open the way to the indiscriminate sale of all or any of the poisons which are placed under restriction by the Pharmacy Act. In regard to the kinds of business exempted by the 16th Section of the Act, the exempting provisions relating to sale and dispensing of poisons absolutely negative all the preceding portion, including the section constituting certain articles poison; consequently those articles are not poisons within the meaning of the Act in regard to the business of legally qualified medical or veterinary practitioners, wholesale dealers, or makers or dealers in patent medicines. That is quite consistent with the qualifications of the persons just referred to, and with the conditions of wholesale trade. But if the exemption were extended to the retail sale of patent medicines containing poison it would also do away with the necessity for observing in that case any of the precautionary measures which the Act declares to be essential for the safety of the public. That is a degree of exemption utterly inconsistent with and subversive of the main object of the Act. It is inconceivable that such a view can be upheld, and the absence of any foundation for it is manifest from the fact that the trade exemptions specially provided for by the Act relate only to wholesale dealing. The restrictive provisions apply only to retail dealing, and I am decidedly of opinion that they apply to the retail sale of patent medicines, containing poisons, as much as to

any other retail sale of poison. If that were not the case, and while patents can be obtained for medicines containing poisons, the special object of the Pharmacy Act would be entirely frustrated by a provision of its own.

Toxic Quantities.—In addition to the point above-mentioned, which will no doubt soon come before the courts for decision, there is another relating to the quantity of a poison which is subject to the provisions of the Act. This point was raised in a prosecution at Manchester, and it was contended that the quantity of morphine in the article sold was so small that it was not "poisonous." This argument introduces a point which the Pharmacy Act does not take cognisance of. The Act provides that certain articles shall be deemed poisons, that their sale shall be restricted to persons qualified under the Act, and that certain precautions shall be observed in their sale. There is no consideration of quantity, and, if there were, the difficulties to which it would give rise would imperil the object of the Act. In the case to which reference is now made it appears to have been assumed that the question before the court was whether the preparation was poisonous. That, however, is a question which cannot be decided by a court of law, and it is one which does not arise under the Pharmacy Act. If evidence be produced that a poison within the meaning of the Act is present, and that evidence is not disproved, it should follow as a necessary consequence that the sale of the article is subject to the provisions relating to the sale of poisons.

These two undetermined points in regard to the construction of the Pharmacy Act are of such importance in their bearing upon its efficiency as a measure for protecting the public, that they must of necessity be dealt with before long; and the Committee may fairly anticipate that, attention being now directed to them, the endeavour to obtain a rational and satisfactory interpretation of the Pharmacy Act will be continued by the Council of the Pharmaceutical Society with the same beneficial results that have already been secured in regard to secret remedies and their irregular sale.

Further Legislation on the Sale of Poisons.—In regard to the devices adopted in order to evade compliance with the Pharmacy Act judicial interpretations have hitherto sustained the view held by the Committee, that with due consideration for the general policy and particular object of the Act, its provisions are sufficient for regulating the sale of poisons. If that view should be still further supported, additional legislation would be unnecessary; but if public safety should require amendment of the Act, one of the chief points to be secured is the compulsory statement of the composition of all proprietary medicines upon the label of every bottle or package. Ignorance of the presence of poison in such articles would then no longer be a source of danger to those using them, nor could retailers shelter themselves under that excuse for breach of the law facilitated by concealment of the fact on the part of the makers. A strong argument for the necessity of such a statement of the composition of proprietary medicines is furnished by the fact that, when the decision was given in the first chlorodyne case, the composition of several of these preparations was altered by leaving out or largely reducing the amount of poison they had contained. It was then announced by public advertisement that the sale of these preparations was not subject to the restrictions imposed by the Pharmacy Act. Judging from the medicinal importance of the ingredients so left out in order to secure freedom from the effect of the decision, it may be expected that when the influence of that decision has subsided the use of the poison ingredients will be again resumed. Thus the danger of concealed poison would be supplemented by a further danger arising from a variation in the composition of such articles. It would probably be fallacious to expect that a compulsory statement of composition would prevent the palpable and injurious mis-statements and claims frequently made for the purpose of recommending proprietary medicines; but in cases where poisons are ingredients, a statement of the fact would be a warning to persons using such preparations, and a distinct indication that they were not to be sold indiscriminately.

Administration of the Pharmacy Act.—The directions given by the late Attorney-General that prosecutions by the Treasury department should be instituted only in the event of a particular preparation being really poisonous or dangerous scarcely admits of interpretation otherwise than as having been suggested by the circumstance that the Pharmaceutical Society is the authority specially empowered to deal with this subject. An extension or transfer of that power to some other public department more independent of trade influence might, therefore, be desirable, as conducing to the benefit of the public, and that is a point to be considered if amendment of the Pharmacy Act should become necessary.

There is reason to believe that the Council of the Pharmaceutical Society has hitherto been hampered in the administration of the Act by the fact that the opinions and practice of its members and of the trade which it represents were not infrequently opposed to a strict interpretation of the Act. It is remarkable that this should be the case; but it was very evident when the litigation relating to the sale of poisons by unqualified assistants was in progress. There is evidence of similar antagonistic tendencies in regard to the sale of patent medicines containing poison. Thus, for instance, the proprietors of the medicine to which the Dublin case related are registered chemists and members of the Society; but, instead of supporting an interpretation of the Act which would secure, as far as possible, to qualified chemists the slender protection of their business which the Act affords, they prefer to oppose its application for that purpose, and seek to throw the sale of a preparation containing poison into the hands of grocers and other unqualified persons.

AMENDMENTS TO MEDICAL ACT, 1858.

Report by the Chairman for the Parliamentary Bills Committee of the British Medical Association.

The Medical Act, far-reaching as it may be considered to be, falls short, from practical experience, in some particulars. For instance, in the case of Carpenter *v.* Hamilton, reported in the 37th volume of the new series of the *Law Times*, page 157, the weakness of the Act was shown.

In this case a man named Hamilton, a "nervous debility" quack of some notoriety, was charged under the Medical Act for *wilfully* and *falsely* pretending to be a Doctor of Medicine, and thereby implying that he was registered under the Act, and so recognised by law as a physician. Hamilton then kept, and still keeps, a shop in Oxford Street dispensing medicines and prescribing for patients, and otherwise acting as a medical practitioner. In the window of the shop was placed in a conspicuous position—it may be seen there now—a diploma in which he was described as "John Hamilton, Doctor of Medicine, of the Metropolitan Medical College of New York," and this was held to be an infringement of the Act. For this offence he was prosecuted by the Medical Defence Association—now defunct—and the magistrate, after hearing the case for the prosecution, dismissed the summons on the ground that it was not proved that Hamilton had wilfully and falsely pretended to be what he was not entitled to call himself. An appeal was lodged against this decision, but the Judges (Baron Cleasby and Mr. Justice Hawkins) in the Appellate Court decided that the magistrate was correct in his decision, as the only evidence adduced of false pretence was that Hamilton "pretended" to be what he really was, and the question was one of fact and not of law. This appeal, unfortunately, was never carried further, and the *respondent* still practises under the same qualification (?). To remedy this state of things, and to sweep into the net all those who like Hamilton use qualifying words after the title "M.D.," Mr. Hart proposed the following as a substitute for the penal clause, or 40th Section, of the Act.

"Any person who shall wilfully or falsely pretend to be, or take or use the name or title of physician, doctor of medicine, licentiate in medicine or surgery, bachelor of medicine, surgeon, general practitioner or apothecary, or any name, *style*, title, addition, or description *implying that he is a duly qualified medical practitioner*, or that he is registered under this Act or that he is recognised by law as a physician, or surgeon, or doctor of medicine, bachelor of medicine, or licentiate in medicine and surgery, or a practitioner in medicine, or an apothecary, shall upon a summary conviction for any such offence, pay a sum not exceeding £20."

The words added, "name, style, title, addition, or description implying that he is a duly qualified medical practitioner," appear to be required, as in the case men-

tioned above. Hamilton clearly gave out to the public that he was a duly qualified medical practitioner by the name, style, title, and addition given in the diploma.

Certain persons also lately have openly avowed their intention to use the title M.D., with the letters (Bc.), signifying Botanic appended. Counsel has already given an opinion that this is not even a colourable imitation or infringement of the Act, as there is no implying that the person using it is registered under the Act. If this be so, any person can use the title M.D. with any letters after it they choose, and to make any interpretation of such appended letters as they like, but such persons by practising, and thereby implying that they are "duly qualified," would, in the amended (suggested) Act, be liable to conviction. It may be held that the subsequent clause in the original Act, "or a practitioner in medicine (recognised by law as)," would cover the same ground, but I hold that *recognised* by law refers to registration not to qualification, as at the time the Act was passed, certain persons who were not qualified, but who had practised previous to the Act, were permitted to be registered, and so became by law practitioners in medicine. I have also added the word "style" to cover these cases, where the words "oculist or ophthalmist" are given as the "style" of the person using them.

I would also suggest that to the 42nd Section of the Act be added, "notwithstanding any subsequent Act," or "anything to the contrary contained in any Act passed before the passing of this Act notwithstanding." The reason for this addition is this: By the 42nd Section of the Act, all sums recovered as penalties are to be paid over to the Treasurer of the General Medical Council, but this only obtains outside the metropolitan area; for by the provisions of the Police Courts (Metropolitan) Act another destination is given them: they are claimed and recovered by the Receiver of Police for the metropolitan district for purposes of police courts for the maintenance of such places, and are thereby lost to the General Medical Council. As the costs given to magistrates under Jervis Act rarely amount to more than a couple of guineas, in addition to the lost penalty taken possession of by the police, the expenses connected with the prosecution must be taken into consideration.

SNAKES AND PREDACEOUS ANIMALS IN INDIA.

The statistics of deaths from wild animals and snakes in India in 1892 show that the latter have somewhat diminished, while the former have increased a little, but the numbers vary so slightly each year that but little significance can be attached to these fluctuations.

It is manifest from the reports that a general feeling exists in India that something must be done to mitigate this great evil, though there are discrepancies of opinion among local authorities as to the means to be taken to attain this end. Rewards are still offered in many districts, but they vary very much in amount, and in one district the manifestly inadequate sum of 1 pie (equal half a farthing) is offered for the destruction of a venomous snake. Is it likely that anyone would engage in such an operation for such a reward?

In accordance with a suggestion made in these columns when discussing the subject last year, the Government of India have arranged for the circulation of coloured drawings of the most common venomous reptiles. These drawings are reproductions of the figures of certain venomous snakes in Sir Joseph Fayrer's *Thanatophidia of India*. They were made, and, together with the matter of the whole work, presented to the Government of India in 1871 in the hope of doing something to diminish the high death-rate from snake bite. The coloured drawings, which it is proposed to circulate, are portraits of the following venomous snakes:

1. Naja tripudians (cobra).
2. Bungarus fasciatus ("sankni").
3. Bungarus cœruleus ("krait").
4. Daboia russelli (Russell's viper).
5. Echis carinata.
6. Ophiophagus elaps ("phursa" or "kupper"), or "hamadryas."
7. One of the Trimeresuri (there are several).
8. A characteristic illustration of one of the Hydrophidæ.

Of these, those numbered 1, 2, 4, 5 are the most important.

It is urged by one local authority that the mass of the agricultural population could not identify a snake from a drawing. This may be quite true, but it does not apply to the police and those authorities with whom the identification would ultimately rest. The people themselves would see which were the snakes for which they obtained rewards, and would thus soon learn to distinguish the venomous from the innocuous.

The opinion is again expressed that to minimise this death cause—it can probably never be entirely done away with—an organised central system, left only in detail to local authorities, must be put in force throughout the country. It is not suggested that this duty should be added to those already imposed upon the administrative officers in India, but either that one officer—with subordinates under him—should be appointed to supervise the work throughout India, or that there should be such an officer in each administrative centre to whom the local authorities should be required to give every assistance.

Surely such officers could be found in some branch of the public service or outside it. Special appointments for this purpose may seem extravagant, but the insufficiency of the means hitherto resorted to is shown by the continued death-rate of over 21,000 human beings and 70,000 cattle annually, a loss of life which calls for some stringent measures to diminish it.

The mortality among human beings caused by predaceous animals is very much smaller than that due to snakes: 2,861 human beings were killed in 1891,[1] while 2,963 were killed in 1892, being an increase of 102; but the number of cattle killed by them is very large—67,164 in 1891, against 77,170 in 1892, being an increase of 10,006. It further appears that while 21,389 persons were killed by snakes in 1891, 19,025 were killed in 1892, being a decrease of 2,364; 3,658 cattle were killed in 1891, and 4,498 in 1892, being an increase of 840. There were 16,581 wild animals destroyed in 1891, against 15,988 in 1892; and 85,159 snakes destroyed in 1891, against 84,789 in 1892. The amount paid in rewards was very nearly the same for each year.

THE CHOLERA.

Cholera in Russia in 1892 and 1893.—An interesting return has just been made by the Medical Department of the Ministry of the Interior, showing the number of cases of cholera and deaths from the malady that have occurred in Russia down to September 4th. In comparing the statistics of this year's epidemic with those of last year, it is found that the disease is neither so general nor so fatal in the present year as in 1892. In the first eight months of last year cholera attacked 433,643 persons in Russia, and claimed 215,157 victims. In the same period of the present year the persons attacked numbered only 62,107, and those who succumbed 24,284. There was, therefore, a very marked difference, not only in the absolute numbers, but also in the percentage mortality of the two periods. In last year's epidemic (that is, down to September 4th) just under 50 per cent. of the cholera cases proved fatal; in the present year the fatal cases have numbered less than 40 per cent. This diminished mortality-rate, noticeable in the figures for the whole country, is, it may be noted, exactly the reverse of what has been observed in St. Petersburg. Here the death-rate has risen from about 29 per cent. in 1892, to about 38 per cent. in 1893 (that is, to September 4th in each year). Of the provinces that have furnished cases of cholera in the present year, Podolia has been the greatest sufferer. More than one quarter of the total numbers returned have been received from that Government. The following are the returns from some of the Governments where the epidemic has been most severely felt this year

Name of Government.	Cases.	Deaths.
Podolia	15,679	5,252
Kief	5,151	1,874
Kursk	3,229	1,240
Moscow	2,611	1,100
Nijni Novgorod	2,168	1,053
Orel	4,922	1,802
Tula	2,792	800
Voronezh	1,948	994
Don Cossacks	2,625	1,262

The statistics of the cholera epidemics of last year and this show in the most striking manner the tendency, already well recognised, that cholera has to be most severe in the second year where it has been least severe in the first, and *vice versâ*.

[1] The statistics for 1891 are not quite the same as those given in the previous reports, because some returns have since been rectified.

Presentation.—At a recent meeting of the Oldham Medical Society, Dr. John Hodgson, the honorary secretary, was presented by the members with an address and cheque in token of their appreciation of his services.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1893.

Subscriptions to the Association for 1893 became due on January 1st; and notice is hereby given, in accordance with By-law 5, that Branch Secretaries' subscription accounts close on October 31st, and all unpaid subscriptions must be forwarded after that date to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, DECEMBER 9TH, 1893.

THE GENERAL MEDICAL COUNCIL.

The recent session of the General Medical Council extended over seven days, and a large amount of business was got through. Perhaps the fact that a considerable proportion of the members were absent may, by reducing the Council to more manageable dimensions, have contributed to this desirable end. The penal cases, always the staple of the November meeting, were mostly of the familiar kind. Certain practitioners, convicted of various crimes by the ordinary courts, were struck off the *Register*. Others, prosecuted by the Medical Defence Union for flagrant covering, were held guilty of infamous professional conduct. One of these was summarily deleted, in another case the offence was deemed to be technically proved, but as it apparently extended over a fortnight only, the accused, who was obviously young and inexperienced, was dismissed with a caution which he will probably long remember. In a third instance the case of the Defence Union broke down owing to the unexpected absence of an important witness. Something, too, must be allowed for the obvious prejudice caused by an unfortunate display of temper on the part of the prosecution. While we have nothing but praise for the zeal and ability with which the officers of the Union work up their cases, they must remember that they have to convince not only themselves, but the Council sitting as judges, that their indictments are well founded. The more nearly legal forms and methods are approximated to, the more effective will be their efforts to put down unprofessional conduct. The case of Dr. Tibbits was dealt with, so far as was possible while the Harness prosecution is still pending. Various qualifications of his, withdrawn by the licensing bodies, were erased from the *Register*. For the first time the Council assumed the function of prosecuting offenders under Section XL of the Medical Act 1858, being moved to this step by the flagrant abuse of the Companies Acts whereby the "General Council of Safe Medicine, Limited," acquired a quasi-legal position, and proffered the "degree" of "M.D.(B.c.)London," to herbalists and other gatherers of simples. It is to be hoped that this will not be the last instance in which the Council will take up the duty of prosecuting in the courts unqualified pretenders to medical titles. The difficulty connected with the like prosecution of registered offenders is of course that, after the Council has secured a conviction before a judge, it might have itself to exercise judicial functions in respect of the same person when the question of erasing his name from the *Register* came up. This difficulty, which is doubtless a real one, does not arise in the case of unregistered quacks and charlatans, and the Council might well do what the Public Prosecutor is clearly so loath to attempt, by undertaking to prosecute them.

Cases of unworthy and unprofessional advertising by registered dentists have lately been brought to the notice of the Council, and it is to be expected that ere long some of the worst offenders will be summoned before it. A preliminary step is the formulation of a warning notice, in which the nature of the offence in question shall be clearly set forth. This duty was referred to the Executive Committee, and honourable practitioners of dentistry will await with sympathetic interest the result.

The Examination Committee brought up the reports of the visitors and inspectors on the final examinations held by the English Universities and the Irish Corporations. These voluminous and careful accounts of the proceedings of the several licensing authorities are of the greatest interest, and we trust they will not share the usual fate of Blue Books, and lie buried beneath their own mass. Cambridge receives high commendation for its satisfactory examinations; Oxford has many excellent arrangements, but admits of improvement in detail; Durham and Victoria are "sufficient," and in certain respects more than sufficient; London receives praise for some of its features, but in others it exhibits shortcomings, and the Committee recommend a strong representation to the Senate, asking for their amendment. The like representation made some years ago seems to have had but little effect, but Dr. Wilks, on behalf of the Senate, now promised that the points of objection should be promptly attended to.

A painful contrast to these reports is presented when we turn to the Irish Conjoint Boards. The Royal Colleges of Physicians and Surgeons of Ireland show several regrettable deficiencies, and prompt reform is urged on their Councils. The examinations of the Royal College of Surgeons, in conjunction with the Dublin Apothecaries' Hall, are, however, so much worse, and their curriculum includes so many glaring faults that stronger measures are contemplated. But for the fact that one of the representatives of this body was absent through illness, and that no answer to the report of the Committee could be received from Ireland in time, it is probable that a representation would have been made to the Privy Council asking for the disallowance of this particular licence. Meanwhile a short respite has been granted; but it is plain from the attitude of the Council and its Committees that, unless their house is set in order before the next examination, the Surgeons' and Apothecaries' Conjoint Board need expect little leniency next May. No better illustration is needed of the inevitable downward tendency of competition in diplomas. Two corporate boards in Dublin, already the seat of two licensing universities, are a dangerous superfluity, and the best thing that could happen would be their speedy reduction by fusion or otherwise.

The Education Committee presented a codified body of rules for examinations in Public Health, better drafted and more explicit than the various resolutions at different times

passed by the Council. These were adopted with little modification, and as the Council has larger powers of control in regard to sanitary diplomas than it has over medical qualifications, it can impose its rules on the examining bodies. But, in order to maintain a high and uniform standard, something more than the promulgation of rules is necessary. The Council accordingly resolved to institute a system of inspection and visitation, and appointed their inspector (Dr. Duffey) for the further duty of reporting on the Public Health examinations during 1894. For this purpose it was thought reasonable that sanitary diplomates should contribute to the expense, and the fee for the registration of their qualifications will, after January 1st, 1894, be raised to £2. The diploma in Public Health has a considerable pecuniary value, as qualifying for the higher sanitary posts, and its holders will not complain if the action of the Council raises the diploma in public and professional esteem.

Other points dealt with by the Education Committee had reference to the extent to which certain of the bodies conformed to the Council's requirements in respect of professional study and examinations. Interesting as some of these points undoubtedly were, we must for the present defer their discussion. The new by-laws of the College of Physicians were debated, and, after some of their apparent ambiguities had been satisfactorily explained, the Council unreservedly accepted the decision of the Courts in the recent litigation. The altered regulations for the membership diploma have removed the obstacles to its full recognition; it can now be obtained only by a person already registered, or who passes the qualifying examinations for the L.R.C.P. as well as that for M.R.C.P.; and the Registrar was accordingly directed to accept it as in accordance with the Act of 1886.

Lastly, the time having come for beginning the preparation of a new *Pharmacopœia*, the Editorial Committee were empowered to take the necessary steps. The edition of 1895 will have a fresh interest, for in it an attempt will be made to meet the requirements of the Colonies and of India, as well as those of the United Kingdom. If the attempt meets with the success it deserves, the Committee, with Sir Richard Quain as its chairman, will have the credit of conceiving and bringing out the first *Imperial Pharmacopœia*.

ENGLISH SCIENCE AND TWO ENGLISH BISHOPS.

About this time last year a complete exposure was made, not only of Miss Cobbe, but also of her episcopal supporters, who endeavoured to foist upon the public accusations of cruelty against English medical men, based upon gross misrepresentations of their published writings. Those who are acquainted with the peculiar moral standard of antivivisectionists will not be surprised to learn that although the persons just mentioned promised to withdraw, as in honour bound, whatever should be shown to be false, they have so far neither withdrawn nor apologised. On the contrary, Bishop Barry, after a silence of nearly a year, has ventured forth, and in a circular letter to his followers has practically repeated the old slanders in thinly-veiled language, glossing over the exposure of the misrepresentations on which their slanderous assertions were based by calling them "only side issues" and "mere personal invectives." While, however, Bishop Barry at a safe distance fires a feeble shot at our profession, and while the Bishop of Manchester, who retired from the contest last year with as little credit, carefully preserves silence, there has now come forward yet another bishop to take up the lost cause. He is the last but one of those who consider it compatible with their high position in Church and State to continue in office as vice-presidents of a society whose president, the Earl of Strafford, resigned his place last year, when, after the public exposure just mentioned, he found with what a discreditable cause and persons he was in alliance. The newcomer is the Bishop of Southwell.

This prelate delivered an address at Nottingham on the vivisection question on November 28th, in which he made an attack on the medical profession, which, for ignorance of the science he undertook to criticise, ignorance of the Act regulating it, self-contradiction, and baseless invective, stands, we believe, even in antivivisectionist controversy, absolutely without a parallel.

In this attack the medical profession is divided by the bishop into those who are practitioners of medicine and surgery, and those who have devoted themselves to physiology proper. We may remark in passing that owing to the degree to which the public mind was educated last year the antivivisectionists have now changed their course, so as to run rather more before the wind of public opinion, and have indeed taken in a reef in their sails by admitting that some "vivisection" is advisable. Thus, whereas they formerly clamoured for the total prohibition and abolition of scientific experiments, they now, under the guidance of the Bishop of Southwell, appear to assert that they do not wish to prevent all kinds of vivisection, but desire simply to restrict it.

In the very first statement which the bishop makes he pillories himself as utterly ignorant even of the polemical side of the question upon which he professes to speak with authority. Thus he says that "the great change since the Royal Commission of 1875 is that experiments on living animals are not now justified as regrettable necessities in the interest of healing, a benefit to the human race, as was argued then and as the public still supposes." This statement is gravely emphasised by the bishop, although, as everyone knows, there has not been a single public speech or essay by any medical man in favour of vivisection which does not contain a justification of experiments on this very ground. Having thus begun with a hopelessly false generalisation, he goes on to speak of the body of men whom he calls "English doctors" as constituting members of a "profession who are as trenchant as any foreigner in repudiating any notion that they care for anything but knowledge." The context shows beyond question what this means. It is that the English medical profession does not care an atom for facts which science presents to it unless they add to the body of theoretical knowledge as a whole, even though they be of great value in the cure of disease; for he told his audience that biological science is now "not an applied one aiming at any beneficial result. It may profess to create pain and disease for the purposes of study, but not to heal or alleviate them." In other words, the bishop deliberately charges us not only with not caring one jot for any human or animal suffering, but also with creating pain for the purpose of searching out scientific facts, without the slightest hope or wish that these may alleviate that endless round of suffering which it is our whole duty to

palliate or prevent. Bishop Barry has (with equal disregard of fact) just declared it to be the only justification offered by the profession. We will leave it to these prelates to settle the discrepancy between them; and, until such time as they make up their minds which charge they consider most effective, shall refrain from expressing our sense of the odiousness of the Bishop of Southwell's accusation against a body of men whose character for generosity and humanity stands too high in the eyes of the public to need defence against their episcopal assailant.

We may now turn to his message to English physiologists in particular. "It is," he says, "professional, too, for them to sneer at sentimentality and pain." We certainly hope that everyone would repudiate a false sentimentality, but we challenge the Bishop of Southwell to substantiate his reckless assertion that English physiologists "sneer at pain." We had occasion last year to comment very strongly on the discreditable nature of the suggestions and innuendoes made by antivivisectionist bishops. The above is another instance. Again the Bishop of Southwell, with an elaborate assumption of moderation and circumspection, says, speaking of inspection under the Act, "vivisectors are thought to appoint, license, and inspect one another. I cannot judge this, though it has an air of probability." The bishop says "I cannot judge this." It would have been more correct to say, "I do not care to take the trouble;" for all he had to do was to purchase at any office for the sale of Government papers a copy of the Act, and of the inspector's report for last year. There he would have found a complete refutation of his insinuation; he would have found that vivisectors, as he calls them, are licensed and appointed by the Home Secretary alone, who has absolute power in this matter. Further, he might have learnt that the inspector is a gentleman who has never in his whole life made an experiment on an animal. On what grounds, therefore, we ask, does the bishop venture to say that his baseless insinuation "has an air of probability?"

Further on, in reference to the same point, he somewhat querulously asks: "Who inspects the inspector?" The answer is a very simple one, and is contained in the Act of which he parades his ignorance. The Home Secretary inspects the inspector.

Much of his address is taken up with a curious disquisition on the value of laboratories. In it he shows that he is wanting in the special training which would qualify him to speak, and actually asks the astounding question: "What have we got by knowledge that we could not have got better without it?" This is farcical, and he proceeds at once to involve himself in self-contradictions, which really put him out of court. He says, for instance, that physiology in England has not yet condemned itself before the public—yet that there are but few physiologists who deserve a law of liberty even as it at present exists. He offers what he calls negative counsel, yet sympathises with those who will not agree with it. He states: "That biology is now a pure laboratory science, not an applied one aiming at any beneficial result"; yet that laboratory pursuit in England now seems to be turned to the study of infectious disease and such applied work. That the province of a school of physiology is anatomy (!) that it needs no experiment on living animals to tell the working office of the organs, yet it is his contention that living beings are not the same as non-living. These are but a few of the illogical fallacies presented to us, and our space obliges us to turn to the consideration of other points.

Repeatedly in his address the bishop insinuates that English physiologists are cruel, and indeed in one place he replies to the statement that they are not, with the question: "Who says so?" also that pathologists may be actuated by what he calls "diseased and depraved curiosity;" and by the same motive which leads "a man to wreck a train to see what it is like," or some scoundrel, "out of pure curiosity to drop a child over a bridge into the river." Although his insinuations are of such a base nature, he nevertheless asserts that he makes his observations "without imputing inhumanity to our chief laboratories and professors." We may smile at the clumsiness of the orator who parades a disinclination to impute inhumanity to bricks and mortar, but we would point out to him that to contradict himself in a few sentences cannot advance either his own reputation or the cause of which he has constituted himself the champion.

But the bishop's remarks upon Pasteur quite throw into the shade his other achievements. After repeating the worn-out misrepresentations concerning the anthrax vaccination, which have been so often exposed that one would think that even a professional agitator would not have cared to repeat them, he goes on to say that the Pasteurian cure of rabies is on a level with the frauds of "the electric belt, Madame Seigel's syrup, and the large class of faith healing charlatans," and this in face of the fact that Pasteur's death-rate in a disease which has completely resisted every other kind of treatment has steadily fallen since 1886 from 9 per 1,000 to 2 per 1,000; the death-rate among persons treated in other ways being 150 per 1,000. He goes on to say that Pasteur's discoveries in abiogenesis "are enough to prevent my speaking lightly of him." It will be admitted that a charge of obtaining money by false pretences is grave enough. What the bishop precisely means we cannot pretend to say, but we do know how the medical profession and the scientific world generally will read and interpret his words. We do not envy him the judgment which will be passed upon his unscrupulous assertions, not only by men of science but also by the sincere members of that church whose dignity he is dragging through the mud, while he violates the first principles laid down by its Founder.

FOOD ADULTERATION MADE EASY.

Any ambitious Member of Parliament, with a taste for amateur legislation, who may be in search of an opening wherein to benefit his country by means of a private Bill, would do well to turn his attention to the question of adulteration of food. The way of transgressors in general may be hard, but in this particular sphere of transgression it is assuredly profitable, and the tendency of recent decisions seems to be transfer much of the hardness to the "way" of those whose business it is to check fraud by the administration of the Sale of Food and Drugs Acts. Some of the weak points in these Acts are perhaps beyond remedy. The phenomenal cow, which from time to time beats the record by yielding a more watery milk than any of her predecessors cannot be legislated out of existence, though it is a public misfortune that the point down to which vendors are allowed to water their milk should be lowered, especially as many

magistrates persist in regarding this lowest limit of possibility in the light of a reasonable standard instead of an extravagantly lenient minimum, and deal gently, if at all, with cases where the sample is found to contain "only" 4 or 5 per cent. more water than the worst known natural milk which science and the diligent researches of the trade can discover at home or abroad. Milk is a perennial battle ground between analysts and adulterators, and is likely to remain so; but in other matters fashion changes. Latterly we have heard much of sham vinegar, made from anything which contains acetic acid, and the only conclusion to be drawn from the contradictory decisions of various minor courts is that vinegar, like judicial utterances, is a very uncertain quantity. Sometimes it means vinegar, sometimes it does not; and the purchaser must take his chance. In one court, for instance, it has been decided that malt vinegar does not necessarily mean vinegar made from malt, a ruling which will be very welcome to some manufacturers, and ought to convince the local authorities of the uselessness of further efforts in this direction.

A much more serious obstacle, affecting almost all articles of food and carrying the weight and finality of a Queen's Bench decision, has quite recently been placed in the way of prosecutions under the Acts in question. The case of Laidlaw *v.* Wilson, heard by Justices Charles and Wright, is likely to be often quoted. It turned upon the question of warranty in a lard case. The defendant produced an invoice from the wholesale firm from whom he said the lard was purchased, and it seems that at the head of the invoice was a sort of scroll bearing the words "So-and-so's Pure Lard." This was held to be a "written warranty," as required by the Act, and the defendant was exonerated. This decision confronts prosecuting authorities with two formidable difficulties: First, the danger that any laudatory title or description on an invoice may be regarded as a warranty sufficient to cause the dismissal of the case against the retailer; and secondly, that although the warranty from B may quash the proceedings against A it does not substitute B in his place as defendant. An offence has been proved but nobody can be punished. Here, at all events, a simple remedy suggests itself. If a warranty is to be urged in defence to proceedings under these Acts the person from whom it is alleged to have been received should be made a co-defendant in the case, so that if adulteration be proved the court may decide which of the two is responsible and inflict punishment accordingly. As things stand the dilution trade has much to be thankful for, and at the worst it matters little to be detected now and then in a profitable daily fraud when a conviction may carry with it only a shilling penalty and a harmless caution from the Bench.

Miss Emily Winifred Dickson, M.B., Royal University, obtained the Fellowship of the Royal College of Surgeons, Ireland, last week. She is the first lady who has obtained the distinction.

As showing the progress of public opinion with reference to cremation, we may mention that the remains of the Dowager Duchess of St. Albans, who died on December 2nd, and Dr. Bradby, formerly Master of Haileybury College, were, in accordance with the terms of their wills, cremated at Woking this week.

EYESIGHT OF THE ARMY.

A War Office Commission, presided over by Lord Sandhurst, is now taking evidence on the question of the physical examination of candidates for commissions in the Army. The labours of the Commission are, we understand, likely to lead to important results in regard to the standard of efficiency, which will probably be considerably raised, especially in the matter of eyesight.

THE COOMBE HOSPITAL, DUBLIN.

The Board of Superintendence of Dublin Hospitals has intimated its intention to hold an inquiry into the allegations made in relation to the management of the Coombe Hospital. Dr. Hoey, the late Master, who left Dublin after his resignation, and was said to have gone to Australia, has returned to the city, and, it is stated, intends to take proceedings at law against some newspapers.

LONGEVITY AND OVARIOTOMY.

Dr. Harris, of Philadelphia, has written to Sir Spencer Wells to inform him that there is living, and in excellent health, an unmarried lady, 81 years of age, for whom the late Dr. John L. Atlee performed ovariotomy in June, 1843, more than fifty years ago. Dr. Harris asked if this case can be paralleled in England. This was Dr. Atlee's first ovariotomy. He had 80 cases; he operated on 7 in the year he became 84 years of age; he performed tracheotomy when nearly 85, and died when nearly 86. We are indebted to Sir Spencer Wells for the interesting facts furnished by Dr. Harris.

THE OPIUM COMMISSION.

The sittings of the Opium Commission have been continued in Calcutta, the evidence of Sir Edward Buck, Secretary of the Revenue Department, and Dr. Lethbridge, Superintendent of the Thuggee Department, was to the effect that opium was not generally injurious. Evidence was also given by several China merchants and also several native Chinese, who all agreed that opium smoking, except to excess, did no harm.

MEDICAL DEFENCE AND PROTECTION.

We have received further correspondence with regard to the breakdown of the negotiations for the amalgamation of the Medical Defence Union and the London and Counties Medical Protection Society. The breakdown seems to have been due mainly to a failure to arrive at any arrangement as to the constitution of the provisional council which would have had to be formed for carrying on the affairs until the amalgamation was complete. Under these circumstances, and in view of the great pressure upon our space, we refrain from publishing the correspondence, and its continuance, it seems to us, can only complicate a controversy which all must see with regret.

THE EPIDEMIC OF INFLUENZA.

The Registrar-General's last weekly return affords convincing proof that influenza has again become fatally prevalent in London. The deaths directly attributed to this disease, which had been steadily increasing from 7 to 36 in the preceding five weeks, suddenly rose to 74 last week, the highest number recorded in any week since February, 1892. While the rate of mortality last week from influenza was equal to 0.6 annually per 1,000 persons estimated to be living at ages below 60 years; it was as high as 5.7, or nearly ten times as much, among persons above 60 years of age. The deaths in London referred to diseases of the respiratory organs have recently shown a large excess, and it is certain that many of the deaths attributed to bronchitis and pneumonia were indirectly due to influenza. What is true of London appears to be true also of the other centres of epidemic prevalence, especially in Lancashire and South Wales, to which we referred last week. Moreover, the disease is spreading in various directions. Thus, during the week it has

become seriously prevalent in Bristol and Clifton, it has become prevalent at various points on the west coast of Scotland; and our Edinburgh Correspondent writes that after a temporary lull it has again extended, with the result that the death-rate of the city has risen to 28 per mille. The epidemic has also appeared in various places in Ireland. On the Continent the epidemic is spreading in North Germany, it has appeared at Kiel, and is now serious in Berlin and Hamburg; it has begun to prevail in Vienna, where it has already interfered with the sittings of the Reichsrath, and has seriously interfered with the working of the Government offices.

POISONING BY HOME-MADE WINES.

On this subject we have received rather a startling communication from Mr. G. A. E. Roberts, of Twyford, Hants. He has had over thirty cases during the last twelve months of lead poisoning from drinking home made wine and beer brewed in glazed earthenware pans. He is sure that this only represents about half of the cases, as many are not sufficiently ill to seek advice. According to Mr. Roberts, if other country districts suffer in the same proportion, there must be somewhere about 50,000 cases a year in England. He points out that if the use of lead in glazed pans was prohibited, or they were marked in some way to show that it was unsafe to brew in them, a great amount of sickness would be prevented. Notices might be posted up in villages calling attention to the danger of using these vessels for such purposes.

CAN A TOWN COUNCILLOR ACT AS A MEDICAL OFFICER?

At a meeting of Inverkeithing Town Council on December 1st Provost Bleloch said that, as he and others were of opinion that Dr. Menzies could not sit as a councillor and at the same time act as medical officer of health for the burgh, even although he relinquished the emoluments, the clerk had written to the Board of Supervision on the matter, and a letter had been received, in which it was said: "The Board are of opinion that the offices are incompatible. A statutory medical officer must be paid a salary (Section 8 of Public Health Act), but the receipt of emolument would disqualify him as a member of the local authority." The Provost moved that the Council ask Dr. Menzies (who was absent) which position he intended to occupy. Bailie Elder moved the previous question, which was, on a division, carried by 5 votes to 3.

ALARMING OUTBREAK OF SMALL-POX AT LEITH.

Our Edinburgh Correspondent writes: The running sore of the Edinburgh district has again made itself manifest in a very serious way. Since Sunday, November 27th, no fewer than 38 cases of small-pox have been reported, and there has been 1 death. Nor are the cases confined to any one locality in Leith; they are appearing in various quarters quite distant from each other, thus suggesting the possibility, if not the extreme probability, of a serious epidemic. The ordinary small-pox hospital has been found quite insufficient as to number of beds, the cholera hospital is to be utilised to give 20 more beds, and a temporary wooden hospital, 160 feet long, and to be furnished for 40 patients, has been ordered by the magistrates. The type of the disease is understood to be much less mild than formerly. As usual, the public health authorities have just promulgated a decree offering free vaccination. The mortality of Leith last week was 29.3 per 1,000.

POISONING BY CARBOLIC ACID.

In view of the great frequency of poisoning by carbolic acid, both accidental and suicidal, we understand that the Council of the Pharmaceutical Society passed a resolution at its meeting last Wednesday to the effect that carbolic acid should be added to the schedule of poisons within the meaning of the Pharmacy Act. This important matter will, therefore, be again brought under the notice of the Privy Council, whose sanction of the recommendation is necessary before it can take effect.

MILK AND INFECTION.

The delays caused by the complicated machinery of the 71st Section of the London Public Health Act of 1891 are well illustrated in a recent report by the medical officer of health to the St. Pancras Vestry. On October 31st Dr. Sykes learned that there was suspicious incidence of scarlet fever upon the customers of a certain dairy, and that the milk came from a farm at some distance. Next day he obtained from the Health Committee the necessary authority to engage a veterinary surgeon to accompany him in an inspection of the farm; but a magistrate's order was also required, and before securing this he had to call upon four justices of the peace in St. Pancras and five in the suburban district in which the farm is situated. On November 5th it became necessary to inspect the dairy, and again time was wasted in fruitless calls upon a number of justices before the authority could be obtained. Notices were sent to the farmer and to the dairyman to appear before the Committee and show cause why orders should not be made prohibiting the sale of the incriminated milk within the St. Pancras district. They attended, but made no objection, and on November 9th the order was at last issued. It is fortunate that milk epidemics of scarlet fever are usually of brief duration, if this roundabout procedure is the best that the law can devise in the way of suppressing them.

THE SANITARY STATE OF DUBLIN.

The alarm caused by the prevalence of typhoid fever in Dublin has been added to by the death of the Duke of Leinster from that disease. It is said to have been contracted in England and not in Ireland. Many medical men have been interviewed, and the report of the Sanitary Committee—to which we refer elsewhere—has been much discussed. Among the persons whose views have been given to reporters are Sir Charles Cameron, the officer of health, and Dr. Thornley Stoker, Vice-President of the College of Surgeons. Sir Charles Cameron points out that Dublin is singularly free from diphtheria and small-pox. Last year there were only 8 fatal cases of typhus. He attributed a great deal of unhealthiness to the old middens of the tenement houses and to the tenement houses themselves. Since the Public Health Act came into operation 3,159 houses had been closed. The Public Health Committee had done a great deal, and had many projects on foot to do more. He believed typhoid in Dublin was due to the filthy condition of the soil, and the disease had become malarial. They had recently made six sinkings to ascertain the height of the water. In one place it came within 18 feet of the surface, and in another within 7 feet. A system of subsoil drainage would be most useful. As to hospitals, he thought the discharges ought to be burned by a destructor, and should not be allowed to go into the sewers unless they had been sterilised by strong pressure of steam. The dairy yards should be cleansed by the Corporation. In the past five years they had reduced the number on the north side by 129, and these were registered to hold 1,129 cows. Some years ago he had traced 63 cases of typhoid to a milk supply. Dr. Thornley Stoker stated that the first thing to be done was to reform the sanitary department of the Corporation, which should itself be cleansed; then there remained the main drainage system; the modification of the watercloset system in the poorer houses; the effective dealing with the dairy yards, and the carrying out of an effective system of subsoil drainage. In East London, the death-rate was 24; in Dublin 30 per thousand. In Dublin the dairy yards were disgraceful, and some of the worst in Dublin were about his own hospital.

His board of governors had failed to get them removed, although they had repeatedly complained to the sanitary authority.

A LOSS AND ITS MORAL.

The death of Professor Tyndall removes a man who has exercised a great influence in his generation—an influence always used on the side of knowledge and light against the forces of indifferentism and obscurantism. His training as a physicist confirmed in him a love of clear statement and a hatred of half truths. He possessed to a high degree the critical faculty, and, like all great critics, he was much more happily engaged in introducing to the world some new truth, than in gaining a cheap applause by exposing the fallacies of a pretender. He early won the ear of the public and held it for a generation. Never was this great power abused to further an unworthy object. His interest in science was catholic, and by no means confined to his own special subject of experimental physics; it is particularly for his recognition of the significance of the early work in what is now the science of bacteriology that biology in general and medicine in particular are indebted to him. He familiarised the public mind with the practical importance of the epoch-making researches of Pasteur and Lister, and was one of the first to recognise, after the perusal of Koch's paper on anthrax, that a new labourer of the highest order of merit had begun his work. It is grievous to think that the end of such a man has been hastened by an accident which would not have occurred if he had not fallen into the perilous habit of seeking sleep by the use of hypnotics. It is to be feared that this disastrous habit is becoming increasingly prevalent among the more intellectual classes of society. Public catastrophes or private whisperings are continually making us aware that some other man of more or less distinction has become the victim of some hypnotic for the relief of insomnia. We have no hesitation in saying that 99 doses out of every 100 of these hypnotics which are taken are absolutely unnecessary. No man, whether he be a man of letters, or a man of science, or a physician himself, is a judge of the question of necessity in his own case. It is absurd, or worse, to assert that any hypnotic is safe, often and boldly as such assertions are made; all are dangerous, and as has been so sadly proved in the case of this distinguished man of science, a dose which at one time may be apparently innocuous in another state of health may be actually fatal. Insomnia is not a disease, but a symptom, and it is the clear duty of every sufferer to ascertain the cause, which with resolute will and patient investigation may always be discovered and removed.

EDINBURGH MEDICAL MISSIONARY SOCIETY.

The annual meeting of this Society was held on Thursday, December 1st, under the presidency of Professor A. R. Simpson. The total income of the Society was reported by the Assistant Secretary and Treasurer (Mr. R. Craigie Bell) to be £4,911, and the expenditure £6,142, leaving a deficit of £1,231, which was met temporarily by two legacies of over £500 each. Professor Grainger Stewart was elected President of the Society in succession to Professor Simpson, and Dr. P. A. Young Treasurer, in place of Dr. John Pringle, who retires because of advancing years. Several vacancies in the board of directors were filled up. The report stated that there were now thirty-five students connected with the Society, the highest number ever yet reached. Of these six were ladies, for whom a suitable home was being inquired after. The Society had greatly extended its boarding house for students at 56, George Square, by purchasing the adjoining house. This provided accommodation for twice the number of students formerly housed, a library for the students, rooms for the matron, and an office for the organising secretary recently appointed. Details of the Society's work in various parts of the world were given, and then its work in the Cowgate of Edinburgh was described. In this latter connection, 10,611 patients came to the dispensary for advice, 7,913 minor operations or surgical dressings were done, and 13,640 visits to patients at their own homes were made. Arrangements for opening the convalescent home at Duddingston were being made. Five medical missionaries had been allocated to various parts of the world, and two more were about to be. A former student (Dr. W. Pirie) had died of malarial fever in Central China. In the evening a large public meeting, presided over by Professor Grainger Stewart, was held, and various addresses bearing on the work of medical missions were given.

NO BEDS!

This is the answer which has been commonly returned during the last fortnight to an application for the admission of a patient to a London hospital. At the present time they are as full as they will hold, and it has been practically impossible to obtain admission for half the serious cases which have stood in need of hospital treatment. This is true not only of the fever but also of the general hospitals, under which term we would include the children's hospitals. The extraordinary pressure is due to the coexistence of epidemics of typhoid fever and diphtheria, combined with the increasing prevalence of influenza, which has been noticed during the last three or four weeks in the East End of London, and has now extended to the West and South. The complications of influenza produce a large number of serious cases, and the spread of the disease itself among the staff of the hospitals contributes to the embarrassment and overpressure which exists. The inquest held by Mr. Carttar at Rotherhithe Workhouse on December 5th as to the death of a woman from typhoid fever in her lodgings will, perhaps, serve to call renewed public attention to this matter. In this case the woman's sister-in-law was bandied about from the relieving officer to the sanitary inspector, and both officials pleaded at the inquest that there was no place to which the sick woman could be removed. The sanitary inspector stated that the fever hospitals were all full, and in confirmation of this stated that the Medical Officer of Health for Greenwich had had 150 cases reported to him recently, but that a bed in a hospital could not be found in a single one. The relieving officer also alleged that there was no place to which he could have removed the patient, who in the meanwhile succumbed, her death, there can be little doubt, being hastened if not determined by want of proper nursing.

THE SALVATION ARMY AND INFECTION.

The appeal in the case of Colclough *v.* Edwards, heard by Justices Wills and Wright on November 28th, discloses an unfortunate omission from the statute law of this country. Section 63 of the Public Health (London) Act, 1891, following a corresponding provision of the General Public Health Act, 1875, imposes a penalty of £20 on any person who knowingly lets for hire any house or part of a house in which any person has been suffering from any dangerous infectious disease without having it properly disinfected to the satisfaction of a qualified medical practitioner. The facts proved were that a man suffering from such a disease was received as an inmate at one of the Salvation Army shelters on payment of the usual penny, and that on the following day other persons were admitted there for a similar payment. The building is daily subjected to a thorough cleansing and fumigation, but not to such a disinfecting process as would be required by the hospital authorities in London. Moreover, no medical practitioner was called in to express his satisfaction with the cleansing on the day in which the disease was detected, though one did give a certificate subsequently. Under these circumstances a police magistrate convicted and fined the man who had charge of the shelter. He appealed; and the Court at once reversed the decision, and decided in his favour. The ground of their decision was

that, on the above facts, he did not let the shelter, or any part of it; he merely took in guests, which legally is a very different thing, and consequently the section in question did not apply to the case. Whether proceedings could successfully have been taken under any other statutory provision seems doubtful. The powers with regard to common lodging houses would no doubt usually enable local authorities to deal with places where vagrants are admitted for payment; but the Salvation Army have already obtained a decision that their shelters, being charitable institutions, are not common lodging houses. If they are altogether exempt from the law, and may if they choose harbour infection without sanitary authorities being able to interfere, Parliament should lose no time in altering this omission, and in rendering the managers of their shelters amenable to the same provisions which apply to keepers of common lodging houses.

ANOTHER CORNISH VILLAGE.

The Cornwall County Council have again been exceeding their duty. Instead of recognising that every sanitary authority in the kingdom is of necessity capable of managing its own affairs to the greatest advantage, under the ever-watchful eye of the Local Government Board, they have taken it upon themselves to ask awkward and unnecessary questions which will certainly be resented. For example, is the village of Porthleven, in which enteric fever has lately been prevalent, in an undrained and filthy condition, notwithstanding the cumulative effect of the Public Health Act of 1875, and the eighteen years' work of the sanitary authority? Not content with asking questions, they have obtained from Dr. Permewan, and published, a special report upon the sanitary state of the village. He finds houses huddled together, some of them unfit for habitation, many without closet accommodation of any kind, and drainage conspicuous by its absence, so that slop water has in some cases to be thrown upon the highway, in default of any other place to put it. All this is very irregular, or rather the investigation is irregular, for the filthiness is supported by abundant precedent within and without Cornwall. But these things should be left alone, filthy or not filthy, until such time as the local authority happen to wake up, either of their own accord, or under pressure from Whitehall, or from some "inexplicable" epidemic. Parliament in its wisdom has conferred upon county councils sanitary powers with regard to rivers, and rivers only. Anything beyond this is clearly unnecessary, and should be discouraged by every parochial statesman!

DENTISTRY ANCIENT AND MODERN.

The annual dinner of the staff and past and present students of the Dental Hospital, Leicester Square, was held on December 2nd. Mr. J. W. Hulke, President of the Royal College of Surgeons, who was in the chair, said that he had been struck by the value and practical quality of the instruction given. Dentistry had made enormous advances; he remembered as a boy a blacksmith who had over his door the notice: "Tooth drawing, bleeding, and cupping done here." The art of repairing and preserving teeth was not understood at all. If there was anything wrong with a tooth it must come out; the blacksmith used a tool called a "pelican," because it had a strong sharp beak, and when it had been forced down to the neck of the tooth "something came out." In the remoter districts of England, France, and Germany dentistry was still in a most elementary stage; teeth were extracted to the sound of a band, very much as savages drowned the cries of their victims by the sound of the tom-tom. But the advance of dentistry was rapid, and would soon place it in popular estimation side by side with medicine and surgery. The toast of "The Hospital and School" was given by Mr. Stanley Boyd, who stated that a sum of £10,000 had already been subscribed towards the sum of £40,000 required for rebuilding.

THE TREATMENT OF LUNATICS IN IRISH WORKHOUSES.

A question by Mr. M'Cartan in the House of Commons, on November 23rd, elicited from the Home Secretary some interesting facts with regard to the care and treatment of insane persons in the Irish workhouses. In the first place he stated there was no legal sanction for mechanical restraint; that lunatics were not admitted into the workhouses as such, but simply as destitute persons; and that, apart from the suitability of the workhouses for the reception of lunatics, the Local Government Board had not sufficient power to compel boards of guardians to make proper provision for the reception, care, and treatment of the lunatics in their districts. The fact of 19 epileptics being kept confined to bed in the Belfast Workhouse is sufficient to show that either the treatment is bad, or that the accommodation for the proper care of such cases is wanting. It is well known that workhouses are not the proper places for the epileptic insane, and why these cases are retained in the Belfast Workhouse at all requires an answer. Again, in the case of a lunatic dying in a workhouse, no notice has hitherto been sent to the coroner, and we are glad to have the assurance of the Home Secretary that the Local Government Board will issue instructions with a view to such notice being given to the coroner in future by their medical officer.

PHARMACY, THERAPEUTICS, AND CREDULITY.

Professor Cash opened the Edinburgh session of the Pharmaceutical Society with an address on some of the present aspects of therapeutics. In tracing the relations that connected the scientific chemist with the therapeutist, it was the part of the chemist to produce a pure substance, so that the pharmacologist might be able to assign to it its definite and proper value. The product once obtained, the question arose, Why do we use this drug? The answer involved an answer to the pharmacologist's questions, How is it to be used? which gave scope to the dexterity of the pharmaceutist to prepare it in many forms for the exigencies of practice; and When should it be used? To this third query the therapeutist gave the final reply. He it was who, bearing in mind and relying upon the labours of the men who answered the questions Why? How? applied the accumulated knowledge to the cure of disease. It was not rash to forecast that the advent of new remedies would be through the channels of close research and study, and that the scientific practitioner of the future would refuse to make use of anything which reaches his hands by less certain ways. Pure empiricism was decaying, although its decline was likely to be slow. Credulity was losing its hold on all, and whether the cry was a new cancer cure by green or yellow electricity or a great Chinese cure, the rush of the credulous amongst those who had been educated to know the left hand from the right in medical matters was but a trifling one. Still, it was not likely that this generation nor the next would fail to contribute its numbers to those who chased the will-o'-the-wisp into medical bogs. But credulity might be shaken by firm example, and he hoped much from the confidence that could be justly obtained from what had been weighed in the balance and not found wanting.

REPARATION TO A DEPARTED WORTHY.

On November 30th an interesting ceremony, which may be looked upon as a public reparation for official wrong doing, took place at the Paris Museum of the Jardin des Plantes, Paris. The remains of Guy de la Brosse, who was Physician in Ordinary to Louis XIII of France, were removed to a vault constructed for the purpose near the entrance to the Grand Gallery of the Museum. Guy de la Brosse, who was the real founder of the Museum, seems to have spent a great part of his professional life in warfare with the old Paris Faculty of Medicine, and particularly with its learned but

autocratic Dean, Guy Patin. Milne-Edwards thus describes the *casus belli*: "The King's garden was growing into a true school of pharmacy, and the Faculty of Medicine opposed the development of the new institution by every means in its power. It protested against the choice of a superintendent, and, in short, behaved as academic and other corporate bodies jealous of their rights and privileges always do under similar circumstances. Even the death of de la Brosse did not induce his persecutors to cease from troubling, and his niece was obliged to appeal to the Parliament to restrain the rancorous malice with which Guy Patin continued to pursue even beyond the grave the man who had dared to stand up against him. It is painful to know that she was unsuccessful. Time has righted this wrong with many others. De la Brosse's creation, the Museum, is now one of the glories of France, and how completely buried is the old jealousy between it and the Medical Faculty was shown by the large assembly of representatives of official medicine who were present the other day to do honour to the memory of de la Brosse.

MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

A special meeting of the Association was held on November 16th at the rooms of the Medical Society of London, under the presidency of Dr. Murray Lindsay, for the purpose of considering the report of the Rules Committee. This report was discussed at the annual meeting held at Buxton last July, but as the new rules had only been in the hands of members for a short time, it was decided to further consider them at an adjourned meeting. Various resolutions were adopted; one of the most important was the decision to form local divisions of the Association. In future there will be, as soon as the rules are passed, four divisions—two in England, one in Scotland, and one in Ireland. The ordinary meetings of the Association will be held as usual, but in addition there will be branch meetings, one in the North and one in the South of England, besides those in Scotland and Ireland, which have been held for some time. Some discussion arose as to whether duly qualified women should be admitted members of the Association, and it was finally resolved to admit them. It was decided that the officers, with the exception of the divisional secretaries, should be nominated by the Council as hitherto, but the vacancies on the Council will be filled up by the votes to the general body of members. The proposed rules were gone through seriatim, and various matters were referred to the Rules Committee, which was reappointed, to carry into effect. In the afternoon seven candidates were elected members of the Association, and an amended resolution proposed by Dr. Campbell was adopted. It was to the effect that the grant of 4s. per week at present made to the authorities liable for the maintenance of pauper lunatics in county and borough asylums, registered hospitals, and licensed houses should also be made to such authorities towards the maintenance of pauper lunatics placed in workhouses under the provision of the 25th Section of the Lunacy Act, 1890. It was resolved that this resolution be sent by the General Secretary to the President of the Local Government Board and to the Commissioners in Lunacy asking hem to assist in carrying the resolution into effect.

HOW THE POOR ARE NURSED.

An inquest at the Poplar Town Hall, on December 2nd, showed afresh the evils connected with the lack of accommodation for the sick poor in the metropolitan workhouse infirmaries, to which we have so frequently called attention. Nominally, separate infirmaries, with proper nursing and appliances, are provided for the sick, but these are not large enough for the purpose, and so it happens that a considerable number of sick are still treated in the workhouses themselves, where the nursing, as we showed and as his case shows, is of a very inferior character. The evidence went to the effect that the sick asylum was full, and that the son of the deceased, being informed of his condition, found him in the workhouse seriously ill and delirious, and that, although he stayed with him two hours and a-half, no one went near him during that time except one or two inmates. The next day he died. Able-bodied paupers in a workhouse are likely to be either idlers or imbeciles, and yet to these people is committed a share in the nursing of the sick and dying. It was stated at the inquest that the patient made no complaint, on which the coroner commented thus: "The fact of the matter is they are afraid to speak to the authorities. There is a feeling among the inmates that if they complain they are punished." It seems to us to be utterly wrong that a man's chance of recovery should depend upon the mere luck of there being a vacant bed at the infirmary. The public conscience years ago revolted at the idea of dying people being in their last days subject to the tyranny of pauper nurses, and, as a consequence, separate infirmaries were erected in various parts of the metropolis. The public conscience thus was satisfied and went to sleep, but it had small reason so to do, for there yet remain nearly six thousand sick beds in the London workhouses, the patients in which are denied those advantages which it was declared years ago it was only right that they should have.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

An extraordinary Comitia of the College was held on Thursday, December 5th, 1893, Dr. J. E. Pollock, Pro-President, in the chair.

Communications were received from the family of the late Sir Andrew Clark, from the Royal College of Physicians of Edinburgh, and from the Royal College of Physicians of Ireland, the two latter expressing their sympathy with the College on the occasion of the death of Sir Andrew Clark.

Two communications from the Royal College of Surgeons were received, expressing their sympathy with the College on the loss of its President, and stating that the College would be represented at the funeral by the President and Vice-Presidents, and reporting other matters of joint interest to the two Colleges.

A communication was received from the Local Government Board referring to the regulations for the admission of students to the Fever Hospitals of the Asylums Board.

A letter was read from Dr. Fraser reporting the award of the Murchison Medal to Dr. D. A. Welsh.

A communication was received from the Privy Council respecting the appointment of four special sanitary inspectors for service in Egypt.

A report from the Committee on the "Jenks" Scholarship, recommending rules for the award of these scholarships, was received and adopted.

Election of Dr. Russell Reynolds as President.

The College then proceeded to elect the President, when Dr. Wilks received 45 votes, Dr. Reynolds 43, Sir Richard Quain 22, Dr. J. E. Pollock 12, Sir Edward Sieveking 4, Dr. Clifford Allbutt 4, Dr. Church 4, Sir William Roberts 3, Sir William Broadbent 2, Sir Alfred Garrod 2, Dr. Pavy 2, Dr. Dickinson 2, and two Fellows received 1 each. A second ballot was therefore taken between Dr. Wilks and Dr. Russell Reynolds, when Dr. Reynolds received 75, and Dr. Wilks 72.

Dr. Reynolds was formally inducted to the chair by Dr. Dickinson, Acting Senior Censor.

Dr. Russell Reynolds, having made the usual affirmation, briefly expressed his thanks to the Fellows for having elected him to the highest office to which any member of the medical profession could aspire; and after referring to the ability and dignity with which the late President had filled all the duties of his office in a manner which he could not hope to equal, promised that no effort on his part should be spared in the performance of his honourable duties.

THE CLINICAL MUSEUM: AN EXPLANATORY ADDRESS.

By JONATHAN HUTCHINSON, F.R.C.S., F.R.S.,
Consulting Surgeon to the London Hospital.

As we conclude to-day the first course of Lectures given in connection with the Clinical Museum the occasion seems fitting to say a few words as to what is intended in the future.[1] Our lectures, or rather I would prefer to say our clinical conferences, have been an experiment, and, indeed, the Museum itself is an experiment. We have met, as you are aware, on Tuesday afternoons. The Museum rooms have been open from 2 o'clock, and I have myself attended from 4 to 6. On the walls of the Museum are displayed a series of grouped portraits and drawings collected from all sources and many of which are so fully described, in their labels, that the visitor can easily acquire for himself almost as much knowledge of the case as he could if he had seen the patient. I may even venture to assert that in many instances he will gain more than he could have done had he seen the patient in a hospital ward, for a full history of the case and of its final conclusion is often appended. This is my idea of a Clinical Museum. It should represent and supplement the hospital ward.

This it will be my aim in the future to realise more and more. The portraits shown are not mere typical representations of this or that malady according to my conception of what that malady is—as is but too frequently the case with those given in our atlases; they are pictorial or photographic reproductions of appearances which were present in individual patients, and they are made available by a full report of the case. The amount of detail which now has to be mastered before a man can esteem himself a good clinicist is immense. Much of it is obtainable only on rare occasions, and with great trouble in the search. Rare cases are often extremely instructive, but they are difficult to come at. It is the vocation of a Clinical Museum to collect in permanent form good representations of what is rare and transitory. I esteem my little collection only as a sort of pioneer experiment, and hope that in the future it will be far surpassed by similar undertakings in connection with our colleges and medical schools. Many of you have been good enough to assure me that it is, so far as it goes, distinctly useful. For my own part, I venture to assert that I can give to anyone who will go round its rooms with me and inspect the associated series which are devoted, for example, to Injuries to the Head, Rhinoscleroma, Leprosy, Drug Eruptions, Kaposi's disease, or many others, far clearer and more definite views in the course of ten minutes than could be gained by a week's reading.

It is proposed that the Museum shall in future be open to the profession on Tuesday afternoons from two to four, and I shall make it a duty to be present to give explanations as much of the time as I can.

You will have noticed another feature of some novelty in the Museum. It is in part a Library also. Books and specimens have, in my opinion, been kept too far apart, and it is part of my design to place books in close juxtaposition, with illustrations of the topics to which they refer. Thus a man may sit down before the series of portraits illustrating Kaposi's malady, and then and there read through Dr. Radcliffe Crocker's excellent chapter concerning it. We are ambitious, however, of something more than this. Ranged round the larger room under the portraits, you will have observed large scrap-books, or Books for Cuttings. In these are put extracts cut bodily out of journals and books, and classified according to topic. Thus the searcher will no longer be obliged to seek in Neale's *Digest* for the titles of the papers he wishes to see, and then procure ten or a dozen different volumes in order to get at the subject matter. He will find the latter ready to his hand. This again is an experiment. If it succeeds, I hope it will be imitated at our public institutions. I am sanguine that it will become a chief feature in the libraries of the future. The "Extract Books" now amount to more than two hundred, so you will see that we can afford a fairly minute classification of subjects. The usefulness of the plan much depends on that. There is a volume for Acromegaly, one for Syringomyelia, another for Anæsthetics, and so on. Although as yet very incomplete, they are, I can assure you, of the utmost use to myself, and I hope they will become so to the profession at large. Visitors to the Museum will at all times have free access to these books.

When I first planned the building of the Museum rooms, I hoped to get wall space for the display of most of the portraits which I possess. I have been, however, grievously disappointed. The walls are already covered, and not more than a quarter of what ought to be shown is displayed. As I cannot afford to obtain more space, the plan has been resorted to of mounting all the smaller drawings in books which are placed near to the wall-groups with which they are cognate. A very large number, to my great regret, are yet kept hidden in portfolios. The wall space needed for a good Clinical Museum ought to be ten times what we have here.

A few words must next be said as to our lectures. Every Tuesday the hour from 4 to 5 has been occupied in the lecture-room either in the demonstration of patients or the delivery of a short informal lecture. This practice it is proposed to continue, but I expect that as time goes on the demonstration of patients will claim by far the greater part of the time. Through the kindness of many friends I have been able to show you many typical, and some very rare, forms of disease. We have illustrated Bazin's malady by producing on different occasions four or five patients suffering from it. We have demonstrated Pityriasis rosea by a beautiful case, of which a portrait has been preserved, and is now before you. A second attendance of the same patient to-day has given you the opportunity for seeing that the whole of the eruption has quickly disappeared. Amongst other subjects which have been illustrated by living patients have been many rare forms of lupus, an extremely severe form of iodide sarcoma, a case of complete recovery from leprosy, one of catarrhal dermatitis, one of recurring herpes of a finger, congenital absence of the fibula, and many others. You have seen how great the convenience is in these demonstrations of having close at hand a collection of drawings. All our framed portraits are movable, and we have been able, at a minute's notice, to ask for any drawing from the Museum and to place it by the side of the patient.

It is very far from my wish that I should myself monopolise these lectures and demonstrations. We have, indeed, already been indebted to Dr. Radcliffe Crocker for an interesting demonstration of a patient. I have also promises from many friends that they will help in this matter, that is, bring patients, and give short explanatory lectures. It is not wished to make these so-called lectures either formal or long, and they must be strictly clinical. My ambition will be more than realised if these rooms should come to be considered the place, and Tuesday afternoons the time, where and when any medical man having an interesting case suitable to quasi-public demonstration may bring it and be sure of an audience. We shall always, I trust, be able to produce drawings, etc., which will illustrate such cases, and to refer promptly to the most recently published information.

The first half of the course of lectures which I have given were attended by members of the "post-graduate classes." These gentlemen had paid the fees required by that Association, and to them were accordingly given certain privileges as regards front seats. It is not, however, my intention on these Tuesday afternoons to ever again receive any form of payment, or to make any differences. All who like to come will be equally welcome. Whilst, however, I do not wish to have from anyone anything in the shape of fee, I am very desirous to receive from all sympathy and active co-operation in my work. You can help it in many ways. First, as I have said, I shall be thankful to those who send me patients illustrating unusual conditions of disease whom I may use for demonstration. Next I shall receive with gratitude, and either on loan or as gifts, any photographs, lithographs, or drawings representing morbid states, whether in the living or the dead. If these are only lent they shall be duly exhibited, and, if of sufficient importance, copies shall be taken.

Thirdly, I come before you as a beggar for pamphlets, books, and copies of societies' transactions and journals. For use in the Books of Extracts I need duplicates—indeed, I can find suitable use for several copies of the same paper.

[1] This address was given at the conclusion of a demonstration of patients on Tuesday, November 28th, at the Clinical Museum, 211, Great Portland Street.

You need not fear, therefore, sending me what I already have—odd volumes of hospital reports, odd numbers of journals, the *Lancet*, BRITISH MEDICAL JOURNAL, etc., will be welcome. I do not require for my purpose complete sets—odd volumes or odd numbers not thought worth binding will serve my purpose well. If they contain illustrations so much the better, but my shelves are omnivorous.

One of the rooms is to be devoted to medical topography and to Indices, Gazetteers, and Maps. Any works or reports relating to climatology, or the history or local distribution of disease, will be much valued. To authors who send me copies of their own papers I venture the hint that two copies will double the obligation, and that both will be at once placed where they will easily be found by readers. To the editors of journals in all parts of the world I may state that it will give me pleasure to arrange for exchange with my *Archives*.

You will see, I think, that two main principles pervade my proposed work. The first is that living patients and pictorial representations impress the mind more quickly and deeply than mere verbal descriptions; and the second that, as regards the latter, there is much to be done by a more systematic arrangement of the enormous accumulation of medical literature.

And now, Gentlemen, in conclusion, if any should think that I am attempting too much, and trying to do as an individual what had better have been left to some public body, permit me to plead the shortness and uncertainty of human life and a sincere desire to achieve the very utmost that I can for the advancement of Clinical Knowledge.

GENERAL COUNCIL
OF
MEDICAL EDUCATION AND REGISTRATION.

WINTER SESSION, 1893.

SIR RICHARD QUAIN, Bart., President, in the Chair.

Thursday, November 30th.

PENAL CASES.

THE case of Frederick Ebenezer Tomlinson was first taken. He had been registered as L.R.C.P.Edin., 1889; L.R.C.S. Edin., 1889; L.F.P.S.Glas., 1889. The charge against Mr. Tomlinson, as formulated by the Council's solicitor, was as follows:

That, being a registered medical practitioner, he had for a considerable time past acted, and still acts, as cover to an unqualified person named William H. Wells, carrying on a medical practice at Bilston, in Staffordshire, and by his presence, advice, and assistance, and permitting the use of his name and professional qualifications, enables the said William H. Wells to attend and administer relief to patients and recover charges therefor and otherwise carry on a medical practice as though he were duly qualified.

Mr. Tomlinson appeared in answer to his summons, accompanied by his solicitor.

The complaint was laid by the Medical Defence Union, for whom Dr. Bateman appeared.

Dr. BATEMAN opened the case and read the affidavit of Dr. Leslie Phillips in support of the charge, also the joint affidavit of Dr. A. Smith and Dr. John Mathie, both of Bilston in Staffordshire. In the latter affidavit it was sworn that the house and premises, No. 58, Hill Street, Bradley, near Bilston, had for several years been in the occupation of William Wells, and that Wells paid the poor-rate on them. For upwards of fourteen years Wells had had associated with him in practice a large number of registered practitioners. Sometime during the early part of 1892 Mr. Tomlinson became so associated with him, and had continued to act with him up to the present time. From inquiries which had been made, and as to which there was not the slightest doubt, Wells and Tomlinson had attended patients at 58, Hill Street, Bradley; Wells often attending, advising, and prescribing for such patients in the absence of Tomlinson. Wells and Tomlinson also visited patients at their own homes independently of one another.

Mr. DRUMMOND read the affidavit of Mr. Tomlinson which he had sworn on his own behalf. In it he stated that in June, 1892, he purchased from Mr. Wells, as executor, the goodwill and effects of the practice carried on by the late Dr. Martin at Bradley, near Bilston, on the condition that Wells would introduce him to the patients, and act as his assistant for at least twelve months. From June, 1892, he had carried on the practice in his own name. Wells had only acted as his assistant, for which services he was paid £3 a week. Wells had never with his authority, to his knowledge, received any money from patients for himself. It was a matter of common knowledge in Bradley that the practice belonged to him. He was the only medical practitioner in the place. He denied ever acting as cover for Wells, or by his presence, advice, or assistance enabling him to administer relief to patients and recover charges, or in any way to carry on as though he were a duly-qualified medical practitioner.

No witnesses were called for the defence, but Dr. Bateman elected to forego his right of reply, and called Mr. TOMLINSON, who stated that he bought the practice from Mr. Wells, as executor of the late Dr. Martin, and that Mr. Wells introduced him to the patients. Dr. Martin died in February, 1890, and he bought the practice two years and a-quarter after his death for £200. Mr. Wells had introduced him to some 200 patients. Those introductions covered a period of some twelve months. He decided to buy the practice on the books of the late Dr. Martin.

By Mr. CARTER: At the time he was introduced to the patients some of them were actually ill.

By Mr. DRUMMOND, who appeared as counsel on behalf of Mr. Tomlinson: He knew that Mr. Wells had been an assistant to Dr. Martin. The purchase of the practice was only completed last June.

By Dr. BRUCE: The practice consisted mostly of weekly tickets.

By Sir WILLIAM TURNER: Mr. Wells had never asked him to sign a death certificate without his seeing the patients. That was also the case with vaccination certificates. Mr. Wells never acted as an independent practitioner.

By Dr. BATTY TUKE: It was part of the agreement he entered into that Mr. Wells should remain as his assistant.

Mr. W. H. WELLS was then called. He stated that since 1877 he had been doing medical work in the Bilston district. He had sold this practice to Dr. Martin, as he considered he had a lien in it for a debt due to him from the doctor who previously held the practice. He had never signed any vaccination certificates, although he had attended cases. He started a coal business last February, which had nothing to do with Mr. Tomlinson. He had never got into trouble about signing vaccination certificates.

By Mr. DRUMMOND: The surgery and the dwelling-house were at the same address. He had at no time ever carried on the practice. He was known as an unqualified man in the district.

This closed the case, Dr. Bateman intimating that a witness on whom he relied was unable to attend, and Mr. DRUMMOND addressed the Council on behalf of Mr. Tomlinson, urging that, although this might be a case which required explanation, it had been satisfactorily explained, and was not one in which the extreme penalty was required.

Strangers were then directed to withdraw, and the Council deliberated on the case *in camerâ*.

On the readmission of strangers,

The PRESIDENT said: It is my duty to inform you that it is the opinion of the Council that you have not committed the offence or offences charged against you. At the same time I am directed by the Council to caution you as to your future conduct with regard to the employment of unqualified assistants, and as to your method of giving medical certificates.

The Council next considered a communication from the Royal College of Physicians of Ireland, stating they had decided to remove the name of Eliza MacDonogh (Frikart) from the roll of licentiates in medicine and midwifery. In answer to an inquiry on the subject from the General Medical Council, the Registrar of the Irish College wrote, saying that the name of Eliza MacDonogh was removed from the rolls of the College for violation of the declaration taken by her on her admission as a licentiate. The name appears in the *Medical Register* as Eliza Foster MacDonogh-Frikart, under the qualifications Lic. Midwif. 1879, K. Q. Coll. Phys. Ireland, M.D.Univ. Zurich 1877.

Dr. ATTHILL explained that the Irish College of Physicians had removed her name from the roll of the College, on the ground

that she had broken a declaration made by her on admission to the College by seeking to obtain practice by unworthy means, the unworthy means in this case being by very unprofessional advertising.

On motion made from the Chair, the Registrar was directed to remove the qualification of Lic. Midwif. 1879, K.Q. Coll. Phys. Ireland, standing against her name in the *Medical Register*. The name remains on the *Register* without any other than the Zurich qualification.

The Council then deliberated *in camerâ*. After a prolonged consultation, strangers were admitted.

The President said he was directed to announce that the Council had passed the following resolutions:

(1) That the Council, having heard with regret that certain registered medical practitioners have been found to have agreed to accept founder's shares in a company in consideration of advertising the wares of the company, expresses its condemnation of such conduct on the part of medical practitioners and of the system of giving interested testimonials of this nature.

(2) That the Council remit to the President and the legal advisers to arrange for a prosecution under the Medical Act 1858, Section xl, in connection with the General Council of Safe Medicine, Limited, relative to the assumption of the title M.D., (B.c.) Lond., or other titles, by members of their company or others, as if they were registered.

The solicitor made a statement to the Council respecting the case of George Davidson, giving reasons for its postponement.

Correspondence between Mr. Tracey (dentist) and his solicitor and the solicitor and officers of the Council was referred to, and the Council instructed the solicitor and officers to take no further notice of Mr. Tracey's communications.

Friday, December 1st.

The Education Committee's Report.

The Council resolved itself into committee for the purpose of considering the "Report by the Education Committee on the regulations of the licensing bodies, granting diplomas in State Medicine."

Dr. Tuke said the Committee was instructed to report whether the regulations of the Bodies were in full accordance with the rules of the Council, and contained such programmes and provisions as could be regarded as satisfactorily carrying out the recommendations of the Council. The Committee having carried out their inquiries, now recommended that, considering that under Section 18 of the Local Government Act, 1888, special privilege was to be accorded to the holders of diplomas in sanitary science, public health, or state medicine, such diplomas should not be registered unless they had been granted under such conditions as to ensure the possession of a distinctively high proficiency, scientific and practical, in all the branches of study concerning the public health. To ensure this they recommended that a period of not less than twelve months should elapse between the attainment of a registrable qualification in medicine, surgery, and midwifery, and the admission to any examination or part of an examination in sanitary science, public health, or state medicine. Every such candidate should produce evidence of having spent during the twelve months six months in laboratory work and six months in outdoor sanitary work; also of having had practical instruction in those diseases of animals that are transmissible to man, and of having during his course of study attended the clinical practice of a hospital for infectious diseases recognised by one of the licensing bodies, unless such attendance had been performed as part of his ordinary medical curriculum. The Committee recommended that these rules should apply to all diplomas granted after January 1st, 1894. Dr. Tuke concluded by moving the adoption of the first proposed rule:

A period of not less than twelve months shall elapse between the attainment of a registrable qualification in medicine, surgery, and midwifery, and the admission of the candidate to any examination or any part of an examination for a diploma in sanitary science, public health, or State medicine.

Dr. Bruce seconded, and the motion was agreed to.

Dr. Tuke moved Rule 2:

Every candidate shall have produced evidence of having, after obtaining a registrable qualification, attended during six months practical instruction in a laboratory or laboratories, British or foreign, approved of by the body granting the qualification, in which chemistry, bacteriology, and the pathology of the diseases of animals transmissible to man are taught.

Dr. MacAlister seconded.

Sir Wm. Turner pointed out that by the Rules 2 and 3, as now brought forward, the six months' laboratory and the six months' practical instruction might possibly be held to be concurrent. That was, he imagined, not the intention of the Council when they provided that twelve months should elapse before the examination in state medicine. It was also the Council's intention that the six months in the laboratory should precede the six months' practical work. He hoped that would be adhered to.

Dr. Church thought it would be hard on people wishing to take the diploma if the Council laid down which of the courses was to be taken first. The fact that the examination had to be passed was a sufficient safeguard.

The rule was agreed to.

Dr. Tuke then moved Rule 3, which provided that every candidate should produce evidence that, during six months after obtaining a registrable qualification, he had either practically studied the duties of outdoor sanitary work under a medical officer of health, or had himself held an appointment as medical officer of health.

Dr. MacAlister seconded; the rule was agreed to.

Dr. Tuke moved Rule 4:

Every candidate shall have produced evidence that he has received practical instruction in those diseases of animals that are transmissible to man.

Dr. Cameron thought it was a mistake to expect obedience to a recommendation where obedience was impossible. Tuberculosis and anthrax might be pathologically studied in the slaughterhouse, but that could not be called practical instruction in diseases of animals. Infectious diseases transmissible to man were always at once removed. It would be very much better if the Council contented itself with evidence that the candidate had studied the pathology of these diseases, and with such instruction as he was likely to get in his six months' practical work.

Sir J. Banks said it was impossible that the proposed rule could be carried out in Dublin, because there was there no means of instruction in the diseases of animals. There was, for example, no school of veterinary medicine in Ireland.

Dr. Bruce, in seconding the adoption of the rule, thought there should be no difficulty in carrying it out.

Sir Dyce Duckworth moved as an amendment that the rule should take the form of a recommendation:

That candidates are recommended to avail themselves of all available practical instruction in the diseases of animals which are transmissible to man.

Dr. Cameron seconded the amendment.

Dr. MacAlister thought on the whole that the rule should be dropped altogether. It was already provided that the student was to spend six months in a laboratory in which the pathology of diseases of animals transmissible to man was taught.

The amendment was then put to the Council, and carried by 11 votes to 7.

The remaining proposed rules were also agreed to, providing that candidates should produce evidence of having attended clinical practice of hospitals for infectious diseases, and that the examinations should extend over no fewer than four days; also that these rules apply to all candidates commencing special study in sanitary science after Jan. 1st, 1894.

It was also agreed that an inspector of the examinations should be appointed.

The Council then resumed. The rules passed in Committee were brought up, and Rules 1, 2, and 3 were agreed to.

Sir Dyce Duckworth moved the omission of the amendment which on his motion had been carried to Rule 4. It had better not appear among the *Rules* of the Council, and would come better at a later stage. This was agreed to.

Dr. Bruce moved the insertion of Rule 4 as it originally stood in the Committee's report.

Dr. Pettigrew seconded, but he motion was lost by 16 to 2.

The Report as amended was then agreed to.

Reports were received from the Education Committee on answers by certain licensing bodies to recommendation passed by the Council with regard to the inclusion of physics, chemistry, biology, and pharmacy in the five years' course of professional study.

Dr. Tuke said the Committee recommended that the attention of the Conjoint Board in England, of the Royal College of Physicians of London, and of the Society of Apothecaries be drawn to their regulations by which the

study of physics, chemistry, biology, and pharmacy previous to registration is recognised. The Conjoint Board replied that the recommendation of the Council was in effect fulfilled by the regulations which required that the student should be examined in those subjects before he could obtain the diplomas of the Royal Colleges, and therefore that the course of professional study and examination of the Board does contain the subjects in question. The regulations of the Board did not permit students to present themselves for the Final Examination until the completion of five years' professional study, so that in such cases the course of study was extended beyond five years. Dr. Tuke concluded by moving the adoption of the clause.

Dr. Moore seconded.

Sir Dyce Duckworth said the whole matter lay in the interpretation of the word "requirement." The Conjoint Board did not recognise that the General Medical Council possessed any power whatever to require anything concerning the curriculum set down by the two respective Colleges. They recognised that the Council was empowered to recommend, but not to require. As a matter of fact, the Conjoint Board was going beyond the requirements of the Council by permitting students to obtain instruction in these subjects in recognised science schools, and to pass the necessary examination before entering at a medical school.

Mr. Bryant said the Conjoint Board were not in any way deviating from the requirements of the Council; on the contrary, they believed they were supporting the scheme laid down by recognising the teaching of these preliminary subjects before the commencement of regular professional study.

Dr. MacAlister said the whole course of the legislation carried out by the Council had been to make registration the first step, and after that to come to the study of scientific and professional subjects. Although the Conjoint Board had practically lengthened the curriculum, they had taken no precautions that the preliminary education of medical students should be tested before they commenced scientific study.

Dr. Heron Watson defended the proceedings of the Conjoint Board, who, he said, had had the courage to do what the General Medical Council had been afraid to do, namely, to lengthen beyond five years the period of professional study. There was, however, some confusion in the matter which could be cleared up if the representatives of the two Royal Colleges would state whether they insisted upon all students finishing their preliminary education and registering before they were allowed to enter on the subjects of physics, chemistry, biology, and pharmacy.

Sir Dyce Duckworth said that in the majority of cases the literary test was passed before these special subjects were taken up.

Dr. MacAlister said by the regulations of the Conjoint Board the preliminary examination was not required previously to the study of these science subjects. In every other respect the extension of the curriculum was admirable. The one point in which they failed was in allowing chemistry, physics, etc., to be confused with general education. The answer to Dr. Heron Watson's question was, "No, they do not."

Sir Dyce Duckworth moved as an amendment:

That the Council is satisfied with the reply of the Conjoint Board.

Mr. Bryant seconded.

The amendment was put to the Council, and the voting was equal, 9 for, and 9 against. The President gave his casting vote in favour of the amendment. It was then put as a substantive motion, and carried by the casting vote of the President.

Dr. Tuke then moved the next recommendation of the Education Committee in reference to the following resolution of the Council:

That the attention of the Royal College of Physicians of London be called to the effect of the by-laws and regulations for admission to the Membership of the College, by which it appears that a qualifying examination in surgery and midwifery is not in all cases enforced.

Dr. MacAlister seconded.

Sir Dyce Duckworth said the Court of Queen's Bench in their judgment this year had decreed that the College of Physicians of London were a medical corporation entitled independently to hold a qualifying examination, and to confer in their single diplomas on their Members and Licentiates who had passed such qualifying examinations the right of registration under the Medical Acts now in force. The College had determined this year, in order that there should be no ambiguity upon the matter, that in future the Membership of the College diploma should not be given to anybody who was not already registered or entitled to register under the Act of 1886. The by-laws had been altered so as to carry that into effect. Under the new by-laws a candidate for the Membership must, if not registered, pass the examinations for the Licence as well as that for the Membership.

Dr. MacAlister thought that the new by-laws did not clearly express this, but if that were the construction placed upon them by the College, it was plain that the examinations for Membership did include a qualifying examination held by the College. This was under the Medical Act (1886) an essential point.

After some discussion the motion was provisionally agreed to and the Council adjourned.

Saturday, December 2nd.

Penal Cases.

The first business on the agenda was the consideration of the case of Christopher Palmer, who had been summoned to appear before the Council on the charge that he, "being a person registered in the *Dentists' Register*, acted as cover of, and by permitting the use of his name enabled an unqualified person named Frederick William Rose to carry on the business or profession of a dentist." The complaint, which was made by the London and Counties Medical Protection Society, had been heard before the Dental Committee, who reported that Mr. Palmer denied the charges made against him, and stated by letter, he not being in attendance, that he had sold the business carried on at Houndsgate, Nottingham, to Rose at the beginning of the year, at which time all his signs and advertisements were painted out. The Committee recommended the Council to postpone the case for further explanation by Mr. Palmer. This was agreed to.

The Council then resumed the consideration of the case of Maurice Joseph Hickie, L.R.C.P.Ed., who had been summoned to answer a charge of covering so as "to enable one, E. W. Probett, of 3, South End Terrace, Pontlottyn, an unqualified person, to attend and administer medical relief to patients, and recover charges for medical attendance, and otherwise practise as if he was duly qualified." The complaint was made by Gwilym Clement Davies, L.R.C.P. Lond. and M.R.C.S.E. His declaration stated that for a period of years commencing in 1883, Mr. E. W. Probett had made an agreement to act as medical officer to the workmen at the New Tredegar Colliery. In 1893 he received notice to terminate his agreement, he not being a qualified medical practitioner; that he still continued to carry on his practice in Pontlottyn, and to enable him to do so had obtained the services of Mr. Hickie, who resided with Probett. It appeared that the period over which the alleged covering extended was at most two weeks, and that Mr. Hickie had only become qualified in the present year.

Mr. Hickie denied the charges. He said at the time he purchased the practice, which he did from Dr. D. Kent Jones, he did not know that Mr. Probett had any agreement with the workmen of the colliery, or that he practised in any way as surgeon or physician. He took up his residence at 3, South End Terrace, Dr. Kent Jones's surgery, whose name was on the gate. He removed that, and put his own name in its place. Mr. Probett also had his name on the door. He (Mr. Hickie) applied for the position of doctor at the colliery, Mr. G. C. Davies and himself being the only two candidates. In the result Mr. Davies was elected. He denied that there was any partnership or arrangement between Probett and himself, or that Probett received fees on his own account.

After a long investigation the Council, having deliberated *in camerâ*, came to the conclusion that Mr. Hickie had committed the offence of covering charged against him, and that the offence was, in the opinion of the Council, infamous in a professional respect.

The President added that the Council had taken a merciful view of the case, and had not instructed the Registrar to remove Mr. Hickie's name from the *Register*. He would therefore be able to continue in practice, but the

Council hoped that he would exercise greater care in his future conduct.

The Conjoint Board of the Royal College of Surgeons and Apothecaries' Hall of Ireland.

Dr. Atthill moved:

That the attention of the Examination Committee be called to the alleged insufficient examination in certain subjects of candidates by the Conjoint Board of the Royal College of Surgeons and Apothecaries' Hall of Ireland.

He said that the defect in the curriculum which had been referred to in the report by the Examination Committee, was only a part of a deliberate system conducted by the College of Surgeons to carry out what had been explained to him by two members of the Council as their determination to grant a cheap and easily taken qualification. They had made it cheap in one respect by eliminating a considerable number of subjects from the curriculum. In certain very important subjects no examination whatsoever was required; the candidates escaped being asked one single question. When the Colleges of Surgeons and Physicians co-ordinated a conjoint scheme, the College of Surgeons and the Apothecaries' Hall immediately arranged another. This proceeding took the College of Physicians very much by surprise, but they were assured by the College of Surgeons that the curriculum would be identical in all respects, and that the standard of examination would be actually higher. So it was in print, but in practice there were some very considerable alterations. To deal with one point only: the College of Physicians laid very great stress on the subject of physiology, and were exceedingly anxious that two courses of lectures on that subject should be taken up, one in the second and one in the third year. The College of Surgeons objected to that. The College of Physicians yielded, and agreed to only one course, which was arranged to be taken up in the second year, but they succeeded in establishing that there should be two examinations, the one in the second year to be of a very elementary kind in the physiology of digestion, circulation, and respiration only; the second and more thorough examination was to be in the third year. In the Apothecaries' scheme the whole of the examination in physiology was in the second year. Consequently those who were anxious to get on without much trouble shifted from the scheme conducted by the Colleges of Surgeons and Physicians to the scheme as conducted by the Apothecaries' Hall and the College of Surgeons. The result was, as the College of Surgeons held no examination in physiology in their third year, these men were put on the roll of practitioners without having been asked one word of physiology save only in circulation, respiration, and digestion. He had before him a return in which he had traced four gentlemen who were so put on the *Register*, and this would show that the examination as conducted by the two bodies referred to was most unsatisfactory. He had, however, a still more serious statement to make. About the end of 1890 some alterations were made by the Conjoint Board of Physicians and Surgeons, the chief of which was changing the examination in physiology from the second to the third year. On that occasion the College of Physicians made a second attempt to get an additional course of physiology taken up; they considered one course was not sufficient, but the College of Surgeons objected. This being so, and the lectures being transferred from the second to the third year, the College of Physicians considered that it was useless to examine a man in subjects which he had not been required to study, and consequently the Committee of Management, in February, 1891, passed the following resolution:

Resolved, that while regretting the decision of the President and Council of the Royal College of Surgeons as to the establishment of a second course of physiology in the curriculum of the second professional year, the examination in physiology in the second year be dispensed with, and that a representation to that effect be made to the College.

On that subject the Secretary of the Conjoint Scheme wrote on November 21st that that resolution was still in force. Consequently, since 1891, no examination in physiology whatsoever was required by the Conjoint Board of Physicians and Surgeons. The College of Surgeons and the Apothecaries' Hall still accepted the examination as before. In their examination they examined in physiology, but in the Physicians and Surgeons examination not one word of physiology was asked. How many gentlemen availed themselves of this fact he was unable to say, but the list contained the names of two who had passed the second examination in the Colleges of Physicians and Surgeons, and then transferred themselves to to the Surgeons and Apothecaries for the third examination, and so passed the final without having been asked one question in physiology.

Sir Philip Smyly said all this should have been brought before the Committee on Education, not before the Council.

Mr. Teale moved that it be referred to that Committee.

The President thought it important that these matters should come before the Council in the shape of a printed memorial; it was otherwise impossible to follow the argument.

Dr. Atthill said his resolution was to refer the matter to the Committee for consideration.

Sir Philip Smyly said all these statements could be answered.

Sir William Turner was sorry to have to interfere in the matter, but it seemed to him that Dr. Atthill's motion was unnecessary. The whole question was now before the Examination Committee, who would have reported upon it if the Court of Examiners had only sent in their reply. They had not yet done so.

Dr. Atthill said his contention was that the examination was a fraud on the Council and a fraud on the public. He did not wish to press the matter if the Council thought it should be referred to the Committee.

Sir Dyce Duckworth thought that after the very important statement made by Dr. Atthill it would be only right that the College he represented should send in a formal statement which might officially confirm what he had said. It was a matter of the gravest importance, both in the matter of education and examination, and the Council really owed a debt of gratitude to Dr. Atthill for his courage in bringing it forward. It was a most invidious thing for a gentleman residing in Dublin to have to bring so grave a matter against a College in his own city, and nothing but a strong sense of duty would have impelled Dr. Atthill to do so. He thought the right course was for the College of Physicians to place their statements before the Council in such a way that they could be considered both by the Education and the Examination Committees.

Dr. McVail seconded Dr. Athill's motion. The verification of Dr. Atthill's statement was contained in the published syllabus of the "Royal College of Surgeons in Ireland," where, in a paragraph dealing with "Conjoint examinations for Licences, Royal College of Surgeons and Apothecaries' Hall," it was stated that no examination was required in mental disease, and also "certificates not required in physics, biology, vaccination, mental diseases, or ophthalmology." He did not think one word could be said in defence of a system which allowed a man to go on the *Register*, and so to practise, without having been required to produce a certificate in vaccination, thereby showing that, in the opinion of this Conjoint Board, vaccination need not have any connection with medical practice. He thought that fact alone sufficiently justified the resolution.

Sir Philip Smyly said the whole subject was at the present time under the consideration of the committee of the College of Surgeons. As representing that College, he wished the Council clearly to understand that he did not wish to burke any discussion on the subject, but he simply asked whether it was right and proper to discuss it now. Surely the question should first come before the Committees on Examination and Education. The reason that no answer had yet been given was that the report was not sent to these Conjoint Bodies till the beginning of the Term, and they had yet had no possibility of considering it and sending an answer. They were not to blame for the answer not having been sent. He asked the Council not to allow such a resolution to be placed upon the minutes, seeing that the matter was really at present under the consideration of the Committee of the College.

Mr. Brudenell Carter said the Council had before them a report from the Examination Committee on this very subject, going into considerable detail, and pointing out a great many defects in the requirements of the particular Conjoint Board referred to. That report he certainly had hoped would be discussed at that meeting, because it was so serious in its character that it was very undesirable that it should

stand over. In the absence, however, of any answer from the bodies concerned, he did not think they would be justified in discussing it. It seemed, however, that Dr. Atthill's motion was practically rendered unnecessary by the report of the Committee, which would bring the whole subject before the Council in a proper way.

Mr. BRYANT said the report to which Mr. Carter drew attention had reference only to the Pass Examination of these bodies, not to the Second Examination, to which Dr. Atthill more particularly referred.

Dr. ATTHILL said he was perfectly willing to postpone his motion till May. He did not wish to take anything like an unfair advantage.

The motion was then, by leave of the Council, withdrawn.

FEE FOR REGISTERING QUALIFICATIONS IN PUBLIC HEALTH.

Sir WILLIAM TURNER, in order to meet the expenses of inspection and visitation of examinations in public health, moved:

That after January 1st, 1894, the fee for registering a qualification in public health be two pounds.

Mr. WHEELHOUSE seconded the motion, which was agreed to, and the Council adjourned.

Monday, December 4th.

THE EDUCATION COMMITTEE.

The Council in committee resumed the consideration of the Education Committee's report on answers by licensing bodies to certain resolutions which were passed by the Council in May last.

THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.

Dr. BATTY TUKE moved, in pursuance of a recommendation contained in the report:

That counsel's opinion be taken on the following points: *(a)* Whether the possession of the diploma of M.R.C.P.London by a registered practitioner entitles him to register it as an additional qualification only; *(b)* whether it does entitle anyone who is entitled to be registered, but who is not registered, to have his name placed on the *Medical Register* until he has registered his primary qualifications; and *(c)* whether it does entitle a practitioner whose name stands in the Colonial or Foreign List to have it placed on the List of Registered Medical Practitioners of the United Kingdom.

Dr. BRUCE, in seconding the motion, said he thought that every diploma should bear on the face of it that the person holding it had passed a qualifying examination in medicine, surgery, and midwifery.

Sir DYCE DUCKWORTH thought the College might be left to deal with this matter as the Council desired. By a new by-law no more of these diplomas would be presented for registration as a primary qualification, but only as an additional qualification.

After discussion, Dr. MCVAIL moved as an amendment:

That the representative of the Royal College of Physicians, having assured the Council that, by a new by-law of the College, the Membership diploma of the College will not be presented to any registrar as a primary qualification, but only as an additional qualification by a person already registered, or entitled to be registered, the Council does not require to take any action with regard to the Membership.

Dr. LEECH seconded the amendment, which was carried as a substantive motion.

THE ROYAL COLLEGE OF SURGEONS OF IRELAND.

Dr. BATTY TUKE brought up the portion of the report dealing with the final examination of the Conjoint Board of the Royal College of Surgeons of Ireland and the Apothecaries' Hall, Dublin.

On the motion of Dr. TUKE this part of the report was adopted.

The resolution of the Council under which the Committee had acted, was as follows:

That the attention of the Conjoint Board in Ireland of the Royal College of Surgeons in Ireland and the Apothecaries' Hall, Dublin, be called to the fact that the study of physics, elementary biology, and mental diseases is not included in the programme of study, and that mental disease is not required as a subject of examination.

Dr. BATTY TUKE said it was with some pain that the Committee had felt it to be their duty in connection with this examination to come to the following recommendation, which he would embody in a resolution, and move:

That the Council intimate to the Conjoint Board in Ireland of the Royal College of Surgeons in Ireland and the Apothecaries' Hall, Dublin, that, unless their prescribed courses of study and examination be amended so as to bring them into compliance with the requirements of the Council on or before January 1st, 1894, the Council will feel it to be their duty to report to the Privy Council, in accordance with Section 4 of the Medical Act, 1886, "that it appears to the General Medical Council that the standard of proficiency in medicine, surgery, and midwifery, and in certain branches thereof, required from candidates at the qualifying examination for the licence of the Conjoint Board in Ireland by the Royal College of Surgeons in Ireland and the Apothecaries' Hall, Dublin, is insufficient."

Dr. BRUCE seconded the resolution.

The PRESIDENT suggested that May 1st should be inserted instead of January 1st. It was a very serious step, and the College ought to have time to amply consider the matter.

Ultimately the resolution was passed substituting for the words January 1st "prior to the next examination."

Sir PHILIP SMYLY said the College were anxious to raise this qualification. It was a great deal improved to what it used to be, and they desired to hold a sufficient and efficient examination.

Subsequently the following resolution was agreed to, on the motion of Dr. HERON WATSON, seconded by Dr. MCVAIL:

That the whole of the conjoint examinations of the Royal College of Surgeons in Ireland and the Apothecaries' Hall, Dublin, for a registrable qualification, be again "visited" or "inspected," and that particular attention be paid by the visitor or inspector to the point whether the subjects of education which are required, and the examinations in connection with them, are in accordance with the requirements of the Council.

The matter then dropped.

LISTS OF RECOGNISED PRACTITIONERS.

Dr. TUKE moved that the report of the Committee on the following subject should be adopted:

1. That the medical authorities be recommended to prepare, on or before January 1st, 1896, lists of medical practitioners whom they have recognised, or propose to recognise, as possessing opportunities of imparting practical knowledge to students during six months of the fifth year of medical study.

In their report on this matter the Committee recommended a certain procedure, and appended a schedule to serve the purpose in view.

Dr. BRUCE seconded the resolution.

Mr. BRYANT thought that it was clear that most of the corporations were dead against the proposal to allow six months with a practitioner to count as part of the curriculum, and it would therefore be well that it should be dropped. It was absolutely impracticable to carry out such a proposal.

Sir PHILIP SMYLY said the College of Surgeons in Ireland highly disapproved of such a proposal.

Dr. HERON WATSON said it was a piece of grandmotherly legislation.

Mr. BRYANT then moved the following amendment:

That the further consideration of the recommendation of the Education Committee on this subject be postponed.

Sir PHILIP SMYLY seconded the amendment, which was put and carried as a substantive motion.

THE UNIVERSITY OF CAMBRIDGE.

The portion of the report dealing with this University was adopted. The Committee had acted on the following resolution:

That the attention of the University of Cambridge be drawn to the imperfect provision in their regulations for enforcing the study of insanity.

The report stated that in a communication from the Secretary to the Special Board for Medicine to the Registrar, of date October 31st, it is intimated that: "The Special Board for Medicine have recommended to the Senate that the subject of mental diseases be added to the specified subjects for Part II of the Third (or Final) Examination for the degrees of M.B. and B.C.," and the Senate has approved the recommendation.

THE UNIVERSITY OF DUBLIN.

The section of the report dealing with the following resolution of Council was also adopted:

That the authorities of the University of Dublin be requested to take steps that the students of that University be enrolled on the *Medical Students' Register*.

The report stated that the authorities of the University were about to take measures to carry out the terms of the above resolution.

The Council then resumed, when the following amended resolution, bearing upon that passed in regard to the Royal College of Physicians of London in Committee, was carried, on the motion of Dr. MACALISTER, seconded by Sir DYCE DUCKWORTH:

That the Council, having been assured that under the new by-laws of the Royal College of Physicians, the qualifying examinations for the diploma of Member are, except in the case of persons who are already

registered, the qualifying examinations for the Licence of the College, together with a further examination in medicine, the Council instruct the Registrar to register such diplomas as in accordance with the Medical Act, 1886.

The Scottish Universities Commission.

Dr. Batty Tuke brought up a report from the Education Committee, on an answer received from the Secretary of the Scottish Universities Commission, with reference to Section X of their ordinance for degrees in medicine. The Committee state that they are informed that it is within the power of the Commissioners to amend an ordinance already approved by the Queen in Council by means of a supplemental ordinance. The Committee concur in the following statement in the President's letter:

A student residing at the seat of one of the Scottish universities or elsewhere in the United Kingdom, who has not succeeded in passing a recognised examination in general education, may, nevertheless, under the terms of Section X, attend qualifying courses of instruction in physics, chemistry, botany, and zoology, and he might thus count a nominal year of professional study, provided only that he abstained from presenting himself for the preliminary examination till the end of the year. It need not be here insisted on that scientific study under such conditions, at a time when the student must also be occupying himself with the preparation of the preliminary subjects, can be neither sound nor comprehensive.

After stating that they are of opinion that no answer to this objection is contained in the reply from the Secretary to the Commissioners, they recommend that the attention of the Commissioners be again drawn by the President to this objection to Section X, and that the Commissioners be requested to consider the propriety of framing a supplemental ordinance to remove the objectton.

Dr. Batty Tuke moved the adoption of the recommendation.

Dr. MacAlister seconded the resolution.

Dr. Heron Watson said he did not there represent the Scottish Universities Commission. The misapprehension arose in connection with the mode of construing the ordinance. The Commissioners proceeded, when addressing the Council, upon the ground that they were totally unable to obtain any supplemental ordinance. He believed that really what the Commissioners desired by the ordinance was what was sanctioned and regarded as right by the General Medical Council. Its real purpose was to prevent the reduplication of lectures.

Dr. MacAlister moved the insertion of the words in the recommendation "or taking such other step as may now be practicable."

The resolution was adopted *nem. con.*, with Dr. MacAlister's addition.

The Pharmacopœia.

The President brought up the Report of the Pharmacopœia Committee, which was adopted.

The Committee recommend that the Council should direct the preparation of another edition of the *Pharmacopœia*, and, further, that the aid of the several medical authorities and of the Pharmaceutical Society be again invited by the Council. The new edition will take account of Colonial and Indian requirements.

The Examination Committee.

Sir Dyce Duckworth brought forward the Report of the Committee upon the reports of the visitors and inspector of examinations, and the remarks by the bodies visited on the final examinations held during 1893 of the Irish corporations and English universities. The first examinations dealt with in the report were those of the Conjoint Board of the Royal Colleges of Physicians and Surgeons in Ireland, and various desirable improvements in regard to the details of the examinations were pointed out. The report was adopted.

Mr. Carter thought that from the description of the examinations of this body, as given in the report, it appeared that they were of an extremely inferior character. He trusted the Council would make some special representation to this body of the extreme dissatisfaction with which they had perused such a record of their work, and should express an earnest hope that at the next inspection an improvement would be observed. He would move:

That the serious attention of the Conjoint Board of the Royal Colleges of Physicians and Surgeons in Ireland be drawn to the character of their Final Examinations as disclosed by the report of the visitors and inspector, and that these bodies be urged to spare no endeavour to bring about a more satisfactory state of things.

Dr. Bruce seconded the motion, which was agreed to.

The University of Oxford.

The visitor and inspector reported that the Final Examination for the B.M. Degree is sufficient, and that many of the arrangements made for it deserve special recognition for their excellence.

Sir Dyce Duckworth moved the adoption of the Committee's report regarding the University of Oxford.

Dr. Pettigrew seconded the resolution, which was adopted.

It was then moved by Mr. Carter and seconded by Dr. Bruce, and agreed to:

That the Council call the attention of the Faculty of Medicine of the University of Oxford to the points noted by the visitor and inspector.

The University of Cambridge.

As to the Cambridge University, the visitor and inspector report that the Final Examinations in Medicine, Surgery, and Midwifery are sufficient and in many respects highly commendable. The Committee state that they are highly gratified to receive so satisfactory a report of this examination.

Sir Dyce Duckworth moved the adoption of the Committee's report.

Dr. Pettigrew seconded the resolution.

After an explanation from Dr. MacAlister on several points, the report was adopted.

The Council then adjourned.

Tuesday, December 5th.

The Examination Committee.

The first matter proceeded with was the adjourned discussion in Committee of the report of the Examination Committee upon the reports of the visitors and inspector of the final examinations.

The University of London.

Sir Dyce Duckworth moved the adoption of the report of the Committee on the examination of this University. The visitor and inspector report that, while the examination as a whole is capable of improvement by remedying the deficiencies indicated by former inspectors and themselves, they are of opinion that it is at present "sufficient," and in many respects an excellent one. The Committee reported that they were of opinion that the time had arrived at which the Council should make a formal representation to the Senate of the University, notifying the serious defects elicited by the visitor and inspector in their last reports, defects which had not received any attention since they were pointed out on two previous occasions by the Council (in 1885 and 1887).

Mr. Bryant seconded the resolution.

Dr. Wilks explained that if the Council thought necessary a further answer to their communication would be sent from the Senate of the University. The Senate had appointed a Committee on the matter, who were discussing the matter.

The resolution for the adoption of the report was then carried.

The University of Durham.

Sir Dyce Duckworth moved the adoption of the report of the Committee on the final examination of this University. The visitor and inspector, while indicating some deficiencies in the final examinations for admission to the *Medical Register*, are of opinion that they are "sufficient." In their reply, the Senate say that they will take steps to carry out the recommendations of the visitor and inspector in respect of giving more time for clinical examinations. The Committee report that at least written clinical notes on one case would be desirable from all candidates for a degree in medicine, and that at least two patients should be examined by each candidate. They call attention to the absence of adequate examination in application of forceps, and of instruments liable to be required in practical midwifery, and consider that questions should be given on the subjects of mental diseases, skin diseases, and diseases of children. They further are of opinion that candidates for a degree in surgery should be examined in ophthalmology. There is no notice taken specifically of the omission to exact a written report on a surgical case. The Committee is not satisfied with the opinion of the Senate as to the sufficiency of ten minutes' oral examination in medicine, surgery, midwifery,

and gynæcology. No notice is taken of the absence of tests in mental diseases, skin diseases, or diseases of children, nor of the omission to examine in ophthalmology.

Sir WALTER FOSTER seconded the resolution, which was agreed to, after Dr. Philipson had made certain explanations, assuring the Council that the Senate would take due notice of any representation from the Council.

THE VICTORIA UNIVERSITY.

Sir DYCE DUCKWORTH moved the adoption of that portion of the report dealing with the University. The visitor and inspector report that the standard of the final examination is a high one. The Committee reported that they had only to direct the attention of the Council to the fact that the Board of Studies takes no notice of the recommendation of the visitor and inspector respecting the special instruction necessary for candidates aspiring to the bachelor's degree in surgery.

Dr. PETTIGREW seconded the resolution, which was carried.

This concluded the business on these reports, and the PRESIDENT expressed the sense of indebtedness under which the Council was to the Education Committee and the Examinations Committee for the great pains they had taken in drawing up these reports.

The Council then resumed, and the above resolutions were passed in Council, with the exception of that agreeing to forward to the University of Oxford the recommendations of the Examinations Committee, which was not confirmed.

STATISTICAL TABLES OF PASSES AND REJECTIONS.

Sir DYCE DUCKWORTH brought up the report by the Examination Committee upon the tables showing the number of candidates and the rejections per cent. at examinations for degrees, diplomas, and licences by the medical authorities in the United Kingdom from 1861 to 1892. The Committee report that, after due consideration of the reports on the matter from the various bodies, they regret to find that no information of any practical value is forthcoming from any of them, and it does not consider that such is likely to be obtained by this or by any other method of inquiry founded on a basis of mere statistics. The practical working of nineteen licensing bodies in the three kingdoms cannot be calculated out mathematically. Circumstances affecting the standards of examination vary, and may be expected to vary from year to year, and they are especially likely to do so in times of transition and amendment, such as in recent years have influenced medical education in the United Kingdom.

The report was adopted.

PROFESSIONAL EDUCATION.

Mr. BRYANT moved the following resolution, of which he had given notice:

That the requirements of the Council in regard to professional education be amended as follows:

Instead of (*a*) under heading IV the following be adopted:

That when in the course of his studies previous to registration in any university, science school, or teaching institution approved of by any of the medical authorities, a candidate shall have attended a course or courses in one or all of the departments of physics, chemistry, biology, or practical pharmacy, such attendance shall be held as entitling him to present himself for examination. Provided always that such attendance shall not be held to be included in the five years of medical study.

It was, he said, only in order that they might recognise good school teaching in these subjects that he moved this resolution.

Dr. GAIRDNER seconded the resolution.

Dr. MACALISTER hoped the Council would hesitate before they passed a resolution on so important a matter at that late hour of the session. It would be best for the Council, at any rate for twelve months, to keep to the professional requirements of the Council passed last May.

Dr. PETTIGREW said that this really meant a six years' curriculum. On that ground he would oppose the resolution.

Dr. MACALISTER then moved the following amendment;

That it is inexpedient to alter at the present session the resolution respecting requirements for professional education passed by the Council as recently as last May.

Dr. PETTIGREW seconded the amendment, whereupon Mr. BRYANT withdrew his resolution, and the matter dropped.

PETITION OF DR. RENTOUL.

Mr. WHEELHOUSE moved the following resolution:

That the petition of Dr. Rentoul and one hundred and eleven other practitioners together with any other documents that may be received in regard to the subject be referred to the Executive Committee for consideration.

This petition, he said, dealt with the question of midwives receiving certificates to practise midwifery after certain attendances in a lying-in hospital. The purpose of the petition was to try and prevent the formation of an entirely new class of medical practitioners, and he moved the resolution in order that the matter might at some date be fully discussed.

The PRESIDENT said that this was no new matter to the Council. A resolution had already been passed by the Council urging upon the Government the necessity for framing some measure for the education and registration of midwives. There was already a committee which had the whole matter under their consideration.

Mr. WHEELHOUSE said he would be satisfied if this petition were referred to that Committee.

Dr. MACALISTER said he hoped it would not be referred to the Committee. It contained such baseless and misleading assertions that it was unworthy of their attention. The whole thing was illogical and unpractical.

Mr. CARTER called attention to the fact that Mr. Wheelhouse's motion had not been seconded.

The matter then dropped.

REPORTS OF VISITORS AND INSPECTOR.

Mr. BRYANT moved:

That, in place of the present Standing Order, chap. xxi, clause 20, the following be substituted:

"A copy of the reports of the visitors and inspector, and the remarks and observations thereupon by the body visited, shall be supplied to each member of the Council, and that copies not exceeding 50 in number shall be sent by the Registrar to the licensing body in regard to which the report is made."

Sir PHILIP SMYLY seconded the resolution, which was carried.

Strangers were then directed to withdraw while a communication was read from the President of the Board of Trade.

COMMITTEE ON PENAL CASES.

The following resolution was adopted:

That a Committee be appointed by the Executive Committee to consult with and to advise the President in the consideration of penal cases to be submitted to the Council for its decision. That this Committee for the present shall consist of Dr. Glover, Sir Walter Foster, Mr. Carter, and the Treasurers of the Council.

REGISTRATION.

Dr. HERON WATSON moved the following resolution, after an explanation on the charges made for registration from the Registrar:

That the matter of the regulation of registration in the three branch councils, especially with regard to the fees charged for original registration and the registration of additional titles be, in order to secure uniformity of practice, referred to the Executive Committee.

Dr. BATTY TUKE seconded the resolution, which was carried.

INSPECTOR OF EXAMINATIONS.

On the motion of Dr. TUKE, Dr. Duffey was appointed Inspector of Examinations for Diplomas in State Medicine for the year ending December 31st, 1894.

STANDING ORDER AS TO PENAL CASES.

Mr. CARTER moved that the following notice of motion be submitted to the Council's solicitor:

That Standing Order 14 be amended by the addition of the following words:—"Provided that when questions (*a*) and (*b*) have been answered in the affirmative, the Council may further proceed to the consideration of question (*c*) forthwith, or may, on motion from the chair, postpone any decision upon this question, either *sine die*, or until the session next after that in which the inquiry has been held, and on any subsequent occasions may, if they see fit, consider any further evidence which may be laid before them."

The resolution was adopted.

DENTISTS' ADVERTISEMENTS.

Mr. CARTER moved the following resolution:

That the attention of the Council having been called to the practice of advertising as pursued by certain dentists, it is hereby declared that, while the Council will not at present interfere with this practice so long as it is confined to a mere notification of the place of abode and the profession of the advertiser, yet that the publication of a scale of charges, or the issue of advertisements containing claims of superiority over other practitioners, or unfair depreciation of them, will be regarded as an offence with which the Council will be prepared to deal, and which may easily be carried so far as to constitute infamous or disgraceful conduct in a professional respect.

He moved this resolution simply as a warning to dentists who issued these objectionable advertisements.

Sir Dyce Duckworth seconded the motion, which was ultimately referred to the Executive Committee for submission to the Council's legal advisers.

This terminated the business of the session, and the Council adjourned until May next.

THE TREATMENT OF INEBRIATES.

Deputation to the Home Secretary.

[Special condensed report for the British Medical Journal.]

On December 5th a deputation representing the British Medical Association (Inebriates Legislation Committee), the Society for the Study and Cure of Inebriety, and the Homes for Inebriates Association, and including Professor Gairdner, Dr. Norman Kerr, Dr. Bridgwater, Canons Duckworth, Barker, and Leigh, Mr. Lees Knowles, M.P., Lady Henry Somerset, and others, was introduced to the Home Secretary—who was accompanied by Dr. Hoffmann, Inspector of Inebriate Retreats, and Mr. E. Leigh Pemberton, Assistant Under Secretary—by Dr. Farquharson, M.P., who said that the object of the deputation was to obtain the introduction of the principle of compulsion and a longer period of detention. A good deal of what was sought had already been approved and recommended by the Departmental Committee which sat under the chairmanship of Mr. Wharton, and had reported in July.

Dr. Norman Kerr said that thanks were due to the Home Office for the appointment of the Departmental Committee, whose recommendations if carried out would work a beneficent revolution. About 112,000 males, and 133,000 females were committed annually, and the Discharged Prisoners' Aid Society believed that of the males 50 to 60 per cent. were drunken cases, and of the females, 80 to 85 per cent. In cities, from 2 to 7 per cent. were persons who had been committed from 100 to 600 times. Persons had been committed 52 times in a year. The increase of female intemperance was a most distressing fact. The percentage of persons who had been convicted 10 or more times was, in England and Wales, among males, 14.5 per cent., and among females, 36 per cent. In Scotland the percentage for males was 26 per cent., for females 60 per cent. This represented but a fraction of the total drunkenness, but the facts as to police court "repeaters" which could be stated in statistics indicated the failure of present methods of preventing inebriety. Drunkards had been talked to as though they were willing sinners, whereas they were suffering from a physical diseased condition. In a very large proportion of cases such persons were handicapped from their birth; they were unable to remain abstainers, and were punished for what they could not, practically, avoid. A great change had been coming over public opinion, and everyone of practical experience was now converted to the idea of compulsory restraint. Even as it was the retreats had achieved considerable success. In the Dalrymple Home alone, as was shown by the inspector's report, 118 had been admitted, and one-third had remained the full time of twelve months. The amendments desired in the law were few in number, and most of them were already in operation in other countries. (1) The most important was the power to seclude compulsorily non-criminal inebriates. (2) The next was power to deal with paupers and persons of limited means; this would be an economy to the State, for it would be cheaper to cure drunkards than to punish them repeatedly, even as many as 600 times. (3) As to voluntary patients it was desired to remove the necessity of appearing before two magistrates; the inspector (Dr. Hoffman) had recommended one justice instead of two, but it would be better to permit a simple attestation before the clergyman of the parish or other responsible person. There was no fear of endangering personal liberty, for there was no difficulty in leaving an inebriate home. (4) Provisions for inebriates, other than alcoholic inebriates, was also very desirable for the large number of persons addicted to opium, morphine, and chlorodyne. (5) Further, it would be an improvement if the licensee of a home should have power, with the consent of the local magistracy, to appoint a deputy for a longer period than six weeks, say a year. (6) It was also desirable that the licence should not be granted only from year to year; on these terms only a philanthropic society would invest money in an inebriate home. (7) There should be complete separation of the sexes for various reasons—among others, that women could more easily smuggle in liquor. Lastly, (8) guardians of the poor, including the principal Poor-law boards in London, asked for power to retain habitual drunkards or pay for their treatment in special institutions—a practical suggestion of great importance. In conclusion, he observed, with regard to criminal inebriates, that, though the proportion of criminals to population was decreasing, the number of female inebriate "repeaters" was increasing.

Sir William Charley, Q.C., said that the Habitual Drunkards Bill of 1877, as he drafted it, consisted of two parts, the voluntary and the compulsory. The compulsory part had been dropped in the House of Commons, and what the deputation asked was, practically, to add to the Act of 1879 the compulsory clauses which stood part of the Bill as originally drafted. The inebriate, if secluded compulsorily, might contribute to his own maintenance. Voluntary contributions might also come in, but financial aid from Imperial or local sources would also be required. On the other side of the account would have to be placed the great saving of expense in connection both with gaols and lunatic asylums.

Canon Barker pointed out the great need for compulsory powers, Lady Henry Somerset dwelt on the great increase of female drunkenness, and Canon Duckworth and Canon Leigh insisted that the benefits of the Act of 1879 were almost confined to the well-to-do classes.

Professor Gairdner, of Glasgow, thought that a compulsory Act would have great influence in preventing drunkenness by contributing to deter persons from becoming habitual drunkards. Persons in the way to such a condition would be aware that they had the choice of arresting themselves or being arrested. He did not consider that the responsibility of the decision of a question involving personal liberty should be thrown on the medical profession.

Surgeon-Major Poole said that he had reason to believe that there was a considerable public opinion in favour of compulsion.

Mr. Asquith in reply, said that the matter had been investigated with great assiduity and ability by the Departmental Committee, whose report had received his earnest attention. He hoped that in the next session of Parliament the Government would be able to introduce a Bill which would seek to give effect to the more important of the recommendations of the Committee. There was no doubt of the connection between habitual drunkenness and habitual crime, and though he thought that habitual drunkenness was to be regarded rather as the effect than the cause of bad social conditions, there was no doubt that it contributed largely to aggravate the causes from which it sprang. Whatever could be done by legislation to remove either cause or effect ought to be done. The main defects in the present system were two: first, that it was not applicable to the poor; consequently they could be treated only by punitive measures, and experience showed that punishment failed to be either curative or deterrent. The retreat system in its present tentative form had produced good results in the class which had been able to make use of it, and should be extended to the poorer class. The second defect was that the system was not compulsory. To induce the House of Commons to consent to this, an overwhelming case would have to be made out. Mr. Asquith believed that such a case had been established. He did not think it possible to treat habitual inebriety, or, to speak more guardedly, certain forms of habitual inebriety, upon a different level from insanity itself. It produced the same condition of irresponsibility, and it was attended by equal if not greater danger to the community. He agreed that compulsion was desirable, but he agreed also with Professor Gairdner, that the responsibility of the decision in individual cases ought not to be thrown on medical men; he deprecated equally the placing of such power in the hands of the clergy. No man should be sent into confinement, either with his will or against his will, except upon an application heard by a judicial authority acting upon principles and subject to the safeguards which regulate judicial action. The right of appeal to the Queen's Bench should

be given, and the High Court should at any time be able to order release. Turning next to the financial question, he said that it remained to be decided how far the voluntary element was to be relied upon; and, further, if contribution was to be made from public funds, whether it was to be an Imperial or local charge. As a matter of practical legislation, considerable forethought and not a little management would be necessary on these heads. On the whole and in the main he thought it might be taken that the recommendations of the Departmental Committee would be followed in the legislation which would be proposed.

Dr. FARQUHARSON thanked the Home Secretary in the name of the deputation, which then withdrew.

SOCIETY OF ANÆSTHETISTS.

AT the first ordinary meeting held at 20, Hanover Square, W., on Thursday, November 16th; the PRESIDENT (Mr. F. Woodhouse Braine) in the chair,

Dr. GEORGE OLIVER, of Harrogate, communicated the results of some preliminary observations he had made on the size of the radial artery under various anæsthetics, as measured by means of an instrument specially devised by him for that purpose. The measurements collected so far showed that the radial diameter is independent of the frequency of the pulse. It is increased under ether, and much and suddenly diminished under chloroform. With nitrous oxide there is at first a sharp rise and then a corresponding fall; when oxygen is inhaled along with the nitrous oxide in the manner suggested by Dr. F. Hewitt, the radial diameter rises, and does not subsequently fall. When chloroform is preceded by ether, or a mixture containing that drug, the reduction in the size of the artery due to cloroform is checked, or there may even be a slight rise; in the same with A.C.E. alone. The alterations in the radial measurements due to ether, nitrous oxide gas, and ether, and A.C.E. do not exceed the limits of normal variations observed in healthy individuals; on the other hand, the depletion of the arteries recorded under chloroform is considerably below that normal. He thought that with ether alone the size of the arteries might favour cerebral and pulmonary hæmorrhage, and on that account he preferred as a routine anæsthetic the A.C.E. mixture.

The PRESIDENT, on behalf of the Society, thanked Dr. Oliver for his most interesting communication. He had been administering ether for a good many years, but had certainly not seen, at the outside, more than four cases of pulmonary haemorrhage following its use.

Dr. DUDLEY BUXTON thought the line of investigation suggested a valuable one, although arterial diameter might not be a measure of blood pressure. Dr. Oliver's instrument might be of service in investigating those vaso-motorial changes, upon which variations in blood pressure were more or less dependent. He thought that a very large number of observations would have to be made before drawing definite and practical conclusions, as the problem was a most complicated one. He was much struck by the alterations suggested when the anæsthetic was changed in the course of a single administration, as it was commonly believed that such changes were dangerous.

Dr. SILK did not quite understand what relation these observations bore to intravascular pressure. He had for some little time been in the habit of changing from one anæsthetic to another, but he had never seen any ill-effects follow the proceeding.

Mr. TYRRELL did not think that to a practised anæsthetist there was any danger in changing the anæsthetic, provided that the changes were not too sudden, and that the air was not rigidly excluded; in hospital work, however, beginners were very apt not to observe the latter of these requirements. He was now working with mixtures of the vapours of ether and chloroform, and hoped to communicate his results at a future date. He felt sure that he had not seen such sudden and complete diminution in the size of the vessels under chloroform as recorded by Dr. Oliver, and thought that they might possibly be accounted for by the method of administration employed.

Mr. GRANT-MORRIS thought that the nature of the operation, and the condition of the patient as regards shock, loss of blood, etc., might have something to do with the results obtained.

Dr. F. HEWITT thought that the stage of the administration at which the observations were made should be known. Many cases of chloroform inhalation occurred in which the pulse remained unexpectedly full and soft throughout. He thought that it was objectionable to employ chloroform before ether, but preferred to use the A.C.E. If chloroform were used after ether, care should be taken to give it very gradually, as the excited respiratory movements might otherwise lead to an intake of an overdose.

In reply, Dr. OLIVER said his observations had led him to believe that blood pressure was by no means coincident with radial diameter. He did not think that the severity or prolonged character of the operations accounted for the reduction of the artery under chloroform, but he had reason to believe that various proceedings, such as cutting, traction, etc., were quickly apparent in the readings of the instrument. At the close of the meeting Dr. Oliver showed and demonstrated the use of his two instruments, the pulse-pressure gauge and the arteriometer.

METROPOLITAN POLICE SURGEONS' ASSOCIATION.

THE sixth annual meeting of this Association was held at the Criterion Restaurant on November 30th. Mr. MACKELLAR, the Chief Surgeon, occupied the chair, and there were about forty members present.

Dr. SPURGIN, one of the Honorary Secretaries, read the annual report, from which it appears that the Association is in a very satisfactory condition, both numerically and financially.

It was proposed by Dr. BROUSFIELD, seconded by Mr. KENNEDY, and resolved that the report be adopted and printed, and forwarded to every metropolitan divisional surgeon.

The following were elected office-bearers for the ensuing year:—*President:* Alex. O. Mackellar, F.R.C.S. *Vice-Presidents:* G. B. Phillips, M.R.C.S.; G. F. Farr, L.R.C.P. Edin.; and G. E. Yarrow, M.D. *Treasurer:* G. B. Phillips, M.R.C.S. *Honorary Secretaries:* F. W. Spurgin, L.R.C.P.E., 1, Welbeck Street, W.; A. F. L. Dorin, M.R.C.S., 144, Clapham Road, S.W. *Council:* A. Forsyth, M.D.; S. Mills, M.R.C.S.; J. H. Waters, M.D.; W. R. Tytheridge, L.R.C.P.; S. Worthington, M.D.; E. C. Barnes, M.R.C.S.; W. A. Grogona, L.R.C.P.E.; F. Collins, M.R.C.S.; G. Robertson, M.D.; W. H. Roots, M.R.C.S.; S. Lloyd, M.D.; and C. P. Callie, M.B.

In pursuance of notice of motion, Dr. FORSYTH proposed that general meetings shall be held on the third Thursdays of February, April, June, and October in each year for the transaction of the general business of the Association and for the reading of papers and discussion. Seconded by Mr. PHILLIPS, and carried *nem. con.*

A vote of thanks to Mr. Mackellar for presiding terminated the business.

In connection with the reading of papers Mr. Mackellar has promised for the February meeting a paper on the Origin, etc., of Divisional Surgeons; and for the April meeting Mr. Harold Hardy, barrister-at-law, of Grays, a paper on the Plea of Insanity in Criminal Cases.

At 7 o'clock the members and friends, to the number of sixty, sat down to dinner. Mr. Mackellar occupied the chair, and was supported by Mr. Howard (Assistant Commissioner of Police), Mr. Ernest Hart, and others. After dinner the usual toasts were proposed and responded to, and the evening was rendered further pleasant by the introduction of vocal and instrumental music.

HYGIENE IN PARIS.—The Paris Municipal Council has under consideration proposals to the following effect: 1. That a special office of public hygiene should be established in the *mairie* of each *arrondissement* of Paris. 2. That it should be made compulsory on owners of house property to notify the fact of apartments becoming vacant in which cases of infectious illness or death from such disease have occurred. 3. That the authorities should, on the receipt of such notification, have the apartments disinfected without delay.

ASSOCIATION INTELLIGENCE.

SOUTH EASTERN BRANCH: EAST KENT DISTRICT.

The 129th meeting of this district was held on November 23rd at the Kent and Canterbury Hospital; Mr. S. Wacher in the chair. Twenty-four members were present.

Next Meeting.—Mr. W. Curling, C.C., of Ramsgate, was appointed chairman of the next meeting, to be held in March, 1894, at Ramsgate.

Communications.—Dr. F. L. Nichol (Margate) read a paper on Non-Traumatic Dislocations. He dwelt more particularly with dislocations due to "distension," and after commenting on the pathological conditions associated with this form of displacement, illustrated his remarks by a case in which a dorsal dislocation at the hip-joint occurred in a child the subject of acute rheumatism. He dwelt on the rarity of the condition, and concluded by quoting the few similar cases which had been recorded.—Dr. Tyson (Folkestone) read a paper on Myxœdema and Allied Diseases; their Treatment by Thyroid Glands. The giving of tabloids containing the essentials of the thyroid was recommended as the simplest method. The two stages of treatment were: (1) Curing the disease; (2) Maintaining the patient in health subsequently. It was argued that the insanity of myxœdematous patients was due to disease of the gland, and was not a primary disease of the brain. The success of the thyroid treatment in sporadic cretinism and in certain chronic skin diseases—especially psoriasis—was alluded to. The failure of the treatment in anæmia, obesity, and baldness was mentioned. A case of myxœdema, practically cured by this method, was shown; also several photographs representing myxœdema and skin diseases before and after treatment.—Dr. Welsford (Dover) read a paper on Gallstone Obstruction. The great difficulty of diagnosis of these cases and the high mortality attending them were alluded to and operative measures were deprecated. The various modes of termination were mentioned, and a series of cases was given illustrating the simulation of pyloric cancer by the pressure of gall stones upon the duodenum and pylorus.—Mr. Schön (Bridge) showed a case of Cancer of the Rectum, in which inguinal colotomy and suprapubic tapping had been performed.—Mr. Whitehead Reid (Canterbury) showed a case of Growth in the Larynx.

After the meeting tea and coffee were served in the board room of the hospital.

BATH AND BRISTOL BRANCH.

The second ordinary meeting of the session was held at Bath on November 29th, Dr. Shingleton Smith, President, in the chair. Twenty-six members present.

New Members.—The following gentlemen were elected members:—Messrs. G. E. Bowker, M.B., C.M. Bath; Fred. A. A. Smith, M.D., M.R.C.S. Cheltenham; Theodore Fisher, M.D., Clifton; C. K. Rudge, M.R.C.S., L.R.C.P., Clifton; A. Carling, M.B., B.C., Bristol; J. C. Smyth, M.R.C.S., L.R.C.P., Glastonbury.

Communications.—Dr. Dowson read notes of a case of Calculus passed *per anum*, and the following members took part in the discussion: Dr. Shingleton Smith, Mr. Harsant, Dr. Markham Skerritt, and Mr. Stockwell.—Dr. C. J. Whitby read a paper entitled Some Remarks on Functional Derangement of the Liver, and Mr. Harsant, Dr. Parker, and Dr. Shingleton Smith commented upon it.—Dr. J. Kent Spender read a paper on the Atrophic Phenomena of Rheumatoid Arthritis, which was discussed by Dr. Harrison, Mr. Scott, Dr. Goodridge, and Dr. Shingleton Smith.—Mr. Pagan Lowe communicated notes of a Case of Intra-peritoneal Hæmatocele, Abdominal Section, Recovery.—Dr. Wilson Smith brought forward Some Cases of Lead Poisoning presenting unusual Symptoms. Dr. Markham Skerritt, Dr. Goodridge, Mr. Lowe, and Dr. Shingleton Smith joined in the discussion.

GLOUCESTERSHIRE BRANCH.

The first meeting of the session was held at Cheltenham on November 21st, Mr. G. Arthur Cardew, President, in the chair. Sixteen members were present.

Presidential Address.—The minutes of the last meeting having been read and confirmed, the President delivered an address on Abscess and its Treatment. He laid especial stress on the technical processes necessary to carry out surgical treatment with strict asepsis. After dwelling on the site and direction of the incision, he urged the free use of the curette or Volkmann's spoon wherever possible, and the early removal of the drainage tube. He also advised the excision, evulsion, or scraping away of enlarged or suppurating glands, following up his advice by the description of four cases as illustrations of the methodical treatment of such cases and their results.—After some further remarks on the subject by Mr. Bower, and Drs. Wilson and Cullen, a vote of thanks to the President for his address was carried unanimously.

Supper.—The supper took place afterwards at the Queen's Hotel, when seventeen members sat down.

PERTHSHIRE BRANCH.

The annual meeting of this Branch was held at Perth on December 1st, Dr. McCallum in the chair in the absence of the President.

Confirmation of Minutes.—The minutes of last meeting were read, approved, and signed by the Chairman.

Election of Officers.—The following elections were duly made:—*President:* Dr. McNaughtan. *Vice-President:* Dr. McCallum. *Secretary:* Dr. Urquhart. *Treasurer:* Dr. A. J. A. Campbell. *Council:* Drs. Simpson, Niven, Paton, Carruthers, and Taylor.

New Members.—The following new members were elected:—Dr. Felvus, Murthloy; Dr. Henderson, Perth; Dr. Kay, Killin.

Report of Council.—The report of Council showed an increase of membership from 37 to 42 during the past year, although there had been loss by death or removal from the district.

The late Dr. Irvine.—On the motion of Dr. McCallum, the meeting adopted a minute of condolence with the family of the late Dr. W. S. Irvine, of Pitlochrie, who was one of the original members of the Perthshire Medical Association, and the Secretary was instructed to send a copy to representatives.

Treasurer's Accounts.—The Treasurer read his accounts before the Branch, showing a credit balance of £5 3s. 11d.

Report of Representative on Council.—Dr. Urquhart presented his report as representative member, which was ordered to be entered on the minutes.

Summer Meeting.—On the motion of Dr. Ferguson, the summer meeting was fixed to be held in Blairgowrie.

Dinner.—The members present dined in the Station Hotel in accordance with the usual custom.

SPECIAL CORRESPONDENCE.

UNITED STATES.

[From our Special Correspondents.]

BOSTON.

Boston and the Harvard Medical School.—The Four Years' Curriculum.—Evening Lectures to the Profession.

With the opening of the Harvard Medical School at the beginning of October the medical activity of Boston commenced. During the summer the city is deserted by a large proportion of the medical men, the medical societies hold no meetings, public operations are given up at the hospitals, and only with the return of the cold weather is there anything of medical interest.

The Harvard Medical School was the second school in America to make four years' study compulsory for the medical degree, the usual term of study being in general only three years. In 1890 the Medical Department of the University of Michigan took this step, but all the schools in Philadelphia, New York, and Boston still required only three years. In 1892 the Harvard School made the fourth year compulsory, and this step was taken with some misgiving as to its effect upon the prosperity of the school. Much to the surprise of those interested in the movement, the entering class in 1892 was the largest in the history of the school, showing in a most gratifying way that the com-

munity was in accord with this effort in the direction of a higher medical standard. The President of the Alumni Association (Dr. Chadwick), in his speech at the annual meeting in June, 1893, spoke as follows:

You will remember the doubts we all felt last year as to the difficulties and pecuniary sacrifices that were to be anticipated from the reduced number of students that it was predicted would attend the institution of a four years' course in place of the former three years' course. In the changes introduced in 1870-71, advancing the requirements of the school, the number of students was reduced 40 per cent. A similar reduction in the number of the class entering the four years' curriculum was predicted. Our guest of last year, the Provost of the University of Pennsylvania, said he regarded a change to a four years' course "with much more apprehension" than he regarded a change to a three years' course. He believed it was "going to test the resources of the medical schools more severely." How brilliantly do the facts refute these evil forebodings! The class that entered the medical school, only three months after our last meeting, was the largest that ever was enrolled in the school, one hundred and seventy-four students as contrasted with one hundred and sixty-nine who entered the previous year to take only a three years' course, a class then regarded as phenomenally large. The total number of students in the school during the past year was four hundred and forty-two, as contrasted with three hundred and ninety-nine in the year 1891-92.

Another departure has been made by the school this winter in providing a series of evening lectures by the professors and instructors in the various departments. These lectures are upon matters of general medical interest, and are open to all members of the profession. Such subjects are to be taken up as "Mental Physiology," "Urinary Diagnosis," "Ovariotomy," "The Applied Anatomy of the Vermiform Appendix," and the like. The attendance at these lectures has been sufficient to justify their establishment.

PARIS.

A "Couveuse" Department at the Maternity.—Proposed New Surgical Institute.—The "Colony" Treatment of Lunatics.—Pure Water for Paris Suburbs.—The Association Médicale Mutuelle.—General News.

MADAME HENRI'S earnest endeavours to create at the Maternity, of which she is *sage femme en chef*, a *couveuse* department for sickly newly-born infants and those prematurely born have been crowned with success. This department is in full working order, and was inaugurated a few days ago in the presence of an assembly. This new service consists of four rooms isolated where infants suffering from contagious diseases are nursed. A big dormitory containing twenty *couveuses* and twenty cots, a day room, a room capable of containing twenty wet nurses and their nurslings, a refectory, linen room, and the caretaker's rooms. Madame Henri showed a child brought to the Maternity in a lamentable condition, weighing 1,200, now weighing 3 kilos 500 grammes.

Dr. Terrier, now at the Bichat Hospital, will replace Dr. Le Fort at the Pitié. Dr. Terrier, who is an enthusiastic advocate of antiseptic and aseptic surgery, has asked the medical faculty to give him a new service, organised entirely according to his ideas. His request has been granted, and the Faculty will ask the Conseil Municipal to supply the funds required. There is a piece of unoccupied ground close to the hospital which will serve as the site for the new Surgical Institute.

Eighty-two patients from the St. Anne Asylum were sent some time ago to form a *colonie familiale* in the Cher Department. A Committee of the Municipal Council has visited them and questioned the patients, who express themselves perfectly satisfied. They receive regular visits from their families. The Orléans Railway Company issue tickets at a reduced price to their relations. The diet is regulated and supervised by Dr. Marie. The General Council of the Seine intends to increase the number of the colony to more than 100.

The Municipal Council is discussing the means of supplying the suburbs of Paris with pure water. The water of the Genneviliers drain contains 2 milligrammes of organic matter per litre, 300 to 500 milligrammes of lime, 70 to 80 of chlorine, 22 to 25 of nitrogen under the form of nitric acid.

At the banquet of the Association Médicale Mutuelle of the Seine Department, founded by Dr. Gallet-Lagoguey, Dr. Brouardel, the President of the Association, congratulated it on the results obtained. Five sums of 23 francs were paid, six from 28 to 30 francs, two from 32 to 33 francs, two of 40 francs, one of 44 francs, one of 71 francs, one of 98 francs, one of 129 francs, one of 142 francs, one of 197 francs.

The Conseil d'Hygiène et de Salubrité de la Seine recommend that omnibuses, tramway carriages, and railway carriages should be cleaned out and disinfected every day.

M. Charles Dupuy has laid before the Chamber of Deputies a Bill for improving the sanitation of Paris and the Seine.

GLASGOW.

Consumptive Homes for Scotland.—Orphan Homes.

THE title "consumptive homes for Scotland" is by no means indicative of the benevolent intention of the man who has framed it. Periodically for some time back correspondence has appeared in the Glasgow newspapers urging the need of the erection of a hospital for the isolation and treatment of consumptive patients. At last the subject has been taken up by Mr. Wm. Quarrier, the founder and director of the Orphan Homes for Scotland. This gentleman, after a visit to London and Ventnor, has decided to erect two houses, one for males and the other for females, after the manner of the Royal National Hospital for Consumption at Ventnor. He proposes that each house hold about twenty patients, each patient—or at the most every two patients—having separate bedroom accommodation, the class of patients taken being children and young people from 4 to 25 years of age, who are orphans and destitute, from any part of Scotland, admission to be of course free of all charge. Each house is to cost, completely equipped, about £3,000; and, after his usual manner, Mr. Quarrier has made known through a letter to the newspapers his need for £6,000 for this purpose. It is just a month since that letter was published, but already £1,200 of the requisite £6,000 have been placed in Mr. Quarrier's hands by persons, their names to remain unknown. No one who has the least knowledge of the remarkable manner in which Mr. Quarrier gets all he wants has the least doubt that his new enterprise will be speedily successful, and that he will not stop short with the two houses of his present project.

Over 1,200 children, boys and girls, rescued from poverty and crime during the year and provided with homes, and besides that over 750 granted temporary shelter and food, such is the record for the year of Quarrier's Homes, as they are popularly termed. Of these children, 268 were placed out in Canada. The total sum provided for these purposes was nearly £21,000, of which over £12,500 were for maintenance, and over £8,000 for building purposes. At these homes the cost of each child per year is £8.

CORRESPONDENCE.

CONSULTANT AND GENERAL PRACTITIONER.

SIR,—I am sorry that the "eminent consultants" you have questioned do not think it possible to carry on what I have always believed to be the best form of consulting practice in this town. My own experience as a consulting surgeon has led me to form a different opinion.

Nine-tenths of my patients are brought or sent to me by medical men, and with these men I correspond and suggest what should be done.

The remaining tenth is made up of persons who are sent by friends; or who have heard that I am specially skilled in the treatment of one or other disease. Under present conditions, it is not possible to refuse to see these persons, for they not infrequently come from distant parts of the country. But I do my best to persuade them to allow me to communicate with their family attendant, and I rarely find difficulty in making them understand that this is done in their own interest.

When patients who have been brought or sent to me on the first occasion come at a later date, unknown to their doctor, I almost invariably write him a note to say that I have seen his patient, and to recommend what further should be done.

With regard to operations. A large number of them are performed on persons living in or near London. The family doctor meets me at the operation, and takes charge of the

patient afterwards. If it is desired or necessary, I see the patient with him. In other cases, I am desired to perform the operation for patients living far from town, and while the patient is in apartments or a nursing home, I take charge until he is able to return to the country.

Ten years ago, I admit I found it difficult to forego the pleasure of taking sole charge (and the associated fees) of patients who were very anxious to place themselves absolutely under my care. At that time I saw few patients, and made but little money, and the temptation was great. In this lies the difficulty of practising as a consultant; not in the ignorance or ill-feeling of the general practitioners.

Of course I occasionally meet with patients who are offended at my disinclination to treat them without the association of their own medical man; and I have more than once lost cases for operation because I declined to take charge of the patient afterwards without the family doctor.

On the other hand, I am not daily annoyed with long letters of questions from patients; and my gratuitous *clientèle* consists almost only of medical men.

As to the success it is possible to attain in this kind of practice. I am between 45 and 50 years of age. During the last seven years I have been rapidly getting into good practice. During the last three years I have seen 500 new paying patients every year, and have performed about 150 chloroform operations in each year. And, although my expenses are considerable, I make a professional income of twice as much as I spend.

I should be only too well pleased to "take silk" to-morrow.—I am, etc.,

December 4th. F.R.C.S.

Sir,—I am not "eminent," and my opinion as a "leader" has not been asked, yet I have been wearing silk for some years, and find no loss thereby. I am a consultant (surgical) in this sense, that I will see no patient who is not sent to me by the regular attendant; if a patient has no attendant I refuse to see him. Can we go beyond this in "taking silk?" Our patient is at once our brief and our client; the general practitioner is the solicitor, and presents us with both.

Speaking entirely for myself, I have no hesitation in asserting that there is not the slightest difficulty or detriment in assuming the *rôle* of a pure consultant. And the results, as regards increase of comfort, total absence of friction with one's brethren, and increase of emolument (not, perhaps, with decrease of work), are delightful.—I am, etc.,

December 4th. West of England.

OUR KNOWLEDGE OF PUERPERAL DISEASES.

Sir,—The discussion which followed my short contribution on the above subject before the Obstetrical Society of London in October last, and the correspondence which followed are an excellent corroboration of the justness of the few remarks I appended to the cases I then narrated. While we are using the terms puerperal septicæmia, sapræmia, ichoræmia, puerperal fever, sewer gas fever, we know nothing certain of their exact nature; till we can tell what is the morbific principle of sewer gas, whether sewer gas is always the same, or whether it may not at times convey other disease-producing matter, how can we assert that this or that is or is not the source of the disturbance to recovery in the puerperium? How far has our bacterial knowledge extended so that we can say that the lying-in woman is destroyed by the accumulation of bacteria, etc., or poisoned by their excreta? Are we yet in any position to say positively that the bacteria, which are considered by some the cause of the diseased state are, though present, the cause, or whether they are merely taking advantage of suitable circumstances to propagate with freedom? How can we, from our present knowledge, determine, where there are more than one bacteria in the blood, what are the special symptoms accompanying each; and again whether, if they may not, as I suggested in my first contribution to this subject,[1] enter into other phases of growth, and produce a variation in the symptoms? If we would only confess our non-knowledge on these and other points we should, as I said in my remarks, the sooner arrive at a solution of the difficult problem before us.

And while we are studying the bacterial question, I have often urged we ought to also study the various external circumstances which influence the lying-in woman for ill. And how can we tell what are the various untoward agents till we search round each case, note every circumstance liable to act detrimentally, and, having collected a large number, reduce an approximation to the truth? Till this is done each one is given his solitary experience only in place of the universal.—I am, etc.,

George Street, W., Dec. 1st. J. Braxton Hicks.

[1] *Obstet. Soc. Trans.*, London

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

Sir,—I notice in your columns the advertisement annually put forth at this time of year in the hope of inducing the younger members of our profession to make an absolutely safe provision for their widows and orphans. The Society is to all intents and purposes an insurance society, in which a premium of only two guineas per annum guarantees a provision for the widow and orphans of the payer, should they be left in want. Of course, if a member leaves his family well provided for at his death, his subscriptions go to support the widows and orphans of less fortunate members; but he has the satisfaction of knowing that, come what may, he has secured his own belongings from destitution.—I am, etc.,

December 3rd. A Vice-President.

BOGUS M.D.'S.

Sir,—May I ask through the columns of the British Medical Journal that any information which medical practitioners can produce relating to the presence and practice in their neighbourhood of herbalists falsely using the title "M.D." or "Doctor" may be sent to me as quickly as possible? Such evidence, of course, must not be private or confidential.—I am, etc.,

A. G. Bateman,
Honorary Secretary, Medical Defence Union, Limited.

64, Longridge Road, S.W., Dec. 3rd.

NAVAL AND MILITARY MEDICAL SERVICES.

CLASS FOR VOLUNTEER MEDICAL OFFICERS.

A garrison class of instruction for Volunteer medical officers is being formed under the direction of the General Officer Commanding the Home District, and will begin the first week in January. There will be about twelve lectures, which will embrace military law, medical organisation, regulations, and official correspondence, etc. The class will be under the direction of the Adjutant of the Volunteer Medical Staff Corps and officers of the Army Medical Staff, including the following officers: Brigade-Surgeon-Lieutenant-Colonel Evatt, Surgeon-Majors A. E. Hayes and Pope, of Netley, and an officer from Aldershot. Surgeon-Colonel Norton, the Commandant of the London Companies' Volunteer Medical Staff Corps, has lent his headquarters, which are situated in Calthorpe Street, Gray's Inn Road, for the use of the class, together with the equipment. All Volunteer medical officers are invited to attend, and those desiring to do so should apply to Surgeon-Captain Hayes, A.M.S., Volunteer Medical Staff Corps, Calthorpe Street.

NAVAL MEDICAL SERVICE.

The following gentlemen have been successful at the recent examination for appointment as Surgeon in the Royal Navy:

	Marks.		Marks.
J. P. Willis, M.B.	2,952	J. C. Durston	2,418
W. R. Knightley	2,892	H. N. Stephens	2,401
J. W. W. Stanton	2,663	E. A. Rogers	2,398
A. Gaskell	2,622	G. D. B. Levick	2,317
T. D. Halahan, B.A., M.B.	2,448	M. C. Langford	2,246

THE ARMY MEDICAL SERVICE AND ITS DIFFICULTIES.

A correspondent avers that work of a military nature absorbs too much of the medical officer's time and attention, and materially interferes with professional duties and studies; the present system lowers a man professionally. Probably professional ability is not considered vital, as no opportunities for study are afforded. The system of making one man do the work which formerly devolved on several is making life a weariness in the department, and professional advancement an impossibility.

*** It would surely be retrograde to make undermanning an excuse or pretext for the destruction of departmental autonomy, such as it is. The duties of an army medical officer are, and necessarily must be, largely military, or he would cease to be an officer. There should not be any incompatibility between medical and military efficiency, provided the officer is not overburdened with duties. Herein probably lies the root of such complainings. From all we learn, professional hospital duties in the army were never more conscientiously performed than now, but it is all the more necessary that officers should not be overworked.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

Walsingham Medal.—The first award of the High Steward's medal for research in Biology, including Physiology, has been made to Mr. E. W. MacBride, Fellow of St. John's College.

Balfour Studentship.—This studentship, founded in memory of Professor Frank Balfour, has been awarded to Mr. Arthur Willey, B.Sc.Lond. This is the first occasion on which the Balfour student has not been a member of the university.

Medical Examinations.—The plan of the examinations for M.B., B.C., and M.C. has been published in the *University Reporter* for December 5th. The examinations extend from December 8th to the 21st.

Appointments.—The following appointments of members of the Medical Faculty are announced: Dr. Clifford Allbutt to be one of the *Sex Viri* and a member of the Fitzwilliam Museum Syndicate; Dr. Donald MacAlister to be a member of the Local Examinations Syndicate, the State Medicine Syndicate, and the Agricultural Examinations Syndicate; Dr. Alexander Macalister and Dr. Guillemard to be members of the Antiquarian Committee; Mr. E. G. Browne, M.B., to be a member of the Library Syndicate and of the Board of Indian Civil Services Studies; Dr. Lea to be a member of the Museums Syndicate, of the State Medicine Syndicate, and of the Agricultural Examinations Syndicate; and Dr. J. Griffiths to be a member of the Special Board for Medicine.

Public Health Examinations.—Dr. Ransome, Dr. J. Lane Notter, Dr. Stevenson, and Dr. Thorne Thorne have been appointed Examiners in State Medicine for the current year.

CONJOINT EXAMINATIONS OF THE ROYAL COLLEGE OF SURGEONS AND APOTHECARIES HALL OF IRELAND

At the examinations held by the Conjoint Board in November, 1893, the following gentlemen passed the Final Examination and were granted their Diplomas as Licentiates of the Royal College of Surgeons and the Apothecaries' Hall of Ireland: W. A. H. Egerton, E. T. Coady, and J. M. Stoker.

MEDICO-LEGAL AND MEDICO-ETHICAL.

THE HARNESS CASE.

The hearing of this case was resumed before the magistrate at Marlborough Street on December 5th. The cross-examination of Mr. Burbage, one of the plaintiffs, was concluded, and the evidence of Colonel Brasyer, C.B., another of the complainants, was taken. He stated that the first inquiry made to him, on going to the Medical Battery Company's establishment, was as to his finances, and he was induced to sign a cheque. He derived no benefit from the treatment he received then or from the belt, but blisters were produced. He considered that he had been injured by the treatment. Colonel Brasyer was under cross-examination when the case was adjourned. The cross-examination was resumed on the following day, and dealt chiefly with matters of detail. Mr. Peter Keddie, whose evidence-in-chief had been taken previously, was also cross-examined with regard to a cheque he had given, and as to the treatment he received at the Medical Battery Company's office.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

TYPHOID FEVER IN DUBLIN.

It will be remembered that last year a committee was formed in Dublin for the purpose of inquiry into the causes of the recurring outbreaks of typhoid fever in Dublin. It was composed of medical men, sanitary engineers, and laymen, and they have just published the report, which they have forwarded to the Corporation.

In 1891 the death-rate from typhoid was 5.5 per 1,000, and was higher than any of the thirty-three large towns in the United Kingdom except Belfast, where it was 5.9. With regard to the possible modes of conveying infection the Committee observe that the general results of the examination of the Vartry water during January and February of the present year show that it is often and for a considerable period of exceptionally high purity. On the other hand, rapid but temporary reduction of organic purity was detected on two occasions by daily analyses. These changes were not connected with the presence of an excess of peaty matter in solution, and were probably due to the faulty action of street valves, or to similar preventable causes operating even within the area of distribution. The filtration of the water was not always satisfactory, which may be accounted for in part by the absence of suitable filtering beds on the city side of the Stillorgan Reservoir. But while the water supply from the street mains proved to be very good on nearly all the occasions on which it was examined, numerous cases have been brought to notice of contamination, after delivery, by storage in foul cisterns, which were either exposed to the atmosphere of waterclosets, or, being placed in areas, were liable to pollution by sewer gas or by direct drainage from the higher street level. With regard to milk infection they point out that several epidemics have been traced to this source. Some of the best kept yards are near possible sources of contamination, such as the Hardwicke and Cork Street Fever Hospitals and the Corporation depôt in Marrowbone Lane. The greater number of the yards were in a very filthy condition, rendering personal cleanliness of the attendants impossible, and the use of clean vessels highly improbable. The official inspection must be of the most imperfect and superficial character.

They find that disconnecting traps to prevent direct communication between the house and the main drains are comparatively rare—the scullery sinks are either untrapped or fitted with the ineffective bell or D trap. As to house drainage, it is now reported that a vast number of the house drains are extremely defective, and are saturating the basement subsoil with sewage.

The subsoil water is in most cases sewage-polluted. The level was very high in February, 1892, and in some cases the basements are saturated. There is also clear proof, that the disuse of pumps since the introduction of the Vartry has, by reason of the overflow of wells supplied by springs, raised the level of the ground water in parts of Dublin—a result also contributed to by leakage of waste Vartry water.

The committee recommend an efficient system of subsoil drainage; a constant check on the quality of the water supply; the disuse of cistern water for drinking purposes; inspection of dairy yards bi-monthly; compulsory closing of such as are considered a danger to the public health by proximity to fever hospitals or decomposing refuse, or for continued infringement of the rules; house drainage to be under a special department; regular inspections and testing of drains.

The report is signed by the following: Thomas Drew, George F. Duffey, D. Edgar Flinn, R. O'B. Furlong, Wm. R. Graves, James P. Maunsell, Edmond J. M'Weeney, John William Moore, C. J. Nixon, Jonathan Pim, Frederic W. Pim, J. Emerson Reynolds, Stewart Woodhouse.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns, including London, 6,092 births and 5,185 deaths were registered during the week ending Saturday last, November 25th. The annual rate of mortality in these towns, which had increased from 18.3 to 24.0 per 1,000 in the preceding four weeks, further rose to 26.2 during the week under notice. The rates in the several towns ranged from 10.8 in Halifax, 13.8 in Gateshead, 15.0 in Huddersfield, 16.1 in Swansea, and 17.8 in Portsmouth, to 30.5 in Salford, 30.7 in Birmingham, 30.9 in Liverpool, 33.4 in Wolverhampton, and 35.2 in Oldham. In the thirty-two provincial towns the mean death-rate was 25.9 per 1,000, and was 0.6 below the rate recorded in London, which was 26.5 per 1,000. The 5,185 deaths registered during the week under notice in the thirty-three towns included 496 which were referred to the principal zymotic diseases, against numbers increasing from 447 to 513 in the preceding four weeks; of these, 120 resulted from whooping-cough, 114 from diphtheria, 78 from scarlet fever, 67 from "fever" (principally enteric), 53 from measles, 43 from diarrhœa, and 21 from small-pox. These 496 deaths were equal to an annual rate of 2.5 per 1,000; in London the zymotic death-rate was equal to 3.0 per 1,000, while it averaged 2.1 in the thirty-two provincial towns, among which the lowest rates were recorded in Brighton, Halifax, Gateshead, and Swansea, and the highest rates in Sheffield, Bradford, Norwich, and Burnley. Measles showed the highest proportional fatality in Norwich, Wolverhampton, and Sheffield; scarlet fever in Plymouth, Liverpool, and Burnley; whooping-cough in West Ham, Derby, Birkenhead, Bolton, and Sheffield; and "fever" in Burnley and Salford. The 114 deaths from diphtheria recorded during the week under notice in the thirty-three towns included 90 in London, 3 in West Ham, and 3 in Salford. Ten fatal cases of small-pox were registered in Bradford, 4 in Birmingham, 3 in London, 3 in Bristol, and 1 in West Ham, but not one in any other of the thirty-three large towns. There were 140 small-pox patients under treatment in the Metropolitan Asylums Hospitals and in the Highgate Small-pox Hospital on Saturday last, against 110, 150, and 151 at the end of the preceding three weeks; 21 new cases were admitted during the week, against 52 and 20 in the preceding two weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital was 3,140 at the end of last week, against 2,906, 3,071, and 3,129 on the preceding three Saturdays; 322 new cases were admitted during the week, against 484 and 363 in the preceding two weeks. The 669 deaths referred to diseases of the respiratory organs in London were 232 above the average, and were equal to an annual rate of 8.1 per 1,000.

In thirty-three of the largest English towns, including London, 5,977 births and 5,248 deaths were registered during the week ending Saturday, December 2nd. The annual rate of mortality in these towns, which had increased from 18.3 to 26.2 per 1,000 in the preceding five weeks, further rose to 26.5 during the week under notice. The rates in the several towns ranged from 13.4 in Croydon, 15.9 in Halifax, 16.8 in Brighton, 17.5 in Portsmouth, and 19.5 in Norwich to 29.7 in Hull, 30.9 in Wolverhampton, 33.0 in Liverpool, 33.3 in Manchester, and 34.7 in Birkenhead. In the thirty-two provincial towns the mean death-rate was 26.1 per 1,000, and was 1.0 below the rate recorded in London, which was 27.1 per 1,000. The 5,248 deaths registered during the week under notice in the thirty-three towns included 503 which were referred to the principal zymotic diseases, against 513 and 496 in the preceding two weeks. Of these, 129 resulted from whooping-cough, 108 from diphtheria, 78 from "fever" (principally enteric), 70 from scarlet fever, 61 from measles, 45 from diarrhœa, and 12 from small pox. These 503 deaths were equal to an annual rate of 2.5 per 1,000; in London the zymotic death-rate was 2.8 per 1,000, while it averaged 2.4 in the thirty-two provincial towns, among which these diseases caused the lowest death-rates in Blackburn, Derby, Cardiff, and Brighton, and the highest rates in Swansea, Plymouth, Norwich, Birkenhead, and West Ham. Measles caused the highest proportional fatality in Norwich; scarlet fever in Swansea and Leicester; whooping-cough in West Ham, Plymouth, Bolton, Birkenhead, and Leeds; and "fever" in Norwich, Preston, Sunderland, and Newcastle-upon-Tyne. The 108 deaths from diphtheria recorded during the week under notice in the thirty-three towns included 74 in London, 6 in Liverpool, and 4 in Manchester. Five fatal cases of small-pox were registered in Birmingham, 3 in Bradford, 2 in Leicester, and 2 in Oldham, but not one in London or in any other of the large towns. There were 141 small-pox patients under treatment in the Metropolitan Asylums Hospitals and in the Highgate Small-pox Hospital on Saturday last, December 2nd, against 150, 151, and 140 at the end of the preceding three weeks; 33 new cases were admitted to these hospitals during last week, against 20 and 21 in the preceding two weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital on the same date was 3,183, against 3,071, 3,129, and 3,140 on the preceding three Satur-

days; 373 new cases were admitted during the week, against 78 and 80 in the preceding two weeks. The 737 deaths from diseases of the respiratory organs in London were 310 above the average, and were equal to an annual rate of 8.9 per 1,000.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday, November 25th, 874 births and 717 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had increased from 18.2 to 24.3 per 1,000 in the preceding four weeks, further rose to 25.4 during the week under notice, but was 0.8 per 1,000 below the mean rate during the same period in the large English towns. Among these Scotch towns the lowest death-rates were 17.5 in Dundee and 24.2 in Leith, and the highest rates 32.6 in Perth and 35.4 in Paisley. The 717 deaths in these towns included 56 which were referred to the principal zymotic diseases, equal to an annual rate of 2.0 per 1,000, which was 0.5 below the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Leith and Perth. The 336 deaths registered in Glasgow last week included 7 from scarlet fever, 3 from diphtheria, and 11 from whooping-cough, Two fatal cases of diphtheria were recorded in Edinburgh. The death-rate from diseases of the respiratory organs in these towns was equal to 8.7 per 1,000, against 8.1 in London.

During the week ending Saturday, December 2nd, 885 births and 784 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had increased from 18.2 to 25.4 per 1,000 in the preceding five weeks, further rose to 27.8 during the week under notice, and exceeded by 1.3 per 1,000 the mean rate during the same period in the large English towns. Among these Scotch towns the lowest rates were 14.9 in Aberdeen and 23.2 in Greenock, and the highest rates 36.0 in Perth and 42 1 in Paisley. The 784 deaths in these towns included 74 which were referred to the principal zymotic diseases, equal to an annual rate of 2.7 per 1,000, which was slightly above the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Glasgow and Dundee. The 364 deaths registered in Glasgow included 19 from whooping-cough, 7 from scarlet fever, 6 from diphtheria, and 6 from "fever." Four fatal cases of diphtheria were recorded in Dundee and 3 in Edinburgh. The death-rate from diseases of the respiratory organs in these towns was equal to 9.6 per 1,000, against 8.9 in London.

HEALTH OF IRISH TOWNS.

IN sixteen of the principal town districts of Ireland the deaths registered during the week ending Saturday, November 18th, were equal to an annual rate of 26.9 per 1,000. The lowest rates were recorded in Dundalk and Lisburn, and the highest in Kilkenny and Waterford. The death-rate from the principal zymotic diseases averaged 2.9 per 1,000. The 185 deaths registered in Dublin were equal to an annual rate of 27.6 per 1,000 (against 26.8 and 26.7 in the preceding two weeks), the rate during the same period being 24.4 in London and 27.3 in Edinburgh. The 185 deaths in Dublin included 16 which were referred to the principal zymotic diseases, equal to an annual rate of 2.4 per 1,000; of these 16 deaths, 6 resulted from whooping-cough, 3 from enteric fever, 3 from diarrhœa, 2 from diphtheria, and 2 from measles.

In sixteen of the principal town districts of Ireland the deaths registered during the week ending Saturday, December 2nd, were equal to an annual rate of 27.6 per 1,000. The lowest rates were recorded in Lurgan and Sligo, and the highest in Wexford and Waterford. The death-rate from the principal zymotic diseases averaged 2.6 per 1,000. The 192 deaths registered in Dublin were equal to an annual rate of 28.6 per 1,000 (against 26.7 and 27.6 in the preceding two weeks), the rate during the same period being 26.5 in London and 28.9 in Edinburgh. The 192 deaths in Dublin included 18 which were referred to the principal zymotic diseases, equal to an annual rate of 2.7 per 1,000; of these 18 deaths, 5 were referred to enteric fever, 6 to whooping-cough, 4 to measles, 2 to diarrhœa, 1 to typhus, and 1 to diphtheria.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.

The Health of British Troops in India.—Mr. A. C. MORTON asked the Under-Secretary of State for India whether it was correctly stated that in 1891 there were among the British troops serving in India 1,343 attacks and 380 deaths from typhoid fever, and whether the Government of India had yet arranged to have inspections by the principal medical officers of districts oftener than once a year, as in this country.—Mr. G. RUSSELL, in reply, said that the statement of sickness and mortality from enteric fever given in his hon. friend's question was correct. The War Office Regulations provided for half-yearly medical inspections at home and yearly ones at foreign stations. In India special instructions were, moreover, made when necessary. As far as the Secretary of State was aware, the Government of India had not thought it necessary to make any alteration in the existing system.—Mr. A. C. MORTON asked whether the Secretary of State would communicate with the Government of India on the subject, with the view that some means might be taken to diminish, if possible, the extraordinary amount of sickness among the troops.—Mr. G. RUSSELL, in reply, said that he would consult with the Secretary of State for India on the matter.

The Health of the Troops.—Mr. CAMPBELL-BANNERMAN, in reply to Sir R. TEMPLE, said that he found that among the troops stationed in the United Kingdom venereal disease had, on the whole, diminished, although in the more serious form of the disease there had been a slight increase since the repeal of the Contagious Diseases Acts. In India, on the other hand, there had been a very large increase in the two years following 1888, when the ordinances ceased, although in the two later years 1891 and 1892 there had been some improvement. The hon. member for Basingstoke had been in communication with him on that subject, and he would arrange with him a return which would give the statistics.

The Medical Staff Corps.—Dr. FARQUHARSON asked the Secretary of State for War whether the fourteen days' annual training in field ambulance work for the Medical Staff Corps was to be given at Aldershot or at the headquarters of military districts; and whether the Medical Staff Corps in Ireland would undergo the same annual training.—Mr. CAMPBELL-BANNERMAN said in reply that a scheme was under consideration by which this instruction would be given both in Great Britain and in Ireland to as many medical officers from all districts as could be spared to attend it.

Medical Volunteers, Edinburgh.—Mr. PAUL asked the Secretary of State for War whether he would favourably consider an application to raise a second company of the Volunteer Medical Staff Corps in Edinburgh, the present company being limited to the University and not accessible to ordinary citizens.—Mr. CAMPBELL-BANNERMAN said in reply that under present arrangements for mobilisation there was not room for any more companies of the Volunteer Medical Staff Corps; but it was in contemplation, though not yet quite decided, that each Volunteer Field Brigade should raise a bearer company in its own district. If this proposal should take effect, the citizens of Edinburgh would have an opportunity of joining the bearer company of the Forth brigade, which had its headquarters in their city.

Medical Aid for Postmen.—Mr. A. MORLEY said, in answer to Mr. SEXTON, that in towns at which the department had a medical officer of its own, rural postmen, in common with other post office servants whose salaries were far below the prescribed limit of £150 a year, could obtain advice and medicine on application at the medical officer's surgery, but they were not entitled to attendance at their own homes, unless they resided within three miles from the local post office.

The Opium Commission.—Mr. G. RUSSELL, in answer to Mr. J. ELLIS, said it was not in his power to direct the Opium Commission to make their official notes open to the public. He thought, however, that when the Commission had concluded its inquiry there would be no objection to laying the notes on the table of the House.

Increase of Anthrax.—Mr. HERBERT GLADSTONE, in reply to Mr. FELLOWES, said it was unfortunately the case that anthrax had considerably increased during the last year. Every effort was made by the Board of Agriculture to provide for the speedy and effectual burial of diseased animals. It was, however, a somewhat serious suggestion that the local authorities should be called upon to pay out of the local rates a certain sum, not exceeding £1, for the carcass of an animal "which has died of anthrax and has been properly buried, and whose death has been notified by the proper authorities," and he could not make any definite statement in regard thereto until he had had time for consultation and consideration.

OBITUARY.

WILLIAM RHYS WILLIAMS, M.D.

THE death of Dr. W. Rhys Williams, a former Commissioner in Lunacy, at the age of 56, occurred last week at Leamington. Dr. Williams was a distinguished pupil at the Merchant Taylors' School, from whence he obtained a classical exhibition to St. Thomas's Hospital in 1855. In 1863 he was appointed Assistant Physician to Bethlem Hospital, becoming Senior Physician in 1866. For some years he also lectured on mental diseases at St. Thomas's Hospital, until his appointment to the Lunacy Commission, from which he retired in 1889, from ill-health. Dr. Williams was especially distinguished by his great skill in asylum administration, by his personal influence with his patients, and by his great tact and judgment in dealing with them. His sympathy and kind thoughtfulness for all under his control earned him the affection and gratitude of many who will unite with his friends in regretting his premature decease.

THE death is reported of Dr. Thomas Gulston Wollaston, of Liverpool. The deceased took the M.D. degree of St. Andrews University in 1861, and in the same year he became a Member of the Royal College of Surgeons of England, and a Licentiate of the Society of Apothecaries. For some years he was house-surgeon at the Royal Southern Hospital, and latterly acted as honorary surgeon to that institution. He was the author of several valuable papers which appeared in the *Liverpool Medical Surgical Reports*. Dr. Wollaston was honorary surgeon to the Toxteth Park Industrial Schools.

Dr. Engel Minich, of Venice, whose death was announced in the BRITISH MEDICAL JOURNAL of December 2nd, was a native of Dalmatia. His first professional experience was gained as a military surgeon during the siege of Venice in 1848. Afterwards he acted for a time as deputy professor of surgery in the University of Padua, and subsequently he became Chief of the Surgical Department of the General Hospital of Venice. He was the editor of the *Rivista Veneta delle Scienze Mediche*. He was a Senator of Italy, and left a fortune of three million lire (£120,000), a large part of which he has bequeathed to the Accademia di Scienze, Lettere ed Arte of Venice.

MEDICAL NEWS.

Dr. Alexander Edington, F.R.S.E., has been appointed Principal Medical Officer of Cape Colony.

At the recent examination for local surveyors held by the Sanitary Institute, ten candidates presented themselves, of whom eight passed.

Dr. M. Landouzy has been appointed Professor of Internal Medicine and Therapeutics in the Paris Medical Faculty in the room of Professor Hayem.

Donations.—The Charing Cross Hospital has received a donation of £50 from the Duke of Saxe-Coburg and Gotha, the president of the hospital.

We are informed that, after his recent accident at the Elswick Works, Prince Louis of Battenberg was attended in the first place by Dr. Neasham of Newcastle, who, finding the case to be one for the attention of an opththalmic specialist, called in Dr. A. S. Percival, who was in attendance for two days.

The Ardlamont Shooting Case.—In connection with the trial of this now celebrated case, which will begin in the High Court of Justice at Edinburgh on Tuesday next, it is already known that some eight or ten medical men will appear as witnesses on one side or the other; among these there may be named Drs. H. D. Littlejohn, Patrick Heron Watson, Joseph Bell, and J. MacDonald Brown, all of Edinburgh.

MEDICAL VACANCIES.

The following vacancies are announced:

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—House-Physicians. Board and residence, and allowance for washing provided. Appointment for six months. Applications to the Secretary at the Office, 24, Finsbury Circus, E.C., by December 14th.

CITY OF LONDON LYING-IN HOSPITAL, City Road, E.C.—District Surgeons. Applications to R. A. Owthwaite, Secretary, by December 16th.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Dental Surgeon; must be a Licentiate in Dental Surgery. Applications to J. Francis Pink, Secretary, by January 8th, 1894.

DENTAL HOSPITAL OF LONDON, Leicester Square, W.C.—Demonstrator. Honorarium, £50 per annum. Applications to Mr. Morton Smale, Dean, by December 18th.

DUDLEY DISPENSARY.—Resident Medical Officer; doubly qualified. Salary, £130, with increase at the end of twelve months if the services are satisfactory. Good house, coal, gas, and water found, and all rates and taxes paid. Applications to H. C. Brettell, Honorary Secretary, by December 11th.

ECCLES AND PATRICROFT HOSPITAL.—House-Surgeon. Salary, £60 per annum, with board and lodging. Applications to the Secretary.

GLASGOW EYE INFIRMARY.—Resident House-Surgeon. Salary, £50 per annum, with apartments and board. Applications to William George Black, Secretary, 88, West Regent Street, Glasgow, by December 9th.

HOSPITAL FOR DISEASES OF THE THROAT, Golden Square, W.—Resident Medical Officer. Salary, £50 per annum, with board and lodging. Applications to the Secretary by December 18th.

KIMBERLEY HOSPITAL, Kimberley.—Senior House-Surgeon. Salary, £650 per annum, with unfurnished quarters for single men. Applications to H. A. De Beer, Secretary, by December 25th.

MANCHESTER ROYAL INFIRMARY.—Junior Administrator of Anæsthetics; non-resident. Salary, £50 per annum. Appointment for at least twelve months. Applications to W. L. Saunder, General Superintendent and Secretary.

NORFOLK AND NORWICH HOSPITAL, Norwich.—Assistant to the House Surgeon. Appointment for six months. Board, lodging, and washing provided. Applications to the House-Surgeon by December 26th.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, N.E.—House-Surgeon; doubly qualified; appointment for six months, and at the expiration of that time will be required, if eligible, to serve as Senior House-Surgeon for a further period of six months. Salary for the junior post at the rate of £60 per annum, and for the senior post at the rate of £80 per annum. Applications to the Secretary, 27, Clement's Lane, E.C.

ROYAL BERKS HOSPITAL, Reading.—Physician. Applications to the Secretary at least ten days before the election on December 12th.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—Senior Resident Medical Officer, doubly qualified. Salary, £100 per annum, with board, residence, and washing. Appointment for twelve months, but eligible for re-election. Applications to the Secretary by December 11th.

ST. GEORGE'S HOSPITAL MEDICAL SCHOOL.—Assistant Lecturer in Obstetric Medicine; must be F. or M.R.C.P. Applications to the Dean by December 22nd.

ST. MARY'S HOSPITAL, Paddington.—Demonstrator of Chemistry. Salary, £75 per annum. Applications to the Secretary by December 9th.

VICTORIA HOSPITAL FOR SICK CHILDREN, Queen's Road, Chelsea, S.W.—House-Surgeon and House-Physician to the In-patients. Honorarium, £50 each per annum, with board and lodging in the hospital. Applications to the Secretary by January 13th.

WEST LONDON HOSPITAL, Hammersmith Road, W.—House-Physician. Appointment tenable for six months. Board and lodging provided. Applications to R. J. Gilbert, Secretary-Superintendent, by December 27th.

WESTMINSTER GENERAL DISPENSARY, Gerrard Street, Soho, W.—Resident Medical Officer. Appointment for one year. Applications to the Secretary by December 19th.

DIARY FOR NEXT WEEK.

MONDAY.

Medical Society of London, 8.30 P.M.—Mr. Bland Sutton: Specimen of a Leg after Mikulicz's Operation. Dr. Herbert Spencer: A first series of Fifty Ovariotomies: a Plea for the Performance of Ovariotomy by Obstetric Physicians.

TUESDAY.

Royal Medical and Chirurgical Society, 8.30 P.M.—Mr. H. H. Clutton: Arthrectomy of Elbow and Ankle; a number of patients will be exhibited in illustration of this paper. Mr. Jonathan Hutchinson, jun.: Abdominal Section for Intestinal Obstruction due to Multiple Hydatid Cysts; Recovery.

WEDNESDAY.

Hunterian Society, 8.30 P.M.—Pathological evening. Dr. Charlewood Turner: Two Specimens of Intussusception, Ileo-cæcal and Ileo-colic. Dr. Fred. J. Smith: (1) Perihepatitis; (2) Bacillus of Leprosy. Dr. Arnold Chaplin: Aortic Stenosis. Dr. Hingston Fox: Cerebral Arteries from a Case of Subdural Hæmorrhage. Dr. Hadley: Specimens.

Laryngological Society of London, 20, Hanover Square, W., 5 P.M.—Clinical cases will be shown by Mr. R. Lake, Drs. Felix Semon, Scanes Spicer, Dundas Grant, and McNeil Whistler. Specimens, etc., by Drs. A. Bronner, Watson Williams, and Mr. Charles Parker. Dr. Kirk Duncanson: A Clinical Note on a Case.

THURSDAY.

Sanitary Institute, Parkes Museum, 74A, Margaret Street, W., 8 P.M.—Professor Watson Smith: Manufacture of Alkalies and Acids.

North London Medical and Chirurgical Society, Great Northern Central Hospital, 8.30 P.M.—Demonstration of Clinical Cases.

British Gynæcological Society, 8.30 P.M.—Dr. Benington: A Case of Ruptured Tubal Gestation, operated on eighteen months previously for a similar condition. Mr. John Taylor: Hysterectomy by the Clamp Operation; special method for its performance, with cases.

Ophthalmological Society of the United Kingdom, 8.30 P.M.—Specimens and Card Specimens at 8 P.M.:—Mr. J. Grosvenor Mackinlay: Congenital Dislocation of Both Lenses Upwards with marked Stretching of the Suspensory Ligament in One Eye. Dr. Rayner D. Batten: A Case of Pigmentary moles of the Retina, with drawing. Papers:—Dr. Brailey: Notes on a Case of Failure of Central Vision in Each Eye, with ophthalmoscopic drawing. Mr. E. Treacher Collins: Some Unusual Forms of Intraocular Neoplasms. Dr. S. Stephenson: Note upon a Form of Congenital Trichiasis. Mr. Charles Wray: Suggestions in the Interests of the Eyesight of Children.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTHS.

Moffat.—On November 28th, at Keighley, Yorks, the wife of J. Gay Moffat, M.B., C.M.Ed., of a son.

Moffet.—On December 1st, at Dunalaster, Howwood, N.B., the wife o Surgeon-Captain Grenville E. Moffet, M.B., D.P.H.Camb., Army Medical Staff, of a daughter.

Tuckett.—On December 3rd, at Woodhouse Eaves, Loughborough, the wife of W. Reginald Tuckett, M.R.C.S.Eng., of a son.

MARRIAGE.

Latter—Beechey.—November 30th, at Ripley, Yorks, by the Rev. Canon Gray, Vicar of Blyth, assisted by the Rev. W. T. Travis, Rector of the parish, Cecil Latter, M.B.Cantab., of 10, Earl's Avenue, Folkestone, third son of the Rev. A. S. Latter, Rector of Outwell, to Ruth, only child of the late William Innes Beechey, eldest grandchild of the Rev. Canon Beechey, Rector of Hildgay, and of Francis Spencer, of Ripley.

DEATHS.

Smith.—On December 2nd, Herbert Arthur Smith, M.R.C.S.Lond., L.R.C.P.Eng., of 1, Clifton Villas, High Road, Chiswick, second son of the late W. C. Smith, of Fairlight, Gunnersbury, aged 28 years.

Wollaston.—Friday, December 1st, 48, Princes Road, Liverpool, Thomas Gulston Wollaston, M.D., aged 56.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

"CONTAGION" AND "INFECTION."

A. B. C. asks for a definition of "contagious diseases" as distinguished from the "infectious diseases" of which Dr. Rickards wrote.[1]

*** The term "contagious" is comparatively seldom employed nowadays. It was applied rather loosely, and not always in quite the same sense, to diseases transmissible solely, or at all events usually, by contact—syphilis and ringworm, for example. Now that we have learned more of the natural history and varied possibilities of convection of specific diseases, the distinction is neither well-defined nor particularly valuable.

TREATMENT OF HYSTERICAL PARAPLEGIA.

MEMBER wishes to know if there is a home or institution where a girl, aged 17, who has exhibited various manifestations of hysteria for two years past, and now suffers from hysterical paraplegia, could be received and suitably treated. Her relatives could not pay.

*** We do not know of any Home such as our correspondent desires. The case appears to be very suitable for admission to a hospital, as it is quite possible that the paraplegic condition might yield to appropriate electrical treatment. We would suggest to our correspondent to write to some physician of his acquaintance interested in nervous diseases who is on the staff of a hospital, and to ask him to take the patient into one of his beds. If this course is impracticable, or if he would prefer to send the patient into a London hospital, our correspondent might communicate with the Secretary of one of the hospitals which receive cases without subscribers' letters; say, with the Superintendent of Guy's.

CLUB TARIFFS.

DEVONIAN asks for an authoritative opinion as to the minimum subscription one could fix per club member (man, woman, and child) consistent with avoiding anything derogatory to the profession, and also as to the best way of collecting such subscriptions weekly (or monthly)? He also asks what minimum charges should be make to poor non-club patients: (1) for advice and medicine at patient's home; (2) at his home; and (3) for midwifery.

*** Our own view has always been that the minimum club subscription which medical practitioners should be asked to accept or be willing to take is 10s. per member per year. This would not unduly press upon the provident poor, and would adequately repay the doctor, allowing the contract work to be well done. With regard to the latter part of the question as to what minimum charges should be made to poor non-club patients, we do not feel at liberty to venture an opinion, which would be taken as having some measure of authority, and as implying a rule of universal applicability, while it is clear that local and other changing circumstances as to wages, etc., render it difficult or impossible to lay down any such rule.

ANSWERS.

V. W.—Dr. Dudley Buxton's *Anæsthetics: their Uses and Administration* (second edition, 1892), published by Mr. H. K. Lewis, London, price 5s., will be found a useful work, and is likely to meet our correspondent's wants.

DR. E. HAWKINS.—*A Code of Medical Ethics*, by Dr. J. De Styrap, is published by Mr. H. K. Lewis, 136, Gower Street, W.C., price 3s.

ENQUIRER (Rangoon).—A visitation of the universities and medical corporations of the United Kingdom by the visitor and inspector of the General Medical Council is now in progress. Certain reports have been presented to the Council and the proceedings thereon will be found recorded in the report of the spring session of the Council, published in the BRITISH MEDICAL JOURNAL on June 3rd, 1893, p. 1188. The object of the inspection, however, is to ensure that no examination of any examining body falls below the requirements of the Council, and not "to compare the standard of their medical degrees and diplomas." The General Medical Council has published a long series of reports on the visitation and inspection of examinations, the last being *Inspector's Reports, 1888, with Remarks thereon by the Bodies Inspected*, published for the General Medical Council by Spottiswoode and Co., 54, Gracechurch Street, E.C., price 3s. 6d.

THE RECOGNITION OF BACTERIA.

LANCASTRIAN.—Probably the best work to consult would be Sternberg's *Manual of Bacteriology*, published by William Wood and Company, of New York. Fraenkel and Pfeiffer have published an excellent atlas of photographs of bacteria, which might be useful in reference to size. No book, however complete and however well illustrated will, however, enable our correspondent to determine without cultivation experiments the species of most of the micro-organisms. It is often difficult enough to make out the distinctive characters of a micro-organism even when all methods of culture and inoculation are utilised.

SOUTHERN HEALTH RESORTS.

DR. FRED. ST. GEORGE MIVART, M.R.C.S.Eng., M.D.Louvain (Wimbledon) writes: "Medicus" asks a question which a great number besides himself desire to put, and I am glad to be able to answer it.

To all who seek in the South of France a good winter residence in a cheerful town, after many years' experience I strongly and unhesitatingly recommend Nice. "Medicus" asks also to be told of a place "where living is inexpensive." Such a place does not exist anywhere in France, where, in the last few years, the cost of living has gone up 30 per cent.; but it is a mistake to consider Nice an expensive place. On the contrary, it is the ideal resort of the *petit bourgeois*. At Nice "Medicus" will find a choice of small suites of apartments, or even one or two rooms can be hired; or should he prefer the life of a pension or small hotel the name of such is legion, and the prices run very low, as low as 7 or 8 francs a day, though at this price he must not expect luxuries. Owing to the excellent market and the abundant food supply the invalid can live *à son gré*, while the network of tramways enables him to get about the town in every direction at a trifling cost. There is the further enormous advantage of medical advice of the highest excellence, and there are good chemists and shops where all the requirements of our modern civilisation may be obtained. As to the climate, it is an admirable stimulant restorative, and, if a proper locality be chosen, it can be adapted to almost every case; but "Medicus" must remember that there are three distinct zones presenting three totally distinct varieties of climate, and he must choose accordingly. If the invalid is prepared to sacrifice everything to cheapness he might bend his steps to Italy, where on the Riviera di Levante he will find at Nervi, among other places, a very mild and sheltered spot; but he will find it, like all other Italian winter resorts, swarming with Germans; it is dreary, dirty, and insanitary. There are no "distractions" of any kind nearer than Genoa, a place deadly enough to people even in good health. Let him avoid Alassio, which is climatically worthless, airless and sunless, dreary and insanitary. San Remo is very expensive, and has not the advantages of Nice for people of small means.

I believe "Medicus," like many others, imagines that there is some pretty snugly situated village in the South of France where, in some sunny sheltered spot, an ideal life, all sunshine and roses, may be led at the rate of 6 or 7 francs a day or less. There is no such place, and a week of French village life anywhere would sicken any ordinary Englishman.

PERIODIC STAMMERING.

M.D.LOND. relates a case of stammering with marked periodicity of attack which is full of interest. Perhaps if we are to draw a distinction between stammering and stuttering, stammering meaning a hesitancy, slowness, or even inability to elicit certain sounds, while stuttering involves a repetition of a syllable in tones sometimes very emphatic and even leading to the production of widespread spasm in the effort to get past it. We may place the case related by "M.D." in this last category, which one need hardly say is much the more serious. The marked periodicity of the attacks, which appear from the account to come on about once in six weeks, and the fact that there is always a premonitory stage in which the stammering is quite absent, although talking can only be performed with conscious effort, taken together with the history of a severe illness some years ago, during which the patient never stammered at all, seem to point to the probability that this premonitory stage, which he speaks of as his best time, may really be a time of departure from normal health. While stammering is an incoordination of the different parts involved in speech, stuttering is a matter of over-ready reflex ending in the repetition of the sound just produced rather than the building up of a fresh one, and it may well be that the premonitory stage during which all talking is more or less of a labour resembles that period of illness in which he also lost the habit of stammering in this that in both reflex excitability was lessened in consequence of some general cause of perverted nutrition of the nervous system. The analogies of the case clearly lie with migraine, and it might be worth while during the premonitory stage to try the effect of phenacetin or antipyrin, drugs which are known frequently to check the development of migraine, and if any good should result to put in force all those hygienic and dietetic measures which are useful in that disease, first among which is avoidance of anxiety and worry. It must must not be lost sight of that the tendency in this case developed afresh while working for examination, and that it specially im-

[1] BRITISH MEDICAL JOURNAL, November 4th, 1893.

proved while holding a resident appointment, when, although the work might be hard and the health indifferent, the worries were likely to be less than in the struggle for existence in ordinary practice.

A search in the *Index Medicus* for the last three years gives the following recent English references: Wm. Abbotts, *Stammering, Stuttering, etc.*, London, 1892, Beaumont and Co. Haddon, On Certain Defects of Articulation in Children, *Journal of Mental Science*, London, 1891. Besides many foreign works and communications, among which we may mention Dr. Sikouski, *Ueber das Stottern*, Berlin, 1891, a book of between 300 and 400 pages, with a bibliography appended, chiefly foreign. Sir James Paget's lecture on Stammering with other Organs than those of Speech, in the BRITISH MEDICAL JOURNAL, 1868, ii, 437, is very suggestive although not quite on the same subject. In the *Encyclopædia Britannica* there is an article by McKendrick; in Ziemssen's *Encyclopædia of Medicine*, vol. xiv. Kussmaul's article on Disturbances of Speech contains a great deal of interesting information on the subject; and the *Dictionnaire Encyclopédique des Sciences Médicales* has a long treatise on Bégaiement by A. Guillaume, with a bibliography commencing with Hippocrates and ending in 1865. There is also a book by Hunt, *Stammering and Stuttering*, 1865; and one by Gordon Holmes, *A Treatise on Vocal Physiology and Hygiene*, 1880.

NOTES, LETTERS, Etc.

MESSRS. BURROUGHS, WELLCOME AND CO. write to say that their *Medical Diary and Visiting List* is not supplied free of charge to medical men, as was accidentally stated in the BRITISH MEDICAL JOURNAL of December 2nd, p. 1219.

BOARD AND RESIDENCE IN PARIS.

AN English lady, widow of a member of the British Medical Association, living in Paris and moving in good professional society, wishes to meet with a married couple, brother and sister, or single ladies to share her superior and comfortable home. The use of a seaside country house during the summer season. Applications may be made to E. V., 90, Rue d'Assas, Paris.

THE MANUFACTURE OF COCAINE.

ACCORDING to a recent consular report the manufacture of cocaine is carried on at Callao, in Peru, by Mr. Bernard Prüss, the leaves used being obtained from the province of Huanaco. The quantities exported during 1892 were as follows: London, 2,672 lbs.; Hamburg, 932 lbs.; New York, 221 lbs. The total weight of 3,825 lbs. was valued at £23,422 10s.

TRIPLETS AND THE QUEEN'S BOUNTY.

SIR HENRY PONSONBY, Secretary to the Queen, disposes of the delusion that Her Majesty invariably makes a present of three guineas to the parents of triplets. The Queen's bounty is dispensed under certain conditions only. The three children must all survive, and there must be proof that the parents, though respectable, are too poor to meet the unforeseen demands made upon them by the appearance of the trio.

CANCER AND INEBRIETY.

DR. HUGH WOODS (Honorary Secretary to the London and Counties Medical Protection Society) writes: I am investigating the Mattei remedies for cancer, and the cures for drunkenness emanating from the same source, namely, Mr. Gliddon, 18, Pall Mall East, S.W. I shall, therefore, be very greatly obliged to any of your readers who can furnish me with the names and addresses of persons who have taken these remedies, and any details as to such cases. In the interests of medical science and the medical profession, it is of the utmost importance that the claims of these much advertised cures for various diseases should be thoroughly sifted. Communications should be addressed "Dr. Hugh Woods, 11, Archway Road, Highgate, N., London."

WORK AS A THERAPEUTIC AGENT.

A CORRESPONDENT has sent to the *Spectator* the following short letter from Sir Andrew Clark: "DEAR ——,—There are two things about all patients which help us to discover their maladies—what is found by the physician and what is felt by the patient. What is felt helps us very little; what is found, for the most part settles our judgment. What is felt by Mr. —— amounts to a great deal. Various disturbances of digestion, weakness, inaptitude for work, recurring faintnesses, *malaise*, and the feeling of getting worse and worse. What I found amounts to very little.....Every organ that I can reach is free from obvious structural disease; and as the patient has suffered for years in this way and nothing has come of it, it is reasonable to say that there is no structural disease. Mr. ——, therefore, is ailing, and perhaps suffering, but not in the ordinary sense ill; furthermore, I think that he is introspective, morbidly nervous, and occupied with himself. He cannot at present be made well; but he may reach his best by a simple regular diet, by self-effacement (dying to live), by light regular daily occupation, by the resolution to give a deaf ear to his trying sensations, and by a determined fighting and struggling to lose himself in outward things.....To do nothing would be to go backwards and downwards. True, he may suffer if he works; nevertheless, it is best to work. Hundreds suffer to work. I have always suffered to work, but work keeps me where I am; I have to wrestle with it, but thus my antagonist becomes my best helper.—Yours sincerely, ANDREW CLARK."

LETTERS, COMMUNICATIONS, ETC., have been received from:

(A) Mr. F. V. Adams, Glasgow; Mrs. E. G. Anderson, M.D., London; Dr. F. P. Atkinson; Surbiton; Professor T. C. Allbutt, Cambridge. **(B)** Mr. J. M. Brown, Edinburgh; Mr. W. M. Beaumont, Bath; Mr. R. Brown, London; Dr. L. Buckell, Chichester; Dr. D. C. Black, Glasgow; Dr. A. J. M. Bentley, Cairo; Dr. A. Brown, Antwerp; Dr. F. T. Bond, Gloucester; Mr. B. G. M. Baskett, London; Mr. L. H. Bennett, East Ilsley; Mr. J. K. Benjamin, London; Messrs. Burroughs, Wellcome and Co., London; Brigade-Surgeon-Lieutenant-Colonel; Dr. W. A. Bond, London. **(C)** Mr. J. G. Clendinnen, Coseley; Mr. T. Carr, Braintree; Mr. C. R. Chichester, Pontypool; Dr. G. Cordwent, Milverton; Mr. R. E. Crosse, Norwich; Mr. F. Crompton, St. Martin's, Guernsey; M. Craig, M.B., Bedford. **(D)** Dr. J. Dreschfeld, Manchester; Doctor in the Colonies; Dr. S. R. Dyer, London; Mr. E. Donaldson, Londonderry; Dr. D. S. Davies, Bristol; Mr. W. A. Day, Redcar; Dr. T. Dilworth, Fermoy; Miss D'Orsey, Teddington. **(E)** Mr. T. S. Ellis, Gloucester; Mr. T. F. Edgeworth, Bristol; Enquirer. **(F)** Mr. F. M. Fisk, London; Dr. A. H. Ferguson, Winnipeg; Mr. J. H. Fergusson, Killygordon; Dr. R. H. Fox, London; Mr. W. T. Freeman, Reading. **(G)** Dr. J. Gordon, Brockley; Dr. A. S. Gubb, London; Dr. W. S. Greenfield, Edinburgh; Dr. H. R. Greene, Knaphill. **(H)** W. Hardman, M.B., Blackpool; Mr. J. Hutchinson, London; Mr. J. Hogg, London; Mr. C. F. Hutchinson, Monte Carlo; Mr. C. A. Hayman, Clifton; H. E. T.; Dr. W. S. Hedley, Brighton; Mr. W. Habgood, London; Dr. M. Handfield-Jones, London. **(I)** Inquirer. **(J)** Dr. H. M. Jones, London; Mr. E. Jepson, Dublin; Dr. R. Jardine, Glasgow; Dr. A. H. Jacob, Dublin; J. T. Jones, M.B., Eastbourne; Jurist; Justitia. **(K)** Dr. J. A. Kennedy, Bearsden; Dr. R. Kirk, Glasgow; Dr. T. N. Kelynack, Manchester; Mr. A. E. Kennedy, London. **(L)** L. S. D.; H. Lund, M.B., Manchester; H. L. Lack, M.B., London. **(M)** Mr. A. McLeod, Glasgow; Mr. E. Mundy, London; Mr. J. R. W. Martins, London; H. G. McLagan, M.B., London; M.D.; Dr. E. D. Mapother, London; Dr. F. St. G. Mivart, Wimbledon; M.B. **(N)** National Dental Hospital, the Dean of, London; Mr. J. Nightingale, Leeds. **(O)** Onward; Dr. B. O'Connor, London; Dr. T. Oliver, Newcastle-on-Tyne. **(P)** Mr. P. Pick, London; Dr. F. L. Phillips, Birmingham; Dr. E. Playfair, Ottawa; Messrs. H. Pullen and Co., London; Professor Penberthy, London; Mr. F. Petrie, London. **(R)** Mrs. M. Rake, Port of Spain; Dr. H. S. Renshaw, Sale; Mr. H. T. C. Roberts, Nantwich; Mr. G. A. E. Roberts, Winchester; Dr. C. Renner, London; Miss A. M. Rowley, Birmingham. **(S)** Mr. W. H. W. Strachan, Kingston; Dr. C. Spurway, Rome; Dr. W. T. Stoker, Dublin; Mr. J. M. Sloan, London; Mr. W. A. Stradling, Watford; Surgeon; Dr. A. E. Sansom, London; Dr. J. F. W. Silk, London; Dr. S. Spicer, London; Siraw; Dr. F. F. Schacht, London. **(T)** Mr. W. R. Taylor, Huddersfield; Mr. A. Tillinghart, London; Messrs. Twining and Co., London; Dr. H. C. Tweedy, Dublin; Mr. C. B. Turner, Great Grimsby; Mr. J. L. Thomas, Cardiff; Mr. W. R. Tucker, Loughborough. **(V)** Mr. T. J. Verrall, Brighton; Vice-President; Dr. C. B. Voisey, Liverpool; G. H. Vos, M.B., London; Mr. R. H. Vereker, Taunton. **(W)** W. B.; E. W. Waters, M.B., Huddersfield; Dr. W. Wylie, Skipton; Sir Spencer Wells, London; Dr. A. Welsford, Dover; West London Medico-Chirurgical Society, the Secretary of the, London; Dr. J. J. Welply, Bandon; G. Wight, M.B., London; Dr. J. M. Wilson, Doncaster; J. A. Waring, M.B., Nottingham; Mr. E. M. Wollaston, Liverpool; Mr. W. Williams, Oswestry; Dr. F. J. Waldo, London. **(Y)** Mr. M. Young, Brighouse; Dr. G. E. Yarrow, London; etc.

BOOKS, ETC., RECEIVED.

Cliniques des Maladies du Système Nerveux. Par M. le Professeur Charcot. Leçons du Professeur, Mémoires, Notes et Observations parus pendant les Années 1889-90 et 1890-91, et publiés sous la direction de Georges Guinon. Paris: Félix Alcan. 1893.

Der Morbus Gravesii. Von Dr. P. Mannheim. Berlin: August Hirschwald. 1894. M. 4.

A Practical Treatise on Diphtheria and its Successful Treatment. By B. R. Martin. London: Baillière, Tindall and Cox. 1894.

Die otitischen Erkrankungen des Hirns, der Hirnhaute und der Blutleiter. Von Dr. Otto Korne. Frankfort-am Main: Johannes Alt. 1894. M. 5.

Myxœdema and the Effects of Climate on the Disease. By Dr. A. M. Wilson. London: Scientific Press, Limited. 1894.

The Rise of Our East African Empire. Two Vols. By Captain F. D. Lugard. Edinburgh and London: William Blackwood and Sons. 1893.

Introductory Address delivered at St. George's Hospital, October 2nd, 1893, on the Centenary of John Hunter's Death. By T. Holmes. London: Adlard and Son. 1893.

Klinische Geschichte der Pachydermia Laryngis. Von Dr. W. Sturman. Berlin: S. Karger. 1894. 2s.

Die Infections-Krankheiten, ihre Entstehung, ihr Wesen und ihre Bekämpfung. Von Dr. W. Plange. Berlin: S. Karger. 1894. 2s. 6d.

Grundriss der Histologie. Von Dr. B. Rawitz. Berlin: S. Karger. 1894. 6s.

Atlas of the Diseases of the Skin: in a series of illustrations from original drawings with descriptive letterpress. By Dr. H. Radcliffe Crocker. Edinburgh and London: Young J. Pentland.

***** In forwarding books the publishers are requested to state the selling prices.**

THE BRADSHAW LECTURE
ON
SIR ASTLEY COOPER AND HIS SURGICAL WORK.

Delivered before the Royal College of Surgeons of England on December 7th.

By Sir WILLIAM MAC CORMAC, F.R.C.S.,
Surgeon to St. Thomas's Hospital.

[Abstract.]

Astley Cooper and his Contemporaries.

The lecture contained a review of the life and work of Sir Astley Cooper. Sir William Mac Cormac commenced by referring to the great change which had been brought about in surgery by the discovery of anæsthetics and by the introduction of the antiseptic system. In comparing the surgery of this day and that the revolution worked by these two discoveries must constantly be borne in mind. In Cooper's early days the English school of surgery was led by Percival Pott and John Hunter, but Cooper also felt the influence of Desault, Dupuytren, Lisfranc, and Delpech in Paris, Dieffenbach in Berlin, and Scarpa in Italy. His immediate master in London was Cline. Cooper, who was born in 1768, began to lecture in London in 1791, and in 1793, when only 25 years of age, he became Professor of Anatomy in Surgeons' Hall. Formerly, anatomy and surgery had been taught by the same lecturer, but Cooper devoted himself to developing the subject of surgery into a separate course, and his lectures upon its principles and practice proved the foundation of his subsequent fame. His lectures were lavishly illustrated by dissections and preparations made by him or under his supervision. To such a degree did he carry this that South estimated that the preparations, drawings, and dissections for a single course must have cost £1,000.

Sir William Mac Cormac, after touching on Cooper's early researches on the membrana tympani, which gained for him the Copley medal of the Royal Society, proceeded to point out that Sir A. Cooper had made an elaborate study of the thyroid gland, demonstrated large lymphatic vessels running from it, of which some opened into the thoracic duct and the veins. It was now nearly a century since Sir A. Cooper drew the conclusion, of great interest in the light of modern investigations, that these lymph channels represented the absent duct.

Hernia.

The Anatomy and Surgical Treatment of Inguinal and Congenital Hernia appeared in two parts in 1804 and 1807 respectively—a work replete with original observations; he found little more than a chaos of scattered facts and absurd theories where he left order and system. The treatment of gangrenous intestine came in for a good deal of attention; Cooper recommended division of the stricture, and discussed the advisability of attempting to restore the continuity of the gut, an operation which he twice performed, leaving, however, a small opening for the escape of fæces. The best practice to adopt in such cases, Sir W. Mac Cormac said, was still in dispute; he would himself elect in suitable cases to attempt the immediate restoration of the continuity of the bowel. In inguinal hernia this might often be accomplished at the seat of the wound, but in the femoral form it could not be readily done, except after abdominal section. Ordinary manipulative skill enabled the operator to pass a continuous suture through the edges of the divided mucous membrane, and then to introduce the number of Lembert stitches required to bring the peritoneal surfaces into wide contact with each other. This proceeding was simple, and had the inestimable advantage of being quickly accomplished. It was often better to introduce also an inner row of interrupted sutures through the everted mucous membrane after the manner of Lembert. This was the more easy as the mucous membrane always projected, and its ready involution by this method rendered the subsequent row of sutures through the serous and muscular coats more secure, since there could be no interposition of mucous membrane.

The interesting collection of cases made by Mr. Kendal Franks showed that 222 cases had yielded a mortality of 46.8 per cent. This death-rate was doubtless too small, as many fatal cases had not been recorded, but the high rate was due not to the operation, but to the condition for which it was performed.

Another important advance on the position occupied by Sir Astley Cooper was the universal adoption in every suitable case of measures for procuring a radical cure of hernia. He had mentioned proposals which had been made for cutting away the hernial sac or tying its neck during the operation for strangulation, and had tried it in one case of femoral hernia, but another hernia nevertheless formed, so that he concluded that excision was not effectual; to ligature he saw many objections, especially the danger of peritonitis. With the modern operation under antiseptic precautions, this danger had become almost nominal. As an example of the frequency of the attempts now made to obtain a radical cure of non-strangulated or reducible hernia, Sir W. Mac Cormac stated that he had himself performed 90 such operations (80 inguinal, 6 femoral, 3 umbilical, and 1 ventral), with two deaths, one in a child, aged 2, from broncho-pneumonia, and one in a woman, aged 50, from cerebral embolism, neither therefore due to the operation.

The essential feature, Sir William Mac Cormac continued, of every operation is to seal or remove the peritoneal pouch up to the level of the internal abdominal ring, and, to ensure the absence of any pouching in this situation. Beyond this there are various methods, multiplying yearly, for the so-called closure of the inguinal canal—a closure, by the way, that can never be complete so long as the passage transmits the spermatic cord. It has seemed, however, to be of much advantage to strengthen the abdominal wall over the whole length of the inguinal canal, and for a short distance above it by a series of deep sutures. This method of passing the sutures tends to remove the somewhat flaccid condition of abdomen common in persons who are the subjects of acquired hernia, and materially increases the power of resistance of the tissues at the internal ring where the hernia is so apt to reappear, and for months after a broad hard resisting bar may be felt occupying the line of the canal, while the closure appears as solid and complete as is possible, or as it is in Bassini's, or any other of the more complicated procedures.

In cases of congenital hernia, the lower portion of the sac is cut off and left to form a tunica vaginalis for the testis. Not uncommonly an incompletely descended testis is associated with this form of hernia. It is usually undeveloped, and, if lying in the inguinal canal, may be removed with advantage. I have had occasion to do this in two or three instances, otherwise it may be pushed back into the abdomen. On the removal of the dressings, which were usually left untouched for a week, the wound was generally found to be united by first intention. The sutures are then taken out and a light dressing applied. After three weeks the patient can sit in a chair, and is soon afterwards discharged with the injunction to avoid any severe straining effort for four more weeks. I have not, except in a very few instances, ordered a truss.

I think silk is best for the buried sutures; other surgeons adopt by preference a different material. Bull uses kangaroo tendon, and he applies a light plaster-of-paris splint from the level of the umbilicus to the ankle to keep the parts at rest and further the healing process. In their paper Bull and Coley mention 40 cases, varying in age from 8 months to 14 years, where this plan had been used. All recovered from the operation; in 38 of the 40 cases absolute primary union was secured, and in nearly all the children were up and about the ward in from two to three weeks.

With regard to the risk of life it must be regarded as very small and the tabulated results of 2,283 cases show a mortality of 1.35. Lucas-Championnière, of the St. Louis Hospital, has operated on 376 cases of non-strangulated hernia with but 2 deaths, 1 from pulmonary congestion and 1 from internal strangulation, and he mentions in a letter sent to me a few months since that at that time he had operated in 120 cases in succession without a death.

In the Lariboisière, Berger had operated, up to November, 1891, on 50 cases without a death, and since then in 78 cases of inguinal hernia with 1 death; in this instance the hernia was the size of the adult head with many adhesions, and death

was due to intestinal obstruction. He notes amongst interesting complications that in one case intraperitoneal hæmorrhage occurred from the omentum; it was recognised in time, and the bleeding points secured. In 2 cases the bladder was cut into, and twice the vas deferens was ruptured. The femoral vein was also once wounded in an operation for femoral hernia, but these accidents were not attended by any serious consequences.

Bassini has operated in 262 cases with 1 death. Schede records 72 cases he had operated upon, all of which were successful. Of Kocher's 106 cases, in which 119 operations were performed, 1 died fifteen days after from embolic infarcts in the lungs. There was no peritonitis, the wound was quite healed, and the cause of death appeared to be unconnected with the operation. Eighteen were cases of double hernia, the youngest patient was 9 months, the oldest 71 years. Other surgeons have been less fortunate. Billroth, in 51 operations, lost 3 patients. Czerny a larger proportion. Wolter calculates the mortality at 4 per cent., while Leisrink, in 202 operations, had a death-rate of 7.4 per cent.; Anderegg, 3.6; and Adler, 3.5.

There is, however, evidence of increasing improvement in the details of the operative procedure, and if every precaution be taken there is no adequate reason why it should not be equally successful in the hands of all and the mortality reduced practically to nothing.

As to the duration of treatment, and manner in which the wound united, Sir W. Mac Cormac said that in his own cases the wound healed immediately in upwards of 80 per cent., and the duration of treatment was a little over a month. Kocher obtained healing by first intention in 89 per cent., and allowed his patients to return to work in a little over a week. Wolf obtained immediate union in 70 per cent., Billroth in 39 per cent., and Schede in 35 per cent.

As to after-results, Sir Wm. Mac Cormac had recently been able to show, at a clinical lecture, 18 unselected cases in which the interval after operation varied from a few weeks to nearly three years; 15 were in a thoroughly satisfactory state, and 3 only, who had worn strong trusses, exhibited a general weakness of the parts, but no actual protrusion. The results in private practice were most satisfactory; many had been under observation for years, and several had entered as cadets at Sandhurst, where they had had to undergo the severe training which military rough riding and the gymnasium entailed. In none had any return been heard of. In the whole 90 cases relapse was only known to have occurred in 4 cases; in 43 it was ascertained that no return had occurred, and in 28 of these the interval varied from two to six years.

In 112 of Lucas-Championnière's cases which he had kept under observation, 30 had gone for two years without relapse, and in 11 others the cicatrices were solid after four years and longer. Kocher obtained the final results in 94 of his cases, and found 80.8 per cent. cured, while 19.2 per cent. had relapsed. In most of these an interval of two years had elapsed, and after this the probability of subsequent relapse does not exceed 2 per cent. Nineteen per cent. of the relapsed cases were of inguinal hernia, while 33 per cent. were femoral. Berger has seen two cases of relapse in patients he operated upon before 1891, and some of these date from two to four years, while others were of shorter duration. Not one of his cases operated upon since 1891 presents any sign of recurrence. The operation he employs is a modification of Bassini's. Two hundred and thirty-nine patients, in whom 247 operations were performed by Bassini, were traced. In 47 no relapse had occurred after two years, and 108 had no recurrence after periods varying from one to four and a-half years. Schede states he found the percentage of relapses in all his cases to be 10; 2 of these were finally cured after a second operation, and 4 wore a truss. In Bull and Coley's cases, which were closely watched, only 2 relapses took place. These were ascribed to faulty operation, as the wounds suppurated and the sutures employed sloughed out. Bull estimated the proportion of relapses as only 1 in 50 cases. The collection made by Anderssen shows 50 per cent. of relapses, Socin 39 per cent., Wolter 25.9 per cent., Svenson 21 per cent., and Leisrink 20 per cent., which are much less favourable than the results previously quoted.

I think, Sir William Mac Cormac continued, that recent statistics go far to show that the mortality after the operation for the radical cure is practically nothing, that the wound heals quickly and well, and that probably a shorter duration of after-treatment than that usually considered necessary may be sufficient, and they also prove that a very large proportion of the persons operated upon are cured. As regards the indications for the operation differences of opinion prevail. It appears to me called for in nearly all otherwise healthy individuals in whom the hernia is wholly or partially irreducible, where it is imperfectly retained by a truss, or where the hernia is large or a source of much inconvenience. In boys and young men, in whom the hernia is almost always of the congenital form, the operation is strongly indicated. It spares them the prolonged use of a truss, which is so little likely to cure them, and it fits them for the active occupations of life. Although youth points strongly to the desirability of the operation, yet under otherwise favourable conditions it may be properly undertaken up to late adult life. Many consider that the operation should not be performed in quite young children or infants on account of the difficulty of maintaining aseptic conditions, and the possibility of cure by a truss; but Bull, Kocher, Schede, Rushton Parker, and others have obtained the best possible results in children, and even in infants from the age of a year, or even less, upwards. Certainly I should consider the operation indicated in childhood if the hernia cannot be effectively restrained by a truss. Of course the presence of organic disease or general ill-health contra-indicates the performance of this, as it would that of any other, not absolutely necessary, operation. Success depends on the method employed, the essentials being the complete removal of the sac, a sufficient closure of the canal by buried sutures, and the rapid healing of the wound without suppuration. The comparative smallness of the hernial orifice, the limited bulk of the rupture, as also its being single, enhance the prospects of cure. Probably an insufficiently high ligature of the sac, which would leave a potential sac for the formation of a new hernia, is the chief causal element of relapse as well as the occurrence of suppuration, especially in connection with the deep sutures. Cases of hernia of great size with a wide neck and cases of double or multiple hernia frequently relapse.

SURGERY OF THE ARTERIES.

Cooper's experiments upon the ligature of arteries and the nature and extent of the collateral circulation were of far-reaching importance. He was the first to demonstrate the practicability and safety of tying the common carotid artery, and in 1817 he tied the abdominal aorta in a case of aneurysm of the external iliac artery in which sloughing and hæmorrhage had supervened; the sac was laid open, but the artery could not be found; Cooper made an incision in the linea alba 3 inches in length, scratched through the peritoneal investment of the aorta, and, with an aneurysm needle, passed a ligature round it. The patient, who was moribund at the time of the operation, succumbed forty hours later. The specimen, which Sir William Mac Cormac showed from St. Thomas's Hospital Museum, proved that the ligature had been applied $\frac{3}{4}$ inch above the bifurcation; the vessel was filled with clot both above and below. It was interesting to note that the most modern operations for ligaturing the great arteries in the abdomen were also done through the abdominal cavity.

DISLOCATIONS AND FRACTURES.

Sir Astley Cooper's *Treatise on Dislocations and Fractures* (1822) was a magnificent record of wide and penetrating observation, distinguishing the salient features of each injury and pointing to the most natural remedy, and Sir William Mac Cormac referred especially to the manner in which Cooper's researches had dispelled a cloud of ignorance and error as to dislocation and fracture of the hip.

OTHER RESEARCHES.

Sir William Mac Cormac referred briefly to Cooper's work on the *Anatomy of the Breast* (1839), founded on upwards of 250 dissections contained in his museum, and observed that his chapters on non-malignant tumours of the breast were distinguished by the means it afforded for separating the simple from the malignant forms. The chronic mammary tumour was well known to the present day by that name, and the description he gave of it was a model of accurate and lucid clinical observation. In his work on *Diseases of the Testicle* (1830) he had drawn distinctions of much practical importance; he showed that syphilitic and tuberculous disease of the testicle was not rare, and thus projected light into the previous darkness which surrounded the swelling known as sarcocele.

SIR JAMES PAGET ON SIR ASTLEY COOPER AS A PATHOLOGIST.

The collection which Cooper formed in his own house was

the finest private collection in Europe, and in England unique; it was said to contain some 3,000 specimens admirably prepared and arranged, especially the injected specimens. The College of Surgeons alone possessed 500 of his preparations, and there were large numbers in the museums of St. Thomas's and Guy's. Sir James Paget, in a communication to the lecturer, wrote: "Sir Astley Cooper deserves honour for having been one of the few who, in the beginning and early part of this century, promoted the science of pathology by the study of morbid anatomy. At that time there was not in any school in London, nor indeed in any part of the country, any place for the objective study of, or teaching of pathology. Pathology, as then taught, was little more than a summary of the hypotheses which were supposed to be the foundation of practical medicine and surgery. The visible consequences of diseases were looked at in bodies examined after death, but few of them were carefully described, fewer still were reserved for more careful study. Hospital museums were unknown or neglected. The chief or only museums for morbid anatomy were private collections, as those of the Hunters had been, and among the collections in London the best was Sir Astley Cooper's. The museum of the College may show what it was, for the Council very wisely purchased it as soon as this became possible, as they did also the private collections of Longstaff, Howship, Liston, and some others. The contents of these once private museums, or the best specimens selected from them, form an important part of the present pathological museum of the College, and among them all none display so perfectly as Sir Astley Cooper's the art of showing to the naked eye morbid changes of structure in the most demonstrative manner; they remain not only as illustrations of his written works, but as admirable examples of skill in injections and in well-planned sections. Many of them are even now as instructive for study by the unaided sight as they were when first taken from the dead body, or removed by operation during life, at a period when the naked eye and the fingers were the only means for the study of pathological anatomy. It can scarcely be doubted that this portion of Sir Astley Cooper's work contributed largely to the growth of the conviction, though this growth was very slow, that morbid anatomy must be thoroughly taught in our medical schools, and a token of his influence may be seen in the present condition of our hospital museums and the almost complete absence of private anatomical collections."

Up to the last Cooper was engaged in physiological and anatomical inquiries, indefatigable in the search after knowledge and the accumulation of fresh facts and new experiences. He died at the age of 73, and his last words addressed to the friends who surrounded him were "God bless you, and goodbye to you all."

A PLEA
FOR THE PERFORMANCE OF OVARIOTOMY BY OBSTETRIC PHYSICIANS,

CONTAINING A REPORT OF A FIRST SERIES OF FIFTY OVARIOTOMIES.

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[After adverting to the frequent absence in ovariotomy records of information on such essential points as union by first intention, suppuration, sinuses, hernia, after-history, and to the influence of the practice at University College Hospital in obtaining for obstetric physicians the right to operate, the writer stated, with regard to his own operations, that there had been no selection of cases, that no tumour had been tapped by him, though six had been aspirated by other practitioners (not necessarily those given in the table), a procedure to be condemned, except under very rare circumstances. He deprecated the practice of omitting from lists of ovariotomies "incomplete" operations, and gave it as his opinion that every case in which an attempt was made to remove the tumour should be published as an ovariotomy. He had only had two incomplete operations, with broad ligament cysts (Cases 6 and 8), both of which healed, and the latter of which he would now be able to remove. Primary union took place in 47 cases; some suppuration in the remaining 3, including a case of stitch-hole abscess (the only one which occurred). In no case did a hæmatocele develop after the operation, nor a ligature come away.]

After these introductory remarks, I now proceed to an analysis of the cases as given in the table. Of the fifty cases forty-four were operated upon in University College Hospital, and six were private patients, and were treated in a nursing home. The private cases are indicated in the table by a single initial letter.

The heading, "age of patient," calls for no special remarks, except that Case 46 was, at the time of operation, over 82½ years old. (See Journal, December 9th, 1893, p. 1271.)

She is, as far as I know, the oldest patient upon whom ovariotomy has been performed, with the exception of Dr. Homans's case,[1] which was apparently a few weeks older. Although she only wore an abdominal belt for about six weeks after getting up, she has now a firm linear scar, without the slightest tendency to hernia, and I saw her on November 1st, 1893, in very good health for her age.

Thirty-six of the patients were married, 7 of these being nulliparous; 14 were single women. Six of the fifty operations lasted over an hour, the longest duration being 80 minutes.

I think it most desirable that operators should publish the length of time occupied by their operations. Any time beyond three-quarters of an hour adds appreciably to the danger of an operation. Yet I hear of operators taking as long as two hours and a-half or even three hours over an adherent case. My own practice is in favour of rapid removal of the tumour, but of spending sufficient time in cleansing the peritoneum, ligating the pedicle, and accurately suturing the wound. Of the 50 cases, in 15 the tumour was on the right, in 22 on the left, and in 13 on both sides.

In 33 cases there were adhesions, often very extensive and strong. (See Table.) The cases which had been previously tapped were very adherent, with one exception (12); in this there were twenty pints of fluid in the peritoneum, and nearly five in the left pleura. Drainage was employed in 11 cases; of these, 5 were broad ligament cysts; in Case 32 the abdominal wall only was drained. The peritoneal sac was drained in 5 instances only; amongst these the fatal case occurred. In this case (16) the Keith's drainage tube slipped into the abdomen, an accident which has led me to use a glass drainage tube with two large flanges, which render such an accident impossible. I believe that several of these 5 cases would have done equally well without the tube, and that drainage is resorted to far too frequently by some operators.

Flushing the peritoneal cavity has not been employed in any case; I regard it as unnecessary and even dangerous, and it seems to frequently require the subsequent use of the drainage tube. I would restrict it almost entirely to cases of encysted septic or purulent fluid.

The temperature has been taken for five minutes in the rectum, and for fifteen minutes in the axilla, every four hours by day and by night, and I have no trust in charts where it is taken less frequently. It would be useful if operators would agree to the four-hour record, and would state whether it is taken in the rectum, axilla, or mouth. On the whole, I think the axillary temperature is most convenient, but the rectal most trustworthy. The rectal temperature is, however, higher by about a degree, and sometimes two or three degrees higher, than the axillary. In the table I have stated the highest temperature recorded in the first seven days after the operation; this gives a less favourable and less valuable record than the average temperature; but I intend to treat the question of temperature after ovariotomy more fully elsewhere. The average highest rectal four-hour temperature during the first week after operation was 101.2, and similarly the average highest axillary temperature was 100.4. The highest temperature recorded, 103.4 (rectal) occurred in the fatal case just before death.

Of the whole series but 1 died (Case 16). This patient had a suppurating ovarian dermoid of the size of an infant's head, extremely adherent to the surrounding parts. She had also extensive ulceration of the rectum and descending colon; in

[1] *Boston Med. and Surg. Journal*, 1888.

one place the gut was reduced by this ulceration to its peritoneal coat. The drainage tube (Keith's) slipped or was pushed into the abdomen by the patient on the second day, but was easily withdrawn by forceps. She was greatly collapsed after the operation, which was very difficult, and she died with symptoms of exhaustion (probably due to sepsis) in fifty-three hours. There were three or four ounces of clotted blood and bloody fluid in the pelvis which had oozed from torn adhesions. Coils of intestine were adherent to each other round the drainage tube and the effused fluid. There seemed to be commencing inflammation of the general peritoneum, but this was not marked. The gut had not been injured by the drainage tube. I think infection of the effused fluid took place through the wall of the rectum and colon, which were extensively ulcerated.

The remaining 49 cases recovered and were discharged well with the wound completely healed and free from sinus or suppuration.

The patients usually got up at the end of three weeks and were discharged about the fourth week, but when any complication arose they were detained until they had completely recovered. Of the 50 cases 42 were tumours of the ovary of which 5 were dermoids, 8 were tumours of the broad ligament or parovarium; 1 of these was malignant, of enormous size, weighing about 70 lbs., and was treated by enucleation and hysterectomy.

Five of the tumours were suppurating (16, 24, 32, 37, 47), several others had puriform contents, which the microscope showed not to be pus. In all (with perhaps the exception of Case 16) the suppuration followed labour and was probably occasioned by infection at that time. One case was three months pregnant at the time of operation, she went to term and was safely delivered of twins. Eight cases were observed at or soon after labour. Six tumours had been previously tapped and 7 had a twisted pedicle. Two of the cysts had recently ruptured.

In the last column of the table I give later information of the patients as to their being alive and free from hernia. I have been able to get information concerning 48 patients, and it will be seen that hernia at the site of the scar has occurred in 4 cases. The ages of these patients were 66, 58, 64, and 41—thus all, except the last, were somewhat advanced in years. The last was a very bad case of suppurating cyst which had been tapped and the trocar left in the cyst for three weeks. None of the patients suffer any pain or discomfort from the hernia, but its presence undoubtedly is a source of danger and I should be glad to adopt any method of treatment which would prevent its occurrence. Reliable statistics upon this important subject are much needed, but the records to be of any value must be given with dates, for, until I undertook the preparation of this paper I was only aware that hernia had occurred in one of my own cases.

I may add to the information contained in the last column of the table that Case 4 died after operation for intestinal obstruction produced by a peritoneal band, about fifteen months after the ovariotomy, and Case 20 succumbed to peritoneal and pelvic cancer in about fourteen months. Concerning two of the cases I can get no information, as their address is unknown. I have no reason to believe they are otherwise than alive and well.

The Method of Operating.

The operations have been performed in a private room at University College Hospital or at a nursing home. The room is usually "sulphured" and occasionally limewashed between the operations. In the hospital cases the patient was moved down two flights of stairs and through four wards into the general ward; in the earlier cases on the seventh day, in the later cases on the third or fourth day. The slight excitement of this journey sometimes caused a temporary rise of temperature. The operation was done under strict Listerian precautions, including the spray. Although I have now abandoned the spray as unnecessary and inconvenient, I think the result of this series of operation shows that its employment is not followed by any serious consequences.

The patient is prepared by aperients, followed by enemata on the two nights preceding the operation. The skin is washed and a towel soaked in 1 in 20 carbolic acid is placed on the abdomen for three hours before the operation. The operator's and assistants' hands and forearms are washed and scrubbed with soap, after soaking in solution of iodine (liquor iodi 2 drachms to the pint); they are then immersed in 1 in 20 carbolic acid for about two minutes.

The sponges (ten in number) are prepared by beating and washing and soaking for successive periods of twelve hours in the following solutions: 25 per cent. hydrochloric acid, 5 per cent. sulphurous acid, and 1 in 500 corrosive sublimate. They are then placed in 1 in 20 carbolic acid, in which they are kept for at least a week, until the operation, when they are put into 1 in 40 carbolic acid. They are always counted by myself before and after the operation.

The instruments (made entirely of metal) are carefully cleaned and brushed after the operation, and before the operation they are boiled for an hour in 1 in 20 carbolic acid, in which they are placed during the operation.

Floss silk of moderate thickness is used for the pedicle and abdominal wound. It is prepared by boiling for three hours in 1 in 20 carbolic acid, and then placed for twelve hours in 1 in 500 corrosive sublimate, then in 1 in 20 carbolic acid, where it remains for at least a week before it is used. Thus prepared it is absolutely safe as regards sepsis. No patient has gone away with a sinus, nor has a ligature ever come away. I prefer floss silk to "Chinese twist," because it is cleaner, of more open texture, less liable to be damaged by manufacture, and can be drawn tighter. In case of broad or thick pedicle the first knot is seized with forceps; "Chinese twist" is then apt to snap. The pedicle is tied in two halves, and then as a whole with a reef knot as tight as possible. To pass the pedicle ligature I use a short, straight, round needle made of "delta" metal; it is much more convenient than the handled needle, is safer, saves time, and does not rust. If the raw surface of the pedicle is extensive I sometimes stitch it over with fine silk and tie any prominent vessels. Adhesions requiring ligature are tied with fine silk, in the earlier cases with carbolised catgut.

The wound is sewed up by passing the thick silk through all the layers of the abdominal wall, and the skin is accurately apposed by fine silk. The wound is dressed with Lister's carbolic gauze (or sometimes with iodoform gauze) kept in place by a many tailed flannel bandage.

The After-treatment.

Nothing is given by the mouth for twenty-four hours, or, where vomiting persists, for thirty-six hours or more; on the second day barley water with milk and Gerrard's peptones in small quantities; no solid food for the first week. In some cases milk disagrees and causes vomiting; for these rectal feeding with peptones is employed. No morphine is given except for prolonged sleeplessness; it is rarely required and better avoided. Rarely is alcohol administered. The bowels are opened by aperient and enema on the eighth day, when the sutures are removed and strapping applied. The urine is drawn off—when necessary—every six hours by rubber catheter kept in a 1 in 2,000 sublimate solution. In persistent vomiting and distension, which rarely occur, the bandage is removed, a copious enema is given, and the abdomen massaged. I have never reopened the abdomen.

The patient lies as much as possible on the back for the first week, does not sit up for three weeks, gets up two or three days later, and is discharged usually at the end of the month wearing an abdominal belt, which she is instructed to use for at least a year.

Other Abdominal Sections.

During the period over which these 50 ovariotomies extend I have also performed 18 abdominal sections other than ovariotomies, of which 2 died. One of these was a case of rupture of the uterus from neglected shoulder presentation; she was moribund from shock and hæmorrhage, and died in a few minutes, before the operation was completed. The other was a case of exploratory operation for malignant disease of the ovary and peritoneum. Finding secondary growths in the omentum and peritoneum, I closed the wound without removing anything. The patient recovered well, and the wound healed by first intention. On the twelfth day, when she was apparently quite well, she suddenly died of pulmonary embolism, the clot having come from a

TABLE I (Abridged).—*First Series of Fifty Ovariotomies.*

Number.	Age.	Children.	Abortions.	Date of Operation.	Duration of Operation in Minutes.	Side.	Adhesions.	Drainage.	Highest four-hour Temperature in first week.	REMARKS. G = Girth at Umbilicus. GG = Greatest Abdominal girth.	Alive and free from Hernia.
1	63	2	0	15/10/87	60	L	Yes	Yes	101.2 R*	Multilocular ovarian, size of three Rugby footballs. Previously tapped several times.	Oct. 30, 1893.
2	46	4	0	29/10/87	40	L	Yes	No	101.8 R	Large multilocular cyst; much solid growth. Stitch-hole abscess formed.	Oct. 22, 1893.
3	67	18	1	3/11/87	—	L	Yes	Yes	101.6 R	Large multilocular ovarian. G=45½ in. T=100.4°, P=132, and patient very ill two hours before operation.	Seven months later.
4	42	0	0	8/4/89	—	L	Yes	Yes	101.4 R	Large broad ligament cyst 10½ in. above pubes. G=35¼ in. Tumour enucleated, broad ligament stitched, and dropped.	Dec. 31, 1889.
5	26	0	0	12/8/89	—	R & L	Yes	No	101.0 R	Two multilocular ovarian cysts, size of orange and small apple.	Six months later.
6	39	0	0	25/8/89	—	L	Yes	Yes	101.2 R	Multilocular broad ligament cyst, burrowing around uterus. Main part enucleated; drained.	End of 1892.
7	47	5	6	3/9/89	20	R & L	No	No	100.6 R	Large left ovarian (17 pints). G=38½ in. Right ovarian fibroid (size of filbert).	Oct. 24, 1893.
8	26	2	0	14/9/89	—	L	Yes	Yes	100.0 R	Small broad ligament cyst, size of duck's egg. Partially enucleated; drained.	—
9	50	0	0	27/5/90	—	R	Yes	No	100.4 R	Multilocular ovarian, size of eight months uterus (11 pints). Twisted pedicle.	Oct. 29, 1893.
10	66	0	1	27/6/90	—	R & L	No	No	100.8 R	GG=35 in. Left ovarian to within 1 inch of ensiform. Cystic right ovary.	Oct. 24, 1893 (small hernia).
11	58	0	0	2/8/90	—	L	Yes	No	101.4 R	G=47 in. Multilocular ovarian, larger than football.	Oct. 11, 1893.
12	18	0	0	15/11/90	40	L	No	No	101.8 R	2½ gallons ascitic fluid; cystic multilocular ovarian, size of uterus at term, previously tapped; pleural effusion (left). 97 ounces drawn 2 days before operation.	End of 1892.
13	59	4	0	10/2/91	23	R	No	No	100.0 R	Ruptured multilocular ovarian, holding about 1 pint.	Oct. 22, 1893.
14	54	0	0	20/3/91	28	L	Slight	No	101.6 R	Multilocular ovarian, size of large football.	Oct. 24, 1893.
15	27	0	0	1/4/91	22	L	No	No	99.2 A	Unilocular parovarian, size of small football, removed with ovary.	Nov. 1, 1893.
16	23	1	0	16/4/91	60	R	Yes	Yes	103.4 R	Suppurating dermoid, size of emu's egg. Ulcerative colitis, which probably infected bloody serum in pelvis.	Died.
17	28	0	1	6/5/91	50	L	Yes	No	99.0 A	Multilocular ovarian, size of goose's egg.	Nov. 11, 1893.
18	40	0	0	16/5/91	36	L	Yes	No	99.4 A	Multilocular ovarian, size of uterus at sixth month.	Oct. 24, 1893.
19	40	2	0	26/5/91	30	R & L	No	No	101.0 A	G=42 in. Right multilocular, size of uterus at term, 11½ in. above pubes; left, size of pear. Twisted pedicle.	Nov. 2, 1893.
20	42	0	0	15/6/91	44	L	Yes	No	101.6 A	Ruptured malignant ovarian; removed. G=43½ in.	June, 1892 (recurrence).
21	27	0	0	26/6/21	65	R & L	Yes	No	99.2 A	Right unilocular ovarian, with Fallopian tube opening into it; size of man's head. Left tubo-ovarian, size of fist. Facial lupus.	Nov. 2, 1893.
22	22	0	0	3/7/91	40	R & L	Yes	No	100.2 A	GG=31½ in. Large right multilocular dermoid. Small blood cyst of left ovary.	April, 1893.
23	49	4	1	14/9/91	20	L	No	No	101.0 A	Small parovarian, size of goose's egg; enucleated. Hole in ligament stitched and dropped.	Oct. 3, 1893.
24	32	1	0	12/10/91	50	L	Yes	No	101.0 A	G=35½ in. Suppurating ovarian (over 16 pints). Fever and extreme emaciation before operation. Pus burrowing in abdominal wall. Tumour removed. Suppuration recurred at lower angle of wound. Confined August 13th, 1893.	Oct. 23, 1893.
25	45	3	0	26/10/91	40	R & L	Yes	No	99.6 A	G=38½ in. Large multilocular ovarian within 2 inches of ensiform. Small 2-inch multilocular cyst of other ovary. Previously tapped.	Nov. 3, 1893.
26	26	1	0	30/10/91	30	L	No	No	99.6 A	G=31½ in. Parovarian (over 10 pints) removed with ovary. Delivered August 28th, 1891.	Oct. 26, 1893.
27	52	4	0	9/11/91	23	R	No	No	100.8 A	Multilocular ovarian (10½ pints).	Oct. 23, 1893.
28	37	1	1	18/11/91	66	R	No	Yes (3 days)	100.4 A	Parovarian (6½ pints collected); enucleated. Broad ligament stitched and drained.	Oct. 30, 1893.
29	54	4	0	11/12/91	45	R & L	Yes	No	100.0 A	GG=32½ in. Right multilocular ovarian (4 pints+2 lbs. 8 oz.). Left multilocular ovarian, size of cocoanut.	Oct. 26, 1893.
30	39	0	0	31/12/91	45	R	Yes	Yes (2 days)	101.6 A	G=51 in. Multilocular ovarian (26 pints). Influenza, 10th to 15th day.	Nov. 4, 1893.
31	27	3	0	16/2/92	30	R	Yes	No	100.0 A	GG=34 in. Pregnant 3 months at operation. Flaccid multilocular ovarian (6 pints). Delivered of twins, August 12, 1892.	Nov. 1, 1893.
32	41	2	0	10/3/92	49	R	Yes	Abdominal wall for 24 hours	99.0 A	Ovarian. Three pints fœtid pus. Tapped twice three weeks before operation (10 pints pus). Trocar left in three weeks. Septicæmia.	Oct. 24, 1893 (small hernia).
33	35	6	0	27/3/92	32	R	Yes	No	101.0 A	GG=31½ in. Multilocular ovarian, size of uterus at term. Twisted pedicle. Patient confined, December 15th, 1891.	—
34	64	7	2	4/4/92	27	L	No	No	99.8 A	GG=42 in. Multilocular ovarian (6 pints collected, some lost).	Nov. 1, 1893 (hernia).
35	31	1	0	19/4/92	45	R & L	No	No	102.0 A	Right multilocular ovarian, reaching 8 in. above pubes. Left cystic ovary. Swelling noticed after difficult instrumental confinement 21 months ago.	Oct. 27, 1893.
36	32	0	0	28/4/92	29½	R & L	No	No	99.2 A	Right multilocular ovarian, size of shaddock. Left multilocular ovarian, size of small orange.	June 15, 1893.
37	39	10	5	4/6/92	59	R	Yes	No	101.2 A	Delivered December 28th, 1891. Tumour noticed 10th day. Suppurating multilocular ovarian, with twisted pedicle, size of large fist. Complicated with pleurisy.	Oct. 31, 1893.
38	34	1	0	9/6/92	80	L	Yes	Yes (24 hours)	102.2 A	Ovarian, size of fœtal head. Complicated with hydrosalpinx (removed).	Oct. 10, 1893.
39	10	0	0	16/6/92	50	R	Yes	No	99.4 A	GG=41 in. Multilocular ovarian, within 2 in. of ensiform.	Oct. 30, 1893.
40	24	0	0	22/6/92	60	R	Yes	No	101.6 A	Multilocular ovarian (8½ pints). Tapped 3 months ago, 3 gallons removed.	June 14th, 1893.
41	30	3	1	17/9/92	35	R	Yes	No	100.6 A	Dermoid ovarian (13 ounces of fluid, and hair, and fat).	Jan. 16, 1893.
42	31	0	0	29/9/92	20	R & L	No	No	100.0 A	Multilocular ovarian (10 pints). Left cystic ovary.	Oct. 14, 1893.
43	26	0	0	2/11/92	25	R	No	No	99.6 A	Multilocular ovarian, size of shaddock.	Months later; married.
44	43	0	0	5/12/92	70	L	Yes	Yes (gauze in broad ligament)	102.8 A	G=45 in. Malignant colloid cystic tumour of left broad ligament, previously tapped three times, weighing about 70 lbs.; invading the uterus. Enucleated. Hysterectomy.	Oct. 5, 1893.
45	37	0	0	11/12/92	30	R & L	Slight	No	100.4 A	Right unilocular ovarian within 1 in. of ensiform. Left cystic ovary. Convalescence delayed by thrombosis of left femoral vein.	Oct. 31, 1893.
46	82	5	0	19/12/92	17	L	No	No	99.2 A	Multilocular ovarian. G=37 in. Tumour rises 10 in. above pubes. Twisted pedicle.	Nov. 1, 1893.
47	23	1	0	31/1/93	29	L	Yes	No	102.0 A	G=36¾ in. Confined 6 weeks. Suppurating ovarian (15 pints). T=103.6°. Papilloma in interior.	Oct. 31, 1893.
48	19	0	0	20/2/93	37½	R	Yes	No	101.4 A	G=30 in. Multilocular ovarian (6 pints). Twisted pedicle.	Oct. 23, 1893.
49	58	1	0	6/3/93	70	L	Slight	No	100.0 A	Multilocular papillomatous ovarian (8½ pints puriform fluid).	July 28, 1893 (small ventral hernia).
50	26	2	0	15/4/93	72	R & L	No	No	100.6 A	Multilocular ovarian dermoids. Right, walnut; left, swan's egg. Large ventral hernia (excised).	July, 1893 (slight separation of recti).

NOTE.—All the cases recovered except No. 16.

* R=Rectal; A=Axillary.

sacculus in the iliac vein, as shown by the necropsy. The remaining 16 cases recovered.

List of Abdominal Operations other than Ovariotomy.—For hydrosalpinx, 2; pyosalpinx, 1; tubal mole, 1; pelvic abscess, 4; hernia after hysterectomy, 1; ruptured uterus, 1 (died); oöphorectomy for fibroids, 1; Cæsarean section (Porro) for fibroids obstructing labour, 1; abdominal hysterectomy for fibroids, 2; exploratory for malignant ovarian, 1 (died); exploratory for fibroid of abdominal wall, 1; exploratory for abscess in broad ligament (opened per vaginam), 1; exploratory for retroperitoneal sarcoma, 1—total, 18, with 2 deaths.

These 68 operations constitute the whole of the abdominal sections I have performed up to April 15th, 1893.

I now proceed to consider the cases of ovariotomy as bearing upon the question, Who should perform ovariotomy in the general hospitals?

The present first series of 50 ovariotomies (with 1 death) is, as far as I know, the most successful of such series which has yet been published. I am very far from desirous of claiming for this result any personal credit, which belongs rather to my predecessor, whose methods I have followed. But I think the result is a justification of the system, adopted for twenty years at University College Hospital, and of late years at most of the other general hospitals in London, of allowing the obstetric physicians to perform ovariotomy. But a few years ago it was thought to be highly dangerous to perform the operation in a general hospital; and at University College Hospital, until 1884, the operation used to be done in a neighbouring house; since that date it has always been performed within the walls of the hospital. I think the present series of cases shows that, when performed by a specialist, ovariotomy is at least as successful in a general as in a special hospital. There was at one time a danger that major gynæcological operations would disappear from our great medical schools. This danger is now past, but there are still some who assert that obstetric physicians should not perform operations or, at least, not abdominal sections, or only those abdominal sections which are of obstetric importance—such as Cæsarean section. Now it is quite impossible to carry on an obstetrical or gynæcological practice without operating; an obstetric physician may limit his operations, but he cannot exclude them; and there seems to be no reason why he should be allowed to remove a uterus by vaginal and not by abdominal section (the former being more difficult than, and often quite as dangerous as, the other) no reason why the field of his operative activity should be limited by the plane of the pelvic brim. And it does appear to be as illogical as it is to the patient unfair to allow Cæsarean section—the greatest of all operations, and, when complicated with tumours, one of the most difficult and dangerous—to be performed by an obstetric physician who is not allowed to remove a simple ovarian cyst.

It is often said that the operation ought to be done in general hospitals by general surgeons and not by obstetric physicians. Against this view it may be urged that, supposing all the surgeons of a general hospital do the operation, and that one or more have not a tendency towards gynæcological specialism (for which their clinical opportunities afford no justification), then each surgeon would get but three or four ovarotomies annually at the present rate of admittance, and it is generally acknowledged that extensive experience is more necessary in abdominal than in almost any other kind of surgery. With such a system patients would cease to come, and doctors would cease to send them to these inexperienced general surgeons, and the cases would go to the special hospitals, and be lost to the medical schools.

Neither does the system of allotting the ovariotomies to one surgeon for a short term of years meet the requirements of the case, for the services of the surgeon are lost at the time when they have become most valuable.

At some schools it is the custom for both surgeons and obstetric physicians to do these operations. Where this practice has had a fair trial, it is found that the great bulk of the cases go to the obstetric physicians.

I have heard the opinion expressed by surgeons, who admit that obstetricians should operate, that surgeons should occasionally perform a simple ovariotomy to "keep their hand in," the obscurer and difficult cases going to the obstetric physician. Such an arrangement is obviously unfair to the obstetric physician, and puts him at a disadvantage when compared with the gynæcologist at a special hospital.

The system which most conduces to the interests of the medical schools is undoubtedly either that which puts the operation in the hands of one surgeon for a long term of years, or that which gives it over entirely to the obstetric physicians.

I am not one of those who think that there is any mystery about ovariotomy, or that a well-equipped surgeon cannot perform the operation well. But what I maintain is that he cannot perform it so well as one who devotes his whole time to the study of this and allied subjects and keeps himself abreast of the latest advances in gynæcological pathology and treatment, who is daily examining the pelvic organs of women, and who, from the nature of his practice, has acquired skill in diagnosing pregnancy and disease such as no general surgeon has the opportunities of obtaining. In endeavouring to arrive at a right judgment in this matter there are two considerations of prime importance: the first is the welfare of the patients, the second is the teaching of students and the advancement of medical knowledge. How far the welfare of the patient is affected by the operator being an obstetric physician I offer the present paper as evidence, and regret that few general surgeons have similarly published all their cases. Were this done I believe the question would be at once settled, if not by the statistics of their ovariotomies, at least by their errors in diagnosis, such as those awful cases in which, through ignorance of obstetrics, the healthy pregnant uterus has been opened. In order to guard against similar occurrences, general surgeons might, it may be suggested, call the obstetricians in consultation, and this is usually done; but is it fair that the obstetrician who can diagnose a tumour and remove it should be prevented from operating by a surgeon who is only competent to remove it? Is it fair that the treatment of the most important diseases affecting the organs which are the obstetric physician's special study should be taken out of his hands? In any case, is it fair that the question should be settled by medical committees in which the surgeons' votes numerically far outweigh the obstetric physicians'?

Medicine has been divided by our universities, our Royal Colleges, and our medical schools into three great divisions—medicine, surgery, and obstetrics and gynæcology. The third subject—obstetrics and gynæcology—is taught by the obstetric physicians of our medical schools. An obstetric physician without experience of operations labours under great disadvantages in teaching modern gynæcology; he is unable to compare the clinical signs with the actual facts of the case; he who should teach others is deprived of one of the most certain means of teaching himself, while in handing over to the surgeon his cases for operation he is giving up pathological material of the greatest value for the study of that branch of medicine which it is his duty to teach.

There is a natural connection between obstetrics and gynæcology which is convenient in practice, and which it is impossible, even if it were advisable, to sever; and, since these subjects are the special study of the obstetric physician, I think it is right that he should have a free hand in the treatment of the diseases which come within their domain. And I would further appeal to our surgical colleagues in the medical schools to extend their generosity and give up to the obstetric physicians the operations upon the uterus and its appendages. Such a gift would entail but a small sacrifice upon the surgeon, for the days are past when a general surgeon in London will get any considerable number of gynæcological operations, while it would be appreciated as a great boon by the obstetric physicians; it would enhance the value of gynæcological teaching, promote the cause of scientific medicine, and, above all, be, I believe, the means of saving human lives.

At the last ordinary meeting of the Board of the Manchester Royal Infirmary, the executors of the late Miss Louise H. F. Bennett handed over a sum of £5,397 to the funds of the hospital. A subcommittee has been appointed to consider what alterations in and extension of the infirmary are desirable and necessary. Mr. Alex. Wilson, F.R.C.S., was reappointed senior anæsthetist, and Mr. Thomas Porter, M.B., assistant medical officer.

OBSERVATIONS ON THE ACTION OF THE BRAIN OF THE SHEEP IN DISEASES OF THE CENTRAL NERVOUS SYSTEM AND MIND.

By ALEX. ROBERTSON, M.D., F.F.P.S.G.,
Physician to the Royal Infirmary and City Parochial Asylum, Glasgow; Professor of Medicine, St. Mungo's College, Glasgow.

The remarkable effect of the thyroid gland in the treatment of myxœdema has naturally stimulated inquiry into the action of other glands and animal structures generally in various morbid conditions of the system. The question was obviously suggested, Might not these organs or their active principles have a similar beneficial action in many organic diseases or functional disorders, particularly such as affected the same structures as those administered, for example, the suprarenal capsule in Addison's disease and the brain in cerebral disease? Greater and more respectful attention was at the same time directed to the observations of Brown-Séquard on the orchitic fluid.

Impressed with the fact that the gastric juice did not impair the action of the thyroid gland or its extract as a remedial agent, it occurred to me to test the effect of brain substance taken into the stomach in some organic and functional diseases of the brain and spinal cord. I was not, however, very sanguine as to the result, for, first, a formed product, like the cerebral tissue, differs materially from a glandular secreting organ, as the thyroid no doubt is; and, secondly, it seemed not unlikely that the soft pulpy material of the brain would be more fully acted on by the digestive secretion of the stomach than the firmer and more resistant constituents of the gland, or even than a concentrated fluid extract. But, though these objections presented themselves, the fact remained that, notwithstanding the previous preparation of the thyroid and its submission to digestion in the stomach, there appeared to be no material impairment of its curative power in myxœdema, and it was therefore possible that other organised matter, though subjected to similar disintegrating processes, might still be efficacious in morbid states of the body. Influenced by these considerations, it was resolved to test the action of brain taken by the mouth as an aliment.

In all cases the brain of the sheep was used. Arrangements were made with a butcher to have it removed from the head of the animal within an hour or two after it was killed for the market. It was immediately taken to a chemist, who made a glycerine preparation of it, flavouring and colouring it with cinnamon, cochineal, etc. Within twelve hours the medicine, if we may so call it, was ready for being dispensed; it kept quite fresh, when in a cool place, for four or five days. The usual dose prescribed was one teaspoonful thrice daily before meals, but in some cases this was increased to two teaspoonfuls. In no case was sickness or nausea produced when given in the smaller dose; but in one or two patients the stomach was intolerant of the larger quantity, and it was necessary to reduce it. The taste was not unpleasant, and no one complained that it was disagreeable to the palate. Care was taken not to mention the nature of the medicine in the hearing of the patients, lest they should revolt at its use. I have named it myelin, which indicates its nature.

The preparation was administered to six patients in all in the asylum, and five in the Royal Infirmary. The former group included two cases of subacute melancholia of an ordinary type, and one of the resistive variety of that disorder; one of simple and one of chronic mania, and one of delusional insanity (paranoia). The infirmary cases consisted of two cases of bulbar paralysis, one of general paralysis, one of chronic myelitis, and one of locomotor ataxy.

Besides noting the effects on the disease of the nervous system, observations were made on the pulse, temperature, respiration, and general condition. Looking at the results generally in relation to all the cases, there was no decided alteration in the bodily state while the myelin was being taken; no doubt two patients gained each about 2 lbs. in weight, but two others lost about the same amount. In two patients the respirations increased from 18 to 24 per minute, but in the others they were unchanged.

Referring now more particularly to the cases of insanity; in two there was improvement; in four there was no apparent alteration in the mental disorder. The most marked change occurred in the case of resistive melancholia. The patient was a married woman, aged 36, who had been an inmate of the asylum for two years and three months, when this special treatment was commenced. She had not improved, except in her bodily health, which was excellent; mentally she appeared to have sunk into a state of hopeless insanity. She had ceased to speak for at least a year previously, sat with her mouth pursed up, looking fixedly on the ground, did no work, and paid no attention to anything going on around. Early during her residence in the asylum the water cap had been applied to her head and water circulated through it at from 110° to 115° F., but this treatment was soon stopped, as it did not appear to act beneficially.

On January 6th, 1893, myelin was begun in teaspoonful doses thrice daily before meals. On January 24th the following note was taken: "On the third day after the medicine was commenced the patient became decidedly more active in mind, and since then the improvement has increased. Thus she now sits down to sew of her own accord, and does anything she is asked to do without pressure. On the third day, also, she began to speak, but only uttered a few words, and after being urged. On the fourth day the myelin was increased to two teaspoonfuls thrice daily. For some days after this she spoke somewhat freely and sensibly in answer to simple questions, but afterwards she got duller and spoke less." On February 8th it was noted that she still spoke occasionally and correctly, but that at other times she was rather obstinate, though she did as she was told without delay. At this date her weight had increased by 2 lbs. The myelin was continued till June 14th, when it was definitely stopped. During the interval between February and the close of its administration it was stopped and resumed after some days on three occasions. No distinct effect was, however, observed as a result of these intermissions and resumptions, except that latterly she became more excitable. About five weeks after the myelin was last given, the excitability, which had rather increased, culminated in her breaking several panes of glass. Since then she has been calmer, but has once more ceased to talk, though she continues to work, and shake hands with anyone who puts out his hand to her. Considering the case as a whole, it is no doubt clear that patient has fallen back to some extent; still there remains improvement when her present state is contrasted with what it was before the myelin was commenced.

The other patient, who has improved, is a woman, aged 50. She was admitted on February 10th, 1893, labouring under profound melancholia of thirteen weeks' standing; she refused food, and was suicidally disposed. There was also paralysis agitans of the right arm. Treatment of an ordinary kind was carried out till April 1st. There was then a little improvement, but it was not marked. She still required compulsion to take food, and it was necessary to keep her under observation. She was now ordered myelin in teaspoonful doses thrice daily. Under its use there was soon more obvious improvement, as was shown by her no longer requiring compulsion at meals, and by the alleviation of the mental depression. But the earlier rate of improvement was not maintained, and the myelin was stopped on May 6th. Since then her progress has been slow but satisfactory, though she cannot be considered well.

In this case the benefit derived from the myelin is less clear than in the first one, but it is probable that a part of the decided improvement should be ascribed to it. From a prognostic point of view the presence of the shaking palsy is not favourable to complete recovery. In the other cases of mental disease it was not clear that any effect was produced by the medicine, and it was, therefore, discontinued after a few days' trial.

In reference to the second group of patients, those, namely, who suffered from well-marked organic disease of the central nervous system, in only one could it be said that there was definite improvement under the use of the myelin. This was the case of chronic myelitis. The patient's power of walking was markedly improved for some weeks, but this change for the better was not maintained, and he gradually relapsed into his previous condition. No

clear alteration, either for the better or the worse, was observable in any of the others.

These, then, are the results of my experience with this preparation. They cannot be said to be either definite or striking. And yet the impression remains on my mind that there is a constituent in the brain of the sheep, and doubtless also of other animals, which acts as a stimulus to nerve tissue cell and fibre in the human subject in certain morbid states of these structures.

It is probable that more decided beneficial effects will follow the subcutaneous injection of extracts of nerve substance. Indeed, this is claimed for them by several physicians.

But it appears to me to be premature, especially in the case of such a disease as epilepsy, to record "cures" *soon* after this or any other method of treatment has been adopted. Where there is improvement or apparent recovery, the powerful influence on some minds of the use of a new remedy, especially if there be anything peculiar in its nature, with the consequent reaction on the bodily disease, should always be remembered. When seeking to estimate the value of treatment in any case this should be carefully considered, but more particularly when the morbid change is in the nervous system; not seldom the psychical is really the chief remedial agent. For the most part, the published statements respecting the action of injections of the extract and emulsion—for both have been used subcutaneously—have been somewhat vague and general. It is desirable that careful accounts of cases, detailing the condition before and after treatment, should be recorded, and that where there is improvement a reasonably long time should elapse after the subsidence of the symptoms before the patient is pronounced to have been cured.

CLINICAL ANÆSTHETIC NOTES AND REMARKS ON A CASE OF CARBUNCLE TREATED BY EXCISION AT THE AFZULGUNJ HOSPITAL.

BY SURGEON-LIEUTENANT-COLONEL EDWARD LAWRIE.
Hyderabad

RUSHTON PARKER'S plan of extirpation was followed in this case. The operation was performed in the manner recommended by him, "by cutting through the skin around the diseased area" (in this instance 16 inches in circumference), "keeping clear of all suspicious tissue, and then removing the whole. There was no difficulty in distinguishing the diseased tissue from the healthy."

My attention was directed to this procedure by an article in the *Medical Chronicle*, and the principle of the operation at once commended itself to me, because we have for some time past been performing extirpation, in numerous inflammatory conditions, with excellent results. Since the year 1876 I have treated buboes requiring surgical interference almost exclusively by excision; and we have lately had several cases of suppurating bursa, and of thick-walled abscess enclosing dead guinea worm, which have been rapidly cured by extirpation. The principle of Rushton Parker's operation is so thoroughly sound that I have no doubt it will supersede all other surgical methods for the treatment of carbuncle. In future operations a considerably larger amount of the skin might be preserved.

AFTER-TREATMENT.

The operation was performed on September 29th, 1893. The patient's temperature from 102° became normal in the evening, and she experienced great relief. On September 30th, when the wound was dressed, a suspicious-looking spot was noticed at the upper part under the skin. The temperature rose to 100° F. on the evening of October 1st, and accordingly on the morning of October 2nd the patient was placed under chloroform for the second time, and the suspected tissue excised. It proved to be a small mass of carbuncle left behind at the first operation. The temperature became normal again that evening, and her recovery since has been uninterrupted. She was discharged to the out-patient department on October 11th, 1893.

Heading.	Particulars.	Observations.	
		H. M. S.	
1. Number	1,362 of 1893; 191 of September	9 1 15	Administration commenced in 3j doses, with the patient lying on the side. Natural regular breathing, slight resistance
2. Date	September 29th, 1893		
3. Pulse and respiration immediately before the operation	(*a*) In bed; pulse 100, respir. 24. (*b*) On the operation table; pulse 120, respir. 32		
4. Food last taken ...	9 P.M., 28th	9 2 5	Cap removed while the patient was turned on to the back
5. Special features in the case	Very weak old woman		
6. Name, age, and sex	Mohiadin Kattoo, 75, female	9 2 15	Chloroform applied to the cap; one breath of air inhaled. Half-drachm doses
7. Operation ...	Extirpation of carbuncle of the back by Rushton Parker's method		
8. Chloroformist's name	Mahomed Peerun, fifth year student		
9. Struggling commenced		9 3 15	Chloroform applied to the cap; two breaths of air inhaled
10. Struggling ended	No struggling stage, except the slight resistance at first		
11. Respiration and intake during the struggling stage			
12. Cause of struggling		9 3 20	Snoring
13. First sign of complete anæsthesia	Cornea insensitive	9 3 55	Over; cornea insensitive; cap removed
14. Amount of chloroform required to produce complete anæsthesia	Two drachms and a-half.	9 5 0	More chloroform
15. Time occupied to produce complete anæsthesia	Two minutes forty seconds	9 8 10	Vomiting food
16. Rate in minims of chloroform applied to the cap per second	0.93 minim per second	9 10 15	Operation and dressing finished; patient removed to bed.
17. Total amount of chloroform employed	Three drachms		The anæsthesia was normal, and the only remarkable point in the administration was that the usual struggling stage did not occur, and was replaced apparently by the slight resistance at first
18. Duration of operation	Nine minutes		
19. After-effects ...	Vomited		

REMARKS.—I have never met with any case in which the relief of a carbuncle was so thorough and immediate as it was in this. The excision eradicated the disease, and nothing more convincing can be said about it. There is an infinite difference between a depressing, infecting, and therefore dangerous disease, and an aseptic healing sore; and the difference is accentuated by age and feebleness. A patient who is too old and feeble to undergo the process of healing of the aseptic granulating wound which is left when a carbuncle is excised will assuredly succumb to the prolonged septic sloughing and suppuration which are of necessity preliminary to the granulating and healing process under the old methods of treatment. Advanced age and debility, therefore, so far from being a bar to excision, render it pressing, if not indispensable. Finally, the small amount of blood lost during the operation in my case astonished everyone who saw it. The extirpation can be accomplished with ease and rapidity, and the hæmorrhage was not as much as it usually is when carbuncles of similar dimensions are treated by the crucial incision.

PRESENTATION.—The members and officials of the General Prisons Board, Dublin, presented, on November 30th, an address and a large solid silver salver to Dr. William Lambe on the occasion of his retirement, under the recent Treasury rule, from the service of the board. Dr. Lambe has been connected with the service for forty-three years.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

ATRESIA HYMENALIS; RUPTURE OF HYMEN DURING DIGITAL EXAMINATION.

In the early part of last April I was consulted by a Mrs. W. concerning her daugher, a girl 16 years of age, with the view to knowing whether she was suffering from an abdominal tumour or whether she was pregnant. On inquiry I learnt she had never menstruated, although at intervals, generally of about one month's duration, she suffered very much from spasmodic pains in the lower part of the body, irritation of the bladder, and an incessant feeling of bearing down. Latterly the body had become somewhat enlarged. When consulted the patient was suffering from her periodical symptoms. On examination through the abdominal walls a tumour, about twice the size of a cricket ball, could be felt in the hypogastrium; the vagina was occluded by the presence of an intact hymen, which was tense to touch and bulged convexly outwards as if it were being subjected to considerable internal pressure. While examining the hymen, pressing somewhat firmly about its centre with the index finger, it suddenly ruptured, and a large quantity of what must have been retained menses gushed out. The tumour in the hypogastrium disappeared, and almost immediately afterwards the patient stated she experienced a great sense of relief and freedom from the bearing down which had previously so much inconvenienced her.

For a few days subsequently there was some slight constitutional disturbance. On the second day after the rupture the temperature rose to 101° F.; from this point it gradually subsided, however, and it was normal four days later. The patient has since enjoyed excellent health, menstruating each four weeks regularly.

London. Alexander Mitchell, M.D.

THE ADMINISTRATION OF CHLOROFORM.

At a time when the attention of the medical profession is particularly directed to the subject of anæsthetics, it occurs to me that I am serving a useful purpose in forwarding some tabular forms comprising the first 14 cases in which I employed Krohne and Sesemann's modification of Junker's inhaler for the administration of chloroform. The tables speak for themselves, but I would wish to add that I have been so impressed with my results, which bear such a favourable comparison with the other methods in vogue, including the original Junker, that I feel that I cannot speak too highly of this method. The great advantage is that the anæsthetic is under the control of the administrator, which cannot be said of any other method, and it differs from others in use inasmuch as the patient breathes air with chloroform vapour gradually added under the control of the administrator; whereas by all other methods the patient is given chloroform vapour, and helps himself to it, with air added, a very uncertain and unsafe proceeding. Chloroform vapour, being four times heavier than air, hangs about the face when the atmosphere is still, or may be blown away from it if there is a draught. In the first of these conditions the patient is most likely to get an overdose; in the latter nothing at all. I trust to my tables being sufficiently convincing without more words.

Weymouth. R. W. Carter.

The Distribution of 3ij of Chloroform during 25 Minutes in Case 101.

During First Minute.

1. 5 inspirations	5 times	$\frac{1}{4}$	m	=	$1\frac{1}{4}$	m
2. ,,	,,	$\frac{1}{2}$	,,	=	$2\frac{1}{2}$	,,
3. ,,	,,	$\frac{3}{4}$	,,	=	$3\frac{3}{4}$	,,
4. ,,	,,	1	,,	=	5	,,
					$12\frac{1}{2}$	m

The Second Minute.

1. 5 inspirations	5 times	1	m	=	5	m
2. ,,	,,	1	,,	=	5	,,
					$22\frac{1}{2}$	m
3. 5 inspirations	5 times	$\frac{1}{2}$	m	=	$2\frac{1}{2}$	,,
4. ,,	,,	$\frac{1}{2}$	,,	=	$2\frac{1}{2}$	,,
					$27\frac{1}{2}$	m
The next 18 min.	360 times	$\frac{1}{4}$	m	=	90	,,
The last 5 ,,	100 ,,	$\frac{1}{50}$	,,	=	$2\frac{1}{2}$	,,
					120	m

CASE OF NEURASTHENIA TREATED BY HYPODERMIC INJECTIONS OF NERVE EXTRACT.

The following case may be of some interest: The patient, a woman, aged about 33, has suffered from neurasthenia for from seven to eight years, during which time she has been confined to bed for periods varying from some weeks to several months. About the beginning of April this year she caught a chill, from which she partially recovered, but was never able to get out of bed owing to a feeling of great weakness. There were also hysterical symptoms and others which depended on the lowered vitality.

Everything in the way of tonics and anti-hysterical treat-

No. of Case.	Date.	Sex & Age.	Operation.	How Employed.	Duration and Quantity.	Source.	Effects.
	1893. Oct.,						
101	18th	F., 18	Uterine examination	Krohne and Sesemann's modification of Junker	25 min., 3ij	Duncan, etc.	None; no sickness.
102	,,	F., 65	,, ,,	,, ,,	15 min., 3j, m xl	,,	,, ,, ,,
103	,,	F., 31	Removal uterine polypi	,, ,,	20 min., 3ij, m xx	,,	,, ,, ,,
105	21st	M., 28	Castration	,, ,,	1 hour, 3iv	,,	Vomiting during, and subsequent breathing shallow and irregular throughout.
106	22nd	F., 42	Removal of upper jaw	,, ,, (with tube)	1 hour, 3j	,,	None.
107	,,	M., 4	Removal of part of nasal septum	,, ,, (with tube)	10 min., 3jss	,,	Vomiting of food interfered much with administration.
108	,,	F., 45	Excision of mamma	,, ,, (mouthpiece only)	30 min., 3ij, m xx	,,	None.
109	,,	F., 38	Lipoma	,, ,,	40 min., 3vj, m xl	,,	,,
110	,,	F., 30	Curetting uterus	,, ,,	15 min., 3j, m xx	,,	,,
111	,,	F., 23	Ligaturing and excising hæmorrhoid	,, ,,	30 min., 3ij	,,	No bad effects.
113	25th	F., 65	Hysterectomy	,, ,,	2 hrs. 35 min., 3j, m xx	,,	None; no sickness.
115	29th	F., 36	Curetting uterus	,, ,,	25 min., 3j	,,	,, ,, ,,
116	,,	F., 34	,, ,,	,, ,,	35 min., 3ij	,,	,, ,, ,,
117	,,	F., 39	,, ,,	,, ,,	35 min., 3ijss	,,	,, ,, ,,
118	Nov. 19th	F., 26	Curetting uterus	,, ,,	30 min., 3ij	,,	Twice sick, bilious vomiting, during administration; breathing irregular and shallow; pulse small after.
119	,,	F., 42	,, ,,	,, ,,	30 min., 3iij	,,	No sickness, etc.
120	,,	F., 36	Extension of perineum	,, ,,	1 hour, 3iij, m xl	,,	Bilious vomiting during and retching afterwards.
121	,,	F., 30	Uterine and rectal examination	,, ,,	15 min., 3jss	,,	No sickness, etc.
122	,,	F., 22	Dividing cervix uteri	,, ,,	15 min., 3j	,,	Considerable sickness after.
125	,,	F., 40	Extraction of tooth	,, ,,	10 min., m xx	,,	No sickness, etc.

ment having been given it was decided that the injections of which I write should be tried. Accordingly on July 10th she received the first—2 c.c. She remarked that she felt stronger and experienced a sense of improved spirits, but there was no notable phenomena to be observed. After four injections (August 2nd) she was able to be up for fully two hours; and after ten more (August 24th) she got out of doors. The injections were then discontinued till September 13th. By September 19th (20 injections in all) she was practically able to do without them, though five more were given. On September 27th she left the town for a change to a neighbouring village.

There were thus really two courses of treatment. While during the first larger quantities were given (average 5 c.c.) at larger intervals, improvement was very gradual; during the second course, when the average quantity injected was 3 c.c., and generally once daily, improvement was more marked and rapid. After leaving town the patient's strength rather gave way during the first week, but the following week she was quite herself again and able to go out as usual for short walks. Since coming home she continues to improve. During the treatment she took iron in the form of Blaud's pills, and now takes small doses of cod-liver oil.

The nerve extract I have used is that of M. Paul, prepared from the brain of rabbits by maceration and subsequent filtration according to the process devised by M. d'Arsonval. It is kept in sealed tubes of the capacity of 3 c.c. The best syringe to use is that of M. Debove, which readily admits of sterilisation. Small injections given frequently (3 c.c. daily) seem to have a better effect than larger ones at longer intervals. Twenty injections are probably sufficient for most cases. It may be well after ten injections to stop for a fortnight and watch the effect before continuing the course.

From the first the patient had perfect faith in the treatment and was anxious that it should be tried. Mathieu, amongst others, believes that there is an element of suggestion in the treatment, and proposes the use, instead of the nerve extract, of injections containing sodium phosphate, sodium chloride, neutral glycerine, and water.

It will therefore, be interesting, should an opportunity present itself, to test the effect of this method.

Selkirk, N.B. RUFUS E. EVANS, M.B.

SCARLET FEVER: RELAPSE ON THE SEVENTEENTH DAY.

PRIVATE J. S. was admitted to hospital on October 17th, suffering from scarlet fever. The rash was well marked over the whole of the body, and the throat much congested. His temperature was 103.4°. The disease pursued a normal course; the rash faded on the fourth day, and desquamation commenced on the sixth; large flakes of skin being detached from the hands and feet, and small branny scales from the trunk and limbs. The patient continued to peel freely, and was allowed up for a few hours in the ward every day. His urine never contained any albumen.

On the seventeenth day after his first attack he complained of sore throat, severe headache, and a general feeling of *malaise*. His temperature was found to be 100°. Next morning all his symptoms were aggravated, and his temperature rose to 103°. On the nineteenth day the temperature fell to 102°, and he was found to be covered with a bright scarlet rash. This rash faded on the fourth day; but desquamation did not commence until the ninth. The peeling after the second attack was especially profuse on the backs of the hands, in which situation desquamation after the first attack had already been completed.

The man was treated in a scarlet fever ward with several other cases. He took diaphoretic medicines with chlorate of potash gargles; but no belladonna or other drug that could have caused an erythema.

H. P. JOHNSON, Surgeon-Lieutenant, A.M.S.

Aldershot.

SCARLET FEVER RECURRING IN A SHORT TIME.

AN account of the two following cases will be of interest to those who read the notes of cases of scarlet fever recurring within a short period recorded lately in the BRITISH MEDICAL JOURNAL by Messrs. Barker and Childe.

G. B., aged 10, was attacked with scarlet fever on April 19th, 1893. The patient presented all the usual symptoms clearly marked. His brother, aged about 12, was seized at the same time by the same disease. Both were sent to the fever hospital, and kept there six weeks, till all desquamation was over.

On their removal to the hospital, their home was said to be thoroughly fumigated and disinfected; but as the house was an old and insanitary cottage, infection was probably still lurking in it. On August 19th, exactly four months after the first illness, G. B. was again attacked by scarlet fever, with all the symptoms as distinctly marked as before. He was again removed to the hospital, and discharged in six weeks' time.

O. G., aged 6, was attacked by the same disease on January 13th, 1893, having two brothers in the house already suffering from it. The attack was a very mild one, and desquamation very slight. When all three patients had recovered, the part of the house they had occupied was thoroughly disinfected, whitewashed, and repapered. On August 21st, not six months after his first illness, O. G. was again a sufferer from scarlet fever. This time he had a more severe invasion; the pyrexia was higher and lasted for a longer period; the rash much more copious and general; and desquamation exceedingly free. It was necessary to isolate him for about seven weeks. The disease in this case was, I think, contracted the second time through the patient playing about with other boys from infected houses.

In neither of these cases did the first attack in any way modify the severity of the second.

MAURICE J. DOIDGE, B.A.Cantab., M.R.C.S.

Haverhill.

REPORTS

ON

MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

ROYAL ISLE OF WIGHT INFIRMARY AND COUNTY HOSPITAL.

DIPHTHERIA, TRACHEOTOMY; RECOVERY; FOLLOWED BY SCARLATINA, NEPHRITIS, MASTOIDITIS: COMPLETE RECOVERY.

(By R. A. BAYLISS, M.R.C.S.Eng., L.R.C.P.Lond., late House-Surgeon to the Hospital.)

H. W., a girl aged 6, was admitted into the hospital on March 30th, 1893. She had been ailing for five days with a sore throat. The evening before admission she suddenly became much worse, and had difficulty in breathing. Patches of ashy-grey membrane could be seen on both tonsils, which, as well as the soft palate, were red and congested. There was considerable stridor, the alæ nasi were in active motion, and the lower ribs were drawn in at each inspiratory effort. The temperature was 102.4° F. The urine contained no albumen. The child was at once put to bed and surrounded by a tent, into which a steam kettle played; the throat was ordered to be insufflated every six hours with equal parts of boric acid and sulphur, and a mixture of perchloride of iron, chlorate of potash, and glycerine, to be taken every four hours.

The patient's breathing gradually grew more difficult, and at 4.30 A.M. on March 31st, the child being livid and gasping for breath, I performed tracheotomy, a silver tube being inserted. Though very collapsed after the operation, she soon rallied, and took liquid nourishment well during the day. In the evening, the tube appearing choked, it was removed, cleaned, and reinserted. The temperature was 100 6°. She took nourishment well, her pulse being good, but the cough was exceedingly troublesome, and the tube was therefore removed on April 2nd. On April 4th an india-rubber tube was inserted, and retained until April 10th, when it was removed altogether. After this time she steadily improved. On April 27th, the wound in the neck having quite healed, she got out of bed for the first time, and on May 10th she was discharged.

On May 13th she was readmitted with a well-marked bright scarlatinal rash, the throat covered with greenish-yellow patches, and a typical strawberry tongue. The temperature was 101.6°. Urine contained no albumen. The wound in the neck had broken down. She was ordered iron and chlorate of potash mixture and to gargle frequently.

By May 19th the temperature was normal, and she appeared to be going on well.

On the evening of May 26th, the temperature rose to 100.6°, and the child seemed ill. The urine was dark and bloody, and contained a larger quantity of albumen. For the next few days, the temperature ranged between 100° and 102°, and she passed very little urine, all of which was almost solidified by boiling. About this time she complained of much pain in the region of the left ear, from which, however, there was no discharge. Poultices frequently applied gave her much relief.

By June 10th the temperature had become normal again, the pain in the ear better, and the patient was passing more water, although it still contained a considerable quantity of albumen. The wound in the neck had now quite closed.

On June 21st a fluctuating swelling was noticed behind the left ear over the mastoid process. An incision was made, letting out some thick curdy pus, and bare bone could be felt at the bottom of the wound, which was syringed out and packed with alembroth gauze.

On June 29th, a yellowish discharge from the meatus of the ear was observed for the first time, and examination revealed a perforation of the membrana tympani in its anterior portion. The ear was syringed out daily with carbolic lotion. The albumen in the urine was now becoming less in quantity, and by July 21st had entirely disappeared.

On July 28th a piece of loose bone could be felt in the opening over the mastoid, which was easily removed. The discharge from the meatus had now ceased.

She was discharged on August 17th. The sinus behind the ear had very nearly closed up, and no perforation could be detected in the membrana tympani. On seeing her a fortnight later, the cicatrix behind the ear was quite firm and sound.

Remarks.—The above case appears to me worthy of record on account of the marvellous vitality of the child, which enabled her to withstand two serious illnesses following so closely one on another, the latter being accompanied by such grave complications.

GREAT NORTHERN CENTRAL HOSPITAL.

CIRCUMSCRIBED SUPPURATIVE MENINGITIS FOLLOWING MIDDLE EAR SUPPURATION: TREPHINING: RECOVERY.

(By W. R. H. Stewart, Aural Surgeon to the Hospital, etc.)

J. B., a boy aged 12, was admitted on April 15th, 1893.

History of Illness.—The mother stated that there had been an offensive discharge from the right ear one month before which, after continuing for some days, suddenly ceased. The lad became unconscious, and remained so for two days. He had been in a semi-drowsy condition ever since. He looked pale and ill; was indifferent to everything, but morose and irritable if an attempt was made to rouse him. There was no pain or tenderness behind the ear, and no discharge. The head was slightly retracted, the pupils reacted to light. The pulse was 120, the temperature 99°. The patient was constipated.

He became gradually worse in all the symptoms, and on April 19th he was in the following condition:—The head is greatly retracted, the occiput touching the back, and is rigidly fixed in this position; he lies in a semi-conscious condition, and is with difficulty made to take nourishment, pupils dilated, but equal; no optic neuritis; knee-jerk and ankle clonus present.

Operation.—After consultation with my colleague, Dr. Beevor, I decided to explore the cerebellar region without further loss of time. Under chloroform a semi-circular flap of all the soft tissues was dissected forwards, and a crown of bone ¾ inch in diameter removed from a spot 2 inches behind the centre of the external meatus, and 1 inch below Reid's base line. There was no protrusion of the membranes. A small incision was then made in the dura mater, from which ʒj to ʒij of sweet pus escaped. The cavity was washed out with a warm boric acid solution, a drainage tube inserted, and the wound closed. A separate incision was then made close behind the auricle, and the mastoid antrum opened with a gouge. It was found full of offensive caseous pus, and had bare and partially carious walls. It was well washed out and scraped with a sharp spoon, and a drainage tube inserted. Both wounds were dressed with blue gauze and wool. The patient remained under the influence of the anæsthetic for some hours, but was not sick. The pulse was 130, the temperature 100° F.

After-History.—There was a good deal of difficulty in overcoming the constipation, otherwise the lad made an uninterrupted recovery, leaving in about three weeks for a convalescent home. I saw him again on November 9th, and he was then quite well.

Remarks.—The case well illustrates the good results of early operation in these cases, and I think by making a separate incision for opening and irrigating the foul mastoid antrum the quick healing of the wounds was materially assisted. The pus was in rather an unusual place, for in circumscribed meningitis it is generally found over the roof of the tympanic cavity, or under the squamous portion of the temporal bone.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

W. S. Church, M.D., F.R.C.P., Vice-President, in the Chair.

Tuesday, December 12th, 1893.

Arthrectomy of Elbow and Ankle Joints.

Mr. H. H. Clutton read this paper. He advocated arthrectomy of the elbow-joint as an early operation in place of a late excision. If the cartilages were not extensively diseased a movable joint might be anticipated. This had been obtained in all the cases in which it was expected without any passive movement, which was not employed in any of the cases. Nine cases were recorded, which represented the writer's entire experience of arthrectomy as applied to the elbow-joint. The first two became ankylosed for reasons stated in the history of each case, but obtained very serviceable arms. Six resulted in more or less movement in the elbow-joint with cessation of the disease. The ninth and last case was subsequently excised. The opinion was expressed that passive movement was not now desirable if the wound followed an aseptic course; that mobility would be established by the patient's own efforts if it were to be obtained at all: and that excision might follow at a later date if required. Every ankle-joint since 1887 which had required operative treatment at the writer's hands had been submitted to arthrectomy. They were six in number: (1) boy, aged 9, 1887; now standing and walking thirteen hours a day as a hosier's assistant. (2) boy, aged 3, 1887; followed by scarlet fever and lost sight of. (3) boy, aged 7, 1889; now walking without lameness, and with some movement in ankle or tarsal joints. (4) girl, aged 2, 1889; last seen June, 1890, when the wounds were healed and the foot free from disease. (5) girl, aged 6, 1890; now walking without lameness and with some movement in ankle. (6) girl, aged 6, 1890; now walking, but with some slight displacement of foot; no disease. Two other cases of partial operation were mentioned. The important point in treatment appeared to be the use of a knee-rest for a least a year after operation. In the writer's opinion, an effort should always be made to preserve the foot, whenever an operation was imperatively needed, for an amputation can still be done if the first operation is unsuccessful.

Mr. Arbuthnot Lane said that, in reference to children, at the present day excision of joints for tuberculous disease was quite unnecessary, as erasion was perfectly satisfactory. In such cases he was careful to remove all diseased tissue and to drain and apply firm pressure over the joint for twenty-four hours. If bones were diseased, he removed the diseased parts and plugged the hole with iodoform. In very extensive wounds he filled the cavity with sulphur, reopened it after

twenty-four hours to remove the sloughs caused by the presence of the sulphur, and then fixed up the parts for a long period. Cases so treated had done exceedingly well. He contended that his method of making a transverse incision across the front of the ankle-joint was not needlessly severe, as the various tendons, etc., could always be sewn together again. Recently he had given up dividing the tendo Achillis, as he found that he could get sufficient room without.

Mr. Bowlby had found that even where there was very extensive disease of the tarsus erasion proved perfectly satisfactory. He agreed that it was necessary to prevent a child from walking after the operation for about a year, and found that this was best managed by the use of a patten to the other foot or of a knee-peg. He asked Mr. Clutton why he had not advocated attacking the tarsal bones.

Mr. Keetley preferred a semicircular incision round the internal malleolus and a longitudinal one over the external malleolus. It was of the utmost importance to be able to see the parts as well as to feel them, in order to be sure of removing entirely the diseased portion. He had been successful with adults as well as with children. He entirely agreed with Mr. Clutton that any attempt to obtain mobility was absolutely wrong. He found that fixation in plaster-of-paris for about four months after the operation was a sufficiently long time. He attributed the great success of modern practice in relation to joint diseases to be due to the use of iodoform.

Mr. A. E. Barker agreed with Mr. Clutton that longitudinal incisions gave ample room for attacking the ankle-joint, provided that they extended far enough. He had been surprised how little deformity and impairment of function resulted from removal of the astragalus. The whole question was one of complete removal of the disease. He agreed with Mr. Keetley as to the value of iodoform, and also that knee-pins for so long as a year were unnecessary, crutches and plaster-of-paris cases for shorter periods being quite sufficient.

Mr. Watson Cheyne said the only criticism he would make on Mr. Clutton's paper was that in some of the cases a second and third operation had been found necessary, showing that the removal of the disease had not been complete at the first operation, and he suggested that this was due to the imperfect method of using too small incisions. Scraping was not sufficient to clear away diseased synovial membrane, and it was absolutely necessary to remove it by cutting it away. By longitudinal incisions he found that he could get away all the diseased synovial membrane from either ankle- or elbow-joint.

Mr. Clutton, in reply, agreed with Mr. Lane that arthrectomy ought to replace excision; and also with Mr. Keetley, that the term "arthrectomy" was an inappropriate one. During this year he had twice tried Mr. Lane's incision for the ankle, but thought that he had been able to get equally satisfactory results by his own plan of multiple incision, which had the advantage of not dividing all the structures in front of the ankle-joint. The second and third operations to which Mr. Watson Cheyne had referred were on the elbow, not on the ankle. In only one case had he had to operate on an ankle a second time, and then he had to remove both astragalus and os calcis, which placed the case outside his present category. With reference to Mr. Bowlby's question, he had frequently attacked satisfactorily the tarsus in the way mentioned, but his paper was intentionally confined to cases of disease of the ankle and elbow joints, as he wished particularly to bring forward the fact that Syme's amputation and excision of the ankle-joint were not necessary. The method of making incisions was of very little importance, provided that the disease was entirely removed, and, so far as iodoform was concerned, he never used it, which showed that, provided the operation was aseptically and thoroughly done, the method pursued did not much signify. He was especially desirous of insisting that passive movements were absolutely unnecessary on account of the useless suffering which they entailed. He had not found it necessary to excise the astragalus to get at the ankle-joint. Knee-pegs he considered better than crutches and plaster-of-paris, as the patients' parents looked on the former as apparatus which should only be touched by the surgeon, whereas they often took upon themselves the removal of a plaster case and crutches were thrown away.

CLINICAL SOCIETY OF LONDON.

J. W. Hulke, F.R.C.S., F.R.S., President, in the Chair.

Friday, December 8th, 1893.

Osteo-Arthritis with Subcutaneous Nodules.

Dr. Newton Pitt related four cases. In one there was also extensive fibrinous exudation with peripheral asphyxia. Attention was drawn to references, scattered through recent medical literature, of cases of osteo-arthritis with subcutaneous nodules, occurring independently of acute rheumatism, and cases of extensive fibro-gelatinous deposits. Nodules were characterised by the presence of organising connective tissue, with evidence of irritation as shown by cell infiltration extending for some distance around, and by the presence of endarteritis in the neighbouring arterioles. The widespread existence of such a condition sufficiently accounted for the peripheral asphyxia. The following conclusions were formulated. Fibroid nodules might occur in connection with osteo-arthritis. They presented the same physical characters, and probably similar microscopical structure to those found with acute rheumatism in children, but they differed in the following points: 1. They occurred in adults. 2. They were much more chronic, and lasted for months or years. 3. They were at times extremely painful and tender, and the painful state might recur time after time. 4. They were unassociated with any cardiac lesion. 5. They might be of the size of small shot, but occasionally might measure up to an inch in diameter.

Dr. Ord said these nodules had been noticed in cases of acute rheumatism, but one might well ask, What is acute rheumatism and what the rheumatic diathesis? The nodules varied greatly in hardness, vascularity, tenderness, and size, perhaps in correspondence with their varying etiology. Might not erythema nodosum be a step beyond the large soft nodules? It was often associated with the rheumatic diathesis. He had recently seen a case of acute rheumatism where the joint affection and the nodules were developed together; this was contrary to the usual condition, for they generally alternated. Often when there were nodules there was great disturbance of the circulation, coupled with asphyxia, of the hands and feet, as seen by Dr. Pitt. Possibly these changes might be found eventually to be associated with the changes found in those parts in Raynaud's disease.

Dr. Hector Mackenzie had recently seen a man, aged 45, in St. Thomas's Hospital who had suffered from a disease indistinguishable from acute rheumatoid arthritis. Nodules developed nearly all over the scalp and body, especially at the joints and in the sheath of the rectus abdominis. After death the same condition was found in the pericardium, mitral valve, and in the kidney. He had had four attacks of acute rheumatism early in life.

Dr. A. Garrod said that in rheumatic patients up to the age of 25 rheumatic nodules occurred; after that age they were very rare. The nodules of osteo-arthritis were more permanent and more tender than the rheumatic nodules of children. The differences probably showed that the causes in the two kinds of cases were various also. He would rather forsake the idea that nodules were pathognomonic of acute rheumatism than that acute rheumatism and osteo-arthritis were distinct morbid processes.

Mr. Parker asked if the nodules examined microscopically were removed during life from the patient.

Dr. Pitt, in reply, said that his position was that nodules were not pathognomonic of true rheumatism. The sections he had described were taken from nodules removed during life.

Recurrent Venous Thrombosis.

Dr. Handford (Nottingham) described the case of a man, aged 37, who in two years had suffered from nearly thirty separate attacks of thrombosis of the veins of the legs and lower part of the abdomen. He had syphilis several years ago, and two attacks of orchitis recently, but no other severe illness. There was no suspicion of gout, and no evidence of arterio-sclerosis or of phlebo-sclerosis. He benefited most by mercury and iodide of potassium. As to the cause of the persistent recurrence, Dr. Handford made the following suggestions: 1. The primary attack was due to exposure following on starvation and anæmia; and the subsequent

ones to venous stagnation, owing to the calibre of the main venous trunks not being re-established. If this were a correct explanation, thrombosis should be much more frequent after phlegmasia dolens and in varicose veins than it really was. 2. Or that the thrombosis was due to the syphilitic poison. 3. Or that during the primary attack the lymph channels were blocked as well as the main veins, and subsequently the lymph and waste products were taken up directly by the venous radicles. The late Dr. Wooldridge showed that the injection of lymph or chyle into the blood was followed by intravascular clotting.

Mr. W. G. Spencer referred to Dr. Wooldridge's experiments with tissue albumen obtained from the testes, which, when injected into the blood vessels produced multiple coagula. Dr. Handford's patient, he would remark, had disease of the testicle. In this case probably some material due to the breaking down of cells caused the coagulation. Further, when tissue fibrinogen was injected into the blood coagulation was rendered much more rapid by slowing or stoppage of the blood current. This material had been called nucleo-albumen by Dr. Halliburton.

Remarks were also made by Dr. Herringham; and Dr. Handford replied.

Endemic Hæmaturia Due to Bilharzia.

Dr. Handford (Nottingham) said that more than four years had elapsed since the last report of this case. The patient was robust and in good health, but still passed a little blood occasionally at the end of micturition, and the ova of the bilharzia hæmatobia were still to be found in small numbers, and containing living embryos. He had spent the last four years chiefly in England, but partly in the northern portions of the United States of America, where, according to Osler, the bilharzia was not found. There was, therefore, no possibility of reinfection, since he left the Cape eight years ago. Consequently, unless reproduction of the parasite takes place within the body without the intervention of any intermediate host, the adult parasites must now have reached the age of over eight years. Either the duration of life of the parasite was much greater than was supposed, or direct reproduction must sometimes occur without the intervention of an intermediate host.

Empyema in a Man with Complete and Permanent Collapse of the Lung.

Mr. Spencer described the case of a man, aged 36, in whom the whole left pleural cavity had become involved in an empyema. The measures adopted produced such an improvement that the man lived nearly a year. At first a free opening was made by removing ribs from the seventh to the eleventh, and a month later from the third to the sixth, followed by the injection of iodoform emulsion daily. He mended so much as to be able to walk out of doors for two hours, but in four months the progress came to a standstill on account of the profuse discharge. Six months after the first operation the ribs and pleura were removed from the second to the eleventh ribs, in front along a line just outside the cartilages, externally, and behind as far as could be reached by retracting the scapula, and below the scapula to within one or two inches of the transverse processes of the vertebræ. The cavity was then filled daily with cyanide gauze steeped in iodoform emulsion, by which means the purulent discharge was reduced to a very small amount. The patient could again walk in the open air, and went to a convalescent home. There, during the hot weather, he was suddenly attacked by fatal diarrhœa. The cavity had been reduced to much less than half the opposite pleural cavity. But the remaining parts of the ribs covered by the scapula and its muscles stood rigidly out from the spine, not having sunk downwards and inwards as in the young. During all the course of the case the heart could be seen and touched, hanging almost unsupported in the middle of the thorax.

Mr. Gould said it was rarely necessary to open the pleural cavity so low as below the eleventh rib. The ribs might be removed by one long vertical incision made from below upwards. The ribs, as many as seemed necessary, might be removed through it; or the pleura might be opened and the ribs then removed. He believed chloroform to be safer than nitrous oxide gas and ether, and very little chloroform was usually required. In his last case he left the thickened parietal pleura, and it had been his most successful case. He had left the thickened parietal pleura, and let it fall against the visceral pleura, thus adhesions could early form between the two. He thought this a better plan than that of stuffing the cavity.

After some remarks from Mr. Bowlby, Dr. Burney Yeo asked whether cardiac or respiratory troubles had persisted after the operation in Mr. Gould's cases.

Mr. Gould replied that he had operated on some of his cases as long as five years ago. The patient, who was at that time very feeble, was growing satisfactorily when recently seen by Mr. Gould.

Mr. Spencer, in reply, said he should have preferred to do the operation once and for all, but the extreme feebleness of his patient precluded the possibility. The lung was absolutely carnefied. His reason for opening the pleura at the eleventh rib was because an incision had already been made there. The diaphragm was also saucer-shaped there instead of convex. He made an incision across the ribs, but did not turn up any flap; he merely retracted the edges of the incision. The heart kept coming up into the wound, so that he could observe the cardiac contraction, and he thought Harvey's saying that the heart erected itself in systole was very accurate.

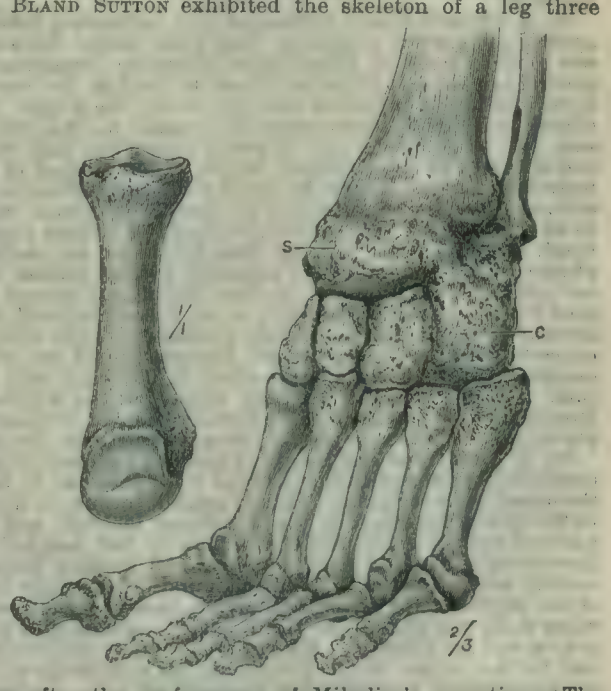
MEDICAL SOCIETY OF LONDON.

Frederick Treves, F.R.C.S., Vice-President, in the Chair.

Monday, December 11th, 1893.

The Anatomical Results of Mikulicz's Operation.

Mr. Bland Sutton exhibited the skeleton of a leg three



years after the performance of Mikulicz's operation. The patient, a girl aged 18, had been lame since infancy on account of infantile paralysis, and in June, 1890, Sir W. Mac Cormac endeavoured to make the defective leg effective by producing an artificial *pes equinus* on the plan laid down by Mikulicz. An examination of the specimen shows that the intention of the surgeon has been anatomically fulfilled, the freshened surfaces of the scaphoid and cuboid having firmly ankylosed to the cut surfaces of the tibia and fibula. The disposition of the toes is interesting, for, instead of lying in the same plane as the metartarsals, they lie at right angles to them, and the first phalanges have fashioned for themselves new articular facets on the dorsal aspects of the heads of the metatarsals. In order to render this clear in the drawing the first metatarsal is sketched separately and of natural size.

In spite of the success of the operation the foot was of little service in progression, as it caused the girl much pain and inconvenience, and the skill of the surgical mechanician being unavailing, Mr. Sutton removed the leg, September, 1893, by amputating through the knee-joint. The specimen was, he believed, the only skeleton of a leg after Mikulicz's operation existing in London.

Mr. C. B. Keetley showed a lad who came to him with an extensive crush of the foot, involving the tissues of the heel and instep, too severe for a Mikulicz-Wladimiroff's operation. The anterior tibial vessels, etc., were destroyed, so he sawed off the bones just above the ankle, as for a Syme's, and as the skin of the heel could not be utilised he took a long flap of the skin of the sole of the foot comprising the plantar vessels and nerves. This he placed in apposition with the sawn ends of the bone, thus providing an excellent cushion for the stump of what he called a "plastic amputation." At first the redundant tissue made a lump the size of an orange behind, but this had been absorbed, and now everyone took it to be the stump of a Syme's operation.

Should Operations on Pelvic Organs be Performed by Gynæcologists?

Dr. Herbert Spencer read a paper, published in full at p. 1315.

After some remarks by Surgeon-Major Black,

Dr. Routh deprecated the author's attack on special hospitals, which he asserted had been the pioneers in respect of ovariotomy. The great principle of antiseptics had, he admitted, been introduced by a general surgeon, but nowhere was it so scrupulously applied as in the special hospitals.

Mr. A. Pearce Gould deprecated any comparison between special and general hospitals. The point under discussion was to which class of practitioners, obstetric physicians or general surgeons, it would be wisest to confide the care of these cases. He expressed the opinion that the greater part of the merit for the advancement of science in this respect was due to the surgeon, for it was to antiseptics that Wells and others owed their brilliant results. In no region of the body was there more room for errors of diagnosis than in the abdomen. Men who undertook to open the abdomen ought to be able to deal with whatever condition might present itself. Nothing could be more absurd than for an obstetric physician on finding that the supposed ovarian tumour was, for example, a renal tumour, to have to call in a general surgeon to complete the operation; or, on the other hand, for a general surgeon to hand the knife and forceps to his obstetrical colleague if a suspected renal tumour turned out to be ovarian. Yet that would be the effect of any hard and fast rule. He suggested that the plan adopted at the Middlesex Hospital of allowing each man, whether surgeon or obstetric physician, to operate on his own cases, was, perhaps, the best.

Dr. W. Duncan referred to two cases in which he had been compelled by the extensive nature of the adhesions to leave the operation incomplete. He had tapped, sewing the wound in the cyst to the edges of the abdominal incision, and the patients had recovered perfectly. Since he had adopted the precaution of boiling his silk ligatures and keeping them in carbolic acid he had not had any suppuration along the track of the stitches. He advocated giving plenty of hot water when there was sickness or retching after operation in order to clear out the stomach, He preferred to take the temperature in the mouth or in the vagina, but a moderate rise of temperature did not alarm him provided the pulse remained below 100. He deprecated the division of the ovarian cases among so many practitioners because that reduced the experience of each man. The practice of the obstetric physician and gynæcologist was essentially surgical and they ought rather to be called obstetric surgeons.

Mr. Harrison Cripps said it was idle to hope to unite the mental qualities of the physician with those that characterised the surgeon. Men who took upon themselves to open the abdomen ought in any case to be prepared to deal with whatever might turn up in the best possible manner. He suggested that there was room for a division of labour among obstetric physicians, for it would be to the advantage of certain patients to have the opinion of men who were not addicted to opening the abdomen.

Dr. Playfair said that the more gynæcology advanced the more surgical it became, and it was ridiculous to think that gynæcologists should deal with certain abdominal conditions only from below, and be limited in their range by the brim of the pelvis. He could not understand how such an old Tory view could have obtained. So disastrous had been the results of ovariotomy at the hands of general surgeons thirty years ago, when he joined King's College Hospital, that he used to send all his cases to the Samaritan Hospital. The improvements were due entirely to the application of Listerian principles, and when this became general they commenced operating at King's College with the best results. He pointed out that every man in the profession ought to be left to do what he felt himself best fitted for. This was the only country in which any arbitrary limitation existed. Sir Andrew Clark, some weeks before his lamented death, had observed to him that he quite agreed that obstetric physicians should perform all operations appertaining to their department. He used to have hernial protrusion after operation when he employed the deep and superficial sutures, but since he had adopted the plan of uniting the various planes of tissues by means of four rows of sutures he had not heard of a single hernial protrusion.

Dr. Spencer, in reply, said that hernial protrusions had to be inquired for, and he suggested that if Dr. Playfair would do this he might find that there had not been the freedom from hernia that he supposed. He repudiated any intention of attacking special hospitals. His purpose was to prove that these operations might advantageously be left to the obstetric physicians.

OBSTETRICAL SOCIETY OF LONDON.

G. E. Herman, M.B.Lond., F.R.C.P., President, in the Chair.

Wednesday, December 6th, 1893.

Specimens.

The following specimens were shown: Dr. W. Duncan: Fibrocystic Uterus Removed by Hysterectomy.—Dr. H. Spencer: (1) Transfusion Apparatus; (2) Saturated Solution of Salt in Hermetically Sealed Tubes (for Transfusion).—Dr. Horrocks: Transfusion Apparatus.—Dr. Leith Napier: Dermoid Cyst of Ovary.

Intravenous Injection of Saline Solution in Cases of Severe Hæmorrhage.

A paper on this subject was read by Dr. P. Horrocks. After pointing out that transfusion had been performed for centuries, the author mentioned experiments that had been made abroad and in England to show that an injection of saline solution into the veins of an animal bled to apparent death, would revive it and that recovery would take place. The late Dr. Wooldridge had done this and had found it best to inject as much saline fluid as blood lost. The following propositions were then laid down: 1. When a person is dead from rapid hæmorrhage there is still in the body sufficient blood to carry on life if it can be circulated. 2. Theoretically half the volume of blood could do the same work if it was given double the velocity. 3. Death from hæmorrhage is due to failure of the heart, and this is due to want of expansion, owing to the fall in the blood pressure. 4. This blood pressure can be raised if as much fluid be transfused as there has been blood lost. Details were given of six cases in which the patients had lost blood to such an extent as to become blanched to the lips and pulseless at the wrist. Saline fluid was injected, with the result that four recovered. A seventh case was mentioned in which consent to an operation could not be obtained for several hours; the patient died just as she arrived at the hospital. Transfusion of six pints was done, but with no effect. Details of the method of injecting the fluid by means of the apparatus exhibited by the author last year at the Obstetrical Society were given. He summed up his conclusions as follows: 1. Transfusion of blood is useless and probably injurious. 2. Water, with or without salt, should always be used. 3. Amount injected should equal as far as possible amount lost. 4. Enough should be injected to make pulse felt at wrist. 5. The worst cases require six pints. 6. No patient should be allowed to die from severe hæmorrhage without an attempt being

made to save life by transfusion. 7. In less severe forms of hæmorrhage, where the patient is in a low condition, but not pulseless, injections of 2 to 5 pints of saline fluid should be given to avoid secondary syncope. 8. In the more moderate cases each one must be judged on its merits, but when in doubt it is better to inject. Many of these, however, would rally by copious watery injections into the cellular tissue between the shoulders and other parts and into the rectum.

Dr. Routh was surprised the author had not referred to a Committee on Transfusion appointed during the early days of the Obstetrical Society. As one of the members of that Committee, he could say the inquiry was very exhaustive, and brought out some most interesting facts; one was that the injection of a potash salt was invariably fatal, so that in speaking of saline injection it was necessary to state precisely the quantity and quality of salt employed. The author had said transfusion of blood was always fatal, but Dr. Routh had collected every case of transfusion he could find in medical works (48) in which it had been tried and the mortality was only 1 in 8½. Another paper on transfusion was read and ably discussed at the Royal Medical and Chirurgical Society. Neither was any reference made to Sir B. W. Richardson's experiments on the injection of warm water in the veins of dogs previously bled. He thought it a pity the author should have almost limited himself to quoting foreigners, neglecting English authors.

Dr. Heywood Smith asked why in three cases of abdominal section, after the bleeding had been arrested the author thought it necessary to use a drainage tube.

Dr. Herbert Spencer drew attention to a paper he had published in the *Lancet*, June 11th and 18th, 1892, upon intravenous injection of normal salt solution for the grave hæmorrhage of midwifery. He thought the injection bottle there described was the best for the purpose. In the absence of this bottle, which should always be used in public institutions, an excellent substitute could be made with a jug and a piece of rubber tubing held in the jug by a clip, which he now exhibited. He agreed with the author that no patient should be allowed to die of hæmorrhage without saline transfusion having been performed. He thought it best to pass three ligatures under the vein as described in his paper, also to fix the arm on a back splint in order to prevent suppuration. He thought the rate of injection employed by Dr. Horrocks much too rapid, for he (Dr. Spencer) had seen venous pulsation from over-distension of the heart when the fluid was injected at one-third the rate. He asked on what physiologist's authority Dr. Horrocks advocated plain water for injection? He used "normal saline solution," and showed sterilised sealed glass tubes containing 2 drachms of sodium chloride in solution, which could always be carried in the bag. He thought the fluid should be injected at the body temperature; too cold water, and probably too hot also, was known to produce fatal syncope. He asked the author if hæmoglobinuria had been observed in any of his cases. Personally, he had not found it necessary to inject more than 3 or 4 pints; usually 2 were sufficient.

The President agreed that the transfusion of blood was dangerous and ineffective. A case was published by Mr. W. Coates,[1] in which water was injected, with good result. He thought the injection of the blood of lower animals or of milk should be absolutely rejected. If the intravenous injection of water or saline fluid was to be of extended practical use, the method must be simple and easy. Careful measurement of the strength of the saline solution, although desirable, was not absolutely necessary. A teaspoonful of salt in a pint of water was quite near enough. Nor was it necessary to have the fluid of the exact temperature of the body. So long as the temperature was between 90 and 100, or even 80 or 100, he did not think it mattered much what the precise heat was. It was no doubt desirable that the water should be sterilised, but the chances were millions to one against clean water from the tap containing germs which the leucocytes could not devour, and if exactness as to temperature, strength, and quantity of solution and sterilisation were insisted on, the utility of this mode of treatment would be restricted.

After some remarks from Dr. Lewers, Dr. Hayes, and Mr. Whitcombe,

Dr. Horrocks, in reply, said he had not time to look up all the literature of the subject, but he pointed out that the textbooks still recommended the transfusion of blood. Moreover, the quantity of fluid injected was so different. A few ounces were of no avail; it was quantity that was required. He entirely disagreed with Dr. Spencer that the rate of injection was too quick. As a matter of fact the circulation itself was so rapid that a pint in four minutes was not too fast. His authority for saying plain water would do was that of the late Dr. Wooldridge. He had, however, always preferred a solution containing a drachm of salt to a pint of water. He thought the question of collapse very important, for the greater it was the less the chance of recovery by saline solution, that is, if the pulselessness were due to hæmorrhage, saline injection would save more certainly than if due to collapse. He had pointed out in the paper that many cases of operation where much blood was lost died within twenty-four hours, and he believed that at least some of those would be saved by a timely saline transfusion, so that if at the end of a serious operation a patient was found to be dangerously blanched, even though not pulseless, he should recommend an intravenous injection of 2 to 5 pints of saline solution in order to avoid this secondary collapse.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

W. T. G. Woodforde, M.D., President, in the Chair.

Monday, November 20th, 1893.

President's Address.

The President delivered his inaugural address, taking for his subject the Local Government Bill now before Parliament. The Local Government Act (1888) (England and Wales) established county councils. The present Bill created councils also in every parish having a population of 200, and parish meetings in all. Though the district council would be the sanitary authority considerable powers were vested in the parish council, including several of a sanitary nature. Since all nominated or *ex-officio* members would be abolished, it would be well to consider what means, if any, might be suggested to prevent the abuses likely to follow this transfer of power to a lower and less educated grade of society. Specific powers were conferred on the parish councils to utilise local water supplies, and to drain or cleanse offensive and stagnant waters. The relations between the future district councils and the boards of guardians, both of whom were to be wholly elective, were not clearly expressed, but the powers enjoyed by the present sanitary authorities, except in boroughs, would devolve on the district councils, though they might delegate some of them to the parish councils. It was a remarkable feature of the Bill that the medical officer of health was not even once mentioned, while some of the amendments if they became law might seriously affect the position of these officers. It was indeed proposed that, as originally recommended by Lord Playfair, the medical officers of health should become officers to the county council, and if by this means their number could be reduced to some two or three hundred with adequate salaries and debarred from medical practice, the efficiency of the service would be greatly increased. In that case, however, they must enjoy the like security of tenure and claim to compensation that a solicitor had when, by accepting the post of clerk to a board, he gave up the practice of his profession. At present the position of the medical officer of health, unless appointed under Section 18 of the Local Government Act of 1888, or Section 106 of the Public Health (London) Act was most unsatisfactory. A return made in 1888 showed that 112 were absolutely at the mercy of their boards, more than 1,000 were appointed from year to year, 230 had a tenure of from two to five years, and only 45, including but one officer to a large combined district, devoting his whole time to the duties of his office, were permanently appointed; while as to salaries of those engaged in private practice, 10 received less than £5, nearly 900 less than £50, 358 between £50 and £100. 275 from £100 to £200, and only 25 had salaries exceeding £200.

A Russian manufacturer, Mr. Alfred Nobel, has given 10,000 roubles (£1,000) to the St. Petersburg Institute of Experimental Medicine.

[1] *Lancet*, 1882

WEST KENT MEDICO-CHIRURGICAL SOCIETY.

John MacGavin, L.R.C.P.and S.Edin., President, in the Chair.

Friday, December 1st, 1893.

Clinical Evening.

Cases and Specimens.

Dr. Prior Purvis read notes of and showed Microscopical Section from a case of Extensive Sarcomatous Infiltration of Posterior Wall of Bladder.—Dr. Ezard read notes of a case of Rhinolith, and showed the specimen.—Dr. Henry showed a woman in whom Myxœdema had been cured by Thyroid Extract. (The case was reported at length in the British Medical Journal of April 8th, 1893, p. 737.)—The President read notes of a case of Uterine Polypus, and showed the specimen.—Mr. Thomas Moore showed a specimen of Gangrenous Bowel from a Strangulated Femoral Hernia.—Mr. John Poland showed (1) Tuberculous Epididymitis of Child, (2) Amputation through Knee-joint, (3) Complete Necrosis of Astragalus.—Dr. Patrick Scott showed the Kidneys, Liver, Heart, and Spleen from a patient who died from Contracted Granular Kidney.—Mr. Rock showed (1) Tuberculous Abscess of both Apices of Lung healed in one, (2) Suppurative Phlebitis of Internal Iliac Vein.—Dr. W. P. Purvis showed several Microscopical Sections exhibiting Cell Inclusion in Carcinoma.—Dr. Ernest Clarke read notes and showed Section of Pseudo-Glioma of Eye of Child aged 4.

MIDLAND MEDICAL SOCIETY.

A. H. Evans, M.R.C.S., President, in the Chair.

Wednesday, November 22nd, 1893.

Specimens.

Mr. Lawson Tait showed: 1. A Uterus removed by vaginal hysterectomy from a woman in whom removal of the uterine appendages some nine months previously for double pyosalpynx had failed to give relief. The operation was successful, and the patient practically cured. 2. A Uterus, with large Multiple Fibromyomata, removed during the third month of pregnancy by a modified Porro's operation. The patient made a good recovery. 3. A specimen from a case of Interstitial Pregnancy, which proved fatal from rupture and intra-abdominal hæmorrhage.—Mr. Barling showed a Stenosed and Inflamed Appendix which he had removed from a patient of Dr. Simon, which had set up a fatal suppurative peritonitis. The patient was a girl, aged 14. For two days she appeared to be on the road to rapid recovery, but she died on the fourth day after operation. Subsequent to the removal of the appendix there was neither vomiting, distension, nor rigidity of the abdomen, and death was attributed to septicæmia. At the necropsy, however, purulent peritonitis was found. The cæcum was healthy. The appendix at its distal part was much thickened, but did not contain either fluid or concretion. Mr. Barling also showed another specimen of Acute Appendicitis, with perforation by a fæcal concretion. The patient (a young man) was admitted with severe purulent peritonitis. There was no cause evident; and though the abdomen was drained and washed out the patient died three days later. Six months previously the patient had been operated on by Mr. Barling for peritonitis, the cause of which could not be discovered, and apparent complete restoration to health had resulted, the cæcal region being free from thickening. At the necropsy a recent perforation of the appendix by a fæcal concretion was discovered, and old adhesions from some previous inflammation. A second fæcal concretion was found free in the appendix. The cæcum was healthy, though there were adhesions around it, and its communication with the appendix was patent.—Dr. Foxwell exhibited two specimens of Fibrosis of the Lung. In the first the patient, a needle grinder, had exhibited symptoms of dyspnœa with purulent bronchitis for two years. The other lung was from a man who died from a great dilatation of all four cardiac cavities due to syphilitic myocarditis.

Case.

Mr. L. Freer showed a boy, the subject of Relapsing Talipes Equino-Varus of the Right Foot, which he had cured by multiple tenotomies.

Paper.

Mr. Lawson Tait read a paper on a General Summary of Conclusions from his Entire Experience in Abdominal and Pelvic Surgery—about 4,000 cases.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Obstetrics.

Andrew J. Horne, F.R.C.P.I., President, in the Chair.

Friday, November 24th, 1893.

Exhibits.

The President exhibited (1) a Large Ovarian Cyst removed from a patient who had been the mother of several children. Although there was no complaint of pain, of vomiting, or of sickness, still the cyst was closely adherent to the abdominal wall, and the adhesions were broken down with considerable difficulty. The patient now enjoyed capital health. (2) A Myoma removed from a patient of middle age. The patient gradually sank and died on the eighth day. There was no vomiting and no diarrhœa, and he was still at a loss to account for the untoward ending of the case. In reply to Dr. F. Kidd, the President said no *post-mortem* examination was made.—Mr. M'Ardle exhibited (1) a Simple Ovarian Cyst removed ten days ago, and the patient was now quite well. (2) A Femoral Hernia containing an Ovary. The symptoms were those of a strangulated femoral hernia. When he cut down on it the sac came off entire and the tumour was left as a smooth mass. Then for the first time it struck him that the tumour was an ovary. He then took away the tumour, closed the opening in the sac and closed the femoral ring. He held that he was justified in depriving this girl of an ovary, because the opening was so small that he could not return it. (3) A Sac Removed in the Cure of Ventral Hernia following Laparotomy. Remarks were made by the President, Mr. Tobin, Dr. A. J. Smith, Dr. More Madden, and Dr. Atthill.—Dr. A. J. Smith exhibited Two Specimens of Ovarian Cyst. (1) Simple, from a girl, aged 17, who made a good recovery. (2) From a woman, married eleven years with no family. On abdominal section an ordinary ovarian tumour was found, and on pulling out the cyst he noticed that the Fallopian tube was distended into little sacculations quite distinct, and the tube was so patulous that the sound could be passed through it.—Dr. Horne said that they found that the sacculations contained little collections of pus. The point of interest was the extreme patency of the Fallopian tube, and the presence of these little sacs of pus, with intervals between the saccules of normal tissue. The patient was now three weeks without a rise of temperature.

President's Address.

The President delivered the opening address, in which he briefly reviewed the history of the study of medicine and surgery in Ireland from a remote date, noting the fact that there was historical evidence of medicine having been studied and practised here more than a hundred years B.C. He dealt more in detail with the rise of the Dublin School of Midwifery and Gynæcology, and the establishment of the Rotunda Hospital in 1745. He alluded to names and writings of the many distinguished obstetricians who have since flourished in this country. The dates of the foundation of most of the British lying-in hospitals were mentioned, and also the fact that, so late as 1854, Mr. Guthrie informed a Committee of the House of Commons that "no instruction was given to midwives in England."

Ventral Hernia.

Mr. M'Ardle read a paper on ventral hernia. He brought forward three cases of ventral hernia, detailing the course followed by them after the radical operation. One of them followed a laparotomy for abdominal tumour, and was very extensive. Want of union of the mid-stratum, made up of the elastic fascia of Scarpa and the aponeurosis—formed by the fusion of the tendons of the extern oblique, internal oblique, and transversalis—was the only pathological condition present in all these cases. The causes of want of union of this essential layer of the abdomen were placed in order of importance as follows: (1) Failure to engage the different layers of this stratum sufficiently in suture; (2) interposition of contused peritoneum; (3) hæmatoma not becoming soundly

organised; (4) suppuration from inherent or extrinsic causes. The remedy for this was to suture the abdomen in all laparotomies as was done for hernias, to obliterate all cavities in which blood or serum could collect, and to avoid contusing the peritoneum by using catch forceps with sharp points. Mr. M'Ardle then exhibited the sac of an inguinal hernia, in which the wires used in efforts at radical cure were embedded in the anterior wall of the sac, and allowed free descent of the bowel behind. This specimen, Mr. M'Ardle thought, should be a warning to advocates of the blind operation of subcutaneous wiring for any variety of hernia.

After some remarks from Dr. A. J. Smith, the further discussion of Mr. M'Ardle's paper was postponed.

Section of Pathology.

J. A. Scott, M.D., President, in the Chair.

Friday, December 1st, 1893.

Hydrocephalus.

Dr. O'Carroll showed a hydrocephalic brain taken from a boy, aged 13, who had died suddenly after a week of illness, of which the most prominent symptoms were morning vomiting and headache. No cause for the sudden death could be found. The hydrocephalus had existed from about the ninth month after birth. The anatomical cause of the hydrocephalus seemed to be an abnormally thick (4 mm.) and perfectly imperforate inferior medulla velum, which bound the medulla closely to the cerebellum.

Urinary Organs from a Case of Cystitis, with Surgical Kidneys.

Dr. M'Weeney showed the urinary organs from a man, aged 35, who died with symptoms pointing to uræmia. The prostate was found enlarged, and its glandular apparatus changed into a series of abscess cavities filled with viscid greyish muco-pus, in which were suspended hundreds of black gritty calculi of irregular outline and averaging the size of a millet seed. The bladder and kidneys were diseased. The calculi had been analysed by Mr. Adeney, of the Royal University, and found to consist mainly of phosphate and carbonate of calcium and magnesium, with a quantity of combustible nitrogenous matter.

The President mentioned a similar case he had examined.

Remarks were made by Dr. Finny and Dr. Nixon; and Dr. M'Weeney replied.

Apoplexy of Mesentery.

Mr. F. A. Nixon exhibited a specimen of apoplexy of the mesentery, taken from the body of a woman, aged 60, who had been found in a dying condition at the foot of the steps of her residence. She had, some time previously, undergone a slight operation for disease of the cervix uteri, and, while convalescing, had suffered from an apoplectic seizure, with hemiplegia. More than a foot of the small intestine was surrounded by soft blood clot; the vessels generally were atheromatous. There was hæmorrhage into the left broad ligament, also into the left inguinal canal. There was slight hæmorrhage from the vagina. There was no evidence of external injury.

Dr. M'Weeney described a case in which there was thrombosis of the superior mesenteric vein, with great dilatation of its tributaries and intense congestion of the portion of intestine from which the veins sprang. The patient was a girl, who came in with an abscess in her neck, and after it had been opened developed erysipelas. She went on well for a few days, when she was seized with violent pains in the stomach, and died in a few hours.

Dilatation of the Stomach and Ptosis of the Transverse Colon.

Dr. H. C. Tweedy exhibited a case of dilatation of the stomach, with enteroptosis of the transverse colon. As regards the stomach, the disease had evidently been of very long standing. Dr. Tweedy believed it to be due, in the first place, to a dietary consisting almost entirely of potatoes, which, weighing down the stomach and causing stagnation of the ingesta, set up chronic gastric catarrh, resulting in atony, and finally paresis of the muscular fibres; also that the drag upon the pylorus caused a sharp bend in the duodenum at the junction of its movable first portion and fixed second portion, thus causing a mechanical stenosis. As regards the enteroptosis, Dr. Tweedy believed the course of the lesion to be almost entirely mechanical—the colon, in the absence of a normal omentum, having been slowly dragged down by the dilated stomach.

Dr. Scott called attention to the fact, which this case illustrated, that it was not in cancer of the stomach only that hydrochloric acid was absent from the gastric secretion. This man seems to have lived, as it were, on potatoes, and as the stomach does not digest potatoes, the gastric juice would be of no use, and so cease to be secreted.

Dr. Finny thought that the dilatation might be due to muscular debility or congenital malformation. The mere mechanical cause seemed to be an insufficient one.

REVIEWS.

How to Become a Hospital Nurse. By Alice Dannatt. London: The Record Press, Limited. 1893. (Cr. 8vo, pp. 151. 1s. 6d.)

We are informed by the publishers that this book reached a second edition before publication, and that it is the only "authoritatively compiled work of the kind published." What is meant by "authoritatively" is not clear. The title page claims for the work no greater authority than is derived from the high position in the nursing world of its author as Matron Superintendent of the Preston and County of Lancaster Royal Infirmary and Fever Hospital. It does not bear the *imprimatur* of any authority recognised in the medical profession, nor, indeed, in its present form ought it to receive the unqualified approval of any responsible authority. That there is a demand for a guidebook to the nursing profession may be freely admitted, and the issue of such a book, if compiled fairly and impartially, would be a boon to hospital matrons and others who have every day to answer the inquiries of numerous would-be nurses. Within certain limits the present handbook has its uses, conveying much pertinent information, and much that might well have been omitted as impertinent. For example, Chapter V, on the Relative Positions of Hospital Sister, Staff Nurse, and Probationer, and what their Hours of Duty and Work should severally be; Chapter VII, containing a scheme of diets for the nursing staff of a hospital; and Part II consisting of an essay on Recreation, with Thoughts and Opinions, and concluding with A Suggestion for Nurses' Reading Classes can hardly be considered as coming within the scope indicated on the title page. As a matter of fact, these papers seem to have been collected for republication from the various periodicals in which they originally appeared, with the result that the present book is a patchwork rather than a well laid down and carefully executed guidebook for the use of those who would adopt nursing as their profession.

The appendix comprises a list of the training schools and nursing institutions in Great Britain and Ireland, and other useful information, "reprinted from the *Nursing Directory* by kind permission of the proprietors." We are sorry that Miss Dannatt has not expunged from this appendix all marks of those unworthy animosities and petty jealousies which more than anything else at the present time hinder the progress of nursing reform, make the judicious grieve, and sadly dishearten those who believe most strongly in all those movements which make for the emancipation of women. Here, for instance, is the comment on one of the best known London Hospitals. "The death-rate amongst nurses has been extremely high. Very serious charges were made against the nursing department before a Select Committee of the House of Lords in 1890;" never a word to say that the report of the Lords' Committee stated that the most serious of these charges had been disproved. On the other hand another hospital, the nursing regulations of which are not even quoted, receives the following puff: "The reputation of this school stands so deservedly high that all vacancies are usually filled up many months in advance." As regards a Scottish infirmary, the authorities of which, doubtless, for good reasons of their own, train no nurses, we read the uncalled-for remark: "We hope in future issues to be able to

give very different information." As regards the Royal National Pension Fund for Nurses, which is managed by some of the ablest financiers and most generous philanthropists in London, an attempt is made *in limine* to bias the minds of those who propose to enter the nursing profession by the following comment: "Founded by the munificence of four City merchants 'for the benefit of nurses,' it, however, charges nurses from 20 to 26 per cent. higher premiums than they would have to pay for similar advantages at old-established London offices, which under the circumstances, and the many assurances that this is a benevolent scheme, is somewhat surprising."

With these allegations, if they be considered serious enough to require attention in view of the assured success of the scheme, we must leave the authorities of the Pension Fund to deal: all we are here concerned with is to indicate the animus which breathes through such comments, and to recommend Miss Dannatt, should another edition of her book be called for, to remove such blemishes from a work which, even as it stands, has some merit, and might by judicious pruning and rewriting satisfy the demand which undoubtedly exists for a trustworthy guide to those who seek to join the ranks of the nursing profession.

What Constitutes an Efficient Nurse: and Other Papers. (reprinted from the *Nursing Record*). By Marian C. Pincoffs. London: The Record Press, Limited. 1893. (Foolscap 8vo, pp. 48. 6d.)

We have read these papers, and find them to be up to the average of merit, regarded as contributions to a periodical journal upon topics which no doubt aroused some interest when they were first discussed. Whether it was worth while to attempt to rescue from oblivion, even for a season, such ephemeral productions, is a question which we should probably have answered in the negative. However, the attempt has been made, and it remains for the reviewer to say something of the papers submitted to him. The first essay opens thus: "It is always difficult to describe clearly and shortly what constitutes an efficient nurse, for though the principles of good nursing are easily defined, its essence is in many ways an intangible thing, and therefore difficult to put into words." We hope we shall not be thought hypercritical if we suggest that the essence referred to must be not only "in many ways," but in all ways, an intangible thing; but because it is intangible, we do not clearly understand why it is "therefore" difficult to put it into words. We should not find serious fault with a loose style of this sort in a paper which is to appear one week in a periodical and to be forgotten the next. It does, however, seem that something better than this may reasonably be required of an author who aspires to have her essays collected in book form for a wider circle of readers and for more enduring existence than ordinary periodical literature demands or expects. With the views expressed by the writer in this essay we are glad to find ourselves in complete agreement. We read: "There are many different opinions as to the length of hospital training required to make an efficient nurse, even amongst those most competent to judge. It would seem as if its necessary duration must to a great extent depend on individual character, and also on what branch of nursing a woman means to follow." These are the words of one who writes with common sense and without prejudice; and so, too, when we read that the ideal nurse should have "muscular strength, combined with a personal knowledge of illness, and nerves that are sensitive, but well under control," we remark with pleasure that Miss Pincoffs, in laying stress upon personal experience of suffering, has noted a qualification in the ideal nurse which a superficial writer would have missed. In the second essay on some aspects of nursing in the present day, the criticism is justly made that the authorities of hospitals, "in the race for wealth," are apt to fall into the mistake of accepting as paying probationers women who are in no way fit for the work of tending the sick. The third essay, on the question whether members of the British Nurses' Association should wear a badge need not long detain us. Miss Pincoffs, for good feminine reasons, would like to possess a badge, and as the essay seems to have been written before the British Nurses' Association became the Royal British Nurses' Association, we trust by this time that she has her desire. In such matters the masculine reviewer confesses himself a very Gallio, an "outsider" to whom "the whole discussion seems futile, and resembles strongly the proverbial storm in a teacup." Papers on Specialism for Nurses, A Topic of the day, and Nursing as a Fine Art conclude this little book, the very moderate price of which places it within the reach of a large circle of readers.

Homburg Spa: An Introduction to its Waters and their Use. By Dr. Arnold Schetelig. London: J. and A. Churchill. 1893. (Cr. 8vo, pp. 106, 2s. 6d.)

It would have been better if the author of this small volume, which, he admits, is addressed to the lay public, had confined himself to a plain statement of the recognised properties and uses of the Homburg springs instead of entering upon much controversial matter, in which he displays remarkable self-appreciation and much contempt for opinions other than his own. It is also scarcely in accordance with sound judgment to attempt to gain credit for Homburg by inferentially discrediting other resorts, especially such valuable resorts as Schwalbach, Vichy, Contrexéville, Kissingen, and others.

Some of the author's statements are, at least, questionable, such, for instance, as the following: "The presence of natural carbonic acid in any water.....very distinctly regulates the action of the heart in reducing the number of pulsations." We should require a great deal of evidence—Dr. Schetelig gives none—before admitting this as an established fact. Another of the author's statements, which we believe to be quite untenable, is that "very likely the chloride waters are only slightly changed during this quick passage along the small intestines, and await their final absorption into the system in that ample and quiet receptacle, the colon." We are strongly impressed with the belief that when saline waters reach the colon unchanged they commonly excite a desire to pass them into an "ample receptacle" outside the body.

Why, may we ask, should physicians who send patients to Vichy and Carlsbad be termed "alkaline fanatics," and on what analyses (the author gives us none in detail) is the statement founded that there are "30 grains of bicarbonate of soda present in a litre of the Elizabeth water?" We can find no mention of the presence of bicarbonate of soda in any of the published analyses of this spring, and so important an ingredient and in so considerable a quantity would surely not be overlooked. Again, what will English doctors and patients say to the statement that "hot water, which fifty years ago played a certain part in the treatment of gout, has now become entirely obsolete?"

Surely it is necessary before writing a book, whether addressed to the lay or the professional reader, to be better informed than this, and it becomes an author who is disposed to be so hypercritical as Dr. Schetelig to be precise and accurate in his own statements.

NOTES ON BOOKS.

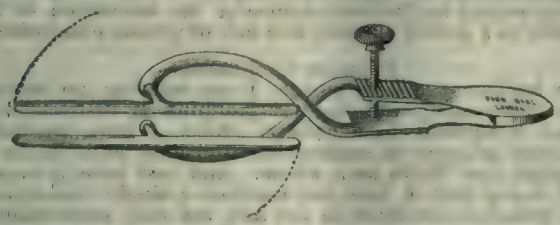
Measurement of Light and Colour Sensations. By J. W. Lovibond. (George Gill and Sons. Demy 8vo, pp. 132. 7s. 6d.)—This is a thoroughly scientific work, which cannot fail to have an immense influence on all branches of art and commerce which deal with colours, and which should also much simplify the study of the physiology of normal and defective colour vision. By means of a special apparatus, which he calls a "tintometer," the author has rendered it possible to measure and record the composition of any colour. In every case the colour formula can be expressed numerically in terms of two colours and a light term. Thus not only can the colour of any given material be accurately expressed, but it can be permanently recorded, and reproduced at any future time. It is obvious that this must have an important influence on many branches of industry. The bearing of the author's experiments on the phenomena of defective colour vision naturally does not occupy a prominent place in the work, but it is interesting to note that differences in the colour-perceiving power of the two eyes of the same indi-

vidual are very common. Tables are given showing the colour formulæ of Holmgren's wools and a modification of the tintometer for testing colour vision as suggested by Mr. Priestley Smith. There can be no doubt that as an aid to the scientific study of colour vision the apparatus will prove of the greatest value. Its bearing on the testing of colour vision for practical purposes will probably be limited to securing uniformity in the test colours used.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

CLAMP WITH UNIFORM PRESSURE FOR ENTERECTOMY.

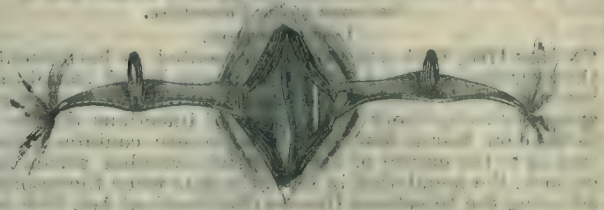
Dr. James Swain, Surgeon to the Bristol Royal Infirmary, sends us the description of a clamp with uniform pressure for enterectomy. The spring handle of the clamp is after the model of Dieffenbach's forceps, with a screw for increasing the



pressure if necessary. The shanks are long and curved outwards, so as to allow the bowel, when held by the blades, to pass through them without touching. At the end of each shank is a pivot on which a short secondary shank turns. Each secondary shank is attached to the centre of the corresponding blade, which turns on its pivot in a plane parallel to the long shank. The blades when closed are parallel to each other. By this means a uniformity of pressure is obtained along the whole length of the blades, which regulate themselves by swinging on their pivots until the pressure on either side of the pivots is equal whether the blades be parallel or not. Before use the blades are covered with pieces of india-rubber drainage tube. It will therefore be seen that the advantage and efficiency of the instrument are due to the equable pressure along the whole length of the blades, which thus obviates the excessive pressure at the proximal end, and the feeble pressure at the distal end of the blades, which would obtain if the blades were directly continuous with the shanks. The instrument has been made for Dr. Swain by Messrs. Down Bros., of St. Thomas's Street, in two sizes, with blades three inches and two inches in length respectively.

SELF-RETAINING RETRACTOR OR WOUND HOOK.

It may be regarded as a canon in operative surgery that the fewer hands employed in any operation the better for the patient. It is for this reason chiefly that Mr. Jordan Lloyd, Lecturer on Operative Surgery in the Mason College, Birmingham, has devised an instrument which he has called a self-retaining retractor or wound hook. The chief point about the instrument is its extreme simplicity, and it is because of this very simplicity that it has proved so useful. The retractor can best be understood by a glance at the diagram. It is made of steel, and is nickeled, the hook at one end being fenestrated and blunt for introduction between the edges of a wound; the other end is pointed so as to hook easily into the skin of an adjacent part or other resistant structure. This is the whole principle, and in the majority of operations, where wound edges have to be held asunder, so as to enable the surgeon to see or dissect a deeper structure, they will be found of great service. The small puncture made by the fixing hook is of no consequence and heals immediately. They are made in various patterns and sizes, those with sharp hooks at each end, are useful in holding the edges of widely gaping wounds temporarily together while sutures are being inserted. The hooks may also be used in the same way as ordinary retractors, or they may be fixed into bandages, and held in the same manner. They are of service in numberless operations where the "antiseptic"



hands of assistants may not be available, such as tracheotomy, hernia, ligatures of arteries, excision of glands, and other deeply-seated swellings, cranial operations, excision of joints, etc. They are made by Messrs. Down Brothers, St. Thomas's Street, London, S.E.

IMPROVED BLADDER DOUCHE.

Mr. F. Swinford Edwards writes that Messrs. Wright, of New Bond Street, have made at his suggestion a new bladder douche or irrigator, which is both handy and cheap. It is adapted either for standing, hanging, or holding, while it can be supplied to hospital patients at about half the price



usually charged for irrigators now being sold. It consists of a glass reservoir in a japanned frame, with folding handles. To the bottom of the reservoir is attached a piece of india-rubber tubing, which ends in a conical nozzle of pewter, and which will fit any catheter from No. 8 to 24 (French). On the tubing is placed a clip for controlling the stream, and which can be worked with one hand. Mr. Edwards says that though comparatively cheap efficiency is not sacrificed. He thinks it cannot but prove useful to many sufferers.

MAGNIFYING AURAL SPECULUM.

Dr. H. Macnaughton-Jones (London) writes: I was not aware, until my attention was called to the fact by Dr. Ward Cousins, that he had already devised and published, in the British Medical Journal of January 16th, 1893, a speculum and head rest, the former having a lens and mirror attached. Had I been aware of this communication of Dr. Ward Cousins I should of course have referred to it in the short description of my speculum, which however differs essentially from his in construction. I may add that Messrs. Arnold have now my specula of three different sizes, with the accompanying lenses, in portable case.

UTERINE CURETTES.

Messrs. Fannin and Co., surgical instrument makers, Dublin, write to point out that in 1887 they made for Dr. A. Duke a uterine curette on the same principle as that described and figured by Dr. R. Bell in the British Medical Journal of November 25th. The illustration of the curette in their catalogue resembles very closely that of Dr. Bell's.

COMPULSORY NOTIFICATION IN ENGLAND AND WALES IN 1892.

A Special Report to the Parliamentary Bills Committee of the British Medical Association, by Mr. Ernest Hart, Chairman of the Committee.

Introduction.

On May 17th, 1892, a return was presented to Parliament by the Secretary of the Local Government Board containing a list of sanitary districts in England and Wales in which the system of compulsory notification of infectious disease was in force on March 31st, 1892. The return contains information as to the nature of each district—whether urban, rural, or port; the population in 1891; the date when the resolution adopting the Infectious Disease (Notification) Act, 1889, came into effect, or the year in which a local Act was passed; and in cases where diseases have been added to those mentioned in the General Act, the names of such diseases. A summary of the return shows that on March 31st, 1892, the Act of 1889 had been adopted in 1,051 sanitary districts, of which 622 were urban, 408 rural, and 21 port districts, with an aggregate population (1891) of 15,902,343 persons; that the Act was in force in London, with a population (1891, revised) of 4,211,743 persons; and that 50 towns had a system of notification under local Acts, affecting 3,878,625 persons; the aggregate population thus placed under compulsory notification being 23,992,711 persons, out of a total population in England and Wales, according to the last census, of 29,002,525 persons, or just on 83 per cent. If we except London, we find that on the date in question 19,780,968 persons out of 24,790.782 persons, or 80 per cent., were under a system of compulsory notification voluntarily adopted. Moreover, 9 towns had substituted the provisions of the General Act for those contained in their local Acts.

Scheme for Testing the System of Compulsory Notification.

With these facts before them, and the further fact that three full years had elapsed since the passing of the Act of 1889, I deemed it desirable in the spring of 1893 to ascertain, if it were possible, for your information, how the system was working throughout England and Wales, more especially since no attempt had been made to collate on any comprehensive scale the data which they held ought to be available as a result of the system. The only measure of the kind had been one adopted by the Local Government Board, their annual report for 1890-91 having contained tables summarising the notifications in 1890 from several separate diseases in 44 widely scattered towns as a whole, and in London, whilst their report for 1891-92 contains a similar table (reproduced later on) in respect of London and 108 provincial towns, with an aggregate population of 12,491,933 persons, and showing for 1891 the number of notifications received, the deaths registered, and the per case mortality from each of several diseases in the 109 towns as a whole, and irrespective of location. The report for 1892-93 goes further, however, and, in addition to the table, which also we reproduce at a later stage, giving the summarised data of 1892 for London and 116 provincial towns, sets out the facts for each of those towns as to cases notified and deaths registered from the several notifiable diseases, arranging the towns according to their registration divisions. This is undoubtedly a step in the right direction. It covers an aggregate population of 12,852,060 persons.

Method of Procedure.

The question how best to proceed with the greatest chance of success was decided by a resolve to group sanitary districts in geographical counties, treating such county as a unit save as regards Wales, which it was held best to divide into two sections only, namely, north and south. To this end request was made by circular last April of the medical officers of health of the London districts and of the 1,101 provincial districts for a return of all notified cases and registered deaths from each notifiable disease during the twelve months ended March 31st, 1893, together with the cost of the certificates received in the same period. The financial year was chosen mainly for two reasons; first, it allowed of request being made only of those health officers whose districts had been under notification for the full term; and secondly, it was thought that the period was one in respect of which the question of cost would entail least trouble. It soon became evident, however, that statistically the calendar year would involve a very considerable reduction of labour to local officers of health, and thereupon fresh forms were issued, after due notice of the change, to those officers who had not complied with the initial request. It thus comes about that some districts, though but a fraction of the whole, albeit comprising some large populations, have sent data for the financial year, April 1892 to March 1893. But for all practical purposes the returns may be read as having concern with the twelve months January to December 1892.

Result of Appeal.

It was not to be expected that in a venture of this kind opposition would be altogether absent. In fact, looking to the nature of the return sought for in respect of all districts alike (mining districts and health resorts, manufacturing centres and seaside places), we can only find room for congratulation in the fact that no less than 86 per cent. of the total population under compulsion finds place in the returns sent in to us, whilst further addition to this handsome proportion is only omitted because of its late receipt, it having been deemed desirable no longer to delay publication of the material contributed. This ready response to my invitation is a happy augury for further advance in the tabulation of like returns as a matter of State, and not of private enterprise.[1]

Plan of Tabulation.

In fulfilment of my pledge, I am treating no sanitary area individually, the smallest grouping of districts being those comprised in a county. Next, I have treated of counties grouped in registration divisions, and, finally, of England and Wales as a whole. And just here it may be well to say that I have not received a single word against the principle involved in the Act, the only expressions of opinion touching the actual working of the compulsory system being from health officers who, from absence of means for the isolation of infectious disease, feel that they cannot obtain those beneficial results from the operation of the Act which, in the presence of a properly-equipped hospital, might reasonably be expected. This, indeed, is a point that requires insistence, since the Act is designed to facilitate early knowledge by local sanitary bodies of those first cases of disease which it is so essential promptly to isolate with the view of preventing the spread of an infectious malady. On the other hand, many officers speak highly of the smooth working of the Act, and the absence of all comment from the majority of districts in itself speaks well for the system.

Points Arising out of the Act of 1889.

Before passing to a consideration of the data with which I have been favoured, it may be well to mention a few points in regard of which the Notification Act of 1889 might well be amended.

1. *Notification Certificate.*—This is not the same as that laid down by the Public Health (London) Act of 1891, inasmuch as the age of the patient mentioned is not required. This is an important omission, which should certainly be rectified in any amending Act passed on the subject, or in any further General Act such as I imagine cannot much longer be delayed. This is but one defect of the existing provincial form of certificate, but even it can in a measure be remedied, since there seems to be no legal objection to making the requirement of age an optional addition to the statutory form. Some sanitary authorities, indeed, already append to the certificate a request that the age may be inserted, not as a compulsorily demanded fact, but of the goodwill of the notifying practitioner. And this is not the only point on which

[1] We would, in this connection, draw attention to the action of Mr. Alfred Thomas, in Committee of the House of Commons on the Local Government (England and Wales) Bill, in proposing the insertion of the following cause: "As and from the appointed day 'The Infectious Diseases (Notification) Act, 1889,' and 'The Infectious Disease (Prevention) Act, 1890,' shall come into operation and be compulsory in every part of England and Wales, and it shall be the duty of every district council both urban and rural to make, at the end of every calendar month, a complete return of all births, deaths, and cases of infectious diseases occurring within its district during the preceding month. A copy of such return shall be sent to the Local Government Board and to the county council on or before the fifth day of the next ensuing month."

optional information is asked for in particular districts, since such matters as method of isolation adopted, water and milk supplies, and school attendance of children in invaded households are indicated as those as to which the facts would be acceptable. And we can easily see that preliminary data such as these extended certificates afford might, in certain emergencies, prove of inestimable value. Take, for example, an outbreak spread by the agency of milk. Indication that the initial sufferers were all partakers of milk from one common source would become an important factor, leading, doubtless, to curtailment of the dissemination of infection by speedy stoppage of further supply of the implicated milk. The facts might prove to be of even greater value in the event of a particular section of a water service being in question.

2. *Postage of Certificates.*—I have already, in the British Medical Journal of May 13th last, set forth my interpretation of the Act of 1889 in relation to the vexed question of the cost of postage of notification certificates. We have held that medical practitioners should themselves defray the cost of transmission of certificates to medical officers of health. In the succeeding issue was published a letter from Dr. K. M. Chisholm on the matter. In it he remarks that the advice given by the Local Government Board to the Radcliffe Local Board was to the effect that they could deduct the amount of postage fees from the fees payable in respect of the certificates, and this appears to have led to the point being taken to a court of justice in the case Chisholm *v.* Radcliffe Local Board. At Bury, Lancashire, in this case, Judge Jones gave a decision contrary to the advice of the Central Board, remarking that "that advice might merely be the opinion of a petty clerk in the office." I cannot, however, imagine the Local Government Board expressing its "opinion" officially on the strength of the dictum of some "petty clerk," seeing that, if I mistake not, the Board has a legal adviser who is himself a Q.C.

But however this may be, we think the matter should be definitely settled and plainly indicated one way or the other. It would save much unpleasantness and annoyance.

3. *Multiple Notification of Cases.*—It has been held that no matter how many medical men may be called in to attend a patient suffering under notifiable disease, it is the duty of each to certify the case to the local health officer, payment being made for each certificate. Thus brother practitioners relieving each other for a time, and experts called in to see a critical or difficult case, have a statutory duty both useless and one that might come to be in certain localities expensive to the rates. Clearly, it seems to me, the duty of notification should rest upon the medical man first in attendance. Doubt in the mind of any other practitioner as to how he stood in the matter could be settled by a single question.

Multiple Attacks in Houses.

The point whether second cases of similar illness in a household should be notified if occurring within a certain period of time from the initial attack is one which has been ofttimes discussed. In one large borough no second case of a like complaint in one house, and attended by the same practitioner, occurring within thirty days of the first case, need be notified under the provisions of the Local Act, and, if notified, cannot be paid for. On the whole, we incline to the safer plan of requiring each and every case of notifiable disease to be brought to the knowledge of the health officer. We can conceive of instances where such a measure of precaution would be eminently useful in, say, the determination of the question of source of infection. And altogether apart from the value of the practice as a means of disease prevention, the procedure cannot but be useful for statistical purposes, as showing the relations of attack- and mortality-rates, since we look forward to the time when the data as to attack as well as death will be recorded and tabulated in permanent form. And the extra cost to the country by the multiple notifications would, we opine, be inconsiderable.

Cost of Notification System.

The number of notified cases of infectious disease returned to us as having occurred in 1892 in sanitary districts of England and Wales, having an aggregate population (1891) of 20,749,712 persons, is 181,461 cases; and the total cost of certification of these attacks is put down at £21,354 7s. 1d. This sum yields a cost per case of 2s. 4¼d. As we shall show later, we estimate the attacks on the total population under compulsory notification at 210,000; when a like average cost would make £24,718 15s. to be the amount expended on the system in 1892. If we carry on the estimate on the same scale for the whole population of England and Wales (and here and elsewhere the census of 1891 has been used), we find that in respect of 253,610 cases of infectious disease a sum of £29,851 11s. would have been expended in 1892. that is to say, the additional paltry sum of just over £5.000 would have secured notification of all the statutory diseases attacks throughout England and Wales in the twelve months.

The fees for each certificate are fixed by the Notification Act of 1889 at 2s. 6d. and 1s., according to the position held by the notifying practitioner, whether acting, that is, in a private or public capacity. But it must be pointed out that nearly four millions of persons are living in districts where the system is governed by local Acts, and where the fees for notification are varied. Thus, in one large borough the sum is fixed at 1s. per case, whether occurring in public or private practice. But the excessive proportion of the latter class of cases is seen in the average yielded for the kingdom; and hence with universal compulsory notification we may safely estimate 2s. 6d. as being for all practical purposes the cost per case certified.

Taking the estimated gross amount of £29,851 11s. for the whole of England and Wales, I find that the cost for the notification system is less than one farthing for each unit of population. I should, perhaps, add here that in London last year the number of cases notified more than once amounted to 1,555, or 3.3 per cent. of total notifications, which meant the inconsiderable sum, at 2s. 6d. per case, of some £200 for the whole of the metropolis. As a matter of fact, it did not cost this amount for duplicate certificates, since many were doubtless "public" cases. But, allowing the full fee and the same percentage throughout England and Wales, and we see that, *had compulsory notification been universal*, the extra expenditure thus incurred throughout the country would have been more than covered by £1,100.

Another point should be mentioned here, namely, that apparently many sanitary authorities do not pay certifying practitioners the fees due until specific claim has been made. We could wish to see all such payments made at regular—annual or other—periods as remuneration for statutory services rendered, and as of themselves being sufficient claim for the fees due.

Tabulation of Returns.

I now proceed to deal with the statistical returns of attacks and deaths with which we have been furnished, and, as a basis for further treatment of the figures, I have set out the facts county by county in Table I.

Before the table arrived at its present shape, the data for each individual sanitary district were carefully collated generally from the return forms which we distributed, sometimes from annual reports, and not infrequently from both, where forthcoming, as a check to correct entry on our part. The figures for the several diseases were then cross-cast, to see that they tallied with the totals given; and finally the gross returns for each county, and then for the kingdom, were arrived at, and the mortality percentages worked out. Perceiving that the counties would next best be dealt with as groups, we proceeded to arrange them in the manner adopted by the Registrar-General in his plan of eleven registration divisions, with the results shown in Table II.

In these two tables we have all the facts in our possession contributed from local sources, and arranged first in counties in alphabetical order (Table I); and, secondly, in groups of counties corresponding to the eleven divisions of the Registrar-General.

The accompanying outline map of England and Wales will be of use in connection with what follows, since it shows the relative positions of registration divisions and of counties.

Leaving for consideration at a later stage the proportionate relation of death to attack, I next devoted attention to the important factor of attack-rate on the population resident in each county and group of counties. After the application of tests applied to one and another number of persons, we came to the conclusion that, whilst a rate per cent.

TABLE I.—*Showing for England and Wales as a Whole, and minus London; for London; for Each of the Remaining Counties of Forthcoming; the Cases and Deaths returned from Each Notifiable Disease and from All*

County.	Population, 1891.	Population (1891) on which the Returns are Based.	Small-pox. Cases.	Small-pox. Deaths.	Small-pox. Mortality per Cent. of Cases.	Cholera. Cases.	Cholera. Deaths.	Cholera. Mortality per Cent. of Cases.	Diphtheria. Cases.	Diphtheria. Deaths.	Diphtheria. Mortality per Cent. of Cases.	Membranous Croup. Cases.	Membranous Croup. Deaths.	Membranous Croup. Mortality per Cent. of Cases.	Erysipelas. Cases.	Erysipelas. Deaths.	Erysipelas. Mortality per Cent. of Cases.	Scarlet Fever. Cases.	Scarlet Fever. Deaths.	Scarlet Fever. Mortality per Cent. of Cases.
England and Wales ...	29,002,525	20,749,712	5,639	501	8.9	54	26	48.1	20,944	4,269	22.0	1,768	1,152	65.2	18,991	875	4.6	103,047	4,016	3.9
London	4,211,743	3,460,237	476	25	5.3	22	7	31.8	6,632	1,443	21.8	380	167	44.0	5,700	206	3.6	22,433	852	3.8
England and Wales, less London	24,790,782	17,289,475	5,163	476	9.2	32	19	59.4	14,312	2,826	19.7	1,388	985	70.9	13,291	669	5.03	80,614	3,164	3.9
Bedford	165,999	78,259	—	—	—				117	20	17.1	8	7	87.5	85	5	5.9	326	14	4.3
Berkshire	268,357	203,805	15	—	0.0				114	26	22.8	2	1	50.0	96	3	3.1	850	37	4.4
Bucks	164,442	57,887	2	—	0.0				29	9	31.0	3	5	166.6	39	3	7.7	217	7	3.2
Cambridge	196,269	109,959	3	—	0.0	4	2	50.0	160	21	13.1	6	4	66.6	120	9	7.5	284	11	3.9
Chester	707,978	477,893	87	5	5.7	1	1	100.0	231	42	18.2	21	29	138.1	209	26	12.4	1,700	72	4.2
Cornwall	318,583	133,743	2	—	0.0				85	13	15.3	10	7	70.0	129	3	2.3	579	13	2.2
Cumberland	266,549	180,983	10	2	20.0				118	17	14.4	16	14	87.5	193	8	4.1	356	9	2.5
Derby	432,414	268,373	194	15	7.7				161	33	20.5	12	12	100.0	177	5	2.8	962	26	2.7
Devon	636,225	325,921	53	3	5.7				232	38	16.4	10	5	50.0	393	11	2.8	2,577	84	3.3
Dorset	188,995	96,735	6	3	50.0				89	10	11.2	2	2	100.0	51	3	5.9	244	10	4.1
Durham	1,024,369	783,596	64	7	10.9	2	—	0.0	578	104	18.0	40	24	60.0	504	24	4.8	4,516	131	2.9
Essex	761,191	666,451	49	5	10.2				1,600	273	17.0	71	38	53.5	647	20	3.1	4,463	135	3.03
Gloucester	548,886	473,617	2	—	0.0				375	99	26.4	25	14	56.0	325	25	7.7	3,151	91	2.9
Hereford	113,346	86,294	—	—	—				59	6	10.2	21	—	0.0	35	1	2.9	550	5	0.9
Hertford	215,179	205,429	2	1	50.0				271	46	17.0	4	1	25.0	161	10	6.2	865	9	1.04
Hunts	50,289	41,529	1	—	0.0	1	—	0.0	21	6	28.6	9	6	66.6	26	1	3.8	209	5	2.4
Kent	806,297	710,209	68	8	11.8				719	158	22.0	45	42	93.3	801	27	3.4	3,253	73	2.2
Lancaster	3,957,906	3,276,529	1,713	166	9.7	7	5	71.4	1,975	458	23.2	396	280	70.7	2,241	133	5.9	13,310	954	7.2
Leicester	379,286	237,309	45	6	13.3				109	16	14.7	5	3	60.0	389	5	1.3	2,054	62	3.02
Lincoln	467,281	231,124	59	3	5.1				279	31	11.1	4	1	25.0	153	6	3.9	820	21	2.6
Middlesex	574,999	477,776	24	3	12.5	5	2	40.0	739	127	17.2	75	43	57.3	660	12	2.0	2,658	93	3.5
Monmouth	275,242	72,680	4	—	0.0				108	19	17.6	16	9	56.2	84	3	3.6	928	52	5.6
Norfolk	460,362	284,844	69	4	5.8				342	42	12.3	8	8	100.0	122	14	11.5	1,093	19	1.7
Northampton	308,072	124,484	31	2	6.5				30	15	50.0	7	2	28.6	121	4	3.3	321	6	1.9
Northumberland	506,030	196,964	9	1	11.1	1	1	100.0	147	36	24.5	23	14	61.0	177	9	5.1	1,163	24	2.3
Nottingham	505,311	379,102	48	3	6.2				141	41	29.1	4	3	75.0	125	5	4.0	1,606	67	4.2
Oxford	188,220	81,418	3	—	0.0				148	41	27.7	2	2	100.0	58	3	5.2	160	4	2.5
Rutland	22,123	22,123	8	—	0.0				9	1	11.1	2	2	100.0	14	—	0.0	51	—	0.0
Salop	254,765	155,613	19	3	15.8				141	24	17.1	3	3	100.0	89	7	7.9	672	13	1.9
Somerset	510,076	290,804	9	1	11.1				148	29	19.6	17	14	82.3	214	4	1.9	2,014	46	2.2
Southampton	666,250	596,767	126	6	4.8				439	90	20.5	23	32	139.0	248	28	11.3	2,173	35	1.6
Stafford	1,103,452	757,988	19	—	0.0				300	50	16.7	73	42	57.4	669	28	4.2	3,949	120	3.1
Suffolk	353,758	225,837	9	—	0.0				212	51	24.1	15	6	40.0	160	10	6.3	433	10	2.3
Surrey	572,092	425,346	30	8	26.6				751	158	21.0	29	42	145.0	242	17	7.0	1,373	26	1.9
Sussex	554,542	459,827	1	—	0.0				577	124	21.5	41	26	63.5	373	26	6.96	1,401	17	1.2
Warwick	801,738	808,250*	90	1	1.1				617	89	14.4	114	53	46.5	953	52	5.5	2,322	82	3.5
Westmorland	66,215	44,610	—	—	—				48	5	10.4	3	1	33.3	55	—	0.0	100	2	2.0
Wilts	255,119	101,481	—	—	—				79	12	15.2	3	4	133.3	43	1	2.3	546	20	3.7
Worcester	422,530	219,448	16	—	0.0				256	41	16.0	25	13	52.0	278	9	3.2	825	11	1.3
York: East Riding ...	400,085	316,845	96	6	6.2	7	3	42.9	117	14	12.0	10	9	90.0	168	5	3.0	740	26	3.5
,, North	354,382	235,921	145	10	6.9	—	2	?	63	12	19.0	12	5	41.6	115	3	2.6	559	15	2.7
,, West ,, ...	2,461,415	1,536,842	1,990	202	10.1	3	3	100.0	950	235	24.8	106	79	74.5	1,062	68	6.4	6,767	349	5.2
Wales: North	451,090	234,448	15	—	0.0	1	—	0.0	73	10	12.6	11	15	136.3	92	2	2.2	737	39	5.3
,, South	1,050,073	603,412	27	2	7.4	—	—	—	549	134	24.4	56	63	112.5	455	31	6.7	6,737	319	4.7

* Including the Worcestershire portion of Birmingham.

TABLE II.—*Showing for England and Wales and for each of the Eleven Registration Divisions of the Kingdom the Facts set out*

Registration Divisions.	Population, 1891.	Population (1891) on which the returns are based.	Small-pox. Cases.	Small-pox. Deaths.	Small-pox. Mortality per Cent. of Cases.	Cholera. Cases.	Cholera. Deaths.	Cholera. Mortality per Cent. of Cases.	Diphtheria. Cases.	Diphtheria. Deaths.	Diphtheria. Mortality per Cent. of Cases.	Membranous Croup. Cases.	Membranous Croup. Deaths.	Membranous Croup. Mortality per Cent. of Cases.	Erysipelas. Cases.	Erysipelas. Deaths.	Erysipelas. Mortality per Cent. of Cases.	Scarlet Fever. Cases.	Scarlet Fever. Deaths.	Scarlet Fever. Mortality per cent. of Cases.
England and Wales	29,002,525	20,749,712	5,639	501	8.9	54	26	48.1	20,944	4,269	22.0	1,768	1,152	65.2	18,991	875	4.6	103,047	4,016	3.9
I. London	4,211,743	3,460,237	476	25	5.3	22	7	31.8	6,632	1,443	21.8	380	167	44.0	5,700	206	3.6	22,433	852	3.8
II. South-Eastern (Berks, Hants, Kent, Surrey, Sussex)	2,867,538	2,395,954	240	22	9.2				2,600	556	21.4	140	143	102.1	1,760	101	5.7	9,050	188	2.4
III. South Midland (Beds, Bucks, Cambs, Herts, Hunts, Middlesex, Northampton, Oxon)	1,863,169	1,176,741	66	6	9.1	10	4	40.0	1,515	285	18.8	114	70	61.4	1,210	47	3.9	5,040	149	3.0
IV. Eastern (Essex, Norfolk, Suffolk)	1,575,311	1,177,132	127	9	7.1	—	—	—	2,154	366	17.0	94	52	55.4	929	44	4.7	5,989	164	2.8
V. South-Western (Cornwall, Devon, Dorset, Somerset, Wilts)	1,908,998	948,684	70	7	10.0	—	—	—	633	102	16.1	42	32	76.2	830	22	2.6	5,960	173	2.9
VI. West Midland (Glos, Hereford, Salop, Staffs, Warwick, Worc.)	3,244,717	2,501,210	146	4	2.7	—	—	—	1,748	309	17.8	261	125	47.9	2,349	122	5.2	11,469	322	2.8
VII. North Midland (Derby, Leicester, Lincs, Notts, Rutland)	1,806,415	1,129,031	354	27	7.6	—	—	—	699	122	17.5	27	21	77.8	858	21	2.4	5,493	176	3.2
VIII. North-Western (Cheshire, Lancs)	4,665,884	3,754,422	1,800	171	9.5	8	6	75.0	2,206	500	24.8	417	309	74.2	2,450	159	6.5	15,010	1,026	6.8
IX. York (all three Ridings)...	3,218,882	2,089,608	2,231	218	9.8	10	8	80.0	1,130	261	23.1	128	93	72.7	1,345	76	5.7	8,066	390	4.8
X. Northern (Cumberland, Durham, N'land., Westld.)...	1,863,163	1,206,153	83	10	12.0	3	1	33.3	891	162	18.2	82	53	64.6	929	41	4.4	6,135	166	2.7
XI. Welsh (Monmouth, N. and S. Wales)	1,776,405	908,540	46	2	4.3	1	—	0.0	736	153	20.4	83	87	105.0	631	36	5.7	8,402	410	4.9

England: and for North and South Wales: the Population in 1891, the Population in Respect of which Returns have been Such Diseases: the Mortality per cent. of Attacks; and the Cost of Notification.

County.	Enteric Fever.			Typhus Fever.			Relapsing and Continued Fevers.			Puerperal Fever.			Other Notifiable Diseases.			All Notifiable Diseases.			Total Cost of Certificates.		
	Cases.	Deaths.	Mortality per Cent. of Cases.	Cases.	Deaths.	Mortality per Cent. of Cases.	Cases.	Deaths.	Mortality per Cent. of Cases.	Cases.	Deaths.	Mortality per Cent. of Cases.	Cases.	Deaths.	Mortality per Cent. of Cases.	Cases.	Deaths.	Mortality per Cent. of Cases.	£	s.	d.
England and Wales ...	16,688	2,749	16.5	302	75	24.8	1,166	96	8.2	1,720	973	56.6	11,142	528	4.7	181,461	15,260	8.4	21,354	7	1
London	1,992	326	16.4	15	5	33.3	83	9	10.8	306	130	42.5	28	—	0.0	38,067	3,170	8.3	4,535	6	6
England and Wales, less London	14,696	2,423	16.5	287	70	24.4	1,083	87	8.03	1,414	843	59.6	11,114	528	4.7	143,394	12,090	8.4	16,819	0	7
Bedford	55	8	14.5	—	—	—	—	—	—	3	1	33.3	—	—	—	594	55	9.3	67	0	0
Berkshire	70	20	28.6	—	—	—	7	1	14.3	10	7	70.0	1,055	36	3.4	2,219	131	5.9	151	4	0
Bucks	17	2	11.8	—	—	—	4	—	0.0	2	1	50.0	155	3	1.9	468	30	6.4	52	1	0
Cambridge	108	16	14.8	1	—	0.0	4	—	0.0	9	5	55.6	23	—	0.0	722	68	9.4	86	17	0
Chester	471	96	20.4	3	2	66.6	12	2	16.7	32	22	68.7	1,078	50	4.6	3,845	347	9.0	463	17	0
Cornwall	55	7	12.7	1	—	0.0	11	2	18.2	8	2	25.0	20	1	5.0	900	48	5.3	113	7	0
Cumberland...	73	10	13.7	22	6	27.3	8	—	0.0	13	6	46.2	—	—	—	809	72	8.9	89	5	0
Derby	160	26	16.2	—	—	—	4	3	75.0	31	15	48.5	651	18	2.8	2,352	153	6.5	271	6	6
Devon	357	51	14.3	—	—	—	16	3	18.8	23	14	60.9	20	—	0.0	3,681	209	5.7	441	4	6
Dorset...	17	3	17.6	—	—	—	—	—	—	4	4	100.0	—	—	—	413	35	8.5	46	5	8
Durham	970	132	13.6	60	9	15.0	173	5	2.9	72	43	59.8	1,241	59	4.8	8,220	538	6.5	1,006	6	6
Essex	428	70	16.3	—	—	—	55	1	1.8	38	29	76.3	122	1	0.8	7,473	572	7.6	852	1	0
Gloucester	216	31	14.4	1	—	0.0	26	10	38.5	44	33	75.0	7	2	28.6	4,172	305	7.3	437	6	2
Hereford	11	5	45.5	—	—	—	6	—	0.0	3	2	66.6	—	—	—	685	19	2.8	84	7	6
Hertford	92	11	12.0	—	—	—	7	8	114.3	8	1	12.5	—	—	—	1,410	87	6.2	175	1	6
Hunts	23	2	8.7	—	—	—	—	—	—	3	2	66.6	10	—	0.0	303	22	7.3	35	13	0
Kent	306	36	11.8	1	1	100.0	9	7	77.8	43	30	69.8	—	—	—	5,245	382	7.3	616	8	6
Lancaster	4,183	772	18.5	134	38	28.4	339	12	3.5	384	255	66.3	1,244	47	3.8	25,926	3,120	12.0	3,018	17	5
Leicester	147	26	17.7	—	—	—	2	—	0.0	7	2	28.6	—	—	—	2,758	120	4.3	344	17	0
Lincoln	118	20	16.9	—	—	—	8	1	12.5	10	3	30.0	801	5	0.6	2,252	91	4.5	258	7	0
Middlesex	380	61	16.1	5	1	20.0	14	—	0.0	51	33	64.8	—	—	—	4,551	375	8.2	553	3	2
Monmouth	88	4	4.5	—	—	—	2	—	0.0	5	5	100.0	—	—	—	1,235	92	7.5	154	9	0
Norfolk	408	63	15.4	—	1	?	8	—	0.0	10	15	150.0	—	—	—	2,060	166	8.1	242	3	6
Northampton	81	8	9.9	—	—	—	1	—	0.0	11	8	72.7	—	—	—	603	45	7.5	73	1	0
Northumberland	88	28	31.8	—	—	—	42	9	21.4	19	12	63.0	38	6	15.8	1,707	140	8.2	199	6	6
Nottingham	474	73	15.4	—	—	—	3	—	0.0	7	3	43.0	79	—	0.0	2,487	195	7.8	287	5	6
Oxford	19	2	10.5	—	—	—	—	—	—	8	4	50.0	—	—	—	398	56	14.1	52	7	6
Rutland	1	1	100.0	—	—	—	—	—	—	—	—	—	115	—	0.0	200	4	2.0	25	0	0
Salop	143	12	8.4	—	—	—	—	—	—	5	3	60.0	—	—	—	1,072	65	6.1	124	8	6
Somerset	115	18	15.7	1	1	100.0	14	1	7.1	8	5	62.5	6	—	0.0	2,546	119	4.7	283	6	0
Southampton	612	81	13.2	—	—	—	88	7	8.0	22	20	91.0	—	—	—	3,731	299	8.0	427	5	7
Stafford	794	131	16.5	1	—	0.0	40	5	12.5	48	17	35.4	693	27	3.9	6,586	420	6.4	760	14	6
Suffolk	136	28	20.0	—	—	—	14	—	0.0	21	10	47.6	35	—	0.0	1,035	115	11.1	121	7	0
Surrey...	137	21	15.3	—	—	—	8	—	0.0	37	14	37.9	406	17	4.2	3,013	303	10.1	375	7	8
Sussex...	203	35	17.3	—	—	—	2	—	0.0	18	10	55.6	102	—	0.0	2,718	238	8.8	315	7	6
Warwick	533	84	15.8	2	1	50.0	35	2	5.7	87	53	61.0	893	13	1.5	5,646	430	7.6	658	13	6
Westmorland	52	3	5.8	—	—	—	11	—	0.0	4	1	25.0	—	—	—	273	12	4.4	34	2	6
Wilts	14	1	7.1	—	—	—	1	—	0.0	3	2	66.6	381	8	2.1	1,070	48	4.4	115	10	0
Worcester	163	17	11.1	—	—	—	2	—	0.0	20	11	55.0	421	8	1.9	2,006	110	5.5	246	10	6
York: East Riding ...	368	59	16.0	1	—	0.0	7	—	0.0	23	11	47.8	563	213	37.8	2,100	346	16.5	252	14	0
„ North „ ...	206	32	15.6	—	—	—	7	—	0.0	7	4	57.1	100	2	2.0	1,214	85	7.0	143	5	0
„ West „ ...	1,006	199	19.9	4	—	0.0	81	8	9.9	143	79	55.3	572	7	1.2	12,684	1,229	9.7	1,517	4	6
Wales: North	98	15	15.3	1	—	0.0	4	—	0.0	5	2	40.0	3	—	0.0	1,046	83	7.9	132	7	0
„ South	700	103	14.7	49	10	20.4	8	—	0.0	105	44	42.0	280	5	1.8	8,966	711	7.9	1,112	6	6

in Table I as to Attacks and Deaths from Notifiable Diseases: Mortality-rates per cent. of Cases; and Cost of Certificates.

Registration Divisions.	Enteric Fever.			Typhus Fever.			Relapsing & Contin. Fvrs.			Puerperal Fever.			Other Notifiable Diseases.			All Notifiable Diseases.			Total Cost of Certificates.		
	Cases.	Deaths.	Mortality per Cent. of Cases.	Cases.	Deaths.	Mortality per Cent. of Cases.	Cases.	Deaths.	Mortality per Cent. of Cases.	Cases.	Deaths.	Mortality per Cent. of Cases.	Cases.	Deaths.	Mortality per Cent. of Cases.	Cases.	Deaths.	Mortality per Cent. of Cases.	£	s.	d.
England and Wales	16,688	2,749	16.5	302	75	24.8	1,166	96	8.2	1,720	973	56.6	11,142	528	4.7	181,461	15,260	8.4	21,354	7	1
I. London	1,992	326	16.4	15	5	33.4	83	9	10.8	306	130	42.5	28	—	0.0	38,067	3,170	8.3	4,535	6	6
II. South-Eastern (Berks, Hants, Kent, Surrey, Sussex)	1,328	193	14.5	1	1	100.0	114	15	13.1	130	81	62.3	1,563	53	3.2	16,926	1,353	8.0	1,885	13	0
III. South Midland (Beds, Bucks, Cambs, Herts, Hunts, Middlesex, Northampton, Oxon)	775	110	14.2	6	1	16.7	30	8	26.7	95	55	57.9	188	3	1.6	9,049	738	8.2	1,095	1	2
IV. Eastern (Essex, Norfolk, Suffolk)	972	161	16.6	—	1	?	77	1	1.3	69	54	78.3	157	1	0.6	10,568	853	8.1	1,215	11	6
V. South-Western (Cornwall, Devon, Dorset, Somerset, Wilts)	558	80	14.3	2	1	50.0	42	6	14.3	46	27	58.7	427	9	2.1	8,610	459	5.2	999	13	6
VI. West Midland (Glos, Hereford, Salop, Staffs, Warwick, Worc.)	1,860	280	15.1	4	1	25.0	109	17	15.6	207	119	57.5	2,014	50	2.5	20,187	1,349	6.7	2,312	0	8
VII. North Midland (Derby, Leicester, Lincs, Notts, Rutland)	900	146	16.2	—	—	—	17	4	23.6	55	23	41.8	1,646	23	1.4	10,049	563	5.6	1,186	16	10
VIII. North-Western (Cheshire, Lancs)	4,654	868	19.1	137	40	29.2	351	14	4.0	416	277	66.5	2,322	97	4.2	29,771	3,467	11.6	3,482	14	5
IX. York (all three Ridings)...	1,580	290	18.4	5	—	0.0	95	8	8.4	173	94	54.4	1,235	222	18.0	15,998	1,660	10.4	1,913	3	6
X. Northern (Cumberland, Durham, N'land., Westld.)...	1,183	173	14.6	82	15	18.3	234	14	6.0	108	62	57.4	1,279	65	5.1	11,009	762	6.9	1,329	2	0
XI. Welsh (Monmouth, N. and S. Wales)	886	122	13.7	50	10	20.0	14	—	0.0	115	51	44.4	283	5	1.8	11,247	886	7.9	1,399	1	6

of deaths on attacks was best for comparative purposes, it would by no means lend clearness to the results if a like method were adopted in calculating attack-rates on populations. Rather, 10,000 seemed the lowest figure on which comparative data could be secured for practical working; and this I have adopted in the general statement of the matter in Table III.

Here and elsewhere I have designated as "scheduled diseases" those named in Section 6 of the Act of 1889. These are, of course, a fixed quantity in all districts in which the Act is in force, though some seventy areas have added other maladies to the number notifiable, as we state later; and yet other districts under local Acts have not included some of these scheduled diseases whilst dealing with others outside them.

In Table III, then, I have set out in rates per 10,000 of population the attacks from (1) all notifiable diseases; (2) all scheduled diseases; (3) small-pox; (4) diphtheria; (5) erysipelas; (6) scarlet fever; and (7) "fever," including enteric, continued, relapsing, and puerperal fevers, the data being, for convenience of reference, arranged numerically for registration divisions and alphabetically for counties.

Having thus far tabulated the facts in a general way, and without reference to the relations which different counties and county groupings bear one to the other, I have next arranged in Table IV the registration divisions in the order of ascending attack-rate, from least to greatest, from (1) all scheduled diseases, and (2) the several diseases named in Table III, showing also in each instance the position held by England and Wales as a whole.

Whilst this table will prove very useful for general purposes, it will be well to let it stand simply as a record of fact for the great divisions of England and Wales, and to treat separately each heading to its columns. In order the better to do this, I have drawn up a series of charts which indicate clearly the relative positions of the several divisions and of the kingdom as a whole.

Chart A, the first of the series, shows the kingdom and each of the registration divisions in the numerical order adopted by the Registrar-General. The first thing that strikes the eye is the evenness which marks the range of attack-rates from the several scheduled diseases in all the divisions save London, and Wales; especially are the midland divisions—South, West, and North—conspicuously alike in the ratio of attack to population. Yet their constituent counties exhibit wide differences, as becomes apparent from a study of Table V.



Map of England and Wales, showing the Relative Positions of the Registratio Divisions (Table II) and of the Counties (Table I).

Taking, for example, the North Midland Division, we find Rutland with a rate of 38.5, the lowest of all; Lincoln with 62.8, well below the average; and Leicester with 116.5, the highest but two. And, again, in the South Midland Division we have Northampton, 48.8; Huntingdon, 70.6; and Middlesex, 95.4. Another point of note is that the attack-rate is much below the general average in the thickly-populated urban counties of Lancashire and Yorkshire, in the East Riding particularly; the North Riding being sparsely peopled: whilst in the home county of Essex the rate is abnormal; also in the suburban county of Middlesex, as well as in London itself. The difference existing between North and South Wales is very interesting, showing, as it does, for that country the vast gulf between the health-resort counties of the north, with their low rate of 44.3, and the mining and other industrial populations of the south, with a rate of 144.1, exceeded only in Monmouth—itself a part of the Welsh division—with a rate of 170.0 per 10,000 of population, based, however, on only 72,680 persons, out of a total county enumeration of 275,242 persons, of whom only half were in March, 1892, under compulsory notification. In England the Eastern Division ranks next highest to London—mainly placed thus by the excessive rate of Essex—Suffolk being only third on the list of counties, and Norfolk well below the general average. What one does not expect to see is the place held by the South-Western Division; but here, again, the southern county of Dorset has but little above half the average attack-rate; Cornwall, with its mining industries, and Wiltshire have under 70 cases per 10,000 persons, and only Somerset and Devon are the means of raising the column of attacks. Both are counties which one would have expected to see in better case than, say, Lancashire, Yorkshire, Stafford, and Cheshire. The differences displayed are so diversified, affecting no class of population in preference to another, that little can be learned on the point of occupation as lessening or increasing risk of attack. Thus, mining counties—Cumberland, 44.7; Cheshire, 58.0; Derby, 63.2; Durham, 89.0; and South Wales, 144.1—are typical examples of extreme varieties. Or counties having extensive littoral—Dorset, 42.8; Lincoln, 62.8; Cornwall, 65.9; Gloucester, 82 9; Devon, 112.3; these again show a remarkable range. The great touring counties of North Wales, Cumberland, Westmorland, and Derby one and all exhibit low attack-rates, and, excepting South Wales and Monmouth, it is London and certain of the home counties that show marked proneness to diffusion of disease.

TABLE III.—*Showing for England and Wales, for each of the Registration Divisions, for each of the Counties of England, and for North and South Wales, the Rates per 10,000 of Population of Sanitary Districts furnishing Returns in respect of all Notifiable Diseases, all Scheduled Diseases, and for each of Certain Diseases.*

Registration Divisions and Counties.	Population (1891) on which the Rates are based.	Rates per 10,000 of Population. Small-pox.	Diphtheria.	Erysipelas.	Scarlet Fever.	"Fever."	All Notifiable Diseases.	Scheduled Diseases.
England and Wales...	20,749,712	2.70	10.1	9.2	49.8	9.6	*87.6*	82.1
England and Wales, less London ...	17,289,475	3.00	8.3	7.7	46.6	10.1	*83.0*	76.5
I. London... ...	3,460,237	1.40	19.2	16.5	65.0	6.9	*110.0*	110.0
II South-Eastern	2,395,954	1.00	10.9	7.4	37.8	6.6	*70.6*	64.2
III. South Midland	1,176,741	0.56	12.9	10.3	42.9	7.7	*76.9*	75.3
IV. Eastern ...	1,177,132	1.80	18.3	7.9	50.9	9.5	*89.9*	88.6
V. South-Western	948,684	0.74	6.7	8.8	62 9	6.8	*91.0*	86.2
VI. West Midland	2,501,210	0.58	7.0	9.4	45.8	8.2	*81.3*	72.5
VII. North Midland	1,129,031	3.10	6.2	7.6	48.7	8.6	*89.1*	74.6
VIII. North-Western	3,754,422	4.80	5.9	6.5	40.0	14.8	*79.3*	73.2
IX. York	2,089,608	10.70	5.4	6.4	38.6	8.9	*76.5*	70.6
X. Northern ...	1,206,153	0.69	7.4	7.7	50.9	13.3	*91.2*	80.7
XI. Welsh	908,540	0.51	8.1	7.0	92.7	11.7	*124.0*	121.0
Counties:								
Bedford	78,259	—	14.9	10.9	41.6	7.4	—	75.9
Berkshire	203,805	0.72	5.5	4.7	41.0	4.2	*107.0*	56.2
Bucks...	57,887	0.35	5.0	6.8	37.5	4.0	*81.0*	54.1
Cambridge	109,959	0.27	14.6	10.9	25.8	11.1	*65.8*	63.8
Chester	477,893	1.80	4.8	4.4	35.5	10.9	*80.0*	58.0
Cornwall	133,743	1.50	6.4	9.6	43.3	5.6	*67.3*	65.9
Cumberland ...	180,983	0.55	6.5	10.7	19.7	6.4	—	44.7
Derby...	268,373	7.20	6.0	6.6	35.8	7.2	*82.4*	63 2
Devon...	325,921	1.60	7.1	12.1	79.0	12.2	*113.1*	112 3
Dorset	96,735	0.62	9.2	5.3	25.2	2.9	—	42.8
Durham	783,596	0.82	7.4	6.4	57.5	16.3	*105.0*	89.0
Essex	666,451	0.74	24.0	9.7	67.0	7.8	*112.3*	110.2
Gloucester	473,617	0.42	7.9	6.9	66.5	6.6	*83.0*	82.9
Hereford	86,294	—	6.8	4.0	63.7	2.3	—	79.3
Hertford	205,429	0.10	13.2	7.8	42 2	5.2	—	68.8
Hunts	41,529	0.24	5.0	6.3	50.3	6.6	*72.6*	70.6
Kent	710,209	0.96	10.1	11.2	45.7	5.1	—	73.7
Lancaster	3,276,529	5.20	6.0	6.8	40.7	15.4	*79.1*	75.5
Leicester	237,309	1.90	4.6	16.9	86.6	6.6	—	116.5
Lincoln	231,124	2.60	12.1	6.6	35.5	5.9	*97.5*	62.8
Middlesex	477,776	0.50	15.5	12.6	55.6	9.4	—	95.4
Monmouth	72,680	0.55	14.8	11.6	128.0	13.1	—	170.0
Norfolk	284,844	2.40	12.0	4.2	38.4	14.9	—	72.2
Northampton ...	124,484	2.50	2.4	9.7	25.8	7.5	—	48.8
Northumberland ...	196,964	0.46	7.5	9.0	59.1	7.6	*86.7*	84.9
Nottingham ...	370,102	1.30	3.8	3.4	44.6	13.1	*67.1*	64.9
Oxford	81,418	0.37	18.2	7.1	19.6	3.3	—	49.0
Rutland	22,123	3.60	4.1	6.3	23.1	0.45	*90.5*	38.5
Salop	155,613	1.20	9.1	5.7	43.2	9.5	—	69.0
Somerset	290,804	0.31	5.1	7.4	69.3	4.7	*87.5*	87.4
Southampton ...	596,767	2.10	7.4	4.2	37.4	12.1	—	62.5
Stafford	757,988	0.25	3.9	8.8	52.0	11.6	*86.9*	77.6
Suffolk	225,837	0.40	9.4	7.1	19.2	7.6	*45 7*	44.3
Surrey	425,346	0.70	17.7	5.7	32.2	4.3	*70.1*	61.0
Sussex	459,827	0.20	12.6	8.1	31.0	4.9	*69 0*	55.0
Warwick	808,250	1.10	7.6	11.8	28.7	8.1	*70.0*	58.5
Westmorland ...	44,610	—	10.8	12.3	22.2	15.0	—	61.2
Wilts	101,481	—	7.8	4.2	53.7	1.8	*105.5*	68.0
Worcester	219,448	0.73	11.7	12.7	37.7	8.4	*91.4*	72.1
York—East Riding	316,845	3.10	3.7	5.3	23.4	12.6	*66.3*	48.6
North ,,	235,921	6.10	2.7	4.9	23.7	9.3	*51.4*	47.2
West ,,	1,536,842	12.90	6.2	6.9	44.0	7.6	*82.3*	78.9
Wales—North ...	234,448	0.64	3.4	3.9	31.4	4.6	*44.5*	44.3
South ...	603,412	0.45	9.1	7.5	112.0	14.5	*149.0*	144.1

We have deemed it only fair to omit "other diseases" from the above calculations, since added diseases have only been approved in 72 districts, and their effect on the total attack-rate is sufficiently demonstrated in Table III. It will be seen that in 15 counties no diseases other than those named in the General Act have been added, whilst in another —London—it was only the port district that had measles on its list, and even there the disease is no longer notifiable. Concerning this disease we shall speak later.

If we look at the registration divisions in the light of density of population, we see the following result:

Rank in density (greatest to least)...	1	2	3	4	5	6	7	8	9	10	11	12
No. of registration division	1	8	6	9	E&W	2	3	7	4	5	10	11
Place in attack-rate (worst to best)...	11	1	4	5	E&W	10	3	7	8	6	9	2

Here we see the most sparsely populated division with the greatest proneness to attack, the most dense takes second place, and England and Wales, South Midland, and North Midland are the only examples similarly placed both as to attack-rate and density.

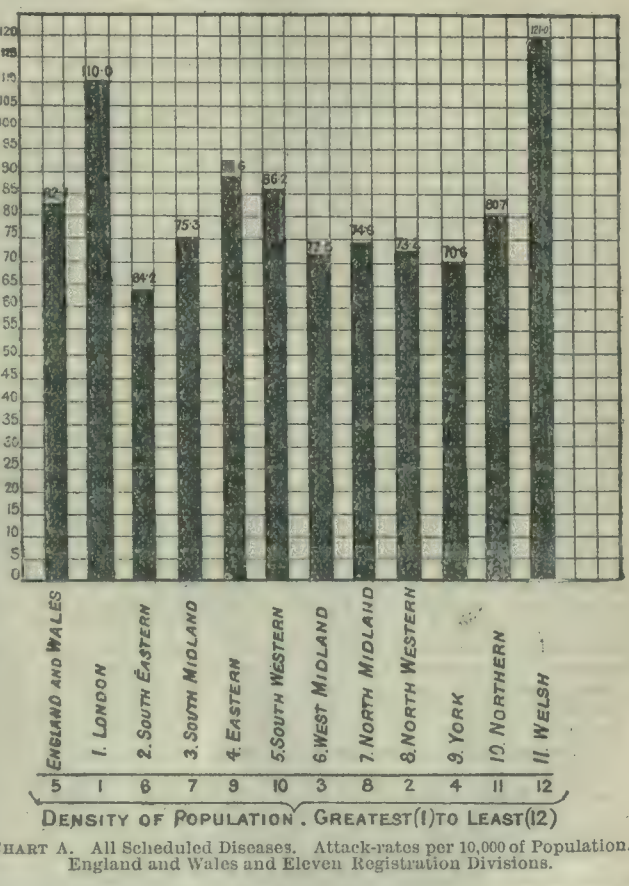


CHART A. All Scheduled Diseases. Attack-rates per 10,000 of Population. England and Wales and Eleven Registration Divisions.

TABLE IV.—*Giving Rates per 10,000 of Population of Notifications in 1892 in Respect of* ALL SCHEDULED DISEASES (*col. 1*), *and of certain specified Diseases* (*cols. 2 to 6*).

REGISTRATION DIVISIONS, IN ORDER OF ATTACK, FROM LEAST TO GREATEST.

All Scheduled Diseases.		Small-pox.		Diphtheria.		Erysipelas.		Scarlet Fever.		"Fever."	
South-Eastern ...	64.2	Welsh	0.51	York	5.4	York	6.4	South-Eastern ...	37.8	South-Eastern ...	6.6
York	70.6	South Midland ...	0.56	North-Western ...	5.9	North-Western ...	6.5	York...	38.6	South-Western ...	6.8
West Midland ...	72 5	West Midland ...	0.58	North Midland ...	6.2	Welsh	7.0	North-Western ...	40.0	London	6.9
North-Western ...	73.2	Northern	0 69	South-Western ...	6.7	South-Eastern ...	7.4	South Midland ...	42.9	South Midland ...	7.7
North Midland ...	74.6	South-Western ...	0.74	West Midland ...	7.0	North Midland ...	7.6	West Midland ...	45.8	West Midland ...	8.2
South Midland ...	75.3	South-Eastern ...	1 00	Northern	7.4	Northern	7.7	North Midland ...	48.7	North Midland ...	8.6
Northern	80.7	London	1.40	Welsh	8.1	Eastern	7.9	*England and Wales*	*49.8*	York	8.9
England and Wales	*82.1*	Eastern	1.80	*England and Wales*	*10.1*	South-Western ...	8.8	Eastern	50.9	Eastern	9.5
South-Western ...	86.2	*England and Wales*	*2.70*	South-Eastern ...	10.9	*England and Wales*	*9.2*	Northern	50.9	*England and Wales*	*9.6*
Eastern	88.6	North Midland ...	3.10	South Midland ...	12.9	West Midland ...	9.4	South-Western ...	62.9	Welsh	11.7
London	110.0	North-Western ...	4.80	Eastern	18.3	South Midland ...	10.3	London	65.0	Northern	13.3
Welsh ...	121.0	York...	10.70	London	19.2	London	16.5	Welsh	92.7	North-Western ...	14.8

TABLE V.—*Showing for each of the Counties of England, and for North and South Wales, the Attack-Rates per 10,000 of Population in respect of "All Scheduled Diseases."*

Under 50 per 10,000 Population.		50 to 60 per 10,000 Population.		60 to 70 per 10,000 Population.		70 to 80 per 10,000 Population.		80 to 90 per 10,000 Population.		90 and Upwards per 10,000 Population.	
Rutland	38.5	Bucks	54.1	Surrey	61.0	Hunts	70.6	*England and Wales*	82.1	Middlesex	95.4
Dorset	42.8	Sussex	55.0	Westmorland	61.2	Worcester	72.1	Gloucester	82.9	London	110.0
Suffolk	44.3	Berks	56.2	Hants	62.5	Norfolk	72.2	Northumberland	84.9	Essex	110.2
North Wales	44.3	Cheshire	58.0	Lincolnshire	62.8	Kent	73.7	Somerset	87.4	Devon	112.3
Cumberland	44.7	Warwick	58.5	Derby	63.2	Lancashire	75.5	Durham	89.0	Leicester	116.5
North Riding	47.2			Cambridgeshire	63.8	Bedford	75.9			South Wales	144.1
East Riding	48.6			Nottinghamshire	64.9	Stafford	77.6			Monmouth	170.0
Northampton	48.8			Cornwall	65.9	West Riding	78.9				
Oxford	49.0			Wiltshire	68.0	Hereford	79.3				
				Hertfordshire	68.8						
				Salop	69.0						
(9 Counties)		(5 Counties)		(11 Counties)		(9 Counties)		(4 Counties)		(7 Counties)	

(To be continued).

AUTOMATIC WRITING.

III.

By HENRY RAYNER, M.D.,

Lecturer on Mental Disorders at St. Thomas's Hospital.

THE article in a recent issue of the BRITISH MEDICAL JOURNAL on Mr. Stead's automatic writing experiences hardly dwells, perhaps, with sufficient emphasis on the dangers to health resulting from the habit of inducing automatic mental states.

A state of automatism, every psychologist will admit, is a reduction of mental function to the plane which obtains in the lower developments of animal life, and an enduring reduction to this state in man, as seen more or less completely in some forms of insanity, confirms this view. I regard this condition, therefore, as a devolution of function which will, if frequently repeated, produce injurious results. On this ground I have always opposed the extensive use of hypnotism, and now oppose the self-induced automatic habit, as exemplified by Mr. Stead.

The constant tendency of ideas to expression through the muscles is usually under control but at times is not, and results in involuntary acts, such as talking aloud with gesticulations. This may be a bad habit only, but is often a symptom of loss of control in states of disorder. If writing were as habitual as speech, involuntary writing would be as common as talking aloud.

Writing when purely automatic therefore ought not to excite astonishment or to be regarded as mysterious. The outward expression of trains of thought characteristic of the individual in states of incomplete consciousness is common enough and requires no supernatural explanation, but the fact that Mr. Stead also writes things of which he has no knowledge in his fully conscious state, may well excite his wonder. As pointed out by "Hypnos," in the *Pall Mall Gazette*, and in your leader, this also is easily explicable (on grounds which I will not reiterate) and is analogous to what has occurred in hypnosis, somnambulism, delirium, and cerebral traumatism. The essential feature of this, on which I would wish to insist, is that the analogous states in which it occurs are conditions of more serious disorder of consciousness than the slighter automatic condition in which Mr. Stead utters (or rather writes) thoughts which he recognises as his own.

The recapitulation or amplification of the arguments you have advanced, is to medical readers unnecessary, but I consider it most desirable to draw attention to the importance to health of this subject, which many are inclined to regard as trivial, or merely as an object of ridicule.

Automatic writing, as "Hypnos" points out, is the backbone of spiritism, and is the basis on which most intelligent spiritualists have been converted. In this indirect aspect alone, it is of great significance. Still more important are the possible direct results from its practice by persons of unstable mental endowment; an instance of this kind in the writer's experience ended in absolute insanity. The process of mental degeneration being through a lessened grip on reality and impaired judgment, to confusion between the phenomena of the complete and incomplete states of consciousness, ending in the acceptance of the latter as realities with consequent delusions, just as dreams are accepted as realities by some insane persons, by savages, and occasionally by children.

A cause which can produce so extremely disastrous an effect in one case must also be capable of producing less severe results in more numerous instances. The widespread publication, therefore, of such inquiries, without any accompanying scientific explanation, and with the suggestion of the supernatural element, is greatly to be deprecated by all who are interested in the mental health of the community, and who are cognisant of the possible evil results.

The inclination to belief in the mysterious or supernatural still lingers in the minds of many, and the acceptance of such belief should be clearly recognised, not as an advance in mental evolution, as is commonly suggested, but as a retrogression or devolution to a mental state allied to primitive and even abnormal conditions.

The investigation of the facts of automatic writing by persons unacquainted with physiology or psychology should be strenuously discouraged, not by ridicule, which provokes antagonism, nor by severely logical scientific arguments, which often cannot be grasped by those to whom they are addressed, but by careful teaching and explanation of the true significance of the phenomena.

The risk of mental deterioration by the frequent induction of states of incomplete consciousness, hypnotic or other, should also be distinctly taught, and the habit for those of the neurotic diathesis labelled, "Dangerous—this way madness lies."

THE CHOLERA ABROAD.

AT St. Petersburg from noon of November 22nd to 29th inclusive there were 20 cases of cholera, with 16 deaths, leaving less than 30 patients under treatment.

The disease is disappearing from Teneriffe, which has been practically isolated from the rest of the Canary Islands. The health of the remaining islands is excellent, visitors to Grand Canary arriving by every steamer for the winter months.

A case of cholera developed last week at Oranienburg, near Berlin, the patient being a bargeman newly arrived there. The disease is extinct at Niederbarnim, near Berlin.

An English barque has been wrecked on the coast of Martinique, after death by cholera of her master and 11 men on a voyage from Senegal to Barbados, the disease, it is stated, being epidemic in Senegal when the vessel sailed.

PASTEURISM AT CHICAGO.—The Director of the Chicago Pasteur Institute has issued a circular, dated November 18th, giving the results of the preventive inoculations against hydrophobia practised in this institution since its opening on July 2nd, 1890. Three hundred and two persons have been treated, classified as follows: 104 bitten by animals proved to be rabid by the results of experimental inoculation or by the death of other persons or animals bitten by the same animal; 126 bitten by animals recognised to be rabid by the symptoms of the disease during life; 72 bitten by animals strongly suspected to be rabid; 282 were bitten by dogs, 7 by horses, 7 by cats, 3 by skunks, 2 by wolves, and 1 by a mule. One death was reported among the patients treated, thus giving a mortality of only 0.33 per cent.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1893.

Subscriptions to the Association for 1893 became due on January 1st; and notice is hereby given, in accordance with By-law 5, that Branch Secretaries' subscription accounts close on October 31st, and all unpaid subscriptions must be forwarded after that date to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, DECEMBER 16th, 1893.

AN IMPERIAL PHARMACOPŒIA.

The desirability of having one uniform standard and guide, whereby the nature and composition of substances to be used in medicine may be ascertained and determined, will be recognised as a matter of principle by all members of the medical profession, and by those engaged in the preparation of medicines throughout the civilised world. There has, indeed, been some idea of attempting to effect the practical realisation of a system that would in many respects be eminently useful, and adapted to the requirements of modern life. For many years past the scheme of an International *Phamacopœia* has engaged the attention of medical men and pharmacists; and, at the International Pharmaceutical Congress recently held at Chicago, arrangements were made for continuing efforts in that direction. But, however desirable a generally uniform standard authority for the preparation of medicines may appear at first sight, it has been found that national, and even local, usages are so firmly established as to constitute serious obstacles to the adoption of international uniformity. The only progress that has been made is in the consolidation of the various *Pharmacopœias* which have been in use in particular countries, and even within those limits subordinate national prejudices have stood in the way to prevent a complete application of the principle. In this country the publication of the *British Pharmacopœia* as an authoritative standard throughout the British Empire has had the effect of practically superseding the several *Pharmacopœias* of London, Edinburgh, and Dublin, and it has very naturally contributed to the establishment of uniformity in the strength and composition of medicines used in different parts of the United Kingdom; but the advantageous uniformity of practice in that respect thus attained has not been equally extended to the Colonies or to India. Local customs there still continue to exercise their influence, and in Canada, for instance, the *Pharmacopœia* of the United States and the French *Codex* are probably as much used in certain parts of that colony as the *British Pharmacopœia* is in others.

Under these circumstances the project of extending the scope of the *British Pharmacopœia* so as to adapt it more fully to the requirements of India and the British Colonies is one of considerable interest. From the reported proceedings of the General Medical Council it appears that a communication was received last year from the Secretary of State for India on the subject of reports sent in by the medical authorities of India pointing out certain inconveniencies which result from their being required, according to the present *British Pharmacopœia*, to use particular drugs which could be substituted by others of equivalent value and indigenous to India. In Sir Richard Quain's presidential address at the opening of the recent session of the General Medical Council reference was made to this subject, and it was stated that the Secretary of State for India had been informed that the subject should be fully considered. The decision of the General Medical Council that provision for a new edition of the *British Pharmacopœia* should now be commenced has naturally offered opportunity for dealing with the contemplated extension of the work to meet the requirements of India and the Colonies. Communications have, therefore, been addressed to the Lord President of the Privy Council, requesting him to invite the medical and pharmaceutical authorities of India and the Colonies to send in to the General Medical Council such suggestions for the alteration of the *British Pharmacopœia* as their special knowledge of local requirements will enable them to offer. With their co-operation it is considered that in future editions of the *British Pharmacopœia* cognisance may be taken of the pharmacology and pharmacy of India and the Colonies, so that the usefulness of the work for the purposes it has in view may be extended to the whole of the British Empire.

The action thus taken by the General Medical Council is to be regarded as the first step towards the issue of a new edition of the *British Pharmacopœia*, and although two years will elapse before the decennial period of republication is reached, the amount of work necessary in connection with the projected scheme of adaptation to Indian and Colonial requirements will be so considerable as to require much time for its development and adoption. In the absence of any statement as to the mode in which the object in view is to be attained it is impossible to form a definite opinion as to its practicability. In a general way, however, it may be assumed that the introduction into the official materia medica of drugs intended to be used in India or the Colonies as substitutes for any of those now recognised would only have the effect of authorising the alternative use of those substituted drugs in those places.

In like manner, it is to be expected that the use of preparations into which such drugs enter would be limited to India and to the respective Colonies. If such a plan were adopted to any great extent, it would probably have the effect of very considerably increasing the size of the national *Pharmacopœia*. That result would be in some respects a disadvantage, and, having regard to the multiplicity of native drugs employed more or less in India, the inconvenience of such an extension of the *Pharmacopœia* might be serious. From this point of view, therefore, it might appear to be a more feasible plan to provide for the special requirements of India and the Colonies by means of distinct supplementary works, having reference only to the places where they are intended to be followed as guides in medical and pharmaceutical practice.

The American Public Health Association will hold its annual meeting next year at Montreal, under the presidency of Dr. Lachapelle, of that city.

THE NEW UNIVERSITY FOR WALES.

The issue of a university charter is a sufficiently rare event in the United Kingdom to deserve some notice at our hands, even though the power of conferring medical and surgical degrees is not at present conveyed by it. On November 23rd, a charter constituting "a University in and for Wales and the county of Monmouth, with the name of the University of Wales," which had been approved by a Committee of the Privy Council and laid before Parliament in the course of last summer, received the Royal signature and seal.

The charter, a copy of which is before us, is a somewhat lengthy and elaborate document, and contains many provisions of an unusual and some of a novel character. The University founded by it is a federal one; that is to say, it creates no new teaching establishment, but provides for the co-ordination and control of the education given in the three Welsh public colleges at Aberystwith, Bangor, and Cardiff, which, in the terms of the charter, become "constituent' colleges and "members of the University." The degree-giving power, strictly limited (except in theology) to students of the constituent colleges, is committed to a supreme governing body or university court, on which the colleges are represented, and which is to be advised by a senate or academic body consisting of the united professors and lecturers (being heads of departments) of the three colleges. The graduates of two years' standing and upwards are formed into a "guild" or convocation, with a right of meeting to discuss university questions, and of giving effect to their opinions through representatives elected to the court. Examinations for degrees are ordered to be held jointly by "internal" and "external" examiners. So far, the plan of the new institution accords pretty closely with the federal model of the Victoria University, save that the construction of its executive is left to the determination of the court instead of being prescribed by charter, that the assent of the Crown, as Visitor, is required to the statutes of the university, that the external examiners are not included in the composition of the Senate, and that some promise or hope of further development seems to underlie both the name and the constitution of the "guild of graduates." On a closer inspection of the charter, however, some less familiar provisions disclose themselves, which may merit further examination and comment.

It would appear, in the first place, from a memorandum and other papers published by the promoters of the charter, that the University of Wales is not meant to be, like the existing English universities, an isolated and independent institution, but a part of a complete system of public education which is being gradually built up in the principality. Consistent with this intention, though little in accordance with university precedent, is the provision which associates direct representatives of public opinion in the government of the institution. Of the hundred members composing the university court, a fourth, roughly speaking, are to be elected by the sixteen county councils and councils of county boroughs in Wales and Monmouthshire. The Welsh county councils, it should be remembered, have, under the Intermediate Education Act of 1889, a deeper interest in and a closer connection with academic matters than those of England. But the influence of public opinion over the University will be found to be really much greater than this provision alone would indicate, for the lay authorities of the Welsh constituent colleges and the Central Board of Intermediate Education, which is also to elect representatives, are themselves in the main emanations of popular election. The appearance in the court of six persons directly representing the head teachers of secondary and primary public schools in Wales further emphasises the idea of continuity in educational policy which possessed the minds of the promoters.[1]

While anxious to secure the standard of the University's degrees and to preserve the principle of ultimate public control, the framers of the charter did not lose sight of another principle of great importance and undeniable soundness. They were desirous that the predominant academic influence in the University should be the teacher and not the examiner. It is in accordance with this view, we understand, that the initiative in academic matters has not been left entirely with the Senate, but that the right of proposing schemes of study and examination for its own pupils has been secured, under certain safeguards, to each college separately.

The scrutiny by the united professorial body, which each such proposal must undergo, is relied on to restrain an undue degree of individualism in systems of teaching, as well as to make sure of a proper equivalence of standard, but an indication is given to the University authorities, should occasion arise, rather to accept divergencies of scheme between the different colleges than to overload a common curriculum in the vain attempt to compromise or reconcile incompatible educational views. The teachers' hands, evidently with a similar end, are further strengthened by the embodiment in the charter of a disciplinary rule familiar to the London medical schools, the University being empowered to confer degrees on such undergraduates only as have been duly presented for examination by their own colleges.

The University of Wales will be amongst the very few universities of the world that are without a fixed seat. Geographical exigencies, we learn, have dictated the liberty given to university bodies to meet where they will, as long as each constituent college is visited by them every three years in regular annual rotation. Precedents for an ambulant university are far to seek; but New Zealand, and, we believe, Graz in Styria, may claim priority of invention for an expedient which similarity of circumstance has now again suggested.

The feature of this charter which will probably attract more notice than any other is the extremely frank recognition which the proverbial gallantry of Wales has accorded to the claims of the *beau sexe*. It is laid down in the very first article that "women shall be eligible equally with men for admittance to any degree which the University is by this our charter authorised to confer," and that "every office hereby created in the University and the membership of every authority hereby constituted shall be open to women equally with men." If we may credit the assertion of a well-informed correspondent, that these were the only im-

[1] Precisely specified, the distribution of representation is 13 members to the Crown, 26 to the counties, 36 to the Colleges, 13 to the graduates, 6 to the Central Board, 3 to the secondary and 3 to the primary schools. The Chancellor, to be elected by the Court itself, with the approval of the Crown, will bring the total to 101.

portant provisions of the charter that were never challenged, disputed, or criticised during the whole course of the proceedings, we must indeed admit Wales to be in the van of progress on the question of women's rights.

That the University just founded is framed on an ideally perfect plan we do not pretend to say; but neither do we care to criticise. The scheme was prepared by a representative conference amply acquainted with the educational circumstances of Wales; it was frankly and fully submitted to public discussion before it was cast into legal form; and that its framers had succeeded in convincing their countrymen may be inferred from the manner in which the charter was finally received by both sides of the House of Commons. The University of Wales will commence its work with the goodwill and confidence of those for whose benefit it is intended, and we may cordially wish it every success.

POISONING BY CARBOLIC ACID.

The beneficial results of the use of carbolic acid as a disinfectant and for purposes of sanitation have been very considerably qualified by the circumstance that it is a highly poisonous substance, and has been the cause of a very large number of fatal accidents. For many years past it has been evident from the nature of these accidents that the very general application of carbolic acid for sanitary purposes, and the absence of any statutory regulations for the observance of such precautionary measures as are necessary in the case of other poisons, were conjointly a source of considerable public danger, and on that account the Council of the Pharmaceutical Society in 1882 passed a resolution that carbolic acid should be deemed a poison within the meaning of the Pharmacy Act. Before that resolution could become effectual it was necessary that it should receive the approval of the Privy Council, but when submitted to the department for that purpose it appears to have been considered that any restrictions applied to the sale of carbolic acid would interfere with its utility as a disinfecting agent so far as to be undesirable. In any case, however, the Privy Council declined to approve of the proposed addition of carbolic acid to the poison schedule, and, up to the present time, its sale has been continued without any necessary regard for precautions against accident or misuse. Meanwhile, the number of fatal accidents caused by carbolic acid has shown an alarming increase year by year, and the number of suicides in which death was due to carbolic acid has increased to a still greater extent. Coroners and their juries have repeatedy pointed out the danger attending the existing system of supply, and have strongly urged the necessity of enforcing suitable safeguards. The increase of fatalities due to carbolic acid has been so great that this substance has for several years figured prominently in the returns of the Registrar-General as a cause of death, both by accident and suicide. In 1889 the recorded deaths of both kinds numbered 68, in 1890 they were 69, and in 1891 they were 94, or 231 within the three years.

It is evident, therefore, that ample ground exists for the suggestion made by Mr. Macdona in the House of Commons that carbolic acid should be added to the poison schedule, and its sale placed under the restrictions laid down in the Pharmacy Act. As a consequence of this step, a communication has been addressed to the secretary of the Pharmaceutical Society by the Local Government Board, calling attention to the subject. It is there pointed out that the Local Government Board has no jurisdiction in this matter, and that it is the business of the Pharmaceutical Society, under the Pharmacy Act, 1868, to resolve on the addition of articles to the poison schednle. We are glad to learn from the report of the last meeting of the Council of the Pharmaceutical Society that prompt action has been taken, and that a resolution has been passed, declaring that carbolic acid ought to be deemed a poison within the meaning of the Pharmacy Act, and placed in the second part of the poison schedule of that Act. We presume that this resolution has already been submitted to the Privy Council for approval, and with the experience of the last twelve years to support the adoption of the course now recommended by the Pharmaceutical Society at the instigation of the Local Government Board, it may be confidently expected that a remedy will be provided for the serious public danger attached to the present mode of dealing with carbolic acid.

In regard to the arguments which have been put forward in opposition to the regulation of the sale of carbolic acid as a poison, the one of chief importance is that which assumes such regulation would interfere with the application of the article for sanitary purposes. It is not, however, by any means necessary to the full utilisation of carbolic acid as a disinfectant that it should be left standing about in vessels of all kinds and descriptions, and without labels indicating its dangerous nature. The natural consequence of such negligence is that its presence in a cup or bottle is forgotten, and facility is afforded for the occurrence of accidents which might be easily prevented by the exercise of a little care. The usefulness of carbolic acid for sanitary purposes cannot be reasonably urged as a justification for neglecting the precautions which are requisite by reason of its poisonous nature. So long as the sale of the article without proper labels is allowable, it is vain to expect that the purchasers will exercise the necessary caution. The duty of providing for that must be thrown upon the sellers, and for that purpose it is unavoidable that the sale should be restricted to persons who will be in a position to observe the necessary precautions. It is of little avail for public safety that a chemist refuses to supply carbolic acid in a teacup or gingerbeer bottle if it can be obtained in that way from a neighbouring oilshop; and so long as the sale of the article is unrestricted, any such attempts to prevent accident will only have the result of making the chemist, who is sensible of the danger and anxious to prevent accidents, appear as an antiquated and fastidious person, as Mr. Allen showed in the recent discussion of the subject by the Council of the Pharmaceutical Society. We do not believe that the use of carbolic acid would be at all interfered with by restricting its sale to chemists, and there can be no question that if that were done public safety would be more effectually provided for. Even in that case it seems very questionable whether carbolic acid should ever be sold in an undiluted form, since it is never intended to be used in that state, and the risk of accident would be very materially reduced if it were always supplied in the state of dilution in which it is fit to be used.

The sixteenth Balneological Congress will be held in the Pharmacological Institute of Berlin at the end of February, 1894, under the presidency of Professor Oscar Liebreich.

A MOVEMENT is on foot to form a dermatological society on lines similar to those of the Ophthalmological Society of the United Kingdom. A meeting in support of the proposal was held on December 14th at Mr. Jonathan Hutchinson's Clinical Museum, Park Crescent.

THE Royal Commission on Vaccination met again on December 14th, and concluded the evidence. Dr. Birdwood, of the Metropolitan Asylums Board, was examined. The Commission, after taking evidence for a period extending over five years, adjourned to the New Year, when they will assemble to consider their final report.

THE OPIUM COMMISSION.

ACCORDING to a Reuter's telegram from Rangoon on December 13th, the bulk of the evidence taken there by the Burmah section of the Opium Commission is against the abolition of the opium trade. The Commissioners left Rangoon on that day for Mandalay.

ANDREW CLARK MEMORIAL.

THE Committee of the London Hospital have started a memorial fund in commemoration of the work Sir Andrew Clark had done at the hospital. They intend that the memorial should take the form of the endowment of a bed or beds. If the subscriptions warrant it, the memorial will take the form of a new ward.

METROPOLITAN WATER SUPPLY.

THE minutes of evidence taken by the Royal Commission on Metropolitan Water Supply[1] have just been issued, and form a bulky volume of 560 pages. It is announced that the appendices, general index, and maps will be issued in a separate volume. As we intend to deal fully in an early issue with the important subjects raised by the evidence, we refrain from discussing it at the present moment.

THE ISOLATION HOSPITALS BILL.

LORD THRING'S Bill has now passed safely through the Committee stage in the second House, and is within measurable distance of becoming law, a consummation most devoutly to be wished in the interests of preventive medicine. It is unnecessary at this juncture to refer again in detail to its provisions, but it will be remembered that it seeks to confer on county councils the power of forming "hospital districts," and of reserving to themselves some share in the management and expenses if they think fit to do so. The modifications introduced in Committee are not of a character to impair the practical usefulness of the measure in any way. Most of the important additions and amendments suggested by the Parliamentary Bills Committee of the British Medical Association have been adopted, and it would be useless to discuss afresh minor points which affect not the principles of the Bill, but merely the smoothness of the working of the new machinery. As it stands, it deserves the warmest approval and support of all who are concerned in the suppression of infectious diseases.

THE INSTITUTE OF CHEMISTRY.

THE new laboratory of that valuable and efficient body, the Institute of Chemistry of Great Britain and Ireland, was opened on Friday, December 8th, by Professor W. A. Tilden, F.R.S. Among those present were Sir Frederick Abel, F.R.S., Dr. J. Bell, F.R.S., Professor Russell, F.R.S., Professor Meldola, F.R.S., Professor Dunstan, Dr. Dupré, F.R.S., Mr. Ernest Hart, Mr. Carteighe, Dr. Paul, and many distinguished chemists. The President, in the course of his remarks, said that the Institute, which was founded in 1877 and incorporated in 1885, now had 731 Fellows, 104 Associates, and nearly 200 registered students. The object of the Institute was to promote the education and training of young chemists, and to examine and register those who possessed the necessary qualifications. In this way they hoped that in the course of time the Institute would succeed in educating men to understand the fundamental principles of chemistry, and to apply them. Hitherto they had been thankful to receive the hospitality of King's College, University College, and other institutions for the accommodation requisite for carrying on the practical examinations, but it was thought that this course was neither wise nor dignified, and they had decided to devote a portion of their capital to the erection of the new buildings opened that day, which were most completely equipped. It was announced that 200 students are being trained at the present time.

EDINBURGH ROYAL INFIRMARY.

THE managers of the Edinburgh Royal Infirmary, at their weekly meeting on Monday last, appointed Mr. William S. Caw to be treasurer, in room of Mr. Trainer, who recently died of typhoid fever. Mr. Caw has been in the service of the infirmary for some thirteen years. We are informed that the managers have decreed that the usual treats or tea parties given in the various wards in celebration of Christmas and the New Year are not to take place this year.

INJURIOUS TRADES.

WE understand that the Departmental Committee appointed by the Home Secretary to consider the conditions of labour in potteries, and to suggest means whereby the injurious effect of such labour may be minimised, recommend that the Secretary of State should be empowered to prohibit the employment of women in this connection, and that the local authorities should be enabled to declare workshops, or parts of workshops, unfit for the purpose to which they are applied. Proposals are also made with a view to increasing the stringency of existing regulations, notably in regard to ventilation and temperature. The Departmental Committee on the Lead Industries also suggest that the Home Secretary should be empowered to prohibit female labour, the evidence taken proving conclusively that the fumes generated during certain of the processes are more injurious to young women than to women of mature age. In this case, too, proposals are made for increased stringency generally. The recommendations of the Committee relate to persons engaged in the red lead and enamelling industries, as well as the white lead industry. The tinning of hollow ware also came within the scope of the inquiry.

LEPROSY.

WE learn from Indian papers that steps are about to be taken in Calcutta for dealing with the lepers. In Bombay the leper question was settled some time ago by the simple process of declaring leprosy an infectious disease, as of course it is, and detaining lepers in a sanatorium at Matunga, near Bombay. The lepers were collected and placed in the asylum, which was guarded by the police, so that escape was impossible. Admissions into this home were therefore numerous, and on reading Mr. Tebb's book we could not fail to be amused at his quoting this circumstance in proof of the rapid increase of leprosy in Bombay. Under existing Acts the Calcutta police are empowered to arrest lepers who, in any public place, may be found begging or exposing their sores, and males suffering from dangerous diseases may be removed to places specially provided. The Government of Bengal accepts the conclusion arrived at by the Leprosy Commission in India (1890-1891), that general measures directed towards compulsory segregation are neither necessary or desirable, but that lepers, for obvious reasons, should be removed from public gaze, and prohibited from begging, selling food, washing clothes, etc. This is

[1] To be obtained either directly or through any bookseller from Eyre and Spottiswoode, East Harding Street, Fleet Street, E.C., and Westminster, S.W.; or John Menzies and Co., 12, Hanover Street, Edinburgh, and 90, West Nile Street, Glasgow; or Hodges, Figgis and Co., Limited, 104, Grafton Street, Dublin. Price, 4s. 6d. [C—7172—1.]

reasonable enough, especially if applied not merely to lepers but to all vagrants, beggars, and persons suffering from loathsome diseases. The Leprosy Commission strongly advocated improvement of hygienic conditions, and this implies personal and social disinfection, and it is clear enough from their report that their suggestions keep these points in view. As in tuberculosis, where compulsory segregation is out of the question, complete and ideal disinfection should be one of the ends aimed at. There is no more justification in locking up a careful leper than there is in locking up a consumptive who realises that he carries an infectious virus about, and recognises his responsibility. The Calcutta municipality may declare leprosy a dangerous disease, and thus bring the male lepers within reach of the Act. This obviously would be insufficient, and on the face of it absurd, if strictly true. The Bombay plan would seem the best, namely, of detaining vagrants, lepers, or such as are unfit to go abroad, in a sanatorium. Experience of the conditions in Indian bazaars tends to show that the municipality would do well not to be too narrow in their terms and definition, and to frame an Act which shall include all loathsome diseases, notably syphilis and other cutaneous affections. We are glad to see that in Bengal, at least, something is being done, but we must regret any measures which single out the leper, whose condition is already accursed enough, while more dangerous congeners of his are allowed to roam about freely. The Bengal Government believes that in rural areas nothing can be done at present. The only recommendation we can offer is the erection of asylums and homes where the leper would find a voluntary abode. As education advances, and therewith the removal of prejudice, the native of India learns to recognise and judge of the advantages of being carefully looked after and nursed in hospitals, and this fact explains the constant increase in hospital and dispensary returns of admissions. The Indian judges by results, and it is well known that he does not hesitate to march hundreds of miles to be treated by a successful surgeon.

FOOD POISON AND HIGH GAME.

It seems that we are never to be without a case of food poisoning, assumed or real. There is no doubt that in some cases "the signs of poisoning," as the daily papers generally call them, are due to the food itself, pure and sound though it may be. When a man and his family, including an infant girl aged 18 months, partake of a "pork butcher's duck," we might well expect severe signs of poisoning about midnight, especially in the infant. How a man in his senses can feed a mere babe on a mess consisting of pig's liver, lights, and skin passes all understanding. In this particular case the infant died, and the verdict was justly returned as "Death from improper food." No blame can be attached to the pork butcher and his duck, but a severe censure was certainly due to the irresponsible parents. People who eat pork, whether hidden under a piecrust or by the euphemistic name of "duck," must take the consequences, and do so on their own responsibility. This also applies to game. There are some among us who prefer their game high, and a gourmet no doubt would refuse game without a slight *haut goût*. Should—as is not at all uncommon—serious symptoms follow, no blame attaches to the dealer. This question was recently discussed in a police-court in Birmingham. A dealer may certainly not sell fowls or turkeys which are green and give forth a very bad odour, not even at the low price of three chickens for a shilling. Nor may he sell game in such a putrid condition, for there is a difference not merely in distinction between "high" and "putrid." Game in a "high" condition becomes soft and palatable, and is sound food except to those who know their own idiosyncrasies from experience. Custom sanctions the sale of high game, but not that of putrid fowls. In this case the medical officer admitted, according to the report, that he could not tell, but that game differed from fowls. Of course it does. In the case in question the fowls were putrid, and we should answer the question of the advocate, "If a man may eat a putrid pheasant, why may he not eat a putrid fowl?" by saying that he may not eat a putrid pheasant. Neither in a state of putrescence may be eaten without danger; it is improper food in both instances. Putrid game undoubtedly should be seized as bad food. A Birmingham contemporary asks, "May high game be sold and safely eaten?" If sold in sound condition, just "turned," as it is called, there is practically no danger, except to those who are susceptible, and therefore should abstain. The safety depends on the individual and his palate. Moreover, the safety in game rests partly also in its prohibitive price. It is not a staple food, and he that can afford to buy game must consume it on his own responsibility. Our contemporary concludes by saying, "All that the medical officer can tell us is that game is different from fowls, and that people may buy it, and keep it and make it 'high,' and then consult their own taste," but he does not see that the very circumstance of free choice throws the responsibility on the individual, and not on the medical officer or the salesman. To us this seems explicit enough.

HEALTH OF MADEIRA.

With reference to the outbreak of cholera at Santa Cruz, in Teneriffe, a medical resident in Madeira writes to us that there is no doubt that the island of Madeira is suffering severely from the constant association of the two names "Madeira" and the "Canaries." He states that Madeira is now free from all restrictions as to quarantine from England; that the Canaries are nearly two days' steaming from there, and all communication is stopped between the two places, and that the health of the island of Madeira has been perfect for two seasons, and the climate the same as usual. He states that the health of the place could not be better.

"POISONING BY MISADVENTURE:" A DISMAL CATALOGUE.

The deplorable accident which caused the death of Professor Tyndall will, it is to be hoped, at last rouse the proper authorities to enforce the adoption of precautions in the dispensing and use of poisons which will make such mistakes impossible. With what lamentable frequency they occur our own columns bear sufficient witness. Either a devoted mother gives her child strychnine (intended for rats) instead of a harmless powder, or a daughter gives her father a strong dose of laudanum instead of a cough mixture, or (an error which one might have believed to be impossible) a careless or sleepy nurse gives the patient carbolic acid lotion instead of medicine ordered for internal administration. Hardly had the inquest on Professor Tyndall been concluded when another was held at Hampstead on a man to whom an affectionate and careful wife—on whom, moreover, the necessity for special precautions had been duly impressed by the medical man in attendance—through the forgetfulness of a moment administered carbolic acid instead of the medicine she was accustomed to give him. Yet large as is the number of such fatalities recorded in the British Medical Journal, it may be assumed that they are but a small fraction of the total number of cases of accidental poisoning which actually occur. The last annual report of the Registrar-General for England and Wales showed that of a total of 876 deaths certified as being caused by poison in 1891, 544 were due to misadventure. Deducting from these 132, in which the poisonous agent is said to have been "lead," and which therefore do not concern us here, we have 412 deaths, of which 114, or more than one fourth, were due the accidental administration of narcotic poisons, "opium, laudanum, morphine, chlorodyne, soothing syrup, cordial, paregoric." Next to these comes chloroform with a tale of 62 deaths; carbolic acid caused 31; the poisonous alkaloids—aconite, belladonna, cocaine, strychnine—are credited with 19, mineral acids with 17, arsenic with 8, chloral with 7, and

oxalic acid with 2. In addition to these, 128 deaths were caused by "miscellaneous poisons," and in 24 the precise agent was not ascertained. Setting aside the deaths attributed to chloroform, the great majority of the fatalities included in this dismal catalogue were doubtless due to the fact that the poison was given or taken out of the wrong bottle. The way to prevent this is obvious, and has been pointed out over and over again by Mr. Ernest Hart in the Journal, and an appeal, hitherto fruitless, has been made by him officially to the Pharmaceutical Society. All poisons should be sent out in bottles of a kind that will automatically warn the most careless handler by appealing sharply to his sense of touch. The poison label, though useful as a danger signal, is insufficient by itself, even if it were in all cases compulsory, which is not the case with regard to remedies prescribed by qualified medical practitioners. The luminous label which has been proposed, however efficient in the night, would be useless in the day. All bottles containing poisons should be made of fluted glass, and provided with screw stoppers. The Pharmaceutical Society has the power to make the use of such precautions compulsory on all chemists, and it is not too much to say that if, in the face of the facts we have brought forward, it now fails to use this power, it will be guilty of a grave neglect of its public duty.

PROFESSORS, ASSISTANTS AND STUDENTS IN SCOTTISH UNIVERSITIES.

The Marquis of Huntly, Lord Rector of Aberdeen University, on the suggestion of the Students' Representative Council, has selected as his assessor, in the Aberdeen University Court, Dr. Alexander MacGregor. Fortunately by this election Dr. MacGregor is able to perform a double representation; first on behalf of the students of the University, and secondly, being Senior Assistant to the Professors, he will be able to represent the assistant professors, who have now extended duties and interests in the work of the University. It might be suggested that quite fittingly the assistants to the professors in the universities should have a distinct representative in the University Court. At present they are without direct representation.

THE STATE AND THE UNEMPLOYED.

The Charity Organisation Society has put together in a pamphlet[1] a large amount of useful information tending strongly to enforce the policy of leaving to the Poor Law the duty of dealing with the poor. It is said that in London itself 102,000 heads of families, half of them skilled and half unskilled workmen, are out of employment, and that, if one adds wives, children, and young people, the frightful total of 500,000 persons are short of wages and of what wages buy. The question which really has to be faced is whether this crowd of ostensible competitors for work shall be allowed to produce its natural economic result in reducing wages, and thus, by lessening the cost of production, lowering prices to the consumer, or whether these unemployed shall be provided with work, so unremunerative or unnecessary as not to compete with those already earning wages, at the expense of the rates and taxes. The proposals made with the latter object are shortly: (1) Relief by extra public service, (2) houses of industry and municipal workshops, (3) the farm or labour colony. The information given regarding the first of these proposals is probably just now the most interesting, seeing that the vestries are being urged on every side to provide work for the unemployed. It is shown that when this was attempted last year very little effort was made to select proper cases from among the applicants for relief, and that the work done was quite unremunerative to the vestries. It is sufficiently obvious that work which, according to the terms of Mr. Fowler's letter, "all can perform, whatever may have been their previous avocations," must be the most unskilled of all forms of unskilled labour—must, in fact, be of much the same character as that offered by the guardians as a test; and that "work which does not compete with that of other labourers at present in employment," must be work which is either useless or such as the vestries have hitherto found unnecessary. The true policy, then, is, according to the Charity Organisation Society, exactly the reverse of that now so widely advocated. The State should not, except under the very closest restrictions, be the employer of the destitute unemployed. The Poor Law should be trusted, and if necessary its administration be reformed and improved. It should bear the brunt of the difficulty, whatever it be; and if the Poor-law guardians have not proper means of dealing with the unemployed, they should without delay equip themselves for the task.

[1] *Charity Organisation Society.* Price 3d.

WORKHOUSE WARDS AS MORTUARIES.

Considerable indignation was expressed by some of the Truro guardians at a recent meeting at the fact that the body of an aged pauper, who died on the evening of November 28th, was left in the ward among the sick all night. The nurse informed the Board that "the deceased died in the evening about 9 o'clock, and the body remained in the ward until the next morning. Five others slept in the same ward, and declined a screen for the body." One of the guardians stated that "the custom adopted in the house had been followed in this instance, and there was no irregularity;" but another said "it was a standing disgrace that corpses were left in a room where invalids slept," and others spoke of the feeling in regard to the matter which existed among respectable ratepayers. Yet another speaker is reported to have said "the matter had been broached out of spleen towards the master. (Loud cries of 'No.') All harmony would be destroyed if that sort of thing continued." All harmony indeed! Harmony at a board of guardians is not worth much if it only results in a workhouse for 500 inmates, with a separate infirmary of 78 beds, having no trained nurse, and only one paid servant who acts as nurse for all these sick. That the sick and dead should sleep together, shows the sort of care and attention given to the sick in infirmaries where trained nurses are not employed, even though an untrained woman may be paid to attend them. At some places, it must be remembered, not even this luxury is allowed, and pauper labour only is provided for the delicate task of nursing.

THE GENERAL MEDICAL COUNCIL.

We have received an advance copy of the *Minutes* of the General Medical Council, and its Committees and Branch Councils, from June 1st to December 5th, 1893. The volume also contains appendices containing a report on Reciprocity of Medical Practice in Relation to Foreign Countries, dealing with the legal regulations as to the practice of medicine in Austria, Belgium, Denmark, France, Germany, Hungary, Italy, the Netherlands, Norway, Portugal, Roumania, Russia, Spain, Sweden, and Switzerland. There are also reports by the Education Committee on State Medicine, and on the answers by the Corporations to the resolutions of the Council adopted last May, with regard to the recognition by certain bodies of the study of physics, chemistry, biology, and pharmacy previous to registration, with regard to the examination for the Membership of the Royal College of Physicians of London, and with regard to the fact that the Conjoint Board of the Royal Colleges of Physicians and Surgeons in Ireland allow candidates to present themselves for the final examination after four years and a-half of study. Another appendix contains the reports of the visitors and inspector of examinations, with remarks by the bodies visited on the final examination of the Irish Universities and Corporations, the English Universities, and the Scottish Corporations, together with reports of the Examination Committee of the Council on the examinations of the Irish Cor-

porations and English Universities, and on the number of candidates rejected at various examinations. The volume contains an immense mass of detail, and a great deal of valuable and some curious information; Mr. Miller, the Registrar of the Council, is to be congratulated on the celerity with which it has appeared.

A NEW PHASE OF QUACKERY.

The relations existing between medical men and chemists have recently been the subject of much discussion, and probably on both sides there is considerable room for more strict observance of respective claims, which can only be the result of such mutual consideration and respect as the intimate connection of medicine and pharmacy requires. Our attention has recently been directed by several correspondents to an advertisement in the *Standard* which appears to furnish evidence of a most reprehensible disregard of the obligations attaching to dispensers of medicine, and of an improper use of the confidence reposed in them. The advertiser, representing himself as "a retired chemist," offers to supply "best medical advice," and to do so by making use of "the prescriptions of famous West End doctors," which he has dispensed for years. Copies of these prescriptions are to be supplied through the post at the rate of one shilling each, and it is stated by the advertiser that they are adapted "for all sorts of ailments." This is an announcement calculated to create a prejudice against chemists, and to excite distrust of them as the recognised dispensers of prescriptions. We are glad, therefore, to find that, whatever may be the foundation for the advertiser's statement that he has "for years dispensed the prescriptions of famous West End doctors,' the name given by him does not appear in the official *Register* of chemists and druggists, and it may, therefore, be inferred that his pretensions in that respect are as unfounded as his assumption of capacity to treat disease by supplying copies of alleged "prescriptions.' In any case it is difficult to imagine a more impudent proceeding or one more likely to be attended with mischievous consequences to persons credulous and foolish enough to be entrapped by this advertisement. If the advertiser be really a qualified member of the pharmaceutical body, and the name given only assumed, his identity should be discovered, and erasure from the *Register* would be a suitable punishment for such conduct. Chemists of repute who are desirous of maintaining and promoting the credit of the body to which they belong should look to such attempts to deceive the public at their expense, and expose them collectively to unmerited discredit. We hope that the particular case now referred to may not escape being dealt with in that way.

MEDICAL ETHICS AND MEDICAL REMUNERATION.

Dr. Withers Moore, in an address which he gave recently before the Brighton and Sussex Medico-Chirurgical Society, discussed certain points in medical ethics, and touched upon the burning subject of professional remuneration. Under the first head, he spoke decidedly as to the wisdom of not raising any difficulties in the way of having a second opinion on the case, and suggested that the consultant might usually be some senior practitioner of the locality. He condemned strongly "any scheming, direct or indirect, on the part of one who should be in very deed a brother practitioner, to shake a patient's confidence with a view to the schemer's being himself possibly called in," and observed that a consultant should not attend the patient in a subsequent illness "without the doctor who originally called him in, unless, indeed, in the meantime the patient had changed his regular medical attendant." He said that any patient visiting a consultant at his own house should be seen, but should not be given a prescription, the consultant's duty being to communicate his opinion to the patient's ordinary medical attendant. On the other hand, he said that the general practitioner was bound to act loyally to the consultant and seriously try the method of treatment suggested by him. As to the wisdom of the advice given there can be no doubt, and, in spite of all that has been written, we fear we may add that there is much need for its reiteration. On the head of professional remuneration, Dr. Withers Moore entered upon more debateable ground, but the opinion of one who has served the Association, both as President and President of Council, will carry much weight. He urged that for those who were not in a position to pay full fees three forms of assistance should be provided at the cost of the public. In the first place he holds that State aid should be given on a scale much more ample than that of our present Poor Law. The fact of the breadwinner or his wife being incapacitated should suffice, and no stigma of pauperism should attach in consequence; to meet this the medical officer should be paid so much a case, a fresh order being given should the case last more than three months. In the second place he urged that provident dispensaries should be the ordinary form of medical aid for the working classes generally, including small shopkeepers, all qualified practitioners within the district being entitled to be placed on the staff of the institution, the subscriber having the right to choose his own medical attendant and to change at the end of any year. Where, as in many existing dispensaries, there is funded property given for the specific purpose of providing wholly gratuitous medical relief, he suggested that a small committee might be appointed (consisting, perhaps, of the parochial clergyman, a Nonconformist minister, and one or two tradesmen), who should meet quarterly to consider applications for gratuitous medical relief during the year. The ordinary provident subscription would be paid out of the funded property for approved cases to the Provident Dispensary Committee. Under such an arrangement it would not be necessary to divulge the names of persons thus assisted. The third form of assistance should be the free hospitals, the only justifiable form of gratuitous medical relief on a large scale; their justification was found in the great expense attendant on hospital cases, and in the exigencies of medical science. The physicians and surgeons in the out-patient departments should act as consultants, and give their services only in cases of such a nature as would, had the patients been able to pay fees, have been brought to them for special advice or operation. He urged that if the provident system were in full operation the plea commonly made on behalf of shilling and sixpenny "advice and medicine" could no longer be made. In conclusion, he asked: "Are not our leading consultants making it very difficult for their younger and less fortunate brethren to gain an adequate livelihood?" In fact, he asked the question raised the other day in the Journal, "Should eminent consultants take silk?" and answered it in the affirmative. If a leading Q.C. "cannot be approached for a single consultation for less than a modified fee of eight guineas," surely, he argued, it is not unreasonable to ask our leaders to require a fee of five guineas. In support of this view he quoted the opinion of the late Professor Charcot, who had expressed to him his astonishment that the leaders of the profession in the United Kingdom were doing so little for scientific advancement, a failure which he attributed largely to the pecuniary exigencies of their position in the metropolis, taken in connection with the lowness of their fees, adding that he never at his own house saw anyone for less than 100 francs. We are glad to see that Dr. Moore has had his address put into print, though only for private circulation.

PREVENTION OF INDUSTRIAL LEAD POISONING.

The Departmental Committee appointed by Mr. Asquith, to inquire into the white lead and allied industries, and to suggest any precautions necessary for the protection of life and health, has presented its report. The greatest change

recommended is the exclusion of females from all direct contact with white lead. In some works this is already done, and it is believed that the total number of women who would be displaced if this recommendation were carried out would not exceed 600. Further, they recommend that no female under 20 should be employed in white lead works; that before employment women should be submitted to medical examination, and that in both sexes a medical certificate should be required after absence through illness before return to work. They recommend that women should be required to wear overalls and head coverings, and special shoes and stockings, while engaged in certain parts of the works. With regard to the enamelling of iron plates, the recommendations are very similar; and it is proposed that in colour works, also, the employment of females and male "young persons" should be prohibited, and that in lead smelting these two classes should not be permitted to clean the flues; further, that nobody should be allowed to work in the flues for more than two hours at a time, nor leave afterwards before taking a bath. The provision of special lavatory accommodation is advised in colour works, lead smelting, yellow lead, electric accumulator, turning and enamelling of iron hollow ware, and red and orange lead works, and in the last it is recommended that all persons employed should be submitted to a weekly medical inspection. In the case of white lead and the enamelling of iron plates and hollow ware, the provision of a dining room is recommended. The report contains a large number of proposed regulations directed to prevent poisoning through dust or by want of personal cleanliness, specially adapted to the needs of each industry, and it is proposed that the usage which obtains in the case of accidents—a compulsory report to Her Majesty's Inspector of Factories and the certifying surgeon of the district—should be extended to cases of lead poisoning. The report is signed by Mr. Edward Gould, Professor Dupré, Dr. Thomas Oliver, of Newcastle, and Messrs. H. J. Cameron and Tennant.

THE MORTMAIN ACT AND MEDICAL CHARITIES.

IT will be remembered that in a correspondence between Sir John Simon and the Chairman of the Parliamentary Bills Committee, Sir John Simon called attention to the injurious influence of the Mortmain Act in preventing bequests to hospitals. Subsequently a detailed memorandum on the subject was prepared by Mr. Ernest Hart, after conference with Mr. B. F. C. Costelloe, barrister-at-law, and a schedule of questions was issued to hospital authorities to obtain details as to the manner in which the Act had injuriously affected them or any one of them. A good deal of information was collected, and a Bill was drafted, on behalf of the Parliamentary Bills Committee, by Mr. Costelloe, which was introduced into the House of Commons. Almost simultaneously a similar Bill was drafted on behalf of the Hospitals Association, and in the end a very satisfactory Act was passed, known as the Mortmain and Charitable Uses Act, 1891, which largely removed the restrictions of the old Mortmain Act, and enabled hospitals to benefit by the charitable intentions of testators of real estate. In the Court of Appeal on December 10th, before before Lords Justice Lindley, A. L. Smith, and Davey, judgment was given in an appeal "The Brompton Hospital for Consumption *v.* Lewis," in which the question involved was as to the operation of the Mortmain and Charitable Uses Act of 1891 in the interpretation of wills made before, but taking effect after, the passing of the Act. A Mr. Bridger had made a will in June, 1891, directing that after the death of his wife such part of his residuary estate as might by law be given for charitable purposes should be paid to the Brompton Hospital for Consumption, and the remainder be left in trust for his wife's niece. As the law stood when the will was made only a portion of the residuary estate could go to the hospital, but under the Act of 1891 the whole of it could be so applied, and as the wording of the Act applied to the wills of all persons dying after it had become law, and the testator died in 1892, Mr. Justice North held that the whole residuary estate must go to the hospital. The trustee for the niece appealed, but their lordships upheld Mr. Justice North's decision, and dismissed the appeal, with costs.

THE INFLUENZA EPIDEMIC.

IT rarely happens in London that the deaths exceed the births in number, but this was the case last week, the figures being 2,556 and 2,466 respectively. This death total was 870 above the average of the last ten years. The record of deaths directly ascribed to influenza during the last four weeks showed a great extension of this disease, the numbers being 22, 36, 74, and 127, in addition to which the fatal cases of chest disease, for which influenza is largely responsible, have risen considerably. During the past week the epidemic has continued to prevail in the centres of large population, but, according to the special reports received by the BRITISH MEDICAL JOURNAL, it does not seem to have spread much into new districts, though in the Lancashire industrial centres, in South Wales and Bristol, and in Edinburgh it has continued to be severe in the districts already affected. It appears to be spreading in the West Riding. The epidemic is spreading in Dublin and in various other parts of Ireland, and we regret to hear that Dr. G. H. Kidd has been among the victims who have suffered severely, though he is now out of danger.

FIGHTING THE INFLUENZA.

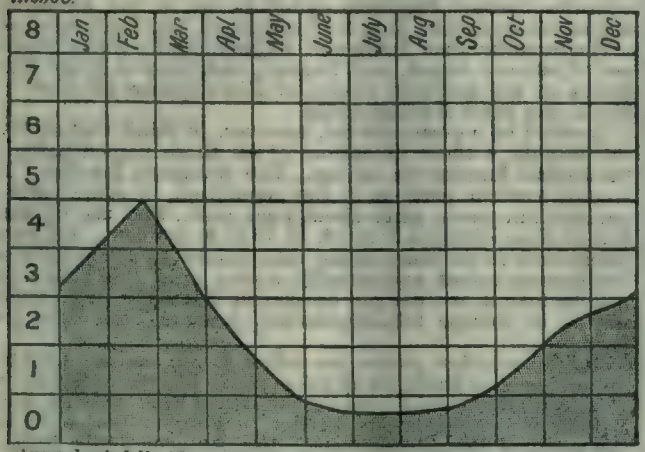
IT cannot be said too strongly or too often repeated that the man who, while suffering from epidemic influenza, insists upon going about his daily business, disseminating the disease wherever he goes in public conveyances, business offices, places of public resort, and last, but not least, in the House of Commons itself, is a public danger. No one thinks of "throwing off" measles or scarlet fever by going into public places. Why, then, influenza, which is not less infectious? The fact is that the public mind has again passed through a series of phases with regard to the present epidemic of influenza with which we have now become familiar. When it first began to be whispered that a new epidemic was commencing, men did not hesitate to admit—indeed, almost boasted of the fact—that they "had fought it on their feet." Next, it was said that the medical papers were trying needlessly to scare the public, and that people were suffering from "common colds," not influenza. The sufferers at this date were shamed into "fighting it out on their feet." The attitude of mind of this writer resembles that of the "black man," who, when his medicine man has failed, after the prescribed incantations to procure rain, turns upon that official and rends him. Now, certain sections of the public appear to believe that they may expose themselves to disease-producing agencies—that they may run into infection, may drink too much and eat too much, and neglect the commonest precautions against cold catching, or polluted water or food—and that then all they have to do is to get a prescription which should set them right again in a few hours, very much as certain Arab tribes believe that if they carry about with them a few lines of the Koran they will be protected from disease and bullets. The fact of the matter is not that the medical profession has learnt nothing about the nature of influenza, but that the public have completely ignored all that has been learnt. The reports made by Dr. Parsons to the Local Government Board have proved beyond cavil that influenza is disseminated by personal intercourse between the sufferer and other persons, and German observers have isolated the very minute bacillus which is the active agent of infection. If, as we said a month ago, a patient when first attacked would keep his room, it would not only be very much better for himself by favouring the action of remedies and preventing complications, and would also serve to limit the spread of the disease.

NOTES ON HEALTH RESORTS.

XIV.—ALIWAL-NORTH: A SOUTH AFRICAN HEALTH RESORT.[1]

By B. L. Guillemard, M.D.

Aliwal-North is situated on the north-eastern border of Cape Colony; it is built facing the sunny north, facing a slope on the south banks of the Orange River, over which at this place the Frere Bridge gives access to the Orange Free State and Northern districts. The altitude of Aliwal is 4,330 feet above sea level. The accompanying diagram shows the mean annual rainfall for twenty-five years, 25.19 inches in amount. It will



Annual rainfall: Mean (twenty-five years) 25.19 inches. Shaded area shows mean rainfall of all years recorded up to 1891. Latitude, 30° 43′ South; longitude, 26° 43′ East. Nearest coast, 180 miles. Approximate height above the sea, 4,330 feet.

be seen that the chief rainfall is during the summer months—November, December, January, February, and March. Rain then falls in thunderstorms, which occur most frequently in the afternoons, and are quickly over. Wholly wet days are not common. In the winter months—June, July, and August—very little rain falls, and the air is then extremely dry. A typical winter day in Aliwal is ushered in with a white frost, which soon disappears before the brilliant sun. As early as 9 A.M. it is possible to sit out of doors in the sun, the sky is cloudless, and the air still and clear. Such days are the rule during June and July, and the climate is then most exhilarating. In summer the heat is never excessive, the clear dry air giving no feeling of oppression.

Temperature, Summer, mean of minimum	...	55.8	
,, ,, ,, maximum	...	88.2	
,, Winter ,, minimum	...	33.4	
,, ,, ,, maximum	...	62.6	

The most disagreeable days are windy, dusty days in spring, and wet days, when these occur, either in summer or winter. Speaking generally, Aliwal has a dry climate, with a large amount of sunshine, so that invalids can enjoy outdoor exercise on most days in the year. Aliwal is the terminus of the Eastern Railway, and is 280 miles from East London, at which port all the mail steamers from England touch. About one mile and a-half from the town are hot springs—two pools of great depth, with the water always bubbling up in the centre. The temperature of the water is 98° F., and the outflow from the two springs is about 1,500,000 gallons during twenty-four hours. These springs have considerable reputation for rheumatism and skin diseases, but the present bath-house is very primitive, and good accommodation for bathers is much to be desired.

The composition of the water per gallon, as analysed by Professor Hahn, Government Analyst, is as follows:

Carbonate of lime	...	7.41	grains.
Sulphate of magnesia	...	1.95	,,
,, alumina	...	3.24	,,
,, potash	...	0.95	,,
Chloride of calcium	...	8.10	,,
,, sodium	...	61.35	,,
Silica	...	1.04	,,
Carbonic acid gas	...	5.22	,,

[1] Read at a meeting of the South-East Hants District of the Southern Branch of the British Medical Association, held at Portsmouth.

The water from the springs is led through the streets of the town in furrows at the side of the road, and serves to irrigate the gardens. Fruit trees flourish—pear, apple, quince, plum, peach, nectarine, apricot, fig, medlar, almond, cherry. Fairly good grapes are grown, but these are not so fine as those grown nearer the coast, owing to the summer rains. Of other trees, eucalyptus, poplar, pines, tamarisk, watele, acacia, arbor vitæ, grow well owing to the constant supply of water from the springs.

The prevailing wind is north-west: it blows most frequently in summer, and is a dry wind. In winter the south-east wind often blows, also at night after the north-west wind. The south-east is a cold wind, and, when it meets the north-west, rain falls. The south-west wind brings showers. The west wind is a dry wind.

Soil.—Sandstone is the stone of the district. In the town a coarse sandy loam rests on a layer of clay, and this on shale and sandstone.

There is a pretty public garden in charge of an English gardener. Of local institutions there are an excellent public library, supplied every week with many of the English papers and magazines, tennis, football and cricket clubs, musical and dramatic societies, gymnasiums, and brass band.

There are English Wesleyan and Dutch churches, with resident ministers.

The Orange and Kraal rivers afford fair fishing for barbel and yellow fish.

Accommodation for invalid visitors is not so satisfactory as could be wished. Three hotels cater well for the general public, but are not quite adapted for invalids. Ground for building, and buildings are at present low in price, and small houses are required for visitors from England, where they may make comfortable homes during their stay in search of health.

Medical men will pardon a note of warning. No patient in an advanced stage of phthisis should ever be sent out to South Africa; it is a cruelty to such persons to advise them to leave comfortable homes in England in the vain hope of a cure. On the other hand, to patients in quite an early stage of tuberculous phthisis, without much pyrexia, or to cases of phthisis following pneumonia or pleurisy, where the invalid can take outdoor exercise, a residence in one of the South African health resorts offers a reasonable prospect of cure. But the invalid should make up his mind to a stay of rather years than months. A short visit is of little value, a residence of some months or years will generally result in prolongation of life and often in cure.

There is abundant scope for outdoor pursuits. Riding, driving, gardening, geology, natural history, each claim their devotees, and life even so far from England can be made enjoyable in the perpetual sunshine. Horses and ponies are cheap. For meteorological information I am indebted to Mr. Brown, the custodian of the public library, who has kept a record of rainfall and temperature for twenty-three years. Mr. Brown is an enthusiastic geologist, and has a fine collection of bones and fossils of Dinosaurians, Dicynodonts, and Labyrinthodonts, and remains of various Saurians which he has found in the neighbourhood.

The visitors from England should come out at the end of September or early in October, so as to arrive in the Cape summer. For the South African winter, thick clothing as worn during the winter in England is necessary. In summer, invalids will find thin flannel and light woollen garments safer than cotton, especially for underclothing.

ILLEGAL ASSUMPTION OF MEDICAL TITLES.

The action which the General Medical Council is about to take in reference to the assumption of medical titles by herbalists and others is one which will commend itself to our readers generally. There can be no question as to the necessity of a prosecution in such cases, and the General Medical Council is decidedly the body of all others which ought to defend the medical profession against the illegal holders of bogus qualifications. We have before us an advertisement taken from an Accrington gazette, which is a sample of the extensive manner in which these "company" begotten medical titles

are used. The advertisement is headed "By Special Request," and goes on to state that "J. Tempest, M.D., (Bc.) D.C.L., Physician, Surgeon, and Accoucheur, etc., etc., respectfully informs the inhabitants of Oswaldtwistle and surrounding districts.....that he has been requested by his numerous friends and patrons to come and carry on the practice of medical reform." Hours of consultation are mentioned, and at the bottom of this specious advertisement appears the words "Surgery, Park House, Lord Street, Oswaldtwistle."

This is a direct challenge to the General Medical Council, and it is to be hoped that Mr. Tempest, "M.D., (Bc.) D.C.L.," will be among the first to be prosecuted by that body, as there can be no doubt about the infringement of the Medical Act here. We have seen many other advertisements of the same class; in fact, the country papers seem to have them with them always. We hope before long the recommendations of the Death Certification Committee will be brought before the House of Commons and adopted, and then certificates of death signed by these bogus practitioners will be no longer accepted by district registrars, as it appears they are at present. It is the custom of these unqualified men to have special forms printed for this purpose; and until the law makes it compulsory that the authorised legal form should be adopted, and no certificates accepted from other than duly registered practitioners, apparently the Registrar-General can take no action in this matter. All cases at present certified by these "botanic doctors" ought to form the subject of inquiry before the coroner. The Registrar-General might perhaps now notify the registrars on this subject.

ANALYSIS AND REPORT
ON
ORIGINAL DOCUMENTARY EVIDENCE CONCERNING THE USE OF OPIUM IN INDIA.

III.

Geographical and Ethnological Distribution of the Habit.

THE second centre in importance for the cultivation of the poppy is the Malwa States, in Central India, especially in Indore and Holkar, on the northern slopes of the Vradhya Mountains. Here the cultivation is free and extremely profitable, the crop realising usually from three to seven times the value of wheat or other cereals, and in exceptionally advantageous situations from twelve to twenty times as much. On its entering the British territory a heavy duty is levied on Malwa opium so as to raise its price to an equality with the Government produce. The amount of the tax is £60 per chest of one picul, or 133⅓ lbs. All Malwa opium is exported from Bombay.

In recent years opium is also grown in the North-West Provinces (chief centre Ghazipur), in the Punjab, and in some parts of Rajputana, as in Beawar and Tadgarh, in the Province of Ajmer-Merwara. But the area of land under poppy cultivation in these places is comparatively very small and the produce goes only for local use. In other parts of India the growing of poppy is strictly prohibited.

In spite of the heavy duty imposed on opium with the view of restricting its use among the lower classes of the population the consumption of it must be large, especially in the growing provinces. In some places, however, that is in the above-named places of Rajputana, it is used very little. Some idea of the prevalence of the use of opium in India may be gathered from the fact that the mere licence fees for one year amount to about £490,000, which comes to about one penny per head of every one of the millions of inhabitants.

It will help to put this subject in a clearer light if we give here some facts gathered from our numerous correspondents.

The correspondents from all the following places state expressly that opium is used at the places mentioned:

In Bengal: Calcutta, Behar, Burdwar, and Cuttack, in Orissa.

In Punjab: Firozpur District (opium very much used), Shahpur District, Sialkot District, Ambalah District, Montgomery District.

In the North-West Provinces: Benares, Ghazipur, Azamgarh, Fatehgarh, Farrukhabad, Mirzapur, Shahjahanpur, Allahabad, Meerut near Delhi.

As regards the Bombay Presidency, affirmative replies as to the use of opium have been received from Bombay, Kathrawar and Guzerat, Ahmednagar, Poona, Belgaum, and Serrur.

Other places in the Deccan, as Secunderabad, Haiderabad, and Stingoli, are also reported as using opium.

As regards the Madras Presidency, the correspondents from Madras, Bangalore, Bellary, Cannanore on Malabar Coast, have seen opium used by the population.

In the Central Provinces opium is use in the following among other places: Nagpur, Narsingpur, and Hoshangabad.

The inhabitants of Oudh and Rajputana, the Malwa States and Kashmir, Assam, and Burmah, and those of many Hill States on the southern slopes of Himalaya are all more or less in the habit of using opium.

It would be a great mistake, however, to think that all the inhabitants, without exception, of all those named parts of the Indian Empire use opium. The reverse is the case. It is only certain portions of the population, in some parts 1 per cent., in most parts about 5 per cent., who use opium. But in some districts as much as 15 to 20 per cent., and very rarely even 75 per cent., of the inhabitants (in the latter case the correspondent undoubtedly means only the grown up people) take it as a daily or occasional stimulant, in the same way as in Europe tobacco, alcohol, beer, tea, and coffee are used.

Only in very few places, according to our correspondents, opium is not or hardly at all taken; such places are Kohat in Punjab on the Afghan frontier, the Rawul Pindi district, and Bakloh in the Gurdaspur district, in Punjab, Darjeeling in the north of Bengal, Almona in the Kumaon Hills, North-West Provinces, all places at a high level, with a cool, bracing, and vigorous climate; then the south of Bhopal and Trichinopoly in the Madras Presidency. The influence of climate on the use of opium will be more fully discussed later on; here it may be stated, in connection with Bhopal, that the reason given by our correspondent for the abstinence of the inhabitants of Bhopal is their religion: "The Begum (inhabitant of Bhopal), being a righteous Mahommedan, will not have anything to do with the drug, one of the prophet's 'mothers of abomination,' like alcohol. So there is no government restriction on its growth, and it is grown everywhere. Its price, if I remember right, is nearly 20 rupees less per seer than Government opium." But the neighbours are less righteous. "There is naturally a great deal of smuggling, and persons living close to the border go across to get their daily dose." But that is the only example of a Mussulman population not using opium for religious reason. All over the plains of Northern India, in the Punjab, in Rajputana, in Oudh, and elsewhere where the Mussulmans live together with Hindus or for themselves, they use it largely.

A second case of abstinence from opium, probably from respect to their belief, is afforded by the Brahmans. A correspondent writes from Fatehgarh in the North-West Provinces: "Opium is used by about 5 to 10 per cent. of the population, amongst Mussulmans and low caste Hindus, but Brahmans do not use it." Another correspondent, writing from Hoshangabad in the Central Provinces, mentions an example of the contrary: "In the Chhindwara district opium is a luxury obtainable only by few. The Gands can seldom afford it, so they take more native spirits and ganja. Further south it is more largely used, and is constantly taken, I believe, by the mercantile classes. Lately a very well-to-do Brahman, who was chosen to give evidence for the Ganja Commission, told me that he and his family always took a small amount of opium, and that most persons of any means in his town did." We should have liked to know whether the Parsees in Bombay take opium or not, but no information is given on this point.

Of all races using opium the Sikhs seem to like it most, and it does not seem to do them much harm. Among other races may be mentioned the Rajputs, Mahrattas, Bengalis, Hindustani Mussulmans and Hindus, low-class Hindus everywhere, Kathis, Scudhis, Jains, Telugus, Tamils, Bhutis; but mention is also made of nations which do not take it—for example, the Ghoorkas, the Khetri, Pathans, Saghvis, etc.

LITERARY NOTES.

The *Nazional Zeitung* of Berlin announces that a comprehensive work by Professor Robert Koch will shortly be published, in which improvements in the method of using tuberculin will be described, and its value in the detection of tuberculous disease in its earliest stages will be fully discussed and illustrated.

The *Revue Générale de Clinique et de Thérapeutique*, conducted by MM. Henri Huchard and Charles Eloy, will in future appear twice, instead of once, a week as heretofore.

A medical journal in the Urdu language, *Ganjina Tibabat*, is now regularly appearing under the editorship of Dr. Brij Lal Ghose, who is assisted by a staff of native doctors. The need of such a journal is said to have long been felt by hospital assistants and practitioners whose medical education has been conducted in their own vernacular.

At the "Eucharistic Congress," recently held at Valencia, the first prize, offered by the Queen Regent of Spain, for an ode in honour of the occasion, was awarded to Dr. Juan Bautista Pastor y Aicart, a medical practitioner of Benegama (Alicante), and a poet held in high honour in his own country.

A work by Dr. Ludwig Jankau on the uses of photography in practical medicine (*Die Photographie in der praktischen Medicin*) has just been published by Seitz and Schauer, of Munich. It is intended to supply physicians and students with the practical hints they require to enable them to avail themselves of the valuable aid which the camera can give in clinical work. The book is illustrated with thirty original plates.

C. Sallmann, of Basel, has commenced the publication of *Mittheilungen aus kliniken und medicinischen Instituten der Schweiz*, a collection of papers by Swiss physicians. The editorship is in the hands of a committee consisting of Professors de Cérenville, Courvoisier, Kocher, Pflüger, Roux, Sahli, and Tavel. Two fasciculi have already appeared, one by MM. Lanz and Tavel, on the Etiology of Peritonitis; the other, by M. Jankowski, on the question of Myopia.

We have received a copy of the first number of *Przeglad Chirurgiczny*, a new Polish medical journal published at Warsaw, and edited by Dr. W. H. Krajewski, with a formidable list of collaborators. The new journal takes for its province surgery, ophthalmology, otology, laryngology, midwifery, syphilology, and dermatology. Among the papers in the first number (abstracts of which are humanely given in French for the benefit of the average non-polyglot man) are "A Contribution to the Surgery of the Biliary Passages, with Nine Cases of Operations on the Gall Bladder," by Dr. F. Jawdynski; cases of Penetrating Wound of the Abdomen, by Dr. A. Karczewski; and a case of Rupture of the Uterus during Labour cured by Operation, by the Editor. A summary of current Polish medical literature (in French) is also given. Altogether, the new journal gives a very favourable impression of the scientific zeal and professional knowledge of our brethren in Poland.

In a recent number of the *International Journal of Ethics*, Dr. John S. Billings discusses the effect of the medical practitioner's profession upon his mind and character. He sums up this effect as follows: "In the great majority of cases the special influence of the medical life of the present day is to broaden the views of the man who lives it; to make him independent in judgment, rather sceptical as to the occurrence of the millennium in the near future; quite incredulous as to the truth of the maxim that 'all men are born free and equal;' more inclined to consider and perform the immediate evident duty of the day and hour which lie just before him than to reflections upon the errors of other men; free from morbid fear of death, and of that which comes after death; and none the less a believer in the existence of a Supreme Being and in the fundamental principles of religion, although he may not consider them capable of scientific demonstration."

The Revue Médicale de l'Est of October 15th contains an article by M. G. Etienne on the medical folklore of Lorraine. Of some of the remedies therein mentioned it may be said that if they cure *cito* and *tute*, they can hardly be conceived to do so *jucunde*. Thus, the sovran'st thing on earth against jaundice is a course of fried lice eaten hot! These interesting fauna must be taken from a child's head, and the treatment is "intensive," one pediculus being consumed on the first day, two on the second, and so on up to nine; the dose is then gradually decreased to one animalcule on the eighteenth day, when the cure is complete. Naturally, the dejecta of various animals figure prominently in this old wives' *Pharmacopœia*, those of fowls, swine, and cows being especially laid under contribution. An onion poultice to the soles of the feet is a specific in typhoid. The prescription for pneumonia is to apply half a pigeon every morning to each breast, and half a chicken to the chest below the breast; this strikes us as a decidedly expensive method of treatment. On the other hand, the prophylaxis of cholera is as cheap as it is simple; all you have to do is to wear a *sou* (value one halfpenny) in a little sachet round your neck, and your colon may defy the dreaded "comma" and all its works. If you see anyone taken with a fit of epilepsy recite the following incantation into his right ear: *Gaspar fert myrrham, thus Melchior, Balthazar aurum*, whereupon he will incontinently arise. The cure must, however, be consolidated by driving three nails of the exact length of the patient's little finger deeply into the impression made on the ground by the patient's body where he fell. This seems to imply that the sufferer will always choose a soft place to fall on; if he allows himself to be attacked in a church or in the street, where in falling he must, like poor Bozzy, "adhere to the pavement," there must be a difficulty in carrying out the treatment.

ASSOCIATION INTELLIGENCE.

BRANCH MEETINGS TO BE HELD.

MIDLAND BRANCH.—The Branch Council have unanimously elected Dr. J. West Walker, of Spilsby, President-elect, a vacancy having occurred owing to Mr. Wilson having declined to act.

METROPOLITAN COUNTIES BRANCH: NORTH LONDON DISTRICT.

A MEETING of this District was held on November 29th at the London Temperance Hospital; Mr. HENRY POWER, President of the Branch, in the chair.

Treatment of Enlarged Prostate.—Mr. BRUCE CLARKE read a paper on some recent advances in the treatment of enlarged prostate. He began by pointing out that the prostate might enlarge in various directions, and often, if it could be determined that enlargement had taken place in one direction, there was fair ground for supposing that enlargement had not occurred in another. Many of the worst cases of prostatic obstruction gave no evidence of their existence when an examination was made *per rectum*. Before deciding how to treat a case it must be thoroughly examined—if necessary, under an anæsthetic—in order to ascertain if the hypertrophy was on the bladder surface, the urethral, or rectal. Suprapubic prostatectomy was of use only when the enlargement was vesical and was considerable in amount. If the urethra and its vesical orifice were mainly affected regular catheterisation could be employed, and in many instances the galvano-cautery (Bottini's) was of great service. The paper was illustrated by specimens and pictures. The galvano-cautery, which was set working by two accumulators, was exhibited. —Dr. LEWIS JONES explained the exact method of working the instrument and the sources which were available for the purpose.—An interesting discussion ensued.

Clinical Cases.—Dr. FLETCHER LITTLE showed a number of very interesting cases, and escorted the President and members through the wards of the hospital.

Votes of Thanks.—Votes of thanks were unanimously passed to Mr. Bruce Clarke and Dr. Fletcher Little for the interesting matter they had brought before the meeting; to the hospital for the hospitable reception accorded; and to the President for kindly presiding.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.

A MEETING of this District was held at Lewes on November 30th, W. F. CROSSKEY, M.D., in the chair.

Prevention of Spread of Phthisis.—Mr. ROGER CROSSKEY read a paper on this subject. Cases illustrating the contagiousness of phthisis were narrated, and recent bacteriological investigations were mentioned, special reference being made to the researches of Koch and Cornet. The sputum, saliva, and discharges from the respiratory passages should be considered dangerous infective materials, and should on no account be allowed to become dry, but should be destroyed at once, or be kept moist until rendered harmless by subsequent disinfection. The measures to be adopted to prevent the spread of the disease were described in detail; the reduction of phthisis mortality in Baden Baden being taken as an instance of the good results likely to be brought about by preventive measures.—A discussion followed, in which Dr. BATTERHAM, Mr. CRESSWELL BABER, Mr. J. VERRALL, and others took part. There was a consensus of opinion against including it in the list of diseases scheduled in the Notification of Infectious Diseases Act, 1889, but the measures proposed by Mr. Crosskey were, on the whole, favourably criticised.

Communications.—Mr. CRESSWELL BABER read "Notes on the Diagnosis and Treatment of Adenoid Vegetations of the Naso-pharynx," illustrated by portraits of patients. He exhibited various instruments used in removal of the growths.—Mr. J. B. FOOTNER read a case of Inguinal Aneurysm treated by the old operation of laying open the sac and tying the arteries communicating therewith, followed by recovery after amputation below the knee for secondary gangrene.—Mr. T. JENNER VERRALL read a case of Laparotomy for Acute Intussusception in an infant aged 6 months (successful).

SYDNEY AND NEW SOUTH WALES BRANCH.

THE 111th general meeting of this Branch was held at the Royal Society's Room, Sydney, on October 6th, Dr. WORRALL, President, in the chair. Drs. W. Chisholm, Sydney Jones, Clubbe, Scot Skirving, Crago, McCormack, F. A. Bennet, Arthur, James Dick, Lennhoff, Brady, Hankins, Megginson, Langhorne, West, G. A. Marshall, Fiaschi, Neill, Angel Money, Ellis, Lyden, O'Reilly, Lyon, Abbot, Wilkinson, Thring, A. Jarvie Hood, Edwards, Morgan Martin, C. J. Martin, Sawkins, the Hon. Dr. Creed, M.L.C., Drs. Lee, and Richards were present.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

New Member.—The PRESIDENT announced the election of Dr. E. Stokes, of Port Macquarie, as a member.

Notice of Motion.—The PRESIDENT gave notice of the following motion: "The New South Wales Branch of the British Medical Association is of opinion that it is in the highest degree derogatory to the dignity, and adverse to the interests of the profession, that a medical man should be a party to the appearance of a notice of his life in the public press, or insert any advertisement beyond an announcement of change of address, or commencement or resumption of practice."

Communications.—Dr. CLUBBE read notes of a case of Intussusception, and exhibited the patient.—Dr. E. J. JENKINS exhibited a patient suffering from Permanent Discoloration of the Skin. Drs. F. A. BENNET, CRAGO, and ANGEL MONEY discussed the case.—Dr. CRAGO read notes of a well marked case of Addison's Disease. The patient was exhibited, and examined by the members. The case was discussed by Drs. W. CHISHOLM and SYDNEY JONES.—Dr. THRING read a paper on Puerperal Infection. Drs. ELLIS, MEGGINSON, EDWARDS, and ARTHUR took part in the discussion, and the debate was adjourned.—The Hon. Dr. CREED, M.L.C., read notes of a case of Persistent Vomiting cured by hypnotic suggestion. A discussion ensued, in which Drs. G. A. MARSHALL, WORRALL, and ARTHUR took part.

HALIFAX (NOVA SCOTIA) BRANCH.

THE regular fortnightly meeting of this Branch was held on November 22nd. Amongst those present were: The President (Dr. Campbell), Surgeon-Colonel Archer, M.S.; Drs. Farrell, Milsom, Campbell, Anderson, Cuningham, Kirkpatrick, Mäder, Silver, Ternan, Trenaman, Curry, Surgeon-Captain Fowler, and Carleton Jones. Drs. Muir and Page were present as visitors.

Paper.—Dr. W. S. MUIR read a paper on Some Notes of 184 Cases of Typhoid Fever that have occurred in my practice since August, 1888.—An interesting discussion followed.

Dinner.—After the meeting the members dined together at the Queen's Hotel.

SPECIAL CORRESPONDENCE.

UNITED STATES.

[FROM OUR SPECIAL CORRESPONDENTS.]

BOSTON.

The Boston City Hospital.—Street Accident Service.—A "Modified Milk" Laboratory and Supply Station.—Importation of Small-pox on an English Ship.—The Bacteriological Diagnosis of Diphtheria.

THE status of municipal hospitals in America is not as a rule a matter upon which Americans can feel much pride. Controlled for the greater part by politics, the staff appointments are often manipulated by the politicians, and men of notorious unfitness are in many instances selected as physicians and surgeons. The appropriations are mostly insufficient, and are grudgingly voted by the municipal councils, all of which tends to lower the standard and to diminish the efficiency of these institutions. In contrast to the general rule stands out the Boston City Hospital and its generous support by the City Council. Not only has the hospital been free from any political influence in staff appointments in the thirty years of its existence, but its growth and progress have been watched and favoured until it now stands a hospital for acute cases with 484 beds, with great possibilities in the immediate future. In the last fifteen months the city has appropriated 671,000 dols. (£140,000) for the use of the hospital. The most urgent need—enlarged accommodation for scarlet fever and diphtheria cases—is to be met by a group of buildings which will be open in the autumn for the treatment of these cases. A separate hospital of 200 beds has been built a few hundred yards from the hospital grounds. This is to be an institution of itself, but yet under the administration of the trustees and superintendents of the City Hospital. At present these diseases are treated in isolated wards of the main hospital, but under the new system all possibility of infection of the hospital will be shut off by having separate nurses and house-surgeons for the infectious hospital. The buildings will consist of two two-storey wards, one one-storey ward, one administration building, two nurses' homes, etc. It is hoped that with these increased accommodations more patients can be taken to the hospital, and the spread of these diseases in some measure controlled. Some idea of the demand for such an institution can be gathered from the fact that in 1892 there were treated at the hospital 383 cases of diphtheria, 245 of scarlet fever, and 89 other cases where both diseases were present.

Another very important addition to be made to the hospital is a pathological building to cost about 70,000 dols. In this will be an amphitheatre for the demonstration of necropsies, a lecture room for the Professor of Pathology, laboratories for bacteriology and histology, and smaller rooms for special work. With this equipment the scientific work of the hospital will be greatly favoured. In addition to general improvements in the introduction of an electric light plant, etc., the surgical extension of the hospital is of much importance. The present amphitheatre is to be remodelled and made larger, and to be refitted on modern principles.

There is also to be a new aseptic operating room, with accommodations for thirty spectators. In addition to this there will be six small operating rooms.

The street accident service is natually very large, and constantly increasing, and to accommodate this there will be several accident rooms, and two accident wards for desperate cases. All this will serve to extend the surgical work of one of the largest hospitals in the country, now sadly hampered by lack of room. Boston is unlike most of the large American cities in having only two large general hospitals, the Massachusetts General and the Boston City Hospital; in consequence the amount of work in accidents alone coming upon

each of these institutions is unusually large, and must be met by the most ample accommodations.

The experiment of furnishing, for bottle-fed babies, "modified milk" from a public laboratory was undertaken some two or three years ago in Boston, and its great success has led to the opening of a similar laboratory in New York and the demand for one in Philadelphia, which will soon be similarly supplied. Such an experiment was naturally regarded at the outset as very hazardous, but the demand which it met justified its existence from a practical point of view. The laboratory is situated in a central part of the city, and any physician can send there a prescription for milk modified according to any formula that he chooses, diminishing or increasing the fat, the albuminoids, or the sugar. This milk is, moreover, from selected cows, and is carefully sterilised. The milk is supplied daily from the laboratory in any part of the city or suburbs, and many residents of Boston who go to the country for the summer have the sterilised milk furnished to them, even at long distances, during the very hot weather of the New England summer. This venture has been, not only a scientific, but a pecuniary success.

The appearance of some cases of small-pox in Boston after a complete absence for some years (with the exception of two or three isolated cases) is a matter of some interest, especially as the greater number of the cases were brought in on an English steamship. The system of compulsory vaccination which prevails prevents any child from attending the public schools until vaccinated, and the immediate isolation of all cases is rigidly carried out. The Small-pox Hospital is some miles in the country, and cases are sent there at once. The hospital is unoccupied for the most part, many months passing without the presence of a single patient. This almost complete control over small-pox Americans are inclined to attribute to the system above spoken of by which vaccination is made compulsory.

It is hoped that the prevalence of diphtheria, which is so extensive as to be a just cause for alarm, may be diminished by the more complete isolation of cases, which will be rendered practicable with the more suitable hospital accommodation alluded to above. But diphtheritic patients cannot be taken from their homes against their will by any legal process, which, of course, hampers very much the endeavours of our very efficient board of health to cut down the number of cases of the disease, now so firmly settled upon us. Much, however, is being done to render the study and treatment of the disease more efficient. Sterilised tubes are furnished free to any physician. With these is given a swab, with which some mucus or membrane is taken from the throat and put into the sterilised culture medium. The tube is sealed and returned to the Harvard Medical School, from which is returned a speedy reply as to the presence or absence of the Klebs-Loeffler bacillus.

NEW YORK.

Academy of Medicine: National Sanitary Service Bill.

The Bill of the Academy of Medicine would make nine sanitary districts: Northern, North-Eastern, North-Western, Eastern, Western, Southern, South-Eastern, South-Western, and Central. It is provided that there be established in the Treasury Department, under the direction and supervision of the Secretary of the Treasury, a bureau of public health, consisting of a commission of fifteen persons, eleven of whom shall be appointed by the President, with the concurrence of the Senate, one from each of the sanitary districts, and two at large. Each of these commissioners is to be paid, when actually engaged in the performance of his duties under the law, at the rate of ten dollars a day and reasonable expenses. The four other members of the commission are to be the Surgeon-General of the Army, the Surgeon-General of the Navy, the Surgeon-General of the Marine Hospital Service, and a representative detailed by the Attorney-General from the Department of Justice. These four members are not to be paid. The commission is to meet annually in Washington in October, and at such other times and places as its president, with the approval of the Secretary of the Treasury, may designate. The commission is to have an executive committee, consisting of its president and the four members who are not nominated by the President of the United States. The Bill further provides for conferences of the commission with State boards of health whenever its president may consider such conference to be in the interest of the public health; for the collection and diffusion of information concerning the public health; for investigations into the nature, origin, and prevention of contagious, epidemic, and other diseases, both in the United States and, if necessary, in foreign countries; also as to the causes and conditions of particular outbreaks of disease in the United States, for which purposes the commission is authorised to employ experts; for the preparation of an annual report to the Secretary of the Treasury, who shall transmit the report to Congress with such recommendations as he may deem important; for the preparation, publication, and transmission to the medical officers of the army, the navy, and the marine hospital service, to the collectors of customs, and to State and municipal health officers and authorities of weekly abstracts of consular sanitary reports and other pertinent information received by the commission; for securing the co-operation of State and municipal boards of health in establishing and maintaining an efficient and accurate system of notification of the existence and progress of contagious and infectious diseases in the United States; and for the making of rules and regulations to be observed by vessels at the port of departure and on the voyage with reference to the sanitary condition of the vessels and their cargoes, passengers, and crews, in contravention of which provisions it shall be unlawful for a vessel from any foreign port to enter any port of the United States. As regards quarantine measures, one of the sections of the Bill provides that the commission shall co-operate with State and municipal health authorities in the execution and enforcement of their rules and regulations; and that at such ports and places as have no quarantine State or municipal authority, or where existing quarantine regulations are not sufficient, the commission shall make such additional rules and regulations as are necessary, and such rules and regulations shall be enforced by the sanitary authorities of the States and municipalities, "where the State or municipal health authorities will undertake to execute and enforce them; but if the said State and municipal authorities shall fail or refuse to enforce said rules and regulations, the president shall execute and enforce the same, and adopt such measures as in his judgment shall be necessary to prevent the introduction or spread of such diseases, and may detail or appoint officers for that purpose." The Bill appropriates the sum of one million dollars, as much of which as may be necessary from time to time may be expended under the direction of the president, and according to his discretion, to meet the emergencies arising in the execution of the provisions of the Act.

PHILADELPHIA.

The Quack Aspects of American Life.

One of the most notorious and gigantic of our professional frauds is the so-called Amick consumption cure. Amick was a not-disrespectable physician in Cincinnati, Ohio, who devised this new sharp dodge. He thought to overcome the code, written and unwritten, of the medical profession as regards selling nostrums direct to the public by selling it only to his professional dupes. So he used the lay press to advertise his "cure" by means of the reading notice—a great institution with us—and by means of "doctored" press dispatches sent to the newspapers of the land, mixed up with real news and as if themselves real bits of news. Everywhere one read of the great "scientist's" wonderful successes, and that the drug would only be supplied to physicians. Medical journals (so-called) were caught with the advertisement. Finally, one physician in the whole country rose up and denounced the imposture. That brave man was Dr. J. C. Reeves, of Chatanooga, Tenn. Amick promptly sued Dr. Reeves for libel, and Dr. Reeves, having the courage of his convictions, did not back down. The result was that the grand jury ignored the indictment, and Dr. Reeves is the medical hero of the hour. To its everlasting honour, the Philadelphia County Medical Society was the first medical society to congratulate Dr. Reeves and to come out clean and clear against the sale or use of quack nostrums. Amick had advertised himself everywhere as "scientist" and

"physician in good standing," despite the fact that he had been expelled from his local medical societies. The Philadelphia County Society resolved:

That no person who makes, deals in, or advertises as a cure a quack nostrum, that it is say, a preparation the composition of which is kept secret, can be termed a physician in good and regular standing, because such action is *ipso facto* sufficient to cause forfeiture of membership in this or any other county medical society governed by the laws of the American Medical Association.

The journals—medical, so called—have had the courage to reprint the resolutions of the Philadelphia Society as a piece of news, and therefore not thus endangering them with a suit for libel, and it is through the intimidation of a possible libel suit that the quacks so thoroughly rule us. At the mere whisper of the word our medical publishers scurry away. We are daily praying for a single brave publisher or editor who will take the bull by the horns.

Our perennial struggle with the quack perhaps conduces to popular education. We are proverbially an easy-going folk, glad to "let every dog have his day," and rising with a sudden fury of indignation when the canine race demands all days and places as its own. Perhaps the rule of the quack is near its end, however few the signs may be of coming revolution. Slowly but certainly the States are falling into line, and making Practice Acts that, poor as they may be, are the beginnings of the end, and signs of coming sanity.

Professor Norman Bridge, late of Chicago, has returned to his home at Los Angeles, Cal., after remaining here between two and three months. Dr. Bridge is Professor of Clinical Medicine at Rush Medical College, and will continue to hold his chair notwithstanding his removal from the city to the distant region of Southern California. He will hereafter return each year to Chicago at autumn time and give as much college instruction as possible, hoping to remain as late as December or January. The position of Dr. Bridge will be understood when I say that three years ago the tubercle bacilli were discovered in his sputum and that coincidently there were evidences of physical decline. No sooner, however, were the evidences of the specific tuberculous disease discovered than the doctor promptly left his large practice, and it may almost be said that he took the first train for Lower California. He at once took up an out-of-door life, and there appears to be a complete staying of the disease.

PARIS.

An Enemy to Hypnotism.—Paris Students as Champions of Lady "Medicals."—Mothers and Nurslings.—Ambulance and First Aid Organisation.—Help for Indigent Consumptives.—General News.

MADAME KAEMPFER, a former patient of the Salpêtrière, who was allowed to leave the hospital because she appeared to have recovered temporarily from her *manie de persécution*, and was not considered dangerous, called, a few days ago, on Dr. Gilles de la Tourette, and shot him in the neck. Fortunately the wound was not dangerous, and the ball has been extracted. She had been in communication with M. Rochas, who tried to befriend her, but was eventually forced to forbid her admission to his house. Dr. Luys was absent, or one of these gentlemen would have been her victim; failing them she chose Dr. Gilles de la Tourette, because he was attached to the Salpêtrière, and she considers that there is a close connection between the Salpêtrière and hypnotism. She vows vengeance against hypnotism. Dr. Gilles de la Tourette during the short interval before she fired at him, quickly perceived that he had to do with an insane person. She asked him to give her 50 francs, saying that the Salpêtrière were answerable for her condition, which prevented her from gaining her living. On his replying that he never assisted persons without first making inquiries, she fired at him.

Notwithstanding the general hostile attitude of the Paris medical students towards the lady medical students, they are capable on occasion of acting as their champions. A few days ago three female students were forced by the keeper of the Faculty medical library to leave the reading room. They could not show their entrance cards, and the keeper believed they were lady friends of the students, and not *bonâ-fide* students. This unfortunate mistake caused a violent demonstration from the male students. Fifteen hundred chivalrous *carabins* marched in procession to protest against the conduct of the library keeper, by hooting and making a noise in the court of the School of Medicine. The Dean of the School expressed his regret, and observed that, had the ladies in question carried their cards in their pockets, the affair would not have happened.

The society for encouraging mothers to nurse their babies, founded by Madame Béquet, is about to establish in every district of Paris homes of refuge in which women about to be delivered will be received and treated with every consideration. In return they will be asked to do what work they can. They keep their children with them and nurse them. The inmates do not leave these refuges until they are sufficiently recovered to do so without injuring themselves or their offspring.

At the general meeting of the Association des Dames Françaises it was stated that over £4,000 had been spent on the soldiers at Tonkin and in aid to people injured in accidents. Twenty-five new committees have been formed for the purpose of teaching the *lycée* pupils how to transport and dress the wounded. M. Janssen, member of the Institute, pointed out the necessity of organising a thorough sanitary service ready for work when war should be declared, and proposed that all women not retained by other duties should be called to do service in the military ambulances.

At a meeting of the General Council of the Seine it was decided to add to the Budget the sum necessary to relieve the old indigent poor. Dr. Basset also proposed that hospitals for the poor tuberculous population should be organised in the useless forts of the fortifications, and that sanitary and thermal stations should be organised elsewhere. The proposal has been referred to a committee. The General Council has already decided on building a hospital for tuberculous patients in the Seine and Oise department.

From January 1st next medical students will be divided into batches of 25, and will be told off to various hospitals for clinical instruction. The physicians and surgeons chosen to supply the clinical teaching will be paid by the medical faculty.

According to the law medical diplomas must be *visés* at the Paris police prefecture; 1,800 medical men have complied with the law, but a great many have not. The penalty is from £1 to £40. The recalcitrant medical men will be proceeded against.

The Public Assistance has directed that the male nurses and attendants are to have periodical practice in working the apparatus contained in every hospital for putting out fires and in removing the patients; mattresses are used to represent the latter.

ST. PETERSBURG.

Medical Congresses in Russia.—The Epidemic of Cholera.—Epidemic Influenza.

MEMBERS of the medical profession in Russia will shortly have the opportunity of attending two important conferences. The first will be the Fifth Congress of the Society of Russian Physicians in memory of Pirogoff. The Society holds its conferences biennially, and alternately in St. Petersburg and Moscow. This year the meetings will be held in St. Petersburg from December 26th to January 3rd (Old Style). They will be under the presidency of Professor Sutugin. In connection with the Congress will be held an exhibition of objects of medical and surgical interest. They will be mostly derived from the Hygienic Exhibition which recently closed its doors. The exhibition will open on December 20th and close on January 10th. It will be under the direction of Dr. Tavnofski. The second Congress will be held in Moscow immediately after that in St. Petersburg comes to an end. This is the Ninth Congress of Russian Naturalists and Physicians, which will hold daily meetings from January 4th to January 11th, 1894 (Old Style). Reports of the discussions are to be published daily in a special "Journal of the Conference," under the editorship of Dr. Lernof. The expenses of the conference will be borne partly by the University of Moscow, which has granted 1,000 roubles, partly by the Moscow Town Council, partly by the Government, but chiefly by the subscriptions of the members, of whom more

than a thousand are expected to be present. Among the subjects to be discussed at the Congress will be the proposed formation of a Russian association for furthering the study of the natural sciences. The project was mooted at the last meeting of the Congress held at St. Petersburg, but no decision was come to. The idea of the new association is that it should follow the lines of the British Association, and that its conferences should embrace a wider range of subjects than those at present discussed by the Society of Naturalists and Physicians.

The cholera epidemic is not yet quite extinct in St. Petersburg. A few fresh cases occur daily, although the weather is cold, and the thermometer has, on one occasion at least, sunk below the Fahrenheit zero. During the seven days ending at noon on November 25th (Old Style), 20 persons sickened with cholera in St. Petersburg and 11 died from it. In the preceding seven days the disease attacked 21 persons and caused 13 deaths. The latest bulletins concerning cholera in the provinces show that the epidemic is declining in almost all parts of the country, but the list of Governments where the disease is present is still a formidable one. Two Governments, Podolia and Tchernigof, return more than 100 cases a week.

Influenza, which has been epidemic for some time in the south of Russia, is now prevailing to a considerable extent in St. Petersburg.

LEEDS.

Hospital Abuse.—The Infirmary.—Influenza.

A FRIENDLY conference has been arranged between the honorary medical staff of the chief medical charities of Leeds and the Executive Committee of the Workpeople's Hospital Fund, the object of the conference being to consider whether, and in what way, the number of out-patients can be reduced, dealing especially with those who, for trifling complaints, unduly occupy the time of the honorary staff of each charity. It is proposed, also, to consider whether any wise method can be adopted for reducing the number of patients who may be able to pay for medical attention.

The board of the infirmary have decided that in future the accident ambulance shall be available for any place within the city boundary, as well as for the four-mile radius from the infirmary. Attention has also been drawn to the fact that at times the ambulance is sent for in quite trivial cases, and the public has been requested not to send for it in any case where the injured person can walk. One of the oldest members of the Leeds Infirmary Board, Mr. W. Cooke, who has held office for over twenty years, has been removed by death. His good business qualities, and his unflagging interest in the infirmary, will make his loss severely felt.

The influenza epidemic still prevails in Leeds, but fortunately the cases are of a much milder type than in previous visitations.

CORRESPONDENCE.

CONVOCATION OF THE UNIVERSITY OF LONDON AND THE EXTENSION MOVEMENT.

SIR,—I should be glad if I could induce you to modify the severity of your strictures on the conduct of Convocation of the University of London in reference to the movement for increasing the facilities for a better education of and a more liberal granting of degrees to the students of London. You speak in your annotation of December 2nd of an obstruction by the Convocation of Graduates of the University, which must be removed by drastic means if not by gentle—"An obstruction which has hitherto defeated every scheme which has been framed for granting degrees to London students on reasonable terms." I am sure, however, that you will in your fairness hesitate before concluding that, because Convocation rejected the last scheme for reconstruction placed before it—a scheme that many medical graduates like myself considered to be full of anomalies and perils—it was therefore inimical to all reform and unwilling to attempt any answer to the demands for an enlargement of the scope of the University. A piece of evidence which forbids this conclusion is afforded by the fact that on January 17th, 1893, Convocation adopted a scheme for the reconstruction of the University on a much wider basis than the existing one, adding a teaching department to its functions, greatly enlarging in a representative manner its Senate, and initiating consultative boards of studies. This scheme was duly submitted to the Senate, but all further action was stayed pending the report of the Royal Commission not yet issued.

For my own part, I am perfectly ready to admit that the scheme formulated and adopted by Convocation does not go far enough in meeting the legitimate demands of the medical students in London. But even in this contention I must admit that the question has been very fully considered and dealt with in a spirit of fairness by the Annual Committee of Convocation. I endeavoured to the best of my power to convince the Committee of the necessity of increasing the facilities for graduation. I drew up a supplemental scheme, the chief features of which were that the University should comprise two departments—the imperial, in which the regulations should remain as in the existing University, the examinations to be open to all who have complied with the regulations; the metropolitan, restricted within the county of London, wherein there should be special regulations for co-ordinating the teaching and for conducting the examinations—that in the metropolitan division pass degrees alone should be conferred, and these on the report of assessor examiners associated, as regards the Medical Faculty, with the medical qualifying bodies in London; that encouragement should be given to candidates to proceed to the more difficult examinations of the imperial department by marks being credited *pro tanto* from the metropolitan department; but that a distinctive title should be given to the degrees in this department, the existing rights being reserved to those who have graduated and shall graduate in the future in the imperial department.

It is true that I failed to induce the Committee to incorporate these sections in the scheme submitted to Convocation; but the support I received from graduates both in my own and other faculties convinced me that the redress of the legitimate grievances of the medical students in London would be earnestly attempted by many members of Convocation of the University, provided that no injury were done to the interests of the highest and best education.

All action is now suspended until the report of the Royal Commissioners shall be presented. It is most probable that this report will have to be considered by Convocation.

The Annual Committee has received powers for dealing with the matter in the first instance, and has appointed a subcommittee for facilitating the work. It cannot be doubted that the recommendations of the Royal Commissioners will receive the most respectful consideration at the hands of Convocation, and it seems to me neither politic nor gracious to suggest that such a form of coercion as the application for an Act of Parliament to override the powers conferred by Royal Charter upon this body within the University should be applied.

It is, however, most desirable that all medical graduates who wish that the portals of the University should be opened more freely to the London medical student, but who deprecate any levelling down of the present educational system, and any diminution of prestige in the case of the higher degrees, should make common cause.—I am, etc.,

Harley Street, W., Dec. 4th. A. ERNEST SANSOM, M.D.

*** We are glad to find that Dr. Sansom takes a more hopeful view of the probable future action of Convocation of the University of London than we, judging from its past action, felt justified in taking. We can only hope that his suggestion for united action among the medical graduates may bear fruit; hitherto, on this subject, they have been hopelessly outvoted. The last scheme adopted by Convocation was a move in the right direction, but those who noted the manner in which every proposal to modify its restrictive provisions was received cannot feel very sanguine that any liberal measure of reform will be accepted.

DIPHTHERIA AND DEFECTIVE DRAINAGE.

Sir,—In the British Medical Journal of December 2nd Dr. Wilks maintains that a contagious disease cannot have what he calls "a spontaneous origin," and as examples of such diseases he refers to small-pox and scarlatina. I am not aware that anyone who would be considered an authority has ever declared that the contagium of these diseases may originate *de novo* from ordinary insanitary conditions; but I am not one of "those who regard diphtheria as altogether on the same lines as small-pox." I would rather suggest a comparison between diphtheria and enteric fever. No one doubts that enteric fever is communicable through the contamination of the air, water, milk, or other ingesta, by the intestinal discharges of an enteric patient; but, on the other hand, as Dr. Murchison says,[1] "it is not uncommon for the inmates of an isolated country house to be seized with enteric fever, although no case has occurred within many miles, and there is no evidence of importation of the poison." I have met with several examples of this independent origin of enteric fever; and Dr. Murchison gives the history of numerous cases in which the most careful inquiry had failed to give any other explanation of the disease than that the contagium had been developed by the decomposition of animal matter in drains, cesspools, etc. The late Dr. Wm. Budd would deny the possibility of such an origin: but Dr. Murchison refers in support of his own doctrine to such authorities on fever as Griesinger, Niemeyer, Liebermeister, Hudson, and Stewart; and he quotes Hudson as saying: "Upon no subject in practical medicine is there a larger or more constantly increasing mass of evidence than as to the power of fæcal miasm to generate typhoid fever."

In this not uncommon evolution of a contagium from decomposing animal matter there is, as I believe, a close resemblance between the two diseases, enteric fever and diphtheria. The great difference between them consists in the fact that while the former is not communicable by personal contact, the latter is so in a high degree, and it is probable that the great increase of diphtheria in large towns during the last twenty years is mainly due to the crowding together of children in elementary schools since the passing of the Compulsory Education Act in 1870.

I can assure my friend, Dr. Wilks, that I have carefully read and studied Dr. Thorne Thorne's very able and instructive book on *Diphtheria*. While I have learnt much from it, I venture to submit that the author underestimates the influence of insanitary conditions as a cause of diphtheria. Thus he says (page 89), with reference to cases of diphtheria at Aylesbury: "I am inclined very largely to limit the operation of the faulty sanitary circumstances to the production of a morbid state of the fauces, which induced a condition favourable to the reception of the specific organism of diphtheria." On the other hand, he says (page 91), somewhat inconsistently, as I think: "There would appear to be sufficient evidence that a membranous inflammation of the larynx and trachea may be brought about by the direct action upon these organs of such substances as hot water, acids, etc."

I have elsewhere[2] endeavoured to show that in such cases the diphtheritic poison must have been associated with the local injury to cause a membranous exudation extending far into the air passages. The cases in which a membranous exudation in the larynx and bronchi was supposed to result from mechanical or chemical irritation of the throat had not been so thoroughly investigated as to justify a confident opinion with regard to the etiology of the pathological condition.

Finally, it must, I think, be conceded that if sewage emanations did no more than is admitted by Dr. Thorne Thorne, namely, induce a condition of the throat favourable for the reception of the specific poison of diphtheria, this alone would afford ample reason for a careful investigation of the sanitary or insanitary surroundings of diphtheritic patients.—I am, etc.,

Savile Row, W., Dec. 11th. George Johnson.

Sir,—Dr. J. B. Berkart, in his letter to the British Medical Journal of November 25th, states that "it is impossible that micro-organisms which may exist in an untrapped pipe or in a cesspool can escape into the air and there do mischief." I take very strong exception to such a statement. It has been shown over and over again that the emanations of privies, drains, and cesspools have caused diseases not only of toxic type, but of a type that is communicable to others, or, in other words, that is dependent upon multiplying micro-organisms. This is especially true in the case of enteric fever, and was brought home to me in the most convincing manner in an outbreak of 35 cases of enteric fever that occurred at the Foundling Hospital in 1891. I spent many weeks in investigating that outbreak most minutely, examining in every detail the food supply, especially the milk supply, the water service and its distribution, the air supply and ventilation, and by a process of careful elimination leaving only some defect of drainage to account for the spread of the disease. Ultimately I conclusively proved that the disease was spread by steam vapour carrying the infection through an untrapped pipe from a grease trap contaminated by typhoid stools that had not been disinfected. Since then I have never doubted the power of moist air to carry micro-organisms, and why not those of diphtheria? Cannot a fog also carry minute particles of matter? Is not every bacteriologist made aware of the fact, by the contamination of his cultivations in the laboratory, that organisms can be carried even by currents of dry air?

That epidemics of diphtheria are spread by personal contact, especially in schools, and occasionally by food, particularly milk, does not disprove that individual cases may arise through the conveyance of the organisms in vapours and effluvia from polluted sources. That this occurs less frequently than in the case of enteric fever is most probable, for this reason, that whereas the organisms of typhoid are eliminated in the stools and carried into privies, drains, and sewers, the opportunities for the organisms of diphtheria to be so carried must be rarer, since they are eliminated mainly by the mouth. But the organisms appear to possess great vitality, the power of rapid growth and extension, and to vary widely in virulence, according to the conditions of moisture, temperature, and organic nidus.

It is possible that the sore throat arising directly from sewer gas is not, when examined bacteriologically, true diphtheria, but may bear so close a resemblance as to be indistinguishable from it clinically. I have good reason for regarding this form of sore throat as infectious, and a strong suspicion, from cases within my knowledge, that it is capable of transmitting to others what is notified as diphtheria. The "progressive development of the property of infectiveness" of sore throats noted by Dr. Thorne Thorne in his Milroy Lectures points to the line of future observation; and Dr. Wilks will, I am sure, admit that an old pupil is in the meanwhile justified in regarding the view expressed in his letter to the Journal of November 11th, that diphtheria has "no relationship to bad sanitary conditions" at least as not proven.—I am, etc.,

St. Pancras, N.W., Nov. 25th. John F. J. Sykes.

Sir,—The discussion now going on in the British Medical Journal as to the relation of diphtheria to sanitation seems to me of so much importance that I venture to make this further contribution to it.

Nowhere in this country, so far as I know, does diphtheria prevail to such an extent as in one of the South German cities with which I am acquainted. With a population of about 120,000 the deaths from diphtheria averaged about 2 daily, and sometimes reached 5. This was no isolated epidemic, but continued, at any rate, from 1886 to 1892. In the excellent Children's Hospital the isolated "diphtheria house" was nearly always full. The inhabitants recognise that every newcomer is sure to be affected with "sore throat;" and the attacks are generally repeated at intervals for the first few years, until toleration is established. I do not say that all these throat attacks are diphtheritic, but undoubtedly many of them are. The heavy mortality from diphtheria shows the disease to be widely endemic, and we know that for every severe case there are many mild ones. In fact, some cases are so mild as not to attract attention until paralysis ensues.

Now, the conditions for the spread of diphtheria by direct infection—the conditions of school life, etc.—are not very

[1] Murchison, *On the Continued Fevers of Great Britain*, 2nd ed., p. 470.
[2] *Medical Lectures and Essays*, p. 366.

different from those prevailing in this country. But the sanitary conditions are appalling. There are no sewers, but all the houses are drained into cesspools, which, as a rule, are only ventilated into the houses. In the better houses the cesspools are emptied once a month, and during the process the stench is so unbearable that all windows must be closed. In a house in the best suburb, finished in 1890, consisting of three flats of seven rooms, each with watercloset and bath room, and rented in all at about £270 a year, the following were the sanitary arrangements: There was a pan closet on each floor, but the soil pipe was not properly ventilated, and when the upper closet was used gas was forced through the water seat of the lower one. A special fee was required to enable water to be used, and even then slops were forbidden to be emptied down the watercloset under penalty of a fine, because they diluted the contents of the cesspool, and made them less valuable for agricultural purposes. The slops were emptied down a straight untrapped pipe in the hall, running the height of the three storeys, and with an opening on each storey. In general, either waterclosets are used without water, or else a simple "shoot," leading into a vertical pipe running the height of the building, and ventilating the cesspool into the house. This latter plan was general in the older houses of the best class. In the poor quarters the conditions may be imagined.

A fæcal odour pervades every house, and even in the *parquet* of the fine Court Theatre the smell of ill-kept animals was all-pervading. The apartments of some of the higher court officials are over the stables.

Among the young women chlorosis is so universal that it is looked upon as due to some local climatic condition. In my opinion, it is largely due to the constant inhalation of the products of fæcal decomposition. The endemic prevalence of diphtheria is a matter of general comment, but is looked upon as inevitable.

Surely this town affords an object lesson of the relation of diphtheria and "sore throat" to bad sanitation.—I am, etc.,

Nottingham, Nov. 28th. H. Handford.

Sir,—Before the correspondence on "Diphtheria and Defective Drainage" is brought to a close, I would wish to put on record the following history of a localised outbreak which has occurred under my observation during the present year. On March 16th I was asked to see Miss A. B., a lady probationer at King's College Hospital, who was suffering from a slight attack of bronchitis. On the 21st, she was able to go to her home near Grosvenor Square. She remained there until the 24th, when, with other members of the household, she went to a country mansion in Surrey. The party consisted of herself, her sister, and four servants. On the 26th the lady felt ill, shivered, and had a sore throat. On the next morning she saw a patch of membrane on the back of her throat, and recognising the nature of the affection, immediately came up to London, and I attended her for three weeks in her room at King's College Hospital for a very severe attack of diphtheria, which was afterwards followed by some well-marked signs of paralysis.

There had been no diphtheria in the hospital for some time previous to the lady's attack of bronchitis; she had come into no contact with any possible diphtheritic infection at her home near Grosvenor Square, and she only felt ill on the day preceding her finding the patch.

I most urgently recommended that the drains at the country house should be examined, and this was done within a day or two by Professor Corfield, who had some time previously examined the sanitary arrangements in the house near Grosvenor Square, and had seen that they were perfect. The nearest house was at some distance, and was inhabited by the coachman and his family, and I am assured that the lady never visited this house or the adjacent village during her stay. It seems to me, therefore, impossible that direct infection could have been the cause of the disease. In fact I inquired most minutely into every chance of any contagion, and could not find the slightest evidence thereof. Three days after the illness of this lady, two of the servants who went to the country house with her, were also admitted into the hospital under my care with unmistakable diphtheria.

Professor Corfield's report on the drainage is as follows:—

"1. Dry bell traps in larders connected with soil drains.

"2. Waste pipe of cistern connected with soil drains.

"3. Loose cover to drains in scullery connected with soil drains. On testing the drains, the smell of the test substance pervaded the scullery and kitchen, and the back staircase, out of which the bedrooms, where there had been cases of sore throat and one of diphtheria, opened. The smell was also noticed in the larders and cistern room."

The defects in the drains having been rectified, the family occupied the house during the latter part of the autumn vacation, and no further case of illness occurred.

I do not propose to discuss the interesting question as to whether diphtheria can be generated *de novo*, or has been always with us, like original sin, but I can see no explanation for such cases as these but a causal connection between sewer emanations and diphtheria, and the moral which seems to me to be their practical outcome is that, whatever view may be held as to the origin of the diphtheritic poison, when you cannot find evidence of direct infection, carefully examine your drains.—I am, etc.,

George Street, Hanover Square, W., Dec. 11th. John Curnow.

PUERPERAL SEPTICÆMIA.

Sir,—The majority of medical officers of health and of medical men who are acquainted with sanitary questions will, I am sure, feel disposed to endorse fully Dr. Playfair's letter in the British Medical Journal of November 25th. There is recorded evidence pointing conclusively to the direct connection between sanitary defects in houses and puerperal septic disease. There is also, no doubt, a mass of unrecorded evidence, nearly every public health official having had at one time or another brought under his notice cases of puerperal disease in houses where sanitary defects have been discovered, and where removal of the patient from insanitary influences resulted in rapid restoration to health. My own experience points strongly in this direction, and a recent occurrence in which my advice was sought leads me to believe that pregnancy in some women renders them extremely susceptible to insanitary influences, and that such influences may produce obscure symptoms of septic infection long before labour commences.

It is perfectly true that a woman may be delivered in a house where the drainage is defective and that no evil results may follow. As Dr. Playfair's case, quoted from his work on *Midwifery*, shows, if the air of the lying-in room is protected from or unaffected by the drainage emanations, a perfectly normal recovery may ensue. If, on the other hand, drain air—or so-called "sewer-gas"—is constantly inhaled by the patient, the most perfect local antiseptic precautions may be absolutely incapable of preventing the onset of puerperal septicæmic complications. It has been placed on record that hospital patients suffering from compound fractures and operation wounds antiseptically treated on modern methods have succumbed to pyæmia when placed in a ward in a certain bed which was specially exposed to emanations from a cistern overflow pipe beneath the floor, which was in direct connection with an old brick sewer in the basement. Occurrences such as this give force to Dr. Playfair's remark that infective germs suspended in the atmosphere may be little less dangerous than analogous germs under dressings in contact with wounds.

Surely, in the light of existing knowledge, students at midwifery lectures—the practising obstetricians of the future—should be explicitly taught that defective drainage conditions are an occasional, if not a very common, cause of puerperal fever, and that it is the duty of the medical practitioner on the onset of such febrile conditions, which are not otherwise accounted for, to make particular inquiry as to possible sanitary defects, and, on the discovery of such unwholesome influences, to advise the immediate removal of his patient to an unpolluted atmosphere.

As regards the connection between diphtheria and insanitary conditions, it is greatly to be regretted that dogmatic assertions, on the one side or the other, should at the present time be made. The subject is still undergoing careful investigation at the hands of competent inquirers, and facts may hereafter be brought to light which may warrant decided statements. At the present time this is not the case. My

own observations go to show that there is very often an intimate relationship between diphtheria outbreaks and drainage defects, including in the latter dampness of site and of walls, and that schools in which these defects have been remedied, and which were formerly seldom free from sore throat and diphtheria, have ceased to be troubled by such visitations. Such experiences do not by any means prove a causal relationship, but they directly negative the assertions of those who hold that diphtheria is always independent of sanitary conditions.—I am, etc.,

Louis C. Parkes, M.D., D.P.H.,
M.O.H. Chelsea.

King's Road, S.W., Nov. 25th.

Sir,—I did not intend to take part in the correspondence regarding the relation between puerperal septicæmia and drain poisoning which is now proceeding in the British Medical Journal; but as Drs. Herman and Cullingworth have seen fit to criticise the remarks which I made at the last meeting of the Obstetrical Society, I ask permission to reply on the subject.

The key to the whole contention lies in a remark made at that meeting by Dr. Cullingworth, to the effect that such splendid results had been gained by the strict use of antiseptics in reducing the death-rate due to puerperal septicæmia that he should exceedingly regret if the mind of the profession was in any way diverted from this one consideration. No one values the strictest antiseptic precautions more highly than I do, no teacher insists on their observance more keenly than myself—indeed, I value these precautions so highly that I consider that the use of the nailbrush, the douche, the mercury or carbolic lotion should be supplemented by a due regard to the surroundings of the patient and a careful consideration of all sanitary defects—but the recognition of one important fact does not necessitate the neglect of other equally important truths. It seems hardly just or generous to suggest that the present highly-trained practitioner of medicine wants a ready excuse for not adopting antiseptics in his midwifery practice, or will be anxious to attribute every case of puerperal septicæmia to drain poison only.

For the theory which I advocated—namely, that a woman who has lived in a poisonous atmosphere for some time previous to delivery may be so impregnated with poisonous particles that after delivery her tissues would become a favourable breeding ground for septic germs, Drs. Herman and Cullingworth are not able to find a scintilla of evidence. I may not be able to produce the missing scintilla with a brightness that puts it at present beyond the region of all doubt, but I have many sparks of evidence which are highly suggestive. Space does not allow of the production of this evidence at length, but one case will serve as an example. Mrs. C., multipara; easy labour under strict antiseptic precautions; high temperature, swollen and tender belly, dry brown tongue, rapid pulse, and other evidence of puerperal septicæmia, commencing some thirty hours later. Patient so bad on tenth day that the possibility of removal seemed doubtful; rapid recovery on being moved into hospital and placed in a large, airy ward. In the same house and at the same time several inmates had sore throats and attacks of diarrhœa; two of the patient's children were out of health, and said to be always ailing. Two cases of typhoid fever occurred a few months later in the same house.

It would seem more reasonable to assume that the woman, living for weeks in a poisoned atmosphere, succumbed at length, when in a condition of nervous prostration after delivery, to continued septic drain influence, rather than to believe that her illness was due to the sudden introduction of some poisonous particles into her genital passage. If the patient becomes pregnant again, shall we insist that her labour must take place in a more sanitary house, or shall we send the medical attendant armed with a larger bottle of carbolic lotion? Which is the least dangerous teaching? As regards Continental towns, my eminent friends allow that their knowledge is limited, so it is scarcely fair to criticise the scanty argument. Regarding the question of a pregnant woman becoming acclimatised to sewer gas, I quite agree with Drs. Herman and Cullingworth; so may a man become acclimatised to the influence of whiskey, but the first time he is laid up by an accident or some nervous shock he may (though not always) get delirium tremens; and so in like case, after the shock of parturition, the patient poisoned by drain exhalations may (though not always) develop so-called puerperal septicæmia.—I am, etc.,

Montagu Handfield-Jones.

Cavendish Square, W., Dec. 2nd.

Sir,—It was with great pleasure that I read in the British Medical Journal of December 2nd Dr. Playfair's letter protesting against the adoption of the view expressed by Drs. Herman and Cullingworth "that defective sanitary arrangements are not matters of importance in the causation of puerperal disease." I should like now to add my experience as a general practitioner in a mixed practice. I live and practise in a town that is undrained. The only means of disposal of sewage are by earth tubs, or by waterclosets emptying into cesspools, in most cases very close to the houses. During the fifteen years I have been here I have, I regret to say, had far too many cases of what I have considered puerperal septicæmia. Now, if want of personal cleanliness on the part of attendant and nurses were the only or main cause of septic trouble, it would be expected that the poorer class of patients would suffer most. That is the reverse of my experience. Most of the cases I have had have been amongst patients of the well-to-do class, living in good houses, and employing good experienced nurses; and in no one case have I failed to find grossly defective sanitary arrangements. In one notable case there was a watercloset (to which there was no supply of water) in a dressing room leading into the lying-in chamber. My patient passed through a most severe attack of puerperal septicæmia, and I firmly believe was saved only by her removal right away from that part of the house.—I am, etc.,

T. P. Greenwood,
Medical Officer of Health, Stamford.

Stamford, Dec. 6th.

Sir,—As I have very recently had a case of puerperal septicæmia which corroborates Dr. Playfair's views I venture to send you a note of it.

On November 10th a primipara, aged 22, was attended by my nurse from the West End Branch of the Glasgow Maternity Hospital. The labour was normal. On the 14th her temperature suddenly ran up to 105° and I found her suffering from septicæmia. The room she was lying in was on the ground floor, with a foul watercloset and an ashbin full of rotting rubbish within a few feet of the window. The drain in the passage, or close, had been opened about two hours before the fever set in. She was removed to the Fever Hospital, but died three days later. As no other cases attended by the nurse became fevered she could not have infected her, and I am quite satisfied she was infected from insanitary surroundings.

About three years ago I had a case almost identically the same, except that no drain had been opened near the patient, but there was a foul watercloset within a few feet of the bed.—I am, etc.,

Robert Jardine, M.D.

Glasgow, Nov. 25th.

Sir,—*Apropos* of Dr. Playfair's letter, I may mention the following case that came under my notice a short time ago. A family moved from a small, well drained house, to a larger, insanitary dwelling house; this was done up, painted and papered in the usual way; the drains were overhauled and certified by the plumber to be all "safe and sound."

Shortly after the removal, sore throat appeared amongst the children and servants, people in the house were always ailing something or other. The lady was expecting her confinement, and as her former labours had always been natural and her recovery rapid, such this time was as usual expected.

On the fourth day after confinement she had a rigor, high pulse, and temperature 105°, followed with tenderness on pressure in hypogastric region, anxious expression, and every symptom of puerperal fever; swelling of left leg followed. Good nursing, quinine, etc., pulled her through, and she made a slow recovery. A case of erysipelas followed in a heretofore healthy person in the same house. Drain poison was at length suspected, the services of a sanitary engineer called in, the smoke test applied, and it was found the joints were bad throughout, and the drain from the

house blocked a distance of 20 feet from its entrance to the drain, showing without a shadow of a doubt that the sewer gas had entered the sleeping apartments and sick rooms, and was the cause of the sore throats, gastric attacks of an anomalous kind, the puerperal fever and the erysipelas.

I think there should be some law to punish plumbers from setting death-traps in houses, such as was the case in the instance I have just related.—I am, etc.,

Skipton, Nov. 27th. W. Wylie, M.D.

Sir,—Everyone who has studied the subject of puerperal diseases is bound to admit the great difficulty of the differential diagnosis of puerperal septicæmia by the symptomatology alone, from pyrexia due to sewer gas poisoning, or other morbific causes, but I believe that our advancing bacteriological science may soon be able to discriminate these. Some of the cases referred to in the discussion and one noted by Dr. Playfair have not the natural history of true septic infection, for if the mere change of air be sufficient to arrest all the symptoms, then the treatment of puerperal septicæmia would become perfectly simple. I again assert that these were not cases of true puerperal septicæmia in which the patients on being removed from their insanitary surroundings had their temperature immediately reduced from 105° to 100° with a rapid convalescence subsequently.

Dr. Playfair invites criticism by asking us to refer to his paper, and remarks, "They will find not only a good deal of evidence in proof of the evil effects of bad sanitation but some which I maintain is absolutely conclusive." That is not denied, but that is not the point. Is there proof of it causing true puerperal septicæmia?

Before we can accept a generalisation such as Dr. Playfair makes we must have more exact data than the reports, such as he gives us, of two remarkable and most tragic cases, in both of which one of the nurses in attendance has an arm amputated.

It is instructive to read the records of these two tragedies, as they are alike in their essential features, and are sad examples of true puerperal septicæmia, in which the infective material is communicated by inoculation to another person in each case. By control inoculation and experimental research founded on such sad experiences will science demonstrate the nature and relation of the various puerperal pyrexiæ.

We have no mention of any antiseptic precautions being used, and in the first record Dr. Playfair cannot "remember rightly" whether her medical attendant was present at delivery or not, while in the second he is positive "no examination was made from first to last;" so that we are left in ignorance as to whether or not there existed any laceration of the cervix uteri—a not uncommon result of rapid labour—or of the perineum, or any abraded vaginal surface for the ready absorption of septic material. To my mind as well as to others this is part of that evidence that will not bear criticism, for scientific precision demands more complete and carefully observed details than Dr. Playfair's reports contain before we can positively assert that sewer-gas poisoning and true puerperal septicæmia stand in the direct relation of cause and effect.—I am, etc.,

Harley Street, W., Nov. 25th. A. Wallace, M.D.

MIDWIVES REGISTRATION ASSOCIATION.

Sir,—The following circular has been issued by the above association, and it therefore behoves those who rightly oppose the formation of a new order of obstetric practitioners to be on the alert.

London, November, 1893.

Dear Sir,—The opposition which a small section of our profession has raised against legislation for securing the improvement and legal control of midwives has resulted not only in delaying the passing of a much needed measure of reform (see the Report of the Select Committee of the House of Commons), but has also given rise to a well founded fear lest the education and control of midwives should fall into non-professional hands, with the inevitable result of perpetuating the present inefficiency of midwives and of causing constant collusion with the interests of the general public, as well as with those of the medical profession.

For these reasons the above association has been founded. This association, constituted as it is of general practitioners, as well as men of well known repute in obstetrics, has already made its opinions felt.

We are therefore directed by the executive committee of the association to invite you to join it. By so doing you will be kept informed of the proposals before Parliament, and you will also further the interests which we represent.

There is no other body of medical men publicly moving in this matter at present. Even the British Medical Association has decided to do nothing till a Bill is actually before them. Meanwhile the House of Commons has declared that legislative action is required, and we may be sure that it will not long be delayed.

We have been fortunate enough to procure a grant of money, and therefore no subscription is necessary for membership; but as the grant is only a small one and the expenditure promises to be rather heavy, any voluntary donation will be acceptable.

This association is founded on the principle that the education and registration of midwives should be under control and supervision.

Much general information in regard to midwives has already been collected, but we shall be glad to receive any local details which you may be able to give on the enclosed form.—Yours faithfully,

Robert Boxall, M.D., } Honorary
Rowland Humphreys, } Secretaries.

I would add it is absolutely untrue that "the House of Commons has declared that legislative action is required." If it has so declared, I ask when? I would also ask the honorary secretaries to state what they mean by their very questionable statement that their association consists of "general practitioners, as well as of men of well known repute in obstetrics." This is a most odious comparison, as I take it "general practitioners" know just as much of obstetrics as those who "puff" it and themselves, as their particular speciality. Perhaps Dr. Boxall will explain?—I am, etc.,

Liverpool, Dec. 11th. R. R. Rentoul.

CONSULTANTS' FEES.

Sir,—I can conceive no easily managed reform, strictly within the profession, which would be more beneficial to the individuals immediately concerned and more productive of absolute good to all within the medical ranks than the simple expedient by the higher grades of consultants of raising very definitely their fees to all those who may wish for their advice. This rule should apply to those who have been honoured with titles by the Sovereign, to those called to high office in the colleges or medical societies, and at least to the seniors on the staffs of the metropolitan hospitals.

Some years ago I had occasion to take a wealthy patient to a leading London physician. The case was a serious one, the issues concerned of the gravest kind, and time and trouble were unsparingly given. As we travelled down together into the country my friend said: "I am astounded at the small fee I was asked for—two guineas. Why, I would gladly have given twenty guineas to Dr. —— for his thoughtful care."

I am very clear that the above remark could be paralleled by many. The increase of fee for consultation with a fellow practitioner at the consultant's house to five, ten, or more guineas would certainly recoup the consultant for a lessened number of cases, would much diminish the heavy labour now undertaken, and would remove once and for all the semblance of rivalry with less fortunate practitioners.

That this change would do much to raise the status of the profession as a whole cannot be questioned. More than this, however, ought, I think, to be insisted upon as binding upon all members of the medical profession who may be either habitually or at rare intervals called in consultation by their brethren, namely, that under no circumstances whatever should they allow themselves to take as their private patients anyone who may have been introduced to them for the purpose of consultation by another medical man. The very fact of having been selected as the consultant in a given case should make it absolutely impossible for the referee to accept the patient in any other or more close relation.

That distrust of some consultants does very widely exist cannot be doubted, and that simply because they are not careful to govern their relations to their professional brethren by some such guiding rule of action. Nor is special argument needed to commend such conduct; it is simply to carry into daily practice the golden rule of treating others as we should ourselves wish to be dealt with, and in so doing to show to the world at large that high personal character does especially declare itself in our dealings one with another.

In a limited area and with scant opportunities I have so tried to order my own consultant's daily life for the past thirty years, and though by deliberate and decided refusal I may have detached some would-be patients, so lessening by

sundry guineas the year's receipts, I am very conscious that my medical neighbours do me the honour to trust me more and more completely because I am known to hold and to act on this rule of interprofessional relations.—I am, etc.,

December 9th. M.D.LOND.

THE ROYAL COLLEGE OF SURGEONS, IRELAND, AND APOTHECARIES' HALL, DUBLIN, CONJOINT EXAMINATIONS.

SIR,—As your reporter appears not to have caught my reply to Sir William Turner's observation made in the course of the debate on the above subject at the meeting of the General Medical Council on Saturday, December 2nd, "that my motion was unnecessary because the whole question was before the Examination Committee," permit me now to say that I pointed out that he was under a misapprehension. The report of the inspector and visitor on the final examination of those bodies alone was before the Committee, while my resolution referred altogether to their previous examinations; and moreover, that no inspector could detect the irregularities referred to, for he could only report on the subjects examined; of the system by which certain subjects were evaded he could have no knowledge.

May I also point out that, while I willingly agreed to Sir Philip Smyly's suggestion to postpone the subject till the May meeting, I cannot admit that the course I adopted was in any way either incorrect or irregular? My original notice of motion was to refer to the consideration both of the defective curriculum and alleged insufficient examination to the two Committees for their report. The report of the Education Committee which was subsequently presented to the Council rendered the first part of my motion unnecessary, but the second part I felt bound to proceed with, and I was equally bound to give my reasons for doing so. Had I not withdrawn my motion at Sir Philip Smyly's request, the Committee would have, of course, communicated with the College of Surgeons and Apothecaries' Hall before reporting and hearing their explanations, so that the result will be in the end exactly the same.—I am, etc.,

Dublin, Dec. 10th. L. ATTHILL, M.D.

THE EMPLOYMENT OF ELECTRIC LIGHTING CURRENTS FOR MEDICAL PURPOSES.

SIR,—As space prevents the insertion of a longer letter, will you kindly permit me to make the following brief remarks:—

1. That the statement that "with an 8-candle lamp permanently fixed in the (100 volt electric light) circuit with the patient he cannot become the path of a current of really dangerous magnitude," seems to me to require material modification.

2. That the assertion that "pain is greater with the 100 volt light circuit passed through a controlling R. than when supply is drawn from a battery of low voltage," cannot, I think, be substantiated either in theory or in fact.

3. That for cautery purposes or lighting small lamps accumulators are, in my opinion, the best method of utilising continuous current supply, but not the best, as a fixed installation for ordinary medical purposes, when the supply in the mains is constant.—I am, etc.,

Brighton, Dec. 3rd. W. S. HEDLEY.

OBITUARY.

ARTHUR WELLESLEY EDIS, M.D.LOND., F.R.C.P.

THE news of the early death of Dr. Arthur Edis will be received with universal regret, while to those who enjoyed the privilege of his personal friendship it will long be a source of profound pain. Few men have passed through an active professional career in the metropolis more unspotted in purity and tenderness of character or unsullied with the dust and strife of the struggle for success. His was a sweet and gentle nature. An almost feminine softness of heart expressed itself in the delicacy of mien and sweetness of manner, having a charm to which few were insensible. To this characteristic bearing and unchangeable kindness and tenderness of thought and act his success in life was due even more than to arduous study and carefully garnered clinical experience. His friendships in the profession were deep and sincere, and rather concentrated among those with whom he was in close sympathy than spread over a wide surface, but it is especially among his patients, whose affection and gratitude he won, that the best memories of him and his character will endure.

Dr. Edis was born in Huntingdonshire in 1840 of an old yeoman family, and after a preliminary education in the Grammar Schools of Huntingdon and Aldenham, he pursued a course of instruction in agriculture and in veterinary medicine at the Cirencester College, winning honours in veterinary surgery. Thence he passed on to Westminster Hospital. He took the Membership of the Royal College of Surgeons of England in 1862, and became a Member of the Royal College of Physicians in 1867, and M.D. of the London University in 1868. He spent some time in the schools of Vienna, Berlin, and Paris acquiring a knowledge, not only of the medical teachings of these schools, but also of the languages of the country.

He was in Sedan immediately after the battle, and rendered good service in the ambulance work. In company with his brother, Colonel Edis, the eminent architect, he entered Paris during the last week of the Commune, where he took a great interest in the ambulance work. He was elected a Fellow of the Royal College of Physicians in 1879. Before finally settling to work as a specialist in diseases of women, he had applied himself to the study of insanity, and was resident medical superintendent at Ticehurst, where the connection betweed uterine disease and mental disease closely attracted his attention. For five years he was assistant physician to the Hospital for Women, Soho Square, subsequently taking the post of assistant obstetric physician to the Middlesex Hospital, and eventually succeeded Dr. Hall Davis as physician and lecturer on diseases of women.

Dr. Edis was, at the time of his death, senior physician to the Chelsea Hospital for Women, and held also other public offices. He was past president of the British Gynæcological Society, and honorary corresponding Fellow of many foreign obstetrical and gynæcological societies. His writings included the well known *Manual of Diseases of Women*, and *Sterility in Women*. He was a frequent contributor to our columns, and occasionally as a reviewer and in editorial capacity.

He took a great interest in the question of providing seats for shopwomen, and published a pamphlet, *Seats for Shopwomen*, which had a great influence in calling public attention to the dangers to health due to the prolonged hours during which young women were required to remain standing in shops.

Dr. Edis married a sister of the late Dr. John Murray, for many years the much beloved, and still unforgotten, sub-editor of the BRITISH MEDICAL JOURNAL, the interest which he thus learned to take in the affairs of the JOURNAL of the Association was never lost.

EDWIN MASON SHELDON, M.R.C.S., L.S.A., Liverpool.

WE regret to have to record the death of Mr. E. M. Sheldon, of Liverpool, which took place on November 25th. He was born on June 20th, 1830, and commenced practice in Boundary Street, Kirkdale, remaining at the same address until his death. Some twenty-five years ago he was impressed with the growing need for a hospital in the north end of the town; he set about supplying the deficiency, and shared with his friend, the late Dr. Costine, the honour of having founded the Stanley Hospital. For several years the institution was carried on in the face of great difficulties arising from want of funds and public support, sometimes from positive opposition, but confident in the goodness of their cause the founders persevered with their work, and lived to see the Stanley Hospital carrying on a large share of the medical and surgical work of the city, and securely established in the confidence of the public.

In 1887, on the completion of twenty years' service as surgeon to the hospital, Mr. Sheldon, together with Dr. Costine, was presented by his colleagues with his portrait in oils, which now hangs in the board-room of the hospital. At the same time he became consulting surgeon.

For some fifteen years Mr. Sheldon was a member of the

Board of Guardians of the West Derby Union, and was the author of a small work on *Outdoor Poor Relief*, published in 1879, and of a pamphlet on the *West Derby Union*, written in 1890, and giving a summary of the work and administration of the union. He was also honorary surgeon to the Kirkdale Industrial Ragged Schools.

His was a busy and active life. During his practice, extending to thirty years, he attended more that five thousand confinements. While engaged in a case in a case in 1885 he had the misfortune to contract a chancre on the third finger of the right hand, which did not heal for some months. He consulted Mr. Jonathan Hutchinson, and acting on his advice took a holiday for two months, going to the Channel Islands, after which his health seemed quite restored. In 1891, however, nervous symptoms developed themselves; he fell down in a fit in March, and again took a long holiday, after which he returned to work as hard as ever. In February, 1892, the gradual onset of paralysis compelled him to relinquish practice; and after a retirement of twenty-two months he succumbed to paralysis dependent on specific disease of the brain.

Mr. Sheldon's career illustrates the honourable reward that high personal character and steady devotion to duty bring to the members of our profession; while its termination illustrates the insidious dangers to which we are exposed, and which pass unnoticed by the world.

MEDICO-LEGAL AND MEDICO-ETHICAL.

THE HARNESS CASE.

The hearing of this case was resumed at the Marlborough Street Police Court on December 13th. Mr. A. J. Marks, managing clerk to Messrs. Morris and Co., one of the firms of solicitors for the prosecution, was examined. He stated that the action by *Science Siftings* for libel against the Medical Battery Company, Harness and Fleet, was compromised by the payment of £1,300. On the occasion of the interview, at which the cheque was paid to him, Messrs. Woolf and Hayman, of *Science Siftings*, were in his office, and saw Harness, who in the course of conversation observed, when the Leclanché cell was mentioned, that he had never bothered his head about the elementary parts of electricity. He also requested Mr. Hayman not to mention the matter of the belts further in his paper. This was declined. Mr. Fleet then asked that the compromise should not be mentioned, but this also was declined. The witness was cross-examined, and the case was adjourned for a week.

Mr. John Bell was also examined. He stated that he had attended at the Medical Battery Company's office on account of hernia; he there saw two persons, one of whom he believed to be Harness. He was submitted by them to an examination, which hurt him much, so that he had to keep his bed. He subsequently brought an action against the company, which he stated, in cross-examination, had been stayed owing to the liquidation of the company.

In reply to the magistrate, counsel for the prosecution stated that he had about 100 more witnesses to call.

THE MEDICAL BATTERY COMPANY.

A first meeting of creditors under the winding-up order recently granted against this company was held on December 8th at the Holborn Restaurant. Mr. Warley, assistant official receiver, presided, and made a statement explanatory of the affairs of the company, in the course of which he mentioned that the expenditure on advertising since 1889 had been £170,880. Mr. C. B. Harness addressed the meeting, alleging that the company had been hounded down by certain newspapers, and intimating, in reference to the various libel actions which had been instituted, his intention to fight the matter out to the bitter end. The official receiver was unanimously appointed liquidator, and a committee of inspection was elected. The shareholders, at a meeting held later in the day, concurred in these resolutions.

A LUNACY PROSECUTION.

At Eastbourne on December 11th Mr. Cæsar Dudley Sherrard, a medical practitioner, was prosecuted by the Lunacy Commissioners for receiving two inmates at his residence without the same being duly licensed. The case arose out of an inquest on Mrs. Emily Rose Stoney, an Irish lady, who committed suicide by jumping from a window at defendant's house. At the inquest he described his residence as a medical boarding establishment, and the treatment as moral and spiritual. The prosecution maintained that it contained insane patients. The evidence of nurses and a medical man was adduced to show that Mrs. Stoney was insane. It was stated that while at Dorking she remained on the housetop during the whole of one night, and said she had been in the tabernacle of the Lord. She was under the impression that she had been unkind to some children, and that there was no forgiveness for her. Dr. Chaldecott, who saw her at Dorking, expressed an opinion that her mind was deranged, but admitted that he did not use any of the ordinary tests to ascertain her mental condition. A nurse stated that on one occasion Mrs. Stoney escaped, and was absent all night on the downs. There were six or seven patients in Avalon House. Dr. Sherward had another house at Cranborough, and all the patients had meals together, including a lady who was certified insane. The case was adjourned for a week.

NAVAL AND MILITARY MEDICAL SERVICES.

ARMY MEDICAL STAFF EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post office order with the notice. The first post on Thursday mornings is the latest by which these announcements can be received.

A surgeon-major in a good station in the Bombay Presidency wishes to exchange home. Nearly a full tour of home service desired. Apply A. M. S., British Medical Journal Office, 429, Strand, W.C.

THE NAVY.

The following appointments have been made at the Admiralty: Horace B. Marriott, Surgeon to the *Victory*, additional, November 30th; Thomas E. Honey, M.D., Surgeon to the *Banterer*, November 30th; Henry J. Hadden, B.A., M.B., Surgeon to the *Pembroke*, December 6th; William E. Marshall, Surgeon to the *Gleaner*, December 5th; Arthur H. Howell, Surgeon to the *Plassy*, December 4th; Godfrey W. Simpson, Surgeon at Llantwit Major, December 5th; Matthew F. Ryan, Fleet-Surgeon, to the *Vivid*, additional, December 21st; Hugh St. D. Griffiths, Surgeon, to the *Vivid*, December 14th.

Surgeon John S. Fogerty, M.D., of H.M.S. *Banterer*, on the Irish coast, died at Queenstown on November 20th. He entered the Royal Navy in August, 1885, and joined the *Banterer* in August, 1892, having previously served in H.M.S. *Excellent* at Portsmouth, and for two years in the *Reindeer* on the East Indian Station.

ARMY MEDICAL STAFF.

Surgeon-Lieutenant-Colonel Frederick Lyons, M.D., is promoted to be Brigade-Surgeon-Lieutenant-Colonel, *vice* W. H. Climo, M.D., retired, November 4th. His previous commissions were thus dated: Assistant-Surgeon, October 1st, 1867; Surgeon, March 1st, 1873; Surgeon-Major, October 1st, 1879; and Surgeon-Lieutenant-Colonel, October 1st, 1887. He served in the Afghan War of 1878-80 (medal).

Brigade-Surgeon-Lieutenant-Colonel Francis Howard, M.D., has retired on retired pay. He entered the service as Assistant Surgeon September 30th, 1863; became Surgeon March 1st, 1873; Surgeon-Major April 28th, 1876: attained the rank of Lieutenant-Colonel September 30th, 1883; and was appointed Brigade-Surgeon-Lieutenant-Colonel September 14th, 1888. In the Afghan war in 1879-80 he had medical charge of the 25th King's Own Borderers (medal), and during the Egyptian war of 1882 he was in medical charge of the 18th Company Royal Engineers (medal and Khedive's bronze star).

Surgeon-Captain J. P. Carmody, M.D., from half-pay, is placed on retired pay. Dr. Carmody was appointed Surgeon March 6th, 1880, and retired on half-pay on account of ill-health, November 29th, 1888.

Surgeon-Captain E. D. Farmar-Bringhurst is granted leave from November 7th to the date of his re-embarkation for duty in India, in the Madras Command.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.

Animal Tuberculosis.—Sir Walter Foster, in reply to Viscount Wolmer, who asked whether it was expected that the departmental report on animal tuberculosis would be presented on an early date, said the Local Government Board had no later information on the subject than that given in the reply to a question of the hon. member for the St. Patrick's Division of Dublin city on November 24th. It was then stated that the Board had made inquiry and were informed by the Commissioners that the whole of the experimental investigations were concluded, that the reports of the two sub-commissioners were printed, that the report of the third sub-commissioner would probably be finished in a few days, and that immediately on its completion the Commission would meet to draft the final report, which it was confidently expected would be issued in the present month.

Medical Aid on Her Majesty's Ships.—Sir U. Kay-Shuttleworth, in reply to Mr. Macdona, said that a sufficient staff of medical officers and attendants is borne according to the complement in Her Majesty's ships. These have been found equal to the performance of all the medical duties, including emergencies as they arise. There was no association at the disposal of the Admiralty analogous to the St. John Ambulance Association. Civil medical practitioners can be temporarily employed under the regulations, and could be enrolled on very short notice. As regards nurses, the pensioners of the sick bay staff are available, supplemented in hospital ships by ladies on the nursing staff.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

Appointments.—Mr. H. H. Clutton, M.A., M.B., has been appointed an additional Examiner in Surgery for the Third M.B. Examination, and Dr. D. MacAlister a member of the General Board of Studies.

Degrees.—Mr. D. S. Long, B.A., M.B., and Mr. W. S. Melsome, M.A., have passed the examinations for the degree of Doctor of Medicine; and Mr. W. Broadbent, B.A., for the degree of Bachelor of Medicine.

The total number of students in the University of Greifswald this current semester is 757, of whom 380 belong to the Medical Faculty.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,048 births and 5,672 deaths were registered during the week ending Saturday, December 9th. The annual rate of mortality in these towns, which had increased from 18.3 to 26.5 per 1,000 in the preceding six weeks, further rose to 28.6 during the week under notice. The rates in the several towns ranged from 11.3 in Halifax, 14.4 in Huddersfield, 16.6 in Gateshead, 17.8 in Swansea, and 19.8 in Wolverhampton to 31.4 in Leicester, 32.6 in Preston, 32.9 in Bristol, 34.6 in Burnley, 34.9 in Liverpool, and 35.6 in Bolton. In the thirty-two provincial towns the mean death-rate was 27.0 per 1,000, and was 4.0 below the rate recorded in London, which was 31.0 per 1,000. The 5,672 deaths registered during the week under notice in the thirty-three towns included 542 which were referred to the principal zymotic diseases, against 496 and 503 in the preceding two weeks. Of these, 154 resulted from whooping-cough, 124 from diphtheria, 82 from "fever" (principally enteric), 62 from measles, 61 from scarlet fever, 41 from diarrhœa, and 18 from smallpox. These 5,671 deaths were equal to an annual rate of 2.7 per 1,000; in London the zymotic death-rate was 3.2 per 1,000, while it averaged 2.4 in the thirty-two provincial towns, among which the lowest rates were recorded in Swansea, Wolverhampton, Halifax, Gateshead, and Blackburn, and the highest rates in Leicester, Hull, Plymouth, West Ham, and Croydon. Measles caused the highest proportional fatality in Norwich and Leicester; scarlet fever in Norwich; whooping-cough in West Ham, Plymouth, Bristol, Sheffield, and Hull; and "fever" in Croydon and Salford. The 124 deaths from diphtheria recorded during the week under notice in the thirty-three towns included 89 in London, 7 in West Ham, 5 in Croydon, 3 in Cardiff, and 3 in Leicester. Four fatal cases of small-pox were registered in London, 4 in Birmingham, 4 in Bradford, and 1 each in West Ham, Leicester, Derby, Bolton, Oldham, and Leeds. There were 128 small-pox patients under treatment in the Metropolitan Asylums Hospitals and in the Highgate Small-pox Hospital on Saturday last, December 9th, against 151, 140, and 141 at the end of the preceding three weeks; 28 new cases were admitted to these hospitals during last week, against 21 and 33 in the preceding two weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital on the same date was 3,123, against 3,129, 3,140, and 3,183 on the preceding three Saturdays; 306 new cases were admitted during the week, against 363 and 373 in the preceding two weeks. The 841 deaths referred to diseases of the respiratory organs in London were as many as 408 above the average, and were equal to an annual rate of 10.2 per 1,000.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday, December 9th, 894 births and 732 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had increased from 18.2 to 27.8 per 1,000 in the preceding six weeks, declined again to 26.0 during the week under notice, and was 2.6 per 1,000 below the mean rate during the same period in the large English towns. Among these Scotch towns the lowest rates were 19.0 in Leith and 20.1 in Aberdeen, and the highest rates 28.6 in Edinburgh and 36.0 in Perth. The 732 deaths in these towns included 76 which were referred to the principal zymotic diseases, equal to an annual rate of 2.7 per 1,000, which corresponded with the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Dundee, Leith, and Perth. The 357 deaths registered in Glasgow included 13 from whooping-cough, 7 from diphtheria, and 4 from scarlet fever. Two fatal cases of diphtheria were registered in Edinburgh, in Leith, and in Aberdeen, and 4 of small-pox in Leith. The death-rate from diseases of the respiratory organs in these towns last week was equal to 8.7 per 1,000, against 10.2 in London.

HEALTH OF IRISH TOWNS.

IN sixteen of the principal town districts of Ireland the deaths registered during the week ending Saturday, December 2nd, were equal to an annual rate of 29.2 per 1,000. The lowest rates were recorded in Newry and Armagh, and the highest in Drogheda and Kilkenny. The death-rate from the principal zymotic diseases averaged 2.6 per 1,000. The 182 deaths registered in Dublin were equal to an annual rate of 27.1 per 1,000 (against 27.6 and 28.6 in the preceding two weeks), the rate during the same period being 27.1 in London and 31.6 in Edinburgh. The 182 deaths in Dublin included 17 which were referred to the principal zymotic diseases, equal to an annual rate of 2.5 per 1,000; of these 17 deaths, 7 were referred to enteric fever, 5 to whooping-cough, 4 to measles, and 1 to diarrhœa.

SMALL-POX IN WEST LONDON: PROSECUTION FOR FAILURE TO NOTIFY.

A SOMEWHAT serious outbreak of small-pox has been in progress for several weeks in the parishes of Paddington, Kensington, and Chelsea. The first known cases occurred at a house in Paddington, the first in point of time being so highly modified as to have escaped recognition. From this house the disease passed to a family living at Portobello Road, in the parish of Kensington, the first case being that of a girl aged 12, daughter to a man who kept a shop for the sale of bread, milk, etc. Mr. J. D. Hirst Smyth, L.S.A., who was called in to attend the girl in September, pronounced the disease to be chicken-pox. Some three weeks later the girl's father was attacked, and the same medical man made the same diagnosis in his case also. On October 22nd another doctor was called in, to find the male patient comatose and dying of confluent small-pox, and the girl recovering from a somewhat severe attack of the same disease, the eruption being profuse. The man died a few hours afterwards. The girl was removed to the hospital ships. Notification of these two cases by the second doctor led to inquiry at three adjoining houses in Portobello Road, with the result that several other cases were discovered and removed to hospital on October 23rd. Subsequently more than fifty cases have occurred in the north-eastern part of Kensington, and a few in the adjacent parishes of Chelsea (Kensal district) and Paddington.

The practitioner, whose apparent failure to diagnose small-pox in the girl and her father led to this lamentable outbreak, upon inquiry being made of him why he had not notified the cases to the medical officer of health, stated that the reason he did not notify the cases was that he could not satisfy himself they were cases of small-pox. He gave, moreover, a clinical history of the eruption accordant with the theory of chicken-pox, but wholly inconsistent with the since proved fact that both patients had small-pox. The Sanitary Committee of the Kensington Vestry, feeling unable to accept the explanation, took proceedings against Mr. Smyth, at the West London Police Court, for recovery of penalties for neglect to notify the cases to the medical officer of health, as required by Section 55 of the Public Health (London) Act, 1891. The defence set up by Mr. Grain, the barrister who represented the defendant, was that the defendant, not having "become aware" that the people had a notifiable disease, believing, moreover, as he still did that the disease was chicken-pox, the cases did not come within the meaning of the section. And this view was allowed to prevail, Mr. Curtis Bennett, the magistrate, in an elaborate judgment on the second day of hearing, expressing the opinion that in order to a conviction, as the clause was drawn, it was necessary to prove that the defendant had wilfully neglected to notify with the object of preventing loss of practice by removal of his patients to hospital. He felt that there had been lamentable want of judgment on the part of the defendant, who should have suspected what the disease was when the second case occurred and obtained further advice, and lamentable want of knowledge of his profession in his failure to recognise the disease. In the circumstances, however, he had no choice but to dismiss the summons, without costs. At the same time, he hoped steps would be taken by someone to draw the attention of the Government to the necessity of an alteration in the terms of the section so as to give effect to what appeared to be the intention of the Legislature.

PUBLIC HOUSES AS VACCINATION STATIONS.

WE are glad to see that the motion brought forward at the last meeting of the Lanchester guardians to appoint a public house as the public vaccination station for a particular locality was lost by an amendment carried to the effect that a more suitable place be sought. The question of economy crept in as an argument for public houses, but objections to them are obvious, and the accommodation for mothers taking children to the station should be some other than a bar-parlour with the often felt necessity for procuring drink as repayment for such accommodation. School-rooms, or halls, or even cottages well kept, are preferable to either public houses, or poor-law dispensaries, or pay stations. We are glad to note the gradual extinction of these three latter objectionable places as stations.

NOTIFICATION FEES.

A CORRESPONDENT, having delayed applying for fees due to him for notifying cases of infection, met with a refusal on the ground that his application came too late. He appealed to the Local Government Board, who, on the authority of a case of Dearle *v.* the Petersfield Guardians decided in 1888, ruled that the six months' limit within which guardians ought usually to pay their debts does not apply to debts incurred by them in their capacity of sanitary authority, and, consequently, that such lapse of time was no defence to a claim for these fees. This answer may be comforting to many members of the medical profession, as it may hold out prospects of recovering fees which they believed to be lost. Still the common-sense view would require everyone to whom such fees are payable to send in an account for them at least once in every six months. These fees are individually small—at most half a crown each—and though some practitioners may find that they total up to a satisfactory addition to their income, such small sums ought not to be left unclaimed too long. It is by no means certain that if a stale claim for them were submitted to a court of law, the case of Dearle *v.* the Petersfield Guardians might not be distinguished, and the claimant's case fail. Men who will not assert their claims, especially in cases like this where they have nothing to lose by pressing for payment, have only themselves to thank if their money is not forthcoming when they want it.

VACCINATION IN PARIS.

SINCE September 3rd, when a subvention for the purpose was granted by the City of Paris, a service of gratuitous vaccination and revaccination has been regularly at work in the French capital. Applicants are vaccinated at their own residences if desired. In six weeks, 20,282 vaccinations and 915 revaccinations were performed. On a case of small-pox being reported, or at the request of responsible persons, the authorities put up, in the hall of the infected house, a notice giving information of the day and hour when a vaccinifer heifer will be brought round to the door by officers of the Institute of Animal Vaccine.

QUARANTINE AND THE ORIENT EXPRESS.

THE International Sanitary Board at Constantinople has unanimously decided to allow the Orient Express from Paris to Constantinople, and *vice versâ*, to circulate on the Turkish railways without quarantine either way. The only restrictions imposed on travellers is that they will not be allowed to enter or leave the train at any other station than Constantinople. It now only remains for the Bulgarian Government to remove the quarantine on their side for direct railway communication to be established between Paris and Constantinople.

CONTAGIOUS DISEASES AND THE FOOD SUPPLY.

THE sanitary authorities of Vienna have recently issued an ordinance that all persons engaged in the manufacture or sale of alimentary substances must not employ anyone suffering from contagious disease or

from any affection of the skin likely to inspire repugnance or disgust. If such cases occur among the *employés*, both the employer and the medical man in attendance must report the facts to the sanitary authorities under penalty of fine or imprisonment.

MEAT PASSED IN ONE TOWN CONDEMNED IN ANOTHER.

A case of considerable interest to consumers of meat was lately heard at the Birkenhead Police Court. The deputy town clerk applied for an order to destroy four pieces of beef seized by an inspector at the shop of a local butcher. Evidence was given as to the seizure of the meat while exposed for sale, and by Dr. Marsden, M.O.H. for Birkenhead; Dr. Vacher, M.O.H. for the Cheshire County Council; Dr. Barron, Professor of Pathology at University College, Liverpool; and Dr. Pearson, surgeon to the Wirral Children's Hospital, who all testified that the pieces of meat showed numerous deposits of tubercle under the pleura, and where portions of the pleura had been stripped off some of the glands also being affected. Such meat would be liable to cause tuberculosis in those eating it, and was therefore unfit for human food. Two inspectors from the Liverpool abattoir were called on behalf of the owner of the beef, and swore that it was a portion of a carcass which had been passed by them. They noticed the tubercles, but did not think the animal had been affected badly enough to make the carcass unwholesome. The chief inspector at the Liverpool abattoir had seen the carcass, but not the medical officer of health. The magistrate said he was satisfied the flesh was diseased and not fit for food of man. He accordingly made the order applied for.

RECENT INFECTIOUS HOSPITAL PROPOSALS.

It appears from the last issued report of the Local Government Board that of nearly £3,650,000 raised by urban and rural sanitary authorities in England and Wales under the Public Health and Local Sanitary Acts, during 1892, less than £57,000 was for hospital purposes. Of this amount £25,400 is for the single case of Cardiff, other amounts totalling to £23,273 in respect of Birmingham, Chertsey rural district, Toxteth Park, Wavertree, and West Derby, leaving only about £8,000 for the rest of the kingdom. As a matter of fact, loans for hospital purposes seem only to have been granted in eighteen instances. The inference is that very much is being done in the matter of hospital provision without the sanction of the Whitehall authorities. Iron buildings, wooden structures, and other temporary devices are so temptingly laid before sanitary bodies, that hospitals of a character quite unfitted to the permanent needs of a locality are only too much in vogue. This is false economy. Good, substantial, loan-built buildings, erected, in many cases, as the result of combined action by adjacent sanitary districts, as has been, or is being, done in some localities, would be cheaper in the long run.

THE POLLUTION OF THE BRENT.

Local complaints as to the condition of the river Brent have resulted in inquiry and report to the Local Government Board by Dr. Monckton Copeman, so far as Middlesex is concerned. In that county the river flows through the districts of the Willesden and Ealing urban and Hendon and Brentford rural authorities, and is undoubtedly seriously polluted, the chief factors being absence in dry weather of water from the Welsh Harp reservoir, with sudden inrush of water therefrom in times of excessive rainfall, to what is virtually the head of the river; the first circumstance leading to the effluent of a sewage farm forming, for all practical purposes, the source of the Brent; whilst the second condition leads to tearing up of the bed of the stream in a manner which causes accumulation of filth in the excavations. Crude sewage, various other putrescent fluids, and the foul liquid exuded from heaps of London refuse along the banks of the Brent go to form what in the aggregate is a considerable body of polluted matter.

THE SANITARY CONDITION OF TENBURY.

The issue of Dr. Airy's report to the Local Government Board on the sanitary condition of Tenbury should serve to remind county councils of the power which they possess in the "representation" which they can make to headquarters under the Local Government Act of 1888 concerning the default of local sanitary bodies. Such a "representation" in regard of the water supply of Tenbury led to the inquiry of Dr. Airy, who sums up his detailed account of the supply by stating that the Tenbury rural authority "should without delay take action with respect to the water supply, the unwholesomeness of which as now existing is sufficiently established." The inaction of the authority, in spite of the warnings of its medical officer of health, Dr. Thursfield, in such matters as scavenging, river purification, and regulation of slaughterhouses and dairies is held to be "deserving of grave censure."

THE SANITARY CONDITION OF POOLE.

From the statements in Dr. Bulstrode's report on the sanitary condition of the borough of Poole, we gather that the town council has expended no more than 13 hours a year in discussing matters pertaining to the public health of their town, with its 15,000 people. It is no wonder that the report discloses lack of sewerage, crowding of houses on area, and deplorable conditions of excrement disposal in the poorer quarters, with resulting saturation of the subsoil of houses by excrementitious matter. The removal of excrement is grossly inefficient, by-laws are defective, and many other matters call for greater attention. The water supply is good, and a system of sewerage is in immediate contemplation, though in piecemeal fashion.

NOTIFICATION OF MEASLES AND WHOOPING-COUGH.

Dr. R. G. states that the local authority have adopted the Notification Act, and asks whether it will be necessary to notify measles and whooping-cough.

*** Probably not. It is open to the authority to add them to the list of notified diseases by special resolution and with the approval of the Local Government Board, but, apart from this, they do not come within the scope of the Act.

MEDICAL NEWS.

Medical Magistrate.—Dr. Falvey, of Tralee, has been appointed a Justice of the Peace for the co. Kerry.

On December 6th the Duchess of Portland opened Beresford House, Nottingham Place, a home of rest for nurses, the gift of Mrs. Stubbs, who has already established a surgical home in Beaumont Street.

A Japanese lady, Miss Marie Suganiana, who is a graduate in Medicine of the University of Ohio, has obtained permission from the Japanese Government to practise at Nagasaki. This, as far as we are aware, is the first appearance of the lady doctor in the dominions of the Mikado.

Mr. C. Dorrington Batt, M.B.Lond., has, on the recommendation of Lord Jersey, the Lord Lieutenant of the county, been placed on the Commission of the Peace for the county of Oxfordshire.

The International Hospital in Paris.—The Policlinic of the International Hospital in Paris was formally opened on November 16th by M. Jules Simon, in the presence of M. Péan, the founder of the hospital, Professor Sappey, MM. Galezowski, de Pietra-Santa, and a large concourse of members of the Academy of Medicine, senators, deputies, municipal councillors, and representatives of embassies. An address was delivered by Dr. Aubeau, who described the objects of the institution as the provision of medical help to persons of all nations, and the assemblage of all the specialities of medical practice under one roof.

Contagion at Funerals.—In consequence of representations made by the Cardiff Town Council the Local Government Board have ordered that, as an experiment, notification should be made to the burial authorities of every case of death through infectious diseases when the body of the deceased was presented for burial in the Cardiff district. The registrar has received instructions that in cases where the medical certificate indicates that the deceased has died from small-pox, cholera, diphtheria, membranous croup, erysipelas, scarlet fever, scarlatina, typhus fever, typhoid fever, enteric fever, relapsing fever, continued fever, or puerperal fever he shall write across the certificate the word "Infectious." The object is to prevent, as far as possible, the risk of contagion at funerals.

Glasgow Gynæcological and Obstetrical Society.—At the meeting of this Society, on October 25th, Dr. Kirk, Partick, showed two cases of myxœdema, one in a man about 40 years of age, and the other in a married woman, aged 42. In the former case the myxœdema seemed to have gradually supervened after pleurisy, and in the latter after excessive hæmorrhage. At the next meeting of the Society, on November 22nd, Dr. Kirk read a paper on a case of Recurrent Acute Œdema of the Lips, Tongue, and Soft Palate, alternating with Acute Eczema of the Face and Hands in a Case of Myxœdema, in an unmarried woman, aged 34. A brother of the patient, lately dead, had been a cretin, and Dr. Kirk expressed the opinion that the present case was one of modified cretinism.

Royal Institution.—The following are the lecture arrangements before Easter: Professor Dewar, six lectures (adapted to a juvenile auditory) on Air, Gaseous and Liquid; Professor Charles Stewart, nine lectures on Locomotion and Fixation in Plants and Animals; the Rev Canon Ainger, three lectures on The Life and Genius of Swift; Mr. W. Martin Conway, three lectures on The Past and Future of Mountain Exploration; Professor Max Müller, three lectures on The Vedanta Philosophy; Professor W. H. Cummings, three lectures on English Schools of Musical Composition (with musical illustrations); Lord Rayleigh, six lectures. The Friday evening meetings will begin on January 19th, when a discourse will be given by Professor Dewar on Scientific Uses of Liquid Nitrogen and Air; succeeding discourses will probably be given by Mr. A. P. Graves, Mr. T. J. Cobden-Sanderson, Professor W. F. R. Weldon, Professor Silvanus P. Thompson, Professor John G. McKendrick, Dr. W. H. White, Lord Rayleigh, and other gentlemen.

Typhus Fever at Lille.—It will be remembered that Lille was the scene of an outbreak of typhus fever some months ago. The disease was believed to have died out, but some fresh cases have recently occurred in the same quarter of the town, and in the same houses which were attacked in the previous epidemic. The foci of the disease are the Saint Sauveur de Fives quarter and the neighbourhood of the prison, parts of the town inhabited by a squalid population living in very insanitary surroundings.

MEDICAL VACANCIES.

The following vacancies are announced:

CITY OF LONDON AND EAST LONDON DISPENSARY.—Dispenser, not under 30 years of age. Applications to the Secretary, 213, Gresham House, Old Broad Street, E.C., by December 18th.

CITY OF LONDON LYING-IN HOSPITAL, City Road, E.C.—District Surgeons. Applications to R. A. Owthwaite, Secretary, by December 19th.

COUNTY LUNATIC ASYLUM, Burntwood, near Lichfield.—Junior Assistant Medical Officer, unmarried, doubly qualified. Salary to commence £100 per annum, with board, lodging, washing, and attendance. Applications to Dr. Spence, Medical Superintendent, by December 30th.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Dental Surgeon; must be a Licentiate in Dental Surgery. Applications to J. Francis Pink, Secretary, by January 8th, 1894.

DENTAL HOSPITAL OF LONDON, Leicester Square, W.C.—Demonstrator. Honorarium, £50 per annum. Applications to Mr. Morton Smale, Dean, by December 18th.

HOSPITAL FOR DISEASES OF THE THROAT, Golden Square, W.—Resident Medical Officer. Salary, £50 per annum, with board and lodging. Applications to the Secretary by December 18th.

KIMBERLEY HOSPITAL, Kimberley.—Senior House-Surgeon. Salary, £650 per annum, with unfurnished quarters for single men. Applications to H. A. De Beer, Secretary, by December 25th.

NORFOLK AND NORWICH HOSPITAL, Norwich.—Assistant to the House Surgeon. Appointment for six months. Board, lodging, and washing provided. Applications to the House-Surgeon by December 26th.

ROYAL ALBERT HOSPITAL, Devonport, Assistant House-Surgeon for six months. Board, lodging, and washing provided. No salary. Applications to the Chairman of Medical Committee by December 27th.

ST. GEORGE'S HOSPITAL MEDICAL SCHOOL.—Assistant Lecturer in Obstetric Medicine; must be F. or M.R.C.P. Applications to the Dean by December 22nd.

SCARBOROUGH HOSPITAL AND DISPENSARY.—Registered Assistant House-Surgeon. Salary, £50 per annum, with board and lodging. Appointment for six months. Applications to the Honorary Secretary.

VICTORIA HOSPITAL FOR SICK CHILDREN, Queen's Road, Chelsea, S.W.—House-Surgeon and House-Physician to the In-patients. Honorarium, £50 each per annum, with board and lodging in the hospital. Applications to the Secretary by January 13th.

WALLASEY DISPENSARY.—House-Surgeon, unmarried. Salary, £150 per annum, with furnished house, coal, and gas. Applications to Mr. William Heap, Elm Mount, Pinkett Road, Liscard, Cheshire, by December 21st.

WEST LONDON HOSPITAL, Hammersmith Road, W.—House-Physician. Appointment tenable for six months. Board and lodging provided. Applications to R. J. Gilbert, Secretary-Superintendent, by December 27th.

WESTMINSTER GENERAL DISPENSARY, Gerrard Street, Soho, W.—Resident Medical Officer. Appointment for one year. Applications to the Secretary by December 19th.

MEDICAL APPOINTMENTS.

ARNOLD, G. J., L.R.C.P., M.R.C.S., appointed Clinical Assistant in the Department for Diseases of the Throat, St. Thomas's Hospital.

BASHALL, Mr. C. E., appointed Medical Officer for the Eighth and Ninth Districts of the Kingsbridge Union.

BERRY, Mr. Fredk. C., appointed Medical Officer of Health for the Burnham Urban Sanitary District of the Axbridge Union, *vice* Arthur W. C. Peskett, M.D., M.R.C.S., resigned.

BIRD, G. W. H., B.A., M.B., B.C.Cantab., L.R.C.P., M.R.C.S., appointed Non-resident House-Physician to St. Thomas's Hospital (extension).

CHANCE, R. F., L.R.C.P., M.R.C.S., appointed Senior Obstetric House-Physician to St. Thomas's Hospital.

FISHER, J. H., F.R.C.S., L.R.C.P., appointed Junior Ophthalmic House-Surgeon to St. Thomas's Hospital.

HEWETT, J. W., L.R.C.P., M.R.C.S., appointed Clinical Assistant in the Department for Diseases of the Skin, St. Thomas's Hospital.

HICKS, T. W., L.R.C.P., M.R.C.S., appointed Junior Obstetric House-Physician to St. Thomas's Hospital.

LACK, H. Lambert, M.B.Lond., F.R.C.S.Eng., appointed Assistant Physician to the Hospital for Diseases of the Throat, Golden Square, W.

MARSHALL, C. F., M.D., B.Ch., B.Sc.Vict., F.R.C.S.Eng., appointed Surgical Registrar and Anæsthetist to the Hospital for Sick Children, Great Ormond Street.

MERRY, W. J. C., M.A., M.B., B.Ch.Oxon., appointed Non-resident House-Physician to St. Thomas's Hospital.

MOORE, H. M., L.R.C.P., M.R.C.S., appointed Clinical Assistant in the Department for Diseases of the Ear, St. Thomas's Hospital (extension).

NAYLOR, W. R., M.R.C.S., L.R.C.P.Lond., appointed Senior House-Surgeon to the Huddersfield Infirmary, *vice* Dr. Hall, resigned.

ORD, R. W., M.A.Cantab., L.R.C.P., M.R.C.S., appointed Assistant House-Surgeon to St. Thomas's Hospital.

PARKER, Charles A., appointed Honorary Assistant Surgeon to the Hospital for Diseases of the Throat, Golden Square, W.

PLANCK, C., M.A.Cantab., L.R.C.P., M.R.C.S., appointed House-Surgeon to St. Thomas's Hospital (extension).

PROBYN, Percy J., L.R.C.P., M.R.C.S., appointed Clinical Assistant in the Skin Department, also Electro-therapeutical Assistant at Charing Cross Hospital.

PURVIS, W. P., M.B., B.Sc.Lond., L.R.C.P., M.R.C.S., appointed Clinical Assistant in the Department for Diseases of the Throat, St. Thomas's Hospital (extension).

REDPATH, W., L.R.C.P., M.R.C.S., appointed House-Surgeon to St. Thomas's Hospital (extension).

RICHARDSON, S. W. F., L.R.C.P., M.R.C.S., appointed Assistant House-Surgeon to St. Thomas's Hospital.

RUDALL, J. F., M.B., B.S.Melb. M.R.C.S., appointed Senior Ophthalmic House-Surgeon to St. Thomas's Hospital.

RUSSELL, A. E., L.R.C.P., M.R.C.S., appointed Resident House-Physician to St. Thomas's Hospital.

SHARMAN, Henry, M.D., L.R.C.P.Lond., M.R.C.S.Eng., appointed Senior Clinical Assistant at the Hospital for Diseases of the Throat, Golden Square, W.

SHEARER, Mr. T. P., appointed Medical Officer for the Second District of the Leicester Union, *vice* Charles Lakin, L.R.C.P.Edin., resigned.

SIBLEY, W. Knowsley, M.A. M.D., B.C., M.R.C.P., reappointed Clinical Assistant in the Skin Department of the Middlesex Hospital.

SMITH, E., L.R.C.P., M.R.C.S., appointed House-Surgeon to St. Thomas's Hospital (extension).

STANLEY, Lewis, M.A., M.B., B.C.Cantab., appointed Senior House-Surgeon to the South Devon and East Cornwall Hospital, Plymouth.

THOMPSON, G. W., B.A., M.B., B.C.Cantab., L.R.C.P., M.R.C.S., appointed Resident House-Physician to St. Thomas's Hospital (extension).

THOMSON, Arthur, M.A.Oxon, M.B., Edin., appointed Professor of Human Anatomy in the University of Oxford.

DIARY FOR NEXT WEEK.

TUESDAY.

PATHOLOGICAL SOCIETY OF LONDON, 8.30 P.M.—Dr. Soltau Fenwick: Diphtheria of Stomach. Mr. F. T. Paul: Dermoid Cyst of the Face. Dr. Felix Semon and Mr. Shattock: Sequel to a case of Anomalous Tumour of the Larynx. Dr. Rolleston: Three cases of Mediastinal Abscess in Connection with the Œsophagus. Mr. Howard Marsh: Stomach and Intestine after Gastro-jejunostomy. Mr. F. C. Wallis: Sacculated Bladder following Stricture of the Urethra. Dr. Lee Dickinson: Myoma of Uterus becoming Sarcomatous. Card Specimen. Dr. Fyffe: Specimen from a case of Broncho-pneumonia.

WEDNESDAY.

ROYAL MICROSCOPICAL SOCIETY, 20, Hanover Square, 8 P.M.

ROYAL METEOROLOGICAL SOCIETY, 25, Great George Street, Westminster, 8 P.M.

EPIDEMIOLOGICAL SOCIETY OF LONDON, 8 P.M.—Dr. Wm. Hunter: On Bacterial Poisons.

THURSDAY.

HARVEIAN SOCIETY, 8.30 P.M.—Professor Corfield: The Harveian Lectures on Disease and Defective House Sanitation. Lecture III.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTH.

STOCKER.—December 10th, at Weedon, Northamptonshire, the wife of E. Gaved Stocker, of a daughter.

MARRIAGES.

MCLEAN—RUSSELL.—At Wallace Green Church, Berwick-upon-Tweed, on November 30th, by the Rev. J. M. Witherow, assisted by the Rev. Robt. Inglis, Chas. J. R. McLean, M.D.Edin., M.Ch., D.P.H., Yeadon, Yorks, to Johanna Purves, second daughter of James Russell, Berwick upon-Tweed. No cards.

NUTTALL—PEEL.—On November 15th, at the Parish Church of St. Mary, Bury, Lancashire, by the Rev. A. Anderton, Rector of St. John's, Miles Platting, Manchester, Frank Nuttall, L.R.C.P.&S.Edin., etc., Blackburn, Lancashire, to Lillie, elder daughter of the late Henry Peel, of Highfield, Bury.

ROBINSON—MILLING.—On December 12th, at St James's Church, Tunbridge Wells, by the Rev. M. J. Milling, Vicar of Ashton-Keynes, Wilts, brother of the bride, assisted by the Rev. Alfred Robinson, Vicar of St. Peter's, Humbleton, E. Yorks, uncle of the bridegroom, Henry Betham Robinson, M.S., M.D.Lond., F.R.C.S.Eng., of 1, Upper Wimpole Street, W., eldest son of Henry Robinson, of York Crescent, West Norwood, to Evelyn Louise (Eva) youngest surviving daughter of the late John Milling, of Harlow Manor, Harrogate.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

HOME FOR IMBECILE.

DR. L. B. asks to be recommended an institute or home where an invalid lady could be received who requires constant attention and nursing, as she is suffering from paralysis and imbecility. She can pay £1 1s. a week.

*** The patient might be received as a private patient at the City of London Asylum, near Dartford, Kent, for the sum named. Application should be made to the Medical Superintendent.

GUNSHOT WOUNDS.

ENQUIRER asks to be referred to some authoritative works on the subject of gunshot wounds of joints. I have already, he adds, consulted the surgical record of the American War, Longmore's *Gunshot Injuries*, and Sir William Mac Cormac's articles in *Heath's Dictionary of Surgery*.

*** Our correspondent might refer to the article on "Gunshot Injuries in Special Regions of the Body," by Surgeon-General Longmore, in Holmes's *System of Surgery*, last edition, 1883, vol. i, page 485, etc. In French, the recent work of Professor Delorme, 1893, *Traité de Chirurgie de Guerre*, tome 2, page 193, etc.; *Blessures des Articulations*, Paris, Alcan, 1893; and *Chirurgie d'Armée, Traité Pratique*, par Chauvel et Nimier; *Blessures de Guerre, par Régions*, page 282, etc., Paris, Masson, 1890.

ANSWERS.

DR. W. V. FURLONG.—In the paragraph referred to, the idea of the inhalation of oil of peppermint is expressly said to have been borrowed by Dr. Carasso from another practitioner. What we understand to be claimed as novel is the combination of these inhalations with the internal use of an alcoholic solution of creasote.

EHRLICH'S TEST FOR ENTERIC FEVER URINE.

HUGGS.—To 100 c.c. of sulphanilic acid solution (sulphanilic acid 1, nitric acid 2, distilled water 100) 2.5 c.c. of ½ per cent watery solution of sodic nitrite is added; 10 c.c. of this mixture is then added to an equal quantity of the urine. The test tube is shaken, and a few drops of liq. ammoniæ are added, when an intense red colour is developed.

NATIONAL SOCIETY FOR THE EMPLOYMENT OF EPILEPTICS.

W. H.—We learn that this Society has purchased an estate near Rickmansworth on which they propose to establish their farm colony as soon as the necessary buildings have been erected. Patients will probably be received during the coming year.

CLUB PATIENTS AND CONFINEMENT FEES.

M. B.—The proposal to attend on the wives of club patients in confinements without fee has, we should think, never been seriously entertained by any medical practitioner. As a rule, the inducement to take clubs among medical men is the chance of gaining the rest of the family of club members as private patients, and most club surgeons are in the habit of regarding the confinement fees likely to be derived from the wives of club members as an important item in their incomes.

NOTES, LETTERS, Etc.

PRACTICE IN NEW ZEALAND.

WE have received from a correspondent in Wellington, N.Z., a despairing account of a stranger's prospects of practice in the Colony. Living is high, accounts difficult to collect, and clubs embracing many members numerous.

THE FISHER FUND.

THE appeal on behalf of the widow and child of the late Dr. Henry Fisher, of Oakley Street, Chelsea, now amounts to £130 12s. 6d. As already stated in the JOURNAL of September 2nd, p. 560, Dr. Fisher died suddenly, leaving a widow and two young daughters to face utter destitution, his kindly nature having rendered his practice more wide than lucrative. The younger daughter, upon whose exertions the family was chiefly dependent, died of fever. Mrs. Bright, 6, Onslow Houses, South Kensington, and Mrs. Keith Abbott, 167, Oakley Street, S.W., act as treasurers to the fund. The following is the last list of subscriptions:—

	£	s.	d.
Dorking Masonic Lodge...	5	5	0
Miss May Dickenson ...	2	0	0
Mrs. Frank Leslie	2	0	0
Chelsea Relief Society ...	1	10	0
Chelsea Philanthropic Society ...	1	10	0
South Kensington and Chelsea Friendly Aid Society ...	1	10	0
Chelsea Benevolent Society ...	1	10	0
Collected by Mrs. Irvine	1	10	0
Mr. Dunning	1	1	0
Rev. H. Graham	1	0	0
Mrs. Lowenfeld	1	0	0
Miss Goodwin	1	0	0
Mr. G. B. Morgan, Darjeeling	1	0	0
Miss McCarthy	1	0	0
Dr. G. Martin	0	10	6
"Heautontimorumenos," Preston County Asylum	0	10	6
Mr. W. Fisher	0	10	0
Independent Order of Oddfellows...	0	10	0
Two Irish Ladies	0	7	0
Anonymous	0	6	0
A Friend, per Miss Clarke	0	5	0
Surg.-Lt.-Col. A. F. Dobson, I.M.S., Bangalore	0	5	0
Surg.-Lt. Fullerton, Cawnpore	0	5	0
Miss Frances Stoney ...	0	5	0
Miss Caroline Stoney ...	0	5	0
Mrs. Frank Whitaker ...	0	5	0
Surg.-Capt. J. W. Bullen, Cawnpore	0	5	0
F. S., per Miss Pike	0	5	0
Anonymous, Clapham ...	0	5	0
Mrs. Alfred White	0	5	0
Anonymous, Limerick ...	0	5	0
Anonymous	0	2	6
A Mite from a Chelsea Sympathiser	0	2	0

LEPERS IN TRINIDAD.

DR. BEAVEN RAKE, the Medical Superintendent of the Trinidad Leper Asylum, with the co-operation of Mrs. Rake, is arranging to give to the inmates of that institution a Christmas tree and entertainment, and would be glad of contributions of books, illustrated papers, and cards, so that each one of these 300 unhappy sufferers may receive some gift.

THE CHICAGO EXHIBITION.

MESSRS. BURROUGHS, WELLCOME, AND CO. (London) write: It may be of interest to your readers to know that English pharmaceutical preparations were considerably employed by the medical men in attendance in the World's Fair Hospital at Chicago. The hospital, we believe, was quite international, and the physicians allowed to use whatever medicines were considered most beneficial for their operations. We supplied to the hospital some cases of "tabloids" and hypodermic "tabloids," after the use of which the medical staff informed us they were well satisfied with them, and have also written us a letter, of which the following is a copy:

"World's Columbian Exposition, Medical Bureau.
"Chicago, U.S.A., October 21st, 1893.

"Messrs. Burroughs and Wellcome.

"Gentlemen,—I take this opportunity of thanking you for some specimens of 'tabloids' of compressed drugs. Some of them accompanied the aluminium hypodermic syringe and others were contained in a small pocket medicine case.

"It gives me pleasure to testify to their great convenience in administration, to the rapidity of solution, and to the accuracy of their effect. —Truly yours, "(Signed) JOHN E. OWENS, Medical Director."

TYPHOID FEVER IN THE ROYAL FAMILY.

MR. VINCENT, in his *Life of the Duke of Clarence*, recently published, states that after some home teaching it was decided to send the boys to study elsewhere, and the *Britannia* was chosen as the first school of the Princes; but an attack of typhoid fever from which Prince Albert Victor suffered in the summer of 1877 postponed their entry there by no less than two months. All through the course of this illness Sir William Gull attended the young Prince with unremitting zeal. There is but sorry comfort now in endeavouring to trace the origin of the weakness, if weakness it was, which caused the Prince to fall a victim so rapidly to his last illness. "Those who have known typhoid fever, as patients rather than as doctors, are apt to have varied opinions concerning its results. Sometimes the fell disease seems to wash the seeds of weakness out of the human frame, and convalescence supplies the lad who has been weakly from his cradle with the frame and muscles of an athlete. Such was the result in one case well known to the writer. Sometimes the wasting fever enfeebles the whole constitution permanently, and leaves the sufferer, even after the period of convalescence, less fit in physique to carry on the struggle of life, less prompt to recover from the attacks of illness in future." It may be remarked that his grandfather died of typhoid fever, whilst his father has had a terrible attack of it, and the Duke of York had it severely just before a rapid illness carried off the Duke of Clarence.

MORPHINE AS A "CURE" FOR OPIUM EATING.

ACCORDING to the *Journal d'Hygiène*, the morphine habit, hitherto confined to Western nations, has invaded China, and, strangely enough, in the guise of virtue. A confirmed opium smoker came to Canton to ask a medical missionary if he could cure him. The practitioner, it is alleged, did so by morphine injections, but the new habit was retained. The man returned to Hong Kong, and set up as an opium habit curer, employing the same method. The result is that more than twenty morphine shops have been opened at Hong Kong. The price is a halfpenny per injection, and numbers of Chinamen have abandoned the opium pipe for morphine. The name of the Canton missionary is given.

Inebriates Legislation Committee.

The appeal of the Inebriates Legislation Committee of the British Medical Association, says the London Correspondent of the *Manchester Guardian*, to ministers of all denominations to support the demand for legislation, has met with a remarkable response. It is a fair assumption from the answers which have been received that a large majority of the clergy are in favour of the principle which inspires the British Medical Association's proposals. Those proposals number three. In the first place, power is sought to seclude compulsorily habitual drunkards in curative institutions; then it is advised that the care of the poorer inebriates should be placed to the public charge; and, finally, it is asked that the obstacles which now stand in the way of the admission of an inebriate to a retreat should be removed. Some little criticism has been offered by certain of the clergymen on the second proposal, but there is no doubt that a strong body of opinion is now behind the purpose of the Association.

The Society for the Relief of Widows and Orphans of Medical Men.

F. A. H. writes: In the British Medical Journal of December 9th I notice a letter from a Vice-President of the Society for Relief of Widows and Orphans of Medical Men, evidently inserted to draw the attention of members of the profession to the Society. I for one should much like to secure such advantages as the Vice-President points out for the moderate sum of two guineas annually, and I have no doubt numbers of other medical men would do so, but for some reason which is not apparent to an outsider, the Society closes its doors to practitioners outside a twenty mile radius of Charing Cross. Could not the Society be induced to enlarge the sphere of their action, or if they are unwilling to do this, could not another society be started for the provinces?

Varicocele as a Disqualification for the Navy.

Surgeon G. H. Foott, R.N., writes: In your review of *Diseases of the Male Organs of Generation* you state about varicocele and rejecting of otherwise suitable candidates; "you have often wondered why this is so." One of the chief reasons in the Naval Medical Service is, if a man manages to pass the doctor with a varicocele, no matter how small, and in a short time he takes a dislike to the service, or is called upon to do some duty that he does not like, he goes to the doctor, saying "he has a lump in his testicle, which causes him so much dragging pain that he cannot walk or stoop." The only treatment for that man is to have him invalided out of the service. I will give you an instance. In my last ship I remember an A.B., aged 23, and a drummer boy, aged 17, both with a very small varicocele indeed. They found out that they had this, and came complaining of pains that would be felt in most advanced cases. They must have got a book and read up the subject. I took no notice of their complaint, and sent them to their duty. However, they came up again and again, with all the same symptoms, worse if anything; no work could be got out of them, so both were invalided out of the service. I have seen men with large varicoceles, who, being contented with their lot, made no complaint.

A "Skin Specialist's" Claim.

In the Westminster County Court, on December 4th, his honour, Judge Lumley Smith, had before him the case of Ruppert *v.* Knives, in which the plaintiff, Madame Ruppert, described as a specialist for the cure of defects of the skin, carrying on business in London, Paris, Dublin, and America, sought to recover payment of an account alleged to be due from defendant. The defendant set up a counterclaim in respect of loss of business owing to the alleged misrepresentations of the plaintiff as to the curative powers of her method of treating for beautification of the skin. The plaintiff's solicitor asked for an adjournment in consequence of a serious illness from which his client was suffering, and which entirely prevented her from coming to the court to give evidence. The defendant's solicitor strongly objected, and said that if the learned judge had seen any of the newspaper accounts which had recently appeared concerning this lady, he would not be disposed to show her much sympathy. She had been prosecuted recently in the Irish courts for contravening the Pharmacy Act, by selling a poisonous preparation. His honour said he had nothing whatever to do with the newspaper reports, and he should adjourn the case until January for the convenience of the plaintiff, but she would be liable to a penalty if she did not appear on the next occasion

Infanticide.

According to the recently published volume of judicial statistics, it is shown that in 1891-92 of the 155 murders reported, 82, or 52.9 per cent., were murders of infants aged 1 year and under; in 1890-91, of the 148 murders reported, 69, or 46.6 per cent., were murders of infants aged 1 year and under; in 1889-90, of 146 murders reported, 70, or 47.9 per cent., were murders of infants aged 1 year and under; in 1888-89, of the 134 murders reported, 58, or 43.2 per cent., were murders of infants aged 1 year and under: and in 1887-88, of the 190 murders reported, 75, or 39.4 per cent., were murders of such class.

Unconstricted Thermometers.

Dr. W. Hardman (Blackpool) writes: I cannot anywhere buy the only thermometer I care to use—specification thermometers, 3 inches long, lens fronted, giving reliable observation in a-half to one minute, no constriction. No thermometers are now sold without the constriction, excepting the very commonest hospital clinicals, and I am not sure if even these escape constriction. The only use of the constriction is to prevent the index being shaken down on to the mercury in the bulb, otherwise it is a useless complexity, which adds to the length and detracts from the pocketability of the instrument. Worse than these, the constriction doubles or trebles the labour of shaking the index down. Now, in my little unconstrictured thermometers there is no trouble of this kind. One or two sharp taps and the index is below normal, and all is ready again. I have used one of these thermometers nearly twenty years, and have never yet shaken the index into the bulb; if I use it twenty years longer I never shall. What use, then, is the constricture to me?

LETTERS, COMMUNICATIONS, Etc., have been received from:

(**B**) Mr. A. G. Beale, London; C. D. Batt, M.B., Witney; Mr. J. K. K. Benjamin, London; J. W. Batterham, M.B., St. Leonard's; Mr. D. E. J. Burnett, Manchester; Mr. F. Burfoot, London; P. G. Borrowman, M.B., Elie; Mr. R. H. Brew, Chew Magna; Dr. J. S. Belcher, Gloucester: Dr. W. A. Bond, London; Mr. B. Bartlett, London; Mr. L. Bruck, Sydney; Mr. J. W. Burdwood, Bourne; Messrs. Burroughs, Wellcome, and Co., London; Dr. A. Browne, Bradford. (**C**) J. Cordiner, M.B., Lesmahagow; Mr. J. G. Clarke, Walton; Mr. G. Clarke, London; Mr. J. B. Clarkson, New York; Cato; Mr. W. H. Clark, London; Dr. W. H. Calvert, Melrose; Dr. J. Craig, Londonderry; Dr. W. A. Carline, Lincoln; D. J. Caddy, M.B., London; Mr. M. C. Corner, London; Dr. F. G. Clemow, Cronstadt; Dr. J. Curnow, London; Mr. R. G. Coombe, Maldon. (**D**) Messrs. Down Brothers, London; Messrs. C. F. Dowsett and Co., London; Dr. W. C. Dendy, Aylesbury; Mr. J. C. Davies, Cardiff. (**E**) Dr. F. H. Edgeworth, Clifton; Mr. W. R. Etches, Macclesfield; Egypt. (**F**) Mr. C. Forbes, London; C. R. Francis, M.B., London; Messrs. Fannin and Co., London; Mr. R. L. Fitzgerald, Accrington; Mr. W. V. Furlong, Dublin. (**G**) Mr. H. Gurney, Dovercourt; Dr. H. R. Greene, Knaphill; Mr. T. P. Greenwood, Stamford; Mr. J. Griffiths, London; Mr. W. Goodliffe, Cambridge; Mr. R. Gilmer, Ballymena; Mr. H. H. Graham, London; Mr. P. G. Griffith, Buntingford; General Practitioner. (**H**) Dr. J. A. Harris, Chorley; Dr. A. Hill, Birmingham; Mr. G. L. Hill, Dursley; H.; J. A. Hargreaves, M.B., Wetherby; Honor; Mr. F. A. Hyne, St. Mawes; Dr. E. Haughton, London; Dr. L. Henry, Melbourne; Mr. S. Hillier, Newport; W. Hardman, M.B., Blackpool. (**J**) Mr. J. F. Jordan, Birmingham; Sir William Jenner, Bishops Waltham; W. W. Jones, M.B., Merthyr Tydfil; Sir G Johnson, London. (**L**) Mr. J. R. Lathbury, Rickmansworth; Mr. A. D. Little, Craigveigh; W. H, Lewis, M.B., Llansaintfraid. (**M**) Dr. R. Moodie, Stirling: Mr. A. P. Main, London; Dr. T. Mitchell, Gorseinon; Mr. C. J. R. McLean, London; M.D.; W. Mackie, M.B., Elgin; Dr. P. W. Marriott, Mentone; Medicus; Member; Mr. J. A. Milne, Glasgow; M.R.C.P.Lond.; W. C. Murray, M.B., Barrhead. (**N**) Mr. F. Nuttall, Blackburn; No Compromise; J. H. Nicoll, M.B., Glasgow. (**O**) Dr. T. Oliver, Newcastle-on-Tyne; P. T. O'Sullivan, M.B, Cork. (**P**) Mr. G. J. Powell, Stroud; Dr. G. N. Pitt, London; Mr. J. H. Potter, Cullompton; Parochial Medical Officer. (**R**) Dr. J. J. L. Ratton, London; Dr. T. Robinson, London; Mr. P. A. Riordan, Cloyne. (**S**) Dr. J. Stevenson, London; Dr. W. J. Sinclair, Manchester; Dr. J. Swain, Clifton; Ship Surgeon; Sergeant's Patent Rein Co., London; J. Seave, M.B., Wellington; Mr. W. E. Sell, London; H. Sharman, M.B., London; Mr. H. Smith, London; Dr. J. Souter, Burghead; Mr. W. A. Shillito, Chesterfield; Dr. T. Stevenson, London; Dr. A. T. Schofield, London; Dr. R. R. Sleman, London; Mr. N. Smith, London; Mr. H. P. Spottiswoode, London. (**T**) Dr. T. M. Tate, Downpatrick; Mr. A. P. Trinder, Burton-on-Trent; Mr. G. Tate, Stafford; Mr. Lawson Tait, Birmingham. (**V**) Dr. W. B. Vanderpoel, New York. (**W**) Messrs. Wright and Co., London; Dr. H. Watson, Newbury; Dr. J. J. Welply, Bandon; Mr. A. H. Walker, Cranleigh; Messrs. F. Warne and Co., London; etc.

BOOKS, Etc., RECEIVED.

The Wife's Guide to Health and Happiness. By Dr. Gordon Stables. London: Jarrold and Sons. 2s. 6d.

A Guide to the Public Medical Services. By Alex. S. Faulkner. London: H. K. Lewis. 1893. 2s.

A Theory of Development and Heredity. By H. B. Orr. New York and London: Macmillan and Co. 1893. 6s.

The Royal Natural History. Edited by Richard Lydekker. Vol. I. Part I. London: Frederick Warne and Co. 1s.

The Dispersal of Shells. By H. H. Kew. London: Kegan Paul, Trench, Trübner, and Co. 1893. 5s.

Diseases of the Skin. By Malcolm Morris. London: Cassell and Co. 1894. 10s. 6d.

A Practical Handbook of Midwifery. By Dr. F. W. N. Haultain. London: Scientific Press, Limited. 1894.

The Theory and Practice of Medicine. By J. T. Whittaker. New York: William Wood and Co. 1893.

The Elements of Hypnotism. By R. H. Vincent. London: Kegan Paul, Trench, Trübner, and Co. 1893.

The Dwellings of the Poor and Weekly Wage Earners in and around Town. By T. L. Worthington. London: Swan Sonnenschein and Co. 1893.

Textbook of Normal Histology. By Dr. G. A. Piersol. London: Baillière, Tindall, and Cox. 1893. 12s. 6d.

Politzer's Textbook of the Diseases of the Ear and Adjacent Organs. Translated by Dr. O. Dodd. Edited by Sir William Dalby. London: Baillière, Tindall, and Cox. 1894. 21s.

Descriptive Catalogue of the Anatomical and Pathological Specimens in the Museum of the Royal College of Surgeons of Edinburgh. By C. W. Cathcart. Vol. I. Edinburgh: James Thin. 1893. 7s. 6d.

*** **In forwarding books the publishers are requested to state the selling prices.**

DISCUSSION ON THE TREATMENT OF CEREBRAL TUMOURS.

Read in the Section of Surgery at the Annual Meeting of the British Medical Association, held in Newcastle, August, 1893.

I.—Victor Horsley, B.S., F.R.S.,
Professor of Pathology, University College; Surgeon, National Hospital for the Paralysed and Epileptic, and University College Hospital.

Remarks on the Surgical Treatment of Cerebral Tumours.

In introducing the discussion Professor Horsley said: In opening a discussion on the surgical treatment of cerebral tumours, I wish to take the opportunity of speaking on the subject from three points of view; (1) The treatment of the patient previous to consultation, with a view to surgical interference; (2) the objects for which surgical interference should be undertaken; (3) some fresh points in the *technique* of the operation.

A.—Treatment of the Patient Previous to Surgical Consultation.

At the outset I can premise that a case of intracranial tumour is one in which there are progressive localised symptoms. But in the clinical investigation of patients it is notorious that before the nature of the case is known the symptoms may be few and the localisation undiscovered. The most, therefore, that can be said is that the cases, which in the *post-mortem* room cause much regret that an operation was not undertaken, belong to a class of which very often no more can be alleged than that they are suspicious, and require the most careful investigation. In a discussion of this kind, therefore, we must at once define what cases we regard as falling under this category, and then discuss as to what is to be their treatment until it is deemed advisable to take a surgical opinion. There are conditions just alluded to which may be put out of court at once, namely, those in which there is no reasonable localisation of the symptoms presented. We may put such instances aside, because, obviously, no one would dream of undertaking to operate upon such.

What, then, constitutes a "suspicious" case? The localised symptoms which constitute the suspicious character of the case are divisible under Dr. Hughlings Jackson's classification of "over-action" and "want of action."

The chief symptoms of "over-action" are either (*a*) attacks of Jacksonian epilepsy, not infrequently heralded, even in cases of the most limited lesion, by a generalised fit of complete loss of consciousness; or (*b*) single, local contractions often arranged rhythmically in batches; or (*c*) subjective sensations, chiefly of a tactile nature, also occurring locally, and obtaining the title of "auræ," although frequently present for long periods of time, and not necessarily immediately preceding a convulsion.

The chief symptom of "want of action" is that of progressive motor paralysis affecting one region of the body, or progressive sensory paralysis affecting the special sense organs of one side, or a combination of motor and sensory paralysis in the same region, also of a progressive character.

In addition to the above, it is generally held that the diagnosis is incomplete until all or one of three cardinal symptoms are present—namely, optic neuritis, headache, and vomiting. These three cardinal symptoms of cerebral tumour, however, are not to be regarded of such essential importance as to justify cases presenting the symptoms of want of action and of over-action, above alluded to, being excluded from the class of suspicious cases. Thus, for example, in the first case of cerebral tumour upon which I operated there was no optic neuritis, no vomiting, and only some headache. The frequency of this exemption is known to all neurologists. To wait, therefore, as is frequently done, for the onset of optic neuritis, vomiting, or headache is not justifiable. We still need, however, some one directing feature of such cases, which leads the clinician to suspect it of being an instance of tumour. I believe it will be conceded that the feature in question is the progressive character of the symptoms, and that errors of diagnosis can be sufficiently avoided by the method of exclusion. From experience of having been asked to see a number of such cases, I feel sure that this view is the correct one, because in each instance it was the progression of the symptoms which alarmed the medical advisers and the patient, and led to the suggestion that for the treatment by drugs, should be substituted treatment by operation.

This brings me at once to the first point upon which I think this influential meeting should express a distinct opinion—namely, how long is it justifiable to go on treating a suspicious case of the kind I have described with iodide of potassium, etc., before calling in a surgeon? It is hardly necessary for me to dwell with emphasis upon the fact that under the present *régime* the appeal to surgery is usually made when the case is already beyond hope of cure by operation, and very often beyond the alleviation of which I shall subsequently speak.

Not to waste your time, but in order to bring matters to a head, and to raise a definite point for discussion, I venture to state that the treatment by drugs should not be prolonged beyond six weeks, unless a most remarkable and striking improvement in the symptoms has occurred.

In the most recent work on the subject of so-called "brain surgery"—namely, that by Starr[1]—it is stated that "if mercury and iodide of potassium fail to relieve the patient within three months, or if during that time the symptoms rapidly increase, the operation is not to be postponed." I am extremely gratified to find that the very high authority of Dr. Starr confirms the position I long ago took up in this matter, and on which I endeavoured to get an authoritative opinion expressed at the International Medical Congress in Berlin in 1890, but on which occasion unfortunately the point was never properly discussed.

It is admitted on all sides that there is no single kind of cerebral tumour which is in the least degree curable by drugs, except perhaps a gumma or tuberculous nodules. I have elsewhere made the statement that cerebral gummata are not really cured by drugs, a statement which has been much disputed by many authorities. No one, however, has disproved it by *post-mortem* records, and to support it I have definite facts showing the constant recurrence of symptoms in these cases; while, finally, my proposition is strongly supported by no less an authority than that of Dr. Gowers. Further, while speaking of antispecific treatment, I wish to allude for one moment to the well-known fact that, for some reason or another as yet unexplained, the use of iodide of potassium in large doses will cause a moderate abatement of the symptoms in cases of ordinary tumours, even of glioma; but it is most important to note that this abatement is only moderate, and is not to be compared for a moment with the striking, if temporary, effect which is produced on a syphilitic lesion by the same drug. I mention this point because such partial improvement has undoubtedly led to errors in diagnosis, and cases have been for months regarded as specific when, as a matter of fact, they were instances of fatal gliomata. Improvement under iodide of potassium, if only moderate, therefore is no index of the nature of the case.

As regards tuberculous nodules, everyone must have seen more than one case in which all the symptoms of tuberculous tumour were present, including the classical symptoms, but in which total remission of the same occurred, and the patient ultimately survived, unfortunately as a rule blind, and such tuberculous nodules have been found at *post-mortem* examinations densely fibrous and with caseated centres. Clearly, therefore, in the case of tuberculous disease, treatment by arsenic, cod liver oil, etc., is justifiable for a certain time, the duration of which may be longer than in the instance of iodide of potassium; four months, for instance, as against two.

I wish now to leave this part of the subject, and I have been tempted to enter into the province of the physician because it is upon the surgeon that the whole responsibility falls, not only of the result of the operation but also of the mere adoption of the proposed change of treatment, by undertaking the operation; and it is with a view of protesting against the present system of turning to the operation as a last resort instead of employing it in its proper position as a primary method of treatment that I have dwelt upon the all-

[1] *Brain Surgery*, by M. Allen Starr, M.D., etc., 1893.

important and practical question of the administration of drugs.

At this point I wish to give one case in exemplification of my position. Mr. ——— suffered from a fibrous tumour of the dura mater, which gradually compressed the left hemisphere producing the progressive symptoms above alluded to; the symptoms were observed and treated by drugs for no less than six years without real improvement, when, in consequence of the alarming degree of hemiplegia and of commencing hebetude, the suggestion of operative interference was made. The growth proved at the operation to be too large for removal without involving the risk of almost certain death, an opinion which was more than justified, unfortunately, since the patient succumbed to the shock of the exploratory operation alone, and at the necropsy it was discovered that the medulla oblongata was actually flattened by the steady pressure of the tumour for such a length of time. This case, which in its features of Jacksonian epilepsy and progressive paresis stands prominently in the class of suspicious cases, ought to have been submitted for operation several years before, and as you see in this photograph, and as has been demonstrated, not only by Dr. Keen, of Philadelphia, but also by myself, these growths can be easily and are the easiest of all cerebral tumours to remove successfully. *Vide infra.*

B.—The Objects for which Surgical Interference should be Undertaken.

(*a*) *Removal and Cure of the Neoplasm.*—It is obvious that the first object of the operation should be to wholly remove and thus cure the new growth from which the patient is suffering. I do not think we are yet in a position to adequately discuss this point, although it is one of such fundamental importance. I do not know what may be the experience of other surgeons, but personally I have never been asked to operate in any case of glioma in which the symptoms had not become so marked as to make it evident, or at least suggestive, that very considerable infection had already occurred, and in every case of glioma or gliosarcoma that I have removed the tumour has been of such a size as to render it uncertain at the time of the operation whether or no the complete removal had been effected; and in such cases ultimately recurrence has taken place. I have, therefore, in cases of glioma considered the question of operation more from the point to be discussed presently, namely, palliation, than cure. But that is only because, under the present *régime*, these cases come far too late to the surgeon, and until we have a case of glioma or sarcoma operated upon under the same circumstances as it would be were the tumour situated in the limbs and not in the brain, it is obviously quite illogical to draw conclusions as to the curability of glioma from statistics drawn from the cases at present offered to the surgeon.

As regards the curability of innocent tumours which are encapsulated, and which shell out, such as fibroma, etc., there is no doubt that they are curable by the operation. As regards the curability of specific infections, as in the case of gummata, I have already dwelt upon this point, but I now wish to state that in my opinion the reason why gummata are so incurable is that there is always a certain degree of pachymeningitis around them, and that this infection of the meninges is inevitably progressive. Under these circumstances it would appear to me that the only possible mode of curing cerebral gumma is to remove it. I have one case to lay before you in which life was prolonged for two years, but no cure was effected in consequence of the extension of the pachymeningitic and secondary degeneration changes. As for tuberculous nodules much stress has been laid on (*a*) their multiple nature; (*b*) the difficulty of removing them. As regards the first point: unless there are evident symptoms of two tumours the operation ought to be undertaken, since, as is exemplified in the case I now show you, in which I removed the tuberculous tumour of the brain in 1886, the patient completely recovered, and later succumbed to tuberculous disease of the genito-urinary tract. As you see, the brain six years after the operation is perfectly sound.

(*b*) *Relief of the Classical Symptoms.*—The classical symptoms are severe and often agonising headache, optic neuritis terminating in atrophy and blindness, and lastly vomiting. I wish now to advocate, as I have done before, that the opening of the skull should be undertaken for the purpose of relieving these symptoms especially. This opinion has been contravened by von Bergmann; I wish to show that it is more than justified by the results, and I may add that it is supported by the wide experience of Keen.

(1) *Headache.*—From observation of a series of cases in which I operated as much with the direct object of relieving intracranial tension as of exploration with the view of attempting the removal of the growth, I have found that in every case the effect of opening the skull has been to remove the headache, and further that in the cases where it was found or known before the operation that the tumour could not be removed, although this was left to go on growing, the relief from the severe pain persisted until the patient died. I therefore think that the simple and certainly safe procedure of opening the skull should be undertaken in view of the failure of drugs to meet the condition from which the patient is suffering.

(2) *Optic Neuritis.*—Of all the afflictions produced by cerebral tumour, it is hardly possible to conceive any more melancholy than the feature of optic neuritis, and this becomes more important since, as I have already indicated, if in the rare instances where the tuberculous tumour undergoes retrogression the patient may survive for many years completely blind. At the Berlin Congress I pointed out from an observation of five years that the effect of opening the skull was to produce at once a remarkable effect upon the optic neuritis—that the swelling of the discs commences to diminish, and the subsidence proceeds steadily to complete recovery, provided atrophy has not previously begun. The restoration of sight when that has been impaired is one of the most gratifying things to the patient and the greatest amelioration of his painful condition. This was well exemplified in a case of tumour of the temporo-sphenoidal lobe in a patient who presented, besides Wernicke's symptom, etc., extremely severe pain in the head and intense optic neuritis, with almost complete blindness. Exploration in University College Hospital revealed a rapidly growing tumour in the temporo-sphenoidal lobe, quite beyond the possibility of removal. Nevertheless, the patient lived for several months free from pain, and with recovery of sight so far as to enable the patient to enjoy life. In the majority of cases the neuritis usually subsides within three weeks, but if atrophy should have already commenced, in my experience the condition is hopeless. It is obvious that where cerebral tumour may come under observation too late for successful extirpation, de Wecker's operation might be done on the optic nerve to stop the neuritis. But in view of the concurrent and equally important relief of the headache I think it would be best to open the skull by preference.

(*c*) *Vomiting.*—Vomiting in cases of cerebral tumour is of course not a constant phenomenon, but still is a very frequent one. It is clearly dependent directly upon the degree to which the intracranial tension is raised, and consequently as soon as the skull is opened this symptom as a rule ceases. This concludes all I have to say on relief of the classical symptoms. There is not time to deal with the improvement in the mental condition of these patients, but I wish to again draw attention to the fact that there is of course in many cases a recovery of loss of function and a removal of signs of irritation, for example, convulsions, etc. As regards the first point, recovery of loss of power—that cannot be counted as an advantage in cases where the tumour cannot be removed, because in a certain proportion of instances the loss of power is at first accentuated, sometimes considerably so, and the patient thencefrom gradually returns to his previous condition. In some, however, where hemiplegia was well marked before the operation, there has been fair recovery of power. The removal of excitatory symptoms by the simple means of opening the skull is a very well marked phenomenon, convulsions and fits alike ceasing. I will quote one striking case that came under my notice, because it also leads to the discussion of another unexpected result from the simple operation.

The case is one in which I saw a gentleman, Mr. H., in consultation with Mr. Marriott and Dr. Johnstone, on November 20th, 1888. The patient suffered from rotation fits, in which the whole body rotated round the longitudinal axis towards the left side, that is advancing the right shoulder. In addi

tion he also suffered from arrest of respiration due to attacks of the medulla oblongata, such fits inducing acute asphyxia to unconsciousness. His sufferings were thus very great. In addition he presented all the classical symptoms of cerebral tumour (in so far as destruction of the cerebellum and pressure upon the conduction paths are concerned), vomiting and very severe occipital headache. The diagnosis was made of a growth pressing on the middle cerebellar peduncle, probably far forward, and therefore only the skull was opened to relieve the pressure, which was so great that the cerebellum protruded almost an inch through the trephine hole. The effect of this release of pressure quickly evinced itself by disappearance of the symptoms, and six months later he walked into my room saying he felt perfectly well. I felt sure that the improvement was only transitory; in fact, the attacks returned with headache, and he sought to have more bone removed, as he was so conscious of the relief afforded in the first operation. This I had no compunction in doing, and on removing the bone on the right side of the occipital region the cerebellum again bulged out very forcibly, as on the previous occasion, and again he was relieved from his symptoms; and during the eighteen months that he subsequently survived had very few attacks. In this period he passed into a condition somewhat resembling general paralysis, and died of asthenia without any special lesion; and at the necropsy nothing was found to account for death; and as regards the cerebellum, in the place of the tumour only a small cavity with irregular walls was discovered, and of this I now show you a photograph.

This brings me to my next point—namely, that it is evident that some new growths are so interfered with in their nutrition by opening the skull and suddenly altering the pressure therein, that they forthwith degenerate. This observation is in harmony with the well-known tendency of cerebral growths to undergo degeneration. A still more striking case is afforded by a patient on whom Dr. Buzzard asked me to operate for cerebral tumour affecting the left hemisphere in the middle of the ascending frontal gyrus. The tumour was found to be too large for removal; and the subsequent history of the case, briefly summarised, was that the patient survived for over two years with disappearance of the attacks and improvement of the hemiplegia. He died some time after he left the hospital, and it was discovered at the necropsy that the tumour, which at the time of the operation was obviously a malignant and rapidly growing one, had undergone complete destruction by the mere exposure at the time of the operation. Of course such a result cannot be anticipated or expected as likely of necessity to follow, but it is an argument in favour of deliberately opening the skull for the purpose of palliating a condition which cannot be cured.

C.—Some Fresh Points in the Technique of the Operation.

The further experience of this operation leads me to wish to speak on some more practical points. The first is the method of removing the bone. The osteoplastic method of Wagner has found considerable favour abroad, and consists in raising with hammer and chisel a large flap consisting of bone and soft parts adherent to it. I still think most strongly that this is a procedure not to be adopted, for many reasons which can be considered under the two headings of "Harm to the Patient," "Absence of Expediency."

Harm to the Patient.—From both experimental and clinical evidence, it is obvious that hammering the skull increases the shock; and, as Mr. Spencer and I have shown experimentally, pressure applied to the skull when there is already increase of intracranial tension is also productive of shock.

Inexpediency.—From close observations, both in the adult and in the child, I am sure that the pericranium has no osteogenic power, and that consequently it is a matter of no moment whether it be retained in contact with the bone or no. Further, in cases where the dura has been affected it has to be cut away; it is not then possible to replace the bone. I would note that where the bone is to be replaced the practice of the American surgeons—that is, of returning large portions of the bone—should be followed, and that it should not be cut into small pieces as grafts.

Drawbacks of Circular as Contrasted with Linear Cutting Instruments.—For the removal of the bone the most expeditious method is, I believe, the use of this pattern of mechanical saw made by Hawksley, 357, Oxford Street, and the judicious use of powerful bone forceps.

Concerning the Shock of the Operation.—Of the early series of operations a large number died from shock. This can now be wholly avoided by the simple expedient of doing the operation in two stages: in the first merely the exposure of the skull and removal of the bone; it is extraordinary how little shock attends removal of the tumour in the second. The other point in the *technique* to which I wish to allude is the question of packing the cavity left by removal of the tumour. This course, which is recommended on the high authority of von Bergmann, and very successfully carried out in the brilliant cases recently reported by Bramann, has this great advantage when, as so frequently occurs, there is considerable softening around the tumour. In a recent case of my own—Mr. M., sent me by Dr. Dreschfeld and Dr. Jackson—the tumour shelled out with great ease; the patient recovered from the anæsthetic and shock normally. But in the act of chloroform vomiting five hours after, he unfortunately ruptured a small blood vessel within the wall of the cavity, which, causing some bleeding, the blood found its way through the softened tissue into the lateral ventricle, the lumen of which was only separated by a very thin layer of degenerated tissue from the cavity left by removal of the tumour. The blood rapidly passed down to the fourth ventricle and caused death by pressure on the respiratory centre. This unfortunate accident would no doubt have been avoided had the cavity left by the tumour been plugged for twenty-four hours.

Conclusion.

To conclude: I hope that this discussion will make it clear that the subject of surgical treatment must be approached with a determination to formulate for suspicious cases a definite line of action, and that the expectant treatment is so fraught with danger to the patient that only after a relatively brief course of treatment by drugs ought the aid of surgery to be sought.

II.—William Macewen, M.D., LL.D.Glasg.,

Regius Professor of Surgery, Glasgow University.

Dr. Macewen said he would be happy to take part in the discussion, but was not fortunate enough to have heard the whole of Mr. Horsley's remarks, as he had only arrived when Mr. Horsley was describing palliative operations, and those undertaken in two stages. During the last five years he had, as occasion demanded, performed cerebral and cerebellar operations in two stages, especially in large and vascular tumours. He did so for two reasons. First, because the soldering of the membranes at the margin of the exposed brain would shut the subdural space, and prevent the escape of blood into it. The operation could, therefore, be proceeded with much more freely. Secondly, because the risk of shock was diminished. Regarding palliative operations, in 1889 he had operated on a patient who had a cerebellar tumour, causing atrophy of the optic disc, persistent headache, with marked exacerbations, vomiting, staggering gait, and, finally, paralysis of the lower limbs, incontinence of urine and fæces, marked paresis of the upper limbs, and difficulty of swallowing. The latter symptoms had only existed to a marked extent for about two weeks prior to the operation. In this case a palliative operation was performed in two stages, a large portion of the cerebellar fossa being removed, and several tuberculous tumours being exposed, which, after an interval of a week, were easily shelled out. It was believed that others existed, too deeply seated for removal. After the first operation—the mere exposure of the brain through a large aperture in the skull—the patient experienced great relief to his symptoms, and slept soundly night after night, which he had been unable to do for months previously. After removal of the two tuberculous masses (one about the size of a walnut, the other somewhat less) further relief was experienced. At the end of two weeks from the first operation he had continence of urine and fæces, the power of the lower limbs had returned so that he could flex and extend them, and also raise them from bed. The upper

limbs were likewise greatly improved in power. At the end of six weeks from the date of operation he could feed himself, and do all the coarser movements with his limbs. He was thus able to rise from bed and walk with support, and, though blind, he was able to enjoy life, eating, sleeping well, and taking an intelligent interest in his surroundings. For five months he steadily improved, and went about unaided; but, about the end of the seventh month, his lower limbs became weaker, and then gradually became paralysed. About the beginning of the tenth month from the date of the operation he suddenly died from apparent œdema of the brain, due to the steady growth of the tuberculous tumours, one of which, of small size, was afterwards found to involve the fourth ventricle. During this period of retrogression he never had a headache, and felt very comfortable till the night before his death, when there was also increased hernia cerebri. In other two cerebellar tumours operated on the relief to the symptoms was marked, with the exception of the amaurosis, which, being due to complete atrophy of the discs, was permanent. In one, the relief to the paralysis was not so great, but the absolute relief to the pain was alone sufficient to justify the operation. In the other all the symptoms were relieved, with the exception of the amaurosis. Shortly after he had command of his bladder and rectum, and the power slowly returned both into the lower and upper limbs. He was able to rise and walk with the assistance of a stick, experiencing no vertigo, and had no ataxic gait. As far as the head and spinal symptoms were concerned, he was so greatly relieved that one almost dared to hope he was cured. He continued in this state, regaining his health and strength and increasing in weight, for fully five months. One day he contracted a severe cold, which was at first supposed to be influenza, but which proved to be an acute attack of pulmonary miliary tubercle, which proved fatal in ten days. Dr. Macewen had no hesitation in recommending these palliative operations. He was glad to hear Mr. Horsley say he had no regard for the pericranium or dura mater as osteogenic factors in repair of bones in the upper part of the skull, as such bones grew alone from pre-existing bone cells. Were Mr. Horsley extending this view he had announced to-day regarding membranous osteogenesis to bones which were supposed to be developed from cartilage or periosteum, he would assist in removing a pernicious delusion. Regarding reimplantation of portions of skull removed during operations, they were formerly divided by him into small pieces, as the vitality of those portions was thereby more easily secured, and especially was this true of old bone. In young bone its vitality was greater, and consequently it was found to grow after reimplantation in one piece. When large areas of the brain were exposed in order to secure the contour of the vault, it was of advantage to replace the whole slab of bone. If it were reimplanted as removed necrosis of a portion of this large piece of bone might occur and complications would arise. In order to obviate this possible danger, and at the same time to provide abundant drainage, another method had been tried. The slab of bone had been preserved, but a series of holes a quarter of an inch in diameter were either punched or drilled through it, so that instead of a solid bone a mere latticework was left, islands of bone with connecting ridges, and the contour of the vault was maintained. The drainage through these apertures was at first abundant, then loops of blood vessels quickly penetrated the blood clot which filled them, and carried nutriment to the osseous tissue, and absorption of any of those islands of bone which might become necrosed would readily take place.

III.—Damer Harrisson, F.R.C.S.Edin.,
Surgeon, Northern Hospital, Liverpool.

My object in taking part in this discussion is more for the purpose of asking questions than speaking from an experience which has been larger in the direction of operations for abscess than in that of cerebral tumour. There is, however, the question which Professor Horsley has raised with regard to early surgical interference which it would be well for the meeting to consider. I cannot help thinking with Mr. Horsley that the physician should call in the aid of the surgeon at an earlier period than is the general practice at present. In one of my two cases of cerebral tumour, attacks of Jacksonian epilepsy had been going on for six weeks at intervals varying from five minutes to a quarter of an hour, and although the syphilitic disease was successfully removed, and a very large wound healed by first intention, the patient sank from exhaustion. This case, as well as others that I have met with, illustrates the necessity of the surgeon being called in at a much earlier period. There is the question of hæmorrhage which I have been glad to hear Mr. Horsley upon, and should like to ask him for further information. In one of my own cases, in which the leg centre was removed for Jacksonian epilepsy, hæmorrhage was found to have occurred after the operation had been successfully performed, probably due to some vomiting afterwards. I am glad to have heard Professors Macewen and Horsley with regard to their operation in two stages for the avoidance of shock, and I shall certainly adopt this method in all cases where such a serious complication is in danger of occurring. Before concluding my remarks, I should like to ask Mr. Horsley his view with regard to the treatment of lacerated brain in traumatic cases. In a recent case of head injury without fracture in which I trephined over the lower part of the leg centre and upper part of the face centre, having exposed and removed a large subdural blood clot, I found, upon following up the clot anteriorly, that the frontal lobe was much lacerated. In this case, if I could have dealt with the hæmorrhage I should have removed the whole of the lacerated brain tissue, as I understand that this might have been done, so far as the loss of cerebral tissue is concerned, without serious harm to the patient, and the continued presence of tissue already destroyed removed all chance of recovery.

IV.—Rushton Parker, M.B., B.S., F.R.C.S.,
Professor of Surgery, University College, Liverpool; Surgeon, Liverpool Royal Infirmary.

Professor Rushton Parker remarked that in the only case of cerebral tumour upon which he had operated, and which had been already related in part at the Leeds meeting in 1889, the case had been referred to him by the physician called in consultation in consequence of hebetude and hemiplegia supervening on intense headache, previously treated by antisyphilitic medication. In this case the pachymeningitis referred to as accompanying gummata of the brain was of so conspicuous a kind as to involve inseparable adhesion of the dura mater to the tumour immediately beneath. He was able to support Mr. Horsley's dictum that in the treatment of the wound drainage apparatus was better avoided, though provided for in fact by placing the stitches as far apart as sufficed for apposition without too much closure. Four years had now elapsed since the operation named, and the patient continued well and free from mental defect or disturbance.

V.—Otto Lanz, M.D.,
Berne.

Dr. Lanz said that, as regards palliative operations, Professor Sahli, of Berne, had suggested three years ago the permanent drainage of the lateral ventricle. This operation had since been performed by Professor Kocher in a few cases with favourable results.

VI.—R. H. B. Nicholson, M.R.C.S.,
Surgeon, Royal Infirmary, Hull.

Mr. Nicholson mentioned a case of tumour of the left cerebral lobe, which was, after opening the dura mater, closed again, having been found to be a sarcoma and the hæmorrhage so violent as to threaten death. The patient recovered from the results of the operation and lived five months.

VII.—David Newman, M.D.,
Assistant-Surgeon, Western Infirmary, Glasgow.

In answer to a question which has been put by Mr. Cathcart, I may, as a pathologist in the first instance, but also as a surgeon, be permitted to make a few remarks regarding the tumours most frequently met with in the brain. Mr. Cathcart's question, as I understand it, has special reference to the sarcomata. These tumours may appear within the skull in all their varieties, from the soft, rapidly-growing,

and very malignant round-celled growth, to the more chronic fibro-sarcoma. The spindle-celled and multiform-celled are the most common, but the round-celled sarcoma is also frequently met with. In almost all instances, sarcomatous growths in the brain are circumscribed, and in this respect differ from the glioma. They occupy the substance of the cerebral tissue, so that the growth is free to expand in all directions. They develop from the pial sheaths of the blood vessels, and perhaps also to some extent from the neuroglia. From a clinical point of view, the most important fact is that cerebral sarcomata are as a rule encapsuled, so that, if operated upon early, they may be completely removed; but if once the capsule has ruptured, either as a result of injury or from other causes, then the tumour enlarges with enormous rapidity, and operative treatment is out of the question. In this respect, sarcomata in the brain behave exactly in the same way as when situated in other parts. But while sarcomata are occasionally found in the brain, the tumours which are most commonly met with are the glioma and the gliosarcoma. These tumours are peculiar to the nervous system, and their tissue in many respects resembles brain substance. These tumours are infiltrating, so that their boundaries are not as a rule distinctly marked, so much so that in some instances the tumour has been regarded as a local hypertrophy of the brain. But on careful examination these tumours generally show a difference in consistence and in colour from brain tissue. The surface of the brain is in many instances not greatly altered. Sometimes, however, the outer aspect of the cerebrum presents the appearance of enlargement, and the affected part is discoloured by hæmorrhage or softening. The growth may degenerate and cysts form, or, on account of pressure, the ventricles may become more or less dilated. The particular character of the cerebral tumour is perhaps not of so much importance as its situation. The gliomata are commonest in the cerebrum; so also are the sarcomata, but the latter may attack any part—the cerebrum, the cerebellum, membranes, or the bones of the skull. The internal meninges and lining membrane of the ventricles may be attacked both by sarcomata and carcinomatous growths, connected with the pia mater, myxoma, myxosarcoma, sarcoma, and endothelioma are found occasionally; fibroma, osteoma, and chondroma are met with also, but these tumours are rare. Tumours of the brain, in their situation, more closely resemble tuberculous new formation than gummatous growths, in so far that they most frequently occupy the substance of the brain, whereas syphilitic growths develop from the meninges. When tumours or gummata develop in the adult, on account of the rigid condition of the skull, pressure symptoms manifest themselves early, whereas in children large tuberculous masses may occupy the brain without their presence being suspected during life.

VIII.—Professor Horsley's Reply.

Mr. Horsley, in reply, begged to thank the surgeons who had added so much to the discussion, but regretted very much that the principal question—namely, the duration of time that treatment by drugs should be maintained before operation was resorted to—remained untouched, save by Professor Macewen's opinion that no time should be lost. Turning to the points of surgical *technique* raised, and taking first the question of treatment of hæmorrhage, he thought that both primary and secondary hæmorrhage could best be met by the ligature; that hæmorrhage (primary) coming from beneath the dura on opening that membrane should be temporarily arrested by pressure, and then more bone cut away so as to lay bare the bleeding point, and that often the difficulty arose from not making originally a sufficiently large opening. That as regards traumatic cases he advised free washing out of clots and damaged brain with hot lotion, and that any bleeding point should be secured by ligaturing the supplying vessel in its continuity just outside the bruised area. As regards the recovery of bone, while agreeing with Professor Macewen that the cranial bones grew from the pre-existing bone and not the periosteum, he could not believe the same of the limb bones. As regards the employment of the instruments exhibited, he failed to see that they were dangerous to the patient. The use of any instrument was purely a matter of practice, open to every surgeon to attain.

DISCUSSION ON
THE TREATMENT OF INTESTINAL OBSTRUCTION.

Read in the Section of Surgery at the Annual Meeting of the British Medical Association, held at Newcastle-on-Tyne, August, 1893.

I.—Frederick Page, M.A.,Durh.(Hon.), M.D.,
Surgeon and Joint Lecturer on Clinical Surgery, Royal Infirmary, Newcastle-on-Tyne.

In introducing the discussion, Mr. Page said: It will be readily admitted that few cases give rise to more difficulty and doubt in practice than cases of acute intestinal obstruction, and by acute intestinal obstruction I mean "a total arrest of the passage of fæces and flatus." Why this is so is obvious enough, for acute intestinal obstruction is a symptom of a great variety of conditions, all of which imperil life. The difficulty in treatment arises from the doubt as to the cause of the obstruction. When a strangulated hernia exists—the commonest cause—the treatment is obvious. We attempt to liberate the imprisoned gut by taxis, first without and then with the aid of chloroform; failing, the stricture is at once cut down upon, and the bowel liberated. Herniotomy is successful in proportion to its early performance, and it will not be denied that grave mischief is frequently done by taxis. When no hernia can be found the cause of the obstruction must be within the proper cavity of the abdomen. If it could be ascertained that a portion of gut were strangulated it could make no difference as to treatment, whether the site of strangulation were in the proper cavity of the abdomen or in a hernial sac—a diverticulum of the abdominal cavity; in both cases the treatment should be the same. Unfortunately it cannot be ascertained that the symptoms are due to strangulation. They must, however, be due to some one or other of the various mechanical conditions which are known to cause obstruction, or to an acute inflammatory process, such as a suppurattng gall bladder, peritonitis, or typhlitis. I cannot think that anything but disaster is likely to arise by treating an acute inflammatory attack by abdominal taxis and repeated injections of air or fluid. Opium, bleeding, and fomentations relieve acute inflammatory symptoms, and might cure the patient were the disease not dependent upon a mechanical obstruction or upon perforation. But there is always a cause for peritonitis, and if septicæmia and external injury be excluded, in the great majority of cases, it is due either to a mechanical obstruction or to perforation, and is itself best treated by abdominal section. It is generally impossible to determine what is the cause of peritonitis, or what is the nature of the obstruction, when no peritonitis is present, without opening the belly. Why should not the belly be opened for the purpose of ascertaining the cause of the symptoms, and, if possible, removing it? It must be admitted that cases of acute intestinal obstruction (a very small proportion) recover without operation, the cause of obstruction remaining a matter of conjecture, and that the mortality in cases of abdominal section has been, and at present is, very high. The mortality from herniotomy used to be very high, and from the same cause that the mortality of abdominal section for the relief of intestinal obstruction is now high—delay. The earlier a patient is operated upon for strangulated hernia the better is his chance of recovery, and the earlier abdominal section is performed for the relief of acute intestinal obstruction, the better is the chance of success. I do not wish to convey the idea that the opening of the abdomen is a trivial matter. It is not, nor is any operation in surgery. But exploration by means of an incision cannot, at the present day, be said to add materially to the danger a patient suffering from acute intestinal obstruction is already in, and it may, and probably in most cases would, reveal the nature of the disease. It is not my purpose to discuss seriatim the possible conditions an exploratory incision may reveal, nor how they are (when found) best to be dealt with. That would occupy more time than I think could be profitably spent over the debate. I wish to urge the necessity, after a careful examination of the abdomen under chloroform has failed to relieve the patient, of at once exploring the abdomen by means of an incision. What is the alternative? Delay—opium and belladonna,

copious and often repeated injections, inversion, abdominal taxis under chloroform, shaking the patient, and inflation. In how few of the known causes of acute intestinal obstruction can these means possibly be successful? What is the chance of operative interference being successful after they have failed? In how many conditions must they inevitably do harm? I do not say that in no cases of intestinal obstruction are these measures to be resorted to. In the less acute cases they are applicable, and by relieving spasm, softening and displacing fæces, are often successful, just as in cases of incarcerated hernia they suffice. Chronic intestinal obstruction generally depends upon blocking of some portion of the large intestine, and the symptoms are not nearly so urgent, but even in such cases it may be found necessary to open the abdomen. Such cases often require the large gut to be opened, and, in my opinion, this is far better done by an anterior incision, either inguinal or median, than by lumbar colotomy. There are cases—I think, the more acute—where the indication is to open the abdomen at a very early period; others more chronic where delay and other means are indicated; and there is an intermediate subacute class where it is most difficult to determine what shall be done. The best guide to treatment is, I believe, the effect the disease is having upon the patient. If the symptoms, narrowly watched, indicate that the vital powers are threatening to fail, then, though the symptoms themselves may not be very severe, I think operative interference should be resorted to, and where the question as to the propriety of opening the abdomen or waiting is pretty evenly balanced, I am of opinion it is better to operate. I know at present of no better criterion as to the necessity of operative interference in these most anxious cases than the effect the disease is producing upon the patient. It is not unreasonable, I think, to expect, with so many able men looking at this difficult problem, and from opposite points of view, that the time may come when it will be possible to make a more accurate diagnosis than we can to-day arrive at; but at present I know of no better criterion as to the necessity of operative interference, in cases of intestinal obstruction, than the effect the disease is producing upon the patient.

II.—JONATHAN HUTCHINSON, LL.D., F.R.S.,

Consulting Surgeon, London Hospital; late President Royal College of Surgeons of England.

MR. HUTCHINSON said that the only disappointment which he felt as regards Mr. Page's paper was that it left statistics aside. He agreed with most of what Mr. Page had said, and was entirely with him in reference to the dangers of delay. He feared, however, that the results of early laparotomies had, during the last ten years, been very discouraging. He had made it his business to collect all the facts he could, and to make wide inquiries amongst his professional friends, and the result was a strong impression that laparotomy for intestinal obstructions of an unknown nature was very seldom successful. He should have been very glad if Mr. Page had been able to produce statistics which should have removed this impression. Nor was he, he regretted to say, quite free from suspicion that the operation was in itself a cause of danger. It was, he held, unsafe to trust to statistics obtained from other departments of surgical experience, such, for instance, as ovariotomy and the radical cure of hernia, and to infer from them that the peritoneum might, under all conditions, be exposed with impunity. It still remained a possibility that when congested and inflamed there might be special danger. It was worth while, he thought, in respect to this point, to advert to modern experience in reference to the external forms of hernia. These came the nearest of any class of cases to what some call "acute internal obstruction," a certain proportion of which group was made up of strangulation by bands. He much feared that the statistics of herniotomy operations did not give unqualified support to the arguments of those who held that operations did not increase risk. It was generally admitted that at the present day, with all our improvements, the fatality attending hernia operations ranged from 35 to 40 or even 50 per cent. We were, in this respect, not a whit better than our forefathers—indeed, no modern surgeon had approached the excellent statistics of Mr. Luke—whilst by general consent far less attention was given to the taxis than formerly. Students were now warned against the taxis as being in itself dangerous, and on all hands early operations were enjoined. Yet despite the fact that many cases were now operated on which would formerly have been reduced without, the statistics of the operation did not improve, and it might be reasonably feared that the fatality of strangulated hernia, taken as a whole, had increased. He could not avoid a very strong impression that if ever it should become the common practice in intestinal obstruction cases to operate early, and without attempting relief by other means, the fatality of this class of cases as a whole would be greatly increased. He had been through his whole professional career a zealous advocate for the taxis both in external herniæ and internal obstructions, and he was so still. His experience included twenty-three years on the staff of the London Hospital, an institution which had perhaps as large a number of hernia cases as any in the world. He did not believe that the taxis, properly used, did any harm. It was to the strangulation itself that the results were due which it was customary to attribute to the surgeons' hands. He was sometimes amused to hear "forcible taxis" denounced. He had always been accustomed to use all the force that his hands possessed, and had often regretted that they tired so soon. It might be asked did not patients sometimes die after successful reduction by forcible taxis. To this the reply was—Extremely rarely. It was in inguinal herniæ especially that he had been successful, and he had never in a single case had death ensue. He had lost three patients after reduction of femoral hernia by taxis, but not one after inguinal. It was the experience of all surgeons that little or no anxiety attached to cases in which the taxis succeeded, whilst statistics placed it beyond doubt that the mortality after operation was large. These undoubted facts constrained the belief that the operation was in itself a cause of danger. Applying these facts to internal obstructions, he held that they suggested the conclusion that laparotomy would not be without its risks, and this conclusion statistics certainly seemed to support. For the last twenty years or more he had been a warm advocate of what he had called abdominal taxis. He did not suggest that it should take the place of laparotomy, but rather that it should always precede it, and that it should be done very early in the case, just as taxis would be attempted in hernia. The procedures which he recommended had been both misunderstood and ridiculed. Some had called them archaic, others had spoken of them as a kind of massage, and yet others had compared them to tossing in a blanket. To compare them to massage was absurd; to speak of them as archaic involved no disparagement if they were efficient. What he did was done vigorously. The patient, having been put under full anæsthesia, had his abdomen vigorously kneaded, the intestines being pushed from side to side; then he was turned over upon his belly, and in this position well shaken; lastly, he was held head downwards and again shaken up and down. Enemata were also administered with the body inverted. He had had numerous most definite successes by this plan, both in hospital and in private. Several of them were cases in which he had been summoned long distances into the country, with an express request that he would come prepared to operate. He held that there was nothing at all improbable in the supposition that such manipulations might reduce a knuckle of gut which had slipped behind a band, or undo a twist or dislodge a block of hardened fæces. None of his successes had been in very recent cases, for as a matter of fact the operating surgeon was seldom consulted until some days had passed and many measures of treatment had failed. Some of them had been attended by very acute symptoms at the onset. He was no believer in the usefulness of the term "acute intestinal obstruction," for there was no definite group of cases to which it was applicable. Cases of strangulated hernia were often not acute at first, and so in internal stoppages those most needing operation were often quiet at first. On the other hand, sudden and severe symptoms often marked the onset of cases which got well without operation. Diagnosis of the precise lesion, excepting in the case of intussusception, would be admitted by all candid surgeons to be a matter of impossibility. Blocks from gall stones were cases in point.

Operations in these had been repeatedly performed, and, so far as he knew, never with a correct diagnosis beforehand. It was, he held, a serious misadventure to open the abdomen in gall-stone obstruction, for case after case had died, whereas if left alone almost all recovered. Further, he denied that anyone could venture a confident prognosis in obstruction from an unknown cause, for not infrequently cases which had appeared hopeless survived. For the reasons stated he held that those who advocated prompt operations in cases of abdominal obstruction from an unknown cause did so on theory, and were quite unable to support their recommendation by appeal to facts. It was, he considered, quite unjustifiable to resort to operation without having first made a painstaking attempt at taxis, just as much so, perhaps even more, than in the case of hernia. After abdominal taxis had been tried and failed, then laparotomy might be practised without delay, and very frequently it would be found that the procedure had materially helped the diagnosis. In conclusion, he urged strongly upon all who saw these cases in their early stages that no time should be lost, but that as soon as it was clear that real "stoppage" existed, an anæsthetic should be given and "abdominal taxis" tried.

III.—G. H. Hume, M.D., F.R.C.S.Ed.,

Surgeon and Joint Lecturer on Clinical Surgery, Royal Infirmary, Newcastle-on-Tyne.

I think all surgeons will agree with Mr. Hutchinson as to the present unsatisfactory result of operation in cases of internal obstruction. In his remarks, Mr. Hutchinson has made reference to taxis in hernia, and has alluded to a special state of the peritoneum in strangulated hernia to which he attributes the still high mortality of herniotomy. Is it not just this state of the peritoneum which most surgeons believe to be gravely aggravated by prolonged taxis, so as greatly to increase the risk of subsequent operation? The same objection must necessarily apply to taxis in cases of internal obstruction. The present difficulty in the way of more successful operating seems to be primarily a diagnostic one. Help in forming a diagnosis as to the special cause of obstruction is often obtained, not only from the careful examination under an anæsthetic which has been recommended, but also from a scrutinising investigation into the history of the case. The following history affords an example of the kind of help obtained in this way. A gentleman in his eightieth year was seized with not very acute symptoms of intestinal obstruction. He had long worn a clumsy, heavy truss for a right inguinal hernia. It was judged that the cause of the obstruction was not within the hernial sac, as the contents could be returned quite easily into the abdomen. The abdominal distension was, however, mainly on the right side in the region of the cæcum and ascending colon. It seemed probable that the obstructing cause had arisen in some way from the wearing of the heavy, badly-fitting truss, though its position was evidently higher than the neck of the sac. A median section was made, and three bands crossing the ascending colon were found and divided. The patient made a good recovery, and remains well, more than a year having elapsed since the operation. Another case will illustrate a numerous group in which the obstruction is due to some condition about the ileo-cæcal valve, the result of a former inflammatory attack. The case was seen with Dr. Wilkinson of Tynemouth. There had been complete obstruction for six days with stercoraceous vomiting. There was a history of a previous similar attack, and of the pain having started in the right side. The patient when seen was a good deal collapsed. An operation was decided against. The stomach was washed out, and all feeding by the mouth stopped. There was no vomiting after the washing out, and after two days' rest very cautious feeding by the mouth was resumed. Vomiting did not recur, and the patient gradually recovered. Cases of this character, when the obstruction results from existing or previous inflammation about the ileo-cæcal valve, seem often to undergo spontaneous recovery, and to be unfavourable for operation. A more discriminating diagnosis and earlier surgical interference in suitable cases appear to offer better hope of improved results than are likely to be obtained from the general adoption of the vigorous abdominal taxis advocated by Mr. Hutchinson.

IV.—J. Ward Cousins, M.D., F.R.C.S.

Senior Surgeon, Royal Portsmouth Hospital.

Dr. Ward Cousins said that in his opinion there was a well marked distinction between acute and chronic cases of intestinal obstruction, although Mr. Hutchinson appeared to make little practical distinction between them. There was an important relation between the acuteness of the symptoms and the necessity for surgical interference. It was always his plan, after obtaining the history and course of the illness, to examine the abdomen under chloroform, for this was a great help to diagnosis. In two cases he succeeded in relieving by the treatment recommended by Mr. Hutchinson. In one of these cases there was a history of a previous attack. The abdomen was enormously distended, and the pain very severe. With reference to the opium and belladonna treatment he had no confidence in it; it masked the real symptoms, and caused intestinal paralysis, which was sometimes mistaken for intestinal obstruction. Whenever inflammatory symptoms had set in, of course the time for massage and copious injections had passed by. The hope of success of any surgical treatment had a direct relation to early interference. Abdominal section was always a very serious question, but in many cases it was impossible to know the cause without it. An exploratory incision had sometimes relieved by altering the relation of the movable organs, and so liberating the obstruction. Every case he said must be considered on its own merits. Their aim must be accuracy of diagnosis and the exercise of surgical judgment. It was always very important to make a careful analysis of the symptoms and the mode of onset of the attack. Many abdominal accidents and disorders presented very similar symptoms. Sudden inflammation of the peritoneum from any cause, sudden hæmorrhage, and perforation, had all of them many points of likeness; for pain, tenderness, meteorism, vomiting, and constipation were observed in them all. Pain was absent in chronic cases. Colic sometimes simulated peritonitis, and peritonitis colic. Cases of intestinal obstruction had often for days the symptoms of colic, and colic might be associated with tenderness. No symptom alone was of any diagnostic value. Obstruction was sometimes caused by intestinal paralysis, without any mechanical cause. Perforation was often mistaken for obstruction. The former was ushered in with sudden and violent pain and profound collapse, but the onset of the latter was not so sudden, and the vitality was well maintained. Peritonitis, too, rapidly followed perforation, sometimes with great resonance and distension. Now he (Dr. Ward Cousins) did not say that there were no cases of perforation in which operation was not justifiable, but he maintained that surgical treatment was undertaken with a very different purpose, and that perforation ought never to be confounded with occlusion. Let us, he said, aim at as accurate a diagnosis as possible, and when ordinary treatment has failed to relieve, it is our duty to recommend surgical interference without delay.

V.—Rutherford Morison, M.B., F.R.C.S.,

Assistant Surgeon, Royal Infirmary, Newcastle-on-Tyne.

Mr. Rutherford Morison said: Taxis for strangulated hernia and for internal obstruction appear to me scarcely fairly comparable, as Mr. Hutchinson suggests. In the case of strangulated hernia the portion of intestine to be dealt with is under the hand of the surgeon, and can be manipulated with fair precision, with some notion of what is to be done and how to do it. In how many cases of intestinal obstruction is this the case? Again, Mr. Hutchinson believes that the results of taxis are superior to those of herniotomy in strangulated hernia. His large experience has led him to conclusions opposed to mine. I have seen four cases of reduction *en bloc*, and all four patients died. In every case the patient was in good condition when taxis was performed, and the gut was not gangrenous in any at the time of death. The four patients died, in my opinion, because taxis was performed and not herniotomy. Excluding gangrenous cases and two cases in which perforation of the gut followed some days after a successful herniotomy at the portion of gut constricted by a tight ring—and in such conditions all will admit that taxis must be fatal—I have only seen one case die of peritonitis, and in that patient an accident occurred

uring the operation and other circumstances were unfavourable. I have no statistics to offer, for I have kept no record of numbers, but my experience of strangulated hernia has been not inconsiderable, and my conclusion is that herniotomy skilfully and carefully performed is a much safer operation than vigorous taxis. I wish I could speak with the same confidence concerning intestinal obstruction. I can say, however, that of all the cases I have operated on or seen *post mortem* I have never seen one, if intussusception is excepted, that I could imagine likely to be benefited by such treatment as Mr. Hutchinson suggests. On the other hand, I have seen cases of acute typhlitis and peritonitis mistaken for intestinal obstruction and treated by laparotomy. In such nothing but disaster could follow vigorous manipulation, and our present diagnostic methods cannot eliminate them. Of less acute and incomplete cases of obstruction I have seen many get well without operation, and in such I believe the best results will be obtained by washing the stomach out, the administration of nutrient enemata, the free use of opium, and stopping all supplies by the mouth. I could relate several instances of patients treated by this method with success. But what is the prognosis of an acute case with fæcal vomiting of a few hours' duration? They nearly all die. To put my belief in figures, I do not expect 5 per cent. to recover. Are we to remain content with such results, for that is what, to my mind, anything short of abdominal section means? I have sufficient faith in surgery to believe that by more accurate diagnosis, earlier operation, and improvements in *technique* the operative treatment of intestinal obstruction will soon demand the first consideration.

VI.—WILLIAM F. HASLAM, F.R.C.S.,
Surgeon, General Hospital, Birmingham.

MR. HASLAM agreed as to the importance of judging each case entirely on its own merits and of ascertaining, as far as was possible, whether the signs of obstruction were absolute and complete, or whether they were in any degree incomplete. The mode of onset should in all cases be most carefully inquired into, and whether the acute symptoms had been preceded by those of a chronic nature. It was further of importance—by a most careful examination of the patient—to come to some conclusion as to the condition of the bowel; whether its vitality was being destroyed by constriction or its lumen merely occluded by blocking from within or pressure from without, for, while it was seldom possible to diagnose the actual cause of the constriction, delay in operating on such cases was attended with great danger; while, if the vitality of the intestine was not interfered with to any extent, treatment by measures short of operation might be safely tried. Though there were doubtless cases which recovered under the treatment of abdominal taxis, so ably advocated by Mr. Hutchinson, it must be remembered that such violent measures, applied when the patient was under the influence of an anæsthetic, were by no means devoid of danger, and that now and then death, as a direct result of the process, would be likely to occur.

VII.—WALTER RIVINGTON, M.S., F.R.C.S.,
Consulting Surgeon, London Hospital.

WHILST I agree with much that has fallen from Mr. Hutchinson in reference to the benefit to be derived from abdominal taxis in cases of intestinal obstruction, I think that he altogether undervalues the operation of abdominal section in these cases. Mr. Hutchinson has compared, unfavourably to operation, the triumphant results which he has obtained from abdominal taxis with the results from abdominal section, and he has stated that at the London Hospital there has not been a recovery from abdominal section save in a single case of strangulation by a band. He has, however, omitted to say why these operations have been unsuccessful. The fact is that they have not succeeded because most of them have been undertaken too late. The cases of intestinal obstruction often do not come under the surgeon's care until the period has passed when a successful issue might be expected from operation. Some of the cases come from the physicians' wards, where they may have been lying for several days and even for several weeks. I can recall more than one case of this kind. I remember operating on a case of acute intestinal obstruction transferred from the medical side of the hospital. I came at once upon the cause of strangulation, a Meckel's diverticulum, and readily reduced the engaged bowel. Relief could not have been obtained, I think, by abdominal taxis. Unfortunately, the bowel was almost gangrenous. What success can be expected from abdominal section in cases of this kind? I fully recognise the value of manipulation, and have relieved several cases by kneading the abdomen under chloroform and by enemata. What is wanted is to combine the advantages to be derived from abdominal taxis with those to be obtained from operation. The two methods of procedure are not at variance, but operation, to have a good prospect of success, ought to be done early, say within the first twenty-four hours. If taxis and enemata fail, the surgeon should proceed to operate without delay, for if the patients are let alone they will almost certainly die. When a number of cases of operation within twenty-four hours have been put on record, it will be fair to compare the results with those obtained by abdominal taxis and delay. At present the comparison is misplaced. Disappointing as have been the results of operation hitherto under the conditions in which they have been performed, I believe that if a series of cases of early operation were undertaken, the result would be a fresh triumph for operative surgery.

VIII.—DAVID NEWMAN, M.D.,
Assistant Surgeon, Western Infirmary, Glasgow.

DR. DAVID NEWMAN said: It is very interesting to observe that the same diversity of opinion has been brought out in this debate as was expressed in a discussion in the Pathological and Clinical Society of Glasgow at the end of 1891 on "Acute Intestinal Obstruction, with special reference to Treatment." "On the one hand," as I observed in closing that discussion,[1] "there were those who considered that a spontaneous cure was likely to occur in a considerable number of cases of acute intestinal obstruction, and they therefore advocated delay in adopting operative treatment; while, on the other hand, others recommended early surgical interference as the best method of treatment in such cases." This summary, I think, equally applies to this discussion. Several speakers have to-day drawn attention to the absolute necessity of inquiring carefully into the whole history of the case. The importance of this I cannot for a moment deny, but, at the same time, it must be borne in mind that in a very large proportion of hospital cases no reliable history can be obtained either from the patient or from his friends. In acute intestinal obstruction the "shock" or "collapse" sets in so rapidly that not infrequently the patient is suffering from the effects of toxic poisoning, so as to be unable to give a very trustworthy account of his illness. What I consider far more reliable is a physical examination of the abdomen under chloroform; and should this not elicit sufficient facts to form a definite opinion, then an exploratory incision should be made; not, as has been so often done, by making a large incision, but by a small opening sufficient to admit one or two fingers. By adopting this method, in many instances a clear diagnosis is made at the earliest possible moment, and the best chance is given to the patient. In treating cases of acute intestinal obstruction the surgeon should never endeavour to perform a classical operation, but must treat the case according to its individual requirements. If the patient is in a good condition the surgeon should search for the cause of obstruction through a small opening, and if he fail to find it, then, rather than turn greatly distended intestine out of the abdomen, he ought either to short-circuit the bowel by Senn's method or perform enterostomy. When the bowel has become emptied of its contents, then the abdomen may be freely opened, and the nature of the obstruction discovered, and treated according to the individual requirements of the case. I have great reluctance in offering any adverse criticism to the observations just made by Mr. Jonathan Hutchinson. His experience has been very large, and his opinions deserve the highest respect, but I presume that the object of a debate such as the present is to throw light upon the subject from all points of view. As a consequence of the

[1] *Glasgow Medical Journal*, vol. xxxvii, p. 291.

discussion held in Glasgow two years ago, patients suffering from acute intestinal obstruction are now admitted into the wards of the surgeon instead of those of a physician. I can speak, at least, for the Royal Infirmary in Glasgow. It is now, I think, recognised that the surgeon should have control of these cases from the very beginning. It is not long ago since cases of intestinal obstruction were admitted into medical wards, and there allowed to lie for days before the opinion of the surgeon was sought, and very often most valuable time was thereby lost. I do not see why any distinction should be made between external and internal acute strangulation of the bowel. The same rules ought to apply to the treatment of both. When cases of strangulated hernia were treated by opium, by taxis, or by temporising treatment, in a large majority of cases, even when an operation was performed ultimately, the results were far from favourable Now we operate upon strangulated hernia immediately, and the mortality is greatly reduced. Rapid diagnosis and promptitude of action is most necessary in such cases. Valuable time is often lost in trying to perfect a diagnosis before operating. Why not complete the diagnosis by an exploratory incision? Elsewhere[2] I have advocated the value of early operation in cases of renal calculus, and have shown that in cases of renal calculus without suppuration the mortality is very small indeed; whereas, where suppuration has been permitted to supervene, the mortality is over 43 per cent. Then, again, let us take ovariotomy, which in its early development may be contrasted with the present position of intestinal surgery. The mortality was high, and therefore ovariotomy was condemned, just as now operations for acute intestinal obstruction are depreciated by some surgeons, and for the same reason. When ovariotomies were performed only as a last resort the mortality was high, but now as soon as the disease is discovered operative treatment is resorted to, and death from the operation is rare. But if early operation has conduced to good results in slowly progressing ovarian disease, how much more is it demanded in a rapidly fatal malady such as acute intestinal obstruction? Although I advocate active surgical interference in such cases, I must admit that I have seen instances of spontaneous cure. One of the speakers in this debate asked if anyone knew of an instance of fæcal vomiting lasting over twenty-four hours when the patient had recovered. I remember very well a case, under the care of the late Sir George Macleod, in which there were evidences of intestinal obstruction and fæcal vomiting for several days, but where it was not deemed necessary to operate. The patient was kept in a medical ward for over two weeks, and when the symptoms became urgent a consultation of the whole staff was called. When they had almost decided that operation was necessary, the sister of the ward informed Sir George that the patient's bowels had been freely moved, and ultimately the patient made a good recovery. This instance, or similar ones, naturally lead surgeons to postpone active operative interference, but I would like to ask how often such a happy conclusion occurs to a case of acute intestinal obstruction. My own opinion clearly is that the surgeon ought to have control of such cases as early as possible, for it is only to surgical methods that we can look for cure. In some cases, such as intussusception, perityphlitis, periproctitis, a spontaneous cure may be anticipated, but in the great majority of cases of intestinal obstruction, active surgical treatment is demanded. The results, now that operations are performed early, are very encouraging, and I think the rule will soon be established to operate upon cases of internal strangulation at once, as we now do in cases of strangulated hernia.

IX.—Rushton Parker, M.B., B.S., F.R.C.S.,

Professor of Surgery, University College, Liverpool; Surgeon, Liverpool Royal Infirmary.

Mr. Rushton Parker related the case of a man, aged 27, who, after two days of abdominal pain, began to vomit, and this symptom continued a week, after which he was admitted into the Liverpool Royal Infirmary. Hypodermic injection of morphine, and the omission of diet, led to a disappearance of all morbid symptoms except a swelling in the right iliac fossa, extending to the region of the bladder. He became so much better and so hungry that he resumed ordinary diet. About the sixteenth day after admission there followed umbilical pain and constipation, followed by vomiting. All food was stopped, and morphine given repeatedly under the skin. But slight relief was produced, and he got worse, till at last agonising pain, attended by frequent vomiting, showed the necessity of active interference. Abdominal section was performed three days after the onset of the second attack, twenty days after admission into hospital, and thirty days after the first seizure. An internal hernia of ileum, strangulated in a hole through the mesentery, was found and reduced. The patient made a good recovery, wind passed after two days, a fæcal fistula formed a day later, and closed permanently at the end of twenty days. Presumably the first attack was associated with perityphlitis, which perforated the mesentery and made the hole through which intestine passed in the second attack, and became strangulated. The case illustrated the recovery of a man from two distinct attacks of intestinal obstruction—the first by palliative means (morphine without diet), the second by operation, the necessity for which became apparent on the failure of the treatment that had quickly succeeded before.

[2] Newman, *Surgical Diseases of the Kidney*, p. 421.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

MUMPS AND HYPERPLASIA OF THE CERVICAL LYMPHATIC GLANDS.

In the address of Professor Clifford Allbutt upon the treatment of enlarged cervical glands, I find "the poison" of mumps classed with that of enteric fever, tuberculosis, and syphilis, as a cause of adenitis; and this statement is supported by Mr. Pridgin Teale, who includes mumps among other causes of origin of scrofulous necks.

A difficulty of diagnosis having directed my attention to this point a few years ago, I have ever since been on the look out for instances of such an association of adenitis, either acute or chronic, with mumps as is here referred to.

Hitherto I have found none, and my present belief is that in mumps the cervical glands are not enlarged, and, that in cases of doubtful diagnosis, if enlargement of the lymphatic glands is a prominent feature the probability is very strongly against the view that we have to do with mumps.

Similarly, in well marked cases of orchitis occurring in the course of mumps adenitis has not been present.

When we notice how commonly the name of mumps is applied by the public to designate any and every sort of swelled neck, and when we remember that even in textbooks of repute acute tonsillitis, otitis, and even bubo and urethritis, are enumerated among the (so-called) complications of this disease, it is surely no extravagance of scepticism to suggest that hyperplasia of the cervical glands after mumps rests upon no very strong basis of clinical observation; and that the view that the poison of mumps acts rapidly and severely as a source of adenitis is based upon cases wrongly diagnosed as mumps.

Hadley. R. J. Ryle, M.B.Oxon.

AN EPIDEMIC OF TYPHOID FEVER FROM POLLUTED WATER.

The first case of the epidemic in Tandragee, co. Armagh, was observed on December 6th, 1880, and during the succeeding week, 1, 2, 5, 8, 4, and 7 cases followed on the 6th, 9th, 10th, 11th, 12th, and 13th respectively. From the last-named date to April 4th, 1881, the weekly rate of occurrence was 44, 33, 40, 14, 6, 12, 8, 3, 4, 2, 6, 1, 1, 4, nil, 2 cases, making in all a total of 208 cases in seventeen weeks. The first recoveries, numbering 43, were recorded in the fifth week, and then followed during the succeeding twelve weeks 25, 28, 12, 7, 6, 9, 13, 4, 6, 14, 5, and 7 recoveries in each of the respective weeks. The deaths numbered 22, 14 of which took place in the fourth, fifth, and sixth weeks. With few exceptions after January 17th the cases recorded were clearly traceable to earlier ones in the same families, but some were patients whose disease

was mild and medical aid was not called in till late in the attack.

The cause of the epidemic was water from a well used by about 1,100 persons, including the *employees* in a flax mill and the children of a school. Many of these two communities took ill at their homes in the country, while the other members of their families not exposed to the polluted water escaped. This water supply was cut off on December 13th, a course justified by its situation—a few yards from a stream used as a sewer by half the town, the sandy nature of the soil in which it was sunk and the fact that all the cases up to that date had been subjected to its influence. It was also discovered that for about three weeks immediately before the outbreak the dejecta of a typhoid fever patient had been emptied into the stream about 100 yards higher up its course than the well.

During the epidemic 95 males and 113 females were attacked; 32 persons under 10 years of age, 99 between 10 and 20, 43 between 20 and 30, 13 between 30 and 40, 14 between 40 and 50, and 7 upwards of 50 suffered; 150 patients were of the labouring class, 18 were of the middle class, and the remainder were school children of all classes. The type of the outbreak was mild on the whole, and the death-rate low—conditions which I attribute to the small proportion of brain workers who contracted the fever. The order in which complications occurred was as follows: Those connected with the respiratory system, those with the digestive system, muscular pains and cramps, lesions of the nervous system, epistaxis, crural phlebitis, miscarriage, and abscesses in several situations. Typhoid fever spots were observed in about two-thirds of the cases; and in four, in which nervous symptoms were very strongly marked, petechiæ were present. In one of these the patient's temperature registered 107° immediately before death.

Of 8 deaths of persons attended by me, 4 were from asthenia, 2 from perforation of the bowel, 1 from bronchitis, and 1 from pyæmia after miscarriage.

My delay in publishing this report necessitates the explanation that it is compiled from facts recorded in official registers connected with the Tandragee Dispensary and the Banbridge Fever Hospital, where 26 cases were treated, and also from notes made at the time by Drs. Shackleton, Wallace, and me. The clinical part of the report is from my own observation of 133 cases attended by me.

J. TAYLOR, L.R.C.P.I.,
Tandragee. Medical Officer Tandragee Dispensary.

INCUBATION PERIOD OF MEASLES.

C. A. J. B. (my son) returned home on Monday, November 20th from school ill with measles, the rash being very apparent on his face.

On November 29th, several of the remaining seven children began to ail with symptoms of cold, headache, and lassitude. Next day all were complaining, and on December 1st all the seven had to keep their beds, being too ill to get up, and all had the rash appearing upon their faces. On December 2nd, the rash was well developed on the face, and appearing on the trunk, in each case.

The period of incubation from the first receipt of infection was therefore 11 days, unless, and this is unlikely, the infection came in the boy's last letter, received on November 13th, and this would make the period 18 days. This letter would be written when the boy himself was incubating the disease, and was most probably not handled by any of the other children.

There are no other cases of measles in this village, and have not been for, I think, two or perhaps three years.

M. R. J. BEHRENDT, L.R.C.P. and S.Edin., M.O.H.
Scunthorpe.

SIMPLE TUMOUR OF THE PALATE AS A CAUSE OF HÆMORRHAGE FROM THE MOUTH.

A WEEK or two ago a sergeant came to me complaining of severe bleeding from his mouth which he could not stop. He said he had a small lump on the roof of his mouth and when eating a piece of hard toast it got scratched and began bleeding. It had been bleeding about half an hour when I first saw him.

On examination there was a large clot on the hard palate from behind which the blood continually streamed down into the pharynx and was swallowed. On removal of the clot a small tumour revealed itself, about the size of a large pea, from the margin of which all round the blood was coming fast. I tried all the ordinary styptics, including silver nitrate and the strong solution of perchloride of iron, but to no purpose. Ultimately I found it necessary to have recourse to the cautery, and even then it had to be applied at intervals for about ten minutes before the hæmorrhage was completely stopped. As the growth was almost completely destroyed it was impossible to ascertain its exact nature, but I am led to believe it was of the nature of a soft papilloma.

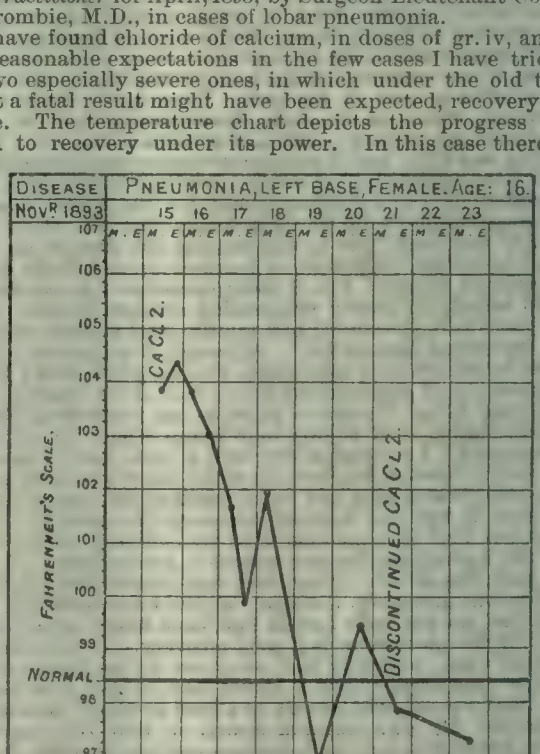
The case is interesting as being, as far as I am aware, an extremely unusual form of hæmorrhage from the mouth.

Dover. J. A. MILNE, L.R.C.S.Edin.

CHLORIDE OF CALCIUM IN PNEUMONIA.

PERHAPS the accompanying temperature chart may be useful in encouraging the use of a new remedy—chloride of calcium—lately advocated in a very learned article that appeared in the *Practitioner* for April, 1893, by Surgeon-Lieutenant-Colonel A. Crombie, M.D., in cases of lobar pneumonia.

I have found chloride of calcium, in doses of gr. iv, answer my reasonable expectations in the few cases I have tried it. In two especially severe ones, in which under the old treatment a fatal result might have been expected, recovery took place. The temperature chart depicts the progress of a third to recovery under its power. In this case there was



severe headache and intolerance of light, which rapidly disappeared as soon as the system came under the influence of the remedy. The left base was affected. The treatment was commenced on the second or third day; the harsh tubular breathing rapidly disappeared, and was replaced by the soft vesicular respiration sound of a slightly congested lung; the pain also disappeared, and the sputa was only slightly rusty on one occasion. I feel sure that with an early recognition of the disease and early exhibition of the remedy the terrors of lobar pneumonia will depart. For three days the pulse was 120, then 112, and on the fifth day of the exhibition of the calcium salt it had fallen to 80 per minute, and on the tenth day to 76.

JAMES COULDREY, M.R.C.S.Eng., L.S.A.Lond.
Scunthorpe, Doncaster.

REPORTS
ON
MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

GENERAL HOSPITAL, NOTTINGHAM.

SIMULTANEOUS EXPULSION OF TÆNIA MEDIOCANELLATA AND ASCARIDES LUMBRICOIDES.

(By Alfred Waring, M.B., House-Physician.)

C. R., aged 18, cotton cleaner, attended the hospital on November 18th, stating that she had been suffering with pains in the abdomen, irregular in frequency and severity, during the last six months. She was a robust girl, apparently in good health, with a good colour, and no evidence of deficient intelligence or neurotic tendencies. The pain from which she suffered was referred to the umbilical region. It was at times sharp and colicky, and sufficiently severe to cause her to double up though not to sweat. Apart from this she felt quite well, but for six months she had never been free from acute attacks of pain for more than two or three days together, and on seven or eight occasions she had vomited: the vomiting was apparently concomitant with the acute pain and not related to the ingestion of food. Her appetite was voracious and there was much thirst. It was elicited that she had been in the habit of passing "white pieces of flesh," square in shape, by the rectum frequently during six months, and that five months previously she vomited a round worm (ascaris). The tongue was red and glazed, having the characteristic raw-beef appearance. The bowels were irregular, often constipated for two or three days. She had never had jaundice; urine normal. Physical examination revealed nothing abnormal, and there was no anæmia.

On the following visit the patient brought numbers of tænia segments for examination. The routine treatment was prescribed—namely, to take light meal at 6 P.M., and ʒij of castor oil at 9 P.M. On the following morning, at 8 A.M., ʒj of extract of male fern was to be taken on an empty stomach, and subsequently ℥ss of castor oil at 9 A.M., then breakfast at 10 A.M.

The result of this treatment was that the bowels were opened three times during the morning, and a tænia and four ascarides were expelled. I found that the head of the tænia was not present, though the minutest segments close to it were. The worm was 14½ feet long, the joints numerous and broad. The mature proglottis measured ⅛ inch in length, and ¼ inch in breadth, and exhibited a uterus with twenty-five to thirty branches, ending in knob-like extremities; these points served to distinguish it from tænia solium. The ascarides were full grown.

It is interesting to note that she had had a craving for raw, uncooked meat for a year or more, and ate one or two ounces two or three days in the week. She did not eat pork or uncooked vegetables, and drank water freely.

Remarks by Mr. Waring.—The simultaneous presence of tæniæ and ascarides is not of frequent occurrence. The acute attacks of pain simulating colic might have given rise to some difficulty of diagnosis. The absence of constitutional symptoms in the face of marked gastro-intestinal irritation, as shown by pain, vomiting, and appearance of the tongue, is noteworthy. Considering the number and size of the ascarides, it seems beyond doubt that the anthelmintic given had a marked effect in destroying and causing their expulsion—a fact which I do not see mentioned by various authorities, santonin being, as a rule, given in preference.

SUSSEX COUNTY HOSPITAL.

INTUSSUSCEPTION: LAPAROTOMY: RECOVERY.

(Under the care of Mr. Verrall.)

L. W. S., male, aged 6 months, was admitted October 17th, 1893. It was nursed at the breast. It had been subject to "screaming fits," especially at night, for two months. It had been worse since October 12th. At 8 A.M. on the morning of admission the bowels acted naturally, but the child refused the breast. At noon it was sick, and again later. Throughout the day he seemed in much pain, and at 6 P.M. passed blood *per rectum*, but no fæces.

On admission the child's aspect was good; temperature, 98°. Examination of the abdomen was not painful. A sausage-shaped tumour could be felt, running from just above and to the left of the umbilicus down to the left iliac fossa. No intussuscepted bowel could be felt *per rectum*, but the examining finger showed stains of blood.

Under an anæsthetic half a pint of warm water was injected by a funnel and tube, raised about two feet from the child's body. No effect was produced on the size of the tumour, but it was displaced to another part of the abdomen. A small incision, enlarged to 2½ inches, was made on the middle line below the umbilicus, and the small intestine quickly traced to the ileo-cæcal valve, which was found to be carried into the cæcum for about three inches. The constricting bowel was very tight, and it was difficult to reduce the intussusception. When this was effected the transverse vessels of the bowel appeared deeply injected, and there was already effusion of blood-stained lymph. The vermiform appendix was long (2½ inches), and very congested. After careful cleansing of the parts affected the wound was closed with salmon gut and horse-hair sutures.

The temperature rose to 101° on the day following the operation, falling gradually to normal on the morning of the third day. The bowels acted in the afternoon of the day after admission, and afterwards regularly. The child left the hospital quite well on the sixteenth day.

Remarks by Mr. Verrall.—Though the treatment of intussusception by inflation or the injection of fluid is well established and is very successful in many cases it is easy to see from such a case as the present how often such treatment must fail. It is fortunate that the frequent presence of blood passed *per anum* induces parents to bring children for advice at an early stage of the illness, and yet when a child is seen as early as on this occasion the constriction may be so firm that any improvement by means short of laparotomy is hopeless. No doubt abdominal section in so young a subject, even with every care and precaution, is a serious shock, but so vital to our chances of success is it that we should operate early that I record this case as encouraging to prompt treatment, and contrast it with cases under the care of myself and others in which laparotomy failed owing more to its being undertaken late than to any other cause.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

F. W. Pavy, M.D., F.R.S., in the Chair.

Tuesday, December 19th, 1893.

Diphtheria of Stomach.

Dr. Soltau Fenwick showed a specimen of diphtheria of the stomach in a child of three years, who had been seized with dyspnœa, and who died, notwithstanding that tracheotomy was performed. There was no membrane on the tonsils or pharynx, and, as observed after death, there was none in the œsophagus. The interior of the stomach was lined throughout with a membrane which miscroscopically showed the ordinary histological characters of diphtheritic membranes. There was considerable increase in the lymphoid tissue of the mucous membrane itself. The condition had been observed but very rarely in young adults; more frequently in children. Speaking generally, the membrane occurred either in streaks or patches, which latter might cover the whole of the interior.

Mr. S. G. Shattock had seen one case of generalised diphtheritic inflammation of the stomach in a child; as in Dr. Fenwick's case, there was no affection of the œsophagus.

Tooth-containing Dermoid from the Face.

Dr. F. T. Paul reported the case of a boy, aged 5, who was born with an irregular patch of skin on the left cheek, near the nose and beneath the inner corner of the eye. Five months before passing under observation, a tooth came to project from the spot: this was a left, upper, lateral incisor, and projected from a little rim of red, gum-like tissue; be-

neath the tooth was a second, smaller, corresponding with that of the permanent set. Neither of the teeth was connected with the superior max lla. The proper dental arch was well formed, and all the normal teeth were represented in it.

Sequel of a Case of Anomalous Tumour of the Larynx.

Dr. Felix Semon and Mr. S. G. Shattock related the sequel to a case which they had brought before the Society on May 19th, 1891. It was a case of a growth springing from the left arytæno-epiglottidean fold of a gentleman, aged 44. which presented all the appearances of an angioma, and which was only after removal by means of the galvano-caustic loop recognised to be a very delicate papilloma, encased in a shell of partly fresh, partly organised blood clot. The authors had in their first communication particularly drawn attention (1) to the very unusual situation of the new growth; (2) to the fact that the papilloma was in structure much more like the papillomata of the bladder than those of the upper air passages; (3) to the unique fact of spontaneous hæmorrhages occurring in connection with, and the formation of a blood shell around, the papillary growth. They now reported the further progress of the case. Four months after operation the growth had recurred, and again one month and a-half afterwards was larger than it had been originally. Its appearances were entirely like those of the first growth. It was again removed by means of the galvano-caustic loop, and this time undoubted evidence of malignancy found on microscopic examination. Subhyoid pharyngotomy was then performed. and the growth radically removed. The patient, who had with the exception of some secondary hemorrhage on the first day after operation, been going on remarkably well. suddenly became unconscious in the evening of the third day, and his temperature began to rise. With gradually increasing coma, Cheyne-Stokes respiration. profuse perspiration and a temperature of 105.8°, he died in the night of the fourth day after the operation. At the *post-mortem* examination, œdema and intense congestion of the brain were found, but no evidence was forthcoming to show the ultimate cause of this condition. The growth removed by the second and third operations showed the following most unusual features: The tumour removed at the second operation was a compact spheroidal mass, nearly a centimetre in chief diameter, and of similar characters, both macroscopic and microscopic, to that before described in the *Transactions* of the Pathological Society, vol. xlii; histologically it was a delicate papillary growth thickly encased with blood clot of which extensions passed between the different processes composing the tumour. The investing epithelium of the mucous membrane was quite distinct from that of the growth, being of the stratified squamous-celled kind, and nowhere continuous with the other, which was cubical or cylindrical, and in places not more than a single layer in thickness. The growth not only projected beyond the general surface, but infiltrated the deep parts, after the manner of a columnar-celled or duct carcinoma of the breast, with which class of new formations the authors compared it, considering it probable that the tumour arose in the mucous glands. Assuming it to have so arisen, they supposed that in process of time part came to project from the surface, possibly after rupture of the thinned tissue enclosing it, and so allowed of the removals recorded, whilst there remained at these periods a deeper extension of the growth, infiltrating the structures below the level of the mucous membrane, and beyond the reach of endolaryngeal operation. The hæmorrhage which formed so marked a histological feature was explained by the delicacy and vascularity of the growth, and was paralleled by the villous or duct carcinomas of the breast, to which this tumour bore many resemblances. The authors, in their final remarks, dwelt upon the manifold points of interest. such as the curious histological features of the growth, the obscure symptoms characterising the patient's final days, and the want of satisfactory explanation of the ultimate cause of death. The point of greatest importance undoubtedly consisted in the fact that this was the first case ever described in which malignant disease of the larynx simulated in its initial stages the appearance of a pedunculated angioma of that part. That the disease was primarily malignant in this case, and could in no sense be now claimed as an example of the transition of a benign growth into a malignant one did not, in their opinion, admit of any reasonable doubt. All the facts, both clinical and histological, enumerated in the history admitted of one reasonable interpretation only—namely, that the disease began in the deeper tissues, and that the papillary excrescences were only secondary offshoots from it, though the attempt had been made by Mr. Lennox Browne in an American work to utilise this case in a restatement of his theories concerning the alleged special liability of benign laryngeal growths to undergo malignant transformation.

Mr. Lennox Browne laid stress upon the term "anomalous" as applied to the case in the original report. The anomalous features mentioned were (1) the situation of the tumour, but as to this there was not complete unanimity; (2) the spontaneous hæmorrhage; but, as the portion removed was stated to have resembled a papilloma of the bladder, the occurrence of hæmorrhage was only what might have been expected; and (3) the formation of a complete casing of blood; and credit was due to Mr. Shattock for pointing out that the papillary nature of a growth might thus be masked. According to the report made to the Society, the patient sought treatment not on account of difficulty of swallowing, but for the feeling of a foreign body, and a pricking sensation in the throat; it was stated that there was no enlargement of glands in the neck and no evidence of malignancy. It was thought at the time of the first operation that the growth was then perfectly removed, and the histological examination was to the effect that the growth removed was a papillary tumour. The growth, however, recurred with extraordinary rapidity, and microscopic examination then left no doubt as to its malignant nature. The speaker then referred to cases recorded by Sir Morell Mackenzie and corroborated by Sir Andrew Clark, in which growths primarily benign became subsequently malignant, as well as to similar cases exhibited by Dr. Duncan Gibb. In this respect morbid growths of the larynx only resembled those met with in other situations, and he held that this transformation in the case of laryngeal growths had in many instances been due to endolaryngeal operations with the galvano-cautery. He acknowledged that he was wrong in using the word "frequently" in this report, and he had since modified this to "occasionally." Dr. Semon went to the other extreme. As to the conversion of benign into malignant growths, it was not unreasonable to hold it due to an infective process set up by what was presumably the cause of cancer, namely, a micro-parasite. The speaker was obliged to Dr. Semon for having raised the question, and given him an opportunity of discussing it.

Mr. H. T. Butlin had seen the patient whose case was under discussion with Dr. Semon, but at a later period, after the first operation and when the question of a more serious operation had arisen. He held that at that time the disease was malignant, both from its general character and its later clinical history. He did not, however. attribute any error of diagnosis to Dr. Semon, for everyone knew how excessively difficult diagnosis in some of these cases was, since it had to be made so largely by the laryngoscopic mirror; the sense of touch could not be consulted, and what was seen might be at most only a small projecting portion of a growth the rest of which was out of sight.

Mr. Victor Horsley had also seen this case with Dr. Semon. As to the possibility of the transformation of any benign into a malignant growth he thought the clinical evidence needed reconsidering.

Mr. A. A. Bowlby agreed with the authors of the communication in regarding the growth as a villous carcinoma. The examination of part only of such a growth did not give any certain means of diagnosis; it was evident that at the first operation only part of the growth must have been removed, and there was, as Dr. Semon would be the first to admit, an error in the first impression as to the character of the tumour. At his suggestion the specimen was referred to the Morbid Growths Committee.

Mr. S. G. Shattock had intended to make remarks much of the same nature as those that had fallen from Mr. Bowlby. He held quite firmly that there was nothing in the histology

of the parts first removed by which it could be said that the growth was malignant. For even had the idea at that time occurred that the growth had arisen in a mucous gland, it might still have been benign, for in the case of the breast it was not every papilliferous duct or cyst of a duct that was malignant. The great test in all these cases was to know whether the deeper structures were infiltrated; and that this was so in the present case was only seen when the parts removed at the subsequent operations were examined; then the same form of growth was found invading the deeper structures, and the real nature of the tumour made clear. The whole case was remarkable in the delicacy of the new growth, and in the hæmorrhage from it, and the view that the tumour was one arising in the mucous glands and akin to a duct carcimoma of the breast was the only one that seemed to cover the whole of the facts. He considered that the later clinical evidence conclusively showed that the disease must have been malignant at the date of the first operation.

Mr. Lennox Browne observed that after the record of the subsequent histological examination, he withdrew his previous statements as to the present case being an instance of the transformation of a benign to a malignant formation.

Dr. Felix Semon, in replying, adverted to the question of the frequency of the malignant transformation of benign growths of the larynx, since this had a most important bearing on the subject of endolaryngeal operations. He had shown by large statistics that such transformation took place in only 1 of 250 or 300 cases; and this did not render Mr. Browne's statements as to the frequency of such a danger justifiable.

The President stated that the specimen would be referred to the Morbid Growths Committee; he had endeavoured, and he hoped effectively, to keep any personal element from the discussion, which was one upon the possible transformation of a benign into a malignant tumour of the larynx.

Three Cases of Mediastinal Abscess in Connection with the Œsophagus.

Dr. Rolleston recounted, under the first of these, the case of a woman, aged 30, who had sore throat and a swelling on the right side of the neck above the clavicle; some dysphagia was present. She coughed up pus mixed with blood, and finally died exhausted by a recurrence of hæmorrhage. The cause of the suppuration was obscure; there was no disease of the bones. In the second case suppuration took place round the middle of the œsophagus, and followed a stricture due to the action of a corrosive poison. The patient was a man who was troubled with dysphagia, and twelve days before death was seized with sudden pain and vomiting. The third instance was that of a man, aged 50, who was likewise seized with sudden pain and vomiting, which ensued on making a violent effort. Pleural effusion developed in the left side, and death took place after two days' residence in the hospital. The cause of the perforation of the œsophagus was indeterminable, though associated apparently with the effort referred to.

Card Specimens.

Dr. Fyffe: Specimens from a case of Tuberculous Broncho-Pneumonia; Tubercle of the Fallopian Tube.—Dr. Lee Dickinson: Calculous Obstruction of Both Ureters.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

D. Argyll Robertson, M.D., F.R.S.E., in the Chair.

Thursday, December 7th, 1893.

Failure of Central Vision.

This paper was read by Dr. W. A. Brailey. In an otherwise healthy man, now aged 57, and of good habits of life, the left eye began to fail in 1884, and the right followed the same course in 1886. Central vision for form and colour was absolutely lost in the first eye after two years; its appreciation of form was eccentric, and was one-twelfth of the standard, and of colour one-eighth of the standard. The ophthalmoscopic changes were degeneration of the retinal pigment epithelium and chorio-capillaris, leading to darkening, scattering, and irregular distribution of the pigment epithelium and atrophy of the chorio-capillaris, so that the thickened vessels and stroma of the central and outer layers of the choroid were more visible than normal. The right eye had also an absolute central scotoma, and its vision, eccentrically, was reduced to one-eighth for form, and one-third for colour respectively. Its ophthalmoscopic changes were similar, but probably less advanced; the area involved was smaller. The pigment was less dark and more cloudy, and formed an irregular ill-defined ring in the neighbourhood of the macula lutea.

The President said that the ophthalmoscopic changes in this case were slight when compared with the visual defect, and this he took to be an indication that the deeper and most sensitive part of the retina was affected; he did not think treatment was likely to be of any avail.

Mr. Lawford had had under his care a woman, one of whose eyes had a similar affection to the one under discussion; the choroid and retina were both affected, but it was not certain whether the affection was inflammatory or atrophic.

Mr. Tay had seen cases of this kind in young adults, which began with hyalitis; this cleared up after a time, leaving patches similar to those described by Dr. Brailey.

Mr. Silcock thought the progressive obliteration of the choroidal vessels in this case—a kind of arteritis obliterans—was the most marked feature. He knew of no other disease which produced this progressive change except syphilis.

Some Unusual Forms of Intraocular Neoplasms.

This paper, illustrated by lantern slides, was read by Mr. Treacher Collins. The first case was a melanotic sarcoma of the ciliary body, removed from a woman, aged 63; the point of interest about it was the congenitally deeply pigmented condition of the whole uveal tract, and the presence of pigment patches in the sclerotic. The second case was a primary tumour of the ciliary body, which had a glandular structure; the patient had come under the care of Dr. Rockliffe, of Hull, in August, 1893. A tumour of the ciliary body was diagnosed, and the eye excised. The anterior part of the growth was deeply pigmented, the posterior part devoid of pigment; in the peripheral less degenerated parts of the tumour the cells were distinctly epithelial in type, and arranged in a way suggestive of a glandular structure. Referring to four other published cases of a similar nature, Mr. Collins expressed the opinion that the tumours had origin in the glands which he had demonstrated to exist in the ciliary body, at the March meeting of the Society in 1891. The next two cases were a brother and sister, each of whom had both eyes affected by a vascular new growth, probably of the nature of a capillary nævus of retinal origin. In the brother the sight began to fail at the age of 20, and progressed to absolute blindness of both eyes in the course of a year; they were excised on account of pain and tension. In the sister the sight began to fail in both eyes at the age of 10 or 11, and progressed to complete blindness in a year. Pain did not come on till thirteen years later, at which time both globes were excised. One of the brother's eyes was obtained for examination. The retina was everywhere detached, except at one spot: its veins were enormously enlarged, and their walls thickened. In the sister's eye no iris, lens, vitreous, or retina could be distinguished. They seemed to be replaced, and the cornea to be partly invaded, by a new growth composed of a network of thin-walled capillary vessels; there was a large cavity in the interior of each eye, and plates of bone had formed on the inner surface of the choroid.

Congenital Trichiasis.

Mr. Sydney Stephenson showed two examples of congenital trichiasis of the lower lids in brothers, aged 6 and 7 years respectively. In the younger, both eyes were affected; in the elder, the right eye only. The misdirected cilia had produced their usual train of secondary symptoms. The author pointed out that in slight cases, the nasal third of the free edge of the lower lid was concealed by a horizontal fold of skin, which, starting from the inner canthus, ran horizontally outwards. In more marked examples, this fold might hide from view the inner two-thirds or even the entire extent of the intermarginal space. The lashes might be displaced without coming into actual contact with the eye; or they

might, upon the other hand, impinge directly upon the cornea, and thereby cause considerable irritation. Congenital trichiasis was generally bilateral, but it might affect one eye to the exclusion of the other. In explanation of the condition, Mr. Stephenson suggested that the trichiasis was of mechanical origin, and depended in the first instance upon a relative malformation of the tarsus of the lower lid.

Suggestions in the Interests of the Eyesight of Children.

This paper was read by Mr. Charles Wray. He said there should be a certain relation between the strength of the eye and the duration of work, and the necessity of allowing frequent short intervals of rest should be impressed upon teachers. The question of night work was gone into, and it was pointed out that many teachers were in favour of lessening night work as much as possible. Teaching should be carried on preferably by blackboard and lantern, avoiding the use of the accommodation in reading. The increase of the myopia, or the rapid diminution of hypermetropia, were to be carefully looked for, and work discontinued for a time.

Mr. Henry Power had recently seen a boy who had been rejected by the naval authorities for defective vision. He had been working long and continuously for the entrance examination, and had passed it with success. Six weeks after the examination his sight was absolutely perfect. A certificate to that effect was given him, and the boy was eventually admitted; he narrowly escaped rejection, owing to a temporary spasm of accommodation.

Mr. Critchett thought the subject was of national importance; he had seen three cases in the past year similar to that described by Mr. Power; in one of the cases the boy had obtained a scholarship, but was rejected, because one eye fell just short of the normal; with rest, the spasm passed off, and vision again became normal, and he obtained admission to the navy.

Card Specimens.

The following card specimens were shown:—Mr. J. Grosvenor Mackinlay: Congenital Dislocation of Both Lenses Upwards with marked Stretching of the Suspensory Ligament in One Eye.—Dr. Rayner D. Batten and Mr. Holmes Spicer: A Case of Pigmentary Moles of the Retina, with drawing.—Mr. John Griffith: Microscopic Section of a Cornea showing Blood Crystals.—Mr. Adams Frost: A Case of Syphilitic Conjunctivitis.—Mr. Collier Green: Orbital Exostosis.—Mr. Kenneth Scott: Drawings of Sclerosis of the Cornea, Sarcoma of the Orbit, Luxation of the Lens.—Mr. Kenneth Campbell: Case of Coloboma of the Macula.—Mr. Lang: Case of Sarcoma of Choroid.

HUNTERIAN SOCIETY.

F. Gordon Brown, M.R.C.S., President, in the Chair.

Wednesday, November 22nd, 1893.

The late Sir Andrew Clark.

A unanimous vote of condolence was passed, expressing to Lady Clark the extreme regret at the irreparable loss she had experienced.

Oxygen as a Therapeutic Agent.

Dr. G. Newton Pitt read a paper upon the administration of oxygen for medicinal purposes. He gave details of a case of pneumothorax, with acute dyspnœa and marked lividity, in which inhalations of oxygen gave marked relief to the dyspnœa, and of a second case, one of phthisis, where the dyspnœa, which was intense, was relieved by oxygen. He had found oxygen inefficient in a patient, aged 55, with chronic Bright's disease and albuminuric retinitis, and in other cases of uræmic coma. Dr. Pitt advised oxygen in convalescence from severe illness, in syncope, in anæmia as an adjuvant to iron and other treatment, in laryngeal diphtheria, and during operations upon the air passages where dyspnœa was experienced. In pneumonia oxygen had a markedly beneficial effect where the lividity was great. Mr. Madden, a patient under the care of Dr. Lauder Brunton, attended, and said he considered he owed his life to inhalations of oxygen during an attack of double pneumonia.

Dr. Frederick Taylor had found oxygen beneficial in obstruction of the air passages, and in a case of opium poisoning with very slow (8 per minute) respirations. In a case of leucocythæmia he had never seen such marked benefit from any other treatment. The patient inhaled 1 cubic foot per diem for two months. In his experience cases of broncho-pneumonia and capillary bronchitis had derived no benefit from the inhalations of oxygen.

Dr. Allen had published two fatal cases following the administration of oxygen, and advised caution in its use.

Mr. Cornelius Hanbury exhibited the apparatus used, and explained the manufacture of oxonised air by Mr. Andreoli's method.

NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.

J. Adamson, M.D., President, in the Chair.

Thursday, November 9th, 1893.

Cases.

Dr. Wardle showed a man on whom he had performed Enterostomy without using plates. Four months had elapsed since the operation, all symptoms had disappeared and the man was in good health.—The President showed a child suffering from Epispadias complicated by Double Hernia, and discussed the means of treatment.—Dr. Gowans showed a lad from whose knee he had removed a Loose Cartilage on account of the usual symptoms. Its removal left the joint still locked; the incision was therefore extended, and an excavation was found in the lower end of the femur in which the head of the tibia locked. The patient had now perfect movement in the joint.—Mr. Page showed (1) a man whose Penis, Scrotum, Testicles, and Inguinal Glands he had removed for extensive malignant disease; (2) a girl the right half of whose Thyroid he had removed nineteen days previously; both lobes were very large and caused much inconvenience; the left lobe had markedly diminished in size since the operation; (3) a patient on whom he had performed Halsted's Operation for a large Scrotal Hernia.—Mr. Rutherford Morison showed (1) two cases operated on fourteen months ago and in which there was no trace of recurrence: the first was an old man the whole of whose lower Lip had been removed for Epithelioma; the second a girl, the half of whose Thyroid was removed on account of a Round-celled Sarcoma; (2) a woman with Syphilitic Ulcer of the Face simulating Rodent Ulcer; (3) a Tongue with Leucoplakia and commencing Epithelioma.—Mr. Black showed a child, aged 8 years, whose Hip he had excised by Ollier's method five weeks ago.—Dr. Hume showed (1) a case of Trephining for Mastoid Disease; after operation there was a rigor, and an abscess was found forming below the mastoid; after this was opened the patient made an uninterrupted recovery; (2) a man whose Internal Semilunar Cartilage had been removed; the movements of the joint were now perfect.—Mr. Vickery showed a case of Lateral Sinus Thrombosis cured by ligature of the internal jugular; the patient was now in good health.—Dr. Oliver showed a boy with Friedreich's Disease.—Dr. Limont showed (1) a woman with Molluscum Contagiosum on the forehead; (2) a man with Psoriasis treated for a month with thyroid powder with little if any effect; (3) a boy with Psoriasis Rupioides, the crusts being stained by numerous hæmorrhagic spots.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

Bennett May, M.B., F.R.C.S., in the Chair.

Friday, November 24th, 1893.

Pathological and Clinical Evening.

Cases.

Mr. Morrison showed a girl, aged 15, whose left Wrist-joint he had excised two and a-half years ago for Tuberculous Disease of the Carpus and Metacarpus. The operation resulted in complete cure of the local disease and an excellent hand.—Dr. Leslie Phillips showed a patient who had presented at each menstrual epoch, for twelve months, a severe attack of

Herpes Labialis. Each attack was accompanied with migraine.—Mr. F. Marsh showed a boy, aged 13, with Dry Gangrene of the whole of the ring and little fingers, of the tips of the two other fingers and thumb, and of the skin over the thenar and hypothenar eminences of the left hand following injury to the arm.—Mr. Edward Freer showed a case of Talipes, practically cured.—Mr. Haslam showed a patient, aged 18, whose Wrist he excised for extensive Tuberculous Disease. He now had a hand that would be of some service to him.

"Contre-Coup."

Professor Allen read a note on the mechanism of cerebral injuries by "contre-coup." When the skull was struck forcibly at a particular region—say the occipital—the comparatively rigid cranium was driven, as a whole, away from the point of impact (forwards in this case); but the brain, owing to its softness, lagged behind, and tended to flatten itself against the cranial wall on the struck side (occipital). This might cause direct injury. But the cranial wall here supported the brain substance, and distributed the force of the blow over a wide area, rendering the injury less acute. The chief injury occurred on the opposite side (frontal), where the lagging brain tended to move away from the cranial wall and receive no support from it. At the centre of the unsupported surface there was a point from which the soft brain substance was tending to depart in all directions in the act of flattening itself. At this point of greatest strain the rupture would occur. After the first rupture waves of oscillation would occur, and these might increase the injury. If detachment of the dura mater could be caused by contre-coup, as some had affirmed, it should be the result of exhaust or suction at the moment when the brain receded from the inner surface of the cranium. This so-called contre-coup detachment of the dura mater was said to occur only in the squamous region, where the dura mater was not so strongly attached to the bone as in other regions.

Specimens.

Specimens were shown by Dr. Stanley (for Dr. Simon) Dr. Kauffmann, Mr. Heaton, and Dr. Codd (for Dr. Malet)

REVIEWS.

Asiatic Cholera: its History, Pathology, and Modern Treatment. By A. J. Wall, M.D.Lond. London: H. K. Lewis. 1893. (Demy 8vo, pp. 188. 6s.)

Dr. Wall has enjoyed extensive opportunities of studying cholera, both in its "home"—the delta of the Ganges—and in countries invaded by the disease—in Italy, Spain, Germany, and Hungary. He has thus seen the disease on native and foreign soil, as a permanent endemic and as an occasional epidemic. He has brought to bear upon the study an observant and discriminative mind, and this treatise is the outcome of much original observation and research, combined with wide knowledge of all that has been done and written by others. The publication of his experience and views at the present time, when we seem in England to be in the winter pause between the sporadic autumn threatenings and a too probable summer development of a fresh invasion, is very opportune; but, apart from this circumstance, which imparts to cholera literature at the present time a special interest and value, this is an excellent piece of work, full of most instructive material, presented in a manner that renders perusal of the treatise a very agreeable task.

The sketch of the history of Asiatic cholera, which is the subject of the first chapter, is concise and clear, and the conclusions therefrom formulated in the second chapter natural and concordant. The agency of man in the dissemination of cholera is prominently brought out, and the part played by commerce, pilgrimages, and emigration in its diffusion fully established. The effect of soil, climate, and season on its prevalence and spread is acknowledged, and its importation by means of soiled clothes and linen illustrated by numerous instances.

The account of symptoms in the third chapter is very well drawn up and cleverly illustrated by the details of typical cases seen and recorded by the author. The fourth chapter—on the pathology of the disease—contains a good summary of the more striking lesions found on *post-mortem* examination, and an elaborate explanation of symptoms in the light of these. Cholera, it is shown, presents in different cases and epidemics a great variety of phases, and some of these are differentiated by names, a typical, hyperthermic, uræmic, abortive, dysenteric, typhoid, and ambulatory form being distinguished, as well as a cholera with imperfect reaction. These, of course, are mere variations, depending on individual peculiarities and powers of resistance, dose of the poison, stage of the disease, and other circumstances; but it is useful for purposes of diagnosis and treatment to have all possible manifestations of the disease in view. The observations on so-called cardiac thrombosis in cholera collapse, its significance, physical signs, danger, and occasional resolution are peculiarly interesting. We have much to learn regarding these white clots which form in the heart and large vessels under so many different conditions. The chapter on treatment is good, though naturally somewhat disappointing. The value of early treatment, of checking the diarrhœa, of rest, warmth, and sedulous nursing, is fully recognised. The hypodermic administration of opium in the stage of evacuation (but not later) is approved, and the use of saline intravenous injection in the collapse stages recommended. Calomel and castor oil and irritating antiseptics are condemned, and the use of the warm bath and friction extolled. The necessity of avoiding irritating articles of food during convalescence is urged.

In the chapter on etiology the influence of filth and filthy water as adjuvants is strongly stated, but a specific something in addition is held to be requisite to produce cholera. What that specific something is, Dr. Wall cannot say. He holds that it is far from proved that the famous comma bacillus is the *causa causans* of the disease. On this subject there is a long and valuable disquisition; but the argument would have been stronger if it had not been clothed in words of derisive sarcasm, which betray a lamentable absence of the judicial spirit in which a question of this nature should be handled. At the same time the author admits that the probabilities of the cholera poison being of microbic nature are high.

The last chapter concerns the methods of arresting epidemics. A good point is made of the necessity of taking the different circumstances and conditions of different localities—for example, inland towns, seaport towns, near and remote islands and insular continents—into consideration in devising preventive measures, and of the folly of applying one measure, such as quarantine, to all places and situations indiscriminately. The advantages of inspection, isolation, and disinfection are commended, and the merits of a carefully observed system of notification of infectious diseases extolled. The advisability of organising precautionary measures and arrangements in anticipation of an epidemic is also insisted on.

From the slight sketch which we have given of this book it will be gathered that it is a very readable production, full of interesting information, much original matter, and many lucid arguments, which, while they are by no means beyond criticism, are for the most part based on the results of observation and research. We still require much more light on the subject of cholera causation to enable us to formulate anything approaching to final conclusions.

Diagnostik der Harnkrankheiten. Zehn Vorlesungen zur Einführung in die Pathologie der Harnwege. [Diagnosis of Urinary Diseases. Ten introductory lectures to urinary pathology]. Von C. Posner, *Privat-docent* an der Universität Berlin. 42 Abbildungen. Berlin: A. Hirschwald. 1894. (Demy 8vo, pp. 160. 4 m.)

This book consists of lectures given by the author in his courses for students and junior practitioners. The first chapter deals necessarily very briefly with the relations between urinary diseases and the body at large and between general diseases and the urinary organs. It refers to such subjects as catheter fever, sepsis, pyæmia, the bladder in nervous diseases, etc. Urinary discharges are considered in chapter II; secretions from the urethra, prostate, vesiculæ seminales, etc., are here described and differentiated, the

value of the microscope being duly insisted upon. From a practical point of view much stress is laid upon the division of the urethra into an anterior and posterior part separated by the compressor urethræ. All discharges appearing spontaneously at the orifice must come from the anterior part.

In chapter III the disorders of micturition, and in chapters IV and V the physical, chemical, and microscopical examination of the urine are given.

The older methods of distinguishing renal and vesical hæmaturia and pyuria by the intimate mixture of the blood, by the reaction, etc., are rightly looked upon as not giving satisfactory information. The counting of the pus cells by the Thoma-Zeiss apparatus and the consequent estimation of the amount of pus is looked upon as being of value in determining in general the severity of the case.

Chapters VI to X deal with the physical examination of the kidneys, bladder, and urethra by means of palpation, including the bimanual methods and the investigation of the urethra and bladder with the sound including catheterisation. A chapter is given both to the endoscope and cystoscope; the former may, in the author's opinion, yield valuable information as to the condition of the urethra. In respect to the cystoscope a very full and detailed account of Nitze's instrument is given including its method of use. Several very beautiful photograms, also from Nitze, are introduced here. Time must show the exact place which the cystoscope will take in the investigation of bladder disease. It cannot be denied that it has hardly as yet obtained in this country a degree of popularity at all commensurate with its value as laid down in this book.

A short account of the symptomatology of the most common diseases of the urinary passages is appended, and here again the endoscope and cystoscope figure prominently. This book contains a concise account of the diagnosis of these diseases with all the improvements due to modern advance, and is evidently written by one who is experienced and has thought out the subject.

Movable and Intermitting Hydronephrosis: A Thesis for the Degree of M.D.Aberdeen. By G. D. Knight. London: Baillière, Tindall and Cox. 1893. (Cr. 8vo, pp. 136.)

The author commences his thesis with an account of a case of double intermitting hydronephrosis which he had carefully watched and recorded for over six years. This case is certainly one of exceptional interest and importance. The cause of the double hydronephrosis was supposed to be the kinking or torsion of the ureters owing to the mobility of the kidneys. The left kidney had in process of time become converted into a large cyst, only a thin layer of the cortex being left at the time it was removed by nephrectomy by Mr. Henry Morris. Four years later the right kidney was opened by the same surgeon on account of its increasing distension by intermittent obstruction of the ureter. The cut edges of the kidney substance were stitched to the lumbar fascia and muscles, and thus a permanent outlet for the urine was provided, and the fixation of the kidney in its position in the loin assured. At first the urine flowed freely through the wound, but by the third week the patient was passing 35 ounces through the urethra daily and only from 10 to 15 ounces through the drainage tube. The author describes the subsequent course of the case thus:

> Three months after the operation the patient's appearance had immensely improved. The yellow colour of her skin had disappeared. Her appetite had improved, and she ate better than she had done for years. Vomiting rarely occurred. Very little urine escaped from the fistula, and on some days none at all. On the other hand, the flow *per urethram* had increased to a daily average of nearly 3 pints of healthy urine, an amount which had never been reached during the six years she had been under my care. Coincidently with this the patient became much thinner, and it was evident that the tissues, the face especially, had been puffed and œdematous before the operation. It was plain that the operation had just been performed in time, and that the relief by the fistula and the fixation of the kidney (which could now be felt deep in the loin about the size of a clenched fist) had not only saved her life, but had given her a possibility of comfort which she had not known for years. The patient is still alive and well.

The author goes on to consider the causes of (*a*) movable kidney and (*b*) of hydronephrosis, and (*c*) the connection between these two conditions. He gives the name "the special" form of hydronephrosis to those cases arising from movable kidney, but this can only be for the purposes of the thesis; it could not be admitted into the general nomenclature of hydronephrosis. He points out that it is in those cases which arise from congenital defects, and from bending, kinking, and torsion of the ureters of movable kidneys that the hydronephrotic tumours of an intermitting kind are formed, whereas pelvic and other swellings which obstruct the ureter by their pressure, though they cause hydronephrosis, rarely lead to such a degree of renal expansion as can be detected during life.

The symptoms and diagnosis of movable kidney and of hydronephrosis are clearly described. The prognosis of movable kidney is judicially stated as being something between the "absolute immunity from danger" on the one hand, and, on the other hand, the "imminent destruction of strength and even of life, to prevent which nephrectomy ought to be performed," which are the diametrically opposite views held by two different schools of teachers.

In his remarks on the treatment of hydronephrosis the author omits to point out the advantages of early nephrorrhaphy, and he recommends abdominal pads and bandages as giving, "on the whole the best results." This is, we believe, contrary to the opinion of those most experienced in the management of cases of movable kidney. The uselessness, and indeed the frequent increase of symptoms caused by the pressure, of the various appliances which are in use have led to the much earlier and more frequent performance of nephrorrhaphy, and, as the author elsewhere points out, with increasingly satisfactory results.

In discussing the treatment of hydronephrosis too much importance is given to aspiration and to manipulation of the tumour. Both these measures were employed before the days of renal surgery, but experience has shown that the aspirator rarely effects a permanent cure, whilst manipulation and, to a less extent, aspiration of the tumour are dangerous procedures. A collection of 111 cases of hydronephrosis is tabulated at the end of the thesis, and a separate chapter is devoted to an analysis of these cases.

On the whole, Mr. Knight has produced a very readable and instructive thesis, and anyone wishing to obtain information on the subject upon which he writes cannot do better than peruse it.

NOTES ON BOOKS.

DIARIES AND POCKET BOOKS.

Mr. Frank Smithson's Appointment Register is a very handsome standing tablet, especially suitable for professional use; it contains ample space for registering the appointments of each day. It is mounted on a handsome red leather easel. The Engagement Remembrancer, from the same publisher, is a square block to hang against the wall, each day having a page which can be removed after use. The same publisher issues a square *Royal Court Diary* of very handsome appearance, having a page for each day.

Messrs. Cassell and Co. publish, for Letts's Diary Co., Limited, a considerable series of those well-known diaries; among the more convenient of which may be mentioned the Diary No. 8, bound in cloth, one day on a page, published at 6s. 6d. It supplies a considerable variety of useful information, including a Parliamentary guide, list of country banks, and population and market tables, etc. The Diary No. 1, printed on an excellent cream wove, glazed paper, strongly bound in cloth, in large post quarto size, 9½ inches by 7½ inches, furnishes also a whole page for each day, and a tablet for memoranda. This is suitable for the booking of a considerable number of engagements, and is one of the best diaries in existence. Letts's have long made a speciality of medical diaries compiled expressly for the use of the profession, and containing much useful information, with ruled pages for noting obstetric engagements, vaccination, nurses' addresses, monthly cash account, etc. One is published for 54 patients' names daily, varying according to binding from 2s. 6d. to 4s., and another for 108 patients' names daily, varying from 4s. to 5s. 6d. They have also a new Russia wallet, leather lined, with four pockets and stamp and card pockets, for 10s., and a special wallet with receptacles for instruments in Russia leather for 16s. 6d.

Mr. A. Stenhouse (College Gate, Glasgow) sends us a "Perennial Visiting List for Physicians and Surgeons." It is a small book which will not take up much room in the pocket. Space for filling in the month is left at the top of the page; the list can thus be started at any time, and ended when all the pages are filled. There are special pages for midwifery engagements, and a number of useful tables are added. The price is 1s. 6d.

Buxton: its Baths and Climate. By Samuel Hyde, M.D. (London and Manchester: John Heywood. Cr. 8vo, pp. 148, 2s. 6d.)—This is a popular rather than a scientific account of Buxton and its waters, and may serve as a useful guide to the lay visitor to this spa. There are chapters on baths, bathing, and massage, which, however, have no special relation to Buxton.

The Practical Guide to Algiers. By George W. Harris. 4th Edition, revised and enlarged. (London: George Philip and Son. Cr. 8vo, pp. 194, with maps and illustrations, 3s. 6d.)—We have repeatedly noticed this popular guide to Algiers, and that it has reached a fourth edition in so short a time shows that it is valued by those for whom it is intended.

Der Milzbrand der Ratten [Anthrax in Rats]. By Dr. Kurt Müller. (Berlin: Fischer. 1893. Demy 8vo, pp. 82.)—This pamphlet treats of a subject which just now is attracting a good deal of attention, and Dr. Müller's contribution will be read with attention by all those to whom the question of immunity and the related questions of phagocytosis, chemiotaxis, and alexins or protective proteids are of interest. The author calls attention to the difference met with in the rat tribe, dark rats being more resistant to anthrax than the white ones. The principle that confers immunity is not in the serum, but is a product of the living cells of the body, and the leucocytes have no special power, as Metschnikoff considers, but only act like other living cells. The question whether there is any special relation between eosinophile granules and the material that kills bacteria, as Hankin considers, Dr. Müller leaves an open question for the present.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

BRACKEBUSCH FILTER.

I have to report to you on the examination, which I have made at your request, of this filter, which was sent to me by you some time ago. This filter consists of a large cylindrical vessel (A), constructed of enamelled iron, and furnished with a lateral aperture (B), into which a tap can be fitted for drawing off the filtered water. A cylindrical tube (C) provided with a perforated bottom (D) is placed in the vessel (A), so that it rests on the bottom of the latter, and the interspace between the walls of C and A is filled with small pieces of marble. On the top of the tube (C) rests a small perforated dish (F), which is intended to hold tartaric acid; it is through this that the water to be filtered is poured. The water thus dissolves some of the tartaric acid, which is intended to destroy the bacterial life. As the water passes through the perforated bottom (D) it comes in contact in its upward passage with the stratum of marble (E), which is attacked by the free tartaric acid forming insoluble calcium tartrate, which remains to a great extent adhering to the surface of the marble. The purified water can then be drawn off at (B).

As the "filter" obviously intends only to claim bacteriological efficiency, I have confined my attention to an examination of its power in this respect. I have made three distinct experiments with this filter, the nature and results of which I will describe separately:

Experiment I.

The filter, with its contained marble, having been thoroughly washed by passing a stream of water through it for a number of hours, it was left full up to (B), which was closed with a cork and delivery tube. An enamelled iron hood was placed on the top of the filter to prevent access of aërial microbes, and the whole was then sterilised by boiling up for several hours on four successive days. The experiment was then conducted as follows:

First Day.—The small dish (F) was filled with crystals of tartaric acid, through which the water for filtration was poured in quantities of 3 litres at a time. In all 9 litres were poured on in the course of the morning. The unfiltered and filtered waters were submitted to plate cultivation, with the following results: In unfiltered water, number of micro-organisms in 1 c.c., 8,296; in filtered water, 54.

Second Day.—The filter was left undisturbed.

Third Day.—Three litres of water were poured on to the filter, and the water before and after filtration was submitted to bacteriological examination, with the following results: In unfiltered water, number of micro-organisms in 1 c.c., 6,130; in filtered water, 69.

Fourth Day.—Three litres of water were poured on, and the unfiltered and filtered water examined as above: In unfiltered water, number of micro-organisms in 1 c.c., 10,440; in filtered water, 57.

Fifth and Sixth Days.—On each of these days 3 litres of water were poured through the tartaric acid into the filter. The filtered water was, however, found to be yellow in colour, containing a quantity of iron, and exhibiting a strong inky taste. It was, in fact, quite unpalatable.

In this experiment the small perforated dish (F) was kept well supplied with an abundant excess of tartaric acid, so that the water should dissolve as much of the latter as possible. Notwithstanding the lavish use of tartaric acid, and the small quantity of water operated on, the latter was in no case deprived of all its bacteria, although the numbers were very greatly diminished.

Experiment II.

In this experiment a much smaller quantity of tartaric acid was employed. The filter was thoroughly cleansed by running a continuous stream of water through for three days, after which it was sterilised by boiling on three successive days, as described in Experiment I. The experiment was then carried out as follows:

First Day.—Fifty grammes of tartaric acid crystals were placed in the dish (F); 6 litres of water were then poured through the latter, causing the solution of the greater part of the tartaric acid. The filtered water tap was then allowed to run a few minutes before collecting a sample of the filtered water. Both unfiltered and filtered waters were submitted to examination. In unfiltered water, number of micro-organisms in 1 c.c. of water, 4,745; in filtered water, 63. The same day 6 more litres of water were poured into the filter, three hours being allowed to elapse before drawing off the sample of filtered water for examination. In filtered water, number of micro-organisms in 1 c.c., 33. The filtered water had a distinct but pleasant acid taste, and was well charged with carbonic acid.

Second Day.—The filter was left undisturbed.

Third Day.—Some of the filtered water was allowed to run from the filter, and then a sample was collected for examination. In filtered water which had been standing in the filter for two days, number of micro-organisms in 1 c.c., 3,135. Three litres of water were now poured on the filter (there was still some tartaric acid left in the tray), and after allowing the filtered water tap to run for some time, a second sample was collected to represent the water actually passing through the filter, and to compare with the above sample which had been standing in the filter. In filtered water after recently pouring on unfiltered water, number of micro-organisms in 1 c.c., 2,975. Both the above samples of filtered water had a pleasant acid taste, and were well charged with carbonic acid. A sample of the unfiltered water used on this day was also examined. In unfiltered water, number of micro-organisms in 1 c.c., 3,477. It was then apparent that when such a limited amount of tartaric acid was employed, the filtered water exhibited practically no diminution in the number of bacteria.

Experiment III.

First Day.—The filter being sterilised as before, 50 grammes of tartaric acid were placed in the perforated dish (F), and 6 litres of water poured through the latter. The filter was then allowed to stand for twenty minutes before the first sample was drawn off for examination. In unfiltered water, number of micro-organisms in 1 c.c., 1,699; in filtered water, 6. Of course, in this case the "filtered water" sample must have been largely composed of the sterilised water present in the filter to begin with, and that this was the case was further evident from the fact that the water was not charged with carbonic acid. Another 3 litres of water were poured on the filter, and a sample of filtered water subsequently collected for examination. In filtered water, number of micro-organisms in 1 c.c., 126. This sample was charged with carbonic acid.

Second Day.—A sample of filtered water was drawn off for examination before pouring any fresh water on to the filter. This sample, which was well charged with carbonic acid, gave: in filtered water, number of micro-organisms in 1 c.c., 40. Three litres of water were then poured on to the filter, and samples of the unfiltered and filtered water submitted to examination. In unfiltered water, number of micro-organisms in 1 c.c., 1,749; in filtered water, 24. The sample of filtered water was well charged with carbonic acid.

Third Day.—A sample of the filtered water was drawn off for examination before adding any fresh water to the filter. This yielded: In filtered water, number of micro-organisms in 1 c.c., 27. The sample was slightly charged with carbonic acid. After taking this sample nearly the whole of the filtered water was drawn off, a second quantity of 50 grammes of tartaric acid was placed in the perforated dish (F), although a little of the previous quantity was still left. Three litres of fresh water were now poured on the filter, and a sample of the filtered water was taken directly after; this sample would, of course, come direct from the filtering material, as the whole of the previously filtered water had already been drawn off. The unfiltered water was also examined. In unfiltered water, number of micro-organisms in 1 c.c., 2,169; in filtered water, 21. The sample of filtered water was yellow in colour and had an inky taste, whilst the previous sample was colourless and palatable.

Fourth Day.—The filter was left undisturbed.
Fifth Day.—A sample was drawn from the filter, which was nearly full; it was yellow in colour, had an inky taste, and gave the following result: In filtered water, number of micro-organisms in 1 c.c., 636.

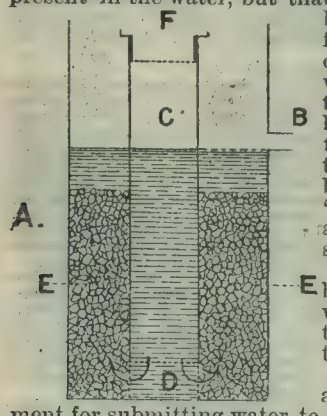
In the following table I have summarised the results obtained in these three experiments:—

Day.	Unfiltered Water Added.	Number of Micro-Organisms in 1 c.c. Unfiltered Water.	Number of Micro-Organisms in 1 c.c. Filtered Water.	Remarks.
		Experiment I.		
1	9 litres	8,296	54	Excess of tartaric acid employed throughout experiment undisturbed
2	—	—	—	
3	3 litres	6,130	69	
4	3 litres	10,440	57	
5	3 litres	—	—	Filtered water had yellow colour, inky taste, and quite unfit to drink
6	3 litres	—	—	
		Experiment II.		
1	6 litres	4,745	63	50g. of tartaric acid used only
1	6 litres	—	38	
2	—	—	—	Undisturbed
3	—	—	3,135	Filtered water had pleasant acid taste
3	3 litres	3,477	2,975	
		Experiment III.		
1	6 litres	1,699	6	50g. tartaric acid employed
1	3 litres	—	126	
2	—	—	40	
2	3 litres	1,749	24	
3	—	—	27	
	50gs. tartaric acid added.			
3	3 litres	2,169	21	Sample of filtered water was yellow in colour, and had an inky taste
4	—	—	—	Undisturbed
5	—	—	636	Sample of filtered water was yellow in colour, and had an inky taste

CONCLUSIONS.

From the three separate experiments which I have conducted, it appears:—

1. That the judicious treatment with tartaric acid and passage through the stratum of marble brings about a very large diminution in the number of micro-organisms originally present in the water, but that in no single instance have I been able to draw sterile water from the filter, although the quantity of water operated on was small and the amount of tartaric acid employed relatively large. Experiment II shows that when the amount of tartaric acid is reduced, the number of micro-organisms in the "filtered" water rapidly rises and approximates to that present in the untreated water.



2. That, owing to the filter being constructed of iron, the water soon acquires an inky taste and becomes quite unfit to drink.

3. The apparatus is really not a filter at all, but an arrangement for submitting water to the action of tartaric acid, and for subsequently neutralising the acid to some extent with lime.

4. The apparatus is not so constructed as to ensure any uniformity in the treatment with tartaric acid, either as to proportion or to the duration of its action, and the results obtained will vary according to the manner in which it is employed by the operator.

5. Although in its present form I regard this apparatus as of little practical value, I am of opinion that the principle involved might be usefully applied in a modified form for the temporary treatment of drinking water during the prevalence of an epidemic of cholera.

PERCY F. FRANKLAND, Ph.D., B.Sc., F.R.S.,
Professor of Chemistry in University College, Dundee.
(St. Andrews University.)

A NEW AMBULANCE CARRIAGE.

MR. CHARLES FOOT, of Preston Carriage Works, North Shields, has built, to the order of Dr. A. Campbell Munro, Medical Officer of Health for the county of Renfrew, a new ambulance carriage. The interior fittings are very complete. They include on the left side a portable tray, 6 feet 6 inches in length, with patent excelsior mesh wire bottom, fitted with small rubber wheels, which run noiselessly and smoothly, or rest securely on the frame and shelf. This is for the accommodation of patients who require a horizontal position during their removal. This tray can be run out of the ambulance and taken to any bedside, and patients removed on it without their being in the least degree discommoded. On the right side there is a spring-folding chair, which will do service in less serious cases. A dropseat for the attendant, a speaking tube to communicate with the driver, and an excellent arrangement of "hit-and-miss" ventilators all round, complete the inside fittings. The ambulance was made from designs and specifications prepared jointly by Dr. Munro and Mr. John Petrie, the borough surveyor.

GAS-BOILING BURNER.

WE have received from Messrs. Fletcher, Russell, and Co., of Warrington and London, a small gas-boiling burner of cast iron, the surface of which has been treated by a new process which entirely prevents rust, whilst, as regards decorative effect, the capabilities are unlimited. All colours, the most delicate tints in any number, either dead or bright, and both gold and silver, also either dull or polished, are obtainable on the same casting, and all alike are unchangeable, either with exposure to air or to any heat up to a bright red. The film of enamel is so thin that the most microscopic details on the metal are unchanged. The application is new, and admits of a large extension for permanent decorative work of all kinds; castings protected in this manner are not only capable of fine artistic treatment, but they are absolutely permanent and proof against dirt and smoke, which disfigure other work so rapidly.

REVIVISCENT CHOCOLATE.

THE Compagnie Française, of Paris, London (Bermondsey New Road, S.E.), and Strassburg, has introduced this preparation especially for use in cases where the presence of sugar in the food would be injurious. As sugar has hitherto been a considerable ingredient of the various forms of chocolate, the use of this article of food has been excluded in many instances. The requisite sweetness has been obtained by the use of saccharin instead of sugar, and owing to the very minute quantity that is requisite for the purpose as compared with sugar, the chocolate possesses in a more marked degree than usual the characteristic flavour of the cocoa bean, approaches nearer to the normal composition of cocoa, and is proportionally more nutritious than chocolate made with sugar, the amount of which is sometimes very large, and is especially objectionable in the case of diabetic patients.

ABSOLUTE "ÆTHER PURISS."

THE sample of this ether which has been submitted to us by Messrs. Salamon and Co., Limited, Rainham, Essex, is of unquestionable purity. It has but little odour, and such as there is, is fragrant and not unpleasant. The usual obnoxious impurities have been carefully got rid of, and the ether which remains possesses only its characteristic slightly alcoholic smell. The specific gravity is 720, conforming to the standard fixed by the *British Pharmacopœia*. This preparation is easily inhaled, and compares favourably with many ethers at present sold as "Æther pur." as it produces less spasm during inhalation and less after-sickness than the less pure samples of the drug. After a careful examination both as to chemical purity and to its qualities as a general anæsthetic, we can commend Messrs. Salamon's "absolute æther puriss." as a sound and valuable article.

COMPULSORY NOTIFICATION IN ENGLAND AND WALES IN 1892.

A Special Report to the Parliamentary Bills Committee of the British Medical Association, by Mr. Ernest Hart, Chairman of the Committee.

(Continued from p. 1338.)

SMALL-POX.

PASSING now to a consideration of the several diseases, I commence with small-pox. The position of the eleven registration divisions in regard to this disease is indicated in Table IV, and also in Chart B below.

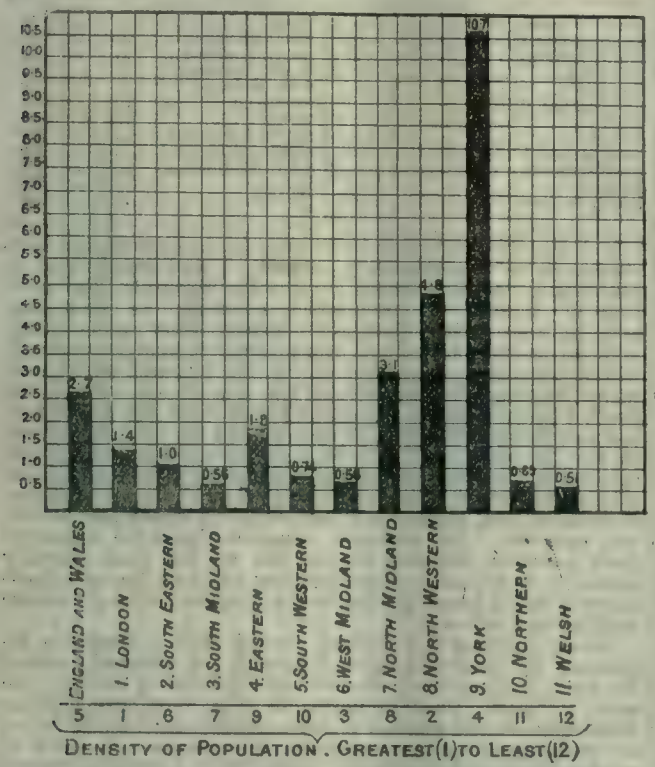


CHART B. Small-pox.—Attack-Rates per 10,000 of Population. England and Wales and Eleven Registration Divisions.

The most noticeable features of the chart are the enormously high attack-rates in the York and North-Western Divisions, and the drop of the Welsh Division from its unenviable position in Chart A to the most favoured post as regards small-pox. It looks quite natural to see Yorkshire heading the list, since the amount of the disease in the heavy woollen districts has over and over again found mention in the pages of the BRITISH MEDICAL JOURNAL during many months past. And it is not only in the West Riding that the disease has shown abnormal prevalence. It is true that there it more than doubled the rate of attack on the North Riding, and had more than four times the rate of the East, but all three find place among the six worst counties in Table VI.

In the North-Western division it is Lancashire alone that has excess of attack-rates, Cheshire having a rate of 1.8 only, against 5.2 in the former county. Rutland returns but 8 cases, and may thus be practically set aside; and we then see that three counties bore the brunt of the recent small-pox epidemic so far as our returns disclose the facts—namely, Yorkshire, Lancashire, and Derby, all contiguous and all populous. London in 1892 had not felt the heavy roll of attacks which she experienced in the early months of the present year.

We see from Table VI that counties so widely separated as Bedford and Hereford, Westmorland and Wiltshire record no small-pox at all; and it is somewhat surprising to find the pottery districts having an attack-rate so low as 0.25; the coalfields of South Wales with only 0.45 per 10,000 persons, and Northumberland 0.46, Monmouth, moreover, having only 0.55, and Durham 0.82. But it is to be noted that a group of counties—Norfolk, Northampton, and Lincoln—closely adjacent to each other, and two of them not far removed from the chief centres suffered heavily, as also did Hampshire.

TABLE VI.—*Giving Rates per 10,000 of Population of Notified Cases of Small-pox in 1892 in each of the Counties of England and in Wales.*

No Small-pox.	Under 0.5.		0.5 to 1.0.		1 to 3.		3 and Upwards.	
Bedford	Hertford	0.10	Middlesex	0.5	Warwick	1.1	E. Riding	3.1
Hereford	Sussex	0.20	Cumbrlnd.	0.55	Salop	1.2	Rutland	3.6
Westmorland	Hunts	0.24	Monmouth	0.55	Notts	1.3	Lancs.	5.2
Wilts	Stafford	0.25	Dorset	0.62	London	1.4	N. Riding	6.1
	Cambs	0.27	N. Wales	0.64	Cornwall	1.5	Derby	7.2
	Somerset	0.31	Surrey	0.7	Devon	1.6	W. Riding	12.9
	Bucks	0.35	Herks	0.72	Cheshire	1.8		
	Oxford	0.37	Worcester	0.73	Leicester	1.9		
	Suffolk	0.40	Essex	0.74	Hants	2.1		
	Gloucestr	0.42	Durham	0.82	Norfolk	2.4		
	S. Wales	0.45	Kent	0.96	Northmptn	2.5		
	Nrthbrld	0.46			Lincs	2.6		
					Eng. & Wales	2.7		
(4 counties.)	(12 counties.)		(11 counties.)		(12 counties.)		(6 counties.)	

Looking to see what effect density of population has exerted upon spread of small-pox in registration divisions, we find:—

Rank in density (greatest to least) ...	1	2	3	4	5	6	7	8	9	10	11	12
No. of registration division	1	8	6	9	E&W	2	3	7	4	5	10	11
Place in attack-rate (worst to best)	9	8	7	E&W	4	1	2	5	10	6	3	11

Thus the most sparsely populated division has exhibited least liability to attack; the North Western Division and Yorkshire are both at once densely peopled and heavily invaded, but London in 1892 by no means exhibited liability in anywise corresponding to crowding on area.

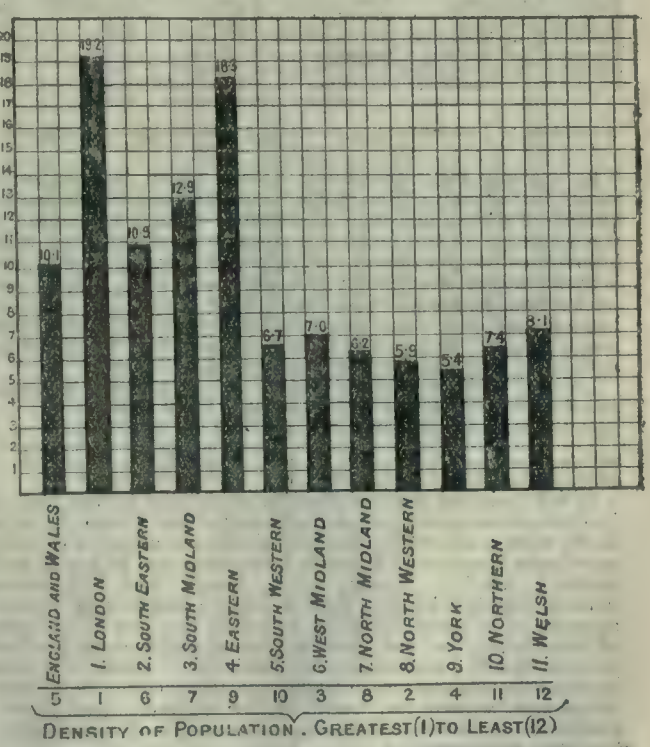


CHART C. Diphtheria.—Attack-Rates per 10,000 of Population. England and Wales and Eleven Registration Divisions.

DIPHTHERIA.

Chart C indicates in columnar fashion the rates of attack from diphtheria set out in Table IV in respect of the registration divisions; and it and Table VII, which gives the facts for the several counties, point strongly to the hold which the disease has upon a well defined area of England. Thus we see London with the high rate of 19.2, and round about are Suffolk, 9.4; Essex, 24.0; Kent, 10.1; Middlesex, 15.5; Surrey, 17.7; Hertford, 12.6; Bedford, 14.9; and a little further afield, Norfolk, 12.0; Lincoln, 12.1; Sussex, 12.6; Oxford, 18.2; and Cambridge, 14.6. Here, then, is an eastern group of counties, from Lincoln to Sussex, and from Norfolk to Oxford, bearing the brunt of the diphtheria, of which we are so slow to learn much that still requires to be known respecting its fatal prevalence. The only other counties with rates above the average are widely separated, viz., Westmorland, 10.8; Worcester, 11.7; and Monmouth, 14.8. Counties having numerous town centres like Northampton, Yorkshire, Stafford, Leicester, Derby, and Lancashire, have low rates of attack; but many of the home counties are also largely urban in character; and the returns which have come to hand quite bear out the growing conviction that diphtheria is making its way into the towns just as the towns are themselves swallowing the rural populations. Eminently rustic as the disease was years ago, it is now fast finding a soil suitable for spread in strictly urban districts. During the current year we have seen London with its 400 cases, and its 70, 80, and 90 deaths from diphtheria in a week.

TABLE VII.

Giving Rates per 10,000 of Population of Notified Cases of Diphtheria in 1892 in each of the Counties in England and in Wales.

Under 5.		5 to 7.		7 to 10.		10 to 15.		15 and Upwards.	
N'thmptn.	2.4	Bucks	5.0	Devon	7.1	*Eng. & Wls.*	10.1	Middlesx.	15.5
N. Riding	2.7	Hunts	5.0	Durham	7.2	Kent	10.1	Surrey	17.7
N. Wales	3.4	Somerset	5.1	Hants	7.4	Westmrld.	10.8	Oxford	18.2
E. Riding	3.7	Berks	5.5	Northmbld.	7.5	Worcester	11.7	London	19.2
Notts	3.8	Derby	6.0	Warwick	7 6	Norfolk	12.0	Essex	24.0
Stafford	3.9	Lancs.	6.0	Wilts	7.8	Lincs.	12.1		
Rutland	4.1	W. Riding	6.2	Gloucester	7.9	Sussex	12.6		
Leicester	4.6	Cornwall	6.4	Salop	9.1	Herts	13.2		
Cheshire	4.8	Cumberlnd.	6.5	S. Wales	9.1	Cambs.	14.6		
		Hereford	6.8	Dorset	9.2	Monmouth	14 8		
				Suffolk	9.4	Bedford	14.9		
(9 counties.)		(10 counties.)		(11 counties.)		(10 counties.)		(5 counties.)	

In dealing with diphtheria I have taken no account of membranous croup, the attacks from which are less than one-twelfth of the former disease, deeming it best to adhere to the diagnosis of the notifying practitioners, since in these later times the practice of calling diphtheria by other names is by no means so common as was the case even a few years back when the malady was found to be spreading, owing, in large degree, to a false nomenclature adopted by provincial medical men. But I shall return to the matter when dealing with rates of mortality from the several diseases.

Looking to density of population in registration divisions as a determining factor I find the facts to be these:

Rank in density (greatest to least) ...	1	2	3	4	5	6	7	8	9	10	11	12
No. of registration division	1	8	6	9	E.&W.	2	3	7	4	5	10	11
Rank in attack-rate (worst to best) ...	1	4	3	2	E.&W.	11	10	6	5	7	8	9

It will be noted that crowding on area, save in the case of London, does not correspond with any of the eleven divisions in their rates of attack. But the diphtheria group of counties previously named and thirteen in number, are in five of their number—London. Surrey, Kent, Essex, and Middlesex—densely peopled, having, that is, a large number of persons aggregated on space, allowing less than one acre to each unit of population, whilst the remaining eight counties have populations of a more scattered character. Hence the eastern diphtheria zone has in its composition counties peopled in a dense, a medium, and a sparse manner. And here I find much to corroborate the transition stage of diphtheria in its urban tendency.

Placing the registration divisions in two columns in the order, ranging from best to worst, in respect both of death-rate and attack-rate on population, we have the following result. It must be noted, however, that the death-rates are derived from an experience of 26 years, 1855-80, the figures being taken from Dr. Longstaff's Report to the Local Government Board in 1887 on the Geographical Distribution of Diphtheria in England and Wales, whilst the attack-rates are only in respect of part population and for one year alone, 1892. In each instance the rate for England and Wales is taken as 100.

Diphtheria Death-Rates. (1855-80.)		Diphtheria Attack-Rates. (1892.)	
South-Western	80	York	54
North-Western	82	North-Western	59
South Midland	84	North Midland	62
Northern	87	South-Western	67
London	88	West Midland	70
England and Wales	*100*	Northern	74
York	102	Welsh	81
Welsh	110	*England and Wales*	*100*
West Midland	110	South-Eastern	109
South-Eastern	122	South Midland	129
Eastern	131	Eastern	183
North Midland...	133	London	192

If I may be permitted to assume for a moment that this statement is approximately correct, I find much that is interesting and instructive in it. For example, the position of London is in marked contrast, as seen now and in the period dating to nearly forty years back, and, in a reverse fashion, Yorkshire has vastly improved, whilst Lancashire continues to hold the favoured position to which its right hand neighbour has now also attained. Indeed, I learn from Dr. Longstaff's data that the North Riding was among the most heavily visited by fatal diphtheria in the 26 years, and in 1892 it was second only to Northampton in the whole kingdom in freedom from attack; and whilst its death-rate per million persons was in that period of years no less than 511, I find that its attack-rate in 1892 was only 270. The northern counties also have improved their position, likewise Wales, but we see that, broadly speaking, the eastern group that now exhibits heavy attack-rate was in the longer period in question the victim of a severe diphtheria death-roll.

Before quitting this disease, I feel that I ought to reproduce the observations sent up with his returns by one of the most distinguished of our medical officers of health. He says: "I think it well to point out that, as regards healthy rural districts, the number of cases notified must not be taken to even approximately represent the number of cases of scarlet fever and diphtheria which have actually occurred and received attention and record. This is especially true of epidemics of diphtheria. In the case of both these diseases, when the infection is spread, as it usually is in healthy rural districts, through mild cases and school agency, occasionally 50 per cent. of the cases are medically unattended, and sometimes more. In a recent epidemic of true diphtheria (which, though of a very mild type, was followed in an unusual proportion of cases by some form of diphtheritic paralysis), in my report I referred to 64 cases of diphtheria, and in about a dozen cases only was there any medical attendance; and it is most common with me to meet with families of children with scarlet fever or diphtheria in which no medical attendance is obtained. In the case of the poor but generally thrifty country people who try to pay their doctor when they have to employ one, the doctor has often to come a long distance, and the attendance of a doctor in the house is a much more serious affair than it is in the towns, where dispensaries and various forms of clubs abound. I do not know any more cruel enactment, when enforced, as it sometimes is in many districts, than that clause in the Education Act which requires a parent to send a child to school or produce a medical certificate. I have known the practical effect of this enactment lead to the spread of infectious diseases scores of times."

ERYSIPELAS.

The question of the utility of erysipelas being included in Section 6 of the General Act has been much discussed, and mainly from the side of inutility. It has been frequently

held that if erysipelas is to remain a notifiable disease only the non-traumatic or idiopathic cases should be required to be certified. At the same time it must not be overlooked that, for the kingdom as a whole, 46 persons die out of every 1,000 notified to be suffering from all forms of erysipelas, and the danger of the disease in relation to parturient women is a feature of the question that should not be lost sight of. In 109 towns of England and Wales in 1891 the death-rate in notified cases was 48 per 1,000, and last year it was 47 in 117 towns; whilst it was 57 in Wales, Yorkshire, and the South-Eastern Division; 59 in Lancashire, 77 in Gloucester, and 113 in Hampshire. And despite all that has been said and written on the subject, the disease in its every form remains a notifiable malady. The fear that it might prove a bait in the shape of halfcrowns for slight cases notified does not at first seem warranted. From Table IV and the accompanying Chart D, we find that only in London and two Midland

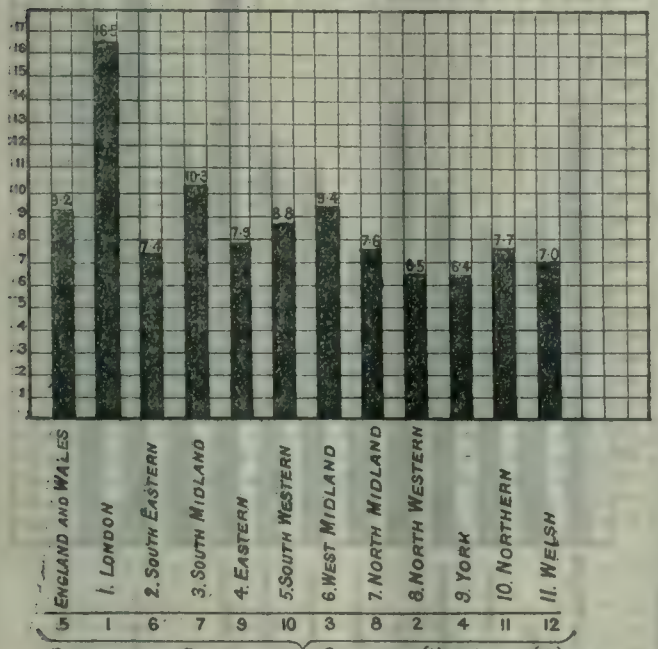


Chart D. Erysipelas. Attack-rates per 10,000 of Population. England and Wales and Eleven Registration Divisions.

Divisions is there any excessive rate to population. Lancashire and Yorkshire, it is true, exhibit very low rates of attack with high per-case mortality, leading it to be queried whether either large proportions of cases there are not heard

Table VIII.—*Giving Rates per 10,000 of Population of Notified Cases of Erysipelas in 1892 in each of the Counties of England and in Wales.*

Under 6.		6 to 8.		8 to 10.		10 and Upwards.	
Notts	3.4	Hunts	6.3	Sussex	8.1	Cumberland	10.7
N. Wales	3.9	Rutland	6.3	Stafford	8.8	Bedford	10.9
Hereford	4.0	Durham	6.4	North'berland	9.0	Cambs	10.9
Norfolk	4.2	Derby	6.6	*Eng. & Wales*	*9.2*	Kent	11.2
Hants	4.2	Lincs	6.6	Cornwall	9.6	Monmouth	11.6
Wilts	4.2	Bucks	6.8	Essex	9.7	Warwick	11.8
Cheshire	4.4	Lancs	6.8	Northampton	9.7	Devon	12.1
Berks	4.7	Gloucester	6.9			Westm'land	12.3
North Riding	4.9	West Riding	6.9			Middlesex	12 6
Dorset	5.3	Oxford	7.1			Worcester	12.7
East Riding	5 3	Suffolk	7.1			London	16.5
Salop	5.7	Somerset	7.4			Leicester	16.9
Surrey	5.7	S. Wales	7.5				
		Herts	7.8				
(13 counties.)		(14 counties.)		(6 counties.)		(12 counties.)	

of, or that in other divisions there is much stricter notification of the malady. Wales and the Northern Division also show light attack-rates, the former, however, with a heavy per-case mortality. Looking at the rates in the several counties as they figure in Table VIII, we find 30 below the average attack-rate for the kingdom, 13 being very much under it, whilst 15 counties are in excess, 6 greatly so. And all these 6 have death-rates much below the average. In respect of the 15 counties with attack-rates above, no fewer than 12 have per case mortality-rates below, the average. And on the whole, the inference is that the death-rate obtained from notified erysipelas is misleading. In the same 109 towns already referred to, the attack-rate was 72 per 10,000 of population in 1891, and 101 in the 117 towns in 1892. Of course, it will not be denied that many hundreds of cases of erysipelas go unrecorded on account of two factors: first, the absence of all medical attendance; and secondly, the evasion of the system of dual (non-medical) notification required by Section 3, subsection 1 (a) of the Act of 1889. Still, taking the average of the death-rates of the four lowest divisions, including London, we get a mortality of 31 per 1,000 attacks, and this is sufficiently serious.

There can be little doubt, I think, that the question of expense is really at the bottom of the agitation that would expunge erysipelas from the scope of the notification system; but the matter is trivial. In London in 1892 the cost, at 2s. 6d. for each case notified, was only £911; and for the *whole* of England and Wales I estimate that at the same fee the cost last year would have been covered by an expenditure of £3,325.

Scarlet Fever.

A scarlatinal wave seems to have swept over England last year, and to have flooded Wales in an especially severe manner, or rather, I should, perhaps, say South Wales. In London we had heavy experience of the disease, with later manifestation in the summer and autumn of the present year. From Table IV and Chart E it becomes apparent

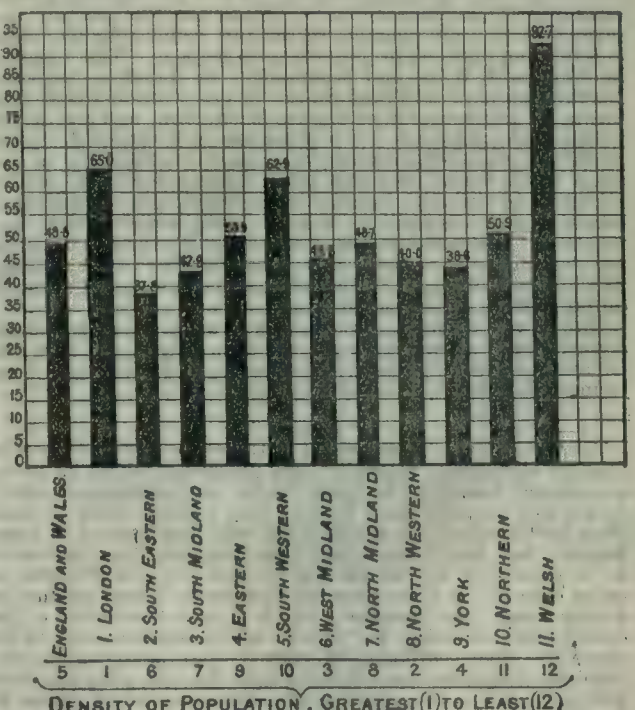


Chart E. Scarlet Fever. Attack-rates per 10,000 of Population. England and Wales and Eleven Registration Divisions.

that scarlet fever was most epidemic in the extremes of condition as to density of population, Wales, with its most sparsely-peopled districts, coming first with 92.7 attacks per 10,000 persons; and London, with its aggregated millions,

coming next with 65 attacks per 10,000 of population. And then follow, almost in the order of sparseness, the South-Western, Northern, Eastern, and North Midland Divisions in three widely-separated parts of the kingdom. Expressed from the point of view of density, the facts arrange themselves thus:

Rank in density (greatest to least) ...	1	2	3	4	5	6	7	8	9	10	11	12
No. of registration division ...	1	8	6	9	E&W	2	3	7	4	5	10	11
Place in attack-rate (worst to best)...	11	1	5	10	4	E&W	7	6	3	8	9	2

We see here that, in addition to the above, other wide differences between density and attack occur in the North-Western, York, and South-Eastern Divisions. As to the individual counties, set out in Table IX, we note that Suffolk

TABLE IX.—*Giving Rates per 10,000 of Population of Notified Cases of Scarlet Fever in 1892 in each of the Counties of England and in Wales.*

Under 25.		25 to 40.		40 to 50.		50 and Upwards.	
Suffolk	19.2	Dorset	25.2	Lancs	40.7	Hunts	50.3
Oxford	19.6	Cambs	25.8	Berks	41.0	Stafford	52.0
Cumberland	19.7	Northampton	25.8	Bedford	41.6	Wilts	53.7
Westmorland	22.2	Warwick	28.7	Herts	42.2	Middlesex	55.6
Rutland	23.1	Sussex	31.0	Salop	43.2	Durham	57.5
East Riding	23.4	North Wales	31.4	Cornwall	43.3	Northmbrlnd	59.1
North „	23.7	Surrey	32.2	West Riding	44.0	Hereford	63.7
		Cheshire	35.5	Notts	44.6	London	65.0
		Lincs	35.5	Kent	45.7	Gloucester	66.5
		Derby	35.8	*Eng. & Wales*	*49.8*	Essex	67.0
		Hants	37.4			Somerset	69.3
		Bucks	37.5			Devon	79.0
		Worcester	37.7			Leicester	86.6
		Norfolk	38.4			South Wales	112.0
						Monmouth	128.0
(7 counties.)		(13 counties.)		(10 counties.)		(15 counties.)	

and Oxford, Rutland, the Lake District, and the North and East Ridings have very low attack-rates, six of the seven counties being sparsely peopled. Of the 15 counties having rates over the average for the kingdom five are sparsely and seven are densely peopled, whilst the remaining five have medium populations in proportion to acreage. The position held by South Wales and Monmouth, by London, Durham, Northumberland, and Stafford can be easily understood. The means for transmission of disease in London, and the social habits of the populace in the other counties named go far to render solution of the matter clear; more particularly is this so in South Wales and the other mining counties, where mingling of sick with healthy is in great degree a matter of course in such diseases as scarlet fever, enteric fever, and measles. The differences in attack-rate in adjacent counties are striking, thus Suffolk, 19.2; Norfolk, 38.4: East Riding, 23.4; West Riding, 44.0: Cornwall, 43.3; Devon, 79.0: Northampton, 25.8; Leicester, 86.6: and so on.

On the whole, then, we observe scarlet fever attacking counties of all classes in much the same way, some of a like character in varying degrees of severity, and with such extreme differences as seem wholly unaccountable.

"FEVER."

The term "fever" is arrived at by the combination of enteric, typhus, continued, relapsing, and puerperal fevers, it being considered best thus to lump these several forms of fever; and it will be seen from Table I that enteric totals to more than five-sixths of the whole of the columns devoted to these fevers. Not that I anticipate that the notification system is to be depended on as having secured the certification of every case of all those forms of disease, as I hope to show at a later stage, but because I think it a safer criterion of the conditions conducing to "fever," in its generic sense, to include all—save scarlatina, of course—that passes under the title in the General Act; it is for this that the plan has been adopted. When the question of per-case mortality comes to be discussed, it will be seen that I have considered the various forms separately, and for good reasons, to be stated.

In Table IV, and in Chart F, will be found set out the facts as to attack-rate per 10,000 persons from "fever" in each of the eleven registration divisions and in England and Wales as a whole; in the first, as usual, in the order of rate, and in the chart in numerical order. From the table we learn that there is a well-defined area of England in which the "fever" attack-rate is much below the average, being under 8.0 per 10,000 of population; and if we also include the West and North Midland Divisions, we see the extremes of eastern and western England and Wales, and all north of and including Cheshire and Yorkshire having attack-rates much in excess of central and southern England. London and the two divisions comprising the south coast counties are especially favoured in having less than 7 attacks from fever for each 10,000 of population.

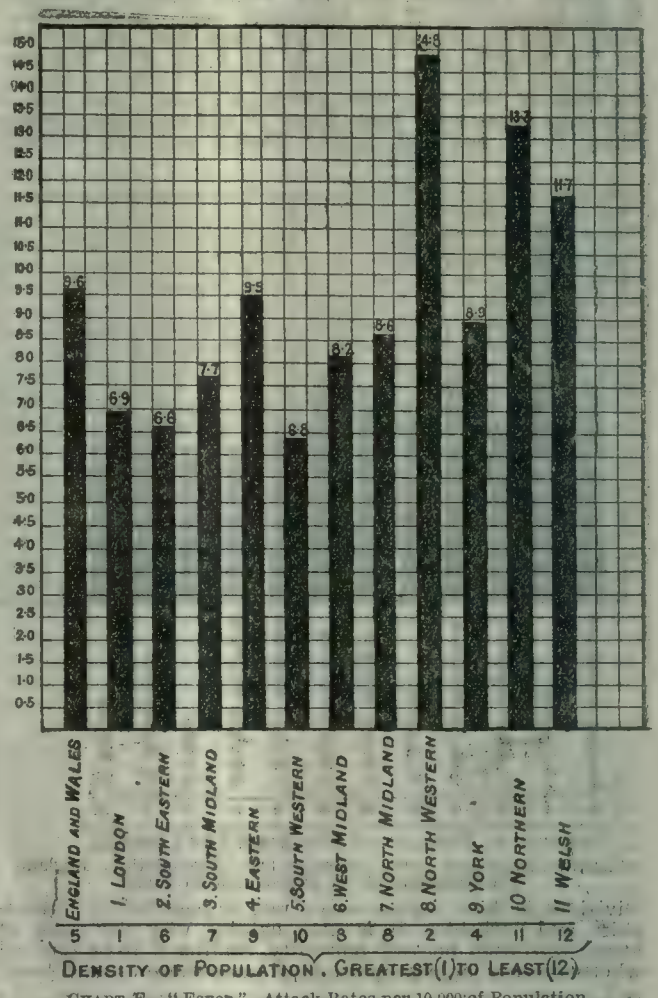


CHART F.—"Fever." Attack-Rates per 10,000 of Population.

Turning to the Chart F we perceive that only three divisions are above the average for the kingdom—namely, Wales, 11.7; Northern, 13.3: and North-Western, 14.8. Splitting these divisions into their constituent parts, and consulting Table X, we find in Wales that the excess is in the south—namely, 14.5 against only 4.6 in the north. Of the northern counties Westmorland has a rate of 15.0 and Durham of 16.9, the highest of all. Of the north-western counties both have high rates; Cheshire, 10.9; and Lancashire, second only to Durham, 15.4. Looking further at Table X, we see that Monmouth approaches near to South Wales in rate as well as in geographical position; it is indeed part of the Welsh Division. Of the eastern group, next highest of the divisions, Essex and Suffolk are practically identical with rates of 7.8 and 7.6 respectively, whilst Norfolk is badly placed with a rate of 14.9. Now of the three worst divisions, two—the Northern and Welsh—are, in their counties most heavily invaded, mining communities, yet Northumberland has not half the rate found in Durham; and Derbyshire, also a mining centre, has less than half the rate in South

Wales or Monmouth. Of the third division Cheshire has its mines and Lancashire its large manufacturing centres; but so also has the West Riding, with its rate only equal to Northumberland and Suffolk. The Staffordshire pottery area has less "fever" relatively than Devon or Hampshire, Devon having more than twice its adjacent mining county of Cornwall, more than four times that of its eastward neighbour Dorset, and nearly three times that of Somerset adjoining. Counties so widely apart and so dissimilar in character as Middlesex, Shropshire, and the North Riding are nearly identical in reference to rate of attack.

TABLE X.—*Giving Rates per 10,000 of Population of Notified Cases of "Fever" in 1892 in each of the Counties of England and in Wales.*

Under 5.		5 to 7.		7 to 10.		10 and Upwards.	
Rutland	0.45	Kent	5.1	Derby	7.2	Cheshire	10.9
Wilts	1.80	Herts	5.2	Bedford	7.4	Cambs	11.1
Hereford	2.30	Cornwall	5.6	Northampton	7.5	Stafford	11.6
Dorset	2.90	Lincs	5.9	Northumbrld.	7.6	Hants	12.1
Oxford	3.30	Cumberland	6.4	Suffolk	7.6	Devon	12.2
Bucks	4.00	Gloucester	6.6	West Riding	7.6	East Riding	12.6
Berks	4.20	Hunts	6.6	Essex	7.8	Monmouth	13.1
Surrey	4.30	Leicester	6.6	Warwick	8.1	Notts	13.1
North Wales	4.60	London	6.9	Worcester	8.4	S. Wales	14.5
Somerset	4.70			North Riding	9.3	Norfolk	14.9
Sussex	4.90			Middlesex	9.4	Westmorld.	15.0
				Salop	9.5	Lancs	15.1
				Eng. & Wales	*9.6*	Durham	16.9
(11 counties)		(9 counties)		(12 counties)		(13 counties)	

Enteric fever being so widely diffused by water, it behoves us to look into the matter from the standpoint of water supply, in a general sense at any rate. And here we see that the three divisions having highest rates are by no means similarly circumstanced as regards large waterways. The Northern Division has rivers which furnish domestic supplies, and with the use of which enteric fever has been largely associated; for example, the Tees Valley epidemics; but the Welsh Division is not thus placed, though the North-Western Division, speaking generally, is a riverside community with much pollution of streams heretofore in operation. The Eastern Division, just below the general average, includes the "land of the broads;" and York, too, has multiplicity of rivers and great polluting media, especially of the Aire and Calder. But the great Thames Valley districts and London taken as a whole have not suffered much fever relatively. Considering the counties most affected, we find Durham heading the list, with its rivers furnishing drinking water; then comes Lancashire, followed by Westmorland, and then by Norfolk with its rivers and broads. The cause operating in South Wales has apparently force also in Monmouth; and then comes Nottingham, with its Trent valley and a rate very different to Lincoln, and double that of Leicester. But again; Northumberland is twice as well off as Durham, and Cumberland than Westmorland; whilst the North and especially the West Ridings are in much better case than is the East Riding. Devon is worse than Cheshire, and Hampshire than Stafford, and the rates of neighbouring counties, and of counties surrounded by others of like character, are so different that a study of Table X leads to question whether there may not be some solution of the matter other than waterways.

Now I do not forget that we are dealing with the data of one year only, and also for portions of counties in default of the whole being available. So that such an occurrence as a large milk-typhoid outbreak, or a widespread waterborne epidemic might make much difference in a county-rating. In like manner, insanitary conditions obtaining widely would operate against a low fever attack-rate. And, on the whole, whilst making allowance for the restricted nature of our data, we cannot escape the conclusion that the amount of fever in a district, county, or division is in large measure an index to its sanitary state. River pollution may be at the foundation of a high rate, defective sewerage, contamination of subsoil, the poisoning of air, and other like conditions may conduce to abnormal attack-rate. But, whatever it be, generally speaking, the presence of enteric fever is sure evidence of the necessity for sanitary activity. Then again the social habits of a people are often responsible for much spread of disease; and I have previously remarked on this feature in connection with the diffusion of infection. Especially might this feature have concern with raising the attack-rate in South Wales and Monmouth, in Durham, and in Lancashire. And, without entering into any detail in relation to the matter, it has become evident to anyone who has studied the question of sanitation in relation to public health that the sanitary surroundings of a community determine largely the individual efforts put forth to maintain a standard of social and domestic cleanliness best calculated to benefit a district. Mal-administration; feeble enforcement of the Public Health Acts; the allowance of recurring nuisances to remain unremedied; laxity in dealing with long-standing offences against sanitary law; absence of efficient scavenging; and a host of other like deficiencies on the part of local authorities—all these, whilst calculated in themselves to prepare a suitable nidus for the fever germ, are at the same time silent evils in leading communities to look upon these things in the light of necessary adjuncts to life, with consequent carelessness in all that pertains to domestic sanitation. A sanitary body should set an example of regard for the law of public health for every household to copy. Unfortunately the example is often a very bad one, but it is not the less copied on that account.

Considering for a moment, before passing on, the position which the divisions hold in respect of fever and density of population, we see as follows:

Rank in density (greatest to least)...	1	2	3	4	5	6	7	8	9	10	11	12
No. of registration division	1	8	6	9	E & W	2	3	7	4	5	10	11
Rank in attack-rate (worst to best)...	8	10	11	E & W	4	9	7	6	3	1	5	2

We see from this statement that, speaking broadly, density may be set aside as a factor in the creation of fever attack rates.

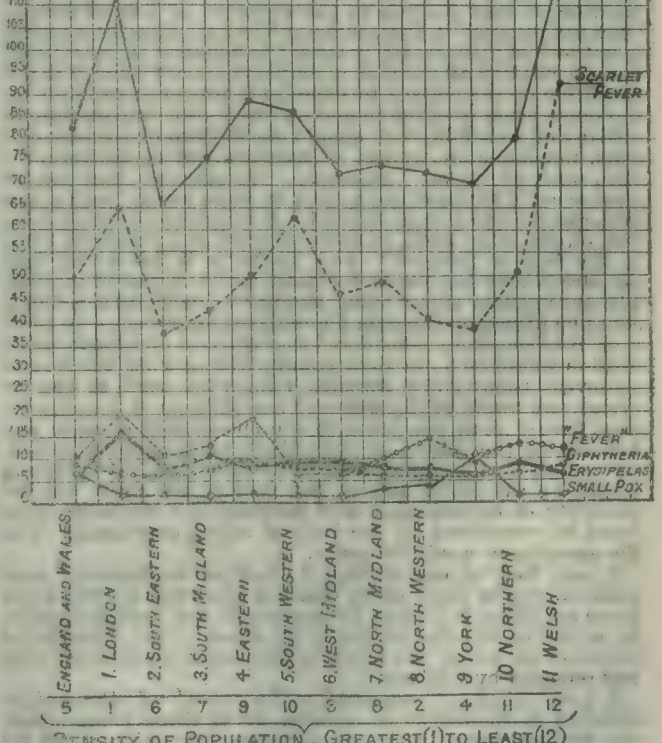


CHART G.—Attack-Rates per 10,000 Population. All Scheduled Diseases and certain Named Diseases.

With a view of rendering more easy a comparison of relation of the attack-rates from each of the foregoing diseases to all the scheduled diseases, I have drawn up Chart G, in which the rates per 10,000 of population are given for England and Wales as a whole, and for each of the eleven registration divisions. The position taken by scarlet fever is in striking contrast to the four remaining diseases.

Other Notifiable Diseases.

The Parliamentary return previously referred to states that on March 31st, 1892, the power to require the notification of diseases other than those specified in the General Act had been taken advantage of by 72 sanitary authorities. In 71 instances measles had been added, whooping-cough in 17, rötheln or German measles in 4, chicken-pox in 2 cases, and hydrophobia in 1 case. In 5 instances, however, the addition of measles had been revoked. Thus, for practical purposes, measles and whooping-cough are the only two diseases that have been added locally, and these, especially the latter, very sparingly. We have evidence, of antagonistic sort, in respect of measles. Some health officers regard the disease as costing more for certification than the value of the knowledge of attacks justifies; others would wish to see both measles and whooping-cough added to the specified diseases. Not many, however, speak of whooping-cough; and with regard to measles it would seem that revocation of the addition has been carried out during the past year and is in contemplation in several districts. Some of our metropolitan health officers would wish to see the disease made notifiable throughout London. As matters stand even the port sanitary health officer, who last year had notification of measles in respect of shipborne cases, has had this withdrawn. The question arises as to what would be the practical gain to London of inclusion of the malady in the notification clauses of the Public Health Act of 1891. Measles is a disease which only too many people like to see their children "over," even to the extent of placing their offspring in the way of infection where "mild" attacks occur within the households of friends, and the power of a health officer is limited largely to a use of his influence, by virtue of his position, to lead parents to the adoption of a wiser course. Claiming, though it does, so many victims annually, measles is not looked upon by the mass of the populace as other than a mere childish ailment of a simple character; and it is the education of the masses to exercise a proper restriction on the movements of children and on their own indiscriminate visiting of sick folk that should be the aim of sanitary officials, not alone in respect of measles, but of scarlet fever also, and of "fever" generally. It may be that school closure could at times be insisted on at an earlier period and with greater effect than otherwise if measles were notifiable; but, on the other hand, is school closure really of much avail in the face of measles? And, again, is it not a fact that measles is very frequently a disease which is passed through without medical advice being sought? Hence, little reliance could be placed on the data for statistical purposes. If, however, it be generally considered that the cost of measles notification would be more than counterbalanced by the results achieved, then—since measles epidemics tend to run in cycles—we would gladly welcome the addition of measles for (say) five, or even ten, years to the specified diseases in any Act making the system of compulsory notification universal. As a result of this experiment surely some data worth having would be available, and at the end of the term the desirability of extending it or of allowing the matter to lapse could be considered in the light of actual experience. But the experiment would be costly.

I note that in one district 2 cases of septicæmia were notified, and in three other districts choleraic diarrhœa was made notifiable in 1892 at the request of the local authority. In regard of measles, evidently as showing the exceptional nature of the event, one health officer mentions that one case was reported by a parent.

I have taken out separately the record of 41 sanitary districts in the matter of measles, 29 of these being urban and 12 rural areas, with an aggregate population of 904,713 persons. In these districts measles is the only added disease. The record affords the following data:

Districts.	Population (1891).	Notifications.		Deaths.	
		Actual.	Per 10,000 population	Actual.	Per cent. of cases.
29 Urban ...	738,218	11,669	158	808	6.9
12 Rural ...	166,495	3,650	220	121	3.3
41	904,713	15,319	169	929	6.1

Here we see that in 41 sanitary areas, from all quarters of the country except London, the attack-rate from measles was last year 169 per 10,000 of population; in town areas 158, much less than in scattered districts, but with more than double the rate of mortality, the lower death-rate going with sparseness of population and excess of attack. I cannot pretend that all the cases of measles occurring in the districts in question find place in the above tables, but I can only give what I find recorded. If I may assume that the districts, since they are situated in numerous counties, are typical of the whole, I find that maintenance of a rate of 169 per 10,000 persons would mean that last year there were some 490,000 attacks of measles in England and Wales. At the full fee of 2s. 6d. per case, such a number would have cost the country, had the disease been universally notifiable, a sum of £61,250. Would the advantage to be derived be commensurate?

That the above estimate is a credible one may be judged from the fact that the total deaths from measles notified in the return of the Registrar-General for the fourth quarter of 1892, as having occurred in England and Wales in that year, were 13,167 in number, which number would yield 2.7 per cent. on the 490,000 attacks referred to above. We may reasonably suppose that in the country generally the mortality would not be in excess of that figure, since, whilst on occasions of extreme malignancy measles has carried off 10 or 15, or even 30 per cent., of *known cases*, the disease, when considered for large areas and in mild epidemics, has shown but little disposition to fatal issue.

(To be continued.)

THE GREENWICH EPIDEMIC.

[Special Report of the British Medical Journal.]

The Character of the Epidemic.—Evidence against the Theory of Asiatic Cholera.—Food and Water.—The Workhouse Well.—Its Bacterial Contents.—A New Species of Proteus possibly Related to the Epidemic.

The readers of the British Medical Journal have from time to time, since the middle of last October, been informed of the occurrence in the Greenwich Workhouse of an epidemic outbreak of choleraic diarrhœa amongst a large number of the inmates—244 cases—with fatal results in 11 cases. The facts concerning the appearance, the progress, incidence, nature, and pathology of the disease were investigated by the Local Government Board, and were described by Drs. Bulstrode and Klein at the adjourned inquest, held by the deputy coroner in Greenwich Workhouse, on December 12th. They may be thus summarised: After the commencement of October cases of severe vomiting and diarrhœa occurred from day to day in the workhouse; at first they were few: gradually their number increased. Soon after the middle of October the epidemic reached its maximum, and then rapidly declined, so that by the end of the month it was practically over. With the exception of very few cases, which occurred in persons while in the infirmary, the disease made its appearance in and kept its hold on the workhouse, whence the smitten persons were removed to the infirmary. The disease was almost entirely limited to old persons, generally over 60 years of age; no children were attacked; it fell more heavily on the females than on the males. *Post-mortem* examination showed congestion of the intestines, particularly of the ileum, this latter being in some cases deeply congested. In no single case was there anything like a rice-water stool during life, or rice-water fluid in the intestine after death. The

stools during life were in most cases of a fluid or semi-fluid nature, but otherwise possessed the fæcal character. The contents of the ileum on *post-mortem* examination were either a brownish fluid or only shreds of greenish fæcal matter.

The first aspect of the clinical history of the disease, namely, vomiting and purging occurring in a large number of persons in a limited locality at a time when Asiatic cholera prevailed in some parts of England and when a few isolated cases of cholera Asiatica occurred in London, suggested the possibility of the Greenwich epidemic being due to cholera. This view was, however, soon shown to be untenable, for an outbreak of Asiatic cholera, which is limited to aged persons only, which entirely avoids the young, and in which the mortality is below 4 per cent. of the attacked, is unprecedented. Again, the complete absence of rice-water-like evacuations and rice-water-like fluid in the ileum in such a large number of cases is a strong argument against the disease being Asiatic cholera. As is well known, the stools are not of a rice-water character, nor do they contain in a watery fluid the characteristic greyish-white flakes in all cases of Asiatic cholera, yet in a considerable percentage of cases of true cholera such is the character of the evacuations and of the contents of the ileum.

The microscopic and bacterioscopic examination yielded negative results *qua* cholera, for with the exception of one case in which the comma bacillus of Finkler was demonstrated in the stools by cultivation, in no single case did the culture test reveal the presence of Koch's comma bacillus. Now it is established that this vibrio, although not demonstrable in all and every case of cholera,[1] is nevertheless present in a large percentage of cases of true cholera. As stated above, in the Greenwich epidemic the culture test for Koch's vibrio was entirely negative. From all these facts the conclusion is justified that the Greenwich epidemic was not due to Asiatic cholera.

While this negative aspect of the disease could be satisfactorily determined, as the inquiry proceeded, considerable difficulties presented themselves in determining the origin and manner of spread of the disease. The disease, as soon as it showed itself in the workhouse, attacked simultaneously a number of persons, and continued to involve from day to day an increasing number of inmates; for this reason the water or some article of food fell under suspicion. The suspicion as to food was, however, soon discarded, since a rigorous inquiry in this direction failed to elicit any connection whatever between it and the attacks. It was different with the water; the workhouse itself and the infirmary are supplied with water from two separate sources; the workhouse well and the infirmary well respectively, and as all cases occurred in the workhouse, and till very late none in the infirmary, it seemed at first as if the water of the workhouse stood in relation to the outbreak. This suspicion was considerably strengthened by the results both of the chemical and bacteriological examination of the water. Dr. Frankland's report read at the inquest condemns the water of the workhouse well, while the verdict on the chemical character of the water of the infirmary well is favourable. Dr. Klein in his evidence given at the inquest, spoke likewise in strong terms of condemnation of the character of the water of the workhouse well as being strongly polluted and unfit for consumption. He mentioned that it contained an excessive number of microbes, and amongst them an abundance of bacillus coli and proteus vulgaris and a comma bacillus, which latter was, however, not the choleraic comma bacillus. The water of the infirmary well was not of this character, it contained the ordinary water bacteria in no abnormal numbers.

While, then, strong suspicion attached itself to the water of the workhouse well, careful inquiry by Dr. Bulstrode elicited facts which eventually removed this suspicion, that is to say, it showed that the workhouse water was not the *primum agens*. In the first place it was ascertained that antecedent to the disease in the workhouse there occurred in Greenwich, but outside the workhouse, numbers of cases of illness—choleraic diarrhœa—of exactly the same nature as those subsequently appearing in the workhouse, and as the water from the workhouse well was not consumed by those persons outside the workhouse it could not have been the cause of their illness. On the other hand, owing to the frequent intercourse which notoriously existed between the workhouse inmates and the outside population, the assumption that the disease was by means of that intercourse introduced into the workhouse is quite justified. But there existed other weightier reasons which strongly militated against the "water theory." It was ascertained that the drinkers of most water, such as children, entirely escaped, while some of the aged persons that were attacked by the disease were not water drinkers at all. The inquiry arrived, then, at this point: it could be stated that the disease was not Asiatic cholera, that it was not caused by food, that it was not caused primarily by the consumption of workhouse water, that it was most probably introduced in the first instance from outside, and that it then spread amongst the inmates of the workhouse. Dr. Bulstrode, in his evidence at the inquest, gave it as his opinion that the disease was of the nature of infectious diarrhœa, such as during cholera times, that is at times when Asiatic cholera prevails, is known to occur, but which diarrhœa is not of the nature of true cholera. Dr. Klein, in confirmation, stated that in the stools and the intestinal contents of all the Greenwich cases submitted, he found in great numbers a species of bacillus which was easily isolated by cultivation, and which proved to be a microbe not present under ordinary conditions; in its morphological and cultural characters this microbe belongs to the group of "proteus," though not identical with any of the known species of this group. And according to him it is quite possible that this microbe was connected with the cause of the infectious diarrhœa. As a matter of fact this microbe was found by him also in definite distribution in the tissue of the kidney of the fatal cases. The proteus found in the workhouse water was not the same as that present in the intestine of the Greenwich cases.

There is one point in connection with the Greenwich epidemic which ought not to be overlooked, and the jury in this instance called attention to it in terms perhaps not quite in harmony with the evidence—namely, the possible relation, as a predisposing cause, between the workhouse water and the disease. It must be obvious that the consumption of "foul water," such as that of the workhouse well was proved to be, by the feeble and debilitated aged inmates could not fail to be detrimental to these persons—at any rate, to a considerable number of them, for thereby their susceptibility to disease of the alimentary canal would in all probability have been increased. It seems almost to amount to a public disgrace that such water should have been used for drinking purposes, and that its real character should only be detected by the accident of an epidemic. We could point to several places and public bodies supplying drinking water in other parts of England, in which pollution was left unnoticed and undetected, to the cost in health and life of the consumers, until an outbreak of disease on a large scale stirred those public bodies from their apathy and their readiness to let things slide; but we fail to see why it should not be made incumbent on those public bodies to take timely action, and to keep a constantly watchful eye on the water supply without the stimulant of a catastrophe.

[1] See the statements as regards the cases that occurred during 1892 in Russia, in Hamburg, in Paris, and elsewhere.

AUTOMATIC WRITING.

IV.

By J. WIGLESWORTH, M.D.

Primitive Man and Supernatural Agencies.—Automatic Writing and Automatic Brain Action.—Dreams.—Monomania, Mania, and Automatic States.

The primitive man sees in all the manifold phenomena of Nature the agency of some supernatural being, and explains everything by the direct interference of some spirit or demon variously personified. As the race advances the development of a knowledge of the operation of natural laws displaces the idea of the capricious working of spirits, and a full recognition of the operation of these laws is a measure of the intellectual progress of mankind. It is natural that into the region of mind—that most obscure and complicated of Nature's handiwork—the idea of law should be the last to penetrate, and that the old savage idea of the direct interference of an outside force or spirit should here still hold its

ground, is perhaps not altogether surprising; as a matter of fact, there is abundant evidence that such a method of interpreting mental phenomena still commends itself to a not inconsiderable number of persons.

In criticising the experiences of Mr. Stead and others, as published in *Borderland*, attention has been called to the analogy which exists between the phenomena of automatic writing and those of unconscious movements as exhibited in the so-called "muscle reading" or the finding of hidden objects which attracted much attention a few years ago; and the manifestations of hypnotism have also been quoted as illustrating how, when the will is in abeyance, an idea may translate itself into action without the knowledge of the subject. And it has been pointed out, as indeed has often been done before, that what is written in this way under the supposed influence of a spirit or "spook," is merely the expression of the thoughts, feelings, and life experiences of the individual who writes. No man, for instance, wholly unacquainted with a foreign language could be made by his "spook" to write that language, though clearly if there were any supernatural agency at work in the matter this would be just as easy of accomplishment as anything else. This seems to be admitted even by Mr. Stead himself, who states that he fully recognises that his "spook" writes "Steadese." Surely such a fact as this is plain evidence that the writing is produced by the automatic working of the individual's own brain, that he who runs may read.

It is nothing to the question that things are sometimes written in this way, of which the writer says he has no knowledge in his conscious state. What we are conscious of at any moment is but a small fraction of the multitudinous sensations and experiences we have gone through in the course of our lives, the impressions of which lie latent in our brains ready to rise into conscious thought, when circumstances are favourable; and it is just in these states of automatic working of the nervous centres, as we see in dreams, that long forgotten experiences, worked up it may be into new combinations, are apt to become prominent. The comparison which the writer in the *Pall Mall Gazette* makes between the state in question and that of the monomaniac is less sound. To begin with, the idea that the monomaniac is perfectly sound mentally except on the one point is not a correct description of this mental state, for rarely, if ever, are such conditions realised. And, moreover, it is not so much in a concentration of consciousness, as in an abnegation of the highest consciousness, that an explanation of these phenomena is to be sought. We should say that the phenomena of automatic writing and such like, have more analogy with some of the milder forms of mania, and epileptic states, the leading factors in which conditions are the throwing out of gear of the highest controlling faculties of the brain, and the consequent springing into greater prominence and automatic working of lower centres. In certain mild states of mania, for instance, persons sometimes exhibit a mental brilliancy impossible to them at ordinary periods, owing to the automatic working of certain centres other than those concerned in the highest consciousness; and the unconscious, albeit apparently purposive, movements and actions exhibited in certain post-epileptic states are well known.

Perhaps Mr. Stead would explain these latter actions by saying that they were performed under the directing influence of a spirit on "spook," whilst the individual himself was unconscious; and in very truth such an explanation of the phenomena would be quite as reasonable here as in the case of automatic writing. I am not surprised to hear that many mediums have become in all reality permanent monomaniacs, and I agree that the game is a dangerous one. The constant placing of the brain in a pathological condition has a tendency to produce permanent mental derangement; and, furthermore, it is not the thoroughly stable brains which are attracted by these phenomena, but a readiness for performing these displays appears to be intimately associated with a certain amount of mental instability.

Medical Magistrates.—Among the new Justices of the Peace for the county of Caithness are the names of Surgeon-Colonel Maclean, M.D., F.R.C.S.E., of Thurso, and David Gair Braitwood, M.B., C.M., D.P.H., of Halkirk.

STATE ASYLUMS AND LUNACY BOARDS.

We note in the American press a warm dispute between the Lunacy Board of the State of New York and the asylums under its supervision. There are occasionally times in England when the managing committees and the superintendents of asylums feel disposed to resent the interference of the Board of Lunacy in Whitehall. It is impossible, however, for us to conceive the Commission even taking the position which they recently assumed in America. There would instantly be a revolt, with a result not difficult to predict. The management of State hospitals for the insane in the United States is essentially different from the county asylums of England. Practically the Lunacy Board in the former country has come to bear the same authoritative relation to the institution that the County Council, representing the ratepayers, does with us. The committee of management goes to the wall. It is easy to understand that the orders of the latter would be much more likely to be received with respect than those of a board not meeting on the spot, and not in a position to judge of the administrative needs of an asylum. We have not, of course, any right to assume that there has been no need for reform in the expenditure of the New York hospitals for the insane. What seems to us inexplicable is that the power over the commissariat should be transferred from the managers to a central board. The former have issued a protest in which they say, "the Commission is a centralisation of power, and is putting into three men's hands more authority than was hitherto entrusted to the several boards of managers;" and they add, "if any manager, any superintendent, or any board of managers has been recreant to their trust, it is proper to publish that fact, but it is neither dignified nor decent by generalisation to indulge in wholesale defamation."

What is called the "State care system" came into force in October, 1893. In an article in the *Utica Morning Herald*, December 4th, a statement is made which, if true, indicates an extraordinary, and indeed intolerable, state of things. "Under it the State Commission in Lunacy exercises centralised power. No purchases can be made, *employés* engaged, or repairs effected without its authority. So tightly are the reins of power held, that the other day the supply of oil having given out at the Utica Hospital, and authority to purchase not having been granted, an *employé* was obliged to carry his State lamp to his home, and fill it from his private can!"

The same paper maintains that the State of New York in decreeing, as it has done, State care of the insane, did not contemplate "saving" by the hampering and harassing asylum administration which has now occurred, and proceeds: "The people will not tolerate any such interpretation of their action or purpose. They are humane, and able to provide for such of their fellows as are the most unfortunate of human beings the comforts which the judgment of the trained specialists and intelligent local managers decide to be needful and wise."

After reading the articles which this controversy has called forth, it appears to us that under the new system in New York the asylum superintendents in the State are degraded: that the managers cannot purchase the smallest item of supply without permission from the Commissioners, who revise quantity and prices, and may even suggest where purchases shall be made. It is very evident that estimates may be arbitrarily reduced without regard to the special needs of the asylum, in order to make the taxpayer believe that a great "saving" has been effected. We confess that in view of the abuse of centralisation which appears to have been committed by the Lunacy Board, our sympathies go with the managers who have revolted, in the absence of any proof that they have failed in their duties to the State. If they have failed, let their places be filled by better men. We have no faith in the detailed administration of several asylums by a central board, composed, we believe, of only three men.

Donations.—The Grocers' Company has given £100 to the Seaside Convalescent Hospital, Seaford; and £50 to the National Truss Society.

No fewer than sixteen infants died in London last week from being suffocated while in bed with their parents.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1893.

Subscriptions to the Association for 1893 became due on January 1st; and notice is hereby given, in accordance with By-law 5, that Branch Secretaries' subscription accounts close on October 31st, and all unpaid subscriptions must be forwarded after that date to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, DECEMBER 23rd, 1893.

INDUSTRIAL LEAD POISONING.

I.

Setting aside party considerations, the present Government is to be congratulated upon the efforts which it has made to remove or mitigate some of the dangers to health in our industries. Whatever is done to ameliorate the evil effects upon our operatives of working in a dusty atmosphere will be warmly supported by the profession. Medical men have already done much to promote the sanitation of our industries, and in regard to the particular trade we are now dealing with, it is known that they have for some time past insisted upon the necessity of a revisal of the regulations under which the manufacture of lead and its compounds is carried on. The wealth of Britain is but a reflex of the health and longevity of all its citizens. By improving the conditions under which our workpeople labour, so that they shall have better health, we not only increase their producing capacity, adding thus to the money value of the artisan class, but we help to bring about that social advancement upon which true political progress depends.

In the spring of this year the Home Secretary directed a Departmental Committee to inquire into the conditions under which lead and its compounds are produced; as to their effects upon the people employed in their manufacture; the sufficiency of existing regulations, and to suggest where necessary additional precautions. The report of the Committee has within the last few days been presented to the House of Commons.

The Committee was in all respects a representative one. Men were invited to serve upon it who had given evidence of their special fitness, either by their intimate acquaintance with the processes of the manufacture, or by their knowledge of the effects of the industries upon the health of the operatives. The report is signed by Mr. E. Gould, Chairman, H.M. Inspector of Factories; Dr. Thomas Oliver, Newcastle-upon-Tyne; Dr. Dupré, of the Westminster Hospital School; Mr. H. J. Cameron, Inspector of Factories; and Mr. H. J. Tennant, Assistant Private Secretary to Mr. Asquith, who acted as secretary to the Committee.

It is stated in the report that forty-six lead works were visited, and 184 witnesses examined. This will give our readers some idea of the nature and extent of the inquiry. By inspecting the lead works in London, Newcastle, Glasgow, Hull, Sheffield, and other towns in England and Wales, and by directing their inquiries into the enamelling of iron plates and hollow ware at Wolverhampton, the Committee have amassed an amount of evidence the value of which cannot be overrated, so far as the working of these industries in the future is concerned. The investigation appears to have been carefully conducted; the witnesses examined comprised the owners and managers of factories, chemical experts, workpeople, secretaries to labour unions, and several medical men. With only one exception it is stated that the Committee were kindly and frankly received by all the factory managers, and they acknowledge the help which they received from all the witnesses in their efforts to solve the problems which they had undertaken.

The inquiry was principally directed towards the conditions under which white lead is manufactured. During the last few years lead smelting has not been productive of plumbism to any extent. It is an industry in which, at the present time, very few men are employed; besides, since the introduction of a hood over the mouth of the furnace all the deleterious fumes are carried up the chimney. The same precautions are used in places where red lead is made, and yet men who are engaged in the manufacture of red lead frequently suffer from colic and wrist-drop. These, however, are not attributable to the fumes arising from the molten lead, as it is raked up and down in the furnace, but depend upon inhalation of the red dust, which arises in great part from the manufactured article being packed into casks in the furnace shop. Dusty as is the atmosphere in such a place, inhalation of red lead dust is not attended by the same risks to health as breathing of the dust-ladened atmosphere of a white lead factory.

The Committee state that the carbonate of lead made by what is known as the old "Dutch process" still stands supreme in the English market. How far prejudice on the part of the buyer and the paint mixer is responsible for this it is impossible to say. Numerous efforts have been made to supplant it by the white sulphate of lead, the manufacture of which has, of late, considerably improved. The white sulphate is certainly being run as a strong rival to the carbonate. Only the experience of practical men—for example, house painters and railway contractors—who are using large quantities of lead pigments, can give the answer to the question of the alleged superiority of the carbonate over the sulphate. Whiteness, covering power, and endurance under all circumstances and exposure to all kinds of weather are the tests to which these rival lead compounds must be submitted. No theoretical knowledge, therefore, can supply the answer. In time practical experience will settle the question. There would certainly be less menace to health if the sulphate could in all respects fulfil the requirements already supplied by the carbonate, for in its manufacture and manipulation there is little danger to health. From its greater insolubility the sulphate, if it gains entrance into the stomach, is less likely to be absorbed. We cannot admit, however, that the sulphate is absolutely innocuous.

We were quite prepared to find in the report the statement that in the "stripping of the white bed" and "drawing of the stoves" lie the dangers in white lead making. Both are dusty occupations, and it is probably because in these, the most unwholesome stages in the manufacture, the work has hitherto been done by girls, that is to be ex-

plained the greater susceptibility of women to plumbism. Managers of lead factories have long regarded women as more susceptible to plumbism than men, and we are therefore not surprised to find that in several factories female labour has been for years entirely suspended.

A visit to forty-six factories in England, Scotland, and Wales could not fail to cause the Committee to institute comparisons as to the varying percentage of cases of plumbism met with in the different lead works or to be impressed by the efforts which are being made to supplant handwork by machinery. As the stove is a lethal chamber, it would repay the white lead manufacturer and the scientific engineer if combined they could introduce a mechanical drying chamber. Until this is done those who are too frequently engaged in drawing the stoves, be they men or women, run a risk.

It is to be hoped that the perusal of the report will stimulate scientists and practical men to co-operate in the production of a chamber capable of being filled and emptied mechanically, wherein white lead may be dried, the operative never touching the article at all. We presume that a drying chamber of some kind is necessary. This is a point, however, upon which all white lead makers are not quite agreed.

POISONING BY MISADVENTURE.

II.

It has already been pointed out by us that the frequent occurrence of accidents with poison has been very largely due to neglect of the specific provisions which were devised by the Legislature for the protection of the public, and embodied in the Pharmacy Act of 1868. It has also been shown that to the consequences of similar neglect may be traced the complaints made by chemists and druggists of unfair interference of unqualified persons with the business for carrying on which a special qualification is required by law. There is a very widespread feeling that, so far as public safety is concerned, the Pharmacy Act has been far less efficacious than it should have been; while, on the other hand, it appears to have been a still greater failure as regards the reservation of the sale and dispensing of poison to properly-qualified persons. That reservation was established as a suitable means of confining the practice of pharmacy to properly-qualified persons, and of thus protecting the public from danger. It would occupy too much space to enter into a consideration of all the various influences which have contributed, more or less directly, to defeat these objects. No useful purpose would be served by thus attempting to explain that practical failure of the Pharmacy Act, which has in the course of time become a demonstrated fact. But it will be useful to remind our readers that at the time the Pharmacy Act was passed chemists and druggists were a very mixed class, and that among those who were necessarily placed on the *Register* of legally qualified persons, by reason of their being actually in business at that time, a considerable proportion had no kind of sympathy with the principle of proved educational qualification being made the sole condition under which the right to carry on the business was to be acquired. That principle had already been adopted in regard to the voluntary qualification established by the Pharmaceutical Society, as being requisite for persons engaged in the practice of pharmacy. But in the legislation of 1868, relating to chemists and druggists generally, the application of the principle was so far restricted that the standard of competent practical knowledge required for legal qualification was only that which had previously been considered necessary for assistants in the business. We do not, however, pretend to deny that, on the whole, there has been an improvement in the qualification of chemists and druggists since the passing of the Pharmacy Act of 1868. That improvement has been due to the efforts of a minority, constituting the Pharmaceutical Society, and we thoroughly appreciate the endeavour of that body to make the legally established reservation of the sale and dispensing of poisons at once a means of providing for public safety, and of confining the practice of pharmacy to the hands of properly qualified persons in accordance with the general policy and spirit of the Pharmacy Act.

In both respects, however, the efforts of the Pharmaceutical Society have fallen far short of producing the necessary effect. For many years past the sale of poisons in the form of patent and proprietary medicines has been carried on extensively in direct defiance of every provision of the Pharmacy Act. The precautions of labelling and registration of sales have been systematically disregarded. Preparations which are, in fact, poisons within the meaning of the Act have been sold indiscriminately by persons who are not qualified under the Act to carry on that business. The title of chemist and druggist has been assumed by persons who are not registered as such; and, in view of these facts, it has been considered by many that the Pharmacy Act of 1868 has been in most respects a complete failure. There is, indeed, too much reason for entertaining that opinion; and it is therefore desirable to inquire what may be the causes which have led to these results. For that purpose it will be necessary to point out that, associated with the compulsory provisions of the Pharmacy Act, very important powers of action for the furtherance of its objects were conferred upon the Pharmaceutical Society, which was constituted by the Act the trustee of the interests of the public, and also of the interests of the whole body of persons registered under the Act. In the former capacity the Society has certain specified duties to perform, such as the conduct of examinations as to qualification, the maintenance of a register, and the general administration of the Act. In the capacity of official representative of the body of registered persons, the Society is entrusted with powers which may be exercised for promoting the interests of that body, provided the action taken is consistent with the object of the Act, and that it is approved in that sense by the Privy Council. A large power of internal self-government is thus placed at the disposal of registered chemists and druggists which could be exercised to their advantage in amending the qualifying examination, adding to the poison schedule, and in establishing regulations as to the keeping, dispensing, and selling of poisons. In each of these directions action has been taken by the executive body of the Society, in some instances with a certain degree of success, though in others considerable opposition has been offered to the measures proposed. That opposition has come from within the ranks of registered persons, and for the most part from those who have no further connection with the Society than that resulting from the official position of the Society

in regard to the Pharmacy Act. As the strength of a chain is measured by its weakest part, so the action of the Society as the representative of chemists and druggists, is influenced by their want of sympathy with its objects, and thus attempts to promote education as well as the internal regulation of trade practices have been frustrated by chemists and druggists themselves. The extent to which antagonistic influences are still exerted from within may be inferred from the fact, recently stated, that no fewer than 4,000 chemists and druggists, who are registered in virtue of having been in business before the Act of 1868 was passed, are still unconnected with the Society, while the entire number of those connected with it does not amount to more than one-third of the number on the *Register*.

These facts prove unmistakably that the opportunity for advantageous internal self-government offered to chemists and druggists by the Pharmacy Act has not been made use of in the manner that it should have been either in the interests of the public or for their own benefit. That default has been especially conspicuous in the steadfast opposition of the attempt to establish a compulsory educational curriculum, as a means of ensuring more thorough scientific and technical training, and giving a higher value to the qualification now obtainable by the less efficient system of mere examination. But there is another particular in which chemists and druggists have neglected to exercise, through the Pharmaceutical Society, the powers conferred upon them by the Pharmacy Act. The first section of the Act gives the Society power to make regulations as to the keeping, dispensing, and selling of poisons; and in the event of such regulations being approved by the Privy Council, the fifteenth section of the Act provides that failure to conform to them shall be an offence punishable by penalty. Obviously those provisions placed in the hands of registered chemists and druggists a power of regulating the supply of poisons which might have been exercised to the advantage of the public, and made the means of preventing those irregular sales of poisons which have been a source of public danger, and have now become a ground for general complaint by chemists themselves. It was, moreover, a matter of obligation no less than of self-protection that such action should have been taken by the Pharmaceutical Society, with the hearty support of the body it represents; for we find that the form in which this provision stands in the Pharmacy Act was the result of an agreement, in consideration of which the proposal to place in the hands of the Privy Council the power of making regulations was withdrawn. The non-performance of that duty has been a source of constant reproach against the Pharmaceutical Society, and the course taken by chemists and druggists in regard to the matter of regulations has been strangely impolitic, to say the least. By means of such regulations, the use of distinctive bottles for poisonous substances might have been made a general practice, instead of being, as at present, adopted only by some chemists, and the liability to penalty for neglecting this precaution would have been a useful means of repressing the irregular trade in poisons, which has been the cause of so much complaint on the part of chemists and druggists.

In a future article, we propose to consider more in detail the difficulties arising from the administration of the law relating to poisons being entrusted exclusively to a Society of a voluntary character, and the means by which it may be possible to provide for the observance of safeguards in this respect more effectually than has been the case in past experience.

"KOSHER" AND OTHER MEAT.

The subject of public abattoirs is one worthy of attention; up to the present they exist in some forty-eight towns; but their utility in these places is for the most part restricted by the fact that private slaughterhouses are still permitted to exist. These towns might take a lesson from Carlisle. The Corporation of that city obtained power by a local Act to suppress private slaughtering; all the slaying of animals for food is there done under the eyes of servants of the Corporation with eminently satisfactory results; diseased meat is detected, cruelty prevented.

In the metropolis private slaughterhouses are diminishing; the number in 1875 was 1,750; it is now but 537. So far as drainage, water supply, and general sanitary condition go, the 537 are looked after properly by the local sanitary authorities; on the other hand, there is no supervision of the method of slaughter, nor is there systematic observation of the organs after death, save in the Jewish slaughterhouses. The ordinary slaughterer can exercise his office at what hour of the day or night he chooses. The law is silent as to whether an animal shall be stuck, shot, pithed, or beheaded; the raw untried hand may even practice on the living without previous training on the dead animal.

With regard to oxen, our own method of killing is probably as speedy and painless as any other; the Gentile butcher trephines the skull with a single blow of his instrument, and rams a cane through the hole into the medulla. The "Schochet," in obedience to the Hebrew ritual, slays by the slower process of bleeding, and the animal, passing through the stages of terror, pain, faintness, and epilepti form convulsions, has a longer period of conscious suffering. The Jew slaughterer is however superior to the Gentile slaughterer, for the "Schochet" is never allowed to exercise his trade without undergoing a searching examination by the Jewish Ecclesiastical Board on all matters relating to "schecheta," that is slaying. He must know the signs of health, the signs of disease; the meat that is sound and without taint or blemish is sealed with a seal bearing in Hebrew characters the name of the sealer and the day of the week. Such meat is "kosher" fit for the food of the Jew; the meat that is not "kosher" is sold to the Gentile.

Would that even the inspection of the "schochet" was available for all meat. According to a return of the Board of Agriculture the meat supply from all sources, that is beef, veal, mutton, lamb, and pork, in 1892 was no less than 2,122,000 tons. In an indirect manner we can form some idea as to how much of this meat was fit for use.

A return has been published[1] of the animals slain by Jewish slaughterers at the Foreign Meat Market, Deptford, and at the Whitechapel and Aldgate slaughterhouses. From this it may be gathered that only 73 per cent. of the oxen and sheep were pronounced "kosher" (fit), the remaining 27 per cent. being presumably sold to the East End artisan.

Allowing that a portion of the 27 per cent. was rejected on account of what may be called technical blemishes, we shall be within the mark in asserting that 10 per cent. of the meat

[1] Report of Special Commission on Marking of Foreign Meat, August 25th, 1893.

actually sold each year—that is 212,200 tons is either positively diseased or unwholesome; if this statement is even approximately true it makes out a good case for reform in the supervision of the meat supply.

In the forefront of most countries in the matter of practical sanitation in this one branch there are many Continental countries and cities from which we may learn. In Belgium fresh beef imported must have the lungs attached and bear the mark "vreend" or "étranger," to distinguish it from meat produced in the country; the same remark holds good as to the imports into Copenhagen. In several Continental cities there are elaborate arrangements for the scientific pathological investigation of all meat entering into retail commerce.

The recent researches upon the effects of consuming tuberculous meat, the increasing number of wholesale poisonings from toxalbumins, and the revelations of cruelties here and there practised in slaughterhouses are all reasons for the expression of a decided opinion that there is no more pressing sanitary reform at the present moment than the entire abolition of private slaughterhouses, the complete prohibition of slaying of animals in secret, and a more definite and strict Act explicitly stating what meat may be and what may not be sold. The Melbourne Act may be cited as an example of simplification. In that city a sanitary officer has only to prove that an animal is affected with tubercle and whether the tubercle is apparently local or general, the carcass must be destroyed.

Concentrate the slaying of animals in public abattoirs and then it is possible to arrange the details of skilled inspection. Such inspection could only be effected at present by appointing an army of inspectors, and probably even then the inspection would not be sufficiently exact to justify the enormous expense that it would entail. A small fraction alone of the diseased meat sold under the present system is detected, a still smaller fraction of unnecessary cruelty prevented.

It is announced officially that a branch of the Pasteur Institute will be established at Algiers next year.

An antirabic institute was opened in Marseilles on December 9th. It is located in the Chateau du Pharo, and is under the direction of Dr. Lion, Director of the Marseilles School of Medicine, with MM. Gouret and Azais at the head of the laboratory.

THE OPIUM COMMISSION.

The Opium Commission have left Rangoon on their return to Calcutta. Mr. Smeaton, the Financial Commissioner in Burmah, advocates the extension of the proposed restriction of the opium traffic to non-Burmans, and the closing of licensed shops, selling through dispensaries only being permitted. On the other hand, Mr. F. W. R. Fryer, the Acting Chief Commissioner of Burmah, considers the present regulations sufficient.

COOMBE LYING-IN HOSPITAL, DUBLIN.

At a meeting of the Board of Governors on December 14th, Dr. Frederick W. Kidd was elected to the Mastership in room of Dr. Hoey. We have no doubt that a thorough reorganisation will now take place, and that the hospital will regain its place in public favour. The Board of Superintendence of Dublin Hospitals has held a private inquiry into the charges recently made, but the result will not be known until a report has been made to the Lord Lieutenant.

HONOURS AT THE UNIVERSITY OF LONDON.

The exceptionally brilliant results obtained by St. Bartholomew's students at the examination for Honours in Obstetric Medicine are worthy of note. The first place, with the scholarship and gold medal, has been carried off by H. O. Davies, and the third and fourth in first-class honours, both qualifying for the gold medal, have been secured by H. W. Armstead and J. Morrison, all of whom are students of St. Bartholomew's Hospital. To have secured three out of four of the highest places, all qualifying for the gold medal, is a result which reflects great credit upon the teachers of obstetrics at St. Bartholomew's.

THE EPILEPTIC COLONY.

We have received an appeal signed by the Lord-Chancellor, the Duke of Westminster, Sir J. Crichton-Browne, Canon Duckworth, and Mr. E. Montefiore Micholls, asking for public support for the National Society for the Employment of Epileptics. Thanks to the generosity of Mr. Passmore Edwards the Society has been enabled to purchase a farm for the proposed industrial colony, comprising 135 acres, situated on high ground at Chalfont St. Peter's, Bucks. Funds are in hand to provide for about a score of patients, but as every medical man knows well, persons in a position to take advantage of such a colony are to be numbered by hundreds. We have already fully described the objects and aims of the Society, and these are of themselves sufficient to commend the scheme to the sympathy and cordial co-operation of the medical profession. The Secretary is Mr. G. Penn Gaskell, 20, Hanover Square, W.

NOTIFICATION AND VERIFICATION.

The Exmouth Local Board have been foolish enough to pass a resolution calling upon their medical officer of health when cases of infections are notified to him to examine the patients in order to verify the diagnosis. It is to be hoped that the medical officer of health will adhere to his refusal expressed in advance, and will do nothing of the kind. The Local Government Board have clearly stated that it is no part of his official duty to visit such cases, save under very exceptional conditions. One member of the board very properly pointed out some of the obvious ethical objections to such a course, but failed to convince his colleagues, upon whom now rests the responsibility of finding their way as best they can out of the untenable position in which they have placed themselves.

PATENT AND QUACK MEDICINES.

The seventh lecture of the present session of the Edinburgh Health Society was given on Saturday evening, December 16th, by Dr. Joseph Tillie, Senior Assistant to the Professor of Materia Medica in the University of Edinburgh. The subject was Patent and Quack Medicines. Dr. Tillie held that those who formulated false and misleading advertisements regarding quack remedies should be sharply handled by those who were responsible for the administration of the law. He referred to the enormous discrepancy between the cost of production and retail price of such medicines; he stated forcibly that the Government stamp was not a guarantee of safety, though it ought to be. The great bulk of quack remedies were really the work of commercial adventurers.

SIR ANDREW CLARK'S WILL.

The will and codicil of the late Sir Andrew Clark, M.D., who died on November 6th, leaving net personal estate in the United Kingdom valued at £203,969, have been proved by the executors—the Rev. J. P. Kane, of Bury Lodge, Gosport; Mr. Thomas Barlow, M.D., 10, Wimpole Street, W.; and Mr. David Paulin, of Edinburgh, manager of the Scottish Life Assurance Company, the last of whom is to be acting executor. The testator bequeaths £500 to the London Hospital

Medical College for the foundation of a scholarship, to each of his trustees the sum of £100, and to each servant who has been in his service five years anterior to his death a year's wages. He leaves to his wife the whole household furniture, books, pictures, plate, and effects in both his houses, and the whole stock of every kind on the Home Farm at Camfield. The trustees are directed to invest and hold £20,000 for her benefit during her lifetime, and to allow her to use and occupy the mansion house, and to enjoy the rents and profits of the estate of Camfield during her life. At her death the said estate is given to his second son, Andrew Gladstone Clark. The trustees are directed to appropriate the sum of £80,000 as an endowment for the baronetcy, and to hold the residue of the estate upon trusts for the benefit of the testator's children other than the son who shall succeed to the baronetcy.

HALF TIMERS AND INFECTIOUS DISEASE.

The regulations which permit children who are still of school age to work "half time" in factories if they succeed in passing a certain standard of examination in the board schools are radically wrong. Since the State has decided that education shall be not only compulsory but free there is no longer any excuse for the continuance of the system. The pittance which the children earn may be set against the school fees which have been remitted. The evils of the present system are manifold. We have received from a correspondent in a Lancashire manufacturing town a letter which tells a story typical of a condition of things which recurs frequently in almost every part of the country but with special severity in Lancashire. In the town in which he practises cases of scarlet fever and measles began to be numerous when the visit of the Education Department Inspector was close at hand. The teachers whipped in every available scholar, "children just recovered from the acute stage of measles and scarlet fever have gone to school and passed and gone home to bed again." The parents have aided and abetted willingly because they know that until the children hold the necessary school certificate they cannot go to work as "half timers." There are other evils attached to the system, but this alone is sufficient to condemn it.

RETIREMENT OF MR. JOHN D. CLEATON.

The retirement of Mr. John D. Cleaton from the office of Commissioner in Lunacy, which he has held with so much efficiency for upwards of twenty-seven years, is a severe loss to the public service. Appointed by Lord Chancellor Cranworth in 1866, after ample experience in lunacy as superintendent successively of the large asylums at Rainhill and Wakefield, he rapidly secured the respect and confidence of those amongst whom his new duties called him to labour by the judicious and thorough manner in which he discharged those duties, and by the fulness of his knowledge and the breadth and the maturity of his views. We feel sure that his resignation of the office which he has filled with distinction for so many years will be the cause of widespread regret among those who are practising in lunacy, and that their best wishes will accompany him into the retirement which he has so well earned.

THE JENNER COLLECTION.

In the British Medical Journal for September 9th, 1893, a notice was given of the collection of Jenner relics exhibited by the owner, Mr. Frederick Mockler, at the Bristol Industrial and Fine Art Exhibition. In addition to the articles exhibited, Mr. Mockler has many other interesting relics of Jenner, including the chair in which he died; a medicine chest, a ring worn by Jenner in memory of his wife, etc., etc. Mr. Mockler is naturally anxious that so interesting and complete a collection should not be dispersed, and would like to see it deposited in some institution where it would be preserved and properly cared for. A subscription list is to be opened for the purpose of purchasing the whole collection; should this be successful, it is proposed to offer the collection to the Royal College of Surgeons of England. If the collection is sold, it is the intention of the present owner to apply part of the price to the assistance of those members of the Jenner family who at present are in needy circumstances. Mr. Mockler, of Wotton-under-Edge, will be pleased to give any further particulars as to the sale of the collection.

PREVENTION OF EXCESSIVE INFANT MORTALITY.

The paper on the perils and protection of infant life by Dr. Hugh R. Jones, of Liverpool, which had gained the Howard Medal, was read before the Royal Statistical Society on December 19th. The chief causes of excessive infant mortality were shown to be (1) congenital conditions; (2) insanitary conditions, which conduced to excessive mortality from zymotic and lung diseases; (3) neglect due to poverty, ignorance, or industrial employment of women; and (4) wilful neglect and crime. Death from suffocation in bed bore a definite relation to intemperance, since 28 per cent. of such cases occurred on Saturday night, on which night 35 per cent. of apprehensions for drunkenness took place. The author failed to find evidence connecting child insurance with wilful neglect in any large number of cases. For prevention of the excessive mortality reliance must be placed chiefly on an improvement in general education and an increased sense of parental responsibility. Children should be taught domestic management in school. The employment of trained rural health commissioners who went from house to house and taught as in Buckinghamshire was to be commended highly. Greater restriction should be placed on the sale of opiates, residence in the healthier suburbs should be encouraged by improved train services and low fares, and particular attention should be given to the proper feeding of infants.

A CRUEL TECHNICALITY.

Some time since Dr. Kelly, of the Enniscorthy Union, was called to attend a severe case of true anthrax, of which there had already been some examples in that district. He did not wait for the usual "red ticket;" the case was so urgent that he asked for a consultation, and Dr. Furlong saw the man with Dr. Kelly as many as twenty-seven times. For that work Dr. Furlong naturally sought recompense; but the Local Government Board reply that, as there was no medical relief ticket, the guardians cannot pay the claim. This is a cruel technicality, and we hope some means will be found to overcome it. If Dr. Kelly had stood on his technical rights he would have refused to go without a ticket, and he would certainly have been censured by a coroner's jury, if the functions of that body had been necessary. But because Dr. Kelly acted on a humane impulse Dr. Furlong is punished by being obliged to help in this most dangerous illness without receiving a penny. The law, we assume, is clear, but the whole story is a fresh example of the way in which medical men are so frequently victimised.

THE COMPULSORY SECLUSION OF INEBRIATES.

At a joint meeting of the British Medical Association Inebriates Legislation Committee, the Society for the Study of Inebriety, and the Homes for Inebriates Association held in the rooms of the British Medical Association, 429, Strand, on December 20th, Dr. Norman Kerr in the chair, resolutions were agreed to, thanking the Home Secretary for his promise to bring in a Bill on the lines suggested by the Departmental Committee on Inebriates, endorsing every possible safeguard against the abuse of the power to seclude the inebriate, accepting the definition of "habitual drunkard" given in the Act of 1879, suggesting the conversion of disused prisons or workhouses for criminal inebriates, recommending a procedure in seclusion of inebriates

similar to existing procedure with lunatics, but under a separate board of commissioners in inebriety, and in retreats apart from lunatics, calling for official inspection of all homes for inebriates, forbidding anyone to carry on such a home without a licence, and promising the support of professional and public opinion to the Home Secretary's Bill.

THE APPEAL TO THE CLERGY ON LEGISLATION FOR INEBRIATES.

IT was mentioned last week that the appeal to the clergy of the Chairman of our Inebriates Legislation Committee had met with a remarkable response. We note that the London Executive of the Church of England Temperance Society has resolved to petition Parliament, and that the Branches are being circularised to this effect. The Chairman of the Association Committee has also received a letter from the Rev. J. Hirst, Diocesan Organising Secretary, stating that the Liverpool Diocesan Executive has adopted a petition in favour of compulsion, which is being signed by magistrates, clergy, and others, at the request of the Church of England Temperance Society police-court missionaries, who visit seventeen courts. Several bishops have signified their hearty response to the appeal.

LACQUER MEDICINE BOXES AND DOCTORS' SWORDS.

AN address will be delivered this (Friday) evening, at 8.30 P.M., at the rooms of the Royal Medical and Chirurgical Society, before the Japan Society, by Mr. Ernest Hart, on "Masters and Periods of Japanese Lacquer." The collection shown, which numbers many hundreds of selected specimens of ancient lacquer work of Japan, will remain on view at the Society's rooms on Saturday, December 23rd, and Wednesday and Thursday, 27th and 28th, from 11 A.M. till dusk. It will include a considerable number of old lacquer medicine boxes (inros) as worn in the seventeenth and eighteenth centuries, a series of specimens of the special kind of swords worn by doctors in Japan, as insignia of their professional rank; and a few illustrated books of medical interest, including an illustrated report of an epidemic of cholera in Japan in 1848, with some cinerary urns from the crematorium at Tokio, brought from Japan by Mr. Hart, together with some netsukis or toggles carved in wood of miniature skulls and similar subjects, one of them being sculptured by the professor of anatomy in Osaka, a gift from its author. The exhibition will be opened to all members of the Royal Medical and Chirurgical Society.

THE GENERAL MEDICAL COUNCIL AND "COVERING."

IN an article on the last session of the General Medical Council, published in the BRITISH MEDICAL JOURNAL of December 9th, it was observed that of the three charges of covering one promoted by the Medical Defence Union broke down owing to the unexpected absence of an important witness. It was added that in this instance an obvious prejudice was caused by the course taken by the prosecution. In the same paragraph mention was made of the zeal and ability with which the officers of the Union work up their cases, and we may now add that the prosecution in this case was undoubtedly under great difficulties. The counsel for the defendant did not call his witnesses, the Council declined to allow them to be questioned through the President unless called by one side or the other, and the prosecution consequently decided to call them. They were treated as hostile witnesses, and to this fact no doubt is to be attributed the impression, which undoubtedly existed, that they were somewhat severely handled. As to the necessity for the course pursued there may be some difference of opinion. As it turned out it did not succeed, and we believe the prosecution would have been better advised to have obtained leave to postpone the investigation, or even to have withdrawn it, when the chief witnesses failed to appear. We have received a communication with regard to one of the other cases mentioned in the same article, but we believe the facts proved were substantially as stated in that article. The President announced in open Council, that in the opinion of the Council the accused "had committed the offence charged against him," but as the sworn evidence testified only to a period of a fortnight during which the "covering" actually went on, and as the accused was young and inexperienced, he was, as stated in the article, dismissed with a caution. It is one of the drawbacks under which the Council conducts its business that it has no power to inflict a less punishment than erasure from the *Register*. This case illustrates well the need for some alternative form of punishment. The case was quite properly brought to the notice of the Council, and there was no imputation of vindictiveness on the part of the prosecutors or informants, but it was doubtless felt that erasure of the name would have been a very severe punishment, and justice inclined to mercy. The warning, however, is not likely to be thrown away.

TYPHOID FEVER IN DUBLIN.

GENERAL interest was aroused when it was announced that the Public Health Committee would lay before the Dublin Corporation on December 18th its report on the health of the city, with suggestions for remedy. But the Corporation had its time occupied by other matters, and accordingly the subject has been postponed until the new year. This delay in investigating the cause of the typhoid epidemic has caused surprise and indignation. In most other municipalities a special meeting would have been long since held to consider the best means of dealing with a disgraceful state of things, but they appear to manage things differently in Dublin. Meanwhile, interviews with various medical and engineering authorities are being published in the daily journals. One of the latest opinions given is that of the Registrar-General, Dr. Grimshaw, who recalls the fact that so long ago as 1871 a war was raging in the Dublin papers and in the BRITISH MEDICAL JOURNAL on the health of Dublin, and in this he took a prominent part. It did a great deal of good. Since then the sanitary condition had largely improved, but a great deal of fever still existed, and the condition for its production and spread are rife. Unless the Corporation was strengthened by an authoritative public voice, it was scarcely possible for it to carry out the comprehensive and radical measures that are necessary. There has been a larger number of deaths this year than in any former year. Dr. Grimshaw said a main drainage scheme was necessary. It would be inefficient, however, so long as the subsoil was saturated with water, and that in turn polluted with sewage. The house drains and street sewers very badly needed attention. Some of the tenement houses were so bad that they ought to be swept away altogether. He also held that the Corporation ought to prevent the occupation of any house until perfectly satisfied as to its sanitary condition.

ANTIVIVISECTION IN NOTTINGHAM.

WE had occasion in the BRITISH MEDICAL JOURNAL of December 9th to comment severely on an antivivisectionist address recently delivered in Nottingham by the Bishop of Southwell, in which that prelate made a most unworthy attack not only on physiologists, but on "the profession" of "English doctors," to use his own words. As might be expected such an address has given birth to a series of misstatements in the Nottingham press. Among others our attention has been drawn to a statement purporting to be an account of the action taken by the British Medical Association on July 29th, 1892, when the following resolution was unanimously passed: "That this general meeting of the British Medical Association records its opinion that the results of experiments on living animals have been of inestimable service to man and to the lower animals and that the continuance and extension of such investigations is es-

sential to the progress of knowledge, the relief of suffering, and the saving of life." The important general meeting at which this was passed is described in one communication as a "few gentlemen" only "chance visitors," and in another as a few "festive medicos snatching time between conviviality and sight seeing," while the fact of the resolution being passed unanimously is explained away by the allegation that the "motion was brought forward without the usual notice." As our readers are well aware the resolution in question was advertised beforehand in the Daily Journal according to custom, and it was moved in a large general meeting of the Association (*vide Nottingham Daily Guardian*, July 30th, 1892) attended not only by the general body of members but also by the members of the Council who represent each Branch of the Association. The Bishop's example of lack of truth and candour has evidently not been thrown away on his followers. We can only repeat our regret that a high dignitary of the Church should serve not only as a promoter, but also as an instigator, of tactics so disingenuous as to require to be bolstered up by mis-statements and distortions of well-known and easily verified facts.

ABERDEEN MEDICO-CHIRURGICAL SOCIETY.

At the meeting of the Aberdeen Medico-Chirurgical Society on December 7th, Professor Stephenson, Vice-President, took the chair, and Dr. Robert J. Garden detailed a case of impacted calculus in the bladder of a female child, which he had removed. Dr. John Gordon showed a case of syphilitic psoriasis. During a course of six weeks of 20 minims of the fluid extract of thyroid (Brady and Martin's) a marked improvement had rapidly taken place, the psoriasis being then cured. Dr. Gordon also related a case of aneurysm of the aorta, in which death had resulted two hours after the beginning of hæmorrhage into the pericardium. A motion "That the Aberdeen Medico-Chirurgical Society meet conjointly with the Aberdeen, Banff, and Kincardine Branch of the British Medical Association, and that this Society adapt the time and place of its meeting to suit these conjoint meetings," was lost.

THE DIAGNOSIS OF CHOLERA.

During the recent epidemic of cholera advantage was taken, both in this country and abroad, of the assistance which may be rendered by bacteriology in the early diagnosis of isolated cases suspected to be cholera. In many instances the bacteriological report was emphatic and "positive," in others "negative," but in others again it was stated that the results were "indistinguishable from true cholera." As to the precise meaning of the last phrase there was room for some doubt, and we are therefore glad to find in the current number of the *Practitioner* a statement embodying "the views which are held both at Whitehall and by Dr. Klein on the subject in question." It is recognised that Koch's vibrio, possessing definite morphological characters and responding uniformly to particular cultural and clinical tests, is not found in relation with the human subject except in the bowel contents and bowel discharges of persons the subjects of Asiatic cholera. Hence it affords a means of obtaining positive evidence of the presence of true cholera in a locality. When by microscopical examination and the application of proper methods of artificial cultivation—those, namely, described by Koch in the *Zeitschrift für Hygiene*, Bd. xix, Hft. 2, S. 319, and given in an extract from that periodical in the British Medical Journal, June 17th, 1893, p. 1277—it has been ascertained that if the cholera vibrio is present the bacteriologist has no alternative, in the actual state of our knowledge, but to regard the case from which it was derived (whatever the antecedents and clinical history) as true cholera. Should there be an absence of evidence locally as to relation, direct or indirect, of the patient with antecedent cholera, or should the symptoms exhibited by the patient have seemed to warrant a different diagnosis, it has become customary in this country to refer to the case as one "not distinguishable," bacteriologically, from true cholera. Such cases however are, so far as measures of prevention are concerned, invariably dealt with here as if they were true cholera. On the other hand, cases have been met with at times when, and in places where, true cholera was rife, which presented, clinically and pathologically, all the characters of Asiatic cholera, but which, when examined bacteriologically, fail to afford any evidence of the presence of Koch's vibrio. Those responsible for the administration of the Public Health Department have thus been confronted during the past autumn by this double difficulty, that the *positive* evidence afforded by bacteriology sometimes appeared to be in conflict with the clinical and epidemiological facts, and that conversely the *negative* evidence it afforded was not always consonant with these facts. Practically the assistance in distinguishing with certainty between true Asiatic cholera and rapidly fatal attacks of English cholera (cholera nostras) which it was hoped that bacteriological examination would afford, has not been afforded. It was under these circumstances that the President of the Local Government Board, acting on the advice of the Medical Department, arranged for the investigation into the relation, if any, between English and Asiatic cholera, which is now in progress.

THE ISOLATION OF FEVER IN LONDON.

At the last meeting of the Metropolitan Asylums Board on December 9th two important communications from Mr. Duncombe Mann, the clerk of the Board, were taken into consideration. In one of these he drew attention to the urgent necessity for an increase in the number of beds for fever cases, and to the fact that temporary structures, such as those erected at Tottenham and Tooting, were both expensive and unsatisfactory. He thought that if the Board acted at once, and instructed a competent architect to get out plans and specifications, to be submitted at their first meeting after Christmas, it would be possible, by subdividing the work, to erect on their Shooter's Hill site a hospital which would be ready for occupation by midsummer next, and which would still be a thoroughly sound, substantial, and permanent building, put up without any extra charges for overtime or expedition. After some discussion the Board ordered the plans to be prepared for approval. The other memorandum had to do with the inquiry as to the number of cases of scarlet fever which had had to be refused admission to the managers' hospitals during the last few months in consequence of the hospitals being full. No precise answer was, he said, possible, because, so far as the applications came through the sanitary authorities, it had become the custom for them, knowing the strain, only to apply for their more urgent cases; and thus, in a very large number of instances, applications which would have been made under ordinary circumstances were not made. During the time, however, when they had room, 55 per cent. of all notifications were taken in, and if the same proportion of the notifications in recent months were compared with the actual admissions during the same period, it would be seen that there was a balance of 5,679 cases, which might be said to represent the number of patients for whom the Board had been unable to provide. He himself had little doubt that, if there had been room, at this moment there would have been not fewer than 6,000 scarlet fever patients in hospital.

THE GENTLE ART OF BEAUTY!

It is not difficult to collect a crowd in London, especially if one is not too particular about the people it is made of. An advertisement of a free concert, with "the best military band in London," was sure to fill the Lyric Theatre, even without the added attraction of the sight of a notoriety and a present of soap. We need not, then, be surprised that Mrs. Anna Ruppert got an audience on December 14th when she lectured on the Gentle Art of Beauty. There

are always plenty of people on the watch for anything out of the way, and there certainly was something odd and piquant in the appearance of a quack so notorious, and so well known to have been fined for law-breaking, supported by the band of Her Majesty's Guards (by permission of the colonel commanding), while she descanted on the virtues of her nostrums. What the audience thought of the lecture was not very clear, but from the fervour with which they applauded the somewhat tepid vocal music which was interspersed they seemed thankful for a change. They probably did not enjoy it half as much as we did, for those who did not recognise the impudence of the whole performance missed half the fun. It was, indeed, refreshing to hear the fact of being fined £5 and costs for selling her poisonous compounds explained away as the result of a mere technical breach of law, and to find the aspersions contained in the published analysis, according to which the active ingredient in her half-guinea bottle was a deadly poison costing about a halfpenny, brushed aside with the lightest touch, for were not all drugs poisonous if taken in sufficient quantity, and did not this very analysis show that in each bottle, out of half-a-guinea's worth of stuff, there was only half a penny's worth that was poisonous, and did not the very professor who made the analysis state in his certificate that it was an old and well-known remedy for freckles? What more could man desire? And to the audience all seemed highly satisfactory. Among other things which appeared to have given the lecturer much support and comfort, amid her many troubles, was the fact that the persecution to which she had been subjected had not come from the medical profession! Indeed, she rather posed as a brother chip, saying how kindly she had been received by the medical men of London; and, while thanking them all for the help they had afforded her, expressed especial gratitude to our bright and dear friend, now, alas! lost to us, the late Sir Andrew Clark. Can impudence go further? And yet the audience did not seem to see. Among the curious studies in psychology, criminal and other, afforded by the inhabitants of this great city, that of quacks and their victims occupies no small place.

DEATHS IN PRISON.

FROM the chorus of excited voices which rises amongst certain sections of the community whenever a case of sudden death occurs in a prison, one would almost imagine that a too credulous public had deluded itself into a fond idea that a human being has only to become feloniously disposed, and to don the uniform of the convict, in order to gain an immediate immunity from all possibility of sudden death. It is in vain that the Latin poet sang to us how impartial Pale Death was in his time, and with how little distinction that spectral visitor tapped at the doors of the king in his palace and of the beggar in his hovel; we are disposed to place the modern convict prison nearer the level of the former than the latter of these two abodes. It would appear, however, that the poor convict alone in modern times is to be exempt from the privilege of a painless dissolution. His departure, it would seem, must invariably be brought about after a lingering and tedious period of illness; to him no silent and gentle breathing away of life is to be permitted; the painless quietus is not for such as him; and if it happens, as recently we read in a west country contemporary, that apoplexy is responsible for the sudden death of a convict, so alarmed is the small public mind around, that discredit is to be cast upon the prison doctor, and his evidence upon oath is to be impugned, as impugned it assuredly is, when the British jury expresses its opinion, as was done in this case, that "in future in all cases of sudden death an *outside* medical man should be called in to *confirm* the medical evidence." (The italics are ours.) Whilst it is quite proper that the coroner himself should have, as he actually has, the power to call independent scientific aid if he himself deems it desirable for the elucidation of any case of death, sudden or *otherwise*, it is offering a direct insult to an honourable profession for a jury to suggest that *every* case of sudden death should be the subject of an outside medical examination. We cannot call to mind any instance in any other walk of life where so unwarrantable an insult has been suggested to public servants of trust and standing. The convict prison, in its very nature, must be surrounded by high walls, and high walls must to some extent cast a shadow and to some extent prevent the public from peering into and interfering with the daily routine inside; and so difficult and delicate must be the duties of guarding and caring for the weeds of our modern civilisation, that trust must play a part in the public mind when that public is in the enjoyment of the comparative safety procured for them by the severely taxed officials whose lives are spent in constant intercourse with this scum of humanity. Of inspectorial influences there are plenty to guard the convicts' proper interests. Amongst these influences not the least powerful is the supervision which is largely exercised by those outside and unbiassed inspectors, the honorary visiting justices, who it is certain are anything but over-indulgent towards officials in their views of what is due to the convict from his keepers. But seeing that the doctors are actually endowed by Government with special powers for the express purpose of easing the lot of the weakly, and of guarding the shaken spirits of those who find that lot most trying; and knowing as we do how watchfully and conscientiously that power is exercised, we feel that it is to these workers we must chiefly look for that merciful tenderness to convicts whose state calls for special consideration. The way to ensure the best work at the hands of these officials is to trust and respect them, and not to allow them to feel that their employer—the public—views them with suspicion, and is ready to offer them gratuitous insult.

CHOLERA AND THE POWERS.

A RUMOUR, stated to be of semi-official origin, has been current in Paris during the week to the effect that an international conference would assemble there at the end of January to study the means available for the prevention of cholera. The advices, however, which we have received from that quarter are to the effect that the proposed conference is hardly of such importance as to warrant us in applying to it the term international, and that it really has relation to a matter of detail, between England, France, and Egypt, as to the interpretation of some of the provisions of the Venice Convention. Possibly the confusion may have arisen from the fact that, at the Dresden Conference, France promised to call the Powers together again on the question of the Mecca pilgrims. This would, of course, be a large international affair, but we believe that there is no likelihood at present of such a conference being called together in the immediate future, and that the meeting now alluded to has reference to a less important matter.

THE CHAIR OF MIDWIFERY AT GLASGOW.

A GLASGOW correspondent writes that much comment is caused by the delay in filling the Professorship of Midwifery vacant in succession to Dr. Leishman. It was at one time understood that the appointment of Dr. Murdoch Brown was almost a certainty, but some hitch has occurred in the appointment, and it is now rumoured that Dr. Berry Hart, of Edinburgh, is the favourite candidate. Nothing, however, has, it is believed, yet been definitely settled, although the appointment was expected to be made some time since.

THE Prefect of the Seine has issued an order forbidding the admission of margarine, oleomargarine, and generally any substance used to replace butter into the Paris Halles. The sale of mixtures of margarine, fat, oil, or other substances with butter, in any proportions, is also forbidden.

ANALYSIS AND REPORT
ON
ORIGINAL DOCUMENTARY EVIDENCE CONCERNING THE USE OF OPIUM IN INDIA.

IV.

Mode of Use.—Quantities Taken.—The Price of the Drug.

We come now to the important question, How is opium taken by the people of India? Keeping in mind the fact that the opium question first originated in China, we may take this opportunity of calling attention to a great difference between the use of opium in China and that in India, namely, that, whereas opium in China is generally smoked, in India those who use it are mostly opium eaters; some are opium drinkers, and only the smallest number are opium smokers. Opium smoking is considered by many of our correspondents as the most injurious way of using the drug. The people in India have contrived to make different preparations of opium, just as we take alcohol and nicotine under a great diversity of forms and names. The most simple manner of taking it is in pills.

Surgeon-Lieutenant-Colonel Lawrie writes from Hyderabad: "Opium eaters begin by taking a quarter or half a grain, and when they get used to it they slowly increase the dose till they arrive at the average, which they seldom exceed. A small number of people take the average dose (2 to 4 grains) three times a day, and a still smaller number take it whenever they think of it or feel inclined. The latter class are, to some extent, objects of ridicule, and go by the Hindustani name of 'Yadaphim' (*yad*, memory, and *aphim*, opium). The ordinary mode of taking opium is either alone in the form of a pill, or made into a pill with sweet almonds, or in the form of *mudduck* (madak) or of *chundoo* (chandú). Lastly, a few smoke it."

Mudduck is explained by Dr. Lawrie to be "opium mixed with the charcoal of the trunk of pulse," *chundoo* as a "liquid extract of opium."

Dr. Templewright, civil surgeon, Shahjahanpur, in the North West Provinces, where opium eating is not very common, writes: "Almost all natives, male and female, smoke tobacco, except the Sikhs, who take a religious vow against it, but only a few people smoke opium, and then it is used only as a sort of curiosity, as a man in England might take chartreuse, while another might prefer an occasional 'nip' of brandy, neat. When opium is smoked, it is used in one of two forms, that is, mudduk, like dry extract of opium, and chundoo, like liquid extract. A very small quantity at a time is smoked, about 2 grains—the dry opium with red-hot charcoal in the pipe, as for tobacco, the liquid extract with a flame."

"The mudduk sold in the mudduk and chandu shops of the bazaars, is" according to Dr. J. Stevenson, of Fategarh, "the watery extract of opium flavoured with spice bark, and is also drunk as an aphrodisiac by dissolute men. Crude opium is also sold in the bazaar at 18 rupees a *seer* (2 lbs.), and it is taken as a pill. The ordinary native buys '*Tickri*' which is opium made from the scraping of the chattús (earthen vessels), in which the cultivators bring in the opium" to the local opium store. "The empty vessel is broken, the fragments boiled, and the liquor on evaporation gives 'Tickri.' One piceworth (about a farthing English), will last a man four days, so that it is really the poor man's luxury. Chandú is drunk in the shop, as whisky might be, and a sweet eaten after it."

In most cases, however, opium is taken in the form of pills. Some rub it up with a little water in the hand, and then swallow it. In Kashmir and elsewhere, instead of opium, the inhabitants often have an infusion of the poppy capsules.

Another way of preparing mudduk is described by a correspondent from the central provinces, already named above. "Opium smoking is also very common in the form of 'madak,' that is, the leaves of the babul tree (an acacia) dried and steeped in the juice of opium, which is separated rom the solid part by heating in a saucer over the fire. This madak is rolled in balls and smoked. In this way intoxication can be obtained quicker than by eating the drug itself. I believe this practice ruins the smoker physically and morally. It is, I believe, practically never the case that a madak smoker leaves off the habit, and it is seldom, though occasionally one finds it so, that the smoker smokes in moderation. The practice is held in great reprobation; no person with any particle of self-respect will admit that he smokes madak, though he will freely admit that he takes opium." The same correspondent expresses an entirely different opinion when he comes to speak of the eating of opium.

A correspondent from Behar, in Bengal, says that the inhabitants generally smoke the opium. "In my experience opium is used by the people of Behar—the chief centre of opium in the world—so temperately that their physical and moral condition is not affected by it, except in so far as it operates as a medicine to keep off fever." We see that opinions even on smoking are not wholly unfavourable.

A correspondent from Nimar, West of Central Provinces, says: "People who can afford milk generally take the opium in it, and it is often taken plain."

As to the dose taken, Dr. Thomson, of Deesa, North Guzerat, in Bombay Presidency, says: "I intimately know several men who have used opium constantly, 20 to 80 grains daily, and they present no appearances of disease on careful personal examination and inquiry."

Surgeon-Lieutenant-Colonel Gordon Price, of Burdwán, Bengal, writes: "The daily amount taken varies from 5 to 10 grains. In very exceptional cases as much as 50 grains to 80 grains may be consumed daily. It is usually taken as a pill, once or twice daily. I have not come across any who smoke it."

Different correspondents give different estimates, but quantities up to 1 drachm taken daily are not to be called excessive.

From Eastern Bengal we have received from a gentleman in a position of authority the following statements as to the amount of consumption in some districts: "In the Sylhet district opium is used very slightly—$\frac{1}{10}$ oz. per head per year, or 3 maunds per month, to two millions of inhabitants. In Assam, a greater opium-using district, on the contrary, the consumption is 1½ to 2 oz. per head per year." Only the richer classes, leading a sedentary life and eager for all possible pleasures, are able to indulge in it to their heart's content.

Yet greater interest and importance are attached to the questions, What quantity of opium is used in the whole of India during a year? What percentage of the population is addicted to the use of it? And what is the quantity consumed by each person? On this subject a correspondent of twenty years' experience as magistrate and as judge writes: "It is extremely difficult to estimate with approximate accuracy the number of persons who take opium. Some idea of the extent to which opium is used may be obtained in the manner I am about to suggest, but the existence of smuggling upon a very considerable scale necessarily introduces an element of uncertainty into any calculation. And, again, consumers vary very greatly both as regards regularity and moderation. Moreover, he who swallows opium consumes a much larger quantity—perhaps eight times as much—as he who smokes the drug. These reserves made, it may still be useful to follow the following figures: Excluding the Native States and the Punjab, which supply themselves independently, we have a mean population of 190 millions during the decade 1881-90; and we have an average annual supply during that period (or to speak more accurately, 1880-90) of 4,352 chests provided by the Government factories of India. Each chest contains about 133⅓ lbs. Now if we assume that the numbers of those who swallow and of those who smoke opium be equal, we shall find, I believe, that the Government provision is sufficient for only about 926,400 regular (but not excessive) consumers. For, so far as I can judge, a regular swallower of the drug would not be considered as doing anything scandalous or excessive if he used 1 ounce in 20 days, nor a regular smoker if he used 1 ounce in 160 days. Therefore one swallower and one smoker would, without scandal or excess, account for over 1¼ lb in the year, so that 4,352 chests of 133 lbs. would provide for the number above stated

Of course I do not mean that I estimate the number of opiumists at less than ½ per cent. But, on the other hand, I should decidedly say that it cannot in all possibility exceed, say, 2 per cent. of the population. At any rate, it is certain that no marked increase can have taken place of late years.....For the supply for the decade 1880-90 was, as I have said, only 4,352 chests per annum, that for the previous decade having been 3,967 chests. This is an increase of a little over 11 per cent., and a reference to the Government report will show that the population increased in British India to exactly the same extent, so that there has been no increase of the opium provided for Indian consumption per head of population."

A very important point in connection with the opium question is the price of the drug. Dr. Templewright says the price of opium is usually a rupee per chittack, or, say, a shilling an ounce, if we roughly compare goods prices in India and England, so a man may get a good deal of comfort for 1 rupee, which contains 16 annas, a week's pay for a cooly. It is only owing to the small amount of the drug necssary to make the poor man "feel at peace with all the world" that he is able to procure it at all.

Surgeon-Lieutenant-Colonel Barrow has sent us from Ahmednagar a sample of opium and one children's dose of opium with interesting information. We shall have to mention the latter when speaking later on about the use of opium for children: here we will only state that the whole mass (about 8 grains) costs an anna (2½d) and that a baby gets about 1 annasworth a month.

THERAPEUTIC COMMITTEE OF THE BRITISH MEDICAL ASSOCIATION.

A MEETING of the Therapeutic Committee was held on November 29th, under the presidency of Dr. LEECH, Chairman.

The Report on the inquiry recently conducted by the Committee regarding the importance of the ill-effects occasionally attending the use of the three chief antipyretic and analgesic agents, namely, *Phenazone* (antipyrin), *Acetanilide* (antifebrin), and *Phenacetin*, was considered and adopted. The Secretary pointed out that the report by no means exhausted the subject matter contained in the 220 reports he had received. It dealt solely with the one point to which the Committee deemed it desirable to limit the inquiry in the first instance, namely, the importance of these ill-effects as limiting the usefulness of these drugs. Other subjects of interest connected with the action of the drugs, for example, their therapeutic value in various diseases, the relation of the ill-effects to age, constitution, disease, etc., requiring as they did a different line of investigation, were not touched on in the present report, but would, if opportunity presented, be dealt with in a subsequent report.

The Committee desired to express their thanks to the following observers, from whom reports had been received:

Dr. A. Ackerley, Ashburton
Dr. Axford, Southsea
T. E. Amyot, Diss, Norfolk
Dr. Anderson, Stonehaven
G. E. Alford, Weston-super-Mare
Dr. Adam, Wigan
Dr. J. Barr, Liverpool
F. Barrow, Rothbury
H. R. Bracey, Birmingham
Dr. Blackman, Portsmouth
Dr. W. H. Bansall, Aylsham
Dr. H. Barnett, Church Stretton
Dr. Baildon, Southport
Dr. H. Blake, Great Yarmouth
Dr. A. Beattie, Pitlochry
W. C. Barnish, Wigan
Dr. Batterbury, Wimborne
Dr. Brown, Bacup
Dr. Boswell, Faversham
Dr. Bruce, Dingwall
Dr. E. L. Bowles, Folkestone
Dr. J. A. Ball, Wantage
Dr. Barnes, Eye
Dr. Brook, Lincoln
Dr. G. Birt, Stourbridge
Dr. Barton, Norwich
Dr. H. G. Brooke, Manchester
Dr. Boswell, Ashbourne
W. Berry, Wigan
Dr. W. Carter, Liverpool
A. Curtis, Exmouth
Dr. Carter, Weymouth
T. H. Cheatle, Burford
Dr. Coombs, Castle-Cary, Somerset
Dr. Coley, Newcastle-on-Tyne
Dr. Crossman, Bristol
Dr. Clarke, Bristol
R. Caunter, Banwell
H. Caudwell, Woodstock
R. Crossett, Cookstown
A. J. A. Campbell, Perth
R. C. Chicken, Nottingham
Dr. Cassidi, Derby
Dr. Collier, Oxford
Dr. Clay, Plymouth
Dr. Cromie, Clough
Dr. Carver, Cambridge
Dr. Cumming, Edinburgh
Dr. J. Drummond, South Shields
Dr. Donovan, Birmingham
Dr. Davis, Clevedon
Dr. Denne, Edgbaston
A. J. Drew, Oxford
E. Dean, Reading
Dr. Elliott, Clifton
Dr. Emerson, Wantage
Dr. Eastes, Folkestone
Sir P. Eade, Norwich
Dr. R. M. Fraser, Belfast
Dr. H. Freeborn, Abingdon
Dr. S. C. Fowler, Midlothian
Dr. E. F. Fox, Bristol
J. C. B. Freeborn, Oxford
Dr. Felkin, Edinburgh
W. T. Freeman, Reading
Dr. Gillespie, Edinburgh
G. A. Gloag, Bristol
Dr. Gordon, Aberdeen
Dr. Gulland, Edinburgh
Dr. G. Gibb, Aberdeen
Dr. Hind, Stoke-on-Trent
E. H. Howlett, Hull
Dr. L. Humphry, Cambridge
Dr. E. Harrison, Hull
J. T. Hartill, Willenhall
Dr. Handford, Nottingham
Dr. G. Hunter, Edinburgh
E. P. Hardey, Hull
Dr. H. Harvey, Edinburgh
Dr. Haynes, Leamington Spa
S. A. Hayman, Abingdon
M. Hall-Wright, Birmingham
E. V. Hemingway, Oxford
A. Hamilton, Chester
J. Harper, Barnstaple
Dr. Hall, Sheffield
Dr. Hailes, Clifton
C. J. B. Johnson, Birmingham
Dr. E. Jephson, Durham
G. Jackson, Plymouth
Dr. Jamieson, Edinburgh
Dr. Johnston, Leith
A. Kelsey, Redhill
Dr. Kingsbury, Blackpool
P. Karkeek, Torquay
J. B. Lyth, Rotherham
Dr. Lys, Bournemouth
T. Lettis, Great Yarmouth
Dr. G. Levack, Aberdeen
Dr. Liddell, Errol
F. T. B. Logan, Bristol
Dr. R. H. Lucy, Plymouth
Dr. Lundie, Edinburgh
Dr. Lowe, Burton-on-Trent
Dr. J. W. Martin, Sheffield
Dr. Miller, Dundee
Dr. C. H. Milburn, Hull
Dr. Meredith, Wellington
Dr. J. H. Manley, West Bromwich
J. McOscar, Watlington
P. Martin, Abingdon
Dr. Main, Newbury
A. G. S. Mahomed, Bournemouth
J. Morgan, Langport
Dr. MacAlister, Cambridge
Dr. Manby, East Rudham
Dr. McDowall, Morpeth
Dr. M. D. Macleod, Beverley
J. McC. McCarthy, St. George's, Salop
Dr. Mules, Bowdon
Dr. Mann, Manchester
Dr. Mason, Maidenhead
L. Mackenzie, Tiverton
Dr. Malet, Wolverhampton
F. Morgan, Uffculme, Devon
Dr. G. H. Mackay, Elgin
Dr. Mackay, Elgin
Dr. E. N. Nason, Nuneaton
Dr. Notley, Birmingham
Dr. Newman, Stamford
Dr. J. H. Neale, Leicester
Dr. Oldman, Bletchingley
Dr. O'Kelly, Chipping Norton
H. P. Olivey, Taunton
W. Odell, Torquay
Dr. Pearse, Southsea
Dr. Page, Redditch
Dr. Purdon, Belfast
Dr. H. B. W. Paige, Newcastle
Dr. Pragnell, Falkirk
G. C. Peachey, Wantage
Dr. F. M. Pope, Leicester
R. J. Pye-Smith, Sheffield
Dr. M. Paterson, Grangemouth
J. Peake, Falkirk
Dr. Pinkerton, Southport
Dr. Prowse, Clifton
Dr. Peart, North Shields
Dr. J. W. Russell, Birmingham
Dr. Robertson, Ventnor
Dr. Ritchie, Edinburgh
Dr. J. B. Ronaldson, Haddington
Dr. R. Roxburgh, Weston-super-Mare
Dr. Rabagliati, Bradford
Dr. R. Rannie, Peterculter
A. Reckless, Sheffield
Dr. Ronaldson, Edinburgh
J. R. Rolston, Devonport
Dr. Snow, Bournemouth
W. D. Spanton, Hanley
Dr. R. S. Smith, Clifton
W. Stephenson, Bursley
H. P. Symonds, Oxford
Dr. Squance, Sunderland
Dr. Smart, Liverpool
Dr Sympson, Lincoln
Dr. Solly, Bristol
Dr. M. D. Stark, Oxford
Dr. W. Spence, Dollar
J. E. Square, Plymouth
Dr. W. Stafford, Nottingham
Dr. Stainthorpe, Hexham
Dr. Tillie, Edinburgh
Dr. Thursfield, Leamington
Dr. F Thorne, Leamington
Lawson Tait, Birmingham
J. Taylor, Clifton
Dr. Tyson, Folkestone
Dr. W. E. Tressider, Nottingham
Dr. Thompson, Bournemouth
Dr. Totherick, Wolverhampton
Dr. Taylor, Edinburgh
J. S. Turner, Norwood
Dr. A. R. Turnbull, Cupar
Dr. Uhthoff, Brighton
Dr. Underhill, Greatbridge, Tipton
Dr. T. D. Wilson, Edinburgh
Dr. P. W. Williams, Clifton
Dr. W. S. Whitcombe, Reading
P. H. Watson, Newcastle-on-Tyne
J. G. U. West, Stoke-on-Trent
C. Williams, Norwich
W. E. Wyllys, Great Yarmouth
Dr W. L. Winterbotham, Bridgwater
G. G. Willett, Keynsham
Dr. J. Walters, Reigate
T. L. Webb, Iron Bridge, Salop
P. H. Williams, Windsor
Dr. J. F. L. Whittingdale, Sherborne
Dr. Wyllie, Hull.

WILLIAM HUNTER, *Hon. Sec.*

LITERARY NOTES.

ANOTHER journal has been added to the ever-lengthening list of American medical periodicals. The newcomer is the *Tri-State Medical Journal*, which made its first appearance in public on December 1st. The editor is Dr. J. Moores Ball, of Keokuk, Iowa.

Eleven hundred copies of the proceedings of the Colonial Medical Congress held at Sydney in 1892 have been printed and bound at the Government printing office at a cost to the Government of £608 17s. 2d.

In an address entitled "Then and Now, or the Progress of Surgery during the Present Century," delivered by Professor Henry E. Clark at St. Mungo's College, Glasgow, and published in the *Glasgow Medical Journal* for December, the following passage occurs: "I have in my possession an old English dictionary, the author of which was James Knowles, the father of Sheridan Knowles, the playwright and poet. In that book, on the usual blank page behind the title, is this note: 'N.B.—Look for a new word after the last word in P, and a further explanation in an added page at the end of the preface.' The new word thus indicated is Lithotrip-

tist, and the meaning is 'a professor and operator in the recently discovered art of lithotripsy, which consists in breaking, triturating, and pulverising the stone in the bladder, and removing all the particles of it. The word is here, with thanks to God, a sense of duty to the public, and a deep feeling of gratitude to the Professor Baron Heurteloup associated with his name, he having on Saturday, April 4th, in the presence of several surgeons and physicians, in about five minutes operated upon the author, whose age is 73, without giving him much uneasiness; and by his consummate skill, not only relieved him from a state of suffering, which he had endured for twelve months, but preserved his life, which in all human probability he must have lost under the operation of lithotomy.' This book is dated 1838, and we have thus a definite time from which to date the commencement of the operation for crushing stone."

The *Transactions* of the Seventh Congress of the French Surgical Association, held in Paris in April, 1893, under the presidency of Professor Lannelongue, have just been published by Félix Alcan. The two questions proposed for discussion were Fibrous Tumours of the Uterus and the Surgical Treatment of Tuberculous Affections of the Foot. In one or other of these discussions nearly all the leaders of French surgery took part. Among the names of the foreign visitors present at the Congress we observe those of "M. le Lieutenant-Colonel Stevenson, Professeur à l'Ecole Militaire, etc., Netley," and Sir William Mac Cormac, the latter of whom read a paper on the Treatment of Old Luxations of the Shoulder. The work forms a solid octavo volume of 910 pages, with illustrations.

Dr. Ricardo Botey, of Barcelona, who has for some time been surveying medical mankind "oto-rhino-laryngologically" in the *Revista de Medicina y Cirugia Practicas*, deals this month with the teaching of diseases of the throat, ear, and nose in the United Kingdom. He considers this speciality to be at a somewhat low ebb in this country, particularly as far as teaching is concerned. He points out that only one of our multitudinous licensing bodies, the Royal University in Ireland, requires candidates to give proof of a practical knowledge of the diseases in question. Questions on them are indeed sometimes asked, but this is exceptional and dependent on the whim of the examiner, and ignorance of these subjects does not necessarily constitute a ground for rejection. As showing how absolutely the use of the laryngoscope is regarded as a luxury of scientific equipment even by the best trained of our students, Dr. Botey states that at a recent examination in the University of London, of six candidates who had to examine an obscure case of aortic aneurysm with evident laryngeal complications, only one asked for a laryngoscope, and he had some difficulty in procuring one, and then utterly failed to see the vocal cords. This state of things, says our candid friend, could hardly be otherwise in a place like London, where some of the hospital schools are still without special departments for diseases of the throat, ear, and nose, and where these branches of medicine are relegated to junior members of the general staff, who have sometimes to go to Vienna or (more or less privily) to a special hospital to learn the rudiments of the subject they are appointed to teach.

Professor H. Vierordt has made the fiftieth anniversary of his father-in-law, Dr. Roth's, graduation the occasion for the production of a little work which should be interesting to all lovers and collectors of out-of-the-way information relating to the illnesses and deaths of illustrious or notorious personages, and medical curiosities and "queer stories." The work, which is entitled *Medicinisches aus dem Weltgeschichte*, is written with that all-embracing exhaustiveness characteristic of books "made in Germany," as may be judged from the fact that it begins with an account of Reinhard's curious speculations as to whether or not our first parents were privileged to possess a navel, and comes down to our present "century's end" days. It is published by H. Laupp, of Tübingen.

Messrs. F. Warne and Co. have sent us the first two parts of *The Royal Natural History*, which will be completed in thirty-six monthly parts. The work is edited by Mr. Richard Lydekker, B.A., F.G.S., F.Z.S., joint author with Sir William Flower of *An Introduction to the Study of Mammals*; and Dr. P. L. Sclater, the Secretary of the Zoological Society of London, contributes a preface. The book is not compiled or translated from foreign sources, but the co-operation of the Bibliographic Institutes of Leipzig and Vienna has been secured, in order (as the publishers' prospectus states) that all that is best and newest among the productions of the greatest Natural History publishers of Europe might be available for illustration or quotation. The entire work will contain 72 coloured plates and 1,600 other illustrations. As far as we can judge from the numbers before us, the work can hardly fail to become popular with all sorts and conditions of readers while its cheapness and the convenient mode of publication bring it within the reach of the humblest purse.

The current number of the *Medical Magazine* contains an article on "Sir George Chesney and the Army Medical Service," which should go some way towards removing from the mind of that gallant officer any misconception as to the "combatant" character of the army doctors. Sir George has in the House of Commons and elsewhere gone out of his way to express a lofty disdain for the Army Medical Department, which would be ridiculous if it were not, as coming from a person in his position, disgraceful. Various official sins of commission and omission relative to the Army Medical Department are imputed to Sir George Chesney in his former capacity of Military Member of Council to the Government of India, and he is made vicariously responsible for the bad feeling towards the army doctors displayed by the leading Indian paper, the *Pioneer*, of which his son is editor. Sir George's impertinent remark about a colonel under the new dispensation being found "making a poultice" is brought up against him from the decent obscurity of a back number of *Blackwood*. Colonels might be found doing worse things, but the author of this spiteful little jibe does not, we imagine, need to be informed that the making of poultices is no more the function of a medical officer than the making of privy seats is the duty of an officer of the scientific corps of which Sir George Chesney is an ornament.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1894. ELECTION OF MEMBERS.

Meetings of the Council will be held on January 17th, April 11th, July 11th, and October 24th, 1894. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, December 27th, 1893, March 22nd, June 21st, and October 3rd, 1894.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election. Francis Fowke, *General Secretary*.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

Dublin Branch.—The annual meeting of this Branch will be held on Thursday, February 1st, 1894 (by kind permission of the President and Fellows), in the Hall of the Royal College of Physicians; and, at 7.30 P.M. on the same evening, in the College, the annual dinner.—John Molony, Honorary Secretary, St. Patrick's Hospital, James's Street, Dublin.

SYDNEY AND NEW SOUTH WALES BRANCH.

The 112th meeting of this Branch was held at the Royal Society's Room, Sydney, on November 3rd; Dr. Worrall, President, in the chair. The members present were: Drs. Huxtable, Wm. Chisholm, Fiaschi, Shewen, Clubbe, Lloyd, McKay, O'Neill, Faithful, McSwinney, Craig Dixon, Angel Money, Newmarch, Pockley, Abbot, Lyden, Cohen, G. A. Marshall, Thring, A. Jarvie Hood, McDonagh, M. J. Clune, Wood, Neill, Traill, H. E. Garratt, Paton, Lyon, O'Reilly, Scot Skirving, H. A. Wright, F. A. Bennett, Ellis, Laughorne, Arthur, Roth, Quaife, A. Parker, Lennhoff, Coutie, James Dick, Edwards, Fullerton, Trindall, Clay, Jenkins, and the Hon. Dr. Creed, M.L.C. Drs. Taylor, Leahy, and Richards were present as visitors.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

New Member.—The President announced that the following gentleman had been elected a member of the Branch: Dr. Robert Dick, Randwick.

Proposed Medical Library.—Dr. Huxtable moved: "That the proposed medical library be immediately established." Carried.—Dr. Huxtable gave notice that he would move at the following meeting: "That trustees be appointed to take charge of the library."

Communications.—The Hon. Dr. Creed, M.L.C., read notes of a case of Removal of Nasal Polypi of many years' growth, under anæsthesia produced by hypnotic suggestion; also some notes by Dr. Brady on the same case. The patient was exhibited.

Discussion.—The President, Drs. McSwinney, Arthur, McKay, Newmarch, Creed, and McDonagh continued the discussion on Dr. Thring's paper on Puerperal Fever; and Dr. Thring replied.

Unprofessional Advertising.—Dr. Jenkins moved: "The New South Wales Branch of the British Medical Association is of opinion that it is in the highest degree derogatory to the dignity, and adverse to the interests of the profession, that a medical man should be a party to the appearance of a notice of his life in the public press, or insert any advertisement beyond an announcement of change of address or commencement or resumption of practice."—Dr. Edwards seconded the resolution.—Dr. Ellis moved the adjournment of the discussion until Friday, November 10th.—Carried.—At the adjourned meeting on Friday, November 10th, the resolution was carried.

LANCASHIRE AND CHESHIRE BRANCH.

An intermediate meeting of this Branch was held at Nantwich on December 7th. There were forty members present.

New Members.—The following gentlemen were elected: Dr. C. Clement Lapage (Nantwich) and Dr. A. M. Watkins (Whitchurch).

Visit to Brine Baths.—The members were shown over the establishment by Mr. H. C. Roberts, managing director of the Nantwich Brine Baths and Hotel Company, and afterwards entertained at luncheon by the directors.

Presentation to Dr. Glascott.—Dr. Glascott, of Manchester, was presented with a handsome service of plate in recognition of his services during the past ten years as honorary secretary of the Lancashire and Cheshire Branch of the British Medical Association. The articles comprised a silver waiter, silver tea and coffee service, silver bon-bon dishes, and silver-mounted claret jug.—Dr. Taylor, who presided, in making the presentation, said he was pleased to be the mouthpiece of over 200 members of that Branch of the British Medical Association, who wished to record their appreciation of the services of Dr. Glascott for the past ten years. During that time he had not made a single enemy among the 800 members connected with the Branch, but on the contrary, had made many friends. The attention he had given to the business of the Branch had been continuous, and he might almost say unique, and his sole aim had been to carry out the duties demanded of him in the most praiseworthy and efficient manner possible. As a humble representative of the Lancashire and Cheshire Branch, he (Dr. Taylor) had much pleasure in presenting Dr. Glascott with the service of plate, the centre-piece of which bore the following inscription: "Presented to C. E. Glascott, Esq., M.D., on his retirement from the post of hon. secretary of the Lancashire and Cheshire Branch of the British Medical Association, in grateful recognition by the members of his valuable services from 1883 to 1893."—Dr. Glascott, in accepting the presentation, said it was naturally with mingled feelings and not without emotion that he stood before them, saddened on the one hand by the thought that one great department of life's work was over for him, but cheered on the other by the remembrance of the many friendships he had formed, the many acts of kindness shown to him during his ten years of office, and of the crowning satisfaction that he had in so far found favour in their eyes as to be the recipient of such a splendid and unexpected presentation. Where all had helped so liberally and disinterestedly it was difficult to single out one for special thanks, but he felt that as secretary to the fund Dr. Barr was pre-eminently deserving of the expression of his most heartfelt thanks, for he it was who had borne the brunt of the trouble of organisation and correspondence on his own shoulders.

Communications.—The following communications wese presented:—Mr. W. Mitchell Banks: Two cases of Cranial Injury from Gunpowder Explosion, successfully treated.—Mr. Damer Harrisson: Three Abscesses of the Brain, recurring at intervals of five years and four months respectively, in the same patient, treated successfully.—Mr. Roger Williams: Remarks on some of the Clinical Features of Mammary Cancer, with special reference to the differential diagnosis.—Dr. J. E. Burton: Uterus Bicornis with retained menstrual fluid in right cornu.—Dr. Alexander: (*a*) A Renal Calculus, (*b*) a Unique Ovarian Tumour.—Dr. G. G. Stopford Taylor: Treatment of Lupus by the Thermo-Cautery.

Dinner.—After the meeting the members adjourned to the dining room, where a sumptuous repast was provided. Dr. Taylor was in the chair, and after dinner proposed "The Queen," which was duly honoured.—Dr. Banks proposed "Success to the Lancashire and Cheshire Branch of the British Medical Association," coupled with the name of the secretary, Dr. Barr.—Dr. Barr appropriately responded.—Dr. Shuttleworth proposed "Success and Prosperity to the Nantwich Brine Baths and Hotel Company," which was responded to by Mr. H. C. Roberts.

SPECIAL CORRESPONDENCE.

PARIS.

Cholera in France.—Suspected Anarchists in Hospital.—Physicians' Fees.—Chairs of Clinical Surgery.—Insanitary Condition of Trouville.—Banquet to Dr. Potain.—Tuberculous Children.—General News.

Cholera has broken out in the North of France, in the commune of Izel-les-Equerchen. A miner was taken ill on December 9th, but continued working, and died the next day. A woman who nursed him also died; next the daughter of the latter was taken ill, and died. A friend lent them her bed and bedding; she was taken ill, and died.

Some among those wounded at the Chamber of Deputies when the bomb was thrown are suspected of being Anarchists and connected with Vaillant, the author of the crime. These patients are inmates of the Hôtel Dieu Hospital, and are each watched by a policeman placed at the foot of the bed. This precaution is very inconvenient, both for the hospital service and the other patients. The medical papers suggest that all the suspected patients should be lodged together in a room apart, and guarded by their bodyguard of policemen, who would not have their attention attracted by the work and comings and goings of the hospital ward, and the honest patients would not be incommoded by their presence.

Dr. Dumontpallier, a well-known Paris physician, has sued the husband of a patient to recover his full fees, which amounted to £60; he had received £28, and it was pleaded that there was no more owing. The tribunal decided otherwise, and arrived at the following sensible conclusions: "In the matter of physicians' fees, due attention must be paid not only to the financial position of the patient but also to the celebrity of the physician resulting from his works and

discoveries. Taking into consideration the position of the patient's husband and the important medical position won for himself by Dr. Dumontpallier, the fee demanded is not excessive."

The Surgical Clinical chair at the Hôtel Dieu was founded a hundred years ago all but one year. The Hôtel Dieu was then called l' Hospice de l'Humanité, for surgical cases; the Charité Hospital was l'Hospice de l'Unité, for medical cases; the Medical School, Clinique de Perfectionnement, where rare and complicated cases were treated. At the Convention Nationale, on November 27th, 1794, a decree was issued in the name of the Comités de Salut Publique et de l'Instruction Publique, which created a Clinical chair at each of the above-named hospitals.

The French are waking up to the fact that seaside places, in order to succeed, must be healthy. Trouville has been proved to be singularly faulty in its sanitation. A certain water well a few years ago spread typhoid fever among the summer season holiday makers. Intending visitors will therefore be pleased to learn that a scheme is on foot for the improvement of the sanitation of this popular watering place.

The friends and pupils of Dr. Potain gave a dinner in his honour a few days ago to celebrate his election to the Institut. Evidently on such an occasion praises and compliments were plentiful, but it was also one of the rare occasions on which they are due. Dr. Potain's medical and scientific merit is equalled by his moral worth. He has been known to refuse to leave his hospital patients to answer a summons few others would have neglected. His poor patients not only profit by his skill, but also by his generosity and good-nature.

Fifty tuberculous children are treated every year at the Ormesson Hospital, the work of the *Œuvre de la Tuberculose*. A new pavilion will soon be constructed in connection with the hospital; the first stone was laid a few days ago. The perfect ventilation and aëration of this hospital, which supplies constantly pure air and carries away the vitiated every hour the atmosphere of the wards is renewed. Furthermore patients, without leaving their beds, inhale an atmosphere impregnated with creasote, eucalyptol, and turpentine. Ozone is sent into the wards by another system of mechanism. The little patients while sleeping inhale these microbicide agents.

The Bordeaux Hospital staff have determined to place at the disposal of people in a position to pay a certain number of rooms, where, at a moderate price they will be attended to much better than they could be at home even at much greater expense.

A *Comité de Patronage* for foreign students has been founded at Bordeaux. The committee is composed of professors of different faculties of the Société des Amis de l'Université, which has given to the committee a certain sum to meet immediate calls.

EDINBURGH.

Professor Victor Horsley's Cameron Lecture.—Small-pox at Leith.—The Christmas Recess.—Kitchen Concert at the Royal Infirmary.—A Practical Sheriff.

Professor Victor Horsley, as the holder of the Cameron Prize of the University of Edinburgh, a prize consisting of the annual proceeds of a sum of £2,000, to be given annually "to the practitioner or member of the medical profession who shall be adjudged to have made the most valuable addition to practical therapeutics during the year preceding, and in determining the word 'therapeutics' shall be taken in its wideat sense as including every agent or agency capable of influencing the human body in the maintenance or improvement of health, avoidance or cure of diseases, or the alleviation of suffering," gave a lecture in Edinburgh last week in compliance with one of the conditions attached to the prize. Professor Horsley was introduced to a large and enthusiastic audience by the Dean of the Faculty of Medicine, and he began by giving a description of some of the more recent investigations into the functions of the brain. He indicated the confirmation of these investigations and results from clinical experience. He made some observations on the nature and seat of origin of Jacksonian epileptic seizures, and detailed experiments. At the close of his lecture he took up the subject of the thyroid gland, whose functions he held to be excretory as well as secretory, and he discussed the relation of myxœdema and its cure by thyroid feeding.

From mid-day on December 9th to mid-day on December 16th, 7 new cases of small-pox were reported to the Leith authorities. All were admitted to the hospital. During the same period 3 deaths from this disease were reported. Since the date of this report 12 further cases have been reported, all being removed to one or other of the hospitals where there are now 55 cases, 32 in King Street and 23 in Coalhill Hospital. Since the population of Leith in 1891 was 67,660, this state of affairs is serious and alarming.

The various classes in the University and Extra-Academical Medical School rose for the Christmas recess on Friday, December 22nd, and they will resume on Tuesday, January 9th.

The Annual Kitchen Concert given by the resident physicians and surgeons of the Royal Infirmary to their friends took place on December 20th.

At the Sheriff Court of Dunfermline (Fifeshire) on December 19th a pit inspector at Cowdenbeath in that county was charged with having failed to thoroughly clear a working place in No. 7 pit, Cowdenbeath Colliery, of firedamp, which he discovered, and having failed to prevent a miner from entering. The Sheriff fined him £2, and asked or ordered him to contribute £3 to the funds of the Royal Infirmary, which he undertook to do.

LIVERPOOL.

Pending Retirement of the Medical Officer of Health.

The Health Committee of the Liverpool City Council at a recent meeting unanimously passed the following resolution: "That, whilst acknowledging the past services of Dr. John Stopford Taylor, medical officer of health, the Committee are of opinion that, having regard to Dr. Taylor's advancing years and the increasing duties of his office, it will be in the interests of the Corporation for him to retire from the service, and the Committee recommend that he be required to retire, pursuant to the 64th section of the Liverpool Corporation Act, 1893."

Dr. Taylor's position will be vacated at the expiration of three months from the confirmation by the Council of the above resolution, and he will then become entitled to a superannuation allowance.

Dr. Taylor was appointed deputy medical officer of health in the year 1876, having resigned the office of Alderman and the Chairmanship of the Health Committee, which he held when the post became vacant. Two years later he became medical officer of health and port sanitary authority. The last-named office he vacated last June. It is well known that for some years past the active work of the Health Department has devolved more and more upon the present deputy medical officer, Dr. E. W. Hope, and Dr. Taylor's pending retirement does not come as a suprise.

MANCHESTER.

Joule Memorial.—Owens College Union.

Manchester has long had a magnificent statue of one of her most famous sons, namely, John Dalton. Lord Kelvin has recently unveiled a memorial statue of James Prescott Joule. The statue is placed along with that of Dalton in the Town Hall, and is the work of Mr. Alfred Gilbert, A.R.A. Dr. Joule is represented sitting in a thoughtful attitude, looking upon a small apparatus held in the left hand, for determining the mechanical equivalent of heat. Joule's work began in Manchester, was carried on in Manchester, and was finished in Manchester. His earliest scientific work was done at 19 years of age, when he was one of Dalton's favourite pupils.

We are glad to welcome the first number of the *Owens College Union Magazine*, which contains a large sprinkling of medical and other news relative to Manchester and the district, and we are glad also to see that the medical students are taking quite their full share in the literary work of the journal. On the evening of December 16th the Union held

its annual meeting. The chemical, zoological, and physical laboratories were filled with a numerous company, eager to inspect the many experiments and exhibits which had been provided for them. There was also a physiological exhibit, including some beautiful experiments on ciliary motion, on respiration, and many optical experiments.

SHEFFIELD.

"Branding" of Foreign Milk.—Salaries of Union Medical Officers. —Vacancies and Appointments. — The Students' Club. — Influenza.

THE milk sellers are raising a protest against the selling of foreign milk as if it were native produce. The principle of false marking has been applied to merchandise; and why not, they urge, to milk? This is all very desirable, as foreign milk must be produced under circumstances that defy the scrutiny which our authorities exercise or should exercise over cowsheds and dairies. The way to mark it, however, is a matter of more difficulty, and the account to hand does not show that at the meeting of the milk sellers referred to any suggestion was made on this rather important matter. The dealers further have resolved that samples of milk seized for analysis should also be submitted on their part to an independent authority for testing.

The medical officers of the Sheffield Union are applying for increases in their salaries. They allude in their joint application to the great and constantly increasing amount of work, and they trust that the guardians will be able to see their way to revise the list of salaries and to bring the remuneration more into proportion with the amount of work actually performed. Their request is no doubt a perfectly just one, and it is to be hoped that it will receive favourable consideration from the committee to which it has been referred.

The vacancy at the Public Hospital and Dispensary has been filled by the appointment of Mr. H. Lockwood as Surgeon. Mr. Thorpe, on his retirement from the acting staff, has had his services recognised by being made Consulting Surgeon, and three beds will continue to be placed at his disposal. Mr. Dale James has been the only candidate for the newly created post of medical officer to the skin department at the General Infirmary, and as the day for applications has gone by, it may be presumed that he will be duly elected.

The Students' Club, formed more than two years ago by the amalgamation of the different societies for students which existed at the Medical School, has had a very successful career up to the present. It includes in its fold a debating society, reading room, football and cricket clubs, and is altogether an institution much appreciated by students and cordially supported by the lecturers. The students' dinner, recently promoted by the Club, was attended by more than fifty. Dr. Porter is president for this year.

Influenza, which a short time ago was very rife, has somewhat abated, and medical men are feeling the stress of work less than was the case recently. The outbreak was of a milder type, and showed less tendency to pneumonic complications than in former years.

CORRESPONDENCE.

DIPHTHERIA AND DEFECTIVE DRAINAGE.

SIR,—The influence of defective drainage can only be ascertained by observation; that the poisonous effect of sewer gas is very great I have had an opportunity of seeing in a branch of my own family, where the whole of the inmates of the house were struck down by the mephitic vapours pervading their abode. Although facts can only decide the questions mooted by your correspondents, it may be as well to see clearly what these propositions are. In the first place, it is distinctly stated that diphtheria may arise *de novo* from bad drainage; also that typhoid fever may originate under similar circumstances, seeing that it may be met with in an isolated part of the country many miles distant from any possible contagion. It is also maintained that puerperal fever arises from the same causes; at all events, this opinion is inferred when cases are related purposely to show how defective drainage existed in the habitations of the patients and no mention is made of contagion. I believe most of the gentlemen who hold these opinions also consider that these diseases are contagious, that is, that there is some poison of peculiar character which is generated and capable of being transmitted. It is now generally held that in typhoid and diphtheria living specific organisms are present. Therefore these views must imply also a belief in spontaneous generation. Another theory is that drainage water contains within it various deleterious matters, and amongst others the germs of numerous diseases; therefore we look to it as the source of typhoid, diphtheria, puerperal fever, and perhaps scarlatina, dysentery, cholera, and many other affections. This view is not irrational. Then another theory—the mutability of microbes whereby the more innocent, as the saprophytic, may become under special surroundings most virulent. The varieties of typhoid, diphtheria, puerperal fever, may thus be explained. The subject is not ripe enough for decision, but for my own part, as before said, if I can trace contagion in a very large number of the so-called specific diseases, I consider it more reasonable to assume contagion in the minority than look about for another cause.—I am, etc.,

Grosvenor Street, W., Dec. 17th. SAMUEL WILKS.

SIR,—The discussion which has followed the publication of the letter by Dr. Wilks in the BRITISH MEDICAL JOURNAL of November 11th, and which has occupied so large a portion of your space during the past six weeks, is of so much importance, that you will, I trust, find room for a few more observations on the subject.

Dr. Wilks has stated with judicial fairness the main facts to be taken into account when we are considering the supposed, or presumed, analogy of diphtheria and enteric fever from the etiological point of view. It appears to me that the ground he has taken is practically unassailed by the authorities whose views you have published since. Nevertheless, the impression created would be that, for practical purposes, the pythogenic theory constitutes "a good working hypothesis." As I have already some time ago in the BRITISH MEDICAL JOURNAL given expression to the opposite view, I would ask you to allow me to refer once again to certain aspects of the question which have not been put forward on this occasion, and which seem to me to require attention.

Medical officers of health who have had an intimate knowledge of the varying sanitary circumstances of population during a continuance of years, and who from the special nature of their work are of necessity acquainted with the habits of endemic and epidemic diseases which belong to what is called the preventable class, should be able to contribute much valuable information on the subject now under discussion. It is not their function, be it remembered, to serve the public solely by promoting hygiene, but rather to give advice to authorities and others concerned on questions of sanitary administration often involving large expenditure. Such advice should, of course, be founded on a sound scientific basis. There is no means of ascertaining whether the majority agree with the views expressed so clearly, and with scientific caution, by the present chief of the medical department of the Local Government Board in the Milroy Lectures for 1890, but I know for certain that some of the most experienced would give their unhesitating assent to his provisional conclusions.

It is to be regretted that of late years the teaching to sanitary officers has been too positive in ascribing to hygienic measures, chiefly of a structural kind, a credit beyond their due. Undoubtedly the republication of Sir William Jenner's strongly expressed opinion that the prevalence of diphtheria is in the main independent of hygienic circumstances will have a powerful effect in bringing about a more correct appreciation of the real value of hygiene, and by so doing will in the end promote its cultivation.

At a meeting held in 1879, presided over by Mr. Stansfeld, specially convened to consider the problem of excremental disposal in its sanitary and economic aspects, I described the effect of hygienic measures in reducing the enteric fever, sickness, and death-rate in a very thickly-populated urban district. This was brought about by the abolition of privy middens or vaults. These offensive structures, situated as they were beneath, adjoining, or quite close to dwellings, gave rise to nuisances not less filthy or dangerous than those

described in the British Medical Journal of December 16th as prevailing in a South German town. It was their replacement by dry ash closets, combined with a good system of scavenging, that was followed by a steady fall in the typhoid sickness and death-rate. During the whole of the six years to which my observations related, as medical officer of health and consulting dispensary physician, I saw no reason to suppose that diphtheria was affected either for good or otherwise by these improved sanitary arrangements. It is, I think, a legitimate inference, from what has already taken place in regard of enteric fever prevalence, that in the same town further improvements in the direction of speedy and cleanly removal of excreta and refuse would be followed by a further decline in the sickness and death-rates from that disease. I have no doubt that an extension of the water-carriage system of excreta removal, with its improvements and its adaptations to rough usage in tenement dwellings, would have this effect. But at the same time I find no warrant for assuming, either from my own observations and records or from the complete and admirable official reports published by others since, that a decline in the diphtheria attack-rate or death-rate would be affected by the change from the present "conservancy system" favourably or unfavourably in any marked degree.

During the past ten years I have been officially concerned, consulted, or referred to, in the case of several diphtheria outbreaks or epidemics. These have occurred in districts with good, indifferent, and distinctly bad systems of sanitary administration. I believe that while, as a general rule, average enteric or typhoid death-rates constitute a reliable index of what is termed their sanitary condition, comparison of diphtheria attack-rates or death-rates serves no such purpose.

At schools, hospitals, and other institutions to which attention has been drawn by diphtheria prevalence, I know of instances where the drainage has been altered at considerable expense, first in one way, then in another, and yet again in accordance with the views of different sanitary engineers of high standing; and all this apparently with no effect whatever on the incidence or recurrence of the disease. Indeed, it cannot be denied that some harm may have come from the belief in the all-sufficiency of drainage defects to account for the existence of diphtheria, which must tend to divert attention from precautions against infection.

In conclusion, I should be glad if you would allow me this opportunity of expressing my conviction that in order to cope with diphtheria by the elucidation of its deeper causes, we must be prepared in this country to considerably widen the sphere of preventive medical work both in the direction of "field observation" and "laboratory research." It is also greatly to be desired that the authorities chiefly concerned should utilise existing knowledge as to the peculiarly infectious nature of the disease by providing suitable arrangements for the systematic medical examination of children at schools where diphtheria is prevalent.—I am, etc.,

Clapham Common, Dec. 18th, EDWARD SEATON.

SIR,—I regret that Dr. John F. J. Sykes felt constrained to "take very great exception" to a statement of mine. Would he be surprised to learn that a current of air which may be kept up for from six to eight hours, with a velocity of from 22 to 45 miles an hour, would be unable to lift into the atmosphere a micro-organism from a putrid solution of extract of meat of not more than $\frac{1}{2}$ per cent., or from putrid urine, and that it would also be unable to detach a micro-organism from any such putrid solution that may have been allowed to dry on the walls of a glass vessel or on wire gauze. Dr. Sykes will, I am sure, forgive me for saying that in his letter to you he was merely begging the question.—I am, etc.,

Wimpole Street, W., Dec. 16th. J. B. BERKART.

SIR,—I am glad that my old friend and teacher, Sir George Johnson, has come forward to combat the view that "diphtheria is independent of bad hygienic conditions." In 1863 I joined the late Mr. T. Heckstall Smith—once such a prominent figure in our Association—in his extensive general practice in the neighbourhood of Chislehurst and The Crays; and I acted for more than twenty-five years, either as his registered substitute, or later on my own account, as Poor-law medical officer for a large district of the Bromley Union. Sore throats and diphtheria, often of a fatal laryngeal type, were, as I understood they had been for some years previously, very prevalent in certain parts of the district. There was no system of drainage. Water of very indifferent quality was very generally obtained from surface wells sunk in a porous soil honeycombed with cesspools. Early in the seventies the prevalence of diphtheria and other zymotic diseases in the district attracted the attention of the Local Government Board, who communicated with the rural sanitary authority upon the subject. A report prepared for that authority jointly by Mr. Smith and myself led eventually to the promotion of the West Kent Main Sewerage Bill of 1875, in support of which I gave evidence before the Committee of the House of Lords. The Bill was passed, and a thorough system of drainage was introduced. At the same time the Kent Waterworks Company, at the instance, also, of the rural sanitary authority, extended their mains to the district. Within a very short time diphtheria almost disappeared from the district, and only showed itself sporadically. This may, of course, have been only a coincidence; but this much I may say, that when it did appear in my practice it was rare that I was not able to trace it to some gross sanitary defect.

No one doubts, as Sir G. Johnson says, that diphtheria is infectious; and probably with our improved sanitary conditions it is to infection that its present extensive prevalence throughout the country is largely due; but it was not my experience in days gone by, that diphtheria was as virulently infectious as it appears now to be. This is, however, probably due to the altered conditions of school attendance rather than—though that is possible—to any change of type in the disease. I could give chapter and verse to show that my conclusions are founded on cases that have actually occurred in my practice, and that they are not based merely on general impressions.—I am, etc.,

C. H. ALLFREY, M.D., D.P.H.(Camb.).

St. Leonard's-on-Sea, Nov. 21st.

SIR,—I was asked sometime ago by a lady to see her servant, whom I found to be suffering from a membranous sore throat, and on inquiry I learned that two or three days previously she had spent some time cleaning out a sink which had become obstructed, and from which there was a most offensive smell the whole time. If, as is extensively believed, membranous sore throat is always diphtherial, its independence of bad hygienic conditions could hardly be demonstrated here.—I am, etc.,

Davies Street, Nov. 21st. HENRY G. WHARRY.

THE PREVENTION AND CURE OF AGUE BY OPIUM.

SIR,—Sir Joseph Fayrer tells us that in India the natives believe in the efficiency of the drug, and Sir William Moore makes a much stronger statement when he remarks that, in his own experience, opium consumers have alone remained free from fever when most others have suffered during extraordinary malarious seasons. This latter statement is more precise than most of the general statements to a similar effect, but I venture to remark that even more definite information is desirable. Will any observer in India or other parts of the tropics give us detailed statements in regard to a considerable number of consumers and non-consumers of opium in malarial districts? Can we have a sufficient number of "protocols?" I understand that in the part of India called the Terai, it is almost impossible to escape fever at certain seasons, and that the mortality amongst natives from this disease in that region is very great. I was once consulted for a purely local ailment by a man who had been a police magistrate in the Terai, and who adduced as evidence not only of the strength but of the peculiarity of his constitution, that he was able to live there without being incapacitated by fever. His predecessors had been unable to remain.

If opium is a preventitive of malarial fever, why do these police magistrates and others in—say, the Terai—not take opium? Still more pertinent, it seems to me, is the question, Why do medical men not prescribe opium consumption to Englishmen sent to these regions? If they do not, why do they not?

This evil of malaria is by far the greatest drawback of Indian service. Will any Indian medical authority tell us whether he can recall any cases in which he has recommended opium to an Englishman who had been sent to a specially malarial district, and with what results? Malarial fever is common amongst Englishmen in Calcutta and Bombay and Hong Kong. Will any of the able physicians practising in these Eastern cities tell us whether they ever prescribe opium to their countrymen to prevent or cure malarial fever? If they have done so, will they publish their results, and if they have not done so, will they tell us whether it is because they do not believe in this preventitive and curative action?

Some twenty-two years ago I met, one March afternoon, in Princes Street, Edinburgh, a friend who had recently returned from the East. He looked ill, and told me he had malarial fever every day, and that it yielded to no remedies he had tried. What I want to know from those physicians who have confidence in opium is, Would they have prescribed opium to that man?

I have in my mind as I write the case of another friend. She had suffered from low malarial fever in Southern China for years, and the disease reappeared on the slightest or no provocation long after her return to England. Neither the physicians in China nor London, and many were consulted, ever prescribed a grain of opium. I again want to know whether the medical men who have made general statements in regard to the anti-malarial effects of opium consider that the drug ought to have been prescribed in such a case? What is good for a Hindu or a Chinaman must be good for an Englishman. How is it then that medical men practising in the East, who do not give opium to their fever patients, justify to themselves their refusal of this boon to their countrymen?

Whether it is the duty of medical men to prescribe the regular use of opium to persons threatened or stricken by malaria is a strictly medical question, capable of being threshed out in the BRITISH MEDICAL JOURNAL, where I hope to see, in due time, contributions towards its solution by those whose experience and knowledge entitle them to give an authoritative answer.—I am, etc.,

Queen Anne Street, W., Dec. 4th. G. THIN.

DISPENSARIES.

SIR,—In an article in the BRITISH MEDICAL JOURNAL of November 25th, reference is made to my letter to the *Standard*. It is is said that I hardly discuss parochial dispensaries at all, and that I ignore the grave objections to the old free dispensaries—that they give gratuitous advice and treatment to persons who have no claim to it, injure medical men, and undermine the self-reliance of the poor. I said so little about parochial dispensaries because their excellence and usefulness are unquestioned; they meet the wants of that very large class of poor people who are in receipt of parochial relief, and are not intended for, or used by, the class who come to the old endowed free dispensaries, to which no persons in receipt or in need of parochial relief are eligible. As physician for forty-one years to two of these—the Surrey and the Public—I see over two hundred patients every week, and have seen altogether quite half a million since I was appointed in 1852. In all these years and amongst this vast number of patients I have met with extremely few cases of abuse of the charity. Every governor giving a letter says, "I believe So-and-So to be a proper and necessitous object of this charity," and therefore, as a rule, with very rare exceptions, our patients are neither able to pay a medical man nor in receipt of parochial relief. They are working men, women, and girls, servants in or out of place, charwomen, bookfolders, collardressers, machinists, and suchlike, whose wages barely suffice for rent, food, fuel, and clothing, and leave no margin for doctor, lawyer, or clergyman.

I see no reason why these poor deserving people should not receive from us, gratis, the very best advice and medicines we can give them, nor why they should pay one penny to a provident or private dispensary. As a Guy's man I use the Guy's motto and say, as regards these poor people, "*Melius dare quam accipere.*" Let those pay a doctor who can afford to do so—yes, and a fixed remuneration fee, one and the same, for the same services in every city and town in England. Competition and underselling are degrading and ruining the profession; union, combination, co-operation alone can save it. Would that we could now say what Mill could and did say, with truth, some fifty years ago in his *Political Economy*, "Competition is unknown in the three learned professions." It saddens one who entered the profession fifty years ago to observe that, *pari passu* with the advance in medical education and the increasing requirements of examining boards, doctors' fees have fallen lower and lower, and competition and underselling have become as keen amongst medical men as amongst the lowest class of shopkeepers; so that, now, if one Oxford, Cambridge, or London graduate in Arts and Medicine settles down in a growing district and charges eighteen pence for advice and medicine, another is pretty sure to appear on the scene and charge one shilling. Fifty years ago doctors, like lawyers, charged the same fees for the same services everywhere, and never dreamt of competing with and underselling one another until private and provident dispensaries came into existence. Men of 70 may well look back fifty years and sigh in vain for the restoration of the rules, customs, and manners that prevailed in the profession in the good old times of Astley Cooper, Aston Key, Bright, Brodie, and Addison.—I am, etc.,

D. HOOPER, B.A., M.B., M.R.C.P.Lond.

Trinity Square, S.E., Nov. 26th.

MIDWIVES REGISTRATION ASSOCIATION.

SIR,—In a letter under the above heading to the BRITISH MEDICAL JOURNAL of December 16th Dr. Rentoul rightly objects to the term "House of Commons" in the fourth paragraph of the circular letter issued by the Association. It should read, as in the opening paragraph, "Select Committee of the House of Commons." Their report is dated August 8th, 1893.

We observe that in quoting our printed circular letter Dr. Rentoul has, both in the JOURNAL and elsewhere, inadvertently substituted "collusion" for "collision" in the first paragraph, and has omitted the word "medical" before "control and supervision" in the next to last paragraph. This omission we regard as unfortunate, for our contention is that the education and registration of midwives should be under medical control and supervision.

The latter part of Dr. Rentoul's letter, which we forbear to characterise, calls for no comment.—We are, etc.,

ROBERT BOXALL, M.D.,
ROWLAND HUMPHREYS,
Honorary Secretaries to the Midwives Registration Association.

London, Dec. 18th.

PATENT MEDICINES, QUACKS, AND THE CLERGY.

SIR,—At this season of the year we clergymen receive many kind offers to enter on a medical career in an amateur way. The manufacturers of patent medicines invite us to aid them in distributing their nostrums, and give us specimens either gratis or "at a tremendous sacrifice." When you take up their circulars you find that most of the almost countless testimonials come from the clerical profession.

Is it not a pity that clergymen should not realise their responsibility more in this matter? Could not some medical man of distinction point out how unwise is their conduct? I do not think doctors know how ignorant men, otherwise well educated, are on the simplest medical matters. At a clerical meeting not long since I was assured by one of my brother clergymen that the stamp on patent medicines was a guarantee of the remedy. This from a Bachelor of Divinity and an excellent scholar.

I doubt even if medical men realise to what an extent patent medicines are used or quacks resorted to. I have known patients under regular treatment use their favourite panacea very largely without telling their doctor; and even at the same time take advice from quacks. A poor man suffering from pulmonary phthisis went to one of these quacks. The herbalist told him his remedy was sovereign, but very costly. The poor labourer said he had only eleven shillings, and as a great favour the impostor gave him one of his bottles for that sum, which might have bought some comforts for the dying man, instead of being thus thrown away. Another case I may mention. A labourer had incurred a heavy doc-

tor's bill, which I paid for him. I might have saved myself the expense, for he simply went and squandered as much money on one of the worst of quacks, to see whom his wife and son spent five shillings weekly in railway fares alone, besides fees. Is there no way of applying the law of fraud to such quacks, since when educated people are ignorant of their uselessness, not to say harmfulness, the poorer classes cannot be expected to protect themselves?

Medical men do not often trespass into our profession, but when they do I have noticed that they are even more orthodox than their clergymen. Could not the same state of things be brought about with the clerical amateurs of medicine?

At all events, should not the medical profession press forward a Bill which should contain not only, as Sir H. Holland proposed, a clause compelling the composition of every patent medicine to be printed on the label (which would lead to some wonderful lectures in materia medica by sage amateurs), but, what I think more important, some notification to the effect that before using this medicine skilled advice should be taken.

I daresay I have no business in a medical journal, but you must admit I am better employed writing to you than in sending a testimonial to some patent pills.—I am, etc.,

Abercorn, N.B., Dec. 14th. J. Howard Crawford.

HYPNOTISM AND ITS DANGERS.

Sir,—Now that the appointment of a committee to investigate hypnotism—whose report was not adopted by the Association, but received, and the committee thanked for their labour—has once more, though happily only for a brief space, as has so often happened before in the history of mesmerism (the old-fashioned name for the hypnotism of to-day), induced a few more members of the profession to experiment on human subjects, the wise words of Dr. Henry Rayner ought to be heeded. Having gone through this fascinating craze nearly thirty years ago, having discovered its perils, and having known a similar experience in the career of other medical men, I can once more emphasise what I said at the last Birmingham meeting on the danger of frequently repeated indulgence in this morbid psychological mental state in the unsettlement of brain function. Permit me, therefore, to cite Dr. Rayner's weighty words: "The risk of mental deterioration by the frequent induction of states of incomplete consciousness, hypnotic or other, should also be distinctly taught, and the habit for those of the neurotic diathesis labelled 'Dangerous—this way madness lies.'"—I am, etc.,

Grove Road, N.W., Dec. 16th. Norman Kerr, M.D.

ADHESIONS A CAUSE OF VISCERAL DISABILITY.

Sir,—After my paper at the Clinical Society last month Professor Clifford Allbutt, F.R.S., wrote me the following letter, which proves as forcibly as any case possibly can how dangerous peritoneal adhesions may be. Feeling that such an example ought not to lie buried in a casebook, in answer to my request, Dr. Allbutt has kindly allowed me to publish it.—I am, etc.,

Leeds, Nov. 27th. A. W. Mayo Robson, F.R.C.S.

"October 22nd, St. Rhadegunds, Cambridge.

"My dear Robson,—Some years ago Mr. ——, a leading merchant in a neighbouring town and a very accomplished agreeable man—certainly of neurotic temperament—was under my care for a long time, off and on, in consultation with his own medical man. He suffered from gastralgia, and this resisted all our remedies, so that, in spite of his own self-control and our earnest warnings, he became addicted to the regular use of morphine injections.

"I do not for a moment say he was wrong; perhaps it was the only solution to his difficulties. He kept some mastery over himself, and, though he used ¼gr. pretty often—three or four times a day latterly—yet his character and habits did not suffer much. On the whole, I daresay he was better than if worn and irritated with perpetual suffering.

"Well, he ultimately, after years of suffering, died of some other disease—I forget what, and it is irrelevant, but we were determined to have the epigastrium examined. I did not attend the *post-mortem* examination, but I was told that an old firm band or adhesion was found attaching the stomach to some part of the opposite abdominal parietes. I am indefinite about the precise anatomy, but positive about the condition found in a general sense.

"I had long notes of his case, but they were destroyed on my leaving Leeds.—Yours very truly,

"(Signed) T. Clifford Allbutt."

MEDICO-LEGAL AND MEDICO-ETHICAL.

THE HARNESS CASE.

This case was resumed before Mr. Hannay, magistrate at Marlborough Street, on December 20th. Evidence was given by Mr. H. F. Waterhouse, assistant surgeon to Charing Cross Hospital, to the effect (according to the report in the *Evening Standard* from which we quote) that he was called in by Dr. Pridie, of Chingford, to see Mr. Ball, one of the witnesses previously examined. The patient said he had been to the Medical Battery Company's establishment, where he had been roughly treated. He was exhausted, vomiting, had a feeble pulse, appeared to be in great pain, and had a large swelling in the left groin, which had the appearance of a bruise. There was distinct external evidence of great violence having been used. An operation was necessary; his life was in danger, and the witness did not expect him to recover. He was a remarkably fine old man and did pick up. In cross-examination witness stated that trusses were sold by persons who were not medical men. In re-examination he expressed the opinion that Mr. Bull's condition was due to great violence having been used in attempt to reduce the hernia. The witness was also questioned by the defendant McCully.

Dr. H. G. Turney, resident assistant physician to St. Thomas's Hospital, gave evidence as to the case of the witness Burbage who he stated was hypochondriacal.

At the suggestion of Counsel for the prosecution, the defendant Dudley Towers, whose real name was Robert William Sellman, was discharged and called as a witness.

Dr. H. Lewis Jones was recalled and cross-examined by Mr. Avory for Harness. The examination of Sellman was not concluded when the case was adjourned.

WILKINSON v. THE MEDICAL BATTERY COMPANY, LIMITED.

This action came before Mr. Justice North, in the High Court of Justice, Chancery Division, on December 13th, as a short cause, the points on which judgment was asked having been agreed upon between plaintiff and defendants. The action was brought by the plaintiff on behalf of herself and all other holders of the defendant company's debentures for the purpose of enforcing their security, as the debentures expressed that the principal moneys which they acknowledged to be advanced became payable immediately on a meeting being called to consider a resolution to wind up the company. The meeting was called for and held on December 8th, when it was resolved to wind up voluntarily.—Mr. Tanner appeared for the plaintiffs; Mr. George Henderson for the company.—Mr. Justice North gave judgment as asked, declaring that the debentures were a first charge on the assets of the company, and directing the usual accounts and inquiries.

A LUNACY PROSECUTION.

At Eastbourne, on December 18th, Dr. C. D. Sherrard appeared to answer an adjourned summons for keeping more than one lunatic in his house without a licence. Mr. Gill again appeared for the Lunacy Commissioners, and Mr. Carson for the defendant. Evidence was now gone into to show that there was another insane lady in the house at the time Mrs. Stoney, who committed suicide, was there—a Mrs. Simson. Mr. Scarborough, chief constable, related how Mrs. Stoney gave herself up, saying she had committed a crime, but he could gather no particulars from her. The Bench committed the defendant for trial, bail being accepted.

CHARITABLE USES.

The bad old policy of discouraging bequests to hospitals dies hard; but the efforts to uphold it have received a check from the Court of Appeal. The case of *In re* Bridger, which is reported in the *Times* of December 12th, is one of the first litigations decided under the new Act of 1891, and we understand that it was said in Court that already a considerable number of other cases are depending upon this decision, which has gone unreservedly in favour of the Brompton Hospital for Consumption. The new Act said that the freedom to give to a charity property formerly vetoed was to apply to the will of any testator dying after the passing of the Act. Various persons, however, are found to have made wills before the Act passed, in which are found the old form of words directing the payment of so much out of the estate "as may by law be given for charitable purposes" to some stated hospital or other institution. Mr. Bridger had so directed, in a will written while the Act was under discussion. He died after it became law, and the Court was immediately asked to say that the hospital must be deprived of anything which "savoured of the testy," on the ground that when the testator wrote the words, nothing that was of the nature of an interest in land might "by law be given." Both Mr. Justice North and the Court of Appeal have set their faces against this subtle attempt to whittle away the reform, which, as our readers will remember, this Association did much to secure. They pointed out that, by the Wills Act of 1837, a will must be construed as from the date of death, and not as from the date of writing; and that by the Charitable Uses Act of 1891 itself, it was intended that the new law should apply to wills already in existence, provided that the testator did not die till after the Royal assent was given. It is therefore now certain that gifts in this form in existing wills—and there must be very many—are valid to pass the kinds of property formerly disallowed. But it must be observed that further subtleties are still ahead. The judges decline to say what will happen if a will comes up in which, before 1891, a testator

has chanced to speak of all the property "which may now by law be given to charity." Is "now" in such a case to be construed as speaking from the day of his death, or as indicating a reference to the law as it actually was when he wrote? This conundrum will probably go to the House of Lords some day. But meanwhile, anyone who has been unlucky enough to use any ambiguous or arguable words in his will would be well to make a codicil and put it beyond the reach of litigation.

IS BAKING POWDER A FOOD?

IN the Queen's Bench Division, before Mr. Justice Grantham and a common jury, the case of James *v.* Jones was heard. The appellant in this case, James James, was, at the instance of the respondent, Evan Jones, an inspector under the Food and Drugs Act, fined £2 and £17 19s. 6d. costs by the Glamorganshire justices for selling a packet of Excelsior Baking Powder said to contain a substance injurious to health. The conviction was affirmed by the quarter sessions, who, however, stated a case. The baking powder in question had been in the market for seven years, and contained 20 per cent. of bicarbonate of soda, 40 per cent. of alum, and 40 per cent. of ground rice to keep the powder free from damp and prevent chemical action setting in until the powder was used. The alum was the ingredient of which complaint was made, and it was said that, in consequence of its use instead of tartaric acid, hydrate of alumina passed into the bread, etc., made by its means. Sir Richard Webster, Q.C., Mr. Brynmor Jones, Q.C., and Mr. Macmorran appeared for the appellant, and Mr. Finlay, Q.C. and Mr. Rhys Williams for the respondent. Sir Richard Webster argued for the appellant that the finding of the court was wrong, on the ground that the baking powder was not an article of food within the meaning of the Food and Drugs Act. Mr. Finlay, Q.C., for the respondent, maintained that the baking powder was an article of food as soon as it became assimilated with flour and water. It was just the same with salt and pepper. When they were taken with meat it could not be argued that they were not articles of food because they could not be eaten by themselves, and no man would think of making a meal off pepper. It was the same with oil in salads; a man would not think of drinking it by itself by way of a breakfast or dinner, and yet it became food when taken with other things. It was the same with the baking powder used in making bread. The court said that, as it was a matter of general interest, they would take time to consider their judgment.

THE MANUFACTURE OF LANOLIN.

BENNO JAFFE AND DARMSTAEDTER LANOLIN FABRIK *v.* RICHARDSON AND COMPANY (LEICESTER), LIMITED.

THIS case was heard in the High Court of Justice, Chancery Division, on December 16th, before Mr. Justice Romer. The plaintiffs were a company incorporated in Prussia, the defendants being English manufacturers, and the action was brought to restrain the infringement of the plaintiffs' patent for improvements in the manufacture of fatty substances, their speciality being the manufacture of "lanolin," which was described as a substance now largely used as the groundwork of ointments. It was said to a refined form of wool fat, obtained by washing the wool of the sheep and clarifying it in the manner pointed out in the plaintiffs' specifications. Among the alleged anticipations set up by the defendants were various extracts from the writings of Dioscorides and Pliny the younger, which it was said showed that the plaintiffs' patent was invalid for want of novelty. Sir Richard Webster, Q.C., Mr. Moulton, Q.C., and Mr. W. H. Lawson appeared for the plaintiffs; and Mr. Aston, Q.C., and Mr. E. P. Love for the defendants. Mr. Justice Romer, in giving judgment, held that the plaintiffs' patent was a new and useful one, that their method of the manufacture had not been anticipated, that the defendants' mode of manufacture was an infringement, and that the plaintiffs were entitled to an injunction and damages and costs of the action.

GRATUITOUS ATTENDANCE ON CHEMISTS AND DRUGGISTS.

H.P.S.—By way of response to our correspondent's query we would ask whether the chemist referred to has been in the habit of gratuitously supplying the deceased practitioner with drugs and chemicals necessary to the conduct of his practice? If not, why, we would ask, should he or others so unreasonably and illogically expect medical men to gratuitously contribute the all-important ingredient (irrespective of valuable time, and, may be, anxious care) so essential to successful treatment as their skill? We have no hesitation in affirming that it is not a rule or the custom of the faculty, *qua* faculty, to accord gratuitous attendance and advice to chemists and their families as alleged, otherwise there should be complete reciprocity, and that such has not been the case in the instance in question is clearly evidenced by the fact that the chemist alluded to sent in his account for medical sundries and received the amount from the executor. Be that as it may, their respective ledgers and cash books, if properly kept, would determine the personal point in dispute.

AGREEMENTS WITH ASSISTANTS.

H. WRITES: 1. In the event of an agreement signed between principal and assistant, is it binding if neither witnessed or stamped? 2. Is such agreement binding if made on the understanding of a permanency (with increasing salary), when the only verbal reason for terminating it is that the branch "is to be closed;" and the latter is used as a "house of call," or another medical man placed there? 3. In the latter case is not the principal liable to action for "false dismissal," if such be brought against him?

*** 1. If the agreement has been signed by the parties it need not be witnessed. It must, however, be stamped before it can be used in a court of law. The stamp can be affixed at any time on payment of a penalty of £10. 2. The alleged reasons for terminating the agreement would appear to be insufficient, but this must depend on the words of the agreement itself. 3. An action for wrongful dismissal could probably be maintained. It would be advisable to consult a respectable solicitor, and probably also to obtain counsel's opinion before commencing an action.

AN ELECTIONEERING CARD.

DR. W. J. SINCLAIR (Manchester) writes: Your arbiter on matters of professional etiquette, after the attack upon me in the BRITISH MEDICAL JOURNAL, was appealed to by me to give an explicit statement as to what he considered becoming professional etiquette in a medical candidate at a contested municipal election. Instead of responding he went off into a digression on one point which I raised, namely, the support given to my candidature by certain influential members of the medical profession in South Manchester. I have waited until the two gentlemen had the opportunity of commenting on their position, and it now appears to me for the first time that the card under discussion was issued after the nomination day. That settles the question as to the position of these two gentlemen, but it does not affect in any way the fact that I received an exceptional amount of assistance from the members of my own profession during the contest in St. Luke's, and that nobody seemed to suspect that there had been any breach of professional etiquette until you made the JOURNAL the tool of very obvious hypocrisy and private malice.

That brings us back to the main issue. On what ground am I accused of a breach of professional etiquette? It must be either (1) on the ground of adopting some illegitimate methods of advertising, or (2) on the ground of such extreme departure from good taste as to be derogatory to the dignity of the medical profession. As to advertising I think I am safe to say that any candid member of the profession who knows the circumstances of South Manchester, and consequently the part which I have taken in politics, and the character of my practice, both public and private, is extremely unlikely to attribute to me any such paltry motive, when I declined to interfere with my election committee. The political and professional position of no two candidates is alike, and it is simply puerile to point to somebody in totally different circumstances who acted differently, as a rule of conduct. I am perfectly satisfied in my own mind that in my candidature there was nothing to give offence to any reasonable man, and as you fail to lay down any general principles I shall be guided by my own sense of what is fair and reasonable in the future as I have been in the past.

NON-VACANT APPOINTMENTS.

A. B.—Ere acceding to the requests of the members of the clubs to allow himself to be nominated for the appointment of medical officer, we would counsel "A. B." to make it a *sine qua non* that the executive should, as a necessary preliminary, give notice to the present club doctors, who live at a distance, of the intention, purely as a matter of convenience to the general members, to terminate the existing contracts at the end of the financial year—otherwise he will act advisedly in declining.

With reference to the "parish appointment," it will be judicious to defer the application for a time, and, if feasible, to let the suggestion emanate from one of the guardians; undue haste is, in our opinion, calculated to prejudice his prospects of eventual success.

A KNOTTY POINT.

HONOR.—The case submitted by "Honor" is exceptional, and, under the peculiar detailed circumstances, not a little difficult to answer as to its true ethical bearing on his contemplated local procedure. Nevertheless, morally and ethically important as we regard a severely just solution of the knotty point involved to be, we feel impelled, after much thoughtful consideration, to counsel his withdrawal from the district, and to seek pastures new, notwithstanding the questionable and unreasonable course pursued by the practitioner referred to. On the other hand, if our correspondent has so strong a predilection for the locality as to induce him to disregard the ill-judged, puerile threat to "boycott and blackball" the unwelcome intruder, we would urge him to seek an interview with one or more of the leading practitioners in the town, and confidentially solicit and be guided by their opinion.

CORONER AND TOWN COUNCILLOR.

W. writes: Is it legal for a borough coroner to become a town councillor? I understand a country coroner cannot become a county councillor. Thanking you in anticipation.

*** The coroner, one would think, must "have or be interested in a contract with, or employment by or on behalf of, the council" which appoints him, and therefore is disqualified from being elected or being a councillor by Section 12 of the Municipal Corporations Act, 1882. Cases in which members of town councils have been appointed borough coroners have frequently occurred, but they always resign their membership on accepting the appointment.

FEES FOR POLICE ATTENDANCES.

W. H. L. writes: I was called out one night by a parish constable to a man who had been assaulted and injured. I attended to him professionally. The case was taken up by the county police, and I attended. I gave evidence before the magistrate and at their request, and was paid for my evidence. On sending my account for professional attendance upon the injured man to the county police, I am informed by the chief constable that the bill "was duly presented to the finance committee. They were of opinion that the amount could not be paid out of the county funds, as they did not consider themselves liable." The parish constable came from a country district in his official capacity to request my attendance.

*** The constable is liable, and so is the injured man who had the benefit of the attendance. It is difficult to see how the county can be responsible, unless it can be shown that the joint committee who manage the police have authorised their constables to incur such expenses on their behalf. Probably the parish constable is not even employed by them, but paid out of the rates of the parish, who are certain not to have given him the powers of a relieving officer.

CANVASSING FOR NON-VACANT APPOINTMENTS.

205.—If our correspondent will refer to the *Code of Medical Ethics*, chapter ii, section 1, rule 3, he will find it clearly laid down that "to tender for a club or other paid appointment, or to apply or canvass for such ere a vacancy has been declared," is regarded as derogatory to the profession; irrespective of which rule we may note that in seeking, after a few weeks' residence in the locality, to wrest a club from a brother practitioner who had, so far as he knew, hitherto given satisfaction to the members, he was not only ill-advised in offering his services, but transgressed the moral law of doing unto others as he himself would wish to be done by.

N. B.—Unfavourable as is our opinion of the alleged conduct of "R. G. D.," it is not of such a nature as would effect the removal of his name from the *Medical Register*. How far, moreover, the agreement referred to could be enforced is a legal question, which we would advise our correspondent to submit, with as little delay as may be, to an able non-litigious lawyer, and be guided by his opinion.

INQUIRER, and H. G. S.—The question asked by "Dr. D." did not involve the diploma granted to Licentiates by the King and Queen's College, Dublin, and our reply was not intended in any way to refer to that diploma. In other respects our correspondents are referred to the reply given above.

F. U.—It would be difficult to say what is the custom of the profession as to return of quarterly premium of a resident patient who has died before the expiration of the term, but we are advised that unless the payment was made under some mistake of fact, or unless there is some written agreement providing for its return, the money could not be recovered at law.

NAVAL AND MILITARY MEDICAL SERVICES.

THE NAVY.

STAFF-SURGEON HENRY JOHN MADDERS, M.D., has been promoted to be Fleet-Surgeon, December 5th. He was appointed Surgeon, April 1st, 1873, and Staff Surgeon twelve years thereafter.

The following appointments have been made at the Admiralty: WILLIAM H. DODD to be Surgeon and Agent at Cromane Point Wells, December 14th; J. M. FRANCE, Surgeon, to the *Ringdove*, January 1st; G. E. KENNEDY, Surgeon, to the *Marathon*, January 1st; G. H. FOOTT, M.D., Surgeon, to the *Lapwing*, January 1st; J. M'C. ELWEE, M.D., to Plymouth Hospital, January 1st.

ARMY MEDICAL STAFF.

SURGEON-LIEUTENANT-COLONEL WILLIAM HAMILTON BRIGGS retires from the service with a gratuity, December 20th. He was appointed Surgeon, September 30th, 1875; Surgeon-Major, June 15th, 1885; and Surgeon-Lieutenant-Colonel, September 30th last. It will doubtless be in the recollection of our readers that Surgeon-Lieutenant-Colonel Briggs retired with a gratuity as a Surgeon-Major, November 8th, 1890, and that this retirement was cancelled in the *Gazette* of April 18th last, Surgeon-Major Briggs being restored to his original status in the Army Medical Staff. Surgeon-Lieutenant-Colonel Briggs's war services are as follows: Jowaki Afridi Expedition of 1877-8 (medal with clasp); Afghan War of 1878-80 (medal); Nile Expedition in 1884-85, including the operations of the Desert Column, the action at Abu Klea, the engagements near Metammeh, and during the retreat of the force to Korti (mentioned in despatches, promoted to be Surgeon-Major, medal with two clasps, and Khedive's bronze star).

Surgeon-Captain W. T. SWAN, M.B., serving in the Bengal Command, has passed the examination in Pushtu by the lower standard; and Surgeon-Captains L. P. MUMBY, M.B., and C. W. REILLY, serving in the same command, have passed the higher standard examination in Hindustani.

Surgeon-Lieutenant-Colonel M. KNOX, serving in the Bengal Command, is appointed to the civil medical charge of Ranikhet District, in addition to his military duties, from November 16th.

Surgeon-Captain G. B. RUSSELL, doing duty at the station hospital at Thayetmyo, Burmah, is appointed to the medical charge of the cantonment hospital at Thayetmyo, without prejudice to his other duties.

Brigade-Surgeon-Lieutenant-Colonel E. TOWNSEND, M.D., on return from England, is appointed to the medical charge of the Central Station Hospital, Secunderabad, Madras Command.

Surgeon-Lieutenant-Colonel A. L. BROWNE, is struck off the strength of the Bombay Command from November 16th.

Surgeon-Captain W. L. GRAY, M.B., serving in the Madras Command, has leave to Europe for six months on medical certificate; and Surgeon-Major W. J. BAKER, serving on the Bombay Establishment, is permitted to remain in England from December 7th till April 6th, 1894, on medical certificate, in extension.

Surgeon-General JAMES EDMUND CLUTTERBUCK, M.D., died at Plymouth on December 16th, at the age of 70. He was appointed Assistant-Surgeon, December 22nd, 1848; became Surgeon, October 2nd, 1857; Surgeon-Major, December 22nd, 1868; Deputy-Surgeon-General, July 2nd, 1876; and Surgeon-General, May 7th, 1882; he quitted the service on retired pay, June 1st, 1883. He served in the Indian Mutiny campaign in 1857-58 with a flying column under Colonel Christie in the Futtehpore District (medal); and throughout the Ashanti war in 1874 he was with the 42nd Highlanders, being present at the battles of Amoaful and Ordahsu, and at the capture of Coomassie (medal with clasp).

MILITIA MEDICAL STAFF.

SURGEON-LIEUTENANT COLONEL H. WRIGHT, Yorkshire Artillery (Western Division Royal Artillery) has resigned his commission, with permission to retain his rank and uniform, from December 16th.

THE VOLUNTEERS.

SECOND-LIEUTENANT ALEXANDER HENRY CROUCHER, M.D., 1st Sussex Engineers, Fortress and Railway Forces, Royal Engineers, is appointed Surgeon-Lieutenant in the same corps, December 2nd.

Mr. HUGH KERR ANDERSON, M.B., is appointed Surgeon-Lieutenant to the 4th (Cambridge University) Volunteer Battalion the Suffolk Regiment (late the 2nd Cambridgeshire), December 2nd.

Surgeon-Captain T. L. LAXTON, 2nd Volunteer Battalion the Prince Albert's Somersetshire Light Infantry (late the 2nd Somerset), has resigned his commission, from December 2nd. Surgeon-Lieutenant C. J. MARSH, of the same regiment, is promoted to be Surgeon-Captain, December 2nd.

Surgeon-Captain J. WYLIE, M.B., 2nd Volunteer Battalion the Highland Light Infantry (late the 6th Lanarkshire), has resigned his commission from December 2nd.

Surgeon-Lieutenant D. CARMICHAEL, M.B., 3rd (the Buchan) Volunteer Battalion the Gordon Highlanders (late the 3rd Aberdeenshire), has resigned his commission from December 2nd.

Surgeon-Captain G. G. HODGSON, 4th Volunteer Battalion the King's Liverpool Regiment (late 15th Lancashire) has resigned his commission from December 9th.

Surgeon-Major W. H. JALLAND, 1st Volunteer Battalion the Prince of Wales's Own West Yorkshire Regiment (late the 1st West Riding of Yorkshire), has also resigned his commission; he is permitted to retain his rank and uniform.

Surgeon-Major G. H. TURNBULL, M.D., 1st Roxburgh and Selkirk (the Border) Rifles, is promoted to be Surgeon-Lieutenant-Colonel, December 9th; and Mr. WILLIAM DOIG, M.D., is appointed Surgeon-Lieutenant to the same corps, December 9th.

Surgeon-Major P. B. SMITH, M.D., 1st Volunteer Battalion the Gordon Highlanders (late the 1st Aberdeenshire), is promoted to be Surgeon-Lieutenant-Colonel, December 9th.

Surgeon-Captains L. OGILVIE, M.B., and G. OGILVIE, M.B., 7th Middlesex (London Scottish), have resigned their commissions from December 9th.

Mr. THOMAS FORREST, M.B., is appointed Surgeon-Lieutenant to the 3rd Lanarkshire Rifles, December 16th.

Surgeon-Major W. JOHNSTONE, Galloway Rifles, has resigned his commission from December 16th. He is permitted to retain his rank and and uniform.

Surgeon Lieutenant E. F. BINDLOSS, 2nd Volunteer Battalion the Queen's Own Royal West Kent Regiment (late the 3rd Kent), has also resigned his commission, which was dated August 23rd, 1890.

Mr. JOHN POLLOCK SIMPSON, M.D., is appointed Surgeon-Lieutenant to the 1st Tower Hamlets Rifles (the Tower Hamlets Rifle Volunteer Brigade), December 16th.

VOLUNTEER OFFICERS' DECORATION.

THE following officers have had this honour conferred upon them: Surgeon-Lieutenant Colonel JOHN JOHNSTONE, 2nd Lancashire Artillery; Surgeon-Lieutenant-Colonel C. T. VACHELL, M.D., 2nd Glamorganshire Artillery; Surgeon JOHN GOULD, retired, 4th Volunteer Battalion the Devonshire Regiment; Surgeon and Honorary Surgeon-Major (ranking as Major) A. R. TICEHURST, retired, 2nd Cinque Ports Artillery; Surgeon-Major F. J. PEARSE, 1st Middlesex Rifles (Victoria and St. George's); Surgeon and Surgeon-Major (ranking as Lieutenant-Colonel) KENNETH CORBETT, retired, 1st Inverness-shire Highland Volunteer Battalion the Queen's Own Cameron Highlanders.

CHANGES OF STATION.

THE following changes of station among the officers of the Medical Staff of the Army have been officially notified as having taken place during the past month.

		From		To
Surgeon-Colonel	A. A. Gore, M.D	Chester	...	Bombay.
Brig.-Srg.-Lt.-Col.	H. S. Muir, M.D.	Aldershot	...	Chester.
,, ,,	J. H. Hughes, M.D.	Dublin	...	Straits Stlmnts.
,, ,,	R. C. Eaton	Curragh	...	India.
Surgn.-Lieut.-Col.	J. Barry, M.D.	Cork	...	Curragh.
,, ,,	A. Kirwan	St. Lucia	...	York
,, ,,	A. L. Browne, M.D.	Bombay	...	Woolwich.
,, ,,	R. G. Thomsett	York	...	India.
Surg.-Major	W. B. Miller, M.D.	Portsmouth	...	Parkhurst.
,,	E. R. Cree	Aldershot	...	India.
,,	R. W. Ford	Portsmouth	...	Gosport.
,,	G. J. Coates, M.D.	Kinsale	...	Cork.
,,	M. Dundon, M.D.	Fermoy	...	Kinsale.
,,	A. V. Lane	Ayr	...	Bombay.
Surg.-Capt.	B. M. Skinner	Canterbury	...	India.
,,	G. J. H. Thomas	Portsmouth	...	Gibraltar.
,,	H. M. Sloggett	Gosport	...	Portsmouth.
,,	A. O. FitzGerald	Curragh	...	India.
,,	J. M. F. Shine, M.D.	Castlebar	...	Malta.
,,	S. C. Philson	Aldershot	...	India.
,,	F. J. Greig	Dover	...	Straits Stlmnts.
,,	P. J. R. Nunnerley	Preston	...	Ashtn.-u.-Lyne
,,	J. F. Burke	Colchester	...	Sierra Leone.
,,	J. Kearney, M.D.	Home District	...	Hounslow.
,,	J. S. Davidson, M.B.	Gibraltar	...	Devonport.
,,	G. A. Wade, M.B.	Devonport	...	C. of Good Hope.
,,	C. J. Healy, M.B.	Gosport	...	India.
Surg.-Lieut.	S. H. Withers, M.B.	Dublin	...	Castlebar.
,,	E. C. Anderson	Portsmouth	...	India.
,,	N. Tyacke	Chatham	...	India.
,,	L. A. Mitchell, M.B.	Chatham	...	India.
,,	G. A. Moore, M.B.	Cork	...	Fermoy.

VOLUNTEER AMBULANCE SCHOOL OF INSTRUCTION.

THE sixth annual dinner and presentation of prizes to the members of the Volunteer Ambulance School of Instruction took place on December 9th at Cannon Street Hotel, almost every metropolitan volunteer

regiment being well represented, together with a good contingent of the yeomanry. Major Andrew Maclure, V.D., occupied the chair, and was supported by Lord Amherst of Hackney and Surgeon-Colonel J. B. Hamilton, M.D., Principal Medical Officer, Home District.

In responding to the toast of "The United Forces," Surgeon-Colonel Hamilton expressed the hope that the promises which had been made on the last occasion by Lord Sandhurst, the Under-Secretary of State for War, with reference to the status of ambulance sergeants and regimental stretcher bearers, would yet be fulfilled. There was still great need for proper arrangements being made for the treatment of the sick and wounded in the event of war, and he was glad to be able to state that he had been drawing up a scheme for the Government providing for the accommodation of 20,000 wounded, for which scheme the volunteer force would be called upon to assist.

Brigade-Surgeon-Lieutenant-Colonel J. H. Evatt, M.D., proposed the toast of the "Volunteer Ambulance School of Instruction," to which Surgeon-Captain H. F. Stokes, Senior Medical Officer Instructor, responded. He said that the number of trained bearers who had passed through the classes was now considerably over 1,000, and medical officers of all ranks had up to the number of 100 obtained proficiency certificates after having received instruction in the school. Instructors had been sent to divisional and brigade camps in the provinces, of whom excellent reports had reached him both from the brigadiers and brigade-surgeons.

Surgeon-Colonel Hamilton, in presenting the prizes to the successful competitors, said that he wished to present a silver cup for competition under such conditions as the President might approve.

An interesting feature of the evening was the programme, which was made up in the form of a triangular bandage, "the ends," "the point," and the "lower border" being conspicuous.

THE official inspection and examination of the class of regimental stretcher bearers, which has been under training for the last three months, took place at the headquarters of the Queen's Westminster Volunteers on December 14th. After a careful inspection, each company was examined separately, one on bandaging and first-aid, etc., the other on stretcher drill and the lifting and laying of wounded, each man going through a *viva voce* examination. At the conclusion of the examination Surgeon-Major Lamprey, the inspecting officer, addressed the men, and said it was the largest and one of the best classes he had ever had the pleasure of examining. The next class will take place at the headquarters of the 20th Middlesex (Artists) Rifle Volunteers, commencing on February 8th, 1894, at 7.30 P.M., by permission of Colonel R. W. Edis, V.D., F.S.A.

A LIBEL ON MILITARY SURGEONS AND ITS PUNISHMENT.

PRINCE W. P. MESCHTSCHERSKI, editor of the Russian newspaper *Grashdanin*, was recently condemned to ten days' arrest in the principal guardhouse of St. Petersburg for having published a defamatory libel on military surgeons. A little of this kind of discipline might be useful to the editors of certain of our contemporaries who seek notoriety by dishonouring the Army Medical Department. A similar opportunity for undisturbed meditation might even open the eyes of Sir George Chesney to the error of his Parliamentary ways in the respect of the army doctors.

FIELD HOSPITALS IN INDIA.

A RECENT General Order by the Commander-in-Chief in India directs that general officers commanding are empowered to exercise field hospitals in the several camps of instruction, provided all expenses connected therewith, including wear and tear and replacement of equipment, are met from the funds allotted to the general officers commanding for the district concentration camp.

In the opinion of those well able to judge the above order is pronounced to be little short of a farce; even if general officers commanding had the will, they would not have the means; such mobilisation is a financial impossibility. It would be well if the exact meaning and affect of such an order could be elicited by a direct question to the Secretary for India in Parliament.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

FIRST M.B. EXAMINATION. PART II. *Elementary Biology.*—Anderson, Trin.; Arkle, Trin.; Bainbridge, Trin.; Barton, Trin. H.; Blandford, Pet.; Boucher, Trin.; Brincker, Joh.; Browse, Cla.; Cunninghame, Chr.; Darby, W. S., Trin.; Elliott, H. St.C., Trin.; Gabriel, Emm.; Glynn, Cla.; Hawkins, Emm.; Home, Trin.; Hort, Emm.; Matheson, Gonv. and Cai.; Mayo, Cla.; Mayo, H. R., Gonv. and Cai.; Mercer, Cla.; Molineux, B.A., Emm.; Mullings, Chr.; Murison, A. L., B.A., Trin.; Orton, Trin.; Roberts, Cla.; Slade, B.A., Trin; Spence, Cla.; Stabb, Down; Stanham, W. C., B.A.; Stirling-Hamilton, J., Jes.; Studd, Trin.; Thompson, A., B.A., Trin.; Thornton, G. L., Trin; Wingate Soul, Trin.

SECOND M.B. EXAMINATION. PART I. *Pharmaceutical Chemistry.*—Ambrose, Cla.; Atkinson, H. L., B.A., Chr.; Barnes, Chr.; Bellamy, Down.; Black, B.A., Trin. H.; Bowen, Gonv. and Cai.; Bradley, Gonv. and Cai.; Brown, B.A., Pemb.; Clarke, H. N., Gonv. and Cai.; Clarkson, B.A., H. Selw.; Cox, Gonv. and Cai.; Denyer, Queens'; Dobson, Pet.; Edwards, G. L., B.A., Trin; Falkener, M.A., King's; Fawcett, B. A., Pet.; Gardiner, B.A., Trin. H.; Garrood, Joh.; Grünbaum, Trin.; Hardie, Trin.; Harmer, King's; Hart-Smith, Gonv. and Cai.; Haslam, B.A., Gonv. and Cai.; Hedley, King's; Heilborn, Gonv. and Cai.; Helm, Magd.; Hill, A. C., Trin.; Hine, King's; Howlett, Emm.; Hyde, Cla.; Inchley, Joh.; Kemp, Cla.; Leathes, B.A., Joh.; Lillie, Joh.; Myers, C. S., Gonv. and Cai.; Pettinger, H. Selw.; Prest, Joh.; Priddle, Gonv. and Cai.; Prout, Down.; Pryce, Joh.; Reid, B.A., Joh.; Rowland, B.A., H. Selw.; St. Leger, Gonv. and Cai.; Salt, Emm.; Scowcroft, B.A., Gonv. and Cai.; Sewell, Pemb.; Skrimshire, Joh.; Skyrme, Chr.; Slater, B. H., Trin.; Sumner, F. W., Joh.; Sutcliffe, Emm.; Taylor, T. S., King's; Villy, B.A., Joh.; White, Chr.; Williamson, B.A., Joh.; Willson, R. J., Emm.; Worlledge, Trin. H.

FIRST M.B. EXAMINATION. PART I. *Chemistry and Physics.*—Bainbridge, Trin.; Barham, Gonv. and Cai.; Brailey, Queens'; Brincker, Joh.; Briscoe, Pemb.; Ellis, Pet.; Gabriel, Emm.; Glynn, Cla.; Home, Trin.; Hughes, Chr.; Killick, Trin.; Martin, A. E., Down.; Mayo, Cla.; Mayo, H. R., Gonv. and Cai.; Morgan, Joh.; Mullings, Chr.; Nelson, B.A., Cla.; Nicholson, G. B., B.A., Cla.; Orton, Trin.; Parker, Emm.; Pearson, Emm.; Percival, Joh.; Perkins, B.A., Joh.; Slade, B.A., Trin.; Staynes, Chr.; Taylor, J. G., King's; Taylor, E. C., Joh.; Ticehurst, Cla.; Wilkin, B.A., Pemb.; Wilkinson, Pemb.

SECOND M.B. EXAMINATION. PART II. *Human Anatomy and Physiology.*—Auden, Chr.; Baird, B.A., Gonv. and Cai.; Barton, P. F., B.A., Joh.; Betteridge, B.A., Gonv. and Cai.; Black, B.A., Trin. H.; Boulton, Cla.; Bousfield, B.A., Gonv. and Cai.; Brown, W. L., B.A., Joh.; Coleman, Joh.; Dove, Chr.; Edmondson, B.A., Cla.; Gardiner, B.A., Trin. H.; Horton-Smith, R. J., Joh.; Howitt, B.A., Gonv. and Cai.; Hughes, Gonv. and Cai.; Hunt, B.A., Cla.; Johnston, Trin.; King, B.A., H. Selw.; Langdon, Gonv. and Cai.; Lidderdale, Trin.; Lobb, B.A., Gonv. and Cai.; Lord, C. C., B.A., Joh.; McCarthy, Non. Coll.; Mathias, Chr.; Michael, B.A., H. Selw.; Myers, W., Gonv. and Cai.; Naish, B.A., Trin.; Porter, Emm.; Rawling, B.A., Gonv. and Cai.; Robinson, B.A., Gonv. and Cai.; Salt, B.A., Emm.; Staples, B.A., Trin.; Stawell, B.A., Trin. H.; Thomas, B.A., Gonv. and Cai.; Townsend, H., B.A., Cla.; Tuckett, B.A., Trin.; Villy, B.A., Joh.; Ward, F. F., B.A., H. Selw.; Watson, B.A., Pet.; Young, B.A., Gonv. and Cai.

THIRD M.B. EXAMINATION. PART I.—*Surgery and Midwifery.*—Burton, B.A., King's; Cameron, J. A., B.A., Joh.; Colby, B.A., King's; Colclough, B.A., Gonv. and Cai.; Collis, B.A., H. Selw.; Fison, B.A., Corp.; Garrad, B.A., Cla.; Goodman, H. C., B.A., Joh.; Grove, B.A., Sid. Suss.; Hardwick, B.A., Cla.; Harris, W. J., B.A., Gonv. and Cai.; Heaton, B.A., Trin.; Hofmeyr, B.A., Trin. H.; Hopkins, C. L., B.A., Gonv. and Cai.; Jackson, A. L., B.A., Cla.; Martyn, G. J. K., B.A., Gonv. and Cai.; Michell, M.A., Gonv. and Cai.; Nachbar, M.A., Cla.; Noble, B.A., Gonv. and Cai.; Pead, B.A., Down.; Roper, M.A., Cla.; Seccombe, B.A., Joh.; Sedgwick, B.A., Cla.; Sell, B.A., Gonv. and Cai.; Slater, B.A., Gonv. and Cai.; Smith, H., B.A., Trin.; Sparks, B.A., Gonv. and Cai.; Stallard, B.A., Sid. Suss.; Todd, C., B.A., Cla.; Trethewy, B.A., Gonv. and Cai.; Webb, J. C., B.A., Cla.

FELLOWSHIP ELECTION.—Mr. W. H. Laurence Duckworth was on Monday elected a Fellow of Jesus College. Mr. Duckworth took a first class in Part I of the Natural Sciences Tripos of 1892, and in Part II in 1893, with special distinction in Human Anatomy. He is one of the demonstrators of Anatomy, and has written various papers on anthropological and anatomical subjects. This is probably the first Fellowship awarded for anthropology, and should serve to encourage the rising school of physical anthropology in Cambridge. The new Fellow is, we understand, a nephew of Sir Dyce Duckworth.

UNIVERSITY OF EDINBURGH.

A CHAIR OF PUBLIC HEALTH.—It is understood that the late Mr. A. L. Bruce, Edinburgh, in his will has left £5,000 to the University of Edinburgh for the purpose of assisting to endow a Chair of Public Health in the University. In his settlement in which this bequest is made Mr. Bruce stated that he thought the proposed chair should be separated from the Chair of Medical Jurisprudence, but he did not desire to tie the hands of the University authorities in the matter. His object in making the bequest was in acknowledgment of Pasteur's investigations.

UNIVERSITY OF LONDON.

M.B. EXAMINATION: EXAMINATION FOR HONOURS.

Medicine.—First Class: W. J. Potts (Scholarship and Gold Medal), Owens College and Manchester Royal Infirmary; J. L. Morton (Gold Medal), St. Mary's Hospital; †J. A. Howard, Guy's Hospital; H. W. Armstead, University College and St. Bartholomew's Hospital; C. S. Jaffé, St. Thomas's Hospital; W. B. Warrington, Owens College and Manchester Royal Infirmary; E. A. Nathan, St. Mary's Hospital; H. C. Thomson, Middlesex Hospital. Second Class: H. O. Davies, St. Bartholomew's Hospital; W. J. Johnson, Guy's Hospital; J. G. Clegg, Owens College and Manchester Royal Infirmary; J. O. Symes, St. Mary's Hospital; T. Carwardine, Middlesex Hospital and University College; J. Morrison, St. Bartholomew's Hospital; E. G. G. Little, St. George's Hospital; F. E. Rock, Middlesex Hospital; S. E. Wells, B.Sc., St. George's Hospital; Lillie Mabel Agnes Jones, London School of Medicine and Royal Free Hospital; J. Dickinson, Westminster Hospital. Third Class: Ann Frances Piercy, London School of Medicine and Royal Free Hospital; K. Rogers, St. Bartholomew's Hospital: L. W. Bathurst, St. Bartholomew's Hospital; H. G. Felkin, London Hospital; W. N. Soden, St. Bartholomew's Hospital; W. L. Wainwright, St. Thomas's Hospital.

Obstetric Medicine.—First Class: H. O. Davies (Scholarship and Gold Medal), St. Bartholomew's Hospital; T. Carwardine (Gold Medal), Middlesex Hospital and University College; †H. W. Armstead, University College and St. Bartholomew's Hospital; †J. Morrison, St. Bartholomew's Hospital; J. L. Morton, St. Mary's Hospital; J. G. Clegg, Owens College and Manchester Royal Infirmary; W. L. Wainwright, St. Thomas's Hospital. Second Class: C. S. Jaffé, St. Thomas's Hospital: F. T. Travers, University College; W. J. Johnson, Guy's Hospital; Ann Frances Piercy, London School of Medicine and Royal Free Hospital; K. Rogers, St. Bartholomew's Hospital; W. B. Warrington, Owens College and Manchester Royal Infirmary. Third Class: J. Dickinson, Westminster Hospital; A. W. Kirkpatrick-Pickard, University College; Lillie Mabel Agnes Jones, London School of Medicine and Royal Free Hospital; F. E. Rock, Middlesex Hospital

Forensic Medicine.—First Class: J. G. Clegg (Scholarship and Gold Medal), Owens College and Manchester Royal Infirmary; E. A. Nathan (Gold Medal), St. Mary's Hospital; H. C. Thompson, Middlesex Hospital; S. R. Wells, St. George's Hospital; J. A. Howard, Guy's Hospital; W. J. Potts, Owens College and Manchester Royal Infirmary. Second Class: T. M. J. Powell, St. Bartholomew's Hospital; C. S. Jaffé, St. Thomas's Hospital; J. H. Griffiths, St. Bartholomew's Hospital. Third Class: P. S. Eves, University College; J. O. Symes, St. Mary's Hospital; J. L. Morton, St. Mary's Hospital.

† Obtained the number of marks qualifying for a gold medal.

THE VICTORIA UNIVERSITY.

Appointment of Examiners.—The following examiners were appointed at the last meeting of the Council: Chemistry, Professor S. Young (Bristol); Anatomy, Professor Alex. Macalister (Cambridge); Physiology, Professor E. A. Schäfer (University College, London); Obstetrics and Gynæcology, Dr. C. J. Cullingworth (St. Thomas's Hospital); Forensic Medicine and Toxicology, Dr. A. P. Luff (St. Mary's Hospital); Public Health, Dr. Arthur Ransome.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

The following gentlemen, having passed the necessary examinations, and having conformed to the by-laws and regulations, have been admitted Fellows of the College, namely:

St. C. Thomson, M.D.Lond., M.R.C.P.Lond.; T. Wilson, M.D.Lond., L.S.A.Lond.; W. H. Kelson, M.D.Lond., L.S.A.Lond.; C. Pollard, L.R.C.P.Lond.; A. B. Roxburgh, M.B., B.Ch.Oxon., L.R.C.P.Lond.; C. Spurrell, L.R.C.P.Lond.; P. M. Yearsley, L.R.C.P.Lond.; T. H. Ionides, M.B.Lond., L.R.C.P.Lond.; D. J. Jones, L.R.C.P.Lond.; C. A. Leedham Green, L.R.C.P.Lond.; V. W. Low, M.B.Lond., L.R.C.P.Lond.; H. Rochfort-Brown, L.R.C.P.Lond.; and C. E. Salter, L.R.C.P.Lond.

Six other gentlemen passed the examination, but, not having attained the age of 25, are not yet entitled to their diplomas as Fellows of the College. Twenty-one were referred back to their professional studies for six months, and one for twelve months.

The following gentleman, having passed the necessary examinations, and having conformed to the by-laws and regulations, was admitted a Member of the College, namely:

R. B. Morris, L.S.A.Lond.

The following gentlemen, having passed the necessary examinations, were at the same meeting admitted Licentiates in Dental Surgery, namely:

P. Artiss, H. G. Ashby, W. Badgery, F. H. Bailey-King, W. H. G. Baker, A. L. Bostock, E. Bowden, A. V. Brimmer, F. C. Bromley, L. Brown, R. J. Bulgin, J. H. Burroughs, F. H. Carpenter, S. H. M. Carpenter, E. Clayton, E. V. Coles, A. B. Densham, M.R.C.S.Eng., W. A. Densham, D. Dunlop, A. J. G. Evans, J. R. Freeman, W. W. Gabell, C. F. Haines, J. T. Hankey, A. W. Henly, W. M. Jones, S. Keele, E. V. Knight, H. Love, W. J. May, W. F. Mellersh, L. B. Myers, J. B. Parfitt, H. J. Pickering, H. B. Rowe, R. Satterthwaite, A. N. Sumerling, F. Walker, F. H. Wallis, R. R. Ward, G. W. Watts, G. B. Webb, R. Wheatley, G. Whitworth, G. Williams, and W. R. Wood.

Seventeen candidates were referred back to their professional studies for six months.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

Fellowship Examination.—The following candidates, having passed the necessary examination, have been admitted Fellows of the College:

J. Clarke, M.D., M.Ch.R.U.I., Surgeon-Major, I.M.S.; Emily Winifred Dickson, L.R.C.P.I., L.R.C.S.I., M.B., B.Ch.R.U.I.; G. A. Moorhead, L.R.C.P.I., L.R.C.S.I.; R. J. Roulston, M.D., M.Ch.R.U.I.; R. H. Woods, M.B., B.Ch.Dub.

The following candidates passed the primary part of the examination:

A. W. S. McComiskey, L.R.C.P.I., L.R.C.S.I.; W. J. Trewhella, L.R.C.P.I., L.R.C.S.I.

Licence in Dental Surgery.—The following candidates have passed the primary part of the examination:

F. E. Davis, J. Stanten, F. O. Stoker.

The following candidate has passed the final part of the examination, and has been granted the Diploma in Dental Surgery of the College:

H. E. Rose.

OBITUARY.

MATTHEW CORNER, M.D.St. And., M.R.C.S.Eng.

We regret to have to record the death at the age of 62 of Dr. Matthew Corner, of Mile End Road. He was a pupil of the College of the London Hospital, having come in early boyhood from his home in Whitby to be articled to a surgeon in London, and took his M.D.St. And. degree in 1853 and the diploma of M.R.C.S.Eng. in the same year. He was for some years medical officer of health and analyst for Mile End Old Town. Dr. Corner took a warm and active interest in the East London Nursing Society, which has for many years been a great comfort and help to the poor of the East End of the metropolis during sickness at home. During the last twelve years Dr. Corner's health has been precarious, due in the beginning to a carriage accident. The shock was severe, and in a few weeks was followed by epileptic seizures; these attacks assumed eventually grave form, and his brain power gradually failed. His last illness extended over nine weeks in bed, and was due to cystitis consequent on retention from an enlarged prostate, the former gradually improved, but death ensued on December 7th from apoplectic coma lasting over twenty-four hours. Dr. Corner leaves three sons, one of whom is in the medical profession.

EDWARD JOHN TILT, M.D.Paris.

We deeply regret to have to announce the death of Dr. Tilt, for so many years well known as an obstetrician and writer on obstetrical and gynæcological subjects. He graduated M.D.Paris in 1839, and pursued his studies with high credit and assiduity in the Paris hospitals. Subsequently he travelled as private physician to Count Shouvaloff. He became M.R.C.P.Lond. in 1859. The deceased was physician accoucheur to the Farringdon General Dispensary and Lying-in Charity. Among the best-known works of Dr. Tilt are his *Change of Life in Health and Disease*, which has gone through many editions, as did also his subsequent work on *Uterine and Ovarian Inflammation*, on *Uterine Therapeutics*, and his *Health in India for British Women*.

Dr. Tilt has for some years resided on the Riviera, having developed some pulmonary trouble in the later years of his life. He was a friend and contemporary of the late Dr. Henry Bennet, and with him took an active part in the literary discussion on the new methods and principles of gynæcology and obstetrics.

Dr. Rudolph Kaltenbach, Professor of Gynæcology in the University of Halle, whose death was announced in a recent number of the British Medical Journal, was born at Freiburg-im-Breisgau in 1842. He began the study of medicine in the University of his native city, pursuing them afterwards in Berlin and Vienna. He took his degree in 1865, and was appointed assistant in Dumreicher's surgical clinic. During the war in Bohemia in 1866 he served as a surgeon in the Austrian army. In the following year he returned to Freiburg and became assistant to Hegar. He qualified as *Privat Docent* in 1868, and in 1872 he paid a long visit to England, where he worked under Sir Spencer Wells, Dr. Braxton Hicks, and other gynæcologists. In 1875 he was appointed Extraordinary Professor at Freiburg, in 1883 he accepted a call to Giessen, and in 1887 he went to Halle as successor to Olshausen. Kaltenbach's contributions to the literature of his special department of medicine, published conjointly with Hegar or in his own name alone, are of the highest scientific quality. His last work, *Lehrbuch der Geburtshülfe*, issued in the autumn of the present year, will form an enduring monument to his memory.

The death is announced of Dr. F. W. Greene, of Mallow, who succumbed last week from an attack of enteric fever.

The death is reported of Mr. George Atkinson, of Lower Drumcondra Road, Dublin. The deceased, who was in his 84th year, took the L.A.H.Dub. in 1829, and the degrees of A.M., M.B.Dub. in 1839.

Deaths in the Profession Abroad.—Among the members in the medical profession in foreign countries who have recently gone over to the majority are Dr. Labitte, formerly Chief Physician of the Clermont-sur-Aix Lunatic Asylum, and sometime member of the French Chamber of Deputies; Dr. Benoit, Honorary Dean of the Montpellier Medical Faculty, aged 81; Dr. Vithal Vishnu Gokhale, Fellow and one of the most distinguished graduates of the Bombay University, aged 40; Dr. Mary-Durand, director of the *Courrier Médical*, and some time physician to the Paris Hôtel des Invalides; Dr. Jules Chabry, *souschef des travaux* in the Pasteur Institute, to which he has bequeathed 5,000 francs; Dr. John M. Keating, of Philadelphia, well known as an obstetrician and a specialist in diseases of children, and as author and editor of several important medical works; and Dr. O. Du Vivier, a leading practitioner of Liége, and one of the founders of the Société Medico-Chirurgicale of that city, aged 66.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.

Small-pox in Her Majesty's Prisons.—Mr. RENSHAW asked the Secretary for Scotland whether a local authority was bound to take charge of, and bear the expenses incurred by, cases of small-pox which occurred in Her Majesty's prisons, and the burial expenses in case of death.—Sir G. TREVELYAN, in reply, said that when a prison officer or prisoner suffering from an infectious disease was removed to a hospital established under a Public Health Act at the cost of the rates, it was considered that the contribution in lieu of local rates made by the Government in respect of the prison entitled them to the benefits enjoyed by other ratepayers, and consequently no additional payment was made. The funeral expenses only fell on the local authorities in the case of the death of a prisoner who had been discharged from custody, or whose sentence had expired. No case of an officer dying in a hospital had occurred.

Volunteer Medical Staff Corps, Edinburgh.—In reply to Mr. PAUL, Mr. CAMPBELL-BANNERMAN said that he could not add anything to his reply to his hon. friend on December 4th. The scheme of mobilisation did not admit of more Volunteer Staff Corps companies; but bearer companies were required, and he did not doubt that Edinburgh and its neighbourhood would in due time produce them.

A Case of Small-Pox.—Sir W. FOSTER, in reply to Mr. G. H. ALLSOPP, said that on July 19th last the Health Committee of the Worcester Corporation forwarded to the Local Government Board a copy of correspondence with the Hay Local Board and their medical officer of health, from which it appeared that a patient suffering from small-pox who had been under treatment by that medical officer of health from April 14th to May 19th was pronounced by him on the latter date to be no longer capable of conveying infection; and that the man did not leave until five days afterwards, when he was furnished with a completely fresh outfit, his own clothes having been destroyed. He arrived at Worcester, and remained in a common lodging house from May 24th to 26th, when he was seen by the Worcester Medical Officer of Health, who considered him to be still in an infectious condition, and had him removed to the infectious hospital, where he remained until July 13th. There is no allegation of his having, in fact, spread small-pox in the common lodging house. The question in dispute between the medical man who had treated the case and the other medical men who had subsequently seen it was as to its infectiousness at a particular stage of convalescence; and this question was not one which would have been conclusively determined by any inquiry by the Board at the time the case brought under their attention, and the Board did not consider that they were in a position to express any opinion as to the correctness or otherwise of the different contentions respecting the case.

Tuberculosis.—Sir M. STEWART asked the President of the Local Government Board whether he could inform the House if the report of the Royal Commission on Tuberculosis was ready, and, if so, when it would be laid upon the table.—Sir W. FOSTER, in reply, said he had communicated with the Royal Commissioners, and was informed that they were making every effort to complete their labours, and that their report would shortly be issued.

Gresham University Commission.—Mr. ACLAND, in reply to Sir A. ROLLIT, said that he had been informed by the Secretary of the Gresham University Commission that their report was very nearly finished and would probably be presented early in January.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns, including London, 6,022 births and 5,275 deaths were registered during the week ending Saturday, December 16th. The annual rate of mortality in these towns, which had increased from 18.3 to 28.6 per 1,000 in the preceding six weeks, declined to 26.6 during the week under notice. The rates in the several towns ranged from 16.0 in Norwich, 17.0 in Halifax, 18.9 in Gateshead, and 19.0 in Sunderland to 29.4 in Leicester, 30.5 in Derby, 31.8 in Liverpool, 31.9 in Nottingham, and 36.4 in Bristol. In the thirty-two provincial towns the mean death-rate was 24.9 per 1,000, and was 4.2 below the rate recorded in London, which was 29.1 per 1,000. The 5,275 deaths registered during the week under notice in the thirty-three towns included 546 which were referred to the principal zymotic diseases, against 503 and 542 in the preceding two weeks. Of these, 172 resulted from whooping-cough, 122 from diphtheria, 74 from measles, 66 from scarlet fever, 52 from "fever" (principally enteric), 47 from diarrhœa, and 13 from smallpox. These 546 deaths were equal to an annual rate of 2.8 per 1,000; in London the zymotic death-rate was equal to 3.3, while it averaged 2.4 per 1,000 in the thirty-two provincial towns. No death from any of these diseases was recorded in Preston; in the other towns they caused the lowest death-rates in Oldham, Halifax, Sunderland, and Brighton, and the highest rates in Croydon, Bristol, Norwich, and West Ham. Measles caused the highest proportional fatality in Norwich; scarlet fever in Huddersfield and Nottingham; whooping-cough in Plymouth, Bolton, Leeds, West Ham, Derby, and Bristol; and "fever" in Norwich, Derby, and Gateshead. The 122 deaths from diphtheria recorded during the week under notice in the thirty-three towns included 85 in London, 6 in Croydon, 5 in Birmingham 4 in Manchester, and 4 in Sheffield. Three fatal cases of small-pox were registered in Birmingham, and 2 each in London, West Ham, Bristol, Bradford, and Leeds, but not one in any other of the large towns. There were 118 small-pox patients under treatment in the Metropolitan Asylums Hospitals and in the Highgate Small-pox Hospital on Saturday last, December 16th, against 140, 141, and 128 at the end of the preceding three weeks; 22 new cases were admitted during the week, against 33 and 18 in the preceding two weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital on the same date was 3,102, against 3,140, 3,183, and 3,129 on the preceding three Saturdays; 295 new cases were admitted during the week, against 373 and 306 in the preceding two weeks. The 711 deaths referred to diseases of the respiratory organs in London were as many as 254 above the average, and were equal to an annual rate of 8.6 per 1,000.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday, December 16th, 842 births and 648 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 27·8 and 26·0 per 1,000 in the preceding two weeks, further declined to 24·0 during the week under notice, and was 3·6 per 1,000 below the mean rate during the same period in the large English towns. Among these Scotch towns the lowest rates were 19.8 in Dundee and 20.5 in Aberdeen and in Leith, and the highest rates 24.8 in Paisley and 26·5 in Greenock. The 648 deaths in these towns included 68 which were referred to the principal zymotic diseases, equal to an annual rate of 2.4 per 1,000, which was 0.4 below the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Paisley and Perth. The 305 deaths registered in Glasgow included 10 from whooping-cough, 6 from scarlet fever, and 6 from diphtheria. Three fatal cases of small-pox were recorded in Leith. The deaths referred to diseases of the respiratory organs in these towns last week were equal to an annual rate of 6.4 per 1,000, against 8.6 in London.

HEALTH OF IRISH TOWNS.

In sixteen of the principal town districts of Ireland the deaths registered during the week ending Saturday, December 9th, were equal to an annual rate of 28.4 per 1,000. The lowest rates were recorded in Dundalk and Lurgan, and the highest in Galway and Drogheda. The death-rate from the principal zymotic diseases averaged 3·1 per 1,000. The 205 deaths registered in Dublin were equal to an annual rate of 30.6 per 1,000 (against 28.6 and 27.1 in the preceding two weeks), the rate during the same period being 31.0 in London and 23.6 in Edinburgh. The 205 deaths in Dublin included 23 which were resulted from the principal zymotic diseases, equal to an annual rate of 3.4 per 1,000; of these 23 deaths, 9 were referred to enteric fever, 6 to whooping-cough and 5 to measles.

BREAD CART AND AMBULANCE.

It appears that on occasions, regarding the frequency of which there was some difference of opinion among the witnesses at the recent inquest, the bread cart of the Bath Workhouse is used for the removal of sick paupers. Charles Clement, aged 66, suffering from general debility, and feeble heart, was so removed on December 9th, and died twenty minutes after the termination of his ride. We will not enter into the question who was responsible for so improper a use of a conveyance intended for such different purposes; it is, however, of interest to note that when a workhouse is badly managed in one respect, so it is likely to be in others. A board of guardians which by its officers will permit the removal of the sick during a snow storm in a bread cart is not likely to take much care of them after they are admitted, and so we are surprised to find that the Bath Workhouse is one of the bad ones in regard to its nursing arrangements. Two paid nurses for 183 sick beds! So that even if the poor man had lived he would have been handed over to the tender mercies of pauper nurses.

HOSPITAL SEWAGE DISPOSAL.

A fever hospital is one of the last places which we should expect to find causing nuisance and annoyance by the method of disposal of its sewage; but the Eccleshill local board have lodged a complaint against the Calverley joint hospital board on account of the pollution of the Fagley brook by sewage from the hospital premises. Not alone is the brook a source of water supply to a number of persons, but it likewise furnishes the drinking water for the cows on a dairy farm, the milk going largely to Bradford. We do not know what treatment the sewage undergoes before it leaves the hospital, but the danger of consuming the water of the beck seems great seeing that there are about a score of typhoid patients in the wards. The construction of a sewer to obviate the nuisance has been urged, and proceedings threatened if the matter be not remedied.

LEICESTER SMALL-POX ISOLATION ARRANGEMENTS.

We understand that the Leicester Sanitary Committee have reported favourably of the plan of isolating small-pox and scarlet fever cases in separate buildings instead of in separate wards, the small-pox hospital to be of a temporary character, costing some £350, with administration and staff quite distinct from the fever hospital; but it is still to be on the same site, though as far removed as possible. Accommodation is to be made for twelve or fourteen adults, with further increase of beds if children be in question. Past experience, however, has shown the danger of "isolating" small-pox, even in a separately administered institution, on the same site as other diseases.

VACCINATION IN ITALY.

Official statistics show that from January 1st to May 15th, 1893, 106 heifers were inoculated in the Italian State Vaccine Institute. Between the same dates 9,297 applications for vaccine were received at the Institute, and a quantity of vaccine was sent out sufficient for the vaccination of 1,061,798 persons. The reports of 5,322 vaccinations sent in during the same period show that of primary vaccinations 98.3 per cent. were successful, and of secondary 78.6. From December 1st, 1888, to May 15th, 1893, the total number of heifers inoculated was 797; 714,472 applications for vaccine were received, and material sufficient for the vaccination of 7,208,038 persons was sent out.

ANTHRAX IN MAN.

A man, aged 64, died recently from anthrax, in Poplar. It is stated that he scratched his hand five or six weeks before his death. He had been carting hides, in handling which he had probably received infection, for he was found in the street in a half unconscious condition with the wounded hand much swollen. He was removed to the Poplar Workhouse, where he died the same night.

In the generalised form of anthrax, known as woolsorter's disease, much has been done to lessen the risk by the introduction of fans to draw the dust away from the sorters, by having the bales opened under skilled supervision in a special room provided with a strong extraction ventilator, and by thoroughly washing all dangerous or suspicious samples before they go to the sorting room. Measures of this sort are not perhaps applicable to the trade in hides, but the danger might be lessened by measures tending in the same direction, and having regard especially to the dust produced in the process of sorting. It would seem that a good deal of unnecessary handling of the hides takes place while in their dry state. Their ultimate fate is always to be soaked in water, and if it could be arranged that they should be sorted into their various qualities at the places where the bales are made up, instead of coming over in mixed lots, our people would be saved one process which is most dangerous in regard to generalised anthrax. It must, however, be remembered that the form in which this disease mostly affects those who deal with hides is that of localised anthrax, or malignant pustule, which obviously is often the result of the infection entering through lesions of the skin, and considering the weight and harsh nature of the material and the manner in which it has to be handled, we can hardly hope that the trade can be freed from risk so long as infected skins are imported. The early recognition of the local infection and its immediate treatment by excision and cauterisation appear to offer the best chance of successful treatment.

THE CONDITIONS UNDER WHICH WOMEN WORK.

In the reports by the Lady Assistant Commissioners of the Labour Commission attention is drawn to the heat to which women are exposed in wool combing, the temperature in some of the rooms rising to over 100° F. Where the lavatories opened direct into the combing sheds the effluvia from them were much increased. The dust and smell from foreign rags which have been compressed in bales for many months was often very injurious. Where the sexes worked together immorality was in some places encouraged by the insufficient sanitary arrangements, the same closets being used by men, women, and children. In many places there was no means of getting hot water with which tea could be made, and the workers were thus encouraged to resort to alcoholic beverages. At some places the workers had to walk miles to their work, often through pouring rain, and when they arrived there would be no proper place for their outer garments, which therefore had all to be thrown together in a corner, and thus it happened that when they put on these wet things again at night they often caught severe colds.

The more light is thrown on the conditions under which work is carried on, both by men and women, in modern manufacturing industries, the more clear does it seem that a great deal of apparent suffering is inflicted from sheer thoughtlessness, suffering which could be relieved with but little trouble and at a barely appreciable expense. At the same time it must be admitted that, in many cases, the customs of certain industries have sprung as much from the habits of the workers, and their indifference to better things, as from any definite intention on the part of the employers.

NOTIFICATION FEES IN PUBLIC SCHOOLS.

Dr. H. Alder-Smith and Dr. C. E. Shelly, Honorary Secretaries of the Medical Officers of Schools Association, write to say that the question as to whether a public school is a "public institution," and whether, therefore, fees on the higher or on the lower scale can be claimed by the medical officer for the notification of cases of infectious disease occurring amongst its inmates, has been raised from time to time. The following letter, which has been received by the medical officer of of a public school, in response to inquiries on the subject, possesses an authoritative interest in this connection:—

"Local Government Board, Whitehall,
"September 16th, 1893.

"Sir,—I am directed by the Local Government Board to advert to your communication of the 7th ult., as to your claim to certain fees in respect of certificates under the Infectious Disease Notification Act, 1889, forwarded by you to the ——Rural Sanitary Authority, and with regard to the amount of the fee payable for notification of cases of infectious disease occurring at —— College.

"I am to state that while the Board are not empowered to give authoritative interpretation of expressions in Acts of Parliament, it does not appear to them that the governing body of the College is a public body or institution within the meaning of the Act. You are, therefore, in the Board's opinion, entitled to be paid the higher fee (2s. 6d.) for each notification under the Act given by you as medical officer of the College.....I am, Sir, your obedient servant,

(Signed) C. W. Dalton, Assistant Secretary."

THE DISCHARGE OF SCARLATINA PATIENTS.

At the last meeting of the Navan (Ireland) Board of Guardians a complaint was made by Dr. Sullivan that some cases of scarlatina which he had sent into the workhouse fever hospital had been discharged while in the condition of "peeling." He asked the Board to make an order to the effect that no person attacked by the disease should be pronounced free from it sooner than six or seven weeks. The master stated that some cases admitted on November 14th had been discharged on November 23rd. The further consideration of the matter was postponed so that Dr. Finnegan, the medical officer of the workhouse, might send in an explanation]

MEDICAL NEWS.

Mr. J. Knowsley Thornton has been appointed to the Commission of the Peace for the county of Cambridge.

The students of the London School of Medicine for Women gave their Christmas entertainment to the patients and nurses of the Royal Free Hospital on December 15th. Carols were sung in the wards and the convalescent men were entertained in the Lecture Room with tableaux, songs, and music.

Presentation.—Dr. John Clay, who has recently been appointed House-Surgeon to the Royal Infirmary, Newcastle-on-Tyne, has been presented by the students of the University of Durham College of Medicine with a case of solid silver catheters and other surgical instruments, and a copy of Morris's *Treatise of Anatomy*. The presentation was made by Dr. Howden in the name of the students.

The Dublin Quack.—The quack, Farlow, otherwise "Dr. Hy. Franks," whose arrest on a charge of endeavouring to procure a lady for immoral purposes has already been recorded, was tried at the late Commission of Oyer and Terminer in Dublin. The prisoner was convicted of having sent an obscene letter, and was accordingly sentenced to twelve months' imprisonment.

Hospital Saturday Fund.—The receipts of this fund to November 25th amounted to £17,056 16s., a decrease of £120 upon a corresponding period last year. There had been a sum of £5,684 16s. 11d. received from the workshops during the first quarter. The workshop expenses had reached £2,392 4s. 2d., as compared with £2,067 15s. 2d. in 1892. It is hoped that the awards to the hospitals, which will be made about the middle of January, may not be less than those of last year.

An Imperial Pharmacopœia.—The next edition of the *British Pharmacopœia* must not be expected so early as 1895. The interval between the last two editions was 18 years, and that between the present and the next is not likely to be less than 12 or 13. The current edition was published in 1885, and as it is intended to take the opinion of Indian and Colonial authorities, the work of preparing the new edition cannot be undertaken for another year or two. In November, 1886, very soon after the publication of the current edition, "the question as to whether or not any changes—and, if any, what changes—can be effected in a future *British Pharmacopœia* to better adapt it to Colonial requirements," was raised in a letter addressed by Professor Attfield, reporter on the *British Pharmacopœia* to the General Medical Council, to the Chairman of the Pharmacopœia Committee. The action of the Indian Government has now brought the matter to a definite issue.

The Sanitary Institute.—The following lectures and sessional meetings have been arranged for the Spring Session, 1894:—Sessional Meetings, January 10th: "Diphtheria, its Causes and Prevention," Dr. Thorne Thorne, C.B., F.R.S.; February 14th, "The Sanitation of Places where Food is Stored and Prepared in Bakehouses, Kitchens of Restaurants, etc.," Dr. F. J. Waldo; March 14th, "Cholera," Dr. Thorne Thorne, C.B., F.R.S. Lectures and Demonstrations for Sanitary Officers, including visits of inspection to sewage and destructor works, waterworks, cowhouses, offensive trades, and other places of interest from a sanitary officer's point of view; the lectures commence on January 26th, and are continued on Tuesdays and Fridays for a course of eighteen lectures. Lectures on Domestic Hygiene in Lent for Ladies, by Dr. A. T. Schofield, entitled, "Modern Hygiene in Practice"; March 2nd, "In Infancy and Childhood;" March 6th, "In Adolescence and Manhood;" March 9th, "In Sickness;" March 13th, In the House. Afternoon tea will be provided at the close of each lecture.

Quarantine at New York.—The annual report of Dr. Jenkins, Health Officer of the Port of New York, is interesting chiefly from the very careful history it gives of the measures taken to prevent the incursion of cholera. The passengers of all vessels on which suspicious cases had occurred during the voyage were subjected to at least seven

days' quarantine, the rest were admitted at once to port; and anyone who wishes to appreciate even in slight degree what a real quarantine would mean should study the difficulties involved even in such a partial measure as the detention of the passengers and the disinfection of the luggage from the infected ships alone. Only about 2,600 persons were quarantined, and the Fire Island episode showed how strained the organisation was even with that number thrown on its hands. But the number of passengers from foreign ports arriving in New York during the year was 509,467. In face of such figures the impossibility of quarantine becomes obvious to everyone.

RADICAL AND CONSERVATIVE DENTISTRY.—In his speech, after distributing the prizes to the successful students of the National Dental Hospital and College, Professor Michael Foster, who presided at the annual dinner, said that in old times the dentist's art followed a radical policy—it went to the root. Their present policy was eminently conservative; they desired, upon the merest remnant of a tooth, to build what might be a false tooth, but which was not treacherous. In old times the plan was simple; they tied a piece of string to the tooth and the other end to a door and slammed the door violently. Next came the introduction of the key, which was a cross between a boothook and a rat-trap. Now the armament of a dentist contained instruments of the most scientific character—and rightly so, for the teeth were the first line of defence for the human frame. Mr. Percy Edgelow and Mr. Sidney Spokes responded, and other toasts followed. It was announced that the Duke of York had consented to open the new buildings of the hospital in Great Portland Street, and to accept the office of President of the institution.

MEDICAL VACANCIES.

The following vacancies are announced:

BRISTOL CITY LUNATIC ASYLUM.—Second Assistant Medical Officer, duly qualified in medicine and surgery. Salary, £120 per annum, with furnished apartments, board and washing. Applications and testimonials to the Medical Superintendent, at the Asylum, Fishponds, near Bristol, by January 5th, 1894.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C.—House-Surgeon. Applications, with testimonials, to the Secretary before January 8th, 1894.

COUNTY LUNATIC ASYLUM, Burntwood, near Lichfield.—Junior Assistant Medical Officer, unmarried, doubly qualified. Salary to commence £100 per annum, with board, lodging, washing, and attendance. Applications to Dr. Spence, Medical Superintendent, by December 30th.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Dental Surgeon; must be a Licentiate in Dental Surgery. Applications to J. Francis Pink, Secretary, by January 8th, 1894.

GENERAL HOSPITAL, Birmingham.—Assistant House-Surgeon. Appointment for six months. Applications and testimonials to the House-Governor by December 30th.

HORTON INFIRMARY, Banbury.—House-Surgeon and Dispenser, duly qualified and registered. Salary, £60 per annum, with board and lodging. Applications and testimonials to C. H. Davids, 21, Marlborough Road, Banbury, by January 6th, 1894.

KIMBERLEY HOSPITAL, Kimberley.—Senior House-Surgeon. Salary, £650 per annum, with unfurnished quarters for single men. Applications to H. A. De Beer, Secretary, by December 25th.

MANCHESTER SOUTHERN AND MATERNITY HOSPITAL.—Resident House-Surgeon. Honorarium, £75 per annum. Applications and testimonials to G. W. Fox, 53, Princess Street, Manchester, by December 27th.

NORFOLK AND NORWICH HOSPITAL, Norwich.—Assistant to the House Surgeon. Appointment for six months. Board, lodging, and washing provided. Applications to the House-Surgeon by December 26th.

ROYAL ALBERT HOSPITAL, Devonport, Assistant House-Surgeon for six months. Board, lodging, and washing provided. No salary. Applications to the Chairman of Medical Committee by December 27th.

ROYAL LONDON OPHTHALMIC HOSPITAL, Moorfields, E.C.—Junior House-Surgeon. Salary, £50 per annum, with board and residence. Applications and testimonials to be sent to the Secretary by January 4th, 1894.

SURREY DISPENSARY, Great Dover Street, S.E.—Surgeon. Honorarium, £52 10s. per annum. Applications to J. Harrison, 179, Bermondsey Street, S.E., before January 9th, 1894.

VICTORIA HOSPITAL FOR SICK CHILDREN, Queen's Road, Chelsea, S.W.—House-Surgeon and House-Physician to the In-patients. Honorarium, £50 each per annum, with board and lodging in the hospital. Applications to the Secretary by January 13th.

WEST LONDON HOSPITAL, Hammersmith Road, W.—House-Physician. Appointment tenable for six months. Board and lodging provided. Applications to R. J. Gilbert, Secretary-Superintendent, by December 27th.

MEDICAL APPOINTMENTS.

BURT, Mr. C. C., appointed Medical Officer for the Snitterfield District of the Stratford-on-Avon Union.

CARRUTHERS, J. F., M.B., C.M.Edin., appointed Medical Officer for the Tattershall District of the Horncastle Union, *vice* H. H. Ashdown, M.B.Edin., deceased.

COLE, T. W., B.A.Dub., M.B., appointed Medical Officer of Health to the Bolsover Local Board.

COX, Walter Mundy, M.R.C.S., L.R.C.P., appointed Resident Medical Officer to the Birmingham and Midland Free Hospital for Sick Children.

CRAWFORD, Mr. A., appointed Second Assistant Medical Officer of the Infirmary of the Parish of St. Leonard Shoreditch.

CROWTHER, Thomas, M.D., M.R.C.S., appointed Joint Medical Officer of Health for Warley, Luddenden Foot, and Midgley.

ETCHES, William Robert, M.R.C.S., L.R.C.P., D.P.H.Lond., appointed Medical Officer of Health for Macclesfield Urban Sanitary Authority, *vice* George Bower, L.R.C.P., L.R.C.S.Edin., resigned.

JONES, William Watkins, M.B., M.Ch.Edin., D.P.H.Camb., appointed Medical Officer to the South Wales and Monmouthshire Truants' School.

JORDAN, Walter R., M.B.Lond., appointed Extra Acting Physician to the Birmingham and Midland Free Hospital for Sick Children.

LAVERICK, John V., L.R.C.P.Lond., L.F.P.S.Glasg., appointed Medical Officer of Health to the Whitby Rural Sanitary District.

LENDRUM, J. B., M.B., M.S.Aberd., appointed Assistant House-Surgeon to the Huddersfield Infirmary.

LOCKWOOD, Harry, M.R.C.S.Eng., L.S.A., appointed Honorary Surgeon to the Sheffield Public Hospital, *vice* G. E. K. Thorpe, M.R.C.S.Eng.

MACTAVISH, Mr. J. W., appointed Medical Officer of the Lowdham District of the Southwell Union.

MORGAN, T. W. S., M.R.C.S.Eng., appointed Medical Officer for the Eighth District of the Bedminster Union, *vice* R. A. Ross, M.R.C.S. Eng., resigned.

SHEPERD, A. W., L.R.C.P., L.R.C.S.I., appointed Medical Officer of Health to the Cowbridge Town Council.

STANFORD, Mr. W. B., appointed Assistant Medical Officer to the Islington Workhouse Infirmary, *vice* H. E. Whitehead, L.R.C.P.Lond., M.R.C.S. Eng.

THORNE, C. A., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer of the Sixth District of the Ecclesall Bierlow Union.

THORPE, G. E. Knight, M.R.C.S.Eng., appointed Honorary Consulting Surgeon to the Sheffield Public Hospital.

TURNER, C. Byron, M.R.C.S.Eng., L.R.C.P.Lond., appointed Assistant Surgeon to the Grimsby and District Hospital.

WALLACE, C. S., F.R.C.S., L.R.C.P., appointed House Surgeon to St. Thomas's Hospital (extension).

WARNEFORD, S. W. C., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer of the Harbury District of the Southam Union.

WATT, Neish Park, M.A., M.B., C.M.Edin. appointed House-Surgeon to Gray's Hospital, Elgin.

WESTWOOD, Mr. A., appointed Medical Officer for the Stretford District of the Barton-upon-Irwell Union.

WHITE, J. A. T., M.R.C.S., L.R.C.P., appointed House-Physician to the Metropolitan Hospital, Kingsland Road, N.

WHITEHOUSE, Edwin St. John, M.R.C.S., L.R.C.P., appointed Resident Surgical Officer to the Birmingham and Midland Free Hospital for Sick Children.

WOODCOCK, A. H., L.R.C.P., M.R.C.S., appointed Clinical Assistant in the Department for Diseases of the Ear, St. Thomas's Hospital (extension).

WOODS, Herbert Hunter, L.R.C.P.Lond., M.R.C.S.Eng., appointed House-Physician to Charing Cross Hospital.

YOUNG, Meredith, M.B., C.M.Edin., Medical Officer of Health Borough of Brighouse, appointed Medical Officer of Health to the Rural Sanitary District of the Halifax Union, *vice* Dr. Ainley, resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 2s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTHS.

HAY.—December 16th, at West Allington, Bridport, the wife of W. A. E. Hay, M.R.C.S., of a son.

LUSH.—On December 19th, at 4, Maresfield Gardens, Hampstead, the wife of Percy J. F. Lush, M.A., M.B., M.R.C.P., of a daughter.

MARRIAGES.

CAMERON—EMBLING.—On October 25th, at All Saints Church, St. Kilda, Victoria, Australia, by the Rev. Canon Potter, M.A., assisted by the Rev. H. H. P. Handfield, Donald Cameron, M.B. and Ch.M. Univ. Edin., of "Ormond," Charnwood Road, St. Kilda, to Ethel Elfleda Austin, eldest daughter of the Honourable W. H. Embling, M.L.C., J.P., L.R.C.P.Lond., etc., of "Elmwood," St. Kilda, Chairman of the Staff and Senior Honorary Physician to the Alfred Hospital, Melbourne.

LANE—NEALE.—On December 13th, at St. Mary's, Primrose Hill, N.W., by the Rev. Canon Thornton, assisted by the Rev. A. Spencer, James Oswald Lane, M.D.Cantab., M.R.C.S., etc., Hereford, to Edith Percival, second daughter of John H. Neale, Esq., Bentinck Terrace, Regent's Park, N.W.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

Communications for the Current Week's Journal should reach the Office not Later than Midday Post on Wednesday. Telegrams can be Received on Thursday Morning.

Communications respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters non-delivery of the Journal, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

In order to avoid delay, it is particularly requested that all letters on the editorial business of the Journal be addressed to the Editor at the Office of the Journal, and not to his private house.

Authors desiring reprints of their articles published in the British Medical Journal are requested to communicate beforehand with the Manager, 429, Strand, W.C.

Correspondents who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

Correspondents not answered are requested to look to the Notices to Correspondents of the following week.

Manuscripts forwarded to the Office of this Journal cannot under any circumstances be returned.

Public Health Department.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ ***Queries, answers, and communications relating to subjects to which special departments of the British Medical Journal are devoted will be found under their respective headings.***

QUERIES.

Unqualified Assistants.

Yorkshire Member writes: I am anxious to go abroad and assign my practice to my unqualified assistant, who is partly qualified. My assistant is a most worthy and gentlemanly fellow. Could he legally engage, or arrange with a registered man, to manage the practice during his absence, so as to enable him to go away for a few months to read and get fully qualified?

*** If the practice belonged to the unqualified man, and he took any part in treating patients on his own account, the qualified practitioner would be liable to proceedings for "covering" him. It would be more regular to assign the practice to a qualified practitioner, with an arrangement for reassignment when the assistant obtained his qualification. As to the method of doing this our correspondent should consult a solicitor.

ANSWERS.

A. H. B. should consult the Educational Number of the British Medical Journal, September 2nd, 1893.

A Member.—Our correspondent will find that a question as to books to be read for the examination for F.R.C.S.Edin. was announced in the British Medical Journal of January 14th of this year, p. 103.

The Examination for the Medical Services.

Indian Army.—No special medical works can be named for study for the competitive examination for the medical services. The examination is a professional one except in certain voluntary subjects specified in the schedules, which can be obtained by application to the Admiralty, War, or India Offices. A general outline of the conditions will be found in the Educational Number of the British Medical Journal, September 2nd, 1893, p. 544.

Club Tariffs.

F. L. N.—An agricultural labourer earning 10s. a week and with a family is, in our opinion, a fit object for parish medical attention, and we do not see how any part of such a wage can be hypothecated for payment of medical services, however strong may be his laudable desire to be "independent." But that he receives such a wage and is therefore unable to pay a doctor is not, in our view, any valid reason why a medical man should be called upon to undertake his medical care for the sum of 4s. a year.

Ship Surgeons and Wealthy Passengers.

J. G. L.—The answer to the question whether the surgeon of a steamship is entitled to claim fees from well-to-do passengers depends mainly on the rules and regulations of the company in whose service the medical officer is engaged. The only Transatlantic line which explicitly allows the surgeon the privilege of demanding fees or submitting an account, we believe, is the North-German Lloyd, and it speaks very well for them and for their surgeons that they do so. Some British companies allow their surgeons to demand fees in cases where illness depends upon the patient's own folly or excess; but there are some, we regret to say, where the surgeon is indeed treated like a menial, and distinctly forbidden even to accept a fee; it is obvious that such firms cannot and do not expect to obtain the services of the best men. We do not know if the exact position of the medical profession in this matter has ever been legally determined, but it would be quite open to any medical man to obtain a decision thereon by taking a case into the county court, and if the passenger made a complaint to the company involving the surgeon's dismissal, there would probably be ground for legal action. The fact that the Government allows a fee for attendance on military and naval invalids returning home from abroad makes appear probable that the surgeon has a legal claim for special remuneration in certain cases. But, speaking generally, a great deal depends upon the *savoir faire* of the surgeon himself. Some men will do very well, while others, mainly by discounting themselves, do very little. Persons of education will seldom forget to settle with the doctor before they leave the ship, and in first-class lines there is but seldom any reason to complain of their behaviour. Our correspondent is perfectly right in declining a "tip," but if he is a brave man, and he thinks it worth while, when he declines the "tip" he will say what his fee is.

NOTES, LETTERS, Etc.

Correction.

Dr. H. Handford writes: In my letter in the British Medical Journal of December 16th, for water *seat* please read water *seal*; and for ill-kept *animals* read ill-kept *urinals*.

A Disclaimer.

Dr. W. Towers-Smith (Harley Street) writes: In *Vanity Fair*, November 30th, 1893, an article appears on obesity, and my name is mentioned. I have an objection to be advertised in the lay press, and beg to repudiate any knowledge of the report.

Russomania in Paris.

An amusing incident occurred recently during the examinations for the coveted post of *interne* in Paris. A candidate whose name gave unmistakable evidence of his Russian origin was received by the students present with a tremendous salvo of applause in honour of his country. He responded in a very unexpected manner to the enthusiastic shouts of "Vive la Russie!" by a stentorian "A bas le Czar!" which had an immediate antipyretic effect on the assembly.

The Highest Level and Subsoil of the Parishes within Twenty Miles of London.

The *Land Roll* for December, published by Messrs. Dowsett and Co. (3, Lincoln's Inn Fields) contains a list of about 300 parishes, which shows at a glance their highest levels and subsoils. It is of considerable value on the score of health alone to know where around London are the highest levels and the dry healthy soils.

The Size of the Pupil.

Captious Critic writes to point out with regard to Mr. E. F. Flynn's statement in describing his case of "Poisoning by Essence of Pennyroyal" that "both pupils were dilated to the size of a sixpence," that the average diameter of the human iris is but 10 or 11 millimetres, while that of a sixpence is nearly 20 millimetres (three-quarters of an inch).

Poisoning by Carbolic Acid.

Mr. C. J. S. Thompson (Liverpool) writes: In reference to your able article in the British Medical Journal for December 16th on the necessity for some regulation being placed on the sale of carbolic acid to the public, there is little doubt if the sale is restricted to registered chemists only it will go a long way towards lessening the long list of lamentable accidents caused by this poison. But I would further suggest that the sale of the crude acid in small quantities should be prohibited altogether, except when packed in proper poison bottles, and it should only be retailed in the form of what is known as carbolic powder, containing 15 or 20 per cent. of strong acid. In this form it is cheap, and could be handled and used in any household without fear of mistake of accident occurring; while at the same time it would be as effective, and answer every practical purpose as a disinfectant. A regulation of this kind would also prevent its so frequent use by the poorer class as a means of committing suicide.

The Society for the Relief of Widows and Orphans of Medical Men.

Dr. Stamford Felce (London) writes: In reference to the letters of "F. A. H." in the British Medical Journal of December 16th, I should like to remind the numerous house-physicians and house-surgeons in our London hospitals that they are now eligible for election as members of this excellent—and I may say wealthy—Society; and, once elected, would continue members, although their residence might hereafter be far beyond the "twenty mile radius."

I know that many country practitioners, not knowing this in time, have missed their opportunity, and have regretted it again and again.

Unconstricted Thermometers.

C. C. C. writes: Dr. W. Hardman will cease to pine for these instruments if he will try the following device: Take a piece of rubber tubing 4½ inches long, a little less in diameter than that of the thermometer, cut off a quarter of an inch, divide this longitudinally, and push it within the tube to about 1 inch from the end, fix it with a piece of silk tied tightly round outside the tube. The other end of the tube should then be inverted for about a quarter of an inch, making a knob by which the tube can be firmly held between the finger and thumb. If the other end of the tube is then passed over the index end of the thermometer, the latter will be safely held, and should be twirled quickly round a few times, when the index of the most constricted and tightened thermometer will be found to be replaced. There is no risk of the thermometer flying out of the tube if it is gripped with moderate firmness.

What is Beer?

The statement that "there is no legal definition of beer," referred to by a correspondent as appearing in the report of the Local Government Board, is not a statement made by that department, but a quotation from the report of a public analyst who is evidently very imperfectly acquainted with the subject. The Act 43 and 44 Vict., c. 20, defines beer as including "ale, porter, spruce beer, and black beer, and any other description of beer." The permission to use sugar and other malt adjuncts as a source of alcohol in brewing is carefully controlled by the Excise officers, according to definitions and provisions in the Act. By

a subsequent Act (48 and 49 Vict., c. 51) the definition of beer was extended to "any liquor made or sold as a description of, or substitute for beer, and in which on analysis more than 2 per cent. of proof spirit shall be found," and by a general order that limit was afterwards raised to 3 per cent. The strict supervision under which brewers carry on the manufacture of the varieties of beer commonly used as beverage constitutes the best guarantee against adulteration during that stage. The chemical nature of the several constituents of beer is sufficiently well known to admit of its quality as an article of diet being satisfactorily ascertained, and any adulteration likely to be practised by retailers detected. Consequently the statement that "the public analyst is at present absolutely powerless to deal with beer" amounts to nothing more than a confession of ignorance discreditable to persons holding that position.

The Abuse of Hospitals.

Dr. Adolph Bronner (Hon. Surgeon to Bradford Eye and Ear Hospital) writes: Might I trouble you for your opinion on the following questions. At the Bradford Eye and Ear Hospital patients are admitted by recommendations from subscribers. There are two kinds of recommendations: 1. Able to pay.—This form must only be given to those patients who are able to pay 1s. for the first examination, 6d. for each subsequent one. 2. Not able to pay.—This form must only be given to those patients who are unable to pay 1s. for the first examination, 6d. for each subsequent one. Rule No. 5 states: Patients who are not able to pay for private medical advice, but who can nevertheless contribute something towards the maintenance of the charity, are expected to pay 1s. for the first advice, and 6d. for each subsequent attendance," etc. The hospital is very much abused by patients who are very well-to-do. I maintain: 1. That the abuse of the hospital is to a great extent due to the fact that patients who pay 1s. for advice think that they have a perfect right to come. 2. That it is humiliating to the honorary staff to receive 1s. and 6d. for advice given, even if the money received does all go to the funds of the hospital. 3. That the fact of patients being admitted who pay the shilling tends to make the hospital and also its honorary staff unpopular among the neighbouring medical practitioners. The question of altering the rule as regards receiving paying out-patients is at present under consideration by the committee.

*** This letter is accompanied by two printed forms—one for persons "not able to pay," entitling them to free attendance, with no limit of time; the other for persons "able to pay" 1s. for the first and 6d. for all subsequent attendances, but (in the opinion of the subscriber) "not able to pay a regular medical fee." A subscription of one guinea entitles the subscriber to twelve such forms. There seems no provision for any investigation into the reality of the inability in either case, though subscribers "are particularly requested to satisfy themselves respecting the circumstances of the applicant." How is any private person to do this, and how is he to ensure that the person whom he recommends is the one who presents the recommendation?

We are perfectly in agreement with our correspondent as to the utter impropriety of the system. The view uniformly taken in the British Medical Journal is that medical charity should be gratuitous, that it should be confined to persons who are fit recipients of gratuitous charity, and out-patient practice should be so administered that the diseases treated should be such as are capable of relief by that somewhat rough and ready method of treatment. For the latter purpose some previous form of medical examination and medical recommendation is necessary, except in the case of ordinary casualties. It seems to us monstrous to admit anyone "able to pay" as a patient for 6d. a visit on the mere authority of a printed form, signed by a subscriber, without any proper inquiry. If he is able to pay, why should he not pay what he is able to the medical man instead of to an institution? And why should the institution make a charge so absurdly inadequate? Is it not obvious (as Dr. Bronner hints) that the effect will be to "sweat" down the rate of fees in the neighbourhood of the hospital which pursues such a course, and to fix indelibly in the public mind the idea that 6d. is the proper charge for seeing a patient with an affection of the eye or ear? More and more are we convinced, as fresh instances of the abuse of the out-patient system are brought under our notice, that it is impossible to find a satisfactory solution by any private discussion or private action. If we would avoid the wholesale degradation of the poor and the wholesale ruin of the practitioners in poor districts the matter must be taken up by the great medical corporations and by the public.

Riviera Health Resorts.

Dr. Haughton (Upper Norwood) writes: What your correspondent, Dr. Mivart, says about Nice is in many respects correct, especially since the making of recent improvements; but when he says that the climate of Alassio is bad I cannot agree with him. It is, however, at present entirely given over to the extra High Church folk, and is isolated by its situation. So far as the climate goes it is very fine, and the seashore has a lovely soft sand that cannot be rivalled by any of the French resorts. Then, as to Nervi, at present it is almost exclusively frequented by Germans, and it certainly is not cheap. But neither is it fair to call it "insanitary," the only part of the town which can really be complained of being quite hidden from the ordinary visitor. Nervi has the great advantage of being within half an hour of Genoa, and there are some exquisite places in it. But the well-sheltered area is comparatively small, and the really nice walks require good climbing legs and some patience to get at them. I presume your correspondent has not investigated Rapallo, but it comes next in order on the Italian coast, and is more economical than Nervi, whilst the visitors are mostly English. There are more numerous walks about this place than almost any other station on the Riviera, and some of the vistas are enchanting. Dulness, however, reigns. As a halfway house to the Riviera on the direct line, Lugano may be recommended. The climate is so dry that it seldom rains in winter, but it must be admitted that it sometimes snows. There are, however some sheltered places close by, where snow seldom lies, and where good protection from cold winds can be had. If I might mention another rising Italian health resort, not on the Riviera, I would like to recommend Salo, on the Lago di Garda, as cheap and with a good climate. The scenery is varied and beautiful, and there is a nice class of Italians resident. The lake itself has a good service of steamers, and there are many places of interest near to it. I am always sorry for Italy when I see how the inhabitants just miss satisfying visitors by abominable "Customs regulations," quarantine, and other superstitions, and by neglect of such sanitary improvements as would befit their glorious scenery and really excellent winter climate.

Hydatids of the Urinary Bladder.

Mr. E. Hurry Fenwick (Old Burlington Street, W.) writes: I notice that the report of a case of successful removal of a large hydatid sac from the back of the bladder, which I showed at the clinical meeting of the Medical Society on November 27th, has been incorrectly reported in the British Medical Journal of December 9th (page 1274). It is there stated that I remarked that "it was the only case recorded in the literature for the last 200 years." Probably this mistake has arisen from a slip in the shorthand report. What I did say was: "There were 100 cases on record in the last 200 years, and of these 52 had occurre in the male subject." In order to illustrate the subject I demonstrated two preparations of hydatid sacs of the bladder which I had previously shown at the Pathological Society. I have entered fully into the subject in an article which will probably appear in the *International Clinics* and to this I would refer those who are interested in the matter.

LETTERS, COMMUNICATIONS, Etc., have been received from:

(A) Mr. D. Ainley, Halifax; Mr. F. P. Atkinson, London; Anæsthesia; Dr. Andriezen, Wakefield. **(B)** Mr. E. G. Boon, Alassio; Lady Baker, Blandford; F. W. Burton-Fanning, M.B., Norwich; Mr. B. Baskett, London; Mr. J. Beddow, London; B. B. **(C)** Dr. E. Casey, Windsor; W. S. Colman, M.B., London; Mr. J. A. Cope, London; Mr. S. W. Churchill, Atherstone; Ceylon; C. C. C. **(D)** Dr. J. Dreschfeld, Manchester; Mr. R. Dwelly, Chard; Mr. A. Duncan, Milwaukee; Dr. H. Droixte, Brussels. **(E)** Mr. H. F. Elliott, Farnham. **(F)** Mr. R. Fletcher, Manchester. **(G)** Mr. F. W. Gibbon, South Shields; Dr. H. R. Greene, Knaphill; Mr. A. G. L. Gliddon, London. **(H)** Mr. W. F. Haslam, Birmingham; Mr. J. Haworth, London; Mr. T. W. Hannaford, London; Mr. H. Hemsted, Whitchurch; Mr. J. F. Hague, London. **(I)** Dr. F. Isdell, London; I. M. S. **(J)** Mr. F. F. Jones, Llanfyllin; Mr. F. W. Jordon, Stockport; Dr. C. E. Jennings, London. **(K)** T. N. Kelynack, M.B., Manchester. **(L)** H. L. G. Leask, M.B., Glasgow; R. H. Lucy, M.B., Plymouth; L. M.; Licentiate of Royal College of Surgeons of Ireland. **(M)** Mr. J. McOscar, Stoneleigh; Member; Mr. J. D. Menzies, Chatham; Mr. T. McCormick, Birmingham; Medicus Rusticus Scoticus; M.R.C.P.: Mr. W. Moxon, Matlock; M.A.; Medicus; M.D.Scot. **(N)** Dr. W. Neman, Stamford; Mr. F. L. Nicholls, Cambridge; Dr. A. Napier, Glasgow; Dr. J. Neish, Kingston; Dr. F. Needham, London. **(O)** Mr. J. J. O'Hagan, Garston; T. H. Openshaw, M.B., London; Dr. B. O'Connor, London; Dr. T. Oliver, Newcastle-on-Tyne. **(P)** Dr. L. C. Parkes, London; Dr. F. Parsons, Worthing; Mr. H. H. Phillips, London; Paterfamilias; Progress. **(Q)** Q. A. S. **(R)** Dr. J. C. Renton, Glasgow; Mr. J. M. Ross, Ardgay; Rusticus; Dr. H. S. Renshaw, Manchester; Mr. W. H. Roberts, Yeovil; Rudall; Madame P. Richmann, London. **(S)** Messrs. J. Swain and Co., London; Mr. R. B. Sidebottom, Glossop; Mr. A. R. Sieveking, Cambridge; Sanguine; Dr. W. J. Sinclair, Manchester; Dr. J. W. Springthorpe, Melbourne; Mr. W. Steer, London; Surgeon; Mr. F. Stokes, London. **(T)** Dr. D. F. D. Turner, Edinburgh; Mr. H. Turnbull, London. **(W)** Mr. E. V. Whitby, Birmingham; Mr. A. Wheeler, London; Mr. G. J. Williams, Fishguard; Mr. W. E. Williams, Abertillery; Mr. V. H. Wingrave, London; Dr. C. J. White, Bournemouth; Mr. C. W. Wallis, London; W. M. H.; Dr. L. Wainwright, Folkestone; Dr. R. T. Williamson, Manchester. **(Y)** Yorkshire Member.

BOOKS, Etc., RECEIVED.

Hernia: its Palliative and Radical Treatment in Adults, Children, and Infants. By Dr. T. H. Manley. London: F. J. Rebman. 1893. 11s.

The Physiology of Death from Traumatic Fever. By J. D. Malcolm. London: J. and A. Churchill. 1893. 3s. 6d.

Tales of the Children's Ward. By Honnor Morten and H. F. Gethen. London: Sampson Low, Marston, and Co. 1894.

Die Beriberi-Krankheit. Eine geographisch-medicinische Studie. Von Dr. B. Schenbe. Jena; Gustav Fisher. 1894.

Medicated Baths in the Treatment of Skin Diseases. By Dr. Leslie Phillips. London: H. K. Lewis. 1893. 4s. 6d.

Dictionary of the Active Principles of Plants. By Charles E. Sohn. London: Baillière, Tindall, and Cox. 1894. 10s. 6d.

Abstract of the Transactions of the Hunterian Society, 1892-93. London: H. D. and B. Headley. 1893.

***** In forwarding books the publishers are requested to state the selling prices.**

LECTURES
ON
INJURIES TO THE EPIPHYSES AND THEIR RESULTS.

Delivered at the Royal College of Surgeons.

By JONATHAN HUTCHINSON, Junr., F.R.C.S.,
Professor at the College,
Assistant Surgeon and Demonstrator of Practical Surgery at the London Hospital.

Lecture II.

The Lower Epiphyses of the Humerus.

Before considering the injuries to the lower epiphyses of the humerus a few words must be devoted to the complex subject of their anatomy. At birth the epiphysial disc is a fairly straight line, crossing the bone just above the two epicondyles, the olecranon fossa being immediately over it. Ossification in the capitellum is said to begin during the third year; I have found it at eighteen months, and Farabeuf puts it as usually occurring during the second year. The epiphysis during the first few years increases steadily in width,[1] but comparatively little in depth, so that the olecranon fossa is seen to become more distant from the epiphysial disc, which is more and more curved both from side to side and from before backwards. In the fifth year a nucleus appears for the internal epicondyle, and the latter becomes more and more distanced from the bulk of the lower epiphysis. A third nucleus for the trochlea appears in the eleventh or twelfth year, fusing soon with that of the capitellum, and with the shaft in the sixteenth or seventeenth year, the internal epicondyle (we may here disregard a small separate nucleus for the external epicondyle) uniting about a year later. From these dry anatomical details we can deduce several points of interest:—

1. The lower epiphysis is most likely to be detached *en masse*—that is, taking with it both epicondyles—before the age of 13 or 14 years (Farabeuf wrongly says that it cannot occur after 4 or 5, and that to assert the opposite is a surgical enormity).

2. The epiphysis increasing so slowly in depth comes to lie more and more in the elbow-joint, and as a rule its detachment means a wound of, and more or less hæmorrhage into, this joint.



Fig. .—Vertical section through elbow-joint at age of 18 months, showing the epiphyses of the humerus and ulna, and their relation to the joint cavity.

3. The marked downward curvature of the epiphysial line, the distancing from it of the olecranon and coronoid fossæ, and increasing comparative width of the epiphysis, make it extremely probable that a detachment of the latter will only partially follow the epiphysial disc, and that it may be rather a fracture than a true separation. We possess a certain amount of pathological evidence on this much disputed point.

In one case recorded by Clarke[2] (the patient aged 12) death occurred from gangrene due to a bonesetter's tight bandage. The detached epiphysis was found not to include the epicondyles.

In a second case,[3] aged 10, where the same untoward result led to a necropsy, the detachment was above the epicondyles, and followed the epiphysial line closely. In a third, aged 2, under my own observation, death occurred from croup at the end of fifteen days after the accident. The specimen is in the Royal College of Surgeons Museum, and shows that the line of separation follows only half-way the epiphysial disc, diverging for the other half into the diaphysis (see Fig. 4).



Fig. 4.—Detachment of lower epiphysis of humerus, specimen obtained a fortnight after the accident. The line of separation has passed on the inner side into the diaphysis. Bony union was occurring with some lateral displacement.

In a fourth case, aged 13, primary amputation was performed. The detachment followed the epiphysial line exactly except at the extreme external part.

My father and one or two other surgeons have recorded cases of compound separation in which it was found on operation that the epiphysial line had been followed fairly closely. Like Schüller, I have performed a great many experiments on the cadaver, and found that before five or six years it is easy to detach the lower epiphysis of the humerus *en bloc* by various forced movements, but that after that age the separation is usually in part a fracture. As regards the question of shortening in actual practice the point is of no great importance, for the lower epiphysial line of the humerus may practically be disregarded after the tenth year, being only responsible for one centimetre of the subsequent increase in length.

It may be stated that probably a clean separation exactly at the epiphysial disc is uncommon after the age of 5 or 6, but that it may occur some years later, and that in the cases, over fifty in number, now summarised,[4] it was present probably only in the minority. The youngest patient was 18 months old, the oldest 14 years. Suppuration never occurred unless the injury had been compound from the first, or had become so owing to sloughing of the over-stretched skin. In the great majority there is, when the patient comes under care, more or less deformity due to backward tilting or complete displacement of the epiphysis. This we must ascribe to the acting force being usually transmitted through the radius and ulna from in front, as in a fall on the hand, and partly to the action of the triceps muscle. Not infrequently the surgeon has also to correct a lateral displacement of the

[1] During the first two or three years the epiphysis is usually from 7 to 8 mm. in depth, and at 16 it is only about 10 mm.

[2] *Dublin Path. Trans.*, 1868, p. 111.

[3] Reeve, of Ohio, quoted by Hamilton in his *Fractures and Dislocations.*

[4] Twenty-four simple cases, 15 of them under my own observation; 23 complicated, mostly compound, cases; 5 cases of old separation of the epiphysis.

epiphysis either outwards or inwards, due to direct violence on one or other side of the joint, and very occasionally the epiphysis is driven forwards instead of backwards.[5]

The deformity resembles closely enough a backward dislocation at the elbow-joint, and hence frequent mistakes in diagnosis. The antero-posterior measurement of the elbow is increased, the olecranon projects, the triceps is abnormally curved. But the end of the diaphysis has not the characteristic outline of the trochlea and capitellum, the elbow can be hyperextended beyond the straight line, and, as a rule, the epicondyle preserves its normal relation to the olecranon. There is slight shortening of the arm; the deformity can be readily reduced with slight crepitus, and as readily recurs. It has been asserted that nearly all the supposed cases of dislocation of the elbow in early life (that is, under 16) are really examples of detachment of the epiphysis. This, however, is a mistake, for the commonest age for the dislocation is from about 5 to 15 years. It will be presently noted that many, although not all, of the cases of backward or outward dislocation of the elbow in young subjects are complicated by detachment of the internal epicondyle.

The forearm is usually in a position midway between full pronation and supination, and comparatively helpless. If there is detachment without any displacement the best sign is an antero-posterior movement or "give" in the bone just above the elbow, obtained by moderate pressure, lateral movement of the epiphysis being more difficult to elicit.

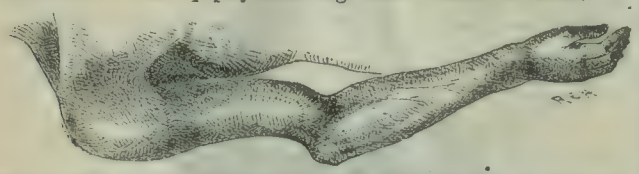


Fig. 5.—From a case of detachment of lower epiphysis of humerus, showing the backward displacement so often met with.

Amongst the complications we have to notice rapid effusion into the joint and swelling around it, the formation of callus in front of the joint which (if, as often happens, the reduction is imperfect) may be extravagant in amount, extending up the bone for some inches, and even sometimes pressing on the brachial artery; and injury to one or other of the three great nerves in the neighbourhood. Hamilton records one case in which the separation occurred at the age of 4; persistent deformity resulted, and numbness in the area supplied by the ulnar nerve lasted into adult life. In another case he operated at the age of 9 on account of forward projection of the diaphysis, complete loss of pronation and supination, persistent flexion of the wrist and fingers, and paralysis of both median and ulnar nerves. The latter had been displaced in front of the elbow, and was replaced at the operation, which does not seem to me to have been a very thorough one; some bone was merely cut away. No improvement followed.

Volkmann treated a case of compound separation of the epiphysis, reducing the protruding diaphysis. The result was fair as regards movements of the elbow, but permanent paralysis of the musculo-spiral remained. In one of my own cases pulsation at the wrist was stopped by the forward projecting diaphysis, and there were marked signs of pressure on the median nerve. These symptoms disappeared on reduction, and recovery was perfect but that flexion was limited to a right angle. In a case recorded by Wright pulsation at the wrist ceased on the eleventh day owing to pressure between the exuberant callus and an anterior splint. The case recovered, but with persistent backward displacement of the epiphysis.

To form a correct idea as to the prognosis of simple detachment of the epiphysis diagnosed at the time of the accident, and treated with splints in the flexed position, I venture to quote my own cases—14 in number. In 6 the result as regards absence of deformity and the elbow movements was practically perfect; in the remaining 8 a certain amount of limitation of extension and flexion—usually about 20 degrees in either direction—with thickening of the lower third of the humerus, remained when the patient was last seen. In only one was the power of rotation in the least affected, and it need hardly be said that a range of flexion amounting to 80 or 90 degrees is, whilst not ideal, of extreme value to the patient. Such results in unselected cases do not incline one to the view so strongly advocated by Bardenheuer, Illingworth, and others that the treatment of such injuries in the flexed position is wholly wrong and unsurgical. Let us candidly examine the arguments on both sides.

First, the advocates of treatment in full extension might say that the favourable results just mentioned are not the rule. We can answer this by adducing several cases in which great stiffness has followed the use of straight splints, a stiffness far more prejudicial than when it occurs with the elbow flexed. With the fear of this before them, some have advocated passive motion from a very early date. Union will be firm, provided the displacement has been fairly reduced, at the end of three weeks, and it is probably unwise to attempt it much before. To do as Warren [6] recommends—to employ no splints and to perform so-called "passive" motion daily from the time of the accident is simply barbarous, and a plan which we may leave to surgeons on the other side of the Atlantic.

Secondly, it is said the backward displacement of the lower fragment which is so common is best corrected in the extended position, and hence there will be less callus thrown out. Perhaps this is true; my own experiments on the dead subject after detachment of the epiphysis went in the opposite direction, there being a greater tendency to tilting when the elbow was extended than flexed.

Thirdly, it is undoubtedly easier to put up the elbow in the proper relation of the arm and forearm axes when extended. In case after case which has been carefully treated in flexion the "extension angle"—about 170 degrees open outwards—has been converted into an angle open inwards (see Fig. 6). It may at once be freely conceded that it is extremely difficult to prevent some lateral tilting of the epiphysis if an internal angular splint is used. *Per contra*, it may be said that full extension is an irksome position, especially if effusion comes on in the elbow-joint, and that to employ it without much discomfort almost necessitates keeping the patient in bed.

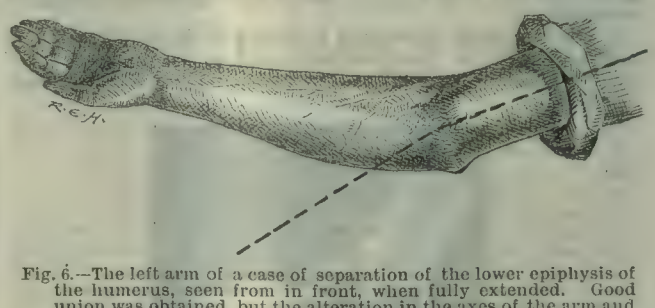


Fig. 6.—The left arm of a case of separation of the lower epiphysis of the humerus, seen from in front, when fully extended. Good union was obtained, but the alteration in the axes of the arm and forearm due to lateral displacement of the epiphysis is made evident by the dotted line (the normal position).

The whole question is still unsolved, and I shall be excused for dwelling on it here by the extreme importance of obtaining the best possible result in these injuries to the elbows of children. Personally, I believe in the virtues of a well-moulded splint applied to the back of the arm and forearm in the flexed position, and whilst extension is made on the lower fragment through the forearm. The back splint with an interruption opposite the elbow is also very useful.

As regards compound cases, where the diaphysis has protruded through the skin, we have records of 15 cases only, too small a number to draw any strong conclusions from. In six of these the diaphysis was reduced more or less perfectly, one recovered with an almost perfect arm, one with thrombosis of the brachial, a third with paralysis of the musculo-spiral. The other three ended in amputation, one primary, two secondary, owing to gangrene from the artery being torn or obliterated by splint pressure. In three cases a more or less complete excision of the joint was performed; one recovered with very good movements, one with a stiff elbow, the third

[5] In one case under my care this forward displacement was well marked.

[6] Warren, *Transactions of the American Medical Association*, vol. i, p. 174

with a fairly movable one. There seems to be no object in removing the epiphysis unless it is broken into fragments. In six cases the projecting diaphysial end was cut off in order to procure reduction; four of these ended in a most satisfactory result, one recovered with an ankylosed elbow, the sixth underwent amputation at the end of three weeks because no union had occurred—surely a premature proceeding. In two of the fifteen cases an action for malpraxis was brought. One feels certain that these results do not represent what may fairly be expected of the resources of surgery at the present time. Finally, we have to note two cases of operation for old deformity due to backward and inward displacement of the epiphysis. Both were under the care of Professor Bardenheuer, who divided the bone and removed part of the diaphysis. In both great improvement was obtained.

Included in the lower epiphysis of the humerus during the first few years are the two projections, the epicondyles, which later on ossify by separate nuclei, and one of which (the internal) deserves special consideration. The external epicondyle is so small and so extremely rarely injured that we may disregard it. The internal epicondyle by the fourth or fifth year has attained sufficient size to make its separate detachment probable, and between this date and the eighth year ossification takes place in it. Fusion with the rest of the bone occurs in the seventeenth to the nineteenth year. The age of the patients whose records I have collected (38 cases of detachment of the epicondyle) ranged between 8 and 18 years. Small as the epiphysis is (never more than 16 or 17 mm. in vertical measurement and half that in width) there are certain points about its separation and the complications attending the latter that make it worthy of more notice than its size would seem to warrant. In the first place, when the epicondyle is separated the elbow-joint is probably always opened; secondly, union takes place by bone only in rare cases; thirdly, the attachment of the strong internal lateral ligament and of several muscles to the epicondyle accounts for the frequency with which it is dragged off when lateral strain is brought to bear upon the elbow, and also for the ease with which true dislocation follows, once this small epiphysis has been detached. Finally, and this is the most important point of all, the epicondyle is in one sense the guardian of the ulnar nerve at the elbow, and when displaced is liable to exert most injurious pressure upon this nerve. In a paper published in the British Medical Journal last year I brought forward several instances of this complication, and expressed the belief that the difficulty in obtaining good movement after this accident was largely due to every attempt at flexion of the joint increasing the pressure upon the nerve.

A boy came under my care at the London Hospital who had simply detached the epicondyle, had been treated most ably at one of the other hospitals (where passive motion had been very frequently used, and he had been three times anæsthetised for this purpose). It was now three months since the accident; he could not bend the elbow 10 degrees from the straight line; had complete anæsthesia in the ring and little fingers, and wasting of the hand muscles supplied by the ulnar nerve. I excised the epicondyle (which was found to be the entire epiphysis), and at the operation found it to be displaced downwards, stretching the ulnar nerve over it, and united only by fibrous tissue to the humerus. After this the power of flexion was almost perfectly regained, and his anæsthesia disappeared; the muscles regained their power more slowly.

A second, practically identical case, I have since operated on with an equally satisfactory result.

We have only one displacement to consider, that in the downward direction, sometimes also a little forwards or backwards, and by any ordinary method of treatment there is practically only one result to expect—fibrous union. To my mind the only chance of obtaining bony union in good position after displacement of this epiphysis would be to fix it with an aseptic steel needle, but I am not aware that this has ever been tried. Whether the elbow is put up flexed or extended seems to make little or no difference as regards the displacement; Pézerat and Bardenheuer recommend the latter position, and all are agreed that gentle passive motion should be begun from one to three weeks after the accident. The amount of trouble to the surgeon and the patient that an apparently simple case of detachment of this insignificant epiphysis may cause is quite surprising. At the same time it may at once be admitted that in many cases a very good functional result is obtained. Thus, in 10 cases under my observation almost perfect range of movement in the elbow-joint was ultimately secured in the 7 which were followed up long enough to decide. Perseverance in the performance of passive motion was required in nearly all for some weeks. We have already noticed the coincidence of dislocation of the elbow, either backwards or outwards, with detachment of the internal epicondyle. The explanation is of course the same that accounts for Pott's fracture at the elbow being so often a mixed fracture and dislocation. A violent strain upon the internal lateral ligament of the ankle finds the weak spot at the epiphysial disc between the epicondyle and the rest of the bone; once the former is detached, there is practically nothing to hinder the remainder of the force producing a true dislocation. Hence a small practical deduction: when the surgeon has reduced a dislocation of the forearm in a young subject, let him examine the internal epicondyle. The chances are at least even that he will find it has been detached, and this will make it the more important to prevent the dislocation recurring by the proper use of a splint, and to obtain union of the little fragments of bone (fibrous though it will probably be) in such a position as to interfere least with the ulnar nerve and the elbow-joint.

SYMMETRICAL TALIPES DORSALIS IN AN ACEPHALOUS FŒTUS.

By JOSEPH GRIFFITHS, M.A.Cantab., M.D.Edin., F.R.C.S.Eng.,
Assistant to the Professor of Surgery in the University of Cambridge.

During the past summer Dr. Grove, of St. Ives, kindly sent me an acephalous fœtus, in which there was also a condition of spina bifida extending from the skull to the mid-lumbar region of the column. The spine was strongly bent forwards in the dorsal region, as is not infrequently the case in spina bifida. The spinal cord could not be discerned in any part of its length, but the spinal nerves could be displayed by careful dissection. The fœtus was in other respects normal and well formed, but the feet were symmetrically deformed in an unusual manner, as may be gathered from the accompanying sketches taken at the the time. (See Fig. 1.)



Fig. 1.—Talipes dorsalis, left foot.

This deformity at first sight resembled that known as talipes calcaneus, but an inspection of the sketches will show that the heel is not drawn down, but slightly drawn up, and the whole bone (os calcis), with that part of the foot, is hori-

zontal, this position being due to extension of the astragalus on the tibia; and the foot is sharply bent upwards upon itself at the mid-tarsal joint, so that the dorsum is applied to the anterior surface of the leg. The toes are flexed. In other words, there is extension at the ankle with hyperextension, which is preternatural, at the mid-tarsal joint.

In talipes calcaneus, on the other hand, there is extreme flexion at the ankle-joint, so that the tip or hinder part of the heel only would come to the ground, the foot remaining natural, or it may be hyperflexed, at the mid-tarsal joint.

The feet were frozen, and mesial sections were made in order that the relative positions of the bones might be seen and sketched. These sections are illustrated in Figs. 2 and 3,

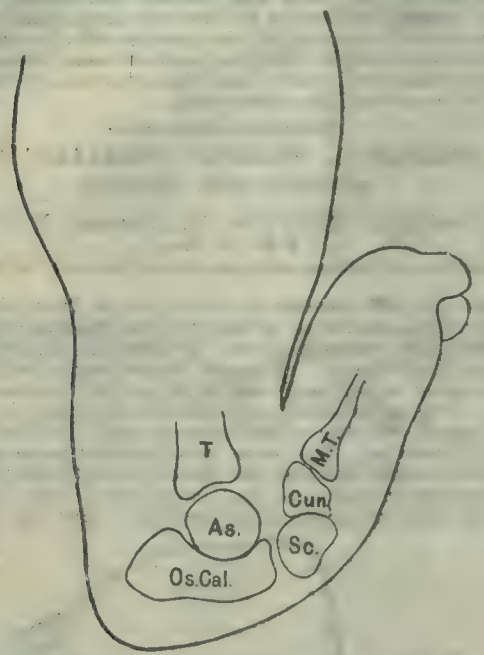


Fig. 2.—Section of left foot in talipes dorsalis.



Fig. 3.—Section of right foot in talipes dorsalis.

and, in order that they may be compared with a similar section of a normal foot at the time of birth, I have added Fig. 4.

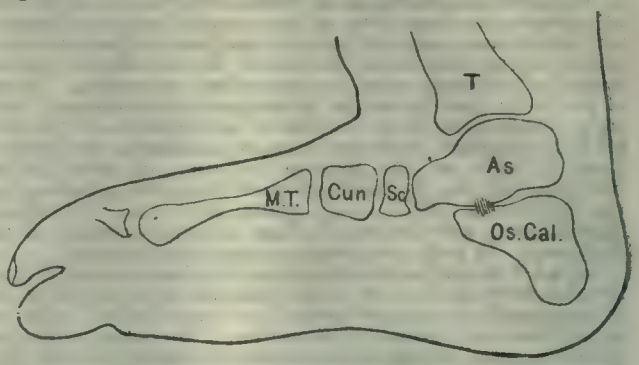


Fig. 4.—Section of normal right foot in fœtus at birth.

In the deformed feet the plantar arch is convex downwards, the head of the astragalus forming its summit. The os calcis lies in an almost horizontal position instead of rising upwards and forwards from the heel as it does in the normal foot. It is well formed and normally ossified, as are all the other bones. The astragalus lies with its long axis almost vertical, whereas normally it lies almost horizontal; the hinder part of the superior articular surface only is in contact with the tibia, and the head articulates in the main with an unusually long calcaneo-scaphoid ligament. This bone (astragalus) is natural in its shape and size, and there is no change in its neck that would account for this deformity; but the calcaneo-scaphoid ligament is much elongated, and also the long and short plantar ligaments, though not to the same extent. It appears, therefore, that the deformity in this instance is not due to any malformations of the bones, but rather to want of due balance between opposed sets of muscles, the ligaments adapting themselves to the altered position. The scaphoid, which bears its normal relation to the cuneiform bones, rests upon the dorsum of the neck of the astragalus, the lower part only of its hinder articular surface being in contact with the head of the astragalus. The cuboid is also displaced slightly upwards. The remaining bones of the foot bear the natural relation to one another.

The differences between the normal relation of the bones of the foot to one another and to the tibia and those obtained in this deformity are well illustrated in the sketches—Figs. 2, 3, and 4 that are appended. The muscles of the leg and foot appeared natural.

This condition may, perhaps, have been produced in the following manner: During the later months of intrauterine life the most common position of the foot is one of extreme flexion at the ankle-joint, the dorsum of the foot being applied to the anterior surface of the leg. If this natural position—which, when it persists after birth, is known as talipes calcaneus—were by some means or other fixed and unalterable, and if during that time contracture of the muscles of the calf occurred from changes in the spinal cord incidental to spina bifida, extension of the ankle-joint would take place, the mid-tarsal joint would give way and become preternaturally extended, and the calcaneo-scaphoid and plantar ligaments would be stretched and elongated, as in these two feet in the specimen.

I would lay stress that in this case, in which there is so marked a deformity, the defect is in no way due to abnormality in form or growth of the bones, but is entirely dependent upon want of balance of muscular action. In talipes varus, also, as far as my observations have gone, the same thing may be said, any deviation from the normal in the neck of the astragalus being obviously the result of traction upon the bone due to the preternatural flexion of the astragalo-scaphoid (mid-tarsal) joint in which the deformity chiefly consists; and it is not the neck of the astragalus only which becomes slightly altered, but the os calcis likewise, from the like cause—that is, from muscular traction—becomes somewhat flatter and more incurved than natural. In one specimen of extreme varus in the Cambridge Pathological Museum, the metatarsal bones have undergone slight

abnormal flexures; and it is probable—though I have not been able distinctly to observe this—that other bones undergo slight changes in form from abnormal stress in these cases. Bones do thus become modified in shape under abnormal pressure or traction, as shown by the ordinary lateral curvature of the spine, and no less markedly in that hardest of all bones, the lower jaw, under the influence of contraction of cicatrices and the pressure of a prolapsing macroglossia (see Spec. 1228 Camb. P. Mus.). The elongation of the ligaments is, of course, due to the same cause.

Further, the specimen is clearly an exaggerated form of the ordinary flat foot in which the same joint (mid-tarsal) is preternaturally extended, and the heel bone rendered horizontal. That is, in the main, due, as we know, to superincumbent weight. It is also, as in this case, attended with want of muscular balance, the extensors of the toes and the flexors of the ankle being preternaturally tense, and resisting return to the normal position.

NOTES OF A CASE OF ACROMEGALY TREATED BY OPERATION.

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WITH REPORT OF THE OPERATION BY
F. T. PAUL, F.R.C.S.,
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A. L., aged 33, was admitted to the infirmary on June 6th, 1891, complaining of pain in the head and swelling of face, hands, and feet.

History.

Nothing of importance was elicited as to family history—the record was a good one. Her own health was good prior to the year 1888. There was no evidence of syphilis, nor of intemperance. She was married, and had one child 9 years old.

In June 1890 she was seized with pain extending across the base of the skull from one ear to the other, and soon after that she herself and her friends noticed that her lips, chin, nose, hands, and feet were enlarging, but so far as she could judge no change occurred in the dimensions of the trunk, legs, or arms. She formerly wore gloves of the number six size, but now has to wear sevens. The boots she wears are two sizes larger than those she could wear with comfort a few years ago. During the year before admission she had suffered severely from pain in all the regions supplied by the fifth cranial nerve on the left side. She supposed the ailment to be neuralgia, and had several teeth extracted, but without deriving any benefit. During the past five years she has had to work hard as a confectioner, being at times much exposed to the heat of the oven.

Condition One Year after Onset of Symptoms.

She was well nourished and fairly healthy in appearance. The mammæ were atrophied; she had a thick growth of coarse, yellow hair over the scalp. She stated that the hair was coarser and more rapid in growth than it was a few years earlier. The skin of the face was rough, of a yellowish tint, and had a somewhat greasy aspect. The patient laid much stress upon the enlargement of her nose, lips, and chin, stating that her personal appearance had entirely altered. The mouth was always kept open, the lower teeth, which formerly were slightly behind the upper ones, were now a little in advance of them. The lower lip was nearly an inch thick, and the mucous surface had a peculiar, dry, glazed, and congested appearance. There was a distressing hyperæsthesia of the lower jaw on the left side, both on its cutaneous and its mucous surfaces. The tenderness of the latter made eating painful at times.

In the photograph No. 1, the patient is represented as sitting in a fairly erect posture, but usually there was a dorso-cervical kyphosis, and the head hung over the front of the chest.

The hands were distinctly spade-shaped, and the fingers curiously misshapen, bearing some resemblance to sausages. In the feet the enlargement was chiefly in the great toe; the os calcis also seemed increased in size.

Nervous System.—Intelligence was normal; memory slightly impaired. She slept well when free from pain. All reflexes were normal. Sensibility was normal everywhere, excepting over the left half of the lower jaw. Pupils 4 millimetres, reacted to light and in accommodation. The retina was reported normal; she was rather deaf in right ear. The other special senses were normal. She complained of acute pain in the region supplied by the fifth cranial nerve on the left side.



Fig. 1.—Case of Acromegaly.

The *Muscular System* was apparently normal; electrical reaction was unchanged.

Cutaneous System.—There were various erythematous patches on the skin of the forearm and trunk; pressure—as, for example, that of the stethoscope—produced an erythematous blush, which persisted for some time. There was much perspiration.

Circulatory System.—There was an occasional faint systolic *bruit* at the apex, but no other abnormality.

The *Respiratory System* was normal with the exception of frequent pain in the nares on the left side.

Alimentary System.—The tongue was large and rather œdematous; the appetite large. Soon after a meal the patient felt as if she had eaten nothing, and desired to eat again. She complained of considerable thirst. Digestion was good, the bowels somewhat constipated. The liver dulness extended four inches. She complained much of pain in the left side of mouth and fauces.

Renal System.—The urine was normal in amount, specific gravity 1020; it contained neither sugar nor albumen.

Reproductive System.—She had ceased menstruating for three years; the mammæ were atrophied.

Blood Glands.—The spleen was normal. The thyroid was not enlarged, but rather tender; there was some dulness over region of thymus.

The diagnosis presented no difficulty, the case was obviously one of acromegaly.

The patient remained three months in the hospital. On July 25th the temperature rose without any apparent cause to 104.2° F., and did not return to the normal until July 28th. She suffered almost constantly from the pain, which was only temporarily relieved by morphine, exalgine, antipyrin,

butyl chloral, quinine, the constant current, blisters, and the local application of belladonna and aconite. She left the hospital against advice, and remained away a year and a-half.

Condition Two Years and a Half After Onset of Symptoms.

She was readmitted on December 7th, 1892. It was obvious that she had lost flesh during the interval. She stated that her strength had diminished, rendering her unable to work. During the past eighteen months she had rarely been free from the pain, which at this date was acute in the left side of of the face and head and also in the chin, nose, and back of the neck. There was much pain also in the mouth, augmented on swallowing. The gums were sore, the submaxillary gland seemed enlarged on the left side and the flow of saliva was increased. There was pain about both orbits and sight was lost in the right eye. Vision was much impaired in the left eye. The ophthalmoscope showed atrophy on the right side and optic neuritis on the left. On testing the left eye with the perimeter the visual field was found to be greatly diminished on the temporal side. The area for perception of blue was much restricted, that for red still more so. The patient herself had noticed the singular absence of red in the objects round her. She was now deaf in both ears, but most so in the left. Smell and taste were normal. Memory appeared to be impaired. She slept badly. The circulatory and respiratory systems were in the same state as before. Appetite and digestion were failing.

The patient was observed during the months of December and January to be progressively losing flesh and strength. She had frequent vomiting; albumen appeared at times in the urine. The pain was obviously getting worse, and towards the end of January affected both sides of the head. Vision, moreover, was rapidly failing. There could be little doubt that a greatly enlarged pituitary body was causing, directly or indirectly, increased intracranial pressure.

The Question of Surgical Interference.

The patient was obviously in the final atrophic stage of the disease and it was evident that her life would not be greatly prolonged. The question therefore arose, Ought we to accede to her earnest desire for operation in order to relieve the intense pain and possibly to arrest the rapidly-advancing blindness? Mr. Victor Horsley kindly gave me his opinion, which was in favour of operation. I also obtained the opinion of my friend and colleague Mr. Paul, honorary surgeon to the infirmary. The following are his notes referring to the operation:

The two points submitted for a surgical opinion were:

1. Was it possible to undertake the removal of the tumour? And

2. If not, was it desirable to relieve the general intracranial pressure by making a free opening in the skull?

As the former expedient was judged to be not feasible, it was decided to adopt the latter, and to make the opening in such a position that by subsequently enlarging it it might be possible, if at any time it appeared desirable, to proceed with the major operation. As the right eye was already useless, there could be no special objection to clearing out the contents of the right orbit; therefore it was agreed that the bones forming the anterior portion of the right temporal fossa should be removed at the first operation, and if at that time or subsequently any attempt were made to remove the tumour, the right orbit should be emptied, and the aperture in the skull enlarged by the removal of its outer wall.

Operation.

On February 2nd the patient was taken into the operating theatre. The scalp had previously been carefully shaved and prepared, and as she was in a weak condition brandy was injected into the rectum. Mr. Paul then made a large semicircular flap over the right temporal fossa, and after stopping the bleeding applied the trephine. Owing to the very irregular thickness of the skull in this position, the trephine was not of much service, and a small piece of bone having been elevated, the large opening was completed by the use of gouge-ended cutting forceps. Ultimately about 3 or 4 square inches of dura mater were exposed without injury, and this was considered sufficient. (*Vide* illustration No. 2.)

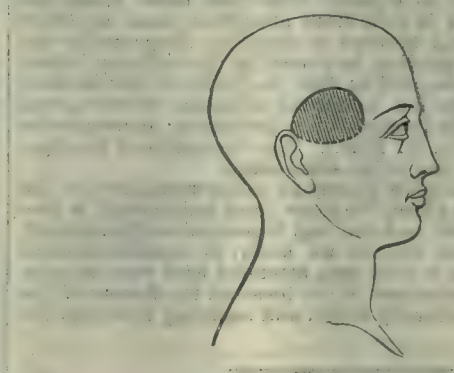


Fig. 2.

The intracranial tension was evidently great, for the dura mater bulged at once, and the pulsations of the brain could not be perceived. Some vessels in the dura mater oozed freely, and as they were unaffected by irrigation with hot water, a soft new sterilised sponge was laid over them under the flap, and the wound dressed with iodoform, cyanide gauze, and salicylic wool.

The patient rallied fairly well. The next day the sponge was removed, and the flap laid in position; there was no further hæmorrhage, and subsequently the wound gave no cause for anxiety. It never entirely healed, as the gradually increasing bulging of the brain through the opening in the bone kept the edges apart, and there were some projecting bosses covered with granulations up to the time of her death. However, the operation effected all that was expected of it as regards the pain, the relief it afforded being gratefully attested by the patient. At no time was she considered to be in a fit state for a more severe operation, and therefore all thoughts of attempting the removal of the tumour were definitively abandoned.

After-History.

The acute pain never returned after the operation, and the remaining three months of the patient's life were comparatively comfortable. Sight, unfortunately, was lost. My only regret in regard to the case is that the operation was not performed earlier. Although the patient desired it, her husband and friends objected. The patient died somewhat suddenly towards the end of April.

Post-mortem Appearances.

Dr. Abram, pathologist to the infirmary, kindly furnished the following notes of the necropsy. The accompanying illustrations show the tumour and the enlarged sella turcica.



Fig. 3.—Enlarged pituitary body.

Calvaria thickened, especially in anterior third from enlargement of diploic layer. The base of the skull shows numerous

well-marked ridges. The vertical process of the axis projects into the cranial cavity. The pituitary body is enlarged, forming a mass the size of a Tangerine orange; it projected half an inch above the level of the lesser wings of the sphenoid bone. The growth had a distinct capsule, which is thin, and dotted with small granules. It involved both lobes, the infundibulum being free; at the upper and anterior right corner it had perforated the capsule, and involved the

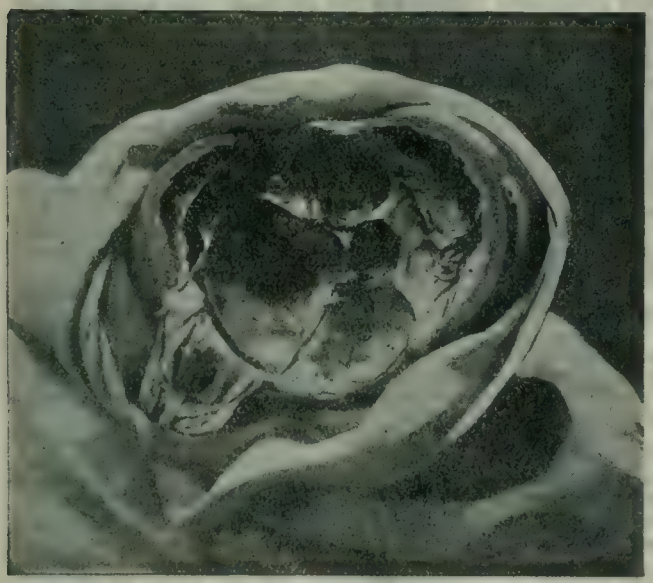


Fig. 4.—Sella turcica.

orbital surface of the right frontal lobe. The growth was excessively soft, of a dark puce colour, dotted with hæmorrhages. On microscopic examination it was found to be a round-cell sarcoma. The optic chiasma and adjoining portions of the optic nerves were flattened, but not entered by growth. The sella turcica measured antero-posteriorly 1⅓ inches, transversely 1¼ inch, vertically ½ inch. Examination of thoracic and abdominal viscera was not permitted.

EXCISION OF THE LARYNX, HYOID BONE, AND FIVE RINGS OF THE TRACHEA, FOR CANCER.

By R. GORDON MACDONALD, L.R.C.P.Edin., L.F.P.S.Glasgow.
Honorary Surgeon, Dunedin Hospital.

Laryngectomy is no new operation, and the following case is principally of interest as illustrating the impunity with which a large gap in the pharynx can be dealt with.

L. P. H., aged 39, was admitted into the Dunedin Hospital in April, 1893, suffering from severe dyspnœa and dysphagia, due to a large cartilaginous-like tumour springing from the larynx. He had been complaining of breathlessness for six months, and of more or less laryngeal irritation for three years. Latterly, however, the dyspnœa had increased so much that he was in constant dread of suffocation. The mass to look at was as if the larynx had developed to the size of a large orange. It spread laterally and up and down, as if the whole front of the neck were a solid mass. The ordinary stomach-pump tube passed with great difficulty down the œsophagus, and it was impossible to say whether the œsophagus was involved or not. A laryngoscopic examination revealed nothing, as the walls of the larynx were so compressed and the breathing so difficult that a careful examination was impossible. Otherwise the man was in fairly good health. The diagnosis was malignant disease (myxo-sarcoma), and after consultation it was decided to perform tracheotomy as a preliminary step, and thereafter remove the mass if practicable. Accordingly I performed tracheotomy as low down as possible.

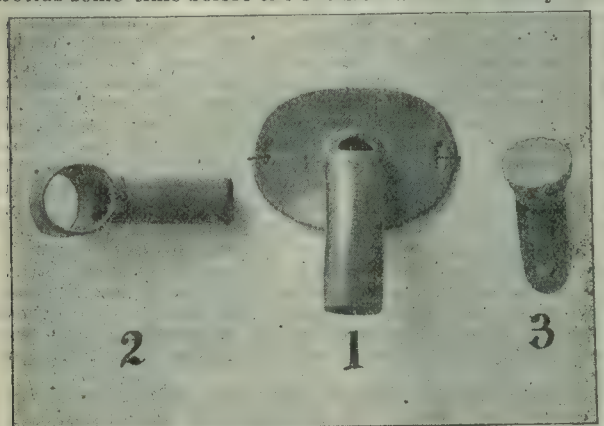
Ten days afterwards I incised the mass, and found that the growth was almost entirely extralaryngeal, but involving the thyroid cartilages, the hyoid bone, the upper part of the trachea, and the whole of the soft structures surrounding them in front to the level of the skin. The pharynx was slightly involved, but the œsophagus seemed to be free. It was decided to proceed to removal of the tumour. A median incision was made over the whole length of the tumour, and two lateral incisions following the hyoid bone as far as the carotids would permit. This gave ample room to dissect the mass out, which was done from below upwards. The hæmorrhage was profuse, but principally from the upper portion of the thyroid gland. On arriving at the part around the epiglottis and hyoid bone, it was found impossible to avoid opening into the pharynx. A strong effort was made to save the epiglottis, but immediately below it the pharynx was opened from side to side. This large gap was carefully stitched over a large rectal bougie, and finally fixed to the soft structures in front. The external wound was left open so as to facilitate drainage and avoid the troublesome burrowing of pus in operations along the trachea. The patient made an excellent recovery. The wounded pharynx gave no trouble, nor was there any difficulty in swallowing after the second day. The fact of the pharynx being opened and the certain glueing of it to the tissues in front raised the question of the opening to the mouth being ever properly established. Three months were allowed to pass before I attempted to establish this opening so as to permit of the wound in the pharynx being thoroughly united. The first attempt was successful in establishing communication with the mouth, but the cicatricial tissue externally sloughed, and so the opening was allowed to close. The certainty of restoring the voice was established by this attempt, and this gave courage to all concerned.

On August 3rd the sinus to the mouth was enlarged, and the operation brought to a successful conclusion after numerous difficulties, of which books give no intimation, had been met and successfully dealt with. At first he could articulate better without the reed, the epiglottis seeming to take the place of the natural larynx. Indeed, he could whisper in quite an audible tone by merely inserting a simple rubber tube, showing the wonderful powers of speech contained in the epiglottis, throat, and lips, *minus* a larynx. Latterly, however, he excelled this mode of speech as he became accustomed to the reed in the artificial larynx. It is marvellous how well an individual can speak by means of an artificial larynx, and it redounds to the credit of surgery that life and speech can be so comfortably prolonged.



Remarks.—An operation of this kind is one very difficult to carry out successfully in New Zealand, and probably in any of the Australasian colonies, owing to the difficulty of procuring a suitable artificial larynx, or modifying it in any way when procured. There are no manufacturers of such instruments in the colonies, and no one to modify or alter in any way such instruments as can be procured here from the

home agencies. I found this difficulty almost insuperable, and had to scheme and devise for myself as best I could. In the diagram the larynx inserted is a modification of Gussenbauer's. It is at best a clumsy and complicated instrument. It requires considerable tact on the patient's part to manipulate the various sections of the instrument. It was procured from Messrs. Mayer and Meltzer, of Melbourne, and is made of vulcanite. The other instrument is a model of simplicity, and easy of application. I am indebted to Dr. Gardner, of Melbourne, for it. He tells me that he had it made for his case by a medical friend in Glasgow. It is manufactured of celluloid, is much stronger than vulcanite, and is easily understood and easily applied. As to the various steps of the operation, ligature of one or other of the carotids some time before the excision would certainly facili-



1. The tracheal tube. 2. Pharyngeal tube. 3. Reed, inserted into and closing the opening in the tracheal tube.

tate the procedure. But if the operation can be performed without this, all the better. Again, the hæmorrhage is not so great as one would anticipate in so extensive an operation. The wound in the pharynx was most dreaded, but it healed up splendidly, nor was there any undue narrowing of its calibre.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

THE TREATMENT OF PSORIASIS BY THYROID EXTRACT.

The report published in the British Medical Journal of October 28th of the discussion on Psoriasis in the Dermatological Section of the Newcastle meeting of our Association containing Dr. Byrom Bramwell's vivid account of the remarkable success which he obtained by treating psoriatic patients with thyroid extract, and the photographs of the patient, so clearly demonstrated the curative power of the drug that, having then a very bad and chronic case of psoriasis under treatment, I resolved to give it a trial. The patient, an active temperate young man, had been troubled with psoriasis for ten years. For some time previous to November 2nd he had been taking no internal remedies, but he had been using chrysarobin ointment to his legs only, cold cream to the rest of his body, and sulphur baths.

On November 2nd he was feeling well, sleeping well, and going about as usual. The eruption, which had been extending, had, on the arms, the back, and the abdomen, assumed the character of an extensively diffused and continuous exfoliative dermatitis. These surfaces were of a vivid red colour, and there were numerous fine tissue-papery scales on them. Elsewhere on the trunk and arms were many true psoriatic spots. On the legs were dozens of various sized patches and spots elevated, red, and many of them covered with thick white scales. He was instructed to use a bran bath at 98° F. every evening, to apply no external remedy to the skin save cold cream, and to take no medicines save four of Burroughs and Wellcome's 5-grain thyroid tabloids in twenty-four hours. He noticed nothing unpleasant until November 7th, when he had taken twenty-two tabloids. He awoke at 7 A.M. with "beating of his heart," and subsequently he felt somewhat faint. At noon his pulse (sitting) was 102, irregular in force and rhythm. The heart was beating forcibly and irregularly; there was no murmur. His usual normal pulse sitting would be about 72. He was directed to discontinue the tabloids. On this day it was noted that the diffused dermatitis on the arms and body was distinctly paler, that it had not extended, and that there was a very considerable and increased quantity of furfuraceous desquamation. There were no dyspeptic symptoms. In the night he awoke with palpitation, and when he called at my house on November 8th his pulse was too frequent—104 (standing). His urine contained much lithates, but no sugar or albumen.

On November 9th the pulse was 96 (sitting) and 102 (standing); temperature 98.2 (morning). There was much desquamation, with large branny scales, but none of them big.

On November 10th, as he was feeling well, the tabloids were recommenced, but in half the former doses.

On November 18th the general surface of the body and arms was much the same. Several fresh spots of psoriasis had appeared on the buttocks and legs. The patient was most anxious to be benefited, and began to take three tabloids every twenty-four hours.

On November 23rd, when he had been taking three tabloids daily since November 19th, though he had not felt any uneasy sensations, his pulse was 92 (sitting), and his temperature at 5 P.M. 99° F. The specific gravity of the urine was 1035, with copious pink lithates, but no albumen or sugar.

On November 25th he stated that he had been very hot the two preceding nights. His temperature, taken by himself, on November 4th (evening), was 101.8°. At 5 P.M. I found his temperature was 100.6°, and his pulse 104. Several fresh spots were to be seen on the legs and body. The red surfaces on arms, back, and abdomen were no better. There was no extensive peeling, but furfuraceous scales only. On buttocks, thighs, and legs were many fresh spots, many of them covered with thick opaque whitelead scales.

His weight on October 15th was 10 stone 2½ lbs. On November 25th, 9 stone 6 lbs. He was told to stop taking the tabloids. From November 25th to November 28th he continued feverish, and remained at home. His morning and evening temperature continued high, from 100° to 102° F. He took small doses of aconite and phenazone; perspired freely on the night of November 29th—a very unusual thing for him—and on November 30th his temperature fell to 98.4°. On the evening of this day he discontinued the phenazone.

On December 1st and 2nd his temperature was distinctly subnormal; his weight on November 30th was 9 stone 3 lbs.; up to November 29th he had, as already mentioned, lost 10½ lbs.; the total loss up to November 30th amounted to 13½ lbs.

Doses.—I will very briefly summarise the doses and the number of tabloids taken. He began them on November 2nd, taking four in the twenty-four hours. On November 7th he discontinued them *pro tem.*, after having taken twenty-two of them in five days and a-half. On November 10th, after an interval of three days, he recommenced them in half doses, that is, one night and morning. On November 18th he had taken two daily for ten days, or a total of eighteen in nine days. On November 19th he commenced with three per diem. By November 25th, when they were permanently discontinued, he had taken twenty-nine tabloids. Thus he took altogether, from November 2nd to November 25th, sixty tabloids. I should imagine that each of Burroughs and Wellcome's tabloids represents one-eighth part of an average-sized thyroid gland; if so, the sixty tabloids would equal seven thyroid glands and a-half.

In this case the spread of the skin disease, under the thyroid treatment, the loss of flesh, the cardiac troubles, the faintness, the pyrexia, coupled with the disappointment to patient and doctor, are worthy of the careful attention of all who may desire to prescribe this remedy in psoriasis.

Eastbourne. Talfourd Jones.

An Epidemic of Mumps.—The Buckland St. Mary National Schools, near Chard, have been closed in consequence of an epidemic of mumps. It is reported that sixty children are suffering.

ACCIDENTAL SYPHILITIC INOCULATION FROM A BLOW ON THE NOSE.

Private ——— was admitted into hospital on May 23rd, 1893, suffering from an abrasion of the nose. He stated that on the night of May 22nd he was struck on the nose with the clenched fist by a comrade, the blow removing a portion of the skin of the bridge of the nose. He remained in hospital ten days, by which time the wound had completely healed.

He noticed nothing further until about the middle of July, when the scar on the nose began to swell, and eventually ulcerated. He was admitted into hospital on August 4th with an ulcer over the site of the original injury. This ulcer, which gradually increased in size, had a clean raised surface, very little discharge, and was associated with considerable induration. The glands at the angle of the jaw and the back of the neck became swollen. The patient was anæmic and suffered from a well-marked cachexia. There was no rash over the body on admission, and no sign of syphilitic infection on the penis.

At first he was treated with tonics (quinine and iron), the ulcer being burnt with nitrate of silver. This, however, did not prove successful. On August 18th a slightly raised well-marked papular rash of a coppery colour appeared over the chest and back. This suggested the specific nature of the disease. He was put on mercurial treatment, which proved the latter conclusion to be correct, the chancre healing rapidly and the rash fading.

It has been ascertained that the man who struck the blow had been recently in hospital suffering from secondary syphilis.

C. W. R. Healey,
Surgeon-Captain A.M.S.
Lucknow.

LOCOMOTOR ATAXY TREATED BY BROWN-SÉQUARD'S FLUID.

Cases of locomotor ataxy treated by testicular injections are not so numerous in this country as to preclude interest attaching thereto, and this is my apology for chronicling this one.

The patient in question, a man aged about 30, was under my care at the Bridgwater Infirmary for several weeks. All the usual remedies had been tried without success or benefit, and I determined to adopt Dr. Brown-Séquard's orchitic solutions. These the house-surgeon (Dr. Wardale) procured (twelve tubes, each containing 8 cubic centimetres) from Messrs. Ferris and Co., and throughout the case took careful notes. The earliest history of the disease obtainable from the patient was dated twelve to eighteen months back, and began by difficulty in walking.

On admission the pulse was 80 and the temperature 98.6°. The usual signs of tabes dorsalis were present. The part selected for injection was the angle of the scapula, but the wall of the abdomen and the buttock were also used once or twice. After the first injection the pulse dropped to 52 and the temperature to 97°: after the second the pulse fell to 36 and the temperature to 95°, and these two figures varied but little throughout. After four weeks of the treatment, injections being given three times a week, the patient expressed himself as in no way better, neither were any improvements at all manifested, the patient seeming to be getting weaker.

An ordinary hypodermic syringe was used, and antiseptic precautions adopted throughout. The patient had no signs of abscess at the seats of puncture, nor any redness, but complained of a tingling sensation, which lasted about half an hour. He complained of a sense of chilliness.

The lowering of the heart's action was marked—a point, I believe, not mentioned by Dr. Brown-Séquard—and this leads me to fear that, in many cases, the injections would do more harm than good, especially where there is already cardiac disease, though in this patient it might have been an idiosyncrasy.

R. H. F. Routh, M.R.C.S., L.R.C.P.,
Surgeon to the Bridgwater Infirmary.

A CASE OF RUPTURE OF BOTH QUADRICEPS EXTENSOR TENDONS.

S. A., aged 44, was admitted into Sheffield Union Infirmary on March 22nd, 1893, with the following history: Two days previously, in crossing the street, a man ran against him, causing him to fall. He rose with difficulty, and experienced great pain in his left knee-joint. In attempting to walk he again fell, after which he was unable to move either leg. He was taken home in a wheelbarrow.

When admitted, both knees were somewhat distended and slightly bruised. A distinct gap could be felt above the patellæ, which were movable, and could be tilted away from the femora. The detached end of the tendons were separated by a space of 1½ inch from the patellæ.

The lower extremities were fixed on an inclined plane, with strapping arranged so as to bring the patellæ and tendons into apposition. They were left thus for seven weeks, in which time he was allowed to move his legs.

Gradually he was assisted to stand and walk. At present he can walk fairly well on level ground, with the aid of a stick. There is still a space between the patellæ and tendons, and he cannot fully extend his knees. After he has endeavoured to straighten them, one can, by taking hold of his legs, extend them still further. Both his legs are curved forward and outward, presumably from childhood, though he gives a history of fracture of both tibiæ. He is a stunted, sturdy man, with no history of syphilis. In July, 1892, I attended him for fracture of the neck of the left humerus and chronic ulcers on both legs, which are now healed. As far as I can find, this is a unique case. In the *Lancet*, vol. i, 1888, p. 178, a case is recorded of rupture of both tendons within six years of each other.

Mr. Joseph Bell, Edinburgh, in his Clinical Lectures, if I remember rightly, used to relate a case of fracture of both patellæ caused in a similar manner. I may state that the patient refused any operative treatment in the way of suturing the tendons to the bone.

J. Lewis Owen, M.R.C.S.,
Late Resident Medical Officer Union Infirmary, Sheffield.
Llangefni, Anglesea.

BENZOLE IN INFLUENZA.

The pronounced effect of benzole in influenza cannot be better illustrated than by subjoining a brief clinical record of a few recent cases which I have submitted to the action of this remedy:

W. S., male, aged 20, was seen on the evening of November 1st, 1893, and found to be suffering from the usual symptoms of a sharp attack of influenza—suffusion of eyes and features, injected fauces, headache, pain in the back, rose-coloured injection of soft palate, etc; fever, 103.8°; pulse 120. I ordered 5 minims of benzole in mucilage to be taken in lemonade every two hours. November 2nd. Temperature normal, pulse 60; suffusion of conjunctiva and face, headache, and pain in the back absent. Resumed duties on November 3rd, seemingly quite well but for a little pallor. A maid in the same house, who had been seized with influenza on October 29th, and who had been treated by routine measures, was still (November 2nd) feverish and bedfast.

N. W., a girl aged 14 years, was seen on November 3rd suffering from symptoms of influenza; the attack began the night before: temperature 103.4°; pulse 126. Benzole 5 minims every two hours. November 4th. Temperature normal, pulse 72, and otherwise well. November 5th. Got up feeling well. November 6th. Recovery.

N. H., a man aged 19, was seen on November 3rd, at 9 P.M., suffering from symptoms of influenza; temperature 103.2°; pulse 118. Treatment, benzole 5 minims every two hours and a-half. November 4th. Temperature under the tongue, 99.4°; pulse 72. November 5th. Downstairs feeling well.

H. P., a lad aged 17, was seen on November 8th, complaining of head ache, lassitude, etc.; there was suffusion of eyes and face; pulse and temperature normal; no pulmonary symptoms. November 9th, 10 A.M. Temperature 105°; pulse 132. Ordered benzole 5 minims every two hours and a-half; on the night of the same day, 10 P.M., pulse 60, temperature normal. November 10th. Pulse and temperature normal. November 11th. Patient dressed and apparently well.

Miss W., aged 20, was seen on November 9th, 1 P.M., suffering from symptoms of influenza; temperature 103.6°; pulse 126. Treatment, benzole 5 minims every two hours and a-half. This patient was seen again at 8 P.M., when the temperature was 101°—this after two doses of the medicine. November 10th. Pulse and temperature normal. November 11th. Patient well.

W. P., aged 41, was seen on November 9th; had been suffering from symptoms of influenza for twenty-four hours before being seen; temperature 102.4°; pulse 108. November 10th. Pulse and temperature normal. November 11th. Patient up and dressed.

More examples could be added, but the above seem sufficient. At the outset of the treatment, one or two blue pills, as the case demanded, were given, but beyond this absolute reliance was placed on the benzole. Its exhibition in mucilage, along with a few drops of spirits of wine and spirits of chloroform, was found the most convenient. To render it as palatable as possible it was given in a little lemonade. In no single case given in this way was it found to cause any gastric irritation. I have discarded the use of

capsules containing it. Administered in this way, it does impair the appetite, and gives rise to unpleasant eructations. Administered in mucilage, it has not been found to interfere with due nutrition. Producing, as it does, in nearly every case, such a rapid defervescence of the symptoms of influenza, as is to be expected, the usual sequelæ of the attacks are rarely or never noticed. Debility after this form of treatment is hardly appreciable by the patient. In one case before treatment pain in the ears, along with the other symptoms, was promptly relieved. In this case otherw se treated an acute catarrh of the middle ear might have been a probable event. In old and young alike the treatment proves efficacious, and it seems to act as efficaciously in debilitated as in robust subjects. Very few pulmonary complications have been noted in cases presenting themselves within the last few weeks, but it might be inferred that a remedy which so suddenly relieves the grave initial symptoms lessens the probability of pulmonary complications becoming established.

Newcastle-on-Tyne. WM. ROBERTSON, M.D.

REPORTS OF SOCIETIES.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

RICHARD FAVELL, M.R.C.S., President, in the Chair.

Thursday, December 7th, 1893.

SPECIMENS.

MR. MAKEIG JONES showed a bladder with a large swelling on the back wall near the apex, a growth on the right side, and a large ulcer opening into the rectum. The lateral growth simulated an omental hernia in the right inguinal canal during life. It looked like fat, but on section showed a cavity the size of an almond lined by epithelium. The specimen was referred to the Pathological Committee.—Dr. HUNT showed a Fungous Tumour of the Skull which he believed to be a sarcoma originating in the diploë.—Dr. DAVY showed False Teeth and Plate which had been passed *per anum*.—Mr. PYE-SMITH showed some Calculi passed *per urethram*.

CASES.

Dr. PORTER showed two patients with Locomotor Ataxy, both of whom had been distinctly benefited under increasing doses of orthophosphate of silver, which was said not to be followed by the peculiar discoloration of the skin incidental to the prolonged administration of other salts of silver.—Mr. PYE-SMITH introduced a man from whom he had recently removed one lateral Half of the Tongue.—Dr. SWEETON showed two cases of Chronic Pemphigus.—Dr. KNOX gave particulars of an unusual case of Injury to the Arm, under the care of Dr. Sinclair White.—Dr. PORTER read notes of a case of Multiple Neuritis, with Joint Lesions. The patient was a gamekeeper, aged 65. There was no history of plumbism, alcoholism, or syphilis. The symptoms were flexion of the right wrist, with typical *main en griffe*, extension of the left wrist producing an exactly opposite deformity, and slight ankle drop in both feet. There was no pain or tenderness in the affected joints. Grating sensations were felt on manipulating all the joints with the exception of the hip, and there was distinct enlargement of the right shoulder and left elbow. The head of the right humerus was exhibited, and showed distinct nodular outgrowths.—Mr. PYE-SMITH read notes (1) of a case of Gangrene of a Finger caused by the patient's husband tying a rag too tightly round it to stop bleeding; (2) of a case of Brachial Neuralgia cured by evacuating a quantity of melon-seed bodies from a distended theca of the middle finger, the result of an accidental puncture nine years previously.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.

JOHN APPLEYARD, M.B., F.R.C.S., President, in the Chair.

Tuesday, December 5th, 1893.

ACUTE AXIAL ROTATION OF A DERMOID CYST.

DR. GODFREY CARTER read notes of a case of a multipara, aged 35, with right femoral hernia. She could not wear a truss, and the hernia, becoming strangled, had to be reduced under ether. Over a year later she had a natural labour; and a few days after, in consequence of discomfort, the abdomen was palpated, and a small tumour, freely movable except upwards, was noted as probably a right parovarian cyst. One month after the confinement she was seized with vomiting, intense pain, and collapse, and was reported to have passed blood and matter at stool; the tumour could not be felt. She was relieved with morphine, but, not progressing, the abdomen a week later was opened by Mr. Mayo Robson, who, passing the hand deep into the right flank, brought up a long, pedicled, gangrenous tumour, which contained hair and teeth; it was easily lifted out of the pelvis, and then the pedicle was found twisted one and a-half time. The patient made an excellent recovery.

Messrs. GOYDER, HORROCKS, MANTLE, and KERR discussed the case.

EXCISION OF INTESTINE.

Mr. HORROCKS showed a specimen removed from a female, aged 38, admitted to hospital with symptoms of intestinal obstruction due to a growth in the lower part of the abdominal cavity. A vertical incision was made below the umbilicus, the tumour growing on the intestinal walls drawn out, and the opening packed with antiseptic cloths; a V-shaped piece of mesentery with the involved part of intestine—a metre in length—was removed; a Paul's decalcified bone tube was inserted in the free end of bowel of smaller lumen, and stitched to its free margin. The other free end was brought into apposition with this, and stitched with continuous suture. The bone tube and bowel were now invaginated and fixed in position by a row of continuous sutures. The end of the vermiform appendix was removed. Histologically the growth was a large-celled sarcoma. The patient made an uninterrupted recovery, and is now in apparently good health.

UNUSUAL SEQUELÆ OF TYPHOID FEVER.

Mr. EMERSON reported a case of typhoid, with constipation, free perspiration, and headaches, which were treated with antifebrin. The man appeared quite convalescent from the thirtieth to the fortieth days, when a relapse took place, with return of the sweating and rise of temperature, by the fortieth day to 105°. About the seventy-fifth day the temperature was again normal, the patient appeared convalescent, but œdema of the right leg and thigh appeared and persists, and the pulse remains rapid—140 to 150—otherwise the patient appears quite convalescent.

Drs. JOHNSTONE, KERR, GOYDER, and HONEYBOURNE made remarks on the case.

INTESTINAL OBSTRUCTION FROM GALL STONE.

Mr. MERCER read notes of a case. A stout woman, aged 58, had two attacks of biliary colic, and after a short time again became ill with nausea and epigastric uneasiness. When seen on the third day she had a slight icteric tinge; there was continuous pain and great tenderness about the region of the gall bladder and epigastrium. Purgatives and morphine were used; she got gradually worse, becoming feverish. An operation was decided on, but, owing to the passage of flatus and a light-coloured motion, postponed. On the eighth day, her condition having become critical, the abdomen was opened, and a gall stone, about 1½ by ¾ inch, non-facetted and rough, was found impacted in the bowel, which was distended above and contracted below; it was removed by a longitudinal incision, the patient dying next morning.

Messrs. HORROCKS, JOHNSTONE, APPLEYARD, and MANTLE discussed the case.

DEMONSTRATION.

Dr. WHITWELL (Menston Asylum) gave a demonstration of the pathological conditions of the nervous system in insanity and myxœdema, which was illustrated by numerous specimens.

ANOTHER NEW PERIODICAL CONGRESS.—On the initiative of M. Lépine, the Lyons Medical Society has decided to organise a Medico-Chirurgical Congress, which is to meet for the first time at Lyons in October, 1894, under the presidency of Professor Bouchard. It is proposed that meetings should be held every year, the various cities of France being chosen in rotation as the scene of the Congress.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Surgery.

F. A. Nixon, M.D., in the Chair.

Friday, December 8th, 1893.

The Operative Treatment of Enlarged Prostate.

Mr. Arthur Chance read a paper on this subject. He referred to a man, aged 56, on whom he had operated by the suprapubic method. Electrolysis had first been tried, but gave only temporary relief. The growth showed the "uniform circular enlargement surrounding the internal orifice of the urethra" described by M'Gill. Prior to the operation the urine had been passed, on an average, every ten minutes. Now, more than ten months after operation, the man could hold water with ease for ten or eleven hours. Mr. Chance considered that a catheter did not completely empty the bladder, and that therefore the usual method of estimating residual urine was open to fallacy. He advocated the use of a flushing gouge for the removal of the growth, for the reasons that it could be readily manipulated through a small incision, and also because of the value of a stream of hot water in stopping hæmorrhage. He thought the suprapubic drainage really meant overflow, and he therefore advised the insertion of a perineal tube as an addition to the suprapubic operation. In conclusion, he strongly urged the propriety of early operation.

Remarks were made by Messrs. Kendal Franks and Myles; and Mr. Chance replied.

Laminectomy in Spinal Injuries.

Mr. T. Myles read notes of a case in which a man who had been admitted to the Richmond Hospital for paraplegia, the result of a fall from a cart on the back of his head, had been operated on by him. The symptoms that were held to justify the operation were the presence of motor paralysis—complete in the case of the legs, incomplete in the arms—persistence of cutaneous sensibility, and for twenty-four hours, of reflex irritability in one lower limb. An incision was made from below the occiput to the seventh cervical vertebra; the muscles were cleared from the neural arches. It was found that the arches of the third and fourth cervical vertebræ were shattered and depressed. These were removed, and also the arches of the fifth and sixth. The dura was tense, and was therefore opened, but the naked-eye appearances of the cord were normal. Slight relief followed the operation, but the patient died of dyspnœa on the third day after the accident. Mr. Myles pointed out that it was only in fractures caused by direct violence that any reasonable hope of benefit by operation existed, as in fractures caused by indirect violence the mechanism of the fracture necessitated the occurrence of severe injury to the anterior aspect of the cord by the rearward driven fragments. Consequently removal of the fragments could not restore the lost functions, apart from the mechanical difficulty of getting access to the joint of the cord. He also discussed the clinical value of the spinal reflex, pointing out that in this case, at least, the analogy from experiments on animals was misleading, as in every case where the cord was divided completely all reflex action ceased immediately below the injured area, as shown by the researches of Thorburn and Bastian.

Remarks were made by the Chairman, Dr. Doyle, Mr. Kendal Franks, and Dr. J. Barton; and Mr. Myles replied.

REVIEWS.

Manual of Practical Anatomy. By D. J. Cunningham. Volume I: Upper Limb; Lower Limb; Abdomen. London and Edinburgh: Young J. Pentland. 1893. (Crown 8vo, pp. 685, fig. 153.)

Although the first of these excellent volumes, this is the last in order of appearance. We have already reviewed its predecessors in the most favourable terms. There can be no doubt that the excellence of the work has been fully maintained. It is evident that it is intended to be a book which the student can take into the anatomical department, and use as a guide both in his manipulations and in his observations. The directions given are so simple and so clearly expressed that even the merest novice ought not to be at fault. Each region is dealt with in the following way. First, the surface markings are described, and the student is told to feel each thing—excellent advice, which we hope he will follow; next the reflection of the skin, the dissection of the cutaneous nerves, of the muscles and deeper structures. As each structure is dissected, a description of it is given, but this description seems, we observe, to have been kept within reasonable bounds, so that something is left for the observation. Everywhere the directions given for dissection are simple and clear, and such as are usually carried out in well-ordered dissecting rooms. Wherever necessary the text has been illustrated with clear and correct figures, which are either original or gathered from reliable sources. The use of frozen sections is frequent, and the results instructive. The literary style of this book is very clear and easy, which makes the descriptions very simple and intelligible. As might be expected from so conscientious and careful an anatomist as Professor Cunningham, strict accuracy always prevails. From what has been said it will be seen that we consider this work quite one of the best of its kind, and we trust it will have the success which it undoubtedly deserves.

The Microtomist's Vade-Mecum: A Handbook of the Methods of Microscopic Anatomy. By Arthur Bolles Lee. Third Edition. London: J. and A. Churchill. 1893. (Demy 8vo, pp. 520. 14s.)

Dr. Lee's book is so well known and universally appreciated by histologists, that it is superfluous to praise it. It will be sufficient to indicate the most important additions which have been made to the work in preparing it for a third edition, most of which are summarised by the author in his preface. One such addition is the notice of Paul Meyer's work on the theory of staining with carmine and hæmatoxylin; another, the account of special staining mixtures, such as the Ehrlich-Biondi-Heidenhain mixture, and above all, the description of the newer methods used in the preparation of the nervous system. Of these, the methylene blue method has a chapter almost entirely assigned to it, and the various improvements of the method of Weigert and the several modifications of the method of Golgi are all given at considerable length. It must not, however, be supposed that the book (as its second title seems to imply) is a compendium of all histological methods. It deals mainly, as its first title implies, with the preliminary methods belonging to the preparation of sections; and in dealing with this part of histology the author appears to have endeavoured as fully as possible to determine for himself those methods which are of especial value. This cannot, of course, be done in every case, but it is a manifest advantage to all workers with the microscope to have put before them some selection from the multiplicity of methods with which the literature of the subject of microscopic *technique* is at present overcrowded.

It may be confessed that in spite of the efforts which have been and are being made to give a scientific basis to microscopic methods, and especially to modes of staining, the subject still belongs more to the arts than to the sciences; for the theory of most methods which are employed is very imperfectly understood, and it can hardly be expected that histological methods under those circumstances can be brought very near perfection. The author has endeavoured, however, to throw light as far as is possible upon the darkness of this part of the subject, and the chapters which deal with the general principles of staining and fixing will be read with much interest. Several methods which have appeared in previous editions, and which are now superseded by improved processes, have been wisely removed altogether from the book by Dr. Lee, who has even been bold enough to excise the receipt for "Beale's carmine fluid,"—a solution which, although in the hands of its inventor it yielded results of some brilliancy, has, it may be safely affirmed, not been seriously employed by any histological investigator for many years past.

The book is usefully divided into two parts, the first one dealing with methods in general, and the second giving the application of these and of more specialised methods for the

investigation of the tissues and organs, including the applications of histological methods to embryology and zootomy.

The author has our complete sympathy when he complains of the mischief which is done by method-mongers by their reckless publication of imperfectly tried histological methods, but we fear that his appeal to the editors of periodicals to refuse to publish processes that are not demonstrably new and that do not make out a good claim to be useful will be made in vain. It would, we should imagine, scarcely prove an enviable task for an editor of any periodical to exercise a censorship over the description of methods which he probably has not the opportunity of trying, and of which he has had no experience. We fear the evil is a necessary one, and it is due to Dr. Lee to admit that his book has served greatly to lighten the burden which is thereby thrown upon workers in histology.

The Physiological Action of the Nitrites of the Paraffin Series, considered in Connection with their Chemical Constitution. By J. Theodore Cash, M.D., F.R.S., and Wyndham R. Dunstan, M.A., F.R.S. London: Kegan Paul, Trench, Trübner, and Co. 1893. Philosophical Transactions of the Royal Society of London. Vol. 184, 1893. (Royal 4to, B. v, pp. 505-639. 7s.)

Nitrite of amyl is well known as a valuable drug; the present contribution to pharmacological science compares with it the action of other nitrites. The first part of the paper treats of the action of those substances on blood pressure; the second of their action on voluntary muscle. The lowering of blood pressure so intimately associated with amyl nitrite is shared by the other nitrites of the paraffin series; these differ among themselves in the intensity of their action. We must refer our readers to the very exhaustive and complete details given in the paper, and in order to illustrate the nature of the work done we propose briefly to summarise the chief results obtained in what is perhaps not such a familiar action of the nitrites, namely, that treated in the second part of the present paper, their action on muscular tissue. The experiments on the skeletal muscles of the frog were conducted in an air-tight chamber, so constructed as to permit of connection being made between the muscle and the recording apparatus, and also so that the vapour of a known quantity of nitrite could be introduced. The apparatus used, and the tracings obtained are figured. The nitrites produce shortening; their order of activity in relation to the extent of this shortening is: (1) isobutylic, (2) tertiary amylic, (3) secondary butylic, (4) secondary propylic, (5) propylic, (6) tertiary butylic, (7) butylic, (8) α amylic, (9) β amylic, (10) ethylic, (11) methylic. The order representing the speed at which shortening occurs is: (1) methylic, (2) ethylic, (3) secondary propylic, (4) tertiary amylic, (5) primary propylic, (6) tertiary butylic, (7) secondary butylic, (8) α amylic, (9) β amylic, (10) primary butylic, (11) isobutylic. In minute doses, insufficient to cause passive contraction, nitrites lessen the irritability of muscle.

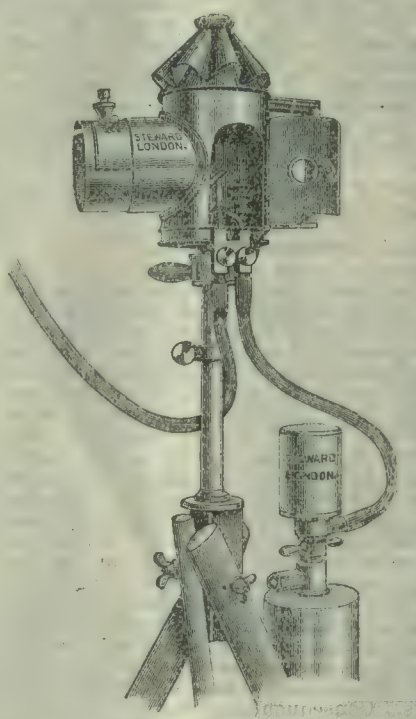
This physiological action is not solely, and in some cases not even mainly, dependent on the amount of nitroxyl (NO_2) they contain. In all phases of physiological activity, the secondary and tertiary are more powerful than the corresponding primary compounds; this is due to the great facility with which they are decomposed into the alcohol and nitrous acids. In accelerating the pulse, the power of the nitrites is directly as their molecular weight, and inversely as the amount of nitroxyl they contain. The same relationship holds, although less uniformly in their power of reducing blood pressure, and inducing muscular contraction. This appears to be due to the increased chemical instability which the substituted methyl groups confer on the higher members of the series. The reverse order holds for the most part in relation to the duration of subnormal pressure and the rapidity of the onset of muscular contraction. The simpler nitrites probably attach themselves to certain constituents of blood and muscle, while their greater stability causes their effect to last longer.

Many other points are touched upon, but we think enough has been said to indicate the thoroughness and acumen with which the work has been carried out, and we congratulate the distinguished authors on its successful completion.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

PORTABLE FORM OF OXY-HYDROGEN LIGHT FOR LARYNGOSCOPIC EXAMINATIONS.

Dr. E. Clifford Beale writes that the value of the oxy-hydrogen light for laryngoscopic examination has always been recognised, but hitherto such lights have generally been fixed upon wall brackets or standards. The form of portable lantern shown in the illustration has now been for some time in use at the Chest Hospital, Victoria Park, and was exhibited at a recent meeting of the Laryngological Society of London. It was constructed at Dr. Beale's suggestion by Mr. J. H. Steward, 406, Strand, and contains in a small space all the requirements of a clinical lamp. It can be carried by the two wooden handles and held by a nurse at the bedside. It is furnished with a short cut-off tap, by which the light can be put out or restored at a moment's notice. The heat rays are almost entirely absorbed by a water chamber placed in front of the condensing lens. The lens is so constructed as to furnish a tunnel of light of about 10 inches diameter at the ordinary distance for the laryngoscopic mirror. When fixed on the tripod stand the lamp can be placed at any height, and can also be rotated. The cylinders of gas, strapped together by an ordinary strap, are easily portable to the bedside. The cost of the whole apparatus compares favourably with that usually quoted in instrument makers' catalogues for oxy-hydrogen lamps.



BEEF AND MALT WINE.

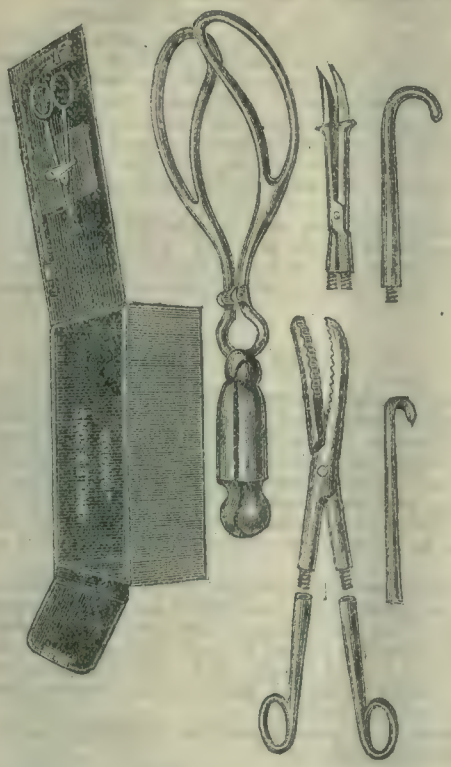
Wine, meat juice, and malt extract are each and all materials of value in the dietary of invalids, and their usefulness has been established by long experience. This preparation claims the advantage of being a combination of these three nourishing and restorative products specially adapted for the use of sick persons. It contains a very considerable amount of extractive ingredients, but we cannot say that the diastasic action exercised by it upon the stomach is at all considerable. As a restorative stimulant the preparation is agreeable both to the palate and in its appearance. It is prepared by W. Glendenning, Newcastle-upon-Tyne.

ESSENCE OF BEEF.

The Viking Food and Essence Company send us a well-made essence of beef eminently suitable for use in the sick room for preparing extemporary beef-tea, and also for being used as a jelly. It contains a satisfactory amount of the constituents of beef which are to be found in such preparations.

It is put up in glass jars closed air-tight by a cork disc fitting upon the ground surface of the lip, and covered with a metal capsule. The jar is therefore easily opened, and the avoidance of contact with metal or other substances likely to act upon or be acted upon by the jelly is a very great advantage. The other meat preparations forwarded are of excellent quality.

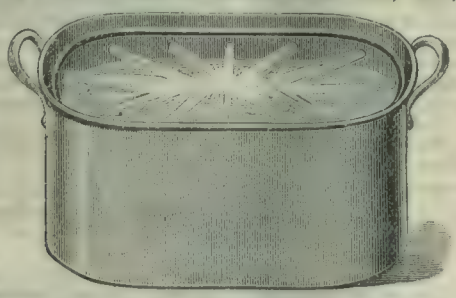
THE "COMPACTUM" MIDWIFERY CASE.



The accompanying illustration shows a very portable midwifery set, which contains the following: Simpson's long forceps (folding), craniotomy forceps, and perforator to fit into the same handles, blunt hook and crotchet (jointed), frænum scissors, and female catheter. All the instruments are nickel plated, and fit into a morocco leather case measuring 8½ × 3½ × 3½ inches. The makers are Messrs. Arnold and Sons, of West Smithfield, London.

THE "TORRENT" WASHER.

We have received a sample of the "Torrent" washer, which is calculated to play an important part in the sanitary arrangements of domestic cases of sickness. The contaminated linen and flannels can be thoroughly cleansed without handling, and, if taps were added, as many washings could be repeated as might be deemed desirable without removal. The small washers are made in three sizes—two, four, and six



gallons—as suitable for the dimensions of ordinary stoves and gas rings. For villages and small towns, and infirmaries and local hospitals, the succeeding sizes—from eight to forty-five gallons—would be of the greatest service, being inexpensive and requiring only a minimum of attendance and labour. The fuel used may be coal, coke, wood, mineral oil, or gas. For permanent hospital work washers on the new principle can be made in very large sizes, and can be boiled by steam taken direct from the general boiler. The steam is introduced into the interspace between the two vessels—the copper and the "washer,"—and a sluice pipe is fitted to the bottom of the copper, so that by turning a tap the dirty water can be let off into the sewer by a closed path. Then, after the sluice pipe has been again shut, hot water from the supply pipe can be run in upon the clothes until the copper is sufficiently full, when the steam can be turned on again, and in a few minutes the boiling will be in active operation. As soon as one lot of clothes are finished another lot can be put in its place. The attendant's time can be occupied during the washings by the final rinsings, wringings, and hanging up to dry. The water only boils between the two vessels, and consequently only hot water under boiling point ever comes into



contact with the clothes. The cooler water passing back from the washer to the copper meets the steam rising from the area of the copper opposite to the orifice of the funnel, condenses it, and a continuous vacuum is produced, which gives to the percolation of the hot water through the clothes the utmost possible suction. The trade can be supplied with the zinc washers to fit existing coppers by Messrs. Treggon and Co., York Works, Brewery Road, N., and the domestic sort by Messrs. Perkins, of Snow Hill, E.C.

ETHYL CHLORIDE SPRAY.

We have already mentioned Dr. Bengue's ethyl chloride sprays, but we have recently received an improved pattern from Mr. B. Kuhn, St. Mary's-at-Hill. The ethyl chloride is contained in a strong metal capsule, the orifice of which closes with a patent cap, which is very convenient and effectual. For the purposes for which it is intended nothing could be more convenient or economical than this arrangement. We have tried the ethyl chloride for various minor surgical procedures. For the extraction of teeth we found it of little avail, the pain being little or not at all abated. For the opening of abscesses its effects were exceedingly good and small sinuses could be opened and scraped out without discomfort. On the whole, therefore, our opinion of ethyl chloride and of this way of applying it is favourable.

The University of Kasan.—According to the eighty-ninth annual report of the University of Kasan recently published, the total number of students at that seat of learning in the present winter semester is 801, including 161 newly entered; the teaching staff consisted of 138 persons. During the last academic year 136 diplomas were granted. The maintenance of the university cost 394,095 roubles. The funds available for bursaries, etc., amounted to 301,305 roubles.

COMPULSORY NOTIFICATION IN ENGLAND AND WALES IN 1892.

A Special Report to the Parliamentary Bills Committee of the British Medical Association, by Mr. Ernest Hart, Chairman of the Committee.

(Concluded from page 1388.)

ESTIMATES FOR UNIVERSAL COMPULSORY NOTIFICATION.

BEFORE passing on to the subject of mortality-rates, I desire to set out the estimate which I have formed on the data submitted, of the result of universal compulsory notification in England and Wales had such been in force in 1892. I may thus arrange the facts on the assumption that the rates obtaining among the 20,749,712 persons as to which we possess the data are representative of the whole 29,002,525 inhabitants in the kingdom. I think we may justly claim thus much.

Attacks Notified among 20,749,712 Persons.		Attacks Estimated among 29,002,525 Persons (England and Wales).	Cost of Estimated Attack-Notification (2s. 6d. per Case).
			£
Small-pox	5,639	7,880	985
Cholera	54	75	9
Diphtheria	20,944	29,260	3,657
Membranous croup ...	1,768	2,470	309
Erysipelas	18,991	26,580	3,322
Scarlet fever	103,047	144,000	18,000
Enteric fever	16,688	23,325	2,916
Relapsing and continued fevers	1,166	1,630	204
Typhus fever	302	420	52
Puerperal fever	1,720	2,400	300
Other diseases	11,142	15,570	1,946
Totals	181,461	253,610	31,700
Totals for all districts under compulsory system on March 31st, 1892		210,000	26,250

Thus we see that an additional sum of £10,000, spread over nearly nine millions of persons, would have secured universal notification during last year. But if measles were added, the cost of *that disease alone* would be double the total cost of all other diseases now notifiable, and I would here express my own conviction that the specified diseases in Section 6 of the General Act have secured such smooth working of the system that it were well in future to limit notification to those maladies. We could thus not only get rid of the £1,946 in the foregoing statement, but also of the ugly figure —£61,250 —which measles alone would call for. As I have said, I have no fundamental objection to inclusion of measles, but I doubt the policy of expending so much public funds on the certification of such a malady. I hold the same views in respect of whooping-cough.

In concluding this portion of my report I would draw attention to what I wrote in the JOURNAL of July 15th last on the subject of the extension of compulsory notification to include the whole of England and Wales, in connection with the extension of the powers of county councils; and I would only add that the evidence adduced by the working of the present system, so far as I have been able to gather it, is entirely in favour of the plan which I then propounded.

MORTALITY RATES.—"ALL NOTIFIABLE DISEASES."

In Table XI I have set out the mortality-rates per cent. of notified cases from "all notifiable" diseases, and from seven specified diseases, in England and Wales as a whole, and in the eleven registration divisions, placing these groupings and the kingdom in the order of rate, from lowest to highest. I have also set out the facts in chart form, thus enabling readers to see the relative position of the mortality from the several diseases in the same groups as in Table XI.

In England and Wales, the rate of mortality per cent. of all notifiable diseases was last year 8.4; and if we arrange the eleven divisions in the order of their *attack*-rate and death-rate from lowest to greatest, we obtain the following results:—

Attack-rate	2	9	6	8	7	3	10	5	4	1	11
Death-rate	5	7	6	10	11	2	4	3	1	9	8

Here we see that the two extremes meet, namely, a high attack-rate coinciding with high death-rate, as in London and Eastern Divisions: and a low attack-rate with small mortality, as in West Midland Division. But we see also that high attack- and low death-rates go together, as in South Western Division; and low attack- and high death-rates, as in Yorkshire. Hence no general rule as to relation of one to the other can be adduced in respect of all diseases in common.

Turning to Table I, we find instances of low death-rates in Rutland, 2.0; Hereford, 2.8; Leicester, 4.3; Westmorland and Wiltshire, 4.4; Lincoln, 4.5; and Somerset, 4.7 per cent. of attacks. High rates are found in East Riding, 16.5; Oxford, 14.1; Suffolk, 11.1; and Surrey, 10.1. The instances are culled from very widely separated parts of the country, and for the rest I may refer to Table I.

In regard of density of population, the following are the facts as to registration divisions:—

Rank in density (greatest to least) ...	1	2	3	4	5	6	7	8	9	10	11	12
No. of registration division	1	8	6	9	E.&W.	2	3	7	4	5	10	11
Rank in death-rate (worst to best) ...	8	9	E.&W.	1	3	4	2	11	10	6	7	5

From this statement of the case, we perceive a general coincidence of density and death-rate, three of the four most thickly-peopled groups finding high place in the lower line; and six of seven less densely populated divisions finding low place in that line. Hence I may say generally that, whilst the total of diseases shows no similarity between attack- and death-rate, yet high mortality and density and low mortality and sparsity of population go together.

Following up this train of thought in regard of the diseases specified in columns 2 to 6 of Table XI, and placing enteric

TABLE XI.—*Giving Mortality Rates Per Cent. of Notified Cases of* ALL NOTIFIABLE DISEASES *(col. 1) and Certain Specified Diseases (cols. 2 to 8) in England and Wales and in each of the Eleven Registration Divisions, 1892.*

All Notifiable Diseases.		Small-pox.		Diphtheria.		Erysipelas.		Scarlet Fever.		Enteric Fever.		Relapsing and Continued Fevers.		Puerperal Fever.	
S. Western ...	5.2	W. Midland ...	2.7	S. Western ...	16.1	N. Midland ...	2.4	S. Eastern ...	2.4	Welsh ...	13.7	Welsh ...	0.0	N. Midland	41.8
N. Midland ...	5.6	Welsh ...	4.3	Eastern ...	17.0	S. Western ...	2.6	Northern ...	2.7	S. Midland ...	14.2	Eastern ...	1.3	London ...	42.5
W. ,,	6.7	London ...	5.3	N. Midland ...	17.5	London ...	3.6	Eastern ...	2.8	S. Western ...	14.3	N. Western ...	4.0	Welsh ...	44.4
Northern ...	6.9	Eastern ...	7.1	W. ,,	17.8	S. Midland ...	3.9	W. Midland ...	2.8	S. Eastern ...	14.5	Northern ...	6.0	York ...	54.4
Welsh ...	7.9	N. Midland ...	7.6	Northern ...	18.2	Northern ...	4.4	S. Western ...	2.9	Northern ...	14.6	*Englnd. & Wls.*	8.2	*Engl. & Wls.*	56.6
S. Eastern ...	8.0	*Englnd. & Wls.*	8.9	S. Midland ...	18.8	*Englnd. & Wls.*	4.6	S. Midland ...	3.0	W. Midland ...	15.1	York ...	8.4	Northern ...	57.4
Eastern ...	8.1	S. Midland ...	9.1	Welsh ...	20.4	Eastern ...	4.7	N. ,, ...	3.2	N. ,, ...	16.2	London ...	10.8	W. Midland	57.5
S. Midland ...	8.2	S. Eastern ...	9.2	S. Eastern ...	21.4	W. Midland ...	5.2	London ...	3.8	London ...	16.4	S. Eastern ...	13.1	S. ,,	57.9
London ...	8.3	N. Western ...	9.5	London ...	21.8	S. Eastern ...	5.7	*Englnd. & Wls.*	3.9	*Englnd. & Wls.*	16.5	S. Western ...	14.3	S. Western	58.7
Englnd. & Wls.	8.4	York	9.8	*Englnd. & Wls.*	22.0	York	5.7	York	4.8	Eastern	16.6	W. Midland ...	15.6	S. Eastern	62.3
York	10.4	S. Western ...	10.0	York	23.1	Welsh	5.7	Welsh	4.9	York	18.4	N. ,,	23.6	N. Western	66.5
N. Western ...	11.6	Northern ...	12.0	N. Western ...	24.8	N. Western ...	6.5	N. Western ...	6.8	N. Western ...	19.1	S. ,,	26.7	Eastern ...	78.3

fever mortality in the first statement against "fever" attacks, I obtain the following results:—

England and Wales and its Registration Divisions in Order of Attack and Death-rate (Per-Case Mortality) from Worst to Best.

Small-pox.		Diphtheria.		Erysipelas.		Scarlet Fever.		Fever.	
Attack.	Death	Attack.	Death.	Attck.	Death	Attack.	Death.	Attck.	Death
9	10	1	8	1	8	11	8	8	8
8	5	4	9	3	10½	1	11	10	9
7	9	3	E. & W.	6	11½	5	9	11	4
E. & W.	8	2	1	E.&W.	2	4½	E. & W.	E.&W.	E.&W.
4	2	E. & W.	2	5	6	10½	1	4	1
1	3	11	11	4	4	E. & W.	7	9	7
2	E.&W.	10	3	10	E.&W.	7	3	7	6
5	7	6	10	7	10	6	5	6	10
10	4	5	6	2	3	3	4½	3	2
6	1	7	7	11	1	8	6½	1	5
3	11	8	4	8	5	9	10	5	3
11	6	9	5	9	7	2	2	2	11

It becomes very evident from the above table that the extremes are absent for all the diseases—that is, as between high and low attack- and death-rates respectively, and high rate of the one with low rate of the other; but as regards diphtheria, scarlet fever, and more especially fever, it is seen that the divisions hold some sort of similar position in the two columns, speaking broadly.

Setting out the diseases for density and death-rates we obtain the following results:

England and Wales and its Divisions in Rank of Density of Population (Greatest to Least).		England and Wales and its Divisions in Order of Per-Case Mortality (Highest to Lowest) from:				
		Small-pox.	Diph-theria.	Ery-sipelas.	Scarlet Fever.	Enteric Fever.
London	1	10	8	8	8	8
North-Western	8	5	9	10½	11	9
West Midland	6	9	E. & W.	11½	9	4
York	9	8	1	2	E. & W.	E. & W.
England and Wales	—	2	2	6	1	1
South-Eastern	2	3	11	4	7	7
South Midland	3	E. & W.	3	E. & W.	3	6
North Midland	7	7	10	10	5	10
Eastern	4	4	6	3	4½	2
South-Western	5	1	7	1	6½	5
Northern	10	11	4	5	10	3
Welsh	11	4	5	7	2	11

A different result is here obtained from that found in respect of attack-rate, since while we still see the extremes wanting, we see also greater similarity between density and death-rates than was the case between attack and mortality. Thus of the six densest groups, we find the same groups as regards small-pox and erysipelas appearing each only three times, but as regards scarlet and enteric fevers appearing four, and in respect of diphtheria as many as five, times. And, again, the same broad similarity is found with the six least populous groups. This is especially true of diphtheria, a most remarkable result considering the rural nature of the disease, but confirmatory of the view that the malady is becoming located in our towns, if we may attach any significance to the above data.

Small-Pox.

Knowing what we do of small-pox, its tendency to higher mortality in dense districts at first sight looks curious. But since the disease is one of great infective quality, it would not be strange to see malignity of character manifested in crowded areas. Many factors have to be held in mind in regard of small-pox, primarily the matter of vaccination; the standing of a community in this respect is of vital concern; and, again, the housing of patients is of much consequence. As a matter of fact, the two divisions most heavily *attacked* are dense areas, and they have also heavy death-rates, the next heaviest sufferer (West Midland) being sparsely peopled, and having a death-rate much below the average. There can be no doubt at all, however, that vaccination and revaccination are the determining forces *quâ* death by small-pox. Given both, and death is an almost unknown occurrence.

Of the counties (Table I), four—Bedford, Hereford, Westmorland, and Wiltshire—had no small-pox; Huntingdon only one attack. Fourteen counties had no deaths in an aggregate of 100 attacks. Low rates obtained in many counties, and high rates in Dorset (6 cases), 50 per cent., Hertford (2 cases) 50, Surrey 26.67, Cumberland 20, and Shropshire 15.8 per cent. In the whole of England and Wales the 5,639 cases returned had amongst them 501 deaths, or 8.9 per cent. of notified attacks.

Diphtheria.

The notified cases of diphtheria returned to me number 20,944, and the deaths amongst these, 4,269, yielding a death-rate for the country of 22.0 per cent. of attacks. Column 3 of Table XI shows the range of divisional rates from 16.1 in the South-Western to 24.8 in the North-Western Division, the divisions of *greatest prevalence* giving rates of 21.8 in London, 17.0 in the Eastern, 18.8 in the South Midland, and 21.4 in the South-Eastern groups. Instances of high rates in counties are Northampton, with 50 per cent.; Buckingham, 31.0; Nottingham, 29.1; Huntingdon, 28.6; all with low numbers of attacks; whilst low rates are seen in Hereford, 10.2; Westmorland, 10.4; Lincoln and Rutland, 11.1; and Dorset, 11.2; these also having few cases. Outside London we note, as counties having a large *amount* of diphtheria, Lancaster, with a rate of 23.2; Essex, 17.0; West Riding, 24.8: Surrey, 21.0; Middlesex, 17.2; and Kent, 22.0 per cent. of attacks. It will be observed how varied are the geographical positions of these latter counties.

Looking at Dr. Longstaff's map of average diphtheria death-rates in England and Wales, I note that the following counties had the highest rates in the twenty-six years 1855-80, and against them we have placed the per-case mortality-rate in 1892.

Lincoln	11.1	...	low	mortality-rate in 1892.
Norfolk	12·3	...	,,	,, ,, ,,
Suffolk	24.1	...	high	,, ,, ,,
North Riding ...	19.0	...	medium	,, ,, ,,

The lowest rates in the twenty-six years were found in the following counties, with per-case mortality in 1892 placed against them as in the above instances.

Buckingham ...	22.8	...	high	mortality-rate in 1892.
Somerset	19.6	...	medium	,, ,, ,,
Hertford	17.0	...	low	,, ,, ,,
Devon	16.4	...	,,	,, ,, ,,
Northampton ...	50.0	...	highest	,, ,, ,,
Leicester	14.7	...	low	,, ,, ,,
Rutland	11.1	...	,,	,, ,, ,,
Gloucester ...	26.4	...	high	,, ,, ,,
Lancashire ...	23.2	...	,,	,, ,, ,,

As the data are for one year only, I make no comment on these interesting differences.

In his return for the fourth quarter of 1892 the Registrar-General gives 5,783 as the total diphtheria deaths that year in England and Wales. On the estimate of attacks which I have formed, these deaths would yield a rate of mortality of 19.8 per cent. of cases.

Membranous Croup.

We have now to consider a disease which it will be noticed does not find place either in Table XI or Chart H, and I feel that the rates, both of attack and mortality, would have but little value, based as they would be on what I cannot doubt to be fallacious data.

A study of Tables I and II will soon lead to the discovery that something is wrong in the diagnosis of attack or death in relation to this disease. Table II gives for England and Wales a per-case mortality of 65.2 per cent. on a total of 1,768 cases, with 1,152 deaths, ranging in the divisions from 44.0 in London and 47.9 in the West Midland to 102.1 in the South-Eastern and 105.0 in the Welsh Divisions. In Table I six counties return cent. per cent. mortality, and seven others rates above this up to 166.6. Many rates are, whilst below these, still excessively high.

What is the reason for this abnormal state of affairs? The annual report of the Local Government Board for 1891-92 expresses the opinion that incorrect diagnosis leads to many cases of disease classified as croup being recorded as from

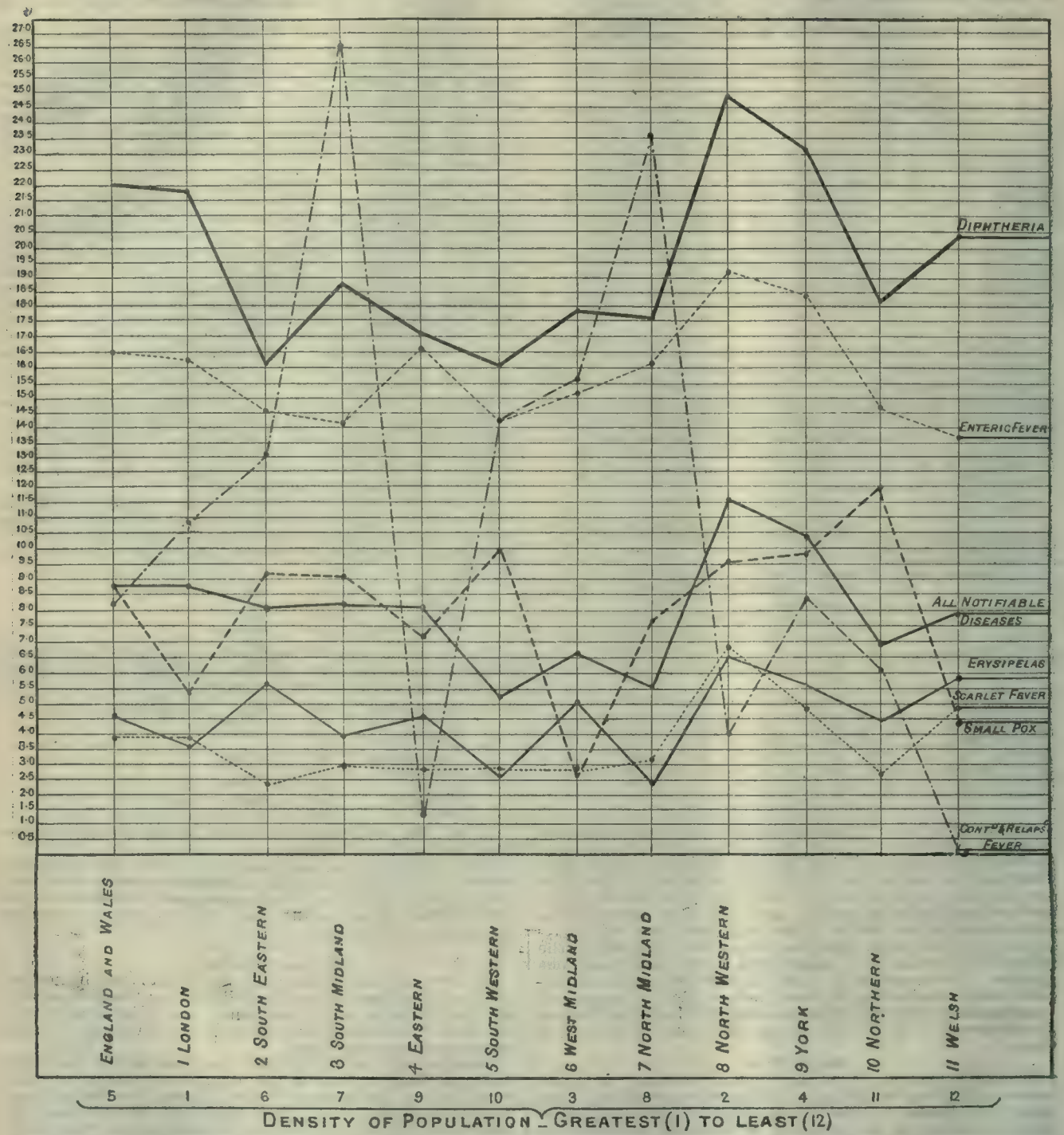


CHART II. Mortality per Cent. of Attacks. "All Notifiable" and "Certain Specified Diseases."

diphtheria when a fatal issue results. But the figures now before us point to a very different theory. It is the *deaths* and not the cases of croup that were in excess in last year's data. Can it be that all that has been written on the subject of incorrect nomenclature has led to a rush to the opposite extreme of calling all throat ailments by the name of diphtheria, with more careful regard for correct record when a certificate of the cause of death has to be given? It is hard to say; but clearly there is something amiss when results such as are disclosed in the data are the outcome of a year's notification throughout the country.

Placing the mortality-rates from diphtheria and membranous croup side by side in the counties already first named in treating of diphtheria death-rates, I get these results:

Counties.	Diphtheria.		Membranous Croup.	
	Cases.	Rates.	Cases.	Rates.
Northampton ...	30	50.0 high	7	28.6 low
Buckingham ...	29	31.0 ,,	3	166.6 high
Nottingham ...	141	29.1 ,,	4	75.0 medium
Huntingdon ...	21	28.6 ,,	9	66.6 ,,
Hereford	51	10.2 low	21	0.0 *nil.*
Westmorland ...	48	10.4 ,,	3	33.3 low
Lincoln	279	11.1 ,,	4	25.0 ,,
Rutland	9	11.1 ,,	2	100.0 high
Dorset	89	11.2 ,,	2	100.0 ,,

The figures are small, and consequently nothing much can be said of the results; but, turning to counties with higher figures, I find as follows:

Counties.	Diphtheria.		Membranous Croup.	
	Cases.	Rates.	Cases.	Rates.
Lancashire	1975	23.2	396	70.7
Essex	1600	17.0	71	53.5
West Riding	950	24.8	106	74.5
Surrey	751	21.0	29	145.0
Middlesex	739	17.2	75	57.3
Kent	719	22.0	45	93.3

From these figures I gather three facts: the lowest two diphtheria rates have the lowest croup rates; the highest two diphtheria rates have the next lowest croup rates; and thirdly, the two middle diphtheria rates have high croup rates. So that the one would seem to have but little influence on the other.

Some explanation is evidently wanting. Is it to be found in any difficulty arising out of definition of croup as "membranous" for the purposes of notification, with development of this characteristic in cases which run a fatal course?

Erysipelas.

I have note of 18,991 cases of erysipelas notified in 1892 in England and Wales, with 875 fatal, or 4.6 per cent. of attacks. In London the rate was 3.6, and ranged in the divisions from 2.4 in the North Midland, and 2.6 in the South Western, to 5.7 in the South Eastern, York, and Welsh, and 6.5 in the North-Western Divisions. In the counties, there were no deaths in Rutland or Westmorland, and under 2 per cent. in Leicester and Somerset, whilst rates of 11.3 and upwards to 12.4 obtained in Hampshire, Norfolk, and Cheshire, as shown in Table I.

Scarlet Fever.

This disease comprised roughly 55 per cent. of the total of notifications last year under the compulsory system in England and Wales, being credited with 103,047 cases and 4,016 deaths, equal to a per-case mortality of 3.9 per cent., London having 22,433 cases in the districts figuring in my returns, with 852 deaths, or 3.8 per cent. In the eleven divisions the rates ranged from 2.4 in the South-Eastern and 2.7 in the Northern to 4.8 in the York, 4.9 in the Welsh, and 6.8 in the North-Western Divisions. Of the counties, 19 had rates from 0.0 to 2.5, and 10 had rates of from 4.1 and upwards to 7.2 per cent. (See Table I and Chart II.)

Enteric Fever.

There were 16,688 cases of enteric fever included in the data sent, in regard of England and Wales, with 2,749 deaths, or 16.5 per cent. of notifications. In London the rate, with 1,992 cases, was almost identical with the average of the country, namely, 16.4. Of the divisions (Table XI and Chart H) the Welsh had the lowest death-rate, 13.7, with little difference in the next four divisions, 14.2 to 14.6, three others being above the average—Eastern 16.6, York 18.4, and North-Western 19.1 per cent.

Of the counties (Table I) I find death-rates of under 10 per cent. of cases in Monmouth 4.5, Westmorland 5.8, Wiltshire 7.1, Shropshire 8.4, Huntingdon 8.7, and Northampton 9.9 Six counties had rates in excess of 20 per cent., namely, Cheshire 20.4, Suffolk 23.0, Berkshire 28.6, Northumberland 31.8, Hereford (11 cases) 45.5, and Rutland (1 case) 100 per cent.

Typhus Fever.

It is gratifying to find that in upwards of twenty million persons only 302 cases of typhus fever were recorded. There were 75 deaths among these, yielding a death-rate of 24.8 per cent. of attacks. In London there were but 15 cases, with a mortality rate of 33.3 per cent. In the rest of England and Wales the death-rate was 24.4 (Tables I and XI). No fewer than 27 counties were entirely free from the disease; 8 others had only single cases; one had a death of an unnotified case. Of the 287 provincial cases, 265 occurred in four counties: Cumberland, 22 cases, 6 deaths, 27.3 per cent.; South Wales, 49 cases, 10 deaths, 20.4 per cent.; Durham, 60 cases, 9 deaths, 15.0 per cent.; and Lancaster, 134 cases, 38 deaths, 28.4 per cent. fatal.

Continued Fevers.

It is also gratifying to notice that only 1,166 cases of these fevers were notified, with 96 deaths, a per-case mortality of 8.2 per cent. Improved methods of diagnosis are here apparent. Moreover (see Table I), six counties had no such notifications; and 20 additional counties had only 116 cases in all, without one death; whilst other six counties had between them 819 notified attacks. The per-case mortality for the country was exceeded by seven of the eleven registration divisions, including Central England, London, York, and the South Coast counties (Table XI).

Puerperal Fever.

In respect of this disease I feel much as I do in the matter of croup—namely, that we are dealing with a disease not notified to the extent of its occurrence. A health officer of a northern town, in sending his return, expresses his opinion of the absurdity of receiving information of one case of puerperal fever out of nearly 1,000 cases of parturition. "I have," he says, "personal knowledge to the contrary, but I cannot go behind the certificates of the cause of death of other doctors." If absolute falsity is not in question, "it is certain," he adds, "that the vagueness of nomenclature in *post-partum* diseases is taken advantage of so as to conceal the real relationship between parturition and death, and keep cases of *post-partum* sepsis out of knowledge."

This is but a sample of the opinions of health officers in the matter. And accordingly I have not sought to chart either the attack or death-rate from this disease alone, seeing that in each instance it would be confessedly so misleading. Table XI shows that deaths on attacks yield for the whole country a mortality percentage of 56.6, a rate exceeded in seven of the eleven registration divisions: the eastern group of counties have a rate of 78.3, against 42.5 in London. Both high and low mortality percentages seem indifferent to locality—Yorkshire with its 54.4 having 66.3 in its western neighbour, Lancashire, 30 on its southern boundary, Lincolnshire, and 28.6 in Leicestershire, as shown in Table I. Turning to this latter table, we learn that Norfolk had a death-rate of 150.0 per cent. of notified cases. Dorset and Monmouth had cent. per cent. Rutland had neither attacks nor deaths. Eight counties in all had rates of 70 and upwards: and an additional twenty counties had rates of 50 and upwards per cent. of notified attacks.

What are we to say of this state of things? If cases occurred only at the rate of notified occurrences, we should have for the year 1892 in the whole of England and Wales, as I have already pointed out, some 2,400 attacks. Now the Registrar-General records 1,973 deaths from puerperal fever during 1891, the latest data available. This would mean, had both figures related to last year, that over 80 per cent. of these cases were fatal. The contention is absurd, and calls for serious notice.

Comparative Data, 1891 and 1892.

I now give for purposes of comparison the Table (XII) of notifications in 1891 in London and 108 provincial towns of England and Wales, embodied in the report of the Local Government Board for 1891-92, *together with italicised additions of my own* in respect of the whole area covered by the returns.

TABLE XII.—*Showing (a) for London and 108 Provincial Towns the Number of Notifications received and Deaths registered in 1891 in respect of certain Diseases, with per-Case Mortality and Attack-Rates per 10,000 of Aggregate Population amounting to 12,491,933 Persons. Showing also (b) the same Death and Attack-Rates for England and Wales in 1892 on an Aggregate Population of 20,749,712 Persons.*

Disease.	Number of Notifications received during 1891.	Number of Deaths Registered during 1891.	Percentage of Deaths to Cases Notified.		Attack Rate per 10,000 of Population.	
			Present Table 1891.	Whole Return 1892.	Present Table 1891.	Whole Return 1892.
Small-pox	377	49	13.0	8.9	0.3	2.7
Scarlet fever	37,660	2,208	5.8	3.9	50.2	49.8
Diphtheria	11,043			22.0	8.0	10.1
	11,919	2,829	23.7			
Membrnus. Croup	876			65.2	0.7	0.8
Typhus fever	423	94	22.2	24.8	0.34	0.14
Enteric fever	11,089	2,312	20.8	16.5	8.9	8.0
Continued and relapsing fevers	776	54	6.9	8.2	0.62	0.56
Erysipelas	8,962	431	4.8	4.6	7.2	9.2
Puerperal fever	713	561	78.7	56.6	0.57	0.83
"Fever"					10.4	9.6
Totals	*71,919*	*8,538*	11.9	8.4	57.6	82.1

It will be seen that in almost every instance the per-case mortality is larger in the smaller (and strictly *urban*) data, whilst the reverse holds good of attack-rates. Especially is this so of small-pox, erysipelas, puerperal fever, and "all diseases." The puerperal rate of mortality, indeed, approaches closely to my estimated figures based on supposed notifications in 1892, and actual deaths in 1891 in the whole country. In respect of that disease and of erysipelas the results are interesting as bearing out the probability of the per-case death-rate being a false quantity, larger amount of notification leading to lessening degree of fatality.

Since, however, the above data have reference to different years, it will be well to present a like table for figures in respect of 1892 only. Accordingly I now proceed to give in Table XIII similar facts from the report of the Local Government Board for 1892-93 with reference to London and 116 provincial towns, *with italic additions as above.*

TABLE XIII.—*Showing (a) for London and 116 Provincial Towns the Number of Notifications received and Deaths registered in 1892 in respect of certain Diseases, with per-Case Mortality and Attack-Rates per 10,000 of Aggregate Population amounting to 12,852,060 Persons. Showing also (b) the same Death and Attack-Rates for England and Wales in 1892 on an Aggregate Population of 20,749,712 Persons.*

Disease.	Number of Notifications received during 1892.	Number of Deaths Registered during 1892.	Percentage of Deaths to Cases Notified.		Attack-Rate per 10,000 of Population.	
			Present Table 1892.	Whole Return 1892.	Present Table 1892.	Whole Return 1892.
Small-pox	2,864	287	10.0	8.9	2.2	2.7
Scarlet fever	70,611	3,088	4.4	3.9	55.0	49.8
Diphtheria	13,977			22.0	10.9	10.1
	15,146	3,578	23.6			
Membrnus. Croup	1,169			65.2	0.9	0.8
Typhus fever	216	54	25.0	24.8	0.17	0.14
Enteric fever	10,685	1,898	17.8	16.5	8.3	8.0
Continued and relapsing fevers	653	48	7.3	8.2	0.5	0.56
Erysipelas	12,964	618	4.7	4.6	10.1	9.2
Puerperal fever	1,075	789	73.4	56.6	0.8	0.83
"Fever"					9.8	9.6
Cholera	80	12	15.0	48.1	0.06	0.02
Totals	*114,291*	*10,372*	9.1	8.4	88.9	82.1

It is to be noted from the above that, generally, the rates both of mortality and attack in the 117 towns approach more nearly those of the return; especially is this so of attack-rates. Indeed the similarity of rating is very striking, save in the case of cholera, and here there is evidently some difference of classification, since in London alone last year there were 88 deaths ascribed to "cholera," whereas the return to the Local Government Board gives only 54 notifications of the disease as having been made in London in 1892, with no deaths. For purposes of my return "cholera," of course, is the malady so-called by the Registrar-General, and is not strictly limited to the Asiatic form of the disease.

Conclusion.

The foregoing constitute the chief facts resulting from the manipulation of the data with which I have been furnished. If they lead to adoption of a like return annually which shall be rendered compulsorily complete by statutory powers conferred on some central registration department, my aim will have been attained. My figures, since they never affect to deal with anything less than a county, cannot injuriously tell upon any one sanitary district, but they furnish ample means by which small local areas can see how they stand in the matter of attack-rate from one and another, and from all of the notifiable diseases. Nor is this all. Far from it. Such returns presented by authority for the whole country under a system of compulsory notification would in, say, ten years' time, furnish an invaluable aid to a correct understanding of the general question not only of attack-rate in one and another community from each of several diseases, but also of the equally important and little understood point of per-case mortality. Moreover, if *death*-rates taken on populations are of great value, of no less value, I think, would *attack*-rates become in estimating the healthiness of a district, or county, or group of counties. Indeed, it may be questioned whether attack-rates are not of even greater consequence to the sanitarian. Sickness, where it does not kill, often seriously impairs the vital powers of a community, and it behoves a health officer to look to his attack-rate quite as seriously as to his death-roll.

Of course each health officer already has in his hands the means of judging of the one and the other in his own area, always supposing compulsory notification is in force; and his county health officer, as a rule, embodies the facts annually in a summarised form for the county as a whole, but for the country generally no record of the kind exists. However, it is quite clear that no great difficulty need be felt in commencing a permanent record of the sickness returns in the manner I have already indicated.[1] The amount of voluntary aid in the present return is a happy augury for any future authoritative attempt to collate the data weekly, quarterly, or annually, by means of county councils or otherwise, for some central Government department, deaths as well as cases being demanded. Detailed annual returns for the county of London are already on record.

I can only hope that such a step will be taken, the *modus operandi* being laid down in a new general or amending Act, which shall as a matter of first principle extend compulsory notification to England and Wales as a whole.

It would ill become me to close this report without gratefully acknowledging the kindness and courtesy of all those numerous health officers from whom I have received returns and observations on the working of the notification system. I tender my sincere thanks for the ready manner in which my appeal has been responded to, and I only regret that the necessity of proceeding with the report has precluded me from making use of such returns as came to hand after the tables had been drawn up.

[1] British Medical Journal, July 15th, 1893.

BUDA-PESTH MEDICAL SOCIETY.—This society held its annual meeting on December 9th, under the presidency of Professor Réczey. The Society now numbers 439 ordinary, 137 corresponding, and 2 honorary members. During the past year twenty papers have been read and sixty-one demonstrations have been given. At the conclusion of the meeting 49 new ordinary members were elected; and Mr. Victor Horsley and Professor Heinrich Fritsch, of Bonn, were elected corresponding members.

DONATION.—The Merchant Taylors' Company have voted a further grant of £31 10s. to the Ventnor Hospital for Consumption, a very seasonable gift.

EGYPTIAN SANITATION.

The first annual report of the Director-General of the Sanitary Department of Egypt is a document which demands more than a passing notice. Egypt is not only an important stage on the highway of commerce between East and West, but is also a stage on the highway of epidemic disease; and the sanitary state of the country is, therefore, a matter of vital interest to the whole of Europe as well as to the inhabitants, native and foreign, of the country itself. This report is admirably drawn up by Director-General J. G. Rogers. It is concise, exhaustive, clear, and trenchant, and furnishes an excellent sketch of the sanitary shortcomings and needs of Egypt, the efforts which have been made to cope with these, their partial success, and the urgent necessity of better organisation and stronger effort, if any real advance is to be made on the road to sanitary reform.

The catalogue of sanitary defects which exist in Egypt is long and formidable. They are in brief these: Polluted water; a polluted soil; overcrowded and insanitary dwellings; no building regulations; stagnant ponds in every village; cesspools, too often leaky, everywhere; cemeteries within a few feet of human habitations; imperfect burial; no proper scavenging arrangements; no drainage; water-logging of soil in places; no slaughter houses; bad hospital buildings; defective lunatic asylum; no homes for paupers and lepers; overcrowded and unhealthy prisons; no hospitals for infectious diseases; an underpaid staff overburdened with petty duties; complicated and ineffective registration laws; defective vital statistics; an inaccurate and unreliable census; no local organisation for sanitary work; insufficient funds; local revenues devoted to other than sanitary purposes. These sentences, gleaned from this report, constitute a terrible indictment, and it is not a subject of wonder that the death-rate of the country is 40 per 1,000, a rate which in all probability falls short of the reality.

Such being the state of the country, it comes to be a momentous question, what arrangements have been made to remove these perilous conditions? A sanitary department has been organised, which, to quote from the report, is "charged with many and multifarious duties, dealing with the civil hospitals of the country, the annual outbreaks of typhus and small-pox, vaccination, the registration of births and deaths" (the actual work of which is entrusted to certain peripatetic officials belonging to the finance department), "the issue of permits for burial, the examination of medico-legal cases—grave and trivial—the examination as to the fitness for government service of all candidates, and the invaliding and granting of sick leave to all Government *employés*." Add to these, duties connected with an engineering branch, a veterinary department, and a government laboratory, inspection of an asylum and prisons, and watching and sometimes supplementing the action of a quarantine board, which is independent of the sanitary department. The department is officered by 169 "doctors," who act as inspectors of towns and provinces, officers of health of districts, and are placed in charge of hospitals and dispensaries. They are apothecaries who have been educated at the Cairo Medical School. They are badly paid and so burdened with special duties, many of them trivial, that they have no time to supplement their scanty wages by engaging in private practice. Indeed, in the present state of Egypt there is little or no demand for their services in this capacity, the people preferring to lick pillars in mosques and drink dirty water prepared for them in these edifices.

Such sanitary work as they have time and ability to accomplish is rather inquisitive than executive. There is no lack of supply of information in regard to sanitary defects, and in this respect the action of the sanitary inspectors is supplemented by the proceedings of Sanitary Commissions which exist throughout the country—one in each *mudiriyeh*. The meetings of these Commissions are described as a farce, and the reports of inspectors are said to be a weary and disheartening reiteration of sanitary defects, to remedy which no endeavour is ever made. The infirmity of the system is on the executive side. Faults are known and acknowledged, but corrective efforts are quite inadequate or entirely unattempted. "It is difficult," writes the Director-General, "for those who have not personally visited the provincial towns to realise the total absence of sanitation which actually exists." The Government assignment of £73,000 is entirely absorbed in defraying the expenses of the administrative establishment whose duties have been described, and nothing remains to meet the cost of sanitary work. Of the £95,000 raised locally by taxation, only about one-tenth is expended on sanitation, and most of that is spent on lighting and watering. The fact is that, in the absence of a municipal system of government and of laws enforcing the practice of domestic and civic cleanliness, nothing is done to correct the habits of the people, which are flagrantly opposed to the laws and conditions of health.

The system of government is essentially bureaucratic, and sanitation to be of any real effect must be an affair of local rather than central energy. An attempt was made in the year under report to create municipalities, and provide for the satisfaction of local sanitary wants by local taxation, but the scheme, "owing to the refusal of certain powers," fell through. No doubt sanitary problems in Egypt are, for many reasons, hedged round with peculiar difficulties. At present the Nile is at once the source of the water supply and the main sewer of the country. This is an impossible combination, and full of peril to health. The river and its canals must continue to be the source of water; and sewage and filth of all sorts must be disposed of elsewhere. This is the main difficulty of Egyptian sanitation. The present system of cesspits, whether watertight or porous, as no doubt most of them are, is dangerous. With a filling Nile and rising subsoil water, the filth and the products of putrefaction are forced to the surface, or find their way into the river and canals. Whether a system of sewage irrigation is practicable must be determined on the spot. Perhaps desiccation by sand and sun might, in some parts of the country, take the place of storage and soakage; but there can be no similar or equal difficulty as regards the disposal of rubbish and offal, which is now cast into the river or canals, or left to fester in the neighbourhood of habitations, and on the streets of towns and pathways of villages. The Director-General's report shows that he has grasped the whole subject of Egyptian sanitation thoroughly, and his recommendations, which have for their basis the creation of local bodies entrusted with the power of levying taxation for local sanitary purposes with a view to arranging for the supply of pure water, and the removal and proper disposal of filth of all sorts, and acting under the guidance of simple sanitary laws, will have general sympathy and approval.

Although the sanitary account of Egypt thus presented has such a formidable array of debit items, it is but fair to state that there is something to show on the credit side as well. Thus 16,848 patients were treated in 19 hospitals, and their number increases from year to year. There are, besides, some 15 dispensaries at work which afford medical relief to the people. A new hospital has been provided at Zagazig, and a substantial grant made for repairing the Kasr-el-Aini Hospital at Cairo. A temporary pavilion for infectious diseases and a disinfecting apparatus have been constructed at Alexandria. An English veterinary surgeon has been added to the establishment, and there is a prospect of a veterinary school being started at Cairo. The plans of Government buildings are now submitted for sanitary approval, but no control exists over private buildings except by special provision in the contracts for purchase of Government land.

A scheme of drainage has been adopted for Cairo. Mosques have been prohibited by law from throwing their drainage into the Nile and its canals, and compelled to construct watertight cesspits for holding their sewage. The digging of brick pits which give rise to foul ponds (birkets) has been prohibited within one kilometre of dwellings. A law has been passed prescribing the enclosure of waste lands, thus preventing their pollution. The question of filling up filthy ponds (birkets) is under active consideration.

A new ordinance for the registration of births and deaths has been enacted, but it is described as complicated, and practically unworkable. A decree for the removal of cemeteries from the neighbourhood of houses is under consideration. The towns of Assiout, Suez, and Ismailia have been partially supplied with filtered water. An intelligent interest in sanitation is being developed in the country. Arrangements are being made to enable Government doctors to

engage in private practice. These measures are good, and may be accepted as a hopeful sign and a substantial, though small, instalment of sanitary reform, but the lesson proclaimed by this report is the same as experience in India has so often and forcibly taught, namely, that in the absence of local self-help, a central or imperial organisation, however intelligent or energetic, is able to produce little or no effective change in the domestic and communal conditions and habits which constitute the factors which make or mar healthy life in any community of human beings, whether in the East or West.

THE ELECTRICAL PURIFICATION OF SEWAGE BY THE HERMITE SYSTEM.

It has been known for some time that a current of electricity passed through a culture of microbes destroys them very rapidly, but a practical application of this laboratory experiment has been attempted only during the last few years.

The first system in the field was the "Webster" process of purification by electricity. A strong electric current was passed through the sewage by means of iron electrodes. These were cast-iron plates, the alternate plates being connected respectively with the positive and negative terminals of the dynamo, worked by a steam-engine. It is claimed for this system that the organic constituents of sewage, in passing through the electrolytic channel, become entirely split up by the electric action, and that the quantity of organic matter is not only diminished owing to the precipitation which takes place, but that it is oxidised by the nascent oxygen and chlorine oxides evolved. The system has been tried by the County Council of Salford, at the Borough Sewage Works, during the year, 1890, and gave fairly satisfactory results.

During the last month much attention has been drawn to the experiments performed by M. Hermite at Havre, and the British Institute of Preventive Medicine instructed Dr. Ruffer to proceed to Lorient in order to report on the experiments which are being carried out in that locality. Dr. Ruffer found that the whole system is based on the fact that when an electric current is passed through sea water, ozone, free chlorine, and various unknown oxygenated compounds of chlorine are set free, which possess a marked oxidising and bactericidal action. The sea water is brought into a tank at one end, an electric current of a very low voltage passes through it, and the electrolysed water pours out at the other end. At Lorient the sea water, after having been electrolysed, was conducted through pipes into the flushing-pans of eight public waterclosets. Five litres of this electrolysed fluid were used for every motion, and the resulting liquid flowed into a small vat about 3 feet in diameter, from which it flowed, by a siphon arrangement, into the neighbouring sewer. Although these eight waterclosets were in constant use, and at every moment the vat received a fresh amount of liquid, there was no smell whatever, and all that remained of the motions was a yellowish turbid liquid, in which a few pieces of paper floated.

Dr. Ruffer made one experiment with the dejecta of a typical typhoid patient, who had died at the hospital. The dejecta, about half a pint in quantity and horribly fœtid, were mixed with 2½ litres of the Hermite fluid, and cultures were made on gelatine and agar at various times afterwards—namely, a quarter of an hour, half an hour, one hour, and two hours after the mixing. The cultures which were made before the addition of the electrolysed sea water were so foul the next day that they had to be thrown away, whilst those inoculated ten minutes, a quarter of an hour, half an hour, and one hour after the stool had been submitted to the action of the disinfectant fluid remained sterile for two days. On the third day, however, small discrete colonies, pure cultures apparently of some unknown saprophytic bacillus, developed along the track of the needle. The cultures made with the stool which had been mixed with the electrolysed water for one or two hours remained sterile.

It is evident, therefore, that this electrolysed fluid is a very strong disinfecting agent. It is stated that all the organic matter in the stool is converted into non-poisonous ammoniacal salts, and that fish are able to live in a 10 per cent. solution of this fluid. It is also claimed for this system that the fluid does not corrode the pipes; but further experiments on this question are necessary.

Although it appears clear that this system might be used without disadvantage at a seaside place—at Worthing, for instance—yet further experiments are necessary before it can be applied in inland towns. One objection, however, is that the toxic properties of this electrolysed sewage have not as yet been carefully studied, so that it would not be advisable for the present to recommend that the electrolysed sewage should be thrown into the river, before it has been proved to be non-poisonous.

Electrolysed salt water might possibly be used with good effect in medicine and surgery, as it is evidently a very strong antiseptic. According to Dr. Ruffer, it does not appear to irritate the skin in any way, and does not coagulate albumen, so that it might be useful for baths, lotions, and surgical operations.

It is stated that the British Institute of Preventive Medicine will at once begin the investigation of the Hermite system in their temporary premises.

COTTAGE NURSES AND THE ORGANISATION OF VILLAGE NURSING.[1]

Benefit Associations and Free Nursing.

[From a Correspondent.]

Free nursing for the poor, tested by statistics, would mean hundreds and thousands of women giving up their lives to district nursing in order that the poor, not only in some favoured districts, but all over the United Kingdom, should be anything like adequately nursed in their own homes. How were these women to be maintained? That the Jubilee Fund should be expected—for it was after all the income, not the capital, that was available—to maintain free nurses was manifestly impossible; all that it could be expected to do, even with the strictest economy, was to train them for this particular branch of the service. The richer public in many cases have maintained nurses for the poor in places in which they are more particularly interested. But this has, after all, touched only the fringe of the question. It provides, it is true, some favoured districts with free nursing, but it leaves others, where no rich people exist, even more desponding than ever by comparison.

Thus it has come about that the club or benefit nursing system has sprung into existence, based on the principle that each shall help themselves, and not be taught to depend entirely on the gratuitous help of their richer neighbours.

The principle of the benefit system of nursing is that the members of the club, rich and poor alike, pay into a common fund so much a year according to a given scale; and in return can avail themselves of the services of the nurse at a correspondingly reduced rate. Non-members may also be attended by the nurse, but must pay full instead of half price. This benefit system may be adhered to, while varied in a dozen different ways. In the majority of the clubs the members contribute 2s., 3s., 5s., 10s., or upwards, according to their means, and claim the services of the nurse at so much an hour, or so much a day, according to a corresponding scale of charges. The yearly subscriptions of the members and the reduced fees go some way towards maintaining the nurse, while full fees from non-members, voluntary subscriptions, and local charities may go towards supplementing this fund, which alone in many places would probably not suffice for one half of the nurse's salary. Many a tradesman, for instance, who would think twice before subscribing towards the maintenance of a nurse, on whose services he had no personal claim, would do so if he might share the advantages of her help at a reduced rate when ill himself.

The benefit clubs established on this principle in Surrey undertake to provide private nurses for the sick poor. Those lately established in Dorsetshire and elsewhere aim at providing public nurses of various recognised grades for the sick of all classes, and to do so at fees which place the nurse within the reach of all.

It is thought that the fact that the nurse goes out only by

[1] A previous article was published on September 16th, 1893.

the hour or the day will prevent the upper classes from taking an undue advantage of her services, while it will be a recommendetion in the eyes of the lower middle class and the poor, with their scanty accommodation and limited means.

The benefit principle is equally applicable to the most highly trained of district nurses and to the humbler work of a homely cottage nurse, and the stronger the club the more highly skilled the nurse it can afford to employ. Certain safeguards it would, of course, be advisable to establish—such as, in the case of a county association, (1) a duly qualified board of medical examiners, who would satisfy the public that a club nurse of whatever grade, especially if undertaking maternity work, was duly qualified for her office; and (2) visits of inspection from time to time from some recognised medical officer, or other inspector of nurses, to ascertain that she was satisfactorily fulfilling her duties. Benefit associations of this sort must be of slow growth, but their advantages are manifold: (1) they encourage a spirit of thrift, independence, and self-help; (2) they are so framed by reduced, but not abolished, fees, as to check malingering and a waste of skilled labour; (3) they are based upon a principle of mutual help and support; (4) they are far more likely to be permanent than a nursing institution mainly supported by a few rich people, whose death or removal may cause the whole scheme to collapse.

The nursing of paupers might be paid for by the guardians, as yearly subscribers, at a given rate.

COOKING AND HEATING BY GAS.

II.

The Evils of Coal-Smoke Fogs.—Varieties of Gas Stoves.

The truth of the old adage that "there is a soul of good even in things evil," has received fresh confirmation from the late protracted struggle in the coal trade. However regrettable and disastrous in its general effects, it has served one good purpose in directing public attention everywhere to the advantages of gaseous fuel for cooking and heating. With empty cellars, coal at famine prices, and the supply steadily diminishing, it is not to be wondered at that during the month of November an enormous demand was made upon gas companies for cooking and heating stoves, a demand which shows little signs of abating, for the consumer who has once experienced the advantages of gaseous fuel in the matter of cleanliness, convenience, and economy, does not readily abandon its use, but, on the contrary, will be anxious to extend it. The remarkable immunity from black fog in London during last month has been attributed, by many to this enforced economy of coal and the extended use of gas stoves, and doubtless with some degree of truth; whilst, of course, other and more potent causes have also been at work. Yet the fact is indisputable that were the use of gaseous fuel compulsory and universal, we should never again experience in our large cities the unwholesome yellow fogs with which we are now so often afflicted; above all, we should rid the atmosphere of many of those sulphurous compounds which, as we pointed out in the British Medical Journal of December 2nd, are most obnoxious, and impart to our fogs that peculiar choking sensation with which we are all, unfortunately, too familiar.

Whilst with our present knowledge it is impossible to eliminate entirely from coal gas every particle of sulphur, yet the purification is so successfully accomplished that only a trace of sulphur is found in the gas when sent out of the gasworks to the consumer—somewhere about 8 grains per 100 cubic feet of gas.

By the present system of making each domestic hearth a crude retort for the distillation of coal, we not only pollute our atmosphere, but also scatter to the winds those valuable by-products (ammonia, coal tar, etc.) which can be recovered when the work of distillation is carried on, as it should be, at our gasworks.

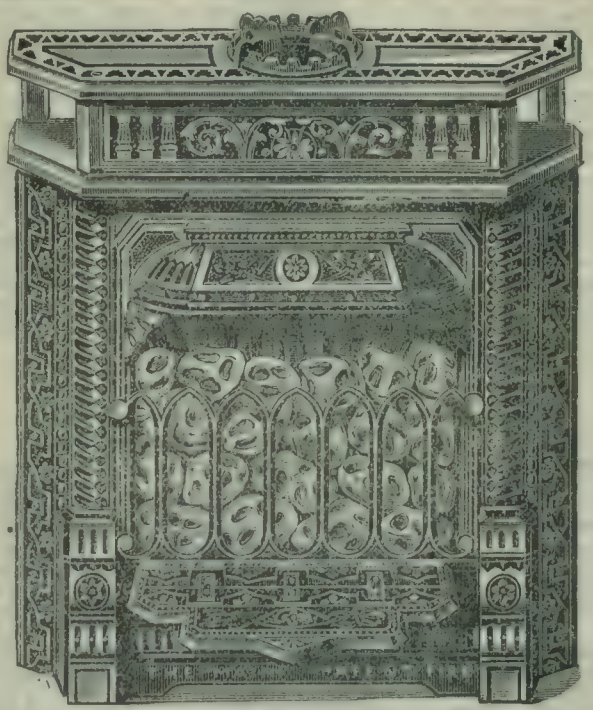
Indeed, there seems almost a subtle irony in the fact that the clouds of smoke which darken our skies have wrapped up in them some of the most beautiful colours in Nature; while our vegetation is damaged by the misapplied action of gases which are capable of yielding the most excellent fertilisation.

Turning our attention to the practical question of the different forms of gas-heating stoves in the market, we shall briefly classify them and give some practical hints regarding each style of stove.

We have, speaking generally, four classes: Class I. Stoves with copper or glass reflectors and luminous flames. Class II. Condensing stoves with "Bunsen" or "argand" burners. Class III. Asbestos fibre stoves with "Bunsen" burners. Class IV. Stoves fitted with refractory "hollow ball fuel" and "Bunsen" burners.

We shall make a few remarks upon each of these classes, which will, we hope, prove serviceable to our readers in the selection of heating stoves.

Class I. "*Reflector*" *Stoves.*—This class of stove is often used in shops where flue attachments cannot readily be obtained; where there is ample ventilation they are very serviceable, especially for lighting up dark corners, as they present a bright, cheerful appearance. They should always have flue attachments; if fitted in bedrooms or sitting rooms this is essential, if the atmosphere is to be kept wholesome.



Class II. "*Condensing*" *Stoves.*—A type of stove which has come much into favour of late years. The water vapour, which is one of the products of the combustion of coal gas, is condensed by passing through upright tubes, and is caught in a tray placed beneath. This condensed vapour carries with it some at least (if not all) of the sulphur products. There is no doubt that this form of stove owes much of its popularity to statements repeatedly made that it condenses all the products of combustion, and thus requires no flue. As a matter of fact, all the carbonic acid produced by the combustion of the gas is vented into the apartment in which it is placed. Our readers scarcely need to be reminded of the fact that carbonic acid gas cannot be condensed except at enormous pressure. As the quantity of gas burned is comparatively small, it is a stove which can be used in shops, etc., where there is very free ventilation, but on no account should it be placed in living rooms and bedrooms without a flue to carry off fumes.

Class III. *Asbestos Fibre Stoves.*—This style of stove presents a brilliant glowing surface immediately gas is lighted. It has a firebrick back, which radiates a fair amount of heat. As the asbestos fibre offers little resistance to the passage of the hot gases it is not so strong in heating power as

a stove constructed with solid refractory fuel. It must always have flue attachment.

CLASS IV.—*Stoves fitted with Refractory Hollow Ball Fuel and Bunsen Burners.*—This is the class of heating stove principally in demand; its popularity is largely due to the fact that the "fuel" is raised to incandescence, and presents a very close resemblance to the ordinary coal fire. Stoves on this principle are made to yield pure radiant heat only, or, with a combination of a hot-air chamber to give heated currents of air, which pass upwards through gratings provided for that purpose. [An illustration of this form of stove, with hot-air chamber, we gave in the issue of December 2nd.]

In conclusion, we print an illustration of a type of this last class of stove (adapted for giving radiant heat only), but having the additional advantage of a boiling ring fixed upon the top, controlled by a separate tap. A stove of this description is specially adapted for the sickroom or nursery, enabling food, water, etc., to be heated without leaving the room.

It is important that all users of gas heating stoves should bear in mind the fact that the consumption of gas in any stove varies according to the pressure of gas in the supply pipe. A stove which at a moderate pressure—say, one inch—consumes only one pennyworth of gas per hour may easily have that amount doubled by increased pressure on the mains, and this without any compensating increase in the heating power of the stove, for whenever the pressure is excessive the gas simply rushes through the fire into the flue and is largely wasted. The pressure in the mains not only varies at different hours, but at different parts of the same town, and even at different flats of the same house. The pressure is always increased at dusk, and it is important to regulate the gas passing through the stove by means of the stopcock. The gas flames should not be allowed to rise above the fuel, or the result is to incur waste. A stove which has been burning economically at, say, four o'clock in the afternoon may be burning wastefully an hour later, owing entirely to the "night pressure" having been put on at the gasworks. Hence the necessity for careful attention.

THE NEW HARVARD MEDICAL SCHOOL.

[FROM OUR SPECIAL CORRESPONDENT AT BOSTON.]

THE present building of the Harvard Medical School is one which was occupied in 1882. This marked the beginning of the second century of its existence, and some new accommodation was rendered absolutely necessary by the growth of the school and the needs of the system of education which this school has always represented. The building was erected and equipped solely by generous subscriptions, amounting in all to nearly 300,000 dols. The building is situated in the part of Boston known as the Back Bay, lying on the border between the west end and the south end of the city, centrally located, and at an equal distance from the two great hospitals of the city—the Massachusetts General, and the Boston City Hospital. It is also in the region of other centres of clinical material. The public library has since been built next to the school. The school occupies a central and conspicuous position in the most desirable part of Boston. It stands on a corner with a large open area on the east, and has a frontage of 120 feet on Boylston Street.

It is built of brick, trimmed with stone and terra cotta. Panels of terra cotta, bearing the names of men great in the annals of medicine, are placed in the façade. The entire building is of fireproof construction, with iron stairs and brick finishing. The heating and ventilation are provided for by means of large steam radiators, which warm the fresh air as it passes through them to be distributed through the building. The air is removed by a series of flues connected with the central shaft, in which an upward current of air is maintained by heated coils of pipe.

The plan in general is that of a large central hall lighted from above the main stairway, about which the different rooms are grouped. Adjoining this are two brick wells, extending from the cellar to the roof. In one of these is a stairway giving access to the instructors' rooms, which can be used as an escape in case of fire if necessary. In the other is the elevator for passengers and freight, with doorways opening at the several landings of the stairways, and others communicating with the various rooms connected with the laboratories and lecture rooms. Four floors and a basement are required for the various rooms.

The ground floor is taken up with the apartments of the janitor, a large students' reading room, a coat room, the faculty room, the library, and one or two smaller rooms.

On the second floor is the large physiological laboratory, and on the other side of the building the chemical laboratory. The departments of physiology and chemistry share a large lecture room upon this floor.

The third floor contains the amphitheatre for the lectures on anatomy and surgery, the Warren Anatomical Museum, and two large rooms for medical lectures and recitations. The Warren Anatomical Museum is located in a beautiful hall, finished in a dark wood, and contains many pathological and anatomical preparations of the greatest interest, including the skull of the famous American "crowbar" case, in which by a premature blast of powder a heavy iron crowbar was blown through the anterior part of a man's head, entering under the jaw and coming out through the top of the skull behind the frontal bone. The interest of the case lies in the fact that the man recovered and lived to old age.

The fourth floor contains the dissecting room, which is finished with an asphalt floor sloping toward a drain in the centre. The tables are of iron, easily cleansed, and there is little or no woodwork in the room to hold the disagreeable odour sometimes arising. The room is lighted by a series of small windows and by skylights overhead, and has proved a very satisfactory dissecting room in every way. There is on this floor also a small amphitheatre for demonstrations in practical anatomy.

By the generosity of a graduate of the school, an L has been built containing large and beautifully lighted laboratories for pathology and bacteriology. The laboratory for bacteriology occupies the lower floor of the building, and consists of one large room for general work, with several smaller rooms for special work and for the instructors. On the next floor is the pathological laboratory, where the examination of specimens is carried on by the pathologist and his assistants, and this, like the bacteriological laboratory, is divided into one large room and several smaller ones.

The school building is considered on the whole satisfactory, and adequate to the needs of the constantly increasing number of students.

ST. KATHARINE'S HOSPITAL.—It will be remembered that in 1889 the Queen's Jubilee Institute for Nurses became incorporated with this ancient foundation, which has been intimately associated with the Queens of England since the time of Matilda, and even earlier. At the direction of the Queen the Lord Chancellor has undertaken to inquire into the present constitution and working of the old foundation. At his request the London County Council has made certain suggestions. Among these the most important are that the number of clerical officers should be reduced to one, who should act as master, their places being taken by medical persons whose duties should be to supervise, instruct, and assist the nurses; and that additional nursing homes should be established in North, South, East, and West London for the nursing of the sick poor in their own homes. It is thought that such a home should be established first in East London.

THE BOURNEMOUTH MEDICAL SOCIETY.—At the recent annual meeting of the Bournemouth Medical Society, Mr. Parkinson, of Wimborne, was elected president, Mr. D. C. Embleton vice-president, Mr. Kinsey-Morgan honorary treasurer, and Dr. H. G. Lys honorary secretary. At the next ensuing ordinary meeting the newly-elected president delivered an address, in which he dwelt on the changes in the public relations of the profession, as well as in the practice of the various branches of medicine and surgery which he had observed during thirty years of professional life. He commented on the great contributions to pathology, and to medical and surgical treatment, which could be traced to the triumphs of bacteriology, and in conclusion referred to the future of unqualified assistants, and to the greater influence which the profession should exercise on public opinion. A vote of thanks to Mr. Parkinson for his address was moved by Dr. Roberts Thomson, seconded by Mr. Allis-Smith, and carried unanimously.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1893.

Subscriptions to the Association for 1893 became due on January 1st; and notice is hereby given, in accordance with By-law 5, that Branch Secretaries' subscription accounts close on October 31st, and all unpaid subscriptions must be forwarded after that date to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, DECEMBER 30th, 1893.

PRESCRIBING CHEMISTS AND THE PRACTICE OF MEDICINE.

The great number of letters which we have received on this subject (of which we have been able to publish only a fraction) bring prominently to view the fact that the tendency on the part of chemists to prescribe for persons requiring medical or surgical treatment is largely on the increase, and there is every reason for belief that the practice will still further increase unless some course for the suppression of this branch of unqualified practice is speedily adopted.

The subject is not new, but we have given much space to it recently out of regard to its importance. Hitherto no concerted action has been taken by members of the medical profession with a view of devising means whereby to determine what must be regarded as prejudicial both to the medical practitioner and to the welfare of the public.

From the information contained in the letters we have received it would seem that the prescribing chemist not only treats patients personally attending at his shop, but, with the temerity which is the invariable accompaniment of imperfect knowledge, prescribes for children or other persons through the medium of a more or less intelligent messenger. Many suggestions have been made as to the best course to adopt to meet this growing infringement of the privileges of the medical profession; some claiming the desirability of legislative protection, others that medical men should cease to dispense their own prescriptions and relegate this entirely as part of the business of the chemist, while others again urge that such a course would tend to increase the practice of prescribing on the part of the latter.

The subject is no doubt a very difficult one with which to deal, and it is only one of many encroachments on the privileges of medical men—privileges which, having regard to the long course of study which is required in order to obtain a qualification to practise, ought to be inviolate.

The object immediately in view, however, is to consider what means can be adopted for putting a stop to unqualified practice by chemists; and this leads to a consideration of the mischief which is involved and the law as it at present stands.

It is not difficult to draw attention to the mischief involved, for this is exemplified in the reports which now and again appear of coroners' inquests on the bodies of persons who have been prescribed for by chemists, and where, although it may not have been found that the death has resulted from improper treatment, the presumption arises that a beneficial result might have followed if the chemist had advocated the calling in of proper medical aid. The chemist is perhaps censured by the coroner or the jury, and immediately afterwards the whole facts of the case fade from the public memory.

In an action by the Society of Apothecaries some time ago against a chemist for acting as an apothecary and prescribing for and advising patients, it appeared that the defendant had treated four children, three of whom were subsequently attended by a medical man, but ultimately died. In two cases the children were brought to the shop and the chemist in question felt their pulses, made some inquiries, and gave a bottle of medicine, for which he charged 7d. In two other cases the mothers came and described the symptoms to the defendant, who gave medicine and directions. The children proved to be suffering respectively from bronchitis, pneumonia, scarlet fever, and convulsions. This is probably an extreme case, but it illustrates the dangers to which the custom may give rise.

A chemist has not the necessary knowledge, as one of our correspondents points out, to diagnose diseases, and yet it is not infrequently done, as has been said, even through the medium of a third person. A chemist is required to know how to read and translate prescriptions, to be acquainted with doses of medicine, practical dispensing, nature of drugs and preparations, materia medica, botany, and chemistry; but he is not required to know anything at all of anatomy or physiology or the nature of diseases to which we are liable, and their treatment.

Notwithstanding this want of knowledge, if under the existing law proceedings are taken for unqualified practice against a chemist, which, as we will presently point out, can be taken only by the Society of Apothecaries, there is a considerable outcry as to what is alleged to be the interference with the humble work of the chemist judging for himself the right remedy for slight accidents or common complaints.

There is a saving clause as to the business of a chemist in the Apothecaries' Act, 1815, which provides that nothing in the Act should extend to prejudice or in any way to affect the trade or business of a druggist in the buying, preparing, compounding, dispensing, and vending drugs, medicine, and medicinal compounds. There the business of a chemist is defined, and medical men ought to be placed in such a position as to be enabled to require that the business of the chemist should be reasonably limited to those purposes.

With regard to the law, there is, of course, no infringement whatever of the Medical Acts in the chemist pursuing this custom of prescribing and treating patients. The only Act in force which can prohibit such treatment is the Apothecaries' Act, 1815, mentioned above, and which, unless the chemist actually visits patients outside his shop, can hardly be put in force against him, having regard to the general disinclination of a jury to convict.

The remedy, therefore, must be sought in additional legislative powers, and we need hardly point out that the most strenuous efforts would be made on the part of the

chemists and druggists to defeat any application to Parliament for such a purpose. Therefore it is essential that there should be "united action" on the part of the members of the medical profession, and some definite scheme should be devised as to the best means of bringing about the object in view, which, having regard to the large proportion of amateur doctoring by chemists is a matter of urgent importance. We invite suggestions for the information of the Parliamentary Bills Committee of the British Medical Association, and in this connection we may refer to the report on the necessary amendment of the Medical Acts submitted to that body by the Chairman at its recent meeting, which was printed in the British Medical Journal of December 9th.

INDUSTRIAL LEAD POISONING.

II.

Lead in some form or other is used very largely in our industries. Its effects upon plumbers and house painters have long been known, but it is only lately that we have met with cases of plumbism amongst girls who are engaged in fixing the thin covers of lead foil on the top of bottles containing sauces, etc. We are indebted to Dr. Scott, of Tollcross, near Glasgow, for drawing attention to lead poisoning amongst girls engaged in folding yarn dyed by chrome yellow. He clearly demonstrated that inhalation of the yellow dust given off by the yarn was the cause of colic and anæmia. Thorough ventilation of the carding room by means of a fan soon put an end to cases of plumbism in that factory.

Bullet and shot making do not seem to be injurious trades, nor in the desilverisation of lead are any pernicious effects experienced by the workmen. In the manufacture of lead piping there is little risk to health. It is done by moulding, and, as the hot metallic pipe rises from the mould, it is caught by the protected hands of the workman. The use of a leaden slab, however, in any trade is dangerous, as witness the cases of colic and wrist-drop that occur amongst the file cutters of Sheffield and leather cutters in our large towns.

The Home Secretary's Committee had their attention directed to several cases of plumbism occurring in electrical accumulator works, and accordingly visited such in London and Wolverhampton. In the former they found that several of the men had been off work from colic. Most of the men presented the peculiar anæmic appearance met with in chronic plumbism. It appears that the cases occurred more particularly in the departments where the mixing of red lead took place, which is a dusty occupation; or in the pasting shop, where men with gloves on their hands rub a paste made of red lead and sulphuric acid on to embossed or perforated leaden plates, thus filling the interstices of the accumulator plates.

The extent to which advertising is carried on has created in this country a new industry—namely, the enamelling of iron plates. The Committee were requested to visit Wolverhampton and Bilston, with the view not only of inspecting and reporting upon the enamelling industry, but of inquiring into the death of Harriet Walters, who died on June 12th last, after a few days' illness. At the coroner's inquest death was attributed to chronic lead poisoning. It is to be regretted that the *post-mortem* examination upon this girl was made by an unqualified man, the son of a doctor at Sedgley, and thus the value of the testimony given at the inquest very much diminished. It apparently never struck the coroner nor the jury that the case was one in which the highest medical evidence of the locality should have been obtained. The Committee do not hesitate to express their opinion in regard to it. Without wishing in any way to cast a slur upon Mr. Ballenden's ability, they state that, "however conscientious and valuable may have been his evidence before the coroner's jury, it remains that, contrary not only to custom but to law, the cause of death was sworn to by an unqualified practitioner, and that the coroner and jury acquiesced in this procedure." In future it is to be hoped that in all cases of acute lead poisoning there will be a *post-mortem* examination ordered by the coroner, and expert evidence obtained, if possible.

Reverting to Harriet Walters, her case was one of a girl employed in an enamelling factory, of which there are several in Wolverhampton and neighbourhood. The process may be briefly described as follows: Iron plates, after being swilled once or twice with solutions that contain lead, are placed for a few minutes in a furnace and thus enamelled. Another layer of fluid is subsequently laid on when the plate is cold. This solution contains frequently as much as 30 per cent. of lead. The plate thus coated is exposed to the air, and in a few minutes it is perfectly dry. It is now taken to another part of the factory and placed upon a perforated table. A stencil, out of which the letters of the advertisement have been cut, is placed upon the plate, and by means of brushes girls rub off the hardened substance on the plate exposed through the letters of the stencil. In doing this clouds of coloured dust arise, dust which contains a large quantity of lead. It is only in this particular department of an enamelling factory that there is danger. The girls, when brushing, work in a cloud of dust, and cannot help inhaling it. As a result they soon become anæmic, constipated, and lose their appetite, particularly for breakfast. There is a nasty metallic taste in the mouth in the morning, which prevents their taking food with relish. The Committee found that several of the girls thus employed would work well on into the forenoon without ever having broken their fast.

In the pages of the medical journals and the daily press we are frequently reminded of the dangers consequent upon the use of kettles, saucepans, frying pans, etc., tinned with lead. "Where what is known as 'common tinning' is to be done, the mixture may contain 60 per cent. of lead to 40 per cent. of tin. The vessel is merely dipped into this mixture of molten metals, having been previously cleaned with dilute hydrochloric acid and chloride of zinc." When we know that water alone will dissolve a fairly large quantity of lead out of this tin enamel, we can understand some of the risks attendant upon the ingestion of food cooked in these common tinned utensils.

Amongst the more important recommendations made by the Committee we notice the prohibition of female labour in all the processes where there is direct contact with white lead, for example, stripping the stacks and emptying the stoves; that in other parts of the factory, where there is no white lead dust, no female under 20 years of age shall be employed, and that previous to her employment she shall be

certified to by the medical attendant to the works; also that if a female has been off work through illness, on her return a medical certificate as to her health and general fitness must be presented. In other words, men are to supplant women in the more dangerous processes of white lead making. This recommendation is made not upon medical evidence alone. There are several factories in England where females are not employed in these particular departments. It was the large amount of sickness amongst the female hands that obliged managers to take this step, which time and increasing experience have shown to be of the greatest benefit. The Committee recognised the difficulties that must necessarily arise in the trade by the prohibition of female labour in the white lead departments, and it is to minimise these, we presume, that they allow two years for the alterations to be made. During these two years white lead may still claim its victims, but, on the whole, we do not see how the Committee could have acted otherwise than in giving owners and managers of factories sufficient time to bring about the changes recommended.

We have looked through the report for some definite information in regard to the use of respirators. No satisfactory respirator, however, has as yet been found. All respirators are more or less uncomfortable. They render breathing difficult. It is acknowledged that they diminish the amount of lead dust inhaled. In all the dusty processes of white lead making it is, therefore, a recommendation that respirators should be worn.

Into such other recommendations as the wearing of overalls, changing of clothes, wearing of gloves, washing before eating, use of baths, ventilation of dusty apartments by fans, and insisting upon food being eaten only in a room set aside for that purpose, we need not enter.

The Committee wisely state that, do what we like, we can never rise above the fact that lead and its compounds are deleterious to health. We cannot expect the report, therefore, to be a final settlement of all the points at issue. No report can, in the face of our ever-increasing industries, be a final settlement of lead poisoning and its relation to trade, but we venture to express the opinion that if the special rules or recommendations made by the Committee are adopted and loyally carried out, they will bring about a diminution of cases of industrial lead poisoning. If, as the outcome of this departmental inquiry, factory owners and scientists are so stimulated to exercise their ingenuity as to produce a perfect mechanical drying chamber, one process at least in the manufacture of white lead will be robbed of its dangers, and those who have acted upon the Committee will feel that their efforts have been rewarded.

PUBLIC HEALTH ADMINISTRATION IN CAPE COLONY.

A Colonial Blue Book,[1] containing a large amount of information concerning the sanitary condition of Cape Colony, has recently been issued. It comprises the annual reports compiled for the year 1892 by upwards of eighty district surgeons in response to a circular issued from the Colonial Secretary's office prescribing forms for special returns with respect to the various districts. It also contains the annual reports of medical officers and medical inspectors in charge of Lock Hospitals, and a special report on a fever epidemic in the Knysa district. Dr. Arthur John Gregory, medical officer in the Colonial Secretary's office, is to be complimented upon the introduction to the reports, and upon the admirable way in which he has availed himself of the material at his disposal.

The Colony has clearly a great deal to do in public health matters. There is a Public Health Act, which is really an Infectious Diseases Prevention Act, but which is practically limited in its scope to providing "for the exclusion of a certain few and mostly rare diseases from the Colony, while taking but little heed for those more common but nevertheless very injurious and fatal diseases, such as scarlet fever, typhoid fever, diphtheria, measles, and whooping-cough."

The absence of a compulsory registration of births and deaths renders exact statistical inquiry impossible. The district surgeons state their views with regard to the general state of health in their several localities, and their reports are usually favourable; but "such mortality figures as are available afford good grounds for believing that a much higher rate of mortality prevails among the population—more especially the coloured population—than is usually credited. The infantile death-rate in particular appears to be excessive."

Attention is directed to the urgent need of a system of compulsory notification of infectious disease, and to the almost complete absence of any provision for the isolation of infectious patients. Measles, diphtheria, and typhoid fever appear to claim numerous victims, the first named in particular manifesting itself with severe intensity throughout the Colony. Scarlet fever, on the other hand, seems to prevail to a comparatively small extent. Since May, 1892, the segregation of persons affected with leprosy has been made compulsory under a Leprosy Repression Act, and a return of lepers dealt with in the several districts of the Colony during the year 1892 is given.

The Contagious Diseases Act applies, in the Colony, to men as well as women, and a detailed account of cases treated under the Act is furnished. Syphilis overshadows the pages of these reports. We are told the disease is "largely spread by innocent and unsuspecting contact." Again, "children at play are the chief spreaders of the disease," and "the majority of the victims are children, although inherited syphilis is extremely rare."

Some of the replies of district surgeons to the queries propounded in the circular sent to them may be summarised as follows:

Information under the heading of climate might have considerable interest for English medical men, but in some instances, however, it is only of a vague and general character.

As to water supply: A system which largely prevails is the adoption of an open furrow or "sluit" for the conveyance of drinking water, the furrow acting as a more or less efficient sewer for the drainage of the surrounding ground, and the water used for drinking purposes being abundantly exposed to contamination of all kinds, not excluding that from human excrement. Wells and cesspools are often met with in close association.

In Cape Town and its surroundings and Simon's Town

[1] Reports on Public Health: Cape of Good Hope. Cape Town: W. A. Richards and Sons. 1893. Folio, pp. 136, with introduction and summary tables.

a partial attempt at a system of water carriage of sewage is made. Speaking generally, but little effort is made by local authorities to deal with the question of the disposal of night soil in the districts under their control. In most centres a spot at some distance from the town is selected by the local authority for the deposit of refuse. In many towns and villages there is no system of dealing with refuse. For the disposal of slop water there is but little provision made anywhere.

Under the heading of improvements effected during the year a few reforms which have been carried out are detailed. The condition of dairies, bakehouses, and slaughterhouses is, in many instances, unsatisfactory.

Truly this is a serious indictment, and the legislative enactments and the staff of health officers to carry the law into effect, for which Dr. Gregory pleads, are urgently needed by the Colony. It is obvious, too, that little can be done unless a strong central health department is constituted, with authority to deal with defaulting local authorities.

WE are requested to state that on and after January 1st next the offices of the Conjoint Examinations in Ireland by the Royal College of Physicians and the Royal College of Surgeons will be transferred to the Royal College of Physicians, Kildare Street, Dublin (from 47, Dawson Street).

WE understand that Surgeon-Major Lloyd has been recommended for the Victoria Cross for his gallant conduct in the operations carried out by the Burmah Military Police in the Kachin Hills during 1892-3, on which occasion the fighting is officially reported as having been more severe than any which has occurred since the annexation.

WE regret to announce the death of Dr. Samuel Guttmann, of Berlin, the well-known editor of the *Deutsche medicinische Wochenschrift*, which occurred on December 21st. Dr. Guttmann fell a victim to the sequelæ of a severe attack of influenza. His career as a medical journalist had been in the highest degree creditable to himself and useful to his profession, and his loss will be severely felt.

UNIVERSITY OF EDINBURGH.

THE number of students of medicine matriculated at Edinburgh University during the present winter is 1,278, of whom 243 are in the first year of study, 220 in the second, 233 in the third, 271 in the fourth, and 311 in the fifth year. It was anticipated that the New Ordinances and the compulsory five years' curriculum would diminish the numbers. The slight falling off in the number of entries last year was no doubt due to the above changes, but the distinct rise in the number of entries this year shows that the deterring effect of recent changes has been slight and transient.

THE OPIUM HABIT IN VICTORIA.

THE Opium Bill introduced in the Assembly of Victoria by the Premier, Mr. Patterson, and since passed and sent up to the Legislative Council, is remarkably stringent in its provisions. While it permits the importation and sale of opium for medicinal purposes, it seeks to prohibit any persons from smoking, eating, or drinking opium except medicinally. Further, no person is allowed to keep an opium den, and poppies are not to be grown in Victoria, or used for manufacturing purposes. Contraventions of the provisions of the Bill are made highly penal. Imprisonment for periods not exceeding twelve months may be inflicted, and fines ranging from five to five hundred pounds imposed. At the present time, it is stated, there is only one place in the colony where the poppy is grown, the total area under cultivation not exceeding forty acres; but the passing of the Bill will nevertheless, it is said, involve a loss to the revenue of £10,000 per annum.

HANDS AND FINGERS: THEIR MONEY VALUE.

THE following estimate of the relative value of the hands and the several fingers may be useful to Mr. Asquith in connection with the Employers' Liability Bill. According to a scale drawn up for the Miners' Union and Miners' Accident Insurance Companies of Germany, the loss of both hands is valued at 100 per cent., or the whole ability to earn a living. Losing the right hand depreciates the value of an individual as a worker 70 or 80 per cent., while the loss of the left hand represents from 60 to 70 per cent. of the earnings of both hands. The thumb is reckoned to be worth from 20 to 30 per cent. of the earnings. The first finger of the right hand is valued at from 14 to 18 per cent., that of the left hand at from 8 to 13.5 per cent. The middle finger is worth from 10 to 16 per cent. The third finger is valued at no more than 7 to 9 per cent. The little finger is worth from 9 to 12 per cent. The difference in the percentages is occasioned by the difference in the trade, the first finger being, for instance, more valuable to a writer than to a digger.

GOOD NURSING.

THE reports of the Infirmary Committee of the Halifax Union and of Dr. Dolan, the medical officer to the workhouse, place in a striking light the advantages of treating paupers like human beings, and giving them proper nursing in their sickness. During the year dealt with, ending June 30th, 1893, a nursing staff has been introduced consisting of a lady superintendent, four charge nurses, and thirteen probationary nurses, and the results are very satisfactory. The number of patients treated during the year has been greater than during the year before, and yet the deaths have sunk from 197 to 122. This splendid result, moreover, has not arisen from the wards being filled with chronic cases, for the stay of each patient in the infirmary has been materially shortened, and several severe operations have been performed, including two amputations of the thigh and three of the leg, all of which have done well. In contrast with the sad reports we are continually receiving from all parts of the country regarding the melancholy condition of the sick in so many workhouses, Halifax sets a most useful example, and we cannot give the sick poor a better Christmas wish than that the example so set may be largely followed during the coming year. Few know the amount of misery that would be alleviated by such a course.

THE METHOD OF SHERLOCK HOLMES.

IN creating the character of "Sherlock Holmes" Dr. Conan Doyle owed much to the training he received as a student of medical diagnosis. He gracefully expresses, indeed, his gratitude to Dr. Joseph Bell for early lessons in the practice of minute observation in the out-patient room. The enforcement and vivid illustrations of this practice are as timely as they are valuable. The young practitioner of to-day, far more learned in the science of his profession than were our fathers, is sadly behind them as a close observer of external features; this is, however, but a temporary phase of educational progress, for science herself rests upon close observation. In our generation scientific teaching has been especially technical and theoretical, and it was needful that a reform of these methods should precede those of the "physician as a naturalist," as Dr. Gairdner would say. Still the less measurable but very important inferences which can be rapidly made by acute perception of superficial or incidental facts must be taught by our clinical professors of the future as they were by those of the past. Our fathers had mainly to rely upon these; we have a far wider foundation for our conclusions; nevertheless, we cannot afford to overlook any

sources of information. Indications of race, of diathesis, of temperament, if less definite, are no less useful to the skilled and cautious observer, and we are aware that many of our best clinical teachers are wont to check promptly the dash for the stethoscope and spirit lamp which is so characteristic of modern students, and to insist on a preliminary survey of the patient in every visual aspect before proceeding to more elaborate methods.

THE INDIAN OPIUM INQUIRY AND ANOTHER.

The Indian Opium Commission is in many respects a remarkable one. It was issued without the assent and contrary to the wishes and in spite of the protest of the Indian Government, the Indian people, and the Indian press, who have presented the rare spectacle of unanimity in the matter. At every stage it has to be apologised for and explained, and at the most recent durbar the Viceroy has had to quiet the alarms and allay the deepseated and widespread agitation which the mere appointment of the Commission has caused. Again, it will cost £50,000 it is stated, at the least, and the Indians object naturally to pay thus heavily out of their poverty for a costly Commission which has been forced upon them by faddists. As to the unnecessary costliness of the proceeding, we may remark without immodesty that at the cost of a few hundred postage stamps we have secured detailed returns, and ample replies from many very experienced Indian officers to a series of scheduled questions, which afford all the information which the Commission is obtaining or can obtain at so great an outlay. The Government, having the right of free postage, could have secured it even more cheaply and extensively. Why spend scores of thousands where a few pounds could have secured full information from every possible source? Finally, we may note with surprise that after we have issued a schedule of questions, and obtained a mass of detailed replies from leading medical men all over India, the authorities have, we are informed, made it known that they do not wish the desired information to be given us. Their action is too late; but what is the explanation of it? Our method is at least effective and impartial, and it has the advantage of being economical. Is this the basis of the official objection to it?

INFECTIOUS DISEASE IN THE NAVY.

With reference to the outbreak of fever on board Her Majesty's ship *Canada* we learn that 18 cases of enteric fever have been reported since the middle of September, the first of which were considered to have been contracted on shore at Bermuda and the remainder, as far as at present known, probably at Antigua or Barbadoes. With regard to the scarlet fever on board Her Majesty's ship *Howe*, the latest intelligence is to the effect that 7 cases have occurred, all of which were landed at Gibraltar. The ship subsequently proceeded to Malta, where she will be thoroughly fumigated. No fresh cases are, up to the present, known to have developed. The disease was brought on board at Chatham or Sheerness, probably at both places.

THE INTERNATIONAL MEDICAL CONGRESS AT ROME.

The local Managing Committee of the International Medical Congress, which is to begin in Rome on Easter Monday, March 29th next, are anxious to gain some idea of the number of persons likely to attend in order that suitable preparations may be made. It is particularly requested that intending contributors to the work of the Congress should send to the Secretary-General, Professor Maragliano, Naples, with the least possible delay, the titles of their communications; short abstracts for printing should follow not later than January 31st. The political crisis in Italy has somewhat delayed the arrangement of public entertainments; but these are now almost complete, and a detailed programme will be published shortly. The English, French, and Italian railways will give a reduction of fares to members of the Congress, and the French and Italian lines will extend a like privilege to "members' wives and any adult person in relationship to members who are included in the catalogue of guests; but to obtain these reductions the traveller must be able to show that he is a member of the Congress." It is, therefore, desirable that notification of intention to attend the Congress should be made at once either to the Secretary-General direct, or to the Secretary of the English Committee (Mr. G. H. Makins, 47, Charles Street, Berkeley Square, W.). Members sending the subscription fee of £1 (25 frs.) direct will receive all necessary tickets prior to February 15th; if sent later the tickets must be obtained from the Secretary of the English Committee. Rome will be very full at the season chosen for the Congress, and all arrangements for accommodation have been placed in the hands of Messrs. Cook and Son, Ludgate Circus, to whom early application should be made.

CHILDREN IN QUARANTINE.

A letter under the above heading, printed in another column, contains the novel suggestion that an association should be formed for the supply of ladies who would be willing to employ themselves as companions to children and others during the period of convalescence after infectious diseases. The writer points out that friends and relatives are apt to fight shy of households in which the children have had scarlet fever or other infectious malady, and that during the weeks of convalescence it is often a hard matter to find anyone willing to "undertake the task of cheering up the little invalids." The trained nurse, says the writer, "though invaluable in actual illness, is not the most amusing companion for the tedious days of recovery." We think that our correspondent somewhat exaggerates the difficulty in finding a lady to look after the children during convalescence, as it most commonly happens that the family has some relative or friend who, having had the disease, is not afraid to attend the children; still, no doubt the difficulty she emphasises is at times a real one. Moreover, a mother, if she can afford it, will usually prefer the nurse with whom she is familiar to a strange lady of whose character and qualifications as a companion to her children she has no sufficient proof; and we fancy that it would not be accepted as self-evident that the trained nurse will not be likely to prove at least as successful in entertaining the children as the "cheerful, educated, child-loving woman" who has not had to acquire her experience in that difficult art under the trying conditions of actual illness. It is not clear, from our correspondent's letter, whether the proposed lady companions are to be paid or not. If their services are to be gratuitous we fear that the suggested association will have few members, and if payment is to be the rule it will probably be found that the parents of children prefer to retain the assistance of the trained nurse during the few weeks of convalescence. We would suggest to our correspondent that she should put herself into communication with the lady superintendent of some large institution from which infectious cases are nursed, who would have opportunities of ascertaining whether such companions as she contemplates would be acceptable to the parents of children, and who might find for our correspondent the work she desires. If it appeared that there was any real demand for services of this kind, then the establishment of the association might follow.

PORT SANITARY EXPENDITURE.

The Grimsby Corporation are confronted with an expenditure of £3,500, which has exceeded their estimates by more than £800 for the current year. This expense has been incurred through the necessity of having to take precautions against cholera; and inasmuch as the corporation regards its administration as being designed in the interest of England, it desires and thinks it has a right to be subsi-

dised by the Treasury. There is no likelihood of the Government assenting to this view, for it might be expected that Grimsby would not stand alone in its demands, and that many other authorities would find in their circumstances something special that might be urged as reason for contribution from the Treasury. If Grimsby is put to expense as a port authority, it derives benefit from being a port authority, and the bitters must be taken with the sweets of life. Certainly the tendency of the time is for the Treasury to relieve itself of every burden from which it can be free, and there is no probability that exception will be made in the case of the expenses of port sanitary authorities.

THE SALE OF POISONS.

IN a prosecution under the Pharmacy Act at Weston-super-Mare recently, some interesting evidence was given. The article sold by an unregistered person was "Henry's Nervine," and it was alleged to contain aconitine. According to the evidence of Dr. Luff, the official analyst to the Home Office, and Mr. Eastes, the presence of aconitine had been ascertained by physiological tests. For the defence it was stated that the preparation does not contain aconitine but veratrine, another poisonous alkaloid, and the judge was so impressed by the evidence given to that effect as to give a decision in favour of the defendant. It came out, however, that the bottle of nervine upon which the prosecution was founded might have been manufactured about fourteen years ago, and hence the question arises whether the composition of this nervine may have been altered since that time, just as we have found that the composition of other secret remedies has been altered since prosecutions have been instituted for their sale in contravention of the Pharmacy Act. It seems improbable that Dr. Luff, who has a special acquaintance with aconitine, should have been mistaken as to the presence of that poison. At the same time, we have ascertained by the analysis of a bottle of nervine that it does now contain veratrine to the extent of about 2 grains. Assuming Dr. Luff's observation to have been correct in regard to the bottle of older manufacture, there is, therefore, reason for believing that the composition has been altered, and that this is another instance of the uncertainty, attaching to secret remedies, which has already been pointed out as adding to the danger of using them. The evidence of the manufacturer of nervine that he uses in the preparation of this article as much as 4 ounces of the very poisonous alkaloid veratrine in three or four months shows that its sale must be, in any case, a source of considerable danger, although the preparation is only intended for external application.

GLASGOW HOSPITALS.

THE youngest of the infirmaries of Glasgow occupies in some respects a more favourable position than the older Western, or century-old Royal Infirmary. While the two latter have annually to make good, from what ought to be capital, a deficit varying between £5,000 and £6,000, the Victoria Infirmary shows on the year a small surplus of ordinary income over ordinary expenditure. The Victoria Infirmary, however, is yet small. Thus, indoor patients, during the year just ended, numbered 1,158 in the Victoria, and 3,897 in the Western. In the former the total death-rate was 9.9; in the latter 9.63. Deducting cases which terminated fatally forty-eight hours after admission, the death-rate of the small infirmary was 7 per cent., of the larger 7.1 per cent. In the small infirmary the average cost of each fully occupied bed was £61 7s. 5d., in the larger £55 19s. 8d., but the average duration of residence of each patient was only 27 days in the smaller, as against 34.68 in the larger. Thus the smaller infirmary was able to treat more patients in proportion to the number of beds than the larger; hence the average cost per patient treated in the Victoria Infirmary was £4 9s., against £5 6s. 6½d. in the Western Infirmary. Of outdoor patients both infirmaries treated a large number, those of the Western Infirmary numbering not far off 13,000. The Victoria Infirmary has, however, within the past week more than doubled its accommodation by the opening of new wards, and has now room for over 150 patients; this increase will involve an additional annual expenditure of between £3,000 and £4,000. In the hands of the governors is a sum of nearly £30,000, the legacy of a single benefactor, a considerable portion of which must be made use of by providing a convalescent home in connection with the infirmary. The Western Infirmary has also to face a large expenditure, not for increasing accommodation for patients, but for improved equipment, and for the provision of a much needed new pathological department. In connection with it there is already a convalescent home, which, in the three months since it was opened, has given room for 146 patients. Its cost for maintenance is annually nearly £1,500.

THE HOUSING OF THE WORKING CLASSES ACT.

AN application by the Vestry of Westminster for the closing of six houses was recently heard by the magistrate, the Ecclesiastical Commissioners being in the position of the defendants. The leaseholders of the houses had less than twenty one years' interest, and hence the Commissioners were the only owners whose interests could be recognised under the Act. No opposition was offered to the closing orders, which were therefore made by the magistrate. If the Commissioners were in this case able to require the leaseholders to maintain the houses in habitable condition they have failed in their duty. But if, as some freeholders are placed, they were unable to concern themselves with the condition of the property until the leases had expired it is evident they had been placed in a false position before the public. We presume that they had no power, but this raises the question whether freeholders who are in this position should not be given by law all necessary opportunity for requiring leaseholders to maintain their houses in proper condition, and whether they should not be subject to some disability if they neglect to exercise their powers. This is matter of considerable importance to London, where the leasehold system is general, for at the present time the duty of requiring leaseholders to carry out the covenants in their leases devolves in practice upon the sanitary authorities at the expense of the public.

DEATH UNDER ETHER.

WE are indebted to Dr. W. Steer, Medical Superintendent of the Fulham Union Infirmary, for the following report of a case of death under ether, which occurred at that institution on August 2nd, 1893. A. V., a man aged 48, was admitted suffering from a chronic ulcer, of a specific nature, on the left leg, situated just above the inner malleolus. Under treatment this almost entirely healed up, when it suddenly assumed an unhealthy appearance, the skin around becoming livid and then gangrenous. About this time he complained of great pain in the ulcer and foot generally, and in a few days the toes became cold and blackened, and very soon the anterior part of the foot became the seat of well-marked dry gangrene. Arterial obstruction was diagnosed, and as soon as the line of demarcation was pronounced, the patient was placed under ether, and the leg amputated a hand's breath below the knee. He made a good recovery from the operation, and for a time did well, but subsequently gangrene recurred in the flaps, the knee-joint also became red and tender, the temperature assumed a hectic type, and at the patient's urgent request it was decided to give him a chance of recovering by amputating through the thigh. On November 25th he was again placed under an anæsthetic. Ether was given, but a little chloroform was administered at the outset in order to hasten anæsthesia, then the ether was resumed, and maintained throughout the operation. The anæsthetic, administered from a Clover's inhaler, was taken fairly well. The operation was concluded with the exception of the insertion of

the last few sutures, when Mr. Shepherd, who had charge of the anæsthetic, noticed simultaneously with Dr. Steer that the respirations suddenly ceased. The head was immediately lowered, the tongue drawn well forward, and held in that position; hot flannels and galvanism were applied to the region of the heart, while artificial respiration was performed for fully half an hour, then, as there was no sign of restoration of either the circulation or the respiration, these restorative measures were abandoned. The patient had not inhaled any anæsthetic for some few minutes prior to the arrest of respiration, the inhaler having been removed from the face after the first stitch was inserted; it was noticed that the pulse failed almost as soon as the respiration. A *post-mortem* examination was made, but it revealed no marked disease of internal organs except the heart and liver. The heart was large and flabby, weighing 12 ounces; its anterior surface was covered with a fairly thick layer of fat. On section the heart muscle was pale, its consistence was diminished, being rather friable; there was evidence of commencing fatty degeneration. There was no atheroma of the aorta, or of other vessels, but the aortic cusp of the mitral valve showed a small patch of atheroma. The liver was large, weighing 64 ounces, its surface and section were pale, and it showed well marked signs of fatty degeneration throughout.

CREMATION AND EARTH-TO-EARTH BURIAL.

A sermon recently preached by the Rev. F. Lawrence, vicar of Westow, York, and honorary secretary of the Church of England Sanitary Association, dealing with the burial of the dead, and particularly that mode of burial known as "earth-to-earth," but also suggesting the filling up of the coffin with a chemical agent, or exposing the body to the action of fire, before burial, to effect the total destruction of infective germs, has been printed. Dr. Alfred Hill, the medical officer of health for Birmingham, writing to acknowledge the receipt of the sermon, went on to say that "it contains very little regarding the disposal of the dead to which a cremationist can take exception except the very small notice given to the claims of cremation. The proportion of space given to this as compared with that given to 'earth-to-earth' burial seems to me like that of Falstaff's bread to his sack. As earth burial is speedy only in favourable soils, and as such soils are by no means always available, and as germs are known to be brought to the surface from diseased bodies which have been buried, and lead to the widespread production of disease, while cremation is speedy, can be made readily available, and effectually and instantly destroys all germs, the claims of the latter method of disposal—and there are many more than those above-mentioned—seem far greater than those of the former, and deserve, as a mere matter of fairness, a fuller treatment in any discourse upon the subject."

SOME POINTS IN THE SANITATION OF INVERNESS.

At a recent meeting of the Public Health Committee of Inverness, a report was presented by an inspector of the Board of Supervision, of which the chief magistrate remarked that while "he came to curse us, he has gone away blessing us." It is true that the inspector did not curse, but the blessing was of a very restricted character. The inspector reports that in order to get rid of the town's refuse, the sanitary authority had laid it down in large quantities along roads in the immediate neighbourhood of the town, all in contravention of the requirements of the Public Health Act. The principal deposit is laid down as an embankment in a seaward direction. It is suggested that at the termination of this a wharf should be provided, from which the town's refuse would be shipped on board lighters. This is all very well, but it is difficult to believe that "this, when completed, will undoubtedly be a resort for the citizens.' The town is reported to be provided with an excellent emergency hospital for small-pox and cholera, but the sanitary authority has been placed in a difficulty in respect of ordinary isolation hospital accommodation by the receipt of an intimation from the infirmary directors of their intention of throwing the existing infectious wards into the general service of the medical and surgical departments. While the expression of a pious hope that the directors may reconsider their decision is permissible, it is difficult to see how, if the directors require the additional accommodation, they can withdraw from their determination. The public slaughterhouse is reported to be in an unsatisfactory condition, but it is announced that the sanitary authority has determined to erect a new one upon efficient lines. Altogether, while the good town shows marked signs of progress, it is evident that the estimable medical officer of health has his work cut out for him in connection with the question of the disposal of the town's refuse.

THE RELATIVE HEALTHINESS OF LONDON AND THE COUNTRY.

In an article by Mr. Percy Dunn in the December number of the *Nineteenth Century*, entitled What London People Die Of, the healthiness of the metropolis as compared with the country generally is discussed at some length. Although the death-rate in London as a rule exceeds that in the rest of England, the decline in the metropolitan rate of mortality has been greater than in the country generally, and in 1889 the death-rate in London was actually below that recorded in the rest of England. Mr. Percy Dunn deals with four main groups of diseases—respiratory, nervous, circulatory, and digestive, and also with phthisis, cancer, intemperance, and suicide. While London does not compare favourably with England in its mortality from diseases of the respiratory organs, it appears that the mortality from nervous diseases is actually less in London than in the rest of the country. This is certainly contrary to what is generally supposed. With regard to phthisis, it appears from Mr. Dunn's statistics that the mortality from this disease is one-fourth higher in London than in the country generally, but that the death-rate from phthisis is showing a continuous decline. On the other hand, it is pointed out that the death-rate from cancer is an increasing one, although the mortality therefrom in London is much below that in many other districts, and the rate is affected by the immigration of cancer patients to the special hospitals and wards for the treatment of this disease in London. The opinion is expressed that the time has arrived for the thorough investigation by a Royal Commission into the subject of cancer, since about 20,000 persons annually succumb to that disease in England.

DRINK OR ADULTERATION.

The Bishop of Durham, speaking not long ago, said he thought they should try a temperance publichouse, something of the nature of that described by the Bishop of Chester. His idea was to have a publichouse where good beer should be sold along with non-intoxicants. He would rigidly exclude wines and spirits. The more he examined the question of drunkenness the more he was convinced that it was due to the use of adulterated beer and spirits. All the brutality that made drunkenness so hideous was due to adulteration. We shall be glad to know on what authority this statement is made. It may be said that the accomplished prelate who expresses this opinion has been misrepresented in the report which is before us; while, on the other hand, the results of investigation at Durham may afford adequate scientific ground for the statement. The result of investigations, which we carried on with some care, precision, and extent in London, brought us to a precisely opposite conclusion. Even in the poorest and least orderly districts of London we found no evidence, from a considerable series of analyses, which pointed to any adulteration of beer or of spirits likely to promote drunkenness or

to lead to brutality. The conclusion at which we arrived was that the cause of drunkenness was drink, and that the talk of adulteration being a leading factor in drunkenness or brutality is utterly misleading and not without mischief, inasmuch as it draws a red herring over the trail, hinders temperance or abstinence, and diverts attention from the real cause of drunkenness by suggesting one which, however plausible and specious, is an imaginary and not a real cause. Possibly, however, the Bishop of Durham, who is one of the most thoughtful and able of church dignitaries, has been able to obtain special information of a character to afford trustworthy evidence of the correctness of the opinions which he is reported to hold, and leading to conclusions which he is described as having drawn. In that case it would be very satisfactory to us if we could be put in possession of this set of facts.

CHRISTMAS IN HOSPITALS.

The sad accident at the County Hospital at Guildford draws attention to the festive modes of celebrating Christmas, now common in most of our hospitals, which to a newspaper-reading but unthinking public seem so delightful. If general hospitals were places of prolonged residence, as the workhouses are for aged people, in which the inmates dwelt from year to year, we should have every sympathy with efforts made to break the tedium of existence, and mark the passage of the seasons by appropriate festivities. But in well-managed hospitals the average stay in the wards is short; the chronic cases are but a small minority, and to none but them are Christmas routs of the slightest benefit. We appreciate as much as any the pleasure of a stroll through the well-decorated wards, while the young folks sing carols and distribute kindly gifts; and while the hour lasts no doubt such patients as are well enough do in a way enjoy the spectacle, or such little bit of it as each can see. But to many who are less well or more sensitive both it and the preceding fortnight are times of terrible trial. Decorations do not spring into existence at the hey, presto! of a magician's wand. The dusty evergreens, the perpetual tack-tack of the hammer, the ladders, mottoes, texts, and garlands, which have to be dragged about the wards before the charming *tout ensemble* can be produced, and the generally flurried and preoccupied mental state of the whole resident and nursing staff, all tend to lessen for the time the utility of the hospital as a place for healing. A concert or an entertainment in a waiting room, away from the wards, is appropriate enough, but we think that the present system of decorating the wards themselves has been overdone, and in the interest of the patients might well be omitted. A little more liveliness in the workhouses and a little more quiet in the hospital wards would be a fair exchange beneficial to all.

POISONING BY CARBOLIC ACID.

We have received from Messrs. F. C. Calvert and Co., of Manchester, copies of two letters disputing some opinions publicly expressed on the subject of poisoning by carbolic acid. It has been stated "that a statutory poisons schedule which does not include carbolic acid is a cruel absurdity." That statement appears to have been based upon consideration of the numerous cases of accidental and suicidal poisoning in which carbolic acid has been the cause of death within recent years; and the facts recorded in the returns of the Registrar-General were considered sufficient proof that the sale of carbolic acid should be subjected to the provisions of the Pharmacy Act, in accordance with the views expressed by medical men and coroners' juries on so many occasions. Messrs. Calvert take exception to this by stating that in 1891 the increase in the number of deaths by accident with carbolic acid as compared with the average of the preceding ten years was not so large as the increase in the number of accidental deaths caused by scheduled poisons. But that is not the point of chief importance, and such a comparison has little to do with the question whether carbolic acid should be added to the poison schedule. The necessity for that step is proved, however, by the statistics which Messrs. Calvert quote, which show that in 1884 the increase in the number of accidental deaths from carbolic acid poisoning amounted to 100 per cent. of those which occurred in 1882. That proportion has been very nearly maintained in subsequent years, while it has been very considerably exceeded in the case of suicidal poisoning by carbolic acid. Messrs. Calvert's argument that the number of suicides with carbolic acid has no bearing on the question at issue does not seem to be tenable, as it involves a denial of the fact that the probability of a poison being used for that purpose must be in inverse proportion to the difficulty of obtaining the poison. Their own practice of supplying carbolic acid in bottles of peculiar shape and labelled "Poison" is, moreover, evidence that such precautions are considered to be necessary for preventing accidental poisoning, and we are decidedly of opinion that their compulsory observance in all cases is desirable. There is, indeed, no reason for supposing that such restrictions on the sale of carbolic acid would interfere with its sale for useful application, but it may reasonably be expected that they would help to prevent accidents and be of some effect in reducing the very large number of suicidal poisonings with this substance which have occurred within the last few years.

DOCTORS' SHOPS IN GLASGOW.

A Correspondent writes: "The action recently taken by the Pharmaceutical Society in prosecuting unqualified assistants in shops kept by medical men in Glasgow for the sale of poisons has attracted the attention of the Glasgow Southern Medical Society, and a committee has been appointed to take such steps as may be considered necessary in regard to the matter. A circular has been issued pointing out that if the recent decisions are carried to their logical conclusion every general practitioner will be compelled to employ registered assistants to dispense their medicines unless they do so themselves. It is thought that such an interpretation of the Pharmacy Act is not warranted and that the amendment of that Act in 1869 emphatically reserved the rights of all medical practitioners and that there is sufficient ground for carrying the question to the High Court of Justiciary in the form of an appeal. It may be stated that the prosecutions recently instituted by the Pharmaceutical Society in Glasgow related to sales of poison in shops kept by medical men, the sellers not having the qualification requisite for that purpose. There is no intention, it appears, to interfere with the rights of medical practitioners as reserved by the amendment of the Pharmacy Act of 1869, but only to enforce the provisions of the principal Act in regard to the sale of poisons and the dispensing of medicines containing poison. If medical men consider that keeping open chemists' shops is consistent with their position as practitioners of medicine, they are within their rights, so far as the Pharmacy Act is concerned, in doing so. But the suggestion is that it is only reasonable that, in such cases, the provisions of the law relating to chemists' shops should be observed. Medical men who keep such shops can, in virtue of their medical qualification, sell or dispense poisons themselves; but they cannot delegate that duty to persons who have neither a medical qualification nor that of a seller of poisons. Moreover, it is alleged that in the shops now referred to, the unqualified assistants left in charge are sometimes mere boys, and in some instances girls. The practice of keeping such shops does not add to the dignity of the medical profession, and is in many respects objectionable."

The German Congress of Internal Medicine, which was to have been held in Munich next April, has been postponed till Eastertide, 1895, so that the meeting may not clash with the International Medical Congress to be held at Rome from March 29th to April 5th, 1894.

CARBOLIC POISONING.

Sir Walter Foster, Parliamentary Secretary to the Local Government Board, has written to Mr. Ernest Hart, Chairman of the Parliamentary Bills Committee of the British Medical Association, informing him (in reply to a communication urging protective restrictions on the places and methods of sale of carbolic acid with a view to the prevention of the now frequent casualties and poisonings from this cause) that he has been in consultation on this subject with the heads of the medical department, and that the proposed measures for the protection of the public will have the serious consideration of the Board.

MEDICAL SICKNESS, ANNUITY, AND LIFE ASSURANCE SOCIETY.

The monthly meeting of the Executive Committee of this Society was held on December 14th at 429, Strand, W.C. There were present Mr. Ernest Hart (the Chairman), Dr. De Haviland Hall (the Deputy Chairman), Dr. J. Prichett, Dr. G. E. Herman, Dr. M. Greenwood, Mr. F. S. Edwards, Mr. E. Bartlett, and Mr. H. H. Clutton.

The accounts presented showed the amount of the expenses for the past three months was slightly less than for the corresponding period of last year, namely, about £26 7s., as against £31. The total management expenses were still therefore under 5 per cent. of the premium income, as compared with the customary rate of from 15 to 30 per cent. of many contemporary insurance societies.

A very heavy list of sick claims was presented, the present epidemic of influenza being obviously very rife among medical men and falling with exceptional severity upon them.

During November the sickness claims of the Society exceeded those in November, 1892, by 70 per cent., and there is good reason to believe that during the present winter the amount of sick benefit received by the members of the Society will exceed that paid in any previous winter since the foundation of the Society in 1884, while numerous letters received show that at no time have the sick pay benefits been greater service to, or more warmly appreciated by, the recipients of them. A marked feature of the winter claims also is the number arising from accidents in riding and driving. These for the most part happen to country practitioners who are specially exposed to risks of this description in the short dark days of winter. The speedy aid rendered by the Society in cases of this description is much appreciated, and many letters expressing this are received. Prospectuses and all information furnished on application to Mr. F. Addiscott, F.I.A., Secretary, Medical Assurance Society, 33, Chancery Lane, London, W.C.

THE ARDLAMONT TRIAL.

For months past the Ardlamont mystery has supplied the public with a problem of unusual complexity, and the result of the ten days' trial is to leave the mystery as dark as ever, and it seems more than probable that the truth as to how young Hambrough came by his death will never be known. The case is of interest from many points of view, and certainly in no case that we can recall were the financial circumstances of the parties concerned so complicated or embarrassed. With this aspect of the case, however, we need not concern ourselves very closely, but it is interesting to note that the statute which provides that one person shall not insure the life of another unless he can show that he has an insurable interest in that life is not altogether a dead letter.

The purely medical aspects of the case were hardly less complex than the social. That the deceased died from hæmorrhage from a gunshot wound on the left side of the head was universally admitted. The case for the prosecution was that the deceased had been wilfully shot from behind, the muzzle of the gun being about nine feet from his head at the moment of firing; and the assumption that he had fallen down exactly where the body was found fitted in very well with some pellet marks found in the trees a few feet from the body and exactly in the line of fire from the spot assigned by the prosecution to the murderer; and, further, the fact that there was absolutely no evidence, in the way of marks of blood or of the bracken or grass having been crushed, and that the body had been moved seemed a strong argument in support of the contention of the Crown. In the medical evidence for the defence, it was contended that the appearance of the wound was more consistent with the shot having been fired not more than 3 or at most 4 feet from the deceased, and that this distance was quite compatible with the gun having gone off by accident, and evidence was adduced that the deceased had been known to be very careless in the way in which he handled firearms. The medical witnesses for the defence were further of opinion that it would have been quite possible for two men to have lifted the body out of the ditch where the prisoner stated it first fell, and to have placed it where it was subsequently described to have been found, without getting any of the blood on their clothes and without any blood being left to show where it had first lain, or to mark the track of its removal. Seeing, however, that one of the two, namely Monson, was, according to his own statement, fifty yards off at the moment the gun went off, it does seem not a little remarkable that there should have been no escape of blood until after the removal of the body, more especially as death was admitted to have been almost instantaneous from loss of blood, and Hambrough was already dead before his body was lifted out of the ditch. Another point that was urged, and with more force, against the prosecution, was that it was not shown that the pellet marks were of sufficiently recent date, one witness affirming that every tree in that part of the wood would be found to be pellet marked. The trees were not examined until five weeks after the event, and the prosecution had omitted to make trials as to the appearance of shot wounds in such trees at different dates, an omission which materially weakened the case against the prisoner under this head. It was clearly a case of wilful murder or accidental death, and the jury, after a protracted trial, have refused to decide. We have discussed the evidence of the direct cause of death; the circumstantial evidence against the prisoner was unusual both in character and amount.

In a second count—or rather a first, for it took precedence in the indictment—Monson was charged with attempting to drown Mr. Hambrough on the day preceding his death. It was shown that, on the morning of that day, Monson had borrowed a boat, saying that the one they already had in use was not safe. In the afternoon, however, he seems to have forgotten his prejudice against this boat, as he went out on the lake in it with Mr. Hambrough and took two of his children, whilst "Scott," who mysteriously disappeared the next day and has not since been heard of, remained on the shore by the borrowed boat. After dinner that evening Monson and Mr. Hambrough went out fishing in this latter boat and they had not gone far before she rapidly began to fill with water. Monson, known to be a good swimmer, swam ashore, a distance of 200 yards, according to his estimate. His companion, who could not swim, found himself in his depth and got to some rocks, whence Monson, according to his own version, subsequently rescued him in another boat. Monson said they had struck on a rock; the owner of the boat swore that there was a hole in his boat, which had evidently been cut with a knife and could not have resulted from striking a rock; he further denied that there was any sunken rock on which she could have struck, and he swore that the hole was not there when he lent the boat. The presiding judge, however, clearly did not consider this or the corroborative evidence very strong, as he told the jury that the possibility of the boat having foundered on a rock was not disproved; and the jury on this count also found a verdict of "Not Proven."

If Monson is an innocent man, certainly the disappearance of "Scott" was a most cruel misfortune, and the most unfriendly action on "Scott's" part that it is possible to imagine. At the same time, if he is innocent it is almost entirely his own fault that so profound and widespread a suspicion of his guilt has been created by the numerous and very discrepant statements that he made to those interested, both as to "Scott" and his whereabouts and as to various matters connected with the insurance effected or tried to be effected on the life of his *protégé*. He was, moreover, if inno-

cent, very unfortunate in his actions immediately after the accident and in neglecting to communicate with the deceased's father.

THE CHOLERA.

OUR St. Petersburg correspondent writes: The hopes that the cholera epidemic was drawing to an end in St. Petersburg have been disappointed. The curve of the epidemic which had sunk almost to vanishing point suddenly rose on Sunday, November 28th (old style) and Monday, November 29th, to 38 and 34 cases, but has since shown signs of declining to its former level. The cause of this renewed outbreak is uncertain and it is not clear that all the cases returned as cholera are in fact due to that disease. Thus 40 of the patients are said to be soldiers who were present at a banquet in the Winter Palace on St. George's Day, when it is the annual custom of the Czar to entertain at dinner all soldiers who have received the St. George's Cross. It is now rumoured that one of the dishes was prepared from tainted meat. On the other hand it must be noted that if 40 cases and 15 deaths (for 15 of the soldiers are reported to have died) be subtracted from the daily numbers from November 27th to 30th are still greatly in excess of the averages for the preceding days. In the week ended noon of December 5th, 165 cases of cholera were officially declared in the city, with 79 deaths, and over 170 cases remained in hospital at the end of last week. At Odessa cholera has been manifesting itself and has claimed several victims, as also at Yalta.

In Constantinople it is now considerably abating after a serious rise in the mortality, and much indignation has been felt by the Mussulmans at the alleged burial scandals of their fellows dead of cholera, whereby their rites and ceremonies have been set aside. At Salonica an outbreak of the disease in the military hospital has created much disquietude.

In Hungary the epidemic is declared to be at an end after five months' visitation, and at Teneriffe cholera has practically ceased.

ADDITIONS AND CORRECTIONS TO LIST OF MEMBERS.

Lancashire and Cheshire Branch.—SHARPLES, THOMAS, Esq., Dardsley, Lostock Hall. (*Unattached*).—For MOLLOY, L., M.D., Blackpool, read MOLLOY, L. G. S., M.D., Blackpool.

Midland Branch.—For WHITE, J., Esq., Nottingham, read WHITE, Joseph, F.R.C.S.E., D.C.L., Nottingham.

Bath and Bristol Unattached Branch.—WALLACE, JOHN, M.B., Weston-super-Mare.

Yorkshire Branch.—SMITH, EDMUND M., M.B., Whitwell House, Scarcroft Road, York.

Metropolitan Branch.—For WEAVER, F. P., M.D., Cedar *Lane*, Hampstead, N.W., read Cedar LAWN, Hampstead, N.W.

Army and Navy.—For MACLAREN, G. G., Surgeon-Lieutenant-Colonel, I.M.S., M.D., read MACLAREN, G. G., *Brigade*-Surgeon-Lieutenant-Colonel, I.M.S., M.D., Blairgowrie (retired).

Metropolitan Branch (*Unattached*).—For STREATHFIELD, T., Esq., read STREATFEILD, T., Esq., University College Hospital, W.C. Add KEMPSTER, W. H., M.D., Chesterfield, Clapham Common, North Side, S.W.

North of Ireland Branch (*Unattached*).—Add SYMINGTON, JOHNSON, M.D., 19, College Gardens, Belfast.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association, at No. 429, Strand (corner of Agar Street, London, on Wednesday, the 17th day of January next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

December 28th, 1893.

MEETINGS of the Council will be held on January 17th, April 11th, July 11th, and October 24th, 1894. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, March 22nd, June 21st, and October 3rd, 1894.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election. FRANCIS FOWKE, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

SPECIAL CORRESPONDENCE.

UNITED STATES.

[FROM OUR SPECIAL CORRESPONDENTS.]

CHICAGO.

Influenza and the Health of the World's Fair.—Death of Dr. Charles Warrington Earle.—Dedication of the New Laboratory of Rush Medical College.—Illness of Dr. Sanger Brown.

THERE seems to be no question now touching the extensive prevalence of a mild epidemic of influenza. The classical symptoms, with which every physician in practice became very familiar during the scourge of 1890-92, have reappeared; though as yet there has been no considerable development of those more serious concomitants or consequences, yet a few cases of pneumonia are reported by some practitioners to have evidently developed upon what, for the first two days, appeared to be a simple acute catarrh, with moderate temperature. So extensive, indeed, has been, and is, the prevalence of this mild form of influenza, and incident, as it has been, upon the closing days of the Columbian Exposition that some facetious one has bluntly called it the "World's Fair Grip." I may mention that the fear which prevailed in some minds as to the unhealthfulness which was sure to take possession of the city during a period of great bustle and excitement, when sanitary matters would be neglected, streets fouled, water polluted, and sewerage increased, and when the minds and bodies of the populace were wearied, has proved to have been ill-founded. The city has passed through the period of great strain, and emerges with a record which is indeed a surprise to her best supporters. Very little general illness occurred during the continuance of the fair; indeed, many of our established physicians found more time at their disposal than they had enjoyed for several years, and this notwithstanding that there were from three to four hundred thousand strangers constantly among us. Accidents also were very few. The great transportation companies, handling many million people, and many times vastly overtaxing their reasonable capacity, so that people in many instances literally clung to an iron rod to maintain their footing and keep from falling beneath the wheels—I say that notwithstanding all this there were very few casualties, and the hospitals had nothing like the demand upon them it was expected they would have. All this speaks of carefulness on the part of officials and *employés*, and a certain helpfulness and good spirit on the part of the average individual.

The death of Chas. Warrington Earle, A.M., M.D., which took place at his residence in this city on November 19th, has cast a shadow of deep sadness over the entire professional body, whether or not the individual members thereof had ever been thrown into immediate contact with the cheery disposition and utter unselfishness of the one gone. He was recognised as a leader by all, and his voice always commanded respectful attention, while his influence and energy were always a power in any movement for the good of his fellow men. Those professional gentlemen from abroad who were amongst us during the Exposition time, will well remember his great frankness, his cheerful disposition, and his desire for a whole-souled sociability and a warm spirit of confraternity. They will remember his hearty laugh and the vigorous grasp of his big hand, for they both told of his natural and spontaneous good-will. The funeral ceremony took place at a large West Side church, which was filled with sorrowing patients, students, and professional men. A number of the medical and college organisations attended in a body. Dr. Chas. Warrington Earle was of great power as a professional man from many points of view. He was, first, a teacher of wonderful force and comprehensiveness, and large classes in two colleges have for years paid him the compliment of close and eager attention. His position as a

teacher was recognised by his fellow teachers, and they unjealously raised him to the head of the colleges with which he was associated. He was, next, a very active practitioner, being recognised as probably having the leading general practice among the eight hundred thousand souls living in the West Division of the city. He was a deep thinker, and a writer of much energy, his contributions always being eagerly sought and thoughtfully considered as emanating from a well-regulated intellect. Then, *plus* all this, he was a public-spirited and representative citizen; and, lastly, a noble man in the environs of his own fireside. Altogether he was a man in every sense of the word, of whom we were justly proud, and his loss will long be felt. He was but 48 years of age at death—just in the height of his greatest vigour.

The formal dedication of the new laboratory building of Rush Medical College took place on December 4th, 1893. The address of presentation was made by Henry M. Lyman, A.M., M.D., who reviewed the history of medicine, and dwelt upon the value of the newer methods of experimental and practical teaching. The laboratory is a large five-storey modern building, and, of course, is peculiarly adapted in all directions for the purposes to which it will be entirely devoted. All of the leading regular schools of Chicago are now thoroughly provided with space and other means for the satisfactory prosecution of the analytical, experimental, and otherwise practical branches belonging to a medical course of instruction.

Another of our physicians of recognised worth and high standing has found it necessary to—temporarily at least—seek the advantages of a less harsh climate. I refer to Dr. Sanger Brown, who is known to many London medical men. Dr. Brown found himself failing, and discovered, so it is understood, alarming signs of pulmonary trouble, and he immediately set off for the south, not stopping, I believe, until he reached El Paso, Texas, very close to the Mexican border line. He has now been away two or three months, and is reported to be doing well towards recovery. The wisdom of a decisive removal cannot be questioned under such circumstances, and often—indeed, in the majority of instances—it is found that the retirement from the more northern latitudes must be permanent. All of the northern section of the United States, where the elevation is but little above the sea, and where, consequently, the absolute humidity of the atmosphere is great, and abrupt changes in the temperature are very prone to occur, is favourable for the development of the "seeds" of tuberculosis. This being the case, and where the value of the reverse of these climatic conditions is fully appreciated, a change as quickly as possible is at once urged upon the occurrence of indisputable signs of disease.

CORRESPONDENCE.

THE INDIAN OPIUM QUESTION.

Sir,—For nearly twelve years I filled the post of residency surgeon at Hyderabad, in the Deccan, now so worthily occupied by Dr. Lawrie. I had during this long time of service unequalled opportunities of observing the habits, customs, and mode of life of the native noblemen and gentlemen in and about the Court of His Highness the Nizam. The then Minister to the Nizam was my patient, and with him I lived on terms of intimacy and confidence, and at his palace, as well as elsewhere, I almost daily had familiar intercourse with the "classes" in this large Mahomedan society. The use of opium amongst them was, I may say, universal, except in the small minority, who, contrary to the precepts of their religion, secretly indulged in the use of alcohol. It was not used clandestinely, as something of which they were ashamed, but openly, generally in the shape of a small pill of solid opium, taken in the course of conversation, as a cigar or cigarette among ourselves is taken and offered in a smoking room or railway carriage.

I not only never met with a "victim to opium," in the Exeter Hall sense of the term, but never saw any bad results from the moderate use of the drug in the mode described.

If the pages of the British Medical Journal were a suitable place to discuss the political side of this question, I could, I think, show the well-meaning people in and out of the House of Commons who have raised it, that since the days of the "greased cartridges" a more thorny inquiry was never entered on, or one more fraught with serious consequences.—I am, etc.,

Southampton, Dec. 5th. W. C. Maclean, Surgeon-General.

THE PROPOSED AMENDMENT OF THE PENAL CLAUSES OF THE MEDICAL ACTS.

Sir,—I have read with very great interest the report of the Parliamentary Bills Committee of the Association, presented by you on November 22nd. In it I note Dr. Bateman's proposed substitute for the 40th Section of the Medical Act, 1858.

Unfortunately, the substitute makes no advance on the complained-of clause, since the terms (as given by Dr. Bateman), "style, title, addition, or description, implying that he is a duly qualified practitioner, or that he is registered under this Act, or that he is recognised by law as, etc.," all three mean the same thing. It was on this account that the words "possessed of a diploma" were suggested in place of the words "qualified by law," which appeared in Sec. 27, subsec. 4 (*b*), line 2, of the Medical Act Amendment Bill, 1884. I do not think that the opinion of the man Hamilton, referred to by Dr. Bateman, will be regarded as of authority.

The majority of the amendments to the 1884 Bill, which I drafted, appeared on the amendment paper, and were favourably received. Following the words "on and after the said appointed day, if any person, whether a registered medical practitioner or not, who practises or professes to practise, or publishes his name as practising medicine or surgery for gain, or receives any payment for practising medicine or surgery, takes or uses a medical title which is by this Act not permitted to be entered on the *Register*, he shall, on summary conviction, be liable to a penalty not exceeding twenty pounds" (Sec. 27, subsec. 2), I proposed the insertion of the words, "and shall pay the expenses of the prosecution; and on a third conviction under this section shall, in addition to the before-mentioned penalty and the payment of the expenses of the prosecution, be liable to be imprisoned with or without hard labour for a period not exceeding three months."

As this subsection dealt only with the assumption of a non-registrable medical title I proposed a new subsection between subsections 2 and 3, thus:

"On and after the said appointed day any person who, not being a registered medical practitioner, practises or professes to practise or publishes his name as practising any branch of medicine or surgery shall, on summary conviction, be liable to a penalty of forty pounds and the payment of the expenses of the prosecution."

With a view to the prevention of practitioners in future employing unqualified (and often ignorant and incompetent) assistants and placing them in sole charge of dispensaries or so-called branch practices, often at great distances (sometimes many miles) away from the place at which the practitioner is to be found, I drafted the following, to appear after the 4th subsection:

"On and after the said appointed day, if any person, whether a registered practitioner or not, employs an unregistered person to take charge of or conduct any practice, branch practice, or dispensary carried on apart from the residence of the employer such employing person shall, on summary conviction, be liable to a penalty not exceeding twenty pounds and shall pay the expenses of the prosecution."

The point raised on the 42nd Section of the 1858 Act, as to the destination of the sums recovered as penalties within the metropolitan area and on the provisions of the Metropolitan Police Courts Act, is one which does not present the difficulty sometimes supposed, especially as nothing could be clearer than the words of the section itself, namely:

"Any sum or sums of money arising from conviction or recovery of penalties as aforesaid shall be paid to the Treasurer of the General Council."—I am, etc.,

Lincoln's Inn, Dec. 2nd. Bernard O'Connor.

THE PRESENT EXAMINATION SYSTEM.

Sir,—I feel convinced that the better way to deal with the matter of rejections at professional examinations would be to have a much more severe test a a preliminary examina-

tion in Arts for entry to the ranks of the profession. Up till recently even this examination could be taken at a "go-as-you-please" rate, and could be split up and subdivided to an infinitesimal degree, so that by sticking at it and going up for one or two subjects at a time any dunce could pass into the profession in time, and then, after spending long days and much money, he found that he could never manage the purely professional examinations, and had to devote himself to other pursuits. All this wasted time and money might be saved to many a man by having a much more stringent entrance examination in Arts, as by this means those who were obviously unfitted for prolonged and severe mental work would be excluded at the outset. It would, moreover, have the effect of keeping down the number of entries to an already overcrowded profession.—I am, etc.,

November 26th. M.D.

A PLEA FOR PROVINCIAL PHYSICIANS.

Sir,—The question "Should consultants take silk?" may, I think, well stand over until some effort has been made to improve the position and so augment the income of the provincial physician. When hospital surgeons, Fellows of their College, in addition to their operation work, absorb the bulk of medical consultations, visit patients in general practice, attend midwifery cases, dispense medicines, and even in some cases take clubs, no wonder the public gives credence to the doctrine they themselves preach to it, namely, that there is no need for physicians and that their day has gone by. Still we are required to carry on the work of the medical wards of our local hospitals; and as in nearly all cases to attain to the dignity of physician we bind ourselves with the chains of iron that limit the sphere of action of Fellows and Members of the College, it becomes obvious that we stand no chance against the numerous and far-reaching arms of our octopus-like brother of the knife.

As the question "Should consultants take silk?" affects the surgeon as well as the physician, before it is finally settled should not the College of Surgeons be approached as to the desirability of establishing an ethical code for its Fellows, similar to that regulating the higher diplomates of the sister College?

Our position is ably expressed in the following extract from a letter I received last year from an illustrious friend in London, who by sheer integrity and conspicuous ability has raised himself to the high position he now enjoys. He says: "A physician is at a great disadvantage almost anywhere out of London. The Membership of the College is a tie which acts to his disadvantage, at any rate up to a certain point, and the status it confers is unknown to the public and ignored by the surgeons, who are in effect general practitioners."—I am, etc.,

December 11th. M.R.C.P.Lond.

SCOTCH POOR-LAW MEDICAL OFFICERS AND THE PARISH COUNCILS BILL.

Sir,—As the Parish Councils Bill for Scotland which the Government have in contemplation to pass early next session will probably deal with the Poor-law and its medical officers, it is time these officers were bestirring themselves to have some of their grievances redressed. Foremost among these is their not having any "fixity of tenure"; I mean by this that they can at present be dismissed at very short notice by their parochial boards, the members of which are in many cases ignorant and illiterate, and anything but desirable masters. This should be altered, and the power to dismiss conferred on the Board of Supervision. This Board of Supervision is itself very much in need of reform, as it is at present chiefly composed of lawyers, who frequently have not much sympathy with medical grievances. At least an equal number of medical men should be on the new board. Then, again, retiring allowances or pensions should be granted to parochial medical officers, as they are as much entitled to this as any of the officers in the Civil Service.

I hope the Parliamentary Bills Committee will take the matter up, and that our medical brethren in Parliament will give all the assistance they can.—I am, etc.,

December 11th. Parochial Medical Officer.

SALVATIONIST SHELTERS AND INFECTIOUS DISEASES.

Sir,—The decision in the late appeal case, Colclough *v.* the Vestry of St. George-the-Martyr, Southwark, is of so much importance that I venture to draw the attention of your readers to the following facts:—

(A) As to the magistrate's finding:

(1) That there was exposure of a small-pox patient in the Blackfriars shelter.

(2) That many persons were admitted to the shelter on the same and following nights.

(3) That the disinfection alleged to have been carried out in the shelter was insufficient in the face of a dangerous infectious disease.

(4) The magistrate decided that there was a letting for hire of part of a house, and that the medical certificates produced were not in conformity with the Act. He fined defendants £10.

(B) As to the appeal:

(1) Judges decided there was not a "letting" of the house, and dismissed the appeal on that point.

(2) Mr. Justice Wills said it was clearly a case in which the Act ought to apply, but does not.

I will remind readers that Mr. Fowler, President of the Local Government Board, in answer to a question in the House of Commons, stated that the shelters were under the control of the medical officers of health, and that, if entry were refused, they could gain admission on a magistrate's order.

This seems like chaos. Mr. Justice Wills says the Act does not apply; Mr. Fowler appears to have a contrary opinion. Meanwhile small-pox is rapidly extending, and these shelters, while unregulated, form a standing menace to the public safety. Legislation, in my opinion, is urgently required.—I am, etc.,

F. J. Waldo, M.A., M.D.Cantab.,
Medical Officer of Health, St. George-the-Martyr Southwark, Inner Temple, and Middle Temple.

Temple, E.C., Dec. 4th.

THE QUESTION OF THE INCREASE OF CANCER.

Sir,—In the recently published number of the *Proceedings of the Royal Society*,[1] there appears a paper by Mr. King and Dr. Newsholme in which these gentlemen maintain that the increase in cancer of late is only apparent. Examination of the Registrar-General's annual reports shows that the proportionate mortality from cancer now is four times greater than it was fifty years ago.[2] No other disease has manifested such a great increase. The authors endeavour to show that the whole of it is due to improved diagnosis, and the more careful certification of the causes of death. This paradoxical assertion, to my mind, bears the stamp of improbability. I think everyone will admit that the great improvement which has undoubtedly taken place in professional knowledge during the last half century has tended to the more correct diagnosis of cancer. Many fatal internal diseases formally attributed to this disease are now almost invariably ascribed to other causes. This being so, its effect on the annual registered cancer mortality must have been to purge it of many errors; hence we are justified in assuming that the latest of these reports more nearly approximate the actual truth than any others, instead of being the most divergent from it as implied by Mr. King and Dr. Newsholme's theory. I am, of course, well aware that mortality statistics are still very imperfect, but this does not invalidate my contention that year by year improving diagnosis is rendering them ever less so.

In support of their theory, the authors allege that the whole increase has taken place in "inaccessible" cancer difficult of diagnosis, while "accessible" cancer, easily diagnosed, has remained stationary. The latter term they apply to cancer of the uterus, breast, vagina, and tongue, while all others are denominated inaccessible. According to this arbitrary division, cancer of the skin, mouth, lips, and external genitalia are classed as inaccessible; but these together, in males, constitute, according to my estimate,[3] about 40 per

[1] No. 327, vol. liv.

[2] For details see a paper by the writer on "The Prevalence of Cancer and its Increase," *Medical Chronicle*, February, 1893, p. 303.

[3] The Initial Seats of Neoplasms and their Relative Frequency based on the Analysis of 15,481 Consecutive Cases, *Annals of Surgery*, October, 1891.

cent. of all their cancers. Such a serious error is of itself sufficient to invalidate the inferences based upon this faulty subdivision.

Moreover, the authors' conclusion is entirely at variance with the results obtained by Dr. Ogle and Dr. Grimshaw. Dr. Ogle's[4] figures show that all the seats of the disease have participated in the increase, although it has for the most part affected the commoner ones in a rather less degree than the others. Dr. Grimshaw's data (for the five years 1887-91) also show that all the seats of the disease have participated in the increase, and that without any considerable disturbance of the normal proportionate localisations. Against these definitive results, which plainly contravene their theory, Mr. King and Dr. Newsholme have nothing to oppose but reference to the Frankfort mortality statistics, for which they seem to have an inordinate affection. These, as I shall show, are utterly unreliable for such a purpose.

The Registrar-General's reports show that the increasing cancer mortality has affected males relatively to a much greater extent than females. According to Mr. King and Dr. Newsholme's theory this is due to diagnostic errors, owing to most male cancers being situated, as they allege, in inaccessible regions, where such mistakes would be likely to occur. But is it true that most male cancers are situated in inaccessible regions? My answer is certainly not. On making an analysis of 2,669 cases of primary cancer in males consecutively under treatment in the medical and surgical wards of four large metropolitan hospitals I have found that 26.3 per cent. were of the tongue and mouth, 14.3 per cent. of the skin, 12.2 per cent. of the lower lip, and 6.8 per cent. of the external genitalia. As against these facts the authors have nothing to oppose but the Frankfort returns. These are, for the following reasons, in many respects so misleading as to be useless for deciding such a momentous question as the one at issue. In the first place the total number of cases tabulated is much too small to admit of reliable averages being deduced from them; for instance, only 1,025 cases of male cancer are included. Secondly, in a large proportion of these cases (170) the localisation of the disease is undefined. Thirdly, the localisations differentiated are so imperfectly specified that no separate discrimination is made of the numerous cancers of the skin, mouth, lip, and external genitalia. Fourthly, as in most mortality statistics, the number of cases assigned to the stomach (29.2) per cent.) and to the liver (18.6 per cent.) is unduly exaggerated, presumably owing to defective returns, as with us.

As an instance of the unreliability of these statistics, owing to the small number of cases tabulated, reference may be made to the position assigned to cancer of the tongue, of which only 20 cases were registered, or 1.9 per cent.

Another statement on which the authors rely for maintaining their theory is, that males and females suffer equally from cancer of those parts of the body common to both sexes. Far from it being so, my analysis shows that with the exception of cancer of the liver, rectum, intestines, and genital glands (ovaries and testes), to which both sexes are, indeed, equally liable, in all other situations, common to the two sexes, males are very much more frequently affected than females. In the lower lip, their liability is 108 times greater than that of females; in the larynx, 8.5 times; in the tongue and mouth, 7 times; in the bladder, 2.7 times; in the skin, 2 times; in the œsophagus and anus, 1.7 times; in the stomach, 1.6 times greater, and so on. From the foregoing, it may be gathered that the data on which the authors have relied for proving their theory are eminently untrustworthy. On the other hand, the uniformity in the variations of the movements of increase in the long succession of years; the fact that the increase has not been confined to one or a few parts of the body, but has involved them all—on the whole without any considerable disturbance of the normal proportionate ratios; the fact that the increase has been diffused over the whole country, instead of being limited to certain areas; and the fact that similar increase has taken place in most civilised communities where statistical records have been kept: these considerations, together with the other points mentioned in the course of this letter, point conclusively to the reality of the increase in cancer, which is, I maintain, as clearly established as any such statistical result possibly can be.—I am, etc.,

Preston, Nov. 18th. W. Roger Williams.

[4] Report for 1889.

PRELIMINARY SCIENTIFIC INSTRUCTION.

Sir,—I should like to be permitted to make a few observations about the study of the more scientific branches of the curriculum before registration. The subjects I allude to are chemistry, biology, and physics. These subjects should, I contend, be studied after registration, and at a medical school. The students study these subjects in order to enable them to appreciate better materia medica, anatomy, and physiology. That they may gain the full advantage from a course of physics (to take one of these subjects), it is better that they should be taught by a teacher who understands and appreciates the requirements of medical students by having undergone a medical training. Who but such a teacher can so constantly keep before them the bearing of the laws of the science upon the subjects they will afterwards have to study, or can so frame his course as to bring into illustration constant physiological and pathological facts? One need only instance the subject of hydrokinetics; who but a medical man would be likely to draw attention to the laws governing the circulation of the blood, the pulse, the pressure upon the aortic valve and upon the walls of an aneurysm? Biology should be studied at the same time as elementary human anatomy. My experience in teaching men this subject has shown me how difficult it is to give them any real comprehension of it unless they have had some grounding in the structure of the human body. To take another ground, why should such important subjects be wholly relegated to the schoolroom, at a time when the student is too young to appreciate them, and when, mixed up as they must be with all the subjects for the preliminary examination, they are likely to consist more of coaching for the particular examination than of a properly detailed practical and experimental course? Let these subjects be taught in an elementary fashion at the preparatory schools if room can be found for them, but let this be supplemented by proper courses at the medical school. This, let me add, is the rule in France, where also, in the case of physics, students have to attend a practical course (including the use of such instruments as the polariscope, induction coil, galvanic cells, proof of Ohm's law, etc) as well as a theoretical course.—I am, etc.,

Dawson Turner,
Lecturer on Physics at Surgeons' Hall, Edinburgh.

Edinburgh, Dec. 12th.

PUERPERAL SEPTICÆMIA.

Sir,—Dr. Playfair's letter in your issue of November 25th recalls two cases. 1. In February, 1893, mother confined under strictly antiseptic precautions, died in five days of puerperal septicæmia. In the same household cases of sewer throat were common, and an injury (open wound) took on erysipelatous inflammation, terminating fatally in ten days. Drainage defective everywhere, ventilating the sewer gas right into house. 2. In April, 1893, mother confined under strictly antiseptic precautions; about five days after confinement puerperal septicæmia of a continued type. On stopping up joints of watercloset soil pipe with the proper "compo.," and flushing drains with perchloride solution, patient recovered.—I am, etc.,

Edward H. Ryan-Tenison.

Belstone, North Devon, Nov. 25th.

UNDER- OR OVER-DOSE OF CHLOROFORM.

Sir,—It is not justice, either to the subject or to the administrators, that the letter of Dr. Robert Bell should be allowed to pass without comment, inasmuch as it contains an inferential condemnation of every medical man who has had the misfortune to lose a patient under chloroform coincidently with an administration of 50 minims and upwards of the drug. It may or may not be a "well-known fact that 18 minims of chloroform absorbed by the blood will induce complete anæsthesia in an adult;" but even if it is, it has no bearing upon the cause of death, as there is no evidence, in most of these cases, that 18 minims, or any other exact quantity, have "been absorbed by the blood." A drachm or

more may have been poured on to the lint, or into the inhaler, but unless the amount of chloroform lost by evaporation is estimated exactly, as also the amount exhaled by the patient, it is utterly impossible for anyone to even approximately estimate how much chloroform has "been absorbed by the blood."

Dr. Bell says: "If 50 minims of chloroform are given in three minutes from a drop bottle through the medium of a piece of lint, the possibility is that more than 18 minims may have been inhaled, and sufficient to warrant the belief that the result is due to an over-dose."

Is this the kind of evidence upon which we are warranted in entertaining a belief which is both a prejudgment of an important totally unsettled question, and a condemnation *in absentiâ* of the competence or carefulness of those medical men who have already suffered the injury of having lost a patient under chloroform? His "belief" does not explain how it happens that in the vast majority of cases enormously more chloroform is administered than the amount he considers sufficient to render probable an absorption "by the blood" of more than 18 minims, nor does he explain how it is that the great majority of deaths occur before the patient is under, or whilst he is coming from under, or during some temporary lull in the administration.—I am, etc.,

Blackpool, Oct. 25th. WM. HARDMAN.

ON TAKING THE OATH.

SIR,—When giving evidence at the Lancaster assizes a few days ago I took the oath with uplifted hand, as I have been in the habit of doing for the last two years or so. It excited no remark at the time, but Mr. Justice Day, when commenting on a case shortly afterwards, took the opportunity of making the following remarks. I quote from the report in the *Lancaster Observer*. "He took the oath in the ordinary way, gentlemen; that is, he did not adopt what has now become the fashion among some doctors—you have seen them do it to-day—of lifting the hand. This is one of the latest medical theories, and these doctors," continued his lordship with significant gesture and sarcastic tone, "tell you that people get germs into their system when they kiss the Book; germs indeed, as if they could get germs by kissing a New Testament."

What difference the form of oath taken by a witness can make to his lordship I fail to see, and I think it a pity that a judge whom we all respect so much should go out of his way to make sneering remarks, even though half jocular in tone, about that which is a cleanly, a decent, and a reverent way of swearing by God's name.—I am, etc.,

Lancaster, Nov. 6th. A. S. BARLING.

THE ST. JOHN AMBULANCE ASSOCIATION AND ITS DOCTORS.

SIR,—The BRITISH MEDICAL JOURNAL of October 28th contains a letter on the payment of lecturers, with which a long experience as lecturer and examiner leads me to differ almost *in toto*. Whether the Association can afford such fees as could be accepted by lecturers is a matter for its Council to decide, but now that the wealthier classes have given up ambulance work as a *dilettante* entertainment and it is carried on by members—for the most part working men and women—for the benefit of their fellow creatures, for the doctor to mulct them for fees for his lectures, in addition to the 5s. usually charged by the centre, is making them pay too much for the privilege, and is a course I personally would never think of adopting. The necessity for everyone being taught first aid and the rudiments of nursing is so important that I consider a full course should be included in every child's curriculum and be paid for as such; but, so long as this good work, so ably organised by St. John and kindred associations, is carried out voluntarily in civil life, no further tax should be made upon the volunteers' pockets. I have around me at the present moment numbers of pretty, though, for the most part, inexpensive mementos of the pleasant times I have had during the past fifteen years with my classes; and I appreciate them far more than I should have done so many stereotyped sums of money drawn from the members for so many perfunctory lectures. No; it is the pleasure of teaching willing pupils, not merely lecturing to them, that makes the work so congenial. For my own part, I have never been satisfied with fewer than seven or eight lectures, and, as an examiner, I have found the greatest number of inefficients in those classes which have only had the bare five lectures in a hard-and-fast manner from paid lecturers at so much for the "course," for, despite the high scientific and oratorical powers often displayed, their effect has only been such as to confuse the brains of their more humble "patrons." On the other hand, I consider that a judicious extension of the honours of the Order might well be meted out to doctors who have given long services to the Association.—I am, etc.,

E. LUKE FREER,
Surgeon-Major A.M.R.
Examiner and Lecturer St. John Ambulance Association.

Birmingham, Oct. 31st.

THE MEDICAL AND DENTAL PROFESSIONS.

SIR,—Mr. Miller seems to have entirely misconstrued my letter in the BRITISH MEDICAL JOURNAL, of October 28th. All reputable dentists are fully aware of the necessity for legislation that, to quote Mr. Miller, "would make it a criminal procedure to practise any branch of the healing art without qualification to do so;" but they are still more keenly alive to the fact that such legislation would not materially affect their profession so long as it is permissible for (legally) qualified dentists to advertise.

To permit registered dentists to advertise is to legalise empiricism, and until our highest medical authorities take that view of it surely it is unreasonable to expect the public to be more discriminating.—I am, etc.,

Scarborough, Nov. 6th. THOS. E. CONSTANT.

INDIAN HEMP AND INSANITY IN EGYPT.

SIR,—I must ask Dr. Sidney Davies to excuse my declining to accept his correction of my statement that "one sole lunatic asylum suffices for all known cases." The provincial hospitals he alludes to are fifteen in number, and in none of them is there any accommodation for lunatics. When cases of madness occur in the interior of the country they are taken to the nearest hospital in the first instance, and as soon as the diagnosis is established they are at once forwarded to the asylum at Abbasiyeh. There is a standing rule in the sanitary administration that patients mentally afflicted are not to be detained locally for more than forty-eight hours. Under the old *régime* these unfortunate creatures used to be kept for weeks or months in chains, and the above-mentioned regulation was made in order to put an end to the scandal.

The greater part of Dr. Davies's experience in Egypt was acquired in the Esbekieh quarter of Cairo, where he held a Government appointment prior to his transfer, for a brief period, to the police. This is the quarter where congregates the scum of Greece and the Levant. It is very hard indeed on the honest and hard-working *fellahin*—the backbone of Egypt—that their morals should be judged by the standard obtaining amongst the off-scourings of the Eastern Mediterranean littoral. I speak of the provincial Egyptians as I knew them less than five years ago. What they may deteriorate into now that the trade in strong drink has become widespread is a problem on which I do not like to reflect. I greatly fear that in permitting an unrestricted sale of alcohol, while haschisch is sternly forbidden, the Egyptian authorities are paving the way for the ruin of the people.—I am, etc.,

November 4th. PYRAMID.

APPARENT RELATION BETWEEN THE BIRTH-RATE AND MILK SUPPLY.

SIR,—Kindly give me space to publish some facts connected with the apparent relation which seems to exist between the birth-rate and milk supply in Ireland which I have not seen noticed before.

During the past 16 years there were registered in Ireland 498,363 births in first quarter, 509,482 in second, 458,193 in third, and 434,318 in fourth; in Leinster 122,332 births in first quarter, 126,970 in second, 115,411 in third, and 107,024 in fourth; in Munster 127,842 births in first quarter, 133,533 in second, 115,549 in third, and 108,173 in fourth; in Ulster 169,244 births in first quarter, 177,322 in second, 158,983 in third, and 151,286 in fourth; and in Connaught 78,94

births in first quarter, 71,657 in second, 68,250 in third, and 67,832 in fourth.

In all the counties, except in those of Connaught and in Clare and Donegal, the sum of the second quarters exceeds that of the others. In these exceptions the sum of the first quarters is highest. The sum of the fourth quarters is lowest in all the counties except in Leitrim, Roscommon, and Mayo. In the two first named of these exceptions, that of the third quarters is lowest, and in Mayo that of the second is exceeded by those of the others.

A comparison of the actual number of times the highest birth-rate was registered in the several quarters during the 16 years shows that in Ireland it occurred 5 times in the first quarter, 11 times in the second; in Leinster it occurred 16 times in the second quarter; in Munster it occurred once in the first quarter, and 15 times in the second; in Ulster it occurred twice in the first quarter, and 14 times in the second; in Connaught it occurred 16 times in the first quarter; in the counties of Leinster it occurred 51 times in the first quarter, 132 in the second, and 7 in the third; in the counties of Munster it occurred 23 times in the first quarter, 70 times in the second, and 3 times in the third; in the counties of Ulster it occurred 34 times in the first quarter, 106 times in the second, and 3 times in the third; and in the counties of Connaught it occurred 57 times in the first quarter, 18 times in the second, 4 times in the third, and once in the fourth. The first and second quarters were equal once in the counties Kildare, Meath, and Fermanagh.

A similar comparison of the lowest birth-rate shows that in Ireland it occurred 16 times in the fourth quarter; in Leinster it occurred 16 times in the fourth quarter; in Munster it occurred 16 times in the fourth quarter; in Ulster it occurred once in the third quarter, and 15 times in the fourth; in Connaught it occurred 5 times in the third quarter, and 11 times in the fourth; in the counties of Leinster it occurred 6 times in the first quarter, 27 times in the third, and 159 times in the fourth; in the counties of Munster it occurred 14 times in the third quarter, and 82 times in the fourth; in the counties of Ulster it occurred 6 times in the first quarter, once in the second, 32 times in the third, and 104 times in the fourth; and in the counties of Connaught it occurred twice in the first quarter, 13 times in the second, 23 times in the third, and 41 times in the fourth. The lowest birth-rate was once registered equal in the third and fourth quarters in Tyrone and Roscommon.

Allowing nine months for gestation and one for the time which usually intervenes between birth and registration, it may be concluded that the highest rate of conception takes place in June, July, and August; and the lowest in December, January, and February. Nearly all exceptions to this rule occurred in the western counties.

To ascertain if there existed any relation between the milk supply and the rate of conception, I made inquiries all over Ireland, with the following result: In 4 instances the highest rate of milk supply was stated to be in April, in 36 instances in May, in 84 instances in June, in 84 instances in in July, in 56 instances in August, in 11 instances in September, and in 3 instances in October; and the lowest rate was in 2 instances stated to be in October, in 16 instances in November, in 57 instances in December, in 84 instances in January, in 78 instances in February, and in 40 instances in March.

I make no comment on the facts stated, but would like to know if in England or any other country similar facts have been observed.—I am, etc.,

Jas. Taylor, L.R.C.P. and S.I.,
Registrar of Births, Deaths, and Marriages.

Tandragee Dispensary District, Nov. 2nd.

CHILDREN IN QUARANTINE.

Sir,—We engage nurses for sick children; why should we not have companions for the convalescent? I have recently been visiting some friends who had had a most dangerous and infectious illness in their family. Six members were attacked, and one child died from it. All their friends and relations feared to stay with them, and the condition of the little convalescents was truly pitiable, surrounded by grief-stricken faces; the depression caused by extreme weakness was thereby considerably augmented. I am very fond of children, and have had much experience with them, so I undertook the task of "cheering up" the little invalids, and succeeded so well that at the end of a few weeks they were pronounced stronger than they had ever been.

Might not I and some other ladies form an association for the care of convalescent children? We could have certain rules, and send out our members for various periods, like nurses are sent.

Supposing a child to have had scarlet fever. He is separated from his brothers and sisters, and most likely has a trained nurse who, though invaluable in actual illness, is not the most amusing companion for the tedious days of recovery. Would not the mother be glad of a cheerful, educated, child-loving woman, who would take charge of her little one for a few weeks (either at his own home or at any health resort), and leave her free to attend to the other members of the family? I am quite willing to offer my services in any such case, and so, I am sure, is many another

November 1st. Lover of Children.

CHLOROSIS.

Sir,—The preliminary report on the cause of chlorosis by Dr. E. Lloyd Jones in the British Medical Journal for September 23rd is very interesting. I wish to point out, not in a captious spirit but entirely with a view to a complete consideration of the subject, that some of the writer's statements require qualification. Chlorosis is stated by him to be a disease peculiar to girls, yet such a close observer as the late Austin Flint held that it does occur among boys, though very rarely. It is not difficult to believe this, for we know that hysteria is sometimes met with in boys. I think the most important point in the consideration of the cause of chlorosis is to be certain that the iron of the food is absorbed from the alimentary canal. If the abundant iron in the food is for some reason not sufficiently absorbed, a diminution of the hæmoglobin would result.

I fail to see what is to be gained in theorising about chlorosis until this important point is settled. Examinations of the fæces and urine must necessarily be very important. There are other interesting points; for instance, how far the anæmic appearance is assisted by a contracted state of the cutaneous arterioles, if the hæmoglobin is diminished equally over all parts of the vascular system, and if the splanchnic nerves have been examined microscopically for changes such as occur in peripheral neuritis.

The view of the writer that iron probably cures chlorosis by constricting the gastro-intestinal blood vessels (astringent theory) is ingenious, but open to three serious objections. In the first place, the writer holds that the cause of the disease is probably a disturbance of the sympathetic system, and that the gastro-intestinal congestion is secondary; if so, to cure the congestion is not to attack the cause. In the second place, it is beyond dispute that chlorosis can be cured by very small doses of iron injected subcutaneously. And, in the third place, Dr. Stockman, of Edinburgh, has shown that sulphide of iron can cure chlorosis, and he points out that this preparation of iron is non-astringent.[1]—I am, etc.,

Trinidad, Oct. 17th. Henry Alston, M.B., C.M.

MEDICO-LEGAL AND MEDICO-ETHICAL.

FEES TO MEDICAL WITNESSES.

M.B., C.M. writes: J. M., a labourer, is admitted into the infirmary suffering from a compound fracture of both bones of the leg and fractured pelvis. Upon recovery he sues his employers for damages in the county court. His legal adviser telephones to the house-surgeon to ascertain the facts of the case and the present condition of the man; also when he will recover the full use of his limb. The house-surgeon re-examines the patient and telephones the result to the legal adviser, expecting to be called in the case as a medical witness. On the eve of the trial the lawyer again telephones, asking for a written statement of all the facts of the case. The house-surgeon refuses to give one without a fee. The lawyer replies that the man is poor and that the infirmary is a public institution, and therefore the house-surgeon should give a written statement without a fee. He also adds that he is taking up the case on the chance of getting a fee if his client wins, and suggests that the house-surgeon should either send him a written statement or appear as a witness on the same conditions.

(1) Can the house-surgeon claim a fee for evidence written or given in court, and, if so, from whom can he claim it? (2) If so, does the fee

[1] British Medical Journal, April 29th.

go to the house-surgeon or to the board of management to the infirmary? (3) Is it professional etiquette for either to take up the case on the understanding of getting a fee if the plaintiff wins?

*** (1) The house-surgeon can certainly refuse to give any written statement without a fee prepaid. He need not attend to give evidence in court unless served with a subpœna, accompanied by the payment of an adequate sum for conduct money. The amount is not large, and is regulated by a scale varying with the circumstances. If the evidence is expected to be valuable clients are frequently willing to pay more than the scale fees, if asked to do so beforehand. If not paid in advance, fees in the present case would probably be hard to get.

(2) This depends entirely on the contract between the house-surgeon and the board. *Primâ facie* the fees would belong to him, but he may have bound himself to hand them over.

(3) It is not in accordance with the etiquette of either the legal or the medical profession to work on the terms of no cure no pay. The solicitor in the present case may think it worth his while to work on such terms, but there is no reason why the house-surgeon, who has not the same knowledge of the circumstances, should do so too.

TITLE OF "PHYSICIAN."

T. G. P.—We did not ourselves express any definite opinion on the subject of who is entitled to call himself a physician, in the reply to our correspondent "Dr. D.," but confined ourselves to the effect of certain legal decisions bearing on the point.

The decisions to which we referred were that of the magistrates of Aston, affirmed by the Queen's Bench Division, on appeal, and commented on by us in a leading article in the British Medical Journal of December 12th, 1891. Beyond what was stated in that article it is unsafe to go, in the absence of a binding decision by the Courts of Law or the General Medical Council.

MIDWIFERY ENGAGEMENTS AND FEES.

A case was reported in the British Medical Journal of March 4th, 1893, in which a medical man recovered the fee agreed upon for a midwifery engagement although he was not called upon to attend. A correspondent writes that he has recently been less successful. Both the woman and her husband promised to pay his fee, but it was not paid. He took action in the county court, conducting the case himself. The judge ruled that he had no claim, and gave a verdict for the defendant.

*** There is no right of appeal, and no leave to appeal was apparently asked for or given, so the judgment for the defendant must stand. This is another instance of the folly of taking cases into court without proper preparation. A medical practitioner would rightly blame a layman for undertaking to doctor himself, but in legal matters he is a layman. If the county court judge should decide other cases in the same way, it may be advisable to fight a test case out before him, and to appeal if his decision is adverse.

THE MEDICAL AID COMPANY, LIMITED.

W. B. writes: In the British Medical Journal of November 25th there is a reference to the Medical Aid Company, Limited, pointing out how it is simply a joint stock concern for the purpose of getting dividends for its shareholders out of the work of the members of the profession, who are so devoid of a proper sense of duty towards their fellow practitioners as to become its servants. Another point which should, I think, keep any right-thinking practitioner from having anything to do with it is the manner in which the members of the Medical Aid are got. It is simply by the exertions of its agents, or canvassers as they are called. Those men, often not over particular as to their use of the truth in their statements, go from door to door, and in the most urgent and persistent manner, like other hawkers, push their wares. Dr. De Styrap, in his admirable *Code of Medical Ethics*, at page 52, says: "It is degrading to the profession to solicit practice by advertisement, card, or circular." What can be said to the importunate touting carried on by the canvassers of this society? A card or circular can be thrown aside, it need not be read, but the tout must be listened to, at least, he will do his best to get a hearing. Now, if advertising by printers' ink be degrading to the profession, surely this wholesale touting is infinitely more so, and should be avoided by all men who have the honour and interests of their profession at heart.

A HOSPITAL ELECTION.

R.T. asks our opinion respecting the action taken by two candidates for the vacancy on the staff of a provincial hospital. B. appears to have come forward as a candidate before the burial of the late holder of the appointment, and, before the office was declared vacant, he sends out testimonials to the governors, and commences and continues to canvass, although the appointment is not formally declared vacant for some six weeks after the death. On the formal announcement of the vacancy C. becomes a candidate, sends out testimonials, and refrains from canvassing the governors, but calls upon the staff as a matter of courtesy, informing them that he is a candidate.

*** Doubtless the course pursued by C. was preferable to that adopted by B., canvassing for such appointments being very objectionable, and often prejudicial to the interests of other candidates. By not doing so C. acted with due regard to his dignity and professional instincts, and we commend the action of the board in the resolution they passed, prohibiting canvassing in the future. When, however, canvassing is not prohibited, and the election is principally in the hands of a body of lay governors to whom the candidate may be unknown, it is difficult to restrain the temptation which a visit to the elector affords to a candidate of presenting himself in person, and answering any question that may be asked respecting himself or the appointment he seeks. Certainly the more dignified and professional course was that adopted by C., who might, however, with propriety have announced his intention to become a candidate at a much earlier date than he did.

CANVASSING AND DRUG SHOPS.

An Old Member writes: Undue competition in this district has placed the profession in a very low condition. The shifts to which some members are driven are pitiable. One, a graduate of Edinburgh University, has opened two drug shops within a short distance of each other. He waylays members of societies who are on the best of terms with their medical officers, and begs them to get him put on at the annual election. He sends canvassers to their houses offering to attend their families for a few pence monthly. He has had very little support hitherto, but he has brought the profession into great contempt and caused much bad feeling among the people. Your kind advice is asked.

*** Lamentable as is the course described, we can only renew our oft-repeated suggestion that the one effectual mode of repressing such proceedings will be found in the rigid enforcement of the disciplinary laws of the respective universities or colleges of which the offending practitioner may happen to be a member. Our correspondent will, in our opinion, confer a benefit on the profession and the public by submitting the case for the consideration of the university authorities alluded to, for graduates and others who have recourse to such exceptional proceedings are usually insensible to professional condemnation.

PRESCRIPTION CARDS.

H.G.M.—A dispassionate consideration of the "slip" copies of the prescription cards, on which our opinion has been sought, leaves little or no doubt upon the mind that they notably contravene immemorial professional usage; and, in our opinion, they would, medico-ethically be held to constitute a more or less covert mode of unprofessional advertising. Moreover, the exceptional withholding of the *de facto* cards, and deliberate omission of the several fees in the slip copies leave a possible doubt as to their true nature, although affirmed to be in strict accord with "the usual minimum fees of all the practitioners to the poorer classes in the district, or in any poor district in London." Why, then, have withheld them from review?

"A SIXPENNY DISPENSARY."

A. B. C., M.B.Cantab., M.R.C.S.Lond., writes: In reply to "X. Y. Z." in the British Medical Journal of November 18th under the above heading, I think the right-thinking portion of the medical profession can do nothing else than pity any sixpenny or cheap dispensary man, for it implies (1) that he is not able to get better fees; (2) that his education has been such that he does not value at all the honourable traditions of the profession; (3) that he has no self-respect. I would, with the Editor of the British Medical Journal, deprecate any combination of charity and moneymaking by means of dispensaries worked, as we are informed, too, by deputy, but a provident dispensary at low fees is a boon to the deserving poor. I am on the staff of the Metropolitan Provident Medical Association (offices, 5, Lamb's Conduit Street, Bloomsbury), and have found it a workable scheme for the labouring classes who are admitted into it on a strict wage-limit scheme. It is a philanthropic institution confined to the medical profession only, numbering on its council such men as Sir Spencer Wells, Mr. Timothy Holmes, and also Mr. Ernest Hart himself, besides many other names of note amongst the hardworking men of the day. Its fees are very low, only 1d. per week in sickness and in health, but it is just these low fees that raise it to the level of philanthropy. Cannot sixpenny dispensary men see this, and rather join such an institution than prostitute the profession by lowering the fee for professional services to less even than what the prescribing chemist, this parasite on the body of the profession, makes? Let me refer all "cheap doctors," and even the royal licensing Colleges, to this Association which has done much good in the past. This institution would not receive sixpenny dispensary men *et hoc genus omne* on its staff.

MEDICAL ETIQUETTE.

Expectans writes: In a case of emergency, Dr. C., the ordinary medical attendant, being absent when sent for, Dr. B. was called in and informed of this fact. Shortly afterwards Dr. C. called, and saw the patient, and afterwards called upon and thanked Dr. B. for what he had done. When Dr. C. had left, Dr. B. called at the house of a neighbour who had been present at his visit, and asked if it were a fact that Dr. C. was the ordinary medical attendant. Subsequently, at a general meeting of the profession of the district to consider this conduct, Dr. B., who was present, declined either to explain or apologise.

*** Our correspondent solicits advice as to what should be the attitude of the local profession towards the offending practitioner in this case. We would (in view of the fact that Dr. B., the member in question, has already apologised in a similar case) suggest that, in the second instance, any impending course of action against the wrong-doer be *pro tempore* suspended; and, provided that he gives no further cause for denouncement, that remission be accorded to him. On the other hand, if he persists in his unethical procedure, we would advise that a further meeting be called, at which Dr. B. should be invited to attend, and furnished with a copy of the alleged charge against him,

and, failing to offer a satisfactory explanation or to apologise, that he be then requested to withdraw, in order that the matter may be discussed and determined by the attendant practitioners; and, further, that the decision arrived at be subsequently communicated to him (Dr. B.), preferably by letter. If, moreover, the alleged unethical conduct prove gravely flagrant, it may become a serious question as to holding future communication with him—except in a case in which the life of a patient may be involved; in which event, private feeling must give way to the necessities of the emergency; having attended to which, the consultant practitioner should retire from the case, and resume the attitude professionally determined on.

"FREE MEDICAL ADVICE."

"Dr. Moffat, who has lately come to reside in this city, has now settled in Post Office Square, High Street, and intends giving advice free to those wishing to avail themselves of it, between the hours of 10.30 A.M. and 12 noon."

*** In reference to A.'s letter on the above medico-ethically indefensible advertisement of Mr. Moffat, who appears to seek to attract patients by offering indiscriminate gratuitous advice to all who may care to avail themselves of such, it will be well to note that even if it fell within the sphere of work of the "Defence Association" referred to (which we believe it does not), it would be more fitly undertaken by the local faculty, who might transmit a copy of the three several newspapers in which the advertisement is stated to appear to the authorities of the respective Colleges of which the practitioner is a licentiate, accompanied by a protest signed by three or four, or more, of the resident medical men; in deference to whose representations the licensing powers could, if they thought fit, call upon Mr. Moffatt for an explanation.

NAVAL AND MILITARY MEDICAL SERVICES.

ARMY MEDICAL STAFF EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post office order with the notice. The first post on Thursday mornings is the latest by which these announcements can be received.

A Surgeon-Major stationed at Gibraltar, who has nearly completed 3 years' foreign tour, wishes to exchange to Malta, if possible, with an officer who has also been abroad for about the same period.—Address Surgeon-Major D. L. Irvine, Army Medical Staff, Gibraltar.

ARMY MEDICAL RANK AND TITLES.

Surgeon General (Retired) writes: Referring to former correspondence, I take it that whatever rank and title the regulations confer on medical officers, such are strictly confined to their own department. Their titles are unique, and practically do not apply to the army at large, and are indeed quasi military or medico-military. They do not assuredly confer army rank, or the precedence and status of medical officers would not be limited on boards, etc. Army rank is the only remedy for the inferiority of position, disadvantages, and friction which beset the medical officer. My original assertion is borne out by the marked distinction which the War Office and the military authorities continually insist on drawing between military and departmental rank.

Agitation writes: The advice to medical officers to hold out for substantive titles in a definite corps is simply a word of wisdom. Nothing else will relieve them of their subordinate position or prevent the authorities finding an excuse for doing justice to them. All experience shows that the "compromise" of one of your correspondents and the "breathing time" of another are great mistakes: now or never is the only way of preventing the position of medical officers becoming more disagreeable through lapse of agitation.

No Compromise also writes: A writer in the *Pioneer* of India suggests that volunteer officers should use the titles of volunteer-lieutenant, etc., much in the same way as in the Army Medical and Veterinary Departments—a prefix is used to distinguish them from the genuine article. This clearly shows that our present compound titles are not regarded by any section of the public as "military." I see compromise advocated, but I trust the department will never compromise on this one point. Our present titles are objectionable, but no compound title will ever be more satisfactory.

STUDY TIME.

Justitia writes: When speaking of the facilities allowed for study time, you say in a leading article: "No one, we surmise, has taken the trouble to ask for what was certain of refusal." When I applied for four months' leave to study I was promptly allowed the same, and another officer serving with me was given a similar privilege. Full pay and allowances were accorded for the first two months, and full pay but not allowances for the second two. I am not aware of any officer having been refused such leave, provided he was serving at home: it is but just to the authorities to let it be known how I was treated.

*** Our correspondent may rest assured we would not knowingly do the authorities any injustice in this matter, and we are only too glad to record any instances of liberality in regard to this most important privilege. But he has hardly grasped the significance of our criticism, which was a perfectly fair deduction and inference from the arguments employed by Mr. Campbell-Bannerman in refusing increased facilities for study time. What did he say? "Provision already exists;" but "the indulgence is obviously limited by the necessity of providing for the duties of the absentees," followed by the clenching statement: "But, as a matter of fact, very few applications have been received even within the limit assigned." Our surmise therefore seems perfectly justified, that the reason why applicants were "very few" was that "within the limits assigned" they were next to certain of a refusal. Our correspondent does not say how long ago it is since he and his friend got the leave quoted. May we assume the first two months on full pay and allowances were simply ordinary leave, and the two *minus* allowances the extraordinary? Our contention is, study time as an equitable right, independent of ordinary leave, and without deductions from pay or allowances.

THE ARMY MEDICAL DEPARTMENT AND ITS DIFFICULTIES.

Brigade-Surgeon-Lieutenant-Colonel sends us a lengthy communication on this subject, which the exigency of space compels us to compress. He declares that, after twenty years of trial, the present system of army medical service has not come up to expectations. The individual members being scattered in miserable units throughout the country, without a connecting link of any kind, maintain a hopeless struggle for social existence, ignored by their combatant brethren, as well as by the circle of their visiting list. The whip of constant, increased, and increasing duty is for ever cracked in their ears. One of the causes for this state of things are "those unseemly titles," which "must have been introduced to cause irritation," and which are discarded as worthless directly the medical officer leaves the service. The officer should have army rank, and not a departmental distinction. The letting loose of so many surgeon-major generals and surgeon-colonels, not to mention surgeon-lieutenant-colonels, has been most offensive to the military authorities, as tending to swamp society with titular rank. Certain modifications are suggested. There should be a Royal Medical Corps in companies, commanded by a major, and officered by captains and lieutenants. A certain number of majors might be advanced for professional merits to the rank of consulting surgeons and consulting physicians, to be paid as colonels on the staff, and to act as principal medical officers. The title of surgeon-general might be retained for the higher appointments, but the loss of the military departmental rank of colonel or major-general would be accepted as a relief if replaced by higher designations evidencing professional merit.

*** We hope we have indicated our correspondent's somewhat eccentric views with sufficient clearness. His argument seems to resolve itself into this: Because the military authorities, and the executive in slavish suit, choose to take unreasonable offence at the alleged "letting loose" of higher titular rank when applied to medical officers, therefore the latter ought to meekly abjure it. But the average medical officer, who refuses to write himself down as the natural inferior of his comrades in arms, asks, Why this remarkable susceptibility when these higher titles are applied to me only? Are not the medical officers bearing them comparatively a handful in the multitude of other army departmental, militia, yeomanry, and volunteer officers who use them throughout the country, and in society, strange to say, without offence? Is it not curious that what may be merely venial in others becomes heinous in medical officers? The tendency of the times is equality, whether by levelling up or down, and the equality of medical with other army officers must be effected by the former process, whatever the result, temporarily, on puerile susceptibilities or arrogant claims. By all means let a corps be formed, and the now loose units linked together for mutual support.

PARKE MEMORIAL FUND.

A correspondent writes: I would remind your readers that an appeal for subscriptions to this fund has been issued from the offices, 24, Kildare Street, Dublin. For a memorial worthy of that distinguished officer, whose early death has been so much deplored, the need of subscriptions has only to be brought to the notice of his brother officers of the Army Medical Staff. I would suggest that, with the sanction of the Director-General, subscription lists might be circulated by principal medical officers at home and abroad among the officers of their districts, in order that they might have an opportunity of showing their regard for one who reflected so much honour upon the medical service.

*** The suggestion is one we should be glad to see adopted. The memory of the gallant and gentle Parke is highly prized by the department at large.

VOLUNTEER BRIGADE-SURGEON-LIEUTENANT-COLONELS.

Onwards writes: There are several points in the remarks of "Friendly but Just," which appeared in your issue of December 2nd, which call for comment. In the first instance, he complains that in the Volunteer Medical Service there have been promotions from surgeon-captain to brigade-surgeon-lieutenant-colonel. There are, indeed, some cases on record in which this has occurred, but it was unavoidable. I have known some instances where medical officers of higher rank in a brigade would not accept the promotion, so that it was necessary to fall upon the juniors, and where this has been done the result has been excellent. On the other hand, it should be remembered that a number of the senior medical officers of the Volunteer force have never even taken the trouble to pass the qualifying examination of a surgeon-lieutenant, and

it must be conceded that such as these should give way to younger men who have complied with existing regulations with benefit to themselves and their battalions. Again, your correspondent complains that a brigadier-general can appoint his own brigade-surgeon; but it must be remembered that he can only do so in consultation with the principal medical officer of the district, as laid down in Volunteer Regulations. I do not consider the title of brigade-surgeon misleading, for in the Volunteer infantry brigades, of which there are no fewer than thirty-three, all apparently unknown to your correspondent, the senior medical officer is naturally the brigade-surgeon. The Artillery, Engineers, and Medical Staff Corps have no organisation corresponding to that of the Volunteer infantry brigades, and therefore require no brigade-surgeon. I hope no Volunteer medical officer will call himself "principal medical officer" of a subdistrict. There is a well-authenticated case of one who called himself principal medical officer of his brigade, for which he was promptly reported to headquarters by the principal medical officer of the district, and reprimanded.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

THIRD M.B. EXAMINATION. PART II. *Medicine, etc.*—Allen, B.A., Chr.; Appleyard, B.A., Emm.; Blumfeld, B.A., Gonv. and Cai.; Bottomley, B.A., Gonv. and Cai.; Budden, B.A., Gonv. and Cai.; Collcutt, B.A., Gonv. and Cai.; Cuff, B.A., Joh.; Fenton, B.A., Gonv. and Cai.; Gardner, Emm.; Hayne, B.A., Gonv. and Cai.; Henry, M.A., Joh.; Hofmeyr, B.A., Trin. H.; Hood, B.A., Down.; Lees, B. H., B.A., Joh.; Menzies, B.A., Jes.; Mitchell, B.A., Queens'; Neill, B.A., Gonv. and Cai.; Nicholls, M.A., Pet.; Nix., R. E., B.A., Gonv. and Cai.; Parry, M.A., Joh.; Parsey, M.A., Pet.; Phillips, M.A., Queens'; Poole, B.A., Cath.; Pulford, M.A., Trin.; Saw, B.A., Trin.; Shillitoe, A., B.A., Trin. H.; Slater, B.A., Gonv. and Cai.; Smith, W. A. L., B.A., Trin.; Stewart, B.A., Chr.; Storrs, C. S., B.A., Emm.; Taylor, G. C., B.A., Chr.; Windsor, B.A., Non Coll.; Wingate, Jes.; Wright, B.A., Non Coll.

UNIVERSITY OF LONDON.

M.D. EXAMINATION.

Medicine.—C. Addison, B.S., St. Bartholomew's Hospital; W. L. Andriezen, University College; H. A. Ballance, B.S., University College; S. H. Bates, University College; Annette M. Benson, B.Sc., London School of Medicine and Royal Free Hospital; *G. F. Blacker, B.S., University College; A. S. Blackwell, B.S., B.Sc., St. Bartholomew's Hospital; W. Bligh, B.S., Guy's Hospital; C. R. Box, B.S., B.Sc., St. Thomas's Hospital; A. N. Boycott, St. Thomas's Hospital; T. G. Brodie, King's College; S. Bueno de Mesquita, Guy's Hospital; H. A. Burrowes, Royal Infirmary Liverpool; F. J. Coleman, B.S., Guy's Hospital; J. N. Collins, London Hospital; H. G. G. Cook, B.S. (Gold Medal), St. Bartholomew's Hospital; C. W. Cooke, St. Thomas's Hospital; *T. P. Cowen, B.S., St. Thomas's Hospital; A. M. Daldy, B.S., Guy's Hospital; T. B. P. Davies, M.S., Guy's Hospital; B. E. Dawson, B.Sc., London Hospital; H. A. Eccles, St. Bartholomew's Hospital; C. C. Elliott, B.S., Guy's Hospital: H. M. Evans, University College; J. Evans, University College, Liverpool; H. Finley, University College; E. T. E. Hamilton, B.S., B.Sc., Guy's Hospital; A. D. Heath, University College; J. Jones, B.S., University College; H. E. Knight, St. Bartholomew's Hospital; H. Langdale, Owens College and Manchester Royal Infirmary; Alice Janet McLaren, B.S., London School of Medicine and Royal Free Hospital; C. B. T. Musgrave, University College; H. T. Parker, B.S., St. Bartholomew's Hospital and St. Jacob's Krankenhaus, Leipzig; W. L. Pethybridge, B.Sc., St. Bartholomew's Hospital; R. Pickard, M.S., St. Bartholomew's Hospital; W. J. Pickup, University College; C. H. Preston, B.S., Owens College and Manchester Royal Infirmary; E. L. Pritchard, King's College; W. G. Rogers, M.S., Guy's Hospital; C. E. Salter, B.S., Guy's Hospital; H. S. Sandifer, B.S., King's College; A. W. Sheen, B.S., Guy's Hospital; H. R. Smith, University College; R. V. Solly, B.S., St. Thomas's Hospital; G. A. Stephens, B.S., B.Sc., University College; W. H. Sturge, London Hospital; H. Symons, St. Bartholomew's Hospital; W. W. H. Tate, University College; A. E. Tebb, B.S., Guy's Hospital; F. W. Tunnicliffe, St. Bartholomew's Hospital; E. E. Ware, B.S., St. Thomas's Hospital; F. W. Wesley, B.S., University College; C. E. Wheeler, B.S., B.Sc., St. Bartholomew's Hospital and St. Jacob's Krankenhaus, Leipzig; A. Whitfield, King's College.

State Medicine.—S. Barwise, Queen's and Mason Colleges, Birmingham; G. S. Buchanan, M.D., B.S., B.Sc., St. Bartholomew's Hospital and University College; H. M. Richards, M.D., B.S., (Gold Medal), University College; H. Williams, M.D., St. Bartholomew's Hospital.

B.S. EXAMINATION.

First Division.—Louisa B. Aldrich-Blake, London School of Medicine and Royal Free Hospital; H. W. Armstead, St. Bartholomew's Hospital; J. Le M. Bunch, B.Sc., University College; T. Carwardine, Middlesex Hospital and University College; F. P. S. Cresswell, B.Sc., Guy's Hospital; H. O. Davies, St. Bartholomew's Hospital; P. S. Eves, University College; C. S. Jaffé, St. Thomas's Hospital; W. J. Johnson, Guy's Hospital; W. H. Kelson, M.D., London Hospital; V. W. Low, St. Mary's Hospital; A. Manknell, Yorkshire College; J. A. Pickels, Owens College and Manchester Royal Infirmary; A. L. Whitehead, Yorkshire College.

Second Division.—V. B. Bennett, University College, Liverpool; J. G. Clegg, Owens College and Manchester Royal Infirmary; J. H. Griffiths, St. Bartholomew's Hospital; F. Hazell, Guy's Hospital; T. H. Ionides, University College; E. A. Nathan, St. Mary's Hospital; A. Paine, St. Mary's Hospital; W. P. Purvis, B.Sc., St. Thomas's Hospital; E. J. Smyth, B.Sc., University College; F. T. Travers, University College; W. L. Wainwright, St. Thomas's Hospital.

M.S. EXAMINATION.

*F. C. Abbott, B.Sc., St. Thomas's Hospital; T. J. Dyall, M.D., St. Bartholomew's Hospital; J. L. Firth, M.D., University College; A. D. Fripp, Guy's Hospital; B. G. A. Moynihan (Gold Medal), Leeds School of Medicine; *H. J. Waring, B.Sc., St. Bartholomew's Hospital.

* Obtained the number of marks qualifying for the Gold Medal.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

FELLOWSHIP EXAMINATION.—Mr. Richmond Robert Allen, L.R.C.S.I., having passed the necessary examination has been admitted a Fellow of the College.

SOCIETY OF APOTHECARIES OF LONDON.

PASS LIST.—The following candidates passed in:

Surgery: E. B. Barber, London Hospital; A. J. Campbell, St. Thomas's Hospital; M. M. Chadburn, Royal Free Hospital; A. L. M. Churchill, Westminster Hospital; E. S. Dukes, Guy's Hospital; J. H. H. Francis, Guy's Hospital; A. Greenwood, London Hospital; A. C. C. Harris, St. Bartholomew's Hospital; G. W. B. Marsh, Durham; C. G. Mathews, St. Bartholomew's Hospital; G. H. Pooley, St. George's Hospital; J. A. Stainsby, London Hospital; G. H. Tomlinson, Birmingham; H. C. Will, London Hospital; W. Wyllys, St. Bartholomew's Hospital.

Medicine, Forensic Medicine, and Midwifery.—W. Alder, Guy's Hospital; A. H. Beardmore, Sheffield; M. M. Chadburn, Royal Free Hospital; E. S. Dukes, Guy's Hospital; J. A. Edwards, King's College; D. H. Fraser, St. Thomas's Hospital; R. Jones, London Hospital; R. W. Lake, University College; G. F. Palmer, London Hospital; T. Prescott, King's College; H. C. Will, London Hospital.

Medicine and Forensic Medicine.—W. J. H. Dawson, St. Thomas's Hospital; A. L. Morris, Guy's Hospital; H. C. Venis, St. Mary's Hospital.

Medicine and Midwifery.—J. H. Hobling, St. Mary's Hospital.

Medicine.—T. M. Clayton, Durham; S. E. Price, London Hospital; A. P. Woolbright, St. Bartholomew's Hospital.

Midwifery.—R. A. Cowie, St. Thomas's Hospital; J. Davies, St. Mary's Hospital; A. V. Peatling, St. Thomas's Hospital.

To Messrs. Alder, Beardmore, Campbell, Cowie, Davies, Dukes, Edwards, Fraser, Greenwood, Hobling, Morris, Palmer, Peatling, Prescott, Will, Wylys, and Miss Chadburn was granted the diploma of the Society entitling them to practise Medicine, Surgery, and Midwifery.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.

Army Medical Officers.—Mr. A. C. MORTON asked the Under Secretary of State for India whether he would arrange for the army medical officers and their men stationed in India to be put through a course of ambulance manœuvres annually, similar to those promised by the Secretary of State for War for the home army?—Mr. G. RUSSELL, in reply, said that the Secretary of State for India would ascertain from the War Office the nature of the proposed special instruction in medical field duties and would forward the papers for the consideration of the Government of India.

Woolwich Hospital.—Mr. GODSON asked the Secretary of State for War whether he was aware that a large hospital for fever patients (500 in number) was going to be erected within 150 yards of the present National Military Hospital at Woolwich for 700 patients; whether there was not a better site further west distant from all habitations, and far more suitable owing to the natural formation of the land; and whether he would take such steps as would be necessary for bringing about an alteration of the site of the proposed new hospital.—Mr. CAMPBELL-BANNERMAN, in reply, said that he had made representations that the War Department objected to the proposed site for the fever hospital, but without success.

A New Fever Hospital.—In reply to Mr. COHEN, the PRESIDENT of the LOCAL GOVERNMENT BOARD said that he was aware of the difficulties which the managers of the Metropolitan Asylums district had to contend with in connection with the provision of sites for infectious hospitals for the metropolis. As regards the action of the Local Government Board, he might state that during his tenure of office the managers had submitted proposals to use permanently as a site for a fever hospital certain land at Tottenham, and to acquire adjoining land for the purpose of extending their hospital at that place, and that both their proposals were assented to. They had also applied for sanction to the acquisition of land for fever hospitals at Lewisham and at Kidbrooke, and the necessary sanction had been given in both cases. He was unable to assent to a proposal to acquire land adjoining Tooting Common for a hospital; but the managers subsequently submitted a proposal to purchase other land for the purpose at no great distance from the site originally suggested, and this was sanctioned. The last proposal had reference to certain land at Norwood; and with regard to this, after full consideration of all the circumstances, the Local Government Board deemed it necessary to withhold their consent. The considerations which governed the Local Government Board in their decision on applications of this character must necessarily depend very much on the local circumstances. Each case was dealt with on its own merits, and with due regard to the circumstances generally connected with it as brought before the Board by the managers, by those locally interested, and in the report of the Board's inspectors made after public local inquiry.

Diphtheria.—In reply to Mr. MACDONA, Sir W. FOSTER said that the Local Government Board had received reports from the Medical Officer of Health as to the outbreak of diphtheria in the village of Great Tey, Colchester, and the neighbourhood, and they had learned from a report which they had received that the number of deaths which had occurred since the commencement of the outbreak in September last was 15. The Board had determined to send an inspector to inquire into the facts. He

might at the same time observe that the medical officer of health did not admit the accuracy of some of the statements which had been put forth.

The Army Medical Service.—Mr. Bartley asked the Secretary of State for War whether any change had this year been made in the emoluments, foreign service, arrangements, titles, or other conditions of the Army Medical Service.—Mr. Campbell-Bannerman, in reply, said that the only change during the year 1893 was that such retired officers of the Medical Staff as were liable to recall to duty in case of emergency had had the new titles conferred upon them which were bestowed on full-pay officers by the warrant of 1891.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns, including London, 5,978 births and 4,898 deaths were registered during the week ending Saturday, December 23rd. The annual rate of mortality in these towns, which had been 28.6 and 26.6 per 1,000 in the preceding two weeks, further declined to 24.7 during the week under notice. The rates in the several towns ranged from 13.5 in Blackburn, 14.9 in Gateshead, 16.8 in Oldham, 17.5 in Leeds, and 18.0 in Norwich, to 27.3 in Burnley, 31.6 in Liverpool, 33.6 in Bristol, 35.3 in Wolverhampton, and 41.5 in Plymouth. In the thirty-two provincial towns the mean death-rate was 23.6 per 1,000, and was 2.7 below the rate recorded in London, which was 26.3 per 1,000. The 4,898 deaths registered during the week under notice in the thirty-three towns included 487 which were referred to the principal zymotic diseases, against 541 and 545 in the preceding two weeks. Of these, 149 resulted from whooping-cough, 82 from diphtheria, 81 from measles, 70 from "fever" (principally enteric), 63 from scarlet fever, 34 from diarrhœa, and 8 from small-pox. These 487 deaths were equal to an annual rate of 2.5 per 1,000; in London the zymotic death-rate was equal to 3.1 per 1,000, while it averaged 2.0 in the thirty-two provincial towns, among which the lowest rates were recorded in Brighton, Croydon, Portsmouth, and Halifax, and the highest rates in Norwich, Liverpool, Birmingham, and Plymouth. Measles caused the highest proportional fatality in Norwich; scarlet fever in Wolverhampton and Huddersfield; whooping-cough in Plymouth, Cardiff, Birkenhead, Bolton, and Sheffield; and "fever" in Swansea and Sunderland. The 82 deaths from diphtheria recorded during the week under notice in the thirty-three towns included 63 in London, 4 in Bristol, 3 in Birmingham, 3 in Liverpool, and 2 in Gateshead. Four fatal cases of small-pox were registered in Birmingham, 2 in West Ham, 1 in Liverpool, and 1 in London, but not one in any other of the large towns. There were 100 small-pox patients under treatment in the Metropolitan Asylums Hospitals and in the Highgate Small-pox Hospital on Saturday last, December 23rd, against 141, 128, and 118 at the end of the preceding three weeks; 23 new cases were admitted during the week, against 18 and 22 in the preceding two weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital on the same date was 2,994, against 3,183, 3,129 and 3,102 on the preceding three Saturdays; 285 new cases were admitted during the week, against 306 and 295 in the preceding two weeks. The 636 deaths referred to diseases of the respiratory organs in London were 148 above the average, and were equal to an annual rate of 7.7 per 1,000.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday, December 23rd, 820 births and 629 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had declined from 27.8 to 23.0 per 1,000 in the preceding three weeks, further fell to 22.3 during the week under notice, and was 2.4 per 1,000 below the mean rate during the same period in the large English towns. Among these Scotch towns the lowest rates were 19.1 in Greenock and 20.4 in Edinburgh, and the highest 25.7 in Perth and 27.1 in Dundee. The 629 deaths in these towns included 56 which were referred to the principal zymotic diseases, equal to an annual rate of 2.1 per 1,000, which was 0.4 below the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Leith and Perth. The 288 deaths registered in Glasgow included 12 from whooping-cough, 3 from diphtheria, and 5 from scarlet fever. Three fatal cases of diphtheria were recorded in Edinburgh. The death-rate from diseases of the respiratory organs in these towns last week was equal to 9.5 per 1,000, against 7.7 in London.

HEALTH OF IRISH TOWNS.

In sixteen of the principal town districts of Ireland the deaths registered during the week ending Saturday, December 16th, were equal to an annual rate of 28.6 per 1,000. The lowest rates were recorded in Lurgan and Sligo, and the highest rates in Cork and Wexford. The death-rate from the principal zymotic diseases averaged 2.2 per 1,000. The 189 deaths registered in Dublin were equal to an annual rate of 28.2 per 1,000 (against 27.1 and 30.6 in the preceding two weeks), the rate during the same period being 29.1 in London and 24.6 in Edinburgh. The 189 deaths in Dublin included 14 which resulted from the principal zymotic diseases, equal to an annual rate of 2.1 per 1,000; of these 14 deaths, 6 were referred to enteric fever, 3 to whooping-cough and 2 to measles.

THE HEALTH OF DUBLIN.

The *Irish Independent* published recently an interesting conversation between its Commissioner and Sir Charles Cameron. Sir Charles Cameron claims that, while Dublin has a death-rate from all causes which is abnormally high, the zymotic death-rate was lower than that of other places, and he cited the zymotic death-rates of Belfast and Limerick as being in excess of that of Dublin. Sir Charles Cameron laid great stress on the poverty of the Dublin population as being largely accountable for the high death-rate of Dublin, and referred to a census he had taken in that city of the dwellings, by which it was shown there were 54,000 families in the city in 25,000 houses, and of these 32,000 families lived in only 7,000 houses, comprising 48,000 rooms; this allowed only one room and a-half to each family. There is nothing like this, he said, in any of the towns of England. Sir Charles Cameron was able to show that the sanitary department had not been idle; as many as 3,159 magistrates' orders had been obtained for closing houses unfit for human habitation, and of these a large proportion had been demolished; he contrasted these operations with those of Sheffield, which, with a population of 80,000 larger than that of Dublin, had only 25 prosecutions; Leeds, which had a population of 375,000, and Huddersfield, which had a population of 90,000, had no prosecutions. Referring to the high death-rate from enteric fever, Sir Charles Cameron attributed this to the saturation of the soil with organic matter, and he expressed the opinion that the dryer the soil became the higher the death-rate from this disease would be. He did not, however, propose this theory as an argument against the drainage of the subsoil, for he argued that the removal of the polluted ground water would only lead to its replacement with purer water. Dublin, however, has an exceptionally high death-rate from phthisis, for Sir Charles Cameron states that, of 7,819 deaths in 1892, as many as 1,009 were due to phthisis, that is to say, phthisis caused 12.9 per cent. of the total deaths, while in London it caused 9.1 per cent. On this ground alone the need for drainage of the subsoil may well be raised.

PROCEEDINGS UNDER THE NOTIFICATION ACT.

A child staying at a Somersetshire vicarage was attacked by scarlet fever. She was seen by a medical practitioner on November 30th, but the case not having been notified on December 9th, proceedings were instituted by the Taunton rural sanitary authority against the vicar and the medical attendant. From the brief account of the case in the *Bristol Times*, it seems that the defence was that in the early stages no diagnosis could be made with certainty, but that the case was isolated at once and the other children sent away. The doctor was fined £2 including costs, and the other summons was dismissed. In another recent instance at Exmouth the local board prosecuted a man for exposing himself in a public street while suffering from diphtheria. The case had been notified by the medical attendant apparently, but it was alleged that he had said nothing about isolation beyond giving directions that the children should not be allowed to go to school. Assuming the statement to be correct, the omission was an unfortunate one, but can scarcely be regarded as exonerating the defendant. A far more dangerous argument was also advanced, namely, that one of the chief features of diphtheria is extreme prostration, and that a patient suffering from the disease could not stay out of bed! If this means that diphtheria which is not severe enough to keep the patient in bed is probably not diphtheria at all and need not be safeguarded as such, the sooner the Exmouth public are disabused of such a mischievous fallacy the better. The case was dismissed, so perhaps the Bench too stand in need of enlightenment on the same point.

AN EPIDEMIC OF MUMPS.

An epidemic of this disease has recently occurred in the parish of Buckland, St. Mary, a village situated over 800 feet above the level of the sea. We are indebted to Dr. Edward Stephens for the following facts. The length of the parish is over five miles, the population 600, and the number of inhabited houses 140, the majority of the houses being widely separated. The occupation of the inhabitants is purely agricultural; the number of children attending school is 130. From the above description one would naturally imagine an infectious disease could readily be stamped out. Mumps not being a disease coming under the infectious disease notification Act, some half dozen families were suffering before any steps were taken to check the epidemic. Orders were then issued forbidding any child residing in the same house in which there was a case of mumps to attend school. Great difficulty was, as always, experienced in getting parents to forbid their children from joining their comrades during play hours. A few of the cases amongst the children required medical attention, but by far the majority of the severe cases occurred amongst the adults. From the commencement of the epidemic 96 scholars have been attacked with the disease.

INDIA AND THE COLONIES.

INDIA.

Bombay.—Of six female students of the Grant Medical College who recently presented themselves for the final qualifying examination, only two, Miss E. S. Smith and Miss L. Brown, were successful. Miss Smith was awarded the Viceroy's Gold Medal.

Filth and Cholera in India.—The report of the Sanitary Commissioner of Bengal on the sanitary condition of Howrah discloses a state of things which was hardly to be expected in a town which is practically a suburb of the capital of British India. Europe cries out for something to be done in India to root out the conditions which make the district of the Lower Ganges an endemic home of cholera. The question, however, is a large one, and is linked intimately with politics, and especially with the problem of local self-government. Till education causes new desires and sets up new demands on the part of the people, a matter of generations rather than years, we fear that the cleaning of India must have its impetus from without, and till that time the choice will lie between absolutism and filth.

VICTORIA.

The Victorian Society for Psychical Research has just been founded in Melbourne with the object of investigating spiritualism, mesmerism, hypnotism, telepathy, clairvoyance, the appearance of disembodied spirits and all kindred phenomena. Among the members of the first Council of the Society are Drs. Jamieson, Symes, Molison, and Webster.

MEDICAL NEWS.

Medico-Psychological Association.—The following candidates have passed the examination for the certificate in Psychological Medicine granted by the Medico-Psychological Association:—*In England;* J. Vincent Blandford, Everitt E. Norton. *In Scotland:* A. J. M. Paget, F. M. P. Shae, C. A. Brough, W. M. Holmes.

American Jottings.—During the last year an effort has been made by the Massachusetts State police to diminish the number of children employed in factories, with the result that there are now but 253 children under fourteen years of age at work in factories in the whole State, as against 1,656 a year ago.—The retort building of the Massachusetts Cremation is approaching its completion, and will be ready for use on January 1st, 1894. The society is in a flourishing condition, and has recently voted an increase of the capital stock to 50,000 dollars by the addition of 25,000 shares of 10 dollars each.—A small crematory was recently built in a New England town, and the dedication ceremony consisted, it is said, in a "clam bake," the oven of the crematory being used to cook the clams and corn.—Dr. Nardi, of San Francisco, who was General Grant's physician during his travels abroad, has recently finished one of the largest anatomical models ever made. It is a model of the human heart thirty-five times the actual size.—The Superior Court of New York City has ruled that when a married woman is so injured through the negligence of another person as to miscarry, her husband can recover damages for the loss of the unborn child. In the case on trial the damage was assessed by the jury at 2,250 dollars.—The Supreme Court of Wisconsin has ruled that when a married woman sustains a personal injury, and her physician does not caution her to avoid pregnancy, and there is no evidence that her injury was such that he should have done so, her pregnancy occurring after the accident, even if it prolonged her injury or delay her recovery, is not necessarily, and as a matter of law, sufficient to justify a reduction of damages.

MEDICAL VACANCIES.

The following vacancies are announced:

BRISTOL CITY LUNATIC ASYLUM.—Second Assistant Medical Officer. duly qualified in medicine and surgery. Salary, £120 per annum, with furnished apartments, board and washing. Applications and testimonials to the Medical Superintendent, at the Asylum, Fishponds, near Bristol, by January 5th, 1894.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C. —House-Surgeon. Applications, with testimonials, to the Secretary before January 8th, 1894.

CHARING CROSS HOSPITAL.—Aural Surgeon and Orthopædic Surgeon; must be F.R.C.S.Eng., and reside within three miles of the Hospital. Applications to Arthur E. Reade, Secretary, by January 2nd, 1894.

COSFORD UNION, Suffolk.—Medical Officer and Public Vaccinator for the Boxford District. Salary, £50 per annum, exclusive of usual extra medical fees. Must reside in the District. Applications to Alfred Newman, Clerk to the Guardians, Union Offices, Hadleigh, Suffolk, by January 11th, 1894.

COUNTY LUNATIC ASYLUM, Burntwood, near Lichfield. — Junior Assistant Medical Officer, unmarried, doubly qualified. Salary to commence £100 per annum, with board, lodging, washing, and attendance. Applications to Dr. Spence, Medical Superintendent, by December 30th.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Dental Surgeon; must be a Licentiate in Dental Surgery. Applications to J. Francis Pink, Secretary, by January 8th, 1894.

GENERAL HOSPITAL, Birmingham.—Assistant House-Surgeon. Appointment for six months. Applications and testimonials to the House-Governor by December 30th.

HORTON INFIRMARY, Banbury.—House-Surgeon and Dispenser, duly qualified and registered. Salary, £60 per annum, with board and lodging. Applications and testimonials to C. H. Davids, 21, Marlborough Road, Banbury, by January 6th, 1894.

KING'S COLLEGE, London.—Curatorship of the Museum. Applications to J. W. Cunningham, Secretary.

ROYAL LONDON OPHTHALMIC HOSPITAL, Moorfields, E.C.—Junior House-Surgeon. Salary, £50 per annum, with board and residence. Applications and testimonials to be sent to the Secretary by January 4th, 1894.

SURREY DISPENSARY, Great Dover Street, S.E.—Surgeon. Honorarium, £52 10s. per annum. Applications to J. Harrison, 179, Bermondsey Street, S.E., before January 9th, 1894.

TOWNSHIP OF TOXTETH PARK.—Junior Assistant Resident Medical Officer of the Workhouse and Infirmary; doubly qualified. Salary, £70 per annum, with board, washing, and apartments. Applications marked "Junior Assistant Medical Officer," to Charles L. Moulding, Acting Clerk to the Guardians, 15, High Park Street, Liverpool, by January 3rd, 1894.

VICTORIA HOSPITAL FOR SICK CHILDREN, Queen's Road, Chelsea, S.W.—House-Surgeon and House-Physician to the In-patients. Honorarium, £50 each per annum, with board and lodging in the hospital. Applications to the Secretary by January 13th.

WORCESTER GENERAL INFIRMARY.—Physician. Appointment for seven years. Applications to the Executive Committee under cover to the Secretary, Mr. W. Stallard, Worcester Chambers, Pierpoint Street, Worcester, by January 6th, 1894.

MEDICAL APPOINTMENTS.

Baines, Ed., B.A., M.B., B.C., appointed House-Surgeon to the Sunderland Infirmary, *vice* Burdon Cox, M.B.Durh., appointed House-Physician.

Blumer, W. Percy, F.R.C.S.Edin., appointed Honorary Surgeon to the Sunderland Infirmary, *vice* John Whitehouse, deceased.

Cargill, Lionel Vernon, F.R.C.S.Eng, appointed Surgical Registrar to King's College Hospital.

Colman, W. S., M.D., M.R.C.P., appointed Assistant Physician to the Hospital for Sick Children, Great Ormond Street.

Cox, Burdon, M.B., B.S.Durh., appointed House-Physician to the Sunderland Infirmary.

Gardner, Harold, M.R.C.S., L.R.C.P., appointed Resident Medical Officer to the Chelsea Hospital for Women for one year, *vice* Dr. Ewen J. Maclean, term expired.

Marson, F. H., M.B., B.S.Durh., M.R.C.S., L.R.C.P., appointed House-Surgeon to the Sheffield General Infirmary.

Maurice, Mr. O. C., appointed Assistant Medical Officer of the Infirmary of the Parish of St, Marylebone.

Phillips, Harry Harding, M.R.C.S.Eng., L.R.C.P.Lond., appointed House-Surgeon to Charing Cross Hospital.

Routh, Amand, M.D., B.S., M.R.C.P.., appointed Consulting Obstetrical Physician to the St. Marylebone General Dispensary, *vice* James H. Aveling, M.D., deceased.

Smith, Wm. Barron, M.R.C.S., L.R.C.P., appointed District Medical Officer of the Salford Royal Hospital, *vice* F. H. Folkes, L.R.C.P.Edin., M.R.C.S., deceased.

DIARY FOR NEXT WEEK.

TUESDAY.

Pathological Society of London, 8.30 p.m.—(1) Dr. Lee Dickinson: Myoma of Uterus becoming Sarcomatoma. (2) Dr. Jackson Clarke: Note on some so-called Cells of Endogenous Origin. (3) Mr. F. C. Wallis: Sacculus of Bladder following Stricture. (4) Mr. Davies-Colley: Syphilitic Disease of the Knee-Joint. (5) Mr. D'Arcy Power: A Case of Tar Cancer. (6) Mr Hurry Fenwick: Cholesterine Cyst of Kidney. (7) Dr. F. J. Smith: Inflamed Vermiform Appendix. Card Specimens.—Mr. Davies-Colley: Fibroma of Plantar Fascia. Mr. Hurry Fenwick: Two Ounce Stone formed Around a Hairpin. Dr. Lee Dickinson: Calculus Obstruction of Ureter.

THURSDAY.

Harveian Society, 8.30 p.m.—Mr. Watson Cheyne: The Treatment of Breast Cancer.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTHS.

Love.—At Fyzabad, N.W. Provinces, India, on December 4th, the wife of Surgeon-Major R. L. Love, M.D., Army Medical Staff, of a daughter.

Rice.—December 19th, at 90, Woodstock Road, Oxford, the wife of Edward Rice, M.D.(Lond.), of a son.

MARRIAGES.

Aitken—Gilmour.—At 18, Blythswood Square, Glasgow (the residence of the uncle of the bride), on December 20th, by Rev. George Stewart Burns, D.D., of the Cathedral, assisted by Rev. Peter Dewar, Minister of North Bute, Dr. James Aitken, 13, Clement's Gardens, Ilford, Essex, to Isa Muir Gilmour, granddaughter of the late John Turnbull, Esq., Engineer, Glasgow.

Betts—Burnett.—On December 21st, at All Soul's, Langham Place, by the Rev. Canon Acheson, William Andrew (M.D., C.M., F.R.C.S.Edin.), second son of the late Rev. H. J. Betts, Vicar of S. Anne's, Birkenhead, to Adelaide Maria, youngest daughter of the late Jonathan Burnett, of Newcastle-on-Tyne and Phillimore Gardens.

DEATHS.

Joseph.—At Moi Mir, Little Bay, Notre Dame Bay, Newfoundland, on Monday, December 11th, Dr. Louis Joseph (Colombo, Ceylon).

Platt.—On December 21st, at St. James's Lodge, West Hampstead, quite suddenly, William H. Platt, L.R.C.P., M.R.C.S., aged 49 years, deeply mourned.

Powell.—Died at Norfolk Street, Strand, December 25th, Sarah, for 30 years the beloved wife of G. D. Powell, M.D., late of Dublin.

Walker.—On the voyage between Madeira and Cape Town, John Burnley Walker, M.D., The Sycamores, Golcar, aged 43.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

Communications for the Current Week's Journal should reach the Office not Later than Midday Post on Wednesday. Telegrams can be Received on Thursday Morning.

Communications respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters non-delivery of the Journal, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

In order to avoid delay, it is particularly requested that all letters on the editorial business of the Journal be addressed to the Editor at the Office of the Journal, and not to his private house.

Authors desiring reprints of their articles published in the British Medical Journal are requested to communicate beforehand with the Manager, 429, Strand, W.C.

Correspondents who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

Correspondents not answered are requested to look to the Notices to Correspondents of the following week.

Manuscripts forwarded to the Office of this Journal cannot under any circumstances be returned.

Public Health Department.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ ***Queries, answers, and communications relating to subjects to which special departments of the* British Medical Journal *are devoted will be found under their respective headings.***

QUERIES.

A. M. writes:—I should be glad if some of your numerous correspondents to the Journal could inform me what the best and simplest instrument for transfusion and injection of saline solutions is.

ANSWERS.

Progress.—The Fellowship of the British Institute of Public Health is confined to medical men who either possess a diploma in Public Health, or who are or have been medical officers of health. Applications can be made to the Hon. Sec., The British Institute of Public Health, 20, Hanover Square, W.

NOTES, LETTERS, Etc.

In the British Medical Journal of December 23rd, p. 1410, University of Cambridge First M.B. Examination, Part II., for "Wingate Soul" read "Wingate-Saul, W. W. (Trinity).

Errata.

Dr. Edward Seaton (Torquay) writes: In my letter on diphtheria, etc., in the British Medical Journal of of December 23rd, pp. 1404-5, there are two errors. In the third paragraph, "Milroy Lectures for 1890" should read "Milroy Lectures for 1891." In the fifth paragraph (last sentence), the words "a decline in" should be omitted. The sentence would then read: "But at the same time I find no warrant.....that the diphtheria attack-rate or death-rate would be affected," etc.

The Prevention of Accidental Poisoning.

Dr. Lennox Wainwright (Folkestone), writes: Your able article on "Poisoning by Misadventure" has induced me to write this note, containing a simple suggestion, namely, that night medicines and emergency medicines shall have a string affixed to the cork, and then be tied to the bottle neck, leaving sufficient length of string to allow removal of the cork; the slight check received on opening the bottle to pour out the dose would call attention at once. Your remarks about liniments and poisons for external use I fully endorse, and sincerely trust they will be carried out.

Dr. Murray Braidwood (Willesden Green, N.W.) writes: Your leader, headed "Poisoning by Carbolic Acid," in the British Medical Journal of December 16th, induces me to suggest what I found most useful some years ago in practice. The fluted or coloured bottle, and the roughened label to distinguish bottles containing poisons I found useful, but more useful in averting mistakes was a cork topped with wood having a serrated edge. The contents of the bottle could not be reached without coming in contact with this serrated edge, which indicated at once that the contents of the bottle were for external use only. A similar safeguard is, I believe, used in Germany.

A Warning.

F.R.C.S. writes: A few days ago I received from a firm of chemists a half-pound bottle of Marchand's peroxide of hydrogen (medicinal) the bottle being about three-quarters full of fluid and the indiarubber cork being efficiently wired. I handed the bottle over, as I do all the numerous gratuitous samples I receive, to my wife, for the benefit of the poor, and thought no more about it; but last night I was awoke by a violent explosion in my bedroom and found that the bottle of peroxide, which had been put under my washstand, had blown its bottom out. I find on reading the label that it is to be kept in a cool place, which, perhaps, a bedroom is not; but I think it rather hard that I should receive a bomb, which I did not want, without any distinct warning as to its dangerous properties.

A French Medical Mutual Association.

Pyramid writes: Your Paris Correspondent has fallen into error in his account of the banquet given by the *Association médicale mutuelle de la Seine*, to celebrate the first 100,000 francs of the reserve fund. Dr. Rondeau, formerly secretary-general, is the President of the association; not M. Brouardel, who was present as a guest. Dr. Letulle is the vice-president, and Dr. Fissiaux, the treasurer. The number of indemnities paid is correctly given by your reporter, but the amounts are understated. As a matter of fact they varied from 500 francs to 4,850 francs.

The basis on which this association stands is so sound that perhaps you will allow me to quote it. "Every mutual association, provided it keep clear from extraneous charges, can allow to each of its members when incapacitated for work, temporarily or permanently, by reason of sickness or accident a daily indemnity equal to the amount of his monthly subscription, irrespective of the duration of the disability."

When Gallet-Lagoguey formed the association in 1887 there were 67 members; the roll has now risen to 280. All offices are discharged gratuitously, and the expenses of management have averaged only four francs a head per annum since the foundation.

Foreign Body in the Nose.

Dr. E. Donaldson (Londonderry) writes: On November 22nd I was asked to see a little girl, aged 18 months, who was said to have "a bad breath." On examination I found the child healthy, and without sore throat or running from the nose at the time of my visit. The diet was not a judicious one, and I made some changes in it, not suspecting the cause of the fœtor. Two days afterwards a servant told the parents that the child was seen a fortnight before putting a piece of sponge into her nose. I then examined the nose, and saw some foreign body well within the orifice of the right nostril. I grasped this with forceps, and extracted a fœtid piece of sponge. After this the bad breath gave no more trouble. In reply to my inquiries after the treatment, the child's mother stated that there had been a slight discharge from the nose, but she did not notice one nostril affected more than the other. She also stated that the baby had disliked having her nose wiped, as if it were tender, for some days before the removal of the piece of sponge. These facts she attributed to "a slight cold," and did not draw my attention to them at my first visit.

Work and Worry.

Dr. John Haddon (Canonbie) writes: The late Sir Andrew Clark used to say, "It is not work that kills, it is worry," and in his belief the finest end of a physician was to die in the active performance of his duty—in other words, in harness—as he himself untimely fell. Few will deny that worry kills quicker than work; but are there not some kinds of work which cannot be dissociated from worry—or rather, I should say, from that state which worry produces? The work of the ploughman or the woodman is healthful, being free from all worry and carried on in the pure air of heaven. With the work of the merchant, the politician, or the professional man more or less worry is inseparably connected. The practice of medicine surely cannot be regarded as free from what may be called "work worry." To some, no doubt, it is almost infinitesimal; but to others, whether from idiosyncrasy or something else, it is excessive, and to such how welcome and how necessary is the annual holiday. This "work worry," when it exists to the full, may be compared to an incubus, resting, say, upon the nervous system, which sleep is incapable of relieving, and which nothing but a holiday can fairly shift. With careful observation, as the train carries one away from practice this "work worry" may be felt to disappear, and in three days the kidneys, by their freer action, will announce their relief from an unnatural restraint. If, then, it be granted that there is such a thing as "work worry," and if it be further granted that "work worry" must have a prejudicial influence on the whole system, and be a factor in the production of those signs and symptoms a man has who is said to be "overworked," as well as the cause of changes in the circulatory and nervous systems which no holiday, however long, will cure, does it not become the doctor to warn the sufferer that though, as a rule, it is worry and not work that kills, his work is to him a real worry? As we grow older this "work worry" no doubt is more prejudicial; and it is a question well worthy of discussion at what age such work ought to be abandoned.

Polymazia.

Dr. James Neish (Health Officer, Kingston and Port Royal, Jamaica, W. I.) writes: The remarkable case of supernumerary breasts without nipples occurring in the practice of Dr. Bué, reported in the Epitome of the British Medical Journal of September 30th from the *Archives de Tocologie et de Gynécologie* for June, 1893, has a great interest, it appears to me, in being the second case of the kind reported in confirmation of Meckel von Hernsbach's theory as to the location of the germs of the human mammary glands. He maintains that there is a close analogy in this respect between the human female and the bat; that the embryo of the bat contains five germs of mammæ, which are identical in location with the five germs of mammæ contained in the embryo of the human female; two are situated in the middle of each half of the thorax, one in each axilla, and one above the umbilicus just below the sternum. According to Professor Winckel, Gorré saw a woman in whom the five mammæ of this primitive division were well developed. Dr. Bué's case would appear to be a second instance in which the normal process of abortion of the three supernumerary germs was limited to the abortion of one germ—that between the sternal appendix and the umbilicus—while the process went on only partially with the other two, leaving them without nipples, and, in the case of the left supernumary gland in the axilla, leaving it without any excretory duct or channel of communication with the adjoining normal mammary gland, but, on the right side, leaving an established duct of communication with the right breast. In a note on the altered subjects of amazia and polymazia, which you were good enough to publish in the British Medical Journal of October 23rd, 1888, I made some explanatory reference to the abortion of supernumerary or superfluous germs as occurring frequently in the vegetable kingdom, as, for

example, with two of the germs of the tripartite embryo of the cocoa-nut palm, which is an almost constant occurrence. Rarely, indeed, is any deviation from this normal course observed, but, nevertheless, even in the case of the cocoa-nut palm, for once in the memory of man a double cocoa nut has been observed in Jamaica. It occurred on a very large plantation on the north side of the island; and the twin palm tree from one seed nut was brought in a growing state to this port, where I saw it. So rare a curiosity was this "freak of nature" deemed that it obtained a conspicuous place in the exhibition of 1891. To return to Dr. Bué's case. If this practitioner could give an account of what occurred in the two previous periods of lactation in his patient, and if—should he have the opportunity of attending the patient again—he were to note his observations fully, and especially search for the fifth embryonic germ of a mamma just above the umbilicus, he would be able to make another interesting and useful communication in support of the views of Meckel von Hernsbach. It only remains to be stated that, of the instances of supernumerary mammæ recorded, many have been in some sort duplications of mammæ at or near the ordinary site and have rarely occurred in the axilla.

HOSPITAL SCANDAL: ROBBING THE DEAD.

UNDER the above heading a story has been going the round of those inconsistent newspapers which, while constantly railing at the rich for want of charity, do their best to divert it from the channels where it can be best bestowed, by throwing obloquy on our hospitals. It would appear that a lady, wife of a wealthy man, died in a large general hospital in London, and that after the corpse was laid out in the mortuary the husband placed on his dead wife's fingers nine valuable rings, after which the undertakers came with leaden shell and handsome oak coffin, and she was buried. Meanwhile, however, the undertaker, being dissatisfied with the report of his foreman as to the skill with which the lead coffin had been closed, unscrewed the oak lid to make an inspection, and discovered that a clean cut had been made through the lead, and, to make a long story short, that several of the rings had been abstracted. Now this is the "scandal" on the strength of which mud is to be thrown at hospitals; and, although the dictionary meaning of the word "scandal" is an injurious tale "which is either wholly or partially untrue," we doubt whether either editors or readers have taken it in that discriminating sense. We would be the last to screen or shelter anyone who could be guilty of such a robbery. At the same time, we would point out that hospitals are supported primarily for the use of the poor, whose dead, not having on them valuable rings, offer but small temptation to sacrilegious burglary; and that, although ordinary, reasonable care of their dead is no doubt exercised by all hospitals, it would be a misapplication of money subscribed for the benefit of the sick to expend it on such an elaborate system of watch and ward over their mortuaries as alone could protect the wealthy dead from being interfered with, especially so long as the foolish burial customs of the day require that mechanics and artificers of various degrees be admitted to perform their curious rites within the chamber of death.

REMOVAL OF FOREIGN BODIES FROM THE EAR.

DR. OLIVER BARTHOLOMEUSZ (Madulkelle, Ceylon) writes: I have been led by a perusal of the remarks on "foreign bodies in the ear in children," appearing in the BRITISH MEDICAL JOURNAL of September 30th last,[1] to make known to your readers a method I have successfully adopted for a number of years for the removal of foreign bodies from the ears of children and adults.

Children out here have a great *penchant* for putting things into their nostrils and ears, the objects most commonly used being the round black and red seed of a species of glycyrrhiza (*Gundumani*), the smooth oval seed of the *Ricinus communis*, and the coffee bean. The children are very seldom brought for treatment early, the result being that by the time they do come the seed is considerably swollen from moisture, and firmly impacted in the canal. In these cases the use of the forceps is quite out of the question, and forcible injections are valueless, as no return current is available, as the water cannot find its way beyond the object to be removed.

The method I adopt consists simply in gentle leverage by means of an ordinary steel nib firmly fixed in the penholder, with the pointed end reversed. It is easily insinuated between the rounded foreign body and the canal wall, and, when it has got well beyond the object, a little gentle leverage is all that is wanted to sweep it out of the canal. I have in this way been able to remove foreign bodies, which had been impacted in the ear for long periods, with comparative ease and very little pain; one of the most recent cases being a Tamil man from India, who had a castor oil (*Ricinus communis*) seed in his ear for about fifteen years. The nib used should be clean and new, with its end reversed and pushed home far enough into the holder to prevent any possibility of its breaking; and, before its introduction, a few drops of a mixture of laudanum and glycerine (equal parts) should be dropped into the ear, so as to ease pain and facilitate the expulsion of the foreign body.

RAILWAY SPINE.

DR. A. G. BEALE (Hackney) writes: I would point out that the argument of Dr. Bramwell that the peculiar train of symptoms known as "railway spine" following only one form of accident tends to the assumption that they are therefore due to functional disturbance is logical, for the fact "that a peculiar set of symptoms follows only one particular form of injury would lead us to conclude that they are produced by some lesion peculiar to that injury." There is one point in which railway accidents differ from others—they are unexpected, instantaneous, and occur when the subject is in an easy position with relaxed muscles being thrown violently into some other position, the column being made to assume immediately a curve different to that which existed when he was at rest, and controlled by the involuntary muscular contraction which would accompany a less rapid or less unexpected accident. It is possible that a spinal cord whose conditions of tension are thus suddenly changed without preparation and in a moment, if placed in activity, suffers from diffused though undemonstrable injury, which produces the train of symptoms so accurately set forth by Dr. Bramwell, and so astutely and definitely separated by him from allied forms of disease with which it has been up till now so generally confounded.

[1] EPITOME, par. 266.

SOUTHERN HEALTH RESORTS.

DR. ERNEST G. BOON (Alassio, Italy) writes: Dr. St. George Mivart, in his reply to "Medicus" in the BRITISH MEDICAL JOURNAL of December 9th, is very sweeping in his denunciation of the Italian Riviera. What he writes of Alassio is quite incorrect.

Dr. Michael Foster, whose careful observations on the weather of Alassio entitle his opinion to respect, writes: "It will be seen that Alassio possesses a dry, bracing, and temperate climate, coupled with an almost complete absence of fog, a relatively small number of rainy days, and a large average number of hours of daily sunshine. A climate such as this possesses properties of considerable value in the treatment of disease."

My own observations during the few months I have been here confirm the above opinion as to the climatic advantages of Alassio, which is still in its infancy as a health resort. Cases in the last stage should not be sent here unless a villa is at the disposal of the patient. In such cases perfect comfort is of vital necessity, and the hotels, though admirable in many ways, are not situated so as to secure for very bad cases the quiet comfort necessary. The splendid beach of sand makes the place, as Dr. Foster aptly remarks, "a very admirable resort for strumous children. Of course, in comparison with Nice, Alassio suffers in a great many ways; in the latter place there are no tramways, and no such great attraction as Monte Carlo in the near vicinity."

LETTERS, COMMUNICATIONS, ETC., have been received from:

(A) Mr. J. P. Aston, Eccleshill; H. H. Aitchison, M.B., Wallsend-on-Tyne; Army Medical Staff. **(B)** Mr. W. Bower, London; Dr. H. C. Bastian, London; Dr. R. Boxall, London; Mr. J. Bunting, Torquay; Mr. A. H. Barrow, London; Dr. R. Broadbent, Leicester. **(C)** Cantoras; Mr. H. Cooper, Hulme; Dr. J. Campbell, Belfast; Dr. G. Cordwent, Milverton; L. V. Cargill, M.B., London; Dr. A. H. W. Clemow, London; Mr. T. L. Craister, Cala, Cape Colony; Dr. J. W. Cousins, Portsmouth. **(D)** R. B. Duncan, M.B., Newcastle-on-Tyne; Dr. J. Dreschfeld, Manchester. **(E)** Mr. H. F. C. Eagle, London; Messrs. Evans and Wormull, London. **(F)** Mr. R. L. Fitzgerald, Accrington; Dr. M. Foster, Cambridge; Mr. L. Fletcher, Wollaston. **(G)** Mr. W. H. Gossage, London; Mr. W. W. Grant, Moffat. **(H)** Mr. J. Haynes, London; Mr. J. P. Hopps, London; W. Hardman, M.B., Blackpool; Mr. L. Hills, London. **(I)** Inquirer. **(J)** Sir George Johnson, London; Mr. L. Joseph, Aberdeen. **(K)** G. D. Knight, M.B., London; Dr. J. Kerr, Bradford; Dr. C. Kelly, Worthing; Dr. A. Kempe, Exeter. **(L)** Mr. J. Lawrence, Weston; Mr. J. Leck, London; Mr. J. Lawrence-Hamilton, Brighton. **(M)** Mr. R. T. Morris, London; Mr. J. Macqueen, London; Mr. P. Michelli, London; Mr. G. H. Makins, London; Mr. F. C. Melhado, London; Member, B. M. A. **(N)** Mr. H. Neale, Coventry; Mr. F. L. Nicholls, Cambridge; Non-Practising M.D. **(O)** Dr. T. Oliver, Newcastle-on-Tyne. **(P)** Mr. G. Phillips, Geneva; Mr. W. P. Partridge, Beckenham; Mr. J. N. Porter, London. **(R)** Dr. E. S. Reynolds, Manchester; C. H. Roberts, M.B., London; Mr. G. H. Robertson, London; Mr. T. F. Raven, Broadstairs; Mr. A. W. M. Robson, Leeds. **(S)** Mr. E. Stephens, Ilminster; Mr. G. M. Sharpe, Leeds; Scotland; Mr. E. Seaton, Torquay; Mr. A. Sutcliffe, Burnley; Mr. J. F. Stephen, Skye; Mr. R. Savage, London; Dr. J. F. W. Silk, London; Dr. A. T. Sloan, Edinburgh; Mr. W. J. Stephens, Brighton; Dr. J. Swain, Clifton; F. A. Southam, M.B., Manchester. **(T)** Dr. M. Thomson, London; Mr. H. N. Taylor, London; Miss I. Thorne, Lewes. **(W)** Dr. B. Walker, Kirkby Stephen; Mr. F. J. Walmsley, Chester; Mr. N. Wood, London; Dr. W. W. Wingate-Saul, Lancaster; Dr. R. T. Williamson, Manchester; Messrs. J. Woolley, Sons, and Co., Manchester; Mr. H. Wilbe, London; Dr. J. F. Waldo, London. **(Y)** Mr. P. M. Yearsley, London; etc.

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***** In forwarding books the publishers are requested to state the selling prices.**

INDEX TO VOLUME II FOR 1893.

A.

Abdomen, the regional subdivision of the, 679
Abdominal section for intestinal obstruction. two cases of, 373
Abelin, Dr. H. A., obituary notice of, 817
Aberdeen, the fresh air fortnight scheme at, 11; the local authority of and the removal of a case of small-pox, 716
Abortion, self-administration of diachylon to procure, 9
Abraham, Dr. P., M. Sabouraud's cultivations, 470; tinea of the nails, 471; dermatological instruments, 475; the etiology and treatment of psoriasis, 935; excision of lupus, 940; alopecia areata, 1052; the treatment of ringworm, 1159
Abscess, tropical, of the liver, bacteriological notes on a case of, 114; pelvic, 981; mediastinal in connection with the œsophagus, three cases of, 1377
Absinthe epilepsy, the seat of origin and paths of conduction of the fits in, 1097
Abuse of medical charities, 198, 281, 344, 397, 442, 487, 554, 605, 919
Academy of Medicine, Spanish, religious ceremony at, 1125
——— of Medicine, New York, the Bill of, 1351
——— Royal, of Medicine in Ireland, annual meeting and list of officers, 1071
——— Royal, of Medicine in Ireland, Section of Obstetrics, exhibits, 1328; president's address, *ib.*; ventral hernia, *ib.*
——— Royal, of Medicine in Ireland, Section of Pathology, president's address, 1105; spina bifida occulta, *ib.*; specimens, *ib.*; hydrocephalus, 1329; urinary organs from a case of cystitis with surgical kidney, *ib.*; apoplexy of mesentery, *ib.*; dilatation of the stomach and ptosis of the transverse colon, *ib.*
——— Royal, of Medicine in Ireland, Section of Surgery, president's address, 1277; tumour of the brain, *ib.*; the treatment of urinary fistula, *ib.*; the operative treatment of enlarged prostate, 1427; laminectomy in spinal injuries, *ib.*
Accident assurance policies, 663
Accounts, the Uniform System of, Mr. H. C. Burdett, *rev.*, 1216
Accuracy and thoroughness, 791
Acetanilide, ill-effects following administration of, 119
Acid lemonades, 663
Acland, Dr. T. D., St. Thomas's Hospital Reports, *rev.*, 1109
Acromegaly and hypertrophic pulmonary osteoarthropathy, 14; in a giantess, 849; *post-mortem* examination in a case of, 983; case of, 1107; case of treated by operation, 1421
Act, the Apothecaries in the Colonies, 855
—— Births and Deaths, amendment of, 96, 152
—— Housing of the Working Classes, closing orders under, 1444
—— the Mortmain and medical charities, 1346
—— Notification of Infectious Disease, the working of, 212, 607, 700, 715, 716, 872; proceedings under, 1457
—— Public Health, London, the amendment of, 99
—— a "ridiculous," 1070
—— Universities (Scotland), draft ordinances under, 100
Acts, Medical, proposed amendment of the penal clauses of the, 1221, 1449
Adam, Dr. J., lymphangioma circumscriptum, 1212
Adams, Dr. J. D., presentation to, 1044
——— Dr. J. H., History of the Life of Dr. Hayes Agnew, M.D., LL.D., *rev.*, 896
Addinsell, Dr., effects of the influenza poison upon the lying-in woman, 183
Address, presidential at the annual meeting of the British Medical Association by Dr. G. H. Philipson, 293, 325, 331; in Medicine at the annual meeting of the British Medical Association by Dr. D. Drummond, 297, 328, 331; in Surgery at the annual meeting of the British Medical Association by Dr. G. H. Hume, 302; at the opening of the Section of Anatomy and Physiology by Dr. T. Oliver, 306; at the opening of the Section of Pathology by Professor C. S. Roy, 310; at the opening of the Section of Ophthalmology by Mr. G. E. Williamson, 313; at the opening of the Section of Otology by Mr. H. Bendelack Hewetson, 314; in Obstetrics and Gynæcology by Dr. C. J. Cullingworth. 353, 380, 383; at the opening of the Section of Psychology by Dr. T. W. McDowall, 358; at the opening of the Section of Obstetric Medicine and Gynæcology by Dr. J. Murphy, 453; at the opening of the Section of Dermatology by Dr. W. A. Jamieson, 455; of congratulation to the Queen, 744
——— change of, 1007
Adhesions, pyloric, 891, 910, 970; a cause of visceral disability, 1407
Adler, Dr., sanitation as taught by the Mosaic law, 1069
Adulteration, insufficient fines for, 1187
"Æther puriss" (absolute), 1382
Affleck, Mr. J., income tax assessments, 771
Africa, Guide to Health in, Surgeon-Major T. H. Parke, *rev.*, 184
Agnew, Dr. D. H., History of the Life of, Dr. J. H. Adams, *rev.*, 896
Agra, extension of bacteriological laboratory at, 1085
Agreements with assistants, 1408
Ague, on the Medway, 1036; opium as a preventive of, 1196, 1405
Air passages and thorax in children, surgery of the, 105, 174, 231
—— space in rural cottages, 289
Aitchison, Mr. R. S., A Medical Handbook, *rev.*, 235
Alcohol, and Public Health, Dr. J. J. Ridge, *rev.*, 236: 600 Dutch doctors on, 451; the revenue from, 591; the physiological actions of, 954; mortality from, 1139
Alcoholism, or strychnine poisoning, deaths from, 195; certificates of death and, 451
Alder-Smith, Dr., on ringworm, 469; notification fees in public schools, 1413
Ale, non-intoxicating hop, 848
Alexander, Brigade-Surgeon W., carbolic acid as a germicide, 104
——— Dr. W., trephining in epilepsy in doubtful cases, 1149
Algiers, the Practical Guide to, Mr. G. W. Harris, *rev.*, 1381
Aliens, filthy, the importation of, 716
Aliwal, North, as a health resort, 1347
Allabone *v.* Morton, remarks on, 135, 191; the Home Secretary on, 199; Apothecaries' Society, *v.*, 1006
Allbutt, Professor T. C., tubercle as a local disease, 739; opening address at Yorkshire College, 812; concussion of the spine, 1096; the treatment of enlarged cervical glands, 1141; adhesions a cause of visceral disability, 1407
Allen, Professor F. J., contre coup, 1379
——— Dr. H., A Handbook of Local Therapeutics, *rev.*, 1156
Allfrey, Dr. C. H., diphtheria and defective drainage, 1405
Allgemeine Zeitschrift für Psychiatrie, 50th anniversary of, 956
Alliance, General Practitioners'. See Association.
Allinson, *v.* General Medical Council, 42
Allochiria, 1053
Alopecia areata, 1052
Alston, Mr. H., chlorosis, 65, 1453; the treatment of ringworm, a suggestion, 876
Alte Erfahrungen im Lichte der neuen Zeit und ihrer Anschauungen ueber die Enstehung von Krankheiten, Dr. C. Wenzel, *rev.*, 584
Althorp, Mr. C. F. M., tumour in muscle, 1215
Alum, purification of water by, 918
Alvarenga prize, the, 1088
Amadeo, Dr. A. J., puerperal septicæmia, 900
Amaurosis, double, following concussion, recovery, 843
Amblyopia, reflex, during pregnancy, 731, 824
Ambulance, a first-aid book for lectures on, 875; and first-aid organisation, in France, 1352; and bread cart, 1412
——— carriage, a new, 1382
——— St. John. See Association
——— Volunteer. See Volunteer
America. See United States
Amphioxus, The, and its Development, Dr. B. Hatschek, *rev.*, 896
Anæmia, the causation of, 10, 672; treatment of, 119
Anæsthesia, gases of the blood during, 683; due to cortical lesions, 687; for operations on the throat and nose, 707; operations without, 1100
Anæsthetics, Dr. Vallas on, 160; and dental surgery, 451; size of the radial artery under, 1304
Anatomy, methods of study of, 879; the study of, 1079
Anderson, Dr. D. E., malarial hæmatozoa in Mauritius, 771
——— Mr. E. G., puerperal septicæmia, 628; duration of diabetes, 777
——— Dr. J. A., poisoning by chloride of zinc, recovery, 578
——— Mr. W., the regional subdivision of the abdomen, 679, 680; Heath's Practical Anatomy, *rev.*, 794
Andriezen, Dr. W. L, the neuroglia elements in the human brain, 227; the pathology of the thyroid gland, 678; the sensory motor functions of the central convolutions of the cortex cerebri, 686
Aneurysm of right common carotid artery, 580; of the thoracic aorta opening into the œsophagus, 1272; hæmatoma after, 1273
Aneurysms, the pathology of, with special reference to atheroma as a cause, 456, 669
Angioma of the scapular region, 1051
Animal life, the physiology of some forms of, 1178
Animals, live, should experiments on be prohibited by law? 749; predaceous, in India, 1286

Anleitung zur aseptischen Wundbehandlung, Dr. C. Schimmelbusch, *rev.*, 847
Annandale, Mr. T., on hare-lip and cleft palate, 1196
Annual of the Universal Medical Sciences, Dr. C. E. Sajous, *rev*, 950
Anthrax, the prophylaxis of, 953; at Guy's Hospital, 1068, 1082; in man, 1413
"Antidiphtherin," 1070
Antipyrin, rash caused by taking, 944, 1087
Antivivisection at Nottingham, 1396
Antrum, drainage of the, 930; impaction of foreign body in the, 1213
Aorta, thoracic, opening of aneurysm of into œsophagus, 1272
Aphasia, case of, 948
Apoplexy of ovum, 12; of mesentery, 1329
Apothecaries' Hall, Dublin, regulations as to licence, etc., of, 522; the licence of, 871
——— Hall, Dublin, and Royal College of Surgeons in Ireland, Conjoint Board of. *See* Colleges
——— Society of London, pass lists, 45, 158, 285, 494, 768, 871, 975, 1185, 1456; list of examiners, 101; regulations as to examinations of, 515; v. Alabone, 1006; the physic garden of, 1008
Appendicitis and Perityphlitis, Dr. C. Talamon, *rev.*, 949; recurrent, 1106
Appleyard, Dr. J., presidential address to Bradford Medico-Chirurgical Society, 815
Arachnoid space, traumatic hæmorrhage from with symptoms on the same side as the lesion, 1101
Archæologica Medica, 1166
Archer, Mr. E. G., antipyrin rash, 1087
Ardlamont shooting case, medical witnesses at, 1310; the trial, 1447
Argentine Republic, medical practice in, 503, 611; quarantine regulations in, 859
Armstrong, Dr. H. E., on precautions against cholera, 314
Army, British, the vote on the medical staff of, 28, 45; the examining board of, 31, 605; promotions and appointments in the medical staff of, 41, 98, 155, 209, 282, 345, 398, 444, 492, 557, 605, 656, 711, 766, 815, 870, 920, 970, 1028, 1080, 1132, 1184, 1252, 1359, 1409; retirement, 42, 210, 493; the titles question, 42, 97, 156, 345, 493, 711, 816, 922, 1029, 1133, 1455; orderly duty, 42; the difficulties of the medical department of, 79, 210, 1252, 1307, 1455; the medical officers of and civil practice, 103; promotions and appointments in the medical reserve of, 155, 209, 398, 444, 557, 606, 766, 815, 921, 970, 1028, 1184, 1252; changes of station, 156, 444, 656, 921, 1133, 1409; the regulations, 157; sick leave, *ib.*; the income tax on pensions, *ib.*; education of M.P.'s, *ib.*; unready for war, 282; desiderata and the deputations, 293; notes on the estimates, *ib.*; pay warrant perplexities, *ib.*; successful candidates for admission to medical staff of, 398, 556; the health of, 481; omitted again, 493; sanitary recommendations, *ib.*; regulations for admission to the medical staff of, 544; reply of the Secretary of State for War to the deputation as to the grievances of medical officers of, 550, 589, 641, 656, 748, 921, 1167; papers on chemistry, etc., for examination for admission to, 605; non-combatants as general staff and executive officers, 606; the casual newspaper reporter, *ib.*; the reorganisation of the commissariat, 712; sanitary engineering, *ib.*; the medical department of at the autumn manœuvres, 765; the western military district, 767; extension of new military titles, 907; unpreparedness for war, 921; the Scottish district, *ib.*; transport of the medical service in war, 970; shall we compromise with the War Office? 971; dress regulations, 1029; mixed boards, 1184; muddling medical news, *ib.*; titles of officers liable to recall, *ib.*; the title of surgeon-general, *ib.*; War Office committee on physical examination of candidates for commissions in, 1290; a libel on military surgeons and its punishment, 1410; study time, 1455; Parke memorial fund, *ib.*
——— Indian, promotions and appointments on the medical staff of, 41, 155, 209, 282, 345, 398, 444, 492, 555, 605, 655, 711, 766, 815, 870, 921, 970, 1028, 1080, 1132, 1184; the medical staff in, 42, 97; the principal medical officer in, 97, 345; the medical service of, 97, 156, 210; patronage in, 157; successful candidates for admission to medical staff of, 398, 493, 556; the six years' tour in, 493, 552, 816; regulations for admission to the medical staff of, 545; the medical officers and the lower standard examination, 557; total abstinence in the, 610; pay in the, 711; physical fitness for, 719; new colours for the, 870, 1029; financial extension of warrants to, 921; the reorganisation of, 1067; "language leave" in, 1119; principal medical officer, Madras, 1133; field hospitals in, 1410
Army, Salvation. *See* Salvation
——— United States, medical titles in, 210
Arnison, Dr., demonstrations at the Royal Infirmary, Newcastle-on-Tyne, 427
Arsenic, peripheral neuritis from, 996
Arterio-sclerosis, books on, 1139
Artery, common carotid, wound of, 1051
Arthrectomy of elbow- and ankle-joints, 1323
Ascaris lumbricoides causing marked constitutional disturbance, 116, 612; and tænia mediocanellata, simultaneous expulsion of, 1375
Ashbourne, the outbreak of cholera at, 908
Ashby, Dr. A., the condemnation of unsound meat, 819
——— Dr. H., The Diseases of Children, Medical and Surgical, *rev.*, 15
Ashdown, Dr. H., death of, 911; obituary notice of, 975
Askin, Mr. T. C., case of sunstroke, 476
Asphyxia, physiological action of oxygen in, 914
Assistants, unqualified, employment of, 216; unqualified, assignments to, 1415
Association, American Climatological, Transactions of, 897
——— American Medical, annual meeting of, 21
——— American Medical Editors', annual meeting of, 19, 31
——— British, for the Advancement of Science, the meeting of, 692
——— British Dental, annual conference of Western branch of, 189; meeting of Irish branch of, 590
Association, British Medical, the Sections at the annual meeting of and general practitioners, 10, 95, 152, 216; the mode of election of officers of Branches of, 40, 96, 152; programme of 61st annual meeting, 90, 131, 202, 241; annual museum, 93, 333, 421; first general meeting, 321; retirement of president, *ib.*; installation of new president, *ib.*; the marriage of the Duke of York, address of congratulation to the Queen, *ib.*; vote of thanks to retiring president, *ib.*; election of the Marquis of Londonderry as an honorary member, 322; removal of member from the roll of the Association, *ib.*; vote of thanks to the treasurer, *ib.*; re-election of Mr. Butlin os treasurer, 323; adjourned general meeting, 324; addition to and alteration of by-laws, 326; inspection of accounts of, 327; remuneration of members of council, *ib.*; second general meeting, *ib.*; new president of council, *ib.*; vote of thanks to retiring president of council, *ib.*; alteration of by-law 1, 328; model by-laws, *ib.*; leading article on the Newcastle meeting, 330, 379; summary of the proceedings at Newcastle, 332 *et seq.*; *conversazione* at Newcastle, 329; third general meeting, 387; vote of thanks to the Dean of Durham and the University of Durham, *ib.*; a personal explanation, *ib.*; the Stewart prize, *ib.*; address in surgery, 388; Public Medicine Section, *ib.*; concluding general meeting, *ib.*; address in obstetrics, *ib.*; control of nurses, 389; votes of thanks, *ib.*; public dinner, 390; members present at the annual meeting, 416; excursions from Newcastle, 435; list of authors and others who have presented books to library of, 758; the annual meeting at Bristol, 1224; and the Journal, 1894, 1227; the library and reading room of, 1231; a new colonial Branch of, 1234; programme of 62nd annual meeting, 1243
——— Council, proceedings of, 240, 439, 1124; report of, 266, 321; remuneration of members of, 327
——— Anæsthetics Committee, preliminary report of, 277, 328
——— Hypnotism Committee on, report of, 177, 324
——— Inebriates Legislation Committee, report of, 273, 325; appeal of to clergy, etc., 1173, 1364
——— Medical Charities Committee, report of, 274, 326
——— Parliamentary Bills Committee, report to on the extension of sanitary powers to county councils, 123, 187, 246, 1281; report of, 268, 328; payment of travelling expenses of, 328; the work of the, 1114; report to on opium in India, 1175, 1223, 1283, 1399; meeting of, 1221, 1281; the proposed amendment of the penal clauses of the Medical Acts, 1221, 1281, 1285; the sale of proprietary medicines containing poisons, 1281, 1283; District and Parish Councils Bill, 1282; small-pox and notification of infectious diseases, 1283; cholera at the Hardwar and other Indian fairs, *ib.*; costs incurred by port sanitary authorities, *ib.*; physical and mental condition of school children, *ib.*; report to on compulsory notification of England and Wales in 1892, 1332, 1383, 1430
Association, British Medical, Railway Servants' Eyesight (Efficient Control of) Committee, report of, 276, 326
——— School Children (Physical and Mental Condition of) Committee, report of, 276, 326
——— Scientific Grants Committee, report of 270, 323; report to on immunity against cholera, 572
——— Therapeutic Committee, report of, 278, 324; meeting of and names of reporters to, 1400
——— Aberdeen, Banff, and Kincardine Branch, annual meeting of, 1023; report of council, *ib.*; treasurer's balance sheet, *ib.*; election of officers, *ib.*; summer meeting, 1894, *ib.*; conjoint meeting, 1023, 1178; communications, 1023, 1178; vote of thanks, 1023, 1178; hospital visit, 1023; annual dinner, *ib.*; meeting of, 1178; confirmation of minutes, *ib.*; new members, *ib.*; the president elect, *ib.*
——— Bath and Bristol Branch, annual meeting of, 147; new members, 147, 1305; installation of new president, 147; report of council, *ib.*; election of officers, 148; votes of thanks, *ib.*; proposal to admit women to membership, *ib.*; dinner, *ib.*; meeting of, 1023, 1305; communications 1023, 1305
——— Birmingham and Midland Counties Branch, annual meeting of, 37; new members, 37, 965, 1178; medical charities and the wage limit, 37; election of officers, *ib.*; annual dinner, 38; meeting of, 965; payment of travelling expenses, *ib.*; hour of meeting, *ib.*; sick headache, *ib.*; cases, 1106, 1154, 1378; specimens, 1106, 1154, 1379; contre coup, 1379
——— Border Counties Branch, annual meeting, 343; new members, *ib.*; mode of election of officers, *ib.*; guests, *ib.*; medical evidence of cause of death, *ib.*; the British Institute of Preventive Medicine, *ib.*; report of council, *ib.*; letter of condolence, *ib.*; election of officers, *ib.*; vote of thanks, *ib.*; autumn meeting, *ib.*; retiring president, *ib.*; president's address, *ib.*; dinner, *ib.*
——— British Guiana Branch, meeting of, 603; British Institute of Preventive Medicine, *ib.*; auditor's report, *ib.*; etiology and treatment of pneumonia, *ib.*
——— Burmah Branch, meeting of, 1076
——— Cambridge and Huntingdon Branch, meeting of, 864; new members, *ib.*; communications, *ib.*
——— Dorset and West Hants Branch, meeting of, 200, 917; new members, 200, 917; discussion, 200; communications, 200, 917; next meeting, 200, 917; dinner, 200, 917; election of officers, 917; deletion of officers, 917; delegates to the International Medical Congress, *ib.*; British Medical Benevolent Fund, *ib.*; discussion, *ib.*
——— East Anglian Branch, jubilee meeting of, 201; meeting of council of, *ib.*; new members, *ib.*; congratulation to president, *ib.*; mode of election of branch officers, *ib.*; election of secretary for Essex district, *ib.*; proposed by-laws, *ib.*; communications, *ib.*; luncheon, 202; president's address, *ib.*; further communications, *ib.*; afternoon tea, *ib.*
——— Edinburgh Branch, conjoint meeting of with Stirling, Kinross, and Clackmannan Branch, 119, 148; phenazone, acetanilide, and phenacetin, 119; minutes, 148; drive, *ib.*; dinner, *ib.*
——— Glasgow and West of Scotland Branch, meeting of, 201; president's address, *ib.*
——— Gloucestershire Branch, meeting of, 1305; presidential address, *ib.*; supper, *ib.*
——— Grahamstown and Eastern Province Branch, meeting of, 1234, 1243; rules and by-laws, 1243; election of officers, *ib.*; papers and communications, *ib.*; votes of thanks, *ib.*
——— Halifax (Nova Scotia) Branch, annual meeting of, 706; officers and council, *ib.*; meeting of, 864, 1023, 1243, 1350; communications, 864, 1024; supper 1024; cases, 1243; paper, 1350; dinner, *ib.*

Association, British Medical, Lancashire and Cheshire Branch, annual meeting of, 88; minutes, *ib.*; installation of new president, *ib.*; president's address, *ib.*; report of council, *ib.*; financial statement, 89; next annual meeting, *ib.*; officers and council, *ib.*; the intercommunication of Branches, *ib.*; communications, 89, 1402; notices of motion, 89; vote of thanks, *ib.*; luncheon, *ib.*; dinner, 89, 1402; meeting of, 1402; new members, *ib.*; visit to brine baths, *ib.*; presentation to Dr. Glascott, *ib.*

Malta and Mediterranean Branch, meeting of, 89; Mediterranean fever, *ib.*; Branch representative, 90; new members, *ib.*; naval secretary, *ib.*; vote of thanks, *ib.*

Melbourne and Victoria Branch, meeting of, 654; Dr. Gresswell and the Board of Works, *ib.*; treatment of rheumatoid arthritis, *ib.*; epidemic of measles, *ib.*; bacteriological demonstration, *ib.*; operation for vaginal fistula, *ib.*; the late Dr. Graham, *ib.*

Metropolitan Counties Branch, annual meeting of, 37; new members, *ib.*; report of council, *ib.*; election of officers, *ib.*; treasurer's report, *ib.*; draft of new laws, *ib.*; votes of thanks, *ib.*; presidential address, *ib.*

Metropolitan Counties Branch, North London District, meeting of, 1349; treatment of enlarged prostate, *ib.*; clinical cases, *ib.*; votes of thanks, *ib.*

North of England Branch, meeting of, 201, 917; presidential address, 201; new members, *ib.*; payment of travelling expenses, *ib.*; election of representatives, *ib.*; president's dinner, *ib.*

North of Ireland Branch, annual meeting of, 238; death of Professor Dill, *ib.*; report of council and financial statement, *ib.*; election of office bearers, *ib.*; communications, 238, 1024; luncheon, 238; new members, 238, 1024; meeting of, 1024; confirmation of minutes, *ib.*; the late Professor Dill, *ib.*; president's address, *ib.*; resignation of Dr. Byers, *ib.*; appointment of new secretary, *ib.*

Northern Counties of Scotland Branch, meeting of, 38; election of officers and council, *ib.*; new members, *ib.*; president's address, *ib.*; death certificates, 39.

North Wales Branch, annual meeting of, 239; special service, *ib.*; luncheon, *ib.*; president-elect, *ib.*; new members, *ib.*; report of district council, *ib.*; the president, *ib.*; future meetings, *ib.*; election of officers, *ib.*; the late Dr. E. Williams, *ib.*; the late Dr. Eyton-Jones, *ib.*; letters of condolence, *ib.*; papers, *ib.*; specimens, 240; dinner, *ib.*

Oxford and District Branch, annual meeting of, 200; installation of president, *ib.*; minutes, 200, 1024; address, *ib.*; new members, 200, 1024; election of officers, *ib.*; report of council, *ib.*; meeting of, 1024; communications, *ib.*; medical aid associations, *ib.*

Perthshire Branch, meeting of, 201; county medical officers and private practice, *ib.*; death registration, *ib.*; new members, 201, 1305; proposed Dundee and District Branch, 201; annual meeting of, 1305; confirmation of minutes, *ib.*; election of officers, *ib.*; report of council, *ib.*; the late Dr. Irvine, *ib.*; treasurer's accounts, *ib.*; report of representative on Council, *ib.*; summer meeting, *ib.*; dinner, *ib.*

Reading and Upper Thames Branch, annual meeting of, 396; election of officers, *ib.*; luncheon, *ib.*

Shropshire and Mid Wales Branch, annual meeting of, 90; the late Mr. Francis Whitwell, *ib.*; election of office bearers, *ib.*; new members, *ib.*; communications, *ib.*; dinner, *ib.*

Southern Branch, Isle of Wight District, meeting of, 238; laceration of perineum, 239; some modern antipyretics and analgesics, *ib.*

Southern Branch, South-East Hants District, election of honorary secretary and treasurer, 1278; cases, *ib.*; pathological specimen, *ib.*; paper, *ib.*

South-Eastern Branch, East Kent District, the annual meeting of, 40; meeting of, 810, 1305; chairman of Canterbury meeting, 810; communications, 810, 1305; a county bacteriologist, 810; cases, *ib.*; next meeting, 1305

Association, British Medical, South-Eastern Branch, East Sussex District, meeting of, 1349; prevention of spread of phthisis, 1350; communications, *ib.*

South-Eastern Branch, West Kent District, meeting of, 1075; confirmation of minutes, *ib.*; next meeting, *ib.*; objectionable advertisements, *ib.*; Epsom College, *ib.*; communications, *ib.*; dinner, *ib.*

South Midland Branch, meeting of, 864; sewage purification, *ib.*; new members, *ib.*; votes of thanks, *ib.*

South Wales and Monmouthshire Branch, annual meeting, 238; vote of thanks, *ib.*; report of council, *ib.*; donation, *ib.*; election of officers, *ib.*; new members, 238, 1076; alteration of rules, 238; future meetings, *ib.*; president's address, *ib.*; cases and specimens, *ib.*; dinner, *ib.*; meeting of, 1076; papers, etc., *ib.*

South Western Branch, annual meeting, 1075; report of council, *ib.*; election of officers, *ib.*; vote of thanks, *ib.*; next annual meeting, *ib.*; the resignation of the hon. secretary, *ib.*; vote of thanks to retiring secretary, *ib.*; dinner, *ib.*; meeting of, 1123; new member, *ib.*; communications, *ib.*

Stirling, Kinross, and Clackmannan Branch, annual meeting, 38; minutes, 38, 148, 1076; report of council, 38; alteration of by-laws, *ib.*; financial statement, *ib.*; office-bearers, *ib.*; new members, *ib.*; meeting at Cupar, *ib.*; the Parliamentary Bills Committee, *ib.*; Therapeutic Committee, *ib.*; next meeting, *ib.*; presidential address, *ib.*; exhibition of instruments, *ib.*; dinner, 38, 148; conjoint meeting of with Edinburgh Branch, 119, 148; phenazone, acetanilide, and phenacetin, 119; drive, 148; cases and specimens, 1076; vote of thanks, *ib.*

Sydney and New South Wales Branch, meeting of, 36, 147, 396, 489, 864, 1243, 1350, 1002; the new president, 36; minutes, 36, 147, 346, 864, 1243, 1402; new members, 36, 147, 346, 489, 864, 1350, 1402; delegate to annual meeting of the Association, 36; president's address, *ib.*; vote of thanks, 37; officers and council, *ib.*; communications, 147, 346, 489, 864, 1243, 1350, 1402; confirmation of minutes, 1350; notice of motion, *ib.*; proposed medical library, 1402; discussion, *ib.*; unprofessional advertising, *ib.*

West Somerset Branch, annual meeting of, 38; vote of thanks to retiring president, *ib.*; minutes, etc., *ib.*; report of council, *ib.*; treasurer's accounts, *ib.*; next annual meeting and president-elect, *ib.*; intermediate meetings, *ib.*; election of officers, *ib.*; president's address, *ib.*; vote of thanks, *ib.*; luncheon and excursion, *ib.*; meeting of, 1076; new members, *ib.*; the late Dr. Currie, *ib.*; letters from the hon. secretaries of the Bath and Bristol and of the South-Western Branches, *ib.*; treatment of myxœdema, *ib.*; dinner and vote of thanks, *ib.*

Yorkshire Branch, meeting of, 1123; communications, *ib.*

Association, British Medical Temperance, annual meeting of Irish branch of, 30

British Postal Medical Officers', annual dinner of, 501

Brussels Medical Graduates', list of officers, 213

County Medical Officers', formation of, 289

of Fellows of the Royal College of Surgeons, meeting of committee of, 23, 250, 1073, 1267; annual meeting of, 23; report on alteration in College by-laws, 1073

Forfarshire Medical, annual meeting of, 113

French Medical Mutual, 1459

the Hausa, 612

Irish Medical Schools' and Graduates', annual dinner of, 964

of Medical Officers of Life Assurance Societies, formation of, 198, 1136

Medical Practitioners, annual meeting of, 350

Médicale Mutuelle of the Seine Department, results of, 1306

Medico-Psychological of Great Britain, pass-lists, 313, 1458; annual meeting, 343; the certificate, etc., of, 543; programme of meeting of, 1085; special meeting of, 1294

Metropolitan Police Surgeons', annual meeting of, 1304

Association, Midwives' Registration, circular letter *re*, 1357, 1406

New Zealand Medical, annual congress of, 706

for the Oral Instruction of the Deaf and Dumb, annual meeting of, 160

Police Surgeons, proposed formation of, 189

Royal British Nurses, the charter of, 40, 94, 138, 150; regulations as to advertisements, etc., 1137

St. Andrews Graduates, annual meeting of, 402

St. John Ambulance and the royal procession, 161, 313; week under canvas of, 358; and its doctors, 764, 868, 931, 970, 1452; at Manchester, 1077

Sanitary of Scotland, examination of, 101

of Scotch Medical Schools and Graduates, proposed formation of, 341

Spanish Medical, formation of, 115

Associations medical aid, covenants (not to practise) with, 43, 663; "covering" and, 503; circulars from, 822; and the interests of the general practitioner, 1224, 1250

Assurance companies, bonesetters and, 291

Asylum for idiots, 979

Banstead, annual report of, 926

Cane Hill, annual report of, 926

Claybury, proposed appointment of pathologist at, 197; the pathological laboratory at, 1170

Colney Hatch, visit of inspection to, 160; annual report of, 1033

Cork District Lunatic, additional accommodation at, 198

Dorset County, annual report of, 501

Hanwell, annual report of, 1033

for Idiots, Earlswood, annual festival of, 101

Limerick Lunatic, overcrowding in, 501

new metropolitan site for, 195

Richmond District Lunatic, Dublin, annual report of, 926

Royal Albert, quinquennial festival of, 927

Royal, Edinburgh, annual report of, 289

Royal Hants County, instruction at, 535

Asylums, effect of change in county government on, 358, 460; and detached hospitals, 464; of the county of London, 500; of the city of Birmingham, 501; public, dietary in, 861

State and lunacy boards, 1390

Ataxy, Friedreich's, 1053

Atkin, Mr. C., earache in children, 1052

Atkins, Brigade-Surgeon-Lieutenant Colonel, farewell dinner to, 209

Atkinson, Mr. G., death of, 1411

Mr. T. R., is blood poisoning an accident? 491

Atlas of Clinical Medicine, Dr. B. Bramwell, *rev.* 949

Atropine, the discomforts of, 980

Attendance, medical, on urgent cases, 872

Atthill, Dr. L., the College of Surgeons, Ireland, and Apothecaries' Hall, Dublin, Conjoint Board of, 41, 1358

Auditory meatus, external, epidermic masses plugging, 104

Auld, Dr. A. G., the pathology of aneurysms, with special reference to atheroma as a cause, 456, 669, 670; the pathology of fibroid degeneration of the heart, 669

Aural. *See* Ear

Auscultation and Percussion, Dr. S. Gee, *rev.*, 950

Aust-Lawrence, Dr. A. E., post-partum ovariotomy, 622; lithotomy on the female bladder, 623; puerperal septicæmia, 628; the treatment of retroversion of the gravid uterus, 630

Australia, medical clubs and friendly societies in, 85; the voyage to, 152; substitute for the Poor-law in, 855

Automatic writing, 1015, 1225, 1388, 1382

B.

Baber, Mr. C., aural snare, 1110

Bacilli, effect of electrical currents on, 215; of cholera, exhibition of at New York forbidden, 431; two in spirits, 1140

Bacillus, new anaërobic, of malignant œdema, 849

Bacteria, the recognition of, 1311

Bacteriology in India, 717; teaching of in England, 911

Bacterioscopy in clinical medicine, 262

Bagillt, enteric fever at, 1084

Bailey, Mr. R. J., Chemistry for All, *rev.*, 236
Bakehouses, the sanitary condition of, 99; West End, 259; of London, 1084
Baker, Surgeon-Captain G. H., vesico-vaginal lithotomy, 1212
——— Surgeon-Lieutenant-Colonel O., malaria on shipboard, 920
Baking powders and the Food and Drugs Act, 1408
Ballance, Mr. C. A., thrombosis of lateral sinus, 1274
Balneology, works on, 404
Bandage, improved plaster-of-paris, 951
Bangor, opening of provident dispensary at, 954
Bankrupt patients, 103
Banks, Dr. W. M., radical cure of hernia, 1041
Bantry, the drainage of, 478
Barber's shop, hygiene of the, 699
Barff, Mr. F. S., An Introduction to Scientific Chemistry, *rev.*, 584
Barford, Mr. J. G., death of, 1131
Barker, Mr. A. E., the prevention of prolapse after inguinal colotomy, 154
——— Mr. C., continued pyrexia without apparent cause, 234
——— Christopher, the plea of insanity in the case of, 193, 259, 279
——— Mr. W. J. T., two attacks of scarlatina in three months, 843
Barling, Mr. A. S., on taking the oath, 1452
Barlow, Dr. T., abdominal tuberculosis in children, 740; the treatment of enlarged cervical glands, 1144; heart disease in children, 1148
Barnes, Dr. E. G., the mode of election of Branch officers, 96
——— Dr. F., the conservative treatment of diseases of the uterine appendages, 620; lithotomy in the female bladder, 623
——— Dr. H., the pathology and distribution of atrophic paralyses, 728; concussion of the spine, 1097
——— Dr. R., on puerperal septicæmia, 623; corrosive sublimate in puerperal septicæmia, 967
Barr, Dr. J., a case of typhoid fever followed by perforation and recovery, 297
Barrême, outbreak of diarrhœa at, 918
Bartholomeusz, Dr. O., removal of foreign bodies from the ear, 1460
Barton, Mr. J. K., avoidance of shock, 491
Bateman, Dr. A. G., bogus M.D.'s, 1307
Bath, death in a, 697
Bathers' cramp, 765
Battams, Mr. J. S., pulsus paradoxus in acute laryngitis, 154
Battery, Bottini's new accumulator, 237
Baxter, Dr. P. C., death of, 1131
Bayliss, Mr. R. A., diphtheria, tracheotomy, recovery, followed by scarlatina, nephritis mastoiditis, complete recovery, 1322
Bazaar, a monster, 1231
Beadles, Mr. C. F., gall stones in the insane, 452; gall stones and cancer, 555; lymphadenomatous growths of heart, 1051
Beale, Dr. A. G., railway spine, 1460
——— Dr. L., medical etiquette, 1248
——— Mr. E. C., the abuse of medical charities, 281; the advantages and disadvantages of making mistakes, 798
Beard, Mr. F. C., death of, 447
Beauty, the gentle art of, 1397
Beck, Mr. M., proposed memorial to, 33
Beddingfield, Mrs., on the registration of midwives, 128
Bedford, Surgeon-Captain C. H., The History, Causation, and Prevention of Enteric Fever in India, *rev.*, 1000
Bed-rest, the "Core," 237
Beds (no), 1292
Beef, essence of, 1428
Beeftea, nutritiousness of, 1035
Beer, milk *v.*, 1119; stout and, 1170; in asylums for the insane, 1230; adulteration of, 1233; what is? 1415
Beevor, Dr. C. E., syphilitic tumours of spinal cord with symptoms simulating syringomyelia, 1102; syringomyelia, 1273
——— Sir H., obliteration of superior vena cava, 1273
Behrend, Mr. H., Cattle Tuberculosis and Tuberculous Meat, *rev.*, 1053
Behrendt, Dr. M. R. J., incubation period of measles, 1374
Beiträge zur Kentniss der Metastasenbildung maligner Tumoren, Dr. Max Müller, *rev.*, 378
Belfast, the students' union of, 594, 1256; correspondence from, 1178; new water supply for, 1179; entrances at the medical school of, 1229
Belgium, precautions against cholera in, 650
Bell, Mr. G. C., report on cases of poisoning at Forest Gate district school, 87
—— Dr. J., valedictory address to Edinburgh Medico-Chirurgical Society, 1053
—— Dr. R., the conservative treatment of diseases of the uterine appendages, 621; post-partum ovariotomy, 622; flexions of the uterus, 623; under- or over-dose of chloroform, 869; uterine curette, 1158
Belladonna, pilocarpin in poisoning by, 12; opium and conium poisoning by, 116
Benedicts, medical, 291
Bengal, medical relief in, 716; diabetes mellitus in, 906; charitable dispensaries in, 1254
Benjamin, Mr. J. K. K., prescribing chemists, 968
Benzole in influenza, 1425
Benzoyl-pseudo-tropeine as a local anæsthetic in ophthalmic surgery, 1105
Bequests, 45, 49, 73, 101, 148, 278, 768, 829, 926, 987, 990, 1109, 1187, 1188, 1211
Beresford House, opening of, 1361
Berger, Monograph on Dermatology, *rev.*, 67
Bergmann, Professor V., decoration of, 1008
Berkart, Dr. J. B., diphtheria and defective drainage, 1181, 1405
Berlin, correspondence from, 39, 761, 967, 1024; municipal hospitals and clinical instruction at, 39; cholera and typhoid fever in, 761; sick clubs and the lady doctor question in, *ib.*; the hospital for infectious diseases at, 904; new clinics in, 967; the cholera and the water supply of, 1024; reforms at the Charité, *ib.*; boycotting of a hospital at, *ib.*; industrial exhibition at, *ib.*
Bernheim, Professor, named Knight of Legion of Honour, 1183
Berry, Mr. G. A., Diseases of the Eye, *rev.*, 585; atrophy of the optic nerve as a symptom of chronic disease of the central nervous system, 783
——— Mr. J., bullet wound of heart, 1051; wound of the common carotid artery, *ib.*
Bevan, Mr. R., wasp sting with rash and constitutional disturbance, 352
Beverley, Dr. M., the mode of election of Branch officers, 96
Bibliographie der klinischen Helminthologie, Dr. J. Ch. Huber, *rev.*, 584
Bibliotheca Medica, issue of, 350
Bicycle record, the, 259
Bicycling, heart disease due to, 115
Bidwell, Mr. L. A., the surgical treatment of lupus, 938; focal epilepsy, 988; gastric jejunostomy, 994; rodent ulcer, 1272
Bilharzia, recurrent hæmaturia due to, 1325
Bilirubin, crystals of from hydatid cysts of the liver, 1051
Bill, Employers' Liability, in Parliament, 1122
—— the Home Rule, professional civil servants and, 193
—— Isolation Hospitals, remarks on, 696; passes Committee stage in House of Commons, 1342
—— the Merchant Shipping, 589
—— the Parish and District Councils, 1115; and Scottish medical officers, 1450
—— the Plumbers Registration, not to be further proceeded with, 337
Billiard ball impacted in the pharynx, 1051
Billings, Dr. J. S. Ventilation and Heat, *rev.*, 1108
Bimeconate of morphine, 555, 932
Binder, a new obstetric, 123
Binet, M. A., the chess memory, 86
Biniodide of mercury in chronic ringworm, 664
Biology, the origin of, and its relation to other branches of natural science, 613, 642; and ethics, 784
Birmingham, correspondence from, 279, 918, 1078, 1247; cessation of small-pox at, 279; the new infectious hospital at, 279, 288; the asylums of, 501; small-pox at, 918, 1247; Hospital Sunday at, 1078; the influenza epidemic at, 1247
Birth-rate and milk supply, apparent relation between, 1452
Births and deaths, 792
Bishop, Mr. E. S., radical cure of hernia, 1040; hydatids of omentum, 1107
Bishop Auckland, the water supply of, 658
Bishops, medical, 1066; two English, and English science, 1288
Bite from a horse on the pudenda, 612
Black, Dr. D. C., abuse of medical charities, 344
——— Mr. W. G., the treatment of enlarged cervical glands, 1144
Blacker, Dr. A. B., the action of electric light, 344; "sun" treatment, 451
Blackham, Mr. R. J., an Association of the Scotch Medical Schools and Graduates, 344; chloralose, 490
Blackman, Dr. J. G., ophthalmic signs, 875
Blackpool, bazaar in aid of new hospital at, 660, 873
Bladder, the pathology of cystic tumours connected with the, 218; urinary, rupture of the, 1107; hydatid cyst of the, 1274, 1416
——— douche, improved, 1331
Blanc, Monograph on Dermatology, *rev.*, 67
——— Dr. E., death of, 385
Blandy, Mr. H., the powers of the General Medical Council, 39
Bleeder, wanted a, 927
Blind, the, at the last census, 594
Blindness, statistics of in England and Wales, 804; in Russia, 1126
Blomfield Retreat, action against committee of, 30, 81
——— Mr. J. E., spleen feeding in lymphadenoma, 889
Blood, changes produced in by uric acid, 10, 672; method of determining coagulability of, 223; gases of the during anæsthesia, 683; The Chemistry of the, Dr. L. C. Wooldridge, *rev.*, 795
Blot on the Brain (The), Dr. W. W. Ireland, *rev.*, 1216
Blyth, Mr. A. W., Lectures on Sanitary Law, *rev.*, 583; the connection between sanitary conditions and diphtheria, 1187
Board, the Local Government, and the isolation of infectious diseases in London, 26; the annual report of the medical officer to, 487; report to on influenza, 488; and vaccine lymph, 498; the cholera order for Grimsby, 602
——— Local Government for Ireland, annual report of, 500
——— Metropolitan Asylums, fortnightly return of, 288, 401; and sites for fever hospitals, 384; instruction at the hospitals of, 533; the accommodation provided by, 800, 857; unfavourable report as to the hospitals of, 1232
Boards of Guardians and Nurses, Miss C. J. Wood, *rev.*, 1109
Bocquillon-Limousin, M. H., Formulaire des Médicaments Nouveaux et des Médications Nouvelles, *rev.*, 378
Body, custody of the, 1006
Bogus M.D.'s, 1307
Bokenham, Mr. T. J., the pathological effects of certain substances derived from the spleen in cases of scarlatina, 405; benzoyl-pseudo tropeine as a local anæsthetic in ophthalmic surgery, 1105
Bond, Mr. C. J., treatment of the pedicle in nephrectomy, 580
Bonesetters, 104; and assurance companies, 291
Bonnet, Herr R., Ergebnisse der Anatomie und Entwickelungsgeschichte, *rev.*, 999
Boon, Dr. E. G., southern health resorts, 1460
Boot warmer, a new, 428
Booth-Clarkson, Dr. J., practice in California, 215
Boston, special correspondence from, 1305, 1350; the City Hospital of, 1350; street accident service in, *ib.*; "modified milk" supply in, 1351; importation of small-pox in an English ship, *ib.*; the bacteriological diagnosis of diphtheria, *ib.*
Bott, Dr. H., on the registration of midwives, 72
Bottini's new accumulator battery for galvano-cauterisation and light, 237
Bourquelot, Dr. E., Les Fermentations, *rev.*, 186
Bouveret, M. L., Traité des Maladies de l'Estomac, *rev.*, 895
Bowen, Mr. T. A., obituary notice of, 400
——— Dr. C., a new disease of the West Indies, 850
Bowlby, Mr., disease of many joints, probably of syphilitic origin, 946
Boxall, Dr. R., the London and Counties Medical Protection Society, 207, 344; puerperal septicæmia, 627; the relation of external meteorological conditions to the incidence of febrile illness in childbed, 845; corrosive sublimate poisoning in septicæmia, 1180; dislocation of the heart into the left pleural cavity, 1274; Midwives Registration Association, 1406
Boyce, Professor R., aneurysm and atheroma, 670; atrophy of left ventricle, 676; the sensory motor functions of the central convolutions of the cortex cerebri, 686; changes following removal of one cerebral hemisphere, 688; the nature of vaccine immunity, 989; the seat of origin and paths of conduction of the fits in absinthe epilepsy, 1097
Boyd, Mr. S., on the proposed university for London, 82
Brackebusch filter, the, 1381
Braddon, Mr. W. L., Dochmia or Beri-beri, *rev.*, 895
Bradford, scarlatina at, 143
Bradley, Mr. W., death of, 660
Bradshaw, Surgeon-Lieutenant-Colonel, memorial to Surgeon-Major Parke, 823
Braidwood, Dr. D. G., presentation to, 501
——— Dr. P. M., the prevention of accidental poisoning, 1459
Brailey, Dr. W. A., failure of central vision, 1377
Brain, human, the neuroglia elements in, 227; hyperpyrexia in injury to, 234; the sensory motor functions of the central convolutions

of the cortex of, 685; anæsthesia due to lesions of the cortex of, 687; changes following removal of one hemisphere of, 688; diagrams of, 1001; tumour of the, 1277; treatment of tumours of the, 1365
Bramwell, Dr. B., thyroid feeding in skin affections, 474; the treatment of psoriasis by the internal administration of thyroid extract, 933, 938; Atlas of Clinical Medicine, *rev.*, 949; concussion of the spine, more especially in its relationship with railway accidents and injuries, 1089, 1097
Brand, Dr. T., A Pocket Casebook for Practitioners and Students, *rev.*, 122
Brandy, French, what it is, 719
Braye, Mr. J., women and sanitary work, 1026
Brazil, yellow fever in, 448, 486
——— Dr. W. H., torsion of the spermatic cord, 13
Bread cart and ambulance, 1412
Breast, Thomas's operation for benign tumours of, 1209
Brent, the pollution of the, 1361
Brewis, Dr., the conservative treatment of diseases of the uterine appendages, 621
Bright, Dr. J. M., the duties of coroners and doctors, 281
Bright's disease. *See* Disease
Briscoe, Mr. J. E., the fallacy of the vertical footpiece, 1212
Bristowe, Dr. H. C., a case of general paralysis of the insane at the time of puberty, 1099
——— Dr. J. S., presentation to, 801
British Guiana Medical Annual and Hospital Reports, *rev.*, 1054
Broadbent, Sir W. H., baronetcy conferred on, 81; presentation to, 750; British Medical Benevolent Fund, 1079; on dilatation of the stomach, 1122, 1193, 1268
Brodie, Mr. C. G., Dissections Illustrated, *rev.*, 895
——— Dr. T. G., a new method of studying the elasticity of muscle, 678; intravascular clotting, 682
Bromides, eruptions from, 1208
Bronchiectasis of both lungs, 996
Bronchitis kettles, 1158
Bronner, Dr. A., septic infection of the lateral sinus, 562; chronic suppuration of the middle ear, 567; 60 cases of disease of the mastoid process in which the antrum was opened, 569; pilocarpin in aural affections, 570; Eustachian synechiæ, 572; the abuse of hospitals, 1416
——— Dr. H., myxœdema, 845
Bronson, Monograph on Dermatology, *rev.*, 67
Brooke, Dr., on ringworm, 473; rodent ulcer, 938
Brookhouse, Dr. J. O., concussion of the spine, 1095
Brooks, Dr. St. J., regional subdivision of the abdomen, 680; the morphology of the peroneal group of muscles in the monotremata, 681
Brown, Dr. Sanger, illness of, 1449
——— Mr. W. H., traumatic cyst of the pancreas, 1106
Brown's South Africa, *rev.*, 897
Browne, Sir J. C., biology and ethics, 784
——— Dr. J. W., a case of foreign body in the mastoid cells, 572
——— Mr. L., new tonsil knife, 1110
Brown-Séquard, La Méthode de, Dr. C. H. Eloy, *rev.*, 1217; locomotor ataxy treated by the method of, 1425
Bruce, Surgeon-Captain D., on Malta fever, 59
——— Mr. J., some cholera cases at Grimsby, 1073
Brunswick, U.S.A., outbreak of yellow fever at, 944
Brunton, Dr. J., new tonsil knife, 898
——— Dr. T. L., study and progress in pharmacy, 799; certain forms of diarrhœa, 948
Buck, Dr., death of, 977
Buckingham Palace, the drainage of, 501
Builders and by-laws, 900
Bullet wound of heart, 1051
Burdett, Mr. H. C., layman or medical man, 216; The Uniform System of Accounts, Audit and Tenders for Hospitals and Institutions, *rev.*, 1216
Burges, Dr. R. E., amendment of the Births and Deaths Act, 152; practice in Spanish America, 291; practice in the Argentine Republic, 611
Burial, the right to, 44; of paupers, 141; liability of hospitals for, 291; alive, 482
Burmah, the opium traffic in, 1053
Burner, gas-boiling, 1382
Burnes, Dr. R. A. C., prosecution of a chemist (a correction), 772
Burns, Mr. J., labour's death roll, 1176
Burnup, Mr. J. M., chloralose, 490
Bush, Mr. P., radical cure of hernia, 1040
Buszard, Dr., stricture of pylorus, Loreta's operation, 65
Butter, cholera and, 663
Butlin, Mr. H. T., radical cure of hernia, 1040
Buxton, its Baths and Climate, Dr. S. Hyde, *rev.*, 1381
Buzzard, Dr. T., atrophy of the optic nerve as a symptom of chronic disease of the central nervous system, 779, 784; concussion of the spine, 1096
Byers, Dr. J. W., puerperal septicæmia, 628; heart disease in children, 1148

C.

Cade, Dr. H. L., Teneriffe, 875
Cæsarean section, case of, 8, 1216
Cagney, Dr. D., death of, 806
Cairo and Damietta, infant mortality in, 599, 636, 903, 1165
Calcanea, simultaneous and uncomplicated fracture of both, 993
Calcium salts in hæmophilia, 223
Calculi of the Bladder, Introduction to the Catalogue of the Collection of Sir H. Thompson, *rev.*, 846
California, practice in, 215
Calomel, the antipyretic action of, 954
Cameron, Sir C., on diphtheria, 412
——— Dr. M., the conservative treatment of diseases of the uterine appendages, 621
Campbell, Mr. C., general practitioners and the Sections at the annual meeting, 40
——— Dr. H., claustrophobia, 463
——— Dr. J. A., the alleged increase of insanity, 461, 462
——— Mr. J. M., poisoning by opium and belladonna, good effects of pilocarpin, 12
Campbell-Bannerman, Mr., reply to deputation as to medical officers' grievances, 550
Canals, foul London, 280, 1120
Canary Islands, health resorts of the, Dr. J. C. Taylor, *rev.*, 1156
Cancer, more cures for, 434; gall stones and, 490, 555, 605; and chronic irritation of the living tissues, 830; of cervix, 996; diffusion of, 1077; and inebriety, 1312; excision of the larynx, hyoid bone, and five rings of the trachea for, 1423; the question of the increase of, 1450
Cant, Mr. W. J., effect of correcting errors of refraction in epileptics, 733
Cantharidinate of potassium in phthisis, 706
Cape Colony, public health administration in, 1441
Carbolic acid as a germicide, 104; poisoning by, 1291, 1341, 1415, 1446, 1447
Carbonic acid in air, easy method of determining amount of, 338
Carbuncle, excision of, 1320
Carcinoma, the cell enclosures met with in, 837; of duodenum, 1272
Cardiac. *See* Heart
Cardiff, cholera panic at, 82
Carlsbad, A Medico-Practical Guide, Dr. E. Kleen, *rev.*, 18
Carriage, a new ambulance, 1382
Carslaw, Mr. C. J., Transactions of the Glasgow Pathological and Clinical Society, *rev.*, 1109
Carter, Mr. E. C., transposition of viscera, 180
——— Dr. G., acute axial rotation of a dermoid cyst, 1426
——— Dr. R. W., the administration of chloroform, 1321
Casebook (A Pocket) for Practitioners and Students, Dr. T. Brand, *rev.*, 122
Cash, Professor, some of the present aspects of therapeutics, 1293; The Physiological Action of the Nitrites of the Paraffin Series, *rev.*, 1128
Cashbook, improved medical practitioners', 1036
Castration in enlargement of the prostate, 575, 655, 708, 765, 823, 1099
Casualties at hospitals, 197
Catalepsy, a case of, 1213
Cataract, case presenting unusual appearances after extraction of, 947
Cathcart, Dr. C. W., Edinburgh Hospital Reports, *rev.*, 895
Catheter, lobster tail, 898; new self-retaining, *ib.*; a bangle-tipped, 1001
Caton, Dr. R., case of acromegaly treated by operation, 1421
Cats, and diphtheria, 1013; in London, 1017
Cattle, communicability of foot and mouth disease from to man, 115, 352; Tuberculosis and Tuberculous Meat, Mr. H. Behrend, *rev.*, 1053
Cattle, Dr. C. H., do parasites exist in cancerous tumours? 179; the cell enclosures met with in carcinoma, 837
Cautley, Dr. E., heart disease due to bicycling, 115
Cawston, Mr. A., A Comprehensive Scheme for Street Improvement in London, *rev.*, 949
Census returns of the medical profession, etc., 552
Centenarian, a, 213, 1153; a plus-quam, 930
Centenarians in Russia, 1256
Cerebellum, experimental investigations into the functions of the, 600
Cerebral and Cerebrum. *See* Brain
Cerna, Dr. D., the physiological actions of alcohol, 954
Certificate, a doctor's, 140; of death, an extraordinary, 1280
Certificates, of freedom from infection, 48; medical, of death, insurance companies, 215; medical and industrial insurance, 346; of death and alcoholism, 451; incapacity, 932; false medical, 1118; school for pauper children, 1255
Chambers, Mr. T., The Victorian Tourists' Railway Guide, *rev.*, 122
Champetier de Ribes's bag, a modification of, 1280
Chance, Mr. A., the operative treatment of enlarged prostate, 1427
Chapels, infectious diseases in, 925
Chapman, Dr. P. M., on the successful treatment of empyema, 178
Charcot, M., death of, 423; and hypnotism, 479, 792; obituary notice of, 495; Dr. Seguin on, 1014
Charities, medical, abuse of, 198, 281, 344, 397, 442, 480, 554, 605, 919; medical and the Mortmain Act, 1346
Chart block and case, improved clinical, 1280
Chemist, prosecution of a (a correction), 772
Chemistry for All, Messrs. W. J. Harrison and R. J. Bailey, *rev.*, 236; Scientific, An Introduction to, Mr. F. S. Barff, *rev.* 584
Chemists, prescribing, 868, 918, 961, 968, 980, 1027, 1127; doctors and, 930; prescribing and the practice of medicine, 1439
Cheque, a complimentary, 1259
Chess memory, the, 86
Chesterfield, Dr., the letters of to his son on medicine as a medical career, 760, 813
Cheyne, Mr. W. W., an exploratory laparotomy, 14; an instrument for delicate dissections, 123; skin grafting for lupus, 1274
Chicago, welcome to British medical guests in, 128; the water supply of, 142; special correspondence from, 1245, 1448; drugs at the exhibition at, 1363; influenza and the health of the World's Fair, 1448
Chicken, Mr. R. C., radical cure of hernia, 1040
Child, a costly, 654; rapidly growing sarcoma of both orbits in a, 947; alleged starvation of a, 967
Childbed, influence of external meteorological conditions on puerperal fever in, 844
Childe, Dr. C. P., rash caused by taking antipyrin, 941; two attacks of scarlatina in four months, 1050
Childhood, fæcal incontinence in, 215; abdominal tuberculosis in and its treatment, 734
Children, The Diseases of, Medical and Surgical, Dr. H. Ashby and Mr. G. A. Wright, *rev.*, 15; surgery of the air passages and thorax in, 105, 174, 231; who show deficiency and the education estimates, 337; young and the diet of, 416; stillborn, post-mortem examination of, 550; blind and deaf, elementary education of, 700; school, eyesight of, 867; feeble-minded, epileptic, and exceptional, 906; earache in, 1052; the insurance of, 1065; heart disease in, 1146; pauper, school certificates for, 1255; van. *ib.*; suggestions in the interest of the eyesight of, 1378; tuberculous, 1403; in quarantine, 1443, 1453
China, vaccination in, 931
Chipping Norton, meat poisoning case at, 33
Chiretta, fluid preparation of, 848
Chloralose, poisoning by, 233; effects of, 490
Chloride of calcium in pneumonia, 1374
Chloride of zinc, poisoning by, recovery, 578
Chlorodyne, the sale of, 77
Chloroform, deaths under, 33, 143, 151, 280, 384, 483, 592, 655, 804, 856, 910, 1119, 1170, 1264; dangers of artificial respiration in accidents from, 708, 868; "horror" and imperfect anæsthesia from, 814; under- or overdose of, 869, 1451; the administration of, 1321
Chlorosis, causation of, 65, 670; treatment of, 119; rest in, 753, 1453
Chocolate, reviviscent, 1382
Cholera, where it comes from and how it is propagated, 1; filtration of public water supplies in relation to, 24; and its prevention, 29; in the Tyne, 32, 33, 72; precautions against, 34, 72, 342, 395, 872; in France, 35, 72, 130, 437, 650, 653, 704, 756, 809, 860, 915, 1402; in Russia, 35, 72, 130, 437, 478, 602, 704, 756, 809, 860, 915, 956, 1008, 1073, 1286; a criticism of Koch's bacteriological diagnosis of, 39; lectures on, *ib.*; caused by a fly (?) 65; in Austria-Hungary, 72, 395, 437, 478, 602, 650, 704, 756, 809, 860, 915, 955

1008; in Algeria, 72; in Mecca and Jeddah, 72, 200, 222, 263, 489, 915; in Spain, 72, 130, 704, 756; 809, 860, 915, 956, 1008; quarantine restrictions on, 72, 493; and Indian water supplies, 104; the spread of, 129, 199, 252, 342, 395, 437, 478, 1123, 1177; in England, 130, 437, 478, 587, 600, 617 755, 809, 860, 915, 955, 1008, 1073; trained nurses for cases of, 130; and the importation of rags, 194, 386, 553, 705; in Turkey, 200, 809, 915, 956, 1008; in Mecca and quarantine in Egypt, 222; at Gravesend, 252; examination of discharges of, 255; the concealment and diffusion of, 258; at Mecca, and Ottoman administration, 263; the nurseries of and their suppression, 317; and panic in Egypt, 336; discussion at Newcastle, 364, *et seq.*; resolution as to precautions against passed at Newcastle, 370; the floods in Kashmir and Srinagar, a new focus of, 396; in Italy, 437, 478, 602, 650, 704, 756, 809, 860, 915, 956, 1008, 1073; in Holland, 437, 601, 650, 704, 756, 809, 860, 915, 956; in Roumania, 437, 478, 809, 1008; in New York, 437; in Germany, 478, 601, 650, 704, 756, 809, 860, 915, 956, 1008, 1073; in Malta, 478, 602, 860, 915; and cholera rumours, 553; on "immunity" against, 572; at Grimsby, 600, 648, 704, 792, 955, 1073; at Hull, 600, 648, 704; in Belgium, 602; in America, 602; the notification of, 604; the vibrios of, 640; sporadic outbreaks of in England, 647, 704, 755, at Rotherham, 648, 1052; at Leicester, 649; in London, 649, 704; early recognition of in London, 697; and the Sultan, 706; and ice creams, 756; the lay press on the treatment of, 771; causation and prevention of, *ib.*; at Santa Cruz, Teneriffe, 809; in Sweden, 860; in Persia, 860, 1073; Epidemic of in 1892 in the Russian Empire, Dr. F. Clemow, *rev.*, 894; and cholera nostras, 912; inoculation for, 925, 1067; in Tunis, 956, 1008; the Government and precautions against, 1068; a sporadic case of, 1164; specimens from cases of, 1216; the, abroad, 1242, 1338, 1448; Asiatica, its History, Pathology, and Modern Treatment, Dr. A. J. Wall, *rev.*, 1379; the diagnosis of, 1397; and the Bowers, 1398; and filth in India, 1457

Cholera bearing water, a sample of, 220

——— nostras, the bacteriology of, 630; in Ireland, 860; cholera and, 912

Christmas in hospitals, 1446

——— and New Year Publications, *rev.*, 1217

Chrysophanic ointment, a substitute for, 889

Church, Dr., death of Sir Andrew Clark, 1100, 1111

Churches, infectious diseases in, 925

Churchill, Dr. F., A Handbook of Obstetrical and Gynæcological Nursing, *rev.*, 796

Cinchona, cultivation of in India, 925

City, the proposed cholera hospital in the, 33, 142; the deep wells in the, 160

Clamp with uniform pressure for enterectomy, 1331

Clark, Sir A., illness of, 907, 963, 1012; obituary notice of, 1055; arrangements for the funeral of, 1066; the funeral of, 1111; portrait of, 1118; place of education of, 1135; the late, 1170; German opinion on, 1259; proposed memorial to, 1342; the will of, 1394

——— Dr. C., detached hospitals and asylums, 465; State aid for poor private insane patients, 466; insanity from the use of Indian hemp, 630

——— Dr. F. W., the duties and difficulties of port medical inspectors, 367

——— Mr. H. E., case of ovariotomy in a woman of 74, 581

Clarke, Dr. A. P., surgical treatment for chronic procidentia uteri, 900

——— Mr. J. J., psorospermosis and malignant disease, 762; phase of coccidium oviforme, 1051, 1182

——— Mr. R. H., the action of electric light, 344

——— Mr. T. K., ligature of the broad ligament, 64; presidential address to Leeds and West Riding Medico-Chirurgical Society, 948

Claustrophobia, 463

Clavicle, dislocation of the sternal end of, 67

Clay, Mr. C., obituary notice of, 712

——— Mr. J., presentation to, 1413

Cleaton, Mr. J. D., retirement of, 1395

Cleaver, Dr. W. J., ergotin in epistaxis, 1277

Cleland, Professor, the relations of incisors to compound teeth, 682

Clemow, Dr. F., The Cholera Epidemic of 1892 in the Russian Empire, *rev.*, 894

Clergy, the and legislation for inebriates, 1173, 1361; patent medicines, quacks and the, 1406

Climo, Brigade-Surgeon-Lieutenant-Colonel, the floods in Kashmir and Srinagar, a new focus of endemic cholera, 396

Clotting, intravascular, 682, 927

Clouston, Dr. T. S., The Neuroses of Development, *rev.*, 120; the mental effects of myxœdema and the effect on them of the thyroid treatment, 463; detached hospitals in connection with asylums, 464; State aid to poor private insane patients, 466

Club patients and confinement fees, 1363

——— tariffs, 1311, 1415

Club, Edinburgh University, Manchester, dinner of, 866

Clutton, Mr. H. H., malformation of the lower lip, 891; chronic inflammation of tibia, 1051; encysted hydrocele of the broad ligament, 1153; arthrectomy of elbow- and ankle-joints, 1223

Coagulation, intravascular and pulmonary thrombosis, 165, 682

——— tubes, 875

Coats, Dr. J., the pathology of aneurysms, with special reference to atheroma as a cause, 456

Cobra poison in mother's milk, 1229

Coca champagne, sugar free, 1219

Cocaine, the manufacture of, 1312

——— jelly (compound), 1220

Coccidium oviforme, phase of, 1051, 1182

Cochin China, Pasteurism in, 1267

Cockey, Mr. E., presentation to, 1136

Coffee, the adulteration of, 141

Coffin, a private, 141

Coldrey, Mr. R., death of, 820

Coleman, Dr., night terrors, 1052

——— Mr. A., prescribing chemists, 969

Coley, Dr., the pathology and distribution of atrophic paralyses, 727; heart disease in children, 1146

College, Anderson's, Glasgow, instruction at, 530

——— Firth, Sheffield, the school of medicine of, 527; renovation of buildings of, 655; opening address at, 785, 811

——— Grant Medical, Bombay, foundation of Reay lectureship at, 716; female students at, 1157

——— King's, London, the medical faculty of, 523; fees at, 532; changes in staff of, 543; annual dinner, 807; entrance scholarships at, 916

——— Marischal, Aberdeen, extension of, 923

——— Mason, Birmingham, the medical faculty of, 526; fees at, 532; instruction in dentistry at, 548; opening of session at, 918

——— Medical, for Women, Edinburgh, instruction at, 529

——— of Medicine, University of Durham, appointments and scholarships at, 527; fees at, 532

——— Owens, Manchester, the medical department of, 527; fees at, 532; instruction in dentistry at, 549; opening of session, etc., at, 811; entries at, 866, 918, 1026; new buildings at, 918; new chemical laboratories at, 1078; annual dinner of students of, 1247

——— Queen Margaret, Glasgow, instruction at, 529; and the University of Glasgow, 1025

——— Queen's, Belfast, instruction at, 530; the chair of midwifery at, 851; the Dunville chair of physiology at, 908; the chair of anatomy at, *ib.*; new professors at, 1066; opening of winter session at, 1072

——— Queen's, Cork, instruction at, 530; entries, etc., at, 908

——— Queen's Galway, instruction at, 531

——— Royal Medical Benevolent, Epsom, founders' day at, 431

——— Royal, of Physicians of Edinburgh, regulations as to diplomas, 518

——— Royal, of Physicians in Ireland, regulations as to licences, etc., 521; annual meeting and list of officers, 975

——— Royal, of Physicians of London, the diplomas of, 103; comitia of, 190, 254, 956, 1291; extra-metropolitan examiners at, 253; pass lists, 346, 1030; regulations as to diplomas, 515; the presidency of, 1119, 1230; election of president, 1294

——— Royal, of Surgeons of Edinburgh, pass lists, 377, 1083; regulations as to diplomas, 518; regulations for licence in dental surgery, 547

——— Royal, of Surgeons of England, exhibition of Hunterian relics at, 74; exhibition of additions to museum of, 75; the jubilee of the Fellowship of, 76; council election, 77; meeting of Council of, 128, 253, 1134; pass lists, 158, 447, 923, 1134, 1185, 1411; and the court of examiners, 130; regulations as to diplomas, 515; regulations for licence in dental surgery, 547; the calendar of, 746; and dentists, 814; the committee of management of, 923; annual report of, 1018; annual meeting of, *ib.*; arrangements for Fellowship examination, 1134

——— Royal, of Surgeons in Ireland, election of examiners, 15; the financial condition of 337; regulations as to examinations of, 521; regulations for licence in dentistry, 548; presentation of prizes at, 1083; lecture arrangements, 1083; pass lists, 1411, 1456

College, Royal, of Surgeons in Ireland and Apothecaries' Hall Dublin, the conjoint board of, the examinations of, 41, 1358; regulations as to examinations of, 520; pass list, 1308

——— Rush Medical, new laboratory at, 1449

——— St. Mungo's Glasgow, instruction at, 530

——— University, Bristol, the medical department of, 526; fees at, 532; distribution of prizes at, 961; annual dinner of, 977

——— University, Dundee, instruction at, 530; opening of session at, 862

——— University, Liverpool, the medical faculty of, 527; fees at, 532; instruction in dentistry at, 549; arrangements for the winter session at, 762

——— University, London, the medical faculty of, 525; fees at, 532; opening address at, 791; annual dinner, 809; the pathological department of, 857

——— University, of South Wales and Monmouthshire the medical department of, 527, 552; opening of session at, 913; report of council of, 914

——— Yorkshire, Leeds, the medical department of, 527; fees at, 532; opening of session, etc., at, 812; the new buildings of, 1230

Colleges, Royal of Physicians of London and Surgeons of England, Conjoint Board of, pass lists, 101, 158, 347, 375, 923, 974; regulations as to medical and surgical diplomas, 514; institutions from which certificates are accepted by, 535; regulations as to diplomas in public health at, 540; books for D.P.H. examination of, 719

——— Royal of Physicians and Surgeons of Edinburgh and Faculty of Physicians and Surgeons, Glasgow Conjoint Examining Board of, pass lists, 283, 377, 1083; regulations as to examinations of, 517; regulations as to diplomas in public health at, 541; the D.P.H. examination of, 1087

——— Royal of Physicians and Surgeons in Ireland, Conjoint Board of, pass lists, 447; regulations as to examinations of, 520; regulations as to diploma in public health at, 542

——— University, parliamentary grants to, 1062

Collingwood, Mr. F. W., the title of "Dr.," 876

Collins, Mr. E. T., epithelial pearl tumour in the iris following implantation of eyelash in the anterior chamber, 118; some unusual forms of intraocular neoplasms, 1377

——— Mr. H. B., the prevention of diphtheria, 715

Colman, Dr. W. S., distribution of tubercle in tuberculosis, 740

Colon, congenital (?) dilatation and hypertrophy of, 230, 351; transverse, ptosis of, 1329

Colonial medical services, regulations for admission to, 546

Colorado, the climate of, 103

Colotomy, inguinal, prevention of prolapse of the intestine after, 65, 154, 208, 281

Colour blindness, is it a product of civilisation? 195; in the mercantile marine, 594

——— vision, examination for in the mercantile marine, 755

Colquhoun, Dr., heart disease in children, 1148

Coma, diabetic, its etiology and suggestions as to treatment, 666

Comby, Dr. J., Traité des Maladies de l'Enfance, *rev.*, 15

Commission, Indian Hemp Drugs, proposed method of inquiry of, 593

——— on Leprosy, the report of, 136

——— Royal, on Opium, members of, 481, 554; meeting of, 590; proceedings of, 637, 690; plan of operation of, 925, 1012; meeting of in India, 1172, 1176, 1233, 1290, 1342, 1394; and another, 1443

——— Royal on Tuberculosis, delay in publishing the report of, 1232

——— Royal on Vaccination, meeting of, 259, 1342; effects of the delay of the report of, 384, 814

——— Royal on the Water Supply of the Metropolis, report of, 702, 1342

——— on University Education in London, decides against second university, 30; the report of, 1065, 1232

Committee, Select, on the Certification of Deaths, the report of, 431, 553, 596, 639, 693; the evidence taken before, 885

——— Select, on the Registration of Midwives, proceedings of, 71, 127; report of, 191, 383, 435

"Compactum," midwifery case, the, 1429
Company, Clerical, Medical, and General Assurance, annual meeting of, 1257
Compensation to workmen in injurious trades, 1122
Concussion, double amaurosis following, 843
Congress, Balneological, date and place of meeting of, 1341
——— of the French Association for the Advancement of Science, meeting of, 653
——— the Eighth International of Hygiene and Demography, arrangements for, 553; the Seventh, the winding up of, 1068; formation of tropical section at, 1136
——— International Medical at Rome, England at, 163; arragements for, 290; postponement of, 386; date, etc., of, 1169; additional section at, 1188; papers at and fares to, 1256, 1443
——— International Medico-Legal, meeting of at Chicago, 661, 1136
——— International Pharmaceutical, the meeting of at Chicago, 637
——— International Temperance, date and place of meeting of, etc., 382
——— of Mental Diseases, subjects of discussion at, 604
——— Pan-American at Washington, regulations, means of access, etc., 595; meeting of, 701; address of Dr. Pepper at, 806; the scientific work of and papers read at, 849, 899, 954, 1071; echoes of the, etc., 1240
——— of quacks, 1233
——— South African Medical, circular letter, *re*, 1073
——— Surgical, at Rome, 1136
Constant, Mr. T. E., the medical and dental professions, 969, 1452
Consultant and general practitioner, 1238, 1306
Consulting room, warming, a, 1191
Consumptives, indigent, help for, 1352
Contagion and infection, 1311; at funerals, 1361
Contractor, the, again, 383
Contre coup, 1379
Convention, International Sanitary, the signature of, 195
Cooking by gas, 1241, 1437
——— bench, charcoal stove, 351
Cooper, Sir A., and his surgical work, 1313
——— Mr. P. R., a few facts concerning psorospermoses, 834
Copaiba capsules, 1220
Corbett, Dr., presentation to, 717
Cord, spermatic, torsion of the, 13; strangulation of the testicle due to axial rotation of, 1102; spinal syphilitic tumours of simulating syringomyelia, 1102
Cordwent, Dr. G., when may syphylitics marry? 944; diphtheria and defective drainage, 1181
Cork, the sanitary state of, 697, 801; hospital Saturday at, 873
Cornea, conical, optical treatment of, 933
Corner, Dr. M., obituary notice of, 1411
Coroners and medical evidence, 208; and doctors, the duties of, 281; increase in salaries of, 977
Corpora quadrigemina, disease of the, 1102
Corrie, Fleet-Surgeon A. T., ascaris lumbricoides causing marked constitutional disturbance, 146
Corrosive sublimate solution, blue, the preparation of for disinfection, 18; in puerperal septicæmia, 932, 967, 1028, 1180; in obstetric practice, 1129
Corset, Domen belt, 1158
Cortex. *See* Brain
Cosmetics, poisonous, 480, 553
Cottages, rural air space in, 289
Cotter, Dr., old ununited fracture of the patella treated by wire suture, 120
Cough, Mr. H., diagnosis of scarlet fever and influenza, 1108
Couldrey, Mr. J., chloride of calcium in pneumonia, 1374
County Council of London, the asylums of, 500; and candidates for appointments, 926
——— Councils, extension of sanitary powers to, 123, 187, 207, 246, 400; and technical instruction, 599
"Coup de Corday," the, 195
Courtesies, international, 27
Cousins, Dr. J. Ward, new ophthalmic tabloids and tabloid holder, 729; new dial for testing colour vision, 730; radical cure of hernia, 1039; the treatment of intestinal obstruction, 1371
"Covering" unqualified medical practitioners 1120, 1132
Cow-pox and small-pox, 1270
Cox, Mr. F. A., obituary notice of, 286
Cramp, bathers', 765
Crawford, Surgeon-Captain D. G., cholera and Indian water supplies, 104
Crawford, Rev. J. H., patent medicines, quacks, and the clergy, 1406
Creameries and enteric fever, 698
Creed, Dr., medical clubs and friendly societies in Australia, 85
Cremation, the Law of, Mr. A. Richardson, *rev.*, 185; at the Church Congress, 853, 859; of Lady R. Northcote, 1085; and drainage, 1167; the progress of, 1290; and earth-to-earth burial, 1445
Crespi, Mr. A. J. G., the St. John Ambulance Association and its doctors, 970
Cretinism, sporadic, 1273; treated by thyroid extract, *ib.*
Crocker, Dr. H. R., on ringworm, 472; Diseases of the Skin, *rev.*, 583; the etiology and treatment of psoriasis, 935; eruptions from bromides and iodides, 1208
Cross, Mr. F. R., epithelial pearl tumour in the iris following implantation of eyelash in the anterior chamber, 118
Crothers, Dr. T. D., The Disease of Inebriety, *rev.*, 17; The Relation of Life Insurance to Inebriety, *rev.*, 1278
Crowner's quest law, 805
Croydon, evening opening of Ophthalmic Hospital, 1088
Cuba, glanders in, 926
Cuboid bone, dislocation of the, 1153
Cuffe, Surgeon-Colonel, the notification of measles, 413
Cullingworth, Dr. C. J., on pelvic peritonitis in the female, and the pathological importance of the Fallopian tubes in connection therewith, 353; the conservative treatment of diseases of the uterine appendages, 621; puerperal septicæmia, 627, 1249; pelvic abscess, 981
Cummins, Dr. W. E. A., the treatment of enlarged cervical glands, 1143
Cunningham, Dr. D. J., Manual of Practical Anatomy, *rev.*, 1427
Curette, uterine, 1158
Curettes, uterine, 1331
Curetting and plastic operations on the cervix, vagina, and perineum, 181
Curnow, Dr. J., diphtheria and defective drainage, 1355
Currents. *See* Electric
Currier, Dr. C. G., Outlines of Practical Hygiene, *rev.*, 1279
Custody of the body, 1006
Cynanche, contagious, 154
Cyst, pedunculated hydatid, simulating a pedunculated broad ligament cyst, 13; traumatic of the pancreas, 1106; hydatid of bladder, 1274; parovarian, acute axial rotation of, 1277; dermoid, acute axial rotation of, 1426
Cystitis, urinary organs from a case of, with surgical kidneys, 1329
Cystotomy, suprapubic, 1277

D.

Dabbs, Dr. G. H. R., incontinence of urine, 351
Da Gama, Mr. A., Clinical Lectures on Certain Diseases of the Eye, *rev.*, 1109
Dainty Dishes for the Sick and Convalescent, *rev.*, 18
Dalby, Sir W. B., Dr. Chesterfield's letters to his son on medicine as a career, 813; Diseases and Injuries of the Ear, *rev.*, 845
Damietta and Cairo, infant mortality in, 509, 636, 903, 1165
Dandruff, removal of, 822
Dannatt, Miss A., How to Become a Hospital Nurse, 1329
Datura poisoning, hyperpyrexia in, 139
Davey, Dr. N. F., noturnal incontinence of urine, 1087
Davies, Dr. A. T., thyroid feeding in skin affections, 474; thyroid feeding in myxœdema and skin disease, 1275
——— Dr. D. L., fracture of both bones of forearm by indirect violence, 944
——— Dr. S., the causes of the increase of diphtheria in urban districts, 410, 412; district medical officers as medical officers of health, 415; the diet of infants and young children, 416; a warning, 771; insanity in Egypt, 920, 1027; diphtheria and defective drainage, 1127
Davis, Mr. J. R. A., An Elementary Textbook of Biology, *rev.*, 1108
Dead, disposal of the, 853, 859; robbing the, 1460
Deaf and dumb, the, at the last census, 594
Death of, Mr. J. Potts, 48; Mr. W. W. Spencer, *ib.*; Mr. R. C. Heslop, *ib.*; Mr. J. Paxton, 160; Mr. H. Hicks, 174; Dr. E. P. Thwing, 213; Mr. J. Whitaker, 286; Dr. E. Blanc, 385; Dr. J. Young, 400; a lunatic of the Cork District Asylum, 402; M. Charcot, 433; Rev. G. Henry, 447; Dr. A. Wattie, *ib.*; Mr. F. C. Beard, *ib.*; M. Vignal, 485; Dr. G. Hewitt, 552; Mr. W. Bradley, 660; Dr. S. H. Hobley, *ib.*; Mr. G. St. G. Fyner, *ib.*; Dr. A. R. Mackinnon, 660; in a bath, 697; under ether, 697, 1444; Dr. J. F. Hartland, 713; Mr. G. C. Rigden, *ib.*; Dr. D. Russell, *ib.*; Dr. E. C. H. Van Buren, *ib.*; Dr. C. R. Prance, *ib.*; Mr. J. Molony, *ib.*; Mr. T. Hawksley, 768; Dr. D. Cagney, 806; Mr. C. W. Heaton, 820; Mr. R. Coldrey, *ib.*; Mr. H. Ashdown, 911; Mr. W. F. Lucas, *ib.*; Dr. W. S. Irvine, 923; Mr. W. Williams, 976; Dr. L. Le Fort, *ib.*; Dr. Buck, 977; Mr. G. Fitzhenry, *ib.*; Mr. S. H. Webb, 1012; Mr. C. Jenner, 1033; Dr. P. C. Baxter, 1131; Mr. J. G. Barford, *ib.*; Mr. J. Elmes, 1158; Mr. Bailey Denton, 1169; Dr. C. W. MacDowell, 1186; Mr. G. F. Knipe, 1256; Mr. J. Whitehouse, *ib.*; Mr. J. Heywood, *ib.*; Professor Tyndall, 1292; Dr. T. G. Wollaston, 1309; Dr. E. Minich, *ib.*; Dr. F. W. Greene, 1411; Mr. G. Atkinson, *ib.*; Dr. S. Guttmann, 1442; Dr. C. W. Earle, 1448
Death certification, 639, 693, 706, 763, 814; dangerous facilities for, 1232
——— rates, the correction of, 1032
——— roll of labour, 1176
Deaths under chloroform, 33, 143, 151, 280, 384, 483, 592, 655, 804, 856, 910, 1119, 1170, 1254; in the profession abroad, 49, 77, 161, 364, 449, 501, 600, 660, 717, 820, 923, 977, 1029, 1131, 1186, 1256, 1411; from alcoholism, 196; and births, 292; from drowning, 719, 875; of infants from suffocation, 1390; in prison, 1398
Defamation of professional character, 345
Degrees, American dental, 261
De la Brosse, Guy, reparation to, 1294
De Lacerda, Dr. J. B., the cause of yellow fever, 850
De la Harpe, Dr. E., Louèche-les-Bains, *rev.*, 896
Delépine, Dr. S., on the value of experimental tuberculosis in diagnosis, 665; atrophy of left ventricle, 676; a few facts concerning psorospermosis or gregarinosis, 834; disinfection of tuberculously-infected houses, 990
Delorme, M. E., Traité de Chirurgie de Guerre, *rev.*, 582
Delve, Pharmaceutical Society *v.*, 1081
Dentist, action against a, 346
Dentists and the College of Surgeons, 814
Dentistry, radical and conservative, 1414
Denton, Mr. Bailey, death of, 1169
Derby, trade interests and sanitary needs at, 646
Dermatology, Selected Monographs on Unna, Nielsen, Duhring, Bronson, Blanc, Berger, Prince Morrow, *rev.*, 67; the growth of, 455; compulsory instruction in, 467
Dermoid, tooth-containing, from the face, 1375
Derry Hill, diphtheria at, 401
Desquamation after scarlet fever, 1139
De Valcourt, Dr., Mecca and the cholera, 490
Devonport, the sewage bath at, 1172
Diabetes Mellitus auf Grundlage zahlreicher Beobachtungen dargestellt, Dr. J. Seegen, *rev.*, 185; in Bengal, 906
Diabetics, foods for, 1220
Diachylon, poisoning by, 9
Diagnosis, Physical, Lessons in, Dr. A. Loomis, *rev.*, 236; value of experimental tuberculosis in, 665
Diagnostik der Bakterien des Wassers, Professor A. Lustig, *rev.*, 69; der Harnkrankheiten, Dr. C. Posner, *rev.*, 1379
Diagrams of the Mouth, Fauces, and Larynx, *rev.*, 18, 103
Dial, new, for testing colour vision, 730, 797
Diaries and Pocketbooks, *rev.*, 1219, 1380
Diarrhœa, summer, in Manchester, 212; epidemic, 263; summer in Preston, 349; mortality from in English seaports, 602; the outbreak of at Greenwich, 909, 1012, 1134, 1172, 1230, 1388; outbreak of at Barrême, 918; certain forms of, 948; salol in, 1278
Dickinson, Dr. W. L., crystals of bilirubin from hydatid cysts of the liver, 1051
Diet in schools, 81; of infants and young children, 416
Dietary in public asylums, 861
Dill, Dr. R. F., obituary notice of, 286
Diphtheria at Derry Hill, 401; and specific throat infections, 409; the causes of the increase of in urban districts, 410; the prevention of, 715; increase of in London, 751; in large English towns, 855, 1022; at Usk, 953; sublimed sulphur as a local application in, 992; cats and, 1013; how to spread, 1032; the epidemic of in London, 1118, 1172; and defective drainage, 1126, 1181, 1187, 1191, 1247, 1354, 1404; epidemic of at Halstead, 1135; tracheotomy for, recovery, followed by scarlatina, nephritis, complete recovery, 1322; of stomach, 1375
Diplegia, peripheral facial, 1206
Dipsomaniac, home for a, 351

Disclaimer, a, 404, 1415
Discs, ophthalmic, a hint, 612
Disease, causal relations in, 297
——— Bright's, chronic form of, 849
——— foot and mouth, communicability of from cattle to man, 115, 352
——— infectious, half timers and, 1395
——— Graves's, pathological appearances in 3 fatal cases of, 676; some less well known factors in, 892; the sympathetic in, 970
——— Menière's, cured by salicylate of sodium, 579
Diseases, Infectious, Popular Information concerning, Mr. H. Sworder, *rev.*, 70; Nervous and Mental, A Treatise on, Dr. L. C. Gray, *rev.*, 184; of the Urinary Apparatus, Dr. J. S. W. Gouley, *rev.*, 847; of the Lungs and Pleuræ including Consumption, Dr. R. D. Powell, *rev.*, 893; infectious, treatment of by vaccines, 985; puerperal, a further contribution to the clinical knowledge of, 1104; of the Male Organs of Generation, Mr. W. H. Jacobson, *rev.*, 1155; contagious, and the food supply, 1390
Disinfectants and Antiseptics, How to Use Them, Mr. E. T. Wilson, *rev.*, 186
Disinfecting purposes, preparation of blue sublimate solution for, 18
Disinfection of tuberculous houses, 990
Dispensaries, provident and otherwise, 1173, 1406
Dispensary doctors, the Irish, holidays for, 31, 552, 854; substitutes for, 259, 908; deputation to Mr. Morley on grievances of, 1021; and compulsory education in Ireland, 1120; and the "red ticket," 1395
Dissecting as a gentle art, 911
Dissections, delicate, an instrument for, 123; Illustrated, Mr. C. G. Brodie, *rev.*, 895
Dixon, Dr. C. J. W., presentation to, 1188
Dobson, Surgeon-Major E., Indian helminthology, 807
Dochmia or Beri-beri, Mr. W. L. Braddon, *rev.*, 895
Doctorless community, a, 555, 720
Doctors, and coroners, the duties of, 281; and chemists, 930; remuneration of, 1229
——— Irish Dispensary. *See* Dispensary
Dodd, Mr. H. W., 100 consecutive cases of epilepsy, their refraction and treatment by glasses, 946
D'Odiardi, Mr. E. S., Medical Electricity, *rev.*, 585
Dogs in London, 1017
Doidge, Mr. M. J., scarlet fever recurring in a short time, 1322
Donaldson, Dr. E., foreign body in the nose, 1459
——— Dr. T. C., concealed accidental hæmorrhage, 1270
Donations, 49, 160, 313, 358, 987, 1188, 1256, 1310, 1327, 1390, 1434
Donnelly, Dr. J., dinner to, 49
Donovan, Dr. W., army medical staff examinations, 605
Doran, Mr. A., cases of tuberculous disease of the uterine appendages and peritoneum, 887
Douglas, Dr. C., wasp sting with rash and constitutional disturbance, 352
——— Dr. C. E., presentation to, 873
——— Dr. J. G. D., obituary notice of, 1029
Dowson, Dr. W., the local lesion of scarlet fever, 1153
"Dr.," the title of, 208, 663, 719, 823, 876, 931, 967, 1087
Drainage, cremation and, 1167; defective, and diphtheria, 1181, 1187, 1191, 1217, 1354, 1404
Drain pipes, juggling with, 1255
Drains in the region of the unknown, 1065
Drake-Brockman, Brigade-Surgeon-Lieutenant-Colonel E. F., double proptosis, 728; reflex amblyopia during pregnancy, 732; the effect of correcting errors of refraction in epileptics, 733
——— Surgeon-Captain H. E., a case of ectopia vesicæ treated by Trendelenburg's operation, 890
Dredger, uterine, a new form of, 848, 1001
Drennan, Dr. J. S., obituary notice of, 1185
Dreschfeld, Dr. J., a case of polioencephalomyelitis without any anatomical lesions, 176; acromegaly, 1107; an electioneering card, 1253
Dresden, the parliamentary papers as to the convention at, 699
Drink or adulteration, 1455
Dropsy, Epidemic, Dr. K. McLeod, *rev.*, 1053
Drought, the, and urban water supplies, 78, 652; the, and throat diseases, 140; of 1893, the, 1135
Drowning, deaths from, 719, 875
Drugs, made from hemp, 382; spurious, 1085; absorption of through the skin, 1191
Drummond, Dr. D., causal relations in disease, 297; demonstrations at the Royal Infirmary Newcastle, 426
Drysdale, Dr. C. R., the pathology and distribution of atrophic paralyses, 728; over-refinement in diagnosis in glycosuria, 777
Dublin, the sanitation of, 30, 83; epidemic hospital in, 259; typhoid fever in, 432, 1308, 1396; the water supply of, 590, 643, 697, 750, 854, 1013; the slaughterhouses of, 590, 607; the sanitary state of, 1291; the health of, 1457
Duckworth, Sir D., chronic glycosuria in middle and advanced life, 773, 779
Dührssen, Dr. A., Gynäkologisches Vade Mecum für Studirendende und Aerzte, *rev.*, 796
Duhring, Monograph on Dermatology, *rev.*, 67
Duke, Dr. A., uterine dredger, 1001
Dunn, Mr. P., the relative healthiness of London and the country, 1445
Dunstan, Professor W. R., The Physiological Action of the Nitrites of the Paraffin Series, *rev.*, 1428
Duodenum, perforating ulcer of, 1272; carcinoma of, *ib.*
Dupuytren's contraction, operation for, 1274
Durham, Dr. A. E., obituary notice of, 447
Dust destructors, 85
Dutt, Mr. A. C., fracture of both bones of the forearm by indirect violence, 889
Dutton, Dr. T., treatment of sea sickness, 504
Dwellings, insanitary, duties of medical officers of health as to, 607; dilapidated, county magistrates and, 953
Dysentery, sulphate of magnesia in, 818; severe, iron in, 1050

E.

Eales, Mr. H., episcleritis, 996
Eames, Mr. C. F., minute cardiac pathology, 1276
——— Surgeon W., epidermic masses plugging the external auditory meatus, 104
——— Inspector-General W. J., dislocation of the sternal end of the clavicle, 67
Ear, middle, treatment of chronic suppuration of by excision of the auditory ossicles, 563; pilocarpin in affections of, 570; implication of by disease of the nose and naso-pharynx, 571; The Practitioner's Handbook of Diseases of, Dr. H. Macnaughton-Jones, *rev.*, 583; Diseases and Injuries of the, Sir W. Dalby, *rev.*, 845; removal of foreign bodies from the, 1460
Earache in children, 1052
Earle, Dr. C. W., death of, 1448
Eastes, Mr. G., on diphtheria, 412
Eastwood, Dr. J. W., the alleged increase of insanity, 461; psychology and mental diseases, 463
Ebers papyrus, notes on the, 477
Eccles, Dr. A. S., thyroid feeding in skin affections, 474; massage in diseases of the skin, 475
Ectopia vesicæ treated by Trendelenburg's operation, 890
Ectropion, congenital, of the uvea, 731
Eczema, chronic scaly, 930; tuberculous, 939, 940; treatment of, 1259
Eddison, Dr. J. E., concussion of the spine, 1097
Eddowes, Dr. A., on ringworm, 469; the etiology and treatment of psoriasis, 937; tuberculous eczema, 939, 940
Edinburgh, appointment of assistant meat inspector at, 212; Hospital Reports, Dr. G. A. Gibson, C. W. Cathcart, J. Thomson, and D. Berry Hart, *rev.*, 895; the medical schools of, 962; the MacEwan hall at, 1233; special correspondence from, 1403
Edington, Dr. A., appointed principal medical officer of Cape Colony, 1310
Edis, Dr. A. W., treatment of pruritus ani, 822; humanised milk, *ib.*; obituary notice of, 1358
Edmunds, Mr. W., exision of malignant tumour from large intestine, 892
Education, estimates and children who show deficiency, 337; medical, cost of, a, 506, 537; medical, and medical practice, 789
——— Department, the, and defective sight, 803
Edwards, Mr. F. S., a new bladder douche, 1331
Egypt, quarantine in and cholera at Mecca, 222; the "Wakfs" administration in, 289; cholera and panic in, 336; the index of the liability of to cholera, 382; statistical report of the sanitary department of, 498; insanity in, 920, 969, 1027, 1452; ancient, the climatology of, 1122; ministerial "crisis" in, 1170; local government in, 1230; vacant sanitary appointments in, 1257; sanitation in, 1435
Ehrlich's test for enteric fever urine in, 1363
Election, an Irish, 1120
Electric currents of high frequency, physiological effects of, 164; effects of on bacilli, 215; employment of for medical purposes, 1163, 1358
——— light, a group of symptoms caused by, 234; the action of, 344
Electrical treatment, a novel mode of, 194
Electricity, Medical, Mr. E. S. D'Odiardi, *rev.*, 585
Electrolysis, obliteration of enlarged vessels on the face by, 1274
Ellis, Mr. H., The Nationalisation of Health, *rev.*, 377
——— Mr. R., chronic suppuration of the middle ear, 567; pilocarpin in aural affections, 571
——— Mr. W. McD., a modification of Champetier de Ribes's bag, 1280
Elmes, Mr. J., death of, 1158
Eloy, Dr. C. H., La Méthode de Brown-Séquard, *rev.*, 1217
Elsner, Dr. F., Die Praxis der Chemikers, *rev.*, 185
El Tor, breakdown of quarantine regulations at, 756, 797
Embryology, Vertebrate, Dr. A. M. Marshall, *rev.*, 235
Emerson, Mr., unusual sequelæ of typhoid fever, 1426
Emin Pasha, reported death of, 610
Emmerson, Dr. J., on the registration of midwives, 71
Empyema, the successful treatment of, 178; pleural, opening at umbilicus, 180; as a sequel to influenza, 1099; simple treatment of, 1139; in a man with complete and permanent collapse of lung, 1325
Enemata, rectal, 664
Enterostomy without plates, 477
Epidemiology, history of in England, 1276
Epilepsy, focal, a case of, 225, 988; 100 consecutive cases of, 946; absinthe, the seat of origin and paths of conduction of the fits in, 1097; trephining in in doubtful cases, 1149
Epileptics, home for, 103; effect of correcting errors of refraction in, 732; colony for, 1363, 1394
Epiphyses, injuries to and their results, 53, 1417
Episcleritis, case of, 996
Epistaxis, ergotin in, 1277
Erect posture, influence of on the development of the human body and especially the brain, 617
Ergebnisse der Anatomie und Entwickelungsgeschichte, Herren F. Merkel und R. Bonnet, *rev.*, 999
Ergotin in epistaxis, 1277
Eruptions from bromides and iodides, 1208
Erysipelas, hereditary tendency to, 771; increase of, 1084
Erythema induratum of the scrofulous, 940
Esset's fluid, 848
Essex, annual report to the county council of, 159
Ether, death under, 697, 1444
Ethics, and biology, 784; medical and medical remuneration, 1345
Ethyl chloride spray, 1429
Etiquette, medical, Mr. Ernest Hart on, 883, 1071, 1130; medical, the decadence of, 1235; medical, 1248
Eustace, Dr. M., "horror" and imperfect chloroform anæsthesia, 814
Evans, Dr. R. E., neurasthenia treated by hypodermic injections of nerve extract, 1321
Everitt, Lieutenant-Colonel H., homes for unmarried women, 451
Evictions from insanitary houses, 647
Ewald, Dr. C. A., Klinik der Verdauungskrankheiten, *rev.*, 633; the Magenkrankheiten of, 655, 762, 1028, 1080
Examination system, the present, 1160, 1449
Exostoses, multiple pedunculated, 11
Eye, Diseases of the, Mr. G. A. Berry, *rev.*, 585; autochromatic plates in photography of the, 947; Clinical Lectures on Certain Diseases of the, Mr. A. Da Gama, *rev.* 1109
Eyeball rupture of and impaction of foreign body in the, 1213
Eyelash, implantation of in the anterior chamber, epithelial pearl tumour in the iris following, 118
Eyes, extreme hyperæmia of both, with corneal abscess in right eye occurring as a sequela of small-pox, 1105
Eyesight of school children, 867; of children, suggestions in the interest of, 1378

F.

Faculty of Physicians and Surgeons of Glasgow, regulations as to diplomas, 519; regulations for licence in dentistry, 548; the presidentship of, 1025
Face, tooth containing dermoid from the, 1375

Fæces, incontinence of in childhood, 215
Fair Isle, medical assistance in, 555, 720
Faith as a therapeutic agent, 386
Fannin and Co., Messrs., uterine curettes, 1331
Fast, a prolonged, 753
Favell, Mr. R., the prevention of puerperal septicæmia, 996; presentation to, 1067, 1126; acute axial rotation of a parovarian cyst, 1277
Fayrer, Sir J., on intravascular coagulation and pulmonary thrombosis, 165, 682; on the Indian opium question, 1195
——— Surgeon-Captain J., aneurysm of right common carotid artery, 580
Fee for post-mortem examination, 1007
Fees to medical witnesses, 43, 98, 280, 817, 1007, 1014, 1453; under the Infectious Disease (Notification) Act, 44, 100, 160, 558, 817, 925, 962, 1360; consultants', 209, 1357; for death certificates to insurance companies, 215; for medical attendance on native chiefs, 755, 768; midwifery, 817; special surgery in Poor-law cases, 872, 1032; for pauper lunacy certificates, 1135; confinement and club patients, 1363; for police attendances, 1408; for notification in public schools, 1413; and midwifery engagements, 1454
Felce, Dr. S., the Society for the Relief of the Widows and Orphans of Medical Men, 1415
Felixstowe, an infectious hospital for, 48
Femur, sarcoma of, 996
Fenn, Dr. E., large congenital meningocele, 1211
Fenwick, Mr. E. H., hydatid cyst of the bladder, 1274, 1416
——— Dr. W. S., the pathological effects of certain substances derived from the spleen in cases of scarlatina, 405; diphtheria of the stomach, 1375
Ferguson, Dr. J., an electioneering card, 1253
Fermentations (Les), Dr. E. Bourquelot, *rev.*, 186
Ferments, digestive, 797
Ferrier, Dr. D., the pathology and distribution of atrophic paralysis, 721; atrophy of the optic nerve as a symptom of chronic disease of the central nervous system, 784
Fever, water filtration and, 386; influence of on hepatic glycogen, 682; the future of in London, 1121; the isolation of in London, 1397
——— enteric, followed by perforation and recovery, 62, 207, 491; at Worthing, 140, 259, 262, 284, 433, 962; waterborne, 289, 1187; in Johnstone, 49; in Dublin, 432, 1308, 1396; at Stockport, 434, 837; in Ryedale, 448; creameries and, 698; at Greasborough, 812; the diagnosis and treatment of, 845; at Grimsby and Hull, 863; in India, the History, Causation, and Prevention of, Surgeon-Captain C. H. Bedford, *rev.*, 1090; and water supplies, 1021, 1032; at Bagillt, 1084; in Mid-Lanarkshire, 1134; gangrene occurring during an attack of, 1192; Ehrlich's test for the urine in, 1363; in the Royal Family, *ib.*; an epidemic of from polluted water, 1373; the discharge of patients suffering from, 1413; unusual sequelæ of, 1426
——— Malta, the bacteriology of, 59; its behaviour at Malta, 61; complications of, 62
——— puerperal in the Garw Valley, 607; influence of external meteorological conditions on in childbed, 814
——— scarlet, at Bradford, 143; concurrent with measles, 291; the pathological effect of certain substances derived from the spleen in, 405; at Harrow school, 433; in public schools, 484; in a man aged 79, 578; influence of isolation hospitals on the spread of, 644; two attacks of in three months, 843, 1050; at Christ's Hospital, 960; desquamation after, 1139; the local lesion of, 1153; relapse on the seventeenth day in, 1322; recurring in a short time, *ib.*
——— Texas, Investigation into Causation of, Dr. T. Smith and Mr. F. L. Kilborne, *rev.*, 584
——— typhus in New York, 246; at Lille, 1362
——— yellow, outbreak of at Santos, 194; in Brazil, 448, 486; the cause of, 850; outbreak of in Brunswick, U.S.A., 914
French, Dr. D. P., cholera nostras in Ireland, 860
Fibrosis, disseminated, of kidney, 1214
Fiebertheorien (Die Modernen). Dr. A. Rabe, *rev.*, 950
Field, Mr. F. A., acromegaly and hypertrophic pulmonary osteoarthropathy, 14
Figure Culture, The Art of, Miss A. Leffler-Arnim, *rev.*, 1157
Filaria sanguinis hominis, 1256
File (The Insurance), *rev.*, 1156
Filter, clean, what is a? 754; the Brackebusch, 1381
Filtration of public water supplies in relation to cholera, 24
Fingers, the money value of, 1442
Finland, leprosy in, 594
Finlay, Dr. W. A., ruptured kidney, 119
Finlayson, Dr. J., was John Hunter a student of the University of Glasgow? 73
Fisher, Dr., the late, 560
Fistula, urinary, treatment of, 1277
Fitzhenry, Mr. G., death of, 977
Fleabites, to prevent, 1035
Fletcher, Russell, and Co., Messrs., warming a consulting room, 1191
Flies and the diffusion of pathogenic bacteria, 1236
Florence, the sanitary state of, 1246
Flour, whole wheat, 123
Flushing water in London, 99
Fly, cholera caused by a (?) 65
Flynn, Mr. E. F., poisoning by essence of pennyroyal, 1270
Fœtus, anencephalous, symmetrical talipes dorsalis in a, 1419
Fogs, in the British Isles, 404
Fonctionnement de la Maison d'Accouchements Baudelocque, Dr. G. Lepage, *rev.*, 18
Food, unsound, bringing into court, 100; doctored, 434; unsound, the condemnation of, 642; books on the inspection of, 659; nutritious farinaceous for infants and invalids, 1220; adulteration of made easy, 1289; the supply of and contagious diseases, 1360
——— poisons, 264
Foods for diabetics, 1220
Foot and mouth disease. *See* Disease.
Footpiece vertical, fallacy of the, 1048, 1212
Foott, Surgeon, G. H., varicocele as a disqualification for the navy, 1364
Forbes, Dr. C., malaria on shipboard, 1152
Forbes-Ross, Dr. F. W., prescribing chemists, 1129
Forceps, Dr. M. Cameron's, 1110
Forearm, fracture of both bones of by indirect violence, 889, 944
Foresters' Courts and their medical officers, 611
Forest Gate, poisoning at district school at, 87, 485
Forfar, proposed hospital extension in, 714, 926, 1187
Formulaire des Médicaments Nouveaux et des Médications Nouvelles, M. H. Bocquillon Limousin, *rev.*, 378
Foster, Professor M., A Textbook of Physiology, *rev.*, 1000
Foulerton, Mr. A. G. R., the London and Counties Medical Protection Society, 207, 344
Founders' shares, medical men and, 383; and puffing, 1066; paid-up, liability for, 1031
Fowler, Dr. T., the spread of infectious disease by tramps, 413; district medical officers as medical officers of health, 414, 415; the diet of infants and young children, 416
——— Dr. T. C., the treatment of chronic ringworm of the scalp, 467, 473; excision of lupus, 939; treatment of lupus by scraping, 940; erythema induratum of the scrofulous, *ib.*
France, the medical curriculum in, 246; new pharmacy law in, *ib.*; honours to medical men in, 654; State contributions to scientific education in, 660; new law as to medical relief in, 706; the medical profession in, 716; foreign pharmacists in, 811; medical men and the sale of drugs in, *ib.*; army surgeons and private practice in, *ib.*; notification of infectious disease in, 966; the new medical law in, 1012, 1236; doctors of medicine in, 1187
Francis, Surgeon-General C. R., cholera caused by a fly (?) 65
Franco-English, 611
Frankland, Dr. P. F., a sample of cholera-bearing water, 250; the Brackebusch filter, 1381
Fraser, Mr. R. C., fatal case of snake bite in South Wales, 114
Frazer, Dr. F. F., sublimed sulphur as a local application in diphtheria, 992
Frederick, Mr. H. J., a disclaimer, 404
Freeland, Mr. E. H., a group of symptoms caused by the electric light, 234; hyperpyrexia due to sun's rays, 579
Freeman, Surgeon-Captain E. C., a case of hydrophobia, 945
Freer, Surgeon-Major E. L., the St. John Ambulance Association and its doctors, 1452
Frere, Mr. A. H., general practitioners and the Sections at the annual meeting, 152
Friedreich's ataxy, 1053
Fund, a new medical, 772, 875
——— British Medical Benevolent, appeal for funds for, 1079; the secretaryship of, 1191
——— Countess of Dufferin's, annual meeting of United Kingdom branch of, 160
Fund, Denholm testimonial, subscriptions to, 52, 190, 501; disposal of, 1088
——— the Fisher, subscriptions to, 823, 1363
——— Hospital Saturday, amount of, 194, 1413
——— Hospital Sunday, amount of, 30, 194, 1050
——— the Soden, subscriptions to, 1035
Funerals, contagion at, 1361

G.

Gabriel, Dr. W., notification of infectious diseases by unqualified persons, 319
Gairdner, Dr. W. T., glycosuria for thirty years, 776; appointed member of General Medical Council, 1169
Gall stone, intestinal obstruction from, 1426
Gall stones in the insane, 452; and cancer, 490, 555, 605
Gallop rhythm in cardiac disease, 1155
Galloway, Dr. W., obituary notice of, 1185
Galton, Sir D., co-operation among sanitary authorities, 83
Galvanised iron water pipes, 215, 219
Game, high, food poison and, 1343
Gangrene occurring during an attack of typhoid, 1192
Garland, Dr. A. L., hypertrophic elongation of the cervix as a cause of obstructed labour, 560
Garratt, Miss L., on the registration of midwives, 127
Garrigues, Dr. H. J., symphysiotomy, 900
Garw valley, puerperal fever in the, 607
Gas, cooking and heating by, 1241, 1437
——— stoves, 720
Gas-boiling burner, 1382
Gases of the blood during anæsthesia, 683
Gastroenterostomy, notes on cases of, with specimens, 1148
Gastrojejunostomy, pregnancy after, 943; case of, 994
Gray, Mr. J., Menière's disease cured by salicylate of sodium, 579
Gee, Dr. S., Auscultation and Percussion, *rev.*, 950
Germany, current opinions on psychological questions in, 462; teaching of hygiene in, 643; precautions against cholera in, 650; psychological medicine in, 857; medical students in, 927; medical legislators in, 928; medical students in, 1225; small-pox in, 1255
Germs by post, 216
Gestation, tubal, embryological studies of, 684
Giantess, acromegaly in a, 849
Gibson, Dr. G. A., atrophy of left ventricle in consequence of stenosis of coronary artery, 676; pathological appearances in 3 cases of Graves's disease, *ib.*; Edinburgh Hospital Reports, *rev.*, 895
Giles, Dr. A. E., etiology of the sickness of pregnancy, 183
Girls at puberty, treatment of ophthalmia in, 1036
Glanders, in Cuba, 926; in man and its prevention, 1011; fine for exposing horse suffering from, 1084; case of, 1276
Glands, enlarged cervical, treatment of, 1141; scrofulous, operative treatment of, 1260
Glascott, Dr. C. E., presentation to, 1402
Glasgow, vaccination and small-pox in, 819; correspondence from, 1025, 1306; opening of medical schools of, 1025; proposed registration of ice-cream vendors in, 1032; prosecution under the Pharmacy Act in, 1082; the hospitals of, 1444; doctors' shops in, 1446
Glaucoma, simple, in a young patient, 733
Glycerine of pepsin, 1087
Glycogen, hepatic, influence of fever on, 682
Glycosuria, chronic, in middle and advanced life, 773
Glynn, Mr. T. R., excessive mental excitement and some of its consequences, 865
Godfrey, Mr. A. E., acute rheumatism, hyperpyrexia, death, 993
Godlee, Mr. R. J., the position of the patient during excision of tumours of the rectum, 64; radical cure of hernia, 1040; the treatment of enlarged cervical glands, 1143
Godson, Dr. C., corrosive sublimate in obstetric practice, 1129
Godstone, the rural sanitary authority of and the Surrey County Council, 486
Goître, exophthalmic, thyroid feeding in, 1211
Goldsmith, Surgeon-Major S. J., on a method of rendering milk diet digestible by a weak stomach, 12
Goodall, Dr. E., transient motor and sensory disturbances following trephining in general paralysis of the insane, 117; trephining followed by drainage of the subarachnoid space in general paralysis of the insane, 462
Gordon, Miss G., the Royal British Nurses' Association, 150

Gordon, Dr. W., atrophy of the optic nerve as a symptom of chronic disease of the central nervous system, 784; concussion of the spine, 1097
Gorham, Mr. J., Tooth Extraction, *rev.*, 796
Gouge, angular, applicability of to the surgery of the skull, 1050
Gouley, Dr. J. W. S., Diseases of the Urinary Apparatus, *rev.*, 847
Government, the, and cholera precautions, 1068
Gowers, Dr., presentation of Marshall Hall prize to, 946
Graham, Dr. G., obituary notice of, 211
Grant, Dr. D., nitrous oxide anæsthesia for the removal of tonsils and adenoids, 443
——— Dr. O., on diphtheria, 412
——— Dr. R., presentation to, 660
Granules, effervescent, 329
Grattan, Dr. N., osteoclasis, 120
Graves's disease. *See* Disease
Gray, Mr. E., chronic scaly eczema, 930
——— Dr. L. C., A Treatise on Nervous and Mental Diseases, *rev.*, 184
Greasborough, enteric fever at, 812
Greene, Dr. F. W., death of, 1411
——— Pasha, the quality of Nile water, 96
Greenfield, Dr. W. S., diseases of the thyroid gland, 1261
Greenwich, the outbreak of diarrhœa at, 909, 1012, 1134, 1172, 1230, 1388
Greenwood, Dr. M., covenants (not to practise) with medical aid associations, 43; a doctorless community, 555; the notification of cholera, 604
——— Dr. T. P., puerperal septicæmia, 1356
Gregarinosis, a few facts on, 834
Grenfell, Dr., supposed death of, 1033
Griffith, Mr. F. Ll., some notes on the Ebers papyrus, 477
——— Dr. G. de G., medical missionaries, 1026
Griffiths, Dr. J., congenital (?) dilatation and hypertrophy of the colon, 230; castration in enlargement of the prostate, 765; symmetrical talipes dorsalis in an anencephalous fœtus, 1419
Grimsby, cholera at, 600, 648, 704, 792; the Local Government Board order for, 602; enteric fever at, 863; some cholera cases at, 955; the expenditure on cholera prevention at, 1453
Grip and splint, automatic, 899
Grocer, prosecution of a for selling poisons, 643
Gross, Dr., the memorial to, 683
Groves, Dr., on diphtheria, 412; the spread of infectious disease by tramps, 413
Grundriss der speciellen Pathologie und Therapie, Dr. J. Schwalbe, *rev.*, 17
Guardia, Dr. H., the clinical study of the disease known as "la buba," 850
Guardian, a foolish, 1118; and medical officer, 1187
Gubb, Dr. A. S., Le Placenta dans la Grossesse Extrautérine et sa Croissance après la Mort du Fœtus, *rev.*, 897; prescribing chemists, 1128
Guicciardi, absorption of drugs through the skin, 1191
Guillemard, Dr. B. L., Aliwal North as a health resort, 1347
Gull, Sir W., the grave of, 1259
Gunning prizes, award of, 31, 382
Gunshot wounds, works on, 1363
Gynæcology and Obstetrics, Selected Papers in, Guttmann, Dr. S., death of, 1442
Dr. D. B. Hart, *rev.*, 950
Gynäkologisches Vade Mecum für Studirende und Aerzte, Dr. Dührssen, *rev.*, 796

H.

Haddon, Dr. J., work and worry, 1459
Hæmatemesis, severe, recovery, 579
Hæmatoma after aneurysm, 1273
Hæmatozoa, malarial, in Mauritius, 771
Hæmaturia, recurrent, due to bilharzia, 1325
Hæmophilia, calcium salts in, 233
Hæmorrhage from postnasal growths, 180; concealed accidental, 1270; severe, intravenous injections of saline fluid in, 1326
Haffkine's method, 925, 1067, 1254
Haig, Dr. A., the causation of anæmia and the blood changes produced by uric acid, 10, 672; lithiasis in debility from leucorrhœa and other causes, 490
Haines, Surgeon-Captain H. A., iron in dysentery, 1050
Hair, the human, works on, 404
——— dressing antiseptic, 930
Half-timers and infectious disease, 1395
Hall, Dr. F. de H., the sympathetic in Graves's disease, 970
Halliburton, Dr. W. D., a new method of studying the elasticity of muscle, 678; intravascular clotting, 682; the sensory motor functions of the central convolutions of the cortex cerebri, 686; The Essentials of Chemical Physiology, etc., *rev.*, 846
Halstead, epidemic of diphtheria at, 1135
Hamburg, the birth rate of, 617; establishment of hygienic institute at, 717; the water supply of, 761; the sanitation of, 860
Hamilton, Mr. B., treatment of sea sickness, 452
——— Professor D. J., on humoral pathology, 1121
——— Surgeon-Colonel J. B., the new military hospital at Rome. 126
——— Dr. J. R., the mode of election of Branch officers. 96
Hammersmith, the vestry of and its medical officer, 288
Handbook, a Medical, Mr. R. S. Aitchison, *rev.*, 235; of the Life Saving Society, *rev.*, 378; of Obstetric and Gynæcological Nursing, Drs. F. Churchill and T. M. Madden, *rev.*, 796; of Local Therapeutics, Dr. H. Allen, *rev.*, 1156
Handfield-Jones, Dr. M., puerperal septicæmia, 1356
Handford, Dr. H., foreign body in the nose for 21 years, 117; the pathology and treatment of atrophic paralyses, 727; glycosuria and diabetes, diet, 778; the gallop rhythm in cardiac diseases, 1155; recurrent venous thrombosis, 1324; endemic hæmaturia caused by bilharzia, 1325; diphtheria and defective drainage, 1354 (1415)
Handkerchiefs, antiseptic, 951
Hands, the money value of, 1442
Hardie, Dr. D., Notes on Some of the More Common Diseases in Queensland, *rev.*, 1278
Harding, Mr. W., Mental Nursing, *rev*, 122
Hardman, Dr. W., polio-encephalomyelitis, 452; proprietary mixtures, 708; reflex amblyopia, 824; parametritis, abscesses tracking to nates, 945; unconstricted thermometers, 1364
Hardwicke, Dr. W. W., gas stoves, 720
Hardy, Mr. H. N., abuse of medical charities, 344, 443; death certification, 763; a case of cardiac failure successfully treated by inhalations of oxygen, 843
Hare-lip and cleft palate, Mr. Annandale on, 1196
Harford-Battersby, Dr. C. F., "medical missionaries," 707
Harland, Miss, the profession of motherhood, 752
Harley, Dr. V., diabetic coma, its etiology and suggestions as to treatment, 666
Harness, Mr., and the newspaper press, 957: the prosecution of, 1183, 1253, 1308, 1359, 1407
Harness's belts, etc., 135, 191, 1006, 1011, 1063, 1081, 1131
Harnsäurediathese (Die), Dr. F. Levison, *rev.*, 897
Harries, Dr. A. J., castration in enlargement of the prostate, 823
Harris, Dr. G. W., The Practical Guide to Algiers, *rev.*, 1381
——— Dr. T., india-rubber stamps for making clinical diagrams, 1159
Harrison, Dr. A. J., the biniodide treatment of chronic ringworm, 664
——— Dr J., presentation to, 49
——— Mr. R., castration in enlargement of the prostate, 704
——— Mr. W. J., Chemistry for All, *rev.*, 236
Harrisson, Mr. D., radical cure of hernia, 1039; treatment of cerebral tumours, 1368
Harrogate, Practical Observations on the Mineral Waters of, Drs. A. S. and J. A. Myrtle, *rev.*, 122; The Mineral Waters of, Dr. J. Liddell, *rev.*, 1001
Harrow, scarlet fever at, 433
Hart, Dr. D. B., Edinburgh Hospital Reports, *rev.*, 895; Selected Papers in Gynæcology and Obstetrics, *rev.*, 950
——— Mr. Ernest, cholera, where it comes from and how it is propagated, 1; medical notes from America, 22; presentation of gold medal to, 30; extension of sanitary powers to county councils, 123, 187, 207, 246; English impressions of the medical profession in America, 146; cholera nurseries and their suppression, 317; the birthplace and diffusion of cholera, 370; the medical profession, the public, and medical etiquette, 883, 1071; quarantine, its merits, mischiefs, and mistakes, 956; on his visit to America, 1016; the proposed amendment of the penal clauses of the Medical Acts, 1221; the sale of poisons, 1283; amendments to Medical Act, 1858, 1285; compulsory notification in England and Wales in 1892, 1332, 1383, 1430
Hartland, Dr. J. F., death of, 713
Hartley, Dr. A. C., thyroid gland feeding in certain skin affections, 763
Hartridge, Mr, congenital ectropion of the uvea, 731; effect of correcting errors of refraction in epileptics, 732
Haslam, Mr. W. F., some points in the surgical treatment of ulcer of the stomach, 1044; treatment of intestinal obstruction, 1372
Hat, an improved, 19
Hatschek, Dr. B., The Amphioxus and its Development, *rev.*, 896
Haughton, Dr., Riviera health resorts, 1416
Hawksley, Mr. T., death of, 768
Haycraft, Professor J. B., opening address to University College of South Wales. 913
Hayem, M. G., Leçons de Thérapeutique, *rev.*, 1279
Hayes, Surgeon-Major A., the army medical school at Netley, 867
Head, Dr. H., atrophy of the optic nerve as a symptom of chronic disease of the central nervous system, 784
Headache, sick, 965
Healers, spiritual and physical, 1260
Healey, Surgeon-Captain C. W. R., accidental syphilitic inoculation from a blow on the nose, 1425
Health, a Homely Talk on, Miss F. Stacpoole, *rev.*, 1279
——— resorts of the British Isles, 51: and sickness returns, 195, 349; the dangers of, 257; southern, 1311, 1415, 1460
Heart, disease of due to bicycling, 115; the pathology of fibroid degeneration of the, 669; rest in disease of, 753; traumatic rupture of consequent on fracture of the sternum, 843; failure of treated by inhalations of oxygen, 843; bullet wound of, 1051; lymphadenomatous growths of, 1051; disease of in children, 1146; the gallop rhythm in disease of the, 1155; dislocation of into the left pleural cavity, 1274
Heat, the excessive, 432
Heating by gas, 1241, 1347
Heath's Practical Anatomy, Mr. W. Anderson, *rev.*, 794
Heaton, Mr. C. W., death of, 820
Hebb, Dr. R. G., The Westminster Hospital Reports, *rev.*, 1001
Hedley, Brigade-Surgeon W. S., the employment of electric lighting currents for medical purposes, 1358
Helme, Mr. G. E., fatal case of pyridine poisoning, 844
Helmholtz, Professor v., accident to, 927, 967
Helminthology, Indian, 807
Hemp, drugs made from, 382; Indian, insanity from the abuse of, 630, 710, 813, 868, 920, 969, 1027, 1452
Henoch, Professor, the resignation of, 49, 1135
Henry, Dr. A., the late, 32; obituary notice of, 47
——— Rev. G., death of, 447
Hensman, Mr. A., obituary notice of, 1130
Herman, Dr. G. E., puerperal septicæmia, 1249
Hermite system, the electrical purification of sewage by, 1436
Hern, Dr. J, effect of correcting errors of refraction in epileptics, 732; the effect of repeated tappings on hydrocephalus, 1046
Hernia, radical cure of, 1037; in young infants, causation and treatment of, 1145; in infants, 1260; of ovary, 1272; ventral, 1328
Herpes zoster, a case of, 992
Herringham, Dr. W. P., bathers' cramp, 765
Herz, Dr. C., the health of, 30, 916, 1231; the case of, 858, 864, 1069, 1125
Heslop, Mr. R. C., death of, 48
Hewetson, Mr. H. Bendelack, on the teaching of otology, 314
Hewitt, Dr. W. M. G., death of, 552; obituary notice of, 585
Heywood, Mr. J., death of, 1256
Hicks, Mr. A. B., on the registration of midwives, 71, 127
——— Mr. H., death of, 174
——— Dr. J. B., a further contribution to the clinical knowledge of puerperal diseases, 1104; our knowledge of puerperal diseases, 1307
Highgate, visits to the museum of sanitary appliances at, 402
Hill, Dr. Alex, The Physiologist's Notebook, *rev.*, 795
—— Dr. Alfred, on diphtheria, 412
—— Dr. A. B., the disposal of the dead, 859
—— Dr. E. T., extension of sanitary powers to county councils, 207
—— Dr. J. E., diphtheria and specific throat affections, 409, 412; the notification of measles, 413
—— Dr. W., treatment of chronic suppuration of the middle ear, 566; surgical treatment of mastoid disease, 569; pilocarpin in aural affections, 570
Hillis, Mr. J. D., the lepe: question in the colonies, 281

Hip-joint, treatment of angular deformities at the, 1198
Histology, Practical, Outlines of, Dr. W. Stirling, *rev.*, 17
Hoare, Dr. R. R., presentation to, 101
Hobley, Dr. S. H., death of, 660
Hodgson, Mr. J., presentation to, 1286
Holidays, Catholic, 1136
Holland, precautions against cholera in, 650
Hollis, Dr. W. A., disseminated fibrosis of the kidney and malignant endocarditis and aortitis, 1214
Holman, Dr. C., provision for sickness and old age, 867
Holmes, Dr., alleged increase of insanity, 461
——— Sherlock, the method of, 1442
Homburg Spa, Dr. A. Schetelig, *rev.*, 1330
Home Secretary on Alabone *v.* Morton, 199
Homes, consumptive, for Scotland, 1306
Honeybourne, Dr., cholera, 1216
Hong Kong, the A.M.S. mess at, 493
Hood, Dr. D. W. C., on typhoid fever, 845; the danger of treating hyperpyrexia of rheumatic origin by the salicylates, 1129; case of glanders, 1276
Hooper, Dr. H., dispensaries, 1406
Horder, Mr. T. G., the mode of election of Branch officers, 40; the Sections at the annual meeting, 216; prescribing chemists, 918
Horn, Dr. L., Uber den Ausgang der cyanotischen Induration der Niere in Granularatrophie, *rev.*, 122
Horne, Mr. A. J., history of medicine in Ireland, 1328
Horrocks, Dr. P., intravenous injection of saline solution in cases of severe hæmorrhage, 1326
——— Mr. W. H., jun., excision of intestine, 1426
"Horror" and imperfect chloroform anæsthesia, 814
Horse, the doctor's, 83
Horsley, Professor V., surgical treatment of mastoid disease, 568; the pathology of the thyroid gland, 676, 678; the memorial to the late Professor John Marshall, 762; cause of death from bullet wounds in the cerebral hemisphere. 1078; treatment of cerebral tumours, 1365, 1369; the Cameron lecture, 1403
Hospital, a floating, 414; infectious, medical charge of, 819
——— for Accidents, Poplar, opening of new wing of, 580
——— Addenbrooke's, Cambridge, improvements at, 1135
——— Charing Cross, presentation of prizes and annual report of medical school of, 78; the medical school of, 522; fees at, 532; entrance scholarships at, 820; annual dinner of, 977
——— for Children, East London, instruction at, 533
——— for Children, North-Eastern, instruction at, 533
——— for Children, Ulster, dinner of staff of, 1179
——— Christ's, scarlet fever in, 960; the sanitary state of, 1015, 1065, 1171
——— City of Dublin, instruction at, 531
——— for Consumption, Brompton, changes in staff of, 49; instruction at, 533
——— Coombe, Dublin, scandal at, 1174, 1256, 1290; the mastership of, 1394
——— Dental, Devon and Exeter, instruction at, 549
——— Dental, Edinburgh, instruction at, 549
——— Dental, London, conversazione and distribution of prizes at, 213; instruction at, 548
——— Dental, National, instruction at, 548
——— Devon and Exeter, instruction at, 534
——— for Diseases of the Chest, City of London, instruction at, 533
——— Eye and Ear, Bradford, instruction at, 534
——— Eye, Ear, and Throat, Cork, appeal for funds for, 289; subscriptions to funds of, 1135
——— Fever, London, appeal for funds for, 926
——— Forfar. *See* Forfar
——— Great Northern Central, instruction at, 532
——— Guy's, opening of new laboratories and dental school and distribution of prizes at, 190; the medical school of, 523; fees at, 532; instruction in dentistry at, 548; opening of Pupils' Physical Society at, 798; entrance scholarships at, 820; anthrax at, 1068, 1082; The Reports of, Dr. W. H. White and Mr. W. H. A. Jacobson, *rev.* 115
Hospital, Infectious, Edinburgh, proposed extension of, 143
——— Jervis Street, Dublin, instruction at, 531
——— Jessop, Sheffield, instruction at, 534
——— Kent and Canterbury, instruction at, 535
——— Lincoln County, instruction at, 535
——— Liverpool Northern, instruction at, 534
——— London, the medical school of, 524; fees at, 532; entrance scholarships at, 862, 927
——— London Temperance instruction at, 532
——— Lourcine-Pascal, the service of M. Pozzi at, 180
——— Lying-in, Queen Charlotte's, instruction at, 533
——— Mater Misericordiæ, Dublin, instruction at, 531
——— Meath, Dublin, opening of session at, 862
——— Middlesex, the medical school of, 524; fees at, 532; opening address at, 788; reopening of, 872
——— National for the Paralysed and Epileptic, annual dinner of, 49
——— Newcastle Infectious Diseases, instruction at, 534
——— Norfolk and Norwich, instruction at, 535
——— Nottingham, General, instruction at, 535
——— Rotherham, the children's ward at, 279
——— Rotunda, Dublin, instruction at, 531; the grant to, 961
——— Royal Albert, Devonport, instruction at, 535
——— Royal, Belfast, opening of winter session at, 1072
——— Royal Bethlem, instruction at, 533
——— Royal Ear, Frith Street, instruction at, 533
——— Royal, Edinburgh for Sick Children, changes in staff off, 320
——— Royal Eye, Manchester, instruction at, 534
——— Royal Free, appeal for funds for, 867; Christmas entertainment at, 1113
——— Royal for Incurables, annual meeting of, 1252
——— Royal London Ophthalmic, instruction at, 533
——— Royal Portsmouth, instruction at, 535
——— Royal Orthopædic, instruction at, 533
——— Royal for Sick Children, Glasgow, instruction at, 535
——— Royal South Hants, instruction at, 535
——— Royal Southern, Liverpool, instruction at, 534
——— Royal United, Bath, instruction at, 534
——— Royal Victoria, Montreal, description of, 1254
——— Royal Westminster Ophthalmic, instruction at, 533
——— St. Bartholomew's, distribution of prizes at, 45; changes in staff of, 259; the medical school of, 522; fees at, 532; new specimens in the museum of, 751; annual dinner, 808; entrance scholarships at, 862; honours at the University of London, 1334
——— St. Cross, Rugby, religious intolerance at, 591, 919
——— St. George's, the medical school of, 523; fees at, 532; opening address at, 790; annual dinner, 808; entrance scholarships at, 927
——— St. Katharine's, proposed reorganisation of, 1438
——— St. Mark's, festival dinner in aid of funds of, 101
——— St. Mary's, the medical school of, 524; fees at, 532; opening address at, 789; annual dinner of, 861; entrance scholarships at, 927
——— St. Mary's, Manchester, instruction at, 534
——— St. Peter's, for Stone, instruction at, 533
——— St. Thomas's, casualty patients at, 197; the out-patient mental department at, 466; the medical school of, 525; fees at, 532; changes in staff of, 558; entrance scholarships at, 820; the Reports of, Dr. T. D. Acland and Mr. B. Pitts, *rev.*, 1109
——— St. Vincent's, Dublin, instruction at, 531
——— Seamen's, Greenwich, instruction at 533
Hospital for Sick Children, Great Ormond Street, opening of new wing of, 49; instruction at, 533
——— for Sick Children, Newcastle, instruction at, 534
——— for Sick Children, Pendlebury, instruction at, 534
——— Sir Patrick Dun's, appointments at, 531
——— Southern, Manchester, annual meeting of, 1026
——— Steevens's, Dublin, instruction at, 531
——— Sussex County, instruction at, 534
——— Swansea, instruction at, 535
——— Taunton and Somerset, changes in staff of, 992
——— Throat and Ear, Central London, instruction at, 533
——— University College, changes in staff of, 381
——— Wolverhampton and Staffordshire General, instruction at, 536
——— Westminster, the medical school of, 525; fees at, 532; annual dinner, 809; entrance scholarships at, 862; The Reports of Dr. R. G. Hebb, *rev.*, 1001; annual students' dinner of, 1188
——— for Women, Chelsea, instruction at, 533
——— for Women, Soho Square, instruction at, 533
Hospitals, casualities at, 197; small-pox, infection from, 448; for consumption and tuberculous dust, 633; isolation, influence of on the spread of scarlet fever, 644; for infectious disease, sites for, 871; infectious, the medical charge of, 872; isolation and private practitioners, *ib.*; inflammable, *ib.*; the surroundings of 50 years ago, 891, 912; telephonic communication with, 1135; infectious, proposals to Local Government Board for loans for, 1361; abuse of, 1416; Christmas in, 1446
——— Adelaide, medical and surgical, instruction at, 531
——— Richmond, Whitworth, and Hardwicke, instruction at, 531
Hounslow, the fever hospital at, 805
House of Commons, ventilation of, 140
Houses, insanitary, evictions from, 647; tuberculous, disinfection of, 990; inspection of by medical officers of health, 1032
Housing of public health officials, 803; of the poorer classes, 1236
Howard, Mr. J. F., the will of, 237
Howden, Dr., alleged increase of insanity, 461; detached hospitals and asylums, 465
Howe, Dr., autochromatic plates in photography of the eye, 947
Howie, Dr. A., scarlet fever in a man aged 79, 578
Huber, Dr. J. Ch., Bibliographie der klinischen Helminthologie, *rev.*, 584
Huchard, M. H., Traité Clinique des Maladies du Cœur et des Vaisseaux, *rev.*, 997
Huddersfield, the water carriage system in, 1032
Hudson, Mr. L., double ureter, 891
Hughes, Surgeon-Captain M. L., on Malta fever, 61
Hulke, Mr. J. W., inaugural address to Clinical Society, 891, 912
Hull, enteric fever at, 863; builders and by-laws at, 909
Hume, Dr. G. H., the evolution of surgical principles, 302; demonstrations at the Royal Infirmary, Newcastle, 476; the treatment of intestinal obstruction, 1371
Humphreys, Mr. R., Midwives Registration Association, 1406
Hungary, medical practitioners in, 820; the medical profession in, 1256
Hunter, John, was he a student in the University of Glasgow? 73; exhibition of relics of at the Royal College of Surgeons of England, 74; as a cannibal, 84; the centenary of, 163, 790, 855, 876, 910
——— Mr. W., the comfort of the patient and practical hints thereon. 1107
Hutchinson, Mr. J., the clinical museum of, 963, 1295; the treatment of intestinal obstruction, 1370
——— Mr. J., jun., injuries to the epiphyses and their results, 53, 1417
——— Dr. W., acromegaly in a giantess, 489
Hydatids of omentum, 1107; of the urinary bladder, 1416
Hyde, Dr. S., Buxton, its Baths and Climate, *rev.*, 1381
Hydrocele in young infants, causation and treatment of, 1145; encysted, of the broad ligament, 1153

Hydrocephalus as a show, 150; the effect of repeated tappings on, 1046; case of, 1329
Hydronephrosis, nephrectomy for, 1103; Movable and Intermitting, Dr. G. D. Knight, *rev.*, 1380
Hydrophobia, case of, 945; in Russia, 1256
Hygiene, university extension courses in, 501; teaching of in Germany, 643; Rural Essays on, Dr. G. V. Poore, *rev.*, 689; in Russia, 1136; Practical Outlines of, Dr. C. G. Currier, *rev.*, 1279; in Paris, 1304
Hymen, atresia of, and rupture during digital examination, 1321
Hyoid bone, excision of for cancer, 1423
Hyoscyamus in pregnancy, 719
Hyperpyrexia, in cerebral injury, 234; due to sun's rays, 579
Hyphæmia, extreme of both eyes, 1105
Hypnotism, in Russia, 352, 930; Charcot and, 772; an enemy to, 1352. and its danger, 1407
Hypodermic case new aseptic, 797
Hysterectomy, vaginal, for fibrous tumours, 181; vaginal for pelvic suppuration or inflammatory lesions of the uterine appendages, *ib.*; abdominal, for fibrous tumours, 182; vaginal, 901
Hysteria simulating insular sclerosis, 1273
Hysteropexia, abdominal or ventrofixation, 182, 838

I.

Ice cream and infection, 1032
—— table, 762; in surgery, 1140
Identification, personal, 130
Illingworth, Dr. C. R., the abuse of medical charities, 281, 443, 489, 605; wasp stings, 664; corrosive sublimate in puerperal septicæmia, 932, 1028
Imbecile, home for, 1363
Incisors, the relation of to compound teeth, 682
Income tax, abatement of, 163; assessments to, 771; deductions from, 322; appeals against, 1259
India, anticholeraic inoculation in, 31, 1067, 1254; cholera and the water supplies of, 104; poisonous snakes in, 139; the sanitary rule of three in, 141; a new hill station in, 211; opium growing and smoking in, 337; residency surgeons at native courts of, 558, 647; medical stores in, 631; The English Baby in, Mrs. H. Kingscote, *rev.*, 631; sanitation in, 636; bacteriology in, 717; medical attendance in native States of, 755, 768; proposed Vivisection Act for, 935; proposed medical congress in, 977, 1066; army organisation in, 1067; use of opium in, 1175, 1195, 1223, 1348, 1399, 1449; mortality from wild animals in, 1254; snakes and predaceous animals in, 1286; filth and cholera in, 1457
Inebriates, the compulsory seclusion of, 260, 1395; does imprisonment cure? 485; report of inspector of retreats for, 591; retreats for, 720; legislation for and the clergy, 1173, 1396; deputation to Home Secretary on treatment of, 1303
Inebriety, the Disease of, Dr. T. D. Crothers, *rev.*, 17; Dr. Keeley's cure for, 142; alleged cures for, 592; treatment of in Ireland, 663; The Relation of Life Assurance to, Dr. T. D. Crothers, *rev.*, 1278; cancer and, 1312
Infant, sequel of tumour in an, 1273
Infanticide, statistics of, 1364
Infants, the diet of, 416; the "breaking-in" of, 432; mortality of in Cairo and Damietta, 599, 636, 903, 1165; the woes of, 803; young, the causation and treatment of hydrocele and hernia in, 1145; hernia in, 1260; deaths of from suffocation, 1390; the prevention of excessive mortality of, 1395
Infection, vagrants and, 34; certificates of freedom from, 48; liability for spreading, 1084; at the seaside, 1237; milk and, 1291; the Salvation Army and, 1292; and contagion, 1311
Infections, increase and decrease of the virulence of, 1192
Infirmaries and nursing staffs, 500
Infirmary, County Wexford, action against the governors of, 98, 139
———— Eye and Ear, Liverpool, instruction at, 534
———— Glasgow Eye, instruction at, 535
———— Glasgow Western, instruction at, 535
———— Gloucester General, instruction at, 535
———— Leeds General, changes in staff of, 279; accidental death at, 554; use of the ambulance of, 1353
———— Liverpool, for Young Children, instruction at, 534
———— Northampton General, instruction at, 535
Infirmary, North Cork, opening of new wing at, 697
———— North Staffordshire, instruction at, 535
———— Royal Derbyshire, offer as to completion of, 286; instruction at, 534
———— Royal Edinburgh, and the clinical instruction of women, 199, 1012; lectures on skin diseases at, 213; instruction, etc., at, 528; the treasurership, etc., of, 1342
———— Royal Glasgow, instruction in dentistry at, 549
———— Royal Liverpool, donations to and annual cleaning at, 604
———— Royal, Manchester, bequest, etc., to, 1318
———— Royal, Newcastle-on-Tyne, demonstrations at, 426, 476
———— Sheffield General, annual meeting of, 655; new skin department at, 1126
———— Staffordshire General, instruction at, 535
———— South Charitable, Cork, dress ball in aid of funds of, 896
———— South Cork, appeal for funds for, 609
———— West of England Eye, instruction at, 535
———— and Dispensary, Bradford, instruction at, 534
———— and Dispensary, Warrington, alterations and additions to, 78
Influenza, effects of the poison of upon the lying-in woman, 183; report to the Local Government Board on, 488; empyæma as a sequel to, 1099; the epidemic of, 1118, 1172, 1233, 1290, 1346; fighting the, 1346; benzole in, 1425
Inglis, Lord Justice General, presentation of bust of to the University of Edinburgh, 82
Inoculation, anticholeraic, 1067
Inquests, metropolitan, 198
Insane, gall stone in the, 452
Insanity, suicide and, 41, 95; Traumatic, the Surgical Aspect of, Dr. H. Powell, *rev.*, 185; the plea of in the Lincoln murder, 193; the alleged increase of, 460, 551, 588, 747, 1161; "temporary," 484; from the abuse of Indian hemp, 630, 710, 813, 868, 920, 969, 1027, 1452; the "moral and spiritual" treatment of, 1081, 1359
Insect powders, 1087
Institut Pasteur, antirabic vaccinations at, 85; returns of, 364
Institute, Bacteriological, South African, the work of, 139
———— British, of Public Health, the meeting of at Edinburgh, 142, 265, 337, 341; the Fellowship of, 1459
———— of Chemistry, the new laboratory of, 1342
———— Sanitary, lectures to sanitary officers at, 717; lectures on injurious trades, 911; result of examinations of, 1310; lectures for spring session, 1413
Institution, Medical, Liverpool, opening of session at, 865; annual dinner of, 927; meeting of, 1078
———— Queen Victoria Nursing, Wolverhampton, report of committee of, 82
———— Royal, lectures at, 1361
Instruction, technical, county councils and, 599; preliminary scientific, 1451
Instrument for delicate dissections, 123
Instruments, new dermatological, 951
Insurance of children, 1065
———— companies and professional secrecy, 163
———— File, The, *rev.*, 1156
Intelligence, literary, 72, 134, 338, 350, 438, 488, 599, 652, 703, 760, 862, 915, 1022, 1084, 1114. *See also* Literary Notes
Intestinal tract, malformations of, 891
Intestine, prevention of prolapse of after inguinal colotomy, 65, 154, 208, 281; large, excision of malignant tumour from, 892; a new and easy method of performing resection of, 1047; excision of, 1426
Intoxicants, crusade against, 382
Intussusception, laparotomy for, 1375
Inunction, antiseptic, in measles, 13, 103, 163
Inverkeithing, the medical officership of, 1119, 1291
Inverness, the sanitation of, 1445
Inverness-shire, the sanitary condition of, 99
Iodides, eruptions from, 1208
Ireland, vaccination in, 48; annual report of lunatic asylums in, 659; treatment of inebriety in, 663; increase of lunatics in, 698; cholera nostras in, 860; compulsory education in and Irish dispensary doctors, 1120; the treatment of lunatics in the workhouses of, 1293
Ireland, Dr. T., insanity from the abuse of Indian hemp, 630, 813
Ireland, Dr. W. W., the condemned man Barker, 279; trephining in general paralysis of the insane, 462; The Blot on the Brain, *rev.*, 1216
Iris, epithelial pearl tumour in the, following implantation of eyelash in the anterior chamber, 118; spindle-celled sarcoma of, 1204
Iron in severe dysentery, 1050
Irrigators, urethral, 19
Irritation, chronic, effect of on the living tissues, cancer and, 830
Irvine, Dr. W. S., death of, 923
Islington, housing of public health officials at, 843
Isolation, of infectious diseases in London, 26; of infectious patients, 212; of infectious paupers, 288; after small-pox, 289
Italy, vaccination in, 1412
Izal disinfectant, 796

J.

Jacob, Dr. E. H., the abuse of medical charities, 442, 554; comparative pathology, 1277
Jacobson, Mr. W. H. A., The Diseases of the Male Organs of Generation, *rev.*, 1155; Guy's Hospital Reports, *rev.*, 1157
Jamaica, the Mattei treatment of lepers in, 644
James, Dr. A., Friedreich's ataxia, 1053
———— Mr. C. E., case of rupture of urethra, recovery without operation, 581; rupture of eyeball and impaction of foreign body in the antrum, 1213
———— Mr. E. W., congenital absence of right kidney and suprarenal capsules, 579
———— Mr. J. B., a Minister of Public Health, 452
———— Mr. W. D., a substitute for chrysophanic ointment, 889
Jameson, Dr. L. S., the career of, 912
Jamieson, Dr. A. Thomas's operation for benign tumours of the female breast, 1209
———— Dr. W. A., on the growth of dermatology, 455; on ringworm, 470, 473; on cmol, 473; on dermatological instruments, 475
Japan, female medical practitioners in, 1361
Jardine, Dr. R., puerperal septicæmia, 1356
Jaw, lower, recurrent spindle-celled sarcoma of, 116
Jeffreys, Mr. R., the milk can, 663
Jenner, Mr. C., death of, 1033; the will of, 1256
———— Dr. E., collection of relics of, 591, 763, 815, 1395; sale of relic of, 1013
———— Mr. H., the Jenner collection, 763
———— Sir W., Lectures and Essays on Fevers and Diphtheria, *rev.*, 742, 1078
Jennings, Mr. P. P., fatal case of snake bite in South Wales, 114
Jepson, Dr. E., the spread of infectious disease by tramps, 413
Jessett, Mr. F. B., a new form of uterine dredger, 848
Jessop, Mr. T., the prostate scissors of, 1280
Jeune, Lady, Ladies at Work, *rev.*, 1000
Jewett, Dr. C., induction of labour and accouchement forcé, 899
Jex-Blake, Dr. S., unqualified medical missionaries, 1129
Johnson, Sir G., diphtheria and defective drainage, 1126, 1354
———— Surgeon-Lieutenant H. P., scarlet fever, relapse on the seventeenth day, 1322
Johnston, Dr. W., Six Months Medical Evidence in the Coroner's Court of Montreal, *rev.*, 897
Johnston-Lavis, Dr. H. J., England at the International Medical Congress at Rome, 163
Johnstone, epidemic of typhoid fever in, 349
Joints, disease of, probably of syphilitic origin, 946
Jones, Mr. B., latent pleurisy, 771
———— Dr. E. Ll., on the causes of chlorosis, 670
———— Mr. G. T., the condition of the London streets, 451
———— Mr. H., presentation to, 647
———— Mr. H. E., septic infection of the lateral sinus, 563; surgical treatment of mastoid disease, 568; Eustachian synechiæ, 572
———— Dr. H. L., employment of electric lighting currents for medical purposes, 1163
———— Mr. H. R., the perils and protection of infant life, 1395
———— Mr. J. T., treatment of psoriasis by thyroid extract, 1424
———— Mr. T., rupture of urinary bladder, 1107
Jottings, American, 50, 928, 1137, 1189, 1458
Joule, Dr., memorial to, 1403
Jowers, Mr., the late, 103
Juggling with drain pipes, 1255

K.

Kaltenbach, Dr. R., obituary notice of, 1411
Kanthack, Dr. A. A., "immunity" against cholera, 572; streptococcus pneumoniæ, 1154

Kaposi, Professor, decoration of, 77
Kashmir, the floods in, a new focus of cholera, 396
Kauffmann, Dr., bronchiectasis, 996
Keadue Dispensary, the medical officership of, 1257
Keeley, Dr., the cure of inebriety, 142; *v.* Wakley, 157
Keen, Dr. W. W., Operation Blanks, *rev.*, 950
Keetley, Mr. C. B., operations without anæsthesia, 1100
Keith, Mr. S., a case of Cæsarean section, 8
Kekulé, Professor, decoration of, 56
Kenealy, Miss A., The Care of the Sick, Notes on Home Nursing, *rev.*, 69
Kenwood, Mr. H. R., Public Health Laboratory Work., *rev.*, 15
Keratinoids, plastic pills and perles, 329
Kerr, Dr. J., pulmonary hypertrophic osteo-arthropathy, 1215
—— Dr. N., hypnotism and its dangers, 1407
Kettles, bronchitis, 1158
Kidney, Cyanotic Induration of, Drs. H. Schmaus and L. Horn, *rev.*, 122; operations on the, 182; right and suprarenal capsule, congenital absence of, 579; the nature of the work of the as shown by the influence of atropine and morphine on the secretion of urine, 681; disseminated fibrosis of, 1214
Kilborne, Mr. F. L., Investigations into Causation, etc., of Texas or Southern Cattle Fever, *rev.*, 584
Kilgour, Dr., unveiling of bust of, 910
Kilkenny county, outbreak of small-pox in, 448
Kingscote, Mrs. H., The English Baby in India, *rev.*, 631
King's Lynn, the water supply of, 592, 802, 962, 1120
Kirk, Dr. R., death under chloroform, 151, 289; dangers of artificial respiration in chloroform accidents, 708
Kirker, Staff-Surgeon G., an easy and quick method of determining the amount of carbonic acid in air for hygienic purposes, 338; infant mortality at Cairo and Damietta, 903
Kissing the Book. *See* Oath
Kitching, Dr. C. M., South African Medical Congress, 1073
Kleen, Dr. E., Carlsbad, a Medico-practical Guide, *rev.*, 18
Klinik der Verdauungskrankheiten, Dr. C. Ewald, *rev.*, 633
Knaggs, Mr. R. L., reflex amblyopia in pregnancy, 731; tuberculous ascites, 739
Knee-jerk, experimental note on the, 685
Knee-joint, congenital dislocation of, 1099; loose bodies in, 1207
Knife, new tonsil, 1110
Knight, Dr. G. D., Movable and Intermitting Hydronephrosis, *rev.*, 1380
Knipe, Mr. G. F., death of, 1256
Koch's bacteriological diagnosis of cholera, a criticism of, 39
Koenig, Dr. F., Lehrbuch der speciellen Chirurgie, *rev.*, 17
Kolb, Dr. G., Physiology of Sport, *rev.*, 1156
"Kosher" and other meat, 1393
Koumiss, poisoning by, 717
Kramer, Dr. S. B., the nature of vaccine immunity, 989
Kundt, Professor, decoration of, 56
Kutnow's trade mark, 491

L.

Labour, obstructed, hypertrophic elongation of the cervix as a cause of, 560; the mechanism of, 899; induction of and accouchement forcé, 899
Labour's death roll, 1176
La Buba, the clinical study of, 850
Lacquer medicine boxes and doctors' swords, 1396
Ladies at work, Lady Jeune, *rev.*, 1060
Lady firewomen, 52
Lambe, Dr. W., presentation to, 1320
Laminectomy in spinal injuries, 1427
Lamp, matchbox throat, 1157
Lanark, opening of convalescent home at, 213
Lancashire, the coronership for the Amounderness division of, 1169, 1230
Landolt, Dr., demonstration of ophthalmotrope, 947
Lane, Mr. J. E., medical education and medical practice, 789
—— Mr. W. A., the symptoms and treatment of septic infection of the lateral sinus as illustrated by ten cases, 561; chronic suppuration of the middle ear, 567; the fallacy of the vertical footpiece, 1049; the applicability of the parting tool or angular gouge to the surgery of the skull, 1050; the causation and treatment of hydrocele and hernia in young infants, 1145; detached pieces of articular cartilage forming loose bodies in the knee-joint, 1207
Lang, Dr. G. H., poisoning by chloralose, 233
Langlois, M., births and deaths, 292
Lanolin, the manufacture of, 1408
Lanz, Dr. O., the nature of the muscular movements in cachexia thyreopriva in dogs, 676; rodent ulcer, 938; treatment of cerebral tumours, 1368
Laparotomy, an exploratory, 14; for lesions of the appendages, 182; for intussusception, 1375
Larkin, Mr. F. C., position of patient during excision of tumours of the rectum, 153
Laryngitis, acute, pulsus paradoxus in, 151
Larynx, intralaryngeal, removal of a cystic tumour from, in a woman 80 years of age, 889; sequel to a case of anomalous tumour of, 1376; excision of for cancer, 1423
Last, boot drying and warming, 951
Latah, 143
Lawrence, Rev. F., cremation and earth-to-earth burial, 1445
Lawrence-Hamilton, Mr. J., wasp stings, 504
Lawrie, Surgeon-Lieutenant-Colonel E., clinical anæsthetic notes and remarks on a case of carbuncle treated by excision, 1320
Laws, Dr. C. U., the sterilisation of cholera dejecta, 366
Lead, in public water supplies, 964; peripheral neuritis from, 996
—— encephalopathy, clinical remarks on, 1202
—— miners and their diseases, 415
—— poisoning, industrial, 197, 1345, 1391, 1440; from drinking water, 260
LEADING ARTICLES:—International courtesies, 27; the army medical note, 28; cholera and its prevention, 29; precautions against cholera in London, 79; the army medical department and its difficulties, *ib.*; diet in schools, 81; press notices and quack remedies, 135; the epidemic of small-pox in Warrington, *ib.*; the report of the Leprosy Commission in India, 136; a "list" of nurses, 138; treatment of perforated gastric ulcer, *ib.*; quack advertisements and the British press, 191; European quarantines, 192; the plea of insanity in the Lincoln murder, 193; professional civil servants and the Home Rule Bill, *ib.*; the examination of cholera discharges, 255; the dangers of "health" resorts, 257; quack advertisements in religious papers, *ib.*; the concealment and diffusion of cholera, 258; the Newcastle meeting, 330; the Address in Medicine, 331; the Address in Surgery, *ib.*; the sixty-first annual meeting, 379; the Address in Obstetrics, 380; metropolitan sanitary government by by-law, 381; tramps and infection, 429; the Council of the College of Surgeons and the Court of Examiners, 430; work and play in public schools, *ib.*; Charcot and hypnotism, 479; poisonous cosmetics, 480; the health of the army, 481; the modes of entering the medical profession, 505; the cost of a medical education, 506; the alleged increase of insanity, 551, 588, 747; Asiatic cholera in England, 587; the grievances of army medical officers, 589, 641, 748, 1167; the Merchant Shipping Bill, 589; death certification, 639, 693; cholera vibrios, 640; the condemnation of unsound food, 642; biology in Great Britain, *ib.*; Government officials above the law, 693; the prevention of phthisis, 695; the Isolation Hospitals Bill, 696; should experiments on live animals be permitted by law? 749; study and progress in pharmacy, 799; claims of unqualified persons, 800; the extravagance of work half done, *ib.*; the teaching of otology, 851, 905; the wounds inflicted by the Lee-Metford rifle, 852; cremation at the Church Congress, 853; feeble-minded, epileptic, and exceptional children, 906; diabetes mellitus in Bengal, *ib.*; Mr. Harness and the newspaper press, 957; patent medicines and the sale of poisons, 958; nursing in workhouses, 959, 1063; the Dermatological Section at the annual meeting, 960; the Indian oculists, 1009; unqualified medical missionaries, 1010; the Harness electropathic belt, 1011; glanders in man and its prevention, *ib.*; pricking the bubble, 1063; the care of our wounded in war, 1064; the Parish and District Councils Bill, 1115; the traumatic neuroses, *ib.*; the scope and methods of water examination, 1116; cremation and drainage, 1167; nerve suture, 1168; the British Medical Association and the Journal 1894, 1227; temperament, *ib.*; medical education in the United States, 1228; doctor's remuneration, 1229; the General Medical Council, 1287; English science and English bishops, 1288; food adulteration made easy, 1289; an Imperial Pharmacopœia, 1339; a new university for Wales, 1340; poisoning by carbolic acid, 1341; industrial lead poisoning, 1391, 1440; poisoning by misadventure, 1392; "kosher" and other meat, 1393; prescribing chemists and the practice of medicine, 1439; public health administration in Cape Colony, 1441
Leander, a medical, 1257
Leçons de Thérapeutique, M. G. Hayem, *rev.*, 1279
Lecture, the Bradshaw, by Dr. W. S. Greenfield, 1261; the Bradshaw, by Sir W. Mac Cormac, 1313
Lectures, the Croonian, by Dr. D. J. Leech, 4, 56, 108, 169; on Sanitary Law, Mr. A. W. Blyth, *rev.*, 583; and Essays on Fevers and Diphtheria, Sir W. Jenner, *rev.*, 942
Lee, the condition of, 31
—— Dr. A. B., The Microtomist's Vade-Mecum, *rev.*, 1427
Leech, Dr. D. J., the pharmacological action and therapeutic uses of the nitrites and allied compounds, 4, 56, 108, 169; hysteria simulating insular sclerosis, 1273
Leeds, correspondence from, 150, 279, 554, 812, 1353; health of, 150; small-pox at, 279; the death-rate of, 288; the proposed nurses' home at the union infirmary at, 554; the projected borough hospital at, 927; overcrowding of hospital wards at, 1084; influenza, 1353; hospital abuse at, *ib.*
Lee-Metford rifle, wounds inflicted by, 757, 798, 852
Leeward Islands, leprosy in the, 501
Leffler-Arnim, Miss A., The Art of Figure Culture, *rev.*, 1157
Le Fort, Dr. L., death of, 976
Legg, Dr. W., A Guide to the Examination of the Urine, *rev.*, 1109
Legislators, medical, 700
Lehrbuch der Pathologie des Stoffwechsel, Dr. C. v. Noorden, *rev.*, 16; der speciellen Chirurgie, Dr. F. Koenig, *rev.*, 17; der Elektrotherapie, Dr. A. Sperling, *rev.*, 794
Leicester, small-pox in, 32, 698; the small-pox hospital at, 908; the fever hospital at, 1187; small-pox isolation arrangements at, 1412
Leith, outbreak of small-pox at, 1291, 1403
Lemonades, acid, 663
Lenhossek, Dr. M. v., Der feinere Bau des Nervensystems im Lichte neuester Forschungen, *rev.*, 432
Lepage, Dr. G., Fonctionnement de la Maison d'Accouchements Baudeloque, *rev.*, 18
Leper question, the, in the colonies, 263, 281
Lepers in Siberia, 141; Mattei treatment of in Jamaica, 644; in Trinidad, 1363
Leprosy in New South Wales, 78; foreign governments and, 486; in the Leeward Islands, 501; in Finland, 594; contracted by an asylum attendant, 644; the Mattei cure for, 1140; in Siberia, 1237; in Calcutta, 1342
Levison, Dr. F., Die Harnsäurediathese, *rev.*, 897
Lewers, Dr. A. H. N., A Practical Textbook of the Diseases of Women, *rev.*, 1279
Library of the British Medical Association, list of authors and others who have presented books to, 758; and reading room of, 1231
Liddell, Dr. J., The Mineral Waters of Harrogate, *rev.*, 1001
Lidiard, Mr., the diet of infants and young children, 416
Life assurance, examination for, 875
Ligament, broad, ligature of the, 64; broad, encysted hydrocele of the, 1153
Light and Colour Sensations, Measurement of, Mr. J. W. Lovibond, *rev.*, 1330
—— sense, the, in relation to navigation, 698
Lille, typhus fever at, 1362
Limebeer, Mr. H., the London and Counties Medical Protection Society, 153
Limerick, sanitary state of, 767
Lincoln murder. *See* Barker.
Lindsay, Dr. M., effect of change in county government on asylums, 460; state aid for poor private insane patients, 466; insanity from the abuse of Indian hemp, 630
Linnell, Dr. E., presentation to, 749
Lip, lower, malformation of, 891
—— reading, 160
Lipoma, large diffuse of neck, removal of, 1274
Lister, Sir J., at King's College, 1014
Literary notes, 1326, 1349, 1400 (*See also* Intelligence, Literary)
Literature, medical men and, 663
Lithiasis in debility from leucorrhœa and other causes, 490
Lithotomy, in the female bladder, 623; vesico-vaginal, 1212
Lithotrity, a warning, 664
Liver, bacteriological notes on a case of tropical

abscess of, 114; abscess of caused by needles, 967: crystals of bilirubin from hydatid cysts of the, 1051
Liverpool, small pox and vaccination in, 71, 1403; correspondence from, 604, 762, 865, 1078, 1403; precautions against cholera at, 604; prevalence of fever at, 762; need for a new school of medicine at, 1078; retirement of the medical officer of health of, 1403
Livonia, conference of physicians of, 811
Lloyd, Mr. J., the prevention of prolapse after inguinal colotomy, 281; cancer of cervix, 996
——— Mr. W. F., case of sunstroke, hyperpyrexia, death, 477; a case of catalepsy, 1213
Loans, proposed, for infectious hospitals, 1361
Locke, Surgeon Lieutenant-Colonel, hereditary tendency to erysipelas, 771
Lockwood, Mr. C. B., hernia of ovary, 1272; operation for Dupuytren's contraction, 1274; removal of large diffuse lipoma of neck, *ib.*
Locomotor ataxy treated by Brown-Séquard's fluid, 1425
London, infectious diseases in and their isolation, 26; a county hospital for, 30; the sanitary administration of, 32; the proposed university for, 82; flushing water in, 99; the surface wells of, 140; small-pox in, 190; foul canals in, 260, 1120; refuse in sewers of, 261; the condition of the streets of, 451, 664; increase of diphtheria in, 751; the university question in, 908; a Comprehensive Scheme for Street Improvement in, Mr. A. Causton, *rev.*, 949; the death-rate of, 960; fever patients in, 1016; the improvement of, 1017; dogs and cats in, *ib.*; the epidemic of diphtheria in, 1118, 1172; the future of fever in, 1121; deficient hospital accommodation for, 1292; the isolation of fever in, 1397; the highest level and subsoil of the parishes within 20 miles of, 1415; and the country, the relative healthiness of, 1445
Longevity and ovariotomy, 1290
Longmore, Surgeon-General Sir T., A Manual of Ambulance Transport, *rev.*, 847; the early care of the wounded in war, 1248
Loomis, Dr. A., Lessons in Physical Diagnosis, *rev.*, 236
Loreta's operation for stricture of pylorus, 65
Louèche-les-Bains, Dr. E. de la Harpe, *rev.*, 896
Louis XVII, the death of, 86
Lovibond, Mr. J. W., Measurement of Light and Colour Sensations, *rev.*, 1330
Lowndes, Mr. F. W., the Scotch oath, 352
Lucas, Mr. A., sarcoma of femur, 996
——— Mr. W. F., death of, 911; obituary notice of, 976
Lugard, Captain F. D., on Uganda, 1240
Lunacy, new rules in, 30
——— boards and the State asylums, 1390
——— prosecution, a, 1081, 1359, 1407
Lunatics, transference of to a workhouse, 715, 872; treatment of in Irish workhouses, 1293; the "colony" treatment of, 1303
Lungs, thrombosis of and vascular coagulation, 165; complete and permanent collapse of in empyema, 1325
Lunn, Mr. J. K., congenital (?) pemphigus, 1273; cretinism treated by thyroid extract, *ib.*; hæmatoma after aneurysm, *ib.*
Lupus, treatment of, 938; skin grafting for, 1274
Lustig, Professor A., Diagnostik der Bakterien in Wassers, *rev.*, 69
Lycett, Dr. J. A., severe hæmatemesis, recovery, 579
Lymphadenoma, spleen feeding in, 889
Lymphangioma circumscriptum, 1212

M.

Maberley, Mr. H. E., treatment of ophthalmia in girls at puberty, 1036; hernia in infants, 1260
Macalister, Professor A., methods of anatomical study, 879
Macalpine, Mr. T., waterborne typhoid, 1187
M'Ardle, Mr., ventral hernia, 1328
McCall, Dr. A., a case of typhoid fever followed by perforation and recovery, 62, 491
——— Miss A., on the registration of midwives, 127
Mac Cormac, Sir W., Sir Astley Cooper and his surgical work, 1313
McDonald, Mr. A., Abnormal Man, *rev.*, 999
——— Dr. R. G., excision of the larynx, hyoid bone, and five rings of the trachea for cancer, 1423
McDowall, Dr. T. W., the effect of the recent change in county government on asylums and the insane, 358; psychological questions in Germany, 462
McDowell, Dr. C. W., death of, 1186
Macewen, Professor W., surgical treatment of mastoid disease and its complications, 567, 568; treatment of cerebral tumours, 1367
Macfadyen, Dr. A., bacteriological notes on a case of tropical abscess of the liver, 114
McFeely, Mr. J. D., cow-pox and small-pox, 1270
McIlree, Surgeon-General J. D., the claims of, 1184
Mackay, Dr. G., optical treatment of conical cornea, 733; atrophy of the optic nerve as a symptom of chronic disease of the central nervous system, 784
——— Dr. W. B., presentation to, 1163
McKendrick, Dr. J. G., The Physiology of the Senses, *rev.*, 16
Mackenzie, Dr. G. H., sequel to a case of intralaryngeal removal of a cystic tumour from the larynx in a woman 80 years of age, 889
——— Dr. S., remarks made at the bedside of a patient suffering from lead encephalopathy,, 1202
Mackey, Dr. E., Charcot and hypnotism, 772
Mackie, Mr. J., cholera at Mecca and quarantine in Egypt, 222
McKinney, Dr. J. B. G., isolation after small-pox, 289
Mackinnon, Dr. A. R., death of, 660
Maclagan, Mr. H. G., prescribing chemists, 1127
MacLaren, Mr. J. P., hyperpyrexia in cerebral injury, 234
Maclean, Surgeon-General W., the Indian opium question, 1449
McLeod, Dr. K., Epidemic Dropsy, *rev.*, 1053
MacMunn Mr. J., nasal specula, 451; castration in enlargement of the prostate, 709
Macnaughton-Jones, Dr. H., The Practitioner's Handbook of Diseases of the Ear, *rev.*, 583; magnifying aural speculum, 1331
McNicoll, Mr. D., the voyage to Australia, 152
——— Mr. E. D., a case of opium poisoning followed by hyperpyrexia and death, 14
McOscar, Mr. J., an improvised test-tube holder, 899
McWeeney, Dr. E. J., the bacteriology of cholera nostras, 630; urinary organs from a case of cystitis with surgical kidneys, 1329
Madden, Dr. T. M., the conservative treatment of diseases of the uterine appendages, 620; A Handbook of Obstetrical and Gynæcological Nursing, *rev.*, 796
Madeira, health of, 1343
Maddox, Dr. E., The Clinical Use of Prisms, *rev.*, 795
Magenkrankheiten, Ewald's, 655, 762, 1028, 1080
Magistrates, medical, 17, 49, 75, 160, 289, 373, 599, 610, 660, 768, 844, 879, 927, 967, 1008, 1110, 1135, 1229, 1361, 1390, 1413; county, and dilapidated dwellings, 953
Mair, Dr. L. W. D., a sporadic case of cholera, 1164
Malaria, forms of, and their characteristic features, 849; on shipboard, 920, 1152
Malaprop, Mrs., in the consulting room, 1259
Malcolmson, Dr. J. H., on diphtheria, 412; the spread of infectious disease by tramps, 413; a floating hospital, 414
Malingering, wholesale, 260
Malta fever. *See* Fever
Man, communicability of foot and mouth disease from cattle to, 115, 352; Abnormal, Mr. A. McDonald, *rev.*, 999; anthrax in, 1413
Manchester, summer diarrhœa in, 212; correspondence from, 811, 866, 918, 1026, 1077, 1247, 1403; St. John Ambulance Association at, 1077; adulteration of food and bread at, 1247; influenza at, *ib.*
——— ship canal, dead dogs and cats in, 1033
Manges, Dr. M., Ewald's "Magenkrankheiten," 655, 1028
Mansions, metropolitan, 1014
Mantle, Dr., aphasia, 948
Manual of Physiology, Dr. G. F. Yeo, *rev.*, 794; of Ambulance Transport, Surgeon-General Sir T. Longmore and Surgeon-Captain W. A. Morris, *rev.*, 847; of Medical Treatment or Clinical Therapeutics, Dr. J. B. Yeo, *rev.*, 998; of Veterinary Hygiene, Veterinary Captain F. Smith, *rev.*, 1000; of the Diseases Peculiar to Women, Dr. J. Oliver, *rev.*, 1279; of Practical Anatomy, Dr D. J. Cunningham, *rev.*, 1427
Manuel de Petite Chirurgie de Jamain, Prof. F. Terrier and Dr. Péraire, *rev.*, 585
Manuscripts, scientific, 216
Mapother, Dr., the etiology and treatment of psoriasis, 935
Marat's death blow, 195
Marquis of Dufferin and Ava, the Royal Free Hospital, 867
Marseilles, opening of antirabic institute at, 1394
Marsh, Dr. E. L., vaccination and small-pox in Glasgow, 819
——— Mr. H., the surgical treatment of tuberculous peritonitis, 737; the treatment of enlarged cervical glands, 1143; septic thrombosis of lateral sinus, 1145
Marshall, Mr. A., obituary notice of, 98
——— Dr. A. M., Vertebrate Embryology, *rev.*, 235
——— Dr. G. B., wasp sting with rapid constitutional symptoms, 292
——— Dr. J., the Society for the Relief of Widows and Orphans of Medical Men, 612
——— the late Professor J., memorial to, 762
Martin, Mr. J., the causation and prevention of cholera, 771
Martyr, an antivaccination, 856
Martyrs, medical, 911, 966
Mason, Dr. D., presentation to, 160
——— Dr. J. W., quarantine as a preventive measure against cholera, 369; on diphtheria, 412; the spread of infectious disease by tramps, 413
Massage, instruction in, 451; in diseases of the skin, 475
Masseuses, over-abundance of, 1259
Massiah, Dr. B. J., pregnancy after jejunostomy, 943
Mastoid, surgical treatment of disease of, 567; 60 cases of disease of in which the antrum was opened, 569; a case of foreign body in the, 572
Matchbox throat lamp, 1157
Materia Medica and Therapeutics, Dr. J. Shoemaker, *rev.*, 897
Mattei treatment of lepers in Jamaica, 644
Matthews, Mr. S., triplets, 180
Maude, Mr. A., dilatation and hypertrophy of the colon, 351; some less well known factors of Graves's disease, 892
Mauritius, malarial hæmatozoa in, 771; the chief medical officership of, 1254
May, Mr. E. H., ovariotomy during pregnancy, 1210
Mead, Dr. G. B., the mode of election of Branch officers, 40; the London and Counties Medical Protection Society, 207, 344; irregular practitioners in law and medicine, 709; unqualified practice and overcrowding of the medical profession, 764; quacks and unqualified practice, 868; prescribing chemists, 968
Measles, antiseptic inunction in, 13, 103, 163; concurrent with scarlatina, 291; the notification of, 413; compulsory notification of, 1077, 1121, 1361; the nervous complications of, 1213, 1235; incubation period of, 1374
Meat, poisoning by, 33; refrigerated, 196; unsound, condemnation of, 719, 819; passed in one town condemned in another, 1361
Mecca, cholera at and quarantine in Egypt, 222; return of pilgrims from, quarantine at El Tor, 437, 598; and the cholera, 489; pilgrims from, 604, 797; sanitation of the pilgrimage to, 1013; an Indian, 1254
Mechanisms, defensive, 310
Medical Battery Company, Limited, winding-up order against, 1006, 1081, 1183, 1359, 1407; and Dr. H. Tibbits, 1182
——— Council, General, the powers of, 39; Allinson *v.*, 42; regulations as to registration and education of students, 509; professional education, 510; regulations as to diplomas in State medicine, 539; regulations as to diplomas in dental surgery, 547; the fees of, 869; the coming meeting of, 1016, 1174; the presidency of, 1065; new members, 1250; president's address, *ib.*; routine business, *ib.*; foreign and colonial degrees, *ib.*; the case of Dr. Herbert Tibbits, *ib.*; other business, *ib.*; Scotch university ordinances, *ib.*; reciprocity, 1251; the Royal College of Physicians of Ireland, *ib.*; penal cases, 1251, 1296, 1298; leading article on the session of, 1287; the Education Committee's repot, 1297; the Conjoint Board of the Royal College of Surgeons and Apothecaries' Hall, Ireland, 1299, 1300; the Education Committee, 1300; list of recognised practitioners, *ib.*; the University of Cambridge, 1300, 1301; the University of Dublin, 1300; the Scottish Universities' Commission, 1301; the *Pharmacopœia*, *ib.*: the Examination Committee, *ib.*; the University of Oxford, *ib.*; the University of London, *ib.*: the University of Durham, *ib.*; the Victoria University, 1302; statistical tables of passes and rejections, *ib.*; professional education, *ib.*; petition of Dr. Rentoul, *ib.*; reports of visitors and inspector, *ib.*; committee on penal cases, *ib.*; registration, *ib.*; inspector of examinations, *ib.*; standing order as to penal cases, *ib.*; dentist's advertisements, *ib*; visi-

tation of foreign universities, 1311; "Minutes" of, 1344; and covering, 1396
Medical masters, 30
——— men and founders' shares, 383, 611; and literature, 668
——— officer of workhouse, the grievances of a, 289
——— officers, district as medical officers of health, 414
——— officers of health, county, co-operation amongst, 83; salaries of, 382; county and notification problems, 401; district medical officers as, 414
——— officers, Irish Poor-law, superannuation of, 1230
"——— Register," notice as to, 1065
——— relief to the poor, 925
Medicine, A Textbook of the Theory and Practice of, Dr. W. Pepper, *rev.*, 121; military, in the field, 195; and Hygiene, Domestic, Dr. W. J. Russell, *rev.*, 236; the ideal in, 787; and tobacco, 1259
Medicines containing poisons, the sale of, 84; patent, the last resource of, 699; patent and the sale of poisons, 958; patent and quack, 1394; patent, quacks and the clergy, 1406
MEDICO-ETHICAL:—Downward competition, 43; changing the doctor, 43, 158, 283; unqualified assistants, 43; a foreign mode of advertisement, 44; a medical testimonial, *ib.*; doctors' drug shops, 98; a card, *ib.*; introducing a partner, *ib.*; the plea of privilege, 208; the title of "Dr.," *ib.*; two opinions, 283; handbills, 345; a second opinion, *ib.*; an interloper, *ib.*; mental disease and piles, 399; bold advertisement, 445; "covering" an unqualified principal, *ib.*; medical men and the lay press, *ib.*; dentists and doctors, 445, 556; a county court judge and doctor's fees, 491; medical aid associations, 492, 556; testimonials, 492; clubs and their medical officers, 608; oblique advertisement, *ib.*; a yellow card, 656; attendance on the clergy, *ib.*; contracts not to practise, 657; patient and practitioner, 710; medical officers and brother practitioners, 767; advertisers, *ib.*; unprofessional touting, *ib.*; the puff direct, 816, 869; a sixpenny dispensary, 816, 1132, 1454; change of address, 817, 1007; covering, 817; unqualified assistants, *ib.*; calls on newcomers, 1007; patient's friends, *ib.*; an electioneering card, 1132, 1183, 1253, 1408; foreign and English doctors, 1132; an unfortunate misunderstanding, 1183; prescription cards, 1183, 1451; Medical Aid Company, Limited, 1183, 1454; substitution, *ib.*; alleged covering, 1253; provident dispensaries so-called, *ib.*; medical fees and the clergy, *ib.*; an unfortunate rival, *ib.*; the etiquette of consultations, *ib.*; gratuitous attendance on chemists and druggists, 1408; non-vacant appointments, *ib.*; a knotty point, *ib.*; canvassing for non-vacant appointments, 1409; title of physician, 1454; a hospital election, *ib.*; canvassing and drug shops, *ib.*; medical etiquette, *ib.*; free medical advice, 1455
MEDICO-LEGAL:—Allinson *v.* General Medical Council, 42; covenants (not to practise) with medical aid associations, 43; fees to medical witnesses, 43, 98, 767, 1007, 1182, 1253, 1453; fees under the Infectious Diseases Notification Act, 44; the right to burial, *ib.*; County Wexford Infirmary, 98; Keeley *v.* Wakley, 157; suicidal strangulation, *ib.*; small-pox at the Salvation Army shelter, 208; a Lincolnshire slander case, *ib.*; coroners and medical evidence, *ib.*; consultant's fees, *ib.*; who is to pay? 345, 445; defamation of professional character, *ib.*; action against a dentist in Manchester, 346; medical certificates and industrial insurance, *ib.*; what is a page, 399; extraordinary insurance case, *ib.*; medical witnesses at inquests, *ib.*; partnerships and selling out, *ib.*; a novel lunatic asylum case, applications for a writ of habeas corpus, 445; Kutnow's trademark, 491; is blood poisoning an accident? *ib.*; locum tenens and inquest fees, *ib.*; prosecution of Indian oculists, 607, 971, 1002; unqualified practice, 608; the coroner's discretion as to inquests, *ib.*; monthly nurses and their fees, *ib.*; irregular practitioners in law and medicine, a contrast, 657; Blumberg, A. D., the case of, 664, 816; assistants and fees, 710; repudiating midwifery engagements, *ib.*; alleged defamation of character, 711; Dr. and dentist, 767; "female pills,' *ib.*; post-mortem examinations, 816; friendly societies, *ib.*; monthly nurses and engagements, 817, 870; coroner's fees to medical witnesses, 817; midwifery fees, *ib.*; fees for notification, *ib.*; the right to keep an open surgery, *ib.*; keeping the practice together, *ib.*; medical men and inquests, *ib.*; assistant's holidays, *ib.*; substitute attendance on midwifery case, 870; a sick assistant, *ib.*; a card, *ib.*; Apothecaries' Society *v.* Alabone, 1006; re the Medical Battery Company, 1006, 1081, 1131, 1183, 1253, 1359, 1407; the custody of the body, *ib.*; midwife's engagement, 1007; fee for post-mortem examination, *ib.*; Pharmaceutical Society *v.* Delve, 1081; the "moral and spiritual" treatment of insanity, 1081, 1359, 1407; liability for paid-up shares, 1081; prosecution under the Pharmacy Act in Glasgow, 1082; alleged illegal revaccination, *ib.*; illegal certificate, 1132; Harness, Mr., prosecution of, 1183, 1253, 1308, 1357, 1407; a judge but not judicial, 1183; re Charles Doane deceased, 1253; a lunacy prosecution, 1359; charitable uses, 1407; baking powders and the Food and Drugs Act, 1408; the manufacture of lanolin, *ib.*; agreements with assistants, *ib.*; coroner and town councillor, *ib.*; fees for police attendances, *ib.*; midwifery engagements and fees, 1454
Mediterranean fever. *See* Fever Malta
Médoc, the vintage in the, 600
Medway, ague on the, 1036
Melbourne, correspondence from, 148, 278, 654; the hospitals of and the financial crisis, *ib.*; proposed reform in the election of hospital staffs at, *ib.*; the morgue at, 278; contamination of the water supply of, *ib.*; the university and hospitals of, 339; deaths under chloroform in, 1251
Menière's disease. *See* Disease
Meningitis, circumscribed suppurative following middle-ear suppuration, trephining, recovery, 1323
Meningocele, large congenital, 1211
Menopause, some neuroses associated with, 995
Menstruation and ovulation, 1140
Mercer, Mr. R., intestinal obstruction from gall stone, 1426
Merkel, Herr Fr., Ergebnisse der Anatomie und Entwickelungsgeschichte, *rev.*, 999
Merson, Dr., the alleged increase of insanity, 461
Mesentery, apoplexy of, 1329
Metastasis in skin inflammations, 475
Metcalfe, Mr. G., pilocarpin in aural affections, 570
Microbene, 1220
Microscope for technical education classes, 770
Microtomist's Vade-mecum, the, Dr. A. B. Lee, *rev.*, 1427
Mid-Lanarkshire, enteric fever in, 1134
Midlands, proposed university for, 980
Midwifery case, the "compactum," 1429
Midwife's engagement, 1007
Midwives, registration of, 71, 127, 194, 383, 435, 1357; certification of, 1026, 1357, 1406
Migraine, recurrent third nerve palsy associated with, 119
Mikulicz's operation, the anatomical results of 1325
Milburn, Dr. C. H., treatment of enlarged cervical glands, 1143
Militia, the, messes in, 42, 157, 210; promotion and appointments in medical staff of, 155, 399, 1409
Milk, what is? 751; v. beer, 119; mother's, cobra poison in, 1229; and infection, 1291; apparent relation between the birth-rate and the supply of, 1452
——— can, the, 663
——— diet, a method of rendering digestible by a weak stomach, 12, 64, 104; humanised, 822
Millard, Dr. W. W., a new medical fund, 772
Miller, Mr. A. G., a new urethral instrument, 119
——— ——— Mr. E. A., the medical and dental professions, 1028
Milligan, Dr. W., the treatment of chronic suppuration of the middle ear by excision of the auditory ossicles, 563, 566; surgical treatment of mastoid disease, 569; pilocarpin in aural affections, 570; Eustachian synechiæ, 572; a new intratympanic syringe, *ib.*
Milne, Mr. J. A., simple tumour of the palate as a cause of hæmorrhage from the mouth, 1374
Milsbrand (Der) der Ratten, Dr. K. Müller, *rev.*, 1381
Minich, Dr. E, death of, 1309
Minister of Public Health, a, 452, 489
Missionaries, unqualified medical, 645, 707, 1010, 1026, 1129; medical, training of, 755
Missions, scientific, 49, 129, 436, 705, 1125
Mistakes, the advantages and disadvantages of making, 798
Mitchell, Dr. A., atresia hymenalis, rupture of hymen during digital exploration, 1321
——— Dr. G. S., presidential address in Section of Obstetrics at Pan-American Congress, 899
——— Dr. S. W., The Mother and Other Poems, *rev.*, 185
Mivart, Dr. F. St. G., chronic scaly eczema, 930; southern health resorts, 1311
Molony, Mr. J., death of, 713
——— Dr. M. J., monument to, 378
Monod, M. H., medical inspection *v.* quarantine, 806
Monotremata, the morphology of the peroneal group of muscles in, 681
Montgomery, Dr. E. E., vaginal hysterectomy, 901
Montreal, civic munificence in, 264; Six Months' Medical Evidence in the Coroner's Court of, Dr. W. Johnston, *rev.*, 897
Montrose, small-pox and vaccination in, 190
Moody-Ward, Dr. R., obituary notice of, 1186
Moore, Mr. G. L., a new nasal speculum, 187
——— Sir W., opium as a preventive of ague, 1196
——— Dr. W. W., medical ethics and medical remuneration, 1345
Morison, Mr. J. R., demonstration at the Royal Infirmary, Newcastle-on-Tyne, 428; radical cure of hernia, 1040; a new and easy method of performing intestinal resection, 1047; notes on cases with specimen of gastroenterostomy and pylorectomy, 1148; the treatment of intestinal obstruction, 1371
Morphine, use of hypodermically in China, 803; abuse of in Hong Kong, 1135; as a cure for opium eating, 1363
Morphinomania among medical men, 142
Morris, Surgeon-Captain W. A., A Manual of Ambulance Transport, *rev.*, 847
Mortuaries in London, 953: in workhouse wards, 1344
Mortuary, new use for a, 802
Mosaic law, sanitation as taught by, 1069
Mother (The) and Other Poems, Dr. S. Weir Mitchell, *rev.*, 186
Motherhood, the profession of, 752
Mothers and nurslings, 1352
Mott, Dr. F. W., atrophy of left ventricle, 676; the sensory motor functions of the central convolutions of the cortex cerebri, 685, 686; peripheral facial diplegia, 1206
Moule, Mr. J., eyesight of school children, 867
Moullin, Dr. C. M., prevention of prolapse of the intestine after inguinal colotomy, 65, 208; castration in enlargement of the prostate, 655, 765; traumatic arachnoid hæmorrhage with symptoms on the same side as the lesion, 1101
Mountaineering, Dr. C. Wilson, *rev.*, 121
Mouth, Fauces, and Larynx, Diagrams of, *rev.*, 18, 103; simple tumour of the palate as a cause of hæmorrhage from, 1374
——— prop or gag, 378
Mouvement et les Exercises Physiques, Dr. E. Dupuy, *rev.*, 236
Mueller, Dr. A., On Snake Poison, its Action and its Antidotes, *rev.*, 236
Müller, Dr. K., Der Milzbrand der Ratten, *rev.*, 1381
——— Dr. Max, Beiträge zur Kentniss der Metastasenbildung maligner Tumoren, *rev.*, 378
Muir, Dr. R., atrophy of the left ventricle in consequence of stenosis of left coronary artery, 676
Mullen, Dr., presented with medal of Royal Humane Society, 30
Mumps and hyperplasia of the cervical lymphatic glands, 1373; an epidemic of, 1457
Munday, Mr. J., prescribing chemists, 969
Munro, Dr. J., the notification of measles, 413, 414
——— Dr. R., the influence of the erect position on the development of the human body and especially of the brain, 617
Murphy, Dr. J., address at opening of Section of Obstetrics, etc., 453
Murray, Dr. G. R., on thyroid secretion, 677
——— Mr. J. K., a case of herpes zoster, 992
Murrell, Dr. W., What to do in Cases of Poisoning, *rev.*, 847
Muscle, a new method of studying the elasticity of, 678; tumour in, 1215
Museum, Mr. Hutchinson's clinical, 963, 1296
Mushrooms, old, the danger of eating, 1174
Myers, Mr. F., the Victorian Tourists' Railway Guide, *rev.*, 122
Myles, Mr. T., treatment of urinary fistula, 1277; laminectomy in spinal injuries, 1427
Myrtle, Dr. A. S., Practical Observations on the Harrogate Mineral Waters, *rev.*, 122
——— Dr. J. A., Practical Observations on the Harrogate Mineral Waters, *rev.*, 122
Myxœdema, changes observed in the urine in after administration of glycerine extract of the thyroid gland, 217, 1272; the mental symptoms of, etc., 463; case of, 845; thyroid feeding in, 1275

N.

Nails, biting the as a sign of degeneracy, 164

Napier, Dr. A. D. L., ventrofixation of the uterus or hysteropexy, 838
Naples, sanitation of, 145
Narcotics, the self-administration of, 802
Nationalisation of Health, Mr. H. Ellis, *rev.*, 377
Navigation, the light sense in relation to, 698
Navy, Royal British, promotions and appointments in the medical staff of, 41, 98, 155, 209, 282, 444, 492, 556, 606, 656, 711, 766, 815, 870, 920, 970, 1028, 1080, 1132, 1184, 1252, 1359, 1409; the examination for the medical department of, 103; regulations for admission to the medical staff of, 545; service for pension in, 870; successful candidates for appointments in, 1184, 1307; varicocele as a disqualification for, 1361; infectious diseases in the, 1443
Neck, removal of large diffuse lipoma of, 1274
Neech, Dr., presentation to, 48
Needle, hypodermic, cleaning of, 51
Needles, abscess of liver caused by, 967
Neish, Dr. J., polymazia, 1459
Neoplasms, intraocular, some unusual forms of, 1377
Nephrectomy, treatment of the pedicle in, 580; for hydronephrosis, 1103
Nerve, third, recurrent palsy of associated with migraine, 119; optic atrophy of as a symptom of chronic disease of the central nervous system, 779; third, paralysis of the, 1273
——— extract, neurasthenia treated by hypodermic injections of, 1321
——— suture, 1168
Nervensystems (Der feinere Bau des) im Lichte neuester Forschungen, Dr. M. V. Lenhossek, *rev.*, 632
Nerves, distribution of to the lower limb, 685
Nervous system, central, the action of the brain of the sheep on diseases of the, 1319
Netley, a band for, 345, 492; pass lists at, 398; ambulance instruction at, 754, 854, 867, 971
Neuralgia, epileptiform trigeminal, treated by Horsley's operation for neurectomy of the inferior division of the fifth nerve, 1098
Neurasthenia treated by hypodermic injections of nerve extract, 1321
Neuritis, peripheral, from arsenic, 996; from lead, *ib.*
Neuroglia elements in the human brain,
Neurosen (Die traumatischen), Dr. H. Oppenheim, *rev.*, 18
Neuroses of Development (The), Dr. T. S. Clouston, *rev.*, 120; the traumatic, 1115
Newby, Dr. T., some cholera cases at Grimsby, 1073
Newcastle-on-Tyne, excursions from, 435
Newell, Mr. P., the mode of election of Branch officers, 96
Newington, Dr. H., effect of change of county government on asylums, 460; State aid for poor private insane patients, 466
Newman, Dr. D., the applicability of the gouge or parting tool to the surgery of the skull, 1050; treatment of cerebral tumours, 1368; treatment of intestinal obstruction, 1372
Newsholme, Dr. A., on diphtheria, 411
New South Wales, leprosy in, 78; medical societies in, 206; the Medical Bill in, 206, 211; small-pox in, 865; vaccination in, 926
Newspaper medicine, 1035
Newton Abbot, the workhouse at, 1187
New York, an irregular practitioner in, 213; typhus fever in, 246; Pasteurism in, 402; destruction of bad meat, etc., at, 449; opening of Pasteur Institute at, 984; special correspondence from, 1244, 1351; quarantine at, 1413
New Zealand, correspondence from, 706; practice in, 1363
Nicholls, Dr. F. L., simple treatment of empyema, 1139
Nicholson, Mr. H. G., dislocation of the cuboid bone, 1153
——— Dr. H. O., fæcal incontinence in childhood, 215 (291); nocturnal incontinence of urine, 1087
——— Mr. R. H. B., treatment of cerebral tumours, 1368
Nielsen, Monograph on Dermatology, *rev.*, 67
Niere. *See* Kidney
Night shelters and infectious disease, 160
——— terrors, 1052
Nightingale, Mr. P. A., decoration of, 301
Nile, the quality of the water of, 96; the pollution of the, 199
Nitrites and their allied compounds, the pharmacological action and therapeutic uses of, 4, 56, 108, 169; of the Paraffin Series, the Physiological Action of, Professors J. T. Cash and W. R. Dunstan, *rev.*, 1428
Nitro-glycerine, unusual acquired intolerance to, 103
Nitrous oxide, anæsthesia by for the removal of tonsils and adenoids, 443
Nixon, Mr. F. A., tumour of brain, 1277; apoplexy of mesentery, 1329
Nonit oil, 930
Noorden, Dr. C. v., Lehrbuch der Pathologie des Stoffwechsel, *rev.*, 16
Noott, Dr. R. H., insanity from the abuse of Indian hemp, 630
Norwich, medical staff corps at, 42
Nose, foreign body in the for 27 years, 117; implication of the ear by disease of, 571; anæsthesia in operations on the, 707; accidental syphilitic inoculation from a blow on the, 1425; foreign body in the, 1459
Notes, Literary. *See* Literary.
Notification, dual, 99; of infectious disease, 100; of infectious sore throat, 212; by householders, 288; by unqualified persons, 349; by relatives, 871; the duty of, 953; compulsory in England and Wales in 1892, 1332, 1383, 1430; and verification, 1394
Nottingham, antivivisection at, 1396
Novy, Dr. F. G., a new anaërobic bacillus of malignant œdema, 849
Nunn, Dr. R. J., the antipyretic action of calomel, 954
Nurse (A Hospital), How to Become, Miss A. Dannatt, *rev.*, 1329; What Constitutes an Efficient, Miss M. C. Pincoffs, *rev.*, 1330
Nurses, village, a pressing but difficult problem, 141; trained, in workhouse infirmaries, 161; a novel competition for, 196; young, training schools for, 504; cottage, and the organisation of village nursing, 651, 1436; as sanitary inspectors, 805; wet, and syphilis, 918; mounted, 977; are they afraid of fever? 1017; English, a warning to, 1247; opening of home for at Beresford House, 1361
Nursing, Mental, Mr. W. Harding, *rev.*, 122; in workhouses, 265, 959, 1064, 1291; at the Halifax Infirmary, 1442
——— staffs and infirmaries, 500
Nurslings, mothers and, 1352

O.

Oath, the, in courts of law, 78, 282; the new form of, 82; the Scotch form of, 352, 612, 720, 1069, 1171, 1452
Obesity and life insurance, 39
Obituary notice of, Dr. A. Henry, 47; Dr. A. Marshall, 98; Dr. J. Segar, 99; Dr. G. Graham, 211; Dr. A. W. K. Packman, *ib.*; Dr. J. Rae, 285; Dr. R. F. Dill, 286; Mr. F. A. Cox, *ib.*; Mr. T. A. Bowen, 400; Dr. A. E. Durham, 447; Professor Charcot, 495; Mr. P. H. White, 496; Dr. W. M. G. Hewitt, 585; Surgeon-Major Parke, 659; Dr. S. Wielobycki, 660; Mr. C. Clay, 712; Dr. H. A. Abelin, 817; Dr. H. H. Ashdown, 975; Mr. W. F. Lucas, *ib.*; Dr. G. Walker, *ib.*; Dr. G. A. Paterson, *ib.*; Dr. J. G. D. Douglas, 1029; Sir A. Clark, 1055; Mr. A. Hensman, 1130; Mr. H. P. Roharts. *ib.*; Dr. W. Galloway, 1185; Dr. J. S. Drennan, *ib.*; Dr. R. Moody-Ward, 1186; Dr. W. R. Williams, 1309; D. A. W. Edis, 1358; Mr. E. M. Sheldon, *ib.*; Dr. M. Corner, 1411; Dr. E. J. Tilt, *ib.*; Dr. R. Kaltenback, *ib.*
O'Brien, Mr. C. M., traumatic rupture of the heart consequent on fracture of the sternum, 813
Obstruction, acute intestinal, 948; intestinal, treatment of 1369; intestinal, from gall stone, 1426
O'Carroll, Dr. J., spina bifida occulta, 1105; hydrocephalus, 1329
O'Connor, Dr. B., the proposed amendment of the penal clauses of the Medical Acts, 1449
——— Dr. J., medical officers and brother practitioners, 767
October the sixteenth, 876
Octogenarians at the Paris Academy of Medicine, 865
Oculists, Indian, prosecution of, 607, 971, 1002, 1009
Odell, Mr. W., presentation to, 94; home for a dipsomaniac, 351
Odyssey of a scarlet-fever patient, 857
Œdema, malignant, new anaërobic bacillus of, 849
Œsophagus, three cases of mediastinal abscess in connection with, 1377
Offer, a quite gratuitous, 1119
Ogle, Dr., and the statistical department, 770
O'Hagan, Mr. P. F., empyema as a sequel of influenza, 1099
Oldbury, cost of small-pox epidemic at, 139
Oldfield, Mr. J., Starch as a Food in Nature, *rev.*, 1054
Oliver, Dr. G., size of the radial artery under anæsthetics, 1304
——— Dr. J., a pedunculated hydatid cyst simulating a pedunculated broad ligament cyst, 13; A Manual of the Diseases Peculiar to Women, *rev.*, 1279
Oliver, Dr. T., physic and physiology, 306; puerperal septicæmia, 628; gases of the blood during anæsthesia, 683
Olivieri, Professor, the suicide of, 1136
Ollier, Dr. L., Traité des Résections et Opérations Conservatrices qu' on peut pratiquer sur le Système Osseux, *rev.*, 68
Omentum, hydatids of, 1107
Operation Blanks, Dr. W. W. Keen, *rev.*, 950
Operations without anæsthesia, 1100
Ophthalmia, contagious, 603; in girls at puberty, treatment of, 1036
Ophthalmic signs, 875
Ophthalmology, medical education in, 313; the therapeutic contributions of to general medicine, 941
Ophthalmotrope, demonstration of, 947
Opium, pilocarpin in poisoning by, 12; poisoning by followed by hyperpyrexia and death, 14; growing and smoking of in India, 337; smoking of by women and children in China, 751; smoking, a rival to, 803; traffic in in Burmah, 1053; cases of poisoning by, 1153; use of in India, 1175, 1195, 1223, 1348, 1399, 1449; as a preventive of ague, 1195, 1405; morphine as a cure for eating, 1363; in Victoria, 1442
——— Commission. *See* Commission
Oppenheim, Dr. H., Die traumatischen Neurosen, *rev.*, 18
Orange, Dr. W., suicide and insanity, 95
Oration, the Harveian, 877
Ord, Dr. W. M., certain changes observed in the urine in myxœdema after the administration of glycerine extract of the thyroid gland, 217, 1272; chronic glycosuria in middle and advanced life, 778; the urine in myxœdema treated by thyroid extract, 1272
Orient Express, the, and quarantine, 1360
Ormsby, Dr. J., dislocation of the patella, 719
Orthopædics, books on, 1139
Osteo-arthritis with subcutaneous nodules, 1324
Osteo-arthropathy, hypertrophic pulmonary, 14, 1215
Osteoclasis, 120
O'Sullivan, Dr. P., dislocation of both shoulders, 945
Oswald, Mr. R. J. W., swearing with uplifted hand, 720
Otology, the teaching of, 314, 851, 905
Ovariotomist, the first French, 908
Ovariotomy in a woman aged 74, 581; postpartum, 622; during pregnancy, 1210; in a patient in her 83rd year, 1271; and longevity, 1290; a plea for the performance of by obstetric physicians, 1315, 1326
Ovary, hernia of, 1272
Overcrowding in the medical profession and its results, 401
Ovulation and menstruation, 1140
Ovum, apoplexy of, 12
Owen, Mr. D., thyroid feeding in exophthalmic goitre, 1211
——— Mr. E., strangulation of the testicle, due to axial rotation of the spermatic cord, 1102
——— Dr. H., sporadic cretinism, 1273
——— Mr. J. L., rupture of both quadriceps extensor tendons, 1425
——— Sir R., the proposed memorial to, 30, 1170; the papers of, 961
Oxford and Cambridge local examinations for juniors, English subjects at, 161
Oxygen, cardiac failure treated by inhalations of, 843; physiological action of in asphyxia, more especially in coal mines, 914; as a therapeutic agent, 1378
——— Sewage Purification Company, the method of, 658
Oxy-hydrogen light, portable form of, for laryngoscopic examinations, 1428

P.

Packman, Dr. A. W. K., obituary notice of, 211
Padley, Dr. G., presentation to, 1033
Page, Mr. F., demonstrations at the Royal Infirmary, Newcastle-on-Tyne, 427; the treatment of intestinal obstruction, 1369
Palate, simple tumour of, as a cause of hæmorrhage from the mouth, 1374
Palmer, Mr. J. F., medical men and literature, 663
Pancreas, traumatic cyst of the, 1106
Papain, 848
Papyrus, the Ebers, some notes on, 477
Paralyses, atrophic, the pathology and distribution of, 721
——— general, of the insane, transient, motor, and sensory disturbances following 117; general, of the insane, trephining in 462; general, of the insane at the time of puberty, 1099; of the third nerve, 1273
Parametritis, abscesses tracking to nates, 945
Paraplegia, hysterical, treatment of, 1311

Parasites, do they exist in cancerous tumours, 179
Paris, correspondence from, 39, 149, 602, 653, 706, 761, 811, 864, 918, 966, 1024, 1077, 1125, 1245, 1306, 1352, 1402; general news from, 39, 654, 762, 1352, 1403; impure ice in, 39; accident in the Bois de Boulogne, *ib.*; proposed medico-legal institute in, 82; overcrowding of the medical school of, 149; disinfection of public sale rooms in, *ib.*; notification of infectious diseases in, *ib.*; the extinction of families in, 643; the danger of night refuges in, 653; school sanitation in, 654; pulling down the Beaujon Hospital, 706; the water supply of, 761; sanitation in the hospitals, 864; banquet to Russian surgeons at, 966; cholera at, 1024; afternoon clinical lectures at, 1025; changes in the professional body, *ib.*; infectious illness in hotels in, 1077; the Faculty of Medicine and its expenditure, *ib.*; mortuary chambers in, 1245; fees to medical experts in, *ib.*; abuse of medical charity in, 1246; hygiene in, 1304; a "couveuse" department to the Maternity of, 1306; proposed new surgical institute at, *ib.*; pure water for the suburbs of, *ib.*; students act as champions of lady medicals, 1352; vaccination in, 1360; the international hospital in, 1361; use of margarine in, 1398; suspected Anarchists in hospital, 1402; physicians' fees, *ib.*; chairs of clinical surgery, 1403; banquet to Dr. Potain, *ib.*; Russomania in, 1415
Parish councils, the powers of, 1017
Parke, Surgeon-Major, T. H., Guide to Health in Africa, *rev.*, 184; obituary notice of, 659; the funeral of, 697; proposed memorial to, 750, 823, 854, 1170, 1455; proposed memorial window to, 1118
Parker, Mr. R., surgical treatment of mastoid disease, 569; radical cure of hernia, 1037, 1044; treatment of cerebral tumours, 1368; intestinal obstruction, 1373
——— Mr. R. W., diphtheria and defective drainage, 1181
——— Dr. W. R., sanitary work for the unemployed, 771
Parkes, Dr. L. C., puerperal septicæmia, 1355
PARLIAMENT. — The Metropolitan Asylums Board and fever cases, 45, 210; the Naval Estimates, *ib.*; the Army Estimates, *ib.*; precautions against cholera, 47; adulterated butter, 87, 159; medical officers and foreign service, *ib.*; accommodation for fever patients in London, *ib.*; importation of milk, *ib.*; the use of variolous lymph, *ib.*; the instruction of army surgeons in field exercises, 159; tests for colour-blindness, *ib.*; vaccination and tuberculosis, *ib.*; Rivers Pollution Prevention Bill, *ib.*; Police and Sanitary Committee, *ib.*; Infectious Hospitals Bill, 210; poisoning of lead workers, *ib.*; Alabone *v.* Morton, *ib.*; pollution of the Nile, *ib.*; Housing of the Working Classes Act (1890) Amendment Bill, *ib.*; the Opium Commission, *ib.*; vaccination fines, 211, 497; the registration of plumbers, 211; typhoid fever at Worthing, 284; the Factory Workshops' Act, *ib.*; cholera and the seaport towns, *ib.*; cholera in Mecca, 284, 608; army medical department, 284, 557; Industrial and Provident Societies Bill, 347; conditions of work in Scottish laundries, *ib.*; death from violence in an asylum, *ib.*; vaccination orders, *ib.*; chemical workers, 399; scarlet fever at Harrow, *ib.*; fever at Agra, 400; principal army medical officers, *ib.*; a university for Wales, 400, *ib.*; army medical examinations, 400, 497, 609; treatment of sewage, 415; typhoid fever, *ib.*; Factory and Workshops Acts, *ib.*; Dublin main drainage scheme, 497; the public health, *ib.*; religious festivals and the spread of cholera, *ib.*; the sale of patent medicines, *ib.*; the system of quarantine, *ib.*; the report of the Tuberculosis Commission, 497, 1412; parish doctors in the East End, 557; ventilation of war ships, *ib.*; alleged cholera at Hull, 558; Bethlem and St. Luke's Hospitals, 608; the importation of rags from cholera districts, 609; cholera in England, 609, 657, 710; unvaccinated pupil teachers, 609; insanitary drains at Windsor barracks, *ib.*; vivisection, *ib.*; alleged case of cholera in the House of Commons, 657; sanitary precautions, *ib.*; insanitary bakehouses, *ib.*; Civil Service Estimates, *ib.*; small-pox in London, *ib.*; rotten fruit and vegetables, 713; lunatic patients in Ireland, *ib.*; the cholera outbreak at Ashbourne, *ib.*; London bakehouses, 714; precautions against cholera, *ib.*; Army Sanitary Committee, *ib.*; medical officers for India, *ib.*; medical inspections in India, *ib.*; vaccination, 714, 1133; cholera and quarantine, 714; sanitation in colliery villages, 768; quarantine against Great Britain, *ib.*; the Parish Councils Bill, 1082; Isolation Hospitals Bill, *ib.*; death from anthrax, *ib.*; glanders, 1133; the Employers' Liability Bill, *ib.*; bhang and opium in Ceylon, *ib.*; gratuitous revaccination, 1186; proposed fever hospital at Norwood, *ib.*; quinine and cinchona, *ib.*; army medical officers, *ib.*; vaccination prosecutions, *ib.*; the charge against Dr. Turner, 1255; diphtheria in London, *ib.*; death from carbolic acid, *ib.*; the compulsory notification of diseases, *ib.*; the health of British troops in India, 1309; the health of the troops, *ib.*; the medical staff corps, 1255, 1456, 1457; medical volunteers, Edinburgh, 1309, 1412; medical aid for postmen, *ib.*; the Opium Commission, *ib.*; increase of anthrax, *ib.*; animal tuberculosis, 1359; medical aid in Her Majesty's ships, *ib.*; small-pox in Her Majesty's prisons, 1412; a case of small-pox, *ib.*; Gresham University Commission, *ib.*; Woolwich Hospital, 1456; a new fever hospital, *ib.*; diphtheria, *ib.*
Parsees, a hospital for, 1254
Parson, a practical, 824
Parsons, Dr. F., the St. John Ambulance Association and its doctors, 868
Partridge, Deputy-Surgeon-General S. B., made K.C.S.I., 140
Passengers, wealthy, and ship surgeons, 1415
Pasteur, M., and the Russian surgeons, 966
——— album, a, 918
——— Dr. W., the personal factor in work, 788
Pasteurism, in New York, 402; in Cochin China, 1267
Patella, old ununited fracture of, treated by wire suture, 120
Patents and the sale of poisons, 1066
Paterson, Dr. A. M., distribution of nerves to the lower limb, 685
——— Dr. G. A., obituary notice of, 976
Pathology, humoral, Professor Hamilton on, 1121; veterinary works on, 1191; minute cardiac, 1276; comparative, 1277
Patient, the comfort of the 1107; a grateful, 1255
Paton, Dr. N., influence of fever on hepatic glycogen, 682
Patterson, Mr. R. D., measles, antiseptic inunction, 13, 163
Patton, Dr. A., insanity from the abuse of Indian hemp, 630
Paul, Dr. F. T., tooth-containing dermoid of the face, 1375; case of acromegaly treated by operation, 1421
Paulson, Mr. W., a bangle-tipped catheter, 1001
Paupers, infectious, isolation of, 288
Pavy, Dr., presidential address to Pathological Society, 890
Paxton, Dr. J., death of, 160
Payne, Dr. J. F., history of epidemiology in England, 1276
Péan, M., and M. Verneuil, 1125
Pedicle, treatment of the in nephrectomy, 580
Pedley, Mr. F. N., dentists and the College of Surgeons, 814
Pelvis, abscess in the, 981
Pemphigus (?), congenital, 1273
Pennell, Mr. T. L., ophthalmic discs, a hint, 612; lothotrity, a warning, 664
Pennsylvania, control of quarantine in, 289
Pennyroyal, poisoning by essence of, 1270
Pepper, Dr. W., A Textbook of the Theory and Practice of Medicine, *rev.*, 121; speech of at the Pan-American Congress, 806
Péraire, Dr., Manuel de Petite Chirurgie de Jamain, *rev.*, 585
Percentage solutions, 1259
Perchloride disinfectants, 796
Percival, Mr. A. S., effect of correcting errors of refraction in epileptics, 733
——— Mr. G. H., stricture of pylorus, Loreta's operation, 65
Peritoneum, tuberculous disease of, 887
Peritonitis, pelvic, in the female and the pathological importance of the Fallopian tubes in connection therewith, 353
Pettenkofer, Professor v., the jubilee of, 128
Pharmacopœia of the United States, The, *rev.*, 1217; an imperial, 1339, 1413
Pharynx, billiard ball impacted in the, 1051
Phenacetin, ill-effects following the administration of, 119
Phenazone, ill-effects following the administration of, 119
Philadelphia, special correspondence from, 1244, 1351; quack aspects of medical life at, 1351
Philipson, Dr. G. H., presidential address at the annual meeting of the British Medical Association, 293; a Minister of public health, 489
Phillips, Dr. F. L., the etiology and treatment of psoriasis, 936; the title of "Dr.," 967; thyroid feeding in skin diseases, 1152, 1259; medical aid associations, 1250
Phillips, Dr. J., Outlines of the Diseases of Women, *rev.*, 377
Phosphorus, amorphous, the advantages of, 954
Phrenology, 1259
Phthisis, the prevention of, 695; cantharidinate of potassium in, 706; a mechanical treatment of, 886; the notification of, 1101
Physic and physiology, 306
Physicians, provincial, a plea for, 1450
Physiologist's Notebook, The, Dr. Alex Hill, *rev.*, 795
Physiology of the Senses, The, Dr. J. G. McKendrick, *rev.*, 16; Dr. Burdon Sanderson on, 707; Catechism Series, *rev.*, 796; Chemical, the Essentials of, Dr. W. D. Halliburton, *rev.*, 846; Human, an Introduction to, Dr. A. D. Waller, *rev.*, *ib.*; of Sport, Dr. G. Kolb, *rev.*, 1156
Pierce, Dr. B., State aid for poor private insane patients, 465
Pilocarpin in poisoning by opium and belladonna, 12; in aural affections, 570
Pineoffs, Miss M. C., What Constitutes an Efficient Nurse, *rev.*, 1330
Pipe, an improved, 103
Pitt, Dr. G. N., osteo-arthritis with subcutaneous nodules, 1324; oxygen as a therapeutic agent, 1378
Pitts, Mr. B., surgery of the air passages and thorax in children, 105, 174, 231; St. Thomas's Hospital Reports, *rev.*, 1109
Placenta (Le) dans la Grossesse Extrautérine et sa Croissance après la Mort du Fœtus, Dr. A. S. Gubb, *rev.*, 897
Plates, autochromatic, in photography of the eye, 947
Playfair, Dr. W. S., presentation to by King of Roumania, 977; puerperal septicæmia, 1179
Pleasure, the sensation of, 645; the physiology of, 771
Pleurisy, latent, 771
Plucking at examinations, 912, 1234
Pneumonia, chloride of calcium in, 1374
Pocketbooks and Diaries, *rev.*, 1219, 1380
Pocket case, aseptic, 19
Poisoning by the self-administration of "diachylon" to procure abortion, 9; by opium and belladonna, pilocarpin in, 12; by opium, 14, 1153; by meat, 33; at Forest Gate district school, 87, 485; by belladonna, opium, and conium, 116; industrial by lead, 197, 1345, 1391; by chloride of zinc, recovery, 578; by koumiss, 717; by pyridine, 844, 856; What to do in Cases of, Dr. W. Murrell, *rev.*, 847; by essence of pennyroyal, 1270; by home-made wines, 1291; by carbolic acid, 1291, 1341, 1415, 1446, 1447; by misadventure, 1343, 1392, 1459; by food, *ib.*
Poisons, the sale of medicines containing, 84, 1281, 1288; the illegal sale of, 262, 1122, 1444; patents and the sale of, 1066
Police, the clothing of the, 482; calls by and the medical profession, 560
Polioencephalomyelitis without any anatomical lesions, a case of, 176, 452
Pollard, Dr. B., accuracy and thoroughness, 791
Pollatschek, Dr. A., Die therapeutischen Leistungen des Jahres, 1892, *rev.*, 186
Pollock, Mr. J., the physiology of pleasure, 771
Polymazia, 1459
Poole, the sanitary condition of, 1361
Poore, Dr. G. V., Essays on Rural Hygiene, *rev.*, 689
Pope, Dr. F. M., two cases of poisoning by the self-administration of "diachylon" — lead plaster—for the purpose of procuring abortion, 9
Porritt, Mr. N., surgery of the spine, 1106
Port medical inspection, 1237
Port Talbot, opening of cottage hospital at, 873
Porthleven, the sanitary state of, 1203
Posner, Dr. C., Diagnostik der Harnkrankheiten, *rev.*, 1379
Post-graduate study, 537; course for London, 802, 1188
Post-nasal growths, hæmorrhage from, 180
Pott, Mr. F., fees to medical witnesses, 280
Potts, Mr. J., death of, 48
Pound, Mr. C., treatment of wasp stings, 720
Powell, Mr. A., atrophy of prostate after castration, 1099
——— Dr. H., The Surgical Aspect of Traumatic Insanity, *rev.*, 185
——— Dr. R. D., Diseases of the Lungs and Pleuræ, including Consumption, *rev.*, 893
Power, Mr. D'A., advantages of early evacuation of ascitic fluid, 740; some effects of chronic irritation upon living tissues, being first steps in a rational study of cancer, 830; rodent ulcer, 938; the treatment of enlarged cervical glands, 1144
Pozzi, Dr., the service of at the Lourcine-Pascal

Hospital, 180; the conservative treatment of diseases of the uterine appendages. 618
Practice, civil, army medical officers and, 103; unqualified, and overcrowding of the medical profession, 764; the gross value of a, 1035; valuation of a, *ib.*; in New Zealand, 1363
Practicum der physiologischen und pathologischen Chemie, Dr. E. Salkowski, *rev.*, 796
Practitioner, the general, the consultant and, 1238, 1306
Practitioners, general, and the Sections at the annual general meeting, 40, 95, 152; British, abroad, 546; irregular in law and medicine, 657, 709; private, and isolation hospitals, 872
Prance, Dr. C. R., death of, 713
Praxis des Chemikers, Dr. F. Elsner, *rev.*, 185
Précis d'Hygiène de la Première Enfance, Dr. J. Rouvier, *rev.*, 15
Pregnancy, etiology of the sickness of, 183; hyoscyamus in, 719; reflex amblyopia during, 731; after jejunostomy, 943; ovariotomy during, 1210
Prescriptions, abuse of, encouragement to quackery, 1088; select and pharmaceutical notes, 1242
Presentation to, Dr. Neech, 48; Dr. J. Harrison, 49; Dr. Ringwood, 70; Mr. W. Odell, 94; Dr. R. H. Hoare, 101; Dr. D. Mason, 160; Mr. T. N. Wright, 286; Dr. Wallace, 289; Professor T. Grainger Stewart, 385; Dr. Braidwood, 501; Mr. A. Stedman, 580; Mr. H. Jones, 647; Dr. R. Grant, 660; F. J. A. Waring, 700i Dr. Corbett, 717; Dr. E. Linnell, 749; Sir W. Broadbent, 750; Dr. J. S. Bristowe, 801; Dr. G. E. Shuttleworth, 802; Dr. C. E. Douglas, 873; Dr. G. Padley, 1033; Dr. J. D. Adams, 1044; Mr. Favell, 1067, 1126; Mr. E. Cockey, 1136; Dr. W. B. Mackay, 1063; Dr. C. J. W. Dixon, 1188; Mr. J. Hodgson, 1286; Dr. W. Lambe, 1320; Dr. C. E. Glascott, 1402; Mr. J. Clay, 1413
Press notices and quack remedies, 139
Priestley, Mr. J., diphtheria and defective drainage, 1248
——— Dr. J., cases of opium poisoning, 1153
Prince Louis of Battenberg, the accident to, 1050, 1310
Prince-Morrow, Monograph on Dermatology, *rev.*, 67
Pringle, Brigade-Surgeon R., quarantine in cholera, 369; on diphtheria, 412; the spread of infectious disease by tramps, 413; district medical officers as medical officers of health, 415; skin disease allied to erythema and urticaria, 475; the etiology and treatment of psoriasis, 937; rodent ulcer, 938: excision of lupus, 940; erythema induratum of the scrofulous, 941
Prisms, The Clinical Use of, Dr. E. Maddox, *rev.*, 795
Prison medical service, the, 51; regulations for admission to, 545, deaths in, 1398
Prize essays, 101, 875
——— the Alvarenga, 1088
——— the Middlemore, notice as to, 554
——— Reuben Harvey Memorial, 1136
——— the Swiney, 1229
Procidentia uteri, chronic, surgical treatment of, 900
Profession, the medical, the modes of entering, 505; and police cells, 563; the medical, overcrowding of and unqualified practice, 764
Professions, the medical and dental, 969, 1028, 1452
Proprietary mixtures, 708
Proptosis, double, 728
Prostate, hypertrophied, the present position of the surgery of the, 575; castration in enlargement of the, 575, 655, 708, 765, 823, 1099; enlarged, the operative treatment of, 1427
Protection run mad, 482
Protozoa and disease, 825
Pruritus ani, treatment of, 771, 822, 1035
Prussia, results of intemperance in, 1229
Psoriasis, treatment of by the internal administration of thyroid extract, 933, 1424; the etiology and treatment of, 934
Psorospermosis and malignant disease, 762; a few facts concerning, 834
Psychological medicine, lectures, etc., on 512
Psychology and mental diseases, 463; Dr. Burdon Sanderson on, 707
Ptosis, the mechanical treatment of, 329
Public Health, Laboratory Work, Mr. H. R. Kenwood, *rev.*, 15; England, health of principal towns in, 48, 99, 159, 212, 288, 349, 401, 448, 500, 558, 606, 658, 716, 767, 818, 871, 925, 953, 1030, 1083, 1134, 1186, 1308, 1360, 1412, 1457; the true death-rates of London districts, 287, 924; the Registrar-General's quarterly return, 347, 1030; English urban mortality, 348, 952; zymotic mortality in London, 499, 1031
Public health, Ireland, health of principal towns in, 48, 99, 159, 212, 288, 349, 401, 448, 500, 558, 606, 658, 716, 767, 818, 871, 925, 953, 1031, 1083, 1135, 1186, 1309, 1360, 1412, 1457
——— Scotland, health of principal towns in, 48, 99, 159, 212, 288, 349, 401, 448, 500, 558, 606, 658, 716, 767, 818, 871, 925, 953, 1030, 1083, 1135, 1186, 1309, 1360, 1412, 1457
Publichouses as vaccination stations, 1360
Pudenda, bite from a horse on the, 612
Pudsey, maintenance in infectious hospital at, 212
Puerperium, our knowledge of the diseases of, 1309
Puffing, founders shares and, 1066
Pullar, Dr. A., warming a consulting room, 1191
Pulmonary. *See* Lungs
Pulsus paradoxicus in acute laryngitis, 154
Pupil, the size of the, 1415
Purslow, Dr. C. E., retroversion of the gravid uterus, 628
Puzey, Mr. C., concussion of the spine, 1096
Pye-Smith, Dr. P. H., the Harveian Oration, 877; perforating ulcer of duodenum, 1272; carcinoma of duodenum, *ib.*
——— Mr. R. J., radical cure of hernia, 1040; fallacy of the vertical footpiece, 1049
Pylorectomy, notes on cases with specimens of, 1148
Pylorus, stricture of Loreta's operation, 65; adhesions of treated by abdominal section and separation, 891, 910
Pyrexia, continued, without apparent cause, 234
Pyridine, fatal case of poisoning by, 844, 856

Q.

Quack, in trouble, a, 1188, 1413
——— oculists, 482, 504
——— remedies, press notices and, 135, 191, 257
Quackery, indiscriminate use of prescriptions, an encouragement to, 1088; a new phase of, 1345
Quacks and unqualified practice, 868; a congress of, 1233; patent medicines and the clergy, 1406
Qualifications, registrable, 1087
Quarantine in Egypt and cholera at Mecca, 222; and cholera, 603; at Tor and Nakhel, 797; M. Monod on, 806; its merits, mischiefs, and mistakes, 956; in the United States, 1036; regulations as to, 1140; and the Orient express, 1360; at New York, 1413; children in, 1443, 1453
Quarantines, European, 192: iniquitous, 195; extraordinary, 196
Quarrier Homes, the work of, 1306
Queen, address of congratulation to the, 744
Queensland, Notes on Some of the More Common Diseases in, Dr. D. Hardie, *rev.*,1278

R.

Rabe, Dr. A., Die Modernen Fiebertheorien, *rev.*, 950
Rae, Dr. A., treatment of eczema, 1259
—— Dr. J., obituary notice of, 285
Rags, importation of and cholera, 194, 553, 705
Railton, Dr. T. C., peripheral neuritis from arsenic, 996; peripheral neuritis from lead, *ib.*
Rain, making, 750
Ransome, Dr. A , disinfection of tuberculously-infected houses, 990
Rattray, Dr. A. M. T., the condition of the London streets, 664
Raven, Mr. T. F., the annual meeting of the East Kent District of the South Eastern Branch, 40
Ray, Surgeon-Major J. D., painful sting, 664
Rayner, Dr. H., remarks on the out-patient department for mental diseases at St. Thomas's Hospital, 466; alleged increase of insanity, 1161; automatic writing, 1388
Razetti, Dr. L., the clinical study of the disease known as "la buba," 850
Read, Mr. C. G., wasp stings, 504
Ready, aye ready, 754, 854
Rectum, the position of the patient in excision of tumours of the, 64, 153; foreign body in the, 980
Redmond, Mr. C. S., apoplexy of ovum, 12; a case of glycosuria, 778
Referred, revenge of the, 163
Refraction, testing and medical education in ophthalmology, 313; effect of correcting errors of in epileptics, 732
Renton, Dr. J. C., radical cure of hernia, 1039
Rentoul, Dr. R. R., amendment of the Births and Deaths Act, 96; the mode of election of Branch officers, 152; the abuse of medical charities, 442, 489; certification of midwives, 1026; Midwives Registration Association, 1357
Residence, foreign, 980
Respiration, artificial, dangers of in chloroform accidents, 708, 868
Rest in chlorosis and heart disease, 753
Retractor or wound hook, self-retaining, 1331
Revaccination and small-pox, 1077; alleged illegal, 1082; and sick assurance, 1258
Revenge of the referred, 163
Reynolds, Dr. E. S., paralysis of the third nerve, 1273
Rheumatism, acute, hyperpyrexia, death, 993
Rhodes, Mr. T., the Victoria Street Anti-vivisection Society and the "Nine Circles," 154
Richards, Mr. J. P., the alleged increase of insanity, 461; detached hospitals and asylums, 465; State aid for the poor private insane, 466; insanity from the abuse of Indian hemp, 630; the etiology and treatment of psoriasis, 937
Richardson, Mr. A., The Law of Cremation, *rev.*, 185
Rickards, Dr. E., infectious diseases with especial reference to their treatment by vaccines, 985
Ridge, Dr. J. J., Alcohol and Public Health, *rev.*, 236; notification of measles, 413; the diet of infants and young children, 416
Rifle, new magazine (Lee-Metford), examples of wounds inflicted by, 757, 798, 852
Rigden, Mr. G. C., death of, 713
Ring, Dr. C. G., the prevention of the spread of infectious disease by tramps, 413
Ringwood, Dr., presentation to, 70
Ringworm, chronic of the scalp, 467; chronic, the biniodide treatment of, 604; the treatment of, a suggestion, 876; instruments for the treatment of, 1159
Risquez, Dr. F. A., forms of malaria and their characteristic features, 849
River pollution in the West Riding, 279; the prevention of, 401; and water supplies, 857
Rivers, dangers of as sources of public water supply, 1112
Riviera, the next winter season on the, 822; the health resorts of the, 1416
Rivington, Mr. W., treatment of intestinal obstruction, 1372
Robarts, Mr. H. P., obituary notice of, 1131
Roberts, Mr. C., treatment of pruritus ani, 771
——— Dr. J., the etiology and treatment of psoriasis, 937
——— Dr. L., on ringworm, 472
Robertson, Dr. A., the pathology and distribution of atrophic paralyses, 727; concussion of the spine, 1095; observations on the action of the brain of the sheep in diseases of the central nervous system and mind, 1319
——— Dr. D. A., the therapeutic contributions of ophthalmology to general medicine, 941
——— Dr. G. M., trephining in general paralysis of the insane, 462
——— Dr. W., septic infection of the lateral sinus, 562; treatment of chronic suppuration of the middle ear, 566; surgical treatment of mastoid disease, 569; pilocarpin in aural affections, 570; implication of the ear by disease of the nose and naso-pharynx, 571; Eustachian synechiæ, *ib.*; benzole in influenza, 1425
Robins, Miss D., the Royal British Nurses Association, 150
Robinson, Dr. A., cholera, 1052
——— Mr. C. H., the Hausa Association, 612
——— Dr. J., concurrent measles and scarlatina, 291
——— Dr. Tom, a case of multiple pedunculated exostoses, 11
——— Dr. W., on diphtheria, 411; the spread of infectious disease by tramps, 413; lead miners and their diseases, 415
Robson, Mr. A. W. M., pyloric adhesions treated by abdominal section and separation, 891, 910, 970; case of epileptiform trigeminal neuralgia treated by Horsley's operation for neurectomy of the inferior division of the fifth nerve, 1098; recurrent appendicitis, 1106; adhesions a cause of visceral disability, 1407
Roches Santcuil table water, 848
Rolleston, Dr., three cases of mediastinal abscess in connection with the œsophagus, 1377
Romanes, Dr. G. J., An Examination of Weismannism, *rev.*, 1108
Rome, the new military hospital at, 126; a substitute for, 383, 451; surgical congress at, 1136; special correspondence from, 1246; Red Cross Congress at, *ib.*
Rosenau, Dr. A., medical practice in the Argentine Republic, 503; foreign residence, 980
Rotherham, the water supply of, 442
Rothschild, Baron N., the gift to Vienna by, 78

Routh, Mr. R. H. F., locomotor ataxy treated by Brown-Séquard's fluid, 1425
Rouvier, Dr. J., Précis d'Hygiène de la Première Enfance, *rev.*, 15
Rowat, Dr. J., wasp stings, 823
Roy, Professor C. S., defensive mechanisms, 310
Rudall, Mr. J. T., spontaneous rupture of capsule after iridectomy preliminary to cataract extraction, 1105
Ruffer, Dr. M. A., protozoa and disease, 825
Rugby, the Hospital of St. Cross at, 591, 919
Ruppert, Mrs. A., the cosmetics of, 480, 553; at the Lyric Theatre, 1397
Rural districts, the sanitary officers of, 401
Russell, Dr. D., death of, 713
——— Dr. J. S. R., experimental investigation into the functions of the cerebellum, 680
——— Dr. W. J., Domestic Medicine and Hygiene, *rev.*, 236
Russia, sanitary statistics in, 25; the vital statistics of, etc., 149; hypnotism in, 352, 930; the cost of medical education in, 790; female medical practitioners in, 811; blindness in, 1126; hygiene in, 1136; new entries in the medical schools of, 1188; the decimal system in, 1191; hydrophobia in, 1256; *ib.*; medical congresses in, 1352
Russomania in Paris, 1415
Rutherford, Dr. J. C., the mechanism of labour, 899
Ryan, Mr. R. P., simultaneous and uncomplicated fracture of both calcanea, 993
Ryan-Tenison, Mr. P. H., puerperal septicæmia, 1451
Ryedale, enteric fever in, 448
Ryle, Dr. R. J., mumps and hyperplasia of the cervical lymphatic glands, 1373

S.

Sabouraud, M., the cultivations of, 470
Sachs, Dr. H., Vortrage über Bau und Thätigkeit des Grosshirns und die Lehre von Aphasie und Seelenblindheit, *rev.*, 121
Saddle, improved cycling, 1110
St. Agnes, diphtheria at, 1032
St. Giles, the Christian mission work in, 449
St. John Ambulance. *See* Association
St. Pancras, insanitary area in, 953
St. Petersburg, correspondence from, 149, 811, 966, 1126, 1352; scurvy among the troops at, 927; cholera in, 966, 1126, 1353; epidemic influenza in, 1353
Sajous, Dr. C. E., Annual of the Universal Medical Sciences, *rev.*, 950
Salicylate of sodium, Menière's disease cured by, 579
Salicylates, danger of treating hyperpyxrexia of rheumatic origin by, 1129
Saline solutions, the intravenous injection of in severe hæmorrhage,
Salisbury the unready, 261; the Nemesis of unreadiness at, 433
Salkowski, Dr. E., Practicum der physiologischen und pathologischen Chemie, *rev.*, 796
Salol in diarrhœa, 1278
Salpêtrière, the electro-therapeutic service at, 761
Salvation Army, small-pox at the shelters of, 208; and the dissemination of small-pox, 384; and infection, 1292, 1350
Sanderson, Dr. J. B., the origin of biology and its relation to other branches of natural science, 613; on physiology and psychology, 707, 804
Sanitary improvements, incidence of the cost of, 144
——— inspectors, female, 916, 963; death of, 925
——— law, needed improvements in, 484
——— officering of rural districts, 401
——— Work in the Smaller Towns and in Villages, Mr. C. Slagg, *rev.*, 950
Sanitas sanitatum omnia sanitas, 752
Sanitation, practical, public instruction in, 801; and tuberculosis, 857; as taught by the Mosaic law, 1069; Egyptian, 1435
Sansom, Dr. A. E., convocation of the University of London and the extension movement, 1353
Santos, outbreak of yellow fever at, 194
Sarcolactic acid, 1188
Sarcoma, recurrent spindle-celled of lower jaw, 116; rapidly growing of both orbits in a child, 947; of femur, 996; spindle-celled of iris, 1204
Saundby, Dr. R., Ewald's "Magenkrankeiten," 762, 1080; glycosuria and diabetes, arsenic in, 776; concussion of the spine, 1097
Saunders, Mr. H., severe symptoms after wasp sting, 772
Savage, Dr. G. H., some neuroses associated with the menopause, 995
Saxony, the establishment of consumption hospitals in, 401
Sayre, Dr. R. H., the treatment of angular deformities at the hip-joint, 1198
Scaphoid, dislocation forwards of, 889
Scarlatina and Scarlet Fever. *See* Fever.
Scatliff, Dr. J. E., operative treatment of scrofulous glands, 1260
Schacht, Dr. F. F., ventrofixation of the uterus or hysteropexy, 838; dangers of tents, 1052
Schauta, Professor, decoration of, 927
Schetelig, Dr. A., Homburg Spa, *rev.*, 1330
Schimmelbusch, Dr. C., Anleitung zur aseptischen Wundbehandlung, *rev.*, 847
Schmaus, Dr. H., Uber den Ausgang der cyanotischen Induration der Niere in Granular Atrophie, *rev.*, 122
Schofield, Dr., two cases of softening of intracardiac thrombi, 1272
Scholtz, Dr. W. C., South Africa Medical Congress, 1073
School, Cooke's Medical, instruction at, 526
——— of Instruction, Volunteer Ambulance. *See* Volunteer.
——— of Medicine, Catholic University, instruction at, 530; fees at, 532; opening of session at, 1017
——— of Medicine, Edinburgh, instruction at, 528
——— of Medicine for Women, Edinburgh, instruction at, 52
——— of Medicine for Women, London, annual meeting of, 45; clinical instruction, etc., at, 526; fees at, 532; and the University of St. Andrews, 612; opening address at, 787; entrance scholarships at, 862
——— of Physic, Dublin, instruction at, 530; fees at, 532
Schoolkeeping as an industry, 1015
Schools, the great public, 261; public work and play in, 430; the sanitation of, 483; public, and scarlet fever in, 484; medical, opening of the, 543, 861; medical, entries at the, 916, 964; public, the inspection of, 1015
——— of Surgery, Dublin, instruction at, 530; fees at, 532
Schuster, Dr., When may Syphilitics Marry? *rev.*, 817
Schwalbe, Dr. J., Grundriss der speciellen Pathologie und Therapie, *rev.*, 17
Science, a new medical, 1237; English and two English bishops, 1288
Scissors, prostate, 1280
Sclerosis, false disseminated, 1213; insular, hysteria simulating, 1273
Scotland, public health in, 714; medical officers in and the Parish Councils Bill, 1450
Scott, Mr. K., extreme hyphæmia of both eyes, with corneal abscess of right eye occurring as a sequel of small-pox, 1105
——— Mr. R. H., fogs, 404
Scurvy among the St. Petersburg troops, 927
Sea sicknsss, treatment of, 452, 404, 595
Seaford, the convalescent home at, 992
Sealy, Mr. R. B., a singular causation of tonsillitis, 824; double amaurosis following concussion, 843
Seaside, infection at the, 1237
Seaton, Dr. E., diphtheria and defective drainage, 1404
Seats for shop assistants, 1230
Secresy, professional insurance companies and, 163
Sections-Technik im Leichenhause des Charitékrankenhauses, Dr. R. Virchow, *rev.*, 17
Seegen, Dr. J., Der Diabetes Mellitus auf Grundlage zahlreicher Beobachtungen dargestellt, *rev.*, 185
Segar, Dr. J., obituary notice of, 99
Semmelweiss, the memorial to, 160, 434
Semon, Dr. F., sequel to a case of anomalous tumour of the larynx, 1376
Septicæmia, puerperal, 623, 900, 1179, 1249, 1355, 1451; corrosive sublimate in, 932, 967, 1028, 1180; the prevention of, 996
Sewage, the purification of, 658; of hospital, disposal of, 1412; the electrical purification of by the Hermite system, 1436
Sewers, London, refuse in, 261
Sewill, Mr. J. S., drainage of the antrum, 930
Shand, Dr. J., ice in surgery, 1140
Shattock, Mr. S. G., sequel to a case of anomalous tumour of the larynx, 1376
Shaving brush, germs in the, 771
Shechita, the Jewish, 911
Sheen, Dr. A., the title of "Dr," 931
Sheep, action of the brain of on diseases of the central nervous system and mind, 1319
Sheffield, correspondence from, 150, 279, 442, 654, 811, 967, 1126, 1404; the telephone difficulty at, 150; extension of the fever hospital at, *ib.*; seeing is believing, 279; housing of the poor at, 442; cholera at, 654; drainage of the fever hospital at, 655; the health of, 812; the coal strike at, 967; ambulance classes at, *ib.*; isolated cottage homes for children, 1126; branding of foreign milk, 1404; salaries of union medical officers, *ib.*; vacancies and appointments, *ib.*; influenza, *ib.*; the students' club, *ib.*
Sheild, Mr. A. M., sequel of tumour in an infant, 1274
Sheldon, Mr. E. M., obituary notice of, 1358
Shelly, Dr. C. E., notification fees in public schools, 1413
Shelters. *See* Night
Sheriff, a practical, 1403
Sherrington, Dr. C. S., experimental note on the knee-jerk, 685; focal epilepsy, 988
Ship surgeons and wealthy passengers, 1415
Shipley, Mr. A. E., Zoology of the Invertebrata, *rev.*, 581
Ships, hospital, dangers of, 482; malaria on, 920, 1152
Shock, avoidance of, 491
Shop assistants, seats for, 1230
Shorncliffe, proposed new hospital at, 1081
Shorthand for medical men, 1258
Shoulder, a critical analysis of 30 cases of dislocation of, treated by manipulation, 63
Shoulders, dislocation of both, 945
Shroud, a safety, 951
Shrubshall, Dr. W. W., vaccination influence, 931
Shuttleworth, Dr. G. E., presentation to, 802
Siberia, lepers in, 141; leprosy in, 1237
Sibthorpe, Surgeon-Colonel C., dinner to, 211
Sick, the Care of the, Notes on Home Nursing, Miss A. Kenealy, *rev.*, 69
Sickness of pregnancy, etiology of, 183
——— and old age, provision for, 867
Sight, defective, the Education Department and, 803
Simmons, Dr. A. B., the antipyretic action of calomel, 954
Simpson, Dr. A. R., puerperal septicæmia, 627
——— Mr. G. A. G., removal of dandruff, 822; congenital dislocation of knee-joint, 1099
——— Mr. R. Wright's, Improved Visiting List, *rev.*, 1109
Sims, Mr. F. M., appointed physician in ordinary to the Duke of Cambridge, 289
Simson, Mr. F. T., imported rags and cholera, 705
Sinclair, Dr. W. J., an electioneering card, 1183, 1408
Sinus, lateral, the symptoms and treatment of septic infection of, 561; septic thrombosis of, operation, recovery, 1144; thrombosis of, 1274
Skerritt, Dr. E. M., glycosuria and diabetes, 777
Skin, thyroid feeding in affections of, 474, 763; a definite form of disease of, allied to erythema and urticaria, *ib.*; massage in diseases of, 475; metastases in certain inflammations of, *ib.*; Diseases of the, Dr. H. R. Crocker, *rev.*, 583; thyroid feeding in diseases of, 1152, 1275; absorption of drugs through the, 1191; improved dressings for the, 1220
——— grafting for lupus, 1274
——— specialist's claim, a, 1364
Skinner, Dr. C., salol in diarrhœa, 1278
Skull, applicability of the parting tool or angular gouge to the surgery of the, 1050
Slagg, Mr. C., Sanitary Work in the Smaller Towns and in Villages, *rev.*, 950
Small-pox, in Leicester, 32, 698; official views of infection by, 35; in Great Britain, 35, 123, 246, 386, 439, 965; and vaccination in 1892, 3, 71, 190, 818; in Warrington, 135; at Oldbury, 139; in Western Australia, 211; isolation after, 289; literature of, 240; the Salvation Army and the dissemination of, 384; in Kilkenny County, 448; the spread of, 551; attendance on cases of, 607; the diagnosis of, 658, 819; and the franchise, 715; Sunday clothes and, 818, in England, 861, 915, 1021, 1084, 1123, 1177, 1242; in New South Wales, 865; in West Ham, 871; at Birmingham, 918; revaccination and, 1077; in London, 1134; in Edinburgh, 1135; scattering of, 1171; in Germany, 1255; and cow-pox, 1270; at Leith, 1291, 1403; in West London, prosecution for failure to notify, 1360
——— patients, maintenance of, 1032
Smart, Dr., treatment of anæmia and chlorosis, 119
Smith, Miss C., cerebral evolution and the education of women, 930
——— Veterinary-Captain F., A Manual of Veterinary Hygiene, *rev.*, 1000
——— Dr. F. J., suicide and insanity, 40; abuse of medical charities, 397
——— Dr. H., the conservative treatment of diseases of the uterine appendages, 621; post-

partum ovariotomy, 623; the treatment of retroversion of the gravid uterus, 629
Smith, Mr. N., the distribution of tubercle in abdominal tuberculosis, 742; a mechanical treatment of phthisis, 886; concussion of the spine, 1097; the treatment of enlarged cervical glands, 1144
——— Dr. R. S., treatment of glycosuria by alkaline waters, 778
——— Dr. S. W., the Jenner relics, 815
——— Dr. Solomon, humanised milk, 822
——— Dr. Spencer, surgeon-apothecary, 104
——— Dr. T., Investigations into Causation, etc., of Texas or Southern Cattle Fever, *rev.*, 584
——— Dr. W., regional subdivision of the abdomen, 680
——— Dr. W. R., on a definite form of skin disease allied to erythema and urticaria, 474
Smyly, Dr. W. J., the conservative treatment of diseases of the uterine appendages, 621
Smyth, Dr. S., communicability of foot and mouth disease from cattle to man, 352
Snake bite in South Wales, fatal case of, 114, 280
——— Poison, its Action and Antidotes, Dr. A. Mueller, *rev.*, 236
Snakes, poisonous, in India, 139, 1286
Snare, aural, 1110
Snell, Mr. S., recurrent third nerve palsy associated with migraine, 119; double proptosis, 729; rapidly growing sarcoma in a child involving both orbits with secondary growths, 947; case presenting unusual appearances after cataract extraction simulating cyst, but really due to a distending capsule; *ib.*
Snow, Dr. H., recurrent spindle-celled sarcoma of lower jaw, excision, cure, 116
Societies, friendly medical examinations for, 51; insurance, medical aid branches of, 153
Society of Anæsthetists, formation of, 961; meeting of, 1304
——— Antivivisection, and the "Nine Circles," 139, 154
——— of Apothecaries. *See* Apothecaries
——— Clinical, of London, president's address, 891; pyloric adhesions treated by abdominal section and separation, *ib.*; excision of malignant tumour from large intestine, 892; gastro jejunostomy, 994; living specimens, 994, 1272; traumatic arachnoid hæmorrhage with symptoms on the same side as the lesion, 1101; disease of the corpora quadrigemina, 1102; syphilitic tumours of spinal cord with symptoms simulating syringomyelia, *ib.*; the urine in myxœdema treated by thyroid extract, 1272; osteoarthritis with subcutaneous nodules, 1324; recurrent venous thrombosis, *ib.*; endemic hæmaturia due to bilharzia, 1325; empyema in a man with complete and permanent collapse of the lung, *ib.*
——— Clinical, of Manchester, peripheral neuritis from arsenic, 996; peripheral neuritis from lead, *ib.*; cases, *ib.*; office-bearers of, 1136; suprapubic cystotomy, 1277; diagnosis of abdominal tumour, *ib.*; salol in diarrhœa, 1278
——— Epidemiological, president's address, 1276
——— French Anti-tobacco, officers, etc., of, 26
——— Guthrie, opening meeting of, 885
——— Gynæcological, American, Transactions of the, *rev.*, 70
——— Harveian, of London, annual dinner of, 1233; dislocation of the heart into the left pleural cavity, 1274; dilatation of the stomach, *ib.*
——— Hunterian, thyroid treatment in myxœdema and skin disease, 1275; cases, *ib.*; the late Sir Andrew Clark, 1378; oxygen as a therapeutic agent, *ib.*
——— Immigrants' Aid, Melbourne, annual report of, 855
——— International, for the Total Suppression of Vivisection, annual meeting of, 32
——— Life-Saving, the Handbook of, *rev.*, 378
——— Medical, Bournemouth, meeting of, 1438
——— Medical, Buda-Pesth, annual meeting of, 1434
——— Medical Charitable (West Riding), annual meeting of, 279
——— Medical, Chester, annual dinner of, 987
——— Medical, of King's College, opening address by Sir J. Lister, 1014
——— Medical, of London, some less well-known factors in Graves's disease, 892; some neuroses associated with the menopause, 995; strangulation of the testicle due to axial rotation of the spermatic cord, 1102; nephrectomy for hydronephrosis, 1103; syringomyelia, 1273; congenital (?) pemphigus, *ib.*; cretinism treated by thyroid extract, *ib.*; hæmatoma after aneurysm, *ib.*; obliteration of superior vena cava, *ib.*; hydatid cyst of the bladder, 1274; sequel of tumour in an infant, *ib.*; obliteration of enlarged vessels on the face by electrolysis, *ib.*; thrombosis of the lateral sinus, *ib.*; operation for Dupuytren's contraction, *ib.*; removal of large diffuse lipoma of neck, *ib.*; skin grafting for lupus, *ib.*; the anatomical results of Mikulicz's operation, 1325; should operations on pelvic organs be performed by gynæcologists? 1326
Society, Medical, Manchester, acromegaly, 1107; hydatids of omentum, *ib.*; rupture of urinary bladder, *ib.*; self-retaining laryngoscope, *ib.*; hysteria simulating insular sclerosis, 1273; sporadic cretinism, *ib.*; paralysis of the third nerve, *ib.*
——— Medical, Midland, episcleritis, 996; cancer of the cervix, *ib.*; sarcoma of femur, *ib.*; bronchiectasis, *ib.*; paper, *ib.*; inaugural meeting of, 1078; specimens, 1328; case, *ib.*; paper, *ib.*
——— Medical Missionary, Edinburgh, annual meeting of, 1292
——— Medical, Northumberland, and Durham, annual meeting, 947; cases, 947, 1378; specimens, 948; election of officers, *ib.*
——— of Medical Officers of Health, meeting of Yorkshire Branch of, 811; president's address, 1327
——— Medical, Plymouth, cases, 1107; diagnosis of scarlet fever and influenza, 1108; list of officers of, 1188
——— Medical Protection, London and Counties, formation of new branches of, 43; the accounts of, 153, 207, 281, 314; formation of Northern Division of, 394; progress of Northern Division of, 556; prosecution by, 664, 816; meeting of South London Division of, 1006; meeting of council of, 1182; proposed amalgamation of with Medical Defence Union, 1233, 1290
——— Medical Sickness, Annuity, and Life Assurance, meeting of committee of, 252, 691, 964, 1113, 1447; annual report of, 371; annual meeting of, 394; quarterly general meeting of, 1007; summary of work of, 1224
——— Medical, Ulster, list of officers, 195; meeting of, 1170
——— Medical, York, meeting of, 909
——— Medical, Yorkshire College (Leeds), Students', syllabus of, 996
——— Medical and Surgical County and City of Cork, osteoclasis, 120; old ununited fracture of the patella treated by wire suture, *ib.*
——— Medico-Chirurgical, Aberdeen, meeting of, 1070, 1397; list of officers, etc., 1188
——— Medico-Chirurgical, Bradford, president's address, 845; myxœdema, *ib.*; exhibits, *ib.*; tumour in muscle, 1215; pulmonary hypertrophic osteo arthropathy, *ib.*; Cæsarean section, 1216; cholera *ib.*; specimens, *ib.*; acute axial rotation of a dermoid cyst, 1426; excision of intestine, *ib.*; unusual sequelæ of typhoid fever, *ib.*; intestinal obstruction from gall stone, *ib.*; demonstration, *ib.*
——— Medico-Chirurgical, Edinburgh, cases, 119; treatment of anæmia and chlorosis, *ib.*; a new urethral instrument, *ib.*; ruptured kidney, *ib.*; cases, 1053; allochiria, *ib.*; Friedreich's ataxia, *ib.*; president's valedictory address, *ib.*; election of officers, *ib.*
——— Medico-Chirurgical, Glasgow, list of officers, etc., 113
——— Medico-Chirurgical, Leeds and West Riding, president's address, 948; aphasia, *ib.*; acute intestinal obstruction, *ib.*; surgery of the spine, 1106; traumatic cyst of the pancreas, *ib.*; recurrent appendicitis, *ib.*; cases and specimens, 1106, 1276; minute cardiac pathology, 1276
——— Medico-Chirurgical, Nottingham, inaugural address, 948; presidential address, 1107; the gallop rhythm in cardiac disease, 1155; cases, *ib.*
——— Medico-Chirurgical, Sheffield, president's address, 996; vote of thanks, *ib.*; cases, 1051, 1154, 1277, 1426; specimens, 1052, 1154, 1277, 1426; earache in children, 1052; cholera, *ib.*; honorary member, 1154; acute axial rotation of a parovarian cyst, 1277; ergotin in epistaxis, *ib.*
——— Medico-Chirurgical, West Kent, cases and spectmens, 1328
——— Medico-Chirurgical, West London, andinner of 49; typhoid fever, 845; vote of thanks, *ib.*; alopecia areata, 1052; night terrors, *ib.*; tents, *ib.*; cases, 1052, 1276; glanders, 1276
——— National, for the Employment of Epileptics, purchase of farm by, 1363, 1394
Society, National Health, the Lent Lectures of, 1231; lecture by Sister Katherine, 1259
——— Obstetrical, Edinburgh, office bearers of, 1136
——— Obstetrical of London, etiology of the sickness of pregnancy, 183; effects of the influenza poison upon the lying-in woman, *ib.*; specimens, 844, 1103, 1326; the relation of external meteorological conditions to the incidence of febrile illness in childbed, 844; a further contribution to the clinical knowledge of puerperal diseases, 1104; intravenous injection of saline solution in cases of severe hæmorrhage, 1326
——— Obstetrical and Gynæcological, Glasgow, list of officers, 990; meeting of, 1361
——— Ophthalmological, of the United Kingdom, epithelial pearl tumour in the iris following implantation of eyelash in the anterior chamber, 118; recurrent third nerve palsy associated with migraine, 119; living and card specimens, 119, 947, 1105, 1378; election of officers, 119; president's address, 941; 100 consecutive cases of epilepsy, their refraction and treatment by glasses, 946; rapidly growing sarcoma in a child involving both orbits with secondary growths, 947; case presenting unusual appearances after cataract extraction simulating cyst but really due to a distended capsule, *ib.*; autochromatic plates in photography of the interior of the eye, *ib.*; demonstration of ophthalmotrope, *ib.*; neoplasm of the iris, 1105; spontaneous rupture of capsule after iridectomy preliminary to cataract extraction, *ib.*; extreme hyphæmia of both eyes with corneal abscess of right eye occurring as a sequela of small-pox, *ib.*; benzoyl-pseudo-tropeine as a local anæsthetic in ophthalmic surgery, *ib.*; failure of central vision, 1377; some unusual forms of intraocular neoplasms, *ib.*; congenital trichiasis, *ib.*; suggestions in the interest of the eyesight of children, 1378
——— Pathological, of London, president's address, 890; malformation of the lower lip, 891; double ureter, *ib.*; malformation of the intestinal tract, *ib.*; card specimens, 891, 1051, 1154, 1272, 1377; bullet wound of the heart, 1051; wound of the common carotid artery, *ib.*; phase of coccidium oviforme, *ib.*; two cases of intussusception, *ib.*; angioma of the scapular region, *ib.*; chronic inflammation of the tibia, *ib.*; lymphadenomatous growth of heart, *ib.*; crystals of bilirubin from hydatid cysts of the liver, *ib.*; billiard ball impacted in the pharynx, *ib.*; encysted hydrocele of the round ligament, 1153; the local lesion of scarlet fever, *ib.*; streptococcus pneumoniæ, 1154; aneurysm of the thoracic aorta opening into the œsophagus, 1272; rodent ulcer, *ib.*; two cases of softening of intracardiac thrombi, *ib.*; hernia of the ovary, *ib.*; perforating ulcer of the duodenum, *ib.*; carcinoma of the duodenum, *ib.*; diphtheria of stomach, 1375; tooth-containing dermoid from the face, *ib.*; sequel of a case of anomalous tumour of the larynx, 1376; three cases of mediastinal abscess in connection with the œsophagus, 1377
——— Pathological, Manchester, list of officers, etc., 904
——— Pathological and Clinical, Glasgow, Transactions of the, Mr. J. H. Carslaw, *rev.*, 1109
——— Pharmaceutical, of Great Britain, opening of schools of pharmacy of, 799, 820; v. Delve, 1081
——— for Psychical Research, Victoria, foundation of, 1457
——— of Public Analysts, meeting of, 194; annual meeting of, 202
——— for the Relief of Widows and Orphans of Medical Men, quarterly court of, 213, 928; advantages of joining, 612, 1307, 1364, 1445
——— Royal, on trade testimonials, 30; award of medals of, 1179
——— Royal, Edinburgh, meeting of, 195
——— Royal Medical of Edinburgh, inaugural address of, 1014
——— Royal Medical and Chirurgical, opening of session, 945; Marshall Hall Prize, 946; disease of many joints probably of syphilitic origin, 946; death of Sir A. Clark, 1100, 1111; operations without anæsthesia, 1100; the late Sir Andrew Clark, 1213; false disseminated sclerosis, *ib.*; disseminated fibrosis of the kidney and malignant endocarditis and aortitis, 1214; arthrectomy of elbow- and ankle-joints, 1323
——— for the Study of Inebricty, quarterly meeting of, 78; general meeting of, 820
——— Surgical of Paris, the jubilee of, 1024, 1188

Sock, instep arch, 1140
Somerset (East), the coronership of, 751, 854
Sore throat, infectious, notification of, 212; diphtheria, notification of, 499
South Africa, Brown's, *rev.*, 897
Southam, Mr. F. A., two cases of abdominal section for intestinal obstruction, 373; suprapubic cystotomy, 1277
South Wales, volunteer ambulance work in, 492
Spain, medical editors in, 56
Spanish America, practice in, 291
Spectacles, model, 966
Specula, nasal, 451
Speculum, a new nasal, 187; magnifying aural, 1331
Spencer, Mr. W. G., empyema in a man with complete and permanent collapse of lung, 1325
——— Dr. H. R., ovariotomy on a patient in her 83rd year, 1271; a plea for the performance of ovariotomy by obstetric physicians, 1315, 1326
——— Mr. W. W., death of, 48
Sperling, Dr. R., Lehrbuch der Elektrotherapie, *rev.*, 794
Spina bifida occulta, 1105
Spine, concussion of the in its relationship to railway accidents, etc., 1089, 460; surgery of the, 1106; laminectomy in injuries of, 1427
Spirits, two bacilli in, 1140
Spitting in public conveyances, 475
Spittoons, disinfecting of, 1085
Spleen, the pathological effects of certain substances derived from scarlatina, 495; feeding on in lymphadenoma, 889
Squance, Dr. T. C., notes on a post-mortem examination of a case of acromegaly, 993
Squire, Dr. B., on ringworm, 473; the etiology and treatment of psoriasis, 937; obliteration of enlarged vessels on the face by electrolysis, 1274
Stacpoole, Miss F., A Homely Talk on Health, *rev.*, 1279
Stammering, periodic, 1311
Stamps, india-rubber, for making clinical diagrams, 1159
Starch as a Food in Nature, Mr. J. Oldfield, *rev.*, 1054
State, the, and its servants, 210; aid from to poor private insane patients, 465; the and the unemployed, 1344
——— medicine, books to be read for examinations for, 539; instruction and laboratory classes for, 542
Stead, Mr. G., the diagnosis of small-pox, 819
——— Mr. W. T., and automatic writing, 1015
Stedman, Mr. A., presentation to, 580
Stellwag von Carion, Professor, retirement of, 1280
Stephenson, Mr. S., tropacocaine in ophthalmic practice, 153; congenital ectropion of the uvea, 731; reflex amblyopia in pregnancy, 732; effect of correcting errors of refraction in epileptics, 733; congenital trichiasis, 1377
Sternum, traumatic rupture of the heart consequent on fracture of, 843
Steven, Dr. J. L., the pathology of fibroid degeneration of the heart, 669; aneurysm and atheroma, 670; atrophy of the left ventricle in consequence of stenosis of left coronary artery, 676
Stewart, Dr. D. D., a form of chronic Bright's disease other than typical fibroid kidney, without albuminuria, 849
——— Professor T. G., presentation to, 385; pathological appearances in three fatal cases of Graves's disease, 676; the pathology and distribution of atrophic paralysis, 728; allochiria, 1053
——— Mr. W. R. H., circumscribed suppurative meningitis following middle ear suppuration, trephining, recovery, 1323
Stillbirths, the registration of, 34; in various countries, 904
Stings, painful, 664
Stirling, Dr. W., Outlines of Practical Physiology, *rev.*, 17
Stockman, Dr. R., phenazone, acetanilide, and phenacetin, 119
Stockport, enteric fever at, 434, 873
Stoddart, Mr. F. W., water examination, 1191
Stomach, some points in the surgical treatment of simple ulcer of, 1044; dilatation of the, 1122, 1193, 1268, 1274, 1329; diphtheria of, 1375
Stoney, Dr. R., bite from a horse on the pudenda, 612
Stourbridge, opening of Corbett Hospital at, 449
Stout and beer, 1170
Stradling, Mr. A., the fatal case of snake bite in South Wales, 280
Strangulation, suicidal, 157
Street, Dr. A. E., retreats for inebriates, 720
Street noises, 1035
Streptococcus pneumoniæ, 1154
Stretcher bearers, regimental, 345
Strike of house-surgeons, 554
Struthers, Dr. J., the present examination system, 1160
Strychnine, poisoning by or alcoholism? 85
Student, the medical, 1260
Sublimate. *See* Corrosive
"Substitution" we call it, 141
Suicide and insanity, 41, 95
Sulphate of magnesia in dysentery, 818
Sulphur, sublimed, as a local application in diphtheria, 902
"Sun" treatment, 451
Sunstroke, case of, 476, 477
Surgeon-apothecary, 101
Surgeons, residency at native courts of India, 558
Surgery, the evolution of the principles of, 302; dental and anæsthetics, 451; orificial, 1235
Sutton, Mr. J. B., nephrectomy for hydronephrosis, 1103; the anatomical results of Mikulicz's operation, 1325
Swain, Dr. J., clamp with uniform pressure for enterectomy, 1331
Swan, Mr. R. L., illness of, 590
Swanley, allotment of beds at the convalescent home at, 160
Swann, Dr., acute intestinal obstruction, 948
Swearing. *See* Oath
Switzerland, English medical practitioners in, 163; Jewish slaughtering of cattle in, 705; female medical students in, 926; medical students in, 1211
Sworder, Mr. H., Popular Information concerning Infectious Diseases, *rev.*, 70
Sydney, the medical school and hospitals of, 145; correspondence from, 206, 865, 1246; the "paradise of quacks," 206; public charities and the financial crisis, 865; the hospitals of, *ib.*; proposed marine biological station at, 1246; appointment of public pathologist at, *ib.*
Sykes, Dr. J. F. J., diphtheria and defective drainage, 1354
Sym, Dr. W. G., simple glaucoma in a young patient, 733
Syme, Mr. W. S., foreign body in the rectum, 980
Symington, Dr. J., regional division of the abdomen, 680
Symphysiotomy, paper on, 900
Synechiæ, Eustachian, 571
Syphilis, the pathology and treatment of, 278; and wet nurses, 918; Constitutional, the Treatment of, Dr. O. Zienissen, *rev.*, 950; and thyroid extract, 1192; accidental inoculation of from a blow on the nose, 1425
Syphilitics, When May they Marry? Dr. Schuster, *rev.*, 847, 944
Syringe, a new vaginal, 428; a new intratympanic, 572
Syringomyelia, case of, 1273

T.

Tabloids and tabloid holder, new ophthalmic, 729
Tacey, Dr. D., wasp stings, 875
Tænia mediocanellata and ascarides lumbricoides, simultaneous expulsion of, 1375
Tait, Mr. L., ovulation and menstruation, 1140
Talamon, Dr. C., Appendicitis and Perityphlitis, *rev.*, 949
Talipes dorsalis, symmetrical in an anencephalous fœtus, 1419
Tanocea tea-toning tablets, 1220
Targett, Mr. J. H., the pathology of cystic tumours connected with the bladder, 218
Tariffs (club), 1311, 1415
Tatham, Dr., appointed superintendent of statistics at Somerset House, 1012, 1077
Taylor, Dr. F., tuberculosis of the abdomen in children, 734; disease of the corpora quadrigemina, 1102
——— Dr. G. G. S., the etiology and treatment of psoriasis, 937; excision of lupus, 940
——— Dr. H., treatment of retroversion of the gravid uterus, 720; the Vaccination Commission, 814
——— Dr. J., an epidemic of typhoid fever from polluted water, 1373; apparent relation between the birth-rate and the milk supply 1452
——— Dr. J. C., Health Resorts of the Canary Islands, *rev.*, 1156
——— Mr. J. W., the conservative treatment of diseases of the uterine appendages, 621; hysteropexy, 842
Teale, Mr. T. P., indications for laparotomy in tuberculous peritonitis, 740; the treatment of enlarged cervical glands, 1141, 1144
Tees valley, enteric fever in, 1021
Technicality, a cruel, 1395
Teeth, gradual extraction of by india-rubber rings, 404; artificial, 979
Temperament, 1227
Temperance and intemperance, 483
Tenbury, the sanitary condition of, 1361
Tendons, quadriceps extensor, rupture of both, 1425
Teneriffe, the route to, etc., 875
Tents, dangers of, 1052
Terrier, Dr. F., Manual de Petite Chirurgie de Jamain, *rev.*, 555
Testicle, strangulation of the, due to axial rotation of the spermatic cord, 1102
Testimonials, trade, the Royal Society on, 30
Test-tube holder, an improvised, 899
Tew, Dr. J. S., the notification of measles, 413
Texas fever. *See* Fever
Textbook of Physiology, Professor M. Foster, *rev.*, 1000; Elementary, of Biology, Mr. J. R. A. Davis, *rev.*, 1108; Practical, of the Diseases of Women, Dr. A. H. N. Lewers, *rev.*, 1279
Theatres of London, sanitary condition of, 70
Therapeutics, some of the present aspects of, 1293
Therapeutischen Leistungen des Jahres 1892, Dr. A. Pollatschek, *rev.*, 186
Thermometers, clinical, and the hot weather, 485; unconstricted, 1364, 1415
Thief, a consulting room, 1259
Thies, Mr. C. W., lady firewomen, 52
Thin, Dr. G., aërated milk, 64; on ringworm, 471; the prevention and cure of ague by opium, 1405
Thomas, Mr. J. L., a critical analysis of 30 cases of dislocation of the shoulder treated by manipulation, 63
——— Mr. R. S., dislocation forwards of scaphoid and trapezium, 889
——— Mr. W., value of mercurial inunction in abdominal tuberculosis, 740; the treatment of enlarged cervical glands, 1143
——— Dr. W. R., glycosuria and mental worry, 777
Thomas's operation for benign tumours of the female breast, 1209
Thompson, Dr. C. J. S., poisoning by carbolic acid, 1415
——— Sir H., Introduction to the Catalogue of the Collection of Calculi of the Bladder, *rev.*, 846
——— Dr. W. H., the nature of the work of the kidney as shown by the influence of atropine and morphine on the secretion of urine, 681; the physiology of some forms of animal life, 1178
Thomson, Dr. A., regional subdivision of the abdomen, 680
——— Dr. J., on the pathology of the thyroid gland, 677; Edinburgh Hospital Reports, *rev.*, 895
——— Dr. W. E., dangers in artificial respiration in chloroform accidents, 868
Thorax, surgery of the in children, 105, 174, 231
Thorne, Mrs. I., the London School of Medicine for Women, 642
——— Dr. W. B., the Royal British Nurses' Association, 95, 150
Thornton, Dr. E. Q., the advantages of amorphous phosphorus, 954
Thresh, Dr J. C., galvanised iron pipes, 291; on diphtheria, 411
Throat, diseases of and the dry weather, 140; anæsthesia in operations on the, 707
Thrombi, intracardiac, two cases of softening of, 1272
Thrombosis, cardiac and pulmonary, 165, 682; septic of lateral sinus, operation, recovery, 1144; of lateral sinus, 1274; recurrent venous, 1324
Thursfield, Dr. W. N., contagious cynanche, 154
Thwing, Dr. E. P., death of, 213
Thyroid gland, changes observed in the urine after administration of glycerine extract of in myxœdema, 217, 1272; feeding by in skin affections, 474, 763; the pathology of the, 676; treatment of psoriasis by internal administration of, 933, 1424; feeding on in skin diseases, 1152; extract of and syphilis, 1192; feeding on in exophthalmic goitre, 1211; diseases of the, 1261; cretinism treated by extract of, 1273; feeding on in myxœdema and skin diseases, 1275
Tibbits, Dr. H., the affairs of 1139; and the Medical Battery Company, 1182
Tibia, chronic inflammation of, 1051

Tilt, Dr. E. J., obituary notice of, 1415
Tinea of the nails, 471
Tinnitus aurium, treatment of, 989, 1035
Titles, medical, illegal assumption of, 1247
Tobacco, medicine and, 1259
Tomkins, Mr. H. H., humanised milk, 822; deaths from drowning, 875
Tonsil knife, new, 898
Tonsillitis, a singular causation of, 823
Tooth Extraction, Mr. J. Gorham, *rev.*, 796
Tooting, the fever hospital at, 901
"Torrent" washer, the, 1429
Toulon, the sanitation of, 653
Tourniquet fastener, a new, 848
Towers-Smith, Dr. W., a disclaimer, 1415
Townsend, Dr., heart disease in children, 1148
Toxicology at the London M.B. examination, 451
Trachea, excision of five rings of for cancer, 1423
Trade interests and sanitary needs, 646
Trades, injurious, 1342
Tragedy of professional life, a, 1072
Trains, workmen's, 292
Traité, des Maladies de l'Enfance, Dr. J. Comby, *rev.*, 15; des Résections et des Opérations Conservatrices qu'on peut pratiquer sur le Système Osseux, Dr. L. Ollier, *rev.*, 68; de Chirurgie de Guerre, M. E. Delorme, *rev.*, 582; des Maladies de l'Estomac, M. L. Bouveret, *rev.*, 895; Clinique des Maladies du Cœur et des Vaisseaux, M. H. Huchard, *rev.*, 997
Tramps, prevention of the spread of infectious disease by, 413, 429
Tramway, transport of sick by, 815
Transactions of the American Gynæcological Society, *rev.*, 70; of the American Climatological Association, *rev.*, 897
Trapezoid, dislocation forward of, 889
Trendelenburg's operation, ectopia vesicæ treated by, 890
Trephining in general paralysis of the insane, transient motor and sensory disturbances following, 117; in epilepsy in doubtful cases, 1149; in circumscribed suppurative meningitis, 1323
Treves, Mr. W. K., the treatment of enlarged cervical glands, 1143
Trichiasis, congenital, 1377
Trinidad, lepers in 1363
Triplets, case of, 180; and the Queen's bounty, 1312
Tropacocaine in ophthalmic practice, 153
Trouville, insanitary state of, 1403
Truss, patent binder, 898
Tuberculin and tuberculosis, 1259
Tuberculosis, experimental value of in diagnosis, 665; abdominal in childhood and its treatment, 734; abdominal, distribution of tubercle in, 740; the cost of, 751; sanitation and, 857; the spread of, 1191; and tuberculin, 1259
Tuberculous dust, consumption hospitals and, 633
Tubes, coagulation, 875
Tuchmann, Dr. M., new self-retaining catheter, 898
Tuckey, Dr., increase and decrease in the virulence of infections, 1192
Tuke, Dr. D. B., insanity from the abuse of Indian hemp, 630
—— Mr. G. T., communicability of foot and mouth disease from cattle to man, 115
—— Dr. Hack, the alleged increase of insanity 460, 462
Tulla, the medical officership to the workhouse of, 1120
Tumour, cystic, intralaryngeal removal of in a woman 80 years of age, 889; malignant, excision of from large intestine, 892; of the brain, 1277; anomalous, of the larynx, sequel to a case of, 1376
Tumours, cancerous, do parasites exist in? 179; cystic, connected with the bladder, the pathology of, 218; syphilitic of spinal cord, with symptoms simulating syringomyelia, 1102; abdominal, diagnosis of, 1277; of the brain, treatment of, 1365
Turkey, medical women in, 1191
Turner, Mr. C. B., the mechanical treatment of ptosis, 329; some cholera cases at Grimsby, 955
——— Dr. D., preliminary scientific instruction, 1451
——— Dr. E. C., two cases of intussusception, 1051
——— Dr. P. D., prescribing chemists, 968
Tweedy, Dr. H. C., dilatation of the stomach and ptosis of the transverse colon, 1329
Tyndall, Professor, death of, 1292
Tyne, cholera in the, 32; the sanitary authority of and their medical officer's salary, 448; precautions as to drinking the water of, 651
Tyner, Mr. G. St. G., death of, 660
Typewriting at the annual meeting, 451
Typhoid fever. *See* Fever, Enteric
Typhus fever. *See* Fever
Tyson, Dr. W. J., abdominal tuberculosis in children and its treatment, 740

U

Uganda, Captain Lugard on, 1240
Ulcer, perforated gastric, treatment of, 138; rodent, 937, 1272; simple of stomach, some points in the surgical treatment of, 1044; perforating of duodenum, 1272
Umbilicus, pleural empyema opening at, 180
Underselling, competition and, 1293
Unemployed, sanitary work for the, 771; and the State, 1344
Union, Medical Defence, Limited, meeting of council of, 98, 208, 431, 438, 556, 710, 816, 922, 1081, 1131; meeting of at Manchester, 283; meeting *re* at Bristol, 869; proposed amalgamation of with London and Counties Medical Protection Society, 1233, 1290
—— Owens College, meeting of, 1403
United States of America, medical notes from, 22; welcome to British medical guests in, 128; English impressions of the medical profession in, 146; medical education in the, 460; quarantine in the, 1036; The Pharmacopœia of the, *rev.*, 1217; women physicians in, 1223; medical education in the, 1228; special correspondence from, 1244, 1305, 1350
Universities, German, medical students in, 56; foreign, visitation of, 1311
University of Aberdeen, conferment of degrees at, 309; pass lists, 494; regulations as to examinations of, 517; instruction at, 528; regulations for diploma in public health at, 541; assistants to professors at, 922; practical teaching in, 963; the rectorship of, 1013; the rectorial election at, 1173; the rector's assessor at, 1344
——— of Amsterdam, the chair of surgery at, 790; new students at, 927
——— of Brussels, degrees for practitioners, 538
——— of Cambridge, pass lists, 44, 870, 1410, 1456; regulations as to medical and surgical degrees, 511; regulations for diploma in public health at, 540; new vice-chancellor, 818; Balfour studentship, 818, 1352; exercises for M.D., *ib.*; psychophysics at, 871; degrees, 922, 974, 1029, 1134, 1255, 1359; examiners for medical and surgical degrees at, 974; professorship of botany, *ib.*; studentship in physics, *ib.*; dates of medical and surgical examinations at, 1029; third M.B. examination, 1082; examiner in chemistry, *ib.*; Philosophical Society, *ib.*; science Fellowship, *ib.*; pathological research, 1134; temporary registry, *ib.*; the study of physics at, 1254; mental diseases, 1255; anatomy department, *ib.*; appointments, 1255, 1308, 1352; diploma in public health, *ib.*; open science scholarships, *ib.*; Walsingham medal, 1308; medical examinations, *ib.*; public health examinations, *ib.*; Fellowship election, 1410
——— of Charkoff, new buildings for, 746
——— of Cleveland, Ohio, the teaching of physiology at, 873
——— of Dublin, pass lists, 100; regulations as to medical and surgical degrees at, 519; regulations for diplomas in State medicine at, 542
——— of Durham, honorary degrees at, 199, 393; regulations as to medical and surgical degrees, 513; degrees for practitioners at, 538; regulations for degrees in sanitary science at, 541; pass lists, 712, 768, 818
——— of Edinburgh, pass lists, 158, 211, 284, 346, 374, 446, 922; meeting of University Court of, 285; meeting of students' representative council of, *ib.*; regulations as to medical and surgical degrees at, 515; instruction at, 528; regulations for degrees in sanitary science at, 541; opening of session at, 861; the lord rectorship of, 974, 1112; meeting of general council of, 1029; graduation ceremonial at, 1082; proposed chair of public health at, 1410; students at, 1442
——— of Glasgow and the Universities (Scotland) Act, 44; was John Hunter a student of? 73; pass lists, 285, 346, 974; close of the session at, 337; the local examinations of, 482; regulations as to medical and surgical degrees at, 516; instruction at, 529; regulations for diploma in public health at, 541; entries and results of examinations at, 1025; changes in teaching staff of, *ib.*; effect of new ordinances, *ib.*; and Queen Margaret College, *ib.*; the chair of midwifery at, 1232, 1398
University of Greifswald, students at, 1359
——— Harvard, the medical school of, 1438
——— of Innsbruck, students at, 927
——— of Kasan, students at, 1429
——— of London, the chancellorship of, 31; pass lists, 375, 446, 1184, 1410, 1456; regulations as to medical and surgical degrees, 512; degrees for practitioners at, 538; examination in sanitary science at, 540; the convocation of and the extension movement, 1353
——— of Moscow, opening of new physiological institute at, 1130
——— of Naples, the professorship of clinical medicine at, 992
——— of Oxford, regulations as to medical and surgical degrees in, 510; certificates of public health at, 540; human anatomy at, 902, 911; proposed research degree, 1082; the teaching of natural science at, *ib.*
——— of Prague, the chair of medical jurisprudence at, 817
——— Royal, of Ireland, the M.D. degree of, 103; pass lists, 375, 923; regulations as to medical and surgical degrees at, 519; medical studentships at, 531; regulations for diplomas in sanitary science at, 542; ladies at the, 1013
——— of St. Andrews, regulations as to medical degrees at, 517; degrees for practitioners at, 538
——— of Sydney, lady graduates at, 78; proposed lectureship in bacteriology at, 1246
——— of Tomsk, confers first M.D. degree, 49
——— of Tübingen, the chair of psychiatry at, 964
——— of Utrecht, the chair of psychiatry at, 873
——— Victoria, pass lists, 100, 494, 922; regulations as to medical and surgical degrees, 512; regulations for diplomas in sanitary science at, 540; change of statute at, 918; meeting of court of, 1078; appointment of examiners, 1411
——— of Vienna, the vacant chair of medicine at 382; students and lectures at, 927; professors of dermatology in, 1125
Unna, Monograph on Dermatology, *rev.*, 67
Ureter, double, 891
Urethra, new instrument for operations on, 119; case of rupture of, recovery without operation, 581
Uric acid, changes in the blood produced by, 10, 672
Urine, changes observed in in myxœdema treated by thyroid extract, 217, 1272; incontinence of, 351; nocturnal incontinence of, 1087; A Guide to the Examination of the, Dr. W. Legg, *rev.*, 1109; of enteric fever, Ehrlich's test for, 1363
Urquhart, Dr., current opinion on psychological questions in Germany, 462; detached hospitals and asylums, 465; insanity from the abuse of Indian hemp, 630
Usk, diphtheria at, 953
Uterus, ventrofixation of, 182, 838; hypertrophic elongation of the cervix of as a cause of obstructed labour, 560; the conservative treatment of diseases of the appendage of, 618, 754; flexions of the, 623; gravid, retroversion of, 628, 720; tuberculous disease of appendages of, 887; cancer of cervix of, 996
Uvea, congenital ectropion of the, 731

V.

Vaccination in Ireland, 48, 501; and small-pox in 1892-3, 71, 190; antirabic, 85; popular literature on, 163; a suggestion, 260; successful, grants for, 286, 296, 364, 436, 497, 501, 554, 578, 618, 660, 717, 756, 769, 927, 1085; literature of, 663; in New South Wales, 926; the postponement of, 930, 1088; in China, 931; compulsory, 1114; the after-treatment of, 1130; in Paris, 1360; in Italy, 1412
——— returns, 1187
——— stations, publichouses as, 1360
Vaccine immunity, nature of, 989
——— lymph, the Local Government Board and, 498
Vaccines, treatment of infectious diseases by, 985
Vagrants and infection, 34
Vallas, Dr., on anæsthetics, 160
Van Buren, Dr. E. C. H., death of, 713
Vanni, absorption of drugs through the skin, 1191
Varicocele as a disqualification for the navy, 1364
Veit, Dr. G., ennoblement of, 1153
Vena cava superior, obliteration of, 1273

Ventilation and Heat, Dr. J. S. Billings, *rev.*, 1208
Ventricle, left, atrophy of in consequence of stenosis of the left coronary artery, 686
Verneuil, M., and M. Péan, 1125
Verrall, Mr. T. J., the mode of election of Branch officers, 966—intussusception, laparotomy, recovery, 1376
Vickery, Mr. W. H., septic thrombosis of the lateral sinus, operation, recovery, 1141
Victor Emmanuel, alleged outbreak of fever on, 1118
Victoria, the Tourists' Railway Guide to, Messrs. F. Myers and T. Chambers, *rev.*, 122; insanity in, 1135; the opium habit in, 1442
Victoria, narrative of escape of the surgeons of, 144
Vignal, M., death of, 485
"Village doctor," the, 892
Virchow, Dr. R., Die Sections-Technik im Leichenhause des Charité-krankenhauses, *rev.*, 17; the 70th birthday of, 171; the jubilee of, 967, 1024
Viscera, transposition of, 180
Vision, central, failure of, 1377
Voelcker, Dr. A. F., billiard ball impacted in the pharynx, 1051; aneurysm of the thoracic aorta opening into the œsophagus, 1272
Volunteer Ambulance School of Instruction, decoration of officers of, 42; opening of winter session at, 870; pass list, 1029; annual dinner of, 1409; inspection of stretcher bearers, 1410
——— bearer companies, new scheme for, 82
——— Field Ambulance Corps, inspection of, 282
——— Medical Staff Corps, promotions and appointments in, 42, 98, 209, 282, 345, 399, 444, 492, 556, 606, 656, 766, 815, 870, 921, 970, 1028, 1081, 1133, 1184, 1252, 1409; the headquarters of, 42; and the royal procession, 78; review of London companies of, 195; the employment of officers of, 345; the decoration of officers of, 444, 815, 1409; grant to volunteer officers, 712; volunteer brigade - surgeon - lieutenant - colonels, 1252, 1455; class for medical officers of, 1307
Vortrage über Bau und Thätigkeit des Grosshirns und die Lehre von Aphasie und Seelenblindheit, Dr. H. Sachs, *rev.*, 121
Vulsellum, the "eagle claw," 1280

W.

Wade, Dr. W. F., sick headache, 965
Wainwright, Dr. L., the prevention of accidental poisoning, 1459
Wakefield, maintenance of small-pox patients at, 1032
Wakley, Keeley *v.*, 157
Waldo, Dr. F. J., appointed medical officer of health for the Temple, 328; the sanitation of Hamburg, 860; the Salvationist shelters and infectious disease, 1450
Wales, the charter of the new university for, 336, 552, 1234, 1340
Walker, Mr. A. W. H., Indian hemp and insanity in Egypt, 969
——— Dr. G., obituary notice of, 976
——— Dr. N., on ringworm, 473; the etiology and treatment of psoriasis, 937; rodent ulcer, *ib.*; on lupus, 938, 940
——— Dr. T. J., congenital (?) dilatation and hypertrophy of the colon, 230
——— Dr. W., concussion of the spine, 1097
Wall, Dr. A. J., Asiatic Cholera, its History, Pathology, and Modern Treatment, *rev.*, 1379
Wallace, Dr. A., puerperal septicæmia, 1357
——— Dr. W., presentation to, 289
Waller, Dr. A. D., An Introduction to Human Physiology, *rev.*, 846
Wallis, Dr., detached hospitals and asylums, 464; State aid for poor private insane patients, 465
——— Mr. F. C., angioma of the scapular region, 1051
Walsh, Dr. D., tinea of the nails, 471; metatasis or shifting elimination as a factor in certain skin inflammations, 475
War, care of wounded in, 1013, 1064, 1248
Wardle, Mr. M., enterostomy without plates, 477
Waring, Dr. A., simultaneous expulsion of tænia mediocanellata and ascarides lumbricoides, 1375
Waring, Dr. F. J. A., presentation to, 700
Warming a consulting room, 1191
Warning, a, 771, 823, 1459
Warrington, small-pox in, 155
Washer, the "torrent," 1429
Wasps, sting of with rash and constitutional symptoms, 292, 352; treatment of stings of, 432, 504, 664, 720, 823, 875, 1035; fatal sting by, 442; severe symptoms after sting from, 772
Water, cholera-bearing, a sample of, 250; dirty, the cost of, 259; the filtration of and fever, 386; an apparatus for sterilising by boiling, 646; purification of by alum, 918; drinking, on board ship, sterilisation of, 966; the scope and methods of examination of, 1116, 1191; polluted, an epidemic of typhoid fever from, 1373
Water supplies, public, filtration of in relation to cholera, 24; river pollution and, 857; and enteric fever, 1021, 1032
——— supply, rural, 349; dangers of rivers as sources of, 1112
Watkins, Mr. A. H., radical cure of hernia, 1040
Watson, Dr. J. K., post-mortem examinations, 816
Wattie, Dr. A., death of, 447
Watts, Mr. H. J. M., some cholera cases, 792
Weather, the recent hot, 181; the hot and clinical thermometers, 185
Webb, Miss H., the ideal in medicine, 787
——— Mr. S. H., death of, 1012
Webster, Dr. J. C., embryological studies of tubal gestation, 684
Wedderburn, Dr. A., Forfar Infirmary, 1187
Weismannism, An Examination of, Dr. G. J. Romanes, *rev.*, 1108
Welbeck Abbey and the hospitals in the midlands, 1188
Weller, Mr. G., poisoning by belladonna, opium, and conium, 116
Wellington, New Zealand, civil service medical insurance scheme at, 1230
Wells, surface, of London, 110; deep, in the city, 160
Wells, Sir T. S., the conservative treatment of diseases of the uterine appendages, 621
Welsford, Dr. A., deaths under chloroform, 655
Weuzel, Dr. C., Alte Erfahrungen im Lichte der neuen Zeit und ihrer Anschauungen ueber die Enstehung von Krankheiten, *rev.*, 584
Wesbrook, Dr. F. F., "immunity" against cholera, 572
West Ham, small pox at, 871
West Indies, a new disease of, 850
Westcott, Surgeon-Captain S., on Malta fever, 62
Western Australia, small-pox in, 211
Wharry, Mr. H. G., diphtheria and defective drainage, 1405
"What-nots" in quarantine, 149
Whelan, Dr. J. H., filaria sanguinis hominis, 1250
Whitaker, Mr. J., death of, 286
Whitby, the sanitary state of, 819, 953; sanitary reform at, 871
White, Mr. E., certain changes observed in the urine in myxœdema after administration of glycerine extract of the thyroid gland, 217, 1272
——— Dr. J. W., the present position of the surgery of the hypertrophied prostate, 575
——— Mr. P. H., obituary notice of, 496
——— Dr. W. H., study of a case of local epilepsy, 225; Guy's Hospital Reports, *rev.*, 1157
——— lead, proposed inquiry into manufacture of, 907
Whitehouse, Mr. J., death of, 1256
Whooping-cough, notification of, 1361
Wielobycki, Dr. S., obituary notice of, 600; the will of, 1052
Wiesbaden, a boom for, 1234
Wiglesworth, Dr. J., automatic writing, 1389
Wilkinson, Dr. A. T., diagnosis of abdominal tumours, 1277
Wilks, Dr. S., Sir W. Jenner on diphtheria and fevers, 1078; and the presidency of the Royal College of Physicians, 1169; diphtheria and defective drainage, 1247, 1404
Willesden, opening of cottage hospital at, 213
Willett, Mr. E., malformations of the intestinal tract, 891
Williams, Dr. D., heart disease in children, 1148; false disseminated sclerosis, 1213
——— Dr. J. D., on the registration of midwives, 127
——— Dr. J. R., the influence of east winds, 52
——— Mr. W., death of, 976
——— Dr. W. D. C., awarded certificate of merit of Royal Humane Society of Australasia, 1062
——— Dr. W. Rhys, obituary notice of, 1309
——— Mr. W. Roger, gall stones and cancer, 490, 605; the increase of cancer, 1450
Williamson, Mr. G. E., on refraction testing and on medical education in ophthalmology, 313; spindle-celled sarcoma of iris, 1204
Willis, Mr. J. G., pleural empyema opening at umbilicus, 180
Wilson, Dr. C., Mountaineering, *rev.*, 121
——— Mr. E. T., Disinfectants and Antiseptics, How to use Them, *rev.*, 186
Wilson, Dr. T. S., the sensory motor functions of the central convolutions of the cortex cerebri, 685; anæsthesia due to cortical lesions, 687
Winckworth, Dr. C. E., warming a consulting room, 1191
Window cleaning, dangers of, 1173
Winds, east, the influence of, 52
Windsor, insanitary cavalry barracks at, 593, 609, 644, 752
Wine, beef and malt, 1428
Wines, home made, poisoning by, 1291
Wingrave, Mr. W., anæsthesia for operations on the throat and nose, 707
Wolfe, Dr. J. R., Sydney, its medical school and hospitals, 145; Melbourne, its university and hospitals, 339
Wollaston, Dr. T. G., death of, 1309
Woman, lying-in, effects of the influenza poison on, 183
Women, the clinical instruction of at Edinburgh Royal Infirmary, 197; Outlines of the Diseases of, Dr. J. Phillips, *rev.*, 377; unmarried, home for, 451; medical education of, 536; as sanitary inspectors, 916, 963; cerebral evolution and the education of, 930; and sanitary work, 1026; inebriate, treatment of, 1136; conditions under which they work, 1413
Wood, Miss C. J., the Royal British Nurses Association, 40; Boards of Guardians and Nurses, *rev.*, 1109
——— Mr. R. H., the Hospital of St. Cross, Rugby, 919
Woodforde, Dr. W. T. G., presidential address to Society of Medical Officers of Health, 1327
Woodhead, Dr. G. S., a sample of cholera bearing water, 250; aneurysm and atheroma, 669
Woods, Dr. H., the London and Counties Medical Protection Society, 504, 664; cancer and inebriety, 1312
Woods and Forests, the, and public health, 497, 552
Woodward, Dr. W., the after-treatment of vaccination, 1130
Wooldridge, Dr. L. C., On the Chemistry of the Blood, etc., *rev.*, 795
Woolwich, precautions at the Royal Arsenal at, 498
Work, the personal factor in, 788; as a therapeutic agent, 1312; and worry, 1459
Workhouses, nursing in, 265, 959, 1063; transference of lunatics to, 715; masters of and nurses, 716; as isolation hospitals, 909; wards of as mortuaries, 1311
Workmen in injurious trades, compensation to, 1122
Workmen's trains, 292
Worry, and work, 1459
Worthing, typhoid fever at, 140, 259, 262, 281, 433, 962; the water supply of, 385, 801; drainage of, 1187
Wounded, care of in war, 1013, 1064; rapid transport of the, 1067; early care of in war, 1248
Wounds inflicted by Lee-Metford rifle, 757, 798, 852
Wray, Mr. C., suggestions in the interest of the eyesight of children, 1373
Wright, Dr. A. E., on a method of determining the condition of blood coagulability for clinical and experimental purposes and on the effect of the administration of calcium salts in hæmophilia and actual or threatened hæmorrhage, 223; coagulation tubes, 875
——— Mr. G. A., The Diseases of Children, Medical and Surgical, *rev.*, 15
——— Mr. T. N., presentation to, 286
Wright's Improved Visiting List, Mr. R. Simpson, *rev.*, 1109
Writing, automatic, and Mr. Stead, 1015; remarks on, 1225, 1338, 1389
Wylie, Dr. W., puerperal septicæmia, 1356

Y.

Yearsley, Mr. P. M., hæmorrhage from post-nasal growths, 180
Yellow fever. *See* Fever
Yellowlees, Dr., alleged increase of insanity, 461; psychological questions in Germany, 462; State aid for poor private insane, 465
Yeo, Dr. G. F., A Manual of Physiology, *rev.*, 794
——— Dr. I. B., A Manual of Medical Treatment or Clinical Therapeutics, *rev.*, 938
Yeomanry, promotions and appointments in the medical staff of, 766
Young, Dr. J., death of, 400

Z.

Ziemssen, Dr. O., The Treatment of Constitutional Syphilis, *rev.*, 950
Zoology of the Invertebrata, Mr. A. E. Shipley, *rev.*, 581

INDEX TO THE EPITOME FOR VOLUME II FOR 1893.

The Figures in this Index refer to the Number of the Paragraph NOT the Page.

A.

Aakerman, microcephaly, 147
Abbe treatment of gall-stone obstruction, 166; new method of cutting œsophageal stricture, 204
Abdomen, surgical intervention in injury to, 64; drainage in surgery of the, 110; treatment of gunshot wounds of, 164; penetrating wound of, 528
Abdominal section, cause of peritoneal adhesions after, 455
Abel, the antiseptic power of ichthyol, 340, 495
Abortion, induction of in eclampsia, 8; missed, 232; tubal, fœtus removed per vaginam, 314
Abscess, actinomycotic perilaryngeal, 67; hepatic, the pathogenesis of, 203, subphrenic, 265; cerebellar, 446
Abscesses, subdiaphragmatic containing air, 198
Acetic ether, 40
Acetonuria, in diabetes, 305; and pregnancy, 356
Acromegaly, sheep's thyroid in, 192
Acroparæsthesia, 81
Actinomycosis of the human subject, iodide of potassium in, 111
Adler, the pathology of pernicious anæmia, 542
Age, advanced, operative proceedings in, 390
Agostini, the chemistry of digestion in pellagrous insanity, 367
Air, use of to inflate the bladder in suprapubic cystotomy, 48
Albert, riders' bursa, 184
Albumen in the urine, Spiegler's test for, 385
Albuminuria after labour, 170
Alcohol, large doses of in delirium tremens, 301
Alcoholism and cholera, 326
Alimentation hypodermic, 323
Alombert-Goget, injections of Brown-Séquard's fluid in mental disease, 540
Amenorrhœa and corpulence, 172
Ammonia, disinfection by the vapour of, 19
Amœba enteritis, 426
Amœbæ in the urine, 79
Anæmia, naso-pharyngeal disease as a cause of, 485; pernicious, the pathology of, 542
Analgene, 440
Anastomosis, intestinal, 287
Ancona, the action of diuretin, 401
Aneurysm, surgical treatment of, 289; traumatic of the vertebral artery, 467; embolic not due to ulcerative endocarditis, 504
Angina pectoris, 143
Animals, experimental tetanic infection in, 341
Ankylosis, fibrous, electrolysis in, 185
Anophthalmos, case of, 474
Antidiphtherin, 536
Antisepsis or asepsis for midwives, 531
Antitoxin, traumatic tetanus cured by, 194
Antrum of Highmore, improved method of draining, 288
Appendicitis, surgical treatment of, 970; infectious, 411
Appetite, the, in cancer of the liver and stomach, 386
Arcangeli, tetanus from a nasal lesion, 332
Aristol in venereal ulcers, 441
Arsdale, ossifying hæmatoma, 128
Arsenic in epithelioma, 213
Artery, vertebral traumatic, aneurysm of, 467
Asepsis or antisepsis for midwives, 531
Asparagine, the nutritive value of, 93
Astasia-abasia, 101
Asthma, treatment of, 91; nervosum, 365
Atresia, acquired, after craniotomy, 10; and hæmatometra, 336; pus in vagina, 437
Audry, the lesion of psoriasis, 20
Aufrecht, gastric dilatation, 46; the treatment of diarrhœa in dysentery, typhoid, etc., 136; albuminuria after labour, 170; borax in the treatment of stomatitis, 300
Auto-intoxication in mental disease, 464
Axis-cylinder stains, 95

B.

Babinski, hysterical contracture, 163
Baccelli, intravenous injections of corrosive sublimate, 235
Bacilli of cholera, rapid demonstration of in water and fæces, 41; conveyed by dust, 44; detrimental influence of upon other organisms, 115; the action of sozoidol preparations and of tribromphenol wismuth upon, 278; of typhoid, duration of life of, 403
Bacillus coli communis, 279
——— of leprosy, action of chaulmoogra oil on, 16; cultivation of, 481
——— of tubercle, europhen and, 75
Bacon, stricture of the rectum, 104
Bacteria, elimination of by the kidneys, 59
Bacteriology of the genital canal, 375
Bacterium coli commune, action of the metabolic products of, 445
Baldi, the nutritive value of asparagine, 93
Barbacci, the etiology of peritonitis from perforation, 523
Barling, surgical treatment of perforating gastric ulcer, 352
Basset, chloralate, 275
Bates, nitro-glycerine in epileptic paroxysms, 157
Baths, cold mustard, in whooping-cough, 535
Battistini, pancreatic juice in diabetes, 359
Bauchwitz, pental as an anæsthetic, 137
Bayer, the hydrocarbons in general, especially "vasogene," in diseases of the respiratory passages, 139
Bayet, gallanol in psoriasis, 497
Bechterew, spinal deformity, 242
Bellotti, M., large doses of digitalis in croupous pneumonia, 254
Beneke, new method of staining connective tissue, 195; inoculation of gelatine culture tubes, 239
Benzosol in diabetes, 476
Berberoff, glycosuria in pregnancy and lactation, 290
Berger, operation for umbilical hernia in the newborn child, 251; operative treatment of congenital umbilical hernia, 369
Bergonie, electric treatment of uterine fibromata, 272
Berner, acute sublimate eczema in childbed, 152
Beugnies, craniotomy, symphysiotomy, fatal gangrenous lymphangitis, 29
Beuttner, rudimentary uterus, ovulation without menstruation, 513
Beyer, trional, 358
Bhau Daji treatment of leprosy, 537
Biensenthal, piperazine in gout, 521
Bikeles, acute poliomyelitis anterior in an adult, 245
Binder, the, in childbed, 87
Bircher, neuropathic œdema of traumatic origin treated by nerve stretching, 49
Bladder, use of air to inflate in suprapubic cystotomy, 48; perforated by Zwank's pessary, 471
Blachstein, a contribution to the microbic study of water, 463
Blair, ustiligo maidis, 36
Blanc, soft fœtal head causing dystocia, 106; uncontrollable vomiting in pregnancy, 148; missed abortion, missed labour, 232
Blood, staphylococci in osteomyelitis, 60, 197; relation between alkalinity of the and intestinal absorption, 241; increase of the microbicide power of during infection, 444
Blum, formaldehyde, 277
Blocq, tumour of one crus cerebri, 508
Boas, lactic acid in the stomach contents, 364
Bodin, treatment of pityriasis versicolor, 539
Boissard, galactophoritis, 491
Boix, E., tachycardia, 98
Boltenstern, strychnine injections in paralysis, 236
Bommers, staphylococci in the blood in osteomyelitis, 60, 197
Borax in the treatment of stomatitis, 300
Borrel, experimental pulmonary tuberculosis, 404
Bourbon, ethyl bromide as a general anæsthetic, 309
Bourget, solacetol in summer and choleraic diarrhœa, 397; external applications containing salicylic acid in acute rheumatism, 479
Boursier, electric treatment of uterine fibromata, 272
Boyd, S., Bhau Daji treatment of leprosy, 537
Bracco, analgene, 440
Brain, trephining for softening of, 66
Braimann, v., treatment of gunshot wounds of the abdomen, 164
Bratenahl, perforation of uterus by steel dilator, operation, recovery, 533
Braun, ferric chloride in diphtheria, 339
Breasts, supernumerary, without nipples, 271
Breech presentation, diagnosis of before labour, 202
Briddon, hysterectomy by the sacral method, 472
Bright's disease. *See* Disease
Bristow, use of air to inflate the bladder in suprapubic cystotomy, 48
Bromides, effect of large doses of in epilepsy, 112
Brown-Séquard's fluid, injections of in cutaneous trophoneuroses, 477; injections of in mental disease, 540
Bruschettini, experimental immunity against influenza, 302
Buboes, suppurating, treatment of, 50
Bucco-pharyngeal cavity, preliminary surgical procedures in operations involving the, 103
Budin, tuberculous peritonitis simulating pregnancy, 393; fibroids and scybala, 418
Bué, supernumerary breasts without nipples, 271
Buzzi, iodide of potassium in actinomycosis of the human subject, 111

C.

Cacace, action of the metabolic products of the bacterium coli commune, 445
Cæsarean section, case of, 32
Caird, hypodermic alimentation, 323
Campana, the bacillus of leprosy, 481
Cancer, primary of the vulvo-vaginal gland, 169; of the liver and stomach, the appetite in, 386; inoculation of, 503
Carasso, G. M., a new treatment for pulmonary tuberculosis, 478
Carl-Hohenbalken, M. v., vaginal fistulæ and malpraxis, 107
Carotid, external, ligature of, 228
Casaretti, chloralose, 376; the derivatives of creasote in pulmonary phthisis, 421
Caselli, resection of the spine for osteoma, 511
Caspersohn, surgical treatment of appendicitis, 370
Cassel, acute nephritis after varicella, 223; double empyema, 213
Castellino, relation between the alkalinity of the blood and intestinal absorption, 241
Cathcart, quenching of thirst after abdominal operations, 310
Cattani, vaccination of the horse against tetanus, 78; importance of the spleen in immunisation of the rabbit against tetanus, 238
Cavazzani, elimination of bacteria by the kidneys, 59; morbid changes in the sympathetic system in diabetes mellitus, 140; relation between the alkalinity of the blood and intestinal absorption, 241
Cavities, large bony, closure of, 167
Cazeneuve, gallanol in psoriasis, 497
Cerebral. *See* Brain
Cervix uteri. *See* Uterus
Cesaris-Damel, importance of the spleen in immunisation of the rabbit against tetanus, 238

Copies of the Index to the Epitome, with Title-page, for binding in separate form, can be had on application to the Office, 429, Strand, W.C.

Chamberland, local disinfection, 255
Chambrelent, influenza and fœtal death, 46
Chancre, soft, pathogenesis of, 61
Chancres, soft, treatment of by heat, 388
Chaulmoogra oil, action of on the leprosy bacillus, 16
Child, aged 10, successful ovariotomy in a, 90; aged 6, menstruation in a, 109; newborn, operation for umbilical hernia in the, 251; delivery of with tumour on the head, 374; newborn, teratoma of orbit in, 468
Childbed, the binder in, 87; acute sublimate eczema in, 152; sporadic scarlatina in, 153
Childhood, gonorrhœal rheumatism in vulvitis of, 416
Children, foreign bodies in the ear in, 266; vulvo-vaginitis in, 315; Asiatic cholera in, 448; nocturnal enuresis in, 465; ovarian cysts in, 515
Chloralate, 275
Chloralose, 376, 457, 520
Chloride of zinc bougies in certain forms of uterine fibromata, 108
Chloro-anæmia hypodermic injections of the preparations of iron in, 360
Chloroform, effect of on an albuminuric patient in labour, 171; in the treatment of sunstroke, 378
Chlorosis, the etiology of, 406
Cholelithiasis, complications of, 27
Cholera, Asiatica, quinine in, 31; the development of attacks of, 43, 141; gangrene complicating, 180; researches on, 196, 237; salol in, 321; and alcoholism, 326; immunisation of man against, 363; septicæmia consequent upon, 428; in children, 448; etiology of, 482; copper in, 501
——— bacillus. *See* Bacillus
——— infantum, treatment of, 14
Chorion, malignant disease of, 72
Choux, radical cure of muscular hernia, 47
Chrétien, pre-arterial pulmonary stenosis, 347
Christmann, europhen and the tubercle bacillus, 75
Chromic acid in affections of the middle ear, 138
Cinnamic acid in tuberculosis, 439
Clasmatocytes, 117
Codeine, the uses of, 379
Coe, H. C., gestation twice in the same tube, 130
Colds, etiology of, 177
Colitis, chronic and uterine disease, 333
Collatz, trional, 358
Condamin, chloride of zinc bougies in certain forms of uterine fibromata, 108; bladder perforated by Zwank's pessary, 471
Conitzer, operative treatment of tuberculous peritonitis, 124
Contracture, hysterical, 163
Convulsions, puerperal, alleged neurotic origin, 436
Coplin, hydrogendioxide as an aid to diagnosis of sinuses, pus cavities, etc., 431
Copper in cholera, 501
Cord, umbilical, knots in the, 250; knots in and fœtal death, 419
Cordier, ectopic gestation, full-grown child retained nearly two years, 417
Corpulence, amenorrhœa and, 172
Corrosive sublimate, intravenous injections of in cases of cerebral syphilis, 193, 235
Coughing, uncontrollable, in pregnancy, 291
Courant, teratoma of orbit in a newborn child, successful operation, 468
Cozzolino, microcidine in microbic (pyogenic) affections of the ear, nose, and throat, 362; treatment of epistaxis, 498
Craniotomy, acquired atresia after, 10; case of, 29; linear in microcephalus, 450
Cranium, plastic surgery of the, 529
Creasote, derivatives of in pulmonary phthisis, 421
Crofford, fibroid tumour complicating delivery, 293
Crus, cerebri, tumour of, 508
Cutaneous. *See* Skin
Cyst, ovarian, simulated by tuberculous peritonitis, 89
Cystotomy, suprapubic use of air to inflate the bladder in, 48; suprapubic, 83; suprapubic, new method of drainage in, 267; intraperitoneal, 433
Cystoscope, the, in surgical practice, 530
Cysts of the hymen, 336; ovarian in children, 515

D.

Dacryocystitis, rapid treatment of, 224
Dana, paralysis agitans, 192
Darier's disease. *See* Disease
Darkschewitsch, peripheral facial palsy, 3
Dauchez, diabetes mellitus in infancy, 99
Degeneration, the reaction of, 524
De Grazia, derivatives of creasote in pulmonary phthisis, 421
Delirium, acute, etiology and pathogenesis of, 543
——— tremens, large doses of alcohol in, 301
Delivery, unconscious, 208; fibroid tumour complicating, 293; precipitate, danger to the fœtus, 337; of child with tumour on the head, 374
Dente, rapid treatment of dacrocystitis, 224
De Redowski, the physiological action of methyl mercaptan, 58
Dermatitis, iodoform, 442
Dermatol, 217
Des Barres, successful ovariotomy during puerperal septicæmia, 312
Desprès, petroleum in vaginal inflammation, 70
Diabetes mellitus in infancy, 99; morbid changes in the sympathetic system in, 140; and cirrhosis of the liver, 240; acetonuria in, 305; pancreatic juice in, 359; piperazin in, 361; pancreatic, 384; benzosol in, 476; the knee-jerk in, 484
Diaphtherin, 377
Diarrhœa, the treatment of in dysentery, typhoid, etc., 136; summer and choleraic, salacetol in, 397
Dietz, a mechanical treatment of erysipelas, 400
Dieulafoy, the minor symptoms of chronic Bright's disease, 62
Digestion, chemistry of in pellagrous insanity, 367
Digitalis, large doses of in croupous pneumonia, 254
Dilatation, gastric, 46
Diphtheria, methylene blue in, 57; treatment of, 190, 507; ferric chloride in, 339; peroxide of hydrogen in, 422
Diplegia, cerebral, 429
Disease, chronic Bright's, the minor symptoms of, 62
——— Darier's, the so-called psorosperms of,
——— Morvan's, 222
Diseases, infective, influence of the urinary secretion on the evolution of, 21
Disinfection by ammonia vapour, 19; local, 255
Diuretin, the action of, 401
Dog, changes in the testicles of when replaced in the abdominal cavity, 402
Dombrowski, functional valvular insufficiency, 304
Donath, diphtherial hemiplegia, 202
Dori, hypodermic infections of the preparations of iron in chloro-anæmia, 360
Dorstenia contrayerba, the active principles of, 274
Doyen, hysterectomy, 514
Drainage, in abdominal surgery, 110; new method of in suprapubic cystotomy, 277; of the antrum of Highmore, a new method of, 288
Dropsy of bacterial origin, 424
Duboisin, 257; in mental diseases, 380, 423
Dührssen, deep incision of the cervix and perineum in labour, 268
Duflocq, diabetes mellitus in infancy, 99
Dulerly, phenosalyl, 216
Durr, gangrene complicating cholera, 180
Dust, cholera bacilli conveyed by, 44
Dynamite, lesions caused by, 510
Dysmenorrhœa, membranous and uterine casts, 189
Dyspepsia, infantile, secondary infections in, 306
Dystocia, soft fœtal head causing, 106

E.

Ear, middle, chromic acid in affections of, 138; microbes of the, 179; foreign bodies in the in children, 266; microcidine, in microbic affections of, 362
Eberhart, vaginal injections after labour, 357
Eclampsia, induction of abortion in, 8; puerperal, 512
Eczema, acute sublimate in childbed, 152
Effusions, multiloculated pleural, 23
Egypt, tuberculin treatment in, 496
Einhorn, M., therapeutic effects of direct electrisation of the stomach, 258
Einthoven, asthma nervosum, 365
Eisenlohr, Morvan's disease, 222
Elbow fracture of, 227
Electric illumination of the stomach and its value, 325
Electricity, statical in pruritus, 320
Electrisation, direct, of the stomach, therapeutic effects of, 258
Electrolysis in fibrous ankylosis, 185; in uterine fibromata, 272
Elkins, the paraldehyde habit, 158
Emmerich, Asiatic cholera, 43
Empyema of the sphenoidal sinus, 7; double, 243
Endocarditis, tuberculous, 116; gonorrhoica, 349; ulcerative embolic aneurysm not due to, 504
Enemata, saline in hæmorrhage, 322
Engelmann, extrauterine pregnancy, external migration of the ovum, 131
Enuresis, nocturnal in children, 465
Epilation, electrolytic, 299
Epilepsia tarda, 447
Epilepsy, effect of large doses of the bromides in, 112; nitroglycerine in paroxysms of, 157 the treatment of, 399
Epileptics, toxicity of the urine of, 25
Epiphysis, lower femoral, separation of, 206
Epistaxis, the treatment of, 498
Epithelioma, arsenic in, 213
Epstein, post-vaccinal erythema and purpura, 45
Erb's paralysis, 261
Erysipelas, facial, nitrate of aconitine in, 212; treatment of, 343; a mechanical treatment of, 400
Erythema, post-vaccinal, 45
Escheric, trismus neonatorum treated by tetanus antitoxin, 253
Ether, acetic, 40
Ethyl bromide as a general anæsthetic, 309
Europhen and the tubercle bacillus, 75
Everke, laceration of the vagina in delivery, 435
Eye symptoms in cerebro-spinal meningitis, 244
Eyraud, J., the pathogenic microbe of gonorrhœal orchitis, 119

F.

Fæces, new method of preventing incontinence of after resection of the rectum, 86
Farrar, new method of drainage in suprapubic cystotomy, 267
Fatigue, absence of sensation of in a tabetic, 284
Feeding of infants, 273
Feilchenfeld, precipitate labour on eighth day after ovariotomy, 454
Female, hydrocele in the, 233
Féré, Ch., effect of large doses of the bromides in epilepsy, 112
Fernandez, S., anophthalmos, 474
Ferrannini, chloralose, 376
Ferratin, 461
Ferric chloride in diphtheria, 339
Fever, enteric, pyosalpinx after, 88; transmission of to the fœtus, 328; and acute tuberculosis, 348; specific treatment of, 475
——— ganglionic, 22
Fibroids, malignant, 414; and scybala, 418
Fibromata, uterine, electric treatment of, 272
Finney, removal of Gasserian ganglion for intractable neuralgia, 509
Fiocca, a new method of staining spores, 260
Fischer, the kidney and nephritis in pregnancy, 129
Fischel, the pathology of pernicious anæmia, 542
Fischl, gastro-intestinal septicæmia of infants, 466
Fistula, vaginal, cure of, 31
Flechsig, the treatment of epilepsy, 399
Fœtus, soft head of causing dystocia, 106; transmission of enteric fever to, 328; death of and knots in the cord, 419; death of and influenza, 469; monstrous, double eye removed during exploration, 534
Formaldehyde, 277
Formalin, preservation of cultures by, 382
Fractures, compound and ununited, new method of direct fixation of fragments in, 186
Fraenkel, E., specific treatment of enteric fever, 475
Frank, drainage, artificial encysting of peritoneum, 354; atresia, pus in vagina, 437
Franque, malignant fibroids and polypi, 414
Freckles, treatment of, 522
Freiburg, surgical treatment o exophthalmic goitre, 389
Frenkel, absence of the sensation of fatigue in a tabetic, 284
Freud, cerebral diplegia, 429; nocturnal enuresis in children, 465
Freudenberg, ichthyol suppositories in prostatitis, 114
Friedlander, pichi in genito-urinary iscases, 176
Fuller, seminal vesiculitis, 331

G.

Gabritschewsky, detrimental influence of cholera bacilli on other organisms, 115
Gaillard, alcoholism and cholera, 326
Galactophoritis, 491
Gall bladder, surgery of the, 452
Gall stones in the insane, 123; treatment of obstruction by, 166; physical diagnosis of, 383
Gallanol in psoriasis, 497
Gallerani, reflex spasm of the tongue, 220
Galli-Valerio, iodide of potassium in actinomycosis in the human subject, 111
Ganglionic fever. *See* Fever
Gangolphe, new sign of internal strangulation, 26
Gangrene, complicating cholera, 180; and simulation (spontaneous) in hysteria, 408
Gardner, neurectomy in spasmodic torticollis, 146
Gasserian ganglion, removal of, 329, 509
Gastritis, naso-pharyngeal disease as a cause of, 485
Gastro-intestinal disturbances, relation of to diseases of the genital tract, 391
Gattai, eleventh case of traumatic tetanus cured by the antitoxin of Tizzoni and Cattani, 194
Gatti, increase of the microbicide power of the blood during infection, 444
Gegner, formaldehyde, 277
Gelatine, high resistive germs in, 118; inoculation of culture tubes of, 289
Gellé, suppurative otitis followed by cerebral symptoms, 165
Genital canal, bacteriology of, 375; relation of gastro-intestinal disturbances to disease of, 391
Genitals, absence of, vicarious epistaxis, 252
Gerhardt, salophen, 17; interlobar pleurisy, 199; physical diagnosis of gall stones, 383
Germs, high resistive in gelatine, 118
Gersuny, new method of preventing fæcal incontinence after resection of the rectum, 86; new operation for radical cure of large umbilical hernia, 409
Gestation twice in the same tube, 130; intraperitoneal ectopic, 247; ectopic full-grown child retained nearly two years, 417; early tubal, no objective symptoms, 456
Gibbes, H., parasites and new growths, 159
Gibson, operative proceedings in old age, 390
Giles, neurectomy in spasmodic torticollis, 146
Gland, vulvo-vaginal, primary cancer of the, 169
Glottis, spasm of the in hysteria, 262
Glycerine in nephrolithiasis, 39
Glycosuria in pregnancy and lactation, 290; chronic, 483
Goebel, fatty degeneration of the heart, 381
Goître, exophthalmic, 122; injections of iodoform in, 256; exophthalmic, surgical treatment of, 389
Goldscheider, diseases due to the streptococcus, 259
Gonorrhœa and the puerperium, 209
Gonzales, combined effects of morphine and sulphonal, 191
Gorin, precipitate delivery, danger to the fœtus, 337
Gothenburg, closure of large bony cavities, 167
Gottschalk, malignant disease of chorion, 72
Gout, the treatment of, 341; piperazine in, 521; pneumonia in, 525
Graf, articular affections in syringomyelia, 205
Graham, massage in muscular rheumatism, 183
Graziani, action of nicotine on the animal organism, 42
Greenlees, poisoning by potassium bromide, 398
Griffiths, J., structural changes in the testicles of aged persons, 324; changes in the testicles of the dog when replaced in the abdominal cavity, 402
Gross, treatment of cholera infantum, 14
Grossi, subcutaneous injections of salol in tuberculosis, 77
Grube, the knee-jerk in diabetes, 484; pneumonia in gout, 525
Gruber, piperazin in diabetes, 361
Grundsatz, narrowing of the pylorus, 506
Guaiacol, 76; action of on the chemical poisons of tuberculosis, 173
Güntz, aristol in venereal ulcers, 441
Guinard, polydactylism, 516
Gunshot wound, of the gravid uterus, 145; of the abdomen, treatment of, 164
Gurrieri, Spiegler's test for albumen in the urine, 385
Gwyer, electrolysis in fibrous ankylosis, 185

H.

Hæmatoma, ossifying, 128
Hæmatometra and atresia, 396
Hæmophilia and parturition, 187
Hæmorrhage, post-partum, removal of sloughing fibroid a fortnight after delivery, 9; into the pancreas, 82; subdural, trephining for, 144; saline enemata in, 322; post-partum, plugging the uterus in, 394; uterine, salipyrin in, 415; uncontrollable umbilical in an infant, 492
Haig, pathology of headache, epilepsy, and mental depression, 160
Hallopeau, theobromine as a diuretic, 518
Hamburger, dropsy of bacterial origin, 424
Hammerschlag, trional as a hypnotic, 73; the serum treatment, 154
Hammond, restoration of function in paralysed muscles, 55
Hanks, hysterectomy for fibroid, old tubal abortion discovered, 317; early tubal gestation, no objective symptoms, 456
Hanot, v., tuberculous endocarditis, 116; the appetite in cancer of the liver and stomach, 386
Happe, Asiatic cholera in children, 448
Harelip, 85
Harrington, intraperitoneal cystotomy, 433
Hartmann, ethyl bromide as a general anæsthetic, 309
Hauser, feeding of infants, 273; preservation of cultures by formalin, 382
Hausson, large doses of alcohol in delirium tremens, 301
Head, severe injury to with loss of the muscular sense, 368
Headache, epilepsy, and mental depression, pathology of, 160
Heart, etiology of chronic affections of the, 1; treatment of chronic valvular disease of the, 18; wound of the, 142; functional insufficiency of valves of, 304; fatty degeneration of the, 381
Heat, treatment of soft chancres by, 388
Heim, high resistive germs in gelatine, 118
Hemihypertrophy, right, 285
Hemiplegia, diphtheria, 202
Hepatic. *See* Liver
Hermann, A., glycerine in nephrolithiasis, 39
Hermaphrodite, a true, 151
Hernia, muscular, radical cure of, 47; strangulated obturator of the ovary and tube, 52; encysted, of the labium majus, 231; umbilical operation for in the newborn child, 251; congenital umbilical, operative treatment of, 369; large umbilical, new operation for radical cure of, 409; of the liver, 410
Herpes, labial, and cerebrospinal meningitis, 182
Hertmann, methyl chloride in neuralgic affections, 35
Hervieux, intrauterine vaccination and variolation, 120
Herzfeld, oval pessary incarcerated in the uterus, 133
Heytl, wound of the heart, 142
Hildebrand, naso-pharyngeal disease as a cause of gastritis and anæmia, 485
Hintze, the duration of life of typhoid bacilli, 103
Hirschfeld, acetonuria in diabetes, 305
Hoffa, pathological anatomy of scleroderma, 97
Hofmokl, pneumotomy, 84
Horse, vaccination of the against tetanus, 78; immunised tetanus cured by serum of, 295
Horses, wounds of the intestines from kicks of, 490
Houzel, intraperitoneal ectopic gestation, 247
Howitz, suture after laparotomy, 125
Huberwald, quinine in cholera, 34
Hugounenq, the pathogenic microbe of gonorrhœal orchitis, 119
Hutson, spontaneous amputation of inverted uterus, 210
Hydatid of the kidney, 451
Hydrocarbons in general, and especially "vasogene" in diseases of the respiratory passages, 139
Hydrocele, in the female, 233; treatment of, 430
Hydrocephalus fœtal, spontaneous cure, 11
Hydrogen dioxide as an aid in the diagnosis of sinuses, pus cavities, etc., 431
Hydronephrosis, treatment of by the formation of an oblique fistula, 487
Hymen, cysts of the, 336
Hypodermic injections. *See* Injections
Hysterectomy for fibroid, old tubal abortion discovered, 317; floating liver and kidneys after, 413; by the sacral method, 472; results of, 514
Hysteria, spasm of the glottis in, 262; simultaneous gangrene and simulation in, 408

I.

Ichthyol, suppositories of in prostatis, 144; the antiseptic powers of, 340, 495
Infancy, diabetes mellitus in, 99
Infant, uncontrollable umbilical hæmorrhage in an, 492
Infants, difficulties encountered in feeding, 74; stomach washing in, 174; feeding of, 273; gastro-intestinal septicæmia of, 466
Infection, puerperal, 438; increase of the microbicide power of the blood during, 444
Influenza, experimental immunity against, 302; and fœtal death, 469; salipyrin in, 517
Injections, hypodermic, in neurasthenia, 296; of certain chemical compounds, 297; of testicular juice, 298
Inoculation of gelatine culture tubes, 289
Insane, gall stones in the, 123
Insanity, pellagrous, chemistry of digestion in, 367; after removal of appendages, 371; hysterical, 526
Intestines, wounds of, from kicks of horses, 490
Intubation and tracheotomy, 527
Iodide of potassium in actinomycosis of the human subject, 111; large doses of in chronic tubes, 135
Iodoform, action of, on the chemical poisons o tuberculosis, 173; injections of in goître, 256 dermatitis, 442
Iron, hypodermic injections of the preparations of in chloro-anæmia, 360
Israel, extirpation of the kidney for ureteritis, 65
Isuboi, Asiatic cholera, 43

J.

Jacobsen, torsion of ovarian pedicle and uterus in a woman aged 73, 12
Jacobson, electric illumination of the stomach and its value, 325
Jacobovitch, menstruation in a child aged 6, 109
Janiszewski, transmission of enteric fever to the fœtus, 328
Jaquet, A., malakin, 460
Jarré, surgical treatment of tic, 286
Jasenski, phenates of bismuth, 215
Jaundice, relapsing infective, 201
Jemma, intravenous injections of corrosive sublimate in cerebral syphilis, 193

K.

Kahlden, v., axis cylinder stains, 95; sarcoma of the uterus, 338
Kaiser, staining of nerve tissue, 219
Kaltenbach, laceration of cervix and rupture of uterus, 353
Kapper, injections of iodoform in goître, 256
Karewski, hydatid of the kidney, 451
Kartulis, tuberculin treatment in Egypt, 496
Kasem-Beck, methylene blue in diphtheria, 57
Katz, chromic acid in affections of the middle ear, 138
Kayser, salipyrin in uterine hæmorrhage, 415
Kehr, gunshot wound of the gravid uterus, 145; plastic surgery of the cranium, 529
Keiser, uncontrollable umbilical hernia in an infant, 492
Keller, fœtal peritonitis severing the intestinal canal, 211
Kelly, H., drainage in abdominal surgery, 110; palpation and catheterisation of the ureter in the female, 395
Kemmer, acute diffuse peritonitis, 366
Kidney, extirpation of for ureteritis, 65; the and nephritis in pregnancy, 129; hydatid of the, 451
Kidneys, elimination of bacteria by, 59; chloroform narcosis and the, 346; floating, after hysterectomy, 413
King, A. F. A., labour obstructed by ovarian tumour, 188
Kirchoff, fibroid tumour of labium minus, 532
Kirsch, the treatment of varicose ulcers, 412
Kischensky, effect of laparotomy upon tuberculous peritonitis in animals, 502
Klemperer, Asiatic cholera, 141; recovery from pneumothorax, 161; labial herpes and cerebrospinal meningitis, 182
Klien, twins and twin ova, 335
Knee-jerk (the) in diabetes, 484
Knopf, treatment of diphtheria, 190
Koch, cerebellar abscess, 446
Kochenburger, acquired atresia after craniotomy, 10; testes in a subject otherwise female, 249; absence of genitals, vicarious epistaxis, 252
Koenig, cerebral infantile paralysis, 427
Körfer, chloroform in the treatment of sun stroke, 378
Köster, treatment of erysipelas, 343

Koppers, trional, 113, 214
Kortschau, hæmorrhage into the pancreas, 82
Kossel, diphtheria, 507
Kowalewsky, syphilitic spinal paralysis, 246
Krautwig, acetic ether, 40
Krönig, gonorrhœa and the puerperium, 209
Kronthal, exophthalmic goitre, 122
Kruse, treatment of asthma, 91
Kultschitsky, a new method of staining neuroglia, 303
Kunne, antidiphtherin, 536
Kusmin, hernia of the liver, 110
Kuttner, treatment of ozæna, 56; electric illumination of the stomach and its value, 325

L.

Labium minus, fibroid tumour of the, 532
Labour, impeded by cicatricial contractions of vagina, 13; can it be checked at will? 51; albuminuria after, 170; in an albuminuric patient, 171; obstructed by ovarian tumour, 188; missed, 232; diagnosis of, breech presentation before, 292; vaginal injections after, 357; induction of, 392; precipitate on eighth day after ovariotomy, 454
Lactation, glycosuria in, 290
Lactic acid in the stomach contents, 364
Lammert, hydrocele in the female, 233
Landerer, cinnamic acid in tuberculosis, 439
Lanphear, trephining for cerebral softening, 66
Lanz, bacillary suppurative polyarthritis, 345
Laparotomy, suture after, 125; effect of upon tuberculous peritonitis in animals, 502
Laquer, acroparæsthesia, 83
Larynx, total extirpation of the, 264
Lassar, arsenic in epithelioma, 213
Launay, parametritis, abscesses tracking to the nates and ischio-rectal fossa, 316
Laycock, severe head injury with loss of muscular sense, 368
Lazzaro, the cardiac tonics in pneumonia, 234
Le Blond, unconscious delivery, 208
Le Dentu, ovarian cyst simulated by tuberculous peritonitis, 89
Le Fort, riders' bursa, 184
Lefour, knots in the umbilical cord, 250
Lehmann, astasia-abasia, 101
Leloir, statical electricity in pruritus, 320
Lenne, the changes undergone by effervescing waters when received into the stomach, 92
Leo, spasm of the glottis in hysteria, 262
Leprosy, experimental transference of to animals, 218; Bhau Daji treatment of, 537
——— bacillus. *See* Bacillus
Lesi, tetanus cured by serum of immunised horse, 295
Leukæmia, the treatment of, 38
Levi, action of mercury and potassium iodide on metabolism in syphilitics, 420
Levy, treatment of diphtheria, 190
Leyden, uterine myoma implanted by adhesions in the cervical canal, 69; polyneuritis mercurialis, 221; endocarditis gonorrhoica, 349
Liebreich, guaiacol, 76
Lipps, ligature of external carotid, 228
Liver, the pathogenesis of abscess of, 203; cirrhosis of and diabetes, 240; the appetite in cancer of the, 386; hernia of the, 410; floating after hysterectomy, 413; suture of wounds of the, 449
Loimann, the treatment of chronic metritis, 248
Lodemann, mollities ossium, placenta prævia. Cæsarean section, 32
Lombroso, chloralose, 457
Lomer, induction of abortion in eclampsia, 8; sepsis in pregnancy, mother and child saved, 105; amenorrhœa and corpulence, 172
Londe, congenital tuberculosis, 462
Lorand, treatment of soft chancre by heat, 388
Loretin, a new antiseptic, 459
Lucas-Championnière, excretion of urea in certain morbid conditions and after major operations, 5
Lütze, salophen, 134
Lugeol, fœtal death and knots in the cord, 119
Lung, resection of for tuberculosis, 4
Lungs, inflammation of the, 486
Lupo, penetrating wound of abdomen, 528
Lymphangitis, fatal gangrenous, 29; fatal in a newborn child, infection from whitlow in the mother, 33

M.

Mabit, pyosalpinx after typhoid fever, 88
Macaigne, suppurative teno-synovitis, 489
McGraw, intestinal anastomosis, 287
Machenhauer, uterus bicornis septus, 494
Mackenrodt, fœtal peritonitis, severing the intestinal canal, 211
Major, a new method of draining the antrum of Highmore, 288
Malakin, 160
Malaria, phenocoll in, 519; quinine and methylene blue in, 538
Maljutin, detrimental influence of cholera bacilli upon other organisms, 115
Malpraxis, vaginal, fistulæ and, 107
Man, rumination in, 263; immunisation of against cholera, 363
Marandon de Montyel, duboisin, 423
Marfan, secondary infectious in infantile dyspepsia, 306
Marie, P., supernumerary nipple in a family where twin births were frequent, 53
Marinesco, tumour of one crus cerebri, 508
Mario, O., action of chaulmoogra oil on the leprosy bacillus, 16
Marot, secondary infections in infantile dyspepsia, 306
Martha, microbes of the ear, 179
Martin, A., conservative operations on the ovaries, tubes, and uterus, 207
Martini, the hepatic venous souffle, 2
Mason, subphrenic abscess, 265
Massage in muscular rheumatism, 183
Matas, traumatic aneurysm of vertebral artery, 467
Matheus, dermatol, 217
Mathieu, hypodermic injections in neurasthenia, 296
Matschke, iodoform dermatitis, 442
Mayet, inoculation of cancer, 503
Meinert, the etiology of chlorosis, 406; tetanus in obstetrics and gynæcology, 453
Mendel, epilepsia tarda, 447
Meningitis cerebro-spinal and labial herpes, 182; cerebro-spinal, eye symptoms in, 244
Menstruation in a child aged 6, 109; alleged vicarious, 270
Mercury, action of on metabolism in syphilitics, 420
Messner, a true hermaphrodite, 151
Metatarsalgia, 28
Methyl chloride in neuralgic affections, 35
——— mercaptan, the physiological action of, 58
Methylene blue in diphtheria, 57; in malaria, 538
Metritis, chronic, treatment of, 248
Metschnikoff, researches on cholera, 196, 237
Meyer, Erb's paralysis, 261
Micheli, suture of wounds of the liver, 449
Microbe, pathogenic, of gonorrhœal orchitis, 119
Microbes, of the ear, 179; in chronic rheumatism, 443
Microcephaly, 147; linear craniotomy in, 450
Microcidine in microbic (pyogenic) affections of the ear, nose, and throat, 362
Midwives, antisepsis or asepsis for, 531
Mintz, narrowing of the pylorus, 506
Mollities ossium, case of, 32
Mongeri, duboisin in mental diseases, 380
Monnet, Brown-Séquard's fluid in cutaneous trophoneuroses, 477
Monod, chronic colitis and uterine disease, 533
Monteiro, twin labour, management of placenta, 68
Moravesik, hysterical insanity, 526
Mordhorst, the treatment of gout, 341
Morison, R. B., treatment of warts, 500; treatment of freckles, 522
Moritz, curative serum in the treatment of tetanus, 155
Morphine and sulphonal, combined effects of, 191
Morrill, chloralose, 520
Morris, infectious appendicitis, 411
Morton, T. S. K., metatarsalgia, 28
Morvan's disease. *See* Disease.
Mosengeil, salipyrin in influenza, 517
Moure, empyema of the sphenoidal sinus, 7
Moussous, ganglionic fever, 22
Mumps, submaxillary, 307
Murawiew, diagnosis of intracranial tumour, 407
Muscles, paralysed, restoration of function in, 55
Mussi, the active principles of dorstenia contrayerba, 274
Myelitis, acute, and optic neuritis, 80
Myoma, uterine, implanted by adhesions in the cervical canal, 69; pregnancy after removal of, 294
Myxœdema, sheep's thyroid in, 192

N.

Näcke, palatal deformity, 240
Nævi, changes and degeneration in, 330
Nancrede, surgical treatment of aneurysm, 289
Narcosis, chloroform, and the kidneys, 346.
Nasal. *See* Nose.
Naso-pharynx, disease of as a cause of gastritis and anæmia, 185
Natier, foreign bodies in the ear in children, 266
Nephritis after vaccination, 100; of pregnancy and death of fœtus, 150; acute after varicella, 223
Nephrolithiasis, glycerine in, 39
Nerve, neuropathic, œdema of traumatic origin treated by stretching, 49; facial, stretching the in trigeminal neuralgia, 126; ulnar, displacement of, 350; pneumogastric, neuroses of the, 505
Nervous system, hypodermic injections of phosphate of soda in, 543
Neumann, difficulties encountered in feeding infants, 74; treatment of hydrocele, 430
Neuralgia, methyl chloride in, 35; trigeminal, stretching the facial nerve in, 126; pelvic, 333; intractable removal of Gasserian ganglion for, 509
Neurasthenia, hypodermic injections in, 296
Neurectomy in spasmodic torticollis, 146
Neuritis, optic and acute myelitis, 80; multiple senile, 121
Neuroglia, a new method of staining, 300
Neuromyositis and polymyositis, 327
Neuroses, traumatic, 63; of the pneumogastric nerve, 505
Nicaise, the use of purgatives in surgical practice, 311
Nicolas, gallanol in psoriasis, 497
Nicoll, the cystoscope in surgical practice, 330
Nicotine, action of on the animal organism, 42
Nimier, surgical treatment of pancreatic hæmorrhages, 226; wounds of the intestines from kicks of horses, 490
Nipple, supernumerary, in a family where twin births were frequent, 53
Nitrate of aconitine in facial erysipelas, 212
Nolen, treatment of tuberculous peritonitis, 225
Noorden, v., neuroses of the pneumogastric nerve, 505
Nose, tetanus from lesions of, 332; microcidine in microbic affections of, 362; treatment of obstruction of, 432
Novaro, removal of Gasserian ganglion for intractable neuralgia, 509
Nutrient medium, a non-albuminous, 281

O.

Odebrecht, nephritis of pregnancy and death of fœtus, 150; traumatic detachment of placenta, fœtus born alive, 229
Œdema, neuropathic of traumatic origin treated by nerve stretching, 49
Oehlschläger, spontaneous parting of the symphysis, 30
Œsophagus, new method of cutting stricture of, 204
O'Hara, removal of Gasserian ganglion for intractable neuralgia, 509
Oppenheim, H., multiple senile neuritis, 121; syphilitic spinal paralysis, 283
Orbit, teratoma of in a newborn child, 468
Orchitis, gonorrhœal, the pathogenic microbe of, 119
Osteoma, resection of the spine for, 511
Osteomyelitis, staphylococci in the blood in, 60, 197
Otis, treatment of suppurating buboes, 50
Otitis, suppurative followed by cerebral symptoms, 165
Ovaries, conservative operation on, 20
Ovariotomy, successful, in a child, aged 10, 90; successful during puerperal septicæmia, 312; precipitate labour on eighth day after, 454
Ovary, torsion of pedicle of in a woman, aged 73, 12; calcified, 313
Ovulation without menstruation, 513
Ovum, external migration of in extrauterine pregnancy, 131
Oxychinaseptol, 312
Ozæna, treatment of, 56

P.

Pacinotti, reflex spasm of the tongue, 220
Palate, deformity of, 200
Palma, diabetes and cirrhosis of the liver, 240; benzosol in diabetes, 476
Palsy, peripheral facial, 3
Pancreas, hæmorrhage into the, 82; surgical treatment of hæmorrhage from, 226
Pancreatic juice in diabetes, 359
Papain, 175
Paraldehyde habit, the, 158
Paralysis agitans, 102; strychnine injections in, 236; syphilitic spinal, 246; Erb's, 261; syphilitic spinal, 283; puerperal, death in three months, 355; cerebral infantile, 427
Parametritis, abscesses tracking to the nates and recto-ischial fossa, 316

Parasites and new growths, 159
Park, bacillus coli communis, 279
Parker, complications of cholelithiasis, 27
Parkhill, removal of Gasserian ganglion, 329; lineal craniotomy in microcephalus, 450
Parturition, hæmophilia and, 187
Peckholt, the active principles of dorstenia contrayerba, 274
Peillon, artificial serum, 458
Pental as an anæsthetic, 137
Peptonuria in phosphorus poisoning, 181
Perineum, deep incision of in labour, 268
Perininger, the uses of codeine, 379
Peritoneum, drainage, artificial encysting of, 354; causes of adhesions of in abdominal section, 455
Peritonitis, tuberculous, simulating ovarian cyst, 89; tuberculous, operative treatment of 124; fœtal,, severing the intestinal canal, 211; tuberculous, treatment of, 225; acute diffuse, 266; tuberculous simulating pregnancy, 393; tuberculous in women, 470; tuberculous in animals, effects of laparotomy on, 502; from perforation, the etiology of, 523
Perl, nephritis after vaccination, 100
Pernice, influence of the urinary secretion on the evolution of infective diseases, 21
Peron, toxicity of the urine of epileptics, 25
Peroxide of hydrogen in diphtheria, 422
Pessary, oval, incarcerated in the uterus, 133
Petersen, pathogenesis of the soft chancre, 61; the so-called psorosperms of Darier's disease, 480
Petroleum in vaginal inflammation, 70
Phenates of bismuth, 215
Phenocoll in malaria, 519
Phenosalyl, 216
Phosphate of soda, hypodermic injections of in diseases of the nervous system, 541
Phosphorus, peptonuria in poisoning by, 181
Phthisis, advanced, tuberculin in, 319; pulmonary, derivatives of creasote in, 421
Pichi in genito-urinary diseases, 176
Pick, indications for washing out the stomach, 15
Pinard, diagnosis of breech presentation before labour, 292
Piperazine, effects of on the urine, 94; in diabetes, 361; in gout, 521
Pispoti, lesions caused by dynamite, 510
Pitotti, influence of sodium fluoride on the organs and tissues of animals, 37
Pityriasis versicolor, treatment of, 539
Placenta prævia, case of, 32; management of in twin labour, 68; traumatic detachment of, fœtus born alive, 229; prævia, treatment of, 373
Pleural effusions, pulsating, 163
Pleurisy, interlobar, 199; exudative, etiology of, 282
Pleuritic exudation, preventive treatment of, 156
Plicque, displacement of ulnar nerve, 350; visceral affections of menstrual origin, 372
Pneumonia, the cardiac tonics in, 234; croupous, large doses of digitalis in, 254
Pneumothorax, recovery from, 161
Pneumotomy, 184
Poehl, spermin, 318
Poisoning by potassium bromide, 398
Poitou-Duplessis, labour in an albuminuric patient, effect of chloroform, 171
Polaillon, pelvic neuralgia, calcified ovary, 313
Poli, actinomycotic perilaryngeal abscess, 67
Poliomyelitis, acute anterior in an adult, 243
Pollacci, influence of the urinary secretion on the evolution of infective diseases, 21
Pollosson, surgery of the stomach, 387
Polyarthritis, bacillary suppurative, 345
Polydachylism, 376
Polymyositis and neuromyositis, 327
Polyneuritis mercurialis, 221
Polypi, malignant, 414
Popoff, hysterical tremor, 24
Poppert, total extirpation of the larynx, 264
Posner, amœbæ in the urine, 79
Potassium bromide, poisoning by, 398
Potassium iodide. action of on metabolism in syphilitics, 420
Pregnancy, two years after amputation at hip-joint, forceps delivery, 54; extrauterine, vaginal operation, 71; sepsis in, mother and child saved, 105; the kidney and nephritis in, 129; extrauterine, external migration of the ovum, 131; uncontrollable vomiting in, 148; small-pox in, 149; nephritis of and death of fœtus, 150; syphilis in, 269; glycosuria in, 290; uncontrollable coughing in, 291; after removal of myoma, 294; acetonuria and, 356; tuberculous, peritonitis simulating, 393
Presentation of hand or foot with head or trunk, 334
Prostatitis, ichthyol suppositories in, 114
Prudden, etiology of exudative pleurisy, 282
Pruritus, statical electricity in, 320
Psoriasis, the lesion of, 20; gallanol in, 497
Psorosperm, so-called, of Darier's disease, 480
Pucci, phenocoll in malaria, 519
Puech, post-partum hæmorrhage, sloughing fibroid removed a fortnight after delivery, 9
Puerperium, the, gonorrhœa and, 209
Purgatives, the use of in surgical practice, 311
Purpura, post-vaccinal, 45
Putnam, sheep's thyroid in myxœdema and acromegaly, 192
Pylorus, narrowing of the, 506
Pyosalpinx after typhoid fever, 88

Q.

Quénu, preliminary surgical procedures in operations involving the bucco-pharyngeal cavity, 103
Quincke, amœba enteritis, 426
Quinine in cholera, 34; in malaria, 538

R.

Rabon, duboisin, 257
Randolph, eye symptoms in cerebro-spinal meningitis, 244
Ranke, v., intubation and tracheotomy, 527
Ranvier, clasmatocytes, 117
Rasori, etiology and pathogenesis of acute delirium, 543
Reboul, changes and degenerations in nævi, 330
Rectum, formation of a new sphincter after extirpation of, 6; new method of preventing fæcal incontinence after resection of the, 86; stricture of the, 104
Régis, insanity after removal of appendages, 371
Remak, the reaction of degeneration, 524
Rheumatism, muscular, massage in, 183; gonorrhœal in vulvitis of childhood, 416; chronic, microbes in, 443; acute, external applications of salicylic acid in, 479
Richardière, small-pox in pregnancy, 149
Richardson, gonorrhœal rheumatism in vulvitis of childhood, 416; surgery of the gall bladder, 452
Riders' bursa, 184
Riegel, asthma nervosum, 365
Riegner, trephining for subdural hæmorrhage, 144
Rigler, v., disinfection by ammonia vapour, 19
Rindskopf, chloroform narcosis and the kidneys, 346
Robinson, tubal abortion, fœtus removed per vaginam, 314; occlusion of the ureters, 351
Robitschek, peptonuria in phosphorus poisoning, 181
Robson, separation of lower femoral epiphysis, 206
Rocas, vulvo-vaginitis in children, 315
Roger, septicæmia consequent upon cholera, 428
Rogner-Gusenthal, v., strangulated obturator hernia of the ovary and tube, 52
Rollet, gallanol in psoriasis, 497
Roncali, experimental tetanic infection in animals, 344
Roos, amœba enteritis, 426
Rosin, quinine, and methylene blue in malaria, 538
Rossi, C., chloralose, 457
Rousseia, monstrous fœtus, double eye removed during exploration, 534
Rudolph, multiloculated pleural effusions, 23
Rumination in man, 263
Rusconi, hypodermic injections of testicular juice, 298

S.

Sabolotny, immunisation of man against cholera, 363
Sabouraud, tricophyton and deep dermatitis with special reference to its animal origin, 280
Sänger, antisepsis or asepsis for midwives, 531
Salacetol in summer and cholera diarrhœa, 397
Salicylic acid, external applications of in acute rheumatism, 479
Salipyrin in uterine hæmorrhage, 415; in influenza, 517
Salol, subcutaneous injections of in tuberculosis, 77; in cholera, 321
Salophen, 17, 134
Sanarelli, etiology of cholera, 482
Sarcoma of the uterus, 338
Sarda, enteric fever and acute tuberculosis, 348
Sawtschenko, immunisation of man against cholera, 363
Scarlatina, sporadic in childbed, 153
Schanz, optic neuritis and acute myelitis, 80
Schenk, etiology of colds, 177
Schick, laceration of vagina in labour, amputation of uterus, 168
Schiess Bay, tuberculin treatment in Egypt, 496
Schill, rapid demonstration of cholera bacilli in water and fæces, 41
Schinzinger, loretin, a new antiseptic, 459
Schlenker, the frequency of latent tuberculosis, 405
Schmidt, A., sputum as a cultivation medium, 178
Schmiedeberger, ferratin, 461
Schnitzler, tetanus, 96
Schönheimer, membranous dysmenorrhœa and uterine casts, 189
Schott, T., etiology of chronic heart affection, 1
Schrader, fœtal hydrocephalus, spontaneous cure, 11
Schramm, sporadic scarlatina in childbed, 153
Schüller, microbes in chronic rheumatism, 443
Schulze-Berge, stretching the facial nerve in trigeminal neuralgia, 126
Schweizer, primary cancer of the vulvo-vaginal gland, 169
Scleroderma, pathological anatomy of, 97
Scudder, divulsion of urethral stricture, 488
Scybala, fibroids and, 418
See, G., asthma nervosum, 365
Seelig, pancreatic diabetes, 384
Séglas, auto-intoxication in mental disease, 464
Segre, R., ichthyol, 495
Selter, embolic aneurysm not due to ulcerative endocarditis, 504
Senator, polymyositis and neuromyositis, 329
Senn, N., suprapubic cystotomy, 83; new method of direct fixation of fragments in compound and ununited fractures, 186
Sepsis in pregnancy, mother and child saved, 105
Septicæmia, puerperal, successful ovariotomy during, 312; consequent upon cholera, 428; gastro-intestinal of infants, 466
Serum, treatment by, 154; curative, in the treatmenh of tetanus, 155; of immunised horse, tetanus cured by, 295; artificial, 458
Siepen, plugging of uterus in post-partum hæmorrhage, 394
Sieur, surgical intervention in abdominal injury, 64
Simulation and gangrene (spontaneous) in hysteria, 408
Singer, rumination in man, 263; spontaneous gangrene and simulation in hysteria, 408
Sinus, sphenoidal, empyema of, 7
Siredey, floating kidneys and liver after vaginal hysterectomy, 413; tuberculous peritonitis in women, 470
Sittman, papain, 175
Skin, Brown-Séquard's fluid in trophoneuroses of, 477
Skutsch, cure of vaginal fistula, 31
Small-pox in pregnancy, 849
Snell, gall stones in the insane, 123
Sodium fluoride, influence of on the organs and tissues of animals, 37
Sottas, puerperal paralysis, death in three months, 354
Souffle, the hepatic venous, 2
Soupault, relapsing infective jaundice, 201
Sozoiodol preparations, action of upon cholera bacilli, 278
Spermin, 318
Sphincter, new formation of after extirpation of the rectum, 6
Spiegler, hypodermic injection of certain chemical compounds, 297; test for albumen in the urine, 385
Spine, deformity of the, 242; resection of the for osteoma, 511
Spitzer, treatment of nasal obstructions, 432
Spleen, hypertrophied, extirpation of a, 127; importance of in experimental immunisation of the rabbit against tetanus, 238
Springer, cold mustard baths in whooping cough, 535
Sputum as a cultivation medium, 178
Stabel, diaphtherin, 377
Staining connective tissue, new method of, 195; of nerve tissue, 219; spores, a new method of, 260; neuroglia, a new method of, 303
Staphylococci in the blood in osteomyelitis, 60, 197
Stark, W., large doses of iodide of potassium in chronic tabes, 135
Staude, cicatricial contractions of vagina impeding labour, 13
Steinmetz, oxychinaseptol, 342
Stenosis, pre-arterial pulmonary, 347
Stepp, treatment of chronic ulcer of stomach, 499
Stern, a non-irritating tar ointment, 276; electrolytic epilation, 299

Stomach, indications for washing out the, 15; changes undergone by effervescing waters when received into, 92; washing of in infants, 174; therapeutic effect of direct electrisation of, 258; electric illumination of the and its value, 325; lactic acid in the contents of, 364; the appetite in cancer of the, 386; surgery of the, 387; treatment of chronic ulcer of, 499
Stomatitis, borax in the treatment of, 300
Strangulation, internal, new sign of, 26
Streptococcus, diseases due to the, 259
Stroebe, axis-cylinder stains, 95
Stroganoff, bacteriology of the genital canal, 375
Stroganowa, cysts of the hymen, 336
Strümpell, traumatic neuroses, 63
Strychnine, injection of in paralysis, 236
Sulphonal and morphine, combined effects of, 191
Sunstroke, chloroform in the treatment of, 378
Suture after laparotomy, 125
Symphysiotomy, case of, 29
Symphysis, spontaneous parting of, 30
Sympson, E. M., treatment of warts, 500
Syphilis, cerebral, intravenous injection of corrosive sublimate in, 193, 235; in pregnancy, 269
Syphilitics, action of mercury and potassium iodide on metabolism in, 420
Syringomyelia, articular affections in, 205

T.

Tabes, chronic, large doses of iodide of potassium in, 135
Tabetic, absence of the sensation of fatigue in a, 284
Tachycardia, 98
Tar ointment, a non-irritating, 276
Tarnier, can labour be checked at will? 51; pregnancy two years after amputation at hip-joint, forceps delivery, 54; syphilis in pregnancy, 269; presentation of hand or foot with head or trunk, 334; placenta prævia, 373; delivery of child with tumour on the head, 374; induction of labour, 392
Tedeschi, experimental transference of leprosy to animals, 218
Tembach, local disinfection, 255
Tendons, a new method of suture of, 308
Teno-synovitis, suppurative, 489
Testes in a subject otherwise female, 247; hypodermic injections of juice of, 298; of aged persons, strictural changes in, 324; of the dog, changes in when replaced in the abdominal cavity, 402
Tetanus, vaccination of the horse against, 78; conveyance of, 96; curative serum in the treatment of, 155; traumatic cured by antitoxin, 194; importance of the spleen in immunisation of the rabbit against, 238; cured by serum of an immunised horse, 295; from nasal lesion, 332; experimental infection of, in animals, 344; case of, 425; in obstetrics and gynæcology, 453
—— antitoxin, trismus neonatorum treated by, 253
Theilhaber, relation of gastro-intestinal disturbances to diseases of the genital tract, 391
Theodor, treatment of hydrocele, 430
Theobromine as a diuretic, 518
Thevard, puerperal convulsions, alleged neurotic origin, 436
Thirst, quenching of after abdominal operation, 310
Thorner, tuberculin in advanced phthisis, 319
Throat, microcidine in microbic affections of, 362
Thyroid gland, sheep's, in myxœdema and acromegaly, 192
Tic, surgical treatment of, 286
Tichonow, puerperal facial palsy, 3
Tilanus, jun., right hemihypertrophy, 285
Tison, nitrate of aconitine in facial erysipelas, 212
Tizzoni, vaccination of the horse against tetanus, 78; importance of the spleen in immunisation of the rabbit against tetanus, 238
Tollemer, suppurative teno-synovitis, 489
Tongue, reflex spasm of the, 220
Tonolli, hypodermic injections of phosphate of soda in diseases of the nervous system, 541
Torticollis, spasmodic, neurectomy in, 146
Toujan, fatal lymphangitis in a newborn child, infection from a whitlow in the mother, 33
Tournay, extrauterine pregnancy, vaginal operation, 71
Tracheotomy and intubation, 527
Trechsel, tachycardia, 98
Tremor, hysterical, 24
Trent, extirpation of a hypertrophied spleen, 127
Trephining for cerebral softening, 66; for subdural hæmorrhage, 144
Tribromphenol-wismuth, action of upon cholera bacilli, 278
Tricophyton and deep dermatitis with special reference to its vegetable origin, 280
Trional as a hypnotic, 73, 113, 214, 358
Tripet, uncontrollable coughing in pregnancy, 291
Trismus neonatorum treated by tetanus antitoxin, 253
Tubercle, primary of the cervix uteri, 230
—— —— bacillus. *See* Bacillus
Tuberculin treatment in Egypt, 496
Tuberculosis, resection of lung for, 4; subcutaneous injections of salol in, 77; action of guaiacol and iodoform on the chemical poisons of 173; in advanced phthisis, 319; acute and enteric fever, 348; experimental pulmonary, 404; latent, frequency of, 405; cinnamic acid in, 439; congenital, 462; pulmonary, a new treatment of, 478
Tubes, conservative operations on, 207
Tuffier, resection of lung for tuberculosis, 4
Tuley, stomach washing in infants, 174
Tumour ovarian, labour obstructed by, 188; fibroid complicating delivery, 293; intracranial, diagnosis of, 407; of one crus cerebri, 508; fibroid of labium minus, 532
Twin labour, management of placenta, 68
Twins and twin ova, 335
Typhoid fever. *See* Fever enteric
Tyson, treatment of chronic valvular disease of the heart, 18

U.

Uffelmann, cholera bacilli conveyed by dust, 44
Ulcer, perforating gastric, surgical treatment of, 352; chronic of stomach, treatment of, 499
Ulcers, varicose, treatment of, 412; venereal, aristol in, 441
Urea, excretion of in certain morbid conditions and after major operations, 5
Ureter, palpation and catheterisation of in the female, 395
Ureteritis, extirpation of the kidney for, 65
Ureters, occlusion of the, 351
Urethra, divulsion of stricture of, 488
Urine, influence of the secretion of on the evolution of infective diseases, 21; of epileptics, toxicity of, 25; amœbæ in the, 79; effects of piperazine on the, 94; Spiegler's test for albumen in the, 385
Uschinsky, a non-albuminous nutrient medium, 281
Ustiligo maidis, 36
Uterus, torsion of in a woman, aged 73, 12; chloride of zinc bougies in certain forms of fibromata of, 108; obliquity of in vertex presentation, 132; oval pessary incarcerated in, 133; gravid, gunshot wound of the, 145; amputation of, 168; casts of and membranous dysmenorrhœa, 189; conservative operations on, 207; inverted, spontaneous amputation of, 210; primary tubercle of the cervix of, 230; deep incision of cervix of in labour, 268; disease of and chronic colitis, 333; sarcoma of the, 338; rupture of and laceration of cervix of, 353; insanity after removal of appendages of, 371; plugging of in post-partum hæmorrhage, 394; treatment of inertia of without drugs or tonics, 473; bicornis duplex in a multipara, 493; bicornis septus, 494; rudimentary, ovulation without menstruation, 513; perforation of by steel dilator, operation, recovery, 533

V.

Vaccination, of the horse against tetanus, 78; nephritis after, 100; and variolation, intrauterine, 120
Vagina, cicatricial contractions of impeding labour, 13; cure of fistula, 31; petroleum in inflammation of, 70; operation on in extrauterine pregnancy, 71; fistulæ of and malpraxis, 107; laceration of in labour, 168; laceration of in delivery, 435; pus in, 437
Vallois, obliquity of the uterus on vertex presentation, 132
Vanheuverswyn, encysted hernia of the labium majus, 231
Vanlair, subdiaphragmatic abscesses containing air, 198
Van Waters, treatment of uterine inertia without drugs or tonics, 473
Varicella, acute nephritis after, 223
Vehsmeyer, the treatment of leukæmia, 38
Veit, primary tubercle of the cervix uteri, 230
Venturi, action of guaiacol and iodoform on the chemical poisons of tuberculosis, 173
Vertebræ, cervical, dislocation of, 434
Vesiculitis, seminal, 331
Vicarelli, acetonuria and pregnancy, 356
Villard, enteric fever and acute tuberculosis, 348
Vinay, puerperal eclampsia, 512
Vincent, successful ovariotomy in a child aged 10, 90; ovarian cysts in children, 515
Visceral affections of menstrual origin, 372
Voison, toxicity of the urine of epileptics, 25
Vollano, preventive treatment of pleuritic exudation, 156
Vomiting, uncontrollable, in pregnancy, 148
Vulpius, tetanus, 425
Vulvitis of childhood, gonorrhœal rheumatism in, 416
Vulvo-vaginitis in children, 315

W.

Walthard, causes of peritoneal adhesions in abdominal section, 455
Walton, dislocation of cervical vertebræ, 434
Warman, saline enemata in hæmorrhage, 322
Warts, treatment of, 500
Wasserman, inflammation of the lungs, 486
Water, a contribution to the microbic study of, 463
Waters, effervescing, changes undergone by when received into the stomach, 92
Weber, angina pectoris, 143
Wehle, hæmophilia and parturition, 187
Werder, pregnancy after removal of myoma, 294
Wernicke, traumatic neuroses, 63
Wertheimer, submaxillary mumps, 307
Whitlow in mother causes fatal lymphangitis in newborn child, 33
Whooping-cough, cold mustard baths in, 535
Wight, elbow fracture, 227
Willems, formation of a new sphincter after extirpation of the rectum, 6
Williams, F. H., peroxide of hydrogen in diphtheria, 422
——— W., puerperal infection, 438
Wilson, H. A., a new method of tendon suture, 308
——— J. C., pulsating pleuritic effusions, 162
Windmüller, the binder in childbed, 87; alleged vicarious menstruation, 270
Wittzack, effects of piperazine on the urine, 94
Witzel, treatment of hydronephrosis by an oblique fistula, 487
Wolkowitch, salol in cholera, 321
Women, tuberculous peritonitis in, 470
Worms, J., chronic glycosuria, 483
Worobieff, uterus bicornis duplex in a multipara, 493
Wyeth, harelip, 85

Z.

Zancarol, the pathogenesis of hepatic abscess, 203
Zwank's pessary, bladder perforated by, 471

END OF VOLUME II FOR 1893.

ILLUSTRATIONS.

PAGE

A Case of Multiple Pedunculated Exostoses, Dr. Tom Robinson ... 11
An Improved Hat, Mr. W. Summerskill ... 19
Injuries to the Epiphyses and their Results, Mr. J. Hutchinson jun. (Six Figures) ... 53, 54, 1417, 1418
Exhibition of Hunterian Relics at the Royal College of Surgeons ... 74
An Instrument for Delicate Dissections, Mr. W. W. Cheyne ... 123
Medical School, University of Sydney ... 145
Do Parasites Exist in Cancerous Tumours? Dr. C. H. Cattle (Four Figures) ... 179, 180
Improved Nasal Speculum ... 187
The Pathology of Cystic Tumours Connected with the Bladder, Mr. J. H. Targett (Thirteen Figures) ... 218, 219, 220, 221, 222
A Study of a Case of Focal Epilepsy, Dr. W. Hale White ... 227
The Neuroglia Elements in the Human Brain, Dr. W. L. Andriezen (Three Figures) ... 228, 229
Congenital (?) Dilatation and Hypertrophy of the Colon, Fatal at the Age of 11 Years, Drs. T. J. Walker and J. Griffiths (Two Figures) ... 230, 231
The "Core" Bed-rest ... 237
Professor Bottini's New Accumulator Battery for Galvano-Cauterisation and Light, Dr. Morotti ... 237
The Mechanical Treatment of Ptosis, Mr. C. B. Turner ... 329
The Wilson Hall, University of Melbourne ... 339
New Medical School, University of Melbourne ... 340
An Improved Mouth Prop or Gag ... 378
The Pathological Effects of Certain Substances Derived from the Spleen in Cases of Scarlatina, Mr. T. J. Bokenham and Dr. W. S. Fenwick (Four Figures) ... 408
A New Boot Warmer ... 428
A New Vaginal Syringe ... 428
On the Pathology of Aneurysms, with Special Reference to Atheroma as a Cause, Drs. J. Coats and A. G. Auld (Six Figures) 457, 458, 459
On the Value of Experimental Tuberculosis in Diagnosis, Dr. S. Delépine ... 666
The Pathology and Distribution of Atrophic Paralyses, Dr. D. Ferrier ... 724
New Ophthalmic Tabloids and Tabloid Holder, Dr. J. Ward Cousins (Three Figures) ... 729, 730
New Dial for Testing Colour Vision, Dr. J. Ward Cousins ... 730
Congenital Ectropion of the Uvea, Mr. S. Stephenson ... 731
Address of Congratulation to the Queen ... 745
A New Aseptic Hypodermic Case ... 797
Some Effects of Chronic Irritation upon Living Tissues, Mr. D'Arcy Power (Thirteen Figures) ... 830, 831, 832, 833, 834
A Few Facts concerning Psorospermosis or Gregarinosis, Dr. Sheridan Delépine and Mr. P. R. Cooper ... 834
A New Form of Uterine Dredger ... 848
Lobster Tail Catheter, Dr. W. J. Branch ... 898
New Tonsil Knife, Dr. James Brunton ... 898
A New Self-retaining Catheter, Dr. M. Tuchmann (Three Figures) ... 898
Automatic Grip and Splint (Two Figures) ... 899
New Human Anatomy School at Oxford (Two Figures) ... 902, 903
The Treatment of Psoriasis by the Internal Administration of Thyroid Extract, Dr. B. Brannwell (Five Figures) ... 934, 935, 936, 937
New Dermatological Instruments (Thirteen Figures) ... 951

PAGE

A Bangle-tipped Catheter, Mr. W. Paulson ... 1001
A New and Easy Method of Performing Intestinal Resection, Mr. J. R. Morison (Four Figures) ... 1047, 1048
Portrait of Sir Andrew Clark ... 1055
Improved Cycling Saddle ... 1110
Dr. Murdoch Cameron's Forceps ... 1110
Aural Snare, Mr. Creswell Baber ... 1110
A New Tonsil Knife, Mr. Lennox Browne ... 1110
Match Box Throat Lamp (Two Figures) ... 1157, 1158
Bronchitis Kettles ... 1158
Uterine Curette, Dr. R. Bell ... 1158
Domen Belt Corset ... 1158
The Treatment of Ringworm, Dr. P. Abraham ... 1159
India-rubber Stamps for Making Clinical Diagrams, Mr. T. Harris (Two Figures) ... 1159
The Treatment of Angular Deformities at the Hip-joint, Dr. R. H. Sayre (Seven Figures) ... 1199, 1200, 1201
A Case of Spindle-cell Sarcoma of the Iris, Mr. G. E. Williamson (Six Figures) ... 1204, 1205, 1206
A Case of Peripheral Facial Diplegia, Dr. F. W. Mott ... 1206
Detached Pieces of Articular Cartilage forming Loose Bodies in Both Knee-joints, Mr. W. A. Lane ... 1207
Eruptions from Bromides and Iodides, Dr. H. R. Crocker, Coloured Plate ... Face 1208
Thomas's Operation for Benign Tumours of the Female Breast, Dr. A. Jamieson ... 1210
Ovariotomy During Pregnancy, Mr. E. Hooper May ... 1210
Large Congenital Meningocele, Dr. E. Fenn ... 1211
Lymphangioma Circumscriptum, Dr. J. Adam ... 1212
Case of Rupture of Eyeball and Impaction of Foreign Body in the Antrum, Dr. C. E. James ... 1213
Pulmonary Hypertrophic Osteoarthropathy, Dr. J. Kerr (Two Figures) ... 1215
Cooking and Heating by Gas ... 1241, 1437
Some Diseases of the Thyroid Gland, Dr. W. S. Greenfield (Five Figures) ... 1262, 1263, 1264
Mr. Thos. Jessop's Prostate Scissors ... 1280
A Modification of Champetier de Ribes's Bag ... 1280
Improved Clinical Chart, Block, and Case ... 1280
The Anatomical Results of Mikulicz's Operation, Mr. J. B. Sutton ... 1325
Clamp with Uniform Pressure for Enterectomy, Dr. J. Swain ... 1331
Self-retaining Retractor or Wound Hook ... 1331
Improved Bladder Douche, Mr. F. S. Edwards ... 1331
The Brackebusch Filter ... 1381
Symmetrical Talipes Dorsalis in an Acephalous Fœtus, Dr. J. Griffiths (Four Figures) ... 1419, 1420
Notes on a Case of Acromegaly treated by Operation, Dr. R. Caton and Mr. F. C. Paul (Four Figures) ... 1421, 1422, 1423
Excision of the Larynx, Hyoid Bone, and Five Rings of the Trachea for Cancer, Mr. R. G. Macdonald (Two Figures) ... 1423, 1424
Portable Form of Oxy-hydrogen Light for Laryngoscopic Examinations ... 1428
The "Compactum" Midwifery Case ... 1429
The "Torrant" Washer (Two Figures) ... 1429

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	PAGE
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ADELAIDE AND SOUTH AUSTRALIA BRANCH — Symons, Dr. M. J., Dumfries	xlv
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BARBADOS BRANCH	xlvi
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CAPE OF GOOD HOPE BRANCH	xlvi
CHANNEL ISLANDS AND ISLE OF MAN	vii
COLOMBO, CEYLON BRANCH	xlvii
CORK AND SOUTH OF IRELAND BRANCH — Lee, Dr. Phillip G., 25, St. Patrick's Hill, Cork	vii
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EDINBURGH BRANCH — Russell, Dr. William, 46, Albany Street, Edinburgh	xi
FOREIGN AND COLONIAL	li
GLASGOW AND WEST OF SCOTLAND BRANCH — Goff, Dr. Bruce, The Lindens, Bothwell, Lanarkshire	xii
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GRIQUALAND WEST BRANCH	xlvii
HALIFAX, NOVA SCOTIA BRANCH	xlvii
HONG KONG AND CHINA BRANCH	xlvii
HONORARY MEMBERS	lii
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Surgeon-Major J. J. LAMPREY.

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AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(1) Etiology of Chronic Heart Affections. TH. SCHOTT (*Berlin. klin. Woch.*, No. 31, 1892) has prepared a table comprising 750 patients who came under his observation, 245 suffering from organic endocardial disease, and 505 affected with neuro-muscular conditions of the heart. The cases were collected from his hospital practice, and privately in a much frequented watering place. The author also mentions that as far as practicable he did not rely on the patients' personal statements, but completed his research by deriving information from the respective family physicians. Heredity appeared to him an unexpectedly important etiological factor, 212 patients stating that one or more relatives were similarly affected; and among 245 patients with valvular disease, the same affection was 58 times recorded among relations in the direct ascending or descending line. The coincidence in families the author attributes not so much to a rheumatic tendency, as to the heart being a *locus minoris resistantiæ*, readily affected by severe maladies; and among hereditary causes he also enumerates obesity, arthritis and arterio-sclerosis. Passing on to the statistics of the 245 cases of valvular disease, acute rheumatism appeared to be the cause in more than half the patients, the other factors being in order of frequency: arterio-sclerosis, scarlatinal, typhoid, arthritic processes, influenza, diphtheria, measles, etc., and in one case there could be no doubt as to gonorrhœal rheumatism producing valvular disease. The remaining cases were contributed by syphilis (2), diabetes and icterus and Graves's disease (5), and in 9 patients a high degree of kypho-scoliosis was associated with a systolic murmur, which latter Schott attributes to mechanical causes. A larger variety presents itself among the second group, comprising patients with neuro-muscular disease, namely, as regards the muscular tissues—fatty disease, total or partial dilatation, and myocarditis; and as regards the nervous mechanism—motor and sensory disturbances, and the results of weakened nerve force. In this category of 505 patients, heredity, as would be expected, figures even more remarkably than in the former. No fewer than 140 cases resulted from emotional influence, protracted or sudden in nature, and mental over-exertion, while 68 were the outcome of physical overwork, comprising acute excesses, such as mountaineering, running during very hot weather, rowing, cycling, dancing, etc. Febrile diseases were productive of 132 cases, and in 108 patients chlorosis or anæmia coexisted. Abuse of alcohol, tobacco, tea, and coffee was the cause of functional and muscular disease in 101, tobacco even producing permanent degenerative changes, and to this class may be added excesses in food, etc. On the other hand, deficient nutrition, for instance, during puberty or during attempts at treating obesity, supplied twenty-five cases. The remaining instances were the results of profuse hæmorrhage (19), constitutional diseases, and especially arterio-sclerosis, frequent causes also being gastric disturbances, pulmonary affections, aneurysms, nervous disease, and sexual excesses (23). Many drugs when long continued, sudden changes of temperature, and even high altitudes (8), and traumatism appeared as exciting causes.

(2) The Hepatic Venous Souffle. MARTINI (*Gazz. degli Ospitali*, February 21st, 1893) describes three cases of atrophic cirrhosis of the liver, accompanied by marked enlargement of the spleen, in each of which a continuous souffle, increasing during inspiration, could be heard in the sixth intercostal space about the right anterior axillary line. In one case the souffle diminished after the patient had had hæmatemesis. Two of the cases ended fatally, but nothing was found which would obviously account for the peculiar souffle heard during life. The author is of opinion that this was due to a displacement of the ascending vena cava in consequence of the liver being pressed against it by the hypertrophied spleen and the ascitic fluid. The displaced cava would under such circumstances tend to become squeezed against the edge of the phrenic orifice of the diaphragm, below which it was, in fact, observed to have become widened. Under such circumstances the occurrence of a murmur might probably be due to the formation of a *veine fluide* at the site of the obstruction.

(3) Peripheral Facial Palsy. DARKSCHEWITSCH AND TICHONOW (*Neurol. Centralbl.*, May 15th, 1893) describe the morbid histology of the facial nerve in a case of paralysis originating from middle ear disease. The patient, a woman, aged 59, had acute suppuration within the left tympanum as a result of cold. This was followed by deafness, otorrhœa, mastoid disease, and eventually paralysis of all the branches of the facial nerve. The uvula and soft palate were not affected, nor did the gustatory sense appear to be impaired. R. D. was present in the territory of the lowest division of the nerve; in the region of the middle and upper divisions electrical irritability of muscles and nerve was much diminished; bone conduction of sound not disturbed. Death occurred from erysipelas of the face and scalp. In the distal part of the trunk of the left facial nerve, from about 3 millimetres below the geniculate ganglion, marked changes were observed, such as absence of myelin along portions of the nerve fibres, altered staining qualities of the medullary sheath, thickening of axis cylinders, many empty Schwann's sheaths. Above the point named similar pathological alterations were present to a less extent. In no part of the trunk was there evidence of interstitial inflammation. The fibres of the knee of the root were smaller in number and calibre than those of the right facial, and showed by Marchi's process numerous black flakes indicative of degenerated myelin. Very pronounced atrophy of the fibre network in the region of the nucleus and of the cells of the nucleus was seen, but the ground substance of the nucleus, the vessels, and Deiter's cells exhibited no decided change. The authors remark that the appearances noted in the peripheral portion of the nerve were characteristic of parenchymatous neuritis, while those of the central portions indicated inaction atrophy of the nuclear cells with consequent degeneration of the root fibres.

SURGERY.

(4) Resection of Lung for Tuberculosis. TUFFIER (*Bull. et Mém. de la Soc. de Chir.*, December, 1892) has directed attention to a patient on whom, more than two years ago (see SUPPLEMENT to BRITISH MEDICAL JOURNAL, June 6th, 1891, par. 178), he resected the apex of the right lung. A free incision having been made in the second intercostal space, the protruded portion of lung, after careful examination, was ligatured and then cut away. The pulmonary fragment thus removed contained tuberculous deposits in which bacilli could be recognised on microscopical examination. The wound healed by first intention, and on the ninth day there was found to be perfect respiration in the right lung from base to summit, without any trace of pneumothorax. Since this operation the patient, an adult male, has resumed work, and has suffered neither from cough nor from hæmoptysis. He is able to do heavy work, and can run without any feeling of dyspnœa. His general condition has much improved, and his weight has increased by nearly 16 lbs. since the date of operation. The respiration is as full on the right as on the left side, and there is no apparent difference between the two lungs.

(5) Excretion of Urea in Certain Morbid Conditions and after Major Operations. LUCAS-CHAMPIONNIÈRE (*Gaz. des Hôp.*, June 6th) recently communicated to the French Academy of Sciences the results of his investigations of this subject. Some surgeons look on diminution of urea in visceral disease as pathognomonic of cancer; but from six years' experience the author is of opinion that this is far from being the case, as, where the general health is preserved, the quantity is often nearly normal. Diminution in the amount of urea appears more common in cancer of the ovaries than in any other visceral cancers, the daily amount being sometimes as low as 6 to 5 and even 3 grammes. Even with cancer of the ovaries the amount may be nearly normal, which the author has long looked on as a favourable sign from the

point of view of an operation. Certain non-malignant diseases of the ovaries—especially ovaritis with small cysts, known as sclerocystic ovaritis—are accompanied by a diminution in the amount of urea excreted. In such cases it is evidence of a serious cachexia, and if it is desired to perform operations on such subjects with impunity—as, for instance, removal of the diseased ovaries—it is necessary, by care, rest, and regimen, first quickly to raise the amount of urea. After major operations the excretion of urea is increased in extraordinary proportions, the maximum being usually reached on the third, sometimes on the second, day after the operation. It is common to have the amount tripled, and it is often doubled. This is not dependent on the ingesta, but is looked on as a direct consequence of the operation. A healthy kidney is necessary to perform the extra work, and it ought to be aided in its function by all possible measures, especially by the administration of purgatives. The amount of urea diminishes in the course of a few days, and if before the operation it had been low, after recovery the figures are found normal.

(6) Formation of a New Sphincter after Extirpation of the Rectum.

Willems (*Centralbl. für Chirurgie*, No. 19, 1893) suggests a plan of preventing the fœcal incontinence which so frequently occurs after removal of a portion of the rectum for malignant disease. The good results of simple separation of the fibres of the rectus muscle in gastrostomy have led this surgeon to believe that a similar advantage might be attained by fixing the cut edges of the remaining portion of rectum to a slit made in the gluteus maximus by forcible separation of its muscular fibres. The following are the steps of this procedure, which has hitherto been practised only on the cadaver: After removal of the lower part of the rectum, together with the sphincter, by the perineal operation, the body, if it has hitherto rested on one side, is now placed in the lithotomy position. If the rectum has not been divided very far above the anus and its remaining portion can be readily drawn downwards, a skin incision about two inches in length is made over the ischial tuberosity in an oblique direction upwards and outwards so as to run parallel to the fibres of the gluteus muscle. A slit is next formed in this muscle about a finger's breadth above its lower margin, by separating its bundles by means of a director or closed dissecting forceps. The extremity of the remaining portion of gut is finally drawn through this opening and stitched to the edges of the wound in the skin. When a considerable portion of the rectum has been removed and it is found impossible to drag down the gut margin as far as the ischial tuberosity, the author would endeavour to insert this end of the intestine at a higher part of the gluteus muscle and between the muscular bundles which arise from the margin of the sacrum. In such case the incision, which is made through skin and fasciæ, should be carried obliquely downwards and outwards from the right margin of the sacrum. The exposed muscular bundles having been separated, and also, if it be necessary, the sacro-sciatic ligaments divided, the end of the shortened gut should then, as in the former instance, be drawn through the slit and tied by sutures to the external wound.

(7) Empyema of the Sphenoidal Sinus.

According to Moure (*Sem. Méd.*, May 17th), inflammation of the sphenoidal sinus may be of two kinds. Acute inflammation occurs in connection with an ordinary coryza, the symptoms of which they aggravate. They readily yield to emollient medication. Chronic inflammation and empyema of the sinus is a very common affection, and is the cause of many cases of chronic naso-pharyngeal catarrh, which cannot be cured by local applications, such as curetting, etc. The disease is characterised by pains in the posterior part of the orbits and at the back of the neck. Pus coming from the sinus collects in the posterior half of the nose between the septum and middle turbinated bone, the mucous membrane of which region is generally covered with polypoid growths. In treating these cases Moure advises that a catheter should be passed backwards towards the sphenoid bone along the middle meatus and close to the septum. As the catheter passes backwards the tip is turned up until it is felt to be in a small hole, when it is pushed backwards into the sinus. Irrigation with warm antiseptic solutions is then carried out. If the orifice of the sinus cannot be found, it is advised to make an artificial one through the anterior wall, which is very thin. If the catheter cannot be passed on account of the middle turbinated bone, part of the bone should be removed. Further treatment by irrigation, insufflation of powders, etc., is adopted, according to the case. In every case great care must be taken in the operation In the discussion Cartaz said that in many cases diagnosis was not possible without a surgical operation owing to the swollen condition of the mucous membrane.

MIDWIFERY AND DISEASES OF WOMEN.

(8) Induction of Abortion in Eclampsia.

Lomer (*Centralbl. f. Gynäk.*, No. 13, 1893) contends that when a woman has suffered from severe convulsions in a previous pregnancy, and when again pregnant is found to be subject to albuminuria, followed by the appearance of casts in the urine and œdema, then it is justifiable to put an end to the pregnancy artificially. He related, before the Hamburg Obstetrical Society, a bad case. After the fœtus was delivered at the seventh month, all the symptoms subsided, headache, vomiting, coma, amaurosis, and fits disappearing. Three months later the woman was in fair health, but the albuminuria persisted. In a similar case, in future Lomer would interfere earlier. In the discussion, Grassow spoke of a woman, aged 30, who had borne four children. At the fourth delivery there was severe eclampsia. A year later she again became pregnant, and albuminuria was observed during the first weeks. Doses of iodide of potassium gave temporary relief, but the symptom returned in a fortnight. At the fourth month abortion was induced by the introduction of the bougie. The patient recovered. Grassow advocated the subcutaneous injection of a solution of table salt in eclamptic coma. Schütz strongly urged the induction of labour when kidney disease existed. Nephritis became worse during pregnancy, and he had seen a case end fatally where gestation was allowed to go to term. Lomer had seen eclampsia cease after hot baths, the patient being delivered subsequently, at term, of a live child. He did not think, as Schütz did, that all kidney diseases were aggravated during pregnancy.

(9) Post-Partum Hæmorrhage: Sloughing Fibroid Removed a Fortnight after Delivery.

Puech (*Archives de Tocol. et de Gynéc.*, April, 1893), describes, amongst other cases, an instance of submucous fibroid complicating labour. It occurred in the fifth labour of a woman aged 35. Previous confinements (at the last twins were born) had been normal. The presentation was right occipito-posterior, dilatation took over nine hours, expulsion three-quarters of an hour; at length a fine child was born. Ten minutes later friction of the uterus with traction on the cord was followed by the escape of the entire after-birth; then serious post-partum hæmorrhage occurred. Nothing checked it till a tampon of iodoform gauze was inserted into the uterus and the vagina also was plugged. At the end of forty-eight hours the tampon was removed. On the tenth day there was slight fever; the temperature had previously been normal. The lochia were slightly fœtid, and clots came away. On the fourteenth, when an intrauterine injection was being thrown up, a mass of the size of a hen's egg was seen projecting from the cervix. It was clearly a fibroid enucleating itself. After irrigation the vagina was well washed, and the tampon applied. Two days later the fibroid was easily removed, being simply seized with forceps. It was sloughy. Then the curette was applied freely, the uterine cavity washed out with carbolic acid, and two iodoform points inserted. The fever disappeared, and the show of blood ceased. After about a month's further rest in hospital the patient was discharged in good health.

(10) Acquired Atresia after Craniotomy.

Kochenburger (*Zeitschrift f. Geburtsh.*, vol. xxvi, Part 1, 1893), after describing four cases of congenital atresia where the obstructing membrane was safely excised, gives notes of a fifth case in which atresia followed a twin labour. The pa-

tient was 32. At her second confinement, a year before she was examined, twins were born. The first was delivered by the midwife, whilst craniotomy was practised on the second child. During childbed pus escaped from the vagina for three weeks, and occasional feverish attacks occurred. Coitus was gradually given up as the vagina grew very narrow. For three months before she was examined by Kochenburger the patient had pains in the sacral region and crampy attacks around the umbilicus. There was no catamenial show, yet the menstrual molimen was distinct. The patient was found to be emaciated. The vulvar aperture was closed by a membrane which bulged forward; the uterus lay above the pubes, and could be felt as a small movable body under the parietes. Through the rectum the vagina felt like a large and very tense tumour. The membrane obstructing the vulva was incised; 3 lbs. of dark gelatinous clot escaped slowly. The cervical canal was found to be widely dilated, so that the finger could readily be passed up to the os internum. In six days the patient was discharged cured. The operation was done in March, 1892; since then she has menstruated normally. Coitus was slightly painful, as the cicatricial tissue, which could not be excised, was tender. The uterus had undergone complete involution.

(11) Fœtal Hydrocephalus: Spontaneous Cure.

Schrader (*Centralbl. f. Gynäk.*, No. 16, 1893), recently exhibited at a German Society a photograph of a child taken when it was 8 days old. On its scalp lay a bright red scar over 2½ inches long and ½ an inch broad. It ran a little to the left of the middle line, chiefly along the sagittal, partly along the frontal, suture. The cranial vault under the scar was deficient, and the scalp seemed adherent to the periosteum. This condition indicated that very acute hydrocephalus occurred late in pregnancy, causing absorption of the cranial bones and hernia of the meninges, which healed before birth. The child was well developed and showed no signs of hydrocephalus after birth. The scar tissue turned darker and began to fall off even before the photograph was taken. The child lived and grew for awhile, but died when three months old. No necropsy was allowed. The mother did not receive any kind of injury during pregnancy.

(12) Torsion of Ovarian Pedicle and Uterus in a Woman aged 73.

Jacobsen (*Centralbl. f. Gynäk.*, No. 13, 1893) operated on a woman aged 73, in whom an ovarian tumour had been diagnosed eight years previously; on account of her age it was then left alone. Two years before operation abdominal pain and vomiting set in, but subsided after rest. Four days before Jacobsen operated the same symptoms recurred with great violence; there was also intestinal obstruction. The tumour was as big as a man's head, its pedicle twisted several times. The uterus was involved in the torsion, and was œdematous and much swollen, so that it had to be removed. The lower uterine segment was very thin and like a piece of cord; hence the torsion probably occurred when the acute symptoms were first noted two years previously. The ovarian cyst itself was quite free from adhesions. The patient died twenty-four hours after ovariotomy.

(13) Cicatricial Contractions of the Vagina Impeding Labour.

Staude (*Centralb. f. Gynäk.*, No. 13, 1893) reports two cases of Cæsarean section. In one case the operation was needed on account of cicatricial contraction of the vagina. The cases gave rise to some discussion. May asked Staude if he would not have dissected up the scar and dilated the vagina if the case of contraction had come earlier under his treatment. Staude replied that he had never seen the patient till three weeks before delivery; the vagina was then so contracted, and the child already so large, that normal labour seemed out of the question. Schütz asked the cause of the cicatrisation; in a case under his care it had resulted from gangrene in childbed. Staude could not precisely determine the cause in his case; there certainly had been some ulceration. Seligmann had seen this condition as a result of injury in forcible attempts at coitus. Lomer had seen cicatricial contraction in a nullipara caused by acute vaginal inflammation following scarlatina in childhood. In a pregnant subject he had practised complete dilatation at one sitting with the aid of Bozemann's dilating forceps.

THERAPEUTICS.

(14) Treatment of Cholera Infantum.

Gross, of New York (*Therap. Monatsh.*, May, 1893), who states that an exceptionally large number of cases of infantile cholera come under his notice, claims to have successfully combated this disease: first, by hygienic and dietetic measures; secondly, only by drugs. Children showing marked pyrexia attended by convulsions, but as yet no other symptoms, are subjected to a rectal irrigation of cold water, and friction with alcohol in iced water. If necessary, small doses of antipyrin are frequently administered, and should the patient then have overcome the acute onset, a strict diet is enforced, to commence twenty-four hours after the attack, all milk being excluded, regardless of the child's age. On the other hand, thin gruel, boiled sugar water, or tea are given frequently in small quantities, and salt water irrigations are administered once in twelve hours, while six minute calomel powders are given at two-hourly intervals. By these means the attack is cut short, and in twenty-four hours milk from the breast or otherwise can be given with impunity. Should, on the other hand, the malady be developed, the abstinence from milk should be longer, the injections should be made more frequently, and a sufficiency of fresh air in or out of doors must be enjoined. In addition, calomel and salol, or the latter only in the later stages, are frequently administered, and during recovery hydrochloric acid and pepsine are substituted. Obstinate cases which have lapsed into a chronic condition are relieved by weak tannic acid injections, and continuous vomiting generally yields to flushing of the stomach once daily with weak hydrochloric acid, one operation generally sufficing. Should the child be first seen in a collapsed condition, the author recommends immediate warm irrigation of the stomach and rectum with hot mustard baths, and small quantities of stimulants, as even the most serious cases often improve under energetic action.

(15) Indications for Washing out the Stomach.

Pick (*Centralbl. f. Therap.*, May, 1893) relates how originally washing out of the stomach by means of siphonage or pumping was resorted to in cases of simple dilatation of the organ, and lays stress on the circumstance that the facilities of the modern method of siphonage have contributed a large number of suitable cases for this operation. As such he recommends all patients in whom food remains in the stomach for an abnormally long period, such deficient function of the organ being due either to simple dilatation or dilatation secondary to stenosis or stricture. In patients suffering from carcinoma of the pylorus, marked improvement in general health and nutrition will frequently follow periodical and regular flushing of the organ, this step being indicated in order to prepare the subject for any subsequent operation. Excessive secretion of mucus, owing to gastric catarrh, is frequently remedied by the same operation, and in these patients the gastric contents abstracted supply useful indications as to the advisability of adding alkalies, antifermentatives, or even hydrochloric acid to the injection. Similarly in catarrhal icterus, cholelithæmia, or uræmia, the stomach will frequently contain noxious substances the removal of which will benefit the patient; and, lastly, in many cases of chlorosis accompanied by atony, the latter condition may be primary, and give rise to the former by producing intoxication and subsequent anæmia. The author met with good practical results after the adoption of this treatment in several obstinate cases of this malady. Naturally in all these conditions this treatment must be regarded as symptomatic and secondary in importance, to be supplemented by any other necessary means to cure or allay the disease. As contra-indications are regarded simple uncomplicated atony in which the condition might only be aggravated, and also all those cases where the retching, which is frequently produced, might be fatal to the patient—namely, advanced cardiac, pulmonary, arterial, or other diseases.

(16) Action of Chaulmoogra Oil on the Leprosy Bacillus.

Oro Mario (*Monats. f. prakt. Derm.*, No. 6, 1893) treated a patient suffering from mixed leprosy with chaulmoogra oil, increasing the dose to 160 drops daily. The treatment had to be discontinued on account of intolerance, but it had an extraordinarily favourable effect on the disease. Blood extracted from the tubercles when the treatment was begun showed numerous characteristic bacilli, but after the treatment they disappeared, the place of the bacilli being taken by finely granular formations enclosed in zoogloea masses. The author considers that this result was produced by the destructive influence of the oil on the leprosy bacillus, and that it explains the favourable action of the remedy in that disease.

(17) Salophen.

Gerhardt (*Inaug. Dissert.*, Jena, 1893), after giving a description of salophen, which chemically consists of 50.9 per cent. salicylic acid and 49.1 per cent. acetyl paramidophenol, refers to its insolubility in water, tastelessness, and the fact that it is again reduced to its two component factors by the action of the pancreatic and intestinal secretions. If given in large quantities, the unaltered salophen is excreted with the fæces and by the skin, where its presence in small crystals has been demonstrated. As regards its medicinal action, the joint experiences of Guttmann, Frohlich, Flint, Hitschmann, and Koch tend to show that in acute rheumatism it is equal to salicylic acid, and preferable on account of its tastelessness. The author watched its action in 16 consecutive cases, and noticed a decided effect when given in quantities of 1 to 1½ drachm daily and in acute cases; on the other hand, relapses and rheumatism in fresh joints supervened frequently, but these generally again yielded to the fresh use of the drug. The possibility of endocarditis is not excluded by its use. The advantages were its absolute harmlessness and the absence of excessive perspirations or tinnitus. It was well borne by the stomach, causing neither sickness nor loss of appetite. Less efficacious it was found to be in cases of some weeks' standing, and in chronic cases it was no more successful than other drugs. Salophen is, therefore, particularly indicated when gastric sensitiveness is present; when other drugs have failed; or when, as in children and others, the use of salicin, etc., is contraindicated on account of its unpleasant taste.

(18) Treatment of Chronic Valvular Disease of the Heart.

Tyson (*Therap. Gaz.*, April) gives the following advice with regard to the treatment of chronic valvular disease of the heart: (1) When valvular disease is unaccompanied by symptoms, compensation must be adequate. In these cases it is only necessary to caution the patient against physical or mental excesses, etc. (2) In mitral regurgitation, with slight failure of compensation, cardiac tonics are especially valuable; often 5 minims every eight hours will produce an excellent effect. With an irregular and halting pulse doses of 15 minims every three hours till the pulse becomes regular are advocated. This treatment often acts like magic, but the dose must be reduced as soon as the desired effect is obtained. (3) With tricuspid insufficiency the same principles must be carried out. In this form it is the effort to drive the blood through the engorged veins which gives rise to the hypertrophy of the left ventricle. Large doses of cardiac stimulants along with purgatives should be given. The author recommends 5 to 10-grain doses of blue pill followed up by a saline, or else the old mixture of calomel, squill, and digitalis frequently repeated. (4) Substitutes for digitalis may be given. These are strophanthus, better borne by the stomach, but requiring to be used in larger doses; and caffeine, which may be given in 3-grain doses every three hours, but which is liable to produce hallucinations and insomnia if used for long. Sparteine sulphate is valuable, especially where a diuretic action is desired; doses of a ¼ to ½ grain may be given three, four, or five times daily. (5) Blood letting is a very valuable remedy in mitral stenosis, to relieve the pulmonary congestion; aconite is also useful, but digitalis should be used with caution. In cases of stenosis with regurgitation, it is the latter which requires the direct attention and treatment. (6) In aortic disease all efforts must be directed to keeping the heart muscle intact. Strychnine, iron in small doses, arsenic, and nutritious, easily digested food, with moderate exercise, are to be recommended. Oertel's mountain climbing treatment is deprecated, both as directly dangerous and because mountain air is notoriously unsuitable for cardiac patients.

PATHOLOGY.

(19) Disinfection by Ammonia Vapour.

Prompted by the good results he obtained in certain laboratory experiments, the object of which was the destruction of certain pathogenic organisms by ammonia vapour, v. Rigler (*Centralbl. f. Bakt.*, May 17th, 1893) has investigated the disinfectant properties of this vapour on a larger and more practical scale. He proceeded as follows: Sterilised cotton threads were dipped in pure cultures of various bacilli (cholera, typhoid, anthrax, diphtheria), and, after thorough impregnation, exposed to the vapour of liq. ammon. pur. in a closed room. The fluid was simply poured out in flat dishes. Certain of the threads were exposed directly to the vapour; others were wrapped in dry cloth, and others, again, in wet cloth, in each case folded eight times, and sterilised; these were then exposed. After the expiration of a period varying from one to several hours, the threads were removed and transferred to nutrient media. The results were as follows: Exposure either directly or in a dry cloth served to destroy the organisms specified in from two to four hours, the media inoculated after this period remaining sterile. Exposure in a wet cloth required, for the same purpose, a longer period, from four to eight hours. Even anthrax spores were destroyed in the times stated. Plate cultures prepared from control threads which had been exposed to pure air under precisely analogous conditions showed innumerable colonies, even after twenty-four hours' exposure, except in the case of cholera. Here exposure, directly or in dry cloth, sterilised the threads in three hours, whilst abundant growth was obtained from those in wet cloth even after forty-eight hours. From these results v. Rigler concludes that ammonia vapour is a powerful disinfectant, especially when acting upon substances in the dry state. He recommends its use in general disinfection (rooms, clothes, furniture). The vapour does not injure materials submitted to it. The cost of ammonia is small. About 1 kg. will disinfect a space 100 km. volume in eight to ten hours.

(20) The Lesion of Psoriasis.

Audry (*Ann. de Derm. et de Syph.*, No. 4, April, 1893) considers that the essential element of psoriasis is the absence of eleidin, accompanied by defect in the cornification of the epidermic cells. On this point he confirms what had already been stated by Suchard in 1882. On the other hand, he found in pityriasis rubra pilaris that the eleidin is increased, constituting an essential difference between the two maladies. In ichthyosis there is a regular hypertrophy of the eleidin, with an entire absence of inflammatory appearances.

(21) Influence of the Urinary Secretion on the Evolution of Infective Diseases.

Pernice and Pollacci (*Gazz. degli Ospitali*, March 2nd, 1893), have sought to ascertain the effect of interference with the excretory functions of the kidneys on the course of infective diseases. A number of dogs were inoculated with anthrax, their urinary secretion being more or less interfered with by ligature of the vessels supplying one or both kidneys, or by ligature of the ureters, or in some cases by nephrectomy. The dog was chosen because it is an animal generally refractory to anthrax infection. Of course due time was allowed to intervene for recovery from the surgical operation, before the inoculation was carried out, and control animals were also observed in order to eliminate the effects of surgical interference, or of simple arrest of excretion. As a general conclusion it was found that dogs inoculated under these conditions all rapidly died of undoubted anthrax infection; the controls affected with simple anuria also died, but at a later period, and from uræmia; the animals inoculated with anthrax alone in every case recovered.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(22) Ganglionic Fever.

MOUSSOUS (*Rev. Mens. d. Mal. de l'Enf.*, June, 1893) considers that the suggestion of Pfeiffer and Starck that there is a special form of fever affecting children from 2 to 12 years old, and characterised by enlargement of cervical glands is useful, since it classes apart certain cases of fever in children in which the course is short and the prognosis good, although the symptoms for a time suggest tuberculosis or typhoid fever. The patient suddenly, or after a few days of *malaise*, begins to suffer from pain in the neck, headache, depression, and nausea and vomiting. It is found that the temperature is elevated, and that the glands in the submaxillary region, behind the sterno-mastoid, and at the back of the neck, all or any, and generally on both sides, are swollen and tender. Frequently in the early stage the buccal mucous membrane is very red, but no active inflammatory condition of the pharynx or tonsils is to be detected. All symptoms may disappear in a few days, or the fever may persist and the patient begin to suffer from paroxysmal cough resembling whooping-cough, or from pain about the umbilicus, or from both. In some cases the liver and spleen are enlarged. Constipation is a constant symptom, and Starck suggests that the disturbance is due to absorption of poisonous material from the retained fæces. Moussous is inclined to attribute more importance to the reddening of the buccal mucous membrane, supposing that it is due to infection by some pathogenic microbe which later infects the ganglionic system. The symptoms may continue for days after the constipation has been relieved. The paroxysmal cough is attributed to enlargement of the tracheobronchial glands, and in the two cases he records Moussous was able to detect dulness and harsh respiration in the interscapular regions. The belly-ache is attributed to the extension of the inflammatory affection to the abdominal lymphatics. Treatment has not appeared to have much effect on the course of the illness, and Moussous suggests that the pathogeny of the disease is not the same in all cases.

(23) Multiloculated Pleural Effusions.

RUDOLPH (*Centralbl. f. klin. Med.*, June 17th, 1893) draws attention to the practical importance of this form of pleural effusion. The loculi may be quite separate from each other or may communicate. The character of the effusion must depend on the causation; in empyemata the tubercle bacillus, the streptococcus, the pneumococcus play the chief part. The loculi may even contain different kinds of fluid. The author refers to a case already reported by him (EPITOME, May 28th, 1892, par. 468). He now records a second case in which the patient had an empyema on the left side. After 750 c.cm. of pus had been evacuated, the physical signs over the præcordium remained unchanged. At the necropsy, in addition to a purulent pericarditis and an endocarditis, another empyema was found between the mediastinal pleura and the lung, a situation which the author thinks a frequent one for the second empyema. In the third and fourth cases there was a serous effusion in patients with early phthisis, and it was only when the second loculus was tapped that the physical signs cleared up. Want of correspondence between the amount of fluid and the extent of the dulness is an important sign. Thus the fluid should be measured, and the chest examined after the evacuation. The persistence of fever in the absence of other cause for it should suggest a second loculus. The prognosis depends on the primary disease, and on the recognition of the condition. If the effusions are serous and small the salicylates are useful. Tapping may be required. If the effusion is purulent the chest must be incised, and according to the author a piece of rib removed. If the second loculus cannot be opened through the first it also must be opened from without.

(24) Hysterical Tremor.

POPOFF (*Arch. de Neurol.*, May, 1893) reports the case of a man, aged 21, who from infancy had been subject to attacks of rhythmic tremor in his lower limbs, specially affecting the flexors and extensors of the feet. Each attack came on without apparent exciting cause, lasted about a fortnight, terminated suddenly, and was followed by exhaustion. The rhythmic movements were very rapid, of slight amplitude, and were notably increased by emotion, attention, or voluntary effort. Mechanical and myotatic irritability of the muscles generally was excessive; muscular power was enfeebled. During the attacks the tremor only ceased when the patient was asleep; the sense of touch was impaired below the level of the iliac crests and Poupart's ligaments; sensibility for pain and temperature was abolished over the same area. Above that limit, all the forms of cutaneous sensibility were intact. Each visual field for white was greatly reduced both in the attacks and intervals; the other sensory derangements persisted only as long as the tremor. The length of intermission usually was about three weeks.

(25) The Toxicity of the Urine of Epileptics.

VOISON AND PERON (*Arch de Neurol.*, September, 1892, and January, 1893) have studied the effects produced by injecting the urine of epileptics into the circulation of guinea-pigs and rabbits. They conclude that the toxic action of the urine excreted before the occurrence of a fit or series of fits, is considerably below the normal. This hypotoxicity diminishes in the urine excreted during the period of recurring convulsive attacks. The urinary excretion following a series of fits is hypertoxic if the series be finished, but is not more toxic than normal if more fits are about to occur. Hypotoxicity persists after fits if the latter be followed by maniacal excitement. The urine of epileptics affected with profound mental disorder is constantly hypotoxic, though in these cases there is no departure from the rule that the minimal degree of toxicity is in the preconvulsive period. By estimating the toxicity it often is possible to predict the occurrence of a fit, whether a series has terminated, or whether mental disturbance is likely to supervene. Diminished toxicity of the urine indicates defective elimination of toxins (exciting causes of epileptic phenomena) from the blood. Support to this view is afforded by Chambrelant's recent experiments, which showed that blood serum of persons suffering from eclampsia is more toxic during the convulsions, but the urine is hypotoxic at that time. Intestinal antisepsis and avoidance of over-eating are some of the therapeutical measures indicated.

SURGERY.

(26) A New Sign of Internal Strangulation.

GANGOLPHE (*Rev. de Chir.*, May, 1893), at the last meeting of the French Surgical Congress, directed attention to a new sign by means of which, it is thought, internal strangulation may be distinguished from other forms of intestinal obstruction. In a case of obstruction of uncertain diagnosis, laparotomy gave issue to a quantity of sero-sanguineous fluid similar to that found in the sac of an ordinary strangulated hernia. On exploration of the abdominal cavity, the cause of the obstruction was discovered in an internal strangulation of intestine in the foramen of Winslow. It occurred to the author that the presence of such sero-sanguineous fluid might be characteristic of internal strangulation, and so enable the surgeon to distinguish obstruction of this kind from those forms due to other causes. Experiments made on dogs have since confirmed this view by showing that constriction of a loop of intestine by an elastic ring results in an effusion of sero-sanguineous fluid both into the peritoneal cavity and into the intestinal canal, the quantity of such exuded fluid being in proportion to the extent of strangulated intestine, and to the intensity of the constriction. This fact, it is held, is of practical value. Intestinal obstruction due to strangulation not being, like other forms of obstruction, amenable to any method of treatment short of surgical operation, the presence of dulness owing to ascites should indicate the necessity of prompt laparotomy, and of careful exploration until the seat of strangulation has been found. This sign is likely to be of especial value in cases of intestinal obstruction in the female, as the presence of ascites in the abdominal cavity may

be readily determined, even where the amount of effused fluid is small, by vaginal exploration.

(27) Complications of Cholelithiasis.

Parker (*Annals of Surgery*, vol. vii, part 6, June, 1893) discusses this subject under the following heads:—(1) incarcerated stones; (2) the infections involving the biliary passages and the liver, the result of cholelithiasis; (3) infectious hepatitis (abscess of liver); (5) obstruction in the intestinal tract as the result of gall stones; (6) diffuse hepatitis; cirrhosis of the liver due to gall stones; (7) malignant growths; cancer of the biliary passages. It is intended to show only the complications that may be present in any case in which one decides to operate. It has happened to the author that the cause of death in operative cases could only be explained by a careful study of these complications, which could not be made out before operation. It is therefore urged that in all cases of death after operation on the gall bladder or biliary passages a careful necropsy should be made, and as many cases reported as possible in order that an accurate clinical picture of the diseases following cholelithiasis may be more fully understood.

(28) Metatarsalgia.

T. S. K. Morton reports (*Trans. Phil. Acad. Surg.*, March, 1893) six cases of metatarsalgia cured by operation. This affection, which was first described by T. G. Morton as a "peculiar painful affection of the fourth metatarso-phalangeal joint," is a localised neuralgia caused by pressure upon or pinching of the plantar digital nerves by certain portions of the metatarso-phalangeal articulations, especially the fourth. This, indeed, is the almost invariable seat of origin of the train of painful and neurotic symptoms in metatarsalgia. The affection varies in degree at different times and in different patients, from slight and intermittent twinges to continuous severe pain; it has not been observed before adolescence; women are more predisposed to it than men; in most instances one foot only is affected. The less severe forms of this affection may be relieved by the patient wearing shoes made with the object of preventing pressure, either lateral or antero-posterior, upon the metatarsal arch, and also of avoiding any rolling motion of the fourth and fifth metatarsal bones on each other. Prolonged rest in bed will benefit all cases, more or less, and occasionally secure relief for long periods, or even permanently cure the milder phases of the disorder. In severe and obstinate cases the pain can be removed only by operation, consisting either in excision of the metatarso-phalangeal articulation from which the neuralgia radiates—the method advocated by the author—or in removal of the corresponding toe, together with the head of the metatarsal bone, as recommended by T. G. Morton. By the latter operation the possibility of subsequent trouble arising from a tendency of the toe to retract and override its fellows is excluded. This troublesome sequel, however, may, the author thinks, be avoided by dividing the extensor and flexor tendons whilst excising the joint.

MIDWIFERY AND DISEASES OF WOMEN.

(29) Craniotomy, Symphysiotomy, Fatal Gangrenous Lymphangitis.

Beugnies (*Journ. de Méd. de Paris*, No. 8, 1893) was called in by a colleague to a primipara aged 22, and forty-eight hours in labour. The child had died from prolapse of the cord. The head was in the brim, in the first position. The pelvis was contracted, and of the male type. The forceps were applied in vain, then the perforator was used, but the head could not be delivered. The forceps were left in position, and symphysiotomy performed an hour later. There was much bleeding when the subpubic ligament was divided, and also uterine hæmorrhage after the delivery of the fœtus, which weighed 9 lbs. 5 oz. The aorta had to be compressed. The symphysis was sutured with thick silk thread. In order to facilitate the passage of the head seven small incisions were made in the labia and perineum, and were sutured after the delivery of the fœtus. A small counter-opening was made in the vagina to allow of the escape of any blood which might flow from the venous plexus around the bladder in the line of incision. The operation was performed "with the most rigorous antiseptic precautions," but in a very dirty room, the patient lying on a "filthy" mattress. The patient had a rapid pulse after the operation; on the fourth day there was fever, the labial incisions were inflamed, gaping, and covered with diphtheritic patches. The vaginal mucosa was also involved. Next day there was great œdema in the groins; on the seventh day pneumonia of the left base set in. The abdominal sutures were removed, and the edges of the wound and pubic bones were found covered with white, sloughy deposit. They had separated, showing a little collection of pus behind the pubes; the peritoneum was covered with grey deposit. The patient died on the fifteenth day.

(30) "Spontaneous" Parting of the Symphysis.

Oehlschläger (*Centralblatt f. Gynäk.*, No. 24, 1893) attended the first labour of a delicate thin-boned girl aged 20. She had two severe convulsions as labour set in, and the legs were œdematous; albuminuria was also detected. As it was clearly necessary to end the labour as quickly as possible, Oehlschläger put on the forceps. He had to employ considerable force. As the head was being brought down a loud snap was heard by the operator and the patient's sister, who assisted. The symphysis had parted to the extent of an inch. The forceps could then be used with ease, and a living child weighing 9 lbs. was delivered. No more convulsions occurred. On the next day a broad well-padded belt was applied to the pelvis. There was no fever. At the end of three weeks the patient was able to stand, but the labour occurred as recently as April 27th, 1893, and when the report was written—early in June—there was still a gap two-fifths of an inch wide. The belt should be strapped as firmly as possible in these cases. At first any movement of the thighs, by the nurse or voluntarily, caused sharp pain.

(31) Cure of Vaginal Fistula.

Skutsch, of Jena (*Centralb. f. Gynäk.*, No. 25, 1893) describes a new manner of treating this troublesome condition. He confines himself to cases where the border of the fistula is very hard through abundance of cicatricial tissue, so that it cannot be safely pared and closed directly. He, therefore, covers the fistula with some of the neighbouring vaginal wall, which is easily dissected up and drawn over the opening. This practice is easiest when the fistula lies high in the vaginal vault, for the dissected up piece of mucosa can be readily displaced to an extent sufficient to avoid dangerous tension by drawing down the cervix. Skutsch has cured in this way a recto-vaginal fistula situated high up in the vagina.

(32) Mollities Ossium; Placenta Prævia: Cæsarean Section.

Lodemann (*Centralbl. f. Gynäk.*, No. 24, 1893) operated on a woman, aged 39, pregnant for the fifth time. Eight years previously the fourth child was born spontaneously. Mollities set in; the last period was in May, 1891. On December 29th she was examined. Pregnancy had advanced beyond the seventh month; the child lay transversely. The disease was advanced, the pubic arch reduced to a mere cleft, the outlet was too narrow to admit two fingers. On January 4th, 1892, pains and hæmorrhage set in, then chocolate-coloured fluid escaped. On the 11th very grave bleeding occurred; the vagina, dilated above the outlet into a large sac, was plugged and an enormous quantity of wool hastily introduced. Free bleeding continued. Cæsarean section had to be performed within a few hours. The abdomen was greatly deformed and prominent, the hypochondria touched the iliac crests. The parietes were very thin. No antiseptic fluid was used for the peritoneum and viscera, which were protected with sterilised gauze. The uterine wall was of normal thickness and highly anæmic. The breech presented, the child was easily extracted; it was asphyxiated, and could not be revived. The placenta lay in the lower uterine segment, posteriorly, extending over the os. It was readily separated; free venous bleeding followed. The uterus did not contract; a mass of iodoform gauze was crammed into its cavity, and it was compressed between the operator's hands. Firm contractions followed. Eight catgut sutures were applied to the uterine wound; the uppermost were not passed through the endometrium, the two lowest included it, as

the lower end of the wound could not otherwise be closed with accuracy. As the sutures were inserted the iodoform gauze was withdrawn. Neither peritonitis nor metritis followed, but extremely fœtid discharges came away on the third day, and the temperature kept up at about 100°. Lysol was injected into the vagina. On the eighth, ninth, and tenth days masses of fœtid wool were removed from the vagina. Afterwards all went well, and the patient was discharged in good health on February 13th. The extreme narrowness of the pelvic outlet and the capacious dilatation of the upper part of the vagina had rendered digital exploration very difficult.

(33) Fatal Lymphangitis in a Newborn Child: Infection from Whitlow in the Mother.

TOUJAN (*Annales de Gynéc. et d'Obstét.*, June, 1893) delivered a woman, aged 28, in her fourth confinement. The previous labours had been normal, and on this occasion a large healthy female child was delivered without difficulty. The patient had at the time a whitlow, which was healing but still discharged pus. Toujan insisted on careful dressing of the finger, which was plunged every two hours in a 2.5 per cent. solution of carbolic acid, and dressed with boracic wool soaked in carbolised water. The umbilicus was carefully dressed even after the stump of the cord came away. He advised the mother to leave the dressing of the child to a third person. She could not carry out this advice, and neglected her finger so that suppuration increased and the sheath of the flexor tendon became inflamed. On the eighteenth day after birth the child became feverish and would not take the breast. A deep erythematous rash covered the hypogastrium, the labia, the perineum, and the anus; the temperature was 103.5° F. Antiseptic dressings were applied to the parts, but on the next day the temperature was 104°, the labia enormously swollen, whilst inflamed lymphatic vessels could be felt along the thighs, the skin over them being very red. On the twentieth day the lymphangitis was disappearing from the vulvar region, but the calves and feet were affected. Two days later the child died. Toujan considers that staphylococci aurei from the mother's whitlow reached the damp excoriated integument of the child's nates, and were absorbed by the lymphatics.

THERAPEUTICS.

(34) Quinine in Cholera.

HUBERWALD (*Jahrb. f. Kinderhlkde*, Bd. xxxv, H. 3, p. 245) recommends strongly the treatment of cholera nostras, choleraic diarrhœa, and acute summer diarrhœa, by quinine. From its favourable effect in severe cholera nostras with vomiting, rice-water stools, heart failure, and cyanosis, he thinks it probable that it will be valuable in cholera Asiatica. In choleraic diarrhœa he recommends a grain and a-half every two hours. If, owing to vomiting, drugs cannot be taken by the mouth, or if owing to the severity of the attack it is desirable to obtain an immediate effect, resort must be had to subcutaneous injection. For this purpose he finds the hydrochlorate of quinine and urea the best salt. It contains less quinine than other salts, but it is soluble in little more than its weight of distilled water. Huberwald recommends 12 to 15 grains dissolved in 15 minims of distilled water to be injected in the epigastric region, the injection to be repeated in 12 or 24 hours if necessary. The patient ought not to drink much, taking only a little tea, or red wine and water, and later meat broth.

(35) Methyl Chloride in Neuralgic Affections.

HERTMANN (*Therap. Monatsh.*, April, 1893) describes his experience with this remedy, which has been greatly used in France for affections of the nerves, etc. The substance in a liquid state is preserved in iron cylinders resembling siphons, and is allowed to escape from a distance of about half a metre from the affected part, which thereby is cooled to 23° C., and according to intensity of application more or less frozen to some depth. An intense reactive hyperæmia follows, frequently accompanied by blisters, in the course of a few hours. The author gives exact details of treatment in 29 cases, comprising 15 patients with sciatica, 5 with intercostal neuralgia, the remaining suffering from lumbago, coccygodynia, chronic rheumatism, etc. Twice treatment failed, possibly in one instance—the first experiment—owing to insufficient application, and in the other in consequence of pressure of an abscess on the nerve. The majority were absolutely cured or more or less relieved by each operation, the number of sprayings in each patient averaging 2 to 3. The whole of the affected area should be covered with the white powder which forms on the skin, one spraying often sufficing to produce a cure. The objections hitherto urged are the possibility of erysipelas, lymphangitis, and even gangrene, but the author among seventy administrations observed no evil results beyond occasional blistering, not severe in character, and he considers the probability of more serious troubles to be remote, and not more likely to occur than with sinapisms, etc. In order to guard against gangrene, patients suffering from albuminuria and glycosuria might be excluded from this treatment. The author considers that the treatment involves less expenditure of time and money than either faradisation or massage, a filled cylinder being sufficient for four to eight sprayings.

(36) Ustilago Maidis.

BLAIR (*Therap. Gaz.*, May, 1893) draws attention to ustilago maidis (maize ergot) as a valuable drug in obstetric practice, and one which far excels ordinary ergot as an aid in tedious labour. It is prepared from maize affected with the disease known as "corn smut," and has been introduced into practice in the form of a fluid extract. The author has tried this preparation in a dozen cases of labour, with in most cases satisfactory results. The dose employed was from 20 to 30 minims. His general conclusions are as follows:—(1) In those cases in which the pains were continuous, the effect of the drug was to make them intermittent and more easily borne. (2) Where natural labour pains were present and the extract was administered, the uterine contractions were increased in strength and labour hastened. (3) The effects were more favourable after considerable dilatation of the cervix had taken place, though the action of the drug was tested at all stages. In no instance were any bad effects produced.

(37) Influence of Sodium Fluoride on the Organs and Tissues of Animals.

PITOTTI (*Bull. delle Sci. Med.*, January, 1893) has made a study of this question, and finds that animals can be prepared by gradual dosing to tolerate without any difficulty doses of sodium fluoride in neutral solution which would be decidedly toxic at first, and this without any sensible alteration in either their tissues or blood. After a time, however, they become wasted, and their blood is diminished in corpuscular richness. In acute poisoning there is observed to be degeneration of the renal epithelium, especially of the convoluted tubules and Henle's loops, the tubes sometimes being blocked with *débris* of cells. There is, besides, diffuse fatty degeneration of the liver, and a granular appearance in the cells generally. The nervous system shows no histological changes, although the altered function during life might have led one to anticipate the occurrence of some change. The gastro-intestinal tract is also free from change save for a dilatation of its blood vessels. Injected under the skin, a 1 per cent. solution produces great irritation and hæmorrhage into the deep layers of the dermis. In acid solution sodium fluoride is more toxic than in neutral solution, and if the poisoning is subacute there is an enlargement of all the lymphatic glands of the body.

(38) The Treatment of Leukæmia.

VEHSMEYER (*Therap. Monatsh.*, April, 1893) contributes the history and condition of a child, nine months old, suffering from typical leukæmia accompanied by marked rachitis. The former was diagnosed owing to the distinct enlargement of the spleen, the condition of the blood (in which the blood cells were counted in the proportion of 1 in 30), the excessive perspiration and dyspnœa. In view of the slight success which has followed old methods of treatment, the author proposed dealing with the case on antibacteriological lines—namely, by the frequent administration of small quantities of creasote mixed with water and spirit. In time the temperature and the action of the skin became normal, while the spleen diminished steadily, and more colour became noticeable in the

mucous membranes, only marked stridor persisting. Unfortunately the rachitis continued, and four weeks later treatment had to be suspended owing to dentition and bronchitis, which soon led to a return of aggravated leukæmic symptoms and marked deterioration of general condition. The patient being in a critical state, the author resolved to administer sulphate of berberis as recommended by Arzela for splenic tumours; but, owing to the attendant possibility of hæmorrhage, the tincture of berberis vulgaris was first used, followed by a spirituous solution of the former after two weeks, when the condition had already markedly improved. Simultaneously the food was rendered almost non-albuminous, and the glands, which had become troublesome, were treated with an ointment containing chloride of ammonium and camphor, which led to their suppuration and healing. After two to three months the splenic enlargement was very slight, the blood almost normal, and the general condition very satisfactory. The symptoms remained unaltered for several weeks, when the child suddenly died in convulsions, probably induced by dentition. Though the author does not claim to have cured the leukæmia, he strongly recommends further experiments with his treatment, which is even more applicable to adults, in whom a strict diet can easily be observed.

(39) Glycerine in Nephrolithiasis.

Aug. Hermann (*Prager med. Wochenschr.*, 47-48, 1892) describes his experiences with glycerine in the above condition, which he was induced thus to treat in consequence of the observation by Colosanti and others that glycerine both dissolves uric acid and passes through the kidneys unaltered. The author administered the liquid in doses of 1 to 5 cubic inches to fourteen patients, with the result that in ten cases gravel and small calculi appeared in the urine. When the patient's digestive organs had been previously prepared and rendered healthy, not the slightest unpleasant symptoms were produced, but in patients suffering from gastric disturbances conditions resembling collapse became manifest. The glycerine produced marked thirst with lancinating and burning lumbar pains (unilateral when one kidney only was affected), leading to more or less renal colic, and it reappeared in an increased quantity of urine three hours after administration. Experimentally the author found that glycerine readily dissolves chemically pure granular uric acid, calculi, however, remaining unaffected. In animals large quantities led to marked polyuria, and he believes the favourable action to be mostly mechanical by flushing the renal pelvis, lubricating the passages, and causing diminution of the mucus, which is always abundantly present in cases of nephrolithiasis.

(40) Acetic Ether.

Krautwig (*Centralbl. f. klin. Med.*, April 29th, 1893) has investigated the action of this agent on the respiration and circulation in rabbits. Large doses (injected into the veins) were dangerous. With moderate doses the respiratory capacity was even doubled, the maximum effect being obtained in fifteen to thirty minutes. This effect of acetic ether increases with the dose, whereas small doses of ordinary ether increase, but large doses lessen, the respiratory capacity. Thus ether must be used with caution in increasing doses. Ether even paralyses enfeebled centres more readily than sound ones. Thus experiments were made in which the respiratory capacity was artificially diminished by morphine. Here the injection of acetic ether was of great benefit, whereas ordinary ether further diminished the respiratory capacity in two cases, and in a third, despite a temporary increase, further paralysis rapidly followed. The permanency of the stimulating effect on the respiratory centres is especially advantageous, and in this acetic ether is even better than camphor. Moderate doses had no action on the blood pressure, and no ill effects on the heart. The author concludes that acetic ether demands the same attention as camphor, and that it excels ether. Further trial must show whether the same is true of man as of animals. The pure drug should be given subcutaneously, beginning with $\frac{1}{2}$ c.c., and increased if necessary.

PATHOLOGY.

(41) Rapid Demonstration of Cholera Bacilli in Water and Fæces.

Schill (*Centralbl. f. Bakt.*, June 8th, 1893), having observed that tubes containing cholera culture remained uncontaminated notwithstanding frequent removal of the cotton wool plug, conjectured that germs gaining access to the nutrient medium were destroyed by the cholera bacilli, or (more probably) their products of metabolism. This supposition was borne out by an experiment, which consisted in adding to old cultures of cholera, previously sterilised by heat, pure and mixed cultures of various pathogenic and saprophytic bacteria, leaving the inoculated tubes a certain time in the incubator, and then preparing from them plate cultures. These were found to remain quite sterile, or at most to show a few colonies after the lapse of some days; control plates showed abundant growth in a day. When, on the other hand, the sterilised cholera culture was inoculated with cholera bacilli, the plates afforded evidence of growth of these organisms, even after twenty-four hours' exposure to the action of the metabolic products. Upon these observations Schill bases a method of demonstrating cholera bacilli in water and fæces. Broth culture of cholera, several months old, is sterilised by boiling once; a small quantity of the water or fæces is then added to it, and the whole is placed in the incubator. In two to three hours (longer if the cholera culture is not an old one) gelatine and agar plates and gelatine tubes are prepared from the mixture—the last to show the characteristic growth of cholera. If cholera bacilli are present the colonies should be apparent in a day or so. It is advisable to render all the media employed alkaline by the addition of crystallised soda (1 per cent.), as recommended by Dahmen. By this means a soil very favourable to the growth of cholera bacilli is obtained.

(42) Action of Nicotine on the Animal Organism.

Graziani (*Rif. Med.*, April 24th, 1893) gives the results of a research on the action of nicotine on the animal organism. He directed his attention first to the means of detecting minute traces of nicotine in the organism by means of a micro-chemical reaction, and secondly, to the histological changes which this drug produces on the organs. As regards the first point, he finds it easy enough to detect the presence of nicotine in alcoholic extracts of the organs in the blood or in the urine of rabbits poisoned by it. Alcohol used to harden pieces of kidney, cord, brain, etc., of such animals gives a characteristic precipitate of a yellowish-red colour—which after a time disappears, leaving a light yellow tint—with solution of iodine in potassium iodide. With an ethereal solution of iodine the liquids also give a turbidity and an amorphous brown deposit, and after a time long acicular crystals. However, by an ingenious method the author has succeeded in showing the presence of the alkaloid in the tissues themselves. The fresh tissue is embedded by a special method in gum; thin sections are cut, freed from gum by soaking in water, and then placed for a few minutes in a very dilute solution of sulphuric acid (3 drops to 50 c.c.). They are then treated for a few minutes with a mixture of hydriodic acid 1 part, potassium iodide 3 parts, water 72 parts, and then mounted in a drop of this latter solution. After an hour crystals of the reagent with the nicotine can easily be detected with the microscope. As to the histological lesions observed, the author found great congestion of all the organs save the lungs, which were generally anæmic. Microscopic examination revealed further minute changes. There were in some places destruction of the epithelium of the pulmonary alveoli, with hæmorrhages, and in some places small infarctions. The liver cells were either cloudy or broken down, and faintly staining with hæmatoxylene. In the kidneys there was well-marked nephritis. These effects were all most marked in the case of animals poisoned with the alcoholic extract. Those poisoned with the pure alkaloid apparently died too rapidly to show such marked changes. As regards the nervous system, this also showed considerable changes; but the author proposes to deal with this in a subsequent paper.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(43) Asiatic Cholera.

EMMERICH AND JIRO ISUBOI (*Münch. med. Woch.*, Nos. 26 and 27, 1893) show how they were led to doubt the theory which ascribes the development of cholera attacks to the disintegration of the bacillus, and how they were induced to seek the cause of the symptoms, not in the bacillus itself, but in one of the by-products known to result from the activity of the comma vibrio. Artificial cultures have been shown to contain a large quantity of nitrites produced by the action of the bacillus on nitrates and carbonate of ammonia, and this circumstance led the authors to investigate the possibility of finding an analogy between the symptoms of cholera and those resulting from nitrite poisoning. A grain of nitrite of soda administered to guinea-pigs internally or subcutaneously rapidly produced death, and in larger quantities proved fatal to rabbits also. The author describes the symptoms produced in dogs after administrations of 5 to 15 gr. Lassitude with gradually-increasing lividity and anorexia became manifest after ten minutes, when suddenly, after ten to twenty minutes more, violent vomiting set in, leading to complete exhaustion. This was followed by diarrhœa, inability to move, cyanosis, increased rapidity of respiration and pulse, and subnormal temperature. Painful convulsions, cramps in the extremities and neck, increase of cyanosis, and gradual heart's failure led to death within one or two hours. *Post mortem* the intestines were ecchymosed and the blood was very dark in colour, also showing in the spectroscope the band of methæmoglobin. The known cases of nitrite poisoning in human beings are next described, the symptoms being vertigo, vomiting, diarrhœa, diminished blood pressure, cyanosis, etc., and the authors, judging from an extensive personal experience during cholera epidemics, regard the two affections as markedly similar both in *ante-* and *post-mortem* appearances. As regards methæmoglobin, its presence has almost invariably been demonstrated in fatal cases of nitrite poisoning, and the authors furthermore always discovered it in guinea-pigs experimentally inoculated with cholera. Healthy animals contained no methæmoglobin, but some fed with white turnips—a root rich in nitrates—showed the identical substance. The same typical changes in the red corpuscles were also present in both cases. The authors, after dealing with the various causes which may lead to the production of methæmoglobin, exclude them as possible factors, and arrive at the conclusion that in their animals the cholera bacillus must have been the cause of the chemical changes. This power, however, is similarly possessed by other bacilli, and the authors reproduce Pétri's table, showing that amongst 22 different germs the action of the cholera bacillus in this direction is the most rapid and most marked. Furthermore, the comma bacillus is known to convert carbohydrates into acids, notably lactic acid, and this again liberates nitrous acid from its salts, all of which changes with the resulting action would only become active in the lower ileum, where also the cholera lesions are most marked, and where the poisonous activity of nitrous acid would assert itself. The authors then show how numerous deep well waters and green vegetables, such as lettuces, etc., contain a large percentage of free nitric acid and nitrates, the smaller consumption of these articles by the wealthier classes explaining their relative immunity from cholera. Inoculation preceded by administration of nitrates and carbohydrates produced exceptionally violent and fatal cholera in guinea-pigs thus treated. Some comma bacilli appear to be less powerful than others in this nitrite-forming action, and a culture obtained from Massowah, while possessing this gift to a marked degree, also proved exceptionally fatal. The authors remark that human beings are very susceptible to the action of nitrites, 3 gr. being sufficient to produce the same marked intoxication both in them and rabbits.

(44) Cholera Bacilli conveyed by Dust.

UFFELMANN (*Berl. klin. Woch.*, June 26th, 1893) says that it is usually looked upon as established that the transmission of cholera cannot occur through the air chiefly because the bacilli quickly die, owing to desiccation. Quite recently, however, it has been shown that these bacilli do not thus perish quite so easily. His investigations were undertaken to find out whether cholera bacilli can remain alive in dust, and whether they can get into the air in this way. Garden earth was placed in porcelain dishes, rubbed up, sterilised, and water containing cholera bacilli added. It was then exposed to a temperature of 15° to 17° R. In sixteen and a half hours it was dry, and was then powdered. At varying intervals after the infection small quantities were added to nutrient gelatine. Thirty to forty colonies were found in a specimen taken after sixteen and half hours, and only one in that after forty-eight hours, and none later. In another series of experiments the contents of the dish were left standing for eight hours after the pulverisation. Then in an isolated chamber, and with all precautions, some of it was blown against a gelatine plate. Six colonies were obtained. When the interval was forty-eight hours after infection no colonies were seen. With fine white sand the results were much the same, but the bacilli seemed to perish earlier. Street and chamber dust were also experimented with. Only very few bacilli were found twenty-four hours after the infection. To imitate the natural conditions more closely, experiments were made with diarrhœa stools, cholera bacilli being added to them after sterilisation. The results were nearly the same, but the bacilli seemed to live a little longer. Dust was also blown upon sterilised milk, and colonies of cholera bacilli were thus obtained from the milk. These experiments show that in thin layers of garden earth, of fine white sand, and of dust cholera bacilli mostly perish in twenty-four hours, but that this period of time may be exceeded. Thus it must be granted that living cholera bacilli may be carried in dust raised, whether by the wind or by artificial means, and and that they may thus get into the mouth or into food or water. This mode of spread, however, cannot be frequent because (1) by drying the number of cholera bacilli is rapidly diminished; (2) fæcal-contaminated material by itself does not give rise to dust; and (3) cholera bacilli soon perish when exposed to sunshine. The possibility of its occurrence is, however, established by these experiments.

(45) Post-Vaccinal Erythema and Purpura.

EMMANUEL EPSTEIN gives an account (*Jahrb. f. Kinderhlkde*, Bd. xxxv. H. 4, p. 442) of the results in the children, to the number of 430, vaccinated at the Poliklinik in Budapest during 1892. Calf lymph was used in all cases, and the proportion of successes was 98 per cent. Erythema vaccinosum was observed in 14 out of 344 examined at the second visit. It made its appearance in 1 case on the fifth, and in 1 on the sixth day, in 5 on the seventh day, in 2 on the eighth, in 3 on the ninth, in 1 on the tenth, and in 1 on the eleventh. It comes on therefore in most cases at the time when the general and local symptoms of vaccinia are approaching or at their height. The onset was accompanied by restlessness and some fever. The site of the erythema was not always the same, but it generally started on the outer aspect of the arm in the neighbourhood of the vaccine pustules, and extended thence over the limb. In appearance it resembled the exanthem of measles, and might form large blotches; the colour varied from a bluish rose to a dark carmine red, but was generally of a brighter red than the rash of measles. Each spot lasted two or three days; but confluent patches might remain six or eight days. The interval between the appearance of the earliest and the latest spots was two or three days. In two other cases there was a purpuric eruption, and the children were more ill than with the simple erythema. In neither of these cases was there any trace of blood in the pocks; one child, which was very much depressed, turned out to be in the incubative stage of measles, the exanthem appearing on the eleventh day, preceded by the usual catarrhal symptoms. Both cases recovered rapidly, and the hæmorrhages were completely absorbed by the eighteenth day.

(46) Gastric Dilatation.

Auerbcht (*Centralbl. f. klin. Med.*, June 10th, 1893) draws attention to two signs hitherto undescribed, and which it is thought will be useful in the early diagnosis of dilated stomach. Almost everywhere over the stomach a hyperresonant note is obtained, but in some places a distinct dulness may be found which gives way later to a tympanitic note. The dulness, it is said, may sometimes be followed from the cardiac to the pyloric end. The second sign is a clanging note like the cracked pot sound. It is associated with the former, and is best obtained at the margin of the above-named dulness. These signs are not absolutely constant, but this should not much impair their value. The dulness is caused by the voluminous contraction wave passing over the stomach in early stages of gastric dilatation, especially when due to obstruction of the pylorus. The clanging sound is caused by the mixture of air and fluid in the neighbourhood of the increased peristaltic wave.

SURGERY.

(47) Radical Cure of Muscular Hernia.

Choux (*Rev. de Chir.*, June, 1893) reports a case in which he treated successfully by incision and suturing a subcutaneous hernia of the tibialis anticus. In the operative treatment of cases in which a portion of the injured muscle protrudes through a rent in its fascial sheath, attention to the following details is held to be essential to complete success. The protruded portion of muscle should be cut away, and not pushed back into the sheath. In order to prevent any recurrence of the hernia, a portion—about one-third—of the thickness of the muscle should be constricted by permanent sutures passed at right angles to the direction of its fibres. In this way subsequent tension of the muscle and also pressure on the injured portion of the sheath during muscular action may be considerably diminished. The edges of the rent in the sheath of the muscle are to be freely trimmed, and then brought together by sutures of silk or horse-hair. If the injured muscle be a large and powerful one as, for instance, the long or great adductor in the thigh, it would be advisable, the author states, to apply a double row of sutures, one row including merely the two lips of the rent in the fascia, the other both the fascial layers and the most superficial fibres of the muscle. The wound in the skin should be closed by numerous non-absorbable sutures, which ought not to be removed until after cicatrisation has been completed. During the after-treatment the limb should be kept at absolute rest on a splint. For some few months after the operation the patient should wear an elastic stocking or bandage in order that the tension on the deep-seated sutures may be reduced. The tendency to a return of the hernia after operation and the advisability of excising the protruded portion of muscle are shown by the result in a case reported in the same number of the *Revue* by Hartmann. In this instance, which was one of muscular hernia in the front of the thigh, simple closure of the fascial rent by sutures was followed, after a short interval, by the appearance of a small swelling at the upper part of the scar.

(48) The Use of Air to Inflate the Bladder in Suprapubic Cystotomy.

Bristow (*Annals of Surgery*, vol. xvii., part 6, June, 1893), draws attention to the great advantages of air over water when it is desired to distend the bladder. After numerous experiments on the cadaver he comes to the following conclusions. The disadvantages of water are: (1) Its great weight tending to keep the bladder down. (2) Its incompressibility, and the fact that a very slight addition beyond the bladder capacity gives rise to very great pressure, which might cause rupture of a diseased bladder. (3) By injection of water the bladder can only be raised about half an inch above the pubes. The advantages of air are: (1) Its lightness and compressibility. (2) By means of air (which can be measured) the bladder can be raised two or three inches above the pubes; this can be made out by percussion, and the increased resonance in the case of air is more appreciable than the increased dulness in the case of water. (3) When the bladder is opened we have a dry wound. It is thus seen that for inflation of the bladder air is not only more efficient but also far safer than water.

(49) Neuropathic Œdema of Traumatic Origin treated by Nerve Stretching.

Bircher (*Centralbl. f. Chir.*, No. 25, 1893) reports a case of severe neuropathic œdema affecting the left upper extremity of a woman, aged 39. A fall on the outstretched left hand had been followed by obstruction to the circulation of the limb, due to irritation of the vasomotor nerves. The vascular distension and consequent œdema had gradually extended, and in the course of twelve months involved the whole of the left arm and the region of the shoulders. The sensory nerves of the limb—more markedly the ulnar—became affected, and the patient suffered much from neuralgia and hyperæsthesia. Whether the motor nerves were affected or not could not be made out, as the enormous swelling of the limb due to œdematous infiltration of all its soft parts, especially of the subcutaneous cellular tissue, was sufficient to prevent all active muscular movements. This morbid condition was treated by bandaging, elevation of the limb, and free incisions in the dorsum of the hand and along the forearm, but without any success. The good results which followed exposure and stretching of the ulnar nerve at the end of the twelfth month led the author to perform a similar operation on all the cords of the brachial plexus below the clavicle. This treatment was followed by decided but slowly-developed improvement, and after an interval of four months the whole limb was restored to its normal size and functional activity.

(50) Treatment of Suppurating Buboes.

Otis (*Journal of Cutaneous and Genito-urinary Diseases*, May, 1893) gives an account of his treatment of suppurating buboes. The skin around the affected part is first rendered aseptic by scrubbing with soap and washing with sulphuric ether, and then bichloride of mercury solution, 1 in 1,000. A narrow bistoury is next inserted into the suppurating part and the contents well squeezed out. The cavity is now irrigated with a solution of mercuric chloride, 1 in 1,000, and immediately filled to moderate distension with warm iodoform ointment (10 per cent.), introduced by means of an ordinary conical-pointed glass syringe. Care must be taken not to apply heat sufficient to liberate free iodine. On withdrawing the syringe from the wound, a cold compress, wet with bichloride solution, is applied, which solidifies the ointment at the orifice. A large compress of bichloride gauze is then applied and held in position by a spica bandage. Sixteen cases were treated in this way, and of these, 9 were cured in six days, 3 in twelve days, 1 in fourteen days, 1 in twenty-three days, and 2 ceased attending during treatment. Otis claims for this procedure: (1) that it is simple and safe; (2) in suitable cases cure as a rule seems to be more rapid than by any other method; (3) the patient is not prevented from going about during treatment; (4) the first gland being rendered thoroughly aseptic, other glands in the chain are less liable to become infected; (5) no scar is left; and (6) it does not interfere with the performance of any subsequent surgical procedure which may be requisite.

MIDWIFERY AND DISEASES OF WOMEN.

(51) Can Labour be Checked at Will?

Tarnier (*Journal des Sages-Femmes*, June 16th, 1893), who maintains that voluntary efforts by contraction of the abdominal muscles play an important part in labour, further believes that the patient may, consequently, check the process to a certain extent, just as fæces and urine may be voluntarily retained for a time. He was once called into a labour where the patient had deformed pelvis with coxalgia; she, like many such invalids, had been spoilt, and was very sensitive. He found the membranes ruptured, and the head presenting at the vulva. Delivery seemed a question of a few minutes, the pelvic contraction having clearly offered no check to the passage of the head. The patient asked for chloroform. Tarnier said that it was not necessary; she insisted and declared that if the anæsthetic were not given she would "hold in." He waited twenty minutes but the labour did not proceed; the patient remained obstinate, so he yielded and gave a little chloroform. At the first pain the child

was born. He wishes it to be understood that the contractions of the uterine muscular fibres cannot, of course, be controlled by the will.

(52) Strangulated Obturator Hernia of the Ovary and Tube.

VON ROGNER-GUSENTHAL (*Wiener medizin. Presse*, June 25th, 1893) describes at great length a case of this rare complication. The patient was 66 years of age. There were all the symptoms of strangulation, yet no distinct tumour, but she complained of pain in the right groin, and gurgling was indistinctly felt on pressure, so that right femoral hernia was suspected. An operation was performed, the crural canal was found free, but the pectineus bulged forward, more to the middle line and deeper than the area where small femoral herniæ are seen. On cutting through the muscle the sac, already sloughing, was discovered; it was opened, and the right ovary and tube, with a coil of intestine, were found protruding through the obturator foramen. All these herniated structures were gangrenous. The gut could not be drawn down; it tore like wet paper, and hence systematic suturing, so as to form an artificial anus, was impracticable. The intestine was opened, and three pints of fœtid fluid escaped through a rubber tube introduced into its canal. The tube was clamped, and opened every three hours to let out fæces and flatus. The patient died on the fifth day with chronic catarrh, left pneumonia, and paralysis of the intestines. The pelvic side of the hernial orifice was carefully explored.

(53) Supernumerary Nipple in a Family where Twin Births were Frequent.

P. MARIE (*Sem. Méd.*, June 14, 1893), exhibited at the June meeting of the Société Médicale des Hôpitaux, Paris, the photograph of a young girl who bore a supernumerary nipple on the left breast. The anomaly had been traced in her family for four generations. Out of her eleven brothers and sisters four were twins; out of her father's fifteen brothers and sisters six were twins; all these six had supernumerary nipples, while in none of the nine remaining children did the anomaly exist. The faculty of bearing twins in women is not less certain than the faculty of begetting twins which is observed in man. The father of the girl in this case was a twin, he begat two pairs of twins, and one of his brothers, also a twin, became the father of at least one pair.

(54) Pregnancy Two Years after Amputation at Hip-joint: Forceps Delivery.

TARNIER (*Journal des Sages-Femmes*, June 16th, 1893) recently delivered a clinical lecture on this case. The patient was 22, and well developed. The mother died of phthisis at the age of 30. At 16 the patient began to suffer from hip-joint disease, abscesses formed, they were opened, and the bones scraped. Nélaton afterwards excised the head of the femur. Suppuration continued. Then he scraped the acetabulum. But suppuration continued. He therefore amputated through the joint. Yet abscesses continued to form, and it was not till four months before delivery that all signs of disease of the bone around the acetabulum ceased. The last period was on August 24th, 1892. Labour began on May 31st at noon. At 3 A.M., June 1st, the membranes ruptured spontaneously; at 4 A.M. dilatation was complete. The pains then grew weak, the patient became restless, suddenly hopping out of bed. The forceps was applied at 8 A.M., and a healthy child delivered. Uterine inertia was the sole cause of lingering labour in this case. The pelvis on the affected side was but very slightly contracted. There was, it is true, thickening of the bone, with small stalactite-like outgrowths, but the sum of pelvic deformity in this case was not sufficient to impede labour. Nor was the patient debilitated; indeed, she had grown strong since the amputation at the hip-joint. Tarnier insists that the lingering labour was due to the loss of a limb. In consequence, the patient could not avail herself of sufficiently strong voluntary expulsive efforts. She had not two feet, to act evenly as fulcra for each side. Depaul once observed lingering labour in a patient who had undergone amputation of the leg, and was obliged to apply the forceps. He observed at the time that the infirmity interfered with voluntary efforts.

THERAPEUTICS.

(55) Restoration of Function in Paralysed Muscles.

WITH reference to chronic poliomyelitis Hammond (*Journ. of Nerv. and Ment. Dis.*, January, 1893) discusses the question of discriminating between those muscles that can be improved by the use of electricity and those which cannot. He is satisfied that there are cases in which the cornual cells, although greatly degenerated, are not entirely destroyed, and the muscle in connection with them contracts on electrical stimulation, though the contraction may be so slight as to escape detection by the sense of touch or sight. These cases sometimes admit of a certain amount of improvement. In support of this view he reports the following: Case I. Female, aged 25; anterior tibial and peroneal muscles paralysed when 6 months old; gastrocnemii permanently contracted; all the muscles of right leg responded slightly to the galvanic current, but not to the faradic; left peroneal muscles gave very slight reaction to galvanism; left anterior tibial muscles, none. Tenotomy was performed; the feet then could be flexed passively to their normal limit. Patient could flex the right foot and extend the right toes slightly. In the left limb all the muscles, excepting the tibialis anticus and extensor proprius pollicis, responded faintly to voluntary effort. The last-named muscles were looked upon as being beyond improvement. Those that reacted to electricity were thought capable of being developed to a limited degree. After daily galvanism of all the affected muscles the power of voluntarily flexing the right foot became complete. At the end of six months a faint reaction in the left tibialis anticus was observed. Volitional flexion of this foot was subsequently acquired. Rather more than a year after treatment began slight contractions were visible in the extensor proprius pollicis. Finally the toe could be partially extended and the patient was able to walk well. Case II. Male, aged 11; anterior tibial group of left leg partially paralysed for five years, paralysis being complete in the tibialis anticus and peronei, which gave no perceptible reaction when electrically stimulated. Daily application of the galvanic current produced, after seven months, slight contractions in the tibialis anticus. This muscle improved, as in the former case, but the peronei remained functionless after the lapse of eighteen months. Case III. Male, aged 9; anterior tibial and peroneal muscles paralysed six years; electric irritability not wholly lost, excepting in the tibialis anticus and extensor proprius pollicis. Five months passed before any contraction was visible in the former. Eventually the power of flexion was restored. No improvement was effected in the extensor of the toe. The conclusions derived from these cases by the author are that our senses are not sufficiently acute to determine whether totally paralysed muscles are capable of improvement or not, and only after long-continued treatment can the point be definitely ascertained.

(56) Treatment of Ozena.

KUTTNER (*Therap. Monatsh.*, March, 1893), after recapitulating the various treatments suggested for this malady, based as they are on different views as to the etiology of the disease, states that all have hitherto failed in curing the typical affection, perfect cleanliness being the only measure which will, with our present knowledge, give satisfactory results. Tampons have been used by the author, and in this connection he discovered that if changed frequently enough no smell arises; also that those possessing the typical odour lose it when kept in a low temperature during twenty-four hours, this pointing to the circumstance that the factors in producing the fœtor are present in the nose. In order to secure an efficient cleansing, which should be accompanied by any other suitable form of treatment, the author has devised an apparatus consisting of a spirit lamp and kettle, the steam from the latter escaping into an open glass cylinder attached to the patient and surrounding the orifices of the nose, which simultaneously are made more patent by a special wire speculum; the air entering the open end of the cylinder cools the steam which the patient is directed to inhale deeply for periods of from five to seven minutes, two or three times daily, this sufficing to remove all moist and dry secretions. Eventually tubes dipping

into medicated solutions were connected at a right angle with the steampipe, medicated sprays being thus formed, and both practically and experimentally bicarbonate of soda was found to be most efficacious in dissolving the hard dried up excretions formed. In a large number of patients experimented on, the nose and throat were thus kept perfectly clean and odourless, without producing any unpleasant results. The author considers this method to be more advantageous than any hitherto suggested.

(57) Methylene Blue in Diphtheria.

Kasem-Beck (*Centralbl. f. klin. Med.*, 25, 1893) has in fourteen cases of diphtheria used aqueous solutions of methylene blue (1 to 9). The application was made two to three times daily by means of a tampon, the membranes rapidly showing saturation with the colouring agent. The success was very marked, and is attributed by the author both to the local and general action of the drug. In addition, minute doses of pilocarpin were administered in order to assist the separation of the membranes. The pyrexia and local œdema rapidly subsided, no local irritation was produced, and no unpleasant symptoms resulted, though the assimilation of the drug was proved by its presence in the urine. All cases recovered, three becoming complicated with slight forms of paralysis.

(58) The Physiological Action of Methyl Mercaptan.

L. de Rekowski (*Arch. des Sciences Biologiques de St. Pétersbourg*, No. 2, 1893) has made a study of the physiological action of this substance, both in the gaseous form and as a solution in water. Methyl mercaptan is a product of the decomposition of albumen or albuminoid matters; it is found in the large intestine as a result of normal digestion, and under certain conditions it may accumulate there in large quantities. At the normal air temperature it is a putrid-smelling gas, but when compressed it is a colourless liquid, highly refractive, boiling at 5.8° C. Rekowski's conclusions, based on experiments with guinea-pigs, mice, and rabbits, are as follows: (1) Compared with sulphuretted hydrogen, the action of which was studied by Lehman and Ouchinsky, methyl mercaptan is less poisonous. With the former 14 to 18 milligrammes in solution, injected under the skin produce serious symptoms in the rabbit, but it requires a dose of 20 to 25 milligrammes to produce death with certainty. With methyl mercaptan, doses of 33 milligrammes are required to produce serious symptoms, but a fatal result requires as large a dose as 169 milligrammes. (2) Inspiration of the gas produces first an irritation of the respiratory centre, increasing the rapidity of the respirations, as a result of which the poison rapidly accumulates in the blood. The respiratory centres become finally paralysed from over-stimulation. (3) During this time the peripheral nerves and muscles are but little affected, as may be seen by the fact that the reflexes remain good throughout the experiment. The heart also goes on beating after respiration has ceased. Ouchinsky also noted the same fact in the case of sulphuretted hydrogen. (4) Exactly the same phenomena of poisoning take place if the gas be given either *per os*, *per rectum*, or subcutaneously. (5) The urine of the poisoned animals smelt feebly of methyl mercaptan. (6) The blood showed no characteristic changes. It was venous, and gave the spectrum of reduced hæmoglobin, with its characteristic absorption bands. After exposure to the air the venous characters were lost, showing that no change had taken place.

PATHOLOGY.

(59) Elimination of Bacteria by the Kidneys.

Cavazzani (*Centralbl. f. allgem. Path.*, B. iv., No. 11), gives the results of his experimental investigations on this subject. The methods employed, and the results are as follows: (*a*) A lesion of the renal epithelium was produced in rats by subcutaneous injection of pyrogallic acid or cantharides. Shortly after a broth culture of B. prodigiosus was similarly injected. In about two hours the animal was killed, and a bacteriological examination made of the urine in the bladder. In every instance bacteria were demonstrated. Histological examination of the kidneys showed degenerative changes in the epithelial cells. In the control animals negative results were always obtained. (*b*) A lesion of the renal epithelium was produced in rabbits by temporary ligation (½ to 1 hour) of the artery supplying one kidney, or of a branch of it (in the latter case the respective appearances of the healthy part, and that which had been affected by transient ischæmia could be compared in the same section). Broth culture of B. prodigiosus was then injected into the jugular vein. Shortly after the urine from each kidney was examined bacteriologically. That from the injured organ was found to contain the bacilli within an hour of injection; that from the healthy organ and from control animals gave negative results. The epithelial cells of the injured kidney showed degenerative changes. (*c*) The kidney lesion was produced as in (*b*) and anthrax bacilli were then injected into the jugular vein. Sections of the healthy and diseased kidney were made and stained after Gram. No bacilli were present in the part which had been anæmic, whilst elsewhere, in urinary tubules, in capillaries, and between cells, they occurred in numbers. The injured epithelial cells of the affected area, had permitted the passage of the bacilli into the urine. (*d*) Instead of bacilli a solution of indigo-carmine was injected, after ligature of a branch of one renal artery. The pigment was found to have passed into the tubules of the injured area; elsewhere the pigment had been retained in the kidney substance, and the tubules were free. From these experiments Cavazzani draws the following conclusions: (1) The alteration in the renal epithelium which follows the injection into the body of certain chemical substances, or the temporary ligation of the renal artery, facilitates the elimination of bacteria by the kidneys. (2) The epithelial cells of the convoluted tubules, whilst structurally and physiologically sound, are able to prevent the passage from blood to urine of many pigments and bacteria.

(60) Staphylococci in the Blood in Osteomyelitis.

In a case of acute multiple osteomyelitis, the nature of which was established by *post-mortem* examination, Bommers (*Deutsch. med. Woch.*, June 8th, 1893) found in the blood during life staphylococcus pyogenes albus in pure culture. The organism was grown upon broth and agar. As far as Bommers is aware, this is the first case of spontaneous osteomyelitis in which staphylococci have been demonstrated in the blood. It supports the modern etiological conception of acute osteomyelitis, which supposes that disease to be a pyæmia due to the action of pyogenic cocci.

(61) Pathogenesis of the Soft Chancre.

Petersen (*Centralbl. f. Bakt.*, June 8th, 1893), after a review of the bacteriology of the soft chancre, in which he shows the unsettled nature of the subject, describes his own observations, which support those of Unna. In sections of soft chancres he finds the strepto-bacilli described by the latter authority. In hard chancres they have never been found. For staining Unna's alkaline methylene-blue solution is used (twenty four hours). The stained sections are carefully dried with blotting paper as they lie upon the slide, and decolorisation is effected first by aniline oil (3 to 10 minims), and then by a mixture of analine oil and xylol, equal parts (half to three hours). Alcohol is avoided, as it rapidly removes the stain from the organisms. Attempts to cultivate the streptobacillus have hitherto failed, but Petersen has succeeded in cultivating upon a mixture of agar and human blood serum (2 to 1) a bacillus which, in form, size, and staining reactions agrees with Unna's organism. Inoculated into the human being this produced a localised erythema on the second day, which passed on the third day into a small pustule. The corresponding lymph glands remained unaffected. This indefinite result may be ascribed to various causes—for example, impaired virulence of the organism, from growth upon nutrient media, its inability to develop full powers except in conjunction with other organisms. Investigation must decide these points. In the meantime Petersen considers that the evidence at hand justified the belief that the streptobacillus plays a prominent part in the pathogenesis of the soft chancre, if it is not indeed the sole cause of that affection.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(62) The Minor Symptoms of Chronic Bright's Disease.

Two recent sittings of the Académie de Médecine (*Bull.*, June 6th and 20th) have been mainly occupied by the reading and discussion of an essay on the minor symptoms of chronic Bright's disease and uræmia, by M. Dieulafoy. His main thesis was that albuminuria was an inconstant symptom of doubtful diagnostic and prognostic value, that the important point to ascertain was whether the urine possessed its normal toxicity, and that certain trivial symptoms were, when taken in combination, of great value in establishing the diagnosis of Bright's disease even in the absence, more or less prolonged, of albuminuria. The minor symptoms which he describes belong to the following classes: (1) auditory: high or low pitched noises in the ear, constant or occasional, accompanied by some deafness, and liable to be mistaken for Ménière's disease when occurring together with (2) vertigo, intractable to most forms of treatment but relieved by milk diet; (3) "dead finger"; the patient experiences formication in the finger, which becomes exsanguine, pale, and insensible; this persists for a few minutes or a quarter of an hour, and occurs generally in the morning; sometimes several fingers are affected, sometimes the whole hand; sometimes it affects the fingers of both hands symmetrically; it may be the earliest symptom; (4) itching: frequently intense, and then a source of great discomfort; (5) pollakiuria: frequent desire to micturate due to a specific irritability of the bladder; it may be accompanied by, but is independent of, polyuria, and is often an early symptom; (6) cryæsthesia: a special sensibility to cold on the surface, so that the patients wear many wraps but never feel warm; the lower limbs (knees, legs, and feet) are especially liable to be thus affected; sometimes only one limb or part of a limb suffers; (7) cramps in the calves: very painful, occurring chiefly at night, and waking the patient out of sleep; (8) slight morning epistaxis; (9) "electric shocks," a clonic convulsion occurring at the time of falling asleep; (10) "the temporal sign"; prominent tortuous temporal arteries due not to atheroma but to high tension. These minor symptoms may be present while well-marked symptoms of Bright's disease have not yet developed. Taken separately these minor symptoms have little significance, but when several are present their diagnostic value may be very great. They may exist at a period when no albumen is present in the urine, and in any case a patient suffering from Bright's disease is in danger not because he passes a little albumen in the urine, but because the kidneys fail to separate from the blood and excrete in the urine poisonous bodies, formed, as M. Dujardin-Beaumetz observed in the discussion, mainly by the liver. Bright's disease should be treated at any stage by attention to the diet. The earlier the existence of the disease can be recognised the greater the hope of lasting relief. M. Dieulafoy advocated resort to milk diet. M. Dujardin-Beaumetz to a diet poor in toxic substances, a diet from which meat, fish, shellfish, crustaceans, and game were excluded, that is to say, a vegetarian diet. In a few rare cases these minor symptoms of Bright's disease are due to syphilitic disease of the kidneys, and disappear in some cases under treatment by mercury and iodide combined, according to M. Dieulafoy, with a milk diet. In a certain proportion of cases of chlorosis these minor symptoms are present. Such cases resist ordinary treatment by iron, but yield to dieting; in such cases albuminuria may or may not be present. If neglected or incorrectly treated well marked incurable chronic renal disease may develop. As to the frequency of these minor symptoms observations were made on 60 patients; the number of times they were present was as follows:—cramps, 46; auditory, 34; morning epistaxis, 34; dead finger, 33; electric shocks, 25; temporal sign, 14; vertigo, 13.

(63) Traumatic Neuroses.

In the recent Medical Congress at Wiesbaden (Beilage zum *Centralbl. f. klin. Med.*, 1893, No. 25), this subject was introduced by Strümpell and Wernicke. The former emphasised the fact that the traumatic neuroses do not constitute a single clinical picture, but consist of a group of morbid conditions. He separates those cases with local from those with general symptoms. Of subjective symptoms pains not very definitely localised, and not corresponding to any given nerve area, are prominent. The pains are often associated with functional motor disturbances. The many other subjective symptoms increase greatly if the patient be minutely questioned. There is nothing to be made out at the site of the wound. Important objective signs are the slightly hypochondriacal and melancholic mental condition, and the sensory anæsthesia of the skin and sense organs, such as contraction of the visual fields. The disease is of psychogenic origin, concussion not being able to explain it. As to the diagnosis symptoms depending on arterio-sclerosis, alcoholism must not be confounded with it. The absence of objective signs cannot always be relied upon in distinguishing it from simulation. The tendency to exaggeration does not show that there is no disease. Wernicke considers the name of traumatic neuroses well chosen, and at present indispensable. The division into traumatic hysteria, neurasthenia, and hystero-neurasthenia is unsatisfactory. He does not agree that traumatic neuroses consist in hysteria called forth by injury. The difference between the symptoms complained of and those of organic diseases is to be explained by exaggeration, such as is seen in patients in whom the presence of disease is not to be doubted. Wernicke has rarely seen simulation, and if it is found out it should be punishable by law. Hitzig dwells on the harm done by those who deny the existence of these neuroses. He recommends that (1) the presence of hypochondriasis, neurasthenia, hysteria, or mixed conditions be determined; and (2) that the diagnosis be not made to depend solely on objective signs. Bruns has found contracted visual fields in 33 per cent. of the cases, and he looks upon this as a typical hysterical symptom. A moderate degree of work is beneficial in the treatment. Besides contracted fields, Sänger lays stress on the testing of central vision for nervous asthenopia, not only in traumatic neuroses but in all nervous diseases. It must be ascertained whether the contracted fields are (1) due to fatigue, or (2) temporary or permanent, or whether the fields are normal at first. Hoffmann almost alone maintains that these neuroses form a single clinical unity. Unverricht thinks that simulation is frequent, and recommends slight chloroform narcosis for its detection. To Schultze the name of traumatic neuroses introduces confusion where the terms traumatic, neurasthenic, etc., cover the ground. He dwells especially on the patient's exaggeration, which he says cannot be justified. The contraction of the visual fields is so frequent as to be almost of specific value.

SURGERY.

(6 Surgical Intervention in Abdominal Injury.

Sibur (*Arch. Gén. de Méd.*, July, 1893) is a zealous advocate of operative interference in cases of severe abdominal contusion in which there are good grounds for suspecting visceral injury. In such cases he would recognise only two contra-indications forbidding prompt surgical treatment: intense nervous shock immediately following the injury, and, at a later stage, when the patient, suffering from extensive and advanced peritonitis, is cold and cyanosed and in a state of extreme collapse. The author sums up in the following conclusions the results of his study of thirty-eight collected cases of severe abdominal injury: (1) Contusions of the abdomen complicated with visceral lesions, being almost invariably fatal, demand prompt surgical intervention. (2) The history of the injury, the precise determination, and the group of initial symptoms presented by the patient will, in most instances, enable the surgeon to establish the diagnosis either of intestinal rupture or of hepatic or splenic laceration. (3) The prospects of operative treatment will depend to a great extent on the promptness of the intervention, internal hæmorrhage and peritoneal septicæmia being the most

dangerous complications. (4) In cases in which the initial symptoms are mild the patient should be kept at absolute rest, and on a very restricted diet; on the appearance of the least sign of peritonitis the surgeon should at once operate. (5) In such cases Robson's practice of making a small exploratory incision might be indicated. (6) In cases of complete rupture of the intestine or of severe injury necessitating resection, enterorrhaphy with drainage would be the best plan of treatment. (7) In lacerations of the liver the surgeon should have recourse to suturing or to plugging. (8) In cases of laceration of the spleen the hæmorrhage will often be so profuse as to compel the surgeon to perform splenectomy.

(65) Extirpation of the Kidney for Ureteritis.

Israel (*Berl. klin. Woch.*, July 3rd, 1893) first refers to the advantage of cutting through the renal substance from the convexity to the pelvis, as against incising the wall of the pelvis of the kidney, and he relates a case in which the rapid healing of such a wound was demonstrated by the microscope. A man, aged 28, had been having renal colic for eight years, and at the time of admission there were as many as three attacks in the week. The kidney was cut down upon and explored in the above-named manner, but no stone was found. There was no improvement. A further operation was undertaken as soon as the patient had recovered from the first, in which the pelvis of the kidney was laid open, and the ureter exposed and traced down into the pelvis. This ureter was found to be indurated, thickened to three times its usual size, and presented cartilaginous hardness in parts. Thus a ureteritis was present. An elastic bougie was passed down it, so that the perviousness of the ureter throughout its whole length was demonstrated. The draining of the urine away through the wound gave no relief, so that two days later the kidney was extirpated. Some degree of hydronephrosis without obvious enlargement was present; the calyces were widened, and the tops of the pyramids flattened. The attacks of colic then ceased, and the patient was easily broken of the morphine habit. The microscopical examination of that part of the ureter taken away with the kidney showed a thickening of its walls involving all the layers—the mucosa most and the adventitia least. The vascularity was greatly increased, the epithelium had disappeared, and there was much round-celled infiltration. The author then discusses (1) the colic; (2) the pain along the ureter; and (3) the hæmorrhage, in the light of the morbid anatomy. The two latter are easily explained. Attacks of colic occur with increased intrarenal pressure, which leads to powerful contraction of the ureters. Obstruction certainly existed in this case, as is shown by the appearance of the kidney. The urine is forced intermittently into the bladder by peristaltic action. If this latter is interfered with, the intrarenal pressure is increased. Here the walls of the ureter were much diseased, and hence the chief cause of the obstruction. The augmented friction of the diseased walls and the increased frequency of micturition would help. While the kidney is small the most typical attacks of colic occur; later, when the kidney is much enlarged and distended, there are none, for tolerance is established. The above is the explanation of renal colic without stenosis. Recovery of the ureter was here impossible, hence the nephrectomy. The author says that this is the first instance in which the whole of the ureter has been exposed with the view of determining the cause of the colic, no stone being found. He thinks that if this procedure be followed in suitable cases, there will be less need for the term nephralgia.

(66) Trephining for Cerebral Softening.

Lanphear (*Univ. Med. Mag.*, July, 1893) advocates trephining in cases of softening after cerebral hæmorrhage, in which evidence is presented of profound irritation or disturbance in those convolutions which preside over the intellect, long after the subsidence of immediate pressure symptoms. In such cases, it is thought, surgical treatment may be fairly applied, not with the object of improving paralysis or any other manifestation of destruction of the cortex or communicating fibres, but of clearing out a quantity of irritating material, and substituting some other, as blood-serum or cerebro-spinal fluid, which will within a brief period fill the cavity and not give rise to symptoms of irritation. A case is reported in which trephining was practised on a man aged 56, who, after an attack of cerebral hæmorrhage, six years previously remained totally aphasic and paralysed in the right arm. The memory was good and the intellect not persistently affected, but the patient at times was very irritable, and had frequently threatened the life of his wife. He often suffered intensely from headache. The skull was trephined over the region of the lower part of the left Rolandic fissure, and exit given to a large quantity of broken down brain matter and other *débris* of a creamy consistance. The operation was followed by a speedy recovery, and since June 27th, 1892, the date on which it was performed, the patient had had no recurrence of the headache or mental irritability, though of course there was no improvement with regard to the aphasia and the paralysis of the right arm.

(67) Actinomycotic Perilaryngeal Abscess.

Poli (*Gazz. degli Ospitali*, March 14th, 1893) records an interesting case of actinomyces at the back of the pharynx in a man, aged 45. The patient when first seen had his larynx displaced forwards and to the right by a swelling in the neck situated just to the left of the thyroid cartilage. The tumour had been gradually increasing for about four months, and had led to the suspicion of the existence of a postpharyngeal abscess. The tumour presented marked fluctuation, and on being opened was found to contain a sero-sanious fluid, in which floated sulphur-yellow particles. These were recognised microscopically as being actinomycotic in nature. The cavity was then laid freely open, its walls thoroughly scraped, and packed with iodoform gauze. Recovery took place, and perfect healing resulted in a short time, and it is probable that the original circumscribed nature of the disease contributed largely to the successful result.

MIDWIFERY AND DISEASES OF WOMEN.

(68) Twin Labour: Management of Placenta.

Monteiro (*Journ. de Méd. et de Chir. Pratiques*, May 10th, 1893) observes that in twin labours the placentas may be delivered either separately after the birth of each child, or together after the birth of the second. For obvious reasons the former manner of delivery is very rare, occurring only in 2 out of 164 cases. After the delivery of the first twin, the attendant must never attempt to extract the afterbirth, for one placenta is often common to both twins, so that its detachment will put the life of the undelivered child in peril. The close inspection of 119 twin labours has satisfied Monteiro that the delivery of the placenta after the birth of twins does not take on the average much longer than the same process in single labour; this is contrary to general opinion. Gentle traction on the cord of the nearest placenta or the lowest part of the placenta already engaged in the vagina is justifiable; Pinard advocates this practice. Monteiro, in 148 labours found the placenta single in 79 and double in 69 cases. In one of the series the twins occupied a single amniotic cavity. In twin labours well conducted the danger to the mother is small. Monteiro publishes Lepage's statistics for the Baudelocque clinic last year. There were 1,612 simple deliveries with 19 deaths, or 1 in 84.8. In 164 twin labours, Monteiro counted 2 deaths, or 1 in 82, and in one of the two the patient was admitted with ruptured uterus. The danger of post-partum hæmorrhage is relatively not great. On the other hand, notwithstanding the use of the *couveuse*, the prognosis for the children is serious, as the following table shows:

Infantile Mortality.	Single.	Twin.
During labour ...	1 in 59.7	1 in 51.83
After labour ...	1 in 22.64	1 in 4.49

Thus the mortality of twins is distinctly greater than that of single children during labour, and very much greater in the puerperium. Irregular presentations are frequent in twin births, and the labour mortality is higher for the second twin.

(69) Uterine Myoma Implanted by Adhesions in the Cervical Canal.

LEYDEN (*Zeitsch. f. Gebürtsh. u. Gynäk.*, vol. xxiv., part 2, 1893) observed this case in a virgin, aged 44, and subject to flooding. On exploration with the finger, a large fibroid was felt in the cervix, and firm bands could be detected, passing between the surface of the tumour and the mucous membrane of the cervical canal. The removal of the tumour by *morcellement* was undertaken, as the site of its attachment was unknown, so that drawing it down forcibly for enucleation might have caused inversion of the uterus. The fact that the capsule adhered to the cervix was also an objection to enucleation. A wedge-shaped piece of the tumour, of the size of a small apple, was cut away. Then the remainder of the mass was readily drawn down, and it was found that there was no pedicle. The only connections of the fibroid with any part of the patient's body were the bands above described. The tumour was entirely removed in about an hour and a quarter; the chief trouble was caused by the rigidity of the vagina. There was very little bleeding after the separation of adhesions. The great space left when the tumour was removed communicated with the uterine cavity in such a manner as to prove that it was a dilated cervical canal. It was washed out, and packed with iodoform gauze; ergotine injections were also administered. A small interstitial myoma lay in the posterior vaginal wall. The patient recovered perfectly. The tumour was, no doubt, originally interstitial, and had been protruded into the cervical canal. The adhesions had maintained its vitality, and saved it from the usual degenerative changes.

(70) Petroleum in Vaginal Inflammation.

DESPRÉS (*Gaz. des Hôp.*, June 15th) has great belief in petroleum as a dressing. First, he found that it was preferable to coal tar and charcoal in the treatment of scirrhous ulcers in the breast. Then he obtained good results in cases of advanced uterine cancer, by injecting petroleum into the vagina. The foul discharges ceased at once. Now he finds that the same compound answers well for vaginitis. He uses 100 to 150 grammes of pure petroleum for one injection; it is in no sense a caustic. Two or three injections, one daily, will cure recent vaginitis. The petroleum adheres to the mucous membrane, and soaks into the tissues, so that it acts as a permanent dressing. The patients do not complain of the odour of the compound, and it in no way affects their health.

(71) Extrauterine Pregnancy: Vaginal Operation.

TOURNAY (*Ann. de Gynéc.*, May, 1893), recently operated on a woman who had become pregnant for the second time, after an interval of fifteen years. On digital exploration it was clear that a tumour existed on the right side. Signs of peritonitis occurred, and the uterus, which was displaced, was pressed into its right position under chloroform. A few days later flooding occurred, with pains and discharge of decidua. On rest the show ceased. The breasts secreted milk, the abdomen remained large, and the tumour on the right side persisted. The diagnosis was easy; abdominal section was recommended, but delayed till symptoms of suppuration appeared. On opening the abdomen it was found that the fœtal sac could not be extirpated. Therefore, the abdominal wound was closed at once, and vaginal hysterectomy by *morcellement* performed. The vagina was plugged with iodoform gauze, arranged carefully around the pressure forceps, which were left attached to the vessels which they compressed. The operation lasted two hours and a half. Gradually the relics of the placenta and the embryo came away, after free use of injections. At the end of a month, when the report was published, the patient was nearly well again.

(72) Malignant Disease of the Chorion.

GOTTSCHALK (*Centrlbl. f. Gynäk.*, No. 25, 1893) observed that after an abortion a patient, aged 42, became subject to irregular profuse floodings, with intervals of serous discharge. The curette was used three times without benefit; the patient grew worse and worse. Four months after the abortion uncontrollable vomiting and fits of coughing set in. A month later Gottschalk dilated the cervix, and removed from the site of placental attachment a villous mass, which on examination proved to be sarcomatous. On that account the uterus and appendages were removed, and the patient recovered. Her health greatly improved, but four months after the operation clinical symptoms appeared of metastases in the lungs, the right kidney, the spleen, and the brain. The patient died seven months after the operation, and thirteen after the miscarriage. The metastatic deposits bore all the characters of the primary disease in the uterus. They were villous and exceedingly vascular. They had reached the parts which they infected exclusively through the blood-vessels. The disease was deciduoma malignum or sarcoma deciduale (Sänger). It is related to the destructive type of mole which insinuates itself into the uterine walls.

THERAPEUTICS.

(73) Trional as a Hypnotic.

HAMMERSCHLAG (*Inaug. Dissert.*, Berlin, March, 1893) refers to the circumstance which led to the use of trional, namely, its similarity to sulphonal, from which it differs by containing a larger proportion of the more active ethyl, and then proceeds to recapitulate the published experiences of this narcotic. The substance is odourless, possessing a slightly bitter taste, is not readily soluble in cold water, and is best administered in about 8 ounces of a warm liquid (water, soup, milk, or tea), shortly after an evening meal, and about half an hour before bedtime. The average dose for a healthy individual is about 15 grains, prescribed as a powder, and administered as above. Previous experience shows trional to be more efficacious than sulphonal, and this observation was borne out by the author, who more particularly compared its action with that of morphine and chloral. About 20 ounces, in doses from 15 to 45 grains, were administered to sixty patients suffering from melancholia, mania, hysterical and epileptic conditions, hypochondria, paranoia, alcoholism, morphinism, and general paralysis of the insane. In the cases of alcoholism, contrary to the experience of other observers, sleep was produced in the majority of patients, this also applying to cases of morphio-cocaine poisoning. As regards the other affections, trional invariably produced results as satisfactory, or more so, than chloral and morphine. Healthy individuals suffering from nervous insomnia are not included in the above observations, but with such the author invariably found 15 grains sufficient to produce sound sleep. No unpleasant symptoms were caused, excepting some slight digestive disturbances in some instances; and the drug was never refused by any of the patients. Even after administration during long periods, no albumen appeared in the urine.

(74) Difficulties Encountered in Feeding Infants.

NEUMANN (*Therap. Monatsh.*, May, 1893), after dealing at length with the various causes giving rise to difficulties in the reception of food by infants, refers to those cases in which delivery before the normal time renders infants too weak to suck, and those frequently occurring instances where after an exhausting malady, and especially with acute gastro-intestinal disturbances, children absolutely refuse to take food. These conditions the author invariably treats with artificial feeding by means of a soft spun silk catheter, using liquid nourishment with the addition of a small quantity of Greek wine or cognac. To prevent any tendency to sickness, he rapidly withdraws the tube and then allows the head to hang back almost vertically for some time. Frequently it is found that after one or two administrations the child will again take food naturally; often, however, the treatment has to be continued for five days, when the feeding can be suspended, the child's progress being carefully watched by means of daily use of the scales. The operation, however, is contraindicated when there is acute irritability of the stomach, but when performed should be carried out several times daily, or when there is a tendency to vomiting, in small quantities every half hour. The author describes an extreme case of atrophy cured by these means, and concludes by strongly advocating the systematic application of this measure in all suitable cases.

(75) Europhen and the Tubercle Bacillus. Christmann (*Centralblatt f. Bakteriologie und Parasitenkunde*, July 13th, 1893) states that while experimenting on the tubercle bacillus with various substances he was induced to extend his researches to europhen, the results of which he quotes in detail. With one exception, hereafter to be described, pure cultures were used, the greater portion being supplied by Metschnikoff. The europhen was employed in three methods—namely, (1) directly applied to the culture, (2) in a test tube which was allowed to hang in the hermetically sealed culture glass, (3) as a concentrated solution in olive oil; and the subjects were exclusively guinea-pigs, in which the injection was made intraperitoneally into the left lumbar region. The virulence of each culture was proved experimentally before and after each series of researches. With regard to the first category of investigations, the culture at the age of 12 days was dusted with europhen, and placed in a temperature of 38° C., a previously inoculated animal dying of tuberculosis in seventy-eight days. Subsequently five guinea-pigs were treated with the europhen culture at successive periods of of one to five weeks, only the first three showing *post mortem* lesions of tuberculosis. In the second method a culture of 50 days' standing was, as stated, exposed to the evaporation of europhen at a temperature of 38° C. The guinea-pig previously inoculated died at the expiration of 116 days, and of the four animals subsequently operated on at intervals all remained unaffected by the bacillus, the first one excepted. Finally a concentrated solution of europhen in olive oil was injected without showing any results, and then five animals were inoculated with a culture which had been mixed with the europhen emulsion, and allowed to stand for five, ten, fifteen, etc., days respectively. Tuberculous lesions and bacilli were discovered in all these cases. Sputum was made use of in a few more experiments, and whereas when untreated it rapidly proved fatal, two animals showed no lesions or bacilli *post mortem* after the sputum had been exposed to the action of europhen during thirty-one and thirty-seven days. The author observes that a separation of iodine appears to be essential in causing the death of the germ, and he considers that this explains the negative results obtained from the emulsion, which, however, with the addition of water, acts similarly in giving off a soluble iodine compound. In comparing the action of europhen with that of iodoform similarly used, the latter is slower in destroying the bacilli, except when used as an emulsion, which dissimilarity the author attributes to some specific action of iodoform, and which points to a difference in the application of the two drugs.

(76) Guaiacol.

Liebreich (*Therap. Monatsh.*, May, 1893), states that whereas guaiacol has hitherto been described as a liquid, the latest researches have shown that when pure and synthetically produced it is a solid body, crystallising in colourless prisms, which melt at 28.5° C., boiling taking place at 205° C. It is most readily dissolved in pure, undiluted glycerine, the solubility in water being only 1:50. Both this preparation and its derivatives have hitherto rarely been produced absolutely pure, and this is said to account for the different descriptions published, many of the trade samples of the preparation containing only about 50 per cent. of guaiacol.

(77) Subcutaneous Injections of Salol in Tuberculosis.

Grossi (*Centralbl. f. Therap.*, July, 1893) in early cases of tuberculosis recommends subcutaneous injections of salol as follows: Sterilised almond oil minims 900, salol grains 150: and of the solution thus prepared, at first one, and afterwards two to three daily injections with minims 75 should be made. The results were diminution of night sweats, decrease of cough, a smaller number of bacilli in the sputum, and improvement in strength and general condition. Locally the injection is followed by induration of the skin.

PATHOLOGY.

(78) Vaccination of the Horse against Tetanus.

Tizzoni and Cattani (*Rif. Med.*, June 8th, 1893), publish a first report on this subject, into which they have been inquiring by the aid of a subsidy from the Italian Minister of Agriculture. The vaccination experiments were carried out on two horses, and were commenced by an injection of 5 c.c. of "first vaccine," which consisted of a gelatine culture of tetanus grown in an atmosphere of hydrogen, and attenuated in a manner the details of which are promised shortly. The attenuation was such that hypodermic injections of 4 and 5 c.c. respectively were no longer capable of producing tetanic phenomena in a rat or rabbit. Four c.c. in a single injection, however, proved a perfect vaccine for the rat, while 15 c.c. in two injections, at five days' interval, was efficient in the case of the rabbit. In the first horse the injections were as follows:—January 15th, 5 c.c. of first vaccine; January 20th, 8 c.c. of first vaccine; January 25th, 14 c.c. of first vaccine; February 1st, 18 c.c. of first vaccine; February 11th, 24 c.c. of first vaccine. February 22nd. 0.3 c.c., February 27th, 1.5, March 7th, 3.0, March 14th, 6.0, March 23rd. 12c.c., of a culture of which 1 drop killed a rabbit in 7 to 8 days. April 6th, 10 c.c. of culture, of which 1-200th drop killed a white rat in six days. No further injections were made, and the other animal was treated in practically the same manner. The only phenomenon following these injections was the appearance of œdema at the seat of puncture, accompanied by redness of varying intensity. The effusion gave the animal no great pain, was at its height about two days after the injection, and subsided entirely within four to eight days from its appearance. There was, besides, a certain amount of general reaction in the shape of fever, but this was never of great intensity; after the final injections, too, there was some loss of flesh, from which the animals recovered within a week or so. After the first two injections there was also an increased muscular irritability, especially discernible in the subcutaneous muscles. Finally, the animal was found to be immune to the most virulent tetanus which could be obtained, and the experiment was therefore a complete success. Another interesting fact is also made out in the course of the experiments—the increase of the immunising power of the animal's serum after each injection. This can be well seen in the following table:

Day of Experiment.	Amount of Vaccine and Virus used.	Immunising Power of Serum.
25	45 c.c.	Antitoxic *in vitro*
43	69 c.c.	1:5,000
51	70.8 c.c.	1:50,000
58	73.8 c.c.	1:100,000
67	79.8 c.c.	1:250,000
81	91.8 c.c.	1:500,000
97	101.8 c.c.	1:5,000,000

The figures in the last column represent the fraction of a cubic centimetre of the antitoxic serum necessary to protect each gramme of a rat from the results of inoculation with a virus which kills a control animal in four or five days. A question closely allied to the above was to test whether the serum had a curative as well as an immunising power. This was tested by inoculating rats with 1-25th of a drop of a culture of tetanus bacilli, which was known to be fatal to such animals in this dose within five days. On the second day symptoms of tetanus began to be manifest; an injection of the horse serum ($\frac{1}{2}$ c.c.) was given under the skin of the back—serum which had acquired an immunising power of at least 1:500.000. The symptoms remained localised but not much altered for about five days, after which they gradually subsided, so that a cure was complete within twenty-five days. Finally, the authors suggest that the reason that they have been more successful than other observers in obtaining both antitoxic and curative results lies in the fact that the cultures of the tetanus bacillus at their disposal have been far more active than those of other laboratories. They hold that the activity of the antitoxin is directly proportional to the strength of the virus by the aid of which it is produced. Having thus succeeded in producing a great antitoxic value in the serum of the horses under experiment, they are about to utilise the large amount of material thus available in attempts to cure tetanus in large animals, such as the horse, an animal in which the disease so frequently occurs.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(79) Amœbæ in the Urine.

POSNER (*Berl. klin. Woch.*, July 10th, 1893) first refers to three recorded cases. His own case occurred in a man aged 37, with previous good health, and who had always lived in Berlin. The attack began three days before with shivering, general *malaise*, and the urine rapidly became dark in colour. The patient had been wet through and chilled the day before, and he put his illness down to this. The urine, when examined, was found to contain much albumen and blood. Examination of the deposit obtained by the centrifugal machine showed besides red blood cells, leucocytes, renal epithelium and cylinders, bodies eight to ten times as large as a white blood cell, with vacuoles and processes. These bodies also contained foreign particles, especially red blood cells, and were seen to change their shape; they eventually disappeared in the course of about six days, and the urine regained its normal characters. The patient had five similar attacks within the next twelve months at gradually lengthening intervals. The author thinks that there is no doubt of the relation of the amœba to the disease. Many facts here speak against the bladder being the seat of the disease, such as the absence of bladder symptoms, the negative cystoscopic examination, whereas the condition of the urine was in favour of the renal origin of the disease. The examination of the blood giving negative results, the author would think that the amœbæ had penetrated from the bladder up to the renal pelvis, and hence the cause of the relapsing nephritis. As yet no œdema has occurred, and the heart is not secondarily affected. The author has not been able to determine that it was any particular form of amœba. There were never any intestinal symptoms.

(80) Optic Neuritis and Acute Myelitis.

SCHANZ (*Deut. med. Woch.*, June 29th, 1893) records the following case in a youth, aged 19, who had always had (besides a convergent strabismus) defective sight in the right eye owing to a corneal opacity and polar cataract. A month previously he had an attack of follicular tonsillitis. On February 6th, he had pain in the left eye. Four days later, the sight of this eye was impaired. All the ocular movements were painful, and the eyeball itself tender. He was then thought to have a retrobulbar neuritis. A few days later, slight signs of optic neuritis were present. There was no albuminuria. As there was some enlargement of the inguinal and supraclavicular glands, he was treated with potassic iodide and inunction in place of the salicylates previously given. The optic neuritis seemed to be improving, but an acute myelitis appeared. There were sensory disturbances in the right leg, quickly followed by considerable motor loss. Paralysis of the left leg followed, but it was never so complete. A band of hyperæsthesia appeared on a level with the ensiform cartilage above the anæsthesia, and there was some tenderness over the mid-dorsal vertebræ. The urine had to be drawn off with the catheter, and constipation was marked. Later, the patient began to get better, so that by the end of April he could do some work. The sight also greatly improved, so that in June it was normal in the left eye. The author leaves it undecided as to whether the cause of the double lesion was syphilis or whether it was connected with the previous throat affection. He refers to similar recorded cases. In all of them the eye affection preceded the paralysis. The sight generally recovered as well as the cord lesion, but in two cases death occurred in consequence of the disease involving the respiratory centres. Here an inflammation affecting both the cord and the optic nerve was found, but no relation could be made out between the two. It must be supposed that a single cause produced both lesions, and that just as grey degeneration can involve both structures, so can an acute inflammation.

(81) Acroparæsthesia.

LAQUER (*Neurol. Centralbl.*, March 15th, 1893), has met with several cases presenting recurrent attacks of paræsthesia in one or both of the hands and forearms. The patients experienced numbness, stiffness, formication, and pain, not restricted to the territory of any one nerve, but diffused over the whole surface of the parts indicated. Usually the attacks were more severe at night, preventing sleep; in the daytime they, as a rule, set in spontaneously, though sometimes they were brought on by manual work or long exposure of the parts to heat or cold. Occasionally there was urticaria factitia; no other objective sign was evident. The condition lasted many weeks or months, and more or less incapacitated the sufferers for work. Most of the patients were women between 35 and 50; several of them had undergone difficult labours attended with profuse hemorrhage. Laquer observes that Saundby has reported similar cases, excepting that in the latter cases gastro-intestinal derangement was present, and was deemed by Saundby to have an important etiological relationship. Amongst other writers who have described the affection is Schultze, to whom the nomenclature above given is due. Laquer concludes that the chief evidence points to the affection being an exhaustion neurosis involving only the sensory sphere; hysteria, neurasthenia, arthritis, climacteric, and toxic influences form no part of the etiology. Local galvanisation, or a local faradic bath, rest, and protective covering of the parts comprise the most effective treatment.

(82) Hæmorrhage into the Pancreas.

KOETSCHAU (*Centralbl. f. allgem. Path.*, June 2nd, 1893) relates the case of a patient, aged 24, who was suddenly seized with violent pain in the cardiac region, which passed off gradually, leaving vague, transient pain in the upper part of the abdomen. This also passed away, and the patient believed herself well again, when, about twenty-four hours after the first attack, she was seized with sickness, accompanied by a feeling of fulness in the region of the stomach, and symptoms of collapse. Death quickly followed. The necropsy showed that a great effusion of blood had taken place into the pancreas, which was occupied by black blood clot, and swollen to the size of a moderately large forearm. Koetschau is disposed to believe that the primary disease in this case was a fatty degeneration of the pancreas, and in support of this opinion is the fact that the patient had taken alcohol in great excess. In the same number H. Stieda records a case of cyst of the pancreas, which he gives strong reasons for believing arose out of a blood effusion. He quotes from Seitz's monograph on affections of the pancreas. This author states that the main causes of rupture of the pancreatic vessels are sclerosis of the vessel wall, and injuries, fatty degeneration, and inflammation of the pancreas. In Stieda's case the first cause appears to have been operative.

SURGERY.

(83) Suprapubic Cystotomy.

N. SENN (*Med. News* [Philadelphia], July 1st, 1893) proposes in cases of septic cystitis to perform this operation in two stages. For the first stage the patient is anæsthetised, and the rectum and bladder distended in the usual manner. The field of operation is rendered aseptic, and the bladder is freely exposed by dissecting away the prevesical fat over an oval surface about 2 inches in length, and half as wide. After arresting the hæmorrhage, the wound is firmly packed with iodoform gauze, and the external dressing securely fastened by strips of adhesive plaster, which are made to encircle the pelvis, and which prevent the dressing from becoming displaced. At the end of five days the dressing and iodoform gauze are removed, and the bladder is distended and incised without the use of an anæsthetic, if it is intended simply to establish a suprapubic fistula; or if a small stone is to be used. More serious intravesical operations would require the use of an anæsthetic. If the wound has remained aseptic, it will now be found covered throughout by a layer of active granulations. These granulations have closed the connective tissue channels, and have shut out from the wound the balance of the prevesical

space. When no anæsthetic is used, the wound surfaces are brushed over with 5 per cent. solution of cocaine. The bladder is incised and drained in the usual manner, and, as the septic urine is harmless to the granulations, the dangers of the operation are lessened. One case of stone with septic cystitis has been treated by the author in this way; the patient died a week afterwards from uræmia. There was no sloughing of the wound margins. In a second case treated by direct incision, free sloughing of the wound margins occurred, but recovery ultimately ensued. From a study of these cases, Senn formulates the following conclusions: (1) Necrosis and phlegmonous inflammation of the margins of the wound and the tissues in the prevesical space not infrequently occur as complications of suprapubic cystotomy, if the operation is performed for affections complicated by septic cystitis. (2) Suprapubic cystotomy in two stages greatly diminishes, if it does not entirely overcome, this source of danger. (3) In the first operation the bladder is freely exposed in the usual manner, when the prevesical fat is dissected away over a vertical oval space at a point corresponding to the location of the proposed visceral incision, after which the wound is packed with iodoform gauze, and the external dressing is applied in such a manner that it cannot become displaced. (4) The incision in the bladder and the intravesical operation are postponed until the external wound has become covered with a layer of active granulations, which usually requires from four to six days. (5) The second operation can be performed with the aid of cocaine, without general anæsthesia. (6) This modification of suprapubic cystotomy diminishes the immediate risks of the operation, and affords protection against a number of serious *post-operationem* complications.

(84) Pneumotomy.

HOFMOKL (*Wiener med. Presse*, No. 18, 1893) records a case of bronchiectasis which he successfully treated by pneumotomy. The patient suffered from a chronic bronchitis, accompanied by foul stinking breath, which resisted all forms of medical treatment. The situation of the cavity having been determined by injection with methyl blue, the author made an incision over the second right intercostal space 9 centimetres long, commencing 6 centimetres outside the right border of the sternum. The skin and muscles were divided until the pleura was reached. The thermo-cautery was now used to pass through the pleura and lung, and thence into the cavity. After opening the cavity in this manner, a drainage tube was introduced, and the whole dressed antiseptically. On the following day expectoration had diminished in amount, and the sputum had almost lost its fœtid odour. Recovery was uninterrupted, and fifteen days afterwards the patient was discharged from the hospital practically cured.

(85) Harelip.

IN order to obviate the flattening of the ala of the nose, which always occurs after the ordinary operations for the cure of harelip associated with anterior cleft of the hard palate, Wyeth (*Med. Rec.*, New York, June 24th, 1893) has successfully employed the following procedure. The patient is anæsthesised and then a hole is drilled about one-fourth of an inch from the anterior edge of each of the maxillary bones through the bone, and large enough to permit the introduction of a large, soft, silver wire. The edges, which after the advancement will be in contact, are freshened with cutting forceps or knife, and about half-way back along the alveolar process of the short side between two teeth, a strong cutting forceps or scissors divides the upper jaw, deeply and freely at a right angle to the plane of the alveolar process. Instead of inserting a lever to fracture the piece forward, it is best to carry a very strong cord in the fissure made by the cutting instrument, and pull on this until the fracture is complete and the fragment is advanced. When this is done a few twists of the silver wire bind the freshened surfaces together and hold the piece in its advanced position. As the soft parts have not been disturbed, the bone gets its nutrition from this source, although cut off posteriorly. At least eight weeks should elapse before the plastic work on the lip is undertaken. The results obtained by this method are, according to the author, better than any other with which he is acquainted.

(86) New Method of Preventing Fæcal Incontinence after Resection of the Rectum.

GERSUNY (*Centralbl. f. Chir.*, No. 26, 1893) reports two cases of partial resection of the rectum for carcinoma, in both of which it was found necessary to remove the sphincter ani. After extirpation of the disease the author seized the cut margin of the rectum at opposite points with two hooked forceps and twisted the intestine around its long axis until its lumen was so far diminished that the finger, when passed into the upper part of the rectum, met with much resistance. The lower end of the twisted gut was next stitched to the lower and cutaneous edge of the wound. The result in each case, it is stated, was very good. One patient had no trouble at all with regard to the discharge of fæcal matter, and the other, though unable for a time to retain fluid stools, ultimately became quite free from incontinence. On digital examination some time after the operation the rectum in each case was found to be closed near the lower end by an elastic annular constriction. As the results of torsion of divided intestine depend on the elasticity of normal tissue, they are more likely to be persistent than those on which the occlusion is effected by scar tissue. The author suggests that this method will be found applicable to cases of artificial anus in other regions of the abdomen when the patient is troubled with incontinence. Torsion of the urethra near the external orifice after separation of its wall by dissection has been found useful in the author's practice in cases of incontinence of urine.

MIDWIFERY AND DISEASES OF WOMEN.

(87) The Binder in Childbed.

WINDMÜLLER (*Centralbl. f. Gynäk.*, No. 27, 1893) recently opened a long and instructive discussion on the management of normal labour and childbed. He had conducted over a thousand labours in private practice alone in the course of thirty years. He wraps flannel round the body, but objects to the abdominal binder, which he finds interferes with the functions of the intestines, checks involution of the uterus, and is in the way during ablution. For the first three days he limits diet to milk, bread and butter, rice, spinach, potatoes, and fish. He forbids wine and coffee, and believes, with Zweifel, that errors in diet are amongst the chief causes of prominent abdomen. The patient is kept on her back for three days, but Windmüller holds that ten days' rest in bed is sufficient. He has had no cases of prominent abdomen in any of his patients, even in multiparæ, with the exception of those who had grown fat. In the discussion several experienced obstetricians differed as to whether prominent abdomen was due to deposit of fat in the parietes after labour or to distension of the intestines which could be controlled by the binder. Many surgeons applied no bandage after abdominal section; but the physiological conditions were then not the same as in the puerperium. Schrader and others believed that the binder did more good than harm; he laid great stress on diet in childbed as influencing the future form of the abdomen. All food liable to cause flatulence must be avoided; spinach and potatoes were particularly bad in this respect. When the pelvis was narrow, or its angle too acute, the chances of the abdomen becoming pendulous after labour were great. To counteract the evil a good abdominal binder should be worn during the last months of pregnancy. In Japan it was customary for women to wear a binder during the entire second half of gestation. The binder in pregnancy supported the anterior walls, and greatly diminished the chances of parting of the recti.

(88) Pyosalpinx following Typhoid Fever.

MABIT (*Nouv. Arch. d'Obstét. et de Gynéc.*, June 25th, 1893) treated a case of this kind last year. The patient was 29, and had been married eight years. When 19, she had typhoid fever, and remained in bed for two months. When she got up, she was seized with violent pains in the left iliac fossa, which continued for a month. From that time the catamenia never reappeared, but the pains never ceased, and became worse about once a month. After marriage she

grew worse, and recently had febrile attacks. The left tube was much enlarged and tender, the ovary prolapsed and painful to touch. The patient refused to rest. Every two days, at the visit, the vagina was irrigated with sublimate, the left fornix swabbed with tincture of iodine, and an iodoform tampon applied. After a month's treatment, the tube remained as before. Mabit dreaded the use of laminaria tents or Hegar's bougies, as the patient would not rest in bed. On May 5th, 1892, he passed metallic bougies (Nos. 4 and 5, Matthieu, equal to 13 and 16, Charrière), dressing the vagina as before. On May 6th, he passed Nos. 6 and 7, and on the next day, after introducing No. 9, sharp pain was felt in the left iliac fossa, and a wineglassful of slightly fœtid pus escaped. The uterine cavity was freely irrigated with a 2 in 1,000 sublimate solution, and a bunch of threads soaked in creasoted glycerine was left in the uterus. It was found that the tender swelling to the left of the uterus had disappeared. Hypogastric pains, probably caused by contractions of the uterus on the threads, followed the introduction of the threads. They passed away within twenty-four hours. On May 8th, the dilatation was repeated, and a small wineglassful of pus escaped. The parts (including the vagina) were dressed as before. On May 25th, three laminaria tents were introduced into the uterus; they caused a little pain. On the next day, they were withdrawn, and the uterine cavity was swabbed with creasoted glycerine. A tampon was applied to the cavity, and replaced every two days for three weeks. The trace of pus, seen at first on the tampon when removed, at length disappeared. From June 15th to July 1st, the vaginal iodoform tampon was applied. At the end of that date all trace of pain and all physical signs of a dilated tube had passed away. By August 5th, 1892, the patient had gained flesh and seemed very well. The period had not reappeared.

(89) Ovarian Cyst simulated by Tuberculous Peritonitis.

Le Dentu (*Bull. et Mém. de la Société de Chirurgie de Paris*, April, 1893) exhibited a young woman, aged 24, on whom he had performed ovarian section for encysted tuberculous peritonitis. There was an encysted collection of fluid occupying the entire abdominal cavity except the epigastrium. There was neither pulmonary disease, nor diarrhœa, nor rise of temperature, and the swelling had all the physical characters of an ovarian cyst. The operation took place in November, 1891, twelve to thirteen pints of serum with numerous shreds escaping when the incision was made. The walls of the exposed cavity were studded with tuberculous granulations, many of which were caseating. A mass of adherent intestine, bound down against the spine by the tuberculous false membrane, was set free. The cavity was plugged with iodoform gauze, and drained. A stercoral fistula developed at the end of three weeks, through the gut yielding at one point where caseating tubercle existed. Great constitutional exhaustion, with anasarca, followed, but the patient recovered and left hospital in April, 1892. A little sero-purulent fluid still issued from the abdominal wound. On March 15th, 1893, she was healthy and stout, but a few drops of fluid still occasionally escaped from the cicatrix.

(90) Successful Ovariotomy in a Child, aged 10.

Vincent (*Lyon Méd.*, June 4th, 1893) operated on April 14th on a girl, aged 10. She had recently been tapped in the country, and fever and vomiting followed. The wound in the parietes suppurated, and the temperature was 103.6° F. on the morning of operation. The ovarian tumour was very multilocular, and a long abdominal incision was found necessary. There were strong adhesions to the omentum and transverse colon, and much peritoneal effusion containing flocculent material. An iodoform gauze tampon was applied to the pelvis. On the evening of operation the temperature fell to 101.5°, and next day to 99.5°. At the end of a fortnight the tampon and sutures were removed, and the patient was in perfect health, able to walk, three weeks after the operation.

THERAPEUTICS.

(91) Treatment of Asthma.

Kruse (*Wien. med. Woch.*, Nos. 22 and 23, 1893) refers to the various theories relating to the pathology of bronchial asthma, giving a more detailed description of Hack's view that the disease is connected with an irritable condition of the inferior turbinated body. The author holds that all treatment based on altering the condition of other supposed sympathetic organs has, in the majority of cases, failed, and is inclined to seek the usual cause of the malady in a morbid condition of the bronchioles themselves. He supports this view by referring to the tendency to dyspnœa on exertion, and the characteristic expectoration which, when obtainable, almost invariably contains Curschmann's spirillæ and the Leyden-Charcot crystals. The usual medicinal remedies are then referred to, and the author proceeds to extol the benefits derived from the inhalation of sea air, a therapeutic factor on which at present insufficient stress is laid. He has himself watched a large number of cases during their temporary residence by the sea, and was impressed by the general improvement which followed. In fifty-six cases an after-history was obtained, and among these patients twenty-nine were apparently permanently cured, and in sixteen other cases complicated with emphysema the improvement maintained itself for several months. The author considers that the greater density of sea air, the higher degree of moisture, and the absence of dust, etc., assisted in the above results. Restriction of diet and, at first, avoidance of fatigue are also frequently indicated, and sea baths should only be taken after some improvement has become manifest.

(92) The Changes Undergone by Effervescing Waters when Received into the Stomach.

Lenne (*Therap. Monatsh.*, May, 1893) refers to the view commonly held that aërated alkaline waters, namely, those containing carbonic acid, are contra-indicated in those conditions of the stomach in which distension is likely to aggravate any existing evil, and that an excessive quantity is necessary to neutralise any abnormal acidity of the secretions. The author made a series of experiments with a bladder representing the size of the stomach, partially filled with mineral waters, to which varying quantities of hydrochloric acid were added, the whole being kept in a temperature of over 105° F. Though larger quantities of water and hydrochloric acid were used, and though the whole action lasted longer than would be the case in practice, an unappreciably small volume of gas was evolved. The author shows that the carbonic acid thus emitted from an average quantity of mineral water would only suffice to fill one-tenth part of a normal stomach, and he is therefore convinced that there can be no question of overdistension. Nevertheless, he admits that symptoms of oppression are often produced, but considers they would equally result from any other liquid. The subsequent eructations are certainly more frequent after effervescing waters, but are due to the irritation from carbonic acid, and a desirable occurrence. The author's experiments also tend to show that a small quantity of a fairly alkaline mineral water is sufficient to overcome any but an exceptional acidity of the gastric juice which might be abnormally present in the otherwise empty organ.

(93) The Nutritive Value of Asparagine.

The appearance in the *Zeitschr. f. Biologie*, of two papers by Politis and Mauthner has induced Baldi to publish his own observations as to the nutritive value of asparagine (*Rif. Med.*, March 3rd, 1893). Politis, feeding mice on a diet free from albuminoids, found that the addition of asparagine to such diet made practically no difference in the duration of life. Mauthner, studying the relation in the dog under a normal diet between the nitrogen introduced and the nitrogen excreted, with or without the addition of asparagine to the diet, was led to conclude that with the addition of asparagine there is a diminished waste of the formed albuminoids of the organism, the asparagine being totally consumed. The interest attaching to this question will be readily appreciated when it is mentioned that asparagine is a substance which occurs in seeds, and which in the presence of carbohydrates and under the influence of the solar rays becomes changed in the germinating seed into albumen. The inverse process also readily takes place, so that it might be thought that asparagine was an especially suitable

substance with which to study nitrogenous metabolism, especially in the herbivora. Baldi chose the pigeon to experiment on, feeding it with a diet free from albuminoids, and consisting only of salts and asparagine. Under these conditions he found that the bird lived twenty-seven days, and only lost 22 per cent. of its weight. Comparing this result with those of Richet, Aducco, Redi, etc., who found that pigeons kept absolutely without food lived at most sixteen days if kept in the light, or fifteen to twenty-one days if kept in darkness, and lost 50 per cent. of their weight, it would appear that the nitrogen in the asparagine really undergoes some synthesis, imperfect though it be, into albumen. The author does not abandon the hope that there may yet be found a substance which may in a still more thorough manner replace ready formed albumen, and which may be capable of synthetic conversion into albumen in the body.

(94) Effects of Piperazine on the Urine.

Wittzack (*Münch. med. Woch.*, 28, 1893) relates his experiences with piperazine in six patients suffering from various manifestations of the uric acid diathesis, namely, one with advanced rheumatic arthritis associated with gout (arthritis urica deformans) and the remainder afflicted with gravel, of whom three consulted him owing to a catarrhal condition of the bladder. The author directed his attention more particularly to the changes undergone by the urine, and as regards the drug and its action makes the following observations: (1) Diuresis was much increased; in the patient with gout the urine was doubled. (2) The specific gravity was always diminished, as also the acidity of the urine, though it never became neutral. (3) The appetite was never altered, and no disturbance of general condition attributable to the drug was observed. (4) Subcutaneous doses of even less than 1 grain caused pain and led to induration and twice to abscesses, in spite of strict antisepsis. (5) No difference in the respective actions of the base and salt were noticed, but the latter is more constant and less hygroscopic. (6) To produce an effect 15 grains must be given daily during two weeks or more. In the first patient the drug was taken during seventy days, leading to mobility and almost complete restoration of the use of the affected joints. Subsequently treatment for periods of ten days sufficed to keep the malady in check. In this case the urine was frequently and carefully examined, Pfeiffer's test for the existence of gout also being applied. This test consists in the filtration of the urine through a bed of uric acid, the filtrate afterwards being examined as to the presence of uric acid. Whereas in a healthy individual 30 to 45 grains of uric acid are required in the filter to free the urine, the urine of a gouty patient will contain no uric acid after passing through a bed of only 5 to 7 grains. In this case the urine at first showed so small a quantity of uric acid as to indicate the presence of gout though the quantity increased considerably during treatment. The author strongly advocates this simple test as to the presence of gout, which is particularly applicable to the quiescent stage, thus being a great diagnostic aid. In the remaining cases equal improvement resulted, and the author, as the outcome of chemical experiments, shows that piperazine does not actually possess solvent properties, but has the power to collect the uric acid in the system, combine with it, and thus enter the urine. The hygroscopic property of the drug should be borne in mind, some samples having been found to contain 50 per cent. of water, which circumstance, unless known, would militate against its success.

PATHOLOGY.

(95) Axis-Cylinder Stains.

Stroebe (*Centralbl. f. allgem. Path.*, Band iv., No. 2) describes a new method of his own for staining axis cylinders; it has proved serviceable in the study of nerve regeneration, and is also quite satisfactory for staining the same structures within the central nervous system. As the fine axis cylinders of the young nerve fibres met with in the earliest phases of regeneration form severe test objects for stains, the present method, in Stroebe's opinion, promises to be of real service. Its special feature is that a practically isolated stain of the axis cylinder is obtained. Effective contrast staining is possible. The method is as follows: (1) The tissue is hardened in Müller, thereafter if desired in alcohol, and sections are cut as usual. (2) Stain in fresh saturated aqu. sol. anilin blue, ten minutes to one hour; the sections become blue-black in colour. (3) Wash off excess of stain in water; then place in a porcelain dish of absolute alcohol to which have been added 20 to 30 drops of 1 per cent. sol. of alkali alcohol (1 g. caustic potash to 100 c.c. alcohol; allow to stand twenty-four hours; filter). In the alkali alcohol sections turn of a rusty red colour, clouds of reddish colouring matter issuing from them. As soon as these cease to form and the section is of a light red-brown colour and transparent, differentiation is complete (one to several minutes). (4) Wash in distilled water (five minutes); the sections acquire a clear blue tint. (5) Place in following contrast stain (a quarter to half an hour): concentrated aqu. sol. safranin diluted with equal parts of water. (6) Place in absolute alcohol to remove excess of safranin and to dehydrate; the section now looks red, with a tinge of blue. Xylol, xylol-balsam. Axis cylinders appear dark blue, medullary sheaths, cell protoplasm, ground substance, and cell nuclei various shades of red; the last named sometimes retain the blue colour.—V. Kahlden (*ibid.*, June 2nd) has a note upon a method of staining axis cylinders and other structures of the central nervous system originally described by van Gieson. It is as follows: (1) Stain sections — preferably from tissues hardened in Müller's fluid — three to five minutes in hæmatoxylin (Delafield's or ordinary alum hæmatoxylin); wash well. (2) Stain again in a mixture of sat. aq. sol. picric acid and sat. aq. sol. acid fuchsin—sufficient of the latter to make a dark red fluid. (3) Pass rapidly through water, then through spirit, alcohol, origanum oil; mount in balsam. V. Kahlden has had good results with this method. Axis cylinders are stained deep red, medullary sheaths yellow, neuroglia a reddish tint, nuclei blue or violet, sclerosed tissue an intense red. Hyalin material stains a deep red, colloid a fainter red or even slightly brown. The relation of amyloid material, which stains a light red, to the tissue constituents, especially the vessel walls, is brought out better by this than by any other method.

(96) Tetanus.

Schnitzler (*Centralbl. f. Bakt.*, May 29th, 1893), after alluding to the well-known fact that the bacilli of tetanus are habitually found localised at their point of entry, remarks that the lymphatic glands escaped observation until Buedinger recently investigated them, and showed that the disease could be conveyed from an animal dead of it to a healthy animal by transplanting from the one to the other portions of the lymph glands associated with the seat of infection. The portions transplanted were so small as practically to preclude the supposition that the disease was conveyed merely through the contained toxins; bacilli must have been the agents. This observation is supported by Schnitzler's own experiments in a case of tetanus occurring in a patient suffering from gangrene of the feet the result of frost bite. The swollen inguinal glands extirpated *post mortem* showed slender bacilli, without, however, terminal spores, such as tetanus bacilli present. Cultivation attempts gave negative results, but inoculation experiments showed definitely that some at least of the bacilli present were those of tetanus. Rabbits and mice into which portions of the glands were transplanted died of tetanus, as did also mice and guinea-pigs inoculated with material from the seat of infection in the animals first used. Preparations from this part showed in all these cases the bacilli with terminal spores typical of tetanus.

(97) Pathological Anatomy of Scleroderma.

Hoffa (*Wien. klin. Woch.*, 1892, No. 51) excised from the thigh the whole of a patch of scleroderma in the early stage. Histological examination confirmed what had been previously shown by Dinklers. The change found was a fibrous endoarteritis, affecting the middle coat of the arteries of the skin. A small cell infiltration of the subcutaneous adipose tissue, and infiltration along the glands of the skin and the sweat glands was also observed. The elastic fibres were not increased.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(98) Tachycardia.

Tachycardia, according to Trechsel (*Rev. Méd. de la Suisse Rom.*, Feb., 1893), is often met with as a symptom in several forms of disease, among which may be mentioned: (1) The febrile state, where it is found parallel with the elevation of temperature, constituting a constant element of this condition. (2) Cardiac affections, as acute endocarditis, and also in the subsequent evolution of the valvular affection, and in diseases of the cardiac muscle. (3) Graves's or Basedow's disease. (4) Chronic myocarditis, with fatty degeneration of the heart, as well as arteriosclerosis. (5) Certain infections of schizomycetes, and intoxications of a different nature, as belladonna, tobacco, etc.; but the form known as paroxysmal tachycardia is both transitory and sudden, without being clearly accounted for by a general affection of the organism or by the altered state of any particular organ. Most frequently examination of the heart gives a purely negative result, though it would be a mistake to exclude the possibility of coexisting valvular lesions. Kisch reports a series of twenty-eight cases of paroxysmal tachycardia occurring at a critical age, especially at the time when the catamenia becomes irregular and after its complete cessation. The heart during these crises beats very rapidly, 120 to 150 times per minute, or even more; the pulse, usually vigorous and regular, is dicrotic; the cardiac sounds are pure and accentuated; the face, neck, and chest become flushed with a sensation of intense heat. The paroxysms last from a few minutes to a quarter of an hour. The patients are restless, unable to follow an occupation, and suffer from insomnia, etc. They are not generally anæmic, more often plethoric and well nourished. Other authors cite cases of typical paroxysms of tachycardia occuring in anæmic and nervous women at the time of their menopause. Kisch gives as an explanation that at the time of the menopause the struma of the ovaries is hypertrophied; this exercises an irritating effect on the nerve endings which traverse the stroma; the effect is transmitted to the central nervous system, from which an irritative influence is produced on the sympathetic, accelerating the cardiac movements. Trechsel thinks that the explanation of paroxysmal tachycardia by reflex action should be adopted in every case. It has never been observed in children. The treatment most serviceable is the Playfair-Mitchell cure and hydro-therapeutics, with isolation; during the paroxysms complete repose, ice bag to precordial region, and stimulants; tapping the whole length of the vertebral column with the hand, and compression of the vagus nerve in its cervical region have also been practised with a temporary success.—Emile Boix (*Arch. Gén. de Méd.*, May, 1893) reports a case of a man who had been under his care suffering from diarrhœa, which had been followed by great weakness and giddiness, especially when walking, together with cramps in the calf muscles, but who lost these phenomena when lying down. At the same time, the upper extremities became affected with tremors, spreading later to the lower limbs, and persisting when the patient lay down, but only in the upper extremities and with less intensity. When walking the feet and legs became cyanosed and cold, the hands slightly so, not so lying down, but the most important phenomenon was the tachycardia; it existed in the horizontal position, the pulsations varying from 87 to 118, and augmented considerably in the vertical position from 120 to 160. The pulse was always small, the right and left radial pulsations were synchronous and equal in force, the radial and femoral were equally synchronous. The heart was difficult to auscultate on account of marked pulmonary emphysema; no valvular lesions. Respirations were rapid, 36 to 40 per minute, rhythm regular, no increase in size of thyroid gland and no exophthalmos. Pupils normal, equal, and reacted well to light and accommodation; no narrowing of the visual field. Urine normal; no fever; marked cachexia; no evidence of new growth. He became more and more cachectic; the diarrhœa became permanent; the œdema increased, and in a few weeks the patient died. At the necropsy the intertracheo-bronchial and pretracheo-bronchial glands were found to be extremely developed, especially the former, attaining the size of a hen's egg, and together forming a hard mass, which enveloped the trachea and bronchi, and was adherent to other organs of the posterior mediastinum, and every nerve filament of this region was included in this mass. A portion of the right pneumogastric situated immediately beyond was microscopically examined after treatment with osmic acid, but with negative results; nevertheless, the tachycardia and vasomotor troubles presented by the patient are attributed by him to compression of the cardiac branches of the pneumogastric nerves setting up a reflex inhibitory action in the medulla.

(99) Diabetes Mellitus in Infancy.

Duflocq and Dauchez (*Rev. de Méd.*, June 10th, 1893) record a case of diabetes mellitus in an infant aged 18 months, terminating rapidly by coma. The symptoms which were observed when first summoned were great thirst, constipation, feeble uncountable pulse, cyanosis of the face, and emaciation. The illness was attributed by the mother to teething. The child had been ill about a fortnight, but its condition does not appear to have alarmed the parents. It grew rapidly worse, became comatose on the following day, and died in a few hours. Under 2 years of age diabetes mellitus is extremely rare, and the authors were able to find only two cases of coma on record. Külz and Leroux collected altogether 150 cases of diabetes mellitus in childhood; of these, 9 were under 2 years of age. Berlioz, in 20,000 analyses of urine, met with sugar in the urine of a child—aged $3\frac{1}{2}$ years—only once. The authors point out that diabetes in infancy is generally very rapid in its course, and suggest that the disease may be compared to an infectious disorder.

(100) Nephritis after Vaccination.

Perl (*Berl. klin. Woch.*, July 10th, 1893) vaccinated 4 children. In one child, aged $2\frac{3}{4}$ years, in whom vaccination had been delayed owing to obstinate eczema, etc., the urine was found on the fifth day to be turbid, small in amount, its specific gravity 1016, and albumen ($\frac{1}{3}$ p. m.) present. The deposit contained red cells, a few leucocytes and casts. There was no fever and no visceral disease. The acute nephritis disappeared in six days. The inoculation incisions followed their usual course. In the other children the urine presented throughout no abnormality. The author remarks that although the vaccination and the nephritis would appear here to be in connection, yet only a large number of observations could prove it. The early appearance of the nephritis in this case is striking. The ease with which such a condition could be overlooked in the absence of any marked symptoms is pointed out.

(101) Astasia-Abasia.

In the *Deut. med. Woch.*, May 25th, 1893, Lehmann records two cases of this functional affection, the one occurring in a man, aged 34, addicted to drink, the other in a girl, aged 12. The former had not been able to stand or walk for ten months, the latter for two years. In both cases the movements of the legs and feet were normal in the recumbent position. There was no inco-ordination of movement, no disturbance of sensation, and no affection of the rectum or bladder. The patellar reflex was diminished in the case of the man, and normal in that of the girl. No hysterical symptoms were present in either case. Both patients recovered after six weeks' treatment with the Oeynhausen baths. The affection sometimes begins as a result of mental shock or trauma, but more often without recognisable cause. The earliest manifestations lie in a certain unsteadiness in standing and walking.

(102) Paralysis Agitans.

Dana, in a paper read before the Philadelphia Neurological Society (*N. Y. Med. Journ.*, June 10th), after giving a full report of two cases of his own and reviewing those published by others, expresses the view that the anatomical seat of the disease is in the spinal cord, medulla, and pons, that is, in the lowest segment of the central grey matter; the disease seems to be most marked in the blood vessels which supply the

central parts of the cord and the anterior horns, and next in the lateral columns, including both the pyramidal tracts and the lateral fundamental columns and lateral limiting layers. There is sometimes also degenerative neuritis of the peripheral nerves and chronic myositis; the brain, if affected at all, is only slightly so, and secondarily. This chronic irritative process is due to a toxin which circulates in the blood, and may be of an endogenous and perhaps glandular origin. The disease process first affects the end brushes surrounding the anterior horns and causes their degeneration, and finally impairs the anatomical structure of the motor and vasomotor secretory cells, causing degeneration and atrophy of them to some extent.

SURGERY.

(103) Preliminary Surgical Procedures in Operations Involving the Bucco-pharyngeal Cavity.

QUÉNU (*Rev. de Chir.*, June, 1893) considers the indications for preliminary tracheotomy and ligature of the carotid artery in operations for the removal of the jaws, of naso-pharyngeal polypi, and of the tongue. It is pointed out how far these preliminary operations tend to prevent hæmorrhage, respiratory disturbances, and septic infection. The author's views are summed up in the following conclusions: (1) Both tracheotomy and ligature of the carotid are useless operations in resections of the upper and lower jaws; (2) preliminary ligature of both external carotids seems to be a rational operation with regard to diminishing hæmorrhage in the removal of very vascular naso-pharyngeal polypi; (3) preliminary tracheotomy seems to be indicated in certain cases of naso-pharyngeal polypus and tumours of the palate in which respiratory disturbances occur during sleep; (4) tracheotomy, together with ligature of the external carotid, will be found very advisable in operations for extensive cancer of the tongue and the floor of the mouth, with the object not of preventing respiratory troubles during the operation, but of isolating the air passages from any contaminating agent.

(104) Stricture of the Rectum.

As a means of curing fibrous stricture of the rectum, Bacon (*Ann. of Surgery*, May, 1893) suggests that the following operation of transplantation of intestine should be adopted: A median laparotomy is performed, and a piece of small intestine lying in close proximity to the rectum is completely separated from the bowel above and below, and then one end is fixed by anastomosis to the rectum below the stricture, whilst the other is fixed in a similar manner to the rectum above the seat of stricture. The piece of intestine selected should have a large nutrient artery running to each extremity, and should be long enough to bridge over the strictured part of the rectum. The mesentery of the transplanted piece is left intact. The operation is completed by scarifying the approximated surfaces of the rectum and transplanted gut and suturing them together, so as to have the two walls cemented together into one firm septum. At a subsequent operation this septum is removed by compression forceps and the lumen of the transplanted piece and that of the rectum are made into one cavity; and the sloughing out of the compression forceps will destroy one-half of the stricture together with the septum, thus putting an end to the contraction of the cicatricial tissue forming the stricture. The two free ends of intestine are next united with Murphy's anastomosis button, by the end-to-end method, and the aperture in the mesentery is carefully sutured up, so as to leave no opening for a hernia. By examining the dead subject the author has found that in fourteen out of fifteen bodies it was possible to pull down the sigmoid flexure to the bottom of the recto-vesical pouch. Where this is possible, he advises that the sigmoid flexure should be anastomosed with the rectum by an anastomosis button. When this procedure is adopted the female half of the button, which is used below the stricture, is introduced by an assistant through the anus. The operation is completed as in the first method. This method, according to the author, offers the following advantages: (1) It is more conservative than excising the stricture by the old methods. (2) There cannot be a resulting incontinence of fæces. (3) It enables one to open the peritoneal cavity by a clean aseptic operation, without the danger of fæcal infection and giving way of dangerous sutures. (4) No other method insures a permanent cure, even if the patient survives the operation.

MIDWIFERY AND DISEASES OF WOMEN.

(105) Sepsis in Pregnancy: Mother and Child Saved.

LOMER (*Centralbl. f. Gynäk.*, No. 16, 1893) read this case before the Hamburg Obstetrical Society. The patient was a primipara, aged 32. Twelve years ago she had been laid up for four months with acute renal disease, attributed, doubtfully, to scarlet fever. She married in August, 1891; troublesome hæmorrhage from the hymen followed. The last period was on September 9th. The entrance to the vagina was extremely narrow, so that coitus was no longer practicable. The vagina was carefully dilated. At length, however, antiseptics were neglected, and on May 10th, 1892, six weeks before term, the temperature rose to 104°, the pulse to 130; there was also albuminuria with casts. Diphtheritic patches were detected on the cervix. The vagina was syringed with chlorine water. Recovery was slow; the pregnancy continued. On June 21st the membranes ruptured. After forty-eight hours of pains the os, involved in the recent disease, remained imperfectly dilated, and the temperature rose to 105°, with rigors. There was tympanites uteri, yet the child was still alive. The cervix was therefore divided right and left, and the child delivered with forceps; it lived, though the epidermis peeled off in large patches. The mother's perineum was ruptured; it was sewn up with catgut, but only healed by second intention after being touched with iodoform points. Lomer did not allow syringing out of the vagina in childbed. Sublimate would have been dangerous as old renal disease existed; for that reason he used chlorine instead for the diphtheritic affection of the cervix.

(106) Soft Fœtal Head causing Dystocia.

E. BLANC (*Rev. Obstét. et Gynéc.*, June, 1893) observes that there is a definite cause of lingering labour not described in treatises on obstetrics. It is due to delayed ossification of the cranial bones in the fœtus, which makes the head soft. In a labour at term, the fœtus being of the average size and the maternal pelvis normal, all seems promising at first. The pains are strong and regular, and the head becomes well engaged in the pelvis. The labour, however, drags on; flexion is either incomplete or exaggerated, or abnormal rotation takes place. At length uterine inertia comes on. On exploration, the fœtal cranium may feel unusually depressible to the finger, like parchment. The fontanelles and also the sutures are unusually wide. In short, the head is too soft; it becomes deformed on meeting the slightest obstacle, and cannot overcome the resistance of the perineum. The forceps must always be used directly this condition is recognised.

(107) Vaginal Fistulæ and Malpraxis.

MAX VON CARL-HOHENBALKEN (*Wiener med. Presse*, No. 8, 1893) relates three cases where large vaginal fistulæ were caused by error in diagnosis or neglect. In the first case the patient was 47. Many years previously a surgeon had mistaken a pedunculated fibroid of the anterior uterine wall for a stone in the bladder. He cut into the bladder, and found nothing; there was incontinence of urine afterwards. The wound admitted the tip of the surgeon's finger. The edges were vivified and sutures applied. Within three weeks cicatrisation was perfect. Notwithstanding that the fistula had lasted for at least twenty-seven years, and that the patient was sickly, she menstruated regularly. The patient in the second case was 80 years old. For sixteen years she had worn a winged pessary, and it had recently fallen out. She suffered severely from incontinence of urine. A fistula, admitting two fingers, lay in the upper part of the vagina a little to the right. The mucous membrane of the bladder projected through it into the vagina. As the patient was so old no operation was performed, an apparatus to receive the urine being worn. The atrophy of the vagina was the first cause of the accident, the pessary thereby becoming too large for the parts. The physician, von Carl-Hohenbalken observes, should

be especially careful to warn old subjects of the dangers of pessaries. In the third case the patient was 65. On account of a prolapse a physician had applied a large glass decanter stopper to the vagina, and she had worn it for fifteen years. There was complete prolapse of the anterior vaginal wall. A recto-vaginal fistula ran upwards 2 inches, beginning just above the posterior fourchette. The glass stopper had fallen out a few days previously. It was solid and of the usual form, expanded at the top into a head which measured 2⅔ inches in diameter. The edges of the head were quite sharp. It weighed 4½ ounces. The patient was so comfortable after its escape that she did not wish for any plastic operation. A ring pessary was applied before her discharge from hospital.

(108) Chloride of Zinc Bougies in Certain Forms of Uterine Fibromata.

R. CONDAMIN (*Lyon Méd.*, May, 1893) states that in all cases when a uterine fibroma manifests its presence only by hæmorrhage or hydrorrhœa, these symptoms may be made to disappear by employing bougies of 1 in 3 parts chloride of zinc, varying in size according to that of the uterine cavity; the smaller it is, the more certain the curative effect in proportion. The *modus operandi* is first carefully to disinfect the vulva, vagina, and os uteri, then examine the uterine cavity in order to make certain of the dimensions and direction of its axis; next, dilate the os uteri sufficiently to permit intra-uterine injections, and the introduction of the caustic on forceps. This is best done with Hegar's dilators, passing up to Nos. 30 or 33 of the series. The most difficult part of the operation is the introduction of the caustic into the uterine cavity; if it be relatively small and not flexed, one can introduce a speculum, and carry the caustic through it on forceps, depositing it in the desired position. Should this not succeed, the speculum is best replaced by the finger, over which a very narrow forceps is guided, the caustic firmly laid hold of, and rapidly and without hesitation carried into the uterus. Should one hesitate or go slowly, the caustic action makes itself felt towards the internal os, which immediately contracts, and one has to redilate. Once in position, care must be taken that in melting the cervical canal is not cauterised. To guard against this two precautions are taken: first, tampons of iodoform gauze are placed in the dilated cervical canal; and, secondly, the patient should lie on her abdomen for three or four hours after the operation. For the first twenty-four hours the pains are excessive, but may be relieved by antipyrin or subcutaneous injections of morphine: the temperature rises to 39° or 40° C., but soon falls; the pyrexia is never accompanied with serious complications. The patients remain in bed for eight or ten days, when the crusts or shreds of gangrenous mucous membrane come away; if only slightly, it will be necessary to place a second caustic bougie, a little smaller than the first, and which acts with greater certainty, as this time the uterine cavity does not bleed any more, and so does not neutralise the action of the caustic. The results, according to Laroyenne, have been excellent.

(109) Menstruation in a Child aged 6.

JACOBOVITCH (*Nouv. Arch. d'Obstét. et de Gynéc.*, Supplement, June, 1893) related this case before the St. Petersburg Society for Diseases of Children. At the age of 3 she was brought to Jacobovitch for hæmorrhages. The genitals were normal. A considerable amount of a milky fluid exuded from the breasts, which were of the size of hen's eggs. The child is now over 6. She menstruates several times yearly, especially in summer. The period lasts from three to four days. Before the catamenia the child becomes ill-tempered; afterwards she has headaches with vertigo. She is very anæmic. The breasts are as large as small oranges; the labia minora and clitoris slightly hypertrophied.

(110) Drainage in Abdominal Surgery.

HOWARD KELLY (*Arch. of Gynæc.*, June, 1893) considers that the drainage tube is used too much. If operators would take more pains in small details, in checking all hæmorrhage, in limiting the spread of contamination, and in cleaning up the field, drainage would be seldom called for. Five years since, Kelly drained from 75 to 85 per cent. of all cases; now he drains in but 10 to 15 per cent. The glass tube is not free from danger. After the second or third day, it becomes infected with the white skin staphylococcus. Suppuration is doubtless rare, but it sometimes occurs. He insists that his assistants should take minute precautions when handling the drainage tube. A long, narrow gauze bag containing several strands of gauze, is safer and better than a glass tube. It is an error to believe that all the blood which tends to collect in the pelvis comes away through the glass tube. At a necropsy, where the tube had been used after operation, Kelly found clots scattered around it. The gauze bag is flexible, and it requires no cleaning out; it is therefore the best form of drainage for the abdominal cavity. It removes all fluids rapidly, and that which remains is quickly absorbed. In wide-spread peritoneal infection, two or more openings for drainage are needed. An abundance of gauze should be packed into the infected abdomen; yards may be needed. In this way, desperate septic cases will be saved. We must drain but seldom, but when we drain it must be done thoroughly.

THERAPEUTICS.

(111) Iodide of Potassium in Actinomycosis in the Human Subject.

BUZZI AND GALLI-VALERIO (*Rif. Med.*, May 6th, 1893), prompted by the successful experiences of Thomassen and Nocard, in veterinary practice, and of van Iterson in the case of actinomycosis in a human being, applied the treatment by potassium iodide to a case which came under their observation. In their case, that of a healthy labourer, the disease affected the whole right side of the face from the temple to the clavicle. It had been of some four months' duration before it came under close observation, and had undergone treatment by poulticing and free incision without being in any way favourably influenced. It was then that the diagnosis of actinomycosis was established, and the iodide treatment commenced. On January 9th, 1893, daily doses of 30 g. of pot. iod. were commenced, and save for a slight cutaneous eruption which appeared on the fourth or fifth day, no untoward effects followed its use. On the contrary, improvement rapidly became manifest. The incisions, which had previously been discharging quantities of yellow pus, secreted less freely, and showed distinct signs of healing; the swelling became less marked, and the patient could soon open his mouth. All pain disappeared, and by March 5th, the patient was well enough to leave the hospital. Seen again on April 4th, the cure was pronounced complete; all swelling had disappeared, the fistulæ had cicatrised perfectly, and the skin was freely movable over the subjacent parts save in one small spot. The movements of the jaw were normal, and the patient appeared to be in perfect health. The authors therefore recommend highly the treatment of this disease by large doses of iodide of potassium, kept up till all signs of the affection have disappeared.

(112) The Effects of Large Doses of the Bromides in Epilepsy.

CH. FÉRÉ (*Rev. de Méd.*, No. 3, 1893) reports fully 20 cases of epilepsy in which from 16 to 21 grammes of bromide of potassium or strontium were taken daily with the following results: Only 1 lost weight very considerably; in 9 other cases there was loss of weight, but of little importance generally; 4 remained stationary; and 6 others increased in weight during the treatment. Eleven of the 20 showed permanent, and 7 temporary, improvement. In only 2 cases no benefit was noticeable. Doses of 15 to 20 grammes of the bromides are harmless when watched, and produce improvement in cases which have resisted smaller doses. Bromide of strontium may be given in place of potassium bromide with success. Attention during the course of bromide treatment consists in a frequent examination of the patients to ascertain the condition of the skin and take the weights, in order to make up the balance sheet with regard to nutrition. When cutaneous lesions or a permanent diminution in weight exists it is necessary to look after the digestive organs with the greatest care, especially when the patient is in a condition of physical or moral depression and when the temperature is very low. In these conditions the accidents of bromism would

necessarily be serious. The use of the drug must be immediately stopped, and elimination by the intestine hastened with the aid of purgatives, and by the skin with the aid of subcutaneous injections of pilocarpin.

(113) Trional.

KOPPERS (*Inaug. Dissert.*, Würzburg, 1893) describes his observations on the effects of trional in several cases. He confirms the well-known narcotic effects, placing trional above sulphonal, amylenehydrate, chloralamide, bromides, and chloral, though he found that where severe pain is present it does not possess the virtues of morphine. The author points out that it is also valuable in diminishing night sweats (4 to 8 grains sufficing), a property not hitherto described. As regards after-effects, the author prefers it to sulphonal, but has observed that in one of his patients suffering from heart disease a diminution of blood pressure was caused, necessitating caution in its further use. No other unpleasant symptoms were observed, and sleep was always induced very rapidly, generally in about half an hour.

(114) Ichthyol Suppositories in Prostatitis.

FREUDENBERG (*Centralbl. f. klin. Med.*, June 1st, 1893) recommends ichthyol suppositories in this affection. He has used them in from thirty to forty cases during the past two years, and only in two did they fail to give relief. The cases were mostly subacute or chronic. Any necessary treatment of the urethra was carried out at the same time. The suppository consists of 0.5 g., increased up to 0.75 of ichthyol to 2.0 to 2.5 cacoa butter. If any irritative symptoms appeared—and this may happen with any suppositories — smaller quantities of ichthyol were employed. Two, and sometimes three, suppositories were used in the day. The author refers to other cases in which ichthyol has been tried, and more especially to Scharff's forty cases, but here the prostatitis was acute and mostly gonorrhœal in origin, and a 10 per cent. solution was injected into the rectum.

PATHOLOGY.

(115) Detrimental Influence of Cholera Bacilli upon other Organisms.

GABRITSCHEWSKY AND MALJUTIN (*Centralbl. f. Bakt.*, June 15th, 1893) record certain independent experiments made by them, which confirm the results of Schill (see EPITOME, July 8th, 1893), who showed that the products of metabolism of cholera bacilli are able to destroy various germs. The present authors were led to make these experiments by the observation that comma bacilli very often occur in almost pure culture in the evacuations of cholera patients. Their main results are these: (1) The chemical products of comma bacilli are capable of checking the growth of B. coli commune, B. anthracis, B. pyocyaneus, B. typhi abdominalis. This action explains the frequent absence of the first-named organism from plates prepared from cholera evacuations. (2) The detrimental influence of the chemical products of comma bacilli manifests itself in the animal organism. Mice can be rendered immune to anthrax by inoculation with such products.

(116) Tuberculous Endocarditis.

V. HANOT (*Arch. Gén. de Méd.*, June, 1893) relates four cases of endocarditis associated with tuberculosis, and states that there are two forms usually found: (1) the caseous and (2) the granular endocarditis. The former consists of small hard masses, of a greenish-yellow colour, found in the wall of the ventricle and muscular portions of the mitral valves, which, on microscopical examination, proved to be tuberculous. The latter and much more frequent form is almost conclusively associated with the mitral valve, and presents masses of confluent vegetations, or at times only disseminated granulations. The ulcerating form which is mentioned may be present with either the preceding forms. The presence of the tubercle bacilli in the lesions has been frequently verified, and the fact that they exist in the blood explains how the pulmonary veins are a means of contaminating the endocardium of the left side. Still numerous negative results are obtained, and though it is legitimate to admit that there are some cases of endocarditis due to the action of the tubercle bacilli, there are others, the nature of which is undecided, where the presence of various micro-organisms are to be seen. Again, at times the bacteriological examination has not shown any kind of microbe. In the four recorded cases the bacteriological research gave a negative result with regard to the presence of the tubercle bacillus, so that there is every reason to suppose that the blood altered by the toxin has been the prime factor of the endocardial lesion, just as in renal and hepatic scleroses found at the necropsy of individuals dead of chronic tuberculosis. There is nothing to prevent one from admitting that the cause of the acute endocarditis described was an irritative process rather than the direct action of the micro-organism, and that a poison (a toxin secreted) may be produced by any microbe, for example, that of suppuration, or by the bacillus of tubercle.

(117) Clasmatocytes.

CLASMATOCYTES are, according to Ranvier (*Arch. Générales de Méd.*, April, 1893) the fixed cells of the connective tissue and pus globules. Previous researches made by the author resulted in the fact that under the influence of irritation, apart from all microbic action, especially in the peritoneum, produced in animals by intraperitoneal injections of a solution of nitrate of silver, clasmatocytes are formed *in situ* in the lymphatic cells. They thus take on their embryonic form, then multiply under the influence of irritation, with great activity, by means of direct division. It is there the principal source of suppuration which diapedesis alone could not explain in a great number of cases. One can easily recognise between the fixed cells of the connective tissue and the clasmatocytes the difference of form, size, and reaction to be so great that it is necessary to abandon the idea that the lymphatic cells in migration could become connective tissue cells. It is equally certain that the connective tissue cells could never give birth to the lymphatic cells and consequently to the pus globules. There is in reality in the inflamed tissues a very active cellular proliferation, but among the cells which multiply the clasmatocytes and leucocytes alone produce the purulent globules.

(118) Highly Resistive Germs in Gelatine.

HEIM (*Centralbl. f. Bakt.*, May 17th, 1893) draws attention to the hitherto unpublished fact that spores exceedingly difficult to destroy sometimes occur in the gelatine ordinarily employed in the preparation of culture media. He observed that a great number of gelatine tubes, prepared and sterilised as usual, became spoiled by the growth of yellow colonies, which proved to be composed of spore-containing bacteria. Contamination from all other sources was carefully excluded, and traced definitely to the gelatine by an experiment which consisted in dissolving some of the suspected material in sterilised broth, and exposing the latter to steam for one hour, a procedure which experience shows to be effective in the destruction of ordinary germs. The broth was then kept in the incubator, and on the following day showed definite growth. This experiment was repeated several times with the same result. Further investigation showed that an exposure to free steam of six hours' duration was necessary to destroy the spores of these bacteria. Fifteen minutes, however, sufficed when compressed steam (1 atmosphere) was employed. The characteristics of these organisms are being further investigated.

(119) The Pathogenic Microbe of Gonorrhœal Orchitis.

L. HUGOUNENQ AND J. EYRAUD (*Arch. Gén. de Méd.*, April, 1893) have made known the existence and principal properties of a phlogogenic albumen secreted by a microbe that one meets with in certain blennorrhagic pus. The special action of this substance on the testicle has led them to suppose that the micro-organism which produces it ought to have a *rôle* in the pathogeny of orchitis, and so has led them to examine more closely this microbe, with the result that they discovered a diplococcus having almost the same forms as the gonococcus of Neisser, but of larger dimensions, the isolated cocci measuring about 1μ. Like the gonococcus, this new microbe is decolorised by Gram's method, but is clearly distinguished from the specific agent of blennorrhagia by its properties. It is met with in the blennorrhagic pus every time that the urethritis is complicated later with orchitis.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(120) Intrauterine Vaccination and Variolisation.

Hervieux (*Sem. Méd.*, July 19th, 1893) uses these terms to signify the immunity to vaccinia and small-pox conferred on the fœtus when the mother is successfully vaccinated or is attacked by small-pox during pregnancy. He has collected 152 cases where intrauterine vaccination has occurred, 32 being recent, and reported by Dr. Lop, of Marseilles. In all these the child was vaccinated soon after birth. In 106 of the children the vaccination was successful; in 46 it failed. Hence the children were not as a rule rendered proof against vaccinia by the so-called intrauterine vaccination. Evidence on intrauterine variolisation is scanty, but a few reported cases appear to show that it confers on the child immunity against small-pox. The question as to whether the bacteria of vaccinia and variola can pass from the maternal into the fœtal vessels seems settled, Hervieux believes, by M. Malvoz's researches, which prove that the invasion of the fœtal organism by germs depends on the intensity of the morbid condition. This may explain the uncertainty of immunity after birth, as shown in the 152 cases.

(121) Multiple Senile Neuritis.

H. Oppenheim (*Berl. klin. Woch.*, June 19th, 1893) says that paralysis of peripheral origin in old age has received little attention. After referring to what has been written on progressive paralysis in old people, he says that proof has hitherto been wanting to show that conditions corresponding to the well-known picture of multiple neuritis occur in old age. The author has seen six cases of peripheral neuritis in the aged, two of which he records here. The disease presents such peculiarities in symptoms and course as to be deserving of a separate description. Thus in 5 men and 1 woman between 70 and 82 years of age with arterio-sclerosis but no cachexia, motor and sensory symptoms slowly developed in the upper and lower extremities, but especially in the hands and feet. This atrophic paralysis lay in some definite nerve distribution, but was generally incomplete. The reaction of degeneration was present. Sensation was always impaired, but never completely lost. Tenderness of nerves and muscles was slight. The knee-jerks were absent. There was no ataxy. The course was slow, with a tendency to remit. Thus the characteristics of this senile neuritis consist in (1) the absence of any of the generally recognised causes of neuritis; (2) its very chronic course; (3) the very slightly marked irritative symptoms; (4) the incomplete development of the motor and sensory loss; and (5) the escape of the cranial nerves, the latter two characteristics, however, being less important than the others. Such a case of multiple neuritis might occur in youth or a typical case of the disease in an old man, but this would be very exceptional. It is extraordinary that there should be the tendency to improvement that there is in these cases, when the disease is due to arterio-sclerosis.

(122) Exophthalmic Goître.

Kronthal (*Berl. klin. Woch.*, July 3rd, 1893) relates two cases occurring respectively in a child and its mother. A girl, aged 12, who had convulsions once in infancy, complained of palpitation some months ago, and the eyes seemed prominent. She also suffered from anxious feelings and nightmare. At present the thyroid is enlarged, especially on its right side, and the eyes are prominent. Graefe's symptom is absent, Stellwag's present. There was no insufficiency of ocular convergence, no tremor, and no cardiac murmurs. In the course of several months some variability was noted in the symptoms. The mental symptoms were marked, and the child had impulsive ideas ("Zwangsvorstellungen"). Psychoses are common in Graves's disease, but these impulsive ideas are always rare in children. The absence of Graefe's symptom and also of tremor is common in children. The author refers to some twenty-five cases recorded in children. The chief etiological factor seems to be mental excitement. The prognosis is not unfavourable. This child is treated with iron and arsenic, and galvanism of the cervical sympathetic. The mother, aged 45, had suffered from palpitation and headache for two years. The eyeballs are prominent, and there is well-marked tremor. There is no enlargement of the thyroid. Graefe's symptom is also absent, but there is defective blinking (Stellwag's symptom). Heredity plays not an inconsiderable part in the causation of Graves's disease.

(123) Gall Stones in the Insane.

From the records of the last 1,000 necropsies of patients in the Hildesheimer Asylum, Snell (*Neurol. Centralbl.*, June 1st, 1893) ascertained that biliary calculi were found in 9.2 per cent. of the 500 males, and in 19.4 per cent. of the females—a percentage more than twice as high as that stated by Haller and others for sane individuals. The forms of insanity in which gall stones occurred most frequently were dementia following melancholia, senile dementia, and epilepsy.

SURGERY.

(124) Operative Treatment of Tuberculous Peritonitis.

Conitzer (*Deut. med. Woch.*, July 20th, 1893) refers to the unsettled state of opinion on this question. He emphasises the importance of distinguishing between the exudative and the cicatrising forms of the disease, both in their clinical aspects and especially in regard to prognosis. He records 7 cases, 4 of the exudative and 3 of the cicatrising variety. The former presented hardly any general symptoms, slight fever being present in only one case. In one case there was also a pleural effusion. Special mention is made of the greyish clay-like appearance of the fæces, due to their richness in fat. All four cases recovered after laparotomy, in one case only a small fistula remaining. Internal treatment, and in two cases also tapping had been tried in vain. The abdomen was simply opened, the fluid drained off, and the abdominal walls sewn up again; thus the extreme simplicity of the procedure is obvious. The tuberculous nature of these cases was proved by the microscope and by experiments on animals. In judging of the effects of treatment the incomparably worse prognosis of the cicatrising form must be borne in mind. These cases seldom get well in the so-called spontaneous fashion, but the exudative form frequently recovers under suitable regimen and treatment. Some look upon the latter cases as examples of a simple non-tuberculous peritonitis. Thus a dietetic medicinal treatment should be followed out in these cases, and, when this does not succeed, abdominal section should be performed without too great a delay. Tuberculous peritonitis does not always get well after laparotomy. Three cases of cicatrising tuberculous peritonitis are related, in two of which the disease was advanced. The abdomen was opened in all three cases. In one case the symptoms of intestinal obstruction were relieved, but the patient died a few weeks later; in the second the patient died collapsed the day after the operation, and in the third there was considerable improvement in the patient's condition four and a-half months after the operation. The author is of opinion that these cases of dry peritonitis should be operated upon, but an unfavourable condition of the patient, a severe intestinal or other visceral tuberculosis, are contra-indications. As yet there is no sufficient explanation of the good effects of laparotomy. Incision acts better than simple paracentesis.

(125) Suture after Laparotomy.

Howitz, of Copenhagen, at the recent Surgical Congress held at Gothenburg (*Sem. Méd.*, July 12th, 1893) discussed the comparative value of the methods and kinds of sutures which are used after laparotomy. According to him, the abdominal hernia which occasionally occur after operation are dependent upon the manner in which the sutures are applied. Three factors determine the strength of the cicatrix: (1) The nature of the uniting surfaces, (2) the manner in which they are held together, and (3) the kind of suture used. As regards (1), the incision in the linea alba is not advantageous, since the conditions required for the formation of

a sound scar are not present. In order to form a strong cicatrix the opposing surfaces of the incision must be fairly extensive and smooth, they should contain only a small amount of fat, and should be in apposition without much tension. In order to secure this condition of affairs the author advises that the incision should be made about two-thirds of an inch from the middle line, passing through the substance of the rectus muscle. As regards the method of suturing, he recommends the twisted suture, such as is used for harelip. In applying the suture a slightly curved needle is used, and only a small amount of peritoneum included in the suture. The sutures are made from silkworm gut. After the operation the patient is kept in bed for three or four weeks, so as to allow the scar to become firm.

(126) Stretching the Facial Nerve in Trigeminal Neuralgia.

Schulze-Berge (*Arch. für klin. Chir.*, Bd. 46, Hft. i) reports a case of severe trigeminal neuralgia which was successfully treated by exposure and stretching of the facial nerve. The neuralgic pains persisted unrelieved for five days after the operation; then suddenly their intensity began to diminish, and they soon ceased altogether. The operation was performed in the spring of last year, and the patient remained well twelve months later. The author thinks that stretching of the nerve has a mechanical action in cases of this kind. In consequence of the resulting paralysis of the facial muscles the irritated sensory nerves are set at rest, and thus are restored to their normal condition. The operation of stretching the facial nerve will, it is believed, be specially indicated in those cases of trigeminal neuralgia in which severe pain has been preceded for some time by twitching and other motor disturbances of the face. Such treatment, the author holds, is not likely to do any harm, as there is very slight risk of the paralysis which is caused by the nerve stretching becoming permanent.

(127) Extirpation of a Hypertrophied Spleen.

Treub (*Union Méd.*, July 13th, 1893) records the case of a woman, aged 48 years, the subject of abdominal pain for seven years, which began six weeks after a confinement. When the pain was great, the abdomen became excessively distended, and urine was only passed by drops. The patient last menstruated ten weeks before she came under observation; it was profuse, and was followed by fever, accompanied by abdominal pain and vomiting, which illness continued for eight weeks. She was not at all anæmic; a tumour of solid consistence existed in the middle line of the lower part of the abdomen, rising as high as the umbilicus, demarcated above, and to the right and left, but extending into the pelvis below. There was considerable lateral movement, but none in the vertical direction. The uterus was only slightly enlarged, was behind the tumour, and was adherent to it in front. The right ovary could be distinctly felt, but not the left; and the diagnosis of cyst of the left ovary was made. On abdominal section the tumour was found adherent to the abdominal wall, coils of intestines covering it and the uterus. The ovaries were œdematous, and covered with fibrinous deposit, and the kidneys were in their normal positions. Histological examination proved the tumour to be a hypertrophied spleen. The patient recovered in three weeks, and was still quite well a year after the operation. There was no leukæmia before or after the operation, and nothing anomalous was found in the blood after the operation. The splenic region was not percussed before the operation, or it might have aided diagnosis.

(128) Ossifying Hæmatoma.

Arsdale (*Annals of Surgery*, vol. xviii, No. 1, July, 1893) relates a case occurring in a strong healthy man, 22 years of age, of good habits and family history, in which a severe contusion, the result of blows on the right arm just below the insertion of the deltoid, assumed the above character. What was at first a fluctuating tumour presented, about six weeks later, a bony hardness. The function of the arm was greatly interfered with, and aspiration having failed, it was decided to remove the tumour. This was done, and about eight days after the patient was discharged cured. He was again seen about two years later, and there had been no return of the trouble, and the function of the arm was perfect. Such cases are of interest as possessing features in common with osteoma, periostitis, myositis ossificans, and osteosarcoma. It is of no little importance, therefore, in diagnosticating tumours of the extremities, to bear in mind the possibility of ossification of hæmatoma near a bone, especially since these forms frequently simulate malignant growths.

MIDWIFERY AND DISEASES OF WOMEN.

(129) The Kidney and Nephritis in Pregnancy.

Fischer (*Archiv f. Gynäk.*, vol. xliv, Pt. 2, 1893) has issued an exhaustive monograph on the kidney of pregnancy and on nephritis during gestation. The kidney undergoes some kind of irritation; leucocyturia sets in. Long standing kidney changes are indicated when granular casts are seen in the urine of multiparæ, acute changes when red blood cells are found in the urine of primiparæ. The kidney, irritated by the phenomenon of gestation, is easily inflamed by any complication which involves rise of temperature. The consequent nephritis tends to spontaneous cure, but while it lasts it is dangerous. Next to syphilis, it is the most frequent cause of abortion. In primiparæ the true acute nephritis of pregnancy is a common source of eclampsia. Some unknown chemical product is formed in the blood during pregnancy, and, if suddenly increased, convulsions ensue. Multiparæ bear an accumulation of this product better, or, rather, the kidney can more readily eliminate it. A similar phenomenon is seen in the effects of moderate alcoholism on the kidney. When pure nephritis of pregnancy is diagnosed, baths, wet packing, and rest in bed are required. Increased diuresis and diaphoresis with diminution of œdema and albuminuria followed when this treatment was employed. Induction of premature labour is needed when no good results ensue.

(130) Gestation Twice in the Right Tube.

Henry C. Coe (*Amer. Journ. Obstet.*, June, 1893), in a communication on internal migration of the ovum, with report of a case of repeated ectopic gestation, possibly supporting the theory, describes a case in which he operated. The patient was 41, her youngest child was 18. Twelve years ago she missed two periods, and had griping pains and hæmorrhage. The uterus was found empty; to its right was a tumour. After attacks of syncope and peritonitis for a few months the menses returned. For ten years the tumour remained quiescent. Then several periods were missed, and symptoms of pregnancy with peritonitis were observed. The catamenia returned and recurred regularly till September 1st, 1892, when they were seen for the last time. Then morning sickness and pain in the breasts set in. A month later there were violent colicky pains as twelve years previously. A very violent attack occurred on November 4th. A tumour of the size of a fœtal head lay in Douglas's pouch pushing the uterus to the left. Bony nodules could be felt in the tumour, when examined under anæsthetics. On December 10th abdominal section was performed. Adherent omentum and intestine cut off the pelvic from the abdominal cavity. Blood and clots welled up from Douglas's pouch. An unruptured sessile sac was drawn up, behind it was a fœtus of over the third month, attached by its cord to a second sac, which had ruptured. In drawing up the parts the first sac was burst, and a bony nodule escaped into the abdominal cavity. A pedicle was formed and the two sacs removed. A large surface was left within the pelvis from which free oozing occurred. The left ovary and tube were rather firmly adherent, but were easily removed; the pelvis was drained. On the second day pseudo-decidual membrane was passed for the first time. The patient recovered. Dr. Whitridge Williams examined the parts and found two sacs in the right Fallopian tube. The older sac lay nearest the uterus and contained fœtal bones, representing the pregnancy of twelve years past. The lumen of the tube could not be thoroughly traced and there was evidence of total occlusion of its uterine end. The external sac bore the patent fimbriated extremity of the tube on its outer side. As no trace of the uterine end could be found Dr.

Williams thought it improbable that the spermatozoa entered the right tube from the uterus to establish the second pregnancy. There was a large corpus luteum in the left ovary. Dr. Coe thinks that the old sac might represent gestation in a diverticulum of the tube, which would not necessarily occlude its lumen so as to prevent the passage of either spermatozoa or ovum from the uterus. On the other hand external migration of the ovum was possible, the right ostium being patulous, but the left tube and ovary were fixed by dense adhesions.

(131) Extrauterine Pregnancy: External Migration of the Ovum.

Engelmann (*Amer. Journ. Obstet.*, May, 1893) had under observation for several years a young single woman who became subject to severe pelvic inflammation. After frequent relapses she was able to work as a nurse. About a fortnight after missing a period she was seized with characteristic crampy pains, uterine hæmorrhage, and faintness. She entered hospital, not until she had neglected her serious condition, and died there of septicæmia. At the necropsy shreds of clotted blood were found scattered over the lower part of the peritoneal cavity. The internal genitals showed all the signs of old peritonitis. The right tube and ovary were displaced much upwards and to the right. The tube adhered to the vermiform appendix; in its outer part was a ruptured fœtal sac over 1 inch in diameter. The fimbriæ were perfectly normal; the right ovary was atrophied, and contained no corpus luteum. The left appendages were firmly held down in the pelvis by old adhesions; the tube was completely occluded: the ovary contained a large, prominent corpus luteum. From these appearances Engelmann concludes that the ovum escaped from the left ovary, and, unable to enter the occluded left tube, it crossed the pelvis and entered the right tube, where it became impregnated. This phenomenon is known as external migration of the ovum.

(132) Obliquity of the Uterus in Vertex Presentation.

Vallois (*Arch. de Tocol. et de Gynéc.*, June, 1893) does not attach serious clinical importance to lateral deviations of the uterine axis, at least not in vertex presentations. Lateral inclination is not so common as is usually taught, and the proportion of left deviations to right is far higher than textbooks usually indicate. The frequency of right obliquity can neither be explained by the shape of an individual uterus nor by decubitus on the right side. The obliquity may alter completely without any change in the fœtal position, or in the decubitus of the mother. On the other hand, change of fœtal position does not cause obliquity, which, moreover, cannot be attributed to uterine contractions. During labour the obliquity usually persists or increases. Vallois, however, notes a few cases where it has been rectified or even changed. In the early days of childbed the uterus either remains oblique or falls to the median line. In cases under Vallois's personal observation even the most pronounced lateral deviations did not cause any difficulty during labour, which they hardly, if at all, retarded. Attempts to correct the obliquity are useless, and often fail. Most assuredly right obliquity of the uterus does not explain why the fœtal head presents most frequently in the left occipito-anterior position.

(133) Oval Pessary Incarcerated in the Uterus.

Herzfeld (*Centralbl. f. Gynäk.*, No. 27, 1893) stated that a woman, aged 77, applied for relief at Professor Schauta's clinic in Vienna last April. She suffered from dysuria and sanious purulent vaginal discharge. She had borne sixteen children without instrumental delivery; in 1839, after her second labour, a prolapse developed. Five years ago she was supplied with a Breisky's egg pessary, which she took out and cleaned till five months ago, when it slipped up out of reach. She was hale and muscular. The vagina was unusually long; the os uteri admitted one finger, its borders were very tough. The lower pole of the pessary could be felt a quarter of an inch above it. The instrument clearly occupied the cervical canal; the body of the uterus was detected capping its upper pole an inch above the pubes. The patient was narcotised. A small incision was made on each side of the os. Then a hole was burnt in the pessary with a Paquelin's cautery, and the point of a stout tenaculum fixed into the hole. The pessary was next drawn down. Two more holes were burnt into the instrument, so that the points of a polypus forceps could be fixed into them. A big piece of the pessary came away. After tedious *morcellement* the entire pessary was removed; its short diameter was 2¾ inches. The walls of the cervix were extremely thin; the uterine cavity above it measured four-fifths of an inch. A tampon was applied to the cervix and vagina. Three days later the os had contracted to its size before the operation. Neugebauer, in his collected series of 297 cases of pessaries neglected and incarcerated in the vagina or escaped into adjacent parts, notes but 6 where a vaginal pessary had slipped into the uterus.

THERAPEUTICS.

(134) Salophen.

Lütze (*Therap. Mon.*, July, 1893), in view of the many unpleasant secondary effects produced by salicin, its acid and salts, made a number of experiments with salophen, not so much in order to test its therapeutic value, as to watch for any unpleasant after-effects. In the first instance, seventeen patients suffering from various rheumatic muscular pains were treated, at first with repeated doses of 15 grains, and later patients even with repeated doses of 1½ drachm, without any unpleasant symptoms being produced. No disagreeable taste was complained of, no disturbance of appetite or alteration in the urine took place, and the other unpleasant results of salicin, etc., were absent. Similar doses were given to twenty patients suffering from headaches of various origin. Three times only no improvement was produced, and in the first group, also, the results were equally encouraging. In several neuralgic cases salophen answered as well as other modern remedies, and finally, in acute rheumatism, larger quantities could be borne without causing unpleasantness, and led to results equal to those obtainable with salicylic acid. Though in some cases taken during several weeks, the only symptom ever complained of was troublesome perspiration. The author considers that in giving large doses one may be guided by the quantity of salicylic acid present in salophen—namely, 4.5 per cent.; and believes that the combination is such as to render the former more harmless, without detracting from its therapeutic value. The circumstance that the reduction to its components takes place in the alkaline intestinal secretion may account for the absence of gastric disturbances. The hitherto observed excretion of salophen by the skin is denied by Lütze.

(135) Large Doses of Iodide of Potassium in Chronic Tabes.

Werner Stark (*Neurol. Centralbl.*, June 15th, 1893) records the case of a woman, aged 43, who had had syphilis thirteen years previously, and who had been the subject of locomotor ataxy for five years. She could no longer walk, was pale and emaciated, the legs presented marked ataxy, analgesia, and, in places, anæsthesia of the skin covering them, and weakness and atrophy of their muscles. The knee-jerks were absent. The patient had been previously treated with iodide, but only in small doses. Stark gave a tablespoonful of a 50 to 400 watery solution three times a day to begin with. After a time the strength of the solution was increased to 60 to 400; after three months it was made 75 to 400, and three months later 100 to 400, four tablespoonfuls of this strongest solution being given every day for four months. Improvement commenced after the first increase in the strength of the solution, and by the time that the patient was taking the maximum dose of 12 g. per diem, anæsthesia and ataxy had disappeared, the muscular atrophy had improved, and the patient could walk, with support, without difficulty. The iodide was discontinued for intervals of weeks from time to time, and during the last or third year it has only been given now and then.

(136) The Treatment of Diarrhœa in Dysentery, Typhoid, etc.

Aufrecht (*Therap. Mon.*, July, 1893) deals with the treatment of diarrhœa in dysentery, typhoid, and cholera, basing his theories on pathological evidence and his practical experience during a number of years. In the case of dysentery he strongly recommends morphine, of which he administers in the early stages

as much as three-tenths of a grain two or three times daily. He also strongly condemns intestinal injections of curative remedies during the acute stage, though he successfully employs weak astringents, such as perchloride of iron and nitrate of silver, during the subsidence of the disease. Similarly, when otherwise applicable—that is, during the early stage—the author employs opium and morphine in enteric fever complicated with diarrhœa, and has thus met with fewer hæmorrhages and perforations. With regard to cholera immediate and absolute rest is the first indication, followed on aggravation of the diarrhœa by morphine administered subcutaneously, and aided by injections of camphor. Much more efficacious than subcutaneous injection of salt is the direct tranfusion of the same—a method which requires further application. The sterilised solution should always be kept ready, and its use should not be delayed until too late. During the asphyxiated condition produced by the absorption of toxic elements, rectal injections of warm water with, say, 2 to 3 per cent. of tannin, may stimulate the heart, and lead to renewed peristalsis of the intestines, and evacuation of its contents.

(137) Pental as an Anæsthetic.

Bauchwitz (*Therap. Mon.*, July, 1893) refers to a recently-published statement that the use of pental is productive of albuminuria, and quotes his own researches in defence of the drug. The urine was examined immediately after administration of the drug, and again on the third and seventh days, the subjects comprising dental patients, rabbits, and dogs. Though large doses were frequently successively administered to the latter, neither the blood nor *post-mortem* appearances indicated any pathological change, which tended to confirm Schirmer's observation that pental gases only form a mechanical combination with the blood. Careful examinations of the urine were made by various methods, and among twenty investigations neither sugar nor albumen was found in eighteen instances. The two exceptions were in women menstruating, the urine of one also containing blood. The consumption of pental by each individual averaged 100 grains, and the duration of the narcotised state two to five minutes, and, in view of the chemical composition (C_5H_{10}), the author considers renal irritation to be impossible. His conclusions are that on account of the surprising well-being of the patient after administration, on account of its innocuousness and certainty of action, pental is the best anæsthetic for operations of short duration, this opinion being shared by Hollaender after an experience extending over 1,200 patients.

(138) Chromic Acid in Affections of the Middle Ear.

Katz (*Therap. Mon.*, July, 1893) advocates the use of a 3 per cent. solution of chromic acid in those chronic affections of the middle ear where there is a considerable perforation, and where the mucous membrane of the middle ear shows thickening and tendency to granulations. After the usual preliminary steps and thorough drying, six to eight drops of the solution are introduced by means of pressure on the tragus, and allowed to remain in the middle ear for two minutes. The ear must then be irrigated, dried carefully, and closed with wool. This requires to be done three or four times weekly. After the third application a marked diminution of pus should be noticeable. The author also used chromic acid experimentally in carious inflammations, and in these cases the quantity of pus certainly became less. Any solution which had passed into the pharynx was removed by gargling. Even slight transient pain was only very rarely caused, and the author considers this solution to be more efficacious than a 5 to 10 per cent. solution of nitrate of silver. This the author attributes to its ready and deep action, and, though he declares himself originally to have been a sceptic as regards chromic acid, he concludes by warmly recommending its use.

(139) The Hydrocarbons in General; especially "Vasogene" in Diseases of the Respiratory Passages.

Bayer (*Rev. de Laryng., d'Otol., et de Rhin.*, July 15th, 1893) devotes a long paper to the consideration of these bodies. Although in the introductory pages mention is made of vaseline and other petroleum oils, the main object is to make known the properties of the newer "vasogene." This substance has nearly the same consistence as liquid vaseline, is of a yellowish brown colour, and specific gravity of 891; it is slightly alkaline, and forms a lasting emulsion with water. The odour and taste are distinctive, and not disagreeable. It differs from vaseline in two important particulars: it is rich in oxygen and oxy-compounds, and it possesses in a high degree the power of emulsifying liquids and secretions. When injected hypodermically it is readily absorbed, and produces no ill effects. As a vehicle it is also excellent by reason of its solvent powers for such bodies as creasote, iodoform, menthol, etc. (1) For direct local action on the skin in various local skin affections the author recommends "vasogene of ichthyol or iodoform." His experience has been most satisfactory. To act through the skin either on the cellular tissue or on the nerves and muscles, he has used vasogenes of menthol (30 per cent.) in migraine, of camphor in neuralgic, rheumatic, and joint affections. The vasogene of turpentine has also proved valuable. Rubbing of the skin with creasote vasogene appears to have been of assistance in tuberculous cases, but how far the improvement was due to other associated measures is by no means clear. There is no doubt, however, that under these conditions a large amount of creasote becomes absorbed, as it appears abundantly in the urine. (2) Applications to the mucous surfaces. The vasogenes employed were those of menthol (5 per cent.), iodoform, ichthyol, and creoline. The mode of employment was either by friction with a cotton tampon on the end of a sound, by injection, or as a spray. In simple catarrh of the nose, pharynx, or larynx menthol vasogene was all that could be desired. In ozæna and chronic nasal and retro-pharyngeal catarrh, with or without hypertrophy, iodoform, ichthyol, and creoline vasogenes were useful. They are best applied by friction. In sore throat, simple follicular, diphtheritic, or phlegmonous, vasogenes of creoline or iodoform exercise a marked influence. (3) Internally, the only preparation at present used has been the creasote vasogene. This has been employed with encouraging results in cases of tuberculosis. It is especially in the laryngeal form of the disease that it has been possible to watch the curative effects of the medication. The author has seen tubercular laryngeal affections, from simple catarrh to the gravest ulcerative and hypertrophic lesions, entirely disappear. In favourable cases the improvement is speedily manifest. (4) In surgery the chief use of vasogene is on account of its great power of dissolving iodoform. By its means even a 5 per cent. solution of this substance can be obtained.

PATHOLOGY.

(140) Morbid Changes in the Sympathetic System in Diabetes Mellitus.

Cavazzani (*Centralbl. f. allgem. Path.*, July 1st, 1893), is unable to agree with those who believe that diabetes resulting from extirpation of the pancreas is directly dependent upon the removal of that gland. He is of opinion that the removal of the pancreas is insufficient in itself to cause diabetes, that a lesion of the sympathetic ganglia in the vicinity must be produced at the same time. As supporting his view, he records a case of diabetes running an acute course, in which the pancreas, examined anatomically and histologically, was found to be healthy, whilst the sympathetic ganglia and nerves showed marked degeneration. To the naked eye the cœliac plexus gave evidence of pronounced atrophy, both as regards its ganglia and nerves; the consistence of the ganglia was much increased, and there was excess of fat and connective tissue about them. Microscopically the ganglia showed atrophy, pigmentary degeneration, and necrosis of nerve cells, with great increase of connective tissue and nuclei. The nerve fibres were atrophied. All the cervical and thoracic sympathetic ganglia also showed great congestion of the blood vessels, with increase in their number, extravasation of blood, and connective tissue increase, and atrophy of ganglion cells. Cavazzani points out that it is significant, in association with those lesions of the sympathetic system, that the thyroid gland was hypertrophied and the suprarenals showed vascular congestion and cell degeneration.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(141) Asiatic Cholera.

G. Klemperer (*Berl. klin. Woch.*, July 31st, 1893) contests the view put forward by Emmerich and Tsuboi (Epitome, July 15th, 1893, par. 43) that cholera really consists in a poisoning by nitrites. The chief reasons assigned by them are (1) the resemblance in the symptoms and morbid anatomy in man and animals, and (2) the presence of methæmoglobin in the blood in both conditions. The author records experiments to show that the virulence of cholera bacilli does not run parallel with their powers of forming nitrites out of nitrates. No difference in nitrite-producing power could be made out between old and less virulent cultures and active and virulent cultures. Again, it has been proved that by introducing small and non-fatal doses of the various bacterial poisons a specific immunity is eventually established; pneumotoxin thus protects only against the pneumococcus infection, the cholera poison against cholera, and the tetanus poison against tetanus. Experiments are recorded to show that small and increasing doses of potassic nitrite do not protect against a fatal dose of the cholera poison, nor *vice versâ*. The author looks upon this as absolutely a crucial test. As regards the methæmoglobin, it is not always found in the blood of guinea-pigs and mice dead of cholera. In eleven such instances the author (with Dr. Bein) could find no evidence of its presence. Methæmoglobinuria is the expression of a profound action of the poison on the erythrocytes. A great number of poisons have this power. In other severe infective diseases methæmoglobinuria has been described. Cholera poison can destroy the red cells in moderate doses up to polychromatophilia, and in large doses methæmoglobin may appear in the plasma. Thus the author looks upon the above-named view as disproved.

(142) Wound of the Heart.

Heytl (*N. Y. Med. Journ.*, May 27th) records the following case of punctured wound of the heart: A soldier was stabbed with a pocket knife over the upper margin of the fifth rib, the knife penetrating the chest wall three inches to the left of the middle line and three-quarters of an inch below and slightly to the right of the nipple. At first shock was profound, there being scarcely any pulse at the wrist; immediately after reaching the hospital he began to vomit and had involuntary evacuations; after a hypodermic injection of ether he recovered consciousness and could answer questions; the wound was not explored but simply closed. His condition seemed to improve up to the day before his death, when the temperature rose to 102.5° F., and he complained of pain in the left lung and dyspnœa. He was unable to retain food; alcoholic stimulants were given at intervals to combat impending cardiac failure. On the morning before death a pleuritic friction *râle* was heard over the left lung near the apex, rapidly increasing until it spread over the whole lung. He died three days and two hours after receiving the injury. At the *post-mortem* examination, on opening the chest there was an escape of sero-sanguinolent liquid from the pericardium, which presumably had been held in by the surrounding tissues, for as soon as the chest wall was lifted the fluid poured through the puncture in the pericardium. There was evidence of plastic pericarditis and of pleuritis; the heart had the appearance of having been macerated in the liquid, so shrunken was the external muscular substance. The puncture extended not more than the eighth of an inch into the heart muscle, at a point corresponding to the raphé between the ventricles and one-third the distance from the apex to the base. The puncture in the pericardium was larger than the external wound, probably owing to stretching by the heart's action or by pressure from the liquid within. The whole of the left lung was œdematous, and the pleural sac was filled with fluid similar to that in the pericardium; the interior of the pericardial sac was covered with plastic exudation, as was also the pleural sac, which latter showed adhesions to the chest walls.

(143) Angina Pectoris.

Weber (*Arch. Gén. de Méd.*, August, 1893) draws attention to the many theories to account for this condition. As regards neuritis of the cardiac nerves, only a very limited number of cases exist in which a lesion of the cardiac plexus has been found, and in all of these disease of the coronary arteries or aorta has also been present. The cardio-arterial theories are very numerous. The relations of angina pectoris to arterio-sclerosis are unquestionable. Not sufficient weight has been laid on spasm. There is, in the first instance, a lesion of the arterial wall either as the result of some infective or toxic process. This lesion leads to vascular spasm. If spasm affect an artery supplying a muscle, pain is produced. Angina pectoris is the consequence of vascular spasm caused by any irritation of the coronary arteries, no matter how slight. In other words, it is a spasmodic contraction of the coronary arteries, with a painful ischæmia of the cardiac muscle. With this hypothesis alteration of the coronary arteries is not an absolute necessity. A spasmodic contraction of the walls of the aorta is not an impossible occurrence, giving rise to a painful ischæmia of the artery. The absence of angina is explained in any given case by the absence of spasm. Disease of arteries is in most cases, as Huchard points out, a painful affection. First attacks of angina are generally intense; later they diminish and become less frequent, for the vessels have lost their elasticity. The author refers to Kronecker's point placed in the lower part of the upper third of the anterior vertical cardiac groove. Stimulation of this point by pricking or the electric current gives rise to a final arrest of the ventricle. In sudden death in angina the ischæmia may have affected this point. Death occurs not as the result of the angina, but in consequence of the cardiac localisation of the arterio-sclerosis. The author draws attention to the preventive treatment, and to the treatment of arterio-sclerosis. (See Huchard, Epitome, October 15th, 1892, paragraph 335.) In the attack amyl nitrite is more efficient than nitroglycerine. A subcutaneous injection of morphine is the best remedy for the pain, as against the anginous attack itself. Cocaine, inhalation of chloroform and of oxygen, and many other remedies have also been recommended.

SURGERY.

(144) Trephining for Subdural Hæmorrhage.

Riegner (*Deut. med. Woch.*, July 13th, 1893) reports a successful case of trephining and subsequent osteoplastic operation in this condition. A boy, now aged 7½ years, fell, on October 1st, 1891, from the first storey on to the pavement below. He was admitted completely unconscious. Over the left temporal region there was a large hæmatoma, and marked right hemiparesis was present. On the next day both the paresis and the unconsciousness had diminished. On the fourth day the hæmatoma had so far disappeared as to allow a bony defect to be felt running up from the ear to the sagittal suture. Clonic spasm then appeared on the right side of the face, and choked disc was present. Consciousness had now returned, but speech was lost. The patient was trephined on the sixth day, and a piece of bone 3 cm. wide by 5 cm. long was removed. There was no hæmorrhage between the dura mater and the bone. The tense dura was opened, and much blood, partly fluid and partly clotted, mixed with brain matter, escaped. Pulsation returned, the clonic spasm ceased at once, and the *Stauungspapille* began to disappear. The boy was up in fourteen days. He could understand when spoken to, but could not speak spontaneously or repeat. Eight weeks after the injury he was beginning to learn simple words. An osteoplastic operation was proposed, but consent was not given until one year and a-half after the accident. The defect in the bone had not diminished. The boy had developed well both bodily and mentally. His pronunciation was good, but difficult words like "chloroform" he could not repeat distinctly. He could write his name correctly, but with uncertain and irregularly made letters. He had had not yet learnt to read. An osteoplastic operation, after König's method, was performed with success. In the

site of the former defect there was still feeble pulsation, but palpation showed it to be closed by bone. The previous paresis, as well as the clonic spasm, was clearly due to pressure. Broca's convolution was obviously partly destroyed, and it was doubtful at one time whether the complete motor aphasia would disappear. The case shows that the child's brain, as might be supposed, is in a much better position to build up the lost speech functions than the adult brain, in which the prognosis after an injury to Broca's convolution is very unfavourable.

(145) Gunshot Wound of the Gravid Uterus.

Kehr (*Centralbl. f. Chir.*, No. 29, 1893) reports a case illustrative of the fact proved by the slight mortality of severe lacerated and other wounds of the abdomen and gravid uterus, that these parts are often tolerant of such injuries in pregnant women. The patient, who was in the fifth month of pregnancy, had attempted to commit suicide by shooting herself in the abdomen with a revolver. The external wound was situated a little below and to the right side of the navel. Although no very severe symptoms were present, the author performed laparotomy six hours after the time of the injury. The skin incision having been made through the wound of entrance, the finger could be readily passed through the torn rectus muscle into the abdominal cavity. After exposure of the uterus a wound was found in its anterior wall, about four fingers' breadths below the fundus. No wound existed in the posterior wall of the organ, and the bladder and other contents of the abdomen seemed to be quite intact. The uterine wound was closed by a double row of sutures, and the edges of the incision in the abdominal wall were brought together by deep and superficial sutures. Whether any liquor amnii had been discharged into the peritoneal cavity could not be determined. The patient recovered from the effects of the operation, and was able to leave her bed on the twelfth day. Two days later, however, the fœtus, which had not been wounded by the bullet, came away. Some difficulty was experienced in removing the placenta, which was adherent at a part corresponding to the bullet wound in the uterus. The bullet was not found. The patient made a good and speedy recovery, and was quite well on the fourteenth day after the date of the abortion.

(146) Neurectomy in Spasmodic Torticollis.

Gardner and Giles (Reprint from *Australian Med. Journ.*, 1893), in a paper on neurectomy in spasmodic torticollis and retrocollic spasm, report two cases, one of spasmodic torticollis, the other of retrocollic spasm without torticollis, which were treated by exposure and partial resection of both spinal accessory nerves and subsequent division of the posterior branches of the second and third cervical nerves. This treatment was completely successful in the first case, nearly five years having elapsed since the last operation; in the second case, it was followed by cessation of all bad symptoms, save some trifling spasmodic movements of the deep rotators of the left side, which, it is anticipated, will be completely cured by another operation. Gardner, who had charge of these cases, claims precedence over Keen with regard to section of portions of the posterior branches of the second and third cervical nerves, having performed this operation a few months before it had, independently, been thought out and practised by the latter surgeon. The following general considerations regarding the operation are deemed advisable to observe in the surgical treatment of these distressing cases: (1) The operation on the spinal accessory nerve should precede, by a considerable interval, the difficult operation on the cervical nerves for two reasons—(*a*) because the milder operation has been known to be successful, even in cases in which spasmodic movements occurred in muscles not supplied by the spinal accessory nerve; (*b*) because the trapezius being completely paralysed after neurectomy of the spinal accessory time is also given for a more complete study of the muscles involved in the spasm, and in this way unnecessary operations with their risk and resulting scars may be avoided. (2) If the sterno-mastoid is involved in the spasm, the spinal accessory nerve should be exposed in front of this muscle, but if the trapezius alone is involved, the nerve should be sought for by an incision along the posterior border. In neither case need the incision, if properly placed, exceed the length of two inches. (3) No injury to the patient will arise from the paralysis of muscle as to function. From an æsthetic point of view it is of advantage that the extent of the spasm should necessitate an operation on both sides, as thereby dissimilarity in the appearance of the right and left muscles is avoided. (4) The neuralgia which follows section of the nerves is especially felt in the shoulders, and appears to be of very fleeting character. (5) The spinal accessory nerves may be both cut down upon at the same operation, as the whole procedure can be performed with precision in about fifteen minutes. In the case of the posterior cervical nerves, the two sides should never be attacked at the same stage, because the duration of the double operation might seriously increase the risk to the patient, or the onset of dangerous symptoms might necessitate the second operation being left unfinished.

(147) Microcephaly.

At the Surgical Congress at Gothenburg, Aakerman, of Lund (*Sem. Méd.*, July 26th, 1893), gave an account of a case of microcephaly, which he had treated by craniotomy. The patient was a boy, aged 20 months, born at full term, and artificially reared. The fontanelles closed soon after birth. The head was small, 16 inches in circumference, with a low forehead and depressed occiput. The child suffered from restlessness, nystagmus, convergent strabismus, and double optic atrophy, and also epileptic attacks of short duration coming on several times daily, subsultus tendinum, and exaggerated reflexes. Fixity of the eyes was never observed, and the sense of sight was apparently absent. On August 11th, 1892, an incision was made on the cranial vault 4 inches on the left side of and parallel to the sagittal suture, and extending through the bone. This wound healed by first intention. Three months afterwards the condition of the child was better. The epileptic attacks were less violent, and occurred after intervals of several weeks. There was less restlessness, and the child could with its eyes follow a light in a dark room. The limbs were not so stiff, and the reflexes were in a normal condition. Ten months after the operation the aperture in the bone had closed, and the circumference of the head had increased by four-fifths of an inch. The left parietal region was more prominent than the right. The child could now stand and move its limbs. The epileptic attacks were less frequent, and there was scarcely any nystagmus. A second operation was performed on June 10th, 1893, when an incision was made on the right side of the sagittal suture, and a strip of bone and its periosteum removed. The wound soon healed, but no improvement followed. From this case the author drew the following conclusions, namely: (1) Craniotomy is justifiable in cases in which the parents wish for something to be done, and when the patient is not too delicate. The mortality is about 15 per cent. (2) Too large a mass of bone should not be removed, and the operation should be done on the opposite side if requisite. The periosteum should be removed along with the bone. (3) Favourable results follow when microcephaly is associated with epileptic attacks, subsultus tendinum, rigidity, or paresis. (4) In the present state of our knowledge the cause of the disease cannot be determined with certainty, hence it is impossible to say what will be the result of the operation.

MIDWIFERY AND DISEASES OF WOMEN.

(148) Uncontrollable Vomiting in Pregnancy.

Blanc (*Archives de Tocologie et de Gynéc.*, June, 1893) deplores the difficulties which the practitioner encounters when he has charge of a patient with uncontrollable vomiting during pregnancy. If performed too early, induced labour involves the destruction of a fœtus that might have lived. If too late, after great emaciation, syncope and delirium have set in, the patient's death may be deferred for a very short time, or even hastened. The uterus cannot be made to contract in these advanced cases. Hence it must be emptied of its contents. Blanc attended a lady in her third pregnancy. The first had been normal, the second ended by spontaneous abortion at the fourth month after uncontrollable vomiting. On this

occasion the patient had reached the third month of pregnancy. The vomiting was very severe, there was fever, and the least movement produced faintness. Cerium, cocaine, ice, champagne, and chloroform water had all proved unavailing. A laminaria tent was introduced; it set up contractions, which soon passed away. Next day another tent was passed into the uterus. A day later, a long strip of iodoform gauze was pressed into the uterine cavity. At the end of twenty-four hours no contractions had occurred, and the patient was delirious. She was placed under ether; then the uterine cavity was scraped thoroughly, and the fœtus, placenta, and membranes removed by means of the curette. A plug of iodoform gauze was packed in the uterus after irrigation with sublimate. Subcutaneous injections of ether and caffeine were then given. By the next morning the delirium had passed away, and the patient could take a few cups of cold milk and soup and a little champagne. At the end of a fortnight she was restored to perfect health.

(149) Small-pox in Pregnancy.

Richardière (*Rev. Obstét. et Gynéc.*, June, 1893) takes the following precautions at the Aubervilliers Hospital. All pregnant women with small-pox are immersed every day for a quarter of an hour in a sublimate bath. When the eruption is abundant two baths are given daily. The external parts are continually covered with compresses soaked in Van Swieten's liquid (sublimate 1 part, alcohol 100 parts, distilled water 900 parts). Sublimate injections are administered twice a day. This treatment is continued without modification after delivery or abortion. Only in patients in whom the temperature rises are intra-uterine sublimate injections given. When required they prove very efficacious and always cause the complication to disappear. This treatment has answered well; only one patient felt the effects of sublimate. A moderately severe attack of stomatitis occurred, so that the mercury was replaced by permanganate of potash.

(150) Nephritis of Pregnancy and Death of Fœtus.

Odebrecht (*Centralbl. f. Gynäkologie*, No. 30, 1893) relates that a primipara, aged 27, caught cold at the beginning of the ninth month, and uræmia set in, followed by convulsions and partial coma. The scanty urine coagulated completely. No pains had set in. The eclampsia ceased after large doses of morphine and wet packing. Twenty-four hours later the patient, perfectly conscious, declared that the movements of the child had ceased; the fœtal heart sounds could not be heard. Five days afterwards a dead macerated child was discharged. Two circumscribed effusions of blood of the size of a walnut were found in the placenta. In Odebrecht's opinion they accounted for the death of the fœtus. Neither casts nor blood corpuscles nor pus cells could be found in the highly albuminous urine. Hence the local disease was not acute nephritis, but rather the kidney of pregnancy, and the sudden chill increased renal congestion, setting up eclampsia and uræmia in the mother, and killing the child through placental apoplexy. The case is an excellent example of the relation between renal disease in the mother and death of the fœtus.

(151) A True Hermaphrodite.

Messner (*Virchow's Archiv*, Vol. cxxix, part 2, 1893) describes a case where a man, aged 31, menstruated after the age of 21 regularly every month, blood flowing for several days from the urethra. In external form he was like a woman, but his outer organs were of the male type. Coitus was attended with free emission, and he begat one child. An ovary was distinguished on the right side.

(152) Acute Diffuse Sublimate Eczema in Childbed.

Berner (*Centralbl. f. Gynäk.*, No. 29, 1893) reports this case. The patient was a primipara, aged 31; the labour was normal, the parts were repeatedly explored, and sublimate injections used in the customary way. On the second day typical eczema appeared in the neighbourhood of the vulva. It gradually spread, until it invaded the whole body, and quickly disappeared. On the tenth day free desquamation was observed. There had been but little fever; the highest temperature (101°) was reached on the tenth day. The left breast afterwards became inflamed, and was punctured, and sublimate was again used. On the next day an eczematous rash appeared around the breast. It soon faded, and did not spread. The history proves that the sublimate was the cause of the eruption, an intolerance of the salt being an idiosyncracy of the patient.

(153) Sporadic Scarlatina in Childbed.

Schramm (*Centralbl. f. Gynäk.*, No. 29, 1893) describes an instructive case. A healthy woman, aged 24, was normally delivered of her first child on February 2nd, 1893. On the 4th she felt feverish, and complained of pain in swallowing. On the 6th there was marked angina. The lochia were odourless, the abdomen soft, the genitals free from any sign of inflammation. In the evening a typical scarlatinal rash appeared on the abdomen, and spread on the next day all over the body. The typical "strawberry tongue" was observed. Delirium and high temperature set in and lasted several days; on the 10th desquamation began. A quack got the case into his hands and applied massage while the patient lay in a cold bath. She ultimately recovered. The symptoms all indicated scarlet fever. According to Olshausen, angina is trifling in puerperal scarlatina. In this case it was very severe. The absence of peritonitis and inflammation of the genital tract contra-indicated septicæmic rash. The source of infection could not be traced. Neither her physician nor her midwife had recently attended any case of scarlatina, and no cases occurred, about the time of her lying-in, in the neighbourhood of her dwelling. She had never suffered from scarlatina nor from measles before.

THERAPEUTICS.

(154) The Serum Treatment.

Hammerschlag (*Deut. med. Woch.*, July 27th, 1893) first refers to Stern's experiments (Epitome, October 15th, 1892, par. 340) in regard to the immunity conferred on some animals by the blood of patients convalescent from enteric fever. Five patients suffering from enteric fever were transfused with blood from those convalescent from the same disease, with the idea that this blood contained a substance capable of neutralising the typhoid poison. Blood was received into a 150 c.c. glass previously sterilised, and 5 to 6 c.c. of a 4 per cent. solution of sodic oxalate were added to prevent coagulation. This salt is preferable, but citrate of sodium may also be used. At first the serum was alone injected, but later the blood itself—40, 50, or even 80 c.c.—was used, as there was no deposit whatever. In the first three patients no result of any kind was apparent. The temperature curve in the other two cases was remarkable. The fourth patient was transfused at 6 P.M., and during the night there was a rapid fall of temperature without any sign whatever of collapse. The next afternoon, however, the temperature rose again to its former level. In the fifth case there was also a fall of temperature; but here a hæmorrhage occurred. There were, however, no signs of collapse, and with a second hæmorrhage later there was no fall of temperature. This patient ultimately died, quite independently of the transfusion, the case being a very severe one from the beginning. Thus, the transfusion of this blood would appear to have no lasting effect. The fall of temperature, at least in Case IV, was very striking, and it is possible that this blood contains a substance counteracting the typhoid poison and producing a temporary apyrexia. In the first three cases the donors had only been free from fever for a short time, whereas in the last two the period was from five to seven weeks. It is known experimentally that immunity is not established at once, and that relapses may occur in enteric fever even after several weeks, and hence the negative result in the first three cases may be explained. No certain conclusion can, however, be drawn from these cases. The author refers to the apparent negative results obtained by Chantemesse and Vidal with the blood of animals made immune against the enteric fever poison.

(155) Curative Serum in the Treatment of Tetanus.

Moritz (*Münch. med. Woch.*, July 25th, 1893) first refers to the experimental evidence on which the treatment by

Behring's serum is based. A much larger quantity of serum is required for the purposes of cure than of immunity. A very active serum is needed for cure in the case of man. Such a serum is that used by Behring. It has cured many acute and advanced cases of tetanus in mice and guinea-pigs. The author then records the following case treated with this serum. A boy, aged 12, had slight stiffness of the jaws on April 17th. Six days later there was general rigidity, with opisthotonos, the arms being least affected. Priapism was present. The reflexes were much exaggerated, and violent spasms supervened if the bed were touched. Temperature 38.4°, pulse 140. No wound was found anywhere, but some healing chaps and cracks were present on the hands. A feeling of suffocation was complained of. On April 25th there was some cyanosis. Thirty c.cm. of serum were injected in the morning, and 20 c.cm. in the afternoon. On the 26th and 27th respectively, 30 c.cm. and 15 c.cm. were also injected. On April 29th the boy expressed a desire for food and from this time steadily improved. On May 17th he was up and about, and on the 21st he came to the Poliklinik. In estimating the value of treatment, the ordinary prognosis must be considered. The chief elements are (1) shortness of the incubation period, and (2) rapid development of the symptoms. Judged in this way, the above-named case would be one of medium acuteness. The rapid pulse and respiration, the cyanosis, the occasional delirium, and the presence of fever, however slight, were all unfavourable signs. Of course, it cannot be absolutely stated that the recovery was due to the treatment, yet the severity of the symptoms—which latter became stationary when the treatment by large doses of the serum was begun, together with the experimental evidence—lead the author to believe that in this case the serum had a beneficial action on the disease. The cases treated by Tizzoni's antitoxin hardly sufficed for an absolutely trustworthy conclusion. Behring's serum contains this antitoxin. The author, in conclusion, urges a trial of this serum, so that it may be ascertained whether the serum treatment will answer the expectations formed of it.

(156) Preventive Treatment of Pleuritic Exudation.

Volland (*Therap. Mon.*, July, 1893) describes a new principle he was led to adopt in the treatment of exudative pleuritis. In the former disease, absolute rest in the recumbent position is stringently imposed, and the author considers that similarly, on the slightest indication of the formation of pleuritic fluid, the patient should be kept absolutely at rest. He points out that if, with a small quantity of fluid, a patient raises himself in bed, the exudation has a natural tendency to alter its position, which causes a gradual but certain compression of the lung in a new locality. While the fluid is changing its position, a negative pressure is exerted on the portion of lung which had been contiguous; and as expansion of the lung cannot at once fill the space produced, blood and lymph exude, thereby increasing the quantity of effusion. If, therefore, the patient be allowed continually to change his position by turning or raising himself, every facility is afforded for the extension of the disease. Secondarily, the resulting fatigue produces more laboured respiration, which also reacts unfavourably on the affected lung. In view of these facts the author keeps his patient in the recumbent position until the temperature has been normal for eight days, the heart and respiration being the guides as to increase of fluid, but no movement being allowed for the purpose of examining the chest or for any other object. Only after the lapse of time mentioned fluid may be looked for, and, should any remain, a further period of rest is enjoined. The author has met with striking success in the cases he has thus treated immediately after there was any evidence of fluid. In this connection he also describes his experience with two cases of acute tuberculosis which were similarly cured by rest, this serving to restrain the circulation of breaking down tuberculous nodules in the blood. He gives reasons in support of the diagnosis, and points out that the two cases occurred at a considerable interval and during a local absence of enteric fever.

(157) Nitro-glycerine in Epileptic Paroxysms.

The use of nitro-glycerine and nitrite of amyl in warding off an epileptic seizure when the first symptoms of the aura are recognised, has long been known, but Bates (*New York Med. Journ.*, July 29th) advocates the use of nitro-glycerine by hypodermic injection during the convulsion. In his first case the patient had had attacks for four years: he had fallen in an attack, was rigid, totally unconscious, with violent muscular convulsions, foam about the mouth, and all the symptoms of an epileptic seizure. A hypodermic injection of $\frac{1}{100}$ grain of nitro-glycerine was given, and, before the needle could be withdrawn, total relaxation took place, consciousness returned, and the patient asked for a glass of water. Bates has tried the plan in twelve cases without a failure; only once a second injection was necessary. The method shortens the attack, saves fatigue, lessens the after-effects, and, the author thinks, has some influence on the frequency of the attacks. The after-treatment consists in the administration of bromides in a bitter infusion, hops being preferred, and the use of minute doses of nitro-glycerine.

(158) Paraldehyde Habit.

Elkins (*Edin. Med. Journal*, July, 1893) reports a case in a man, aged 65. For seven years the patient had suffered from insomnia, and two and a-half years ago he began to take paraldehyde. The habit was soon acquired, and he took as much as 16 ounces a week before admission. At this time he was anxious, anæmic, emaciated, tremulous, and restless. His gait was unsteady. The breath smelt of paraldehyde. The heart's action was feeble, irregular, and intermittent. The distillate from the urine did not smell of paraldehyde. After he had been in the asylum a few days, the mental symptoms became more marked, and he had visual and aural hallucinations as well as delusions of an unpleasant kind. For the first three nights some paraldehyde was given. About a week after admission, sulphonal was administered with apparently good effect. The author draws attention to the resemblance (such as might be expected) between these symptoms and delirium tremens, with the exception of the extreme emaciation, the effect on the heart, and the abnormally large appetite seen in the paraldehyde habit. The patient was discharged well in three months.

PATHOLOGY.

(159) New Growths and Parasites.

For the demonstration of parasites in the liver of rabbits affected by psorospermosis, Heneage Gibbes (*Amer. Journ. of Med. Sci.*, July, 1893) employs a method of double staining by which the parasites are coloured distinctly from the ordinary structures of the part, and at the same time uniformly throughout the section. He proceeds as follows: Two c.c. of anilin oil are dissolved in 10 c.c. of Cologne or rectified spirit; the solution is made up to 100 c.c. with distilled water, and filtered. Practically a saturated solution is thus obtained. With this anilin water a 2 per cent. solution of rosanilin-sulphate is made for stain No. 1, and a 1 per cent. solution of iodine-green for stain No. 2. For use filter No. 1 into a watch glass, and place in it some sections of rabbit's liver hardened in alcohol; leave them in for ten minutes. Wash in water, then in alcohol, and place in stain No. 2. Remove a section from time to time, and examine in distilled water; when the original red colour has changed to a dull purple, the staining may be considered sufficient. Wash in water to remove excess of colour, alcohol, clove oil, balsam (xylol). By this method the parasites are stained red, nuclei and leucocytes green, fibrous tissue and protoplasm of liver-cells purplish-red. In sections of fresh cancer, hardened in the usual manner and treated after the above method, Gibbes has been unable to demonstrate parasites. His observations lead him to conclude that the appearances found in a small percentage of glandular carcinoma, and supposed to indicate parasitic life, are caused by endogenous cell-formation. The large majority of glandular carcinomata show nothing which can be considered parasitic when hardened by any method which, when applied to normal tissue, will give a typically normal section.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(160) Pathology of Headache, Epilepsy, and Mental Depression.

Haig (*Brain*, Summer Number, 1893) holds that relative excess of uric acid in the urine indicates excess of urate in the blood; that excess of urate produces contraction of arterioles and capillaries, and, by this action on the intracranial vessels, may be the cause of headache, mental depression, or epilepsy. The urine excreted during an attack of migraine, epilepsy, or hysteria is scanty, and contains excess of uric acid; when the attack passes off the excess of urate ceases, and copious excretion of urine takes place. All drugs that clear urates out of the blood and lessen their elimination through the kidneys simultaneously relax the arterioles, and cause diuresis. Conversely, drugs which increase the urate in the blood and urine produce contracted arterioles, slow high tension pulse, and scanty urine as long as the increased urate excretion lasts. The author infers therefrom that the degree of contraction of the peripheral arterioles throughout the body is directly proportional to the amount of urate in the blood. He quotes researches of Grashey to explain the manner in which the intracranial circulation is affected by augmented blood pressure. That experimenter found that the quantity of blood passing through the cerebrum in a given time rises with the pressure in the aorta up to a certain point; beyond that point the intracranial pressure is so great that the "central veins are compressed and begin to vibrate:" stasis in the veins and capillaries results. The author assumes, therefore, the following sequence: (1) uric acidæmia; (2) general contraction of arterioles and capillaries, producing high arterial tension: (3) consequent intracranial hyperæmia and stasis, giving rise to headaches, fits, or depression. By largely reducing the total nitrogenous metabolism it is possible to cure or relieve nervous conditions dependent upon uric acidæmia. The author reduced his own average urea formation from 500 grs. daily to 350 grs., by substituting small quantities of milk and fish for meat; as a result, his headaches fell from an average of forty-five yearly to five in twelve months. He notes that in mental depression associated with high arterial tension digitalis is harmful; on the other hand, when the depression coexists with low tension and weak heart the drug often is of much value. He recommends that if a patient suffers from headache or mental depression, and passes on ordinary diet 600 grs. of urea daily (18 grs. of uric acid), such diet should be used as will reduce the urea to about 400 grs. daily (12 grs. of uric acid). In epilepsy a further reduction of urea may be necessary. The author cites a case of epilepsy permanently cured by adoption of vegetarian diet and periodical catharsis.

(161) Recovery from Pneumothorax.

Klemperer (*Deut. med. Woch.*, June 22nd, 1893), at a meeting of the Berlin Medical Society, showed a man, aged 21, who had recovered from pneumothorax. He had been a costermonger for a year and a-half, and was the subject of an obstinate laryngitis as a result of his shrill cries. He had previously enjoyed good health, and on November 18th, 1893, he got up feeling as well as ever, and went out to buy some new goods. As he was walking he felt a stitch in the left side of his chest, walked a couple of steps farther with great difficulty, and then fell down unconscious. When brought to the hospital dyspnœa and cyanosis were both very marked; the right side of the thorax was moving at the rate of 72 per minute, while the left side was motionless, and all the typical signs of pneumothorax were detected. There was no history of phthisis, nor were there any physical signs of it, therefore it was supposed that the effect of the street crying had been to produce emphysema, and that the rupture of an emphysematous lung produced what Leyden calls a "simple pneumothorax." The patient was kept absolutely quiet in bed, and by the middle of the second week faint vesicular breathing could be heard on the left side. He got out of bed on December 3rd for the first time after the accident, and left the hospital three weeks after his admission, with the breath sounds as nearly as possible equal on the two sides.

(162) Pulsating Pleural Effusions.

In a paper on this subject J. C. Wilson (*Med. News*, July 15th) says that the pulsations are always synchronous with the ventricular systole; as a rule they may be detected alike upon inspection and palpation, but sometimes by the latter method only. When intrapleural, the pulsation may be limited to two or three intercostal spaces. More commonly it occupies the greater part of the anterior aspect of the thorax, as far to the left as the anterior axillary line; in some cases it has occurred posteriorly. Frequently the pulsation is only of moderate force, requiring some attention for its recognition. In the majority of the cases the fluid is purulent. Only in exceptional cases could any difficulty arise in the differential diagnosis between this condition and thoracic aneurysm. Aneurysm of the aorta bears a definite relation to the central long axis of the chest; its invasion of regions of normally clear percussion is circumscribed; it is usually the seat of murmurs or other sounds synchronous with the rhythm of the heart. The signs of pulsating empyema are generally upon the left side and at a distance from the median line, the percussion dulness is uniformly at the base of the chest and extended, and murmurs are not present. The anatomical associations of this condition are: (1) Some degree of paresis of the intercostal muscles, such as occurs only in large effusions usually of long standing; (2) local necrosis and perforation of the parietal pleura; (3) pneumothorax, latent or manifest; (4) an atelectatic condition of the lung in whole or in part, the left lung being in relation with and adherent to the pericardium.

(163) Hysterical Contracture.

Babinski (*Gaz. d. Hôp.*, May 9th, 1893) attempts to establish the points of difference between this form of contracture and that resulting from organic disease. The resistance in organic contracture gives the impression of being endowed with elasticity, and is sometimes attended with tremor more or less marked. Muscular rigidity is relatively slight, even when the spastic paralysis is intense. The tendon reflexes are always exaggerated except in complicated cases. In hysterical contracture the attitude of the limb is quite different, muscular rigidity is generally very pronounced, and the tendon reflexes are not exaggerated. These differences were well brought out in a patient the subject of organic hemiplegia with contraction, as by suggestion a hysterical contraction was produced on the opposite side without alteration of the tendon reflexes. The author considers that a psychical act is necessary both to contract and to relax a muscle, and that hysterical contracture is due to a prolonged muscular contraction, consequent on the patient being incapable of exciting the psychical act necessary to relax the muscles.

SURGERY.

(164) Treatment of Gunshot Wounds of the Abdomen.

Von Bramann (*Centralbl. f. Chir.*, Beilage, No. 30, 1893) reported at the last Congress of the German Surgical Society eight cases of gunshot wound of the abdomen, the results of which have led him to the following conclusions: (1) In all cases of gunshot wound of the abdomen in which signs of injury of the stomach or intestine or of profuse internal bleeding are presented immediately after the injury prompt laparotomy is imperatively indicated. (2) The operation is especially indicated in every case in which the direction taken by the bullet leads not only to a probability, but even to a possibility, of the existence of a wound of the stomach. In 99 per cent. of cases of such injury to the stomach death is inevitable under any plan of expectant treatment. (3) When undetected, laparotomy should be performed as soon as possible in cases of gunshot wound of the abdomen, as the prognosis becomes more unfavourable after every hour, and—particularly as a result of septic perforation—peritonitis is very bad indeed after an interval of twenty-four hours. (4) The indications for laparotomy thus furnished by the results of abdominal gunshot wounds

in civil practice are still more imperative in the practice of military surgery. (5) Hæmorrhage caused by gunshot wounds of the liver and spleen should be assisted by plugging after laparotomy. (6) Operative interference and extirpation in cases of gunshot wound of the kidney are indicated only by profuse and persistent bleeding. (7) A lateral wound of the ureter may heal spontaneously; complete division, however, indicates stitching, and, in case of failure of this plan, nephrectomy. (8) Gunshot wound of the bladder should invariably indicate suprapubic section and closure of the wound by sutures, and the retention during the healing of a urethral catheter.

(165) Suppurative Otitis followed by Cerebral Symptoms.

Gellé (*Ann. des Mal. de l'Oreille*, etc., July, 1893) describes a case of post-influenzal otitis in which the escape of pus was not followed by relief of pain. Severe headache, violent pain in and in front of the ear and down the vascular groove of the neck, where there were tender enlarged glands, were the next symptoms. The mastoid was free from tenderness or any other sign of disease. After a couple of days the discharge of pus ceased, but "the rigors, fever, and pain set in again with great intensity," the patient's appearance and general condition becoming materially worse. Then there developed a swelling on the floor of the meatus, which blocked the passage. On incision there was a free escape of pus, and exposure of bone. Irrigation of the abscess was practised for eight days, and the symptoms improved considerably, but two days later violent headache returned, a hectic condition came on, and the patient died comatose after another week, in spite of trephining. There was basal pachymeningitis and generalised purulent meningitis. There was no extradural abscess. The lateral sinus was thrombosed and totally obliterated, and the bony groove was rough, but not perforated. The internal auditory meatus was normal, and there was very little pus in the tympanum and antrum, over which the cortex was formed of compact bone. The partition between the lateral sinus and the external meatus was least at the orifice, and greater towards the deeper parts. Gellé insists on the excavation being carried parallel with the direction of the meatus. The profound constitutional disturbance in the absence of local mastoid symptoms should suggest purulent meningitis. In this case the extension did not take place by entrance of pus through some gross opening into the cranium, but by microbe invasion "by all the elements of the tissues, the lymphatics, the veins, the migratory cells, etc." The condition of the tympanum indicated old disease, dating probably from infancy.

(166) Treatment of Gall Stone Obstruction.

Abbe (Reprint from the *Medical Record*, May 6th, 1893), states that obstruction of the common duct is by no means the gravest form of gallstone disease from a surgical point of view. There is no point of the common duct from which impacted stones have not been removed. The literature of the cases of free incision of this duct when distended now includes a considerable number where suture of its walls has resulted in immediate healing. The recoveries, it is asserted, are so uniform that it may be regarded as scarcely more dangerous than incision and drainage of the gall-bladder. It is, of course, a more difficult operation to suture a small duct in a deep wound, but in cases of pathological dilatation of the common duct the walls are thickened, and when the stone has been removed they are so free as to be easily secured and brought together by stitches. The continuous silk suture is held to be the best. It has been proved that the incised duct may be left open, and that recovery may result provided the deep portion of the wound be drained. If the stone be impacted near the duodenal opening of the common duct, the only safe way of removing it is to open the intestine. The wound in the coats of the duodenum, the author states, is an innocent addition to the surgical interference, if it be properly closed by sutures. Whilst acknowledging that cholelithotrity or crushing of the stone in its duct will be found a justifiable and useful operation under certain circumstances, Abbe holds that free incision is now recognised as so safe and successful a method that any substitute for it, except for emergency, does not represent the best surgery. Profound jaundice, it is pointed out, is not a contra-indication of surgical interference in cases of obstruction from gallstone. In two very successful cases of incision of the common duct jaundice had lasted for over two years, and in one of these instances the blood had a noticeably slippery feeling from retained bile. The author advocates, in suitable cases, the formation of an anastomosis between the gall bladder and the bowel. The method of stitching by a double row of Lembert's sutures is preferred to the use of plates or buttons. In order to avoid subsequent closure of the opening by cicatricial stenosis and consequent recurrence of jaundice, the incisions in the gall bladder and intestine should each be an inch and a-half in length. It is held advisable to open the colon and not the small intestine. The bile is not now considered to be a necessary digestive secretion, and the subjects of chronic external fistula pouring out the entire bile flow often gain weight and health.

(167) Closure of Large Bony Cavities.

In order to promote healing of the large bony cavities which are sometimes left after the removal of large sequestra, or in cases of osteomyelitis, de Schulten (Surgical Congress, Gothenburg, *Sem. Méd.*, July 19th, 1893) recommends the following operation. If it is a case of osteomyelitis of the tibia, an incision is made over the middle third of the bone, and the anterior wall of the cavity, extending from one end of the diaphysis to the other, removed by means of a chisel; the sequestrum is then removed and the cavity thoroughly scooped out with a gouge, and then packed with iodoform gauze. Two or three weeks afterwards a second operation is performed when the granulations are scraped from the inner wall of the cavity, and then the walls are cut across above and below, and the chisel driven through the floor along the whole length, so as to separate the bony walls of the cavity into two lateral halves. The sides are then brought together with sutures and the wound closed. In five cases of disease of the tibia with loss of bone substance this operation has been employed, in all of them with good results.

MIDWIFERY AND DISEASES OF WOMEN.

(168) Laceration of Vagina in Labour; Amputation of Uterus.

Schick (*Prager med. Wochenschrift*, July 19th, 1893) states that a woman, aged 36, was admitted into the Prague Lying-in Hospital at 5 A.M. on the morning of December 25th. It was her second labour; the first had been concluded by craniotomy. The patient was rachitic. As the pains grew feeble, and the head had advanced but little by 10 A.M. on December 26th, the forceps was applied, and, after eight or ten powerful tractions, the head was delivered. The child was asphyxiated, and could not be restored to life. The placenta did not come away, and, two hours after the birth of the child, expulsion was tried in vain. A laceration was then discovered in the anterior vaginal fornix, extending into the right parametrium, and the placenta lay in the abdomen, and was extracted by the hand. It was evident that there was much internal hæmorrhage. Abdominal section was at once performed. A great quantity of blood was removed from the abdominal cavity, and the wound could not be closed. An elastic ligature had to be passed round the cervix. The edge of the wound on the side corresponding to the anterior vaginal wall was drawn into the loop of the ligature by means of dressing forceps. A strip of iodoform gauze was passed through the part of the laceration, which involved the right parametrium so as to lie in the vagina; the parametrium was then sutured. The appendages were removed and the uterus amputated. The patient was greatly collapsed but ultimately recovered. Schick considers that the laceration occurred spontaneously, but was undoubtedly increased by the necessary operative measures.

(169) Primary Cancer of the Vulvo-vaginal Gland.

Schweizer (*Archiv f. Gynäk.*, vol. xliv, No. 2, 1893) describes a case of primary cancer of the vulvo-vaginal—Cooper's, Duverney's, or Bartholin's—gland. In February, 1889, a woman, aged 58, ap-

plied to Rumpf of Berlin. She was a multipara. A hard lump had appeared in the vulva during the previous summer. He detected, in the posterior part of the left labium majus, where abscesses of the vulvo-vaginal gland are found, an induration as large as a pigeon's egg. The dilated orifice of the duct could be traced into the induration. The integuments were healthy, and the mass did not adhere to the bone. There was distinct swelling of the inguinal glands in both groins. The disease was, very naturally, diagnosed as chronic inflammation of the gland. The patient did not appear again at the hospital till February 16th, 1892. The swelling was then as large as a hen's egg, the orifice of the duct admitted the tip of the finger, and blood issued from it. The skin was adherent, though not ulcerated; the tumour adhered to the bone. On March 8th Rumpf removed the tumour. The healthy tissues around it were freely removed. There is no mention of hæmorrhage, and the skin was closed over the wound, which healed by first intention. As the inguinal glands had not grown larger since 1889, they were not removed. In June, 1892, the glands in the right groin had greatly enlarged, and were almost fixed, but the patient declined any further operative interference. Schweizer publishes a full pathological report of the tumour, which proved to be a small-celled carcinoma of the vulvo-vaginal gland, originating in the secreting portion and not in the duct. Schweizer believes that Rumpf's case is the first actually diagnosed and described as primary cancer of the vulvo-vaginal gland. He believes that some cases recorded as cancer of the labium were really of the same kind, and Fritsch, Klob, and others have suggested malignant degeneration of the gland after chronic inflammation. Several cases of cancer of Cowper's glands in the male have been described.

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(170) Albuminuria after Labour.

Aufrecht (*Centralbl. f. klin. Med.*, No. 22, 1893) examined the urine in 32 patients, in good health and without gonorrhœa, before labour, immediately afterwards, and again twenty-four hours later. The catheter was always made use of and precautions as to cleanliness employed, the result being that no albumen was found before or twenty-four hours after labour, but 18 of the above patients showed albumen, varying in quantities from 0.002 to 0.0005 per cent. in the urine drawn off immediately after parturition. Boiling, nitric acid, and Erbach's quantitative test were applied to each specimen, and microscopically the albuminous urine contained epithelial cells, and in one case blood corpuscles, but never casts. The labours were all normal, and the puerperal period gave no trouble. The author considers that the violent expiratory efforts cause a temporary venous obstruction and consequent albuminuria. From these observations he draws the following practical conclusions: (1) As regards labour, the urine should be examined immediately beforehand; if albumen be present, labour should not be allowed to continue too long, in view of the probable increase of albumen; should eclampsia occur, its cause may lie in the state of the urine, and parturition, if practicable, should be accelerated. (2) As regards the pathology of the kidney, it is shown that albumen may exist without casts; these are therefore probably an accompaniment of a congested kidney and a product of inflamed epithelial cells.

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(171) Labour in an Albuminuric Patient: Effects of Chloroform.

Poitou-Duplessis (*Arch. de Tocologie et de Gynéc.*, July, 1893) read, before the Obstetrical and Gynæcological Society of Paris, in June, an important communication on the Administration of Chloroform in Albuminuric Subjects. He noted a case where a patient excreted 15 grains of albumen daily. She gave birth to twins, one child presenting by the vertex, the other by the breech. Chloroform was, nevertheless, administered for three consecutive hours during labour. After delivery the urine no longer contained albumen, excepting the faintest trace. This case, in Poitou-Duplessis's opinion, proves that the German theories on the effect of chloroform on the kidneys, even when albuminuria is present, are inexact. Charpentier remarked that the sudden disappearance of albumen in this case was a phenomenon often seen after labour.

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(172) Amenorrhœa and Corpulence.

Lomer (*Centralbl. f. Gynäk.*, No. 27, 1893) described before the Hamburg Obstetrical Society a case of extreme obesity following amenorrhœa. The patient had become exhausted by prolonged lactation. She gained 50 pounds in a year, and was so fat that she could scarcely walk. She suffered badly from vertigo, flushings, and epistaxis. The cervix was scarified; all the symptoms, especially the bleeding from the nose, disappeared; and the patient diminished in weight. Kirsch, it was pointed out, has already practised abstraction of blood in the treatment of excessive corpulence.

THERAPEUTICS.

(173) Action of Guaiacol and Iodoform on the Chemical Poisons of Tuberculosis.

Up to the present time nearly all researches made with regard to the action of chemical substances in tuberculosis have been directed to studying their action on the living bacilli, regarding these as the first elements necessary to attack, and leaving aside any pathological influence of the toxines secreted by the bacilli. They aimed, in fact, at finding a drug which, while not toxic to the human body, was yet fatal to the microbe. Venturi (*Lo Sperimentale*, July 15th, 1893) has approached the subject from a different point of view, and has tried to combat by means of drugs the action of the sterilised chemical products of the tubercle bacillus. He found that there was no constant appreciable difference between the duration of life and lesions of animals inoculated with the sterile cultures together with the drug, and those of control animals inoculated with the toxin only. Iodoform and guaiacol therefore exercised no retarding influence, whether injected separately or along with the toxin, nor even if the toxin had been mixed with either of them for a considerable time before being injected. With regard to the use of the drugs by the stomach, the author considers that they do more harm than good by deranging the digestive processes. Venturi believes that as iodoform exhibits no destructive action on the toxins of tuberculosis, and as its destructive action, if it really exists, on the micro-organisms is due to the liberation of iodine, it would be wiser to substitute some less noxious substance, such as one of the alkaline iodides, for iodoform, which is itself capable of doing considerable injury to the patient. Good feeding, good hygienic conditions, and a good climate, are in his opinion far more valuable than any remedial agents hitherto discovered.

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(174) Stomach Washing in Infants.

Tuley (*Med. News*, July 1st) advocates stomach washing in cases of acute dyspepsia and acute or chronic enteric catarrh with vomiting in infants. Plain lukewarm water previously boiled is the only fluid that should be used; generally not more than one pint is required to wash out the stomach thoroughly. The child is seated upright in the nurse's lap, its arms being secured under a rubber sheet, with its head resting on the right arm of the nurse, and inclined slightly forward; the child's tongue is depressed with the left forefinger, and the tube can then easily be introduced into the stomach. There is often some gas in the stomach, and this should be allowed to escape before the washing is commenced. There may be lumps of curd which will not pass through the eye of the tube; these can either be broken up by repeated washings or by overfilling the stomach they may be expelled by vomiting and escape by the side of the tube. The stomach of a healthy infant for the first few months of life is generally empty two hours after feeding, but in cases of indigestion curds may be washed out four, five, or even eight hours after a meal; when there is much thirst it is advisable to leave one or two ounces of water in the stomach, as this will often afford much relief. No food at all should be given after the washing, and then only that which is most easily digested. For the first twenty-four or thirty-six hours nothing but malted milk should be given whether the child be breast fed or not, and only half an ounce should be given at the first feeding. The best results are seen in cases of acute dyspepsia in the initial stage, with or without diar-

rhœa and without fever; rarely is more than one irrigation necessary. In acute gastro-enteric catarrh with vomiting and fever usually two washings are necessary, rarely more than three or four; the irrigation improves the tone of the stomach and diminishes the number of stools. It is a valuable and effective means of combating a troublesome symptom in gastro-intestinal diseases as it mechanically rids the stomach of accumulated milk and curds, which unless removed would pass into the intestines and give rise to irritation. It is also of use in cases in which there has been vomiting from birth or in which there has been continual regurgitation of food as it removes curds and thick mucus, the presence of which is nearly always associated with disordered digestion. In some cases it may be found necessary to continue the washing for perhaps two weeks, at first every day and then less frequently, but in the majority of cases vomiting is relieved in from one to three washings repeated on successive days. It is a simple, effective, and thoroughly mechanical procedure, and is entirely free from danger.

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(175) Papain.

Sittmann (*Münch. med. Woch.*, 29, 1893) has made numerous observations with papain, as obtained from the fruit of papaya carica growing in the tropics. The substance is a yellowish powder, having an aromatic taste, somewhat resembling that of a meat extract, and is a remarkable solvent of albumen. The author found that two-thirds of a grain sufficed to change 150 grains of coagulated white of egg mixed with hot water into an opalescent milky fluid in the course of two hours, no free albumen remaining. The action is the same in an alkaline or faintly acid medium. As might be expected, it was found to assist the gastric juice when deficient, facilitate the digestion of albumen, and allow of its earlier passage into the duodenum, thus relieving the stomach. It was used in doses of 4 to 8 grains, made into a thin paste, and taken immediately after every meal, which was made to contain a large proportion of albuminous matter. Two to three doses caused cessation of pain in acute gastritis, and after a further period of twenty-four hours the appetite returned, a cure being effected in two to three days. In chronic cases treatment had to be continued sometimes as long as fourteen days, and in three of these cases, where undoubtedly an ulcer had at some period existed, recovery was very rapid, one patient, for instance, being again able to take meat without subsequent pain. Two cases of carcinoma pylori were also distinctly relieved. Striking results were obtained in three severe old-standing cases of dilatation, the treatment with papain being supplemented by electricity and massage applied to the epigastrium and abdominal wall. In one of these patients there was a gradual retrogression of the dyspeptic symptoms, and he is now able to eat meat three times a day. The third patient was in the habit of washing out his stomach nearly every night, which he now no longer finds necessary; externally a diminution in the size of the stomach also became noticeable. There was only transient success in gastric neuroses, but the author recommends the experimental application of the method with as little water as possible to diphtheritic membranes.

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(176) Pichi in Genito-urinary Diseases.

Friedlaender (*Therap. Mon.*, July, 1893) quotes the use made of pichi from time immemorial for many diseases by the natives of South America, especially of Chili. The praise bestowed on it on account of its power in cases of cystitis, etc., induced the author to test its value. He therefore prepared an extract from the plant, Fabriana imbricata, and found it to contain a resinous acid, tannin, and an alkaloid. Experiments on animals were not completed, but after proving its innocuousness, the author administered a teaspoonful of the extract three times daily to six patients suffering from affections such as cystitis, prostatitis, neuroses, acute gonorrhœa, epidydimitis, and balanitis, diseases for which it has hitherto been the practice to administer internal remedies. The general effect produced was good, sometimes to a surprising extent, and details of each case are given, showing especially its power in improving such conditions as frequent micturition, tenesmus with passage of blood and pus, pains in the lumbar region, etc. The extract, having a pleasant bitter though aromatic taste, increases the appetite, and for this reason alone is preferable to copaiba and sandalwood oil, while at the same time the remote action is at least equally satisfactory.

PATHOLOGY.

(177) Etiology of Colds.

Schenk (*Centralbl. f. Bakt.*, July 18th, 1893) has investigated the effects of warmth upon micro-organisms. He finds that bacteria examined in a hanging-drop preparation move towards the point at which, by means of a special contrivance, the temperature is highest. That this movement is a vital phenomenon and not the result of a mere flowing of molecules towards a point is proved by the fact that it is absent when fine granules of sepia are observed in place of bacteria. Upon this observation Schenk bases a theory of ordinary catarrh. The principal facts noted by him and the speculation based thereon may be summarised as follows: (1) Warmth excites movement in micro-organisms; they tend towards the centre of warmth (thermotaxis). (2) Thermotaxis is a vital phenomenon of bacteria; it is manifested even when the difference of temperature between two given points is only 8 to 10° C. (3) Single organisms illustrate this tendency in greater degree than those united in chains. (4) Ordinary colds may be arranged in two groups: those due to bacterial infection and those independent of this. In the former there is a well-marked interval (incubation period) between exposure to cold and the onset of the malady; in the latter the disease follows quickly upon the exposure. (5) When a person enters a cold room, air bacteria tend towards his body as towards a focus of warmth. (6) Thermotaxis is one condition necessary to the development of an infection cold; the second is penetrability of the skin or mucous membrane to microbes, or some possible circumstances permitting their entry into the body. The penetration of skin and mucous membrane has been shown by various experimenters. In conclusion, it seems possible that some varieties of cold are traceable to air bacteria, acting under certain conditions of temperature.

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(178) Sputum as a Cultivation Medium.

A. Schmidt (*Centralbl. f. klin. Med.*, July 29th, 1893) has tested various kinds of sputum, including pneumonic and pure mucoid tracheal secretion, with special reference to the growth of the pneumococcus. Pneumonic sputum lends itself easily to this purpose, the only difficulty being to get rid of the air bubbles; it is allowed to become solid at 65° C., and then sterilised. With pure mucoid expectoration there is more difficulty, as it must not be heated above 55°. If agar, pneumonic, and mucoid sputum be inoculated, the rate of growth of the pneumococcus is about the same on all three media, but in the two last named the capsule is present. Thus this micro-organism grown on sputum is like that found in the body and blood of infected animals, whereas that on agar shows a less well-defined form, and there is a tendency to chain formation. These difficulties are more marked after forty-eight hours, but after this they diminish. Inoculated from agar to sputum the pneumococcus again shows the capsule.

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(179) Microbes of the Ear.

Martha (*Ann. des Mal. de l'Oreille*, July, 1892) examined fifty cases, and found staphylococci twenty-seven times, streptococci eighteen, bacillus pyocyaneus twice, a number of saprophytes many times, but never the pneumococcus. He holds that "there is no well-defined clinical form corresponding to the presence of these different microbes." He insists on vigorous antisepsis of the ear and of the mouth, as also of the instruments and medicaments. Instruments demand greater care than is usually bestowed on them after use; mere dipping in antiseptic solution and wiping being insufficient. Cotton wool should be rendered and kept aseptic before use, as many specimens in the possession of patients were found to be infested with microbes.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(180) Gangrene complicating Cholera.

Durr (*Rev. de Méd.*, July, 1893) first refers to the great rarity of this complication. He relates the following case in a man, aged 50, who had been suffering for some time from dyspepsia, and who was greatly afraid of cholera. On September 19th he was seized with premonitory diarrhœa, and two days later he was suffering from a typical attack of cholera. The reaction appeared on the 22nd, after which the patient, without permission, got out of bed. He was then seized with pain in the right leg, and the next day ecchymoses appeared on it, and there was an absence of warmth and sensation. On the following morning the toes were gangrenous. On the 28th he died, the gangrene having extended nearly up to the knee, and no line of demarcation having formed. Only the leg was examined after death, and nothing was discovered besides, perhaps, some narrowing of the posterior tibial artery. The author then refers to twelve recorded cases, including another of his own. The gangrene may be dry or moist. Of the twelve, three were examples—all fatal—of moist gangrene (Mouchet), including two necropsies. In the other nine it was dry, and only two recovered. In these dry cases the artery supplying the gangrenous area was obliterated. Thus this obstruction is constant, but there are three possible ways of explaining it: (1) embolism, (2) parietal arteritis, and (3) localised arterial spasm. Potain says that in enteric fever there is often spasm of the arteries of the limbs, but, if death occurs, the artery is found permeable. Vareot has insisted on arterial spasm in cholera; thus in one case the left pulse was imperceptible, but later it could be felt. The spasm may cease, or be the first stage of obliteration. In the author's case of gangrene in the hand there were two distinct periods, one of spasm, and the other of obliteration of the artery separated by a remission, in which the arterial pulsation could be felt. Reasoning from other infective processes, the author is inclined to think that the arterial spasm is probably secondary to an arteritis, and is not a primary condition.

(181) Peptonuria in Phosphorus Poisoning.

Robitschek (*Deut. med. Woch.*, June 15th, 1893) relates the following acute case from v. Jaksch's clinic. A girl, aged 19, took in solution the heads of five boxes of ordinary matches on November 27th. A few hours later there was vomiting and much pain in the epigastrium. On admission (November 30th) she was apathetic, and still complained of much pain and vomiting. The conjunctivæ were slightly icteric, but the skin of normal colour. Palpation over the liver and stomach regions was painful, but the liver could not be felt. The stomach was washed out with 8 litres of water, and then with a solution of copper sulphate—a method which has been used with good results in this clinic. Phosphorus was detected in the first washings. Albumen was present in the urine, and the deposit obtained by the centrifugal machine showed a few leucocytes and red blood cells. Careful examination proved the presence of abundant peptone. On December 1st, the skin and mucous membrane were yellowish. The patient was worse. There was no poikilocytosis or leucocytosis. The treatment consisted in the administration of sodium bicarbonate in large doses, potassic permanganate, and turpentine. The peptonuria was less marked. On December 2nd the liver was found to be enlarged and the icterus had increased. There was no destruction of red cells. No peptone was now present in the urine. The patient died the next day of cardiac failure. At the necropsy, the liver was found to be much enlarged, and abundant minute hæmorrhages were present in the body. This case shows that peptonuria does occur in phosphorus poisoning. It differs from Maixner's observations, in which the peptonuria corresponded to the intensity of the symptoms, and gradually disappeared with recovery. Von Jaksch refers the peptonuria to the scorbutus. It is conceivable that it stands in relation to the hæmorrhages, and that the peptone appears as long as fresh and abundant hæmorrhages occur in the body. It is important to prove the presence of peptone in the blood, but in this case the blood was only examined when the peptone was disappearing from the urine, and the biuret reaction was then doubtful.

(182) Labial Herpes and Cerebro-Spinal Meningitis.

F. Klemperer (*Berl. klin. Woch.*, July 17th, 1893) reports three cases of this form of meningitis. Case I. Woman, aged 18, both of whose parents had died of phthisis, had been ill for three or four days with pain in the head and giddiness. On admission there was stupor, restlessness, and great irregularity of the pulse. The abdomen was indrawn, the neck stiff, and the head slightly retracted. The next day there was vomiting, cutis anserina, and *tâche cérébrale*. Two days later the stupor was marked, the pupils reacted sluggishly, and labial herpes was present. The pneumococcus was cultivated from the herpetic vesicles, but its virulence was shown experimentally to be slight. The next day the meningeal symptoms were more marked, and there was epistaxis. From this time the patient began to improve, and was discharged completely well about a month after admission. Case II. Woman, aged 29, began to ail four weeks before admission with pain in the joints, and, later, in the right side of the chest. Exploratory puncture here yielded clear fluid. On February 24th there was some stupor, headache, pain and stiffness in the neck, and a rise of temperature. February 25th. There was vomiting, restlessness, and tremulous movements in the face muscles. On February 27th the pulse was irregular and herpes appeared. Next day there was Cheyne-Stokes breathing. The fundus oculi, as in the preceding case, was healthy. Later the left pupil was less than the right, both reacting sluggishly. From March 10th there was slow improvement, ending in complete recovery. Case III. A girl, aged 16, whose father had died of phthisis, became suddenly ill three days previously with fever, vomiting, and pain in the back. On admission she was apparently unconscious and very restless. There was great rigidity of the neck, clonic spasm in the left arm, and, later, weakness in the right side. On the sixth day herpes appeared, from which diplococci were obtained. She died on the eighth day, and pneumococci were cultivated from the meningeal exudation. There was no tubercle anywhere. In all three cases many things appeared in favour of meningeal tuberculosis. The author discusses the relation of labial herpes to herpes zoster, and he says that the identity is not yet established. He has investigated bacteriologically the fluid from fourteen recent and five older cases of labial herpes. He thinks that this herpes represents a special localisation of the original disease, or that when it is the expression of a mixed or secondary infection it seems as though an ordinary and non-specific cause acts as the etiological or complicating factor. The author thinks that labial herpes justifies the diagnosis of a non-specific or so-called epidemic meningitis as against the tuberculous form. He admits that there is much that is hypothetical in this idea, and that a single case of tuberculous meningitis with herpes would overthrow it, provided that a mixed infection was rigidly excluded. Herpes may accompany the suppurative meningitis of the tuberculous, but not pure meningeal tuberculosis. Recovery is more probable if the meningitis be of the simple kind and not tuberculous.

SURGERY.

(183) Massage in Muscular Rheumatism.

Graham (*Amer. Journ. Med. Sciences*, vol. cvi, No. 2, August, 1893), referring to lumbago, points out that this may arise from cold, strain, fatigue, or rheumatism. Its pathology is probably coagulation of the semi-fluid contractile muscular substance, and adhesion of muscular fibrils, so that motion gives rise to partial, irregular, and painful contractions. Retention of waste products occurs, the worst of these being uric acid. Recent cases of muscular rheumatism are almost invariably cured by a few massages. The same result may be brought about by rest, warmth,

electricity, or the use of such drugs as salicylate of soda, though not so rapidly. Graham claims for massage five different actions, namely, mechanical, thermal, electrical, nervous, and chemical, and suggests that when a case of apparent muscular rheumatism not only does not yield but does not remain improved after a few massages, the probability is that the case is one of neuritis affecting the nerve fibres that supply the impaired muscles. This probability would be strengthened when the pain is uniform, affecting the same muscles on both sides, when it is worse at night, when at rest and warm in bed, and better when up and moving about; whereas muscular rheumatism is aggravated by motion and relieved by rest and warmth. Massage may thus be used as a means of diagnosis between muscular rheumatism and neuritis.

(184) Riders' Bursa.

Le Fort and Albert (*Rev. de Chir.*, July, 1893) report four cases of a swelling near the knee, to which they give the name of riders' hygroma. According to these surgeons, there is often developed in horseriders a subcutaneous serous bursa seated near the inner surface of the knee, which is caused by the rubbing of this part of the limb against the saddle. This serous bursa, like the normal bursæ, cannot be made out in the healthy condition by ordinary modes of investigation. It sometimes becomes inflamed and swollen as a result of irritation, and there can be no doubt that this condition may run on to suppuration, although no case of this kind has yet been recorded. The situation of this bursa varies in different subjects according to the degree of outward turning of the foot during riding. Its most common situation is over the internal condyle, the centre of the sac being a a little behind the centre of this surface of bone. The tumour formed by the swollen bursa is rounded or oval, and usually presents the character of an ordinary hygroma. It is quite superficial, moves freely with the skin, has no direct connection with the bone, and, except in rare instances, does not communicate with the interior of the joint. It is by no means a troublesome affection. Acute or subacute inflammation of the sac will interfere, while the attack lasts, with the movements of the knee, but afterwards this restriction will soon cease. Chronic enlargement of the bursa will not impede either flexion or extension of the leg, and, unless the swelling be very large, will not prevent the rider from mounting his horse. This variety of chronic hygroma will, it is thought, be found of frequent occurrence if attention be more widely directed to the condition. The treatment recommended is that usually applied to similar swellings in other regions, the method preferred by the authors being that of puncture followed by compression.

(185) Electrolysis in Fibrous Ankylosis.

Gwyer (*Annals of Surgery*, vol. xviii, No. 2, August, 1893) draws attention to the great value of the galvanic current as a means of dissolving new-formed fibrous adhesions. The author usually uses one large flat electrode and one small sponge electrode with handle. The large electrode should be nearest the adhesions and attached to the negative pole, and the small one applied to the opposite side. Both electrodes should be wet with salt solution, and of solutions tried the best results have been obtained with a rather strong one of ammonium chloride. The current is turned on, and increased till the patient will stand no more. The older the adhesions, the greater the current necessary to dissolve them, and Gwyer believes in a strong current for a short time rather than a weak one for a longer period. The current should be applied from ten to thirty minutes at intervals of from one to five days.

(186) New Method of Direct Fixation of Fragments in Compound and Ununited Fractures.

Senn (*Annals of Surgery*, vol. xviii., No. 2, August, 1893), makes an earnest plea in favour of a more frequent recourse to direct means of fixation in the treatment of compound and ununited fractures. In preference to suturing, metallic spikes and screws, or ivory cylinders and clamps, Senn prefers, as absorbable interosseous splints, hollow perforated cylinders of bone introduced into the medullary canal; these do not interfere with production of callus, and are more quickly absorbed than ivory or metal. But the safest and most efficient means of direct fixation of oblique fractures is by a bone ferrule, applied in such a way as to surround both fragments. Such a circular absorbable direct splint prevents to perfection lateral and longitudinal displacement, and rotation of the limb below and angularity at the seat of fracture must be prevented by plaster-of-paris splint. Senn has employed this method in three cases with excellent results.

MIDWIFERY AND DISEASES OF WOMEN.

(187) Hæmophilia and Parturition.

Wehle (*Centralbl. f. Gynäk.*, No. 29, 1893) opened an important discussion on that question at the May meeting of the Dresden Gynæcological Society. The patient, in a case under his own observation, was a primipara, aged 33. After being for ten hours in labour at term, she had rigors; the membranes had burst one hour previously; the fœtal head lay, in the first position, in the outlet. Flooding had set in. Wehle gave morphine and waited one hour, then delivered by a single traction with the forceps. The perineum and clitoris (slightly wounded) bled freely, and so did several abrasions. The wounds were sutured. The placenta was extracted by expression, after free flooding. Three defects were noted on its surface. Hot water was injected into the uterus. Whilst this was being done the three missing pieces of placenta were removed. Ergot was given; the uterus contracted and the flooding ceased for awhile, but the small abrasions, which had been sewn up, began to bleed, and deeper sutures had to be applied. Then the flooding set in again, and the uterus was plugged with iodoform gauze. A laundress's iron, placed over the middle line where there was a gap between the recti, served well to ensure counter-pressure. The vagina required firm plugging, as the sutured wounds and the tracks of the sutures bled freely. The patient was in a state of collapse. In two hours, after taking stimulants, she rallied. On the the third day the vaginal tampon, and on the fourth the uterine plug, were removed. For six weeks bright-red blood occasionally trickled away, and five weeks later she was very anæmic and rather weak. In the child the stump of the cord bled, though twice ligatured. Wehle found that the patient's father had been subject to epistaxis, and died, aged 42, of cerebral hæmorrhage. One of his brothers was also troubled with epistaxis. One of the patient's sisters had flooding for a whole day when 18, and severe flooding after the birth of her third child; and her nose often bled. One brother (also subject to epistaxis) was seized, when 17, with pains in the joints, and died of extensive subcutaneous hæmorrhages. It further transpired that the patient herself, when 2 years old, bled freely from the genitals after a fall. When 12 she bled from the alveolus for a day after extraction of a tooth, and she had epistaxis and bleeding from the gums during her pregnancy. There was no history of syphilis or nephritis, no atony of the uterus, nor laceration of the cervix. The discussion turned on the diagnosis of hæmophilia from syphilis. Mänuel saw fatal epistaxis in an infant, aged 3 days, notwithstanding careful plugging. The father had suffered from a hard sore. Meinert stated that the father was also syphilitic in a case where the stump of the cord bled for four days. Marschner recorded three labours where there was great flooding during the third stage, without any anatomical explanation. Professor Leopold attributed flooding in Marschner's case to atheroma of the walls of the vessels in the uterine mucous membrane. When there was no hereditary history the obstetrician should not be too ready to attribute bleeding to hæmophilia. Mothers with syphilis often flooded in the third stage, and syphilitic children were subject to bleeding.

(188) Labour obstructed by Ovarian Tumour.

A. F. A. King (*Amer. Journ. Obstet.*, July, 1893) delivered a white woman, an 8-para, aged 38, in a Washington hospital, in December, 1892. She had been over five days in labour, yet was not exhausted. The perineum was distended, the anus patulous, and a tumour filled the pelvic cavity so as to leave only just enough space between its anterior aspect and the symphysis to admit two fingers, by which the presenting part (the face)

could be felt, just beginning to enter the pelvic brim. The tumour was so tense that there was doubt as to its being solid or cystic. King punctured it through the rectum, believing that rectal puncture would be less liable than vaginal to infection from the lochial discharge, and that the puncture would be less obstructed by pressure of the presenting part. Ovarian fluid free from odour escaped, with increased rapidity during the pains. When the obstructing mass had disappeared the cannula was removed, and with a few more strong pains the face descended, the chin swept round to the pubes, and a dead child was born, without further aid, in about fifteen minutes. The cord, 21 inches long, was flaccid and brownish. The placenta followed, and the patient recovered. A month later she was admitted into another hospital with fever, expectoration, and dulness with moist *râles* over the right lung. The tumour reached two inches above the umbilicus, and pressed downwards in the pelvis. The right foot was œdematous, and there was tenderness, without redness, along the femoral vessels. When the patient was under examination it gave way, a profuse discharge of fœtid pus escaping from the rectum. An incision was made in the posterior vaginal wall, and a gallon of offensive pus came away. A drainage tube was inserted, and the cyst cavity irrigated for three weeks. After staying two months in hospital the patient was discharged, the cavity had completely closed, and the lung symptoms were much better.

(189) Membranous Dysmenorrhœa and Uterine Casts.

Schönheimer (*Archiv f. Gynäk.*, vol. xliv, Part II, 1893), in a memoir on the pathological anatomy and symptomatology of menstrual uterine casts, shows that the separation of a structure more or less like the entire endometrium in shape, is the result of chronic inflammatory changes. These changes cause the uterus to shed fibrinous structures in great quantity at the menstrual period. This phenomenon is never seen between the periods, and it gives rise to the disorder known as membranous dysmenorrhœa. Sometimes, but not necessarily, the exfoliation of membrane is accompanied by an acute local inflammatory process. Schönheimer relates two instructive cases. The first was a typical instance of membranous dysmenorrhœa. The patient was 29. The catamenia began at 17, and were painful, though regular, from the first. At 23 she married. Coitus was always painful. The left tube was slightly thickened. A fortnight after marriage she suffered from discharge, but it soon passed away. At the age of 25, and thenceforth till when she came under observation, the patient passed flat three-cornered casts at every period. Dysmenorrhœa was intense, and the patient was sterile. The membranes were purely fibrinous deposit, full of leucocytes. Here and there some uterine epithelium was seen entangled in the meshes of fibrine. The os was dilated and the uterus scraped. The scrapings consisted of true endometrium tissue, showing hyperplasia of the subepithelial connective tissue without any acute inflammatory changes. As is usually the case, treatment was unavailing, and the patient continues to pass casts of the uterine cavity. The second patient was 43. When a girl she was anæmic, and did not begin to menstruate till she was 20. The period was never regular till she married at the age of 26. She never had pain during the catamenial flow. She bore six children and aborted once. She showed no evidence of syphilis; all her labours were normal. After the last confinement she began to pass uterine casts at every third period. There was total absence of pain, the casts being discovered accidentally. Electricity was applied, and the curette was used; yet, just as in the cases where menstruation is painful, treatment did not alter the condition of the patient. She continues to pass clots. This case shows that pain is not an essential symptom of discharge of fibrinous membrane from the uterus, and that the phenomenon in question does not necessarily entail sterility.

THERAPEUTICS.

(190) Treatment of Diphtheria.

Levy and Knopf (*Berl. klin. Woch.*, August 7th, 1893) describe the treatment of this disease with papayotin (Gehe) and carbolic acid. They prepared the diphtheria poison after the method of Behring and Wernicke. When some papayotin was added to this diphtheria poison, and the mixture kept at 37° for two days, the virulence was much diminished. Thus papayotin has a weakening effect on the diphtheria poison. If papayotin were allowed to remain in contact with the living bacilli without carbolic acid, the whole rapidly underwent putrefactive changes. In the treatment of cases the following preparation was used: Papayotin, 10.0; ac. carbol. puriss. liquefact. 5.0; aq. destil. ad 100.0. The affected parts were gently painted every ten minutes for the first two hours, and then at intervals of every two hours afterwards, and this was continued during the night. There was rapid improvement in the local manifestations. The ice collar, abundant inhalations, and plenty of wine were used as usual. The cases of diphtheria when admitted are nearly always severe, the mild ones being kept at home. Encouraged by the good results, the authors sometimes delayed tracheotomy a little, and with satisfactory results. Of 51 cases thus treated 36 recovered, tracheotomy being performed once, and 15 died, of whom 5 were tracheotomised. Among the fatal cases there was 1 of genuine pneumonia, 1 of tuberculosis, 1 of repeated hæmorrhage from the tracheotomy wound, and 3 of extensive bronchopneumonia. Among the recoveries there were 3 cases of nasal diphtheria, 13 of marked obstruction to the air passages, 2 of measles, and 1 of croupous pneumonia with naso-pharyngeal abscess. When compared with cases hitherto treated in the clinic (Strassburg), the mortality was diminished and the number of tracheotomies lessened. Naturally the authors do not look upon this local treatment as unfailing, but the good results obtained have led them to publish them.

(191) Combined Effects of Morphine and Sulphonal.

Gonzales (*Arch. di Farmacol. e di Terap.*, fasc. 13, July 1st, 1893), recognising the good points in the action of this hypnotic, but realising also that its effects in man are not quite so satisfactory as the results of experiments on animals would have led us to think, was led to try to reinforce its action by association with morphine, the main trouble with sulphonal being that the sleep is neither very deep nor very lasting. The subject was first investigated on frogs, with the following results. Sulphonal alone in the mean dose of 0.04 gramme causes no symptoms save abolition of voluntary movements for some hours. Morphine alone (0.008 grammes of hydrochlorate) produces marked excitement, lasting for about an hour, the animal then returning to normal. The two drugs given in combination in the same doses caused marked and lasting narcosis, lasting for many hours. On the heart *in situ* sulphonal alone causes a slight diminution in the frequency, but increases the strength of the systole and the amplitude of the diastole. Morphine alone only reduces the frequency. The mixture of the two drugs is without action on the frequency, but increases the force of the systole and amplitude of the diastole. Similar results were obtained in the case of the isolated heart. The results on mammals were as follows: In rabbits (doses 40 centig.) and dogs (doses 75 centig.) sulphonal produces sleep generally in half an hour from the administration, the reflexes and respiration being unaltered, and the heart beats frequent and vigorous; but the sleep is not at all profound, and in dogs is sometimes wanting. Morphine produces it in rabbits about twenty-five minutes after the injection, but the animals soon shake it off; in dogs it lasts a still shorter time. The mixture of the two drugs is perfectly successful both in dogs and rabbits. The sleep appears physiological, and lasts from seven to ten hours, and is not in any way complicated by unpleasant sequelæ; the heart and respiration are unaffected. The author finally recommends this mixture of the two drugs as an admirable and safe hypnotic, free from cardiac depressant action, and efficient even in insomnia due to neuralgia and nervous excitement.

(192) Sheep's Thyroid in Myxœdema and Acromegaly.

Putnam (*Amer. Journ. of Med. Sciences*, vol. cvi, No. 2, 1893), in describing cases

of the above in which great benefit followed administration of sheep's thyroids, says the administration by the stomach has not failed in any genuine case, and the dose need not be materially larger than by subcutaneous injection. Loss of weight is an early sign of improvement, but sometimes goes beyond the requirements of health; this, taken with the effects obtained in obesity, seems to show that the thyroid secretion may alter tissue change even in health. At the same time the action of thyroid extract is not in all respects the same in health as in cases of myxœdema. The rise of temperature and pulse, increased secretion of urine, faintness, or headache, and other symptoms which sometimes occur, may last for weeks after exhibition of thyroid has been stopped, but it is hardly likely that these can be attributed entirely to a direct action of the thyroid extract. The pathology is very fully gone into, and the close relationship between Graves's disease, acromegaly, and myxœdema is pointed out.

(193) Intravenous Injections of Corrosive Sublimate in Cases of Cerebral Syphilis.

This mode of treatment was first introduced into use in Italy by Baccelli. Jemma (*Rif. Med.*, July 18th, 1893), recognising the brilliant results obtained from its use by this observer, has administered sublimate in the same manner in four cases of cerebral syphilis. He regards it as particularly suitable in such a case, for it is very necessary to secure a prompt action of the drug, and impregnation of the system through the gastro-intestinal tract is too often a slow process. The drug is made up into a 1 : 1000 solution with distilled water, and a little salt and alcohol to aid solution. It is administered by injection into one of the superficial veins of the arm, generally the cephalic, using an ordinary hypodermic syringe, and taking care to sterilise both the skin and instruments. The operation is quite easy, and causes practically no pain, being in this way far superior to subcutaneous injections of the drug, which are very painful. The dose begins at 1 c.c., being increased to 2, 3, and 4 c.c., which last is the maximum employed. Its use in the author's four cases showed the method to be rapid in action, as well as safe, if performed with due care. The maximum effects are obtained with a minimum dose, and that without any pain such as accompanies hypodermic injections. The author has also employed the injections in other conditions, but, beyond establishing the practicability of the method, his observations have not yet been sufficiently numerous to allow him to draw accurate conclusions. He promises shortly to give further details of these cases.

(194) Eleventh Case of Traumatic Tetanus Cured by the Antitoxin of Tizzoni and Cattani.

This case is recorded by Gattai (*Centralbl. f. Bakt.*, August 1st, 1893). The patient was a girl, aged 15, who ran the point of a pair of compasses into her thumb. The wound became inflamed, and there were shooting pains in the arm and shoulder of the same side. On the fifth day after the injury difficulty in mastication was observed. On the eighth day there were well-marked symptoms of tetanus: pains spreading up the arms and neck, increased difficulty in mastication, trismus, difficulty in swallowing, attacks of spasm affecting the arm, neck, face, and back, and producing opisthotonos, and other symptoms. The wound looked very unhealthy. Caustic was applied to it, and also strong sublimate solutions. Chloral, 4 g., administered by the bowel, produced several hours' sleep, but on awaking the symptoms returned. Tizzoni confirmed the diagnosis of tetanus. On the ninth day 10 c.cm. of the serum of a rabbit, rendered in a high degree immune to tetanus, were injected. On the same day two doses of antitoxin, prepared from the dog, each of 50 cg., were injected subcutaneously. On the tenth day patient received three doses of antitoxin of the same strength: on the eleventh day two doses, each of 65 cg. On this day symptoms began to abate. On the twelfth day 50 cg. antitoxin and two doses of rabbit's serum, each of 6 c.cm., were injected. Symptoms were now rapidly disappearing. On the thirteenth day three small doses of serum were given. On the sixteenth day the patient was free from symptoms. She resumed work three days later. Gattai regarded this case at the outset as one likely to run an acute course and terminate fatally. In his opinion there is no doubt that recovery was due to the specific treatment employed.

PATHOLOGY.

(195) A Method of Staining Connective Tissue.

It has been observed, especially by Lubarsch, that in Weigert's method for staining fibrin several other tissue constituents become stained as well as fibrin. Beneke, experimenting with the method, found that connective tissue is often stained by it. He now describes (*Centralbl. f. allgem. Path.*, July 28th, 1893) a modification of Weigert's fibrin method, by which the connective tissues of the most diverse organs can be consistently stained. Amongst these is the brain, the spider cells and their prolongations; the fine fibrous networks between pia and cortex and around the ventricles are stained by the process. The fibrous meshwork of sclerosed tissue is shown remarkably well. The principle of Beneke's method lies in the fact that the Weigert stain is not a specific strain for fibrin; it has an affinity, though less marked, for several other of the tissue constituents. The stain is aniline water gentian violet, the differentiating (decolorising) fluid a mixture of aniline oil and xylol (2 to 1), and of these two ingredients only the aniline oil is directly operative; the xylol merely acts as a controlling agent, having no decolorising power. It appeared probable, therefore, that an increase in the proportion of xylol would further weaken the action of the aniline xylol, and that thus various tissue elements might be shown which are incapable of demonstration by the original method. Upon this principle Beneke bases his method, which is as follows: Portions of tissue fixed in alcohol are cut in paraffin, sections fixed upon the slide, and stained with aniline gentian violet (10 parts aniline oil shaken into fine emulsion with 100 parts water and filtered, add to the filtrate 5 to 10 parts concentrated gentian violet alcoholic solution) for ten to twenty minutes. Treat for one minute with lugol solution of a port wine tint, dry with filter paper, and decolorise with aniline xylol (aniline oil 2 parts, xylol 3 parts.) Experience is necessary to decide the moment at which to stop further decolorisation by the action of xylol. Mount in xylol balsam. The connective tissue fibres are stained various shades of violet.

(196) Researches on Cholera.

Metschnikoff (*Ann. de l'Inst. Pasteur*, July, 1893), concludes that the comma bacillus is without doubt the specific microbe of Asiatic cholera. He finds Deneke's and Finkler-Prior's spirilla to be but slightly pathogenic in man, although he suggests that some cases of poisoning by cheese may be due to the growth of Deneke's spirillum. Vibrio Metschnikovi of Gamaleïa he found to be also devoid of effect on man. A considerable number of experiments with B. virgula obtained from different sources showed that large quantities might be consumed by man without producing the disease, a certain predisposition being necessary for its development. A tendency to indigestion does not, he states, predispose to cholera. In one person a mild attack of cholera followed the consumption of a third of a culture of B. virgula, and in this case the bacillus was present in the stools for some time after recovery. He gives reasons for believing that vaccination by the digestive tract, after the methods of Klemperer and Sawtchenko, is much more efficient than that effected by the hypodermic method of Haffkine. Human cholera is, he states, another example of a disease the cure of which cannot be attributed to the development of any protective property of the blood.

(197) The Staphylococcus in Osteomyelitis.

Bommers (*Deut. med. Woch.*), June 8th, 1893), has succeeded in cultivating the staphylococcus albus from the blood obtained with the usual precautions from the finger in a very acute case. Both bouillon and glycerine agar tubes showed abundant growth, and pure cultures were obtained. It is remarkable that in a case of the most acute osteomyelitis (acute necrosis) the experimentally but slightly virulent S. pyogenes albus should be present.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(198) Subdiaphragmatic Abscesses Containing Air.

VANLAIR (*Rév. de Méd.*, July, 1893) relates a case in a boy aged 6 years. The illness began with a generalised enterocolitis, with a tendency to localise itself in the region above the umbilicus, where there were some signs of a local peritonitis. Then a right pleural effusion occurred, accompanied by a painful swelling in the epigastrium. This latter increased rapidly, and yielded three days later a tympanitic resonance, a murmur coincident with respiration and metallic tinkling being also present. About the same time a pneumonia appeared on the left side, and three days later an encysted pneumothorax on the right side. A crural phlebitis and epigastric periphlebitis also supervened. An operation performed one month after the onset revealed—(1) a purulent pleural effusion, (2) perforation of the diaphragm, (3) a subphrenic abscess, (4) a perforation of the colon, as well as a perforation of the pleura. The subphrenic abscess was incised and drained, a counter-opening being made in the pleural cavity, and the intestinal opening was stitched up. The boy recovered. As to the sequence of events, the author believes that the peritonitis started from the intestine, that the pleurisy excited at the right base soon became purulent, that a limited destruction of the diaphragm, and subsequently of the pulmonary pleura, gave rise successively to a subphrenic abscess properly so-called and a pneumothorax, and that the intestinal perforation was a secondary and not a primary lesion. The author does not believe that the perforation of the diaphragm led to the production of the empyema, for the clinical development was against it. In discussing the question of the presence of air in the subphrenic abscess, the author thinks that here it came from the intestine. The differential diagnosis between the real and pseudo-pneumothorax is considered. The prognosis must be generally looked upon as unfavourable. Rarely are so many complications present as in this case. The author concludes that—(1) Subphrenic abscess containing air may occur in children; (2) it is not always due to a suppurative process or localised ulceration (the cause here being an enterocolitis); (3) the intestinal perforation may be a secondary result; (4) the symptoms may be limited to pain and an epigastric phlegmon; (5) any of the above-named complications, including phlebitis, may occur, and indeed all in one subject; and (6) operative procedures, with thorough antisepsis of the surfaces, should always be had recourse to, and recovery may occur even in unfavourable conditions.

(199) Interlobar Pleurisy.

D. GERHARDT (*Berl. klin. Woch.*, August 14th, 1893) refers to the infrequency of this disease. It begins sometimes suddenly and at other times more gradually, with pain in the side and difficulty of breathing. Usually the fever is high and intermittent. There may be no abnormal physical signs, or only a few *râles* or altered breath sounds. Some dulness may be present, extending from the third or fourth dorsal spine outwards and downwards, the note above and below this perhaps being more resonant. Thus the signs of a typical pleural effusion may be absent. Suddenly the sputum becomes purulent and often ill-smelling, and the patient may be well in two or three weeks, or it may take longer. In a few severe cases, death has resulted from septicæmia. Case: A man, aged 34, was suddenly seized with pain in the side, dyspnœa, and shivering. Later a patch of dulness was found in the right axilla. This extended subsequently to the scapular line and in front to the mammary line. The temperature was fluctuating, and at times there was shivering. A fortnight after admission there were violent attacks of coughing and abundant purulent expectoration. A few days later pus was found by exploration. The temperature began to fall with the appearance of the purulent expectoration, and the patient was better, so that thoracocentesis was delayed for a little time. It could not be decided whether it was an interlobar or a basal empyema. As the patient ceased to improve, the chest was incised and a piece of rib removed ten days later, a litre of fœtid pus being let out. The patient died some days later. The pus lay in a cavity between the lobes of the right lung, the lung being strongly adherent to the chest wall. Sometimes tubercle, less frequently pneumonia, have been causes of this form of pleurisy. A patch of gangrene in the lung might also produce it. For exploration in these cases, long needles must be used. The communication between the bronchus and empyema cavity could not in this, as in some other recorded cases, be found. Most published cases have recovered without operation, the pus having been spat up. This may be a reason for delay until rupture occurs. If the pus lie near the chest wall, it should be let out, as in other empyemata, but if it be found deeply placed by the long exploring needle, one may be glad to delay the opening as long as possible. If, however, the patient's condition show no improvement, the operation must be done.

(200) Palatal Deformity.

NÄCKE (*Neurol. Centralbl.*, June 15th, 1893) reports on torus palatinus, a new stigma of degeneracy, recently described by Stieda. The deformity consists of thickening of the hard palate in the region of the longitudinal suture. Its configuration varies greatly in different cases and is nearly always asymmetrical. All forms may be brought into one of two types, the narrow and the broad, a width of 10 millimetres being the dividing limit. The superjacent mucous membrane often is whitish and uneven; usually the line of the suture appears as a shallow furrow. Näcke found the condition in nearly 22 per cent. of 1,449 persons examined; it was more common among the insane and criminals, the increase in the frequency of its occurrence being parallel to that of other signs of degeneration. He thinks that nutritional defects of a rachitic nature may have to do with the causation.

(201) Relapsing Infective Jaundice.

SOUPAULT (*Arch. gén. de Méd.*, August, 1893) says that this form of jaundice recently described is a general disease, with a special localisation in the liver. He relates the case of a lad, aged 18, who had a previous attack of jaundice five years ago. Eight days previously he was seized with vertigo, tinnitus, and faintness. The next day he vomited, and from this time he suffered from headache and pains in his limbs. On April 16th he was in a typhoid condition, with dry mouth and anorexia. There were no spots, and no splenic or hepatic enlargement (T. 39.5°, P. 92). The urine contained a cloud of albumen. The other organs were healthy. On April 17th slight jaundice appeared, and this rapidly deepened. Three days later the stools were colourless. He then began to improve. Urine was excreted in large quantities. There was much wasting. He relapsed in a week's time, the fever reappearing; but in three or four days he was well again, and was discharged on May 13th. The illness corresponds to that described as Weil's disease. There is a pre-icteric stage, in which the symptoms resemble enteric fever, and then jaundice appears. At this time there may be epistaxis, albuminuria, hepatic pain, and splenic enlargement. The irritated hepatic cell excretes in excess, and the bile cannot all be eliminated. Seven to eight days after the onset of the icterus the stools may become colourless owing to a consecutive obstruction of the common bile duct. Some look on the relapse as characteristic. The prognosis is good, death rarely occurring. The staphylococcus, streptococcus, B. coli communis have been described as the cause of this disease, and the staphylococcus albus was cultivated from the blood in this case.

(202) Diphtherial Hemiplegia.

DONATH (*Neurol. Centralbl.*, July 15th, 1893) reports this case. On the third day of convalescence from pharyngeal diphtheria, the patient, a boy aged 8 years, was seized during sleep with right hemiplegia. The face was implicated, and for several days there was complete motor aphasia. The speech faculty underwent considerable improvement, though at the end of five months signs of typical hemiplegia, with contracture, persisted; the right eye showed hypermetropia 7 D, with internal strabismus; the left eye, slight myopia.

SURGERY.

(203) The Pathogenesis of Hepatic Abscess.

Zancarol (*Revue de Chirurgie*, August, 1893) states that he has proved by experiments on animals that dysentery and hepatic abscess are affections of the same nature, and that the pathogenetic factor of this complex morbid condition is a micro-organism. A clinical experience of twenty-five years has convinced this author that the pus of a hepatic abscess is not less deleterious than that of other suppurating organs, and, also, that dysenteric and hepatic abscess are closely associated, so that, though one may not be the cause of the other, both affections are produced by the same toxic agent. In order to establish these conclusions on a scientific basis, Zancarol instituted a series of experiments on cats, the results of which show that both dysentery and abscess of the liver can be transmitted from man to these animals by injection of the pus and intestinal excretions, and that histologically the lesions in the human subject and those artificially produced in the animal are of a like nature. Hepatic abscess, it is asserted, has a microbic origin, the principal factor being the streptococcus. It remains to be settled by future inquiry whether other organisms apart from the streptococcus are capable of producing a similar morbid condition, or whether this organism is the special originating agent of the hepatic affection. Dysentery is regarded as an affection of the same nature as hepatic abscess, its pathogenetic agent being the streptococcus. As to the amœbæ which are so often met with in the fæcal discharges even of healthy individuals, these organisms, the author holds, play no part in the causation of dysentery and hepatic abscess. The streptococcus in most instances passes from the intestine to the liver either by the portal vein or the general circulation.

(204) A New Method of Cutting Œsophageal Stricture.

Abbe (Reprint from the *Medical Record*, February 25th, 1893) describes a new method of dividing cicatricial stricture of the œsophagus, which he practised with very good results on a patient aged 30. After the performance of gastrostomy, a digital examination is made of the lower œsophageal orifice, and a small conical gum-elastic bougie is guided into the canal by the finger. A string of heavy-braided ligature silk is carried from the stomach to the mouth by passing a very small bougie through the œsophageal stricture. In the case reported by the author, the upper end of the string was brought out by the neck through a wound which had been made in an unsuccessful attempt at external division of the stricture. A larger bougie is now passed from the stomach alongside the string, and pressed tightly into the stricture so as to stretch it. The string is now drawn upwards by the fingers, passed to the back of the patient's mouth, and the bougie will be felt to advance at once as the string makes its way into the tense stricture. Larger bougies are now passed, and the string is "see-sawed" upwards and downwards. When the largest size has been passed, a rubber tube of corresponding size is drawn through the œsophagus past the point of stricture, its lower end remaining outside the wound in the stomach. A smaller tube is passed into the stomach for nourishment. The patient can thus drink water for refreshing the mouth, and swallow saliva without contaminating the wounded surface, which the tube also serves to keep dilated. The large tube may be removed on the second or third day, and dilating bougies be introduced by the mouth after the fourth day. Finally the gastrostomy wound may be closed, whenever the patient has gained strength, by a plastic operation.

(205) Articular Affections in Syringomyelia.

Graf (*Beiträge zur klinischen Chirurgie*, Band 10, Heft 3) analyses 35 cases of joint disease associated with syringomyelia. This collection includes four original reports of cases lately treated by Professor Bruns. A morbid change in one or more joints occurs more frequently in syringomyelia than is generally imagined; certainly in not less than 10 per cent. of the cases. Of the subjects of the cases collected by the author, 26 were males. Syringomyelia, however, it is pointed out, attacks two males for one female. The articular complications commence at an early stage of the nervous disease, and before the complete development of muscular atrophy and sensory disturbances. A remarkable distinction between this nervous joint affection and tabetic arthropathy is its more frequent appearance in the upper than in the lower limbs. Of 51 joints affected in the 35 collected cases, 39 were in the upper and 12 in the lower limbs. In tabes, on the other hand, 80 per cent. of the affected joints are those of the lower limb. This, it is stated, can be readily explained by the fact that in syringomyelia the cervical and upper dorsal portions of the cord are those chiefly affected. The clinical and pathological characters of the joint affections in syringomyelia resemble in many respects those presented in tabetic arthropathy. In the former disease, however, extensive exudation is less frequently noticed, and the course of the arthropathy is more chronic than it is in tabes. In syringomyelia the patient still retains tactile and muscular sensibility, but has little, if any, feeling of pain or of differences in temperature. The author finds much difficulty in accepting any of the views that have been expressed concerning the causation of articular affections in association with central nerve disease. In syringomyelia, ataxy and analgesia are not characteristic symptoms, and the morbid changes in the affected joints persist in spite of prolonged and complete rest. The direct dependence of the joint disease on the disease in the cord is opposed by the facts that syringomyelia is not always accompanied by arthropathy, and that in many cases in which arthropathy coexists one joint only is affected. Future investigations in fatal cases of syringomyelia will, it is thought, account for this association of medullary and articular lesions by the discovery of indications of neuritis and atrophy of the peripheral nerves.

(206) Separation of the Lower Femoral Epiphysis.

Mayo Robson (*Annals of Surgery*, vol. xviii, No. 1, July, 1893), after referring to the scant attention paid to this subject in the textbooks, gives cases to illustrate this condition. Extreme direct violence is usually the cause. The displacement depends on the direction of the violence, but also on the attachment or otherwise of the gastrocnemius tendon to the lower end of the upper fragment. The shortening, the projection of the lower end of the diaphysis in the popliteal space, the displacement of the epiphysis on to the front of the femur, and the interference with the circulation, together with the cause of the injury and the age of the patient, form a group of symptoms pathognomonic of this fracture. Robson advises first reduction under an anæsthetic, which might be facilitated by division of the tendo Achillis; after reduction, either the long splint with weight and pulley or the double inclined plane might be employed. Should reduction be impossible, then excision might be practised; but if the large vessels be ruptured or gangrene occur amputation is the only resource.

MIDWIFERY AND DISEASES OF WOMEN.

(207) Conservative Operations on the Ovaries, Tubes, and Uterus.

A. Martin (*Deut. med. Woch.*, July 27th, 1893) draws attention to the importance of this subject. (1) Resection of the ovary. Ovarian disease is very frequently bilateral, but sometimes circumscribed cystic disease may be found in other ovary. The question arises as to whether the whole organ should then be removed. It certainly should be if there is no healthy ovarian tissue left or the process be a suppurative one, but in some other cases it may not be necessary to remove it. The author refers to 27 such cases with 1 death; 2 of these relapsed, and of the 24 remaining ones 8 bore children. Ignipuncture has been employed, but the author is satisfied with incision and stitching up. (2) Resection of a stenosed tube, the other being removed for disease. Here it may be more difficult to recognise the character of the disease. The contents of the tube must be most carefully looked to. If the contents be turbid or unmistakably purulent or if the mucous membrane be ulcerated, the tube must be removed: otherwise resection with the formation of a new

ostium may be practised. If any doubt exists, the whole appendage must be taken away. Of 40 cases with 2 deaths, only 4 were not cured or considerably improved. Only 1 became pregnant, but 12 were unmarried, and the husbands of some others were neurasthenical or had had gonorrhœa. (3) Enucleation of myomata. The older the patients the more likely are myomata to be multiple. In 141 cases of intraparietal myomata, 26 died, but this includes the period of development of the *technique* of laparotomy; of the last 20, only 1 died. Of the 115, only 4 relapsed (3 per cent.). The author has not found any difficulty in stitching up the bed of the tumour, nor has unpleasant hæmorrhage occurred. Only 2 of these patients became pregnant, but other causes of sterility may exist. The author concludes (1) that the conservative operations do not present any materially greater risk than radical ones; (2) that women are thus relieved of their troubles in by far the greater majority of cases; (3) that relapses are exceptional; (4) that the female functions persist; (5) that childbearing is possible; and (6) that childbirth then takes place without any special risk.

(208) Unconscious Delivery.

Le Blond (*Journ. de Méd. de Paris*, July 30th, 1893) related in July a remarkable case before the Medico-legal Society of Paris. A woman, aged 27, who had been seduced and deserted, was seized with slight colicky pains, but continued to work. In the course of the following night she was attacked with still more severe pain. Thinking that an action of the bowels would give relief, she sat upon her chamber utensil; on straining a live child was born. This alarmed her greatly, but she cut the cord with scissors, wrapped the infant in a cloth and walked downstairs, telling the people in the house, in fear and trembling, what had happened. Violent flooding set in. The cord had not been tied. Early in the morning Le Blond saw the patient, and found the placenta still in the vagina. He extracted it. The mother and child did very well. Had the child died the mother would have been very strongly suspected of murder, especially if she had attempted to defæcate in a public privy, in which case the child would almost inevitably have been killed.

(209) Gonorrhœa and the Puerperium.

Krönig (*Centralbl. f. Gynäk.*, No. 8, 1893) has studied the development of gonococci in nine women after labour. The germs are easily found in the lochia. It is certain that in women with vaginal gonorrhœa the disease may extend into the uterus during the puerperium. Gonorrhœal infection of the uterine cavity may also set up fever even when there is no trace of mixed infection, no other germs being present. Gonorrhœal infection in the puerperium is not of direct danger to life, but frequently leads to complications late in the puerperium, the disease progressing from the endometrium to the tubes. Two cases of this kind are recorded. The first, after the usual careful routine treatment, left the hospital on the fourteenth day. Two weeks later she returned. A perimetric exudation was detected to the left of the cervix. The second case was graver. On the fourteenth day the temperature rose to over 103°, the right elbow became painful, and effusion into the extensor tendons of the right hand occurred. During the third week right parametritis set in, the temperature rising to 104°. Then the pain and parametric swelling subsided. The fluid from the tenosynovitis was sero-purulent but free from germs.

(210) Spontaneous Amputation of an Inverted Uterus.

Hutson (*Archives of Gynæc.*, New York, June, 1893) relates a case in which the patient was a mulatto aged about 35. She had aborted several times and never carried a child to term. A negro midwife attended her and delivered the child and placenta "naturally," after the custom in South Carolina, the patient being placed in a kneeling position before a chair, whilst uterine contractions were stimulated by shaking her up and down. When the patient got up to go to stool the uterus came down. She lay for three days longer on a filthy mattress in hot weather. Hutson was then called in. She was in an unconscious condition, the abdomen being enormously distended, while a putrid pulpy mass protruded from the vagina. It was the inverted uterus which had virtually amputated itself by the contractions of the cervix upon the ligaments and tubes. The sloughy organ was removed and the vagina plugged with gauze smeared with carbolised vaseline. The patient, who at the time seemed to be dying, made a good recovery.

(211) Fœtal Peritonitis Severing the Intestinal Canal.

Mackenrodt and Keller (*Céntralbl. f. Gynäk.*, No. 28, 1893) read, at a recent meeting of the Berlin Obstetrical Society, cases of death of infants, one week old, from intestinal obstruction. In Mackenrodt's case, the infant died at the end of a week, after vomiting fæces for two days. The abdominal cavity showed all the signs of chronic peritonitis, free adhesion of intestine, indurated patches, etc. The peritoneal cavity was full of yellow fæces which had escaped through a large perforation, with sloughy edges, in the small intestine. A circular band of dense inflammatory deposit completely surrounded and obstructed the small intestine in the middle of its course, and had broken the continuity of the intestine through atrophy. The proximal side of the alimentary canal was greatly dilated. The lumen of the severed distal part was very small, nor could the ileum be distinguished from the colon. The mother had borne five healthy children, and showed no signs of syphilis. Keller's patient was a male infant; it vomited all its milk in whatever way administered. It died at the beginning of the second week. The appearances were as in Mackenrodt's case, excepting that there was no perforation, and that the closed severed ends of the small intestine were smooth. He believed that the peritonitis was the primary disease in both cases. It had hindered the development of the intestine. Olshausen disagreed with this theory, believing that the malformation of the intestine was the cause of the peritonitis.

THERAPEUTICS.

(212) Nitrate of Aconitine in Facial Erysipelas.

Tison (*Sem. Méd.*, August 25th, 1893) was first induced to use this remedy in 1888, and has employed it subsequently in every case of facial erysipelas which has come under his treatment. The results have been highly satisfactory, pain and other symptoms having been rapidly subdued, save in two instances, and in neither of these could the complications which arose be due to the treatment. Although the nitrate of aconitine is highly poisonous, and it may be objected to by some on this account, if used as now suggested the danger of untoward symptoms is very slight. The alkaloid is dissolved in a mixture of glycerine, alcohol, and distilled water, the mixture having the same specific gravity as water and containing 1 milligramme in 50 minims. Only 2 to 4 milligrammes are required in any one case. The method of procedure is as follows: According to the condition of the stomach, either an emetic or a purgative is administered, immediately after which nitrate of aconitine is given in a mixture containing 1 milligramme for the twenty-hours' dosage. The affected part is painted with a saturated ethereal solution of camphor, which acts as an excellent sedative. When all signs of inflammation have subsided the part is washed with a solution of lysol.

(213) Arsenic in Epithelioma.

Lassar (Reprint from *Berl. klin. Woch.*, 1893) reports his success with arsenic administered internally in 4 cases of epithelioma affecting various parts of the face. Case 1 was a man, aged 50, with three large swellings occupying one orbit, the nose and the chin respectively. Microscopic evidence showed epithelial cells, spindle cells, and alveolar structure. Immediately after the administration of arsenic, the three growths gradually diminished by drying up, involution, and cicatrisation, until the youngest growth had disappeared, and the second one cicatrised. The largest and oldest growth, occupying nearly the whole of the orbit, showed little change, and owing to the suggested excision of the eyeball, the patient withdrew from treatment, and is believed to have died subsequently. In a second case, that of a woman of advanced age with a smaller growth on the nose, a great reduction in size took place, and the patient, being satisfied,

also ceased to attend. The author now resolved to adopt the same measure with recent growths instead of at once resorting to the knife. The first patient had on one cheek a growth equal to half a walnut, which had taken six or eight months in developing. Only a slight erosion of the surface was present. The diagnosis was confirmed microscopically, and arseniate of potash was administered three times daily for two months, when the growth had shrunk and cicatrised. The next patient was a man with a similar growth of three months' standing on the left ala nasi, the condition and proofs being the same. Fowler's solution was given internally, accompanied at first by subcutaneous injections. These being painful were discontinued, and in two months complete disappearance with cicatrisation followed. The author admits the small number of cases experimented on, but lays stress on the striking and indisputable results. Illustrations of the patients at various times and of the microscopic sections are given.

(214) Trional.

Koppers (*Intern. klin. Rund.*, 29, 30, 1893) observed the action of trional in twelve patients, and arrived at the following conclusions: In most cases of simple insomnia, 15 grains sufficed to induce sleep within half an hour; 20 or 30 grains may be given if necessary, but with still larger doses the effects do not seem to increase proportionately. Where pain is present, some, though not much, sleep results. Owing to the rapidity of its action, trional is best taken at bedtime in some warm vehicle, such as milk or tea. The after-effects consisted only in slight heaviness in the morning, owing, apparently, to the direct action of the drug on the cortex of the brain, and some slowing of the heart's action. If necessary, it also can be administered *per rectum*, the action thereby not being lessened.

(215) Phenates of Bismuth.

Jasenski (*Arch. des Sciences Biologiques de St. Petersbourg*, T. ii, No. 2, 1893) finds that phenol-bismuth, cresol-bismuth, and β napthol-bismuth, when introduced into the stomach become decomposed there into their components under the influence of the gastric juice. A portion however, escapes decomposition here, and passes on into the intestine, where it is finally split up. The phenol and cresol, separated from the bismuth, are entirely absorbed, eliminated in the urine as sulpho-conjugate acids, or combined with glycuronic acid; the β naphthol is only partly eliminated in this manner, the remainder passing unchanged through the whole length of the digestive tract, and being expelled with the fæces. In the urine of man the bismuth is not discoverable, being entirely eliminated in the fæces. Notwithstanding the toxic properties of the phenols, none of these preparations have any toxic action, even if given in daily doses of 5 grammes. This is probably due to the extreme slowness of the decomposition which goes on in the intestine. The author therefore recommends these preparations in all cases where the ordinary preparations of bismuth and phenols were formerly employed.

(216) Phenosalyl.

This is a mixture of phenol, salicylic, and lactic acids. It is prepared by mixing them together at a temperature of 140° C., at which point they unite. Menthol and eucalyptol are then added, and, after cooling, the whole is mixed with four times its bulk of glycerine. Such, according to Dulerly (*Therap. Blätter*, No. 5, 1893) is the composition of phenosalyl. As an antiseptic, the author has compared its action with others, and considers it in this respect satisfactory. Comparing it with phenol, sulphate of copper, and sublimate, with regard to any toxic action, it was found to be comparatively non-poisonous, even when injected into the peritoneum or directly into a blood vessel; but this may well be, as its antiseptic powers are less evident than those of any of the substances with which it is compared. The author has used it with success in a variety of uterine disorders, in gonorrhœa, and as a wash for rectal sores.

(217) Dermatol.

Matheus (*Therap. Monatsh.*, August, 1893) has used dermatol with great success in the treatment of ulcers, etc., but in its application to these troublesome affections in the lower extremities its use was often accompanied by the appearance of a localised dermatitis, affecting the skin for some distance around the ulcer, causing much redness and troublesome serous exudation. This took place after an external use of dermatol and during perfect rest after about a week's treatment, the affection lasting ten to fourteen days, and in one case giving rise to much pain and urticaria. The author gives the histories of three patients where this complication occurred, but the ultimate recovery of the ulcers was by no means impeded, as healing took place in from three to five weeks.

PATHOLOGY.

(218) Experimental Transference of Leprosy to Animals.

Tedeschi (*Centrabl. f. Bakt.*, August 1st, 1893), reports an experiment which proves, in his opinion, that leprosy is transferable from man to animals. A cube of 1 to 2 millimetres was cut out of a leprous nodule and placed beneath the spinal dura mater of a monkey. The animal became paraplegic, and died in eight days. At the necropsy the spinal cord was found to be invested at the seat of inoculation by a rather firm reddish-yellow layer of new tissue, and surrounded by yellow, turbid fluid. The lepto-meninges of the cord and brain were congested, and in the ventricular fluid and spinal exudate were found large numbers of bacilli, in form and staining reaction resembling those o leprosy. In the swollen spleen were similar bacilli. Bacteriological examination of sections of the new tissue at the seat of inoculation showed enormous numbers of bacilli which had all the characteristics of those of leprosy. Tedeschi is satisfied that a multiplication of leprosy bacilli had occurred at the site in question. The number present there was much greater than the number introduced, as was shown by comparison of sections from the organised material upon the cord, with others of the same size and cut from the same nodule as the cube of material introduced. Moreover, the vast number of bacilli present in the fluid exudate must be accounted for. These joint considerations prove, in the author's opinion, that the bacilli had lived and multiplied in the inoculated animal. To the possible objection that tuberculosis, not leprosy, was transferred, Tedeschi replies that the diagnosis of leprosy in the case he utilised was undoubted; that in form, disposition, size, and staining reaction the bacilli found in the inoculated animal precisely resembled those of leprosy; that they differed from bacilli found in organised spinal exudate from animals similarly inoculated, but with tubercle bacilli; that whilst the organisms found in the latter case grew upon glycerine agar and blood serum, no cultivation of those in the former case could be obtained. This successful result in an attempt in which so many have failed, Tedeschi ascribes to two reasons: the method of inoculation (it is probable that the lepra virus finds in the nerve centres and cerebro-spinal fluid the most favourable conditions for development) and the nature of the inoculated material; this was probably very virulent, as it was from a patient in whom the leprosy was running an acute course.

(219) Staining of Nerve Tissue.

Kaiser (*Neurol. Centralbl.*, June 1st, 1893) recommends the following method of hardening and staining brain or cord. Pieces are laid in Müller's fluid for two or three days, then cut into sections 1 to 2 millimetres thick, and left for five or six days longer in the fluid. They next are treated for eight days with Marchi's fluid (Müller's fluid 2 parts, 1 per cent. osmic acid solution one part). Hardening is then completed in alcohol, the tissue having been previously washed in distilled water. Sections cut in celloidin are laid in iron solution (liq. ferri perchlor. 1 part, distilled water 1 part, rectified spirit 3 parts) for five minutes, then washed in Weigert's hæmatoxylin solution, and warmed in a fresh quantity of that solution for a few minutes. After washing in water differentiation is effected by Pal's method; the sections are then immediately washed in ammonia water to neutralise the oxalic acid. By this process the nerve fibres are stained dark brown or black; the pigment and nucleolus of the ganglion cells usually are blackish brown. The use of a contrast stain is not advisable.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(220) Reflex Spasm of the Tongue.

Gallerani and Pacinotti (*Neurol. Centralbl.*, July 15th, 1893) relate the case of a man, aged 26, who complained of frequently recurring pain in the cicatrix of a scalp wound caused twelve years previously by a fragment of pottery. A few days after the injury occurred contracture appeared in the muscles of the left side of the neck, producing extension and sinistral rotation of the head; speech and deglutition became difficult. These symptoms persisted up to the time when examined by the authors. The scar, triradiate in form and very tender, was situate about 5 cm. above the middle of a horizontal line from the left mastoid process to the spine. In its posterior upper limb a round granule little larger than a millet seed could be felt; pressure on this gave rise to keen pain radiating to the neck. The defect of speech had the character of alalia or anarthria. Slight trismus, twitchings of the lips, difficulty in swallowing, and partial aphonia were observed, but there was no marked atrophy of the lingual or facial muscles. On attempting to articulate, spasm of the tongue (aphthongia) occurred. Labio-glosso-pharyngeal reflex spasm was diagnosed, and excision of the scar was determined upon. In carrying out this treatment the nodule in the cicatrix proved to be a small piece of porcelain that was encapsuled, and adherent to the neurilemma of a branch of the great occipital nerve. Between the nerve fibres was sclerosed tissue; some of the fibres were partly atrophied. As a result of the operation the symptoms gradually disappeared.

(221) Polyneuritis Mercurialis.

Leyden (*Deut. med. Woch.*, August 3rd, 1893), relates the following case: A man, aged 22, acquired syphilis in June, 1892. In November secondary symptoms appeared, and he went through the usual mercurial inunction cure. In the middle of December, three days after the discontinuance of the treatment, the symptoms of neuritis were noted. On February 12th, when admitted, he had pains in the extremities, numbness in the feet, and difficulty in walking. Motor power was diminished in the legs, and ataxy was present. He gave the impression of a tabetic patient. The knee-jerks were absent, and sensation was impaired from the knees downwards, and also in the forearms and hands. The treatment consisted in antipyrin, chloral, morphine injections, and potassium iodide. In April improvement began, and by the end of May, five months after the onset, the patient had completely recovered. This was a case of acute ataxy, which has been previously described by the author (pseudo-tabes peripherica). It was characterised by (1) rapid onset, (2) the absence of the classical symptoms of spinal cord disease, and (3) sensation disturbance such as occurs in peripheral neuritis. The important etiological question is as to whether the disease was caused by syphilis or by mercury. The author knows of no case of polyneuritis and acute ataxy due to syphilis. The reasons for its being due to mercurial poisoning are: (1) Such a lesion may be produced by mercury; (2) the neuritis was of the typical toxic variety; and (3) it began after the termination of a mercurial treatment, while some subsequent injections made the condition worse, and recovery occurred rapidly during the discontinuance of all mercurial treatment. Leyden then refers to the literature and experimental pathology of the subject. Letulle found in animals that the number of altered nerve fibres depended on the duration of the experimental mercurial intoxication. The lesion produced consisted in (1) pale swelling of the myelin, (2) granular degeneration, and (3) segmental atrophy. The author's case was due to the therapeutic use of the drug. Forestier, of Aix-les-Bains, published a similar case, but the question of syphilis was so doubtful that the disease could only be referred to the mercurial treatment. Ketli's case of sublimate poisoning resembled acute ascending paralysis; the examination of the spinal cord gave no positive result. This mercurial neuritis helps to complete the list of toxic polyneurites, which it closely resembles. The author concludes by drawing the obvious moral that mercurial treatment may possibly be attended with unpleasant consequences.

(222) Morvan's Disease.

Eisenlohr (*Deut. med. Woch.*, June 22nd, 1893) reports a case occurring in a young man, aged 21. There was no history of inherited nervous disease or of syphilis. Some two and a half years ago vesicles formed on the left thumb. Since then similar vesicles with the development of panaritium have occurred on eight separate occasions. The attacks appeared at more or less regular intervals and lasted several weeks. Some few months ago a portion of the second phalanx of the left thumb was removed. Neither this nor the opening of collections of pus caused any pain owing to the anæsthesia. The last development of these bullæ occurred as a result of an attempt to work. The nails of three fingers were lost during this last attack. Quite recently a vesicle has appeared on the right thumb. At the present time, in addition to these bullæ there is slight loss of power in the left arm. There is no wasting and the electrical reactions are normal. The left triceps reflex is absent. Over the whole of the left arm and adjacent parts of the chest sensations of heat and cold are affected as well as that of pain. Tactile sensation is almost intact, except in the hand. Farado-cutaneous sensibility is also diminished. A slight affection of sensation has been recently made out in the right hand. In the legs the deep reflexes are more marked on the left, and the superficial reflexes on the right side. Sweating was much less on the left side of the face after an injection of pilocarpin. There is no diminution in the field of vision. The symptoms in this case are almost certainly due to syringomyelia in the cervical cord. Alteration in the peripheral nerves has been found in some cases, but this would not explain the whole of the symptoms. The change in the reflexes is in favour of a cord lesion. Why certain cases of spinal gliomatosis and syringomyelia should present the appearances of Morvan's disease is as yet unknown.

(223) Acute Nephritis after Varicella.

Cassel (*Deut. med. Woch.*, August 10th, 1893) first refers to the rarity of this complication. Although carefully looked for in over 200 of his own cases, it was only present in the following instance: A girl, aged 4, with no history of previous infective disease, went through an ordinary attack of varicella. About the twelfth to fifteenth day, the symptoms of acute hæmorrhagic nephritis appeared. When she was seen, the face was swollen and the urine of a dark red appearance, contained much albumen and blood. The digestive functions were disturbed, and constipation present. Temperature 39° C. Other organs were healthy. The symptoms of nephritis remained at their height for about six days, and then disappeared relatively rapidly in the next twelve days. The child recovered completely. There was no evidence whatever to lead the author even to suspect that it was an acute exacerbation of chronic nephritis. Among the 25 published cases, there have been all degrees of severity. The nephritis occurred from the fifth to the twenty-first day of the varicella, and lasted twelve to twenty-four days. Three fatal cases have been observed, and here the morbid anatomy resembled that of scarlatinal nephritis. As regards prophylaxis, children should remain in bed for a few days, even in the lightest cases, and should keep to the room for a week.

SURGERY.

(224) Rapid Treatment of Dacryo-Cystitis.

Denti (*Gazz. degli Ospitali*, July 25th, 1893), in the treatment of cases of dacryo-cystitis, which has been in existence for months or years, and which has become complicated by caries of the bones and distortion of the lachrymal sac, does not think the usual method of opening the duct and dilating by means of probes sufficiently energetic. He proceeds as follows: An incision is made into the anterior wall of the lachrymal sac, including the palpebral ligament and the summit of the sac. The stricture is then divided, and the sac scraped. The bleeding is

stopped by antiseptic tampons, after which the incision is closed by suture. If the dacryo-cystitis is acute, and if the surrounding parts are much inflamed the author delays the introduction of sutures for two or three days; if there is much ectasis of the sac he excises as much as may be necessary to remedy this state of things. This treatment has been highly satisfactory in his hands; the pain is reduced to a minimum, and quickly passes away; the reaction, whether local or general, is practically *nil;* the cure is rapid and certain.

(225) Treatment of Tuberculous Peritonitis.

Nolen (*Berl. klin. Woch.*, August 21st, 1893) describes a new method. He would attribute any good results obtained by laparotomy to (1) the circulatory changes produced by the evacuation of fluid, and (2) the contact of air. He does not think that light has any effect. The author has accordingly practised tapping, with subsequent insufflation of air, after satisfying himself that there was no danger in this procedure. This treatment was tried in three cases, in two of which the results were very good. In the other advanced case (combined with intestinal tuberculosis) the ascites did not reappear, but the patient died eight weeks later. An apparatus is described by which air forced through sterilised cotton wool, and then through a flask containing sterilised water, is injected into the abdominal cavity after the fluid has been withdrawn. The apparatus is, of course, sterilised. The insufflation causes no pain, and does not give rise to any unpleasant result.

(226) Surgical Treatment of Pancreatic Hæmorrhages.

Nimier (*Rev. de Chir.*, August, 1893) describes two forms of pancreatic hæmorrhage—one of effusion of blood into the lesser cavity of the peritoneum, the other of intrapancreatic apoplexy with occasional infiltration in the surrounding cellular tissue. The first is characterised by a more or less rapidly-developed tumour between the umbilicus and the lower margins of the thorax. This tumour, which is fluctuating, of rounded form, and distinctly circumscribed, occupies the epigastrium and the left hypochondrium. On percussion, the dulness over this swelling will be found to be separated from the hepatic dulness by the clear sound over the stomach. Behind there may be dulness over the lower ribs on the left side. The swelling is formed above the transverse mesocolon, which is pushed down below the colon. The diffused blood is not derived from any of the larger arterial trunks nor from the splenic and superior mesenteric veins, but very probably from one of the following sources: the pancreatico-duodenal artery, one or more branches of the vascular network on the anterior surface of the pancreas, or from the very vascular gland structure. The extravasation of blood is usually the result of injury, as it requires some violence to tear through the peritoneal covering of the front of the pancreas and to open the serous sac. The author has collected five cases in which this condition was treated by laparotomy. Four patients recovered, and the fifth died very soon after the operation, probably from shock and acute peritonitis. The procedure indicated by the results of experience hitherto acquired consists in median laparotomy above the umbilicus, displacement of the stomach upwards, division of the omentum, incision of the large blood cyst above the transverse colon, and stitching of the edges of the incision in the sac wall to the edges of the cutaneous wound. The cavity is drained by one or more tubes, which should be allowed to remain until the cavity is almost completely closed. Exploratory puncture is condemned in cases of this kind, as it is not free from risk, and, as a method of treatment, quite useless. In intrapancreatic apoplexy the prospects of operative interference are not favourable. The lesion in many cases is rapidly fatal, and its diagnosis is attended with much difficulty. If the seat of the hæmorrhage were exposed by laparotomy, the flow of blood could be arrested only by cauterisation or plugging, as ligature of any of the larger arteries supplying the pancreas might seriously interfere with the circulation in adjacent viscera. Moreover, it is well known that in these cases death is not due to the abundance of the hæmorrhage from the pancreas.

(227) Elbow Fracture.

Wight (*Annals of Surgery*, Vol. xviii, No. 2, August, 1893) publishes ten cases of ankylosis of the elbow joint, after fracture of the lower end of the humerus which came under his notice. Five of these he treated by exsection, four by infraction, and one was not treated. The heading of the paper would lead one to suppose that these had all been treated in the extended (straight) position, but in only one case was this so, the others having been, in the first instance, put up at an obtuse angle. Upon these cases, Wight, after enumerating the usual arguments in support of the bent position, makes what he evidently considers a very strong case in favour of treating fractures of the elbow-joint in the rectangular position.

(228) Ligature of External Carotid.

Lipps (*Archiv für klin. Chir.*, Bd. 42, Hft. 1) has collected 130 cases of ligature of the external carotid artery, in 12 of which this artery was tied on both sides at the same operation. Of the total number of cases 32 were fatal, and in only 2 of these was death caused by the operation itself. In both instances the thrombus in the external carotid extended to the common carotid and gave rise to cerebral embolism. In 10 cases in which the operation had been performed for profuse hæmorrhage death was the result of loss of blood and consequent collapse. The author regards this operation as preferable to ligature of the common carotid in those cases in which either might be considered as applicable. The former procedure is much less fatal in its results, and both external carotids may be tied at the same time without much risk. As a rule ligature of the common carotid should, it is thought, be reserved for those cases in which the surgeon has to deal with a very pressing emergency, hæmorrhage, for instance, which could not be treated with any good prospects of success by ligature of the external carotid. The remote results of ligature of the external carotid, the author acknowledges, are not always good, but it is doubtful whether in such cases ligature of the common trunk would have had better results.

MIDWIFERY AND DISEASES OF WOMEN.

(229) Traumatic Detachment of Placenta: Fœtus Born Alive.

Odebrecht (*Centralbl. f. Gynäk.*, No. 30, 1893) relates an example of serious damage to the placenta, which did not prove fatal to the child. A woman, when in her eighth pregnancy, and expecting delivery nine weeks later, was standing high up a ladder placed against the wall of her room, when it slipped, and she fell with it, striking her abdomen. The pregnancy continued unaffected till five weeks later—that is, till four weeks before term, according to the patient's reckoning. A great quantity of pale red fluid then escaped, pains set in, more blood-stained water ran away, the membranes presented, and at the end of four days a live child was born without aid. Half an hour later the placenta was expelled after gentle pressure. Odebrecht describes the placenta, which he exhibited in June before the Obstetrical Society of Berlin. Two-fifths of its substance showed signs of prolonged compression, evidently from effusion of blood between the placenta and the uterus. It is remarkable, Odebrecht observes, that the patient was able to discharge her household duties for a month after the injury, which detached part of the placenta. Still more interesting is the fact that the child lived so long when so much of its placenta was disabled, and was born alive after all.

(230) Primary Tubercle of the Cervix Uteri.

Veit (*Centralbl. f. Gynäk.*, No. 28, 1893) describes this case, which ended fatally after operation. The patient was single and 40 years old. She consulted Veit for a vaginal discharge. The perineum was ulcerated, and the pars vaginalis of the cervix and upper part of the vagina was diseased, so that at first cancer was suspected. The surface, however, was vesicular rather than ulcerated. In some respects it suggested sarcomatous deposit. A piece was snipped off and proved to consist of tuberculous material. There was no evidence of pulmonary disease. Veit thought it right

to remove all trace of tuberculous disease, lest any should remain as a focus for diffusion. He performed a modified Freund's amputation of the uterus. The patient died of shock. At the necropsy the spleen, liver, kidneys, and retroperitoneal glands were found infected with tubercle, but the lungs were unaffected. Veit suspects that the peritoneum might have been the seat of the primary disease. He thinks that the case is similar to one described by Whitridge Williams in his paper on Tuberculosis of the Female Generative Organs, in the *Johns Hopkins Hospital Reports*, Vol. III, p. 85.

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(231) Encysted Hernia of the Labium Majus.

Vanheuverswyn (*Archives de Tocol. et de Gynéc.*, July, 1893) operated on a patient, aged 37, who entered hospital on October 23rd, 1892, with symptoms of intestinal obstruction. For ten years she had been subject to right inguinal hernia. It caused much pain, and a truss was applied, which fitted badly. On October 13th she menstruated, severe pain set in, radiating to the thighs. The hernia became very tender. Vanheuverswyn found that the right labium majus was as large as an orange; it was not very tense. Taxis had been attempted a few hours before admission, and no motion nor flatus had passed for three days, but the patient did not vomit. The symptoms suggested strangulation of omentum, with, possibly, pinching of a piece of intestine. An incision was made in the long axis of the tumour. A dark-coloured membrane, not very tense, was exposed; some fibrous bands crossed it. On puncture several drachms of brownish fluid blood escaped. The membrane was a sac, which contained nothing but the fluid. The external abdominal ring was found much dilated, and occupied by a thick, not very tense, pouch. The first sac was evidently a cyst of the canal of Nuck, ruptured by attempts at taxis. Its interior was shiny, but thick fibrous bands, in strong relief, gave it the appearance of vesical mucous membrane. It was dissected away, and during this proceeding the operator found that it had been ruptured, much blood lying outside it under Poupart's ligament. At length the sac or cyst hung only by a short pedicle to the external ring. On dividing this pedicle the peritoneum was laid open. The omentum and some coils of intestine were exposed, lying behind the ring. It seemed probable that the hernial sac contained gut only when the patient strained. The peritoneal wound was sewn up with catgut, then the pillars of the ring were sutured. A drainage tube was introduced into the wound, the integuments being closed with silkworm gut. The abdomen remained tender, though there was no pain near the wound; the bowels acted, after a dose of castor oil, on the second day. On October 30th the vagina was explored. A hard tender mass was detected in the posterior fornix. After rest and blisters this mass disappeared. It was evidently a pelvic hæmatocele, which had developed on and after October 13th.

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(232) Missed Abortion: Missed Labour.

Blanc (*Nouv. Archives d'Obstét. et de Gynéc.*, February, 1893) read these cases before the Paris Obstetrical Society. The first patient was a widow, attacked by severe metrorrhagia, which began after the period had been missed over two months. The catamenia returned, the uterus was large, hard, and cylindrical in form; the os patulous. Six months later violent pain and flooding set in, and a mass of the size of a small fist, like a fibroid polypus, was easily pulled out of the vagina. It was a stratified fibrous substance, including a half-mummified two months' fœtus. The second patient was 44; she had borne only one child, as long as twenty years ago. In April, 1890, the period ceased. In September quickening occurred and disappeared a month later. The uterus grew smaller. A "show" afterwards occurred every fortnight. The patient was examined in February, 1891. The uterus seemed gravid; a placental *souffle* was heard; the breasts were large and contained milk. In March the *souffle* was no longer audible. In July, 1891, the patient was delivered of a well-developed fœtus when travelling. It was enveloped in unbroken membranes; unfortunately it was not kept for Blanc's inspection.

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(233) Hydrocele in the Female.

Lammert (*Centralbl. f. Gynäk.*, No. 30, 1893) gives some valuable information on this interesting question; a full monograph on the subject appeared in the *Münch. med. Wochen.*, No. 29, 1891. The term correctly signifies a collection of fluid in an imperfectly obliterated canal of Nuck. This form of hydrocele is usually detected in pregnancy and childbed. According to Wechselmann, it has been found twenty-two times on the right side, seventeen on the left, and in two cases on both sides. Lammert has observed this condition in a nullipara, aged 39. It formed an enormous swelling, as big as a man's fist, in the left groin, pyriform, elastic, transparent, and fluctuating. It was irreducible, and there was no impulse on coughing; it reached as far as the labium. On incision a pint of serum escaped; the parts were explored, and the hydrocele was found ending as a blind pouch at the internal abdominal ring.

THERAPEUTICS.

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(234) The Cardiac Tonics in Pneumonia.

Lazzaro (*Arch. di Farmac. e Terap.*, June 15th, 1893) draws attention to the successful use of digitalis in cases of pneumonia, first by Traube, and some years later by Petrescu, who obtained good results from its use in 755 cases of the disease, employing from 4 to 8 g. of the leaves daily in the form of infusion. In Italy, Maragliano has also spoken highly of a similar mode of treatment. The author expresses the opinion that the drug acts by reinforcing the systole of the heart, and so enabling it to surmount the circulatory obstacle set up by the congested lung, and thus to do away with the œdema. In order to confirm this view the author has tried two substitutes for digitalis in similar conditions, strophanthus and adonis, both of which have a more prompt action and are more tolerated than digitalis. He describes the results in two typical cases, in one of which, a woman of 63, 1½ g. of the tr. strophanthi was given daily, and in the other case 6 g. of adonis in the form of infusion. In both cases the disease was brought to a successful issue in three or four days. Lazzaro considers that his results confirm the truth of his idea as to the action of the drug, but holds that it is inadvisable to employ either digitalis or the other cardiac tonics as a routine practice in pneumonia: their use should be reserved for cases in which the heart is compromised. [For other references on the use of digitalis in pneumonia see Epitome for papers by Löwenthal (November 28th, 1891), Hoepfel (June 18th, 1892), Dessau, cautions against the use of (January 9th, 1892), Huchard (February 27th, 1892), Federici (September 10th, 1892), Strizover and Petrescu (December 24th, 1892).]

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(235) Intravenous Injections of Corrosive Sublimate.

Baccelli (*Gaz. degli Ospitali*, July 7th, 1893) gives details of the first case in which he applied this treatment. The patient was a young man, who became syphilitic in the beginning of 1890, and two years later, in spite of energetic treatment, was blind, tottering, with severe pains in the head. He had, besides, a sensation of pressure within the cranium, vertigo, vomiting, paresis of the limbs, and loss of memory. After grave consideration and some preliminary experiments on dogs, intravenous injections of a solution composed of 1 gramme of mercuric chloride and 3 grammes of salt in 1,000 c.c. of water were begun. Such a solution could be injected quite painlessly into one of the veins at the bend of the elbow, and with entire absence of local complications. A few seconds after the injection of one or two milligrammes the taste of chloride of sodium appeared in the mouth, followed immediately by that of mercury. Salivation appeared after five or six minutes. Injections were commenced on January 3rd, 1893, and continued in doses increasing gradually up to 5 milligrammes. By February 19th twenty-eight injections had been made, corresponding to a total of 38 milligrammes of salt. The patient had already gained much of his former strength; the attacks of headache and paresis, together with the loss of memory, had almost entirely disappeared. As to vision, the patient declared that he saw frequent flashes of light. The injections were continued until a total of 61 milligrammes had

been given, at which time all symptoms of the syphilis, save the loss of sight, had disappeared. The patient was also capable of distinguishing light from darkness.

(236) Strychnine Injections in Paralysis. Boltenstern (*Therap. Monatsh.*, August, 1893) relates the case of a patient who, as the result of alcoholism, was suffering from well-marked paralysis of the lower extremities, accompanied by loss of power in the upper limbs. When first seen the condition was complicated by severe rheumatoid pains, œdema, enlarged liver, albuminuria, and diminution of urine. After a few weeks' treatment directed to these latter symptoms, the paralysis alone remained, and the author therefore resorted to strychnine injections. The nitrate was used in a 1 per cent. solution, and injected by means of a Pravaz syringe, the daily dose at first being 1 milligramme, and towards the end 10 milligrammes, or $\frac{2}{3}$ of a grain. In addition the patient was subjected to warm baths with cold irrigations and faradisation once in two days. Four weeks of treatment enabled the patient to feed himself and to raise himself in bed without aid, and with no discomfort. After another month slight attempts at walking could be made, and after two further weeks the patient was able to raise himself and walk without aid or support. Four months after the commencement of this treatment the patient was able to return to his occupation. During the early treatment slight collapse occurred twice slightly, but improved with citrate of caffeine. Injections were made on thirty-two days, and the total quantity of strychnine used was 2½ grains. The author feels confident that the merit of curing this paralysis of two months' standing is to be attributed to the strychnine, and he recommends its further application.

PATHOLOGY.

(237) Researches on Cholera and Vibrios. Recent investigations on cholera have brought to light a great variety of vibriones, many of which are almost constantly found in the intestine, others being common inhabitants of our surroundings, and certainly not all of which are pathogenic. Many of these bear such a strong resemblance to Koch's commas that it may in some cases be a matter of extreme difficulty to distinguish them from this microbe. Metschnikoff (*Annales de l'Inst. Pasteur*, July, 1893), studies the pathogenic properties of a group of these comma-shaped organisms, comprising the B. tyrogenes of Daeneke, the vibrio proteus of Finkler and Pryor, the vibrio Metschnikovii, and the cholera bacillus of Koch. He also makes observations on the effect of passing these microbes through the human body, studying especially the effect of this process upon their virulence. His final conclusions are as follows: The comma bacillus of Koch, notwithstanding its close relation to other comma-shaped microbes, especially to the vibrio Metschnikovii, is without doubt the true specific organism of cholera Asiatica. Although there exist obscure points as to the etiology and progress of epidemics, especially the facts of local immunity, it is no longer the theory of Koch which ought to adapt itself to the facts of epidemiology, but these facts which must be conciliated with the fundamental truth that the comma bacillus is the real cause of the disease. On the other hand, it is an undoubted fact that immense quantities of the cholera vibrio can be taken into the intestine without causing cholera. For this disease to be produced the human organism has need of a particular susceptibility to the infection, the exact nature of which is not yet known. It is not a question of a predisposition to indigestion, but something quite distinct. The conditions in which cholera vibriones are found in man are very complicated. These microbes, as well as their products, enter into multiple relations with the digestive juices and the cells of the organism (phagocytes play an undoubted part in human cholera, as Metschnikoff has been able to ascertain by direct observation). On the other hand, the vibriones and toxins come into collision with the other microbes in the digestive tract, and undergo the action of their various products. All these delicate points can be understood only after much more research. To judge from the small number of experiments which have at present been performed, it would appear that the method of vaccination through the digestive tract is much more efficacious than that by the hypodermic method. It appears, too, that the vibriones analogous to the cholera vibrio may also be pathogenic to man. It may be considered as certain that the natural cure of cholera is accomplished without any preventive power being set up in the blood. On the other hand, such preventive property may be set up without that hindering the fatal course of cholera, even at an early stage. Human cholera furnishes us, therefore, with a new example of a disease in which a cure cannot be explained by a preventive property of the blood.

(238) Importance of the Spleen in Experimental Immunisation of the Rabbit against Tetanus. Tizzoni and Cattani, in a former paper (see Epitome, April 23rd, 1892, par. 374) showed that the spleen played an important part in the artificial immunity of rabbits against tetanus. They found that while they could produce immunity in normal control animals, they were unable to do so in spleenless ones, which, although prepared in exactly the same way as the others, succumbed to the same doses as animals in no way prepared. In a second paper (*Rif. Méd.*, August 17th, 1893) the authors have controlled and added to their former results. With the vaccine now at their disposal they are able to immunise rabbits without fail by only two injections, the first of 5 c.c. and the second of 10 c.c. Preparing in this way a number of rabbits, whose spleens had been removed from eight to fifty days previously, they found that these animals are quite as fully protected as animals possessing spleens. Further, the serum obtained from these animals had a marked immunising power, as great as that of the control vaccinated animals. When a large dose of such serum was injected either into entire or spleenless animals the result was always the same—complete and perfect protection against a subsequent injection of virulent tetanus culture. These results are in harmony with those obtained by Orlandi in the case of rabies, and by others in the case of other infections, and are at variance with the conclusions arrived at in Tizzoni's preliminary communication. The discrepancy is explained by the fact that their methods of immunisation were not as perfect a year ago as they are at the present time. At first they used quantities of immunising serum which, while they were capable of protecting healthy animals, sometimes failed to do so if the animals were weakened either by bleeding or some intercurrent disease. In the present research the immunising material was more powerful and was used in larger doses. They conclude, therefore, that removal of the spleen, inasmuch as it modifies the general process of nutrition, may have a certain influence on the development of immunity, an influence which makes itself known when material of limited power is used for immunisation; but that the spleen *in se* takes no part, direct and necessary, in the process of immunisation itself, and that if the substance which actually produces immunity is a product of the animal organism and not the substance actually injected, which seems, however, in the light of recent work improbable, its formation does not take place in the spleen, or at least not in this organ exclusively. The authors think that the same fallacy led to the mistake of Foà's assistant, Cesaris-Demel (*Rif. méd.*, July, 1891), who considered that the spleen played an important part in the production of immunity against pneumonia, a resulted contradicted later by fresh experiments of Foà and Scabia (*Gazz. med. di Torino*, 13-15, 1892).

(239) The Inoculation of Gelatine Culture Tubes. In inoculating a gelatine tube Beneke (*Centralbl. f. Bakt.*, August 7th, 1893) recommends that the puncture be made quite at the side, immediately beneath the glass, instead of through the centre of the gelatine, as usual. The new plan has the advantage over the old one that the growing culture can be examined microscopically, so that various details can be made out; for example, the nature of the growth, the comparative appearance of cultures near the surface (greater supply of oxygen) and those situated more deeply, the presence of one or more varieties of germ. Examination is facilitated by using a tube with opposite sides flat and parallel.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(240) Diabetes and Cirrhosis of the Liver. Palma (*Berl. klin. Woch.*, August 21st, 1893) describes two such cases from the clinic of v. Jaksch. (1) A man, aged 78, had suffered from increasing weakness for eighteen weeks. The skin was of a brownish colour. There was considerable hepatic and splenic enlargement. The urine contained much grape sugar, but no bile pigment. The case is described as one of hypertrophic passing into atrophic cirrhosis. (2) A man, aged 43, began with slight jaundice four months previously. Two months later the abdomen began to swell, and, fourteen days ago, the legs. Ascites was present. The liver and spleen could not be felt. The urine contained grape sugar and, occasionally, acetone, as well as bile pigment. A month later he died. The liver was found to be cirrhotic, the kidneys enlarged, and the pancreas healthy. The liver only contained a small quantity of glycogen. In such cases either the sugar-forming function of the liver is increased, and too much sugar gets into the blood, or the liver is not in a position to convert the sugar brought to it into glycogen. The question of alimentary glycosuria must also be considered. Here the limit for the assimilation of carbohydrates is diminished, and a permanent glycosuria may result. The effect of alcohol in this respect has been insisted on. The author draws attention to the pigmentation seen in his case, and refers to the condition of "bronzed diabetes." He concludes by pointing out (1) that the coexistence of these two diseases is very rare; (2) that the liver disease cannot as yet be looked upon as the cause of the diabetes, and that the latter may be a chance complication; and (3) that the name bronzed diabetes should not be used, as pigment may be absent from the internal organs in such cases, and in ordinary cirrhosis without diabetes this accumulation of pigment may also be present.

(241) Relation between the Alkalinity of the Blood and Intestinal Absorption. Castellino and Cavazzani (*Gazz. degli Ospitali*, July 1st, 1893) have sought to ascertain whether, and if so how, the process of absorption from the intestine is modified in association with altered physical and chemical conditions of the blood: secondly, they have sought to establish how such changes of the blood influence in the human subject the general metabolism of the body. The study is not as yet complete, but the authors have ascertained the following facts: In distinctly alkaline serum, the reticulum of the hyaloplasm of leucocytes undergoes stimulation, which causes increased irritability and more active vital manifestations in the protoplasm. In liquids poor in alkali the protoplasm appears torpid and slow in its reactions, but in these cases contact with alkaline serum speedily evokes increased activity. Contact of faintly alkaline serum with leucocytes in a medium favourable to their activity depresses their movements, and accelerates the processes of degeneration. Serum which is but faintly alkaline nearly always produces transparency of the protoplasm, and throws out the nucleus. From the above facts, the authors argue, first, that alkalinisation of the blood favours intestinal absorption; and, secondly, that as the passage of foods from the intestine through the lining mucous membrane is probably due in great measure to the activity of the cells lining the villi and to the leucocytes, alkalies would cause an increase in the rapidity of absorption by stimulating the activity of the protoplasm, and increasing its chimiotactic powers.

(242) Spinal Deformity. Bechterew (*Neurol. Centralbl.*, July 1st, 1893) draws attention to a type of spinal curvature associated with nervous derangements which he has observed during the last few years, and which appears to him to have escaped previous notice. Of the three illustrative cases described by him the first is that of a woman, aged 57, who complained of a painful feeling of weight extending up the cervical spine to the head, drooping forwards of the head and difficulty in supporting it, and a sensation of constriction beneath the lower jaw. From childhood she had been slightly humpbacked; latterly the deformity had increased. The kyphosis involved the lower cervical and upper dorsal region. Slight atrophy was apparent in the muscles of the right side of the neck; sensibility to pain was diminished in the scapular region. The patient's mother, sister, and daughter were affected with similar deformity of the spine. The symptoms common to all cases, as set forth by the author, are (1) impaired mobility of the whole or some portion of the spinal column, without tenderness; (2) kyphosis, chiefly in the upper dorsal region, causing the head to incline forwards and appear sunken; (3) a paretic condition of the muscles of the trunk, neck, and limbs, usually with slight atrophy of the dorsal and scapular muscles; (4) impaired cutaneous sensibility in the area of the dorsal and lower cervical nerves, sometimes also the lumbar; (5) paræsthesia, local hyperæsthesia, and pains in the neck, back, and limbs, and spinal pain after prolonged sitting. In some cases twitchings or contractures are present in the limbs. Hereditary predisposition and injury to the back seem to be the most important factors in causation. The author supposes that the condition depends upon some "diffuse chronic process in the vertebral column leading to ankylosis, probably with diffuse chronic inflammation of the epidural connective tissue." Application of the hermo-cautery relieved subjective symptoms.

(243) Double Empyema. Cassel (*Deut. med. Woch*, August 10th, 1893) reports a case in a wasted child, aged 4 months, who was thought to have had an attack of influenza. On the left side there was well-marked bronchial breathing at the angle of the scapula behind, and from this point downwards on both sides the percussion note was impaired and the breath sounds ill-defined. In front there were no abnormal signs, and the apex beat was not displaced. The chest was opened on both sides in the sixth interspace, ¾ litre of pus being let out on the right, and ½ litre on the left side. The immediate result was good. The improvement was not maintained, so that resection of rib was practised. The child died later. Pleuritic adhesions were found everywhere except at the sites of the empyemata. A vomica was found in the left lung communicating with the pleural cavity. Many tuberculous foci were found scattered through the lungs. Double-sided pleurisy is not so very rare. The only treatment that could be practised here was opening the chest. Tuberculosis of the lungs may, however, be a contra-indication. At this age the recognition of a tuberculous lesion in the lungs would necessarily be very difficult.

(244) Eye Symptoms in Cerebro-spinal Meningitis. Randolph (*Bulletin Johns Hopkins Hospital*, June-July, 1893) first draws attention to the number of eye affections which may occur in this disease. Among them are conjunctivitis, altered pupils, pus in the anterior chamber, inflammation of the choroid and iris, suppurative cyclitis, panophthalmitis, retinitis, neuritis, etc. The fundus should always be examined, as there is a direct communication between the arachnoid space and the deeper structures of the eye through the intravaginal space. Short records are given of 35 cases in which the author examined the eyes. Of the 35, 21 were fatal. Special attention is drawn to the last case of a child aged 20 months in which there was thrombosis of the central vein with a hæmorrhagic retinitis. This is the youngest case within the author's knowledge of this thrombosis. The fundus was normal in only 7 cases, and of these 7, 1 had divergent strabismus and dilated pupils, another marked nystagmus, and another greatly dilated pupils. In 6 cases there was optic neuritis, and in 19 great venous engorgement and tortuosity with congestion of the optic disc. The 3 cases in which there was an absence of all eye symptoms, 2 recovered and 1 died, and the author believes that a later examination would have discovered a lesion in the fundus in the last case. All cases of strabismus (8) were divergent, and the right eye was always affected. If the cases of optic neuritis had survived, the author thinks that atrophy would have

followed. He refers to a case, however, of marked neuritis in which bad vision persisted, but a year later the boy could see well. Every extensive epidemic is apt to be associated with a special type of eye disease, as tortuosity and distension of the retinal veins with congestion of the disc, as in this epidemic. The author looks upon eye lesions, and especially fundus changes, as signifying grave cases.

(245) Acute Poliomyelitis Anterior in an Adult.

Bikeles (*Wien. med. Presse*, June 4th, 1893), reports a case of a man 58 years of age, the subject of this affection. He had been attacked with diarrhœa, and a feeling of weakness two months before; ten days later paræsthesia of the right and then left arm were noticed, paresis then came on in the same order, and spread to both inferior extremities simultaneously; and a few days after there was difficulty of micturition lasting a week. Spontaneous pains and tenderness of the muscles on pressure, especially those of the calf, existed; whereas no nerve trunks were tender. The back muscles were weak, but the other trunk muscles were unaffected; and the cranial nerves were normal. In the limbs, close to completely paralysed muscles, were others only slightly affected. There was no contracture. The reflexes were abolished in the left inferior extremity, and greatly diminished in the right; while those of the upper extremities were preserved. Sensibility was normal. The intrinsic muscles of the hands were atrophied, and some other muscles presented the "reaction of degeneration." The atrophy and the altered electrical reactions were considered against the possibility of the case being one of Landry's paralysis; the gradual onset against hæmorrhage, and against multiple neuritis, chiefly the symmetrical atrophy of the intrinsic muscles of the hands.

(246) Syphilitic Spinal Paralysis.

Kowalewsky (*Neurol. Centralbl.*, June 15th, 1893) reviews the clinical features and differential diagnosis of the affection described under the above title by Erb and designated syphilitic transverse myelitis by Charcot. The disease is almost confined to males between 30 and 45 years of age; its development is slow; disturbance of the bladder function is often one of the earliest indications. Frequently, in addition to symptoms resembling spastic paraplegia, there are sensory disorders of diverse kinds, sometimes with trophic derangements. Spasticity of gait, however, is not always observed, and never is so marked as in lateral sclerosis; muscular rigidity and increase of deep reflexes also are less pronounced than in spastic paraplegia. Amongst 152 cases of syphilis of the central nervous system treated by the author during 1892 there were 38 affected with tabes and 21 with syphilitic spinal paralysis. In all the latter there was functional derangement of the bladder, mostly shown by inability to restrain detrusor action whenever the desire to micturate arose. The rectal function was similarly deranged in many of the cases. Increased myotatic irritability was a constant condition. Great exaggeration of the "thermic reflex" in the lower limbs was found to be a characteristic peculiarity of the disease; cold or heat applied to the lower extremities evoked strong convulsive contraction. The psycho-physical reaction time for tactile and painful stimuli was normal or slightly shortened—an opposite condition to that obtaining in tabes.

MIDWIFERY AND DISEASES OF WOMEN.

(247) Intraperitoneal Ectopic Gestation.

Houzel (*Progrès Médical*, July 1st, 1893) relates a case where the pregnancy was, in his opinion, clearly peritoneal. For the last three months of its life the fœtus lived free amongst the intestines, without any investing capsule, anatomical or adventitious. It could even kick the liver, and caused great distress to the mother by disturbing the intestines. The pressure of the fœtal head set up severe pain in the left iliac fossa. The child passed meconium over the intestines. The placenta was firmly grafted on to the bowel. Nevertheless, in spite of the free fœtus and adherent placenta, the peritoneum was not inflamed. The child died at the end of the ninth month. The placental vessels were extremely large and continuous with others belonging to the intestine over the area where the placenta adhered. Houzel could not remove it, as immediate hæmorrhage would have been unavoidable, and intestine does not contract like the uterus. As there was no sac, plugging was not attempted. He also feared to close the abdominal wound entirely, lest the peritoneum might prove less tolerant than before the operation. He preferred to leave the lower end of the wound open, to drain and to detach the placenta when it became evident that there was no fear of hæmorrhage. The mother recovered.

(248) The Treatment of Chronic Metritis.

Loimann (*Therap. Monatsh.*, August, 1893) gives the result of his investigations as to the etiology of chronic metritis, showing that in nearly all cases where the cause can be ascertained the disease is found to have originated in the puerperal period or in a gonorrhœal contagion. He also points out that the vaginal secretions have a decidedly protective power, partly owing to their acid reaction, he and therefore deprecates the excessive use of vaginal injections and irrigations made in the present day. While attributing the benefits to be derived from local remedies to their antiseptic properties, he specially refers to the value of the *Moor* or mud bath cures in the treatment of chronic metritis. Their therapeutic success depends on the antimycotic, irritating, and alterative properties of the *Moor* or liquid earth, which he finds to contain from 1 to 1½ per cent. of free sulphuric acid. Its power to penetrate into the vagina was demonstrated twenty-two years ago, and the author therefore strongly objects to the modern use of mechanical appliances intended to ensure the contact of the passages with the mud, this result, if anything, thereby being averted. With hæmorrhagic conditions, he considers the baths to be inadvisable, and he also objects to any concomitant local treatment and the vaginal flushing with alkaline mineral waters after the bath, the beneficial acidity of the mud being thereby neutralised. In gonorrhœal conditions he most particularly advocates the mud bath, as manual interference so frequently causes pain, and medicinal treatment so frequently fails.

(249) Testes in a Subject otherwise Female.

Kochenburger (*Zeitschr. f. Geburtsh. u. Gynäk.*, vol. xxvi, part 1, 1893, p. 79) publishes a case not absolutely unique but of high interest. The patient was 33 and had never menstruated. When 25 she observed slight "show" for a day. She had been married ten years, coitus was somewhat difficult, and she felt no desire. There was no vicarious menstruation. She was large in frame, but quite feminine in form; the breasts and mons veneris were well-developed. The vagina formed a blind sac, 2 inches deep. The uterus was apparently represented by an elastic body of the size of a broad bean, lying rather to the right. An ovary-like body occupied each labium majus. The pair were intensely tender to the touch, and caused great pain. They were, therefore, removed. A vertical incision was made in each labium. The right gland was easily detached, the left lay higher up, and was difficult to dissect away from its connections. The two excised organs were carefully examined under the microscope, and the appearances, as represented in lithographs, are published with Kochenburger's paper. They contained tubuli seminiferi and not Graafian follicles, and were distinctly testicles. There were vessels arranged like the spermatic and distinct cremasters but no vasa deferentia. Possibly, Kochenburger suggests, they existed, but were cut too close for recognition, at the operation. He refers to similar cases related by Ricco, Breisky, and others. The monstrosity is classed as hermaphroditismus transversus virilis.

(250) Knots in the Umbilical Cord.

Lefour of Bordeaux (*Progrès Médical*, July 8th, 1893) has made researches in this subject. A knot in the cord is very likely to kill the fœtus by offering a simple mechanical obstacle to the circulation; the umbilical vessels become plugged owing to changes in their coats. In one case, where the fœtal movements and heart sounds ceased twelve days before delivery, there was a tight knot in the middle of the cord. Arteritis and complete obstruction by organised clots were detected on examining the vessels at the affected point. Lefour

experimented by injecting water at constant pressure into the umbilical vessels, and found that the knot does not markedly impede circulation unless there be compression as well. An amount of pressure which would hardly be dangerous in a cord free from knots is perilous when a knot exists. In the absence of compression a knot, even if tight, probably loosens itself under the increased pressure of the contractions of the fœtal heart.

(251) Operation for Umbilical Hernia on the Newborn Child.

Berger (*Nouvelles Arch. d'Obstét. et de Gynéc.*, June 25th, 1893) successfully operated on a female child thirty hours after birth, and exhibited it afterwards at a meeting of the Obstetrical and Gynæcological Society of Paris. The infant was born strong, breathing well. The umbilical hernia was of the size of a small hen's egg, and covered by the membranes of the cord. There was a distinct neck or pedicle as thick as a man's forefinger, and made up of integument alone, which was united to the membranes by a deep groove. The lower part of the hernia was reducible, and the sac was there transparent. Coils of small intestine showed through it; they could all be pushed back into the abdomen. The upper part was irreducible, and in close relation with the vessels of the cord. After birth the hernia and abdomen were well washed and dressed with iodoform. On the next day the hernial sac was opened, and the small intestine reduced. The irreducible portion consisted of the cæcum, the appendix, and about one-third of the large intestine, all intimately adherent to the membranes of the cord. A layer of these membranes had to be detached and reduced, together with the bowel. This manœuvre could not be done until a free incision had been made along the median line, as in abdominal section. The sac was excised. The peritoneum, the aponeurosis, and the skin were separately sutured. The operation lasted an hour and a quarter. The sutures were removed on the tenth day; recovery was complete at the end of a fortnight. Guéniot, in the discussion on Berger's case, referred to Lindfors's invaluable monograph "On Umbilical Hernia," which appeared last January in Volkmann's *Vorträge*. He said that, as in adults, very minute particulars of each case of this operation in infants would be needed. Nothing differed so much as two umbilical herniæ. Other abdominal viscera besides the intestine may lie in the sac, inseparably adherent, and the abdominal cavity may, by congenital defect, be much too small to hold all the herniated structures.

(252) Absence of Genitals; Vicarious Epistaxis.

Kochenburger (*Zeitschr. f. Geburtsh. u. Gynäk.*, vol. xxvi, pt. 1, 1893, p. 72) examined last year a patient aged 16. She had never menstruated, but for three years had been subject to severe epistaxis every fourth week. She had been married a week, and coitus was found impossible. The patient was in general development, distinctly feminine, there was a little hair along the linea alba. The mammæ and mons veneris were well developed. There was a slight fold in the vestibule, which was very shallow; there was no fossa between the labia minora. The patient was put under chloroform, and no vagina could be detected. In its place lay a cord-like structure which ran upwards for an inch and a-half, ending in a fold which ran transversely and clearly represented Müller's ducts; no trace of ovary could be found. Kussmaul stated over twenty years ago that evidence derived from examination of a living subject only is of no great value in these cases. Kochenburger insists, however, that since Kussmaul's days bimanual palpation has been carried to such perfection that definite evidence can be obtained from the live subject. He feels sure that the ovaries were absent in his case, yet vicarious menstruation, in the form of epistaxis, occurred regularly. This contradicts Kussmaul's theory that menstruation, and even the molimen, is always absent when the vagina and uterus are undeveloped, though the ovaries may be present and contain follicles.

THERAPEUTICS.

(253) Trismus Neonatorum Treated with Tetanus Antitoxin.

Escherich (*Wien. klin. Woch.*, August 10th, 1893), remarks that although this disease has been proved to be due to a local infection of the umbilical wound with the tetanus bacillus, yet this knowledge has not hitherto yielded any therapeutic results. He reports four cases treated with Tizzoni's antitoxin. The remains of the umbilical cord fell off on the sixth, third, fourth, and fourth days respectively. The incubation period lasted two, nine, seven, and one days, and the duration of the disease was two, five, twelve, and two days respectively. The third case recovered, but the others died. At the necropsies septic inflammation of the umbilical wound was found in all three cases, with peritonitis in one case, and pneumonia in the other two. All the cases had septic symptoms, but it could not be positively asserted what part sepsis played in the fatal event. In cases 1 and 4 inoculation of mice with a bit of tissue taken from near the umbilicus produced typical tetanus, but in the other cases it was without result. In case 4 the disease was exceptionally acute, so that any good result could hardly be expected, and in case 1 the doses were far too small (0.015 by 2). There remain cases 2 and 3, in which cure might have been expected, but in case 2 the injections (0.25 by 2) were discontinued because the symptoms of septic pneumonia prevailed, and those of tetanus subsided. In case 3 the length of the incubation period and the early commencement of the disease permitted only a fatal issue to be expected, yet this case recovered. Here one injection (0.3) was given on the third day, and two similar ones on the fourth day, and a sublimate dressing was applied to the wound. In the other cases thermocautery was also used. The author refers to the hitherto almost hopeless prognosis of this disease. Of course the value of this new treatment can only be proved by a number of cases, but it would appear that we are not far from being able to cure an infection especially severe or already very advanced.

(254) Large Doses of Digitalis in Croupous Pneumonia.

Mario Bellotti (*Gazz. degli Ospitali*, July 22nd, 1893) treats of the virtues of digitalis in croupous pneumonia, the present paper being a continuation of a similar one published a year ago. His conclusions from a large number of observations on cases in which Fraenkel's diplococcus has been detected are as follows: (1) All cases of fibrinous pneumonia, due to Fraenkel's bacillus, receive very great benefit from large doses of infusion of digitalis, always accompanied by milk diet, and occasionally by bleeding. (2) It is necessary to give the digitalis in very large doses, because in pneumonic conditions, both the gastric catarrh which is usually present, and the diminution of HCl of the gastric juice reduce greatly the amount of the drug which actually passes into the portal circulation. (3) Some of the active principles of digitalis seem to exercise a special elective action on the pneumonia toxins, this action taking place chiefly in the liver.

(255) Local Disinfection.

Chamberland and Tembach (*Ann. de l'Inst. Pasteur*, June, 1893) have published the results of an important and extensive research on the above question. Their conclusions are as follows: 1. The Javel water of commerce (a 1 to 10 solution of chloride of lime) and commercial oxygenated water are ten times more active than a 1 to 1,000 solution of sublimate. These disinfectants either do not act, or they act very slowly, on moist microbes at the ordinary temperature, but at temperatures of 50 degrees and over, such microbes are destroyed in a few minutes. It must be borne in mind that whatever be the antiseptic used it is advantageous to allow it to act at the highest temperature possible in order to secure its full activity. 2. Dried microbes are much more resistant. While moist microbes are destroyed in a minute or so, when dried they resist disinfectants for many hours even at high temperatures. Moisture is therefore an important adjunct to disinfection. The authors have found that if dried germs be left in contact with water, and especially tepid water, for an hour, they are destroyed as rapidly as if they had not undergone desiccation. In the disinfection of walls, etc., they therefore advise a preliminary spraying of the objects with water before the use of the disinfectant proper. Another fact brought

out by the authors is that a saturated solution of chloride of lime is much less active than one diluted with 10 to 20 times its volume of water. The disinfection experiments were carried out with the spores of anthrax and of aspergillus, with beer yeast and the bacillus typhosus. Other experiments made with thymol, essence of turpentine, and lysol gave results in no way so satisfactory as those with Javel water or oxygenated water (H_2O_2). The former is most satisfactory in that it is cheap, non-poisonous, and obtainable with the greatest ease.

(256) Injections of Iodoform in Goitre.

KAPPER (*Gaz. de Hôp.*, September 2nd, 1893) uses a solution containing 1 part of iodoform and 7 parts each of ether and olive oil, which is injected into the goitre after previous disinfection of the skin. The trocar of the syringe is disinfected, and is then plunged to the depth of 2 to 3 centimetres into the tumour, and the patient is told to swallow in order to ascertain whether the cannula takes part in the movements of deglutition, or whether it has not been inserted deeply enough. Immediately the solution is injected the trocar is rapidly withdrawn and the orifice of the puncture closed by means of a piece of diachylon plaster. When the goitre is very large, he injects as much as 6 grammes of the solution at one sitting, in four different parts. The injections were repeated at intervals of four to six days, sometimes on several consecutive days. Local reaction was always feeble. Eight men and six women have undergone the treatment. After ten injections in the course of two months the circumference of the neck was diminished by 6 centimetres at least, and after another interval of two months there was a diminution of 8 or 10 centimetres. Besides this the discomforts felt by the patients were sensibly attenuated. Six months after cessation of the treatment the improvement was maintained.

(257) Duboisin.

RABOW (*Therap. Monatsh.*, August, 1893) discusses the history and present knowledge of the drug as prepared from the leaves of duboisia Hopwoodii, a plant belonging to the natural order solanaceæ. The substance cannot yet be said to have been produced pure, but apparently contains such active elements as hyoscyamine and hyoscine, and probably other alkaloids. A sulphate has been prepared for commercial purposes, and it is this drug which the author has administered internally on about 400 occasions—namely, as a sedative and narcotic in lunacy practice, for which particular purpose it has been most frequently recommended. The result was favourable, and on the whole the author prefers duboisin to hyoscine, though cases arise where the latter might be preferable. Nevertheless, long-continued use of the drug may produce unpleasant consequences, and it cannot therefore be classed with the indifferent medicaments. With excited, mentally-afflicted patients doses of $\frac{1}{2}$—1 milligramme invariably sufficed to produce a sedative effect and cause sleep, 2 milligrammes being rarely, if ever, required. However, the sleep produced is not refreshing, and duboisin therefore is not indicated as an ordinary narcotic. In delirious, noisy patients, however, rest always follows its use, and isolation generally becomes needless. An aqueous solution containing 1—1,000 was prepared, and a minimum dose always used at first. When required to be given during several consecutive days, the dose must be increased until the third or fourth day, when, should further sedative treatment be required, another drug must be substituted, the maximum dose of duboisin probably having been reached. The unpleasant consequences complained of were anorexia, headache, giddiness, etc., while dilatation of pupils and dryness of throat also were present. A beneficial effect on the general mental malady was never observable, but with periodical maniacal attacks, their recurrence appeared occasionally to be suppressed by the timely use of duboisin. On the whole, the author considers the drug valuable, not as a pure narcotic, but as a sedative in certain excited mental conditions, but recommends caution in its use.

(258) Therapeutic Effects of Direct Electrisation of the Stomach.

MAX EINHORN (*Deut. med. Woch.*, 1893, Nos. 34 and 35) concludes a study of this subject. (1) Direct faradisation. Here details of some 28 cases are given, including hyperacidity with dilatation, gastroxynsis, chronic gastric catarrh, anadenia, obstinate gastralgia, etc. The chemistry of digestion was always investigated. In all cases, with a single exception, there was a diminution, or rather disappearance, of the symptoms under this treatment, but in 5 other cases of obstinate gastralgia the improvement was so small that galvanism was tried. The faradic current used was only strong enough to produce contraction of the abdominal muscles, and the sitting lasted ten minutes. 2. Direct galvanisation. Here 7 cases are recorded. The cases of obstinate gastralgia referred to above were much benefited. The author concludes that direct gastro-faradisation is useful in most chronic diseases of the stomach, except cancer; that its effect is very evident and comparatively rapid in non-obstructive gastric dilatation, and also in cases of relaxation of the cardia or pylorus, and that direct galvanisation gives good results in obstinate gastralgia rebellious to other treatment.

PATHOLOGY.

(259) Diseases due to the Streptococcus.

GOLDSCHEIDER (*Centrabl. f. klin. Med.*, August 19th, 1893) remarks that the mode of action of this micro-organism depends on the accompanying conditions of invasion. It is a question whether severe streptococcus infections, as in puerperal septico-pyæmia or the pyæmia in diphtheria, are due to the invasion of a specially virulent streptococcus, or whether less harmful micro-organisms are able to develop more virulent properties. The experiments of the author with Brasch lead to the conclusion that biological conditions of the animal body are of much importance in regard to the character of the disease produced. Clinical observation shows that where necrotic tissue is present, as in diphtheria and gangrenous endometritis, there is a special tendency to streptococcus diseases. These conditions were imitated experimentally by the author and Reysschoot, when putrid cultures of streptococcus were injected subcutaneously into animals. Foci of pus appeared in various parts, containing mostly pure cultures of the streptococcus. Cultures from the blood and kidney also revealed streptococci, and albuminuria was often present during life. The streptococci thus showed themselves the metastatic-forming element, whereas the bacilli of putrefaction did not become generalised during life. In this way the malignancy of the streptococcus could be increased, and streptococci which had lost their malignancy for rabbits could thus regain it. The local pyogenic properties could also be intensified. Whether this occurs in the human subject may be open to question, but there is a great resemblance in the conditions. Any direct co-operation between the putrefactive bacilli and the streptococci, or any direct action on the malignancy of the latter by the former, does not exist, as streptococci mostly perish in putrefactive cultures. The action of the streptococcus is assisted by the presence of the products of putrefactive micro-organisms.

(260) A New Method of Staining Spores.

FIOCCA (*Centralbl. f. Bakt.*, July 1st, 1893) describes the following method for staining spores, which he states is superior to all others as regards rapidity, simplicity, and certainty. The materials needed are ammonia solution 10 per cent., an alcoholic solution of an aniline dye, a decolorising solution of sulphuric or nitric acid 20 per cent., and an aqueous solution of a contrast stain. Place 20 c.cm. of the ammonia in a porcelain capsule, add ten to twenty drops of the solution of aniline dye, warm to steaming, and place the cover slip—prepared as usual—on the stain. Most spores are stained in three to five minutes, highly resistive ones in ten to fifteen minutes. Rinse rapidly in the acid, wash in water, double stain. If desired, the contrast stain may be dissolved in the acid, as in Gabbett's method for tubercle bacilli. In this case the acid is used in the proportion of 10 per cent. only, and the cover slips remain in it two to three minutes. For staining the spores gentian violet, fuchsin, methylene blue, or safranin are suitable. The contrast stain will vary in different cases. By this method not only spores, but the granular protoplasmic structures which precede the stage of ripe spore, can be stained.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(261) Erb's Paralysis.

Meyer (*Deut. med. Woch.*, August 24th, 1893) says that experimentally as well as anatomically this form of paralysis has been shown to be peripheral in origin and due to a lesion of the brachial plexus between the points where the fifth and sixth nerves emerge from the scaleni muscles and unite, and where the suprascapular nerve comes off. Thus it includes (1) the suprascapular nerve, (2) a branch to the trunk of the united radial and axillary fibres, and (3) a branch to the trunk of the united musculo-cutaneous and median fibres. Faradisation of a corresponding point (Erb's point) produces contraction of the deltoid, biceps, brachialis internus, supinator longus and brevis, infraspinatus, subscapularis, and perhaps the supraspinatus. The affection need not involve all these muscles, and great differences may exist owing to variation in nerve distribution and extent of the disease. The difficulty in examining certain muscles must also be considered. As regards sensation, the ulnar nerve region remains intact. The following are causes: (1) fall on the shoulder, (2) over-adduction of arm, (3) over-adduction with raising of arm, (4) crushing of shoulder region and trauma, (5) direct pressure, and (6) essential neuritis. The author then relates two cases: (1) a man, aged 21, had among other wounds one in the upper angle of the cervical triangle. After the wound healed the arm hung flaccid, and there were lancinating pains in it. An adherent scar 1½ cm. long corresponded in situation to the brachial plexus. The biceps, brachialis internus, supinator longus, deltoid, teres major were certainly paralysed; the supinator brevis, teres minor, supra- and infraspinati, and subscapularis more doubtfully. There were some sensation troubles. The muscles did not react to faradism. The case also shows that when the cucullaris, pectoralis and serratus anticus are involved the lesion must be an extensive one. In twelve days there was some improvement. (2) A birth palsy. A child, aged 5 days, had been delivered with forceps. On the second day it was noted that the child did not move its arm. The biceps, supinator longus, and deltoid seemed to be paralysed, and perhaps the cucullaris and pectoralis. Later there was great improvement, the supinator longus, as has previously been noticed, being the last to recover. It is not easy to determine which muscles are paralysed in a child. Perhaps the rapid recovery was connected with the electrical treatment.

(262) Spasm of the Glottis in Hysteria.

Leo (*Deut. med. Woch.*, August 24th, 1893) relates this case. The patient was a man, aged 21, who when 11 and 18 years old had chorea. Two years later he had convulsions, with loss of consciousness. In 1893 he had tonic spasm in the left triangularis menti muscle, choreic movements in the tongue, clonic and tonic spasms in the left arm, and clonic spasm in the leg. There was complete anæsthesia in left arm and leg, and less so in face. The field of vision was unaffected. He had a convulsion on January 10th. Schultze thought that there was no organic disease. Chorea was excluded and hysteria diagnosed. He then came under the author's care, and was treated with good results by hyoscine. On March 4th he had another convulsion, the whole of the left side being affected. On the evening of the next day he had a further attack, but this was accompanied by inspiratory dyspnœa, and the patient died in five hours. Besides some œdema and dulling of the pia mater over the frontal and central convolutions there was no visceral lesion. Both halves of the larynx, however, were strongly adducted, the vocal cords and lower part of the ventricular bands being very near each other. The diaphragm was in the position of inspiration. Thus the necropsy confirmed the diagnosis. The face has been said to be unaffected in hysteria, but cases of spasm and paralysis have been recorded. Death from hysteria is extremely rare. Absence of inspiratory stridor during life must have been due to hardly any air getting through the glottis. Death did not occur more rapidly because the spasm must have relaxed at times. Death was shown by the necropsy to have been due to spasm of the glottis, probably accelerated by that of the diaphragm. It was a case of spasm of the adductors, and not paralysis of the abductors of the larynx.

(263) Rumination in Man.

Singer (*Deut. Arch. f. klin. Med.*, Bd. li) discusses this subject and its relation to vomiting. After a historical sketch he relates four cases, two in special detail. The rising and subsequent swallowing of the food occurred without effort or nausea. Rechewing does not really belong to the process, and is mostly seen in the insane. Normally the cardia is tightly closed, even when digestion is not going on. In some cases of rumination a widening of the lower part of the œsophagus (antrum cardiacum) has been found after death. In both of the author's cases, on œsophagoscopic examination, there was found evidence of widening of the lower part of the œsophagus. This is due to stretching of the muscle, atony of the orifice resulting. Quick eating and little chewing is a constant event in human rumination. The weakness of the cardiac orifice is not permanent, and there is only a relative insufficiency. In rumination 100 c.c. at most is forced up (by aspiration) into the mouth, whereas in vomiting large quantities are rejected. The patients themselves may be able to distinguish between the rumination and vomiting. Another difference is that in vomiting the cardia is actively opened, whereas in rumination the tonus of the cardia only gives way at times. The only vomiting resembling rumination is the so-called œsophageal form identical with regurgitation. The inspiratory position of the thorax and the closed glottis at the beginning of the act of rumination are in favour of aspiration being the cause of the rising of the food, and so also is the fact that anything increasing intrathoracic pressure is antagonistic to it. The inconstancy in the chemical processes in the stomach is in favour of the nervous origin of the disease. In two of the author's cases the field of vision was concentrically diminished. The nervous origin of rumination is further confirmed by its relatively frequent occurrence in the insane, by the fact that it may at times be voluntarily suppressed or even produced, and that it has sometimes been called forth by imitation. The neuropathic constitution forms the remote cause, and this leads to rumination in the predisposed by more proximate causes (deficient closure of the cardia, etc.) The peripheral stimulus acts reflexly by overstretching of the cardia, and produces the inspiratory position of the thorax and closure of the glottis, hence the aspiration of the stomach contents. In regurgitation from œsophageal diverticula no stomach ferments are present. Slow eating and thorough mastication, with limitation of fluids, are important matters in treatment. The underlying nervous conditions should also be treated. Faradisation of the stomach has only a passing effect.

SURGERY.

(264) Total Extirpation of the Larynx.

Poppert (*Deut. med. Woch.*, August 31st, 1893) first refers to the mortality of this operation, which has not hitherto diminished proportionately to that of others. The chief danger lies in the connection of the wound with the pharyngeal cavity. Endeavours have lately been made to shut off the wound from the pharynx. In Schmid's case the patient could speak with a pseudo-voice without any apparatus. Bardenheuer has shut off the wound, but only temporarily. The author records a case in a woman aged 68, whose larynx he extirpated for carcinoma. After the larynx was removed there was a communication with the pharynx of the size of a two-mark piece. This was carefully sewn up. The patient made a good recovery, and there was no return in the course of eleven months. The advantages in this procedure consist in the avoidance of pulmonary complications, and in the after-treatment, for this patient could take fluid nourishment after the operation, so that the stomach tube was not needed. The patient could make herself understood with a whispering voice almost at once, and this afterwards became stronger. The author then discusses the mode of production of this voice. The pseudo-voice in Schmid's case

is different; here the air in the pharynx is forced through a cleft produced by contraction of the muscles. It did not appear for a year and a half after the operation, and the author does not expect it in his case. If this pseudo-voice appeared regularly the artificial larynx could certainly be done away with. At any rate the pharynx should be shut off at the time of the operation, and an opening made later if an artificial larynx be deemed advisable. In not a few cases the patient can get on very well with this whispering voice, especially in cases where a quick recurrence is anticipated. The author thinks that by the above-described procedure the mortality may be very considerably diminished. In cases where, owing to extensive disease, a large part of the wall of the pharynx must be removed, a complete closing of the pharynx may be difficult. Such cases, however, are better not operated upon.

(265) Subphrenic Abscess.

Mason, of Harvard University (*Boston Med. and Surg. Journ.*, vol. cxxix, Nos. 8, 9, and 10), says that subphrenic abscesses are little noticed in the systematic treatises owing to the fact that they have a variable origin, and give rise to symptoms and physical signs which are hard to classify for purposes of diagnostic differentiation. From a complete investigation of seven cases which have come under the author's observation at the Boston City Hospital during the past five years, combined with a critical study of the published cases of the disease, he says that subphrenic abscess is usually due to a circumscribed peritonitis, but it may be of retroperitoneal origin. The causes of this condition may be: A perforating ulcer of the stomach, duodenum, or vermiform appendix, or, in rare cases, of some other part of the intestinal canal; hepatic, perihepatic, perisplenic, and perinephric inflammations; occasionally gall stones, cancer, or echinococcus cyst. Sometimes it is impossible to determine the exciting cause. When the abscess is dependent upon perforation of some part of the gastro-intestinal tract the disease nearly always ends fatally. The prognosis is, however, more favourable in those cases which are due to a perforation of the vermiform appendix than in those which result from gastric or duodenal perforation. As regards treatment, the author advises that, when possible, free incision and drainage should be carried out. The incision should be made low down so as to avoid injuring the pleura and causing pyo-pneumothorax, which undesirable result has followed in some cases where the incision has been too high. The position of the incision should be in one of the lower intercostal spaces. The exact point must be determined by careful exploration. In most cases the pleura has become adherent and its cavity at the lower part obliterated. When there is an epigastric tumour, laparotomy and a search for the ulcer should be resorted to. In these cases posterior drainage will be required. The prognosis here is very unfavourable, fatal results generally following as already mentioned The perforating gastric ulcer, however, which is the cause of the subphrenic abscess may heal spontaneously after the evacuation of the abscess. When the abscess is of hepatic, perihepatic, or perinephritic origin, and presents under the arch of the diaphragm, it may often be successfully treated by intercostal incision and drainage.

(266) Foreign Bodies in the Ear in Children.

Marcel Natier (*Rev. Méd.*, September 18th, 1892) relates several cases and discusses the treatment. He dwells on the difficulties produced by antecedent unskilful attempts at removal, especially by means of forceps, and recommends perseverance in the use of forcible injections. These may be preceded by the application of cocaine for the reduction of any existent vascular tumidity. Undue haste in endeavouring to extract a foreign body is deprecated when simple means fail, and the author advises a period of abstention from manipulation, the evils resulting from the retention of a foreign body being much less than those from violent attempts at removal. He quotes Politzer's dictum that "the consequences attributed to the foreign bodies are, with very rare exceptions, provoked by unskilful attempts at extraction undertaken by unpractised hands." The principal indications for the avoidance of forcible syringing are when the foreign body is the bone tip of a lead pencil or the syringe causes violent vertigo, or there is a perforation of the tympanic membrane. Natier condemns the use of a loop of metallic wire.

(267) New Method of Drainage in Suprapubic Cystotomy.

Farrar Cobb (*Boston Med. and Surg. Journal*, August 24th, 1893) describes a method which he adopted in a case of suprapubic cystotomy, where it was difficult to drain the bladder well. An ordinary glass drainage tube rounded at the lower end, with a collar at the top, was passed into the bladder, and into this was pushed for its whole length a tight roll of iodoform gauze, whilst the free end of this, about 3 feet long, was drawn through a flexible rubber tube, and led over the side of the bed into a bottle. By this means capillary drainage was established. The wound was then packed with absorbent cotton wool thoroughly impregnated with oxide of zinc ointment, which acts as an efficient drain and antiseptic dressing, and prevents any irritation of the skin. Iodoform gauze cannot be placed in the wound owing to its power of absorbing the urine. Over the dressing of wool and ointment a layer of gauze may be placed. By this means the patient was kept dry for twelve hours at a time, and only required dressing once or twice a day, the roll of gauze in the tube being changed once every twenty-four hours. After dressing the wound it is advisable to draw off with a syringe any urine which may be present in the bladder. The patient upon whom the above method was adopted previously complained of pain and tenesmus, which soon afterwards disappeared.

MIDWIFERY AND DISEASES OF WOMEN.

(268) Deep Incision of Cervix and Perineum in Labour.

Dührssen (*Archiv für Gynäk.*, vol. xliv, Part 3, 1893) publishes a highly important monograph on this subject, with statistical tables. He maintains that the practice is invaluable when labour is impeded by resistance of the soft parts alone. As long as the patient is not already in a septic condition, there is no danger provided that strict antiseptic precautions be taken. The practice saves the patient from the risks of Cæsarean section, induction of labour, and craniotomy in all cases where undilatability of the soft parts is the obstacle to delivery. In 27 cases in Dührssen's experience, where this obstacle was overcome by incisions and craniotomy avoided, labour was concluded with the forceps in 24, by turning and extraction in 2, and by bringing down the feet and extraction in 1. Only one mother and one child were lost. Hence, as compared with perforation, the mortality is for the child 96.3 per cent. less, and for the mother it is almost similar, since in 28 cases of perforation the same obstetrician lost one mother. Out of 29 cases of perineal incisions alone, excluding all subjects with obstacles to labour outside the soft parts, the mortality for the mother was 6.9 per cent., and no child was lost. Incisions are most urgently indicated when rigidity of the soft parts exists in elderly primiparæ, or when complicated by eclampsia or premature rupture of the membranes. The supravaginal part of the cervix must be fully dilated, a dilator being used if necessary. External pressure must be employed when the head lies high in the pelvis. In cutting into the cervix four incisions must always be made, and they must extend to the vagina. The posterior should be made first, the anterior last. Suture after delivery is unnecessary. The perineum requires a unilateral deep incision between the anus and tuber ischii. The wound must be very carefully sutured after delivery. Prolapse never follows this kind of incision. Out of 21 of Dührssen's cases of deep incision of the cervix, 15 patients bore another child about a year and a half later. The labours, which included three miscarriages, were generally easy.

(269) Syphilis in Pregnancy.

Tarnier (*Journ. des Sages-Femmes*, August 16th, 1893) recently delivered a clinical lecture on a patient, aged 20, who contracted syphilis two months before term. When labour came on at term there was a chancre on the vulva, and mucous patches on the cervix and on the soft palate. Labour began

on June 2nd. On June 4th, at 4 A.M., the membranes ruptured. The os was dilated to the diameter of a franc piece, and felt very tough. Antiseptic warm injections and hot baths did not aid dilatation. At 6 P.M. meconium came away; the os was as wide as the palm of a small hand. The forceps was applied, and it was necessary to make four short incisions before the head could be delivered, then the child was born asphyxiated. Insufflation through a laryngeal tube revived it, but it died in five hours. On June 6th the lochia became fœtid and the temperature rose. Sloughing of the vaginal mucous membrane was detected. The sloughs were brushed away and iodine applied. A rigor occurred on the next day. The patient did well till the 15th, when pain in the left iliac fossa set in. Next day there were all the signs of peritonitis tending to become purulent. On Fochier and Thierry's principle, a gramme of essence of turpentine was injected into the subcutaneous tissue of the thighs in order to produce abscess. This caused the symptoms of peritonitis to abate, but the patient died suddenly. Over three pints of pus were found in the peritoneum.

(270) Alleged Vicarious Menstruation.

Windmüller (*Centralbl. f. Gynäk.*, No. 27, 1893) and others warmly debated this question in the course of a discussion on Grassow's paper on amenorrhœa at the Hamburg Obstetrical Society. Windmüller stated that a lady, aged 42, had never seen any vaginal "show" for thirteen years, when periodical hæmoptysis set in and occurred every four weeks, continuing till the present time. The lungs and larynx, as well as the sputum, had repeatedly been examined for organic disease with negative results. There was no hysteria. Seeligman had seen periodical hæmatemesis follow disappearance of the menses. Hot water vaginal injections were prescribed; the normal catamenia returned and the hæmatemesis ceased. He could find no evidence of gastric ulcer. Aly disputed this assertion, and Olshausen considered that amenorrhœa was simply caused by the anæmia which resulted from gastric ulcer. Schrader did not believe in vicarious menstruation. Women with amenorrhœa looked on any kind of hæmorrhage as vicarious menstruation; investigation often proved that the bleeding was merely a coincidence. He often saw amenorrhœa in pupil midwives; it lasted long, and was never accompanied by any vicarious hæmorrhage. Grassow said that such cases were due to altered conditions of life and to psychical impressions. He had seen vicarious menstruation in cases where local conditions had caused the suppression of hæmorrhage from the uterus. Ratjen stated that cases of this condition were chiefly recorded in French literature. He knew of three young girls who repeatedly had hæmoptysis at the menstrual period. Twenty years since a lady, aged 40, used to cough up cupfuls of blood at every period. The patient was still alive and free from any sign of pulmonary disease; she was very hysterical. Voigt had seen similar cases, and in one, still under treatment, there was no sign of any disorder of the lungs or larynx.

(271) Supernumerary Breasts without Nipples.

Bué (*Archiv. de Tocol. et de Gynéc.*, June, 1893) attended a woman in her third confinement, which occurred at term, in December, 1892. Two days later a swelling developed in the anterior part of each axilla, especially on the right side. These swellings gave rise to pricking sensations. The patient noted, during the previous night, a feeling of tension in each axilla. The normal breasts were full of milk. The swelling on the right side was situated on the border of the pectoralis major and on the thoracic wall in the adjacent part of the axilla. It measured 2¼ inches in diameter and over 6 in circumference, and was separated by a groove from the normal gland. Its centre lay 4½ inches from the right nipple. When the child was put to the right breast a distinct diminution in the size of the supernumerary gland was observed. Afterwards it again enlarged. The skin over the extra gland was not reddened, but bore enlarged veins, as on the normal breast. There was no trace of any nipple, nor was the presence of dilated sebaceous ducts reported. The left supernumerary mamma lay in the same position as the right, but was much smaller. On the day after its appearance it vanished. Its fellow on the right side remained stationary all the time that the patient suckled.

(272) Electric Treatment of Uterine Fibromata.

Bergonié and Boursier (*Arch. Clin. de Bordeaux*, May, 1893) give a summary of the results obtained by them in the treatment of 100 cases of uterine fibromata by monopolar positive electrolysis, according to the practice of Apostoli. They conclude: (1) That the treatment of uterine fibroids by this method is principally a palliative—efficacious in hæmorrhagic fibroids (90 per cent.); (2) that it acts favourably on the general condition (79 per cent.); (3) that it often diminishes pain (50 per cent.): (4) that as regards the size of the tumours, its action is rarely efficacious (9 to 10 per cent.)

THERAPEUTICS.

(273) The Feeding of Infants.

Hauser (*Berl. klin. Woch.*, August 14th, 1893), describes a new method. He first refers to the well-known objections to a wet nurse, and the difficulties in artificial feeding. The author has used, in Henoch's clinic and elsewhere, a preparation introduced by Rieth, in which, after the smaller quantities of fat and sugar in cow's milk have been corrected by the addition of cream and milk sugar, egg albumen, heated above 130° C., is made to supply the deficiency in albumen. The preparation has the same composition as woman's milk, and is called albumen milk ("Eiweissmilch"), but would be more correctly named albumose milk. The difference between this and ordinary milk, when subjected to artificial digestion, is obvious. If feeding with cow's milk properly prepared and sterilised does not suit, the author uses this preparation. Medicinal agents are not employed, and washing out the stomach is rarely necessary. There are two classes of cases (1) those in which cow's milk properly prepared seems to suit, and yet the infants do not thrive, and (2) those with dyspepsia, etc. Some sixty infants were treated with this preparation, and the author has now used it for one year and a half. The infants take it well, vomiting ceases even in those in whom other preparations have failed, and the weight increases. It is given in small quantities, and cold in bad cases. The stools become healthy and regular, but they may be offensive owing to the sulphur in the albumoses. Failure is rare. This preparation is also useful in acute illnesses, in rickets, and some other diseases of children. Infants with whom mother's milk does not agree take it well. Older infants also thrive on it. Cow's milk may be added to it until pure milk feeding is arrived at.

(274) The Active Principles of Dorstenia Contrayerba.

This plant is a native of Brazil, belonging to the family ulmaceæ, and has long enjoyed a local reputation as a potent remedy. Mussi has taken up the study of the plant, and gives the following description of it (*Rif. Med.*, August 18th, 1893). Notice was apparently first drawn to its medicinal properties as early as the sixteenth century, when it was found to possess antidotal properties with regard to the arrow poison used by the Caribs, whence its name—*contra-yerba*. In the seventeenth and eighteenth centuries some observations seem to have been made on its action, and antiseptic, tonic, and diuretic properties were attributed to it, as well as the power to cure snakebite. An analysis published by Peckolt (*Uniao Medica*, fasc. i, 1889) gave as its chief active ingredients a principle which he named dorstenin and an acid dorstenic acid. The reinvestigation made now by Mussi gives the following results: (1) The aqueous infusion is acid, and strongly reduces Fehling's solution; it froths strongly on being shaken, becomes turbid on addition of alcohol, and clear again on addition of nitric acid. The plant yields about 3 per cent of ash. (2) An alcoholic extract of the root yields by suitable treatment two substances, called provisionally cajapine and contrayerbine. The first is a dark yellowish-red amorphous substance, soluble in water, alcohol, and ether. It leaves no residue on ignition; its vapours have an acid reaction; its solution does not reduce Fehling's solution; addition of an alkali produces a yellow-blue fluorescence. It gives precipitates with lead acetate,

silver nitrate, ferric chloride, gold, or platinum chloride, bromine water, tannic and phosphomolybdic acids. It is unaffected by picric acid, and apparently unaltered by the mineral acids. Contrayerbine is white and amorphous, burns without residue, is soluble in alcohol and ether, but not in water. It forms a tartrate by treatment with tartaric acid in alcoholic solutions, and this salt is soluble in water. Its solutions give the following reactions: precipitates with chlorides of gold or platinum, with Bouchardat's reagent, bromine water, picric acid, or phosphomolybdic acid; no precipitate with tannic acid. Further details are promised shortly, and the physiological action of the bodies is being studied by Coronedi.

(275) Chloralate.

BASSET (*Union Méd.*, September 2nd, 1893) reports the results of his observations on this hypnotic. Sleep follows rapidly on its administration, and is light. When the patient wakes there is not that heaviness which is left by the preparations of chloral, nor is there constipation as after opium, or diminution of appetite. It is administered in the form of tabloids, the initial dose being 0.20 g. at night, and increased to 0.30 and 0.40 g. if the first dose has been insufficient and has not caused vertigo or tremors. It should be given very guardedly in organic disease, and appears to be contra-indicated in locomotor ataxy. Its action continues for several nights in succession, the sleep on the successive nights being better than before it was taken, but not so good as on the night it was taken. Basset believes that it also possesses an analgesic action.

(276) A Non-irritating Tar Ointment.

STERN (*Therap. Monatsh.*, August, 1893) refers to the difficulty which has hitherto been experienced in producing a non-irritating tarry preparation. Spirit, oil, etc., have been added for this purpose, but with indifferent success. The author has, however, observed that if pix liquida or any other kind of tar be allowed to stand for several weeks in a warm place, it separates into two layers, the upper being thin and syrupy, the lower and smaller being thick and often mixed with small solid particles. Each portion is differently affected by spirit; neither appears to be dissolved, but each has a constant and unvarying action, the spirituous mixture prepared with the lower strata being very irritating, while the other is always well borne. The author therefore recommends the use of the upper layer only, which should be mixed with an equal quantity of spirit.

(277) Formaldehyde.

BLUM (*Münch. med. Woch.*, No. 32, 1893) finds formaldehyde a useful antiseptic even in extremely dilute solutions. It will be useful in preventing putrefaction, but its solutions are not applicable to cases in which it is necessary rapidly to destroy bacteria, since bacterial life is only destroyed by prolonged exposure to strong solutions of formaldehyde. It may, however, be useful as a preservative.—Gegner (*ibid.*) considers a 40 per cent. solution of formaldehyde a powerful bacterial poison. The action of its vapours on different pathogenic microbes is energetic, especially in the case of the cholera spirillum. One-thirtieth of a drop in $2\frac{1}{2}$ litres of water was sufficient to kill comma bacilli after a twenty-four hours' exposure. It is not suitable as an application to the mucous membrane of the mouth save in the extremely dilute form, owing to its irritating odour, but on the skin a $2\frac{1}{2}$ per cent. solution may be employed. It is recommended also in cases of psoriasis, lupus, etc., as a local application.

PATHOLOGY.

(278) The Action of Sozoiodol Preparations and of Tribromphenol-Wismuth upon Cholera Bacilli.

PROMPTED by Hueppe's recent statement that tribromphenol-wismuth, a preparation belonging to the group of wismuthphenols, has an almost specific action upon cholera bacilli, or at any rate, a much more certain action than any other intestinal disinfectant, Dräer (*Centralbl. f. Bakt.*, August 14th, 1893) has investigated anew the action of this preparation upon cholera germs, and has compared the results with those obtained by the use of the recently recommended sozoiodol preparations. Of the latter the free acid—which contains iodine, carbolic acid, and sulphur—and the sodium, potassium, zinc, and mercurial salts were employed. These antiseptics were added in various proportions to simple broth culture of cholera, and to broth culture containing flakes of egg albumen and liquid fæces from a case of diarrhœa, a mixture designed to imitate the natural conditions in the bowel. As a result of his experiments Dräer finds that tribromphenol-wismuth has little or no effect upon the growth of cholera bacilli, but that the sozoiodol preparations, especially the free acid and the mercurial salt, possess strong disinfectant properties. They prevent altogether the growth of the bacilli when used in sufficient strength and for sufficiently long periods. These results are in direct contradiction to those obtained by Hueppe.

(279) Bacillus Coli Communis.

PARK (*Annals of Surgery*, vol. xviii, No. 3) September, 1893) gives a full account of all that is known about bacillus coli communis, and points out the importance of such knowledge to the surgeon. This organism, constantly present in the intestine, becomes at times an active invader. Ordinarily inoffensive, it may, from causes not yet ascertained, acquire a greater or less degree of virulence, and determine: (1) An infectious enteritis, including the algid forms—cholera nostras, cholera infantum; the pyretic form—post-puerperal pseudo-infection, etc.; or the wasting enteritis of children and of adults; (2) dysentery. Then we may have peritonitis or herniary cholera. Probably most, if not all cases of appendicitis belong also to this category. The ascent of the colon bacillus along the biliary passages may cause (1) simple biliary infection; (2) acute jaundice; (3) suppurative angiocholitis. It can provoke in the mouth false membrane, in the stomach and intestines infarcts, and lower down perirectal abscesses. The endocardium, thyroid body, and lungs may become infected with it, and in some cases meningitis, urinary infection, and articular lesions, and even paraplegia, would appear to be provoked by it.

(280) Trichophyton and Deep Dermatitis with Special Reference to its Animal Origin.

SABOURAUD (*Ann. de l'Inst. Pasteur*, June, 1893) draws from his observations the following conclusions: (1) That the tinea tonsurans special to children, known as kerion Celsi, the tinea of the beard known as sycosis circinata, and also the affection known as perifolliculitis agminata are one and the same disease, of which the localisation alone is different. (2) This malady is of fungoid origin, and due to a special trichophyton, which alone of all the forms of trichophyton affecting the human subject can give rise to the disease. (3) Generally man derives the contagion from animals, especially from the horse. (4) In the horse the lesion produced by the parasite closely resembles that in the human subject; it is also a circinate folliculitis. (5) The constant identity of the lesion caused in man by this special parasite, and the impossibility of finding this same parasite in cases of trichophyton with different characteristics, lends support to the idea that each species of trichophyton produces a special lesion. (6) The hypothesis of a saprophytic condition of the trichophytons, which seems plausible enough for all species, is extremely probable for the species in question, since it may be cultivated on all kinds of organic matter, and even in an exclusively mineral medium.

(281) A Non-albuminous Nutrient Medium.

USCHINSKY (*Centralbl. f. Bakt.*, September 9th, 1893) has succeeded in cultivating several pathogenic organisms upon a non-albuminous medium of the following composition: Water, 1,000 c.cm.; glycerine, 30-40 c.cm.; sodium chloride, 5-7 g.; calcium chloride, 0.1 g.; magnesium sulphate, 0.2-0.4 g.; dipotassium phosphate, 2-2.5 g.; ammonium lactate, 6-7 g.; sodium aspartate, 3.4 g. Amongst the organisms which grew as well upon this medium as upon broth are the bacilli of cholera, diphtheria, swine erysipelas, tetanus, and typhoid. Organisms so cultivated preserve their pathogenic power, the filtered cultures proving fatal to the animals ordinarily susceptible.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(282) Etiology of Exudative Pleurisy.

Prudden (*N. Y. Med. Journ.*, June 24th, 1893), first refers to recent researches, which have shown that certain micro-organisms usually producing a given and definite lesion may under altered conditions give rise to some other morbid process. It has been shown that serous or sero-fibrinous effusions do not, as a rule, contain bacteria. Many look upon them as tuberculous, and clinical data have been put forward in support of this view (Fiedler, Barrs). Pansini has pointed out that larger quantities of the fluid should be used, and he has thus found the tubercle bacillus pneumococcus, streptococcus, etc., present. In a few cases the S. pyogenes aureus and albus, or even both, have been found, but this does not show that the effusion will become purulent, and the same is true of the pneumococcus. In Netter's experience the effusion in metapneumonic pleurisy is more often purulent than sero-fibrinous. When the streptococcus is present the effusion is apt to become purulent. In purulent effusions the pneumococcus, streptococcus, tubercle bacillus, S. pyogenes, etc., have been found. The actinomyces, M. tetragonus have very exceptionally been present. The author then gives his results, based on the examination both morphological and by cultures of 45 cases. Only small quantities of the fluid were used, as better adapted for clinical purposes. (1) Sero-fibrinous (21 cases):—(*a*) Simple: twelve cases were examined, and no bacteria found; (*b*) accompanying or following pneumonia: in 2 only out of 6 was the pneumococcus found, the others being sterile; (*c*) with clinical evidence of phthisis: in 3 cases the cultures were sterile, and the tubercle bacillus was not found by staining. (2) Empyemata (24 cases):—(*a*): in 8 simple empyemata the streptococcus was found in 7, the S. pyogenes albus in 1; (*b*) associated with lobar pneumonia: in 11 cases the pneumococcus was found in 9, and the S. pyogenes aureus in 1, and the streptococcus in 1; (*c*) associated with phthisis: in the only case examined the tubercle bacillus was found in great numbers, but cultivation gave negative results; and (*d*) fetid empyemata: in 4 cases several forms of bacteria were present. Thus in 21 sero-fibrinous and 24 purulent effusions bacteria were found in 2 of the former and in all the latter. The mortality of the streptococcus empyema is great. Results seem to show the more frequent occurrence of a simple non-tuberculous effusion containing no bacteria, and giving a good prognosis. The prognosis is more favourable if the pneumococcus or staphylococcus be present than the streptococcus. In empyemata also the metapneumonic and staphylococcus forms are more favourable than the streptococcus, and the fœtid cases are least favourable. The author draws attention to the value of the bacteriological examination. The question of suitable operative procedures is more important and urgent when the streptococcus is present.

(283) Syphilitic Spinal Paralysis.

Oppenheim (*Berl. klin. Woch.*, August 28th, 1893) refers to the syphilitic spinal paralysis recently described by Erb. The gait is stiff-legged although there is relatively little muscular rigidity, the tendon reflexes are increased, but the motor loss is not so great as the gait would lead one to expect. Unlike ordinary spastic paralysis, there is almost constant weakness of the bladder, diminished sexual power, and slightly marked sensation troubles. The condition develops in the course of months or years, or sometimes more rapidly. Sometimes there is great variation in the symptoms. Improvement may occur after inunction. The patients mostly do not become paraplegic, as in transverse myelitis, or, if they do, the paralysis improves. Erb thinks it due to a partial horizontal lesion in the dorsal cord. The author says that myelitis plays an important part in the clinical history of spinal syphilis. It has a tendency to improve, to get well, or it may remain stationary. Recent researches in spinal syphilis have shown that the chief form consists in a meningo-myelitis, the lesion starting in the membranes. Erb thinks that the disease described by him has nothing to do with meningitis, but the author would look upon it as a relatively favourable form of this meningo-myelitis, more or less localised in the dorsal region. The meningeal affection as well as the changes in the cord, so far as they are syphilitic, may clear up, and only the after-results remain, namely, the myelitis, and especially secondary degenerations. Pathological anatomy has demonstrated the lesion limited to the dorsal cord. Thus the author would look upon this syphilitic spinal paralysis as a stage or a special localisation in this meningo-myelitis. Only a few cases correspond to Erb's description, for they mostly show more extensive symptoms. The author hardly regards the prognosis as very favourable. The symptoms are not absolutely characteristic, but the fluctuating course of the disease, the effect of treatment, and the existence of (1) present or past cerebral symptoms, (2) meningeal irritation symptoms, (3) manifestations pointing to several foci of disease, or (4) the undeveloped symptom complex of Brown-Séquard's paralysis, are more definite guides to the differential diagnosis.

(284) Absence of the Sensation of Fatigue in a Tabetic.

The man in whom this condition was observed by Frenkel (*Neurol. Centralbl.*, July 1st, 1893) exhibited ataxy, with partial analgesia and defect of tactile and muscular sensibility, in all his limbs, more especially the left. Prolonged action of the muscles of the upper extremities was unattended by sensation of weariness; the patient could hold his arms extended horizontally for twenty-five minutes (the longest period tested) without experiencing fatigue at the time or subsequently. If he kept his eyes open during the experiment, there was no sinking of the limbs from the horizontal position; but, when tested with closed eyes, the left arm slowly sank until contact of the hand with a neighbouring object informed the patient of the altered posture. A control experiment in another tabetic showed that the latter could not maintain a horizontal position of his arms beyond five minutes.

(285) Right Hemihypertrophy.

Tilanus, jun. (*Münch. med. Woch.*, 1893, No. 4) records the case of an otherwise healthy girl, aged 10 years, the right half of whose tongue and face is broader and thicker than the left; the right arm, hand, buttock, leg, and foot are thicker, longer, and more powerfully developed than the left. The skin over the trunk and extremities is distinctly mottled. The reflexes are equal on the two sides, as are the electrical reactions of the muscles, which are normal. The author does not venture on a hypothesis as to the nature of the etiology of the condition.

SURGERY.

(286) Surgical Treatment of Tic.

Jarre (*Gaz. d. Hôp.*, September, 1893), looking on cicatricial lesions implicating the ends of the nerves as the cause of spasmodic neuralgia, considers that the treatment indicated is ablation of the margin of the alveolus and nerve lesions which it contains. The point affected is determined by the antecedent history of inflammatory mischief, and also by noting where the pain begins, either spontaneously or when elicited by squeezing the alveolus between the index finger and thumb. The author first attempted to destroy the affected region by the application of the cautery, but substituted resection, as the other method was inconveniently slow. The first step consists in excision of the mucous membrane and periosteum, the second in resection of the denuded border of the alveolus, and the third in scraping of the bone wound. The wound is dressed with a small plug of wool soaked in an antiseptic lotion. Under this treatment the attacks fell from twenty or thirty a day to only three or four, and were progressively attenuated in intensity and duration, and ceased in four or five days. Of 12 cases 2 gave up the cautery treatment too soon to judge, 7 cautery and 3 resection cases were cured. The disease had existed from eight to fifteen years in the cases treated.

(287) Intestinal Anastomosis.

In view of the frequent recurrence of stenosis after all the various operations for the production of anastomosis of the

hollow viscera, McGraw (*Annals of Surgery*, vol. xviii, No. 3, September, 1893) describes his method, which aims at making permanent openings not liable to contraction. In most operations hitherto employed the intention is to produce adhesion of the serous surfaces alone, and a wide granulating edge, uncovered by mucous membrane, bounds the entire circumference of the orifice; hence contraction occurs. Some have endeavoured to obviate this by making very large openings. The principle on which McGraw's operation is based is the same as that which is made use of in operating for webbed fingers—namely, to break the line of scar by the interposition of sound integument or mucous membrane. Incisions are made in the viscera it is intended to join by which flaps are formed, and turned back and stitched, thus making an opening, the edge of which is wholly or in part depending on the form of incision, lined by everted mucous membrane. If it is arranged to have one raw edge, this would come opposite the flap in the other viscus, and be fastened to the serous surface just outside the everted flap.

(288) An Improved Method of Draining the Antrum of Highmore.

MAJOR (*N. Y. Med. Journ.*, August 19th, 1893) gives an account of a new improved method which he has adopted for draining the antrum of Highmore. To a suitable place in the jaw from which a tooth has been previously removed, a 10 per cent. solution of cocaine is applied. Then an ordinary twist drill worked by an electric motor is used for perforating the bone, the canal being made in a slightly oblique direction from before backwards. The best size of drill is one three-sixteenths of an inch in diameter. After the drill is withdrawn and the cavity cleared of secretions, a piece of soft pine wood, pared down to a size slightly smaller than the drill, and with a protuberance at the lower end, is inserted into the opening. Plaster-of-paris is now applied and allowed to set, so as to take an impression of the upper jaw. When set it is carefully removed, and to it is fixed the wooden peg. A metal alloy, fusible at a low temperature, is poured into the cast, and a model of the upper jaw, with the opening in position, is the result. With the aid of a mechanical dentist, a sheet of gold is beaten out on the metal model, and by this means a gold plate, which exactly fits the gum in the neighbourhood of the drainage aperture, is obtained. Into this is soldered a piece of gold drainage tube slightly less in calibre than the drill employed. The tube should be long enough to reach well into the cavity of the antrum. Later it may be necessary to shorten it; this can easily be done by removing a little from the antral end. This plate is then fixed to a tooth, or to an artificial tooth plate if used, or, if many teeth are absent, it may be fixed to a suction plate of vulcanised rubber. In order to wash out the antrum, an ordinary single-bulb enema syringe, in which one of the metal attachments is filed down so as to fit the aperture in the gold drainage tube, is used. By means of this arrangement, 16 ounces of fluid may be made to pass into the antrum, and escape by the nasal aperture in less than one minute. To prevent the entrance of food, the tube is fitted with a vulcanised plug, so designed as to present a rounded head at its lower end, sufficient to present its slipping into the tube, and to render it easy of removal with the fingers. The tube must not be left out for any length of time, as the opening will contract rapidly.

(289) Surgical Treatment of Aneurysm.

NANCREDE (*Annals of Surgery*, vol. xviii, No. 3, September, 1893), in discussing this question, says the best methods of cure combine the following requisites—namely, such a marked slowing of the circulation or breaking up of its direct momentum, that first plaques can collect on some diseased or damaged portion of the lining of the sac, then white cells can accumulate, so that fibrin may form, and such conditions shall exist as will allow of no mechanical disturbance of the absolute contact of the thrombus and sac wall. The necessary change of the interior surface of the sac is probably often effected by the vascular disease productive of the aneurysm; but may not failures of inducing the white thrombus be due to the insufficient extent and nature of this change? After comparing the values of proximal and distal compression, Nancrede says Macewen's "needling" should supersede the introduction of catgut, wire, etc., because it does not induce the soft, red thrombus; it does cause the white thrombi, which will remain in contact with a lining membrane prepared to induce organisation of the clot; the clot can be deposited on the weakest portions of the sac wall, and eventually upon all accessible portions, not in a haphazard manner, which often precipitates the fatal issue. All methods should include recumbency and diet.

MIDWIFERY AND DISEASES OF WOMEN.

(290) Glycosuria in Pregnancy and Lactation.

BERBEROFF (*Nouv. Arch. d'Obstét. et de Gynéc.*, August 25th, 1893) examined systematically the urine of pregnant women, recently delivered women, and wet nurses. No sugar was found in the 9 pregnant cases, In 10 patients in childbed there was a marked amount of sugar in the urine; in 3 only a trace; in 12 none. All the 12 wet nurses were free from glycosuria. Berberoff concludes that sugar does not appear till the breasts secrete more milk than the child requires. Thus in childbed, when milk is replacing the colostrum, the breasts become very full, whilst the child takes relatively little milk. When the child suckles freely the sugar disappears. In retention of milk it appears again.

(291) Uncontrollable Coughing in Pregnancy.

TRIPET (*Journ. d. Sages-Femmes*, September 16th, 1893) observed this condition in a patient already subject to fits of coughing, which began at puberty. When 26, and still single, she had pleurisy on the left side, and she suffered from winter cough, granulations forming in the naso-pharyngeal mucous membrane. A year later she married, and miscarried at the sixth week after fits of coughing. In December, 1892, the patient became pregnant once more. At the end of January typhlitis set in, but subsided after appropriate treatment. In March a mild attack of influenza occurred; the cough came on very severely. General measures and local applications to the upper part of the respiratory tract failed to give relief. Tripet remembered that he had stopped uncontrollable vomiting in a pregnant woman by cauterising the cervix. On April 19th, the patient being four months pregnant, he examined the cervix and found it covered with granulations, which discharged pus. Iodoform was applied; two days later the cervix was painted with iodine, and more iodoform dusted over it. On April 24th this dressing was repeated; the coughing had subsided, so treatment was discontinued till the 28th, the cough having recommenced on the 27th. Tripet touched the morbid growths with the galvano-cautery, and powdered the parts afterwards with iodoform. Severe abdominal pains followed; the patient kept in bed, and they ceased in three days. On the 28th the coughing stopped for good, and did not recur; the patient slept, and ate with a good appetite. Pregnancy was proceeding normally.

(292) Diagnosis of Breech Presentations before Labour.

PINARD (*Rev. Médicale*, Louvain, August 31st, 1893) lays great stress on tenderness of the fundus. In some pregnant subjects who have passed the sixth month, pressure of the hand on the fundus causes sharp pain. Sometimes the patient feels pain without the part being touched. In both cases the evidence of breech presentation is strong. This pain, or tenderness, is solely due to the pressure of the fœtal head, which is harder and more bulky than any other part of the uterus, and distends the upper segment irregularly. That segment is not naturally designed to receive the head. Pinard especially notes that the pain disappears after version. The tenderness is influenced by the size of the head, the amount of liquor amnii, and the flaccidity of the uterine walls. This tenderness of the fundus is present in 70 per cent. of breech presentations.

(293) Fibroid Tumour Complicating Delivery.

CROFFORD (*Amer. Journ. Obstet.*, September, 1893) was called in to a woman, aged 30, in the sixth month of her first pregnancy. She had been in labour for six days, but the uterus could not empty itself on account of a tumour so

shaped as to block up the pelvis below the uterus, and so grown in and around the cervix as to prevent its dilatation. The pregnant uterus was exceedingly high up and to the left of the median line. The tumour was lower down, and occupied mainly the right side of the abdomen, but no line of demarcation could be made out between the uterus and the tumour. It was with the greatest difficulty that the cervix could be reached. Porro's operation was indicated, but the patient lived in a distant part of Arkansas in unwholesome surroundings. She was taken at once, 100 miles, to a hospital in Memphis, Tennessee. She was found, on arrival, too exhausted for abdominal section. She was placed, under chloroform, in the lithotomy position. By pushing the vaginal portion of the tumour aside and drawing firmly on the cervix the uterus was brought down and dilated. The fœtal foot was drawn down and the child delivered. The placenta was brought away by expression and traction. On the seventeenth day after delivery abdominal section was performed. As the fibroid was strongly adherent to the viscera the appendages alone were removed. The tumour sloughed a week later and had to be removed piecemeal. The patient made a complete recovery.

(294) Pregnancy after Removal of Myoma.

Werder, of Pittsburg, U.S.A. (*Amer. Journ. Obstet.*, September, 1893) removed a large pedunculated fibroid from a woman aged 29, treating the pedicle extraperitoneally by elastic ligature. She became pregnant two months after the operation. At the end of the fourth month five hæmorrhages occurred from the fistulous track left in the abdominal wound. The bleeding recurred and caused anæmia. Labour set in three weeks before term, lasting twenty-four hours. A living, weakly child was delivered. The placenta adhered to the abdominal parietes over the area of the fistula, where the uterine wall was absent. It was separated with the hand. The patient made a good recovery, and when she left hospital the fistulous opening had closed. The catamenia returned once after the operation, at which time there was some bloody discharge through the fistula. The uterine cavity was not opened at the operation, but the subsequent sloughing below the elastic ligature had perforated the uterine walls.

THERAPEUTICS.

(295) Tetanus Cured by Serum of an Immunised Horse.

Lesi (*Rif. Med.*, August 18th, 1893) reports the following case: A man seriously wounded his foot with a piece of glass while walking over a heap of stable refuse. Six days later tetanic phenomena appeared, which rapidly involved the muscles of the legs, neck, and back, besides causing marked trismus and dysphagia. On the afternoon of the second day from the appearance of symptoms the patient received a hypodermic injection of 50 c.c. of serum obtained from one of Tizzoni's immunised horses—1 gramme of which serum had been found sufficient to protect 10,000,000 g. of a rabbit. After this injection there was no further spread of the tetanic phenomena, which remained confined to the parts already affected. In these parts, indeed, the spasms became somewhat more pronounced during the first and second days of treatment. In the evening of the second day a further injection of 20 c.c. was given, after which the patient had a fair night's rest. Next day another 10 c.c. was given. The patient was almost free from pain, save for the trismus and the difficulty in swallowing. On the fourth day a last injection of 20 c.c. was given, after which the patient rapidly became convalescent, and was able to leave his bed six days from the date of his admission. To recapitulate: A wound contaminated by stable refuse, penetrating into the deep layers of the foot; development of tetanus on the sixth day—a remarkably short incubation period; arrest of the extension of spasms immediately after the first injection of curative serum; rapid and complete recovery; amount of serum used, 100 c.c.

(296) Hypodermic Injections in Neurasthenia.

Mathieu (*Gaz. d. Hôp.*, September 7th, 1893), in reviewing this form of treatment, is inclined to believe that much of its efficacy is due to suggestion similar to the effect of suspension in tabes, and to that of twenty or thirty different medicines in phthisis. He objects strongly to the use of organic liquids, but has not the same objections to the use of saline injections, as they can be employed without danger if proper antiseptic precautions are taken, and if the injections are made sufficiently deep. He thinks that there is no doubt that small transfusions of serum, to the extent of 25, 50, or 100 centimetres of liquid, raise the tone. He has obtained almost miraculous results in neurasthenia with a liquid composed of 4 grammes of phosphate of soda, 2 grammes of chloride of sodium, 20 grammes of neutral glycerine, and 80 grammes of water, but he does not attribute any specificity to the liquid. Recently, with 2 centimetres of the liquid, he resuscitated a neurasthenic who was scarcely able to leave his bed; but Mathieu added a strong dose of suggestion to the above formula, and believes more in the latter than in the phosphate of soda.

(297) Hypodermic Injection of Certain Chemical Compounds.

Spiegler (*Centralbl. f. klin. Med.*, September 9th, 1893) first refers to the local reaction produced by tuberculin in cases of lupus. Tuberculin, however, also produces a general reaction. Klebs has separated from it tuberculocidin, which gives rise to local reaction alone. It was soon discovered that other substances, such as the cantharidinates, thiosinamin (of which the chemical composition was exactly known) also produced reaction in lupus nodules, and that in animals the protein-containing extract of B. prodigiosus and large doses of pneumo-bacilli, etc., called forth reaction in tuberculous tissues. Not only lupus tissue is affected, but also young embryonic tissue. Adamkiewicz says that cancroin and neurin injected into the neighbourhood of carcinoma leads to inflammation and subsequent involution. Spiegler would not, however, attribute to these agents any specific effects. Reaction in lupus nodules may also be produced by administration by the mouth. The author has succeeded in producing the reaction in lupus nodules by injecting into the blood stream a number of substances of known composition, and he relates examples in which thiophen, benzol, certain compounds of urea, acetone, propylamin, trymethylamin, allylamin, taurin, and cadaverin were used. These bodies belong to various chemical types, but ammonia derivatives, and particularly the amines, are especially effective. The author believes that the cure of lupus cannot be brought about in this way. The injection produces a local reaction just as the external application of irritants does. With all sorts of injection treatment relapses occurred. It must be considered whether a dissemination from the diseased focus may result from the inflammation. The idea of any specific action upon the diseased tissue must be abandoned.

(298) Injections of Testicular Juice.

Rusconi (*Gazz. Medica Lombarda*, June 29th, 1893) gives brief notes of some cases treated by Brown-Séquard's method. Case I, a tailoress, aged 42. Affection diagnosed as sclerosis of the posterior columns of the cord. Main symptoms: wasting, mydriasis, diplopia, lightning pains, loss of patellar reflexes, tremors accompanying voluntary movements, occasional involuntary micturition, and loss of sensation in the soles of the feet, with contractures of the limbs. Improvement was noted in the subjective symptoms, even after the first injection. After six injections the pains were only slight, the contractures had nearly disappeared, sleep and appetite had returned. After twelve injections the patient could walk unassisted; the movements were quite coordinate; sensation was restored to the soles of the feet. Pain had practically disappeared, and nutrition was much more satisfactory. The symptoms then began to reappear on account of an interruption of the treatment. They gradually disappeared, however, when treatment was resumed, and, after thirty-two injections, the patient had so far improved as to be able to leave the hospital. Case II was a cook, on whom double oöphorectomy had been performed; she suffered chiefly from the results of hysteria. Tactile and painful sensibility and power of movement were wanting in the legs, and she had produced numerous abscesses by self-administered

hypodermic injections, taken probably with a view of exciting sympathy. Injections of testicle extract proved useless, but some improvement took place after injections of chloride of gold and soda. Case III, also a patient in whom double oöphorectomy had been performed, was suffering chiefly from hysterical manifestations, the chief of which were complaints of pain, contractions of the limbs, convulsions, restriction of the visual fields, hyperæsthesia, and exaggeration of reflexes. Improvement was noted after four injections, but this was quite irregular and not steadily progressive, and although as many as ninety-seven injections were given before treatment, at the end of this time the patient was no better than at the commencement. Case IV, one of locomotor ataxy. Thirty injections produced no amelioration whatever. Case V, vesical paralysis following typhoid, accompanied by other signs of general muscular weakness and neurasthenia. All these symptoms disappeared completely after five injections of the testicle juice. These results once more accentuate the fact, already observed by Brown-Séquard, that cases of hysteria derive no benefit from the treatment, whereas in the impaired innervation following acute toxic disease, improvement may follow, although even this is not to be relied upon.

(299) Electrolytic Epilation.

Stern (*Therap. Monatsh.*, August, 1893) relates the difficulties hitherto experienced in epilation by means of electricity, and states that even the best results have shown that 60 per cent. of the roots extracted produce fresh hairs, a large number of sittings thus being required. The comparative failure he attributes to the uncertain direction taken by the hair in the substance of the skin and to the consequent difficulty in reaching the papillæ with the electrode. Various measures have been suggested to ensure this, and the author recommends preliminary epilation with the forceps and the immediate introduction of the needle, while the skin is fixed and the follicle is still gaping. This introduction requires to be performed most carefully in order to follow the direction of the follicle, and the needle having reached the base, the patient, by seizing the anode, establishes the current, which is broken after about 45 seconds. An hour, during which twenty to twenty-five hairs can be treated, suffices for one sitting, and the author in his cases estimates the failures resulting from each sitting as being 20 per cent. only, a marked improvement as compared with former methods.

(300) Borax in the Treatment of Stomatitis.

Aufrecht (*Therap. Monatsh.*, August, 1893) says that whereas stomatitis in children remains localised, it readily extends to the œsophagus and stomach in elderly and debilitated patients, causing dysphagia and consequent exhaustion from want of food. Some years ago, in two cases of typhoid fever occurring in one family, stomatitis was an early complication. The author resolved to administer an internal remedy which in itself should be harmless, and prescribed a 3 per cent. solution of biborate of soda, of which a tablespoonful was taken every two hours, the stomatitis disappearing completely in a few days. The author now invariably uses this remedy when in elderly people dysphagia is present and seems to arise from stomatitis. The above dose has even been given hourly until the complete subsidence of the symptoms, the time occupied being one to two days. No unpleasant manifestations occurred.

(301) Large Doses of Alcohol in Delirium Tremens.

Anders Hausson (*Hygiea*, No. 4, 1893), records the following case: A man, aged 41, had, eight days previous to admission, fallen from a scaffolding three stories high, and presented the symptoms of fracture of the neck of the femur. Soon after awakening from a very partial narcosis, induced for the sake of examination, he showed symptoms of delirium tremens. Two injections of morphine were given during the day, and chloral hydrate at night, but without appreciable effect. As the symptoms got worse he was given large doses of brandy in accordance with König's suggestion. During the ensuing twenty-four hours he was given as much as 1 litre of brandy. The effects were excellent. He became quiet and calm, the hallucinations and tremors disappeared, and a refreshing sleep followed. The quantity of brandy was gradually diminished, so that one litre was distributed over 26, 30, 32, 38, and 40 hours, and so on. On the 12th day after admission the administration of brandy was discontinued. Sleep and appetite were excellent. No narcotics were ever required. After six weeks he got up, and was discharged well a few days later.

PATHOLOGY.

(302) Experimental Immunity Against Influenza.

Bruschettini (*Rif. Med.*, July 16th, 1893) returns once more to this subject. In previous papers he demonstrated a pathogenic action of the B. influenzæ on animals. He found the rabbit very sensitive to this infection, and was able to ascertain conditions under which this animal could be infected at will either with a slight transitory affection or with a grave fatal disease. He showed that these two types corresponded closely to the varying forms of the disease in the human subject, both in clinical course and pathological effects. He next attacked the subject of artificial immunity, dividing his researches into three series. He sought first to vaccinate animals against the infection; having succeeded in this, he tried whether immunity could be conveyed from a vaccinated to an unvaccinated animal by injections of the serum derived from the former; finally, with the serum he has tried not only to prevent, but to cure, the already established disease. In all these points he has met with success, and his conclusions may be summarised as follows: (1) The rabbit may be without difficulty vaccinated against the effect of cultures of the influenza bacillus. (2) The material best suited for the vaccination, in that it gives the highest grade of immunity, is obtained by filtering serum cultures of the bacillus through Berkefeld filters. (3) The serum of animals thus vaccinated possesses a marked antitoxic but no bactericidal power. (4) This serum also possesses the property of conferring on other animals immunity both against the infection and intoxication produced by cultures of the bacillus. This property is so powerful that injections of the serum in the proportion of $\frac{1}{1000}$ of the body weight suffice to induce immunity, or perhaps even less. (5) The serum has also a marked curative action, reducing the temperature of already affected animals, and preventing an otherwise certainly fatal issue.

(303) A New Method of Staining Neuroglia.

Kultschitzky (*Anat. Anzeiger*, April 8th, 1893), has successfully employed rubin ("patent saures Rubin") in staining neuroglia. Portions of brain are fixed in the following mixture: a saturated solution of potassium bichromate and sulphate of copper in 50 per cent. alcohol, to which is added acetic acid in the proportion of 1 per cent. The solution is made in the dark, about twenty-four hours being required. The time employed in fixation depends upon the size of the object, and varies from twenty-four hours to two or three months. Fixation is carried out in the dark. Transfer the object to strong alcohol, without preliminary washing; here it hardens. When sufficiently hard pass through paraffin. Sections, freed from paraffin, are placed in the following stain: acetic acid sol. 2 per cent., 100 c.cm., rubin 0 25g., sat. aq. sol. picric acid 100 c.cm. The picric acid remains in the nerve elements, and so affords a contrast to the neuroglia. The stain acts very energetically, a few seconds in it being sufficient. Wash in 96 per cent. alcohol, changed once. Excess of stain being thus removed, transfer to absolute alcohol, clear, mount as usual. The cells and fibres of the neuroglia are stained reddish-violet. Other elements are but slightly stained. If, however, the dye is used for more than a very brief time, nerve cells and axis cylinders also acquire the stain. Sections must be very thin. More recently Kultschitzky has used the following stain: alcohol 96 per cent. 100 parts, the above-mentioned rubin solution 3 to 5 c.cm. With this the staining process is much lengthened (half an hour or more), but sections are less apt to break up.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(304) Functional Valvular Insufficiency.
Dombrowski (*Rev. de Méd.*, September, 1893) discusses under this heading incompetency at the mitral and aortic orifices, the valves themselves being intact. The mitral valve may be functionally incompetent (1) in obstruction in the arterial system; (2) in lesions of the cardiac muscle; (3) in nervous disease as chorea, hysteria, and in chlorosis when it is due to defective innervation or disturbed nutrition; and (4) in the acute infective diseases. The author then records 3 cases, 2 of which were fatal. In these latter the insufficiency was due to atheroma of the aorta and disease of the cardiac muscle respectively, the valves themselves being healthy. In both these cases the murmur disappeared for a time during life with temporary improvement in the patient's condition, and in the third case no murmur was to be heard when the patient was discharged. This insufficiency is generally looked upon as due to distension of the mitral orifice itself, but this orifice is surrounded by a tendinous ring. Experimentally the author has shown that when water is introduced under pressure into the ventricle, the insufficiency is due to dilatation of the latter. Clinically, also, the instability of the insufficiency is against its being caused by overdistension of the orifice. Dilatation of the ventricle is always present in these cases, and in this way the insertions of the papillary muscles are further away, so that the valves are unable to close the orifice. Thus the term functional insufficiency should be used instead of relative insufficiency in regard to the mitral orifice. The absence of a history of rheumatism, much dilatation of the heart, a varying loudness of the murmur at each beat, and especially the occasional appearance of the normal sound in place of the murmur are points in diagnosis. The author also draws attention to the murmur being louder, or perhaps heard only during inspiration when the intrathoracic pressure is greatest. At the aortic orifice insufficiency may also occur without valvular lesion, but it is much rarer. Two such cases are related. The insufficiency is here relative. The dilatation of the orifice is due to increased pressure in the aorta, but an abnormal condition of the aortic walls is indispensable. The patient's age, the mode of development, the presence of arteriosclerosis will help to distinguish it from the incompetence of endocarditic origin. Thus functional mitral insufficiency may arise without a permanent lesion, and may recover if the cardiac muscle can recover, but in relative aortic insufficiency there is a lasting and progressive lesion.

(305) Acetonuria in Diabetes.
Hirschfeld (*Deut. med. Woch.*, September 21st, 1893) says that at present acetonuria is believed to be produced by rapid nitrogenous metabolism. He has, however, often found acetonuria present in diabetics without any increased nitrogenous metabolism. From a series of experiments on physiological acetonuria the author shows that under exclusive nitrogenous and fatty diet acetone appears in the urine, and that the addition of carbo-hydrates hinders the formation of this acetone. Morphine, opium, sodic salicylate, alcohol had no effect upon the acetonuria, whereas glycerine had a marked one. The author says that the acetonuria associated with gastric disease, carcinoma, and fevers is in no sense a special form. In slight cases of diabetes the same results are obtained as above: but in severe cases acetonuria persists in spite of the carbo-hydrates, and only large quantities of the latter have any effect. Thus the carbo-hydrates which are not used up in the body have lost their destroying action on acetone. Up to now the presence of acetone in the urine of diabetics has not been looked upon as having any prognostic significance, but only that of aceto-acetic acid, as shown by Gerhardt's perchloride of iron test. This so-called "diaceturia" appears only when acetone is abundant. The presence of acetone may thus be important, but its amount must be ascertained. Coma is known to appear after a rigid diet with exclusion of carbo-hydrates, that is, when acetone is abundant. The author records three cases of diabetes, two of which died of coma with gradually increasing acetonuria; the third case improved as the acetone diminished. With increasing acetonuria the strength of the patient decreases and the danger of coma is nearer. The more difficult the assimilation of carbo-hydrates the greater the excretion of acetone, but these events do not run parallel. It is probable that with diminished excretion of acetone the substances concerned in producing coma are destroyed. In the presence of considerable acetonuria a strict diet should not be enforced, but carbo-hydrates allowed. With oncoming coma it may be impossible to give them, and then glycerine—100 to 150 g. in the day in tea or coffee—might be useful from its above-named properties. Opium, morphine, sodic salicylate, sodic bicarbonate, antipyrin have not been proved, either clinically or experimentally, to have any acetone-destroying effect.

(306) Secondary Infections in Infantile Dyspepsia.
Marfan and Marot have contributed to the *Revue des Maladies de l'Enfance* (August and September) an elaborate study of the relation of pulmonary complications occurring in the course of chronic gastro-intestinal dyspepsia in infants raised on the bottle to the primary affection. The most important and the most frequent complication was broncho-pneumonia. It was present in thirteen out of eighteen cases; in two others there was diffuse and intense pulmonary hyperæmia, and in one other there was pulmonary tuberculosis. Bacteriological examination showed in the lungs, the liver, the spleen, the pericardial fluid, and the heart blood—in some or all—various organisms, of which the most constant were the bacterium coli commune, and the streptococcus aureus or albus sometimes alone and sometimes associated. The B. coli was the microbe most often met with. Evidence is adduced to show that to one or other or both of these microbes are due the broncho-pneumonia, the pulmonary congestion, and the acute feverish diarrhœa, of which one or other commonly determines death. The B. coli, it is suggested, obtains entrance to the circulation either directly or through the lymphatic system from the intestine; the streptococci either by the same route or through ulcerations of the skin or by way of the lungs.

(307) Submaxillary Mumps.
Wertheimer (*Münch. med. Woch.*, August 29th, 1892) remarks that the fact of other salivary glands than the parotid being affected in mumps is generally recognised. Involvement of the submaxillary glands alone has occasionally been referred to, and very rarely indeed only the sublingual glands have been involved. Out of 77 cases under Leitzen the submaxillary gland alone was affected in 6 and the sublingual in 1. Indeed, the cervical glands may possibly be involved alone, or orchitis may be the sole manifestation of mumps. The author relates in full one of three cases of submaxillary mumps lately seen by him. A boy, aged 8½ years, had swelling of the right submaxillary gland, the parotids being unaffected. On the third day the left submaxillary gland also began to swell. The temperature varied from 39° to 40° C., and there was loss of appetite, headache, sleeplessness, etc. By the eighth day the fever had gone and the swelling soon disappeared; fifteen days later the mother went through a typical attack of mumps. Sympathetic swelling of neighbouring lymphatic glands, periostitis of the lower jaw from carious teeth, Ludwig's angina, etc., have to be distinguished from submaxillary mumps.—Wacher (*Münch. med. Woch.*) reports 4 cases in the same family in which there was swelling of the submaxillary gland, the parotid being unaffected. The author had no doubt that the disease was epidemic parotitis, in which the submaxillary gland took the place of the parotid. Some fourteen days later the mother had typical mumps, and three other persons in the house also developed the disease.

SURGERY.

(308) A New Method of Tendon Suture.
H. Augustus Wilson, of Philadelphia (*Intern. Med. Mag.*, August, 1893), calls attention to a method of shortening or lengthening tendons exactly to the degree required by the surgeon. The

principle of the operation is to expose the tendon by incision of the integuments with antiseptic precautions; to split it longitudinally with a fine knife for a distance varying according to the effect required; then to cut the fibres at each end of the fissure in such a manner as to leave one-half of the split portion attached to the proximal and the other to the distal end of the tendon. The joint to be acted upon being placed in the required position, the overlapping portions of the tendon are sewn together with silk or catgut sutures, and the wound is closed. This procedure was first devised by William Anderson, of London (*Lancet*, July 18th, 1891), and was practised by him in a case of neuro-muscular contraction of the fingers in August, 1889; it was repeated independently a year later in a case of posthemiplegic contraction of the hand by W. W. Keen, of Philadelphia (see Supplement to the British Medical Journal, December 12th, 1891, par. 524), and has now been applied with success to the shortening of tendons by Wilson, who refers to the various methods of effecting the same object, and gives the preference to Anderson's operation.

(309) Ethyl Bromide as a General Anæsthetic.

Hartmann and Bourbon (*Rev. de Chir.*, September, 1893) have formed the following conclusions from the results of an extensive experience of the administration of ethyl bromide as a general anæsthetic in surgical operations. It is very important to use this agent pure, and particularly to avoid the confusion often made between bromide of ethyl and ethylene bromide. This latter anæsthetic is not free from danger, and has often caused bad effects which have been unjustly attributed to ethyl bromide. When properly administered ethyl bromide is a very convenient, rapid, and safe anæsthetic. The patient recovers very speedily, and does not suffer from any *malaise*. As it causes cephalic congestion, it should not be given whilst the patient is sitting. As it is safe only when administered for a short period, it cannot be used in prolonged operations. In such cases recourse should be had to the usual method—ethyl bromide at first and afterwards chloroform. This method has the advantage of shortening the period necessary for rendering the patient insensible, but will not exclude the possible occurrence of syncope. Ethyl bromide causes an unpleasant odour of the breath for two days after its inhalation, but this inconvenience is not usually experienced by the patient himself.

(310) Quenching of Thirst after Abdominal Operations.

Cathcart (*Edin. Med. Journ.*, September, 1893) advocates rectal injections of water for the purpose of quenching thirst in cases in which the necessary fluid cannot be given by the mouth. A case is reported in which the author, after an operation for strangulated hernia, would not venture to relieve the intense thirst of the patient by administering water in the usual way lest he should cause further sickness or excite peristalsis. Accordingly an enema of half a pint of warm water was given every two hours while the patient was awake. At the end of twenty-four hours the raging thirst was greatly relieved, and in forty-eight hours, although fluids could then be safely given by the mouth, the patient almost loathed the sight of them. The author has since applied this method with success to quench thirst in cases of chloroform sickness.

(311) The Use of Purgatives in Surgical Practice.

Nicaise (*Rev. de Chir.*, September, 1893) holds that careful and constant attention to the state of the bowels constitutes an important element in the management of cases of wounding and of surgical operation. Disturbances of nutrition, as is well known, usually occur after the operative removal of any diseased or destroyed part. The intestinal canal, which before surgical intervention received products coming from the affected structures, afterwards receives them from the traumatic centre. The mixture of these latter products with the ordinary contents of the intestines may result in the formation of fresh toxic bodies. The intestinal fermentation may thus become putrid, and this condition, if not promptly dealt with, may cause symptoms of general poisoning due to the absorption of the products of putrefaction. This state of the intestines following surgical operations should, the author holds, be treated by intestinal antisepsis and the administration of purgatives. Intestinal antisepsis, which in every abdominal operation should always be secured before as well as after surgical interference, consists in the administration of frequently repeated doses of naphthol and salicylate of bismuth. The choice of the purgative agent, which is given in the author's practice on the third or fourth day after the operation, should depend on the results the surgeon wishes to obtain, and also on the condition of the patient. If it be desirable simply to relieve the intestine of its contents which are not in a state of abnormal fermentation, it will usually suffice to administer castor oil, rhubarb, or calomel. The last purgative will have the advantage of acting on the liver, the functions of which are sometimes disturbed both by the operation itself and by the anæsthetic. If, on the other hand, the intestinal canal contains much putrid matter, and its fæcal and gaseous contents are very fœtid, such purgatives should be used as cause intestinal hypersecretion. Indeed, in these conditions the purgative ought to exert a depurative as well as an evacuating action. The intestinal putrescence is due not only to fermentation taking place within the canal, but also to the addition of the products of malassimilation, and of those of absorption from the seat of the traumatic lesion. In cases of this kind recourse should be had to saline purgatives, which by causing an abundant hypersecretion from the intestinal wall will tend to free the blood and the whole organism from the noxious excrementitial products. Fœtid diarrhœa occurring during the treatment of an injury or after the operation should not, it is held, be arrested, but, on the contrary, so long as the stools are fœtid should be treated by purgatives.

MIDWIFERY AND DISEASES OF WOMEN.

(312) Successful Ovariotomy during Puerperal Septicæmia.

Le Roy des Barres (*Annales de Gynéc. et d'Obstét.*, September, 1893) successfully operated in very desperate circumstances. The patient was 29. During her fourth pregnancy she suffered from severe pains in the left iliac fossa. On July 31st, 1892, she was delivered. She got up on the third day, when a severe attack of pain, with a rigor, forced her to go to bed again. For fifteen days she was laid up with severe peritonitis, and then effusion was discovered in the right pleura. The abdomen was distended. Phlebitis in the left leg and great debility followed, and the patient was admitted into hospital. An ovarian cyst was detected. The grave general symptoms, including the pleural effusion, were ascribed not to the tumour but to puerperal sepsis. On October 11th, as there was much dyspnœa, the cyst was tapped and over ten pints of a fœtid purulent liquid removed. There was temporary relief, but ovariotomy was found necessary on October 20th, 1892. There were free intestinal adhesions, the pedicle was thin and not twisted. The peritoneum was flushed and drained with iodoform gauze. The patient made a good recovery, and the catamenia reappeared. Des Barres's case was thus operated upon on the 82nd day after delivery, a childbed complication still existing. He quotes three other cases where ovariotomy was performed in the puerperium, Lawson Tait's (4th day), Cauchois's (53rd day), both fatal, and lastly, Terrillon's (35th day), which recovered.

(313) Pelvic Neuralgia: Calcified Ovary.

Polaillon (*Annales de Gynéc. et d'Obstét.*, September, 1893) admitted into his ward, last summer, a laundress aged 26, subject to severe neuralgic pains in the hypogastrium. She had been married seven years, and shortly afterwards fell down, the accident causing her to abort at the third month. She never conceived again. Four years later the neuralgic pains began. They became more and more severe, starting from the right iliac fossa and radiating to the right flank. They increased at the period, which was regular. Ultimately they became constant. At the base of the right broad ligament was a very hard mass with an irregular surface. When touched, an intense fit of neuralgic pain came on. Abdominal section was performed. The hard mass,

fixed to the anterior wall of the pelvis, was detached from adhesions. On lifting it up, the ostium of the tube was found expanded over its surface. The tube was ligatured and removed with the mass, which bore a pedicle. No trace of the ovary could be found beyond the limits of the parts removed. The hard body weighed 75 grains. Its surface bore curved grooves, as seen on the cerebrum and in sclerosed ovaries; it was covered with a thin layer of connective tissue, which was thick at the inner extremity, forming a pedicle. For a few days after the operation the patient had lumbar neuralgia, which soon disappeared entirely. Recovery was complete.

(314) Tubal Abortion: Fœtus Removed per Vaginam.

Robinson (*Deut. med. Woch.*, No. 8, 1893) relates how a woman who had borne four children was suddenly seized with feverishness and symptoms of peritonitis. The period had previously been regular and the health good. The bad symptoms yielded within three days to ice and opium. A fixed fluctuating swelling was detected to the left of the uterus. It reached to a hand's breath above the umbilicus. On vaginal puncture a clear, fœtid, serous fluid escaped. An incision into the tumour was made through the vagina. A pint of the fluid came away, and a fœtus, nearly 5 inches long, was removed, together with the placenta, which adhered, but loosely, to the rotten wall of the cavity wherein it lay. There was but little bleeding. The cavity was washed out with sublimate and packed with iodoform gauze. The patient was well within a month. Robinson believes that tubal abortion occurred very early in pregnancy without acute symptoms, the ovum afterwards becoming implanted on the peritoneum, but the vitality of the fœtus was not thereby maintained.

(315) Vulvo-vaginitis in Children.

Rocaz (*Annales de la Policlinique de Bordeaux*, September, 1893) observes that vaginal discharges in little girls must never be neglected. They often cause purulent ophthalmia from infection through the patient's finger, and otitis through constitutional sepsis. External treatment is useless. Thorough vaginal douching is necessary. Sublimate is unsatisfactory, causing local irritation. Permanganate of potassium is excellent. A 1 in 4,000 solution of the salt is employed by Rocaz at the beginning, and increased to 4 in 1,000. The child is placed on the edge of the bed, a soft rubber male catheter is introduced through the hymen and connected with the irrigation can placed a yard above the patient's body. About a pint of the solution is used. The douching should be carried out three times weekly. After the first douching there is often a slight increase of the discharge, but cure is certain within a month. Tonics must always be given. Purulent otitis, as a complication, readily yields to syringing with the same solution.

(316) Parametritis: Abscesses Tracking to the Nates and Ischio-Rectal Fossa.

Launay (*Gazette des Hôpitaux*, September 26th) describes a case of parametritis in which a phlegmon developed not in the connective tissue of the broad ligament, but in the cellular sheath surrounding the branches of the internal iliac vessels and the upper part of the vagina. The inflammatory process followed the track of the gluteal artery out of the sciatic notch, and also extended along the course of the pudic to the ischio-rectal fossa. The patient was 26, and was delivered of her second child in April. On the ninth day she had a rigor, the left breast inflamed, and an abscess formed. Lancinating pains were also felt in the left buttock. On June 3rd, after long treatment for neuralgia, she was admitted into hospital. There was great emaciation. The left buttock was swollen, and fluctuation could not be clearly made out. The uterus was pushed to the right; to the left of the cervix posteriorly was an ill-defined swelling, which did not extend to the iliac fossa. The left labium majus became œdematous. Jalaguier made the incision for ligature of the gluteal artery. When the fibres of the gluteus maximus were divided, a cavity full of pus was laid open. The edge of the great sciatic notch could be felt at the bottom of the pouch. Some connective tissue was broken down, and much pus at once escaped from the hypogastric fossa. A drainage tube was inserted. The patient at once improved in health. A week later, as there was great swelling in the left perineal region, and the œdema of the left labium persisted, an incision was made in the ischio-rectal fossa. Pus freely escaped. After appropriate treatment the patient made a perfect recovery.

(317) Hysterectomy for Fibroid: Old Tubal Abortion Discovered.

H. T. Hanks (*Amer. Jour. Obstet.*, September, 1893) removed a fibroid tumour from a woman aged 45, who had become anæmic. He discovered unexpectedly the bones of a fœtus at the bottom of the pelvis. On subsequent inquiry it was found that four years before the operation the woman had suffered from all the symptoms of tubal abortion.

THERAPEUTICS.

(318) Spermin.

Poehl (*Berlin klin. Woch.*, No. 36, 1893) refers to the localities in the body where spermin is normally found, namely, in the thyroid and thymus glands, the spleen, ovaries, and the blood, as well as in the testes. It has been extracted from these tissues as an insoluble spermin phosphate, the crystals being known as the Charcot-Leyden crystals, and the author believes the spermin to be a leucomaine—that is, a product of the retrogressive metamorphosis of albumens. As such it is a constituent, and probably the active one, in Brown-Séquard's testicle emulsion, though it has not yet been produced stable in quality nor has its use always been followed by the same results. As to its physiological action, the author believes it to be a most powerful intraorganic restorative of the oxidising properties of the blood. His reasons for this belief are the ability of a small proportion of spermin to oxidise large quantities of metallic manganese, its restorative power in cases such as chloroform poisoning, and in those cases where, by section of the spinal cord, a reduction of such intraorganic oxidation takes place. Further, Poehl quotes observations to the effect that the favourable action of spermin is more marked in patients suffering from similar processes—namely, various forms of anæmia, diabetes, scurvy, etc., in which auto-intoxications are manifest as the result of an accumulation of retrograde products. Finally, as the result of spermin injections he has observed an increase in the quantity of nitrogenous matter excreted by the kidneys. The recently observed effects on the cholera bacillus are also adduced in support of the view that the tonic action of spermin is the result of increased intraorganic oxidation processes. Poehl next deals with the question why this result is occasionally absent, and in this connection points to cases described by various authors, who in certain pathological conditions observed an excretion of spermin phosphate crystals from various mucous membranes. These facts he explains by assuming a diminished alkalinity of the blood to precipitate spermin as the above crystals or as an amorphous phosphate, thereby suspending its activity. Such a reduced alkalinity of the blood has been observed in various maladies where also diminished intraorganic oxidation is an important factor, and this would tend to explain the beneficial effects of dissolved spermin in certain cases of neurasthenia where the alkalinity of the blood would be pathologically diminished. In proof of this it has been observed that a simultaneous alkaline water "cure" heightened the therapeutic effects of the injection. The author concludes that spermin should not be regarded as a specific for any particular form of malady, but as a means of promotion of the oxidations in the body, while, owing to its identity with a normal constituent of the human body, its use is unattended with danger.

(319) Tuberculin in Advanced Phthisis.

Thorner (*Deut. med. Woch.*, September 14th, 1893) recently read a paper on this subject in the Verein f. innere Medicin. He has used tuberculin for two years, and has seen considerable benefit from it. In advanced phthisis he has observed improvement in the cough and expectoration, cessation of diarrhœa, disappearance of hectic fever and night sweats, etc. Laryngeal tuberculosis has greatly improved, and the condition of the patient has become much better. He has not seen ill-effects due

to the proper administration of this agent. He begins with $\frac{1}{10}$ mg., given every forty-eight hours, for ten injections. The dose is then steadily increased so that in four weeks after the commencement of the treatment the patient gets 1 mg. This is again increased by $\frac{1}{2}$ mg., given twice a week until at the end of six weeks and a-half 2 mg. are administered, and the last dose of 5 mg. three weeks later. Further increase in the dose may be made in suitable cases. Loss of appetite, the rapid appearance of pallor of skin and mucous membranes, as also fever after the fourth week, should lead at once to discontinuance of the treatment. In many cases the treatment should be interrupted. In the discussion that followed there seemed to be considerable reluctance to take up the subject, but Leyden and Ewald spoke. The former said that only here and there a very cautious use of tuberculin could be allowed, and he felt compelled to say that he could not share the author's opinions. Ewald remarked that both clinically and experimentally (Pfuhl's experiments) tuberculin possessed no specific action, and that its use had been abandoned owing to the dangers connected with it.

(320) Statical Electricity in Pruritus.

LELOIR (*Arch. d'Electricité Méd.*, July, 1893) recommends the use of the electric *souffle*, and has obtained good results in twenty-five cases of pruritus, which affected chiefly the anal and vulvar areas. He has found the treatment of the utmost service in obstinate cases. The patient is placed upon an insulated couch or stool, and is connected to one pole of a Wimshurst machine. The other pole, armed with a metallic point, is directed to the affected part from a distance of 4 inches. The brush discharge from the point produces only a slight sensation, which is not painful. The duration of each application should be from ten to fifteen minutes.

(321) Salol in Cholera.

WOLKOWITSCH (*Therap. Monatsh.*, September, 1893) insists on the necessity of immediate treatment in cases of cholera, and in support of the possibility of effecting much after the occurrence of diarrhœa and before the onset of general symptoms he gives an analysis of 100 cases collected by himself, showing that in 90 per cent. from six hours to several days elapsed, which time, in his opinion, ought to ensure the patients' lives being saved. During the existence of a cholera epidemic the author from the first treated all cases of diarrhœa, 200 in number and of varying severity, with salol. It was given to patients of all ages, the first dose in adults usually being 30 grains, and the first day's consumption 2 drachms. A marked change in the consistency of the motions was usually noticeable within twelve hours, and after a further lapse of twelve to twenty-four hours a healthy stool was frequently passed, nausea, etc., ceasing about the same time. If the first powder was vomited, a second was given followed by hot tea, which by itself the author used freely in order to arrest the sickness and as a beverage. In addition, the bed was kept and warmth applied when pains existed. Beyond occasional subjective symptoms in the ears no unpleasant consequences were produced, and the result was throughout favourable, though many cases had suffered from diarrhœa for some time and manifested symptoms of cholera intoxication after the commencement of the treatment. The author attributes the success of the treatment mainly to the fact that the patients were able on the first appearance of diarrhœa to commence the salol treatment.

(322) Saline Enemata in Hæmorrhage.

WARMAN (*Therap. Monatsh.*, September, 1893) refers to recent improvements in the treatment of patients bleeding to death, and more particularly to the beneficial results of saline enemata. The author enumerates the objections to the intravenous and subcutaneous methods, the principal difficulties in the former being the impracticability and the danger in the use of an excessive quantity, and in the latter the slow absorption of the injected fluid. Being unable to use either method in a case of abortion, the author attempted a rectal injection, which was very successful. Subsequently he treated 28 patients in the same way, most of whom when seen were much collapsed from *post-partum* hæmorrhage. The typical rigor (associated with the gradual rise of temperature) very quickly became evident, the pulse returning and the respiration becoming normal in all cases. A teaspoonful of salt was dissolved in a quart of water having the same temperature as the room, this having a more rapid effect than a solution at a higher temperature. The author holds that the salt in itself possesses marked hæmostatic properties, in support of which he adduces various observations. The proceeding is without danger, and the only drawback is the occasional inability of the sphincter to retain the solution. This the author overcomes by placing the patient on one side, allowing the solution to flow slowly, and then pressing on the cannula through the vagina. In severe cases this trouble was least frequent, as in these he found absorption to take place most rapidly. The author, in conclusion, recommends the same treatment in all severe hæmorrhages, excepting those from the intestine.

(323) Hypodermic Alimentation.

CAIRD (*Edin. Med. Journ.*, September, 1893) reports a case of extreme weakness and emaciation due to malignant stricture of the œsophagus, in which an attempt was made to improve the general condition of the patient by hypodermic alimentation. Intramuscular injections were made of sterilised olive oil. In the course of a week from 3 to 4 ounces of oil were injected into the gluteal region. The patient, it is stated, derived benefit from this treatment, and was considered fit to undergo the operation of gastrostomy, which, however, was followed by sudden and fatal collapse on the sixth day. There seemed to be no limit, the author asserts, to the amount of oil which his patient could tolerate. This fluid gave rise to no inconvenience, not even pain, when injected into the muscular tissues, and it was rapidly absorbed. Sugar was occasionally combined with the oil. None of the skin punctures inflamed. According to the author the method is capable of extension to many different conditions, and so long as a bland, sterile, nutritive fluid be used, no evil result is to be feared.

PATHOLOGY.

(324) Structural Changes in the Testicles of Aged Persons.

JOSEPH GRIFFITHS (*Journ. Anat. and Phys.*, July, 1893), says that in the testicles of the aged two distinct stages may be recognised in the process of involution and decay to which they are liable. In the first the epithelium of the seminal tubules, and also that of the tubules of the globus major of the epididymis, undergoes more or less complete fatty degeneration, and partly disappears; the tunica propria of the tubules of the testicle becomes somewhat thickened, but the intervening intertubular connective tissue remains practically unaltered. In the epididymis the muscular wall of the tubule is replaced by fibrous connective tissue, and the intertubular connective tissue is increased, dense, and fibrous. In the second stage the seminal tubules are much reduced in size, the epithelium having in great measure disappeared, leaving only in many instances a single layer of long tapering columnar cells lining and filling the tubule, the central spermatozoa-producing cells having completely disappeared, while the tunica propria is greatly thickened from proliferation of its own connective tissue cells and the formation of a fibrous matrix. The intertubular connective tissue is in this second stage relatively increased, owing, perhaps, to the diminution in the size of the seminal tubules, but it still remains of loose texture, and contains, as in the normal organ, many connective tissue cells. The epididymis shows no other changes than those incident to the first stage. Besides those described there is a third change which is more partial, and much resembles the result of the inflammatory process. It is usually observed in the small or shrunken testicles of old men, and affects both organs. In the altered patches the seminal tubules in the majority of instances are completely transformed into fibrous rods or cords; but in some there still remain in the central fissure, which represents the original lumen, traces of epithelial cells derived from the degenerated cells of the seminal tubes. The intertubular connective tissue is increased in amount, and converted into a dense fibrous variety.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(325) Electric Illumination of the Stomach and its Value.

Kuttner and Jacobson (*Berl. klin. Woch.*, 1893, Nos. 39 and 40) report the results of their investigations in Professor Ewald's clinic. They made use of Einhorn's apparatus, consisting of a stomach tube with a bell-shaped lamp at one end, and an arrangement for fixing the wires at the other. Control experiments were made on the dead body. The introduction of this diaphanoscope gives rise to no special difficulty and to no dangers. The patient may be examined standing up or lying down, and a dark chamber is not necessary if direct daylight be screened off. A previous washing out of the stomach is also not really necessary. To get a clear and as large an illumination figure on the abdominal wall as possible 1 to 1½ litres of water may be put into the stomach. The authors have modified Einhorn's instrument so that it may also serve to introduce this water. The illumination figure can vary in position, and it moves up and down with respiration. The neighbouring intestine also allows the light to pass through in a greater or less degree, but the illumination due to the intestine can often be recognised by a skilled observer. The figure may be obscured by the liver, or intestine filled with fæces being in front of the stomach, or by tumours in the gastric walls. Experimentally the authors show that the light shines through a tumour under 1½ cm. thick. In reality only the side and lower limits of the normal stomach should be seen. In gastroptosis the stomach sinks downwards, and thus the whole of the anterior wall can be lighted up, and the upper limit ascertained. The above-named respiratory movement will also be absent; hence this condition can be distinguished from gastric dilatation, where both the upper limit as well as the movements of the illumination figure due to respiration are seen. As regards tumours of the stomach two cases were investigated both before and after death; but both in these and in other cases the tumour could be recognised by other means, such as palpation, etc. The question is whether gastrodiaphany will facilitate early diagnosis. The authors give in detail a case in which the diagnosis was made in this way, and in which the necropsy subsequently confirmed the view. Three other cases are referred to in which the diagnosis could also be thus made in the absence of other signs. Thus the authors conclude that, under certain circumstances, a tumour which cannot be diagnosed in other ways may be recognised by the help of the gastro-diaphanoscope.

(326) Cholera and Alcoholism.

After referring to the great mortality of cholera amongst the alcoholic, Gaillard (*Arch. gén. de Méd.*, October, 1893) discusses the subject, with illustrative cases, under three headings: (1) Mild cholera. Here the disease may sometimes be followed by delirium tremens, or a hitherto mild attack may suddenly develop serious symptoms, delirium heralding the change. When a mild attack thus becomes grave it is nearly always due to some defect in the individual, such as alcoholism, etc. (2) Severe cholera: (*a*) with ordinary course. In the very acute disease there is no time for any individuality on the part of the patient to declare itself. Six such cases are recorded. They were all fatal, but the author thinks that life was prolonged by transfusion in two of them. This severe cholera in alcoholics is not necessarily fatal, but a favourable result is not frequent. (*b*) With alcoholic delirium. Delirium is a common event in severe cholera, but it rarely has the violent character of alcoholic delirium. (*c*) With cerebral engorgement. This is shown by redness of the face, injection of the conjunctivæ, and the internal temperature is always raised. A case is referred to in which pneumonia supervened, and at the necropsy there was much œdema of the meninges. (*d*) With predominance of gastric symptoms. Here the intolerance of the stomach may be intense, and everything is vomited. (*e*) With jaundice. Jaundice is not common in cholera, and the author believes it to be often connected with alcoholism. (*f*) With prolonged hypothermia. (*g*) With pneumonia. Alcoholism singularly predisposes to pneumonia. Out of 5 cases 4 were alcoholics. In 3 out of the 4 the disease was broncho-pneumonia, and was unaccompanied by fever. (3) Therapeutic considerations. The author would not give alcohol except in the reaction stage. Iced coffee is better tolerated than champagne. He uses various kinds of lemonade, made with citric, tartaric, and lactic acid. In the case of the latter 15 g. of lactic acid is added to 1 to 1½ litres of sweetened water. The author thinks morphine given subcutaneously less objectionable than opium, but he reserves it for severe cramps or delirium. There is nothing to take its place in the delirium of these patients. Neither chloral or bromides can be given, for they produce vomiting. Warm baths must be used cautiously, since they have been known to call forth convulsions.

(327) Polymyositis and Neuromyositis.

Senator (*Deut. med. Woch.*, September 28th, 1893) relates the following 2 cases of polymyositis. (1) A man, aged 50, who had suffered from glycosuria for some five years, was seized with pain in the right and afterwards in the left calf. The muscles were very tender on pressure. Eventually the thigh, arm, and chest muscles were involved. Bluish-red spots also appeared over the affected muscles. Fever was present. Some few days later signs of pneumonia of the left base appeared. The urine contained sugar and a trace of albumen. The patient died. Only a piece of muscle could be examined; it showed a very marked interstitial myositis. The striation of the muscle fibres was distinct, and there was no sign of degeneration in them. The author accounts for this by the short duration of the illness. The vessels were much engorged. No micro-organisms could be found. The author would look upon this myositis as an acute primary disease. (2) A man, aged 40, was seized shortly after eating some stale crabs with *malaise*, loss of appetite, sleeplessness, pain in the back, and painful stiffness in the muscles. These symptoms persisted for two or three weeks. When seen by the author he was restless, and complained of severe pains in the extremities. A few days afterwards there was swelling of both right extremities, and the skin over them was red. Later, the left arm and leg were also affected. The temperature was about 38° C. Symptoms of acute nephritis supervened. Some six weeks after the onset, the swelling began to disappear, and the patient steadily got well. The author says that the nephritis must be looked upon as a complication of the myositis, and was probably due to the same cause. There was no evidence at all of trichinosis. The disease was probably due to an auto-intoxication from the alimentary canal. Polymyositis is distinguished from neuromyositis by there being no paralysis (since any difficulty in moving is due to the pain and swelling of the muscles), no tenderness of nerve trunks, no anæsthesia, and no wasting of muscles in the former, whereas there is no swelling or inflammatory œdema of the muscles or skin in the latter.

(328) Transmission of Enteric Fever to the Fœtus.

Janiszewski (*Münch. med. Woch.*, September 18th, 1893) relates the following case. A woman, aged 38, gave birth, in the third week of a typical attack of enteric fever, to an eight months' child. The infant died in five days' time. At the necropsy, there were hæmorrhages in the kidneys, and patches of consolidation in the lungs. The spleen was enlarged, but the intestine showed no change. Portions of the lungs, spleen, kidney, mesenteric glands, and intestine in the neighbourhood of the ileo-cæcal valve showed the presence of bacilli. These bacilli were proved both morphologically and by the usual cultivation experiments to be typhoid bacilli.

SURGERY.

(329) Removal of the Gasserian Ganglion.

Parkhill (*Med. News*, September 16th) reports a case of trifacial neuralgia in which Rose's operation for removal of the Gasserian ganglion was performed with good results. The patient, a woman aged 60, had suffered from neuralgia for nearly eight years. The first division of the fifth nerve on the left side was at first the seat of pain. Soon afterwards the second division

became involved, and for the last three years the third division. At an early stage of the affection the second division of the nerve was excised at its exit from the infra-orbital foramen. This gave relief for about five months. A second operation was afterwards performed, in which all three divisions were excised at their exit from their respective foramina. This also gave relief for about five months. A third operation on the second division gave no relief whatever. The patient continued to suffer very much, and, during the ten days which preceded the operation for removal of the ganglion, consumed 4 lbs. of chloroform in inhaling. At times she found it impossible to obtain more than a few hours' sleep in the night. The operation was performed on September 4th, 1892. The coronoid process was not reunited to the lower jaw, but was cut away. The detached portion of zygoma was stitched to the temporal fascia and not fixed to the adjacent bone by wire. The author points out that the time saved in not drilling the zygoma and introducing the sutures is very considerable, and that equally good results can be obtained by wiring the fragment of bone to the fascia. The patient made a speedy and good recovery, and during the interval of ten months between the date of operation and that of the publication of the case, had not experienced the slightest return of the pain. No mention is made of any inflammatory disturbance in the left eye after the operation.

(330) Changes and Degenerations in Nævi.

REBOUL (*Archiv. gén. de Méd.*, May to October, 1893) says that nævi are tumours which are congenital in their origin, and on this account they are able to give rise to the formation of a variety of benign and malignant tumours. In a considerable number of cases they disappear spontaneously after birth, but in others they remain apparently stationary, and then they must be carefully watched so as to detect any changes which may take place in them. Whenever the least sign of extension, transformation, or malignant degeneration appears, it is necessary at once to adopt active measures, and to remove them freely. When they undergo malignant degeneration, especially of the melanotic variety, they must be regarded as infectious, and in the performance of operations for their removal, every precaution must be taken which will tend to prevent a local infection, which may become the point of commencement of a generalisation of the growth, and hence lead to a fatal termination.

(331) Seminal Vesiculitis.

FULLER (*Journ. of Cut. and Gen.-Urin. Dis.*, September, 1893) says the seminal vesicles are a not uncommon situation for inflammatory affections. These affections may be acute, subacute, and chronic. In the majority of cases gonorrhœa is either the direct or the remote cause; most of the cases dependent upon this cause are subacute or chronic, and come on some time after the acute stage. In a small number of cases masturbation or sexual excess or both combined are the cause of a simple vesiculitis. As regards the specific forms, tubercle, or more rarely malignant disease commencing in the epithelium lining the vesicles, may be the causes of the affection. During a period of one year and a half the author has had twenty cases under his observation. In the simple variety of vesiculitis symptoms of disturbances of the sexual function are constant. In the majority there is a marked diminution of the sexual desire, or it may have disappeared. In a small minority the desire is increased. In some erections are almost absent while in others they are persistent. The act of ejaculation is very precipitate, or it may be tardy and accompanied by much pain, and followed by pain in the perineal region. Seminal emissions are also frequent. The amount of fluid ejected is small, and the spermatozoa are lifeless and reduced in numbers. In the gonorrhœal cases pus is present in considerable amount, more than in the simple cases not due to gonorrhœa. Blood may be present in varying amount. This may give rise to a greenish coloration owing to the oxidation of the hæmoglobin. A considerable amount is characteristic of the very acute cases. Functional derangements of micturition may or may not occur. The patients are often very neurotic individuals. Sharp pain may occur in some during evacuation of the bowels. In acute cases the temperature is raised. When due to tubercle the disease often follows tuberculous involvement of the neck of the bladder or of the epididymis, and is then painful only when the vesicle becomes much distended. In order to make sure of the diagnosis the seminal vesicles must be examined *per rectum* when the bladder is full, one finger being introduced through the anus while with the other hand pressure is applied to the hypogastric region. By this means the lower half of the vesicle can be felt. If diseased it will be distended and tender to the touch, especially in the acute cases. By pressing on the vesicle and drawing the finger along it some of its contents can be pushed into the urethra, and on urination they can be collected and examined. In treating these cases the author recommends in the simple ones, if acute, palliative measures, such as rest in bed, opiates, and large hot poultices to the inguinal region of the side with the involved vesicle. In rare cases perineal incision or aspiration may be requisite. The testicles should be supported and the treatment for gonorrhœa carried out. No injections must be used. In chronic cases, in addition to general treatment by tonics, etc., digital pressure along the affected vesicle should be carried out about once a week, or not oftener than every fourth day. Care must be taken to prevent hæmorrhage into the vesicular sac or the setting up of acute inflammation by not applying pressure too vigorously or too often. In numerous cases these measures will effect a cure. Sexual intercourse should be prohibited during active treatment. In tuberculous cases, when the general condition allows it, complete extirpation must be practised. The same treatment is adopted in malignant cases when diagnosed sufficiently early.

(332) Tetanus from a Nasal Lesion.

ARCANGELI (*Rif. Med.*, July 29th, 1893) records the case of a lady who, in consequence of violent epistaxis, had her nostrils plugged by a surgeon. The plugs were removed after a few days, but the patient complained of a feeling that some were still remaining, although this was not the case. This feeling continued, and a few days later genuine tetanus developed. A supply of Tizzoni's antitoxic serum not being available, treatment by large doses of chloral was employed, and the case was in this way brought to a successful issue. The case is interesting as the first recorded of tetanus following a nasal lesion.

MIDWIFERY AND DISEASES OF WOMEN.

(333) Chronic Colitis and Uterine Disease.

MONOD (*Nouv. Arch. d'Obstét. et de Gynéc.*, September 25th, 1893) has prepared an instructive clinical paper on the frequent appearance, in cases of chronic disease of the uterus and its appendages, of the well-known intestinal affection termed mucous colic or pseudo-membranous colitis. The usual hypogastric pains are followed by the discharge of mucous casts. There is often constipation, and the patients are not rarely neurotic. The disease is situated in the large intestine, being a form of chronic colitis. Monod describes three important cases where mucous colic coincided with membranous dysmenorrhœa. Sometimes compression of the intestine by a retroflexed uterus causes the colitis. In other instances the intestinal disease is caused by extension of inflammation from the uterus or ovaries. Great care must be taken, Monod concludes, to distinguish cause from effect when a woman has pelvic pain and passes casts. The intestinal disease may certainly be primary—indeed, a trifling uterine affection may coexist by pure coincidence. The above researches show, on the other hand, that the colitis may be secondary to uterine disease.

(334) Presentation of Hand or Foot with Head or Trunk.

TARNIER (*Journ. des Sages-Femmes*, October 1st, 1893) teaches that when the hand prolapses in a breech presentation nothing need be done, as delivery is not checked even if the hand does not go up. Occasional gentle traction helps the patient if she be a primipara with narrow soft parts. Procidence of a foot in shoulder presentation is almost an advantage in itself, for version is necessary in that form of presentation, and by the por-

lapse version is half done without the obstetrician's aid. But he must immediately turn when the os is sufficiently dilated, else the uterus may retract on the fœtus and greatly complicate matters. In vertex or face presentation with prolapse of the hand, no attempt at reduction need be made till the membranes are ruptured. If the hand remain unreduced, though the os is fully dilated, a careful application of the forceps is called for as long as the head lies above the brim, provided that the hand can be kept away from the blades of the instrument. When the head is already well engaged in the pelvis, and the hand still down, there is no danger in waiting five or six hours. After that lapse of time the forceps should be used. When the foot presents with the head, the former should in any case be reduced as soon as possible. On failure, version will be necessary; should that not succeed, the forceps sometimes answers; but craniotomy is necessary as a rule. Tarnier, relating a case, returns to the question of prolapse of the hand when the os is fully dilated, and the head lies high above the brim. Although he admits that the forceps should be applied provided that the obstetrician feels sure he can avoid catching the hand in the blades, as a rule it is not easy to feel sure. Version is therefore the safest course to pursue. The patient in this particular case was a primipara. The head kept high in the pelvis, though the os was dilated and the membranes had ruptured. The pelvis was well formed. In an attempt to pass the forceps, it was found that the left arm lay by the side of the presenting head. The instrument could not be safely applied under the circumstances. The left foot was seized and brought down to the vulva, but it receded. A noose of tape was applied above the ankle, and by gentle traction the child was safely delivered alive.

(335) Twins and Twin Ova.

Klien (*Münch. med. Abhandlungen*, part 43, 1893) in making sections of the ovary of a child, aged 2 days, discovered a considerable number of perfect Graafian follicles. Eight of these follicles contained two, and one held three, ova. The child did not come of a twin-bearing family. Klien examined a few more ovaries of newborn children, but failed to find any more twin ova, even in ovaries from twin infants. Only von Kölliker and Nagel have authenticated twin ova in fully developed follicles. The author discusses the relation of twin ova to the development of the ovary. As he shows from his own specimens, there is no proof of direct connection between twin bearing and the presence of twin ovaries in a woman's ovary.

(336) Cysts of the Hymen.

Ulesko-Stroganowa (*Centralbl. f. Gynäk.*, No. 40, 1893), describes a case in which Von Ott operated. The patient was 18, and had been married two years; she had never been pregnant. For a year and a half she had observed a small but steadily growing swelling in the vulva. It was found, on inspection, to be a tense cyst of the size of a nut; it lay on the outer surface of the hymen, occupying the right side from the middle line to the upper border. In its neighbourhood, on the right side of the vagina, somewhat posteriorly, was a second cyst. They were both dissected out by von Ott. They contained a dark fluid, and blood had evidently escaped into their cavities. On microscopic examination there was evidence that the tumours were retention cysts. The vaginal cyst, in particular, had all the characters of an obstructed gland. Stroganowa notes that only seven cases of true cyst of the hymen have hitherto been recorded.

(337) Precipitate Delivery; Danger to the Fœtus.

Gorin, of Liége (*Journ. de Méd et de Chir. Pratiques*, September 25th, 1893) attended a woman in her third pregnancy. On January 28th, when she believed that she was at the end of the eighth month, labour pains came on. The cervix was then beginning to dilate, the membranes were not tense even during a pain. This condition lasted three days. At 10 A.M. on January 31st, when the pains were still weak, and a left anterior occipito-iliac presentation was diagnosed, the patient asked for the chamber vessel in order to pass a motion. The utensil was over 15 inches high. As the patient sat on it, a violent pain occurred, and Gorin, who was present, heard the noise of a fœtus falling into the water which already half filled the utensil. The patient endeavoured to pass a motion, but not succeeding, she rose, and an asphyxiated fœtus was found in the water, hanging by the cord. As the patient was being put to bed, the placenta was delivered. The child was resuscitated by artificial respiration. It measured 17½ inches. There was no sign of fracture of the cranium at birth, but the child bled freely from the nose on the afternoon following its birth, and died in the evening. No necropsy was permitted. The mother, it appeared, was very anxious to have a living child. The accident occurred when she was in the presence of her medical attendant. Had she gone to a watercloset, without previous intimation, and been delivered in the same way, she would have been suspected of attempting to murder the child.

(338) Sarcoma of the Uterus.

Von Kahlden (*Ziegler's Beiträge zur pathol. Anat.*, vol. xiv, pt. i, 1893) has prepared a highly instructive monograph on primary sarcoma of the uterus. In outer appearance and clinical characters the disease greatly varies. Multiple nodules, as in fibroid, may appear, or a fibromyoma may degenerate into a sarcoma. An angiomatous form is known. All sarcomata tend to develop polypoid masses in the endometrium, projecting into the uterine cavity. The disease is often first detected in this way, some of the malignant polypoid masses being detected at the os externum; they may even extend over the upper part of the vagina before the true nature of the malady is recognised. Strange relations between cancer and sarcoma of the uterus have been noted by many clinical and pathological observers. Abel and Landau have shown that in cancer of the vaginal portion of the cervix the cervical canal may remain entirely or nearly free from cancerous infection, whilst true sarcomatous deposit develops in the mucous membrane of the body of the uterus. The clinical and scientific significance of this double malignant change remains, in Von Kahlden's opinion, obscure.

THERAPEUTICS.

(339) Ferric Chloride in Diphtheria.

J. Braun (*Allgemeine Wiener med. Zeit.*, No. 38, 1893) relates his experience with a large number of medicaments recommended for the treatment of diphtheria. Having come to the conclusion that most of them were practically useless, he became inclined to use nothing more elaborate than gargles of lime water or chlorate of potash, with disinfectants, at any rate, in mild cases of the disease. In September, 1892, however, he was brought face to face with a particularly virulent outbreak, which compelled him to seek more active measures. The local treatment of the affected parts with corrosive sublimate appeared to give the best results, undoubtedly preventing the spread of the disease in more or less severe cases, and promoting ultimate recovery. In December, however, the author's attention was directed to the favourable experiences of Hübner and Rosenthal with solutions of perchloride of iron. His own trials with this medicament were exceedingly satisfactory, and he introduced a form of application—an ointment instead of a solution—which will, he is convinced, reduce the number of deaths to a minimum if universally and exclusively persisted in. The internal administration of 2 per cent. ferric chloride did not, as Rosenthal stated, prevent the further development of the disease, but, applied locally, Braun found that it left nothing to be desired. His ointment was composed as follows: ℞ Ferri perchlor., 4 drachms; ung. lanolini, 1 oz. It possesses many advantages over a liquid preparation. Applied on a plug of cotton wool firmly fixed to the end of a probe the membranes can be easily cleared away by a slight rotatory motion, while at the same time a portion of the ointment is left on the affected part. The remedy can be used in a very concentrated form, none being swallowed, and the unctuous nature of the application allows the operation to be conducted with such delicacy that energetic action can be secured without any complaint from children of violent pain or burning. There is also no fear of producing wounds which might afford fresh means of entrance for the diphtheritic poison. Another advantage of using lanolin for this ointment is not

only that the exposed surfaces are well covered, but portions of the mixture adhere firmly to the mucous surfaces, and thus exercise their action for a prolonged period. On these grounds, as well as on account of the aseptic nature of lanolin, it is preferable to all other ointment bases for the purpose. It is observed in this treatment with ferric chloride lanolin ointment that the affected parts are coloured brown for ten hours or more, whilst the unaffected parts are hardly discoloured. The ointment appears, therefore, to act only on those parts where the mucous coating is already destroyed by the diphtheritic process. Braun has employed it now in numerous cases, without the aid of any other treatment, with most satisfactory results. As a rule, two applications daily suffice; only in severe cases are the membranes renewed so rapidly that the treatment must be repeated every three or four hours. Improvement is noted on the second day, and a continuance of the disease beyond the fourth day is seldom noted.

(340) The Antiseptic Power of Ichthyol.

ABEL (*Centralbl. f. Bakt.*, September 26th, 1893) has investigated the antiseptic properties of ichthyol, with the following results: (1) The ammonium and sodium preparations (with aqueous solutions of which the experiments were made) destroy pyogenic streptococci and the cocci of erysipelas in a short time, and in weak solutions. Thus, a 5 per cent. solution applied for two minutes prevents growth in a culture of strept. pyogenes or strept. erysipelatosus on a solid medium. In ichthyol bouillon (1 to 200) these organisms are destroyed in twenty-four hours. The employment of ichthyol in erysipelas and in inflammatory conditions due to streptococci is therefore justifiable in a scientific point of view. (2) Ichthyol has very little influence upon the following organisms, staph. aureus and albus, B. pyocyaneus, B. typhi, B. ozænæ, and B. anthracis, spirillum choleræ Asiaticæ. (3) Diphtheria bacilli are prevented from growing upon a solid medium by the application of a 50 per cent. solution of ichthyol for ten minutes. On ichthyol bouillon (1 in 200) these organisms are destroyed in twenty-four hours. By far the most striking effect is obtained with recent cultures. Ichthyol may be employed as a prophylactic in diphtheria, as a gargle or internally. (4) It is best kept in substance or as a 50 per cent. solution, and diluted to the necessary degree immediately before use.

(341) The Treatment of Gout.

MORDHORST (*Therap. Monatsh.*, August, 1893) believes that renal uric acid calculi can be dissolved by drinking abundantly even weak alkaline waters, and as the result of frequent experiments he has found that even faintly acid urine will reduce the size of these calculi. In view of these facts which are more or less generally acknowledged, he asks why, even after a prolonged use of alkaline waters, the deposits in the tissues do not diminish, and the symptoms do not abate? Some years ago the author, thinking that the urine alone (and not the tissues) was rendered alkaline, examined the sweat, finding it always faintly acid or neutral under these circumstances. Freudberg made frequent experiments with the blood, finding it very difficult to influence its reaction, a large amount of the acid introduced appearing to be lost in the body. As uric acid and its salts can be deposited only from acid fluids which must exist in the skin, connective tissue of muscles, nerves, etc., it can be explained why alkaline waters have been unable to produce any effect. He therefore began to administer to his gouty patients sufficient alkaline water, namely, three bottles daily, to render the urine very alkaline and the sweat neutral or alkaline. The result was most satisfactory, tenderness diminishing, and the nodes becoming perceptibly smaller. The alkalinity of the urine was so great, that 10 to 12 per cent. of half normal sulphuric acid were required to make it neutral, the urine at the same time being quite clear, and remaining thus for several days. As regards the different natural waters, this result was achieved only with Wiesbaden gout water, the chalk in other waters causing considerable turbidity of the urine. Another feature observed was the progressive diminution in the uric acid excreted. The author, who is himself subject to gout, confirmed these results in his own person, and adds that the water cure should, when possible, be supplemented by a suitable diet, warm mineral baths with subsequent perspiration in bed, and that one to two bottles of the above-named Wiesbaden water should be taken daily.

(342) Oxychinaseptol.

STEINMETZ (*Münch. med. Woch.*, No. 31, 1893) has recently made use of this drug, and reports as follows. Used in a 1 per cent. solution, it is an efficient deodoriser of foul sores and discharges. Otherwise it presents no distinct advantages over other antiseptics. The irritant and caustic properties associated with so many of the antiseptics are so marked in the case of strong solutions of this drug that a 50 per cent. ointment may be employed as a caustic. Cauterisation with this ointment is entirely free from pain; it is suggested on this account that it might be of use especially as an application to diphtheritic lesions.

(343) Treatment of Erysipelas.

IN a preliminary communication, KÖSTER (*Centralbl. f. klin. Med.*, September 23rd, 1893) recommends the following treatment: A moderately thick layer of white vaseline is painted over the affected parts. In facial erysipelas a mask with the usual openings is then applied, but, if the disease affects other parts, a piece of linen is bandaged on with gentle pressure. The vaseline is renewed twice a day, and the same mask reapplied. This method may even be used in the case of the scald without removing the hair. The results in fifty cases were very favourable, and quite as good as those obtained with ichthyol, sublimate, lanolin, etc., and without the irritation which may be produced by the latter. The temperature fell in two or three days, the pain and tension became less, and relapses were not more frequent than under other treatment.

PATHOLOGY.

(344) Experimental Tetanic Infection in Animals.

THE minutiæ of infection with tetanus are not as yet thoroughly understood. According to Vaillard, Vincent, and Rouget, there are two forms of tetanic infection, the first or laboratory form, due entirely to the tetanotoxin formed by the tetanus bacilli *in vitro*, and not due to the action of the bacilli themselves or their spores; the second, or spontaneous form, which follows inoculation with earth, this form being due to the fact that other bacilli are present as well as the specific tetanus spores, which render it possible for these latter to grow and form their toxins. They are convinced that spores free from toxins and in pure culture are harmless. These premisses have been called in question by Roncali (*Rif. Med.*, July 19th, 1893), who, after careful research, arrives at the following conclusions: (1) The distribution of germs in an infected soil is unequal; one can never be absolutely sure, therefore, that tetanus will always follow inoculation with such earth. Three lots of fourteen animals inoculated with the same earth became infected—of the first only six, of the second thirteen, and of the third only five; (2) in an ordinary laboratory culture it is, as Vaillard stated, the ready-formed toxin which kills, and not fresh toxin formed in the body; (3) if by prolonged washing of tetanus spores these latter are entirely freed from ready-formed toxins, animals inoculated with these washed spores die after four, five, or six days, the virus being thus quite capable of development in the animal body without the assistance of the toxin; (4) tetanus spores contained in earth produce tetanus quite independently of the presence or absence of other microbes. Other microbes, if present, reduce the resistance of the organism by means of their toxins, and thus facilitate infection.

(345) Bacillary Suppurative Polyarthritis.

OTTO LANZ (*Cent. f. Bakt. u. Parasit.*, xiv., 9) found a short thick bacillus in pure culture in the pus from a case of cerebral abscess secondary to otitis media. He refers to other cases in which a pyogenic bacillus has been found by various observers, but fails to identify his bacillus with any of these. The point of special interest, as he points out, is that when injected into the vein of the ear of a rabbit the bacillus gave rise to multiple suppurative arthritis.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(346) Chloroform Narcosis and the Kidneys. Rindskopf (*Deut. med. Woch.*, October 5th, 1893) remarks that any acute damage to the internal organs as a consequence of chloroform inhalation has hardly been looked for in man. From a review of the experimental evidence he shows that chloroform, however administered to animals, has a profound influence upon the organs, chiefly in the shape of degenerative changes. In fatal cases of chloroform narcosis in man, a necrosis in the cells of the liver, kidneys, and heart has been found by Fraenkel and one or two others. Clinically an investigation of the urine has seldom been made. Luther (Epitome, January 21st, 1893, par. 59) found albumen and casts in the urine in some cases, but the author does not agree with him that the urine remains normal when there are no after-effects of the chloroform. Rindskopf has examined the urine in 100 cases before and after the narcosis. Out of the 100, 93 were available for the purpose in hand, and in 31 of these positive results were obtained. Albumen was found in 6, albumen and cylinders in 6, cylinders in 19, cylindroids in 4, leucocytes in 21, various epithelium cells in 19, and erythrocytes in 6, but the latter were probably not due to the chloroform. The albumen was present only in traces, and disappeared by the third day. Neither the character of the operation, nor the taking the anæsthetic badly, nor the two kinds of chloroform (officinal or Pictet's) used, seemed to have any influence, so that the real (chemical) agent was the chloroform. This idea is also confirmed by experiment and by morbid anatomy. The duration of the narcosis and the amount of chloroform used were important factors. In the 31 cases, the average duration and amount were 69 mins. and 31.5 g. respectively, as against 40.5 mins. and 26 g. Which of these two factors is the more important is doubtful, but the author would think that the amount should be put first. He draws the following practical conclusions: (1) That the urine should be examined before and after the narcosis, and prudence exercised in using chloroform in renal disease; (2) that the amount of chloroform given should be limited by using the method of permanent dropping (drop bottle); (3) that the chloroform narcosis should be, even where it cannot be done without, limited in duration as much as possible; and (4) that chloroform should not be administered to the same individual at an interval of but or even more days, lest the kidneys, already slightly damaged, should lead to a fatal result.

(347) Pre-arterial Pulmonary Stenosis. Chrétien (*Rev. de Méd.*, August, 1893) says that pulmonary stenosis may undoubtedly be acquired. He divides it into (1) stenosis of the valve properly so called, and the still rarer conditions of (2) stenosis of the artery beyond the valves, and (3) stenosis below the orifice involving the infundibulum. In this latter case the walls may be transformed into fibrous tissue, and a ring or even a channel may be formed. The right side of the heart is hypertrophied. In congenital cases of pulmonary stenosis a communication between the ventricles is fairly frequent. The author then gives short details of 5 published cases of the last variety of the disease, and adds a case of his own. A man, aged 89, complained of general *malaise*, but of no very definite symptoms. There was no cyanosis or dyspnœa. A loud murmur was heard all over the præcordium. The pulse was regular. He died suddenly. A narrow channel 1 centimetre long was found below the pulmonary orifice. Looked at from above, it was seen to be funnel-shaped, the opening at the bottom forming a crescent. It would only take a goose quill. A patch of ulcerating endocarditis was present on it. Thus the disease lay in the lower part of the infundibulum, and the valves, though thickened, were competent. The pulmonary artery was healthy. The tricuspid valve was thickened. There was an aneurysmal bulging at the upper part of the ventricular septum, and little would have been needed to convert it into a communication between the ventricles. The author thinks that both lesions were the result of the endocarditis, but that an inequality of pressure on the two sides was also necessary to produce the bulging of the septum, already weakened by the inflammation spreading into it. The cause of the endocarditis was obscure. There was no history of recent rheumatism.

(348) Enteric Fever and Acute Tuberculosis. Sarda and Villard (*Rev. de Méd.*, September, 1893) first refer to the discussion in recent times in regard to the association of micro-organisms in disease. They then relate a remarkable case in which the two above-named infective processes occurred simultaneously in the same individual. The occasional difficulty in differentiating between these two diseases is well recognised. In such doubtful cases the patient may recover, and subsequently develop undoubted signs of tuberculosis. The question then arises as to whether the first illness was not in reality tuberculosis, or whether enteric fever had predisposed to the tuberculous infection. A man, aged 30, suffered from headache, diarrhœa, anorexia at the onset of his illness. Later the abdomen became distended, and rose spots appeared. There were also signs of general bronchitis. Prostration seems to have been a prominent symptom. The temperature was sustained, and the pulse, except at the close, was never very rapid. A month after the onset, apparent signs of meningitis supervened, and the patient died in a few days. The difficulty in diagnosis was great, but the case was ultimately thought to be one of combined tuberculosis and enteric fever. At the necropsy grey granulations were found in the lungs, peritoneum, and also in the pia mater, but here only in one place, and that in the neighbourhood of the fourth ventricle. In the intestine there were the characteristic lesions of enteric fever, in which typhoid bacilli were proved to exist both morphologically and by culture experiments. The nature of the tuberculous lesions was such as to admit of no doubt. The authors remark that this case is, as far as they know, the first published example in which this double infection has been proved, and that it is of clinical importance, as it may possibly introduce another difficulty in diagnosis. It would hardly be possible to lay down any rules apart from finding during life the micro-organisms in question. The symptoms must vary according as one or other infection predominates.

(349) Endocarditis Gonorrhoica. Leyden (*Deut. med. Woch.*, September 21st, 1893) relates the following case in a man, aged 22. In April he had swelling of one knee and both ankle-joints, and when admitted a month later, the knee and left ankle-joints were still swollen. The clinical picture was characterised by (1) the presence of aortic and mitral disease; (2) irregular temperature with rigors; (3) repeated vomiting; (4) the development of acute nephritis; and (5) the malignant course of the disease. The patient died in three weeks' time. One of the aortic cusps was destroyed by ulceration, and covered with vegetations. There was a large mass of vegetations on one of the mitral cusps. There was only one breaking down infarct, and that in the spleen. The kidneys were swollen, hyperæmic, and contained microscopic foci of softening. The myocardium also contained similar foci. From the literature of the subject here detailed, it appears that (1) the relation of gonorrhœa to endocarditis is established; (2) a portion of such cases have a chronic course, and some even tend to recover; and (3) others have a malignant course. The bacteriological problem in gonorrhœal endocarditis has hitherto been unsolved. Some investigations have shown that the streptococcus was present in the valves, but generally they have been inconclusive. This case thus provided the opportunity of settling the question of the pathogeny of this endocarditis. The blood examined during life gave negative results, as also that taken from the auricle after death. The fibrinous deposits were examined bacteriologically by Michaelis. Gonococci were demonstrated (1) by their shape; (2) by their presence within the cells; and (3) by the facts that they were decolorised by Gram's method, and very easily by alco-

hol and lavender oil. No other micro-organisms were found. That no cultivation experiments were made is not looked upon by the author as any real objection, as the above-named characteristics are sufficient. Although the settling down of the gonococci upon the endocardium is remarkable, it is not very surprising as blood serum is a medium well suited to these micro-organisms.

SURGERY.

(350) Displacement of the Ulnar Nerve.

PLICQUE (*Gaz. d. Hôp.*, September 28th, 1893) records the case of a stoker who, in falling back on his engine, struck the inner side of his left elbow against the edge of a poker. The contusion was not severe, but evoked numbness of the whole hand, with swelling, and a violet colour which persisted for several hours. He had to give up work the next evening, and came under observation two days after the accident, when there was very slight extravasation of blood with the slightest possible excoriation, and all the bony prominences preserved their normal positions. Movements in extension were incomplete and particularly painful. The patient called Plicque's attention to a very tender nerve on the antero-internal part of the arm, which could be felt as a round cord, which rolled under the finger. Pressure on it caused numbness in the little finger, and there appeared to be no doubt that it was the ulnar nerve which had become displaced. Nothing similar existed on the right side, where, however, the ulnar nerve seemed to be a little more mobile than normal. Reduction of the nerve was effected with the forearm in semi-extension, but flexion always reproduced the displacement. The arm was accordingly fixed nearly in complete extension in an apparatus, and massage was carried out. After eight days the nerve seemed fixed; the man was able to do light work on the eleventh day, and to resume his duties as a stoker on the eighteenth day. The nerve was still in position two months later.

(351) Occlusion of the Ureters.

ROBINSON (*Annals of Surgery*, vol. xviii, No. 4, October, 1893), believing that many deaths after hysterectomy may be due to ligature of the ureters, and that such an accident occurs three times in every 100 cases of this operation, has made a series of experiments on dogs, from which he draws the following conclusions: (1) Complete occlusion of the ureter produces atrophy of the kidney, and partial occlusion hydronephrosis; (2) after weeks of complete obstruction the kidney will resume secretion; (3) urine secretes until its pressure is higher than blood pressure; (4) the ligature may sever the ureter and cause urinary fistula, or the ligature may yield a little; (5) divided ureters should not be put into the small bowel; (6) ligature of one ureter does not cause suppression in the other kidney. Man has double the amount of kidney required for ordinary use; but when an emergency arises he needs both kidneys, and a man with one kidney is apt to die of pneumonia or other acute disease.

(352) Surgical Treatment of Perforating Gastric Ulcer.

BARLING (*Birmingham Med. Rev.*, September, 1893) publishes three records of surgical intervention in perforating ulcer of the stomach. In one of these cases, notwithstanding a very unfavourable prognosis, the patient made a good recovery. For success in the operative treatment of cases of this kind two things, it is stated, are necessary—early diagnosis and prompt operation following on this. The following are described as the main outlines of the operation to be performed in cases of acute peritonitis from perforation of the walls of the stomach:—The abdomen should be opened in the middle line above the umbilicus, but not too near the costal margin. Positive evidence may at once be found of perforation in the presence of free gas or food. The area between the stomach and the liver should be examined with care, so that any localised collection in this region may, if possible, be prevented from soiling the more distant parts of the cavity. After the removal of extravasated matter, the perforation should be sought for. It will usually be found on the anterior wall of the organ near the lesser curvature. The perforation, if accessible, should be sutured, the sutures being applied, if possible, with the involved portion of stomach outside the peritoneal cavity. It would be advisable, the author thinks, before doing this, to pass a piece of drainage tube through the hole into the stomach and to draw off any fluid contained in its cavity. It is not necessary to pare the edges of the ulcer. In one of the author's cases, the only one in which the opening was closed by stitching, the edges were tough, and held the sutures well. Should the edges be found to be friable, the difficulty might be met by extensive infolding of the margins of the ulcer. Paring the edges takes time to effect, and should be avoided, as prolonged exposure of the patient militates greatly against recovery. If the ulcer cannot be closed by sutures its edges might be stitched to the lower angle of the external wound. If this cannot be done the only resource left to the surgeon is drainage by a tube leading directly to the point of leakage. The abdominal cavity should be washed out and thoroughly flushed with hot water. A drainage tube should be left *in situ* close to the perforation, whether this has been sutured or not. A second tube should be inserted into the abdomen just above the pubes, otherwise the drainage of the peritoneal cavity would be very imperfect, and a considerable quantity of fluid might collect in the pelvis and and greatly interfere with a successful issue. In chronic cases of leakage from a gastric ulcer the author would make an incision directly into any inflammatory swelling that might exist, and, in the event of pus or other fluid being found, would remove this with the greatest care. He would refrain from washing out the abdomen, but would insert a drainage tube into the cavity of the abscess. To search for the perforation with a view to closing it would, it is held, be useless and dangerous.

MIDWIFERY AND DISEASES OF WOMEN.

(353) Laceration of Cervix and Rupture of Uterus.

KALTENBACH (*Centralbl. f. Gynäk.*, No. 41, 1893 holds that these conditions differ from each other in degree only, when both arise from force applied to the cervix. He dwells on a clearly intermediate form of injury, which is caused either by overstretching of the cervix in deformed pelvis, crossbirths, hydrocephalic fœtus, etc., or by a strong pain forcing the fœtus through an os which is abnormal on account of old cicatrisation. The laceration of the uterus is usually incomplete in these cases, the peritoneum being unharmed, but the parametrium of the broad ligament is opened up. The cervix, on the other hand, is deeply torn, the rent extending in many cases into the vagina. Very careful exploration is always needed to settle the extent of the injury. If it be clear that the rupture is incomplete the cervix must be sutured, the vagina being similarly treated if the rent extends into it. Kaltenbach lays stress on the necessity of applying a firm abdominal binder after primary suture of the cervix. When the laceration of the uterus is complete, extending through all the coats, no delay or palliative treatment is advisable. The abdominal cavity should be opened, and the rent must be sewn np on the peritoneal side, the sutures being passed deeply enough to compress the bleeding vessels.

(354) Drainage: Artificial Encysting of Peritoneum.

FRANK (*Centralblatt f. Gynäk.*, No. 41, 1893) believes that it is not safe to drain the pelvis in the usual manner, whereby the whole of the peritoneal cavity is compromised. In fifteen cases of operations for pelvic disease he has encapsuled the area of peritoneum which required drainage by sewing the sigmoid flexure to the parietal peritoneum, sutures being passed through the appendices epiploicæ. This displaces the rectum slightly to the right, and the sigmoid flexure and its mesentery form a barrier between the abdominal and pelvic cavities. Drainage of the pelvis can then be carried out with perfect ease, and with no local irritation nor danger of constitutional infection. Frank declares that there is no fear of causing obstruction; he has found that the patients pass motions easily afterwards. He has never had trouble through shortness of the sigmoid mesocolon. The sutures being

passed through the appendices epiploicæ, sloughing of the bowel never occurs. Applying sutures to the mesocolon or adjacent broad ligament is much more dangerous, and in this respect Frank objects to Kaltenbach's practice of sewing the broad ligament to the posterior wall of Douglas's pouch, or stitching the posterior layer of the broad ligament to the abdominal wound. Frank also believes that his method entails less danger of obstruction, since that accident is usually due to adhesion of small intestine to the peritoneum of Douglas's pouch, whilst the sewing of the sigmoid flexure to the parietes prevents the small intestine from falling into that region.

(355) Puerperal Paralysis: Death in Three Months.

Sottas (*Archives de Tocol. et de Gynéc.*, June, 1893) publishes a very minute account of this case, which occurred after the sixth confinement of a woman, aged 30. In all previous pregnancies she had been subject to persistent vomiting, and after the second confinement she suffered from phlegmasia in both legs. The sixth labour was normal. On the fourth day, when slight fever existed (temperature 102°) it was found, when the daily injection was administered, that the legs were partly paralysed. Lumbar pains and a feeling of constriction round the waist, formication and cutaneous hyperæsthesia, and painful spasm of the gastrocnemii when any attempt was made to raise the foot, were noted. Complete aphonia set in. The upper extremities were soon affected; in a week there was almost general paralysis, which only spared the muscles of the face and neck, and some of the muscles essential to respiration. The symptoms fluctuated considerably, some of the muscles recovering for a time, especially in the right arm, which was the latest part attacked. Hectic fever, vomiting, and diarrhœa set in and proved fatal, the patient dying within thirteen weeks of the beginning of the paralytic symptoms. Sottas diagnoses the case as polyneuritis—Duchenne's subacute anterior general spinal paralysis—and gives reasons to show that it was not due to central diffuse myelitis. He believes that puerperal infection expended itself on the tissues of the patient's nervous system, which was a point of low resistance. She was naturally irritable, her father, an intemperate man, was of violent temper, and two of his children by the first wife (not the patient's mother) were of deficient intellect.

(356) Acetonuria and Pregnancy.

Vicarelli (*Prager med. Woch.*, No. 33, 1893) deals with the difficulties frequently encountered in establishing the diagnosis of a dead fœtus, and then refers to those diseases in which acetonuria has been found, namely, conditions in which there is a rapid loss of tissue accompanied by general cachexia. With a view to discovering the existence or absence of acetone in pregnant women, the author examined the urine in 39 such patients, finding the product only in 1 case, in which also a dead macerated fœtus was born. A similar case being observed elsewhere, the urine of 98 other patients in a lying-in hospital was subsequently examined for acetone, the methods employed being those of Lieben, Legal, and Reynolds. All three tests showed its presence in 7 cases only, these patients all giving birth to dead fœtuses. In two of these cases the substance was also found in the amniotic fluid, and in one in the expired air. The sum total is thus represented by 137 patients, of whom 9 revealed acetonuria, and were also delivered of dead fœtuses. Eleven further cases showed acetone by Lieben's method, which, however, gives a similar reaction with nineteen other bodies. The acetone always disappeared in the course of the first four days after delivery, and the author considers that in view of the above facts and the hitherto published observations, acetone must be regarded as a retrograde product of albumen. The urine was always drawn off by means of the catheter, and those patients were excluded from these observations in whom symptoms of other maladies were present.

(357) Vaginal Injections after Labour.

Eberhart (*Centralbl. f. Gynäk.*, No. 37, 1893) maintains that injections are always needed after delivery when there is gonorrhœa, when there is any other profuse discharge, when the vaginal mucus is fœtid, when the temperature rises, and when any obstetric operation has been performed. Otherwise the injections are not needed in normal labours in private practice. In hospitals they must always be used. Eberhart has seen the best results follow preliminary vaginal douches, after Kaltenbach's practice. He uses them in private as well as in hospital. He has discarded sublimate, and employs a 1 per cent. lysol solution. For intrauterine injections lysol should always be employed.

THERAPEUTICS.

(358) Trional.

Collatz (*Berl. klin. Woch.*, October 2nd, 1893) has used trional as a hypnotic in 66 cases of various forms of insanity. In uncomplicated agrypnia, a dose of 1 g. usually suffices to ensure within an hour a sleep lasting from six to nine hours. In some cases of epilepsy trional had no effect on the frequency or severity of the fits, but it shortened the post-epileptic delirium. In paralytic dementia it was uncertain, and was best given in 1 g.-doses two or three times a day. It was useful in a case of morphinomania. As regards dose, 2 g. has almost a certain effect when given for the first time, and, if the use is extended, 1 g. usually suffices. It should be given with some warm drink to ensure its being dissolved. The author records the case of an epileptic, aged 28, who took 8 g. with suicidal intent. In fifteen minutes he had a fit. When he became conscious he complained of nausea but could not vomit. He then slept for twelve hours, the pulse and breathing being normal. Next day he also slept with slight intermissions. There was retention of urine; neither albumen, sugar, nor blood pigment was present, but ferric perchloride gave a red coloration. The next day he was well with the exception of a slight uncertainty of gait. The author concludes that trional is a useful hypnotic. It is not absolutely certain, but it is almost entirely free from unpleasant after-effects, and hence is well suited for long continued use.—In recording the conclusions derived from extensive use of trional in the psychiatric clinic at Strassburg, Beyer (*Arch. f. Psych.*, Bd. xxv, H. 2) states that unless the action of the drug be hindered by bodily pain or external disquieting circumstances, a suitable dose almost invariably produces drowsiness, quickly followed by dreamless refreshing sleep. If the dose be correctly adjusted no unpleasant after-effect ensues. Slight cumulative action may be noticed; a dose that fails the first night may have full effect when given on subsequent nights. Often a reduction in the amount given can be made without impairing the hypnotic effect, provided that the morbid symptoms have not increased in intensity. No trional habit is induced by long use of the drug, nor is its abrupt discontinuance attended with any unpleasant symptom beyond return of sleeplessness if convalescence be not established. The size of the dose is especially important; age, sex, constitution, and body weight have to be taken into account as well as the nature of the insomnia or psychosis. As a rule, men require 0.5 to 1 g. more than women. In simple insomnia or neurasthenia the dose at first should be 1 g. or 1.5 g. for a man and 1 g. for a woman; subsequently, it should be reduced to 0.5 g. A similar dose combined with opium is most useful in simple melancholia. In hallucinatory forms of melancholia, acute or chronic, Beyer has seen very favourable results from 1 to 2 g.-doses. In mania the dose required may be 3 g. for men, 2 g. for women. Such symptoms as drowsiness after waking, ataxy, vertigo, indicate that the dose has been too large.

(359) Pancreatic Juice in Diabetes.

Battistini (*Therap. Monatsh.*, October, 1893) refers to recent experiments with pancreatic juice in the treatment of diabetes, and proceeds to describe the method he employed in two cases of diabetes which had resisted other modes of treatment. The juice was obtained aseptically from the fresh pancreas of a calf or sheep, the gland being divided finely, and allowed to macerate for twenty-four hours in an equal quantity by weight of glycerine. After filtration and addition of an equal bulk of water, injections were made into the sides of the abdomen under most careful antiseptic precautions. The doses of pancreatic juice were rather larger than have been given by previous authors, a

gradual increase from 5 to 15 or 20 c.c. of solution being made in the injections. The first patient, who simultaneously was put on a meat diet, received five injections at intervals of about two days, an abscess forming on one occasion. The second patient in the course of three weeks received five injections. The results in both cases were very similar, the urine increasing in quantity, the specific gravity remaining high, the sugar diminishing considerably, improvement of subjective symptoms being alleged, but no increase in body weight taking place. Inosit was looked for in the urine, but could not be found, and the author is unable to explain the persistent high specific gravity.

(360) Hypodermic Injection of the Preparations of Iron in Chloro-Anæmia.

DORI (*Rif. Med.*, July 29-31, 1893), has made extensive trials of this method of treatment. He was attracted to its study both by the results of other observers, and also by the following considerations: (1) The possibility of its application to all cases of chlorosis; (2) its intense action on the hæmatopoietic organs; (3) the possibility of throwing into the circulation all the iron injected; (4) the promptitude of the therapeutic results, which are in direct relation with the promptitude with which the iron reaches the circulation, and with the dose of the drug thus introduced. The preparations used were the following: ammonio-citrate, pyrophosphate (citro-ammoniacal compound), arseniate (citro-sodic compound), the two first being in 10 per cent. solutions, the last in 5 per cent. solution. The injections were given hypodermically rather than deep in the muscles, as in this manner they were found to be more readily absorbed. The author's final conclusions are as follows: The pyrophosphate is not a desirable preparation, as it causes too great a local reaction. The arseniate, although more readily absorbed, and giving rise to little reaction is slow in producing therapeutic effects owing probably to its poorness in ferric oxide. The ammonio-citrate gave excellent results. Patients were able to tolerate large quantities without inconvenience, and its therapeutic effects speedily became manifest in an increase of the hæmoglobin contained in the blood, accompanied by marked improvement in the patient's general condition. The daily dose usually employed was about 5 centigrammes dissolved in one gramme of water, and injected into the intra-scapular region. The hæmocytometer revealed an increase in the red corpuscles, even after the second injection. The cardiac *bruits* and gastro-intestinal troubles, as well as the headaches, disappeared after a few injections. Finally, the improvement appears from the author's observations to be permanent.

(361) Piperazine in Diabetes.

GRUBER (*Centralbl. f. d. ges. Therap.*, September, 1893) has tried piperazine in a case of diabetes. The drug was given in daily quantities of 15 grains in an aqueous solution, doses being administered three times in the day, half to one hour before meals and during a period of five weeks. An antidiabetic diet was also enjoined, and, whereas the urine at the commencement of the treatment contained 6 per cent of sugar, this quantity diminished to 4 per cent. at the expiration of the period of treatment. On the other hand, the body weight diminished slightly, the author attributing this to the loose motions caused by the piperazine consumed. Nevertheless, the patient improved in condition, and the albuminuria described by other authors was not discovered. The action of the drug in diabetes is supposed to be inhibitory to the transformation of glycogen into sugar.

(362) Microcidine in Microbic (Pyogenic) Affections of the Ear, Nose, and Throat.

COZZOLINO (*Rif. Med.*, August 30th, 1893) speaks of microcidine as follows: It is a compound of naphthol β and caustic soda, and was first prepared by Berlioz in 1890. It is freely soluble in water and of alkaline reaction. It is non-toxic, and in therapeutic strengths not caustic, although strong solutions have a caustic action. From a prolonged clinical experience with the drug, the author formulates conclusions as follows: (1) It is very soluble in water, fairly so in alcohol and ether; it remains unchanged either in powder or solution if not exposed to the air. It does not alter or stain surfaces to which it is applied, nor do its solutions affect instruments immersed in them. It is harmless even when absorbed in quantity through mucous surfaces. (2) On mixed cultures, as well as on pure cultures of pyogenic organisms, its antiseptic powers are 10 times as strong as those of phenol, and 20 times as strong as those of boric acid. (3) According to Polaillon and Tarnier, the most convenient strengths for general use are from 3 to 5 per 1,000, the latter being equal to a 1 : 5000 solution of sublimate. (4) Six months' experience with these strengths in pyogenic ear affections lead Cozzolino to expect great improvement from their use even on the second day, while a cure is often produced after four days. (5) In affections of the nasal fossæ, microcidine was used either in 1 per cent. solution or in the form of a pomade (vaseline 30, microcidine 0.1, cocaine hyd. 0.15 to 0.2). (6) In various tensillar affections a 1½ per 1.000 solution has given satisfactory results.

PATHOLOGY.

(363) Immunisation of Man against Cholera.

SAWTSCHENKO AND SABOLOTNY contribute to the *Centralbl. f. allgem. Path.*, August 24th, 1893, a paper dealing with this subject, based upon a series of experiments made by them. These were conducted as follows:—Small quantities (½—1 c.cm.) of the blood serum of each investigator were injected into the peritoneal cavity of three guinea-pigs, and three days later these animals, together with a control animal, were injected with pure culture of cholera bacillus, twenty-four hours old. All four animals died in a few hours. Pure cultures of the bacillus were obtained from the blood and organs. The authors next prepared a vaccine by washing agar cultures of cholera, twenty-four hours old, with sterilised salt solution, ½ per cent., and sterilising by heat the emulsion so obtained. By evaporating to dryness a known quantity of the fluid and weighing the dry residue (with allowance for the added salt), the approximate weight of dried bacteria in 1 g. vaccine was ascertained. The preparation was carbolised before use. Of this vaccine the authors took daily by the mouth a certain quantity, increasing in amount, for a period of rather more than three weeks. The total amount consumed (reckoned in dried bacteria) was for one of the authors (A.) 1.398 g., for the other (B.) 0.838 g., and for a student assisting 1.08 g. Nearly one month after the last dose was taken, serum from the blood of A. and the student was injected intraperitoneally into four guinea-pigs, in quantities varying from ⅛—1½ c.cm. After three days these animals and a control were injected with pure culture of cholera, twenty-four hours old. The control animal died in a few hours; the other animals survived. These results point to the conclusion that the persons from whom the serum was taken had been rendered immune to cholera by the vaccine employed. The inference is further justified by the result of an experiment in a dog. The animal was given the same vaccine by mouth, and subsequently injected with recent cholera culture. It manifested no symptoms whatever. In the case of the experimenters themselves there was no intestinal symptom or rise of temperature, but a certain feeling of depression was experienced, with "heaviness of the head," and slow ideation. To exclude the possible influence of the carbolic acid (though the quantity used was very small) in causing the symptoms, uncarbolised vaccine was employed, with precisely similar results as regards the depression, etc. Finally, each of the authors swallowed 0.1 c.cm. of a cholera culture twenty-four hours old, after neutralising the gastric juice by soda solution. (Two rabbits injected respectively with ½ c.cm. and 1 c.cm. of the same culture had speedily succumbed). No symptoms were observed in either case. The evacuations remained solid. In twenty-four hours they were found to contain cholera bacilli, and these could be shown up to the third day (inclusive). Pure cultures of the bacilli were obtained and inoculated into rabbits with a fatal issue, the blood of the animals showing the microbes, a result which points to the minor conclusion that cholera bacilli retain their virulence after passing through the intestine of immune persons.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(364) Lactic Acid in the Stomach Contents.
Boas (*Münch. med. Woch.* (October 24th, 1893) says that, according to his observations during the past three years, a definite and positive result is given by Uffelmann's test for lactic acid in carcinoma of the stomach. As these results are antagonistic to those of previous observations, he has used a more exact test for this acid. When lactic acid is heated slowly and cautiously with oxidising agents, it splits up into formic acid and acetic aldehyde. The presence of this latter body can be ascertained by many tests and its amount determined; the iodoform test is suited for both qualitative and quantitative purposes. The oxidising agent used was obtained by means of manganese dioxide and sulphuric acid. If the aldehyde is then conducted into an alkaline solution of iodine, iodoform is formed. Under proper precautions a given quantity of aldehyde decomposes a given quantity of the iodine solution, and hence the amount of the former is determined. Ketone and alcohol, which also give this iodoform test, are got rid of by boiling the fluid to be examined down to a thick soupy consistency. Carbo-hydrates heated with oxidising agents also give off aldehyde, so that lactic acid must be first extracted by ether. Rolls, etc., often contain more or less lactic acid. The test breakfast consists of gruel without salt. No lactic acid occurs in any stage of healthy digestion, not even in the absence of free acid. In chronic gastric catarrh, atony, and neuroses, lactic acid was as good as absent. In gastric retention the stomach should be washed out the night before; in non-malignant strictures lactic acid was also absent. In 21 cases of gastric carcinoma (3 without recognisable tumour), lactic acid was present and free hydrochloric acid absent. In 16 cases the lesser curvature was involved, in 1 the whole of the anterior wall, and in 3 the pylorus; in 1 the site was never ascertained. When the lesser curvature is involved there is gastric retention. The author knows of no stomach disease other than cancer that proceeds with continued absence of hydrochloric acid, stagnation of the stomach contents, and an absence of the physical signs of gastric dilatation. The importance of the presence of lactic acid lies in that free hydrochloric acid, so often absent in cancer, is also absent in other conditions. The presence of lactic acid confirms the diagnosis, but its absence does not necessarily exclude cancer. The author hopes that by this means the diagnosis of gastric cancer may be made earlier, and, in the absence of recognisable tumour, perhaps early enough to make total extirpation of the disease more practicable than at present.

(365) Asthma Nervosum.
Einthoven (*Weekblad van het Nederlandsch Tydschrift von Geneeskunde*, October 7th), deals exhaustively with the cause and symptoms of asthma nervosum. Three principal theories as to this condition have been advanced: (1) Disturbances of the lesser circulation, causing mechanical difficulties in the movements of respiration; (2) spasm of the diaphragm and other inspiratory muscles; (3) spasm of the bronchial muscles. Of these the author accepts the last. In reply to Biermer, who says this theory has no experimental basis, he cites some results of his own. By electrical stimulation of the vagi he produced spasm of the bronchi in a dog, without modifying in the animal either the pressure of the blood or the action of the heart. A more important objection advanced by Riegel (*Zeitschrift für klin. Med.*, v., p. 413) and Germain Sée (*Méd. Clin.*, T. iii., p. 22), is found in the most prominent symptom of asthma, the over-distension of the lungs with air, which, they argue, cannot be produced by contraction of the bronchial muscles. In reply Einthoven draws attention to the type of respiration peculiar to sufferers from asthma: the powerful inspiration, the slow and feeble expiration, which necessarily must cause this symptom. The characteristic paroxysms of asthma he ascribes to the spasm of the bronchi impeding the respiration. This produces an excess of CO_2 in the blood, which causes abnormal stimulation of the vagi. This action and reaction are further influenced: (1) By the reciprocal effects of an accumulation of CO_2 in the central nerve system, and a retardation of the circulation; (2) by the rapid production of CO_2 in the organism in consequence of the powerful efforts required for the movements of respiration. As therapeutic agents he recommends nicotine and atropine. The latter drug especially, brought quickly into the circulation by subcutaneous injections of very small doses, affords speedy relief to the sufferer by breaking the circulus vitiosus which causes the paroxysm.

(366) Acute Diffuse Peritonitis.
Kemmer (*Centralbl. f. klin. Med.*, October 21st, 1893) relates a case occurring rapidly after the administration of an anthelmintic to a patient, aged 21, with an old gastric ulcer. Two years previously she had been under treatment for hæmatemesis, etc., and since then she suffered frequently from severe gastric pain. Some segments of a tapeworm having been found in the stools, the friends gave her an anthelmintic at 2 P.M., followed by castor oil. Half an hour later the patient complained of severe pain in the abdomen, which continued. There was retching, but no vomiting. Collapse soon set in, and at 10 P.M., when seen by the author, she was moribund. There was then great dyspnœa owing to abdominal distension, marked abdominal tenderness, and no liver dulness. In spite of efforts to rally her, death occurred an hour later, or within ten hours of the onset. The diagnosis of peritonitis due to perforation of an old gastric ulcer was made, and the author thinks that the cause of this perforation must be looked for in the anthelmintic administered.

(367) The Chemistry of Digestion in Pellagrous Insanity.
Agostini (*Neurol. Centralb.*, September 1st, 1893) investigated the gastric digestion in 22 non-maniacal cases of pellagrous insanity with respect to the amount of free hydrochloric acid, the total acidity, the formation of peptones, the occurrence of pathological organic acids and the contractile activity of the stomach. In all he found retardation and imperfection of the digestive process; the peptones were deficient; the total acidity and the free HCl were diminished; in 50 per cent. of the cases the latter was absent. The motor function was impaired. Frequently abnormal organic acids and excess of mucus were present. Therapeutically, he recommends lavage with salt solution, and the administration of hydrochloric acid after meals.

SURGERY.

(368) Severe Head Injury with Loss of the Muscular Sense.
Laycock (*Austral. Med. Journ.*, July 15th, 1893) reports a case of extensive compound fracture of the cranium just behind the right fronto-parietal suture, caused by the fall from the height of about 100 feet of a heavy branch of a gum tree. The patient, a man aged 29, when submitted to surgical treatment on the following day, was unconscious and delirious, and presented signs of hemiplegia on the left side. Mr. Cooke, of Melbourne, who had charge of the case, enlarged the wound and removed ten pieces of bone; the gap in the cranium being an irregular opening which measured 4 by 3 inches. The base of the skull also was found to have been fractured just behind the orbits, there being a fissure about a quarter of an inch in width. The right frontal bone could be easily moved, and the skull had been practically split in two in the line of the blow. Much lacerated and contused brain substance was removed, the edges of the dura mater were brought together as far as possible, and the wound was closed. The patient recovered consciousness on the fifth day after the operation, and improved steadily, so that ten weeks from the date of the accident he was able to get up. At this time he was seen by the author of this report, who made a careful study of the results of the injury. The following parts of the cerebrum, it is stated, would appear to have been involved in the injury: the lower half of the ascending frontal convolution, and the greater part of the sigmoid flexure, the posterior third of the lower and

middle frontal convolutions, and the base of the posterior end of the upper one; also the base of the corresponding part of the falciform lobe. The destruction having deeply involved the region where the nerve fibres radiate from the anterior half of the internal capsule, these fibres must have been affected close to their covergence. Thus it will be seen that the motor centre for the arm would be the one principally involved. Those of the leg and trunk, and of the face, would be affected to a less degree. Hearing, taste, and smell were quite unaffected. Speech also, and the promptitude with which the patient answered questions, formed a marked contrast to the slow manner in which he performed movements with the affected left arm. The cerebral injury in this case, it is pointed out, presented a problem of the greatest complexity. Notwithstanding the fact that the part destroyed was the area generally regarded as motor, the sensory and motor functions of the opposite limbs, especially the arm, were effected in a relatively equal degree. On the sensory or afferent side, with preservation of simple tactile sensibility, there was an absence or deficiency of the higher conceptions of sensation, such as the position of the limb, the qualities and position of foreign bodies touching the part, their weight, resistance, etc. Similarly on the motor or efferent side, though the power of making simple movements remained, there was an absence or deficiency of the power of making the more complicated ones. As both the sensory and motor disturbances were the result of one and the same injury, it is concluded that the Rolandic area, which was the part destroyed, is sensori-motor. Laycock thought that in the group of impressions and sensations forming the so-called muscular sense, the sense of position is of the greatest importance, and that this sense is not of the nature of ordinary sensory impressions, such as pain or heat and cold, but that there must be some arrangement by which a circuit of nerve force is continually in equilibrium. This case also indicates that the sense of tactile localisation follows a different nervous tract from that of common sensation.

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(369) Operative Treatment of Congenital Umbilical Hernia.

BERGER (*Rev. de Chir.*, October, 1893) reports two cases of congenital umbilical hernia successfully treated by operation for radical cure, in one patient on the second day, in the other on the fourth day, after birth. Both these were instances of hernia into the cord, a variety of umbilical hernia the development of which is to be referred to the embryonic period of formation, and which is seldom met with in infants born at full term and living. The hernia in each case had no other covering than the structures of the cord; it included the cæcum with its appendix, and a considerable portion of the colon, which contents were partly irréducible, and adherent to the wall which limited the hernial cavity. The conditions presented in these cases favour the theory that congenital umbilical herniæ are due to an arrest of development by virtue of which the portion of intestinal canal primarily contained in the cord cannot enter into the abdominal cavity. The operation in each instance was a complicated one, consisting in actual laparotomy followed by careful division of the adhesions, by reduction of the protruded intestine, and by closing the breach in the abdominal wall by three rows of sutures. The little patients speedily recovered, and when last seen by the author were living and in good health. The results of operative treatment in these two cases and in others collected from different sources and given in a table at the end of his paper ought, the author holds, to convince surgeons of the advisability of adopting a like course in cases of this kind. In discussing the structure and arrangement of the coverings of congenital umbilical hernia due to arrest of development, the author states that the appearances presented at the operations on his two patients prove that in this form of hernia the wall of the sac is not composed of peritoneum. The membrane lining the hernial cavity, though continuous with the peritoneum, was not vascular over the whole of its extent, and presented in its main and non-vascular portion the characters of embryonic membrane, which are quite distinct from those of fœtal peritoneum. Chloroform, the author holds, may be given without risk during the operation for the radical cure of this form of hernia. Both his patients, one of whom was only thirty hours old, were rendered insensible without any difficulty, and bore the anæsthetic perfectly. The operation in each case was a tedious one on account of the extent of the adhesions, and lasted over an hour. Chloroform, if carefully administered, seems to be as free from danger in newborn infants as in those of more advanced age. The operation, it is thought, should not as a rule be performed immediately after birth. An interval of some hours should be allowed to elapse in order that the surgeon may be convinced of the full vitality of the infant, and have time for making all necessary preparations for ensuring the success of his operative treatment. Immediate intervention would be necessary in cases in which the intestine is strangulated, or when the membranes of the cord have been ruptured during birth. The surgeon should not interfere when the arrest of development of the abdominal wall is of so great an extent as to render complete closure impossible. In puny children also, and those born long before the full term, no operation should be performed. When the infant presents some other malformation incompatible with life, but still curable, the surgeon cannot consider the propriety of dealing with the umbilical hernia until he has successfully operated on the more severe and threatening affection.

(370) Surgical Treatment of Appendicitis.

CASPERSOHN (*Münch. med. Woch.*, October 24th, 1893) observes that the advances made in operative procedures for the treatment of appendicitis are in the following cases:—(1) Progressive fibrino-purulent peritonitis; (2) obstinately relapsing perityphlitis; and (3) chronic appendicitis with severe attacks of colic. He relates in full two cases:—(1) A girl aged 5 years was suddenly seized with violent pain in the right side of the abdomen, vomiting, and fever. Typhlitis was diagnosed. Later the pain extended to the other side. On the fifth day the child was collapsed, and the abdomen was distended and tender to the touch, especially on the right side. No definite exudation could be made out. The diagnosis was made of progressive purulent as against the septic form of peritonitis. An incision was made over the right iliac fossa parallel to Poupart's ligament. The bowel was much injected, and covered with fibrinous exudation and the coils adherent. The perforation did not appear, and was not hunted for. A couple of drachms of stinking pus were let out from the pelvis, and a drainage tube put in. The patient began to improve. A little later another collection of pus was recognised on the right side, and this was evacuated through the former wound by carefully separating adhesions. The patient steadily improved, and was well in four weeks. The author refers to another similar, but fatal, case in a child aged 7 years. He attributes the want of success to hunting for the perforation. It is very important to do as little as possible. (2) A man aged 36 had the first attack of pain in the lower part of the abdomen on the right side some fifteen months previously. These attacks occurred frequently, so that he was incapacitated from work. A tumour was felt in the right iliac region clearly corresponding to the vermiform appendix. This was extirpated, and the patient made a good recovery. There has been no further attack of pain, now more than twelve months after the operation. There was chronic inflammation of the vermiform appendix. The colic was due to the increased peristaltic action to overcome the resistance at the narrowed mouth of the appendix. Perhaps the pain was aggravated by adhesions between the omentum and the vermiform appendix.

MIDWIFERY AND DISEASES OF WOMEN.

(371) Insanity after Removal of Appendages.

RÉGIS (*Gazette Méd. de Paris*, October 14th, 1893) states that on October 20th, 1892, the appendages were removed, and anterior hysteropexy performed in a married woman, aged 35. The tubes and ovaries had been diseased for nine years, ever since a miscarriage. Two rather distant relatives were insane; the father died of grief from a domestic loss when 68. The bladder was much dam-

aged at the operation; much of its wall was cut away during the separation of adhesions. The patient recovered from the local effects of the operation, and all pelvic trouble ceased. On October 28th, however, only a week after the operation, she became violently delirious, without fever, and had terrifying hallucinations. In the course of a few days the mental symptoms changed, and she began to fancy that she had been guilty of horrid slanders against her friends. Her intellect, in the course of the winter, became much blunted. The catamenia and the sexual instinct were both entirely suppressed. On April 5th, 1893, Régis began the Brown-Séquard treatment. Almost every day about a cubic centimetre of fluid, prepared from a sow's ovary, was injected subcutaneously, usually in the interscapular region. A steady improvement was at once observed. By May 27th, where the report ends, the patient was able to attend to household duties, and to pursue her calling as a pianist. She took an interest in family matters. Still the hallucinations, though much weaker, continued whenever her mind was unemployed.

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(372) Visceral Affections of Menstrual Origin.

Plicque (*Gazette des Hôpitaux*, October 19th, 1893) observes that visceral affections directly resulting from the physiological disturbances of menstruation are of the congestive type. In the breasts this congestion is well known and almost constant; in the thyroid the change is just as harmless as in the mammary glands; yet the periodical congestion may have some influence on morbid growths in the above-named structures. Serous membranes suffer less, but Guéneau de Mussy has described recurrence of pericarditis at period. Cruveilhier refers to ascitic effusions occurring in young girls during the menstrual period. There is no difficulty, in Plicque's opinion, in diagnosing disturbances of the digestive tract which follow menstruation. The dyspepsia, icterus, or even a febrile affection simulating mild typhoid observed at period are essentially connected with the catamenia, and recur accordingly. Even the fever is often observed to be recurrent. Without a history of periodical recurrence there is no means of distinguishing this fever from true typhoid at the onset. The pulmonary congestions associated with the catamenia are well known. Great care and experience are needed to distinguish the purely congestive hæmoptysis of menstruation, which may prove fatal, from the hæmoptysis of phthisis. In the kidneys transitory albuminuria is observed; the painful swelling of a floating kidney at period is well known; slight periodical cystitis has also been observed. Nerve diseases nearly all get worse during a period. In all the above-described diseases the termination is as sudden as the onset. When amenorrhœa occurs the subsidence of the complication is slower. In cases of visceral disease of menstrual origin great care must be taken to cure any local condition which may interfere with the menstrual flow. The visceral disease demands symptomatic treatment.

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(373) Placenta Prævia.

Tarnier (*Journal des Sages-Femmes*, September 1st and 16th, 1893) discusses the treatment of placenta prævia, taking the following case as a text. A multipara flooded severely, and labour pains came on shortly afterwards, nearly at term. The midwife came and diagnosed placenta prævia. After being absent for a few minutes, she found the placenta expelled, lying between the patient's thighs. She cut the cord. The shoulder presented. The midwife failed in an attempt at version, and a practitioner was not more successful. The patient was sent into hospital. The arm was found prolapsed. Whilst the patient was being examined, a sudden strong pain came on, and the fœtus was evolved with doubled body—not after the usual spontaneous evolution mechanism. The patient recovered. Tarnier, in giving directions as to the treatment of placenta prævia, mentions the application of the tampon as the first step. It is always applicable, especially in bad cases. Next comes rupture of the membranes, especially when the insertion is central or marginal (as distinguished from partial and lateral insertions). Lastly, the obstetrician must employ Barnes's plan of separating the placenta from the whole of the dangerous area of attachment, which then retracts. Dilating bags may afterwards be needed. Robert Barnes and Murphy have published such satisfactory statistics that their plan, Tarnier concludes, must be seriously considered.

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(374) Delivery of Child with Tumour on Head.

Tarnier (*Nouv. Arch. d'Obstét. et de Gynéc.*, Suppt., September, 1893) relates that thirty years ago he diagnosed shoulder presentation in a woman where the os was fully dilated. He began internal version, and felt what he thought were two heads. As he suspected twins, he took care to bring only one leg down, lest he might seize an odd pair of legs. The body was easily brought down, but the head proved difficult to disengage. However, on firm traction it came out suddenly, bringing with it a large tumour seated on the vertex. The child was dead, and there was, of course, no twin. He then believed that the tumour was a hydromeningocele. Last April he attended a woman in her fifth confinement. The os was fairly dilated; a large soft mass could be felt engaged in the inlet. The child's back was detected to the left; above was a protuberance which had the characters of the breech, though it was suspected that it might be the vertex, when compared with the soft presenting mass. The fœtal heart sounds were distinct. The patient went to be bathed, and on her return from the bath the membranes ruptured, and a big tumour presented. The fœtus was rapidly delivered immediately afterwards, alive. This was a case of podencephalus; the tumour, 5 inches in its greatest diameter, sprang from the vertex, and communicated, by a pedicle, with the interior of the cranium.

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(375) The Bacteriology of the Genital Canal.

Stroganoff (*Centralbl. f. Gynäk.*, No. 40, 1893), working under Ott, examined the genital canal in series of menstruating subjects, old women, pregnant women, and patients who had aborted. The vagina, he found, contains microbes throughout life, infancy included; these germs are usually bacilli, but other forms are detected, especially in disease. The vaginal secretion is at first slightly acid, and becomes more acid, but turns neutral or alkaline when alkaline secretions exist. In age it is faintly acid. The bacteria of the vagina produce an acid which kills the microbes. The cervical mucus is acid, and destroys microbes. Stroganoff examined forty-seven subjects to throw light on the question of the bacteriology of the cervix. In twenty-two no microbes were found in the cervix; sixteen were rejected, disease of the genital tract being detected. In the remainder only a very small number of germs existed. In short the normal cervix is practically free from microbes.

THERAPEUTICS.

(376) Chloralose.

Ferrannini and Casaretti (*Rif. Med.*, August 11th, 1893), have made a series of observations on this remedy, which has already been studied by Richet, Maragliano, and others. They come to the following conclusions:—1. Its action on animals may be briefly stated as follows: First, a partial paralytic stage, in which the reflexes are exaggerated; then a paralytico-hypnotic stage; and, finally, if the dose is very large, a paralytic and convulsive stage, ending in death. The state of the heart and blood pressure is not altered save when the slowing of respiration becomes very marked. 2. Chloralose appears to be a drug whose influence is exerted especially on the cerebral cortex, causing sleep, and depression of motility and general sensation. The exaltation of reflex excitability observable at certain stages is due to a direct stimulation of the corresponding nerve centres rather than to a depression of the inhibitory centres. The clinical results lead to the following conclusions: 1. Chloralose is highly successful in insomnia from over-excitement of the psychical centres; it is preferable to chloral in the insomnia accompanying heart disease; it is better tolerated by the digestive tract than any other hypnotic; it acts extremely well in cases in which insomnia

is due to disorders of the digestive tract; it is inferior to morphine and similar hypnotics if the insomnia is due to pain: it has no cumulative action; it acts equally well if given several evenings in succession. 2. Without causing any intolerance chloralose is a certain hypnotic in doses of from 15 to 40 centigrammes given by the stomach; of 20 to 40 centigrammes by the rectum; of 5 to 10 centigrammes by the hypodermic method. The amount of tolerance both by the cardio-vascular and the digestive system is remarkable. If these doses be exceeded phenomena of poisoning may make themselves manifest similar to those seen in animals. 3. Should it happen in any case that the above doses are insufficient, it is allowable to increase them, but with great caution, noting carefully the effect of each increase of 10 centigrammes. In no case, however, should the dose exceed 1.2 gramme, either by the mouth or rectum. 4. In certain nervous disorders, such as hysteria and chorea, the drug may be successful in calming the convulsive phenomena in the same dose as the hypnotic ones already stated.

(377) Diaphtherin.

Stabel (*Münch. med. Woch.*, September 10th, 1893) has investigated the powers of diaphtherin in arresting the development of micro-organisms and in killing spores, as well as its pharmacological properties. Broth to which diaphtherin had been added was inoculated with various kinds of micro-organisms, and similar experiments were made with lysol and carbolic acid. The author concludes that diaphtherin greatly excels both these latter. Anthrax spores lost all power of growth after being in a 15 per cent. solution for three days. From a series of experiments on animals the author concludes that even the continued use of diaphtherin in man cannot be injurious, as it could not be used in sufficient quantities to be dangerous. It is especially adapted on account of its non-poisonous properties, for washing out hollow cavities where at present very weak antiseptics have to be employed. It is to be preferred in 1 or 2 per cent. solution to other antiseptics where moist applications are required for a long time, as in burns, ulcers, etc. It only discolours the nails and hands when previously soaked in sublimate solution. Steel instruments must not be put into it.

(378) Chloroform in the Treatment of Sunstroke.

Körfer (*Deutsch. med. Woch.*, 1893, No. 28) gives an account of the striking effect of chloroform narcosis in two exceedingly severe cases of sunstroke. The violent convulsions quickly ceased after narcosis (which was kept up an hour and a half) was induced, the pupil reflex which was absent returned, and the excessive reflex irritability of the skin subsided. The author, who is aware of the former theories which have been advanced in explanation of death from heart failure in sunstroke, suggests that the cardiac paralysis is the result of over-exertion of the heart. He believes that the greatly over-heated blood excites the cardiac ganglia and consequently the cardiac muscle, which in the end is heated to death. The same cause is believed to be in operation in connection with the cerebral centres, producing convulsions, acceleration of respiration, etc., and chloroform acts by overcoming this excess of excitation. The risk of chloroform narcosis in the subjects of sunstroke is estimated as no greater than in healthy persons.

(379) The Uses of Codeine.

Perininger (*Therap. Monatsh.*, October, 1893), with a view to observing to what extent codeine could replace morphine, tested its merits in a number and variety of patients. The usual method of administration was as a powder or in solution. First, as regards its narcotic properties, the author does not agree with others who found it successful in this respect, only short periods of sleep having been produced in his patients. When pain was present it was slightly relieved. In cases of tuberculosis where, owing to insufficient expectoration, troublesome cough coexisted with boring pains in the chest, its action was analogous to that of morphine, producing the same relief. Similar observations were made in patients suffering from bronchitis, but the dyspeptic symptoms sometimes produced by a long use of morphine were not complained of, while some cases of dyspepsia even appeared to be improved by its use. With infants the same precautions are necessary, and in pertussis its use was followed by excellent results. In neuralgic affections of the lower extremities injections of codeine were not so successful as those of morphine, and the author suggests from other observations that there may be a certain antagonism between the two drugs. He concludes by stating that he does not consider codeine to be a substitute for morphine, though in isolated cases it appears to act better. However, the author considers that further experiments should be made with the drug in other directions.

(380) Duboisin in Mental Diseases.

Mongeri has written a monograph on the above subject (Milano, Tip. Capriolo, 1893). He had abundant material for observation at the Ospedale Maggiore of Milan, and comes to the following conclusions with regard to its use: Duboisin should be used as a sedative in the maximum dose of $1\frac{1}{3}$ millig. and a minimum of $\frac{1}{2}$ millig. It is preferable to the other sedatives on account of its prompt action and the ease of its administration. It should, however, be used by preference in the evening, in order to combine the effects of natural inclination to sleep with the sedative effects of the drug. The drug may be employed, says the author, in all forms of active insanity, especially in furious mania and acute alcoholism; it is useless, however, in the asthenic forms and those accompanied with depression.

PATHOLOGY.

(381) Fatty Degeneration of the Heart.

Goebel (*Centralbl. f. allgem. Path.*, September 27th, 1893) makes a contribution to this subject, based upon careful examination of fifty-eight hearts. His main conclusions are as follows: (1) The degeneration appears first in foci; these gradually increase in size and run into each other. But, notwithstanding this diffusion, foci, where the degeneration is most intense, remain visible. (2) The fat droplets occur only in the interfibrillary sarcoplasm; for this reason, they are found disposed in long rows. (3) The transverse striation of the muscular fibres is not essentially affected in fatty degeneration, but becomes obscured in advanced states by the deposit in a longitudinal direction of the fat droplets. (4) The *myocardite segmentaire* of Renaut is found relatively frequently in conjunction with fatty degeneration, especially in the early stage of the latter. (5) When, owing to valvular disease or other cause, a one-sided hypertrophy, or other one-sided affection, has resulted, coexisting fatty changes are by no means limited to the affected side; they are often quite diffuse, the whole heart being involved. (6) Diffuse fatty degeneration due to some general cause is seldom equally pronounced over the whole heart; it is generally most marked at certain parts, for no obvious reason. (7) The degeneration is especially pronounced immediately beneath the epicardium and endocardium.

(382) Preservation of Cultures by Formalin.

Hauser (*Münch. med. Woch.*, August 29th, 1893) refers to his former experiments in which it was shown that cultures could be preserved by means of formalin vapour. Gegner proved that gelatine exposed for a long time to formalin vapour does not become fluid at the body heat. The author further shows that at no temperature can it be liquefied. At the same time the gelatine is in this way permanently sterilised and remains unchanged. Thus formalin is a most useful means of preserving cultures, the only condition being that they should not be allowed to dry up. It is also specially adapted for microscope culture preparations. After thus fixing the gelatine in not too thick a layer, the part which it is desired to keep should be detached with a sharp spatula. This is put on a slide with gelatine of similar composition, and a cover glass applied. The preparation is then put into the formalin vapour chamber for twenty-four hours. Lac is applied round the cover glass to prevent drying. Cultures can also be made on slides in the first instance. The author has tried these methods with success in the case of many micro-organisms. The culture can also be stained by a weak watery fuchsin solution. Another method is to let the coloured gelatine culture dry upon the slide and then mount in Canada balsam. The colony should in all cases lie in the centre of the gelatine.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(383) Physical Diagnosis of Gall Stones.

C. Gerhardt (*Deut. med. Woch.*, October 5th, 1893) observes that the attack usually begins four to five hours after the chief meal, that is, shortly after the entrance of the stomach contents into the duodenum. According to the size and position of the stone after it has passed into the common bile, distension of the gall bladder may be recognised at once, or later (when the gall bladder has been copiously filled), or not at all. The swelling lies between the right parasternal line and the anterior axillary line, mostly a little to one side of the right rectus muscle. If the gall bladder is much distended it may give rise to errors in diagnosis. This distension only takes place in a minority of the cases. It may be absent owing to the smallness of the gall bladder, or to the obstruction being incomplete, or lasting too short a time. It occurs in severe attacks, or in those who have had repeated attacks. The commencement of the attack may last a couple of hours without pain during which the time the gall bladder may be palpable. The shrinking of the swelling shows the end of the attack. After a severe attack a friction sound, synchronous with inspiration and expiration, and sometimes of diagnostic value, may be heard over the gall bladder. This is due to local peritonitis, and it explains the continuance of the pain. An icebag is more useful here than warm applications. The liver may swell after severe attacks and fever be present. Attacks may occur with pain and fever, but there is neither swelling of the gall bladder nor of the liver, and no stone is found in the stools. It is thought that the stone slips back into the gall bladder, but other possibilities exist. The swelling of the gall bladder may be due to obstruction having other causes, but it does not occur in cardialgia, nor in hepatic colic of purely nervous origin. This latter is observed in tabes, hysteria, multiple sclerosis, and may even be accompanied by jaundice. When after several attacks no stone is found, no friction sound heard, and no swelling of the gall bladder felt, cholelithiasis may with tolerable certainty be excluded, and neurotic hepatic colic may be assumed with great probability.

(384) Pancreatic Diabetes.

Seelig (*Berl. klin. Woch.*, October 16th, 1893) says that in the experimental extirpation of the pancreas an exact ligature of the vessels at the head and tail is of great importance. In his experiments on dogs the longest duration of life was 9½ months. In every instance glycosuria appeared. In another series of experiments a small piece of the size of a pea was left at the duodenal end, but this was not sufficient to prevent diabetes. In one case when a larger piece was left alimentary glycosuria appeared, to be followed five weeks later by permanent diabetes. Here the piece of the pancreas left sufficed so long as a diet not too rich in carbohydrates was given. Later it became insufficient, and diabetes supervened. No trace of pancreas could be found after death. Curiously, milk produced glycosuria when bread, etc. (in certain quantities) failed to do so. When a piece of the pancreas similar to the above was left at the tail without tying the vessels no glycosuria appeared. This was no doubt due to the better circulation in the piece so left. These results agree in the main with Minkowski's experiments. In another case, where a piece 2 cm. in size was left at the tail and also a small piece at the head of the pancreas, there was no glycosuria. The abdomen was opened four months later, when no pancreas could be found in the former situation and the piece at the latter was extirpated. No diabetes appeared. A month later the dog died of peritonitis. Only a disorganised piece of pancreas with an abscess in it could be found. The author does not think that this could have prevented the development of diabetes, but that probably some other organ acted vicariously.

(385) Spiegler's Test for Albumen in Urine.

Spiegler has introduced a very delicate test of minute traces of albumen in urine. He states that by its means he can detect 1 part of albumen in 225,000 parts of urine. The test solution is composed as follows: Hyd. perchlor. 8 grammes; acid. tartaric., 4 grammes: sugar, 20 grammes; distilled water, 200 grammes. The sugar serves to raise the specific gravity of the liquid to 1060, which is higher than that of nearly all urines. It is used by placing some in a test tube, and gently adding a little of the urine to be tested. If albumen is present a ring will form at the junction of the two liquids. Gurrieri (Reprint from the *Riforma Medica*, September, 1893), has made some observations on this reaction, and has ascertained the fact that the reaction is incapable of detecting even large quantities of either egg- or serum- albumen, save in the presence of chlorides or hydrochloric acid, the reaction being more marked in proportion to the amount of chlorides present. The same is true for albuminous urine if the chlorides are removed by previous addition of silver nitrate, and subsequent removal of the silver salt. In the rare cases, therefore, in which urine is free from chlorides, the reaction as it stands will not take place, and it would be necessary to add a trace of chloride. A minute quantity of urine, added to a solution of pure albumen of any kind, was found to be sufficient to ensure the success of the test, by virtue of the chlorides contained in it. In order, therefore, to make the original test unfailing the author suggests that it would be as well to add a small amount of chloride to the test solution, which then becomes an exceedingly useful one for clinical purposes.

(386) The Appetite in Cancer of the Liver and Stomach.

Hanot (*Arch. Gén. de Méd.*, October, 1893) remarks that early loss of appetite, absolute and permanent in character, is the usual thing in these diseases. He records two cases of cancer of the stomach in which the appetite was excessive, and two others in which the appetite was normal. Sometimes a false appetite exists, the patient forcing himself to eat to counteract the wasting, etc. The persistence of the appetite may be explained by the neoplasm occupying a position where there are no peptic glands, or the remaining portion of the mucous membrane may discharge its function normally. Usually the whole mucous membrane is altered, and this is the reason that a small growth may produce great disturbance in the appetite. A psychical element may also exist, such as is seen in the anorexia of hysteria. The same remarks apply to cancer of the liver, but here the anorexia is even more constant. In fifteen cases of cancer of the liver only twice did any appetite persist. Thus in cancer of the liver and stomach anorexia may possibly be absent, and it may very rarely be replaced by excessive appetite. Too much reliance must not be placed on the absence of anorexia.

SURGERY.

(387) Surgery of the Stomach.

M. Pollosson (*Lyon Méd.*, September 24th, 1893) reports the following case: The patient was a man, aged 32, who had had symptoms of stenosis of the pylorus since January, 1893. The disease first showed itself by digestive troubles and difficulty in retaining food. These symptoms increased, and the patient began to suffer from hunger and became emaciated. The vomited matter consisted almost entirely of undigested food. There was no hæmatemesis or vomiting of coffee-ground material. The presence of a constriction of the pylorus was diagnosed by Paliard, of Nice, who sent him to the Hôtel Dieu at Lyons for operation. Here it was determined to do an exploratory laparotomy at first and then proceed according to the requirements of the case after having examined the region of the pylorus. On April 14th, under ether, an incision was made extending from the umbilicus to the ensiform cartilage of the sternum. On examining the pyloric region an indurated swelling was found to occupy the posterior superior wall of the stomach at the junction of the lesser curvature with the pylorus. The anterior wall of the stomach was now incised and the swelling explored from the interior. The mucous membrane over it was raised and formed a projection into the

lumen of the alimentary tube close to the pylorus. Owing to the small dimensions of the new formation and the limitation of the induration it was decided to perform pylorectomy. This was done, the stomach side being first incised and then the duodenum, about 8 centimetres of the long axis of the intestinal tube being removed. The two free ends were united together after partially sewing up the stomach end, so as to approximate the calibre of its lumen to that of the duodenum. The abdominal wall was then closed. During the first seven days very little food was given by the mouth, then milk, wine, and bouillon. Sixteen days after the operation the patient was discharged from the hospital. On examining the tumour removed it was found to be a colloid carcinoma, growing from the mucous membrane and extending into the muscular tissues in the stomach wall. The patient was seen some time afterwards, when he was in perfect health and had resumed his ordinary occupation.

(388) Treatment of Soft Chancres by Heat.

LORAND (*Wiener med. Woch.*, No. 40, 1893) describes this mode of treatment, which he saw carried out by Welander at Stockholm. It is based on the observations of W. Boek and of Aubert, the latter of whom found that chancrous pus heated to 40° C. became non-inoculable. Welander's method is as follows: Water is conducted by two pipes, one carrying hot and the other cold water, to a copper reservoir, and is there kept at a temperature of 50° C. by means of a gas jet. From the reservoir the water is carried by a rubber pipe to a coil of lead tubing through which it circulates, and then escapes by another rubber pipe. If the water in the reservoir is kept at 50° C. it is found that when it reaches the coil it has a temperature of about 41° C., below which it must not be allowed to fall. The ulcers are dressed with pledgets of cotton wool soaked in warm water, any undermined edges being first snipped off. A layer of moist wool is then applied round the penis, and over this the lead tubing through which the hot water is kept flowing. Another layer of wet wool covers the tubing, and the whole is covered with gutta percha tissue. The dressing is changed three times a day. Lorand saw about 20 cases, in some of which the chancres were both numerous and large, treated in this way. In the majority it was found that after two days' treatment the ulcers were clean and healthy, and then the secretion was no longer inoculable. The patients were then allowed to go home, and were treated as out-patients. The sores usually healed quickly under the application of dermatol. Welander's statistics showed that among 118 patients who had been treated by his method at an early stage there was no case of bubo.

(389) Surgical Treatment of Exophthalmic Goitre.

FREIBURG, of Cincinnati (*Med. News*, August 26th, 1893) has collected 41 cases of exophthalmic goitre in which this condition was treated by surgical operation. Partial removal was performed in 21 instances, and total extirpation in a single case. In 11 cases the full extent of the operation could not be clearly made out from the reports. The mortality in these cases of total or partial removal of the goître is about 6 per cent. The goître was treated in 3 cases by ligature of the thyroid arteries, and in 5 cases by seton, caustic, or simple puncture. In all these the patients recovered. The symptoms, it was reported, had been completely cured in 25 cases, and improvement had resulted in 11 cases. It is pointed out by Freiburg, however, that in many instances of reported cure one or more of the cardinal symptoms of exophthalmic goître persisted. In many cases also the reports had been published very soon after the date of operation. He concludes that in cases of true Graves's disease the symptoms have been greatly relieved by operation, and, perhaps, some cases have been cured. If the slight danger to life from the operation, when carried out according to modern principles, be considered, and also the favourable results which have hitherto been obtained by surgical treatment, operative interference, it is held, may be fairly regarded as indicated in cases of true Graves's disease of such severity as seriously to harass the patient, and when other methods have failed to arrest the progress of the malady. The operation which has been almost exclusively performed up to the present time is removal of one-half—usually the larger half—of the gland, the thyroid arteries having previously been tied, and the isthmus divided between ligatures.

(390) Operative Proceedings in Advanced Age.

GIBSON (*Annals of Surgery*, vol. xviii, No. 4, October, 1893) discusses this question. Statistics of 65 cases, all aged 70 or more, show a mortality of 16, and of these 8 deaths were due to uræmia. Death from uræmia occurred on an average on the fifteenth day—a date of some prognostic importance. There was only one death from pure shock. The detailed table shows many capital operations, and this absence of shock is most encouraging. Five of the cases, where death was due to secondary hæmorrhage, pyæmia, and peritonitis, occurred in the preantiseptic period, and would not to-day have to be considered. By obviating infection and shortening the time of wound healing our modern methods will produce a much smaller death-rate. Iodoform seems to be specially deleterious in advanced age, and should give way to dressings sterilised by heat alone. To guard against uræmia our patients must be put in the best possible condition before operation. Ether was exclusively used for general anæsthesia, and the question arises, Would chloroform have diminished the uræmic mortality without increasing the number of deaths from shock?

MIDWIFERY AND DISEASES OF WOMEN.

(391) Relation of Gastro-intestinal Disturbances to Disease of the Genital Tract.

THEILHABER (*Centralbl. f. Gynäk.*, No. 41, 1893) carefully observed forty-five patients who had been unsuccessfully treated for gastro-intestinal disturbance by eminent physicians. He distinctly failed to make out from these cases such a complaint as "uterine dyspepsia;" nevertheless the existence of gastric trouble should always lead the physician to suspect uterine disease. When such a complication is actually established the relationship of the two disorders must be determined. There may be pure and evident coincidence, as in dyspepsia with anatomical anomalies in the genital tract; of course, inflammatory and neurotic diseases of that tract may also coincide accidentally with dyspepsia. The two disorders may rise from a common cause, as in relaxation of the supports of the abdominal and pelvic viscera. Thus in pendulous abdomen great trouble with the bowels and much bearing-down pelvic pain often occur together. In a third group of cases the gastro-intestinal trouble leads to genital mischief; thus obstinate constipation with accumulation of scybala sets up obstruction in the large pelvic veins, causing metrorrhagia, dysmenorrhœa, and leucorrhœa. Lastly the disease of the alimentary canal may certainly be the result of genital disorders. Periodical gastralgia and all forms of atonic dyspepsia follow well-known affections of the uterus and the ovaries.

(392) Induction of Labour.

TARNIER (*Journ. des Sages-Femmes*, October 16th) declares that with antiseptic precautions induction of labour is absolutely free from danger to the mother. The dangers to the child are much lessened owing to artificial feeding, and the *couveuse*. Seventh- and eighth-month children are easily saved, and one-third of the six-months' infants are now successfully reared. Tarnier admits that symphysiotomy gives more chance to the child, allowing pregnancy to proceed to term, but he adds that it entails unnecessary risks to the mother. The bougie is expeditious and generally safe as an agent for induction of labour. Before antiseptics it was a medium for the entrance of germs. Hence, it caused more disturbance and often acted quickly in consequence, but not rarely uterine disease or even death ensued. With antiseptic precautions it acts more slowly. The chief risk lies in the possibility of detachment of the placenta. Vaginal douches act slowly. Air, as is now well known, may be forced into the uterine vessels. Depaul once used the douche. The patient died during its application. He immediately performed Cæsarean section. Bubbles of air were seen in the blood in the uterine sinuses. Tarnier himself, when resident obstetric assistant at a hospital, had a case of sudden death

during the administration of the douche. He found small holes in the posterior vaginal fornix. By experiments afterwards on the cadaver he found that it is not difficult to perforate the fornix. Tarnier afterwards took to rubber dilating bags lubricated with glycerine, as oil and other lubricants made the bags liable to burst. He claims excellent results.

(393) Tuberculous Peritonitis Simulating Pregnancy.

Budin (*Archives de Tocol. et de Gynéc.*, September, 1893) relates how he once examined a girl, aged 17. She was very dark and bore hair on the upper lip. There was a deeply tinted areola round each nipple and pigment along the linea alba. The period had ceased. The abdomen was tender, and a flabby swelling occupied the hypogastrium. On abdominal palpation it felt like a uterus. There was much emaciation. On bimanual palpation the uterus was clearly defined, small and distinct from the swelling, which was resonant on percussion and crepitant on auscultation. Budin diagnosed tuberculous peritonitis. The patient died a few months later, and the diagnosis was confirmed at the necropsy. A few years later he examined a precisely similar case. The fine irregular crepitation is due to displacement of gases in the intestine.

(394) Plugging of Uterus in Post-partum Hæmorrhage.

Siepen (*Deut. med. Woch.*, No. 21, 1893), delivered a woman of her twelfth child, using forceps, as pains had ceased for nine hours, and the head was arrested in the pelvis. Severe flooding followed, and did not cease after manual extraction of the placenta. The patient grew very anæmic. Siepen introduced the left forefinger into the cervix, and holding a dressing forceps in the right hand he passed iodoform gauze into the uterine cavity. The vagina was plugged with wool. The flooding ceased. Both tampons were removed in twenty-four hours. The patient made a good recovery.

(395) Palpation and Catheterisation of the Ureter in the Female.

Howard Kelly (*Annals of Gynæc. and Pædiatry*, May and August, 1893) not only practises catheterisation of the ureters and lays down rules for its proper performance, but also insists that the ureter may readily be explored by the finger. The ureter, he maintains, can be palpated through the anterior vaginal wall from its terminus in the bladder up to the point where it passes beneath the broad ligament. It may be made to roll, in its loose investment of connective tissue, under the forefinger, or, bimanually, under two fingers. In advanced pregnancy it feels like a narrow tape or flattened cord running below the fœtal head. A diseased ureter becomes nodular and thickened and is peculiarly prone to be mistaken for parametric deposit or an adherent ovary. A large proportion of cases still treated as cystitis or "irritable bladder" are in reality instances of tender thickened ureters. Pressure with the finger on the hard cord-like ureter sets up a characteristic symptom, namely, intense desire to make water. Kelly has also palpated the thickened part of the ureter after incising the vault of the vagina, and thus was enabled to trace the duct as far as the posterior part of the pelvic wall. On one occasion he made an abdominal incision for the purpose of examining into the condition of the ureter throughout its entire course. The importance of understanding how to explore the ureters is evident, for definite causal relations often exist between pelvic diseases and ureteral and kidney affections.

(396) Atresia and Hæmatometra.

Simon of Nuremberg (*Centralbl. f. Gynäk.*, No. 41, 1893) recently read notes before a German society of a case of total atresia of the vagina in a girl aged 18. There was a tumour reaching to the umbilicus, yet the patient never felt the slightest inconvenience. Thus both hæmatometra and hæmatocolpos existed. An incision was made, the confined blood was allowed to escape, and the raw surface closed around the vulvar orifice with sutures in the usual manner. Uninterrupted recovery followed, and a few weeks later the patient married, although at the time the distended uterus had not undergone complete involution. She conceived almost directly. Throughout pregnancy two fingers could be introduced into the os. The patient aborted at the sixth month.

THERAPEUTICS.

(397) Salacetol in Summer and Choleraic Diarrhœa.

Bourget (*Correspond. Blatt. f. schweizer Aerzte*, xxiii, No. 14) after extolling the many advantages of salol in numerous conditions, proceeds to draw attention to a new compound of salicylic acid and acetone, which possesses exactly the same chemical and physiological properties as have won a place for salol in therapeutics. The new compound is called "salacetol," and is a crystalline white powder insoluble in water, and containing about 75 per cent. of salicylic acid (salol containing about 60 per cent.). It passes undissolved through the stomach, but, in contact with the alkaline intestinal juices, it slowly releases its salicylic acid, the acetol component being at the same time converted into acetone and eliminated. Salicylic acid appears in the urine within half an hour after the administration of salacetol, and a dose of 2 g. is completely eliminated in twenty-four hours. The mode of administration plays an important part in the determination of the completeness and rapidity of its absorption. It appears best absorbed and most rapidly eliminated if given in a purgative oil such as castor oil. The result of trials both in hospital and in private practice showed that salacetol given in this manner is most useful in cases of choleraic diarrhœa and kindred affections. The author has been led to discard all the usual remedies, such as opium and bismuth, etc., in favour of the new drug, which is given fasting. It is seldom necessary to repeat it next day, but there is no harm in doing so should occasion arise. From the absence of phenol, salacetol is less dangerous than salol, possessing all its advantages with few of its defects.

(398) Poisoning by Potassium Bromide.

Greenlees ("On Poisoning by Medicinal Doses of Bromide of Potassium," Cape Town), publishes some cases in which he attributes the fatal termination to bromide treatment. The first patient, a man suffering from idiopathic epilepsy, was in good general health when admitted into an asylum in 1868. From that date there was gradual deterioration in his physical condition, with increase in the number and severity of his fits. Early in February, 1887, potassium bromide, 25 grains thrice daily, was commenced. About three weeks later stupor and great debility, with dry tongue, sordes on the teeth, and feeble rapid pulse, set in. Inability to articulate distinctly, dysphagia, general muscular relaxation, and anæsthesia of mucous and cutaneous surfaces were noted on March 6th; these symptoms were soon followed by coma and death. The necropsy showed intense congestion of cerebral meninges; brain softer than normal, its cortex pink; focal softening in front part of each optic thalamus. Heart cavities empty, although the organ was in the condition of diastole; myocardium friable, and contained much blood. The second patient, an epileptic admitted in 1880, began taking 25 grains of bromide thrice daily in February, 1887. In the course of two or three weeks he became stupid and lethargic. Stimulants and nux vomica were at once substituted for the bromide, but without averting the development of increasing stupor and general motor and sensory paralysis. In this case the meninges were congested; the kidneys were in an advanced stage of cirrhosis. Some other patients undergoing similar treatment developed less severe symptoms of the same nature as the above, from which they soon recovered. Analysis of the drug failed to detect any impurity.

(399) The Treatment of Epilepsy.

Flechsig (*Neurol. Centralbl.*, No. 7, 1893) gives a preliminary account of a new mode of treating epilepsy lately originated by him, which he found to be more effectual than methods previously used. His plan consists in giving small but increasing doses of opium for about six weeks, then discontinuing the opium and substituting large doses of bromide (about 7.5 grammes daily). After continuing these for two or three months the dose was gradually brought down to 2 grammes daily. The result usually obtained was cessation of fits as

soon as the bromide was commenced; the observations, however, did not cover any great number of cases or period of time. Stein (*ibid.*, October 1st, 1893) has used the method in several cases, of which he specially refers to six. In three of these patients the fits stopped shortly after beginning the course of bromide; the patients then passed from under observation. Two of the remaining patients had no fit from the time that the bromide was substituted for the opium until the date of report (early part of July to September 15th), their general health improved, and their body weight increased. The last case was a boy in whom the fits were arrested for only a few weeks. Prior to the opium treatment this patient had been intolerant of bromide; but after it he could take 5 grammes daily. In general Stein thinks favourably of the method, and recommends it especially for children.

(400) A Mechanical Treatment of Erysipelas.

Dietz (*Therap. Monatsh.*, October, 1893), has tried the mechanical treatment of erysipelas advocated by Kroell (*ibid.*, No. 2, 1892). He surrounded the arm (which was the seat of the affection) with a narrow strip of adhesive plaster, at a distance of one-half centimetre from the reddened area. On the following day, after removal of the plaster, the œdema was seen to cease abruptly at its lower border, excepting on the inner surface of the arm, where, at the situation of the vessels, etc., the plaster had purposely not been applied so tightly, and where the erysipelas had crept up the breadth of two fingers towards the axilla. A fresh band was therefore fixed more tightly immediately above the point, supplemented on the following day by a second one immediately above the former, the possibility of some loosening being taken into consideration. Three days later the plaster was removed, the disease having presumably been kept in bounds thereby, and recovery having taken place. The author confidently recommends this procedure in similar suitable cases.

(401) The Action of Diuretin.

Ancona (*Rivista Veneta*, fasc. iii, 1893) draws attention to an action of this drug which has not been previously noticed. Although many observations have already been made on the action of the drug, it has always been given in cases of dropsy and other effusions accompanying heart disease, etc. Some believe it to act directly on the heart, others indirectly; some deny any action whatever on the viscus: some consider it a true diuretic; others think it a cardiac or indirect diuretic. The general opinion is that it acts as a stimulant to the renal epithelium, without being an irritant. In a patient of the author's with chronic progressive spinal paralysis there were marked disturbances of the function of micturition; first an exaltation of the stimulus to micturate, then vesical paralysis. These troubles were repeatedly overcome by diuretin in daily doses varying from 2 to 4½ grammes. In this case it is difficult to think the remedy could have acted through either the heart or the kidneys; there was no sign of such an action. The effect was simply a regulation of the stimulus to micturate. It would appear that the diuretin had an excitant action on the vesical centripetal nerves, or else a direct action on the vesical centre. The author inclines to the latter theory.

PATHOLOGY.

(402) Changes in the Testicles of the Dog when replaced in the Abdominal Cavity.

Joseph Griffiths (*Journ. Anat. and Phys.*, July, 1893) has investigated the structural changes which occur in the testicles of the dog when replaced within the abdominal cavity. The following are the chief conclusions at which he has arrived: (1) When the testicle of a young animal is replaced within the abdomen, it undergoes but little change, growing somewhat, but not so much as the undisturbed organ, until the onset of puberty; (2) a testicle so replaced after the onset of puberty continues to grow to some extent, though but little; the seminal tubules are seen to be lined by a single layer of columnar epithelial cells lying upon the tunica propria, with delicate prolongations extending into and occupying the lumen of the tubules; the central cells from which in the normal state spermatozoa are produced do not exist, and spermatozoa accordingly are not forthcoming; (3) the testicle remains in this state, or at least there is no evidence that it undergoes further change; (4) the testicle of a full-grown animal, when replaced in the abdominal cavity, soon dwindles to two-thirds or one-half its natural size, and after a short time presents precisely the same structure as that which is found in the replaced testicle of a young animal, as already noted; (5) the testicle, the descent of which has been arrested in the dog, either in the groin or in the abdominal cavity, shows the same histological characteristics as the organ which has been replaced for experimental purposes; (6) replacement of the testicle can, with ordinary care, be effected without injury to the organ, and without setting up inflammation in its structure, the occurrence of which would be detrimental to an experiment.

(403) The Duration of Life of Typhoid Bacilli.

In the *Centralbl. f. Bakt.*, October 10th, 1893, Hintze records the case of a man who was admitted to hospital ten months after an attack of typhoid, on account of a swelling over the tibia, which first appeared four months after recovery from the fever, and had been increasing in size since. Cover-slip preparations of the pus evacuated from this swelling were examined with negative result, but on gelatine plates there were found, in addition to an organism of uncertain nature, colonies of typhoid bacilli. The nature of the latter was positively established by a detailed examination after approved methods. The former proved, on further inquiry, to be bac. pyocyaneus β (Ernst). This organism is not known to be pyogenic; and, as regards the ordinary pyogenic cocci, Hintze was able to exclude them with certainty in the present case. There remained, therefore, only the typhoid bacillus as the cause of the suppuration. Hintze considers that this case is strongly contradictory of the opinion of Baumgarten and E. Fraenkel, who maintain that the typhoid bacillus does not possess pyogenic properties. As a further argument against this view, the author quotes a second case—that of a patient dead of typhoid. The cerebral meninges were in a state of purulent inflammation, and, on examination of the pus, only typhoid bacilli were found. Hintze adduces reasons which show, in his opinion, that in neither of these cases is the theory justifiable that the pus had been produced by pyogenic cocci since dead. The fact that the cover-slip preparations in the first case failed to show the bacilli, he explains on the supposition that the organisms had undergone involution (degeneration), and therefore escaped recognition. The author's observations lead him to conclude (1) that the typhoid bacillus is capable of retaining its vitality in the human body for at least ten months; and (2) that it is able to produce chronic post-typhoidal abscesses, and also acute suppuration (suppurative meningitis).

(404) Experimental Pulmonary Tuberculosis.

Borrel, studying the above subject under the direction of Metschnikoff (*Annales de l'Institut Pasteur*, August, 1893), by means of injections of the virus of tubercle into the auricular vein, recognises two very distinct stages in tuberculous infection. In the first period, commencing immediately after inoculation, purely local phenomena take place, which result in the formation of "tubercles of inoculation." In the second stage, which commences with the caseation of the tubercles of inoculation, and which varies more or less according to the intensity of the initial process, there is to be observed an invasion of all the organs and an eruption of tubercles along the whole course of the lymphatics. In the lung this second period is characterised by the appearance of intralymphatic, perivascular, and peribronchial tubercles, and by the invasion of the alveoli. Nodular granulations and caseating pneumonia are two different morphological manifestations of the same process, which is always lymphatic. In either case the fixed cells of the lungs serve as a passive support, and play no important part in the reaction of the organism. The tuberculous cell is always a lymphatic cell.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(405) Frequency of Latent Tuberculosis.

Schlenker (*Virchow's Arch.*, vol. 134, Pt. 1, vii) speaks of the frequency with which, according to various authors, latent tuberculosis is found at necropsies where non-tuberculous affections have been the cause of death. He himself out of sixty-one cases without active or manifest tuberculosis found that *post-mortem* examination revealed the presence of latent tuberculosis in twenty-seven—that is, in 44 per cent. of the total cases. Macroscopic evidence from examination of the lungs and lymphatic glands was chiefly relied on, but he points out that this must be regarded as a minimum percentage, for (1) he thinks more extended microscopical examination would probably have made the percentage of latent tuberculosis higher, and (2) a tuberculous nodule may easily be overlooked at a necropsy even by an expert. His percentage so greatly exceeds those of Sidney Martin, J. K. Fowler, and Heitler, that he thinks the small percentage found by these authors must be due to incompleteness of their *post-mortem* examinations.

(406) The Etiology of Chlorosis.

Meinert (*Wien. med. Woch.*, No. 41, 1893) attributes chlorosis to displacement of the stomach (gastroptosis) induced by the prevailing custom of constricting the lower portion of the thorax by means of stays. He speaks of an increased irritability of the prolapsed organ, probably due to stretching of the nerve fibres which course from the solar plexus to the lesser curvature of the stomach. He believes that gastroptosis is present in all cases of chlorosis, and persists after the blood condition has been cured. He accounts thus for the marked tendency to relapses. In growing girls he regards the condition as curable if the exciting causes are removed, but in the fully grown adult the condition cannot be cured. Similar changes are induced, he states, in cases of chest deformity due to rickets (pigeon breast), and in persons of phthisical habit.

(407) Diagnosis of Intracranial Tumour.

Murawiew (*Neurol. Centralbl.*, October, 1893) recently communicated to a medical society in Moscow the case of a patient, aged 36 years, affected with cancer of the thyroid. Some months before death a pulsating cancerous tumour developed in another part of the neck, together with headache, optic neuritis, and paralysis of several of the cranial nerves. On applying Marey's registering apparatus to this tumour, respiratory undulations as well as pulse curves were shown. From this fact it was inferred that the tumour was directly connected with the cranial cavity. The paralytic symptoms pointed to neoplasm at the base of skull. As a vibrating tuning fork when placed on the left temporal region was less clearly heard by means of the "pneumatoscope" than when on other parts of the cranium, the new growth was supposed to be located in that region, a conclusion which was verified by the necropsy.

(408) Spontaneous Gangrene and Simulation in Hysteria.

Singer (*Wien. med. Presse*, 1893, Nos. 25 and 26) says that clinical experience recognises a number of manifestations which must be classed as neurotic gangrene. The most probable cause is a vasomotor innervation disturbance, as the accompanying œdema, blueness, and lowering of temperature would seem to show. The author relates the case of a girl, aged 18. In August, 1892, she had a fit, and similar attacks recurred three or four times a month. In December she fell in a fit on some needles. Two were extracted from the anterior surface of the left forearm, and a few days later a broken point from the back of the same forearm. Two days later a dry, blackish-brown slough, of the size of a 4-kreutzer piece, was found at the site of the latter wound, and this soon presented all the signs of gangrene. In six weeks the slough separated, and the patient gradually got well. At the end of the following February the gangrene recurred at the same site. She was a strong healthy girl, with no sugar or albumen in the urine. There was, however, a dissociation of sensation over the left side of the chest and left forearm, the sensation for heat being entirely lost. This disappeared three days later, but slight hypæsthesia and hypalgesia persisted. The field of vision showed no concentric limitation. Thus, as a result of a slight incised wound, a recurring gangrene appeared. There were some unmistakable signs of hysteria, including a characteristic mental condition. Dissociation of sensation, as Charcot has shown, is compatible with hysteria. The gangrenous herpetic vesicles in the neighbourhood, and the absence of reaction round about at the commencement of four relapses, showed that the lesion was not self-inflicted. In the case of simulation, the surrounding parts would have revealed traces of the agents used to produce sloughing, etc. The slight blue colour of the hand, corresponding to the *œdème bleu* of Charcot, and the diminished temperature were striking. The author tried by hypnotism to find out how the gangrene arose, but without success. The application of a small metal plate to the forearm, however, seemed to hasten healing of the granulating wound. Shortly after this, a vesicle appeared on the left breast, and this became gangrenous. Spontaneous neurotic gangrene has an obstinate and relapsing course.

SURGERY.

(409) New Operation for Radical Cure of Large Umbilical Hernia.

Gersuny (*Centralbl. f. Chir.*, No. 43, 1893) states that for the last two years it has been his practice after median laparotomy to bring the exposed margins of the recti muscles into immediate contact by sutures. In this way the yielding linea alba is eliminated at the seat of operation, and replaced by a continuous layer of contractile muscle. The good results obtained from this method have led the author to apply it in operations for the radical cure of umbilical hernia. The following are the steps of his operation, which, when the hernia is large and the patient very fat, is an extensive and serious one. After resection of the umbilical scar, which in most instances adheres very closely to the hernial sac, the wall of the sac is detached all round from the subcutaneous layer of fat, and then laid open. The protruded omentum is next ligatured and cut away, and the ligatured stump, together with any herniated intestine, is returned within the abdominal cavity. The whole of the sac is now excised, and the cut edges of peritoneum are brought together by sutures. The sheaths of the recti muscles are exposed at their inner margins, which are cut away in order to expose freely the innermost muscular fibres. The difficulty of bringing together the widely separated margins of the recti is overcome by free separation, by means of the knife, of each muscle from its sheath, the dissection involving on each side the space between the two nearest lineæ transversæ. In this stage of the operation it is necessary, the author states, to ligature several arteries. When the two muscles can be brought together without much stretching of their structures, the apposed inner margins are united by interrupted sutures, some of which are made to include the exposed lineæ transversæ. As the external wound is necessarily an extensive one, and the skin and fat are widely undermined by dissections, the conditions for union by first intention are not very favourable. For this reason the author, though he passes the superficial sutures at the end of the operation, does not tie them and bring together the edges of the divided fat and skin until some days later, the cavity thus left open being plugged during the interval by strips of antiseptic gauze.

(410) Hernia of the Liver.

Kusmin (*Berl. klin. Woch.*, October 30th, 1893) first refers to some published cases in which a constricted portion of the liver has been fixed to the abdominal wall with the result of relieving symptoms, and to one in which such a protrusion was excised. He relates the following case in a stout woman, aged 28. A year previously she had noted a small swelling in the epigastrium, which at first she could put back almost completely. At times the swelling became larger. Before admission she had fallen against a table, when the swell-

ing increased, and she had much pain in it. The swelling was situated a little to the right of the middle line, and about midway between the umbilicus and the ensiform cartilage. It was oval in shape, and contained some fluid as well as a solid body. The largest diameters were 25 cm. and 20 cm. This hernia protruded through the fibres of the rectus muscle. It was cut down upon and the sac laid open. A part of the left lobe of the liver was present in it. When the constricting ring was divided a depression about the incarcerated portion of the liver could be made out with the finger. The liver was freed and replaced, and had no tendency to fall down again. The sac was ligatured and removed. The patient made a good recovery, and was well and without discomfort seven months later. As to cause, the patient did not wear corsets, but had tight waistbands; hard work and lifting heavy weights, especially after childbirth, also assisted. The liver was not stitched in position, as the cause of the hernia lay in the abdominal wall. The author is of opinion that the only indication for removing a piece of the liver is cancerous disease, and he refers to a pedunculated tumour of this nature removed by Lücke.

(411) Infectious Appendicitis.

MORRIS (*Annals of Surgery*, vol. xviii, No. 4, October, 1893) describes appendicitis as an infectious exudative inflammation of the appendix, starting in a break in the guarding epithelium, and progressing by bacterial invasion into the adenoid tissue which is under compression. The natural course is protracted, but may be more rapid when exudation is excessive. The most rapid destructive process occurs when the muscular sheath, irritated to spasm, contracts firmly down upon the swollen inner tube. Morris believes all structures of the bowel wall are usually involved at one and the same time, the focus of infection being at the appendix. Though infection may spread by contact, it usually travels along the lymph channels. Bilious vomiting is characteristic. Relapsing, or rather exacerbating cases are of four types, and, in view of the infectious nature of the inflammation, the author favours early operation in practically all cases. He describes three distinct lines of operation—namely, for (1) cases not complicated by extensive adhesions or pus; (2) cases with extensive adhesions, but without pus; (3) cases with abscess or infected exudates.

(412) The Treatment of Varicose Ulcers.

KIRSCH (*Therap. Monatsh.*, September, 1893), in those cases of varicose ulcer where absolute rest is impracticable, achieves good results by bandaging in the following manner: If the ulcer is deep it is filled with iodoform gauze to the level of the surrounding skin, the edges and borders are dusted with dermatol, and the whole is covered with an absorbent compress. Over this is placed a sufficiently large sponge with a flat under-surface, the sponge having been previously allowed to swell in warm water, and being then applied moist, but not too wet. When, however, the ulcer is flat a hydropathic covering is applied to the surface direct. In either case the limb is then surrounded from the toes to the knee with a moderately tight non-elastic binding, the sponge being included in the bandage. In the course of one or two days the sponge will be found to have embedded itself in the ulcer, and, with continued treatment, the œdema will diminish and disappear, while the edges will be found soft and flattened and the ulcer in a granulating condition. At this period an ointment can be applied, but the sponge compression should be persevered with, even after the ulcer appears to be healed. When the edges are abnormally hard and rigid the author has found massage very useful, the application being by means of a specially-constructed roller. Should the ulcer be too sensitive to allow of immediate compression the author envelopes the limb to as high a limit as possible, again commencing, where possible, above the tender area. The œdema will thus gradually be pressed towards the ulcer and disappear, and at the same time successive bandages will allow of greater approximation to the ulcer until the whole of it can be included in the bandage as described. The author has convinced himself of the efficiency of this treatment in a large number of cases of varicose ulcers, the principal advantage being the ability of the patients to follow their ordinary avocations. His successful cases included ulcers which for years had resisted all treatment.

MIDWIFERY AND DISEASES OF WOMEN.

(413) Floating Kidneys and Liver After Supravaginal Hysterectomy.

SIREDEY (*Bull. et Mém. de la Soc. Méd. des Hôp. de Paris*, October 26th, 1893) related this case at length in the course of a discussion on Mathieu's case of floating liver. In 1890 Le Dentu removed a large uterine fibroid. In 1892 when the patient was 42, she suffered from hernia of the cicatrix, although she had worn a belt ever since the operation. She declared that the tumour had formed again. Siredey found that the "tumour" was simply floating kidney; the displacement was bilateral. A binder was applied under the belt. Early in 1893 violent colicky pains set in, without jaundice or pale stools. A large, hard, and tender tumour filled the right side of the abdomen. In June Siredey again examined the patient. At first sight and touch the tumour seemed uterine or ovarian; but its lower border was very sharply marked. On percussion there was complete resonance from the right clavicle down to the upper limits of the tumour. Lastly, the whole tumour could be raised till it lay in the right hypochondrium and the epigastrium. In short, it was simply the displaced liver. A suitable bandage was applied, made so as to press the abdomen from below upwards.

(414) Malignant Fibroids and Polypi.

VON FRANQUÉ (*Centralbl. f. Gynäk.*, No. 43, 1893) in an original memoir on Hyaline and Myxomatous Degeneration in Sarcoma of the Uterus, describes a case of fibroid polypus springing from the uterine cavity, which proved malignant. Recurrence took place three years after the removal of the polypus. A second polypoid growth had developed; it was removed, and was found to be a small spindle-celled sarcoma. The uterus was therefore removed entire; the new growth had become diffused over the muscular substance of the uterus, yet had hardly touched the mucous membrane. Two months and a half after this total extirpation recurrence took place in the vaginal cicatrix. The nodules were excised and recurred in a few days; the treatment was repeated. Three months later a second repetition was required. In all instances the cautery was used after excision. The patient, it appears, is still alive. Comparing the long interval between the first and second operation and the rapid recurrence after the second, it is clear that a "relatively innocent" growth may become highly malignant. In the second case, a large fibroid was removed with some difficulty, as it burrowed into the left broad ligament. The patient made a good recovery, but died soon after returning home. The uterine fibroid proved to be a sarcoma, which, like the fibroid polypus in the first case, had undergone myxomatous degeneration.

(415) Salipyrin in Uterine Hæmorrhage.

KAYSER, of the Giessen clinic (*Deut. med. Woch.*, October 26th, 1893) first refers to the difficulty of getting reliable results in such investigations. Cases of hæmorrhage from cancer or abortion were excluded. Of 16 cases thus treated, the hæmorrhage was so severe in 3 as to necessitate curetting; it could not be stated whether a more prolonged use of the drug would have brought about the desired effect. In another case of myomatous endometritis it was given without result. In the remaining 12 cases unmistakably good effects were produced. In 2 of these no examination and therefore no exact diagnosis was made. Two others were treated in the policlinic, and were cases of chronic metritis and of endometritis respectively. Of the remaining 8, all treated in the clinic, there were 3 cases of metritis and endometritis, 2 of stenosis of the internal os with consecutive endometritis, 1 of inflammation of the appendages, 1 of old perimetritis, and 1 of submucous fibroid. In all these cases the duration and quantity of the menses were diminished. Pain was not relieved by the drug. In 4 of the 8 cases the good effect was permanent, in 1 the hæmorrhage recurred after the omission of the drug, and in 3 no further information was obtained. The

author thinks that salipyrin may be particularly useful in the hæmorrhage preceding the menopause. Further investigation must show whether the results are permanent. The single dose was 1 g., and the daily amount taken 3 g. It should be commenced at the beginning of menstruation, or preferably the day before.

(416) Gonorrhœal Rheumatism in Vulvitis of Childhood.

Richardière (*Union Méd.*, October 26th, 1893), describes a case which occurred in a child, aged 7. The origin of the discharge could not be ascertained, but it contained gonococci. She was a sickly child, and was seized with abdominal pains and inflammation of the vulva involving the urethra. A fortnight later the left knee and the right foot became painful. Two days afterwards the left wrist was involved. Forty-five grains of salicylate of soda were prescribed daily; the temperature rose to 103°. The right ankle-joint became very red, swollen, and tender on the third day after the beginning of the salicylate treatment. Severe synovitis in the peroneal tendons set in, and the drug had no effect on this complication. The right leg was fixed on a splint, and at once the ankle began to get better. At the end of a fortnight the joint was quite healthy. There was no stiffness or muscular atrophy. The affection of the ankle bore all the characters of gonorrhœal rheumatism, the fever had subsided, specific medicines had no effect, and the swelling and redness were very marked. No cardiac trouble was observed. Deutschmann has already noted cases of gonorrhœal rheumatism—that is, rheumatism in children suffering from vulvitis, and bearing all the characters of the joint affection complicating gonorrhœa in adults. He records cases in infants aged 3 years, or as young as 20 months. It may also follow ophthalmia neonatorum.

(417) Ectopic Gestation; Full-Grown Child Retained nearly Two Years.

Cordier (*Journ. Amer. Med. Assoc.*, September 16th, 1893) operated successfully on this case in April, 1893. The patient, aged 24, and married, had never conceived. In August, 1891, she missed a period. In November, metrorrhagia occurred and lasted three weeks, with paroxysmal pains in the uterus. Decidual shreds passed, and the patient occasionally fainted. The breasts underwent characteristic changes in December. Fœtal movements were first felt in that month; they continued till April, 1892. At that date false labour pains with watery discharge were observed. In December, 1892, the catamenia reappeared, and continued regular till after March 16th, 1893. On April 20th, abdominal section was performed, as a large tumour filled the lower part of the abdomen, reaching two inches above the umbilicus. A full-grown fœtus was found in the right broad ligament, into the folds of which it had evidently escaped from the tube early in gestation and survived, developing to term. It was as well preserved as though it had been in a bottle in a well-kept museum. The liquor amnii had been absorbed; a small amount of meconium was found in the sac. No lime salts had been deposited either on the fœtus or on its envelopes. The uterus was slightly enlarged and its left appendages sound. Up till June 1st, when the report was read at the meeting of the American Medical Association, the catamenia had not reappeared.

(418) Fibroids and Scybala.

Budin (*Arch. de Tocol. et de Gynéc.*, September, 1893) was recently consulted on account of a woman who had passed the menopause. It was stated that fibrous tumours compressed the rectum and impeded defæcation; abdominal section was even proposed. The patient suffered from constipation; it was further discovered that she had the morphine habit. On bimanual examination Budin found that the pelvis was in no way blocked. In front of the left sacro-iliac synchondrosis there was a clear space free from fibroids. A very hard scybalous mass lay above the sphincter, proving that there was no true obstruction. A rubber bougie, as thick as a man's thumb, passed easily into the sigmoid flexure. In this case the obstruction, which on superficial examination was attributed to pressure from fibroids, really lay entirely in the intestine, and was originally due to the effects of morphine.

(419) Fœtal Death and Knots in the Cord.

Lugeol (*Arch. de Tocol. et de Gynéc.*, September, 1893) exhibited at the July meeting of the Bordeaux Obstetrical Society the umbilical cord of a fœtus delivered dead and macerated at the seventh month. The knot was a very tight "figure of eight." Yet injections at low pressure showed that the vessels were permeable. The mother was suffering from cancer of the stomach. A week before delivery, she had a severe attack of hæmatemesis following mental shock, and the movements of the child at once ceased. Hence the cancer caused the child's death. Chaleix was of a different opinion. He had seen a breech presentation where the child died whilst the head was being unskilfully delivered. There was a tight knot in the cord, which still allowed of circulation. In short, it is not easy to prove in any given case that a knot did or did not cause death. Lefour was more inclined to attribute death to the knot in both cases. Pressure from an injecting syringe is not subject to vital exhaustion, and blood changes do not come into play. On the other hand, the heart soon fails to overcome the resistance of a tight knot.

THERAPEUTICS.

(420) Action of Mercury and Potassium Iodide on Metabolism in Syphilitics.

Leone Levi (*Gazz. d. Ospet.*, October 26th, 1893) has investigated the action of these substances on metabolism and on the blood of syphilitic subjects. His conclusions, based on an experience with 252 patients, are as follows:—(1) The salts of mercury increase organic combustion and favour metabolism in the syphilitic. Corresponding to the gradual progressive disappearance of the symptoms of the disease there is an improvement in nutrition, evident both in the increased richness of the blood in corpuscles and hæmoglobin, and in an increased weight and muscular strength. Mercury appears to cause a more rapid elimination of the specific products of the disease, but as recurrences often take place, even after a very prolonged mercurial course, it does not appear to destroy the (hypothetical) microbe of the disorder. On the other hand, if mercury be used for too prolonged a period, ill-effects are manifest in a diminution of the red corpuscles and hæmoglobin. (2) Iodide of potassium has generally an action analogous to that of mercury on nutrition; but while it increases the richness of the blood, the body weight, muscular force and blood pressure, it at the same time diminishes the amount of urea excreted. Iodide of potassium, therefore, retards metabolism, and would appear to retain the mercury in the tissues of those who have already undergone a course of mercury. It also appears, according to Pellizzari, to have a chemical action on the chemical products of tertiary syphilis, neutralising the toxic material as it is formed.

(421) The Derivatives of Creasote in Pulmonary Phthisis.

Under this title, De Grazia and Casaretti (*Rif. Med.*, September 22nd, 1893) have investigated the action of benzoyl-guaiacol, carbonate of guaiacol, guaiacol carbonic acid, and carbonate of creasote, in phthisis. They have given these drugs to patients in various stages of the disease by the mouth and by the rectum, seeking to ascertain their effects on the physical signs, on the various functional disturbances, on the quantity and quality of the sputa, on the proportion of bacilli contained in them, and on the weight of the body. Lastly, they have tried to ascertain which of the compounds is best tolerated. 1. Benzoyl-guaiacol, a crystalline, tasteless, inodorous powder, of slight solubility. According to Sahli this substance passes through the stomach unchanged, being split up in the intestine into guaiacol and benzoic acid. Clinical trials by Sahli, Walzer, Hughes, and others have led to somewhat conflicting ideas as to its efficacy. It is generally agreed that "benzosol" is well borne even in large and repeated doses. One case of poisoning is, however, recorded by von Jaksch, in which death was produced in a diabetic subject apparently by its irritant effect on the intestine. But this is the only bad result reported. The authors record results with using the drug in

4 cases of phthisis, and these were highly favourable. The dose varied from 0.2 to 3 grammes daily, commencing with small quantities and increasing them gradually. In each case there was a marked improvement both in the physical signs and in the symptoms, and an increase in weight. 2. Carbonate of guiacol. This drug resembles "benzosol" in physical characters. According to Seifert and Holscher, while the drug passes unaltered through the stomach in health, it is in the presence of the fermentation which so often complicates phthisis, decomposed in that organ, where it acts as an antiseptic, reducing bacterial growth and greatly improving the patient's condition. Five fresh observations of the present authors lend support to this view. The drug was never observed to cause signs of intolerance. With regard to the other drugs tried, the conclusions may be briefly stated as follows: 3. Guaiacol carbonic acid, in a dose of 1 to 3 grammes daily, even if used many days in succession, was well borne, whatever might be the stage of the disease. 4. Carbonate of creasote was well borne either by the stomach or rectum, and pure guaiacol, if given by the latter method, was generally supported without much inconvenience. With regard to all the above-mentioned drugs except "benzosol," there seems to have been no great advantage to the patient in giving them, as they in no way altered the physical signs or relieved cough, etc. Benzosol, on the other hand, seemed constantly to improve the catarrh, cough, and expectoration, but it did not cause the disappearance of bacilli from the sputum.

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(422) Peroxide of Hydrogen in Diphtheria.

Francis H. Williams has published the results of a further and more complete study of the mode of using peroxide of hydrogen in diphtheria (*Amer. Jl. Med. Sc.* November, 1893). Solutions used previously have not, he states, been strong enough. A solution containing over 50 volumes of available oxygen is required to kill the bacillus of diphtheria *in vitro* in ten seconds, which, he contends, is as long as the solution can be supposed to act when used clinically. If the solution was slightly acid (0.25 to 0.50 per cent.), strengths of 12 to 25 volumes were equally effectual. The requisite strength can be obtained by evaporating a weak solution over a water bath, for example, a 10-volume solution evaporated to one-sixth of its bulk is found to yield a 50-volume solution. The special advantage claimed for hydrogen peroxide is that it breaks up and disintegrates the diphtherial membrane if brought into intimate contact with it, thus not only removing a source of infection and of poisoning, but also permitting the access to the bacillus of any other germicide (in this case the hydrochloric or sulphuric acid in the solution) which it may be thought well to use. The peroxide does not attack the uninfected mucous membrane, and this selective action has the further advantage that it makes plain early the existence of the infectious process or the commencement of new centres. The affected membrane assumes a white colour, owing to the formation of a fine foam, due to the liberation of oxygen gas. The remedy may be applied on a small swab, or by means of the spray. If the false membrane is thick, the nozzle of a long thin syringe of stout glass may be pushed through the membrane, and a few drops of the solution squeezed out. Much importance is to be attached to the acidity of the solution, and Williams states that laboratory experiments made for him by A. P. Mathews show that solutions of perchloride of iron have no greater germicidal power (*in vitro*) over cultivations of the bacillus of diphtheria than solutions of hydrochloric acid containing the same quantity of acid.

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(423) Duboisin.

Marandon de Montyel (*Arch. d. Neurol.*, September, 1893) gives notes of thirty-five cases of insanity treated by him with duboisin for periods ranging from several weeks to four months. The dose was from 1 to 2 millig. twice daily. He found that the sedative action of the drug was most marked in cases of general paralysis, chronic mania, and acute melancholia. In several instances, especially in general paralysis, tolerance soon became established, and the drug was then useless, even when the dose was increased. The gastric derangements, such as vomiting of food, and the great emaciation observed by the author as the effects of duboisin convince him that it is not a suitable medicine for prolonged administration.

PATHOLOGY.

(424) Dropsy of Bacterial Origin.

Hamburger (*Deut. med. Woch.*, October 19th, 1893) first refers to the view advanced by him that the capillaries are not to be looked upon as a filter, but that they have also secreting properties. He details the examination of the fluid from the following case. A boy, aged 9, had been ill for three months with swelling of the abdomen, legs, and genitals. The urine contained no albumen. The liver was enlarged. As the fluid rapidly accumulated after tapping the abdomen was incised. This latter procedure had to be repeated as the fluid again collected. A specimen from this latter was examined. Thirty cubic centimetres of this filtered turbid yellowish-green fluid were injected into the saphenous vein of a newly-born calf, and the discharge from the thoracic duct was noted to be increased. If the fluid were previously heated to 56° for two hours no such effect was obtained. Micrococci in pure culture were obtained from this fluid. Some clear and filtered ascitic fluid was heated up to 56°, and after cooling was inoculated with these micro-organisms. After filtration it was divided into two parts, one of which was heated up to 56°. The part not heated had marked lymphagogue properties, but the other had none. It was shown that when a culture of the living micrococci was injected into the blood stream the lymphagogue properties were more slowly developed than if their products were injected. During an experiment fluid was poured out from the nasal mucous membrane, and fluid also appeared in the abdomen, etc., the latter containing this micrococcus. Thus it was proved that the hydrops in the above-named case was due to the action of the products of this micro-organism. The author then gives the morphological and bacteriological properties of the micro-organism in question, which he calls *bacterium lymphagogon*.

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(425) Tetanus.

Vulpius (*Deut. med. Woch.*, October 12th, 1893) relates the following case with experiments. A boy, aged 11, fell from a tree and sustained a compound fracture of the lower part of the humerus. Four and a-half days later, the first symptoms appeared, namely, trismus, rigidity of the neck, and, to a less extent of the abdominal muscles. The wound was opened up, and a piece of stuff of the size of a pea and containing woollen fibres removed. The patient steadily got worse, and died fifteen hours after the onset. Morphine and chloral appeared to be of some service at first. At the necropsy, another piece of stuff similar to the above was found in the wound. A mouse inoculated from the pus died of tetanus within forty-eight hours. Tetanus bacilli were found in the pus from the inoculation wound. From the piece of stuff mentioned above, inoculation experiments were made, and tetanus was induced. A piece of marrow from the humerus inoculated into a mouse caused tetanus. The experiments lead the author to think that the infection was conveyed by the piece of cloth. Experiments made with the patient's urine showed that the toxicity increased with the duration of the disease. Possibly by increased diuresis, the elimination of the poisonous products may be promoted. Experiments were also made with the serum of the blood taken from veins of the arm shortly after death. Mice were injected with the result that slight tetanic symptoms appeared with small doses and fatal tetanus with larger ones. No bacilli could be found at the site of inoculation, showing that this serum contained no bacilli. Experiments with the bile gave negative results. The symptoms were the same, whether the bacilli or their poisonous products (toxins) were used, but the incubation period was shorter in the case of the latter. Tables are appended showing the results of the experiments when material containing tetanus bacilli or urine and serum containing the toxins only were injected.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(426) Amœba Enteritis.

Quincke and Roos (*Berl. klin. Woch.*, November 6th, 1893) say that amœbæ only play a part in the so-called tropical or endemic dysentery, which should be called amœba enteritis. This form of dysentery may occur sporadically and in regions other than the tropics. They relate a case occurring in a man aged 39. The disease began in an acute form in March, 1890, and continued in a more or less marked degree up to August, 1892. At that time there were twenty stools in the day. Calomel produced temporary improvement, but naphthalin was useless. Active amœbæ were found in the alkaline stools. In the spring of 1893 he again relapsed, and on the fourth day of the calomel treatment encysted amœbæ were found in the stools. A fortnight later the stools were formed, and only a few amœbæ were present, but the injection water contained many of a smaller size. The movements of the amœbæ in the stools disappeared in twenty-four hours. Subsequently smaller, and apparently younger, forms were also found after the injection of Ems water. The important encysted forms are very hardy, but are seldom found; they appeared to be connected with the treatment by calomel and quinine clysters. The mode of reproduction was not definitely observed. The authors made experiments upon cats, injecting the amœbæ-containing stool into the bowel, and obtained positive results. Two other cats which had been fed with the stools died, but did not develop amœba enteritis, and amœbæ were not found in their stools. Two others, however, which were fed on the encysted form succumbed to the disease. The mucus protects these parasites, but the good effect of calomel was obvious. The second case occurred in a woman aged 44. Large amœbæ were found in the stools, as well as two kinds of infusoria. During the course of the treatment, apparently, a slight mercurial enteritis appeared. Quinine in pill was without effect, and thymol seemed to have very little action, but benzo-naphthol was more useful. The patient's condition was ultimately much improved. Both these cases began acutely, and subsequently persisted for several years, but the second case arising in Kiel was milder, and yielded amœbæ which were not pathogenic to cats (amœba coli mitis). Harmless amœbæ, probably differing from either of the above, occur at times in the stools in health. A complete expulsion of the amœbæ appears not to have been obtained as yet, but the means of effecting this should be sought for, and may probably be found. The fresh stools should be examined for amœbæ, methylene blue being used for staining purposes.

(427) Cerebral Infantile Paralysis.

Koenig (*Deut. med. Woch.*, October 19th, 1893), relates a case in a girl aged 10 years. She was born in a partially asphyxiated condition. Epileptic fits began in the tenth month, and recurred up to the age of 7. Then she passed into the status epilepticus, after which there was a right hemiplegia lasting 8 weeks. The fits became more frequent, and the intelligence very defective. When admitted, she had right facial paresis. The fits chiefly affected the right side; they diminished in frequency under bromides. Consciousness was recovered at once, but for a few minutes after the fit the speech was slow, the right arm quite flaccid and paralysed, and the right leg in a condition of slight spastic paralysis. This form of infantile cerebral paralysis limited to the face must be very rare. As to the frequency of facial palsy in infantile hemiplegia, opinions differ. In 46 of the author's cases, it was present in 24. In 17 of the 24 mimetic movements were also lost. These movements are probably innervated from the cortex. Usually paralysis is followed by epilepsy in these cases, the reverse of what occurred here. The facial paresis is in favour of a cortical lesion, but a similar local onset of the fit may occur in a sub-cortical one. The facial centre is probably not involved alone, owing to the paralysis seen after the fit.

(428) Septicæmia Consecutive upon Cholera.

Roger (*Rev. de Méd.*, October, 1893) relates a case of cholera in which cerebral symptoms supervened, and the patient died within two days. Beyond a slight increase in the cerebro-spinal fluid no intracranial lesion was found. Cultivations were made from this fluid and also from the liver, and a bacillus was discovered in the latter, and named by the author B. septicus putridus. It rapidly liquefies gelatine, develops on sterilised serum, and grows in urine as soon as the latter becomes alkaline. When it is added to milk but little or not at all exposed to air, coagulation takes place in 24 to 48 hours. It resembles proteus vulgaris, but differs from it in morphological characters. It is 0.6 to 1 μ in size, and is not coloured by Gram's method. When inoculated into animals it produces the appearances of septicæmia. According to the virulence of the dose the bacillus is found in the blood and viscera, in the viscera alone, or is absent altogether. The soluble products obtained after filtration act as a powerful poison to the frog's heart. In rapid cases in rabbits there is paralysis, convulsions, and death by respiratory failure. Large quantities have to be used, and they do not take effect except at a long interval. The lesions produced vary according as the process is acute or chronic; in the former case there are thrombotic foci and accumulations of round cells in the liver, and in the latter an embryonic cirrhosis. As the same results, except as regards rapidity, are produced by injections of the toxins as by inoculation, the thrombosis is not due to mechanical obstruction by micro-organisms. In the kidney there is an irregularly distributed disintegration of renal epithelium, but in chronic cases the lesions are less marked. These changes are similar to those found in man. The author draws attention to the part played by the infections as well as by the intoxications in producing lesions of the liver.

(429) Cerebral Diplegia.

Freud (*Neurol. Centralbl.*, August 1st and 15th, 1893) describes two cases of cerebral diplegia occurring in the offspring of a marriage between a woman and her uncle. The elder of the patients, a boy 6½ years old, exhibited horizontal nystagmus, alternating convergent strabismus on fixation, and atrophy of the optic nerves. His articulation was remarkably slow, a lengthy pause intervening between each syllable and after each word; voice absolutely monotonous. On attempting passive movement of the head or upper limbs moderate rigidity of the corresponding muscles was perceptible. Intention tremor was sometimes noticed in those limbs. Such a degree of spastic paresis was present in the lower limbs as to render the patient unable to walk or stand alone. Right knee-jerk exaggerated, and bilateral ankle clonus. Muscles of legs less well developed than those of other parts. No defect in mental development. The birth of this child had been unattended with any difficulty or accident. Soon after it was born its father, a physician, observed absence of pupillary light reflex. At three months the nystagmus commenced. Articulation had never been otherwise than defective. In the younger patient nystagmus, squint, optic nerve atrophy, bradylalia, and spastic gait were less pronounced than in his brother, and had not developed until the child was nearly 2 years old; the onset of symptoms was rather sudden, nystagmus being the first. The consanguinity of the parents constituted the only known circumstance of etiological moment. Of their children, the first was born two months before term, and succumbed very quickly; the second and third are the patients above referred to; the fourth is quite healthy; the fifth was paralysed from the time of birth, and survived but a few months; the sixth died shortly after premature birth.

SURGERY.

(430) Treatment of Hydrocele.

Neumann (*Fortschr. der Med.*, No. 20, 1893) advocates a method of treating hydrocele which in his hands has been most successful. Under strict antiseptic precautions, a trocar and cannula are inserted; the latter is pushed home, and the fluid having been allowed to

escape, the cannula is allowed to remain for two days, the whole being wrapped in cotton wool. After removing the cannula, a cooling lotion is applied, and adhesion of the walls is completed in seven to nine days, without inflammation or suppuration. Neumann believes that, owing to the presence of the cannula and the altered conditions of pressure produced, a slight exudation of leucocytes takes place, leading to the formation of a fibrinogenous ferment and the occlusion of the sac. The advantages lie in the small amount of time required, the little inconvenience caused, and the certainty of cure.—Theodor (*Archiv f. Kinderheilkunde*, 17, 1-2, 1893) records 36 successive cases of infantile hydrocele which he treated by emptying the sac with a Pravaz syringe, exerting slight pressure on the scrotum and allowing the fluid to escape through the needle. The author then injects two syringefuls of a 1 in 5,000 solution of perchloride of mercury, withdraws the needle, and closes the aperture with plaster. On the next day a slight swelling will be found, but without redness or pains. No recurrence took place in these cases, though in a control series of 36 children previously treated by the older methods, the usual percentages of reappearances were observed. The treatment has the advantage of being painless, always applicable, and apparently the effect of the operation is permanent. The ages of the children varied from two weeks to eight years.

(431) Hydrogen Dioxide as an Aid in the Diagnosis of Sinuses, Pus Cavities, etc.

COPLIN (*Therap. Gaz.*, October, 1893), draws attention to this use of hydrogen dioxide. It is well known that if hydrogen dioxide comes in contact with necrotic tissue, suppurative or otherwise, gas is liberated. If then hydrogen dioxide be injected into a cavity the extent of which it is desirable to know, the gas evolved will accurately map out the extent of the mischief, and in cases in which there is a sinus connecting two suppurating cavities its existence will be readily demonstrated without the need of having recourse to a probe. The author has found it specially valuable in dealing with articular and periarticular mischief. He cites one case in which an abscess had presented itself over the external aspect of the head of the tibia, where it had opened; the abscess cavity communicated with a similar cavity in the head of the tibia. Both cavities were freely curetted, and it did not appear that either communicated with any other, nor was there external evidence of perforation of the cartilaginous disc between the epiphysis and the shaft, save at the point immediately beneath the superficial abscess. On injecting hydrogen dioxide, however, the evolved gas was found to have inflated several points of the subcutaneous tissue; it was further shown conclusively that the joint itself was not involved. The author has obtained equally striking results in other cases, and draws attention to this method of diagnosis as one worthy of more extended trial.

(432) Treatment of Nasal Obstructions.

SPITZER (*Centralb. f. ges. Therap.*, August 7th, 1893) discusses the treatment of nasal obstructions. In cases of hypertrophic rhinitis he prefers weak reagents such as iodine and iodide of potassium to the ordinary astringents. In more severe cases associated with induration he recommends chromic and trichloracetic acid preceded by the application of cocaine. In this method only small tracts should be taken in hand at each sitting. The galvanic cautery is also applicable with the same precautions. After such treatment he closes the orifice with a cotton wool plug, which is retained for twenty-four hours, and otherwise enjoins rest of the nose. Among foreign bodies he mentions the occurrence of large quantities of fly larvæ which must be removed with a hook. Adenoids he separates from their attachments by means of Gottstein's circular knife, and he considers the removal with the finger insufficient. In conclusion, he condemns the modern anxiety to operate on the nose with saws, chisels, etc., which should be resorted to only when absolute necessity exists, owing to the frequently occurring sinus thromboses and meningitis; also owing to the inadvisability of general anæsthesia in such cases, and the insufficiency of the local effects of cocaine. Major operations are to be avoided when simpler means suffice.

(433) Intraperitoneal Cystotomy.

HARRINGTON (*Annals of Surgery*, vol. xviii, No. 4, October, 1893) points out that the ordinary methods of reaching the interior of the bladder by the urethra, by the vagina or perineum, or by the suprapubic incision, are imperfect and give but a limited view. The stomach, gall bladder, and intestines may be opened and closed with safety; why not the bladder? In the Trendelenburg position, with an incision from the umbilicus to the pubes, we get a very clear view, and the prostate, tumours, or an entire section of the vesical wall can be removed with ease and the ureters can be seen and thoroughly examined. The author concludes with some hints on the best method of proceedure and the report of a case.

(434) Dislocation of Cervical Vertebræ.

WALTON (*Journ. of Nerv. and Ment. Dis.*, September, 1893) states that in his experience luxation of cervical vertebræ without fatal result is by no means of rare occurrence. Since publishing 8 cases in 1889-90 he has seen 7 further instances. The commonest form of non-fatal dislocation is unilateral separation of two articular processes. By experiments on the cadaver he worked out a method of reduction which he claims to be novel as well as efficient. The procedure he describes is as follows:—Assuming that the left inferior articular process has slipped forwards and fallen into the depression in front of the subjacent articular process, the luxated process is first raised by extending the head obliquely backwards towards the right, using the right transverse process as a fulcrum; it is then brought into position by rotation. He thinks that in bilateral dislocation this manœuvre, carried out first on one side then on the other, will probably be successful. In his opinion these dislocations are apt to be overlooked through the frequent absence of paralysis.

MIDWIFERY AND DISEASES OF WOMEN.

(435) Laceration of Vagina in Delivery.

EVERKE (*Centralbl. f. Gynäk.*, No. 44, 1893) describes two cases of laceration where the rent extended completely through the vaginal wall. Turning was performed in a patient at her third confinement. The os was completely dilated. After the placenta came away coils of intestine were found in the vagina; they were thoroughly disinfected and replaced by Everke, whilst the uterus was made to contract by friction with the other hand applied to the abdomen. It was firmly pressed down into the true pelvis. The laceration lay in the posterior vaginal fornix; it ran transversely and was over two inches long, and was easily kept in sight whilst its edges were held together with dressing forceps. The tissue was so soft that it was repeatedly torn by the forceps. Ten silk sutures were applied to the rent. The patient died of sepsis on the fourth day. The second patient was a primipara. Labour lingered, so the forceps was applied and a living child delivered. The placenta followed spontaneously. The vagina was then explored and intestine detected in its channel. Everke was called in, and he closed the rent, which was four inches long, with five sutures, using the same manipulation as in the first case. The vagina was plugged with iodoform gauze and a complete laceration of the perineum was left alone. The patient recovered without rise of temperature, and perineorrhaphy was successfully performed on the eighth week. Laceration of the vagina occurs when the vaginal tissues are soft and the lower segment of the uterus, and, later, the vagina, are stretched by a large fœtus entering a narrow pelvis. It is not advisable to suture the laceration from above after opening the abdominal cavity.

(436) Puerperal Convulsions: Alleged Neurotic Origin.

THEVARD, of Blois (*Journal des Sage-Femmes*, October 16th, 1893), was called in to attend a woman, aged 29, who was suffering from severe eclampsia at the seventh month of her fifth pregnancy. Her first three labours had been normal, but she aborted at the fourth month of her fourth pregnancy. In the early part of the fifth she lost a child from convulsions, the bereavement causing her great depression. In the

course of the fifth month œdema of the face and extremities set in. She took no care of herself and the œdema appeared and disappeared several times. A month before the convulsions she had a severe shock, her horse running away with her. The œdema returned permanently. A few hours before the first attack of eclampsia she heard that a neighbour had just died of puerperal fever. Thevard found the head presenting, but no dilatation. As the patient weighed 16 stone, he drew 300 grammes of blood. A sixth fit came on shortly afterwards, wet cupping was then applied to the spine; 150 grammes of blood were at once drawn. At a longer interval a seventh fit occurred; then delivery was easily effected. The child was dead and very small; the placenta, also very small, was covered with white points. The patient became comatose; only a drachm of highly albuminous urine could be drawn off. Chloral enemata were administered, and milk given as diet. Death occurred thirty-two hours after the first fit. Thevard makes no comment on the advisability of phlebotomy, as practised in this case. He believes, considering the absence of eclampsia in previous pregnancies, that the succession of severe shocks in the course of the fifth pregnancy may have been the primary cause of the deadly renal complication.

(437) Atresia: Pus in Vagina.

Max Frank (*Centralbl. f. Gynäk.*, No. 36, 1893) records a case of "pyokolpos" in a congenitally closed vagina. One important feature was a suspicion of pulmonary tubercle some time before the local disorder was treated surgically. The patient was single, aged 26, and had never seen a period. For ten years she had been subject to crampy pains in the hypogastrium, appearing at intervals of from one to three months. Recently they had become very severe and almost constant. The patient had to use the catheter; defæcation was very painful. The temperature was normal. Seven years before she had suffered from pneumonia, followed by hæmoptysis, and was sent for two years to Davos. "Chlorosis" was reported later, but there was no sign of pulmonary disease when Frank saw her. She consulted Professor Müller, of Berlin, in 1888, solely because she had never menstruated. The hymen was normal, its orifice large enough to admit a lead pencil. A membranous septum lay above it. On rectal examination, a catheter being passed into the bladder, it was found that there was no vaginal canal, but a cystic swelling in its place. In 1893 she was again examined, and a large cystic mass could be felt in the pelvis. The obstructing membrane was incised and about two pints of odourless pus escaped. An oval piece was cut out of the membrane, and the vagina was plugged with iodoform gauze. The cervical canal was also dilated. The patient was well at the end of a fortnight. The uterine cavity, somewhat dilated, measured 2 inches in length. The parts being still very sensitive, no satisfactory exploration of the uterine appendages could be made.

(438) Puerperal Infection.

Whitridge Williams (*Amer. Journ. Med. Sciences*, July, 1893) has issued an important monograph giving the result of researches on puerperal infection, considered from a bacteriological point of view, with special reference to a question of auto-infection, made in the Pathological Laboratory of the Johns Hopkins University. He concludes that, theoretically, auto-infection should frequently occur, but practically it is comparatively rare. When the vaginal secretion is normal there is absolutely no possibility of its occurrence, and it is not nearly so frequent as might be expected when that secretion is diseased. The practitioner will do best if he acts as though there were no such thing as auto-infection. Let him content himself with the most scrupulous personal cleanliness and careful disinfection of the external parts of the patient. As soon as he admits that auto-infection occurs, his only rational procedure is a prophylactic disinfection of the vagina, with all its disadvantages. Yet with the douche he may do more harm than good, introducing more organisms than he can wash away or kill. It is impossible, as Mermann has already stated, to disinfect the vagina thoroughly with the means ordinarily at the disposal of the practising physician, and with the patient in her bed. In well-regulated hospital practice the douche may be given with greater antiseptic precautions. But even in hospital work it appears to the author that routine vaginal douching is capable of doing much harm. He admits, however, that the question of prophylactic douching remains unsettled, and therefore he does not condemn it unreservedly.

THERAPEUTICS.

(439) Cinnamic Acid in Tuberculosis.

A. Landerer (*Anweisung zur Behandlung der Tuberkulose mit Zimmtsaüre*, Leipzig, 1893) deals with the practical application of the author's treatment of tuberculosis with cinnamic acid, which has now been followed by him during two and a-half years. He usually prepares a 5 per cent. emulsion with almond oil, yolk of egg, and common salt in solution, though in a supplementary note it is stated that of late a 5 per cent. aqueous solution has been used with equal if not greater success in cases of tuberculous phthisis. The emulsion requires most careful preparation, and in its acid state will remain unaltered for some time. Microscopically minute crystals and diminutive oil globules should be seen, the former disappearing after the emulsion has been rendered alkaline; this requires to be done thoroughly by means of a 7.5 per cent. soda lye immediately before use. A Pravaz syringe is kept for the sole purpose of injecting the emulsion into the veins, these being preferably either the brachio-cephalic or the cephalic, and the preparations being the same as for blood-letting. A fine sharp cannula is introduced parallel with the vein, care being taken to exclude any air from the syringe. No immediate symptoms should be produced, and any resulting depression indicates that an excessive dose has been used. The treatment is said to be useless in phthisis advanced beyond the primary or secondary stages. The course of the malady while under treatment should be as follows: If the dose has been well judged, a subjective improvement should be noticeable after the fifth or sixth injection, with commencing amelioration of the ordinary symptoms. After about three weeks an improvement in the physical signs should become manifest. As to the quantity to be injected, this should vary with the condition of the patient, a weak one commencing with correspondingly small doses. As a rule, from $\frac{1}{10}$ to $\frac{3}{4}$ of a cubic centimetre can be used about twice weekly, rarely a larger quantity of emulsion, and no treatment should be for less than three months. No permanent evil effects were produced at any time, and temporary disturbances were due either to excessive doses, want of alkalinity, or insufficient care in the manufacture of the emulsion. In tuberculous affections of the larynx, intestine, glands, joints, and skin similar success is recorded. Where possible the intravenous treatment is supplemented by a local one, the acid being dissolved in glycerine or alcohol. As to the histological changes which take place, the first is an increase of leucocytes in the blood, producing aseptic inflammation around tuberculous foci, until they are encapsuled in about three weeks. Infiltration into the nodule then takes place, with formation of blood vessels, leading to gradual absorption, cicatrisation, sometimes calcification. After a few months the bacilli are difficult to stain, and finally disappear.

(440) Analgene.

Bracco (*Rif. Med.*, August 19th, 1893), has made the following observations as to the therapeutic action of analgene. There are two bodies which go by this name—acetyl analgene and benzoyl analgene. The latter only is referred to in the present paper. It is a white powder, without particular taste or smell, insoluble in water, but somewhat soluble in hot alcohol. It has invariably been given in form of powder. The author's conclusions are as follows: 1. Temperature, pulse, and respiration are unaffected in the healthy, in the non-febrile, or in cases of hyperpyrexia not dependent on acute rheumatism. In this latter disease if there be a tendency for the temperature to fall, analgene administered at this time will make the fall more prompt. It may be completely successful in combating the pains of the disease, and also those of neuralgia or hemicrania. 2. Analgene has a marked influence on metabolism,

as shown by the great increase of acidity, density, urea, chlorides, sulphates, and phosphates of the urine after its use. The urine is highly coloured with urobilin even after small doses. 3. The drug has a destructive action on the red blood corpuscles, and for that reason must only be used for a short time, and that after less dangerous remedies have failed. However, its use in small doses does not seem to have been accompanied by unpleasant effects.

(441) Aristol in Venereal Ulcers

Güntz (Sonderabzug aus *Memorabilien*, xxxvi, 2.92) recommends aristol in venereal affections when iodoform is objected to on account of its penetrating smell. Unlike the latter, it is odourless, and a powder insoluble in water, but readily dissolved by olive oil, one drop sufficing to liquefy a quantity of aristol as large as a pea. As this forms a tenacious compound difficult to apply, Güntz recommends the application of the powder in the first place, with the subsequent addition of 1 to 2 drops of oil, the whole being covered with a thin waterproof covering, and changed two to three times daily. When numerous ulcers exist around an unduly long prepuce, he prepares the solution in the middle of a sufficiently large square piece of gutta percha tissue, turning up its corners towards the root of the penis. This is lightly surrounded with cotton-wool, and the whole kept in position with an india-rubber ring of moderate tightness. The ulcers are thus in constant contact with the aristol, and the patient is able to get about. Nevertheless, Güntz points out that with extending or torpid ulcers, an occasional temporary substitution of iodoform may be necessary. Aristol, however, is particularly applicable in hard chancres, secondary syphilitic ulcers, etc.

(442) Iodoform Dermatitis.

Matschke (*Therap. Monatsh.*, October, 1893) describes this affection as it occurred in himself on four occasions. After two surgical lesions iodoform was used in the form of powder and gauze respectively, and each time a severe local eczema, accompanied by marked itching, œdema and vesicles took place. On the second occasion, the hand also had accidentally come into contact with the same substance, leading to the identical affection in that position. The third occasion arose after the author had suddenly been called upon to use iodoform gauze, no other substance being available. This time the affection was even more troublesome, and resisted all treatment, until it yielded to a 15 per cent. thiol compress. Finally the author, while removing a surgical dressing applied by a colleague, came into slight contact with iodoform gauze, the eczema being eventually transferred from the hands to the face also. The œdema, redness, and vesicles, etc., were this time more severe, being again ultimately benefited by thiol. On these two latter occasions, the dermatitis was accompanied by erysipelas, and led to prolonged pigmentation. From the two last attacks, it appears that no breach in the skin is required to produce this inflammation, and successive attacks were more severe and persistent.

PATHOLOGY.

(443) Microbes in Chronic Rheumatism.

Schüller, of Berlin (*Med. Record*, September 23rd), has found a microbe in the synovial membrane of joints affected with chronic rheumatoid arthritis. It is a short bacillus—about 2.6 μ by 0.85 μ—constricted in the middle, sometimes slightly bent, and can be stained by carbo-fuchsin, though easily decolorised again by acids. It grows best in the dark, at a temperature about 77° F., and may be cultivated in bouillon, gelatine, peptone gelatine, and peptone agar-agar, and on potato. Rabbit's joints were inoculated with cultivations obtained from human joints, and a non-suppurative arthritis was produced in these animals, somewhat analogous to chronic rheumatoid arthritis in men. These bacilli never cause suppuration, but, injected under the skin of animals, small amounts cause temporary inflammation, whilst large amounts kill the animals in twenty-four hours. Patients with chronic rheumatoid arthritis are often subject to chronic catarrh of the nasal, respiratory, or urino-genitary organs, and these may in some cases be the primary seat of the bacilli. Acute rheumatism—where Schüller has sometimes found staphylococci or streptococci—is probably quite a different disease, but may leave the affected joints less resistant to the bacilli of Schüller, and thus act as a predisposing cause to chronic rheumatoid arthritis. He has cultivated similar bacilli from joints affected with a chronic non-suppurative arthritis leading to ankylosis.

(444) The Increase in the Microbicide Power of the Blood during Infection.

Gatti (*Rif. Med.*, August 15th and 16th, 1893) describes some experiments undertaken with the view of elucidating this point. The existence of a microbicide power in the blood and serum is generally admitted, and research is now directed to the discovery of its relation to susceptibility or otherwise to infectious disease. The present researches have been directed, not only to a demonstration of the existence of a microbicide power during infection, but also to the modifications which this power undergoes in a given animal during its passage from health to a condition of infection. Omitting the details of the experiments, the author's conclusions are as follows: (1) A moderate degree of hydræmia, such as is produced by the extraction of blood, does not modify the bactericidal power of serum. (2) Serum represents a much more constant means of seeking bactericidal power than defibrinated blood, the results with this latter being inconstant, as has also been found by Kruse and Pansini (*Zeit. f. Hyg.*, vol. ix, 1891). (3) The bactericidal power of blood increases during infection; this increase is more marked in animals which during health do not show a very great bactericidal power. (4) In the later phases of infection the microbicide power diminishes. (5) The blood destroys not a determinate quantity of bacteria, but a given percentage of the bacteria introduced. (6) There exist markedly different degrees in the bactericidal powers of different animals, even of the same species and for the same micro-organism. (7) In the latest phases of infection the bacteria introduced into the blood disappear but slowly and incompletely, as compared with what happens in the earlier phases or in the healthy animal. (8) In many animals the serum does not at once manifest its bactericidal powers, but there is first a period of one or two hours during which the bacteria introduced can increase. The most important fact elucidated is undoubtedly the increase of bactericidal power during infection. The conditions of experiment, moreover, render it unlikely that this result can have been due to extravascular modifications of the blood; it is a true vital phenomenon. Its increase during infection, at a time when the organism is reinforcing itself against the invading microbe, and the coincidence of its diminution with the time which, as it were, succeeds the successful battle, make it probable that there is a very intimate connection between this power of the blood and immunity.

(445) The Action of the Metabolic Products of the B. Coli Comm.

It was noted by Lesage Macaigne (*Ann. de l'Institut Pasteur*, January, 1893) that the bacterium coli is very often associated with the cholera spirillum, and Blachstein and Schubenko have constantly found the cholera commas associated with other bacteria, and especially the B. coli. Moreover, Blachstein and Zumpt are of opinion that choleraic infection is the production of a mixture of bacteria in which the spirillum plays the chief part. Under these circumstances it becomes a matter of interest to ascertain the effect of the products of each of these bacteria on the other. The study has been undertaken by Cacace (*Rif. Med.*, August 25th, 1893), and the following are his conclusions: (1) The bacterium coli can develop well in sterile cultures of the cholera bacillus, preserving all its cultural and chemico-biological properties. (2) The bacillus of cholera also develops well in sterile cultures of the B. coli, its properties remaining unaltered. (3) The cholera bacillus grown under such conditions gives rise to a hardly sensible indol reaction as compared with that produced in a normal culture. (4) The B. coli grown under similar conditions gives a more intense indol reaction than a control culture.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(446) Cerebellar Abscess.

Koch (*Berl. klin. Woch.*, November 6th, 1893) records two cases of cerebellar abscess. (1) A girl aged 20 with caries of the middle ear complained of headache, vomiting, and constipation. The mind was dull, the pupils reacted to light, and the fundus oculi was healthy. The temperature and pulse were normal. The mastoid antrum was opened and granulations removed. The transverse sinus was intact, and there was no subdural abscess. Nine days later she suddenly became unconscious with stertorous breathing and died in half an hour. In the right cerebellar hemisphere an abscess of the size of a pigeon's egg was found. (2) A man, aged 29, who had suffered from otorrhœa for five years, suddenly became worse with pains in the head, etc. Three days later he had in addition vertigo and nystagmus. These symptoms remitted somewhat, but returned a little later. Temperature 38.4°. The mastoid was opened and granulations found. The upper wall of the antrum, much thinned by disease, was taken away, and the dura mater was seen to be dull white and thickened. The results seemed satisfactory. Four days later symptoms again appeared, namely, vomiting, vertigo, headache, slight but repeatedly observed slowing of the pulse. There was no distinct evidence of meningitis. The disturbed gait and perhaps the nystagmus pointed to cerebellar abscess. Operation was unavoidably postponed for two days, when a piece of the occipital bone was removed between the curved lines on the left side. The dura mater was intact. The cerebellum was explored in several directions, and the temporo-sphenoidal lobe was also explored from the previous operation wound but without result. The exploration was repeated by Köhler on the following day, but again without result. The patient died 7 or 8 days later. At the base of the brain there was a greenish-yellow infiltration of the arachnoid. An abscess was found in the anterior and under part of the left cerebellar hemisphere, and almost limited to the grey matter. The *post mortem* appearances, considered with the symptoms during life, suggested the following course of events:—Caries in mastoid leading to thrombosis of sinus which got well some years previously, with obliteration of the lower half of the sinus (sigmoides). About the same time, but more probably later, the abscess developed. When the severer symptoms appeared, it became adherent to the sinus wall, and perforation occurred just before the second operation. A fresh thrombus arrested the threatened pyæmia. The abscess extended and led to meningitis. The author thinks that the patient might have been saved if operation could have been undertaken as soon as the diagnosis was made.

(447) Epilepsia Tarda.

Mendel (*Deut. med. Woch.*, November 9th, 1893) first gives an age table of 904 cases of genuine epilepsy observed by himself. The disease occurred more frequently in men than in women (555 to 349). Two-thirds of the cases occurred before 20, and the greatest number between 11 and 15 years of age. The numbers then began to fall off, but between 30 and 40 the cases were still comparatively numerous. For this reason Mendel would make late epilepsy date from the age of 40 instead of 30, as some have done. Even then this disease is not so uncommon as some have thought. Among 904 cases it occurred 53 times (5.8 per cent.), 38 of the patients being men and 15 women. Hereditary influences play a considerable part in causation. In the case of one patient, aged 53, both the son, aged 21, and the daughter, aged 17, were epileptic. Fright is also a factor. In speaking of trauma, the author refers to two cases, in one of which epilepsy first appeared after the ears were syringed out, and in the other after the application of the galvano-cautery to the nasal mucous membrane. Syphilis was excluded in all these cases. The author does not recognise in the menopause (or pregnancy) any noteworthy influence. Late epilepsy has a course very like ordinary epilepsy, but in a comparatively large number of cases it is milder, and relatively seldom progressive. Nocturnal fits appear to be common. Mental derangement may precede or follow the fit, or occur in the interval, but the mind is much less frequently affected than in youth. Complete cessation of the fits may occur as in ordinary epilepsy, but in regard to prognosis it must be borne in mind that the fits may occur at long intervals; two instances are given where the second fit occurred at intervals of 9 and 18 years respectively. The treatment is by bromides in large doses, belladonna, atropine. The author refers to a case combined with heart disease, in which digitalis, given along with the bromides, produced very satisfactory results after other remedies had failed.

(448) Asiatic Cholera in Children.

Happe (*Deut. med. Woch.*, November 9th, and *Berl. klin. Woch.*, November 20th) shows, from the statistics of Hamburg hospitals, that the prognosis of Asiatic cholera in young children is exceedingly bad. Of 4,129 infants aged 1 year and under 80 per cent. died; of 1,701 children from 1 year to 5 years 75 per cent. died; of 1,731 children from 5 to 15 years 45 per cent. The mortality was much higher at the beginning of the epidemic than at the end, and this renders it difficult to estimate the relative value of different methods of treatment. In the General Hospital, which was open from the beginning of the epidemic, 154 children treated by intravenous injection yielded a mortality of 65.4 per cent.; 18 by subcutaneous injection a mortality of 66.66 per cent.; 133 by calomel a mortality of 31.6 per cent.; 40 by tannin 32.5 per cent.; and 13 by opium 15.4 per cent. These numbers are, however, too small and the accompanying circumstances too various to permit a conclusion to be drawn as to the relative value of these various modes of treatment. Happe recommended a dose of castor oil at the beginning of the diarrhœa to combat collapse, hot baths (100° to 107° F.) of from ten to thirty minutes' duration, repeated ten to twelve times in the twenty-four hours, followed by hot packs. Intestinal injections (enteroclysis) were best given during the baths. For vomiting he recommended iced milk and brandy; for persistent diarrhœa opiates; for cramps morphine and codeine. In the discussion which followed the reading of this paper Schmid-Monnard and Biedert both stated that they had seen severe symptoms of collapse follow hypodermoclysis, probably from the circulation being overtaxed, and therefore advised that this method should be used with caution in children.

SURGERY.

(449) Suture of Wounds of the Liver.

At the recent Surgical Congress in Rome, Micheli (*Rif. Med.*, November 7th) showed a case in which he had successfully sutured a wound of the liver. Laparotomy having been performed, it was found that the wound was situated on the convex surface of the left lobe near the free margin; it was 4 centimetres in length and 2 in depth, and was directed vertically towards the lower margin of the organ. A moderate amount of hæmorrhage had taken place. The edges of the wound in the liver substance were brought together with five silk sutures and the abdomen closed. The patient, (a woman) made an uninterrupted recovery, and was discharged cured in twenty days. In a case of gunshot wound of the liver the author applied fifteen silk sutures, and hæmorrhage was so thoroughly controlled that no trace of bleeding having taken place could be found four days after the operation, when death occurred from peritoneal sepsis. Other cases in which wounds of the liver had been successfully dealt with in the same way by his colleagues at the Consolazione Hospital in Rome were cited by the author. He asked for an expression of opinion from the meeting on the following points: Is suture preferable to plugging with gauze in the treatment of wounds of the liver? Is surgical intervention always justifiable in such cases? In the discussion which followed Montenovesi related some cases in which he had successfully sutured a wounded liver. Paci referred to some cases in which such wounds had been recovered from without surgical intervention, which he considered

justifiable only when hæmorrhage was profuse; a similar opinion was expressed by Scalzi, who mentioned 16 cases in which his colleague Postempski and himself had successfully sutured wounds of the liver. In reply, Micheli quoted the *post-mortem* records of the Consolazione for a period of twenty years, which showed that during that time, death had occurred from hæmorrhage or sepsis in about 20 cases in which wounds of the liver were left unsutured. He explained that the sutures were passed only superficially through the liver substance.

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(450) Linear Craniotomy in Microcephalus.

Clayton Parkhill (*Intern. Med. Magazine*, November, 1893) reports two cases of microcephalus in which he performed linear craniotomy. In one of these the patient was a boy, aged 4 years and 8 months, who is described by the author as a "hopeless idiot." His head was markedly microcephalic and conical, owing to the lack of development of the frontal and parietal eminences. With antiseptic precautions, a piece of bone was removed on the right side of the median line, so as to make an opening 6½ inches in length and ¾ inch in its greatest width. On the eighth day union had taken place by first intention. Within twenty-four hours after the operation the child's expression was better, and he had lost the restlessness which had formerly characterised him. By the end of a week he would play continuously with objects, and amuse himself for hours with picture books. Eleven weeks after the first operation the left side was operated on in a similar manner, except that an additional bone incision 1½ inch long by ½ inch wide was made, extending downward towards the ear from the middle of the long bony wound; this second opening was made with the object of freeing the speech centre. Union by first intention was perfect when the wound was first dressed on the tenth day. The result of the operation, in the words of the author, is that the child "has been converted from a condition of drivelling idiocy into one of fair intelligence in these short months. His development has been quite twice that of the average child under normal conditions." In the other case, the patient was a girl, aged 5 years and 9 months, unable to utter a single word, and giving no sign of intelligence. The skull presented the appearance of being megalocephalic rather than microcephalic; this, however, was found to be due to the thickness of the bone, which in the area of operation ranged from ¼ to ½ of an inch. So tough was the bone that the blade of the forceps was broken across its middle during the operation. The incision in the bone was fully 8 inches in length, and equal in width to that of the first case. On the thirteenth day, when the wound was uncovered, it was found to be perfectly healed. At the time of the report some improvement in the mental condition had taken place, and the child seemed in excellent physical health. The author points out, however, that it was as yet too soon, especially considering that only one side had been operated on, to look for any very great improvement. Theoretically, Parkhill thinks the plan which he the skull into two large bone flaps, adopted is best, as it converts the sides of which may be expanded by the growing brain.

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(451) Hydatid of the Kidney.

Karewski (*Deut. med. Woch.*, November, 1893) says that in most cases the cyst ruptures into the renal pelvis, and gives rise to the same symptoms as foreign bodies there. A characteristic membrane in the urine would confirm the diagnosis; much less frequently the hydatid gives rise to a large tumour of doubtful nature, and without change in the urine. The following case occurred in a man, aged 50. More than a year previously he complained of a feeling of discomfort in the upper part of the abdomen, and later a swelling was felt. When he was seen by the author an elastic tumour was found in the right hypochondrium, which came up from behind, was separated from the liver by a band of resonance, and moved with respiration. Renal *ballottement* was present. The urine was healthy. In view of the good condition of the patient, hydatid disease was thought of. Exploratory puncture from behind gave no result. The tumour was exposed by the lumbo-abdominal incision. The lower part of the kidney was healthy, the cyst involving the upper part. The cyst had not pushed the peritoneum before it, but had grown into the peritoneal cavity, and was adherent to coils of intestine. A second puncture was also negative, but a piece of membrane protruded through the punctured hole. The tumour was stitched to the abdominal wall. On the third day it was incised, and two litres of echinococcus cysts were evacuated. The subsequent course was slow but satisfactory. The author says that this is the first case in which a renal hydatid has been operated upon in two stages. Considering the adhesions and the healthy renal tissue, no other procedure could be recommended. It may be asked whether it should not be adopted in place of nephrectomy in all cases of these closed renal hydatid cysts. The author thinks that there is no objection to exploratory puncture from the lumbar region. If the nature of the tumour is doubtful it can be found out, as in this case, during the operation, and further procedures determined upon. The causes of the negative puncture may be (1) thickness of the cyst wall, and (2) the presence of many daughter cysts. Statistics show how much preferable the lumbar is to the transperitoneal method in renal hydatid. The author thinks, with Israel, that if the abdomen has been opened in these cases under a mistaken diagnosis it should be closed, and the extraperitoneal method adopted.

(452) Surgery of the Gall Bladder.

Richardson (*Annals of Surgery*, vol. xviii, No. 4, October, 1893) says that in malignant disease of the gall bladder or gall ducts, in a permanent cholæmia, or in chronic obstruction to the bile flow not caused by stone, surgery offers little or no relief. On the other hand, the varied manifestations of biliary calculi—such as the discomforts of a mild cholelithiasis, the prolonged sufferings caused by large and impacted stones, the recurring agonies of biliary colics, and the frequent perforations from pressure ulcerations—may all be removed by the devices of modern aseptic surgery.

MIDWIFERY AND DISEASES OF WOMEN.

(453) Tetanus in Obstetrics and Gynæcology.

Meinert (*Archiv. f. Gynäk.*, Part III, vol. xliv, 1893) relates three cases. The first occurred after an abortion at the third month. The mother was 37. She flooded and received a kick in the vulva from her husband. The flooding continued. Ergot was given, and on the eighth day after miscarriage trismus and tetanic spasms of the muscles of the nape set in. Death occurred in twelve days. Chloral and antipyrin were given in vain. On the day of death (March 11th) the temperature rose to over 109°. The second patient was aged 30. The uterus and appendages were removed through the vagina, for cancer. On the sixth and seventh days delirium was observed; when it subsided trismus was detected. Two days later there was opisthotonos. Chloral proved of little service. The ligatures on the broad ligaments were relaxed as much as possible. Death occurred on the tenth day after operation, the temperature exceeding 105° when the patient died. The case occurred in June. In the third, the patient was aged 38. She had double pyosalpinx, originally gonorrhœal. The appendages were removed. The operation was performed on October 30th, 1885. No drainage tube was used. On November 4th the wound was tender, and the temperature rose to 102°. On the night of the 7th, there was trismus with dysphagia. Typical tetanus with profuse salivation followed. On November 9th, Meinert opened the wound. Much reddish odourless serum was found in Douglas's pouch; it was aspirated, and a drainage tube inserted. As chloral had failed in the two preceding cases, Meinert tried curare. The patient died on November 12th, the temperature rising above 105°.

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(454) Precipitate Labour on Eighth Day after Ovariotomy.

Feilchenfeld (*Berl. klin. Wochenschrift*, October 30th, 1893) relates a case in which the patient, aged 22, had always been regular until May 1892. After August the period ceased entirely. On January 27th, 1893, Feilchenfeld first saw her. After careful examination under anæs-

thesia, right ovarian tumour and normal pregnancy at the seventh month were diagnosed. The fundus reached two finger's-breadths above the umbilicus; the fœtal heart sounds were audible. The ovarian tumour projected behind the cervix; it was tense, with an irregular surface. Schäffer, of Berlin, operated on February 7th. The pregnant uterus, as expected, presented at the abdominal wound. With a little difficulty, the ovarian tumour was reached, and its fluid contents removed. Then it was drawn up, and its thin pedicle easily ligatured and divided. The left ovary was normal. The cyst was, before puncture, rather larger than a fœtal head at term; it showed no signs of malignancy. There appear to have been no adhesions, and no "toilet" of the peritoneum was needed. The patient recovered from the operation; the temperature never rose above 100°. On the eighth day, labour pains came on very suddenly at noon. Feilchenfeld was sent for, and two minutes before his arrival the child was expelled by a strong pain, with its membranes intact. It was found lying between the patient's thighs. On tearing open the membranes, a dead, well-formed seven-months' child was found. The placenta lay on the ovum. No flooding ensued. The bandage, dressings, and abdominal wound were in no way disturbed by the labour. Three days later the wound was dressed; it had healed by first intention. By the sixteenth day after operation recovery was complete.

(455) The Cause of Peritoneal Adhesion after Abdominal Section.

Walthard (*Correspondenz - Blatt f. Schweiz. Aerzte*, xxxiii, 1893) has conducted a series of experiments in the Pathological Laboratory of University College, London, to ascertain the cause of peritoneal adhesions after abdominal section with a view to discover the way to avoid that complication. He found that prolonged contact of normal peritoneum with atmospheric air caused necrosis of the superficial layer of cells. This injury, even when strict asepsis is carried out, causes the formation of adhesions. It speaks in favour of rapid operating, but many gynæcological operations and procedures for disease and damage to the intestine cannot be performed quickly; hence there must always be danger of peritoneal adhesions when the course of the case is aseptic, and of suppurative peritonitis when accidental septic infection occurs. The great aim of the operator is to make ture that the peritoneal cavity is thoroughly cleared of all fluid or semi-fluid material by the usual "toilet." In short, the serous membrane must be kept from the contact of fluid, but not allowed to dry up itself by exposure to air. This Walthard calls "dry asepsis." When the cavity cannot be kept dry, as in many long operations, "moist antisepsis" is required. In other words, the peritoneum is flushed out with water at 100°, neutral, and preferably containing chloride of sodium. The loss of its shiny appearance is the evidence that the serous membrane is becoming dry.

(456) Early Tubal Gestation: No Objective Symptoms.

Hanks (*Amer. Journ. Obstet.*, September, 1893) reports the case of a young married woman who suddenly suffered from colicky pain and bleeding when her period was five days overdue. A second attack came on three days later. No membrane or ovum could be detected, and there was no pelvic tumour. After consultation Hanks operated, and removed from the tube an ovum. The patient made a good recovery.

THERAPEUTICS.

(457) Chloralose.

C. Rossi (*Riv. Sper. di Fren. et di Med. Leg.*, vol. xix, fasc. ii, iii, October 1st, 1893) has tried the hypnotic effects of chloralose in 40 patients of both sexes in the lunatic asylum of Reggio-Emilia, suffering from mental disease of the most varied forms, in all of which obstinate insomnia was present. The experiments in the 40 cases make up a total of 250 observations. The drug was given in doses of 0.25 g. to 1 g., sometimes in powder, sometimes in solution, and the efficacy of the remedy was tested by administration in the daytime as well as at night. Rossi's conclusions are as follows: Chloralose in the average doses indicated by Richet (0.30 to 0.40 g.) is not really useful in the case of lunatics suffering from true insomnia; in such cases doses of 0.70 to 0.80 g. and even more are generally required. Given in the daytime in the first-named doses, chloralose is not satisfactory, usually causing nothing more than drowsiness. Given at night it almost always induces sleep in from half an hour to an hour and a-half, the sleep lasting a longer or shorter time, not only in proportion to the dose, but according to the idiosyncrasy of the individual. The drug is most active in forms of insanity attended with depression, and least so in those in which excitement is present, its action in the latter type of cases being inconstant and unreliable. Sleep induced by chloralose is quiet, but not generally very deep, the patients being aroused by the slightest noise, but immediately going to sleep again. The awakening does not seem to be accompanied by unpleasant sensations, but Rossi points out how difficult it is to get trustworthy information on this head from lunatics. No alterations of pulse or respiration were observed in patients under the influence of the drug; on the other hand, its action on the cerebral circulation (which was studied on a patient, the subject of traumatic epilepsy, who had a hole in his skull over the left parietal region) appeared to be to increase tonicity; this effect manifested itself in a diminution, both in frequency and amplitude of the pulsations, and is probably associated with an ischæmic condition of the brain due to vasomotor disturbance. The temperature often remained within physiological limits, but a lowering of from two to six tenths of a degree (Centigrade) was not seldom observed. When the drug is used with discretion no unpleasant effects are observed, but in some patients, perhaps specially predisposed to nervous disorder, signs of intolerance due to disturbance of peripheral and cerebral innervation are sometimes seen after moderate doses. The drug has no manifest influence on the course of the mental disease, but given fractionally in small doses it appears to be useful in hallucinations.—Lombroso (*Rif. Med.*, No. 131, 1893), while admitting that chloralose is one of the least injurious of narcotics, denies that it is entirely harmless. After the administration of 0.25 g. he has seen in the case of an intelligent girl the occurrence of tremor, followed by complete loss of memory; in another case the same dose caused intense prurigo. In a third case a dose of 0.50 g. was followed by symptoms of paresis, with threatening asphyxia.

(458) Artificial Serum.

Peillon (*Lyon Méd.*, November 12th), has used artificial serum according to the indications and the formula published by Huchard (*Sem. Méd.*, No. 13, 1893). The composition of the serum is as follows: ℞ Sterilised water, 100 g.; chloride of sodium, 5 g.; phosphate of soda, 10 g.; sulphate of soda, 2.50 g.; and phenic acid, 0.50 g. Injections of this substance, varying in amount from 5 to 10 cubic centimetres, were made in a girl, aged 11, and a man, aged 30. The injection had no bad effect locally or generally. The skin was first washed over an area of 6 to 10 centimetres with soap, and afterwards with sublimate solution. A platinum cannula, sterilised by flame, was used, the strictest antiseptic precautions being taken. The girl was neurasthenic in the full sense of the word; her growth had been rapid, she had lost appetite, and was so easily fatigued that it was with difficulty she could go up a flight of stairs, and work of any kind, manual or intellectual, was impossible. The total amount of artificial serum injected was 120 g. the injections being given at intervals of three days. After the fifth injection there was marked improvement, and after a month of treatment the patient was able to return to school. The man suffered from no discoverable organic disease, but for two years he had every three months had attacks of hæmatemesis lasting two or three days. He was anæmic, had no appetite, and was so easily fatigued that he could do no work. Injections of artificial serum were given, and after the tenth the patient had gained two pounds in weight, and was improved in every way.

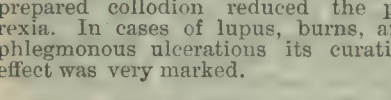
(459) Loretin, a New Antiseptic.

Schinzinger (*Wien. allgem. med. Zeitung*, No. 47, 1893), after referring to the objections to the use of iodoform, describes a substance which has been equally successful in his experience;

its chemical name is "meta-iod-ortho-oxy-chinolin-ana-sulfonacid," for which the name "loretin" has been substituted. It is an iodine preparation, at the same time possessing the properties of a phenol and the important characteristic attributes of a chinolin derivative. Physically it is a yellowish powder, consisting of minute crystals and resembling iodoform, but having no odour, and only slightly soluble in water or alcohol, but forming useful emulsions with oil, collodion, etc. As a powder it is very serviceable when somewhat diluted, and with metals it forms valuable salts, the calcium salt, for instance, being insoluble in water, and a very suitable substance with which to impregnate gauze. Loretin is non-poisonous, and no untoward effects ever followed its use after operations or for ulcers, etc. The author describes his method of procedure in operations, during the after-treatment of which little fever and no suppuration took place. Eczema was never produced, but when present was frequently cured, an iodoform dermatitis, for instance, yielding after the substitution of loretin. In erysipelas, also, thorough painting of an affected limb with the prepared collodion reduced the pyrexia. In cases of lupus, burns, and phlegmonous ulcerations its curative effect was very marked.

(460) Malakin.

A. Jaquet (*Correspond. Blatt f. Schweiz. Aerzte*, No. 18, 1893) reports the results of therapeutic experiments with "malakin," a new substance for which antipyretic and antirheumatic properties are claimed. Malakin, which is allied to phenacetin, is the salicyl derivative of paraphenetidin; its composition is represented by the following formula:—



It occurs in the form of small light yellow needles, which melt at a temperature of 197.6° F. Malakin is insoluble in water, slightly soluble in cold, and moderately soluble in hot, alcohol. Mineral acids, such as hydrochloric acid even in 1 in 3,000 dilution, decompose it, salicyl-aldehyde and paraphenetidin being formed. The urine gives the salicyl reaction within twenty minutes of the ingestion of the drug. Its action is that of salicylic acid, the salicyl-aldehyde being changed into salicylic acid in the tissues. The usual single dose was 1 gramme (15 grains), the amount given in a day varying from 4 to 6 grammes (1 to 1½ drachm). Owing to its insolubility in water, the drug was generally given in wafers, but to children or patients who could not swallow wafers it was given in plum or apple jelly. The only complaint made by the patients was that the drug sometimes caused eructations having a peculiar odour. The harmlessness of the remedy, especially as regards the circulatory system, having previously been tested in guinea-pigs, it was tried by Jaquet in 74 cases, including 14 of acute rheumatism, 13 of enteric fever, 7 of croupous pneumonia, 19 of tuberculosis in different stages, 7 of erysipelas, 2 of scarlatina, and 12 of neuralgia and headache. In the rheumatic cases, several of which were of severe type, the effect was uniformly good; in the febrile cases the fall of temperature was gradual and not excessive, the lowest point being reached in three to four hours; there was no perspiration or collapse, and the effect lasted a considerable time. In the cases of neuralgia the effect showed itself only after one to two hours, and in severe cases the pain was not completely relieved. The drug in such cases is less efficacious than antipyrin. The following are Jaquet's conclusions: Malakin is a valuable and trustworthy remedy in acute articular rheumatism, its use being unattended with unpleasant secondary effects. He believes that the salicylic acid in the nascent state derived from malakin is effective against the rheumatic poison in smaller doses than when the acid is given in the ordinary way. The slowness and evenness of its antipyretic action make it especially valuable in the case of children and weakly patients. It may be given for a long time in cases of neuralgia and habitual headache without injury.

(461) Ferratin.

Schmiedeberg (*Centralb. f. klin. Med.*, November 11th, 1893) has succeeded in separating from the pig's liver by a simple process an organic compound of iron which he calls "ferratin." It contains about 6 per cent. of iron. This body disappears from the liver of the dog when the latter is fed on a diet poor in iron, and is bled at lengthy intervals. Ferratin is of service for the purposes of nutrition and growth, and also in diseased conditions, for it supplements the iron-containing bodies which are taken into the body with the food, but often in insufficient quantities. It is easily assimilated, as experiments on animals and its use in man show. It should be given in such doses as secure the presence of an excess in the alimentary canal; an overloading of the organs with iron is not to be feared. It is not excreted by the kidneys, and hence these organs cannot be injured by it. It is in the first place a food stuff, and can be used as such by those apparently in health. As a therapeutic agent, its indications are the same as those for the other preparations of iron. The sodic salt may be added to milk, the dose in adults being from ·1 to 1.5 gramme in the day. Strongly acid bodies should be avoided, as they decompose it.

PATHOLOGY.

(462) Congenital Tuberculosis.

Londe (*Rev. de la Tuberculose*, 1893) relates interesting inoculation experiments. His cases were six pregnant women with pulmonary tuberculosis of various degrees. One of them (with phthisis of the first degree) gave birth to a living child, and inoculation of a guinea-pig with the placenta gave a negative result. Four others (with more advanced phthisis) gave birth to children who lived only a short time, and in the viscera of one of these children who died after four days tubercle bacilli could be found and 2 c.cm. of blood taken immediately after birth from the umbilical vein were injected into the peritoneal cavity of a guinea-pig and caused tuberculosis. In the other three of these children inoculation experiments gave in one a negative result, whereas in two inoculation of the placenta produced tuberculosis in guinea-pigs. The sixth woman who was suffering from pulmonary, intestinal, peritoneal, and laryngeal tuberculosis) aborted, and inoculations with the placenta and fœtal blood and organs all produced tuberculosis in guinea-pigs, most virulent when from the placenta. In no case was any macroscopic tuberculosis found in the fœtus or children examined. Londe thinks that the likelihood of getting positive inoculation results from the placenta, etc., increases with the gravity of the mother's tuberculosis, and that the placenta seems to act as a filter to the tubercle bacilli, so that inoculations with it are more likely to give positive results than inoculations with the umbilical blood or fœtal viscera. In all Londe's cases the parental tuberculosis was maternal only. He lays stress on there being very likely a more pronounced resistance to tubercle in some fœtuses than in others, and says the converse might be illustrated if inoculations with the organs of a fœtus were to produce tuberculosis, whilst those with the placenta gave negative results.

(463) A Contribution to the Microbic Study of Water.

Blachstein (*Ann. de l'Inst. Past.*, October, 1893) has sought to measure the pathogenic power of microbes obtained from water from different sources. Instead of isolating any microbes from the water, he used mixed cultures, which were obtained by addng 1 c.c. of the water to be tested to 10 c.c. of bouillon; and these mixed cultures were used for inoculating rabbits, guinea pigs, and mice. The following results were obtained: (1) The water supplied to the institute is known to be of good quality. Cultures made from it gave negative results with mice, rabbits and pigeons. (2) Mixed cultures from Seine water collected above Point-de-jours were very virulent. Lower down the river, at Billancourt, the water was much less harmful, and still less so at St. Cloud, but no samples were taken below the latter place. He concludes that more regard should be paid to the kinds of microbes present in water than to their numbers; and that his observations show that good potable waters are apparently harmless to animals when mixed cultures are inoculated after the manner he has described.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(464) Auto-Intoxication in Mental Disease.

Séglas (*Arch. gén. de Méd.*, November, 1893) observes that cases in which symptoms of auto-intoxication arise in the course of the malady must be differentiated from those in which it would appear to have a causal connection with it. The author then analyses fourteen cases under the following headings: (1) Etiology. At the root of these cases there were either troubles of nutrition, infective diseases, gastro-intestinal disturbances—that is, conditions which might be supposed to give rise to such auto-intoxication. (2) Clinical Indications. The symptoms produced were similar, some being more or less accentuated as the case might be. The mental symptoms present were very like the delirium due to some external toxic agent. (3) Experimental Investigation. The author refers to the uncertainty and difficulty in the methods of investigating the toxicity of the urine. The quantity of urine passed and the weight of the patient—namely, the urotoxic coefficient—must be determined. It is often difficult to make this urotoxic coefficient out in mental cases. Variations may be found in it from day to day. The food must be taken into account as well as the resistance of the animals experimented on. Naphthol may be added to the urine collected for the twenty-four hours. The urine is injected slowly into the vein of an animal until death occurs. The phenomena produced vary; sometimes coma, sometimes paralysis or convulsions appear. (4) Chemical Investigation. Two cases were examined in detail; in one there was hypotoxicity of the urine, but the serum was normal. There was present some modification in the normal elements of the urine, and this seemed to indicate troubles in nutrition. A substance of undetermined constitution was found in the hypotoxic urine which was toxic to animals. In the other case the evidence was negative. (5) Therapeutic Indications. Among the agents in use are those which improve the nutrition. Purgatives formerly thought to relieve the cerebral circulation really favour the excretion of toxic bodies. Intestinal antiseptics are useful. These various considerations favour the idea of the existence of mental affections dependent upon auto-intoxications, but the author thinks that the rigorous proof cannot be provided either by chemical procedures, or still less by experiments giving very vague indications.

(465) Nocturnal Enuresis in Children.

Freud (*Neurol. Centralbl.*, No. 21, 1893) states that, on examining children affected with nocturnal incontinence of urine, he has discovered that about 50 per cent. of them exhibit an associated symptom that has not previously been described, namely, a hypertonic condition of the crural adductors. To elicit the symptom the child is seated with its legs on a table; its feet are then grasped, and an endeavour is made to separate them as widely as possible in a horizontal direction. In a typical case the adductor spasm at first is considerable, but soon yields; on releasing the feet the legs spring back into contact. Spasticity also is found in the quadriceps extensor on attempting suddenly to flex the knee. The resistance here again is very pronounced at first, but quickly subsides. If flexion be then repeated only slight extensor tension is observed. The deep reflexes are moderately increased in these cases; the muscles are firm and well developed; gait is natural and no other abnormality is present in the affected limbs. To a certain extent the spastic condition can be overcome by voluntary effort on the part of the patient; for instance, if the child be required to relax the adductors, rigidity temporarily disappears from them, although it continues in the extensors. As the phenomenon occurs in boys quite as frequently as in girls and very rarely exists in normal children, Freud considers that it is independent of emotion, such as fear or shame. He has been able to exclude spastic paraplegia and epilepsy from all his cases. They have not shown any fixed relationship between the intensity of the hypertony and the degree and duration of the incontinence. Often he has seen the spasticity persist after the enuresis has been cured. He suggests that excessive spinal innervation of the detrusor and of the crural muscles may be a factor in the combination of symptoms.

(466) Gastro-intestinal Septicæmia of Infants.

From a study of a series of twenty-one cases, Fischl (*Deut. med. Woch.*, November 9th, and *Berl. klin. Woch.*, November 20th, 1893) comes to the conclusion that the acute gastro-intestinal catarrh so fatal to infants in foundling asylums, etc., is in reality a manifestation of a form of septicæmia. In ten cases examined bacteriologically he found, alike in those in which there was distinct gastro-enteritis and in those in which there was obvious septicæmia, pyogenic organisms; in seven the staphylococcus pyogenes albus, in one the staphylococcus pyogenes aureus also, and in two the streptococcus pyogenes. The organisms were found most constantly in the lungs; the next most common seat was the spleen; and after these the liver and kidneys. The naked-eye changes in the gastro-intestinal canal were often slight, but in some there was great hyperæmia; the number of micro-organisms in the canal was small, and they were situated chiefly in the superficial parts of the epithelium. The kidneys showed frequently parenchymatous inflammation, hæmorrhages, and miliary abscess about accumulations of micrococci. Fischl suggests that the organs primarily infected are the lungs.

SURGERY.

(467) Traumatic Aneurysm of the Vertebral Artery.

Matas (*Annals of Surgery*, November, 1893) reports a case of traumatic aneurysm of the vertebral artery, which was successfully treated by extirpation of the sac and plugging of the seat of hæmorrhage. The aneurysm, which had been caused by gunshot injury, occupied the suboccipital triangle, and involved the artery in the atlo-axoid space. To the author's table are added three tables—one giving 11 cases of intracranial aneurysms of the vertebral artery, the second 20 cases of traumatic aneurysms, and the third 27 cases of non-aneurysmal wounds and other injuries of the same vessel. In his conclusions the author states that in certain favourable cases of traumatic aneurysm in the upper and more superficial part of the vertebral artery recovery without operative interference is possible. In every case, when the danger of rupture of the sac is not immediate, good results may be expected, if only as adjuvants to future radical treatment, from the systematic application of cold and pressure to the sac, or digital pressure over the artery below the carotid tubercle. In most cases there is a tendency in the aneurysm to progress rapidly to rupture, such tendency being often favoured by the increased tension caused by ligature of the carotid trunks under mistaken diagnosis. This error may always be avoided by carefully observing the effects of temporary compression of the carotid on the circulation in the tumour. Free exposure of the bleeding region and temporary plugging have hitherto given the most satisfactory results. The use of coagulant injections is especially to be condemned. In the extremely rare cases of idiopathic cervical aneurysm, and in circumscribed traumatic aneurysms situated high up in the posterior triangle, proximal ligature might be attempted with some prospect of success, especially if cold, pressure, and rest be resorted to as adjuvants in the treatment. In aneurysms situated low down in the posterior triangle the Hunterian operation will almost certainly fail, as it will be found impossible to reach the trunk of the artery without involving the sac in the incision. When, in a case of an aneurysm well circumscribed and situated high up in the neck, the ordinary local treatment has failed and it has been decided to open the sac, it is justifiable to expose the vertebral artery below the anterior tubercle of the sixth cervical transverse process, and to compress the vessel until its wounded part has been definitely secured at the bottom of the aneurysmal cavity. In the management of non-aneurysmal wounds of the vertebral artery the surgeon should

apply the same treatment as in cases of traumatic aneurysm of this vessel. In some rare cases, however, and especially in gunshot injuries through the mouth, in which more than one vessel may be injured, a direct attack on the bleeding point is impossible. As plugging through the mouth is impossible, the only hope for the patient lies in the immediate but provisional control of both the common carotid and vertebral arteries of the same side, with a view of cutting off the entire arterial supply from the injured region. After the precise seat of the hæmorrhage has been deliberately made out, the definitive ligature may then be applied to either of the exposed arteries, or to both if necessary. In the more common cases the difficulties in applying direct pressure to the bleeding point are less in the upper part of the neck than in the lower part where the artery is surrounded by vital structures.

(468) Teratoma of Orbit in a Newborn Child; Successful Operation.

COURANT, of Breslau (*Centralbl. f. Gynäk.*, No. 32, 1893), records a case in which Fritsch operated. The mother a 5-para, was aged 26, and was delivered of a male child on January 15th, 1892. The head presented in the first position. The infant was large and healthy, except that a large tumour caused the left eyeball to project four-fifths of an inch beyond the level of the bridge of the nose. It was clearly not a congenital dermoid tumour, which lies on the upper inner corner of the orbit and does not press the globe forwards. In teleangiectasis the lids are involved. There was no indication of meningocele or encephalocele. This tumour involved the entire eyeball, which it pushed forwards, greatly dilating the lids. The cornea was opaque. On the second day the tumour was removed without chloroform. The conjunctiva was reflected on to the globe along a line anterior to the limits of the invasion of the new growth. Hence it could be freely cut away. The child recovered; entropion of the left lids occurred. The corresponding orbit remains undeveloped, so that the left side of the child's forehead is now lower than the right. The tumour was a teratoma, consisting of almost every kind of tissue. The optic nerve formed its pedicle. Broer, in 1875, removed a similar tumour in an infant a few days after birth. The child died of purulent peritonitis on the fourth day after operation. The removal of a morbid growth of this kind, always necessary unless it has become fixed, is relatively easy.

MIDWIFERY AND DISEASES OF WOMEN.

(469) Influenza and Fœtal Death.

CHAMBRELENT (*Nouv. Arch. d'Obstét. et de Gynéc.*, September 25th, 1893) opened a discussion on this question at a recent meeting of the Bordeaux Obstetrical Society. He was called in to a lady in her eighth month of pregnancy. She had suffered for a few days from fever, headache, colicky pain, and violent diarrhœa—evidently an attack of influenza then prevalent. The head presented. Labour occurred one week later; the patient declared that she never felt any movement of the child from the day that the colic set in. A dead macerated eight months' child was delivered; the patient recovered speedily. Her temperature had not been high, nor was there any hæmorrhagic area in the placenta. The degree of maceration corresponded to the time that had elapsed since the mother ceased to feel the fœtal movements. Coyne noted that violent diarrhœa wastes a great amount of serum, and so interferes with fœtal nutrition; this is seen in cholera, where the sounds of the fœtal heart cease long before the algid stage when diarrhœa is severe, though in the rare form, where that symptom is absent, fœtal death more probably occurs in association with the asphyxia which marks the algid stage. Moussous had found that premature labour was frequent during influenza epidemics. In Budin's wards at Paris the increase of abortions in 1889 was very marked. Hirigoyen, on the other hand, had examined the health reports of Bordeaux for that year, and found that there had never been fewer premature births reported in that city. Oui was inclined to suspect simple poisoning of the fœtus by the virus of the epidemic as the cause of its death, and Lefour noted that there had been no investigation in Chambrelent's case which would justify the exclusion of syphilis or any other common cause of abortion.

(470) Tuberculous Peritonitis in Women.

SIREDEY (*Bull. et Mém. de la Soc. Méd. des Hôp. de Paris*, November 9th, 1893) relates a remarkable case which he observed many years ago, before abdominal section was so generally performed. A young woman had tuberculous peritonitis, and also suffered from umbilical hernia. Whenever she coughed, the fluid effusion in the peritoneum rose and distended the thin hernial sac. One day the sac gave way, and the patient was soaked in the peritoneal fluid which escaped. For six weeks the fluid escaped, characteristic fibrinous masses also coming away. Carbolic acid dressings were kept over the wound. The patient was in a general ward, where there were cases of facial erysipelas. Nevertheless, all went well, the fistula closed at the end of six weeks, and the abdomen then appeared normal. The patient left the hospital in excellent health.

(471) Bladder Perforated by Zwank's Pessary.

CONDAMIN (*Lyon Médical*, October 1st, 1893) reports that a woman aged 65 entered hospital early in September, complaining that she had worn a pessary two years, and no doctor had succeeded in extracting it. A Zwank's pessary had, it was found, been introduced by a midwife two years previously. The patient never used injections, and never removed the instrument. Fœtid discharges soon appeared, followed by severe pains, which subsided when a third complication, complete incontinence of urine, set in. On examination the right wing of the pessary was found to lie in the bladder; it had perforated the vesico-vaginal septum in front of the cervix to the right. The borders of the fistula gripped the instrument firmly, and were formed of a pad of thickened vaginal tissue, much ulcerated. The urine dripped from between this pad and the pessary. Chloroform was needed in order to extract the pessary, as pulling on the incarcerated wing of the instrument caused severe pain. It was discovered that the difficulty in extracting it was due to a thick calculous deposit. A quantity of pus escaped through the fistula as the instrument was disengaged. Then it was found that there was a hole in the vagina as large as a five-franc piece. The edges were made raw and successfully united with sutures, it being expected that the fistula might be partly closed by this proceeding. Contrary to expectation it closed completely, and there was no incontinence of urine when the patient discharged herself on the eighth day. The prolapsus, for which the pessary had originally been applied, was found to be cured.

(472) Hysterectomy by the Sacral Method.

BRIDDON (*Annals of Surgery*, November, 1893) has recently reported to the New York Surgical Society a case of successful removal of an enlarged uterus by the sacral route recommended by Schede and Czerny. The patient, aged 45, and the mother of seven children, suffered from retention of urine due to an obstruction in the urethra, about 1 inch from the meatus. The cervix, which was displaced to the right of the middle line, was the seat of cancerous ulceration. The left half of the pelvis was occupied by a solid tumour as large as the two fists. After the operation the author found that what he had previously supposed to be an atrophied uterus was really the cervix, and that the hard mass in the pelvis was the body of the uterus, occupied by an old fibroma, which was covered by a complete unyielding shell of calcareous matter. After removal of the lower part of the sacrum, during which stage of the operation there was free hæmorrhage, the pelvic fascia was divided along the middle line, and the rectum was displaced to the left side. The patient made a very slow recovery. The author has performed five resections during the past few months. The morbid conditions in these cases were, it is stated, exceptionally severe, and could not have been successfully dealt with by other methods. The sacral operation, he points out, is a severe one, and attended with great mortality. In cases in which the patients recover from the immediate effects of this operation, the closure of the large gap in the sacral region is necessarily tedious, and in

many instances control over the bladder will probably be lost. The same number of the *Annals of Surgery* contains an abstract of Czerny's latest contribution on pelvic operations by the sacral route.

(473) Treatment of Uterine Inertia without Drugs or Tonics.

Van Waters (*N. Y. Med. Journ.*, June 24th, 1893) remarks that the beneficial action of a suppository in the rectum in cases of constipation is widely known. He asks: Why should not the same good result follow the use of a suppository in uterine inertia, and what more ready and effective suppository could we have than the hand? Hence, when the case has so far progressed that we are satisfied it is time for delivery to take place and yet inertia has supervened, the hands should be rendered thoroughly aseptic by the use of water, soap, and a brush, and afterwards a creolin solution. Then, after the administration of a little chloroform, the hand, well anointed with vaseline, should be gradually and slowly introduced into the vagina. As soon as it has remained there a few moments pains will commence and increase in severity, in some cases to such an extent that the hand has to be withdrawn. In the cases in which Van Waters has resorted to it the results have been gratifying.

(474) Anophthalmos.

Santos Fernandez (*Arch. of Gynecology*, September, 1893), relates a case of congenital absence of both eyes. The parents were healthy; the mother was 36 years of age, a year younger than her husband, and had borne five healthy children. The child, when examined, was 48 hours old. The orbital cavity was empty, the walls being covered by the skin of the eyelids, as when the eyeball has disappeared after or from panophthalmitis. The palpebral tissue was indicated by a few small lashes bordering a narrow slit, the bottom of which was covered with conjunctiva. The lachrymal puncta were seen at the inner extremity of the free border of both lids. The chin was retreating, the ears ill-formed, without the well-developed fossæ of the human pinna. There were six fingers on the right hand and six toes on the right foot. The child could not be made to suckle, though no anomaly of the mouth or fauces could be detected. It died on the day after examination, after hæmorrhage from the mouth and nose. No necropsy was allowed.

THERAPEUTICS.

(475) Specific Treatment of Enteric Fever.

E. Fraenkel (*Deut. med. Woch.*, October 12th, 1893) says that at present there is no longer any doubt that enteric fever is produced by Eberth's bacillus. He then refers to experiments which have shown that animals could be made immune against this infection by the injection of thymus cultures heated up to 60° R. The author was thus led to try a similar treatment in man. Thymus cultures were heated up to 63°, and their complete sterility proved by experiment. The injection was made at first into the subcutaneous tissue of the iliac region with every precaution. Subsequently it was found more convenient to inject into the glutei muscles, and in this way it never became necessary to interrupt the treatment. Of 57 cases of enteric fever thus treated 12 were severe, the rest being of moderate severity. On the first day 0.5 c.cm. were injected, and no change was noticed in the condition of the patient. On the next day 1 c.cm. was given. This was followed by a distinct rise of temperature, with slight shivering. On the third day the temperature fell, and twenty-four hours later there was a further drop. If the treatment was stopped the temperature again rose, so that 2 c.cm. were administered with similar results as before. The course of the temperature determined the further treatment. If there was no rise injections were given at two days' interval, the dose being increased each time by 1 c.cm. The fever lost its continued character and became intermittent, and in a short time there was complete apyrexia. Along with the fall of temperature there was profuse sweating and copious diuresis. The diarrhœa mostly ceased. The patients appeared to be convalescent while rose spots and enlargement of the spleen were still present. Feeding could be proceeded with more quickly, and fourteen to sixteen days after defervescence the patient was able to get up. Complications and relapses could not be avoided, but the treatment was efficient in the relapse. This treatment secures a rapidity and uniformity in the course of the disease not hitherto observed. Rumpf (*ibid.*) says that the question arises whether similar results may be obtained by the use of sterile cultures of a micro-organism having nothing to do with the disease. Cultures of the streptococcus were used at first, but ultimately the B. pyocyaneus, as having slight or no pathogenic properties. Thymus cultures were heated up to 62°, and 0.5 c.cm. were injected as above, when a slight rise of temperature occurred. The rise was also noted on the second day, but on the third it was inconsiderable. More often, and especially in severe cases, 1 c.cm. was given on the second day, and then forty-eight hours were allowed to elapse. The temperature soon fell, and the pulse and condition of the patient improved greatly. If the injections were discontinued he fell back again. If the temperature did not fall, 2 c.cm. were given on the fourth, 4 on the sixth, and 6 on the eighth day. No ill-effects were noted, or at most a little shivering. In six to eight days the fever and other symptoms had disappeared, and convalescence was rapid. Sometimes a relapse occurred, when the same treatment was also effective. In thirty cases there were two deaths, one from hæmorrhage and one from pneumonia. The importance of being able to influence an infective process by introducing the products of some dissimilar micro-organism is obvious.

(476) Benzosol in Diabetes.

Palma (*Berl. klin. Woch.*, November 13th, 1893) has used this drug, recommended by Piatkowski, in six cases of diabetes. Tables are given showing in each case the amount and specific gravity of the urine, the percentage and total daily amounts of sugar, and the weight of the patients during the treatment. In two of the cases it is shown that benzosol leaves the body in the same way as salol, the ethyl suphuric acid in the urine being increased. The author could not find that benzosol was of any use in these cases. On the other hand, it must be given with caution, as it frequently at first produces diarrhœa, which may be dangerous in cachectic patients. In one case guaiacol carbonate was also tried, but without result.

(477) Injections of Brown-Sequard's Fluid in Cutaneous Trophoneuroses.

Monnet (quoted by Brocq, *Journ. Cut. and Gen. Urin. Dis.*, September, 1893) has tried injections of testicular juice in a young girl of nervous temperament, affected with symmetrical leucodermia of the trunk and lower extremities. Three cubic centimetres were injected morning and evening for six weeks. The general condition improved and the discoloration became gradually less, and at the end of three months the disease had almost entirely disappeared. Monnet has tried the same method in other skin affections, including three cases of ichthyosis, fourteen of neurotic eczema, several of "trophoneurotic erythema," and several of bullous and vesicular eruptions in the subjects of hemiplegia and general paralysis. Monnet explains the effect of the remedy in cutaneous trophoneuroses by its action on the nervous system, which is the source of the trouble. He thinks that injections of cerebrine would be more effectual in these cases. Brocq, while carefully avoiding committing himself on the subject, "cannot deny that the ideas on which rest the attempts of Dr. Monnet are both logical and perfectly rational."

(478) A New Treatment for Pulmonary Tuberculosis.

G. M. Carasso publishes (*Gazz. d. Osp.*, November 2nd) a short note on a new method of treating of phthisis. Starting from the fact that L. Braddon had obtained good results from the inhalation of peppermint oil (*Lancet*, March, 1888), Carasso began a series of experiments with that oil, and finally arrived at the following method of treatment: Continuous inhalations of peppermint oil are combined with the internal use of an alcoholic solution of creasote with glycerine and chloroform, to which is added peppermint oil in the quantity of 1 per cent. He has treated already 39 cases of tuber-

culosis, among them several with cavities and with abundant bacilli in the sputa, and he claims to have obtained excellent results amounting in some cases to cure. The bacilli disappeared in from thirteen to sixty days. Cough, expectoration, and sweating ceased, the nutrition and weight increased; and the physical signs were such as to warrant the belief that *restitutio ad integrum* had taken place in the lungs.

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(479) External Applications containing Salicylic Acid in Acute Rheumatism.

Bourget (*Therap. Monats.*, November, 1893) has made experiments on the absorption of salicylic acid by the skin. He finds that the compounds of this acid are rapidly and plentifully absorbed when externally applied, and this absorption is most active in young persons and individuals with fair complexions. The rapidity of absorption depends also upon the kind of substance employed as a vehicle, and is greatest when fatty supstances are used. Bourget recommends an ointment containing salicylic acid, turpentine, and lanolin. He treated nineteen cases of acute articular rheumatism by this means alone, with very good results, the pain being speedily relieved, and the temperature being usually normal by the fifth day. None of the unpleasant effects were observed which so often follow when the salicyl compounds are administered internally in largish doses. Good results were also obtained in cases of subacute rheumatism and of lumbago, but the treatment was quite ineffectual in cases of gonorrhœal origin.

PATHOLOGY.

(480) The so-called Psorosperms of Darier's Disease.

Petersen (*Centralbl. f. Bakt.*, October 16th, 1893) has a contribution with this title, based upon a case which, clinically, bore the closest resemblance to Darier's disease (*psorospermose folliculaire végétante*). The essential feature of this disease consists in blackish horny excrescences, occurring separately, and also in masses; in the latter case a plateau of large size results. A considerable area of the body surface may be involved. Darier and others believe that the affection is caused by psorosperms, which he divides into two main groups—*corps ronds* and *grains*. Petersen's observations lead him to reject this theory on the following grounds: (1) Transitional forms are to be found between the bodies in question and the cells of the epidermis. (2) They occur but seldom between the cells, and their presence in this position is explicable on purely mechanical grounds. (3) The thick highly refractive membrane enclosing each body is due merely to the premature keratisation of the margin of the epithelial cell of the rete mucosum, out of which the structure in question is developed. Its presence forms no argument for the parasitic nature of the latter. These statements are directly opposed to the three principal reasons adduced by Darier in support of his view that the bodies under consideration are parasitic. In addition, Petersen supports his contention by the following arguments: (4) Identical or similar bodies occur in other examples of keratosis, in which their origin from epidermal cells is even clearer. (5) They contain, in certain developmental stages, keratohyalin and eleïdin substances not found, as far as he is aware, in psorosperms. (6) Culture and inoculation experiments with the bodies have failed. For these reasons Petersen concludes that the *corps ronds* and *grains* cannot be looked upon as parasites, but merely as degenerated forms of epidermal cells.

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(481) The Bacillus of Leprosy.

Campana, who has long experimented with the bacillus of leprosy (*Rif. Med.*, Nos. 292 and 293, vol. iv), believes that he has succeeded in cultivating the organism. He describes the organism which he has cultivated as "a bacillus similar to the bacillus of leprosy," which developed in attempts made to cultivate an organism from tissue taken from a case of tubercular leprosy. The bacillus which he describes has a length of one third to one half of the diameter of a red corpuscle of the human blood; that is, it is from 2 to 4 micromillimetres long, its breadth at the thickest parts being one-fifth to an eighth of its length. It is usually straight but in rare instances somewhat flexed. When stained the protoplasm is homogeneous, but sometimes interrupted by minute points clearer than the rest. Campana cultivated the organism in agar-agar with grape sugar, with the addition of 1 per cent. peptone. It thrives most luxuriantly at a temperature of 37° to 37.5° C. Treated with fuchsin and nitric acid, it retains the red coloration until placed in the second stain, which then takes the place of the first.

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(482) Etiology of Cholera.

Sanarelli (*Annales de l'Inst. Pasteur*, October) contributes a paper on the vibrios of water and the etiology of cholera. He first deals with the varieties of the vibrios, and discusses the question whether the bacteriological diagnosis of cholera is possible. He concludes that in the present state of our knowledge it is not possible to discriminate between the cholera vibrio and others which resemble it. In the second part of the paper the author deals with the vibrios obtained from water. He affirms that in no single instance has any vibrio been obtained from incriminated water which fulfilled the requirements laid down by the Berlin school, except in one instance, when Lubarsch found them in stagnant water in which linen from a cholera patient had been washed. Examining various samples of water, Sanarelli found large numbers of vibrios in the Seine water taken below Paris, and especially near the sewer outfalls. The epidemic of 1892 was most severe among the communities who consumed Seine water taken from near the points where the sewage enters the river, and the districts supplied from the Oise escaped entirely. The author obtained cultures of vibrios not only from the Seine water but from the sewage, and from the effluent after filtration by irrigation at Gennevilliers. In the seventh part of the paper he states that, of the 32 vibrios which he obtained, only 4 were possessed of very marked pathogenic properties; but he remarks that, although the others did not cause death after the first inoculation, the animal succumbed in some cases to a second inoculation with the same culture; and again, these less pathogenic microbes sometimes caused death if a sterilised culture of B. coli were inoculated in addition. In the eighth part of the paper he gives an account of experiments whereby he sought to determine whether vaccination against these vibrios obtained from water would protect against inoculation with true cholera vibrios, and whether vaccination against the cholera vibrio protects against any of these water vibrios. The results were variable, but of great interest; for example, the vibrio he obtained at Billancourt protected against virulent cholera cultures. The last section is devoted to a consideration of the saprophytic life of the vibrios; and he concludes that they readily change in character and virulence. Just as there are two types of B. tuberculosis, and several types of B. coli, so, he argues, it is likely that the cholera vibrio does not possess uniform characters or a constant pathogenic power—a hypothesis borne out by the study of epidemics. His conclusions are briefly: (1) There are several varieties of cholera vibrios, morphologically distinct from one another, but able to determine similar clinical results in men and animals; (2) the bacteriological diagnosis of cholera does not correspond to a restricted monomorphism or pleomorphism of the vibrios, for he finds pathogenic vibrios in contaminated water, presenting all the characters regarded as peculiar to the exotic cholera microbe; (3) besides the pathogenic vibrios there are a large number of non-pathogenic forms in water such as he examined, and these may be able to reacquire pathogenic power under suitable conditions; (4) the constant presence of pathogenic vibrios in the sewage and sewer effluents shows the importance of the contamination of water as a means of originating and spreading cholera; (5) the vibrios found in contaminated water are probably identical with those found in choleraic dejecta; (6) vibrios which are virulent when first isolated from the water, do not preserve their virulence for long; as their virulence becomes lessened, their other reactions become altered; (7) the origin of these vibrios is quite unknown, but they may possibly be derived from the dejecta of men and perhaps other animals.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(483) Chronic Glycosuria.

At a recent meeting of the Académie de Médecine, J. Worms (*Bull. de l'Acad. de Méd.*, December 5th, 1893) presented a communication on this subject in continuation of a report presented by him to the Académie in 1889 embodying his observations on 41 glycosuric patients treated by him during a period of 30 years. Of these 12 had died at the date of the first report, all of them after a considerable span of life; 3 of them had been glycosuric 20 years and 4 had been so from 19 to 12 years. Of the 41, 22 are still living; 1 of them (aged more than 80) is known to have been glycosuric for 23 years, while the others have been so from 12 to 22 years. No cases of the severer form of diabetes are included in Worms's statistics. According to his experience glycosuria of the milder type, which is consistent with relatively good health and the possibility of long life if proper precautions be taken, occurs in three different varieties: (1) one in which the amount of sugar, even when present in such proportions as 15, 25, and 40 grammes in the litre, is easily reducible; (2) one in which it is not reducible; and (3) one in which the condition is intermittent, ceasing altogether and reappearing after long intervals (often 12 months) generally after some violent emotion; this is particularly the case in gouty subjects, who may pass from 50 to 70 grammes of sugar in the litre, the condition disappearing under treatment so completely that the patient can take ordinary diet without passing sugar. According to the author, diabetes has become very common of late years; the severe form, which alone figures in statistical tables, caused 301 deaths in Paris in 1892 as against 136 in 1883. He has had the opportunity of examining the urine of 100 brain workers (male) leading sedentary lives, and found sugar in considerable amount in 7. On the other hand, among 607 artisans and labourers sugar was not found in a single case. Worms thinks that persons of the former class, however well they may feel, should make a point of having their urine examined from time to time so as to check the disease at the outset. In the case of known glycosurics he insists on regular analyses of the urine by the patients themselves, so that the influence of particular articles of diet and other agents may be accurately estimated. The amount of urea should also be determined from time to time. In order to ascertain to which of the three varieties above enumerated a given case belongs, the effect of diet on the glycosuria must be carefully tested; if after forty-eight hours of restricted diet (reduction of amount of bread to 50 or 100 grammes in the twenty-four hours, and prohibition of sugar, farinaceous substances, and fruit) there is no diminution in the amount of sugar passed, the patient must be put on meat diet, and the quantity of food should be limited. The essential condition in the feeding of glycosuric patients is that the diet shall be such as can be tolerated. Each patient must be taught to determine for himself what he can eat without passing sugar, and if under strict diet he gets out of sorts and loses weight, he must be allowed to pass a small quantity (8 to 10 grammes per litre) as long as there is no polyuria. In the irreducible variety the amount of sugar must be watched, and if it exceed 20 grammes in the litre, and especially if thirst and polyuria be present, strict diet must be enforced. In all cases the patients should take exercise, and be as much as possible out of doors. Worms also recommends a course of alkaline or arsenical waters, (Vichy or La Bourboule) and he gives sulphate of quinine (20 to 30 centigrammes daily), with arsenic in obstinate cases. The effect of the quinine is to quicken the reduction in the amount of sugar, and the continuous administration of the remedy makes a larger measure of liberty in the matter of hydrocarbons in the diet possible. The application of cold water to the head twice a day, and the frequent use of saline purgatives, are also of great value as adjuvants.

(484) The Knee-jerk in Diabetes.

Grube (*Neurol. Centralbl.*, November 15th, 1893) has investigated the condition of the knee-jerk in 184 cases of diabetes mellitus. In general he has used the method recommended by Buzzard, coupled with Jendrassik's reinforcing device. As only one examination was made in 56 of the cases, he excludes those from consideration. Of the 128 remaining cases, the knee-jerk was normal in 113 and increased in 2. In the latter cases the patients were suffering from a severe form of diabetes; their urine contained large quantities of sugar and acetone, and they were too feeble to walk. Under treatment these patients improved; their knee-jerk then became normal. In 4 cases of severe diabetes the knee-jerk was absent or greatly diminished. One of these patients had bilateral neuritis with trophic derangements. The phenomenon was absent in 9 slight cases. Excluding 3 of these—because two of the patients were tabetic and the third was too obese to admit of satisfactory examination—there were only 10 patients (7.6 per cent.) in whom the knee-jerk was abolished or much reduced. The author contrasts his results with those recorded by other writers. Bouchard, who first described loss of knee-jerk in diabetes, found the defect in 36.9 per cent. of cases, Williamson in 50 per cent. Grube concludes that absence of knee-jerk has no prognostic significance in diabetes; in diabetic coma he has seen brisk reaction to percussion of the patellar tendon.

(485) Naso-pharyngeal Disease as a Cause of Gastritis and Anæmia.

Hildebrand (*Therap. Monats.*, November, 1893) states that purulent discharges from the nose and pharynx may, if swallowed, excite gastritis and ultimately anæmia. He speaks of 100 cases of nasal discharge accompanied by gastritis and gastrectasis, of whom 12 were men, and 88 women. Among the women, 40 out of the 88 showed the characteristic symptoms of chlorosis. Most of these patients had marked gastric insufficiency, and many complained of a sweetish offensive taste in the mouth in the morning, causing them to feel nausea. Some complained of difficulty of swallowing, others of great thirst leading them to drink large quantities of water. As a rule, they suffered from emaciation, pallor, anorexia, and constipation. The condition often appeared to be hereditary. The course of the cases was tedious. Treatment consisted in syringing out the naso-pharynx, and painting with iodine or tannin for a year or so, and galvano-cauterisation of the mucous membranes when these were much swollen. Massage was useful for the gastric condition, and he speaks of creasote and hydrochloric acid as useful drugs, and of the subsequent use of iron and arsenic. Treatment directed to the removal of the morbid condition of the throat did not, however, invariably succeed in curing the gastric disorder.

(486) Inflammation of the Lungs.

Wassermann, of Professor Koch's Institute, discusses (*Deut. med. Woch.*, November 23rd, 1893) the differential diagnosis of these affections. Every form of inflammation of the lung has its definite exciting cause, just as tuberculous broncho-pneumonia has. Fraenkel's diplobacillus, Pfeiffer's influenza bacillus, Friedländer's bacillus, the streptococcus, the staphylococcus can set up pneumonia. The recognition of the exact causative agent is of much importance in respect to contagion, prognosis, complications, etc. We are dependent for this on an examination of the sputum, and of that sputum which comes from the deeper parts of the lungs and the bronchioles. If this secretion be obtained, it is possible to have an exact knowledge of the bacteriological processes going on in the lung in every case. The author then discusses (with cases) the following varieties: (1) The streptococcus pneumonia. Weichselbaum found 21 such cases in 129 pneumonias. The author then relates 2 cases, in both of which the streptococcus was found in the sputum in pure culture. Clinically there was difficulty in distinguishing this from tuberculosis. The mode of onset varies. The patient is disinclined to work, suffers from alternate hot and cold sensations, has pain in the side, and wastes. There may be exacerbations of temperature with shivering. The author saw otitis media as a complication, the streptococcus being the cause. Inhalations of the ethereal oils are recommended. The streptococcus

is of varying virulence, but always pathogenic to rabbits. The prognosis is favourable. (2) Influenza pneumonia. The author says that Pfeiffer's influenza bacillus can be found in the sputum in most cases. Its value in diagnosis in sporadic cases is unquestionable, though not yet sufficiently recognised. Pneumonia increases greatly in frequency during influenza epidemics. It is not a chance complication, but a part of the influenza process, and has nothing to do with genuine croupous pneumonia. The sputum is not rusty, but frothy and purulent, the temperature curve irregular, and defervescence takes place by lysis. Resolution is apt to be delayed, and if the disease affects an apex it may give rise to diagnostic errors. This is the form of pneumonia by far most frequently seen in influenza epidemics. A case is related of a girl, aged 13, with influenza pneumonia, abundant influenza bacilli being found in the sputum. Later the sputum changed its character, and became rusty, Fraenkel's pneumo-bacillus now appearing. The illness ended by crisis, and resolution proceeded rapidly. The alteration in the temperature curve and the change in the whole clinical picture were striking.

SURGERY.

(487) Treatment of Hydronephrosis by the Formation of an Oblique Fistula.

WITZEL (*Centralbl. f. Chir.*, No. 47, 1893) advocates in the operative treatment of hydronephrosis the formation of a long oblique fistula resembling that developed in his method of gastrostomy, in which two lateral folds of the wall of the stomach are brought together by sutures over a piece of tubing, one end of which projects into the interior of the stomach, whilst the other end opens externally at a higher level. By this method, which the author states has now been extensively practised with very good results, it is intended to prevent the continuous flow of gastric secretion over the anterior abdominal wall. The extirpation of a large renal sac is regarded as a very serious operation, and, on the other hand, the formation of a direct fistula in cases in which some portion of the secreting tissue of the kidney is preserved, is likely to be followed by disagreeable results resembling those caused by a vesical fistula. A case is reported in which an oblique fistula was successfully established in a woman suffering from a very large renal cyst on the left side. The external incision was made in a line extending from the mammary line to the anterior axillary line, and the peritoneum was left intact. In conclusion, the author recommends the extension of this method to operations performed with the object of establishing fistulæ in the gall bladder, the urinary bladder, and the intestinal canal.

(488) Divulsion of Urethral Stricture.

SCUDDER (*Journ. of Cut. and Gen. Urin. Dis.*, October, 1893) reports 28 cases of divulsion of urethral stricture, and gives a critical study of 404 cases. Nearly all the 28 were emergency cases, the patients suffering from acute retention, and having a very tight stricture admitting only a filiform guide. The physical condition in most cases was poor. No special antiseptic precautions beyond cleanliness were adopted. The Bigelow divulsor was used in all the cases. The author maintains that this is a safe, simple, and efficient instrument. The mortality in the series was about 1.9 per cent. Considering the character of the cases, the physical condition of the patients, and the fact that the cases were not selected, this mortality is low, and warrants the belief that in properly selected cases the mortality would be still lower. After divulsion the amount of constitutional disturbance was comparatively slight, even in these cases. The urgency of the symptoms was so great as to preclude preliminary preparation. With recent methods of urinary asepsis and urethral antisepsis even less constitutional disturbance should follow. Taking all things into consideration, the permanence of the results in this particular series seems fairly satisfactory. In many instances divulsion probably increases the cicatricial tissue surrounding the urethra, because the rupture sometimes occurs in stricture tissue, and extends into healthy tissue. The operation with the Bigelow divulsor is regarded by those familiar with it as a method at once accurate, easy, safe, and almost bloodless. In firm tough strictures divulsion is contra-indicated. Those soft strictures firm enough to cause retention of urine, and which yield to very little force, are said by the author to be the most suitable ones for divulsion. In the dense hard strictures of the anterior penile urethra, internal urethrotomy is a better operation.

(489) Suppurative Teno-synovitis.

TOLLEMER AND MACAIGNE (*Rev. de Méd.*, November, 1893) relate a case in a man aged 19. On the fifth day of the gonorrhœa he had pain and swelling in the small joints of the left hand. On the fourteenth day, the right hand, and chiefly the tendon of the index finger, were affected. Here a lymphangitis also appeared. Suppuration subsequently occurred about this tendon. The pus was let out, and movement was eventually completely restored. The tendon of the left little finger also became involved. The inflammation was here adhesive only, and the tendon remained adherent to the sheath with limitation of movement. In the above named pus a micro-organism, proved to be the gonococcus (1) by its form, (2) by its presence in the cells, and (3) by its decolorisation by Gram's method, was found in pure culture. Cultivation experiments were also made. There is now no doubt that gonorrhœa may assume the character of a general disease. The micro-organism has rarely been found in the articular serous effusions, but the negative results may be due to its rapid disappearance. There was practically no fever during the whole of the illness. Owing to the limited vitality of the gonococcus, the suppuration seems to end as soon as the pus is let out. The authors then refer to the treatment of non-suppurative gonorrhœal arthritis by the evacuation of the fluid by puncture and washing out the joint, in view of the ankylosis which is threatened. The same may be said of other similar forms of arthritis showing no tendency to complete resolution, such as is seen in genuine rheumatism.

(490) Wounds of the Intestines from Kicks of Horses.

NIMIER (*Arch. de Méd. et de Phar. Mil.*, No. 11, November, 1893) from observation supplemented by a study of the records of a number of such cases comes to the following conclusions: Every man who receives a kick from a horse in the abdomen should be at once taken to hospital. There he should be put to bed, the usual precautions being taken against shock. Anodynes should be used if necessary, but no liquid should be given by the mouth. The patient must be kept under close and constant observation, the temperature, respiration, and pulse being taken, and the local and general phenomena being recorded from hour to hour. The surgeon in charge should not himself see the patient at such short intervals, but had better allow two or three hours to elapse between his visits. He should be at once informed, however, of any important change in the symptoms, particularly of the onset of vomiting. When signs of peritoneal reaction or general infection are manifest he should open the belly without further delay, and do whatever he may judge to be needful.

MIDWIFERY AND DISEASES OF WOMEN.

(491) Galactophoritis.

BOISSARD (*Sem. Méd.*, October 11th, 1893), distinguishes galactophoritis—inflammation of the mammary ducts and acini—from lymphangitis, which attacks the connective tissue around the gland. The two forms are often mixed, and some of the worst cases of fistulous tracks and frequent repetitions of acute inflammation are the result. Uncomplicated galactophoritis may arise from a very slight abrasion near the orifice of a duct, or it is possible that it may follow the entrance of streptococci or staphylococci into a healthy duct. The disease causes little pain, slight feverishness, but often no rigor; but free pus issues from the nipple. Milk containing pus, as compared with pure milk, is of a greyer or greener hue, and is not so quickly absorbed by wool kept against the nipple. It does not freely trickle from the nipple, but tends to clot around the part, being less fluid than good milk. The child invariably suffers; he rapidly loses weight, and diarrhœa with green stools follows. Death is almost certain. Boissard insists on immediate cessation of lactation from the affected breast, or

altogether when both glands are involved. He recommends that (as his method causes pain) the patient should be put under chloroform and pressure applied to the breast till every drop of pus is squeezed out. The gland is pressed from circumference to centre. When no more of the pus-charged milk escapes, the nipple and bréast must be freely pulverised for half an hour with a solution of sublimate or naphthol. Then a compress must be applied, and kept on till the next manipulations. Only three or four applications of this method are needed, and the patient gets well within a week. On the other hand any mere palliative treatment will certainly kill the child and place the mother in great danger of suppuration of the breast.

(492) Uncontrollable Umbilical Hæmorrhage in an Infant.

Elmer Keiser (*N. Y. Med. Rec.*, September 30th, 1893) recently delivered the wife of a labourer; the child was a healthy female. There was no family history of hæmophilia or syphilis, but the parents lived near a malarious swamp. The cord became detached on the fifth day, and by the eighth the umbilicus was clean and dry. On the twelfth profuse hæmorrhage occurred. Keiser gave ergot internally, and tried vinegar, tannic acid, cold and hot water, and compression, which all proved unavailing. The umbilicus was then completely closed by means of sutures; a very fine needle was used for the purpose. Nevertheless, the blood flowed nearly as freely as before; it issued partly from the track of the sutures. Two ligatures were deeply inserted at right angles to each other, and firmly tied, yet the bleeding continued. Styptics and compression were again tried, but proved ineffectual. The child died about ten hours after the bleeding had first been noticed. It was found that the blood showed no tendency to coagulate.

(493) Uterus Bicornis Duplex in a Multipara.

Worobieff (*Centralbl. f. Gynäk.*, No. 40, 1893) recently exhibited, before the Obstetrical Society of St. Petersburg the uterus of a woman who had died of convulsions in her sixth pregnancy. It was a uterus bicornis duplex. In five pregnancies the fœtus developed in the right horn. In the last, the left horn was the seat of gestation; the right cornu bore decidua. Both cornua were equally well developed.

(494) Uterus Bicornis Septus.

Machenhauer (*Centralbl. f. Gynäk.*, No. 38, 1893) recently examined a single woman, aged 22, who had missed two periods, and therefore suspected pregnancy. He found the external organs normal. The upper part of the vagina was double, and each half, as wide as its fellow, led to a well-developed cervix. Each os was patent, and showed distinct erosion. The cervices were intimately connected with each other. The uterus was abnormally large; its fundus was divided into two horns by a depression an inch deep. A sound could easily be introduced into each uterine cavity: then their points could be felt through the abdominal walls, over 3 inches apart. The presence of an erosion of each os seemed, to Machenhauer's mind, to show that both halves of the uterus had mucous membranes capable of secretion, and hence probably suited to lodge a fœtus. The patient had two married sisters who were both absolutely barren; some anomaly of the uterus was at least probable in their case.

THERAPEUTICS.

(495) Ichthyol.

Abel (*Centralbl. f. Bakt.*, vol. xiv, 13) describes experiments on the antiseptic properties of ichthyol. He finds that weak solutions quickly destroy streptococcus pyogenes and streptococcus erysipelatis, whereas staphylococcus aureus and albus, bacillus pyocyaneus, the bacilli of enteric fever, ozæna and anthrax, and the spirillum of cholera are fairly resistant to its action. Fresh colonies of the diphtheria bacillus are easily destroyed by weak ichthyol solutions, whereas old foci are very resistant. Nevertheless, since ichthyol is said to be useful in the treatment of enteric fever and ozæna, it may possibly be found of use in other diseases through some action other than antiseptic. Abel's experiments were chiefly with the ammonium salt: the antiseptic power of the sodium salt is slightly less. Ichthyol must not be kept in weak solutions, or, if so, must be sterilised before use to get rid of microbes, such as the staphylococcus aureus, which weak solutions may possibly contain. — Remo Segré (reprint from the *Atti dell' Associazione Medica Lombarda*, No. 1, January to February, 1893) has used ichthyol in a large number of cases in the dermatological department of the Ospedale Maggiore of Milan. On the whole he found it more effectual in diseases of the skin than in venereal affections. It was used mostly in the form of pomades, the excipient being vaseline, lanolin, or other similar substance, generally in the proportion of 5 to 10 per cent. The remedy proved particularly valuable in eczema of every variety —acute, chronic, seborrhœic, impetiginous, moist, dry, *a pediculis*, etc.— in children and in adults. Occasionally it caused irritation, which, however, was easily stopped by suspension of the remedy and the use of emollient applications. Segré chiefly uses the drug in recent cases, sulphur appearing to give better results in chronic forms. In psoriasis, ichthyosis, and exfoliative dermatitis, ichthyol is also useful—more, however, for the removal of scales than for the modification of the process itself, which requires stronger remedies. Excellent results were obtained in acne vulgaris and rosacea, especially when ichthyol was used in considerable strength (30 to 50 per cent.). In intertrigo, zoster, chilblain, erythema multiforme, and scrofulodermia (non-ulcerating), the results were fairly satisfactory. The same may be said as regards erysipelas and boils.

(496) Tuberculin Treatment in Egypt.

Schiess Bey and Kartulis (*Zeit. f. Hygiene*, vol. xv, part 2) give results of treatment with tuberculin in 48 tuberculous patients. They find that in the Egyptian climate the treatment is harmless if commenced with small doses, and that even patients with advanced phthisis may be treated by this method. They have compared their cases with others in which, though tuberculin was not used, the other conditions were the same. Their conclusions are in favour of the use of tuberculin; by its aid, they say, commencing pulmonary tuberculosis gets well certainly, and in a few months, whilst advanced cases may also recover, though more slowly. Very severe cases with vomicæ, hectic fever, and night sweats, they admit, are unsuitable for this treatment. Scrofulodermia got well more quickly than lupus, and tuberculin was also found useful in certain tuberculous affections of the joints and bones in combination with surgical treatment. The Egyptian climate is, they think, especially suitable for the tuberculin treatment.

(497) Gallanol in Psoriasis.

Bayet (*La Clinique*, September) has made a series of therapeutic experiments with gallanol in the treatment of psoriasis. Gallanol, which was first recommended by Cazeneuve and Rollet (*Lyon Méd.*, April 9th, 1893), is the anilide of gallic acid, and has the following formula:

$$C^6H^2 \left\{ \begin{matrix} CO.\ AzH.\ C^6H^5\ (OH)^3, \\ 2\ H^2O. \end{matrix} \right.$$

They used gallanol (in the form of a powder mixed with talc, and in a pomade with vaseline as an excipient, in the proportion of 1 in 30, 1 in 10, and 1 in 4) in some cases of psoriasis, chronic eczema, etc., and found it produce the good effects of chrysophanic acid and pyrogallol without their drawbacks. Cazeneuve, Rollet, and Nicolas (*Lyon Méd.*, November 5th), have shown that gallanol has marked microbicide properties. Bayet finds that gallanol has a real effect on psoriasis, lessening the redness and infiltration of the patches, and in some cases effecting a cure when other means had failed. The drug has not the disadvantages of chrysophanic acid; it does not stain linen, it can be applied to the head and face, and it leaves no discoloration after cure. The action of gallanol is weaker than that of chrysophanic acid, but it is likely to be useful in cases where the latter would be too irritating, or is otherwise inadmissible. Gallanol is a reducing agent more powerful than naphthol beta.

(498) Treatment of Epistaxis.

Cozzolino (*Riv. Clin. e Terap.*, October, 1893) says that in persons subject to epistaxis, the bleeding always takes

place from the right nostril, except in those who are left-handed. The seat of the hæmorrhage is generally the anterior cartilaginous portion of the septum, the starting point often being a minute excoriation caused by the finger nail. Cozzolino applies a solution of 1 gramme of trichloracetic acid in 30 to 40 grammes of sterilised water directly to the bleeding point by means of a piece of cotton wool fixed on the end of a probe. To prevent smarting a little hydrochlorate of cocaine, pure or carbolised, or, better still, tropacocaine, may be added to the solution. The reaction caused by the acid is short, the eschar soon separates, and the little wound quickly heals. Cozzolino says perchloride of iron should, for hæmostatic purposes, be altogether replaced by trichloracetic acid in solution (1 in 80 or 100), which, besides stopping bleeding, has distinct antiseptic properties.

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(499) Treatment of Chronic Ulcer of the Stomach.

STEPP (*Therap. Monats.*, November, 1893) writes enthusiastically of the good results which he has obtained by the administration of chloroform water in cases of chronic gastric ulcer. The following is an imitation of his formula: ℞ chloroform, ♏ 15; bism. subnit., gr. 45; aq. ad ℥ iv—a tablespoonful every hour. He attributes the beneficial effects of the chloroform to its antiseptic, astringent, and hæmostatic properties. At the same time, he believes that it exerts a stimulant effect locally, promoting the formation of healthy granulation tissue and the healing of the ulcer.

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(500) Treatment of Warts.

E. MANSEL SYMPSON (*Quart. Med. Journ.*, October, 1893) has for the last few years prescribed small doses of arsenic internally in every case of warts which did not show some signs of yielding to local remedies in ten days or a fortnight. Of its rapid action on the warts he says there can be no doubt whatever. He has repeatedly tried it by itself, and by the end of a fortnight a large crop of warts will have disappeared. Very little arsenic need be given, and the administration need not always be continued as long as a fortnight, for a week's treatment by small doses twice a day seems to set up a healthy action in the warts which does not cease after the medicine has been left off. When the internal administration of arsenic is combined with the daily application of salicylic colloid the effect is quicker than when the former method alone is employed. He gives 1, 2, or 3 minims either of the liquor arsenicalis or of liq. arsen. hydrochlor. two or three times a day, according to the age of the child, and he has never found it needful to exceed the largest of these doses. The author suggests that the action of the arsenic on the warty growth is due to the increased metabolism of the skin, leading to these hypertrophied portions being killed and exfoliated.—R. B. Morison (*Philadelphia Med. News*, September 30th, 1893) recommends the following for the removal of warts: ℞., hydrarg. bichlor., gr. v; acid. salicyl., ʒj; collodion, ℥j. He sometimes increases the mercuric chloride to 30 grains in the same amount of collodion if the milder application does not answer. It is applied once a day, the upper crust of the previous application being removed before a fresh one is made. Four such applications generally soften the wart to such a degree that gentle traction removes it painlessly. The further dressing consists in the application of any simple ointment.

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(501) Copper in Cholera.

MORICOURT (*Gaz. des Hôp.*, November 14th, 1893) considers that now that the microbic doctrine has introduced into the therapeutics of cholera a number of medicines which, to judge from the articles that have appeared on the subject, have not been attended with results in any way better than those obtained formerly, it is opportune to recall attention to a form of treatment of cholera which, in his opinion, has been left too much in the shade. He refers to the treatment by copper, which was lauded by Burq at an epoch when the question of microbes was scarcely in vogue. It was found that there was a very small mortality in cholera, typhoid, and the majority of epidemic diseases, among workers in copper, as compared with those working with other metals or engaged in other occupations. In 1849 Burq succeeded in arresting the cramps of cholera by means of copper bars in the majority of cases, and in 1866 sulphate of copper given internally to patients who had scarcely a particle of pulse, heat, or urine left, effected 16 cures in 18 cases.

PATHOLOGY.

(502) The Effect of Laparotomy upon Tuberculous Peritonitis in Animals.

KISCHENSKY (*Centralbl. f. allgem. Path.*, November 15th, 1893) has performed laparotomy upon guinea-pigs and rabbits in which tuberculous sputum and pure cultures of tubercle bacilli from cases of phthisis had been injected into the peritoneal cavity, in order to ascertain the effect of the operation upon the resulting tuberculous peritonitis. The cavity was not washed out. Comparison with control animals similarly inoculated, but not operated on, showed that laparotomy had a decided effect in maintaining nutrition and in prolonging life. In animals so sensitive to tuberculosis it is not surprising that death occurred ultimately. Certain of the animals were killed at varying periods after laparotomy, and the peritoneum was examined. The tuberculous nodules were seen to be undergoing atrophy, and afforded abundant evidence of cicatrisation. Microscopically, the tubercles were found in process of organisation (round-cell infiltration and formation of connective tissue, with associated disappearance of tubercle bacilli). These experiments confirm the clinical and pathological observations made in cases of tuberculous peritonitis in which laparotomy has been performed.

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(503) Inoculation of Cancer.

MAYET (*Comptes Rendus de l'Acad. des Sciences*, cxvi, p. 1316), as the result of experiments as to the possibility of inoculating cancer from the human subject into animals, has arrived at the following conclusions: (1) Carcinomatous tissue from man macerated in glycerine forms a liquid which, introduced repeatedly into the white rat, sometimes causes the development in that animal of new growth, evidently cancerous. (2) This result is obtained only after a very long period of incubation, and is accompanied by a state of cachexia, which develops suddenly a few days before death (in a case reported eleven months after the last inoculation). (3) When a neoplasm is not produced the animal may die from a similar cachexia coming on late without any anatomical change visible to the naked eye. (4) This fatal cachexia has also been brought about somewhat earlier by a single massive injection of glycerine mixed with epitheliomatous tissue from the stomach without macroscopic anatomical change. (5) Portions of cancerous tissue from the human subject grafted into a white rat were absorbed without producing any local or general change, at least during the six months following.

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(504) Embolic Aneurysm not due to Ulcerative Endocarditis.

SELTER (*Virchow's Arch.*, Vol. 134, pt. 2, ix) reports the case of a woman, aged 31, who died after an operation for supposed abscess in the right cerebral hemisphere. No pus was found, however, and the necropsy showed that the symptoms were due to cerebral embolism, with simple necrobiotic changes in the right cerebral hemisphere. Besides this, the following pathological conditions are recorded: endocarditis verrucosa, embolic infarction in the spleen and kidneys, a sacculated aneurysm of the splenic artery, ecchymoses under the pericardium and endocardium, old otitis media, ulceration of left leg, and decubitus. Selter considers that the aneurysm was in this case not due to inflammation set up by the embolus, but to a rise in blood pressure caused by the arterial obstruction. His reasons for this are that the intima of the artery was smoothly torn at the site of the aneurysm, with no signs of inflammation about it, nor was there suppuration about the emboli in other parts. His conclusion is that the sudden plugging of an artery may by rise of blood pressure cause rupture in the part central to the obstruction, and so lead to the formation of a false aneurysm. In this he differs from those (for example, Langton and Bowlby) who conclude that embolic aneurysm is always due to inflammation excited by the embolus in the walls of the artery.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(505) Neuroses of the Pneumogastric Nerve.

Von Noorden (*Charité-Annalen*, xviii, ii) has noticed a group of symptoms in hysterical girls and women which he thinks constitute an undescribed hysterical "syndroma." The group consists of: (1) Anæsthesia or diminished sensibility in the fauces and part of the larynx, sometimes associated with aphonia. More rarely he noticed hyperæsthesia of the mucous membrane. (2) Hyperæsthesia of the stomach, shown sometimes by pains, sometimes by frequent vomiting after small quantities of food. (3) Bradycardia and irregularity of the heart's action. The bradycardia, he thinks, may sometimes be induced in these patients by suggestion, for the frequency sometimes falls from normal to 60° or less, whilst he is feeling the patient's pulse and speaking of hysterical bradycardia to those around him. He objects, however, to satisfy any scientific curiosity on this subject by subjecting the patient to hypnotism. The arrhythmia was found in all his cases; he has noticed it on the patient's first entry into the hospital, and is sure it does not always depend on suggestion, though sometimes coming on like the bradycardia, whilst the doctor is feeling the pulse, as if induced by him. In some of the cases Von Noorden could not exclude gastric ulcer, and in several this was certainly present; he adds as a corollary that in hysterical people, who from any cause suffer from gastric disturbance, functional disturbance often shows itself in other regions supplied by the pneumogastric nerve.

(506) Narrowing of the Pylorus.

Grundsatz and Mintz (*Rev. de Méd.*, November, 1893) relate the following case. A woman aged 36 had suffered from gastric troubles for fifteen years, but had been worse for the past four years. She was wasted and cachectic-looking, and complained of vomiting, constipation, etc. The stomach was found to be dilated and a movable tumour was present to the right of the middle line. Free hydrochloric acid was present in the gastric contents and Uffelmann's test for lactic acid gave positive results. The fact of the secretting functions of the stomach being unimpaired, as well as the duration of the disease, showed that in all probability the tumour was not malignant. The age of the patient and the mobility of the tumour were facts of secondary importance. An albuminous diet and washing out the stomach gave only temporary results, so that anterior gastro-enterostomy was recommended and carried out by Oderfeld. The pylorus was found to be contracted owing to cicatrising processes. A thickening was made out on the posterior wall, which was apparently due to an old ulcer. The patient made a good recovery. Later splashing sounds could not be obtained, and the new pylorus seemed to work well, as the stomach could be distended with carbon dioxide. When seen nine months after the operation the patient was in good condition and had gained 54 lbs. in weight. The lower limit of the stomach distended with 400 c.c. of water stood at three finger's breadths above the umbilicus and the stomach filled with CO_2 showed no evidence of abnormal dilatation. A specimen of the stomach contents withdrawn after a test meal was normal.

(507) Diphtheria.

Kossel (*Deut. med. Woch.*, 1893, No. 46), summarises some recent researches. It is now mostly thought that the pseudo-diphtheria bacillus is only an attenuated form of Loeffler's bacillus. It may regain its virulence. The virulence of the diphtheria bacillus depends on the alkaline reaction of the bouillon, on the age of the culture, on the size of the animal, and on the site of injection. The production of the diphtheria poison is only at first dependent on the original virulence of the culture and on the alkalinity. Oertel differentiates two kinds of membrane: (1) Small greyish white or yellow points of deposit, which later become confluent, and spread to adjacent parts; and (2) besides these, an œdematous swelling of the tissues about which become dull in appearance, but still have a smooth surface. This dulling extends into the deeper parts, and the epithelium also assumes an opaque colour. When this is detached it bleeds. This is malignant diphtheria. Leucocytes may accumulate in the deeper tissues, and produce necrotic areas, which may ultimately rupture on the surface. Antiseptics are applied in the first case in the form of spray (2 to 6 per cent. carbolic acid) every two hours. In the latter case caustics should be avoided. Decomposition of the membrane should be guarded against. The surface is swabbed with carbolic solution after removal of the membrane. The internal use of potassic chlorate is not recommended, but mercurial salts may be tried. Klebs has sought for a specific treatment (see British Medical Journal, November 11th, 1893, p. 1070). In the absence of bacteriological proof the author thinks that some of the cases may not have been diphtheria. Klebs replies (*Deut. med. Woch.*, No. 48), giving details of the cases to show that they were genuine diphtheria. He adds that he has treated forty new cases in the same way, with only four deaths.

(508) Tumour of One Crus Cerebri.

Bloco and Marinesco (*Bull. Méd.*, No. 43, 1893) record a case in which during life the patient presented the typical picture of paralysis agitans with unilateral tremor; and at the necropsy a tubercle, the size of an olive, was found in connection with the right crus, involving the *substantia nigra*, while the base of the crus, the superior cerebellar peduncle, and the oculomotor fibres escaped. An identical case published by Charcot, and analogous cases by Mendel and Benedikt, are referred to. It would appear that in non-destructive processes in the crura, tremor may most likely be caused by a peculiar excitation of the pyramidal bundles.

SURGERY.

(509) Removal of Gasserian Ganglion for Intractable Neuralgia.

Finney (*Johns Hopkins Hosp. Bull.*, October, 1893) reports three cases of removal of the Gasserian ganglion on the right side for very severe neuralgia of the fifth nerve. In each case the operation devised by Hartley and—shortly afterwards but quite independently by Krause—was performed. This operation consists in turning back an omega-shaped flap of skin, muscle, and bone, having a diameter of about 2½ inches, and its base at the zygoma and its apex at the supra-temporal region. This affords an opening in the skull large enough to allow of a good view of the floor of the middle fossa, and also permits a ready manipulation of its contents. The dura is stripped away from the bone, and, together with the temporo-sphenoidal lobe, lifted up out of the way with broad flat retractors. The foramina spinosum, rotundum, and ovale are thus brought into view, together with the middle meningeal artery, and the second and third divisions of the trigeminus, and, lastly, the ganglion itself. The subject of the first case—a married woman aged 47—recovered from the effects of the operation without any bad symptom, but two months later was complaining of stiffness and a sore feeling on the right side of her head, which, however, was different in character from the pain felt before the operation. The second patient, who was a man, aged 63, suffered from severe and obstinate vomiting for the first few days after the operation, but subsequently made a good recovery, and up to the time of this report—one month later—had not had the slightest pain. The third patient, aged 69, also a man, died seven hours after the operation, apparently, it is stated, from heart disease, but it is added that the fatal termination was undoubtedly precipitated by the shock of the operation.—H. M. O'Hara, of Melbourne (*Austr. Med. Journ.*, October 15th), reports a case of trigeminal neuralgia in which he removed the Gasserian ganglion with complete success. The patient was a woman, aged 66, who had been under treatment for five years without permanent result. Her sufferings were unbearable. Having thoroughly scrubbed the face and sponged well with a 1 in 1,000 corrosive sublimate solution—a procedure which the patient could not bear without an anæsthetic—O'Hara thoroughly washed out the conjunctival sac with a 1 in 25,000 solution

of the same antiseptic, brought the lids together with a horsehair suture, and plugged the external auditory meatus. He then made an incision along the zygoma, over the parotid region, and in front of the ear down to the jaw. This incision was only carried through the skin, and a flap was turned down, care being taken to avoid Steno's duct, and well dusted with iodoform and boric acid. The zygoma was next exposed and divided at its apex and base, and turned downwards with the masseter; this exposed the coronoid process, which was snipped off with bone forceps. The internal maxillary artery was secured between the external pterygoid muscle and the jaw, and torsioned; the external pterygoid muscle was cut away from its superior attachments and turned down. The sphenoidal spine and the foramen ovale just in front of it could now be felt with the finger. The muscular and fatty tissues could now be cleared away, and the wound being thoroughly illuminated by means of a small electric lamp, the nerve could be seen coming through the foramen. The trephine was applied to the great wing of the sphenoid, a little of the foramen ovale being taken in. The third division of the nerve being caught in a pair of clip forceps acted as a guide to the ganglion, which could be seen to move when the nerve was pulled upon. A curette was next passed over the ganglion and all the contents of the cavum Meckelii were removed, when a slight discharge of cerebro-spinal fluid took place. The parts were well cleansed, and a small strip of iodoform left in the wound for drainage. The zygoma was wired in position and the skin flap readjusted. The time occupied for the whole operation was one hour and ten minutes. Except that the zygoma necrosed, the patient had not a bad symptom. She was discharged fifteen days after the operation, and, at the date of the report, was quite free from pain. The anæsthesia resulting from the destruction of the ganglion was very well marked, especially on the conjunctiva, the side of the face, and tip of the tongue. O'Hara states that this is the first operation of the kind attempted south of the equator.—At the Surgical Congress recently held in Rome (*Rif. Med.*, November 7th) Novaro said the first operation of the kind done in Italy was performed by Caponotto, of Turin, by Rose's method; the patient died of sepsis. At the beginning of 1891 Novaro himself operated on a case of trigeminal neuralgia by a slight modification of Krönlein's method, the ascending ramus of the lower jaw being resected in the horizontal direction. He used the scalpel, not the trephine, to the skull, and destroyed the ganglion at its inferior and posterior part, so as not to injure the sinus. The patient was cured. For the last year sensibility, not merely tactile and to heat, but to pain, has returned, with this peculiarity, that the pain now shoots from below upwards. In view of the fact that sensibility thus returns after a time by way of the nerves of the cervical plexus, Novaro asks whether an operation of such severity is necessary, or whether the surgeon should not content himself with resection of the second and third divisions of the trigeminus. Salomoni expressed the opinion that, although great difficulties were met with in carrying out Krause's procedure, they were much less serious than those encountered in Rose's method. D'Antona thought it important not to destroy the ganglion entirely in view of the lesions of the eyeball which were almost certain to follow.

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(510) Lesions caused by Dynamite.

R. Pispoli (*Giorn. Med. del R°. Esercito e della R^a. Marina*, October, 1893) reports a case of severe wounds caused by dynamite, and discusses the general character of the injuries caused by that explosive. Such injuries differ from those caused by gases and other substances chiefly in the absence of scorching. In two recorded cases in which dynamite exploded in the hand of the person hurt, there was no trace of burning. Lesions caused by dynamite are not so painful as those produced by gunpowder, but they heal with difficulty, owing to the laceration, and still more the crushing, of the tissues. Healing is not, however, followed by contracting cicatrices and deformity. Wounds caused by dynamite seem to hold an intermediate position between contused and incised wounds; bleeding is often so profuse as to endanger life. Another point of difference between the lesions caused by gunpowder and those produced by dynamite is that in the former there is light blue tattooing around the wound, while this is absent in the latter, the granules of silica being driven deeply into the skin, where they give rise to an invisible whitish tattooing. These granules are dangerous only when driven against the eye. While the wounds caused by gunpowder are often very extensive, and present all degrees of burn, those produced by dynamite are limited to the region which has sustained the full force of the exploding agent. No agent causes such severe injuries as dynamite; a piece of wood may be driven completely through both walls of the skull, whole limbs may be torn off, and the bones and other parts may be driven as projectiles into the body. Unless the victim is killed outright, there is usually comparatively little cerebral shock. Dynamite in its explosion acts with greatest force downwards in a direction perpendicular to the plane on which the substance rests; next along a line corresponding to a prolongation of the same perpendicular upwards, and least powerfully in the horizontal direction. The prognosis of wounds caused by dynamite must always be guarded, as gangrene is always apt to occur even in tissues which are not the seat of any visible lesions. Amputations must therefore be performed far above the seat of the injuries. In all cases of dynamite wound, the eyes and ears must be carefully examined, and foreign bodies must be sought for in the tissues. The injuries must be treated on general surgical principles.

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(511) Resection of the Spine for Osteoma.

At the Surgical Congress recently held in Rome, Caselli (*Rif. Med.*, November 8th) reported the following case. A woman, aged 28, the subject of congenital luxation of the hip, but free from any specific disease, began to suffer agonising pain starting at the level of the third dorsal vertebra and shooting round the trunk. The pain, which was continuous, was followed after a time by weakness of the lower limbs, paresis of the rectum and bladder, and sensory disturbances. The patellar reflexes were exaggerated, but the other tendon reflexes were abolished. A diagnosis of paraplegia from compression of the spinal cord due to some unknown cause was made. As the patient became rapidly worse, Caselli, seven months after the commencement of the symptoms, determined to operate. Having exposed the spinal laminæ, he removed the spinous process of the third dorsal vertebra, and found the dura normal; but on passing a probe downwards along the canal, he met with an obstructing substance. He then removed the spinous process of the fourth dorsal vertebra, and found the dura at that level opaque and covered with streaks of fibrinous exudation. On removing the spinous process of the fifth dorsal vertebra, he found projecting from its internal surface an osteoma to which the dura was adherent. He disinfected the wound and stuffed it with gauze, as there was some oozing of blood. On the third day after the operation, the patient began to move her lower limbs, and sensibility partly returned. She also regained control of the bowel to some extent. On the fourth day the secretion, which till then had been very abundant, ceased entirely. Twenty-seven days after the operation, the woman was able to leave her bed, and to stand on her feet. In four months she could stand for several hours continuously and was able to walk a moderate distance. Caselli is encouraged by this case to indulge the hope that exploratory laminectomy may be a feasible procedure in cases of paraplegia.

MIDWIFERY AND DISEASES OF WOMEN.

(512) Puerperal Eclampsia.

Vinay (*Arch. gén. de Méd.*, December, 1893) discusses the etiology of this affection. It is most frequent between the ages of 20 and 30, and occurs from three to six times more often in primiparæ than in others. Twin pregnancies, length of labour, a contracted pelvis are other predisposing causes. The author has never found epilepsy predispose to puerperal eclampsia, but he thinks hysteria a frequent predisposing factor. Exciting causes are discussed under the following heads: (1) Renal lesions; recent or old nephritis may be present, and is of great etiological signi-

ficance. (2) Compression of the ureter, especially found on the right side. This factor does not possess all the etiological importance attributed to it by some, for it is absent in one-half the cases. It favours the attack when the kidney is already modified owing to gestation, and assists in bringing about an insufficient purification of the blood. (3) Lesions of the liver: The author thinks that the occasional presence of jaundice, leucin and tyrosin in the urine, and the morbid changes found in the liver are points in favour of this organ being sometimes concerned in producing eclampsia. (4) Micro-organisms: Those described by Blanc and Gerdes are referred to. Although some forms of eclampsia may arise in this way, no generalisations can at present be made. The microbic theory does not explain the facts mentioned, such as the frequent occurrence of eclampsia in primiparæ, etc., nor the favourable influence of delivery on the eclampsia. As to the mode of entry of micro-organisms, an endometritis of pregnancy has been appealed to, but this endometritis is extremely rare in primiparæ, and relatively common in multiparæ. As to pathogenesis, most observers are agreed that eclampsia is of uræmic origin, and caused by defective elimination on the part of the kidneys. According to Bouchard, uræmia is due to poisons formed in the body or introduced from without, which the kidneys should, but do not, eliminate. If the disease be of microbic origin, it must still be looked upon as due to a poison, in this case produced by a micro-organism. In eclampsia the urotoxic coefficient of the urine is diminished, and that of the blood increased. The absence of albuminuria is no proof that the eclampsia is not uræmic in origin. In the only case without albuminuria observed by the author, the lesions of acute yellow atrophy of the liver were present.

(513) Rudimentary Uterus: Ovulation without Menstruation.

Beuttner (*Centrabl. f. Gynäk.*, No. 49, 1893) describes a case of rudimentary uterus bicornis with absence of the vagina, the ovaries being large and well formed. The patient was a girl, aged 18, healthy, with mammæ and pubic hair well developed. The linea alba was slightly pigmented. She had never menstruated, and the abdomen was flaccid, no trace of a tumour of any kind being found. The vulva was normal, the hymen was present, and had a small opening, or rather a sinus, one-fifth of an inch deep; no trace of a vagina existed. Rectal exploration revealed the presence of two tender ovaries and a rudimentary uterus bicornis. The patient had been subject for one month to abdominal and pelvic pain. Abdominal section was performed, the patient being placed in Trendelenburg's position. The ovary, tube, and half uterus on each side were ligatured and removed, the stumps of the two pedicles being touched with the thermo-cautery. The patient recovered. The uterine cornua appeared solid, the tubes normal, with no trace of blood in their canals. The right ovary was nearly 1¾ inch long and over 1 inch broad; the left was a trifle smaller. Both contained normal follicles, follicular cysts full of serum or blood, and cicatrices of old cysts. A case of ovulation in a woman of 38, who had never menstruated, is described by de Sinéty, and Grammatikati, examining the ovaries three years after total extirpation of the uterus, found every sign of active recent ovulation.

(514) Hysterectomy.

At a meeting of the Société de Chirurgie, on December 6th (*Rev. Gén. de Chir. et de Thér.*, December 9th), Doyen, of Rheims, presented a communication embodying the results of 250 hysterectomies performed by him in recent years. Since January 1st, 1893, he has done 172 abdominal operations, including 90 hysterectomies, 18 by the abdominal and 72 by the vaginal route. Of the total number of 250 hysterectomies, 66 were abdominal and 184 vaginal. Of the vaginal hysterectomies, 38 were for cancer, (16 of the body of the uterus), 22 of the cervix, with 4 failures; 53 for fibroma with 4 deaths; 93 for inflammatory lesions with 7 deaths. In most of the unsuccessful cases the patients were in a cachectic condition. The 66 abdominal hysterectomies included 6 incomplete operations for malignant tumours, or fibromata complicated with uræmia or intestinal obstruction, all unsuccessful; 4 extirpations of the gravid uterus (3 Porros, successful, and 1 partial hysterectomy, done on a patient *in extremis*, unsuccessful); and 56 for fibromata. In the latter series the pedicle was dealt with by the external method in 27 cases with 4 deaths; as one of these deaths was due to ante-operative septicæmia it should be deducted, leaving 26 cases with 3 deaths, a mortality of 11.5 per cent. The pedicle was entirely returned in one case, which was successful. Among 28 cases treated by Doyen's own method there were 4 deaths; deducting 2 in which the failure had nothing to do with the operation, this leaves 26 cases with 2 deaths, a mortality of 7.6 per cent. The author maintains that in the case of large tumours, total abdominal hysterectomy, with vaginal treatment of the ligamentous pedicles, is the method to be preferred.

(515) Ovarian Cysts in Children.

Vincent (*Nouvelles Archives d'Obstét. et de Gynéc.*, November, 1893) successfully operated on a child, aged 10 last April. The ovarian cyst had recently been tapped; fever, peritonitis, and suppuration of the puncture followed. The tumour weighed over 18 lbs., and was very multilocular, so that a long incision was needed, the interior of the tumour being broken down manually. The transverse colon was adherent, and there was turbid fluid in the peritoneum. A tampon of iodoform gauze was placed in the pelvis. The fever disappeared, the tampon and sutures were removed at the end of a fortnight. In three weeks the child was well. In a second child, aged 12, death from shock followed ovariotomy. Vincent regrets that he applied antiseptics to the peritoneum. The instruments and operator and assistant should be made antiseptic; the abdominal cavity of the patient bears carbolic acid and sublimate badly. Vincent saw a third ovarian cyst in a child under a year old, after her death.

(516) Polydactylism.

Guinard (*Nouv. Arch. d'Obstét. et de Gynéc.*, October 25th, 1893) exhibited, before the Medical Society of Lyons, a fœtus with numerous deformities (harelip, absence of epiglottis, and penis, etc.), including heptadactylism of all four extremities. The fingers were webbed. This seems the most complete case of seven digits ever recorded. Unfortunately the family history was not reported. Condamin mentioned a case in which a coachman applied to him for removal of a supernumerary digit on each hand. This hexadactylism also existed in his father, grandfather, and two of his children.

THERAPEUTICS.

(517) Salipyrin in Influenza.

Von Mosengeil, of Bonn (*Deutsch. med. Zeit.*, December 7th) strongly recommends salipyrin (salicylate of antipyrin) as a remedy in influenza. He has used it for two years and a-half, and has found it a specific in that affection. It must be given on the appearance of the first symptoms of the disease. In the case of young children doses of 2½ to 4 grs. are generally sufficient; to older children, and to persons of light bodyweight or extraordinary susceptibility to the action of drugs, 7½ grs. may be given. If the patient is of strong constitution, or if the attack is very severe, and especially if it has already lasted several days, 15 grs. should be given. Even after the administration of repeated daily doses of 30 to 45 grs. Von Mosengeil has not seen any unpleasant secondary effects. On the other hand, the drug often has a marked sedative and hypnotic effect; in particular it seems to have a special effect in relieving headache. For this purpose a single dose of 7½ grs. is often sufficient. Salipyrin is of least service in the cases of influenza characterised by the rapid development of small circumscribed patches of pneumonia. In such cases large doses (25 to 30 grs. t.d.) are required. The author is emphatic in insisting on the continuance of the remedy for some time after apparent cure of the disease, in order to prevent relapse. It is important that no food should be taken for 1½ to 2 hours before and after the administration of salipyrin. If violent fever be present very large doses (45 to 75 grs.) should be given, or salipyrin may be administered alternately with quinine (especially the readily soluble hydrochlorate) in doses of about 8 grs. Von Mosengeil in such cases gives quinine in the morning, and salipyrin in the evening. If the latter

alone is used, it is best given in the evening. The author also speaks well of the effect of salipyrin in ordinary colds; it should be taken as soon as it is felt that "chill" has been taken. He has also found the drug useful in certain forms of rheumatism.

(518) Theobromine as a Diuretic.

Hallopeau (*Sem. Méd.*, December 13th) confirms the statements of G. Sée as to the diuretic action of theobromine. He used it not long ago in a case of generalised œdema which had resisted every species of diuretic medication. Two grammes of theobromine given in four doses caused the œdema to disappear "absolutely, and, so to speak, instantaneously," without giving rise to excessive secretion of urine. The effect was lasting, but the patient (a woman), having incautiously exceeded the amount prescribed, felt decided general *malaise*, which, however, did not last long. Since then Hallopeau has used theobromine in similar cases, and always with the best results. In two cases the subsidence of the œdema was followed by profuse desquamation of the limbs which had been the seat of the swelling.

(519) Phenocoll in Malaria.

Pietro Pucci (*Gazz. d. Osp.*, December 7th) confirms the statements of Albertoni and others (see Epitome, April 2nd, 1892, par. 304, and February 18th, 1893, par. 147) as to the curative effect of phenocoll in malaria. The drug, he thinks, will find its chief sphere of usefulness in the class of cases described by Tomaselli, in which the administration of quinine in any form and in any dose is followed by "ictero-hæmaturic fever," characterised by severe rigor, vomiting, hæmaturia, and jaundice, or by simple hæmaturia with subcutaneous hæmorrhages. In such cases phenocoll is an effective substitute for quinine, cutting short the malarial fever without causing any of the symptoms which have been mentioned. The author gives details of three cases illustrating the beneficial action of phenocoll in the kind of cases referred to, and promises a fuller communication on the subject at the forthcoming International Medical Congress in Rome.

(520) Chloralose.

F. G. Morrill (*Boston Med. and Surg. Journ.*, November 16th, 1893) has prescribed chloralose in twenty cases of insomnia with good results in almost every instance. Properly used in cases uncomplicated by hysteria or alcoholism he thinks the drug justifies the claims made for it—that it is safe, produces no "habit," does not require a progressive increase of dose, and induces refreshing sleep without disagreeable after-effects. The best method of administration, according to the author, is to give a cachet containing three grains one hour before sleeping time, repeating it if necessary. The largest dose he has given has been twelve grains. As a rule it may be assumed that three grains (repeated if need be when it is clear the first dose has failed) will ensure from five to nine hours of refreshing sleep. The author has had no experience of chloralose in locomotor ataxy, somnambulism, or pulmonary phthisis, all of which conditions are considered to be unfavourable to its action. He refers to Goldenberg's summary of sixty-four cases in which the drugs were used (*Thèse de Paris*, 1893). In fourteen of these it failed, the patients in eleven of this number being women. Five were hysterical subjects, one suffered from severe gouty pains, one was phthisical, and one had pulmonary emphysema and a dilated heart. Of the three men in whom chloralose failed as a hypnotic, one had locomotor ataxy, one paralysis agitans, while the third suffered from nocturnal syphylitic pains.

(521) Piperazine in Gout.

Biensenthal (*Union Méd.*, November 16th, 1893) has experimented with piperazine in animals. He produced artificial deposits of urates in the heart, pericardium, bladder, and kidneys in 112 animals, 29 of which were treated with piperazine, 36 with various other substances, while the others served as control subjects. The drug was administered in the form of pills, the maximum dose being 0.75 gramme a day, or in subcutaneous injections. The animals were killed from two to seven days afterwards, when no trace of deposit was found in their organs, whereas those treated with borax, lithia, and phosphate of soda were found to have numerous urate deposits in their organs; from which the author concludes that piperazine appears to be the best solvent for such deposits. Albuminuria was not met with, and this observer believes that Roehring mistook a precipitate produced by picric acid and piperazine for albumin.

(522) Treatment of Freckles.

R. B. Morison (*Med. News*, Philadelphia, September 30th, 1893) recommends the following method for the treatment of freckles: ℞ Corrosive sublimate gr. vij, distilled water ℥vj, spirits of camphor ℥ss, rose water ℥v. Three or four thicknesses of linen, cut to cover the seat of freckles, are moistened with this solution and applied to the face at night, being left on until they are dry. Whatever remains on the skin is washed off in the morning. When this has been applied for a few nights the face becomes red and the epidermis begins to peel off in fine scales. An ointment is then used night and morning, the application being made by gently rubbing it over the face for five minutes at a time with a clean finger.

PATHOLOGY.

(523) The Etiology of Peritonitis from Perforation.

Barbacci (*Centralbl. f. allgem. Path.* iv B., No. 19) has studied the subject of peritonitis from perforation in 14 cases, and has supplemented his work by experimentation on animals. The conclusions he has been able to form up to the present are as follows: (1) Cultures made from the peritoneal exudate in cases of perforation peritonitis in man furnish usually only a single variety of organism—the bacterium coli commune. Occasionally, however, diplococcus lanceolatus capsulatus (Fraenkel) can be shown to exist in the exudate by inoculation of mice and rabbits. (2) By artificial perforation of the intestine in the dog an affection precisely similar to that witnessed after perforation in the case of man may be induced. (3) In both man and dog only one organism, B. coli, is found in cultures from the peritoneal exudate, although the latter may be shown to contain the most varied organisms. (4) After extravasation of fæcal matter, the various bacteria therein contained develop equally with B. coli during the early stages of inflammation which is induced. But subsequently they die, whereas B. coli continues to thrive, and thus is susceptible of further cultivation. (5) No efficient cause for the death of these microbes can be assigned. Experiments do not support the theory that they succumb to B. coli in the struggle for existence. (6) In a number of cases one finds B. coli in the heart blood of persons who have died of perforation peritonitis. In others it is not to be found there; and this, coupled with the fact that it is absent from the blood of the dog when the necropsy is performed shortly after death, renders it probable that, in the first-mentioned cases, the entrance into the blood stream took place *post mortem*. (7) The diploc. lanc. capsulat. is never found in the exudate in the case of the dog; and as it is also absent in many of the human cases, one may conclude that this organism does not play an important part in the pathogenesis of perforation peritonitis. (8) Although B. coli is the only organism which can be cultivated out of the exudate, it cannot be regarded as the actual cause of the peritonitis. (9) As regards the course and termination of the disorder, much depends upon the amount of time which has elapsed since perforation took place. If the aperture of communication can be closed, inflammation of the peritoneum may be checked, even though far advanced, and complete recovery will then be secured. (10) The intestinal gases which pass into the peritoneal cavity with the fæces play a not inconsiderable part in originating and perpetuating the peritoneal inflammation. (11) The latter is due to two co-operating causes, each of which is by itself inoperative, namely, the extravasation of fæces and of gas, and the development of the germs contained in the former. The inflammation is perpetuated by the continuous irritation of the extravasated matter. (12) Death in cases of peritonitis from perforation is due to an intense intoxication of the organism, which results from absorption of the fluid and gaseous contents of the bowel, and of toxic bacterial secretions.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(524) The Reaction of Degeneration.

Remak (*Deut. med. Woch.*, November 16th, 1893) refers to the changed views in regard to the reaction of degeneration (R.D.) since it was first described by Erb. The first definition embraced loss of nerve irritability to both forms of current as well as changes in the reaction of the muscles, namely, loss of direct irritability to the induced current, increase of galvano-muscular irritability with sluggish contraction wave and polar changes. Later it was noted that nerve irritability and the direct irritability of muscles to faradism might be preserved, thus showing that the nerves were not altogether degenerate, and yet typical qualitative changes to galvanism be present. It was also found that in progressive spinal muscular atrophies the atrophied muscles with normal nerve irritability might show a sluggish response to galvanism. Thus the R.D. really came to signify that the galvano-muscular R.D. was present whether complete or incomplete, according as nerve irritability was absent or not. The R.D. never occurs with normal muscles. The qualitative (polar) changes are by no means constant. In marked R.D. the K.C.C. may still be greater than A.C.C., and sometimes with normal muscles A.C.C. may be the greater. Only the sluggish vermicular contraction visible to the naked eye is really typical of the galvanic R.D. It has been established that degenerate muscles with lost nerve irritability respond not only to currents of long duration, but also to single shocks of sufficient strength from the induction apparatus, provided that the muscles are not fatigued. Faradic R.D. should only be spoken of when the galvanic R.D. is present at the same time and after repeated testing, for sluggish contraction to the faradic current may occur after exposure to cold, in local asphyxia, and perhaps even as the result of fatigue. Franklinic R.D. is rarely present. The author concludes that (1) the repeated proof of the galvano-muscular R.D. is alone evidence of muscular degeneration; (2) sluggishness of the contraction wave is the only certain criterion and not the polar changes; (3) the old view of length of duration of current in explanation of the difference of behaviour of degenerate muscles to galvanic and faradic stimulation is no longer tenable; and (4) sluggish contraction to faradic and franklinic stimulation should be looked upon as the R.D. only when this is also present as the result of direct galvanic stimulation.

(525) Pneumonia in Gout.

Grube (*Deut. med. Woch.*, November 23rd, 1893), discusses the question as to whether the pneumonia sometimes seen in gout has anything specific in its character. He relates two cases occurring in patients who had suffered from typical gout. The onset of the pneumonia was sudden, and there was pain in the side, with slight fever, and the physical signs of consolidation at the left base. After some three days an attack of gout supervened, and the symptoms and physical signs of the pneumonia rapidly disappeared. The author thinks it possible that the uric acid may act as a chemical poison to the lung tissue, and thus call forth the inflammation.

(526) Hysterical Insanity.

Moravesik (*Ally. Zeit. f. Psych.*, vol. l) insists on the frequent presence of "neuropathic degeneration" in hysterical individuals. It is this bad foundation of the nervous system which enables the recognised exciting causes of hysteria to produce their effects, which show themselves in early life by eccentricity, night terrors, etc. It may also show itself externally by abnormalities in the development of the skull, of the ears, of the teeth, etc. The commonest form of hysterical insanity is transitory only, and resembles the fourth stage of Charcot's hystero-epilepsy. The more chronic varieties may take the form of melancholia, mania, stupor, or paranoia. The author speaks also of a form simulating general paralysis of the insane and of a hysterical condition in which patients make the most of having insane ideas with a view to attracting attention.

SURGERY.

(527) Intubation and Tracheotomy.

H. v. Ranke (*Münch. med. Woch.*, No. 44, 1893) has published the statistics collected by the German Pædiatric Society of the results of intubation and tracheotomy. The statistics included four years and were supplied in the main by Professor Ganghofner (Prague), Professor Jakubowski (Cracow), Dr. v. Muralt (Zurich), Dr. Unterholzner (Vienna), and Professor Ranke (Munich). The large majority of the cases were hospital patients; the fact that the cases occurred in four separate years and were drawn from localities so widely separated served to eliminate, to a considerable extent at least, fallacies due to peculiarities of climate or variations in the character of the epidemic. The general result is thought, therefore to yield a fair average and to afford trustworthy data for comparing the results of intubation and tracheotomy. The only obvious source of fallacy was that in certain hospitals intubation in the later years of the period had almost displaced tracheotomy, which was reserved for the worst cases. To eliminate this source of error the statistics for the later years in these hospitals were rejected so far as they referred to tracheotomy and their place supplied by others furnished by Steffen (Stettin) from institutions into which intubation had not been introduced. The statistics dealt only with cases o laryngeal stenosis presenting symptoms so severe that they would have required tracheotomy had intubation not been available as a substitute. In certain instances tracheotomy was performed after intubation. The cases are distinguished in two classes, primary and secondary diphtherial laryngeal stenosis. The secondary cases followed in most instances measles or scarlet fever. Of the primary cases 1,324 were submitted to intubation, with 516 recoveries, or 39 per cent.; tracheotomy was performed after intubation in 242 cases (18.2 per cent.) with 20 recoveries (8.2 per cent.). Of the secondary cases of diphtheria in which intubation was performed there were 121, with 27 recoveries (22 3 per cent.); tracheotomy was performed after intubation in 8 of these cases, all of which ended fatally. The number of cases of primary diphtherial laryngeal stenosis treated by surgeons who preferred tracheotomy to intubation was 1,118 with 435 recoveries (38.9 per cent.). The number of cases of secondary diphtheria was 42, with 11 recoveries (26.0 per cent.). The results in the first two years of life are contrasted in the following table:

Age.	Intubation.			Tracheotomy.		
	Cases.	Recoveries.	Per Cent.	Cases.	Recoveries.	Per Cent.
First year ...	93	13	13.9	53	3	5.4
Second year ...	285	92	32.3	212	54	25.4

It will be noticed that the number of cases submitted to tracheotomy during the first year was much smaller than the number submitted to intubation. In comparing the statistics given above of the whole series of cases this must be borne in mind, as it tends to make the results of tracheotomy appear better than they really were. The statistics appear to indicate that during the first two years intubation gives decidedly better results than tracheotomy, and that at all ages it gives results at least as good.

(528) Penetrating Wound of Abdomen.

Pietro Lupò (*Rif. Med.*, November 20th) records the following case. A man, aged 30, was admitted into the Ospedale dei Pellegrini, at Naples, bleeding profusely from a stab in the epigastric region. Laparotomy was at once performed, and the transverse colon was found to be wounded in two places, each wound measuring some 3 centimetres in length, and involving the whole thickness of the wall of the intestine. These, however, were not the source of the hæmorrhage, and the incision was therefore extended, so that the liver might be thoroughly examined. Two wound, each 3 centimetres in length and about the same in depth, were found on the inferior surface of that

organ near the hilum. From these blood was gushing abundantly. As it was impossible to apply the thermo-cautery without risk of injuring neighbouring parts, Lupò stuffed each wound with a strip of aseptic gauze, the free end of which was left projecting from the abdominal wound; the wounds in the colon were then stitched up, and the skin wound sutured, except where the strips of gauze came out. The bleeding at once ceased; and the patient, whose radial pulse had become imperceptible, recovered so far that he was able to be carried into a ward. All went well at first. Lupò had intended to remove the strips of gauze on the third day, but was persuaded to leave them by his colleagues, who told him of a similar case in which the strips had been left without ill result for twenty days, after which they were spontaneously eliminated. On the sixth day, however, his patient felt so well that he began to be unruly; and not only displaced the dressing, but amused himself by handling the wound with fingers not over clean. On the evening of the seventh day he was found to be feverish, and on the following morning he complained of pain in the wound. On inspection suppuration was seen to be taking place round the sutures, which were accordingly at once removed, the edges of the skin wound being then pulled apart and disinfected. The strips of gauze were shortened, but not entirely removed. In spite of every care the patient died of septic peritonitis on the ninth day after the injury. While feeling encouraged by this case to arrest bleeding from a wounded liver by stuffing with gauze, Lupò says he will not again leave strips in the wound, as was done in the the present instance, but will remove them on the third or fourth day, when there appears to be no further danger of renewed hæmorrhage, and will then close the abdominal wound so as to minimise the risk of peritoneal infection.

(529) Plastic Surgery of the Cranium.

Kehr (*Centralbl. f. Chir.*, No. 48, 1893) reports a case in which a large opening in the vault of the cranium was successfully closed by the transplantation of a disc of bone. The patient, a man aged 27, had five years previously been treated for a compound depressed fracture of the left parietal bone caused by the kick of a horse. Twelve days after this injury the depressed portions of bone had been removed, the exposed portion of dura mater divided, and vent given to a small subdural collection of pus. Since this operation the right arm had remained paralysed, and the patient had suffered from time to time from epileptiform seizures. When he came under the author's notice he was the subject of very severe and frequently repeated attacks of Jacksonian epilepsy. Over the region of the motor centre of the right arm there was an oval orifice in the left parietal bone about 3 inches in length by 2 inches in breadth. The scarred skin covering this orifice was depressed and in close contact with the surface of the brain. After free removal of all cicatricial tissue and direct exposure of the brain at the seat of the old injury, a disc of bone composed only of the outer table was detached with the chisel from the diploë at a part of the parietal bone close to the outer portion of the defect. This disc, which remained attached to the surface of the cranium by a broad bridge of skin and pericranium at its posterior part, was then displaced inwards so as to close the defect, to the edges of which it was fixed by sutures. The patient speedily recovered from the effects of the operation, and up to the date of the last observation—about two months later—had remained quite free from any return of convulsions. The right arm also had regained power to a considerable extent.

(530) The Cystoscope in Surgical Practice.

Nicoll (*Glasgow Med. Journ.*, December 2nd, 1893) whilst regarding the cystoscope as an instrument of the greatest practical value in surgery, points out that its use is beset by several difficulties. It is often necessary, he states, to make several examinations before a satisfactory view is obtained, and an examination to be successful seldom occupies less than from twenty to thirty minutes, and may occupy an hour or more. There may be so much irritability of the bladder or urethra as to indicate the administration of chloroform. The cases which give most trouble in this respect are those of tuberculosis. The view of the bladder wall may be obstructed by the presence of various materials, which may render repeated attempts at examination necessary, or may absolutely preclude successful examination. The most common of these are pus, blood, and mucus. If the bladder be not fully distended by fluid before examination the walls are apt to band in folds and to conceal objects on their surface. Enlargement of the prostate may greatly hamper or quite prevent cystoscopic examination.

MIDWIFERY AND DISEASES OF WOMEN.

(531) Antisepsis or Asepsis for Midwives.

Sänger (*Centralbl. f. Gynäk.*, No. 45, 1893), in a discussion at the Leipzig Obstetrical Society on regulations for midwives, stated that chemical disinfection, as routine for midwives, may be rejected, since antiseptic measures are useless unless thoroughly carried out. Midwives cannot be expected to take all the minute precautions prescribed (with continual alterations as to the chemical substances in use) by the advocates of antisepsis. Mechanical disinfection of the hands with coarse sand, soap, and hot water is best, and the midwife must be instructed to keep her nails scrupulously clean. Carbolic acid is to be rejected; it makes the skin of the hands very rough, and hence liable to receive or carry infection. Sometimes a chemical solution which does not injure the skin may be used. Sänger seems to prefer permanganate of potash, oxalic acid, and lysol to sublimate, but no such solution should be applied by the midwife to the patient's genitals. The pubic hair should be shaved when it is very thick, or foul from discharges, and shaving is always advisable in dirty patients. Should the patient object, simple washing with warm soap and water will be sufficient. Midwives should not attend abortions, at least before the twentieth week; exploring cases of threatened abortion is a fertile source of infection. The midwife should know how to drop solution of sulphate of copper into the eyes of infants in cases of gonorrhœa in the mother, as simple washing is insufficient.

(532) Fibroid Tumour of Labium Minus.

Kirchoff (*Centralbl. f. Gynäk.*, No. 45, 1893), reports a case of this rare disease, the greater labium being the usual seat of fibroid tumours of the vulva. The patient was 18, a very robust housemaid. At the age of 15 she felt bearing-down pains when at work; a year later they increased, and she had a rigor, and noticed a swelling of the vulva, which subsided after a few days' rest. Shortly before she consulted Kirchoff she was seized with sharp pain and syncope when lifting a weight, and on reviving she found that a large growth had been expelled from the vulva. The tumour had so long a pedicle that it hung halfway down between the thighs. It was made up of a conglomeration of spherical fibrous bodies. The surface was smooth, both tumour and pedicle were œdematous, and in parts ulcerated; one of the spherical masses was dark from hæmorrhage. The pedicle grew from the anterior part of the left lesser labium, the right was rather long and pendulous. The clitoris and its prepuce were œdematous, the labia majora normal, the vagina inflamed; there were several deep, recent lacerations in the hymen. The uterus was normal. The pedicle was divided close to the vulva, and a few small arteries tied; the wound closed by suture. A few weeks afterwards the vulva appeared normal, except that the anterior part of the left labium was absent. The vagina had become narrower, and the inflammation had disappeared.

(533) Perforation of Uterus by Steel Dilators: Operation: Recovery.

Bratenahl (*Arch. of Gynæc.*, October, 1893) employed Wylie's steel branched dilators in a case of retained fœtus. The macerated fœtus and degenerate placental tissue were removed with a pair of blunt curette forceps. Great care was exercised owing to the exceeding thinness and flaccidity of the uterine wall as felt through the abdomen. The forceps grasped what at first appeared to be adherent membranes, but which proved to be a loop of intestine. This loop was reduced, and the uterus packed with iodoform gauze. Abdominal section was performed, and after much blood had been cleared away a perforation, 1½ inch long, was found on

the posterior surface of the uterus. The rent was sewn up with deep silk sutures, which were not passed through the endometrium. The peritoneal edges were united with a fine silk continuous suture; this completely arrested all hæmorrhage. Twenty-two Lembert sutures were needed to repair the intestine. The patient recovered. Bratenahl feels confident that the perforation was caused by the steel branched dilators, one blade piercing the soft uterine tissue, although no force was used. The success of the case was probably due to the short length of time which elapsed between the accident and the operation, to the ease with which the tear was sutured, and to the asepsis.

(534) Monstrous Fœtus: Double Eye Removed During Exploration.

Rousseau (*Annales de Gynéc. et d'Obstét.*, August, 1893) publishes a full description of a monstrous fœtus. It was a monosomian, or single-bodied monster with duplicity above; the most remarkable feature was the presence of two sets of cranial bones, with a single face. The parents were not relations. The maternal grandfather was a drunkard, but there was no other indication of any hereditary taint. The mother was a multipara. The pregnancy was normal. Labour continued for twenty-four hours, yet made no progress. In exploring, Rousseau, who conducted the labour, brought away a large eye on the tip of his finger. It was of the size of a nut, and oval. On examination it was found to bear two corneæ and two irides, absolutely distinct. As the fœtus was evidently monstrous and doomed to die, Rousseau perforated the cranium. A great quantity of cerebral matter and fluid escaped. The forceps were applied and the fœtus easily delivered. Rousseau dissected it. He classes it as a new variety (craniodidymus).

THERAPEUTICS.

(535) Cold Mustard Baths in Whooping-Cough.

Springer (*Sem. Méd.*, November 1st) has used cold baths in whooping-cough with success in the case of an infant, aged 1 month, on the tenth day of the disease. For 48 hours the child had had the look of a corpse; it was motionless and could not swallow, and breathing was sometimes almost imperceptible. The child was plunged into a bath at a temperature of 37° C., to which two handfuls of mustard had been added; it was left in this for three minutes. As soon as it was placed in the bath the child's skin became red, and it began to cry, and when taken out of the water it took the breast greedily. An hour later, the torpor having returned, the child was again put in a bath, the temperature of which was two degrees lower than before, with an equally good result. The baths were then given regularly every two hours, the temperature of the water being steadily reduced by two degrees each time, so that on the third day it was as low as 18° C. When taken out the baby was always wrapped up in a thick layer of cotton wool, the whole being covered with a linen coverlet. Under this treatment the child gained strength and seemed to be recovering, when the parents took it upon themselves to put him once more into his usual clothing. Twenty-four hours later intense broncho-pneumonia occupying the whole base of the left lung came on. Springer had recourse to the same treatment as before, the baths being given every two hours day and night. After some days they were given only in accordance with the temperature taken in the rectum every three hours. Five weeks after the beginning of the illness the broncho-pneumonia was cured, the temperature was normal, and the attacks, which were gradually becoming less frequent and less violent, were no longer followed by vomiting. After two months of treatment the child was taken to the country, being then convalescent. At the end of four months it had quite recovered and had no cough. It had had in all more than 300 cold baths. Springer suggests the regular adoption of this plan in newborn children suffering from whooping-cough when the fever is high, the paroxysms frequent, and the child ceases to suck. He thinks the disease is also amenable to hydrotherapeutic treatment in older children and in adults. In these cases, according to the indications, tepid baths, gradually chilled baths, cold baths, the wet pack, and douches—hot or cold—must be used, the duration and temperature being regulated by the circumstances of the case.

(536) Antidiphtherin.

Kunne (*Wien. med. Blätter*, December 14th) has tried Klebs's "antidiphtherin" (see British Medical Journal, November 11th, p. 1070) in four cases of diphtheria in Elberfeld Hospital. In two of these, the children were admitted with moderately high fever and slight membranous formation on the tonsils. They were at once treated with applications of a 5 per cent. solution of antidiphtherin three or four times a-day, and on the following day the fever had subsided and the membranes had disappeared. In a third case in which the affection was very severe, with abundant formation of false membrane, tracheotomy had to be done on the second day after the commencement of the treatment; and as the application could not be made in the usual way, a 1 per cent. solution of antidiphtherin was dropped into the trachea through the cannula, but without effect. The child died from extension of the disease process to the bronchial tubes. In the fourth case the patient was a member of the assistant medical staff of the hospital, who contracted the disease at a tracheotomy. As soon as false membranes were visible, applications of antidiphtherin were begun. The remedy appeared at first to have a favourable effect; the membranes began to disintegrate, and the fever subsided on the day after treatment was begun. Soon, however, the membranes formed again and spread over the palate and uvula, and at the time of Kunne's report, the issue of the case was still doubtful. He thinks, however, that it may fairly be concluded that in this case the remedy had no particular effect.

(537) The Bhau Daji Treatment of Leprosy.

Stanley Boyd (*Brit. Journ. Derm.*, vol. v., No. 57) describes the method of treating leprosy which is said to have proved successful in the hands of Bhau Daji, a graduate of the Grant Medical College, Bombay, who tried it in a large number of cases, but died before he had time to test the permanence of his results to a degree sufficient, in his opinion, to warrant publication. Boyd has had records of some cases placed in his hands, and has been able to trace the subsequent history of two or three of the patients. The remedy chiefly relied on by Bhau Daji was the oil of the hydnocarpus inebrians, known among the natives as *Khauti;* this he used both internally and externally. From statements as to the directions given to certain patients, Boyd gathers that in the early morning, ♏x to ʒss of the oil was taken in boiled milk; then the patient was rubbed all over with the oil, which was washed off again in a warm bath two hours afterwards. Sometimes the oil was applied again, and kept on till the evening, when the patient wiped himself and went for a walk until he perspired; in other cases no oil was applied after the warm bath until evening, when it was again rubbed in over the whole body, and the patient slept in it. The oil was also applied to affected mucous surfaces. The patients were enjoined to abstain from pork, beef, and fish, and from alcoholic drinks, tea, and coffee. They were allowed as much milk, fruit, and vegetables as they liked; also butter, eggs, mutton, and fowl. No ill effects were noted in any case which Boyd has come across. The oil caused neither irritation nor vesication. The curative effects are said to have been best marked after one and a half to two months, when the swellings subsided, redness diminished, tubercles softened, and ulcers healed. Details of cases illustrating the beneficial effect of the treatment are given, with such information about the later condition of the patients as could be obtained from relatives or through official sources. In one case in which the testimony as to the patient having suffered from leprosy in boyhood appears to be conclusive, the man is said to be now in London in perfect health, with absolutely no sign of leprosy about him.

(538) Quinine and Methylene Blue in Malaria.

Rosin (*Deut. med. Woch.*, November 2nd, 1893) has made experiments as to the action of these drugs on living malarial parasites. The amœboid movement of the plasmodia and the circulation of particles within them must be regarded

as the criterion of life. The author finds that if a solution of quinine (1 in 5,000) be run in under the cover glass on the warm stage, there is no alteration in these movements. The injection of quinine into the veins also had no action on the movements. With methylene blue (1 in 20,000 physiological saline solution) the parasites began to stain at once, and all movement was arrested. The movement could not be made to reappear. The author draws attention to this method of staining the plasmodia with weak solutions of methylene blue. The fresh blood, with living parasites in it, should be used. The number of parasites can thus be estimated by means of the Thoma-Zeiss apparatus. The author refers to the action of reducing bodies upon methylene blue. Urine which is alkaline when passed has the same reducing action, and similar conditions are present in the blood. It appears almost certain that methylene blue circulates in the blood, and exercises its effect in the form of a leuco product, and perhaps as such it has even stronger microbicidal action than methylene blue is shown to have in the above-named experiments.

(539) Treatment of Pityriasis Versicolor.

E. Bodin (*Médecine Moderne*, No. 68, 1893) says the indications in the treatment of pityriasis versicolor are to destroy the fungus and to prevent recurrence. The former is easy, inasmuch as the fungus is confined to the epidermis. If the patches are not too numerous or too large, it is sufficient to paint them two or three times with tincture of iodine, afterwards washing the parts with soap so as to remove the epidermis containing the fungus. When the disease is extensive, it can be cured in eight to ten days in the following manner: In the morning, the parts should be washed with soft soap and hot water. In the evening, the following ointment should be applied: ℞ Resorcini, acid. salicylic, āā 1.0; sulph. præcipit., 5.0; lanolini, vaselini, sebi, āā 25.0 In such cases sulphur baths are also of great service. Prevention of recurrence can be secured only by thorough disinfection of the clothes which are in direct contact with the skin; these should be washed with very hot water and soap, or better still, they should be exposed to the action of steam.

(540) Injections of Brown-Sequard's Fluid in Mental Disease.

Alombert-Goget (Thèse de Lyon, 1892-93; *Lyon Méd.*, November 12th) says that Brown-Séquard's fluid used in the treatment of mental desease has seemed when given in sufficient doses, to be of some service in two classes of cases, namely, ataxy and delirious epilepsy. Not only was general nutrition improved, but the mental condition was favourably modified; the appearance of the patient was different, the eye being brighter, the look livelier and more penetrating, and the whole countenance more expressive. In the epileptics the attacks were modified in form, their number being at the same time slightly increased; in the ataxic patients, besides the disappearance of the lightning pains, delirium was subdued and temperature regulated. In short, the injections caused an increase of vitality in every respect.

(541) Hypodermic Injections of Phosphate of Soda in Diseases of the Nervous System.

Tonolli (*Gaz. Med. Lombard.*, September 16th-23rd, 1893), from a number of clinical observations of the effects of injections of this salt, is convinced of its utility in a number of diseases of nervous origin. He shows some reason to suppose that in 13 cases in which injections of varying amounts of the salt were made there was improvement following in 6 cases, a cure in 5 instances, while 2 were unaffected. Analysing his list, it is found that the cures were in cases of neuralgia (4) and neurasthenia (1). The improvement took place in 1 case of tabes dorsalis with hysteria, in 1 of spastic rigidity and neurasthenia, and in 3 cases of hysteria. The negative results were in cases of hysteria. With such cases the author admits that it is risky to rely too implicitly on the apparent results, but he promises to control them by further observations.

PATHOLOGY.

(542) The Pathology of Pernicious Anæmia.

Fischel and Adler (*Zeitschrift f. Heilkunde*, 4 Heft, 1893) describe the condition of a patient who a few months previously had contracted a slight wound in the left heel, and who was admitted under treatment on account of increasing anæmia. The blood corpuscles were abnormal as regards their respective number, and other symptoms were present to establish the diagnosis of pernicious anæmia, to which the patient gradually succumbed. An hour before death the blood was for the first time examined for micro-organisms, and chains of streptococci were discovered. A few minutes after death a further quantity of blood was abstracted with antiseptic precautions and gelatine cultivations therefrom prepared. The *post-mortem* examination confirmed the original diagnosis, and by further research the micro-organisms were found to possess a marked resemblance to the streptococcus pyogenes. Three mice subsequently inoculated with a recent bouillon culture died with purulent exudations in the peritoneum and joints, these again containing the same organism. The authors consider it improbable that the patient could have been thus infected just prior to death, and are inclined to regard the progressive anæmia as being the result of a chronic septicæmia having its origin in the injury to the foot. The toxic elements in the first place caused a deterioration of the blood, and the streptococcus, at first latent but subsequently entering the circulation would suffice to produce a rapidly fatal issue. With a view to observing the properties of this particular toxin, sterilised cultures were used to inoculate three rabbits, an actual diminution of red and an increase of white corpuscles taking place and causing death. The difference between ordinary cryptogenetic septicæmia and this patient's condition lay in the deterioration of corpuscles in the latter, and the tendency to purulent formations in the former, case. Under these circumstances the authors advise further search in this direction, and in future cases recommend an earlier examination of the blood for streptococci.

(543) Etiology and Pathogenesis of Acute Delirium.

Rasori contributes to the *Centralbl. f. Bakt.*, xiv B, No. 16, a preliminary note upon this subject. A patient, aged 45, was admitted into the asylum in a state of acute delirious mania. The attack began six days before admission simply with obstinate headache. Inquiry into the personal and family history failed to throw light upon the cause of the disorder. The patient died within eight days, having exhibited, in addition to the ordinary symptoms, opisthotonos, clonic spasm of the facial muscles, and difficulty in swallowing, due apparently to spasmodic action of the muscles of deglutition. The necropsy revealed great congestion of the cerebral meninges, on the under surface of which were numerous small blood extravasions, also congestion and œdema of the brain. The cortex was softened in the right temporo-sphenoidal lobe. Tubes of broth and agar were inoculated with fluid obtained from the subdural space and kept in the incubator at 35°C. Both media gave pure cultures of one and the same organism—a small bacillus with rounded ends about three times as long as it was broad. This occurred singly and in short chains. It could be stained by the ordinary aniline dyes, also by carbol, or alkaline methylene blue, but not by Gram. The organism grew rapidly in all the ordinary media alike at the temperature of the body and of the room. The mode of growth was not specially characteristic. Rabbits were inoculated with the pure culture in different situations—beneath the dura mater, the skin, and the nasal mucous membrane. When the first-named site was selected death ensued in two days, in the other cases in four to 6 days. In all cases there was a marked rise of temperature and signs of illness were manifested. *Post-mortem* examination showed in each instance great congestion of the cerebral meninges with hæmorrhages on the under surface of the pia, also congestion and œdema of the brain. Microscopical preparations and cultures made from the subarachnoid fluid and blood showed the same bacillus as that inoculated, and this was also found in sections of the brain, lying in numbers between the nerve elements. Rasori proposes to publish in detail the results of the microscopical examination of these specimens.

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